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## Tables of Confidence Limits for Proportions

ROBERT B. FAUST

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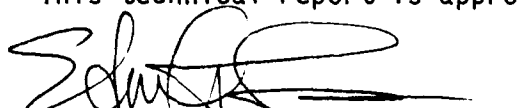
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## PREFACE

This document contains tables of confidence limits for proportions developed to aid in the analysis of test data from dichotomous populations. A dichotomous population is a population that can be divided into two groups such as male and female or success and failure.

Let the two possible outcomes from sampling a dichotomous population be labeled success and failure. If successes are the outcome of interest, then  $p$ , the point estimate of the proportion of successes in the population, is simply  $k/n$ , where  $k$  is the number of successes observed in a sample of  $n$  observations. Often a point estimate is not sufficient knowledge of  $p$  and an interval estimate is desired. An interval estimate is an interval of values such that it can be stated, with a specific degree of confidence, that the true population proportion lies in this interval. The interval may be two-sided or one-sided. The limits of the interval are called confidence limits.

While the point estimate of a proportion is simple to compute, the confidence limits are not. For this reason, approximation methods have been widely used to compute them. None of the approximation methods are accurate for all sample sizes and proportions. Although computer programs exist for computing these confidence limits, not everyone who needs this capability has a computer available. Of those who have a computer available, few have a program for this purpose. It is for this reason these tables have been computed and made available.

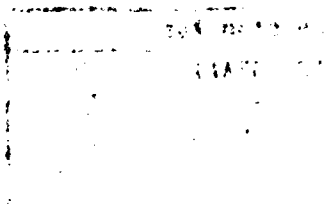
This document contains three tables of confidence limits. Table 1 consists of two-sided confidence limits, Table 2 consists of one-sided lower confidence limits, and Table 3 consists of one-sided upper confidence limits. The tables provide confidence limits for all sample sizes from 1 through 100. For sample sizes from 105 through 200, they are provided at intervals of 5. In addition, they are provided for samples of size 500 and 1000. All tables provide confidence levels of 90, 95, and 99 percent. Confidence limits are given to three decimal places for sample sizes through 195 and to four decimal places for samples of size 200, 500, and 1000.

Interpolation worksheets and correction factors are provided for the purpose of computing confidence limits for those sample sizes less than 1000 for which confidence limits are not tabled.



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## SECTION I

### INTRODUCTION

Let the two possible outcomes of sampling from a dichotomous population be labeled success and failure and each individual sample taken from the population be called an observation. Let  $p$  be the proportion of successes in the population and  $1-p$  be the proportion of failures. The proportion  $p$  is unknown. In order to obtain an estimate of  $p$ , a sample of  $n$  observations is taken from the population. Let  $k$  be the number of successes observed. The best estimate of  $p$  is  $k/n$ . This is called a "point estimate." A point estimate is usually insufficient knowledge of  $p$ . To obtain more knowledge of  $p$ , an "interval estimate" of  $p$  may be desired. An interval estimate consists of lower and/or upper limits such that, with a specified degree of confidence, it can be stated that the interval contains  $p$ . These limits are called confidence limits and the intervals are called confidence intervals. A ninety percent confidence interval, for example, will contain  $p$  with a probability of 0.9.

Confidence intervals can be two-sided or one-sided. A two-sided confidence interval has both lower and upper confidence limits. A one-sided confidence interval has only one confidence limit which can be either lower or upper. A one-sided confidence interval having a lower confidence limit would have the other end of the interval open. That is, the interval would extend from the lower limit to one. A one-sided confidence interval having an upper confidence limit would have an interval extending from zero to the upper limit.

Let  $x$  be the number of successes in a random sample of size  $n$  from a population having a proportion of successes  $p$ . If the  $n$  observations are all independent (the probability of a success is the same for each of the  $n$  observations), then  $n$  and  $p$  are parameters and  $x$  the random variable of a binomial distribution, the probability density function of which is

$$f(x; n, p) = C(n, x) p^x (1-p)^{n-x} \quad \begin{matrix} 0 \leq x \leq n \\ 0 \leq p \leq 1 \end{matrix}$$

where  $C(n, x)$  is the combination of  $n$  things taken  $x$  at a time. The probability that  $x$  is greater than or equal to  $k$  ( $k \leq n$ ) is expressed as

$$Pr(x \geq k) = \sum_{x=k}^n f(x; n, p)$$

The lower confidence limit for  $p$  for a one-sided confidence interval is determined by finding the value of  $P$  for which

$$(1) \quad \sum_k^n C(n, x) P^x (1-P)^{n-x} = \alpha$$

where  $\alpha$  is the probability the confidence interval will not contain the true parameter  $p$ . For example, if a 95 percent confidence interval is desired,  $\alpha$  would have the value 0.05.

The upper confidence limit for  $p$  for a one-sided confidence interval is determined by finding the value of  $P$  for which

$$(2) \quad \sum_{k=1}^n C(n, x) P^x (1-P)^{n-x} = 1-\alpha$$

To determine confidence limits for  $p$  for a two sided confidence interval, replace  $\alpha$  with  $\alpha/2$  in equations (1) and (2) above.

#### How Confidence Limits were Computed.

Since  $P$  is implicit to equations (1) and (2), it would be difficult to solve these equations for  $P$  except for very small values of  $k$ . Fortunately, the beta and binomial distributions have a relationship that makes it possible to use the beta distribution to compute the confidence limits. The beta distribution is a continuous distribution, the density function of which is

$$f(x) = [1/B(r, s)] x^{r-1} (1-x)^{s-1} \quad \begin{array}{l} 0 < x \leq 1 \\ r > 0 \\ s > 0 \end{array}$$

where  $B(r, s) = \Gamma(r)\Gamma(s)/\Gamma(r+s)$

$\Gamma(\ )$  - The gamma function

The cumulative beta and binomial distributions have the following relationship:

$$\sum_k^n C(n, x) P^x (1-P)^{n-x} = [1/B(k, n-k+1)] \int_0^P z^{k-1} (1-z)^{n-k} dz$$

Using this relationship, (1) can be written in terms of the beta distribution as

$$(3) \quad [1/B(k, n-k+1)] \int_0^P z^{k-1} (1-z)^{n-k} dz = \alpha$$

and (2) can be written as

$$(4) \quad [1/B(k+1, n-k)] \int_P^1 z^k (1-z)^{n-k-1} dz = \alpha$$

Although  $P$  is implicit to equations (3) and (4),  $P$  can be computed much more easily using these equations rather than (1) and (2). An International Mathematical and Statistical Libraries, Inc. (IMSL) subroutine, using the above relationships, was used on a VAX computer to compute these tables. Confidence limits obtained using the IMSL subroutine are, according to IMSL, approximate only in the sense that the confidence level may exceed  $1-\alpha$  but will never be less than  $1-\alpha$ .

## SECTION II

### DETERMINATION OF CONFIDENCE LIMITS FOR UNTABLED SAMPLE SIZES

Tabled values of confidence limits for proportions are not given for all sample sizes between 100 and 1000. To make it possible to determine confidence limits for some untabled sample size  $n$ , number of successes,  $k$ , and confidence level, three interpolation worksheets are provided. The first one (Figure 1) provides for interpolating in the range of sample sizes between 100 and 200. The second one (Figure 2) is for sample sizes between 200 and 500 and the third (Figure 3) is for sample sizes between 500 and 1000. For the purpose of interpolating, tabled confidence limits are provided for samples of size 200, 500, and 1000. These are given to four decimal places to improve the accuracy of interpolating. In addition, Appendices A, B, and C provide correction factors to be used with the two worksheets (Figures 2 and 3).

Notations used in the worksheets are defined as follows:

- N: The sample size for which a confidence limit is being determined.
- K: The number of successes observed in the sample of size  $N$  for which a confidence limit is being determined.
- INT( $Z$ ): The integer part of a decimal number  $Z$ . For example, if  $Z = 71.9101$ , then  $\text{INT}(Z) = 71$ .
- C( $A, B$ ): The confidence limit that corresponds to a sample of size  $A$  and number of successes  $B$ . The confidence limit is determined using the confidence level, confidence interval and confidence limit information at the top of the worksheet.
- $N_1$ : This notation is found only in Figure 1. It is the closest sample size to  $N$  for which there are tabled confidence limits.

The first step is to choose the correct worksheet. If the sample size for which you desire a confidence limit is between 100 and 200, use Figure 1. If it is between 200 and 500, use Figure 2, and if between 500 and 1000, use Figure 3. Next, fill in the information at the top of the worksheet; i.e.,  $N$ ,  $K$ , confidence level, etc.

The computations are fairly straightforward. Two examples are provided to help facilitate the understanding of how to do the calculations. Example 1 is for a sample size of 158 to demonstrate how to use the Figure 1 worksheet. Example 2 demonstrates how to use the Figure 2 worksheet and correction factors with a sample size of 405. Figure 3 worksheet is the same as Figure 2 worksheet except 200 is replaced with 500 and 500 is replaced with 1000.

In example 1, the sample size  $N$  equals 158, the number of successes  $k$  equals 27, the confidence level is 95 percent and a one-sided upper confidence limit is desired. The tabled sample size closest to 158 is 160; therefore,  $N_1$

equals 160. Using  $N_1$  and the given values of  $N$  and  $K$ ,  $K_1$  is found to be 27.3418.  $A$  is the integer part of  $K_1$  which is 27 and  $P$  is 27.3418 minus 27 which is 0.3418. Using these values of  $N_1$  and  $A$ , the confidence limits  $C(N_1, A)$  and  $C(N_1, A+1)$  are found by looking them up in Table 3 for one-sided upper confidence limits to get 0.225 and 0.232, respectively. Using these confidence limits and  $P$ ,  $C(N, K)$  is calculated and found to be 0.227.

In example 2,  $N$  equals 405,  $K$  equals 127, confidence level is 90 percent and a two-sided upper confidence limit is desired. Using these values of  $N$  and  $K$ ,  $K_1$  and  $K_2$  are calculated and are found to be 62.7160 and 156.7901, respectively.  $A_1$ , being the integer part of  $K_1$ , is 62 and  $A_2$ , being the integer part of  $K_2$ , is 156.  $P_1$  is 62.7160 minus 62 which is 0.7160.  $P_2$  is 156.7901 minus 156 which is 0.7901. Using 62, the value of  $A_1$ , the confidence limits  $C(200, A_1)$  and  $C(200, A_1+1)$  are found in Table 1 to be 0.3682 and 0.3733, respectively. Using 156, the value of  $A_2$ , the confidence limits  $C(500, A_2)$  and  $C(500, A_2+1)$  are found in Table 1 to be 0.3478 and 0.3499, respectively. These four confidence limits and  $P_1$  and  $P_2$  are used to calculate  $CI(200, K_1)$  and  $CI(500, K_2)$ .

To determine the correction factor  $CF$ , use the information at the top of the worksheet for sample size  $N$ , confidence level, confidence interval and confidence limit to determine the correct figure to use. Figure A-3 in Appendix A is found to be the correct one to use for this example. Calculate  $K/N$  to determine the curve to use or the curves to visually interpolate between. In this example,  $K/N = 0.314$ . Visually interpolating between the curves for 0.3 and 0.4 for a sample of size 405, the correction factor  $CF$  is found to be approximately -0.0029.

Using  $CI(200, K_1)$ ,  $CI(500, K_2)$ ,  $N$  and  $CF$ ,  $C(N, K)$  is calculated to be 0.354.



Figure 1. Interpolation Worksheet For Sample  
Sizes Between 100 and 200

N = \_\_\_\_\_ K = \_\_\_\_\_ Confidence Level = \_\_\_\_\_

Confidence Interval: One-sided? \_\_\_\_\_ Two-sided? \_\_\_\_\_

Confidence Limit: Upper Limit? \_\_\_\_\_ Lower Limit? \_\_\_\_\_

Computations:

$$K1 = N1(K/N) = \underline{\hspace{2cm}}$$

$$A = \text{INT}(K1) = \underline{\hspace{2cm}}$$

$$P = K1 - A = \underline{\hspace{2cm}}$$

$$C(N1, A)^* = \underline{\hspace{2cm}}$$

$$C(N1, A+1)^* = \underline{\hspace{2cm}}$$

$$\begin{aligned} C(N, K) &= P[ C(N1, A+1) - C(N1, A) ] + C(N1, A) \\ &= \underline{\hspace{4cm}} \\ &= \underline{\hspace{4cm}} \end{aligned}$$

Note: N1 is the closest sample size to N for which there  
are tabled confidence limits.

\* This confidence limit can be found in the tables. Use  
the confidence level, confidence interval and confidence  
limit information at the top of worksheet.

Figure 2. Interpolation Worksheet For Sample  
Sizes Between 200 and 500

N = \_\_\_\_\_ K = \_\_\_\_\_ Confidence Level = \_\_\_\_\_

Confidence Interval: One-sided? \_\_\_\_\_ Two-sided? \_\_\_\_\_

Confidence Limit: Upper Limit? \_\_\_\_\_ Lower Limit? \_\_\_\_\_

Computations:

$$K1 = 200K/N = \underline{\hspace{2cm}}$$

$$K2 = 500K/N = \underline{\hspace{2cm}}$$

$$A1 = \text{INT}(K1) = \underline{\hspace{2cm}}$$

$$C(200, A1)^* = \underline{\hspace{2cm}}$$

$$A2 = \text{INT}(K2) = \underline{\hspace{2cm}}$$

$$C(200, A1+1)^* = \underline{\hspace{2cm}}$$

$$P1 = K1 - A1 = \underline{\hspace{2cm}}$$

$$C(500, A2)^* = \underline{\hspace{2cm}}$$

$$P2 = K2 - A2 = \underline{\hspace{2cm}}$$

$$C(500, A2+1)^* = \underline{\hspace{2cm}}$$

$$\begin{aligned} CI(200, K1) &= P1[ C(200, A1+1) - C(200, A1) ] + C(200, A1) \\ &= \underline{\hspace{4cm}} \end{aligned}$$

$$\begin{aligned} CI(500, K2) &= P2[ C(500, A2+1) - C(500, A2) ] + C(500, A2) \\ &= \underline{\hspace{4cm}} \end{aligned}$$

$$\begin{aligned} C(N, K) &= \frac{CI(200, K1) + [ CI(500, K2) - CI(200, K1) ](N - 200)/300}{+ CF} \\ &= \underline{\hspace{4cm}} \\ &= \underline{\hspace{4cm}} \end{aligned}$$

\* This confidence limit can be found in the tables. Use the confidence level, confidence interval and confidence limit information at the top of worksheet.

Figure 3. Interpolation Worksheet For Sample  
Sizes Between 500 and 1000

N = \_\_\_\_\_ K = \_\_\_\_\_ Confidence Level = \_\_\_\_\_  
 Confidence Interval: One-sided? \_\_\_\_\_ Two-sided? \_\_\_\_\_  
 Confidence Limit: Upper Limit? \_\_\_\_\_ Lower Limit? \_\_\_\_\_

Computations:

$$K1 = 500K/N = \underline{\hspace{2cm}}$$

$$K2 = 1000K/N = \underline{\hspace{2cm}}$$

$$A1 = \text{INT}(K1) = \underline{\hspace{2cm}}$$

$$C(500, A1)^* = \underline{\hspace{2cm}}$$

$$A2 = \text{INT}(K2) = \underline{\hspace{2cm}}$$

$$C(500, A1+1)^* = \underline{\hspace{2cm}}$$

$$P1 = K1 - A1 = \underline{\hspace{2cm}}$$

$$C(1000, A2)^* = \underline{\hspace{2cm}}$$

$$P2 = K2 - A2 = \underline{\hspace{2cm}}$$

$$C(1000, A2+1)^* = \underline{\hspace{2cm}}$$

$$\begin{aligned} CI(500, K1) &= P1[ C(500, A1+1) - C(500, A1) ] + C(500, A1) \\ &= \underline{\hspace{4cm}} \end{aligned}$$

$$\begin{aligned} CI(1000, K2) &= P2[ C(1000, A2+1) - C(1000, A2) ] + C(1000, A2) \\ &= \underline{\hspace{4cm}} \end{aligned}$$

$$\begin{aligned} C(N, K) &= CI(500, K1) + [ CI(1000, K2) - CI(500, K1) ](N - 500)/500 \\ &\quad + CF \\ &= \underline{\hspace{4cm}} \\ &= \underline{\hspace{4cm}} \end{aligned}$$

\* This confidence limit can be found in the tables. Use the confidence level, confidence interval and confidence limit information at the top of this worksheet.

### Example 1

Figure 1. Interpolation Worksheet For Sample Sizes Between 100 and 200

$N = \underline{158}$        $K = \underline{27}$       Confidence Level = 95%  
 Confidence Interval:    One-sided? ✓      Two-sided?         
 Confidence Limit:      Upper Limit? ✓      Lower Limit?       

#### Computations:

$$K1 = N1(K/N) = \underline{160(27/158)} = 27.3418$$

$$A = \text{INT}(K1) = \underline{27}$$

$$P = K1 - A = \underline{0.3418}$$

$$C(N1, A)^* = \underline{C(160, 27)} = 0.225$$

$$C(N1, A+1)^* = \underline{C(160, 28)} = 0.232$$

$$\begin{aligned}
 C(N, K) &= P[ C(N1, A+1) - C(N1, A) ] + C(N1, A) \\
 &= \underline{0.3418 [0.232 - 0.225] + 0.225} \\
 &= \underline{0.227}
 \end{aligned}$$

Note:  $N1$  is the closest sample size to  $N$  for which there are tabled confidence limits.

- \* This confidence limit can be found in the tables. Use the confidence level, confidence interval and confidence limit information at the top of worksheet.

## Example 2

Figure 2. Interpolation Worksheet For Sample  
Sizes Between 200 and 500

$N = \underline{405}$        $K = \underline{127}$       Confidence Level = 90%  
 Confidence Interval:    One-sided?             Two-sided? ✓  
 Confidence Limit:      Upper Limit? ✓      Lower Limit?       

### Computations:

$$K1 = 200K/N = \underline{200(127/405)} = 62.7160$$

$$K2 = 500K/N = \underline{500(127/405)} = 156.7901$$

$$A1 = \text{INT}(K1) = \underline{62}$$

$$C(200, A1)^* = \underline{0.3682}$$

$$A2 = \text{INT}(K2) = \underline{156}$$

$$C(200, A1+1)^* = \underline{0.3733}$$

$$P1 = K1 - A1 = \underline{0.7160}$$

$$C(500, A2)^* = \underline{0.3478}$$

$$P2 = K2 - A2 = \underline{0.7901}$$

$$C(500, A2+1)^* = \underline{0.3499}$$

$$\begin{aligned}
 CI(200, K1) &= P1[ C(200, A1+1) - C(200, A1) ] + C(200, A1) \\
 &= \underline{0.7160 [0.3733 - 0.3682] + 0.3682} = 0.3719
 \end{aligned}$$

$$\begin{aligned}
 CI(500, K2) &= P2[ C(500, A2+1) - C(500, A2) ] + C(500, A2) \\
 &= \underline{0.7901 [0.3499 - 0.3478] + 0.3478} = 0.3495
 \end{aligned}$$

$$\begin{aligned}
 C(N, K) &= \frac{CI(200, K1) + [ CI(500, K2) - CI(200, K1) ] (N - 200) / 300}{+ CF} \\
 &= \underline{0.3719 + [0.3495 - 0.3719] (405 - 200) / 300} - 0.0029 \\
 &= \underline{0.354}
 \end{aligned}$$

\* This confidence limit can be found in the tables. Use the confidence level, confidence interval and confidence limit information at the top of worksheet.

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### SECTION III

#### TABULATED CONFIDENCE LIMITS FOR PROPORTIONS

The tabulations contained in this section are assembled into three tables. Table 1 consists of Two-sided Confidence Limits for Proportions; Table 2 consists of One-sided Lower Confidence Limits for Proportions, and Table 3 consists of One-sided Upper Confidence Limits for Proportions. Figures 1, 2, and 3 described in Section II are provided for use with these tables. The following legends apply to all three tables:

|       |   |                        |
|-------|---|------------------------|
| CL    | - | Confidence level       |
| N     | - | Sample size            |
| K     | - | Number successes       |
| LOWER | - | Lower confidence limit |
| UPPER | - | Upper confidence limit |

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TABLE 1.  
(Pages 13 through 190)

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N | K | 90% CL |       | 95% CL |       | 99% CL |       |
|---|---|--------|-------|--------|-------|--------|-------|
|   |   | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 1 | 0 | 0.000  | 0.950 | 0.000  | 0.975 | 0.000  | 0.995 |
| 1 | 1 | 0.050  | 1.000 | 0.025  | 1.000 | 0.005  | 1.000 |
| 2 | 0 | 0.000  | 0.776 | 0.000  | 0.842 | 0.000  | 0.929 |
| 2 | 1 | 0.025  | 0.975 | 0.013  | 0.987 | 0.003  | 0.997 |
| 2 | 2 | 0.224  | 1.000 | 0.158  | 1.000 | 0.071  | 1.000 |
| 3 | 0 | 0.000  | 0.632 | 0.000  | 0.708 | 0.000  | 0.829 |
| 3 | 1 | 0.017  | 0.865 | 0.008  | 0.906 | 0.002  | 0.959 |
| 3 | 2 | 0.135  | 0.983 | 0.094  | 0.992 | 0.041  | 0.998 |
| 3 | 3 | 0.368  | 1.000 | 0.292  | 1.000 | 0.171  | 1.000 |
| 4 | 0 | 0.000  | 0.527 | 0.000  | 0.602 | 0.000  | 0.734 |
| 4 | 1 | 0.013  | 0.751 | 0.006  | 0.806 | 0.001  | 0.889 |
| 4 | 2 | 0.098  | 0.902 | 0.068  | 0.932 | 0.029  | 0.971 |
| 4 | 3 | 0.249  | 0.987 | 0.194  | 0.994 | 0.111  | 0.999 |
| 4 | 4 | 0.473  | 1.000 | 0.398  | 1.000 | 0.266  | 1.000 |
| 5 | 0 | 0.000  | 0.451 | 0.000  | 0.522 | 0.000  | 0.653 |
| 5 | 1 | 0.010  | 0.657 | 0.005  | 0.716 | 0.001  | 0.815 |
| 5 | 2 | 0.076  | 0.811 | 0.053  | 0.853 | 0.023  | 0.917 |
| 5 | 3 | 0.189  | 0.924 | 0.147  | 0.947 | 0.083  | 0.977 |
| 5 | 4 | 0.343  | 0.990 | 0.284  | 0.995 | 0.185  | 0.999 |
| 5 | 5 | 0.549  | 1.000 | 0.478  | 1.000 | 0.347  | 1.000 |
| 6 | 0 | 0.000  | 0.393 | 0.000  | 0.459 | 0.000  | 0.586 |
| 6 | 1 | 0.009  | 0.582 | 0.004  | 0.641 | 0.001  | 0.746 |
| 6 | 2 | 0.063  | 0.729 | 0.043  | 0.777 | 0.019  | 0.856 |
| 6 | 3 | 0.153  | 0.847 | 0.118  | 0.882 | 0.066  | 0.934 |
| 6 | 4 | 0.271  | 0.937 | 0.223  | 0.957 | 0.144  | 0.981 |
| 6 | 5 | 0.418  | 0.991 | 0.359  | 0.996 | 0.254  | 0.999 |
| 6 | 6 | 0.607  | 1.000 | 0.541  | 1.000 | 0.414  | 1.000 |
| 7 | 0 | 0.000  | 0.348 | 0.000  | 0.410 | 0.000  | 0.531 |
| 7 | 1 | 0.007  | 0.521 | 0.004  | 0.579 | 0.001  | 0.685 |
| 7 | 2 | 0.053  | 0.659 | 0.037  | 0.710 | 0.016  | 0.797 |
| 7 | 3 | 0.129  | 0.775 | 0.099  | 0.816 | 0.055  | 0.882 |
| 7 | 4 | 0.225  | 0.871 | 0.184  | 0.901 | 0.118  | 0.945 |
| 7 | 5 | 0.341  | 0.947 | 0.290  | 0.963 | 0.203  | 0.984 |
| 7 | 6 | 0.479  | 0.993 | 0.421  | 0.996 | 0.315  | 0.999 |
| 7 | 7 | 0.652  | 1.000 | 0.590  | 1.000 | 0.469  | 1.000 |
| 8 | 0 | 0.000  | 0.312 | 0.000  | 0.369 | 0.000  | 0.484 |
| 8 | 1 | 0.006  | 0.471 | 0.003  | 0.527 | 0.001  | 0.632 |
| 8 | 2 | 0.046  | 0.600 | 0.032  | 0.651 | 0.014  | 0.742 |
| 8 | 3 | 0.111  | 0.711 | 0.085  | 0.755 | 0.047  | 0.830 |
| 8 | 4 | 0.193  | 0.807 | 0.157  | 0.843 | 0.100  | 0.900 |
| 8 | 5 | 0.289  | 0.889 | 0.245  | 0.915 | 0.170  | 0.953 |
| 8 | 6 | 0.400  | 0.954 | 0.349  | 0.968 | 0.258  | 0.986 |
| 8 | 7 | 0.529  | 0.994 | 0.473  | 0.997 | 0.368  | 0.999 |
| 8 | 8 | 0.688  | 1.000 | 0.631  | 1.000 | 0.516  | 1.000 |
| 9 | 0 | 0.000  | 0.283 | 0.000  | 0.336 | 0.000  | 0.445 |
| 9 | 1 | 0.006  | 0.429 | 0.003  | 0.482 | 0.001  | 0.585 |
| 9 | 2 | 0.041  | 0.550 | 0.028  | 0.600 | 0.012  | 0.693 |
| 9 | 3 | 0.098  | 0.655 | 0.075  | 0.701 | 0.042  | 0.781 |
| 9 | 4 | 0.169  | 0.749 | 0.137  | 0.788 | 0.087  | 0.854 |
| 9 | 5 | 0.251  | 0.831 | 0.212  | 0.863 | 0.146  | 0.913 |
| 9 | 6 | 0.345  | 0.902 | 0.299  | 0.925 | 0.219  | 0.958 |
| 9 | 7 | 0.450  | 0.959 | 0.400  | 0.972 | 0.307  | 0.988 |
| 9 | 8 | 0.571  | 0.994 | 0.518  | 0.997 | 0.415  | 0.999 |
| 9 | 9 | 0.717  | 1.000 | 0.664  | 1.000 | 0.555  | 1.000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 10 | 0  | 0.000  | 0.259 | 0.000  | 0.308 | 0.000  | 0.411 |
| 10 | 1  | 0.005  | 0.394 | 0.003  | 0.445 | 0.001  | 0.544 |
| 10 | 2  | 0.037  | 0.507 | 0.025  | 0.556 | 0.011  | 0.648 |
| 10 | 3  | 0.087  | 0.607 | 0.067  | 0.652 | 0.037  | 0.735 |
| 10 | 4  | 0.150  | 0.696 | 0.122  | 0.738 | 0.077  | 0.809 |
| 10 | 5  | 0.222  | 0.778 | 0.187  | 0.813 | 0.128  | 0.872 |
| 10 | 6  | 0.304  | 0.850 | 0.262  | 0.878 | 0.191  | 0.923 |
| 10 | 7  | 0.393  | 0.913 | 0.348  | 0.933 | 0.265  | 0.963 |
| 10 | 8  | 0.493  | 0.963 | 0.444  | 0.975 | 0.352  | 0.989 |
| 10 | 9  | 0.606  | 0.995 | 0.555  | 0.997 | 0.456  | 0.999 |
| 10 | 10 | 0.741  | 1.000 | 0.692  | 1.000 | 0.589  | 1.000 |
| 11 | 0  | 0.000  | 0.238 | 0.000  | 0.285 | 0.000  | 0.382 |
| 11 | 1  | 0.005  | 0.364 | 0.002  | 0.413 | 0.000  | 0.509 |
| 11 | 2  | 0.033  | 0.470 | 0.023  | 0.518 | 0.010  | 0.608 |
| 11 | 3  | 0.079  | 0.564 | 0.060  | 0.610 | 0.033  | 0.693 |
| 11 | 4  | 0.135  | 0.650 | 0.109  | 0.692 | 0.069  | 0.767 |
| 11 | 5  | 0.200  | 0.729 | 0.167  | 0.766 | 0.114  | 0.831 |
| 11 | 6  | 0.271  | 0.800 | 0.234  | 0.833 | 0.169  | 0.886 |
| 11 | 7  | 0.350  | 0.865 | 0.308  | 0.891 | 0.233  | 0.931 |
| 11 | 8  | 0.436  | 0.921 | 0.390  | 0.940 | 0.307  | 0.967 |
| 11 | 9  | 0.530  | 0.967 | 0.482  | 0.977 | 0.392  | 0.990 |
| 11 | 10 | 0.636  | 0.995 | 0.587  | 0.998 | 0.491  | 1.000 |
| 11 | 11 | 0.762  | 1.000 | 0.715  | 1.000 | 0.618  | 1.000 |
| 12 | 0  | 0.000  | 0.221 | 0.000  | 0.265 | 0.000  | 0.357 |
| 12 | 1  | 0.004  | 0.339 | 0.002  | 0.385 | 0.000  | 0.477 |
| 12 | 2  | 0.030  | 0.438 | 0.021  | 0.484 | 0.009  | 0.573 |
| 12 | 3  | 0.072  | 0.527 | 0.055  | 0.572 | 0.030  | 0.655 |
| 12 | 4  | 0.123  | 0.609 | 0.099  | 0.651 | 0.062  | 0.728 |
| 12 | 5  | 0.181  | 0.685 | 0.152  | 0.723 | 0.103  | 0.791 |
| 12 | 6  | 0.245  | 0.755 | 0.211  | 0.789 | 0.152  | 0.848 |
| 12 | 7  | 0.315  | 0.819 | 0.277  | 0.848 | 0.209  | 0.897 |
| 12 | 8  | 0.391  | 0.877 | 0.349  | 0.901 | 0.272  | 0.938 |
| 12 | 9  | 0.473  | 0.928 | 0.428  | 0.945 | 0.345  | 0.970 |
| 12 | 10 | 0.562  | 0.970 | 0.516  | 0.979 | 0.427  | 0.991 |
| 12 | 11 | 0.661  | 0.996 | 0.615  | 0.998 | 0.523  | 1.000 |
| 12 | 12 | 0.779  | 1.000 | 0.735  | 1.000 | 0.643  | 1.000 |
| 13 | 0  | 0.000  | 0.206 | 0.000  | 0.247 | 0.000  | 0.335 |
| 13 | 1  | 0.004  | 0.316 | 0.002  | 0.360 | 0.000  | 0.449 |
| 13 | 2  | 0.028  | 0.410 | 0.019  | 0.454 | 0.008  | 0.541 |
| 13 | 3  | 0.066  | 0.495 | 0.050  | 0.538 | 0.028  | 0.621 |
| 13 | 4  | 0.113  | 0.573 | 0.091  | 0.614 | 0.057  | 0.691 |
| 13 | 5  | 0.166  | 0.645 | 0.139  | 0.684 | 0.094  | 0.755 |
| 13 | 6  | 0.224  | 0.713 | 0.192  | 0.749 | 0.138  | 0.811 |
| 13 | 7  | 0.287  | 0.776 | 0.251  | 0.808 | 0.189  | 0.862 |
| 13 | 8  | 0.355  | 0.834 | 0.316  | 0.861 | 0.245  | 0.906 |
| 13 | 9  | 0.427  | 0.887 | 0.386  | 0.909 | 0.309  | 0.943 |
| 13 | 10 | 0.505  | 0.934 | 0.462  | 0.950 | 0.379  | 0.972 |
| 13 | 11 | 0.590  | 0.972 | 0.546  | 0.981 | 0.459  | 0.992 |
| 13 | 12 | 0.684  | 0.996 | 0.640  | 0.998 | 0.551  | 1.000 |
| 13 | 13 | 0.794  | 1.000 | 0.753  | 1.000 | 0.665  | 1.000 |
| 14 | 0  | 0.000  | 0.193 | 0.000  | 0.232 | 0.000  | 0.315 |
| 14 | 1  | 0.004  | 0.297 | 0.002  | 0.339 | 0.000  | 0.424 |
| 14 | 2  | 0.026  | 0.385 | 0.018  | 0.428 | 0.008  | 0.512 |
| 14 | 3  | 0.061  | 0.466 | 0.047  | 0.508 | 0.026  | 0.589 |
| 14 | 4  | 0.104  | 0.540 | 0.084  | 0.581 | 0.053  | 0.658 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 14 | 5  | 0.153  | 0.610 | 0.128  | 0.649 | 0.087  | 0.720 |
| 14 | 6  | 0.206  | 0.675 | 0.177  | 0.711 | 0.127  | 0.777 |
| 14 | 7  | 0.264  | 0.736 | 0.230  | 0.770 | 0.172  | 0.828 |
| 14 | 8  | 0.325  | 0.794 | 0.289  | 0.823 | 0.223  | 0.873 |
| 14 | 9  | 0.390  | 0.847 | 0.351  | 0.872 | 0.280  | 0.913 |
| 14 | 10 | 0.460  | 0.896 | 0.419  | 0.916 | 0.342  | 0.947 |
| 14 | 11 | 0.534  | 0.939 | 0.492  | 0.953 | 0.411  | 0.974 |
| 14 | 12 | 0.615  | 0.974 | 0.572  | 0.982 | 0.488  | 0.992 |
| 14 | 13 | 0.703  | 0.996 | 0.661  | 0.998 | 0.576  | 1.000 |
| 14 | 14 | 0.807  | 1.000 | 0.768  | 1.000 | 0.685  | 1.000 |
| 15 | 0  | 0.000  | 0.181 | 0.000  | 0.218 | 0.000  | 0.298 |
| 15 | 1  | 0.003  | 0.279 | 0.002  | 0.319 | 0.000  | 0.402 |
| 15 | 2  | 0.024  | 0.363 | 0.017  | 0.405 | 0.007  | 0.486 |
| 15 | 3  | 0.057  | 0.440 | 0.043  | 0.481 | 0.024  | 0.561 |
| 15 | 4  | 0.097  | 0.511 | 0.078  | 0.551 | 0.049  | 0.627 |
| 15 | 5  | 0.142  | 0.577 | 0.118  | 0.616 | 0.080  | 0.688 |
| 15 | 6  | 0.191  | 0.640 | 0.163  | 0.677 | 0.117  | 0.744 |
| 15 | 7  | 0.244  | 0.700 | 0.213  | 0.734 | 0.159  | 0.795 |
| 15 | 8  | 0.300  | 0.756 | 0.266  | 0.787 | 0.205  | 0.841 |
| 15 | 9  | 0.360  | 0.809 | 0.323  | 0.837 | 0.256  | 0.883 |
| 15 | 10 | 0.423  | 0.858 | 0.384  | 0.882 | 0.312  | 0.920 |
| 15 | 11 | 0.489  | 0.903 | 0.449  | 0.922 | 0.373  | 0.951 |
| 15 | 12 | 0.560  | 0.943 | 0.519  | 0.957 | 0.439  | 0.976 |
| 15 | 13 | 0.637  | 0.976 | 0.595  | 0.983 | 0.514  | 0.993 |
| 15 | 14 | 0.721  | 0.997 | 0.681  | 0.998 | 0.598  | 1.000 |
| 15 | 15 | 0.819  | 1.000 | 0.782  | 1.000 | 0.702  | 1.000 |
| 16 | 0  | 0.000  | 0.171 | 0.000  | 0.206 | 0.000  | 0.282 |
| 16 | 1  | 0.003  | 0.264 | 0.002  | 0.302 | 0.000  | 0.381 |
| 16 | 2  | 0.023  | 0.344 | 0.016  | 0.383 | 0.007  | 0.463 |
| 16 | 3  | 0.053  | 0.417 | 0.040  | 0.456 | 0.022  | 0.534 |
| 16 | 4  | 0.090  | 0.484 | 0.073  | 0.524 | 0.045  | 0.599 |
| 16 | 5  | 0.132  | 0.548 | 0.110  | 0.587 | 0.075  | 0.658 |
| 16 | 6  | 0.178  | 0.609 | 0.152  | 0.646 | 0.109  | 0.713 |
| 16 | 7  | 0.227  | 0.667 | 0.198  | 0.701 | 0.147  | 0.764 |
| 16 | 8  | 0.279  | 0.721 | 0.247  | 0.753 | 0.190  | 0.810 |
| 16 | 9  | 0.333  | 0.773 | 0.299  | 0.802 | 0.236  | 0.853 |
| 16 | 10 | 0.391  | 0.822 | 0.354  | 0.848 | 0.287  | 0.891 |
| 16 | 11 | 0.452  | 0.868 | 0.413  | 0.890 | 0.342  | 0.925 |
| 16 | 12 | 0.516  | 0.910 | 0.476  | 0.927 | 0.401  | 0.955 |
| 16 | 13 | 0.583  | 0.947 | 0.544  | 0.960 | 0.466  | 0.978 |
| 16 | 14 | 0.656  | 0.977 | 0.617  | 0.984 | 0.537  | 0.993 |
| 16 | 15 | 0.736  | 0.997 | 0.698  | 0.998 | 0.619  | 1.000 |
| 16 | 16 | 0.829  | 1.000 | 0.794  | 1.000 | 0.718  | 1.000 |
| 17 | 0  | 0.000  | 0.162 | 0.000  | 0.195 | 0.000  | 0.268 |
| 17 | 1  | 0.003  | 0.250 | 0.001  | 0.287 | 0.000  | 0.363 |
| 17 | 2  | 0.021  | 0.326 | 0.015  | 0.364 | 0.006  | 0.441 |
| 17 | 3  | 0.050  | 0.396 | 0.038  | 0.434 | 0.021  | 0.510 |
| 17 | 4  | 0.085  | 0.461 | 0.068  | 0.499 | 0.043  | 0.573 |
| 17 | 5  | 0.124  | 0.522 | 0.103  | 0.560 | 0.070  | 0.631 |
| 17 | 6  | 0.166  | 0.580 | 0.142  | 0.617 | 0.101  | 0.685 |
| 17 | 7  | 0.212  | 0.636 | 0.184  | 0.671 | 0.137  | 0.734 |
| 17 | 8  | 0.260  | 0.689 | 0.230  | 0.722 | 0.176  | 0.781 |
| 17 | 9  | 0.311  | 0.740 | 0.278  | 0.770 | 0.219  | 0.824 |
| 17 | 10 | 0.364  | 0.788 | 0.329  | 0.816 | 0.266  | 0.863 |
| 17 | 11 | 0.420  | 0.834 | 0.383  | 0.858 | 0.315  | 0.899 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 17 | 12 | 0.478  | 0.876 | 0.440  | 0.897 | 0.369  | 0.930 |
| 17 | 13 | 0.539  | 0.915 | 0.501  | 0.932 | 0.427  | 0.957 |
| 17 | 14 | 0.604  | 0.950 | 0.566  | 0.962 | 0.490  | 0.979 |
| 17 | 15 | 0.674  | 0.979 | 0.636  | 0.985 | 0.559  | 0.994 |
| 17 | 16 | 0.750  | 0.997 | 0.713  | 0.999 | 0.637  | 1.000 |
| 17 | 17 | 0.838  | 1.000 | 0.805  | 1.000 | 0.732  | 1.000 |
| 18 | 0  | 0.000  | 0.153 | 0.000  | 0.185 | 0.000  | 0.255 |
| 18 | 1  | 0.003  | 0.238 | 0.001  | 0.273 | 0.000  | 0.346 |
| 18 | 2  | 0.020  | 0.310 | 0.014  | 0.347 | 0.006  | 0.422 |
| 18 | 3  | 0.047  | 0.377 | 0.036  | 0.414 | 0.020  | 0.488 |
| 18 | 4  | 0.080  | 0.439 | 0.064  | 0.476 | 0.040  | 0.549 |
| 18 | 5  | 0.116  | 0.498 | 0.097  | 0.535 | 0.065  | 0.605 |
| 18 | 6  | 0.156  | 0.554 | 0.133  | 0.590 | 0.095  | 0.658 |
| 18 | 7  | 0.199  | 0.608 | 0.173  | 0.643 | 0.128  | 0.707 |
| 18 | 8  | 0.244  | 0.659 | 0.215  | 0.692 | 0.165  | 0.753 |
| 18 | 9  | 0.291  | 0.709 | 0.260  | 0.740 | 0.205  | 0.795 |
| 18 | 10 | 0.341  | 0.756 | 0.308  | 0.785 | 0.247  | 0.835 |
| 18 | 11 | 0.392  | 0.801 | 0.357  | 0.827 | 0.293  | 0.872 |
| 18 | 12 | 0.446  | 0.844 | 0.410  | 0.867 | 0.342  | 0.905 |
| 18 | 13 | 0.502  | 0.884 | 0.465  | 0.903 | 0.395  | 0.935 |
| 18 | 14 | 0.561  | 0.920 | 0.524  | 0.936 | 0.451  | 0.960 |
| 18 | 15 | 0.623  | 0.953 | 0.586  | 0.964 | 0.512  | 0.980 |
| 18 | 16 | 0.690  | 0.980 | 0.653  | 0.986 | 0.578  | 0.994 |
| 18 | 17 | 0.762  | 0.997 | 0.727  | 0.999 | 0.654  | 1.000 |
| 18 | 18 | 0.847  | 1.000 | 0.815  | 1.000 | 0.745  | 1.000 |
| 19 | 0  | 0.000  | 0.146 | 0.000  | 0.176 | 0.000  | 0.243 |
| 19 | 1  | 0.003  | 0.226 | 0.001  | 0.260 | 0.000  | 0.331 |
| 19 | 2  | 0.019  | 0.296 | 0.013  | 0.331 | 0.006  | 0.404 |
| 19 | 3  | 0.044  | 0.359 | 0.034  | 0.396 | 0.019  | 0.468 |
| 19 | 4  | 0.075  | 0.419 | 0.061  | 0.456 | 0.038  | 0.527 |
| 19 | 5  | 0.110  | 0.476 | 0.091  | 0.512 | 0.062  | 0.582 |
| 19 | 6  | 0.147  | 0.530 | 0.126  | 0.565 | 0.090  | 0.633 |
| 19 | 7  | 0.188  | 0.582 | 0.163  | 0.616 | 0.121  | 0.681 |
| 19 | 8  | 0.230  | 0.632 | 0.203  | 0.665 | 0.155  | 0.726 |
| 19 | 9  | 0.274  | 0.680 | 0.244  | 0.711 | 0.192  | 0.768 |
| 19 | 10 | 0.320  | 0.726 | 0.289  | 0.756 | 0.232  | 0.808 |
| 19 | 11 | 0.368  | 0.770 | 0.335  | 0.797 | 0.274  | 0.845 |
| 19 | 12 | 0.418  | 0.812 | 0.384  | 0.837 | 0.319  | 0.879 |
| 19 | 13 | 0.470  | 0.853 | 0.435  | 0.874 | 0.367  | 0.910 |
| 19 | 14 | 0.524  | 0.890 | 0.488  | 0.909 | 0.418  | 0.938 |
| 19 | 15 | 0.581  | 0.925 | 0.544  | 0.939 | 0.473  | 0.962 |
| 19 | 16 | 0.641  | 0.956 | 0.604  | 0.966 | 0.532  | 0.981 |
| 19 | 17 | 0.704  | 0.981 | 0.669  | 0.987 | 0.596  | 0.994 |
| 19 | 18 | 0.774  | 0.997 | 0.740  | 0.999 | 0.669  | 1.000 |
| 19 | 19 | 0.854  | 1.000 | 0.824  | 1.000 | 0.757  | 1.000 |
| 20 | 0  | 0.000  | 0.139 | 0.000  | 0.168 | 0.000  | 0.233 |
| 20 | 1  | 0.003  | 0.216 | 0.001  | 0.249 | 0.000  | 0.317 |
| 20 | 2  | 0.018  | 0.283 | 0.012  | 0.317 | 0.005  | 0.387 |
| 20 | 3  | 0.042  | 0.344 | 0.032  | 0.379 | 0.018  | 0.449 |
| 20 | 4  | 0.071  | 0.401 | 0.057  | 0.437 | 0.036  | 0.507 |
| 20 | 5  | 0.104  | 0.456 | 0.087  | 0.491 | 0.058  | 0.560 |
| 20 | 6  | 0.140  | 0.508 | 0.119  | 0.543 | 0.085  | 0.610 |
| 20 | 7  | 0.177  | 0.558 | 0.154  | 0.592 | 0.114  | 0.657 |
| 20 | 8  | 0.217  | 0.606 | 0.191  | 0.639 | 0.146  | 0.701 |
| 20 | 9  | 0.259  | 0.653 | 0.231  | 0.685 | 0.181  | 0.743 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 20 | 10 | 0.302  | 0.698 | 0.272  | 0.728 | 0.218  | 0.782 |
| 20 | 11 | 0.347  | 0.741 | 0.315  | 0.769 | 0.257  | 0.819 |
| 20 | 12 | 0.394  | 0.783 | 0.361  | 0.809 | 0.299  | 0.854 |
| 20 | 13 | 0.442  | 0.823 | 0.408  | 0.846 | 0.343  | 0.886 |
| 20 | 14 | 0.492  | 0.860 | 0.457  | 0.881 | 0.390  | 0.915 |
| 20 | 15 | 0.544  | 0.896 | 0.509  | 0.913 | 0.440  | 0.942 |
| 20 | 16 | 0.599  | 0.929 | 0.563  | 0.943 | 0.493  | 0.964 |
| 20 | 17 | 0.656  | 0.958 | 0.621  | 0.968 | 0.551  | 0.982 |
| 20 | 18 | 0.717  | 0.982 | 0.683  | 0.988 | 0.613  | 0.995 |
| 20 | 19 | 0.784  | 0.997 | 0.751  | 0.999 | 0.683  | 1.000 |
| 20 | 20 | 0.861  | 1.000 | 0.832  | 1.000 | 0.767  | 1.000 |
| 21 | 0  | 0.000  | 0.133 | 0.000  | 0.161 | 0.000  | 0.223 |
| 21 | 1  | 0.002  | 0.207 | 0.001  | 0.238 | 0.000  | 0.304 |
| 21 | 2  | 0.017  | 0.271 | 0.012  | 0.304 | 0.005  | 0.372 |
| 21 | 3  | 0.040  | 0.329 | 0.030  | 0.363 | 0.017  | 0.432 |
| 21 | 4  | 0.068  | 0.384 | 0.054  | 0.419 | 0.034  | 0.488 |
| 21 | 5  | 0.099  | 0.437 | 0.082  | 0.472 | 0.055  | 0.539 |
| 21 | 6  | 0.132  | 0.487 | 0.113  | 0.522 | 0.080  | 0.588 |
| 21 | 7  | 0.168  | 0.536 | 0.146  | 0.570 | 0.108  | 0.634 |
| 21 | 8  | 0.206  | 0.583 | 0.181  | 0.616 | 0.138  | 0.677 |
| 21 | 9  | 0.245  | 0.628 | 0.218  | 0.660 | 0.171  | 0.718 |
| 21 | 10 | 0.286  | 0.672 | 0.257  | 0.702 | 0.205  | 0.758 |
| 21 | 11 | 0.328  | 0.714 | 0.298  | 0.743 | 0.242  | 0.795 |
| 21 | 12 | 0.372  | 0.755 | 0.340  | 0.782 | 0.282  | 0.829 |
| 21 | 13 | 0.417  | 0.794 | 0.384  | 0.819 | 0.323  | 0.862 |
| 21 | 14 | 0.464  | 0.832 | 0.430  | 0.854 | 0.366  | 0.892 |
| 21 | 15 | 0.513  | 0.868 | 0.478  | 0.887 | 0.412  | 0.920 |
| 21 | 16 | 0.563  | 0.901 | 0.528  | 0.918 | 0.461  | 0.945 |
| 21 | 17 | 0.616  | 0.932 | 0.581  | 0.946 | 0.512  | 0.966 |
| 21 | 18 | 0.671  | 0.960 | 0.637  | 0.970 | 0.568  | 0.983 |
| 21 | 19 | 0.729  | 0.983 | 0.696  | 0.988 | 0.628  | 0.995 |
| 21 | 20 | 0.793  | 0.998 | 0.762  | 0.999 | 0.696  | 1.000 |
| 21 | 21 | 0.867  | 1.000 | 0.839  | 1.000 | 0.777  | 1.000 |
| 22 | 0  | 0.000  | 0.127 | 0.000  | 0.154 | 0.000  | 0.214 |
| 22 | 1  | 0.002  | 0.198 | 0.001  | 0.228 | 0.000  | 0.292 |
| 22 | 2  | 0.016  | 0.259 | 0.011  | 0.292 | 0.005  | 0.358 |
| 22 | 3  | 0.038  | 0.316 | 0.029  | 0.349 | 0.016  | 0.416 |
| 22 | 4  | 0.065  | 0.369 | 0.052  | 0.403 | 0.032  | 0.470 |
| 22 | 5  | 0.094  | 0.420 | 0.078  | 0.454 | 0.053  | 0.520 |
| 22 | 6  | 0.126  | 0.468 | 0.107  | 0.502 | 0.076  | 0.567 |
| 22 | 7  | 0.160  | 0.515 | 0.139  | 0.549 | 0.102  | 0.612 |
| 22 | 8  | 0.196  | 0.561 | 0.172  | 0.593 | 0.131  | 0.655 |
| 22 | 9  | 0.233  | 0.605 | 0.207  | 0.636 | 0.162  | 0.695 |
| 22 | 10 | 0.271  | 0.647 | 0.244  | 0.678 | 0.195  | 0.734 |
| 22 | 11 | 0.311  | 0.689 | 0.282  | 0.718 | 0.229  | 0.771 |
| 22 | 12 | 0.353  | 0.729 | 0.322  | 0.756 | 0.266  | 0.805 |
| 22 | 13 | 0.395  | 0.767 | 0.364  | 0.793 | 0.305  | 0.838 |
| 22 | 14 | 0.439  | 0.804 | 0.407  | 0.828 | 0.345  | 0.869 |
| 22 | 15 | 0.485  | 0.840 | 0.451  | 0.861 | 0.388  | 0.898 |
| 22 | 16 | 0.532  | 0.874 | 0.498  | 0.893 | 0.433  | 0.924 |
| 22 | 17 | 0.580  | 0.906 | 0.546  | 0.922 | 0.480  | 0.947 |
| 22 | 18 | 0.631  | 0.935 | 0.597  | 0.948 | 0.530  | 0.968 |
| 22 | 19 | 0.684  | 0.962 | 0.651  | 0.971 | 0.584  | 0.984 |
| 22 | 20 | 0.741  | 0.984 | 0.708  | 0.989 | 0.642  | 0.995 |
| 22 | 21 | 0.802  | 0.998 | 0.772  | 0.999 | 0.708  | 1.000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 22 | 22 | 0.873  | 1.000 | 0.846  | 1.000 | 0.786  | 1.000 |
| 23 | 0  | 0.000  | 0.122 | 0.000  | 0.148 | 0.000  | 0.206 |
| 23 | 1  | 0.002  | 0.190 | 0.001  | 0.219 | 0.000  | 0.281 |
| 23 | 2  | 0.016  | 0.249 | 0.011  | 0.280 | 0.005  | 0.345 |
| 23 | 3  | 0.037  | 0.304 | 0.028  | 0.336 | 0.015  | 0.401 |
| 23 | 4  | 0.062  | 0.355 | 0.050  | 0.388 | 0.031  | 0.453 |
| 23 | 5  | 0.090  | 0.404 | 0.075  | 0.437 | 0.050  | 0.502 |
| 23 | 6  | 0.120  | 0.451 | 0.102  | 0.484 | 0.073  | 0.548 |
| 23 | 7  | 0.152  | 0.496 | 0.132  | 0.529 | 0.097  | 0.592 |
| 23 | 8  | 0.186  | 0.540 | 0.164  | 0.573 | 0.125  | 0.634 |
| 23 | 9  | 0.222  | 0.583 | 0.197  | 0.615 | 0.154  | 0.674 |
| 23 | 10 | 0.258  | 0.625 | 0.232  | 0.655 | 0.185  | 0.712 |
| 23 | 11 | 0.296  | 0.665 | 0.268  | 0.694 | 0.218  | 0.748 |
| 23 | 12 | 0.335  | 0.704 | 0.306  | 0.732 | 0.252  | 0.782 |
| 23 | 13 | 0.375  | 0.742 | 0.345  | 0.768 | 0.288  | 0.815 |
| 23 | 14 | 0.417  | 0.778 | 0.385  | 0.803 | 0.326  | 0.846 |
| 23 | 15 | 0.460  | 0.814 | 0.427  | 0.836 | 0.366  | 0.875 |
| 23 | 16 | 0.504  | 0.848 | 0.471  | 0.868 | 0.408  | 0.903 |
| 23 | 17 | 0.549  | 0.880 | 0.516  | 0.898 | 0.452  | 0.927 |
| 23 | 18 | 0.596  | 0.910 | 0.563  | 0.925 | 0.498  | 0.950 |
| 23 | 19 | 0.645  | 0.938 | 0.612  | 0.950 | 0.547  | 0.969 |
| 23 | 20 | 0.696  | 0.963 | 0.664  | 0.972 | 0.599  | 0.985 |
| 23 | 21 | 0.751  | 0.984 | 0.720  | 0.989 | 0.655  | 0.995 |
| 23 | 22 | 0.810  | 0.998 | 0.781  | 0.999 | 0.719  | 1.000 |
| 23 | 23 | 0.878  | 1.000 | 0.852  | 1.000 | 0.794  | 1.000 |
| 24 | 0  | 0.000  | 0.117 | 0.000  | 0.142 | 0.000  | 0.198 |
| 24 | 1  | 0.002  | 0.183 | 0.001  | 0.211 | 0.000  | 0.271 |
| 24 | 2  | 0.015  | 0.240 | 0.010  | 0.270 | 0.004  | 0.332 |
| 24 | 3  | 0.035  | 0.292 | 0.027  | 0.324 | 0.015  | 0.387 |
| 24 | 4  | 0.059  | 0.342 | 0.047  | 0.374 | 0.029  | 0.438 |
| 24 | 5  | 0.086  | 0.389 | 0.071  | 0.422 | 0.048  | 0.485 |
| 24 | 6  | 0.115  | 0.435 | 0.098  | 0.467 | 0.069  | 0.530 |
| 24 | 7  | 0.146  | 0.479 | 0.126  | 0.511 | 0.093  | 0.573 |
| 24 | 8  | 0.178  | 0.521 | 0.156  | 0.553 | 0.119  | 0.614 |
| 24 | 9  | 0.212  | 0.563 | 0.188  | 0.594 | 0.146  | 0.653 |
| 24 | 10 | 0.246  | 0.603 | 0.221  | 0.634 | 0.176  | 0.690 |
| 24 | 11 | 0.282  | 0.642 | 0.256  | 0.672 | 0.207  | 0.726 |
| 24 | 12 | 0.319  | 0.681 | 0.291  | 0.709 | 0.240  | 0.760 |
| 24 | 13 | 0.358  | 0.718 | 0.328  | 0.744 | 0.274  | 0.793 |
| 24 | 14 | 0.397  | 0.754 | 0.366  | 0.779 | 0.310  | 0.824 |
| 24 | 15 | 0.437  | 0.788 | 0.406  | 0.812 | 0.347  | 0.854 |
| 24 | 16 | 0.479  | 0.822 | 0.447  | 0.844 | 0.386  | 0.881 |
| 24 | 17 | 0.521  | 0.854 | 0.489  | 0.874 | 0.427  | 0.907 |
| 24 | 18 | 0.565  | 0.885 | 0.533  | 0.902 | 0.470  | 0.931 |
| 24 | 19 | 0.611  | 0.914 | 0.578  | 0.929 | 0.515  | 0.952 |
| 24 | 20 | 0.658  | 0.941 | 0.626  | 0.953 | 0.562  | 0.971 |
| 24 | 21 | 0.708  | 0.965 | 0.676  | 0.973 | 0.613  | 0.985 |
| 24 | 22 | 0.760  | 0.985 | 0.730  | 0.990 | 0.668  | 0.996 |
| 24 | 23 | 0.817  | 0.998 | 0.789  | 0.999 | 0.729  | 1.000 |
| 24 | 24 | 0.883  | 1.000 | 0.858  | 1.000 | 0.802  | 1.000 |
| 25 | 0  | 0.000  | 0.113 | 0.000  | 0.137 | 0.000  | 0.191 |
| 25 | 1  | 0.002  | 0.176 | 0.001  | 0.204 | 0.000  | 0.262 |
| 25 | 2  | 0.014  | 0.231 | 0.010  | 0.260 | 0.004  | 0.321 |
| 25 | 3  | 0.034  | 0.282 | 0.025  | 0.312 | 0.014  | 0.374 |
| 25 | 4  | 0.057  | 0.330 | 0.045  | 0.361 | 0.028  | 0.424 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 25 | 5  | 0.082  | 0.375 | 0.068  | 0.407 | 0.046  | 0.470 |
| 25 | 6  | 0.110  | 0.420 | 0.094  | 0.451 | 0.066  | 0.514 |
| 25 | 7  | 0.139  | 0.462 | 0.121  | 0.494 | 0.089  | 0.555 |
| 25 | 8  | 0.170  | 0.504 | 0.149  | 0.535 | 0.114  | 0.595 |
| 25 | 9  | 0.202  | 0.544 | 0.180  | 0.575 | 0.140  | 0.633 |
| 25 | 10 | 0.236  | 0.583 | 0.211  | 0.613 | 0.168  | 0.670 |
| 25 | 11 | 0.270  | 0.621 | 0.244  | 0.651 | 0.197  | 0.705 |
| 25 | 12 | 0.305  | 0.659 | 0.278  | 0.687 | 0.228  | 0.739 |
| 25 | 13 | 0.341  | 0.695 | 0.313  | 0.722 | 0.261  | 0.772 |
| 25 | 14 | 0.379  | 0.730 | 0.349  | 0.756 | 0.295  | 0.803 |
| 25 | 15 | 0.417  | 0.764 | 0.387  | 0.789 | 0.330  | 0.832 |
| 25 | 16 | 0.456  | 0.798 | 0.425  | 0.820 | 0.367  | 0.860 |
| 25 | 17 | 0.496  | 0.830 | 0.465  | 0.851 | 0.405  | 0.886 |
| 25 | 18 | 0.538  | 0.861 | 0.506  | 0.879 | 0.445  | 0.911 |
| 25 | 19 | 0.580  | 0.890 | 0.549  | 0.906 | 0.486  | 0.934 |
| 25 | 20 | 0.625  | 0.918 | 0.593  | 0.932 | 0.530  | 0.954 |
| 25 | 21 | 0.670  | 0.943 | 0.639  | 0.955 | 0.576  | 0.972 |
| 25 | 22 | 0.718  | 0.966 | 0.688  | 0.975 | 0.626  | 0.986 |
| 25 | 23 | 0.769  | 0.986 | 0.740  | 0.990 | 0.679  | 0.996 |
| 25 | 24 | 0.824  | 0.998 | 0.796  | 0.999 | 0.738  | 1.000 |
| 25 | 25 | 0.887  | 1.000 | 0.863  | 1.000 | 0.809  | 1.000 |
| 26 | 0  | 0.000  | 0.109 | 0.000  | 0.132 | 0.000  | 0.184 |
| 26 | 1  | 0.002  | 0.170 | 0.001  | 0.196 | 0.000  | 0.253 |
| 26 | 2  | 0.014  | 0.223 | 0.009  | 0.251 | 0.004  | 0.310 |
| 26 | 3  | 0.032  | 0.272 | 0.024  | 0.302 | 0.013  | 0.362 |
| 26 | 4  | 0.054  | 0.318 | 0.044  | 0.349 | 0.027  | 0.410 |
| 26 | 5  | 0.079  | 0.363 | 0.066  | 0.394 | 0.044  | 0.455 |
| 26 | 6  | 0.106  | 0.405 | 0.090  | 0.436 | 0.063  | 0.498 |
| 26 | 7  | 0.134  | 0.447 | 0.116  | 0.478 | 0.085  | 0.538 |
| 26 | 8  | 0.163  | 0.487 | 0.143  | 0.518 | 0.109  | 0.578 |
| 26 | 9  | 0.194  | 0.526 | 0.172  | 0.557 | 0.134  | 0.615 |
| 26 | 10 | 0.226  | 0.564 | 0.202  | 0.594 | 0.161  | 0.651 |
| 26 | 11 | 0.258  | 0.602 | 0.234  | 0.631 | 0.189  | 0.686 |
| 26 | 12 | 0.292  | 0.638 | 0.266  | 0.666 | 0.218  | 0.719 |
| 26 | 13 | 0.327  | 0.673 | 0.299  | 0.701 | 0.249  | 0.751 |
| 26 | 14 | 0.362  | 0.708 | 0.334  | 0.734 | 0.281  | 0.782 |
| 26 | 15 | 0.398  | 0.742 | 0.369  | 0.766 | 0.314  | 0.811 |
| 26 | 16 | 0.436  | 0.774 | 0.406  | 0.798 | 0.349  | 0.839 |
| 26 | 17 | 0.474  | 0.806 | 0.443  | 0.828 | 0.385  | 0.866 |
| 26 | 18 | 0.513  | 0.837 | 0.482  | 0.857 | 0.422  | 0.891 |
| 26 | 19 | 0.553  | 0.866 | 0.522  | 0.884 | 0.462  | 0.915 |
| 26 | 20 | 0.595  | 0.894 | 0.564  | 0.910 | 0.502  | 0.937 |
| 26 | 21 | 0.637  | 0.921 | 0.606  | 0.934 | 0.545  | 0.956 |
| 26 | 22 | 0.682  | 0.946 | 0.651  | 0.956 | 0.590  | 0.973 |
| 26 | 23 | 0.728  | 0.968 | 0.698  | 0.976 | 0.638  | 0.987 |
| 26 | 24 | 0.777  | 0.986 | 0.749  | 0.991 | 0.690  | 0.996 |
| 26 | 25 | 0.830  | 0.998 | 0.804  | 0.999 | 0.747  | 1.000 |
| 26 | 26 | 0.891  | 1.000 | 0.868  | 1.000 | 0.816  | 1.000 |
| 27 | 0  | 0.000  | 0.105 | 0.000  | 0.128 | 0.000  | 0.178 |
| 27 | 1  | 0.002  | 0.164 | 0.001  | 0.190 | 0.000  | 0.245 |
| 27 | 2  | 0.013  | 0.215 | 0.009  | 0.243 | 0.004  | 0.300 |
| 27 | 3  | 0.031  | 0.263 | 0.024  | 0.292 | 0.013  | 0.351 |
| 27 | 4  | 0.052  | 0.308 | 0.042  | 0.337 | 0.026  | 0.397 |
| 27 | 5  | 0.076  | 0.351 | 0.063  | 0.381 | 0.042  | 0.441 |
| 27 | 6  | 0.101  | 0.392 | 0.086  | 0.423 | 0.061  | 0.483 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 27 | 7  | 0.129  | 0.432 | 0.111  | 0.463 | 0.082  | 0.523 |
| 27 | 8  | 0.157  | 0.471 | 0.138  | 0.502 | 0.104  | 0.561 |
| 27 | 9  | 0.186  | 0.509 | 0.165  | 0.540 | 0.128  | 0.597 |
| 27 | 10 | 0.217  | 0.547 | 0.194  | 0.576 | 0.154  | 0.633 |
| 27 | 11 | 0.248  | 0.583 | 0.224  | 0.612 | 0.181  | 0.667 |
| 27 | 12 | 0.280  | 0.618 | 0.255  | 0.647 | 0.209  | 0.700 |
| 27 | 13 | 0.313  | 0.653 | 0.287  | 0.681 | 0.238  | 0.731 |
| 27 | 14 | 0.347  | 0.687 | 0.319  | 0.713 | 0.269  | 0.762 |
| 27 | 15 | 0.382  | 0.720 | 0.353  | 0.745 | 0.300  | 0.791 |
| 27 | 16 | 0.417  | 0.752 | 0.388  | 0.776 | 0.333  | 0.819 |
| 27 | 17 | 0.453  | 0.783 | 0.424  | 0.806 | 0.367  | 0.846 |
| 27 | 18 | 0.491  | 0.814 | 0.460  | 0.835 | 0.403  | 0.872 |
| 27 | 19 | 0.529  | 0.843 | 0.498  | 0.862 | 0.439  | 0.896 |
| 27 | 20 | 0.568  | 0.871 | 0.537  | 0.889 | 0.477  | 0.918 |
| 27 | 21 | 0.608  | 0.899 | 0.577  | 0.914 | 0.517  | 0.939 |
| 27 | 22 | 0.649  | 0.924 | 0.619  | 0.937 | 0.559  | 0.958 |
| 27 | 23 | 0.692  | 0.948 | 0.663  | 0.956 | 0.603  | 0.974 |
| 27 | 24 | 0.737  | 0.969 | 0.708  | 0.976 | 0.649  | 0.987 |
| 27 | 25 | 0.785  | 0.987 | 0.757  | 0.991 | 0.700  | 0.996 |
| 27 | 26 | 0.836  | 0.998 | 0.810  | 0.999 | 0.755  | 1.000 |
| 27 | 27 | 0.895  | 1.000 | 0.872  | 1.000 | 0.822  | 1.000 |
| 28 | 0  | 0.000  | 0.101 | 0.000  | 0.123 | 0.000  | 0.172 |
| 28 | 1  | 0.002  | 0.159 | 0.001  | 0.183 | 0.000  | 0.237 |
| 28 | 2  | 0.013  | 0.208 | 0.009  | 0.235 | 0.004  | 0.291 |
| 28 | 3  | 0.030  | 0.254 | 0.023  | 0.282 | 0.012  | 0.340 |
| 28 | 4  | 0.050  | 0.298 | 0.040  | 0.327 | 0.025  | 0.385 |
| 28 | 5  | 0.073  | 0.339 | 0.061  | 0.369 | 0.041  | 0.428 |
| 28 | 6  | 0.098  | 0.380 | 0.083  | 0.410 | 0.059  | 0.469 |
| 28 | 7  | 0.124  | 0.419 | 0.107  | 0.449 | 0.079  | 0.508 |
| 28 | 8  | 0.151  | 0.457 | 0.132  | 0.487 | 0.100  | 0.545 |
| 28 | 9  | 0.179  | 0.494 | 0.159  | 0.524 | 0.123  | 0.581 |
| 28 | 10 | 0.208  | 0.530 | 0.186  | 0.559 | 0.148  | 0.616 |
| 28 | 11 | 0.238  | 0.565 | 0.215  | 0.594 | 0.173  | 0.649 |
| 28 | 12 | 0.269  | 0.600 | 0.245  | 0.628 | 0.200  | 0.681 |
| 28 | 13 | 0.301  | 0.634 | 0.275  | 0.661 | 0.228  | 0.713 |
| 28 | 14 | 0.333  | 0.667 | 0.306  | 0.694 | 0.257  | 0.743 |
| 28 | 15 | 0.366  | 0.699 | 0.339  | 0.725 | 0.287  | 0.772 |
| 28 | 16 | 0.400  | 0.731 | 0.372  | 0.755 | 0.319  | 0.800 |
| 28 | 17 | 0.435  | 0.762 | 0.406  | 0.785 | 0.351  | 0.827 |
| 28 | 18 | 0.470  | 0.792 | 0.441  | 0.814 | 0.384  | 0.852 |
| 28 | 19 | 0.506  | 0.821 | 0.476  | 0.841 | 0.419  | 0.877 |
| 28 | 20 | 0.543  | 0.849 | 0.513  | 0.868 | 0.455  | 0.900 |
| 28 | 21 | 0.581  | 0.876 | 0.551  | 0.893 | 0.492  | 0.921 |
| 28 | 22 | 0.620  | 0.902 | 0.590  | 0.917 | 0.531  | 0.941 |
| 28 | 23 | 0.661  | 0.927 | 0.631  | 0.939 | 0.572  | 0.959 |
| 28 | 24 | 0.702  | 0.950 | 0.673  | 0.960 | 0.615  | 0.975 |
| 28 | 25 | 0.746  | 0.970 | 0.718  | 0.977 | 0.660  | 0.988 |
| 28 | 26 | 0.792  | 0.987 | 0.765  | 0.991 | 0.709  | 0.996 |
| 28 | 27 | 0.841  | 0.998 | 0.817  | 0.999 | 0.763  | 1.000 |
| 28 | 28 | 0.899  | 1.000 | 0.877  | 1.000 | 0.828  | 1.000 |
| 29 | 0  | 0.000  | 0.098 | 0.000  | 0.119 | 0.000  | 0.167 |
| 29 | 1  | 0.002  | 0.153 | 0.001  | 0.178 | 0.000  | 0.230 |
| 29 | 2  | 0.012  | 0.202 | 0.008  | 0.228 | 0.004  | 0.282 |
| 29 | 3  | 0.029  | 0.246 | 0.022  | 0.274 | 0.012  | 0.330 |
| 29 | 4  | 0.049  | 0.288 | 0.039  | 0.317 | 0.024  | 0.374 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 29 | 5  | 0.070  | 0.329 | 0.058  | 0.358 | 0.039  | 0.416 |
| 29 | 6  | 0.094  | 0.368 | 0.080  | 0.397 | 0.056  | 0.455 |
| 29 | 7  | 0.119  | 0.406 | 0.103  | 0.435 | 0.076  | 0.493 |
| 29 | 8  | 0.145  | 0.443 | 0.127  | 0.472 | 0.096  | 0.530 |
| 29 | 9  | 0.172  | 0.479 | 0.153  | 0.508 | 0.119  | 0.565 |
| 29 | 10 | 0.200  | 0.514 | 0.179  | 0.543 | 0.142  | 0.599 |
| 29 | 11 | 0.229  | 0.549 | 0.207  | 0.577 | 0.167  | 0.632 |
| 29 | 12 | 0.259  | 0.583 | 0.235  | 0.611 | 0.192  | 0.664 |
| 29 | 13 | 0.289  | 0.616 | 0.264  | 0.643 | 0.219  | 0.695 |
| 29 | 14 | 0.320  | 0.648 | 0.294  | 0.675 | 0.247  | 0.724 |
| 29 | 15 | 0.352  | 0.680 | 0.325  | 0.706 | 0.276  | 0.753 |
| 29 | 16 | 0.384  | 0.711 | 0.357  | 0.736 | 0.305  | 0.781 |
| 29 | 17 | 0.417  | 0.741 | 0.389  | 0.765 | 0.336  | 0.808 |
| 29 | 18 | 0.451  | 0.771 | 0.423  | 0.793 | 0.368  | 0.833 |
| 29 | 19 | 0.486  | 0.800 | 0.457  | 0.821 | 0.401  | 0.858 |
| 29 | 20 | 0.521  | 0.828 | 0.492  | 0.847 | 0.435  | 0.881 |
| 29 | 21 | 0.557  | 0.855 | 0.528  | 0.873 | 0.470  | 0.904 |
| 29 | 22 | 0.594  | 0.881 | 0.565  | 0.897 | 0.507  | 0.924 |
| 29 | 23 | 0.632  | 0.906 | 0.603  | 0.920 | 0.545  | 0.944 |
| 29 | 24 | 0.671  | 0.930 | 0.642  | 0.942 | 0.584  | 0.961 |
| 29 | 25 | 0.712  | 0.951 | 0.683  | 0.961 | 0.626  | 0.976 |
| 29 | 26 | 0.754  | 0.971 | 0.726  | 0.978 | 0.670  | 0.988 |
| 29 | 27 | 0.798  | 0.988 | 0.772  | 0.992 | 0.718  | 0.996 |
| 29 | 28 | 0.847  | 0.998 | 0.822  | 0.999 | 0.770  | 1.000 |
| 29 | 29 | 0.902  | 1.000 | 0.881  | 1.000 | 0.833  | 1.000 |
| 30 | 0  | 0.000  | 0.095 | 0.000  | 0.116 | 0.000  | 0.162 |
| 30 | 1  | 0.002  | 0.140 | 0.001  | 0.172 | 0.000  | 0.223 |
| 30 | 2  | 0.012  | 0.195 | 0.008  | 0.221 | 0.004  | 0.274 |
| 30 | 3  | 0.028  | 0.239 | 0.021  | 0.265 | 0.012  | 0.320 |
| 30 | 4  | 0.047  | 0.280 | 0.038  | 0.307 | 0.023  | 0.363 |
| 30 | 5  | 0.068  | 0.319 | 0.056  | 0.347 | 0.038  | 0.404 |
| 30 | 6  | 0.091  | 0.357 | 0.077  | 0.386 | 0.054  | 0.443 |
| 30 | 7  | 0.115  | 0.394 | 0.099  | 0.423 | 0.073  | 0.480 |
| 30 | 8  | 0.140  | 0.430 | 0.123  | 0.459 | 0.093  | 0.516 |
| 30 | 9  | 0.166  | 0.465 | 0.147  | 0.494 | 0.114  | 0.550 |
| 30 | 10 | 0.193  | 0.499 | 0.173  | 0.528 | 0.137  | 0.583 |
| 30 | 11 | 0.221  | 0.533 | 0.199  | 0.561 | 0.160  | 0.616 |
| 30 | 12 | 0.250  | 0.566 | 0.227  | 0.594 | 0.185  | 0.647 |
| 30 | 13 | 0.279  | 0.598 | 0.255  | 0.626 | 0.211  | 0.677 |
| 30 | 14 | 0.308  | 0.630 | 0.283  | 0.657 | 0.237  | 0.707 |
| 30 | 15 | 0.339  | 0.661 | 0.313  | 0.687 | 0.265  | 0.735 |
| 30 | 16 | 0.370  | 0.692 | 0.343  | 0.717 | 0.293  | 0.763 |
| 30 | 17 | 0.402  | 0.721 | 0.374  | 0.745 | 0.323  | 0.789 |
| 30 | 18 | 0.434  | 0.750 | 0.406  | 0.773 | 0.353  | 0.815 |
| 30 | 19 | 0.467  | 0.779 | 0.439  | 0.801 | 0.384  | 0.840 |
| 30 | 20 | 0.501  | 0.807 | 0.472  | 0.827 | 0.417  | 0.863 |
| 30 | 21 | 0.535  | 0.834 | 0.506  | 0.853 | 0.450  | 0.886 |
| 30 | 22 | 0.570  | 0.860 | 0.541  | 0.877 | 0.484  | 0.907 |
| 30 | 23 | 0.606  | 0.885 | 0.577  | 0.901 | 0.520  | 0.927 |
| 30 | 24 | 0.643  | 0.909 | 0.614  | 0.923 | 0.557  | 0.946 |
| 30 | 25 | 0.681  | 0.932 | 0.653  | 0.944 | 0.596  | 0.962 |
| 30 | 26 | 0.720  | 0.953 | 0.693  | 0.962 | 0.637  | 0.977 |
| 30 | 27 | 0.761  | 0.972 | 0.735  | 0.979 | 0.680  | 0.988 |
| 30 | 28 | 0.805  | 0.988 | 0.779  | 0.992 | 0.726  | 0.996 |
| 30 | 29 | 0.851  | 0.998 | 0.828  | 0.999 | 0.777  | 1.000 |
| 30 | 30 | 0.905  | 1.000 | 0.884  | 1.000 | 0.838  | 1.000 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 31 | 0  | 0.000  | 0.092 | 0.000  | 0.112 | 0.000  | 0.157 |
| 31 | 1  | 0.002  | 0.144 | 0.001  | 0.167 | 0.000  | 0.216 |
| 31 | 2  | 0.012  | 0.189 | 0.008  | 0.214 | 0.003  | 0.266 |
| 31 | 3  | 0.027  | 0.231 | 0.020  | 0.258 | 0.011  | 0.311 |
| 31 | 4  | 0.045  | 0.271 | 0.036  | 0.298 | 0.023  | 0.353 |
| 31 | 5  | 0.066  | 0.310 | 0.055  | 0.337 | 0.037  | 0.393 |
| 31 | 6  | 0.088  | 0.347 | 0.075  | 0.375 | 0.053  | 0.431 |
| 31 | 7  | 0.111  | 0.383 | 0.096  | 0.411 | 0.070  | 0.467 |
| 31 | 8  | 0.135  | 0.418 | 0.119  | 0.446 | 0.090  | 0.502 |
| 31 | 9  | 0.161  | 0.452 | 0.142  | 0.480 | 0.110  | 0.536 |
| 31 | 10 | 0.187  | 0.485 | 0.167  | 0.514 | 0.132  | 0.569 |
| 31 | 11 | 0.213  | 0.518 | 0.192  | 0.546 | 0.155  | 0.600 |
| 31 | 12 | 0.241  | 0.550 | 0.218  | 0.578 | 0.178  | 0.631 |
| 31 | 13 | 0.269  | 0.582 | 0.245  | 0.609 | 0.203  | 0.661 |
| 31 | 14 | 0.297  | 0.613 | 0.273  | 0.640 | 0.228  | 0.690 |
| 31 | 15 | 0.327  | 0.643 | 0.302  | 0.669 | 0.255  | 0.718 |
| 31 | 16 | 0.357  | 0.673 | 0.331  | 0.698 | 0.282  | 0.745 |
| 31 | 17 | 0.387  | 0.703 | 0.360  | 0.727 | 0.310  | 0.772 |
| 31 | 18 | 0.418  | 0.731 | 0.391  | 0.755 | 0.339  | 0.797 |
| 31 | 19 | 0.450  | 0.759 | 0.422  | 0.782 | 0.369  | 0.822 |
| 31 | 20 | 0.482  | 0.787 | 0.454  | 0.808 | 0.400  | 0.845 |
| 31 | 21 | 0.515  | 0.813 | 0.486  | 0.833 | 0.431  | 0.868 |
| 31 | 22 | 0.548  | 0.839 | 0.520  | 0.858 | 0.464  | 0.890 |
| 31 | 23 | 0.582  | 0.865 | 0.554  | 0.881 | 0.498  | 0.910 |
| 31 | 24 | 0.617  | 0.889 | 0.589  | 0.904 | 0.533  | 0.930 |
| 31 | 25 | 0.653  | 0.912 | 0.625  | 0.925 | 0.569  | 0.947 |
| 31 | 26 | 0.690  | 0.934 | 0.663  | 0.945 | 0.607  | 0.963 |
| 31 | 27 | 0.729  | 0.955 | 0.702  | 0.964 | 0.647  | 0.977 |
| 31 | 28 | 0.769  | 0.973 | 0.742  | 0.980 | 0.689  | 0.989 |
| 31 | 29 | 0.811  | 0.988 | 0.786  | 0.992 | 0.734  | 0.997 |
| 31 | 30 | 0.856  | 0.998 | 0.833  | 0.999 | 0.784  | 1.000 |
| 31 | 31 | 0.908  | 1.000 | 0.888  | 1.000 | 0.843  | 1.000 |
| 32 | 0  | 0.000  | 0.089 | 0.000  | 0.109 | 0.000  | 0.153 |
| 32 | 1  | 0.002  | 0.140 | 0.001  | 0.162 | 0.000  | 0.210 |
| 32 | 2  | 0.011  | 0.184 | 0.008  | 0.208 | 0.003  | 0.259 |
| 32 | 3  | 0.026  | 0.225 | 0.020  | 0.250 | 0.011  | 0.303 |
| 32 | 4  | 0.044  | 0.264 | 0.035  | 0.290 | 0.022  | 0.344 |
| 32 | 5  | 0.064  | 0.301 | 0.053  | 0.328 | 0.035  | 0.383 |
| 32 | 6  | 0.085  | 0.337 | 0.072  | 0.364 | 0.051  | 0.419 |
| 32 | 7  | 0.107  | 0.372 | 0.093  | 0.400 | 0.068  | 0.455 |
| 32 | 8  | 0.131  | 0.406 | 0.115  | 0.434 | 0.087  | 0.489 |
| 32 | 9  | 0.155  | 0.439 | 0.137  | 0.467 | 0.106  | 0.522 |
| 32 | 10 | 0.180  | 0.472 | 0.161  | 0.500 | 0.127  | 0.554 |
| 32 | 11 | 0.206  | 0.504 | 0.186  | 0.532 | 0.149  | 0.585 |
| 32 | 12 | 0.233  | 0.536 | 0.211  | 0.563 | 0.172  | 0.616 |
| 32 | 13 | 0.260  | 0.567 | 0.237  | 0.594 | 0.196  | 0.645 |
| 32 | 14 | 0.287  | 0.597 | 0.264  | 0.623 | 0.220  | 0.674 |
| 32 | 15 | 0.315  | 0.627 | 0.291  | 0.653 | 0.246  | 0.701 |
| 32 | 16 | 0.344  | 0.656 | 0.319  | 0.681 | 0.272  | 0.728 |
| 32 | 17 | 0.373  | 0.685 | 0.347  | 0.709 | 0.299  | 0.754 |
| 32 | 18 | 0.403  | 0.713 | 0.377  | 0.736 | 0.326  | 0.780 |
| 32 | 19 | 0.433  | 0.740 | 0.406  | 0.763 | 0.355  | 0.804 |
| 32 | 20 | 0.464  | 0.767 | 0.437  | 0.789 | 0.384  | 0.828 |
| 32 | 21 | 0.496  | 0.794 | 0.468  | 0.814 | 0.415  | 0.851 |
| 32 | 22 | 0.528  | 0.820 | 0.500  | 0.839 | 0.446  | 0.873 |
| 32 | 23 | 0.561  | 0.845 | 0.533  | 0.863 | 0.478  | 0.894 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 32 | 24 | 0.594  | 0.869 | 0.566  | 0.885 | 0.511  | 0.913 |
| 32 | 25 | 0.628  | 0.893 | 0.600  | 0.907 | 0.545  | 0.932 |
| 32 | 26 | 0.663  | 0.915 | 0.636  | 0.928 | 0.581  | 0.949 |
| 32 | 27 | 0.699  | 0.936 | 0.672  | 0.947 | 0.617  | 0.965 |
| 32 | 28 | 0.736  | 0.956 | 0.710  | 0.965 | 0.656  | 0.978 |
| 32 | 29 | 0.775  | 0.974 | 0.750  | 0.980 | 0.697  | 0.989 |
| 32 | 30 | 0.816  | 0.989 | 0.792  | 0.992 | 0.741  | 0.997 |
| 32 | 31 | 0.860  | 0.998 | 0.838  | 0.999 | 0.790  | 1.000 |
| 32 | 32 | 0.911  | 1.000 | 0.891  | 1.000 | 0.847  | 1.000 |
| 33 | 0  | 0.000  | 0.087 | 0.000  | 0.106 | 0.000  | 0.148 |
| 33 | 1  | 0.002  | 0.136 | 0.001  | 0.158 | 0.000  | 0.204 |
| 33 | 2  | 0.011  | 0.179 | 0.007  | 0.202 | 0.003  | 0.252 |
| 33 | 3  | 0.025  | 0.218 | 0.019  | 0.243 | 0.011  | 0.295 |
| 33 | 4  | 0.042  | 0.256 | 0.034  | 0.282 | 0.021  | 0.335 |
| 33 | 5  | 0.062  | 0.293 | 0.051  | 0.319 | 0.034  | 0.373 |
| 33 | 6  | 0.082  | 0.328 | 0.070  | 0.355 | 0.049  | 0.409 |
| 33 | 7  | 0.104  | 0.362 | 0.090  | 0.389 | 0.066  | 0.443 |
| 33 | 8  | 0.127  | 0.395 | 0.111  | 0.423 | 0.084  | 0.477 |
| 33 | 9  | 0.150  | 0.428 | 0.133  | 0.455 | 0.103  | 0.509 |
| 33 | 10 | 0.175  | 0.460 | 0.156  | 0.487 | 0.123  | 0.541 |
| 33 | 11 | 0.199  | 0.491 | 0.180  | 0.518 | 0.144  | 0.571 |
| 33 | 12 | 0.225  | 0.522 | 0.204  | 0.549 | 0.166  | 0.601 |
| 33 | 13 | 0.251  | 0.552 | 0.229  | 0.579 | 0.189  | 0.630 |
| 33 | 14 | 0.278  | 0.581 | 0.255  | 0.608 | 0.213  | 0.658 |
| 33 | 15 | 0.305  | 0.611 | 0.281  | 0.636 | 0.237  | 0.685 |
| 33 | 16 | 0.333  | 0.639 | 0.308  | 0.665 | 0.262  | 0.712 |
| 33 | 17 | 0.361  | 0.667 | 0.335  | 0.692 | 0.288  | 0.738 |
| 33 | 18 | 0.389  | 0.695 | 0.364  | 0.719 | 0.315  | 0.763 |
| 33 | 19 | 0.419  | 0.722 | 0.392  | 0.745 | 0.342  | 0.787 |
| 33 | 20 | 0.448  | 0.749 | 0.421  | 0.771 | 0.370  | 0.811 |
| 33 | 21 | 0.478  | 0.775 | 0.451  | 0.796 | 0.399  | 0.834 |
| 33 | 22 | 0.509  | 0.801 | 0.482  | 0.820 | 0.429  | 0.856 |
| 33 | 23 | 0.540  | 0.825 | 0.513  | 0.844 | 0.459  | 0.877 |
| 33 | 24 | 0.572  | 0.850 | 0.545  | 0.867 | 0.491  | 0.897 |
| 33 | 25 | 0.605  | 0.873 | 0.577  | 0.889 | 0.523  | 0.916 |
| 33 | 26 | 0.638  | 0.896 | 0.611  | 0.910 | 0.557  | 0.934 |
| 33 | 27 | 0.672  | 0.918 | 0.645  | 0.930 | 0.591  | 0.951 |
| 33 | 28 | 0.707  | 0.938 | 0.681  | 0.949 | 0.627  | 0.966 |
| 33 | 29 | 0.744  | 0.958 | 0.718  | 0.966 | 0.665  | 0.979 |
| 33 | 30 | 0.782  | 0.975 | 0.757  | 0.981 | 0.705  | 0.989 |
| 33 | 31 | 0.821  | 0.989 | 0.798  | 0.993 | 0.748  | 0.997 |
| 33 | 32 | 0.864  | 0.998 | 0.842  | 0.999 | 0.796  | 1.000 |
| 33 | 33 | 0.913  | 1.000 | 0.894  | 1.000 | 0.852  | 1.000 |
| 34 | 0  | 0.000  | 0.084 | 0.000  | 0.103 | 0.000  | 0.144 |
| 34 | 1  | 0.002  | 0.132 | 0.001  | 0.153 | 0.000  | 0.199 |
| 34 | 2  | 0.011  | 0.174 | 0.007  | 0.197 | 0.003  | 0.245 |
| 34 | 3  | 0.024  | 0.213 | 0.019  | 0.237 | 0.010  | 0.287 |
| 34 | 4  | 0.041  | 0.249 | 0.033  | 0.274 | 0.020  | 0.326 |
| 34 | 5  | 0.060  | 0.285 | 0.050  | 0.311 | 0.033  | 0.363 |
| 34 | 6  | 0.080  | 0.319 | 0.068  | 0.345 | 0.048  | 0.398 |
| 34 | 7  | 0.101  | 0.352 | 0.087  | 0.379 | 0.064  | 0.432 |
| 34 | 8  | 0.123  | 0.385 | 0.107  | 0.412 | 0.081  | 0.465 |
| 34 | 9  | 0.146  | 0.416 | 0.129  | 0.444 | 0.100  | 0.497 |
| 34 | 10 | 0.169  | 0.448 | 0.151  | 0.475 | 0.119  | 0.528 |
| 34 | 11 | 0.193  | 0.478 | 0.174  | 0.505 | 0.140  | 0.558 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 34 | 12 | 0.218  | 0.508 | 0.197  | 0.535 | 0.161  | 0.587 |
| 34 | 13 | 0.243  | 0.538 | 0.222  | 0.564 | 0.183  | 0.615 |
| 34 | 14 | 0.269  | 0.567 | 0.246  | 0.593 | 0.206  | 0.643 |
| 34 | 15 | 0.295  | 0.595 | 0.272  | 0.621 | 0.229  | 0.670 |
| 34 | 16 | 0.322  | 0.623 | 0.298  | 0.649 | 0.253  | 0.696 |
| 34 | 17 | 0.349  | 0.651 | 0.324  | 0.676 | 0.278  | 0.722 |
| 34 | 18 | 0.377  | 0.678 | 0.351  | 0.702 | 0.304  | 0.747 |
| 34 | 19 | 0.405  | 0.705 | 0.379  | 0.728 | 0.330  | 0.771 |
| 34 | 20 | 0.433  | 0.731 | 0.407  | 0.754 | 0.357  | 0.794 |
| 34 | 21 | 0.462  | 0.757 | 0.436  | 0.778 | 0.385  | 0.817 |
| 34 | 22 | 0.492  | 0.782 | 0.465  | 0.803 | 0.413  | 0.839 |
| 34 | 23 | 0.522  | 0.807 | 0.495  | 0.826 | 0.442  | 0.860 |
| 34 | 24 | 0.552  | 0.831 | 0.525  | 0.849 | 0.472  | 0.881 |
| 34 | 25 | 0.584  | 0.854 | 0.556  | 0.871 | 0.503  | 0.900 |
| 34 | 26 | 0.615  | 0.877 | 0.588  | 0.893 | 0.535  | 0.919 |
| 34 | 27 | 0.648  | 0.899 | 0.621  | 0.913 | 0.568  | 0.936 |
| 34 | 28 | 0.681  | 0.920 | 0.655  | 0.932 | 0.602  | 0.952 |
| 34 | 29 | 0.715  | 0.940 | 0.689  | 0.950 | 0.637  | 0.967 |
| 34 | 30 | 0.751  | 0.959 | 0.726  | 0.967 | 0.674  | 0.980 |
| 34 | 31 | 0.787  | 0.976 | 0.763  | 0.981 | 0.713  | 0.990 |
| 34 | 32 | 0.826  | 0.989 | 0.803  | 0.993 | 0.755  | 0.997 |
| 34 | 33 | 0.868  | 0.998 | 0.847  | 0.999 | 0.801  | 1.000 |
| 34 | 34 | 0.916  | 1.000 | 0.897  | 1.000 | 0.856  | 1.000 |
| 35 | 0  | 0.000  | 0.082 | 0.000  | 0.100 | 0.000  | 0.140 |
| 35 | 1  | 0.001  | 0.129 | 0.001  | 0.149 | 0.000  | 0.194 |
| 35 | 2  | 0.010  | 0.169 | 0.007  | 0.192 | 0.003  | 0.239 |
| 35 | 3  | 0.024  | 0.207 | 0.018  | 0.231 | 0.010  | 0.280 |
| 35 | 4  | 0.040  | 0.243 | 0.032  | 0.267 | 0.020  | 0.318 |
| 35 | 5  | 0.058  | 0.277 | 0.048  | 0.303 | 0.032  | 0.354 |
| 35 | 6  | 0.077  | 0.311 | 0.066  | 0.336 | 0.046  | 0.389 |
| 35 | 7  | 0.098  | 0.343 | 0.084  | 0.369 | 0.062  | 0.422 |
| 35 | 8  | 0.119  | 0.375 | 0.104  | 0.401 | 0.079  | 0.454 |
| 35 | 9  | 0.141  | 0.406 | 0.125  | 0.433 | 0.097  | 0.485 |
| 35 | 10 | 0.164  | 0.436 | 0.146  | 0.463 | 0.115  | 0.515 |
| 35 | 11 | 0.187  | 0.466 | 0.169  | 0.493 | 0.135  | 0.545 |
| 35 | 12 | 0.211  | 0.496 | 0.191  | 0.522 | 0.156  | 0.574 |
| 35 | 13 | 0.236  | 0.524 | 0.215  | 0.551 | 0.177  | 0.601 |
| 35 | 14 | 0.260  | 0.553 | 0.239  | 0.579 | 0.199  | 0.629 |
| 35 | 15 | 0.286  | 0.581 | 0.263  | 0.606 | 0.222  | 0.655 |
| 35 | 16 | 0.312  | 0.608 | 0.288  | 0.634 | 0.245  | 0.681 |
| 35 | 17 | 0.338  | 0.635 | 0.314  | 0.660 | 0.269  | 0.706 |
| 35 | 18 | 0.365  | 0.662 | 0.340  | 0.686 | 0.294  | 0.731 |
| 35 | 19 | 0.392  | 0.688 | 0.366  | 0.712 | 0.319  | 0.755 |
| 35 | 20 | 0.419  | 0.714 | 0.394  | 0.737 | 0.345  | 0.778 |
| 35 | 21 | 0.447  | 0.740 | 0.421  | 0.761 | 0.371  | 0.801 |
| 35 | 22 | 0.476  | 0.764 | 0.449  | 0.785 | 0.399  | 0.823 |
| 35 | 23 | 0.504  | 0.789 | 0.478  | 0.809 | 0.426  | 0.844 |
| 35 | 24 | 0.534  | 0.813 | 0.507  | 0.831 | 0.455  | 0.865 |
| 35 | 25 | 0.564  | 0.836 | 0.537  | 0.854 | 0.485  | 0.885 |
| 35 | 26 | 0.594  | 0.859 | 0.567  | 0.875 | 0.515  | 0.903 |
| 35 | 27 | 0.625  | 0.881 | 0.599  | 0.896 | 0.546  | 0.921 |
| 35 | 28 | 0.657  | 0.902 | 0.631  | 0.916 | 0.578  | 0.938 |
| 35 | 29 | 0.689  | 0.923 | 0.664  | 0.934 | 0.611  | 0.954 |
| 35 | 30 | 0.723  | 0.942 | 0.697  | 0.952 | 0.646  | 0.968 |
| 35 | 31 | 0.757  | 0.960 | 0.733  | 0.968 | 0.682  | 0.980 |
| 35 | 32 | 0.793  | 0.976 | 0.769  | 0.982 | 0.720  | 0.990 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 35 | 33 | 0.831  | 0.990 | 0.808  | 0.993 | 0.761  | 0.997 |
| 35 | 34 | 0.871  | 0.999 | 0.851  | 0.999 | 0.806  | 1.000 |
| 35 | 35 | 0.918  | 1.000 | 0.900  | 1.000 | 0.860  | 1.000 |
| 36 | 0  | 0.000  | 0.080 | 0.000  | 0.097 | 0.000  | 0.137 |
| 36 | 1  | 0.001  | 0.125 | 0.001  | 0.145 | 0.000  | 0.189 |
| 36 | 2  | 0.010  | 0.165 | 0.007  | 0.187 | 0.003  | 0.233 |
| 36 | 3  | 0.023  | 0.202 | 0.018  | 0.225 | 0.010  | 0.273 |
| 36 | 4  | 0.039  | 0.236 | 0.031  | 0.261 | 0.019  | 0.310 |
| 36 | 5  | 0.056  | 0.270 | 0.047  | 0.295 | 0.031  | 0.346 |
| 36 | 6  | 0.075  | 0.303 | 0.064  | 0.328 | 0.045  | 0.379 |
| 36 | 7  | 0.095  | 0.334 | 0.082  | 0.360 | 0.060  | 0.412 |
| 36 | 8  | 0.116  | 0.365 | 0.101  | 0.392 | 0.076  | 0.443 |
| 36 | 9  | 0.137  | 0.396 | 0.121  | 0.422 | 0.094  | 0.474 |
| 36 | 10 | 0.159  | 0.425 | 0.142  | 0.452 | 0.112  | 0.504 |
| 36 | 11 | 0.182  | 0.455 | 0.163  | 0.481 | 0.131  | 0.533 |
| 36 | 12 | 0.205  | 0.483 | 0.186  | 0.510 | 0.151  | 0.561 |
| 36 | 13 | 0.229  | 0.512 | 0.208  | 0.538 | 0.171  | 0.588 |
| 36 | 14 | 0.253  | 0.540 | 0.231  | 0.565 | 0.193  | 0.615 |
| 36 | 15 | 0.277  | 0.567 | 0.255  | 0.592 | 0.215  | 0.641 |
| 36 | 16 | 0.302  | 0.594 | 0.279  | 0.619 | 0.237  | 0.667 |
| 36 | 17 | 0.328  | 0.620 | 0.304  | 0.645 | 0.260  | 0.692 |
| 36 | 18 | 0.353  | 0.647 | 0.329  | 0.671 | 0.284  | 0.716 |
| 36 | 19 | 0.380  | 0.672 | 0.355  | 0.696 | 0.308  | 0.740 |
| 36 | 20 | 0.406  | 0.698 | 0.381  | 0.721 | 0.333  | 0.763 |
| 36 | 21 | 0.433  | 0.723 | 0.408  | 0.745 | 0.359  | 0.785 |
| 36 | 22 | 0.460  | 0.747 | 0.435  | 0.769 | 0.385  | 0.807 |
| 36 | 23 | 0.488  | 0.771 | 0.462  | 0.792 | 0.412  | 0.829 |
| 36 | 24 | 0.517  | 0.795 | 0.490  | 0.814 | 0.439  | 0.849 |
| 36 | 25 | 0.545  | 0.818 | 0.519  | 0.837 | 0.467  | 0.869 |
| 36 | 26 | 0.575  | 0.841 | 0.548  | 0.858 | 0.496  | 0.888 |
| 36 | 27 | 0.604  | 0.863 | 0.578  | 0.879 | 0.526  | 0.906 |
| 36 | 28 | 0.635  | 0.884 | 0.608  | 0.899 | 0.557  | 0.924 |
| 36 | 29 | 0.666  | 0.905 | 0.640  | 0.918 | 0.588  | 0.940 |
| 36 | 30 | 0.697  | 0.925 | 0.672  | 0.936 | 0.621  | 0.955 |
| 36 | 31 | 0.730  | 0.944 | 0.705  | 0.953 | 0.654  | 0.969 |
| 36 | 32 | 0.764  | 0.961 | 0.739  | 0.969 | 0.690  | 0.981 |
| 36 | 33 | 0.798  | 0.977 | 0.775  | 0.982 | 0.727  | 0.990 |
| 36 | 34 | 0.835  | 0.990 | 0.813  | 0.993 | 0.767  | 0.997 |
| 36 | 35 | 0.875  | 0.999 | 0.855  | 0.999 | 0.811  | 1.000 |
| 36 | 36 | 0.920  | 1.000 | 0.903  | 1.000 | 0.863  | 1.000 |
| 37 | 0  | 0.000  | 0.078 | 0.000  | 0.095 | 0.000  | 0.133 |
| 37 | 1  | 0.001  | 0.122 | 0.001  | 0.142 | 0.000  | 0.184 |
| 37 | 2  | 0.010  | 0.161 | 0.007  | 0.182 | 0.003  | 0.227 |
| 37 | 3  | 0.022  | 0.196 | 0.017  | 0.219 | 0.009  | 0.266 |
| 37 | 4  | 0.038  | 0.231 | 0.030  | 0.254 | 0.019  | 0.303 |
| 37 | 5  | 0.055  | 0.263 | 0.045  | 0.288 | 0.030  | 0.337 |
| 37 | 6  | 0.073  | 0.295 | 0.062  | 0.320 | 0.044  | 0.371 |
| 37 | 7  | 0.092  | 0.326 | 0.080  | 0.352 | 0.058  | 0.402 |
| 37 | 8  | 0.112  | 0.356 | 0.098  | 0.382 | 0.074  | 0.433 |
| 37 | 9  | 0.133  | 0.386 | 0.118  | 0.412 | 0.091  | 0.463 |
| 37 | 10 | 0.155  | 0.415 | 0.138  | 0.441 | 0.109  | 0.492 |
| 37 | 11 | 0.177  | 0.444 | 0.159  | 0.470 | 0.127  | 0.521 |
| 37 | 12 | 0.199  | 0.472 | 0.180  | 0.498 | 0.146  | 0.548 |
| 37 | 13 | 0.222  | 0.500 | 0.202  | 0.525 | 0.166  | 0.575 |
| 37 | 14 | 0.245  | 0.527 | 0.225  | 0.552 | 0.187  | 0.602 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 37 | 15 | 0.269  | 0.554 | 0.248  | 0.579 | 0.208  | 0.627 |
| 37 | 16 | 0.293  | 0.580 | 0.271  | 0.605 | 0.230  | 0.653 |
| 37 | 17 | 0.318  | 0.606 | 0.295  | 0.631 | 0.252  | 0.677 |
| 37 | 18 | 0.343  | 0.632 | 0.319  | 0.656 | 0.275  | 0.701 |
| 37 | 19 | 0.368  | 0.657 | 0.344  | 0.681 | 0.299  | 0.725 |
| 37 | 20 | 0.394  | 0.682 | 0.369  | 0.705 | 0.323  | 0.748 |
| 37 | 21 | 0.420  | 0.707 | 0.395  | 0.729 | 0.347  | 0.770 |
| 37 | 22 | 0.446  | 0.731 | 0.421  | 0.752 | 0.373  | 0.792 |
| 37 | 23 | 0.473  | 0.755 | 0.448  | 0.775 | 0.398  | 0.813 |
| 37 | 24 | 0.500  | 0.778 | 0.475  | 0.798 | 0.425  | 0.834 |
| 37 | 25 | 0.528  | 0.801 | 0.502  | 0.820 | 0.452  | 0.854 |
| 37 | 26 | 0.556  | 0.823 | 0.530  | 0.841 | 0.479  | 0.873 |
| 37 | 27 | 0.585  | 0.845 | 0.559  | 0.862 | 0.508  | 0.891 |
| 37 | 28 | 0.614  | 0.867 | 0.588  | 0.882 | 0.537  | 0.909 |
| 37 | 29 | 0.644  | 0.888 | 0.618  | 0.902 | 0.567  | 0.926 |
| 37 | 30 | 0.674  | 0.908 | 0.648  | 0.920 | 0.598  | 0.942 |
| 37 | 31 | 0.705  | 0.927 | 0.680  | 0.938 | 0.629  | 0.956 |
| 37 | 32 | 0.737  | 0.945 | 0.712  | 0.955 | 0.663  | 0.970 |
| 37 | 33 | 0.769  | 0.962 | 0.746  | 0.970 | 0.697  | 0.981 |
| 37 | 34 | 0.804  | 0.978 | 0.781  | 0.983 | 0.734  | 0.991 |
| 37 | 35 | 0.839  | 0.990 | 0.818  | 0.993 | 0.773  | 0.997 |
| 37 | 36 | 0.878  | 0.999 | 0.858  | 0.999 | 0.816  | 1.000 |
| 37 | 37 | 0.922  | 1.000 | 0.905  | 1.000 | 0.867  | 1.000 |
| 38 | 0  | 0.000  | 0.076 | 0.000  | 0.093 | 0.000  | 0.130 |
| 38 | 1  | 0.001  | 0.119 | 0.001  | 0.138 | 0.000  | 0.180 |
| 38 | 2  | 0.009  | 0.157 | 0.006  | 0.177 | 0.003  | 0.222 |
| 38 | 3  | 0.022  | 0.192 | 0.017  | 0.214 | 0.009  | 0.260 |
| 38 | 4  | 0.037  | 0.225 | 0.029  | 0.248 | 0.018  | 0.296 |
| 38 | 5  | 0.053  | 0.257 | 0.044  | 0.281 | 0.030  | 0.330 |
| 38 | 6  | 0.071  | 0.288 | 0.060  | 0.313 | 0.042  | 0.362 |
| 38 | 7  | 0.090  | 0.318 | 0.077  | 0.343 | 0.057  | 0.393 |
| 38 | 8  | 0.109  | 0.348 | 0.096  | 0.373 | 0.072  | 0.424 |
| 38 | 9  | 0.129  | 0.377 | 0.114  | 0.402 | 0.088  | 0.453 |
| 38 | 10 | 0.150  | 0.405 | 0.134  | 0.431 | 0.106  | 0.482 |
| 38 | 11 | 0.172  | 0.433 | 0.154  | 0.459 | 0.123  | 0.509 |
| 38 | 12 | 0.193  | 0.461 | 0.175  | 0.487 | 0.142  | 0.537 |
| 38 | 13 | 0.216  | 0.488 | 0.196  | 0.514 | 0.161  | 0.563 |
| 38 | 14 | 0.238  | 0.515 | 0.218  | 0.540 | 0.181  | 0.589 |
| 38 | 15 | 0.261  | 0.541 | 0.240  | 0.566 | 0.202  | 0.614 |
| 38 | 16 | 0.285  | 0.567 | 0.263  | 0.592 | 0.223  | 0.639 |
| 38 | 17 | 0.309  | 0.593 | 0.286  | 0.617 | 0.245  | 0.663 |
| 38 | 18 | 0.333  | 0.618 | 0.310  | 0.642 | 0.267  | 0.687 |
| 38 | 19 | 0.357  | 0.643 | 0.334  | 0.666 | 0.290  | 0.710 |
| 38 | 20 | 0.382  | 0.667 | 0.358  | 0.690 | 0.313  | 0.733 |
| 38 | 21 | 0.407  | 0.691 | 0.383  | 0.714 | 0.337  | 0.755 |
| 38 | 22 | 0.433  | 0.715 | 0.408  | 0.737 | 0.361  | 0.777 |
| 38 | 23 | 0.459  | 0.739 | 0.434  | 0.760 | 0.386  | 0.798 |
| 38 | 24 | 0.485  | 0.762 | 0.460  | 0.782 | 0.411  | 0.819 |
| 38 | 25 | 0.512  | 0.784 | 0.486  | 0.804 | 0.437  | 0.839 |
| 38 | 26 | 0.539  | 0.807 | 0.513  | 0.825 | 0.463  | 0.858 |
| 38 | 27 | 0.567  | 0.828 | 0.541  | 0.846 | 0.491  | 0.877 |
| 38 | 28 | 0.595  | 0.850 | 0.569  | 0.866 | 0.518  | 0.894 |
| 38 | 29 | 0.623  | 0.871 | 0.598  | 0.886 | 0.547  | 0.912 |
| 38 | 30 | 0.652  | 0.891 | 0.627  | 0.904 | 0.576  | 0.928 |
| 38 | 31 | 0.682  | 0.910 | 0.657  | 0.923 | 0.607  | 0.943 |
| 38 | 32 | 0.712  | 0.929 | 0.687  | 0.940 | 0.638  | 0.958 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 38 | 33 | 0.743  | 0.947 | 0.719  | 0.956 | 0.670  | 0.970 |
| 38 | 34 | 0.775  | 0.963 | 0.752  | 0.971 | 0.704  | 0.982 |
| 38 | 35 | 0.808  | 0.978 | 0.786  | 0.983 | 0.740  | 0.991 |
| 38 | 36 | 0.843  | 0.991 | 0.823  | 0.994 | 0.778  | 0.997 |
| 38 | 37 | 0.881  | 0.999 | 0.862  | 0.999 | 0.820  | 1.000 |
| 38 | 38 | 0.924  | 1.000 | 0.907  | 1.000 | 0.870  | 1.000 |
| 39 | 0  | 0.000  | 0.074 | 0.000  | 0.090 | 0.000  | 0.127 |
| 39 | 1  | 0.001  | 0.116 | 0.001  | 0.135 | 0.000  | 0.176 |
| 39 | 2  | 0.009  | 0.153 | 0.006  | 0.173 | 0.003  | 0.217 |
| 39 | 3  | 0.021  | 0.187 | 0.016  | 0.209 | 0.009  | 0.254 |
| 39 | 4  | 0.036  | 0.220 | 0.029  | 0.242 | 0.018  | 0.289 |
| 39 | 5  | 0.052  | 0.251 | 0.043  | 0.274 | 0.029  | 0.322 |
| 39 | 6  | 0.069  | 0.281 | 0.059  | 0.305 | 0.041  | 0.354 |
| 39 | 7  | 0.087  | 0.311 | 0.075  | 0.335 | 0.055  | 0.385 |
| 39 | 8  | 0.106  | 0.340 | 0.093  | 0.365 | 0.070  | 0.414 |
| 39 | 9  | 0.126  | 0.368 | 0.111  | 0.393 | 0.086  | 0.443 |
| 39 | 10 | 0.146  | 0.396 | 0.130  | 0.421 | 0.103  | 0.471 |
| 39 | 11 | 0.167  | 0.423 | 0.150  | 0.449 | 0.120  | 0.498 |
| 39 | 12 | 0.188  | 0.450 | 0.170  | 0.476 | 0.138  | 0.525 |
| 39 | 13 | 0.210  | 0.477 | 0.191  | 0.502 | 0.157  | 0.551 |
| 39 | 14 | 0.232  | 0.503 | 0.212  | 0.528 | 0.176  | 0.577 |
| 39 | 15 | 0.254  | 0.529 | 0.234  | 0.554 | 0.196  | 0.602 |
| 39 | 16 | 0.277  | 0.554 | 0.256  | 0.579 | 0.217  | 0.626 |
| 39 | 17 | 0.300  | 0.579 | 0.278  | 0.604 | 0.238  | 0.650 |
| 39 | 18 | 0.323  | 0.604 | 0.301  | 0.628 | 0.259  | 0.674 |
| 39 | 19 | 0.347  | 0.629 | 0.324  | 0.652 | 0.281  | 0.697 |
| 39 | 20 | 0.371  | 0.653 | 0.348  | 0.676 | 0.303  | 0.719 |
| 39 | 21 | 0.396  | 0.677 | 0.372  | 0.699 | 0.326  | 0.741 |
| 39 | 22 | 0.421  | 0.700 | 0.396  | 0.722 | 0.350  | 0.762 |
| 39 | 23 | 0.446  | 0.723 | 0.421  | 0.744 | 0.374  | 0.783 |
| 39 | 24 | 0.471  | 0.746 | 0.446  | 0.766 | 0.398  | 0.804 |
| 39 | 25 | 0.497  | 0.768 | 0.472  | 0.788 | 0.423  | 0.824 |
| 39 | 26 | 0.523  | 0.790 | 0.498  | 0.809 | 0.449  | 0.843 |
| 39 | 27 | 0.550  | 0.812 | 0.524  | 0.830 | 0.475  | 0.862 |
| 39 | 28 | 0.577  | 0.833 | 0.551  | 0.850 | 0.502  | 0.880 |
| 39 | 29 | 0.604  | 0.854 | 0.579  | 0.870 | 0.529  | 0.897 |
| 39 | 30 | 0.632  | 0.874 | 0.607  | 0.889 | 0.557  | 0.914 |
| 39 | 31 | 0.660  | 0.894 | 0.635  | 0.907 | 0.586  | 0.930 |
| 39 | 32 | 0.689  | 0.913 | 0.665  | 0.925 | 0.615  | 0.945 |
| 39 | 33 | 0.719  | 0.931 | 0.695  | 0.941 | 0.646  | 0.959 |
| 39 | 34 | 0.749  | 0.948 | 0.726  | 0.957 | 0.678  | 0.971 |
| 39 | 35 | 0.780  | 0.964 | 0.758  | 0.971 | 0.711  | 0.982 |
| 39 | 36 | 0.813  | 0.979 | 0.791  | 0.984 | 0.746  | 0.991 |
| 39 | 37 | 0.847  | 0.991 | 0.827  | 0.994 | 0.783  | 0.997 |
| 39 | 38 | 0.884  | 0.999 | 0.865  | 0.999 | 0.824  | 1.000 |
| 39 | 39 | 0.926  | 1.000 | 0.910  | 1.000 | 0.873  | 1.000 |
| 40 | 0  | 0.000  | 0.072 | 0.000  | 0.088 | 0.000  | 0.124 |
| 40 | 1  | 0.001  | 0.113 | 0.001  | 0.132 | 0.000  | 0.172 |
| 40 | 2  | 0.009  | 0.149 | 0.006  | 0.169 | 0.003  | 0.212 |
| 40 | 3  | 0.021  | 0.183 | 0.016  | 0.204 | 0.009  | 0.248 |
| 40 | 4  | 0.035  | 0.214 | 0.028  | 0.237 | 0.017  | 0.283 |
| 40 | 5  | 0.051  | 0.245 | 0.042  | 0.268 | 0.028  | 0.315 |
| 40 | 6  | 0.067  | 0.275 | 0.057  | 0.298 | 0.040  | 0.346 |
| 40 | 7  | 0.085  | 0.304 | 0.073  | 0.328 | 0.054  | 0.376 |
| 40 | 8  | 0.104  | 0.332 | 0.091  | 0.356 | 0.068  | 0.405 |
| 40 | 9  | 0.123  | 0.360 | 0.108  | 0.385 | 0.084  | 0.434 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 40 | 10 | 0.142  | 0.387 | 0.127  | 0.412 | 0.100  | 0.461 |
| 40 | 11 | 0.163  | 0.414 | 0.146  | 0.439 | 0.117  | 0.488 |
| 40 | 12 | 0.183  | 0.440 | 0.166  | 0.465 | 0.134  | 0.514 |
| 40 | 13 | 0.204  | 0.466 | 0.186  | 0.491 | 0.153  | 0.540 |
| 40 | 14 | 0.226  | 0.492 | 0.206  | 0.517 | 0.171  | 0.565 |
| 40 | 15 | 0.247  | 0.517 | 0.227  | 0.542 | 0.191  | 0.590 |
| 40 | 16 | 0.269  | 0.542 | 0.249  | 0.567 | 0.210  | 0.614 |
| 40 | 17 | 0.292  | 0.567 | 0.270  | 0.591 | 0.231  | 0.637 |
| 40 | 18 | 0.315  | 0.591 | 0.293  | 0.615 | 0.252  | 0.661 |
| 40 | 19 | 0.338  | 0.615 | 0.315  | 0.639 | 0.273  | 0.683 |
| 40 | 20 | 0.361  | 0.639 | 0.338  | 0.662 | 0.295  | 0.705 |
| 40 | 21 | 0.385  | 0.662 | 0.361  | 0.685 | 0.317  | 0.727 |
| 40 | 22 | 0.409  | 0.685 | 0.385  | 0.707 | 0.339  | 0.748 |
| 40 | 23 | 0.433  | 0.708 | 0.409  | 0.730 | 0.363  | 0.769 |
| 40 | 24 | 0.458  | 0.731 | 0.433  | 0.751 | 0.386  | 0.790 |
| 40 | 25 | 0.483  | 0.753 | 0.458  | 0.773 | 0.410  | 0.809 |
| 40 | 26 | 0.508  | 0.774 | 0.483  | 0.794 | 0.435  | 0.829 |
| 40 | 27 | 0.534  | 0.796 | 0.509  | 0.814 | 0.460  | 0.847 |
| 40 | 28 | 0.560  | 0.817 | 0.535  | 0.834 | 0.486  | 0.866 |
| 40 | 29 | 0.586  | 0.837 | 0.561  | 0.854 | 0.512  | 0.883 |
| 40 | 30 | 0.613  | 0.858 | 0.588  | 0.873 | 0.539  | 0.900 |
| 40 | 31 | 0.640  | 0.877 | 0.615  | 0.892 | 0.566  | 0.916 |
| 40 | 32 | 0.668  | 0.896 | 0.644  | 0.909 | 0.595  | 0.932 |
| 40 | 33 | 0.696  | 0.915 | 0.672  | 0.927 | 0.624  | 0.946 |
| 40 | 34 | 0.725  | 0.933 | 0.702  | 0.943 | 0.654  | 0.960 |
| 40 | 35 | 0.755  | 0.949 | 0.732  | 0.958 | 0.685  | 0.972 |
| 40 | 36 | 0.786  | 0.965 | 0.763  | 0.972 | 0.717  | 0.983 |
| 40 | 37 | 0.817  | 0.979 | 0.796  | 0.984 | 0.752  | 0.991 |
| 40 | 38 | 0.851  | 0.991 | 0.831  | 0.994 | 0.788  | 0.997 |
| 40 | 39 | 0.887  | 0.999 | 0.868  | 0.999 | 0.828  | 1.000 |
| 40 | 40 | 0.928  | 1.000 | 0.912  | 1.000 | 0.876  | 1.000 |
| 41 | 0  | 0.000  | 0.070 | 0.000  | 0.086 | 0.000  | 0.121 |
| 41 | 1  | 0.001  | 0.111 | 0.001  | 0.129 | 0.000  | 0.168 |
| 41 | 2  | 0.009  | 0.146 | 0.006  | 0.165 | 0.003  | 0.207 |
| 41 | 3  | 0.020  | 0.178 | 0.015  | 0.199 | 0.008  | 0.243 |
| 41 | 4  | 0.034  | 0.210 | 0.027  | 0.231 | 0.017  | 0.276 |
| 41 | 5  | 0.049  | 0.239 | 0.041  | 0.262 | 0.027  | 0.308 |
| 41 | 6  | 0.066  | 0.269 | 0.056  | 0.292 | 0.039  | 0.339 |
| 41 | 7  | 0.083  | 0.297 | 0.072  | 0.321 | 0.052  | 0.368 |
| 41 | 8  | 0.101  | 0.325 | 0.088  | 0.349 | 0.066  | 0.397 |
| 41 | 9  | 0.120  | 0.352 | 0.106  | 0.376 | 0.081  | 0.425 |
| 41 | 10 | 0.139  | 0.379 | 0.124  | 0.403 | 0.097  | 0.452 |
| 41 | 11 | 0.158  | 0.405 | 0.142  | 0.429 | 0.114  | 0.478 |
| 41 | 12 | 0.178  | 0.431 | 0.161  | 0.455 | 0.131  | 0.504 |
| 41 | 13 | 0.199  | 0.456 | 0.181  | 0.481 | 0.148  | 0.529 |
| 41 | 14 | 0.220  | 0.481 | 0.201  | 0.506 | 0.167  | 0.554 |
| 41 | 15 | 0.241  | 0.506 | 0.221  | 0.531 | 0.185  | 0.578 |
| 41 | 16 | 0.262  | 0.531 | 0.242  | 0.555 | 0.205  | 0.602 |
| 41 | 17 | 0.284  | 0.555 | 0.263  | 0.579 | 0.224  | 0.625 |
| 41 | 18 | 0.306  | 0.579 | 0.285  | 0.603 | 0.245  | 0.648 |
| 41 | 19 | 0.329  | 0.602 | 0.307  | 0.626 | 0.265  | 0.670 |
| 41 | 20 | 0.351  | 0.626 | 0.329  | 0.649 | 0.286  | 0.692 |
| 41 | 21 | 0.374  | 0.649 | 0.351  | 0.671 | 0.308  | 0.714 |
| 41 | 22 | 0.398  | 0.671 | 0.374  | 0.693 | 0.330  | 0.735 |
| 41 | 23 | 0.421  | 0.694 | 0.397  | 0.715 | 0.352  | 0.755 |
| 41 | 24 | 0.445  | 0.716 | 0.421  | 0.737 | 0.375  | 0.776 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 41 | 25 | 0.469  | 0.738 | 0.445  | 0.758 | 0.398  | 0.795 |
| 41 | 26 | 0.494  | 0.759 | 0.469  | 0.779 | 0.422  | 0.815 |
| 41 | 27 | 0.519  | 0.780 | 0.494  | 0.799 | 0.446  | 0.833 |
| 41 | 28 | 0.544  | 0.801 | 0.519  | 0.819 | 0.471  | 0.852 |
| 41 | 29 | 0.569  | 0.822 | 0.545  | 0.839 | 0.496  | 0.869 |
| 41 | 30 | 0.595  | 0.842 | 0.571  | 0.858 | 0.522  | 0.886 |
| 41 | 31 | 0.621  | 0.861 | 0.597  | 0.876 | 0.548  | 0.903 |
| 41 | 32 | 0.648  | 0.880 | 0.624  | 0.894 | 0.575  | 0.919 |
| 41 | 33 | 0.675  | 0.899 | 0.651  | 0.912 | 0.603  | 0.934 |
| 41 | 34 | 0.703  | 0.917 | 0.679  | 0.928 | 0.632  | 0.948 |
| 41 | 35 | 0.731  | 0.934 | 0.708  | 0.944 | 0.661  | 0.961 |
| 41 | 36 | 0.761  | 0.951 | 0.738  | 0.959 | 0.692  | 0.973 |
| 41 | 37 | 0.790  | 0.966 | 0.769  | 0.973 | 0.724  | 0.983 |
| 41 | 38 | 0.822  | 0.980 | 0.801  | 0.985 | 0.757  | 0.992 |
| 41 | 39 | 0.854  | 0.991 | 0.835  | 0.994 | 0.793  | 0.997 |
| 41 | 40 | 0.889  | 0.999 | 0.871  | 0.999 | 0.832  | 1.000 |
| 41 | 41 | 0.930  | 1.000 | 0.914  | 1.000 | 0.879  | 1.000 |
| 42 | 0  | 0.000  | 0.069 | 0.000  | 0.084 | 0.000  | 0.119 |
| 42 | 1  | 0.001  | 0.108 | 0.001  | 0.126 | 0.000  | 0.164 |
| 42 | 2  | 0.009  | 0.142 | 0.006  | 0.162 | 0.002  | 0.203 |
| 42 | 3  | 0.020  | 0.174 | 0.015  | 0.195 | 0.008  | 0.238 |
| 42 | 4  | 0.03   | 0.205 | 0.027  | 0.226 | 0.016  | 0.271 |
| 42 | 5  | 0.048  | 0.234 | 0.040  | 0.256 | 0.027  | 0.302 |
| 42 | 6  | 0.064  | 0.263 | 0.054  | 0.285 | 0.038  | 0.332 |
| 42 | 7  | 0.081  | 0.290 | 0.070  | 0.314 | 0.051  | 0.361 |
| 42 | 8  | 0.098  | 0.318 | 0.086  | 0.341 | 0.065  | 0.389 |
| 42 | 9  | 0.117  | 0.344 | 0.103  | 0.368 | 0.079  | 0.416 |
| 42 | 10 | 0.135  | 0.370 | 0.121  | 0.395 | 0.095  | 0.442 |
| 42 | 11 | 0.154  | 0.396 | 0.139  | 0.420 | 0.111  | 0.468 |
| 42 | 12 | 0.174  | 0.421 | 0.157  | 0.446 | 0.127  | 0.494 |
| 42 | 13 | 0.194  | 0.446 | 0.176  | 0.471 | 0.145  | 0.519 |
| 42 | 14 | 0.214  | 0.471 | 0.196  | 0.495 | 0.162  | 0.543 |
| 42 | 15 | 0.235  | 0.495 | 0.216  | 0.520 | 0.181  | 0.567 |
| 42 | 16 | 0.256  | 0.520 | 0.236  | 0.544 | 0.199  | 0.590 |
| 42 | 17 | 0.277  | 0.543 | 0.256  | 0.567 | 0.218  | 0.613 |
| 42 | 18 | 0.298  | 0.567 | 0.277  | 0.590 | 0.238  | 0.636 |
| 42 | 19 | 0.320  | 0.590 | 0.298  | 0.613 | 0.258  | 0.658 |
| 42 | 20 | 0.342  | 0.613 | 0.320  | 0.636 | 0.278  | 0.679 |
| 42 | 21 | 0.365  | 0.635 | 0.342  | 0.658 | 0.299  | 0.701 |
| 42 | 22 | 0.387  | 0.658 | 0.364  | 0.680 | 0.321  | 0.722 |
| 42 | 23 | 0.410  | 0.680 | 0.387  | 0.702 | 0.342  | 0.742 |
| 42 | 24 | 0.433  | 0.702 | 0.410  | 0.723 | 0.364  | 0.762 |
| 42 | 25 | 0.457  | 0.723 | 0.433  | 0.744 | 0.387  | 0.782 |
| 42 | 26 | 0.480  | 0.744 | 0.456  | 0.764 | 0.410  | 0.801 |
| 42 | 27 | 0.505  | 0.765 | 0.480  | 0.784 | 0.433  | 0.819 |
| 42 | 28 | 0.529  | 0.786 | 0.505  | 0.804 | 0.457  | 0.838 |
| 42 | 29 | 0.554  | 0.806 | 0.529  | 0.824 | 0.481  | 0.855 |
| 42 | 30 | 0.579  | 0.826 | 0.554  | 0.843 | 0.506  | 0.873 |
| 42 | 31 | 0.604  | 0.846 | 0.580  | 0.861 | 0.532  | 0.889 |
| 42 | 32 | 0.630  | 0.865 | 0.605  | 0.879 | 0.558  | 0.905 |
| 42 | 33 | 0.656  | 0.883 | 0.632  | 0.897 | 0.584  | 0.921 |
| 42 | 34 | 0.682  | 0.902 | 0.659  | 0.914 | 0.611  | 0.935 |
| 42 | 35 | 0.710  | 0.919 | 0.686  | 0.930 | 0.639  | 0.949 |
| 42 | 36 | 0.737  | 0.936 | 0.715  | 0.946 | 0.668  | 0.962 |
| 42 | 37 | 0.766  | 0.952 | 0.744  | 0.960 | 0.698  | 0.973 |
| 42 | 38 | 0.795  | 0.967 | 0.774  | 0.973 | 0.729  | 0.984 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 42 | 39 | 0.826  | 0.980 | 0.805  | 0.985 | 0.762  | 0.992 |
| 42 | 40 | 0.858  | 0.991 | 0.838  | 0.994 | 0.797  | 0.998 |
| 42 | 41 | 0.892  | 0.999 | 0.874  | 0.999 | 0.836  | 1.000 |
| 42 | 42 | 0.931  | 1.000 | 0.916  | 1.000 | 0.881  | 1.000 |
| 43 | 0  | 0.000  | 0.067 | 0.000  | 0.082 | 0.000  | 0.116 |
| 43 | 1  | 0.001  | 0.106 | 0.001  | 0.123 | 0.000  | 0.160 |
| 43 | 2  | 0.008  | 0.139 | 0.006  | 0.158 | 0.002  | 0.198 |
| 43 | 3  | 0.019  | 0.171 | 0.015  | 0.191 | 0.008  | 0.233 |
| 43 | 4  | 0.032  | 0.200 | 0.026  | 0.221 | 0.016  | 0.265 |
| 43 | 5  | 0.047  | 0.229 | 0.039  | 0.251 | 0.026  | 0.296 |
| 43 | 6  | 0.063  | 0.257 | 0.053  | 0.279 | 0.037  | 0.325 |
| 43 | 7  | 0.079  | 0.284 | 0.068  | 0.307 | 0.050  | 0.353 |
| 43 | 8  | 0.096  | 0.311 | 0.084  | 0.334 | 0.063  | 0.381 |
| 43 | 9  | 0.114  | 0.337 | 0.100  | 0.360 | 0.077  | 0.408 |
| 43 | 10 | 0.132  | 0.362 | 0.118  | 0.386 | 0.092  | 0.434 |
| 43 | 11 | 0.151  | 0.388 | 0.135  | 0.412 | 0.108  | 0.459 |
| 43 | 12 | 0.170  | 0.413 | 0.153  | 0.437 | 0.124  | 0.484 |
| 43 | 13 | 0.189  | 0.437 | 0.172  | 0.461 | 0.141  | 0.509 |
| 43 | 14 | 0.209  | 0.461 | 0.191  | 0.485 | 0.158  | 0.532 |
| 43 | 15 | 0.229  | 0.485 | 0.210  | 0.509 | 0.176  | 0.556 |
| 43 | 16 | 0.249  | 0.509 | 0.230  | 0.533 | 0.194  | 0.579 |
| 43 | 17 | 0.270  | 0.532 | 0.250  | 0.556 | 0.213  | 0.602 |
| 43 | 18 | 0.291  | 0.555 | 0.270  | 0.579 | 0.232  | 0.624 |
| 43 | 19 | 0.312  | 0.578 | 0.291  | 0.601 | 0.251  | 0.646 |
| 43 | 20 | 0.333  | 0.601 | 0.312  | 0.623 | 0.271  | 0.667 |
| 43 | 21 | 0.355  | 0.623 | 0.333  | 0.645 | 0.291  | 0.688 |
| 43 | 22 | 0.377  | 0.645 | 0.355  | 0.667 | 0.312  | 0.709 |
| 43 | 23 | 0.399  | 0.667 | 0.377  | 0.688 | 0.333  | 0.729 |
| 43 | 24 | 0.422  | 0.688 | 0.399  | 0.709 | 0.354  | 0.749 |
| 43 | 25 | 0.445  | 0.709 | 0.421  | 0.730 | 0.376  | 0.768 |
| 43 | 26 | 0.468  | 0.730 | 0.444  | 0.750 | 0.398  | 0.787 |
| 43 | 27 | 0.491  | 0.751 | 0.467  | 0.770 | 0.421  | 0.806 |
| 43 | 28 | 0.515  | 0.771 | 0.491  | 0.790 | 0.444  | 0.824 |
| 43 | 29 | 0.539  | 0.791 | 0.515  | 0.809 | 0.468  | 0.842 |
| 43 | 30 | 0.563  | 0.811 | 0.539  | 0.828 | 0.491  | 0.859 |
| 43 | 31 | 0.587  | 0.830 | 0.563  | 0.847 | 0.516  | 0.876 |
| 43 | 32 | 0.612  | 0.849 | 0.588  | 0.865 | 0.541  | 0.892 |
| 43 | 33 | 0.638  | 0.868 | 0.614  | 0.882 | 0.566  | 0.908 |
| 43 | 34 | 0.663  | 0.886 | 0.640  | 0.900 | 0.592  | 0.923 |
| 43 | 35 | 0.689  | 0.904 | 0.666  | 0.916 | 0.619  | 0.937 |
| 43 | 36 | 0.716  | 0.921 | 0.693  | 0.932 | 0.647  | 0.950 |
| 43 | 37 | 0.743  | 0.937 | 0.721  | 0.947 | 0.675  | 0.963 |
| 43 | 38 | 0.771  | 0.953 | 0.749  | 0.961 | 0.704  | 0.974 |
| 43 | 39 | 0.800  | 0.968 | 0.779  | 0.974 | 0.735  | 0.984 |
| 43 | 40 | 0.829  | 0.981 | 0.809  | 0.985 | 0.767  | 0.992 |
| 43 | 41 | 0.861  | 0.992 | 0.842  | 0.994 | 0.802  | 0.998 |
| 43 | 42 | 0.894  | 0.999 | 0.877  | 0.999 | 0.840  | 1.000 |
| 43 | 43 | 0.933  | 1.000 | 0.918  | 1.000 | 0.884  | 1.000 |
| 44 | 0  | 0.000  | 0.066 | 0.000  | 0.080 | 0.000  | 0.113 |
| 44 | 1  | 0.001  | 0.103 | 0.001  | 0.120 | 0.000  | 0.157 |
| 44 | 2  | 0.008  | 0.136 | 0.006  | 0.155 | 0.002  | 0.194 |
| 44 | 3  | 0.019  | 0.167 | 0.014  | 0.187 | 0.008  | 0.228 |
| 44 | 4  | 0.032  | 0.196 | 0.025  | 0.217 | 0.016  | 0.259 |
| 44 | 5  | 0.046  | 0.224 | 0.038  | 0.246 | 0.025  | 0.290 |
| 44 | 6  | 0.061  | 0.252 | 0.052  | 0.274 | 0.036  | 0.318 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 44 | 7  | 0.077  | 0.278 | 0.066  | 0.301 | 0.049  | 0.346 |
| 44 | 8  | 0.094  | 0.304 | 0.082  | 0.327 | 0.062  | 0.373 |
| 44 | 9  | 0.111  | 0.330 | 0.098  | 0.353 | 0.076  | 0.400 |
| 44 | 10 | 0.129  | 0.355 | 0.115  | 0.378 | 0.090  | 0.425 |
| 44 | 11 | 0.147  | 0.380 | 0.132  | 0.403 | 0.105  | 0.450 |
| 44 | 12 | 0.166  | 0.404 | 0.150  | 0.428 | 0.121  | 0.475 |
| 44 | 13 | 0.184  | 0.428 | 0.168  | 0.452 | 0.137  | 0.499 |
| 44 | 14 | 0.204  | 0.452 | 0.186  | 0.476 | 0.154  | 0.522 |
| 44 | 15 | 0.223  | 0.475 | 0.205  | 0.499 | 0.172  | 0.545 |
| 44 | 16 | 0.243  | 0.499 | 0.224  | 0.522 | 0.189  | 0.568 |
| 44 | 17 | 0.263  | 0.521 | 0.244  | 0.545 | 0.207  | 0.590 |
| 44 | 18 | 0.284  | 0.544 | 0.263  | 0.567 | 0.226  | 0.612 |
| 44 | 19 | 0.304  | 0.567 | 0.284  | 0.590 | 0.245  | 0.634 |
| 44 | 20 | 0.325  | 0.589 | 0.304  | 0.612 | 0.264  | 0.655 |
| 44 | 21 | 0.346  | 0.611 | 0.325  | 0.633 | 0.284  | 0.676 |
| 44 | 22 | 0.368  | 0.632 | 0.346  | 0.654 | 0.304  | 0.696 |
| 44 | 23 | 0.389  | 0.654 | 0.367  | 0.675 | 0.324  | 0.716 |
| 44 | 24 | 0.411  | 0.675 | 0.388  | 0.696 | 0.345  | 0.736 |
| 44 | 25 | 0.433  | 0.696 | 0.410  | 0.716 | 0.366  | 0.755 |
| 44 | 26 | 0.456  | 0.716 | 0.433  | 0.737 | 0.388  | 0.774 |
| 44 | 27 | 0.479  | 0.737 | 0.455  | 0.756 | 0.410  | 0.793 |
| 44 | 28 | 0.501  | 0.757 | 0.478  | 0.776 | 0.432  | 0.811 |
| 44 | 29 | 0.525  | 0.777 | 0.501  | 0.795 | 0.455  | 0.828 |
| 44 | 30 | 0.548  | 0.796 | 0.524  | 0.814 | 0.478  | 0.846 |
| 44 | 31 | 0.572  | 0.816 | 0.548  | 0.832 | 0.501  | 0.863 |
| 44 | 32 | 0.596  | 0.834 | 0.572  | 0.850 | 0.525  | 0.879 |
| 44 | 33 | 0.620  | 0.853 | 0.597  | 0.868 | 0.550  | 0.895 |
| 44 | 34 | 0.645  | 0.871 | 0.622  | 0.885 | 0.575  | 0.910 |
| 44 | 35 | 0.670  | 0.889 | 0.647  | 0.902 | 0.600  | 0.924 |
| 44 | 36 | 0.696  | 0.906 | 0.673  | 0.918 | 0.627  | 0.938 |
| 44 | 37 | 0.722  | 0.923 | 0.699  | 0.934 | 0.654  | 0.951 |
| 44 | 38 | 0.748  | 0.939 | 0.726  | 0.948 | 0.682  | 0.964 |
| 44 | 39 | 0.776  | 0.954 | 0.754  | 0.962 | 0.710  | 0.975 |
| 44 | 40 | 0.804  | 0.968 | 0.783  | 0.975 | 0.741  | 0.984 |
| 44 | 41 | 0.833  | 0.981 | 0.813  | 0.986 | 0.772  | 0.992 |
| 44 | 42 | 0.864  | 0.992 | 0.845  | 0.994 | 0.806  | 0.998 |
| 44 | 43 | 0.897  | 0.999 | 0.880  | 0.999 | 0.843  | 1.000 |
| 44 | 44 | 0.934  | 1.000 | 0.920  | 1.000 | 0.887  | 1.000 |
| 45 | 0  | 0.000  | 0.064 | 0.000  | 0.079 | 0.000  | 0.111 |
| 45 | 1  | 0.001  | 0.101 | 0.001  | 0.118 | 0.000  | 0.154 |
| 45 | 2  | 0.008  | 0.133 | 0.005  | 0.151 | 0.002  | 0.190 |
| 45 | 3  | 0.018  | 0.163 | 0.014  | 0.183 | 0.008  | 0.223 |
| 45 | 4  | 0.031  | 0.192 | 0.025  | 0.212 | 0.015  | 0.254 |
| 45 | 5  | 0.045  | 0.220 | 0.037  | 0.241 | 0.025  | 0.284 |
| 45 | 6  | 0.060  | 0.246 | 0.051  | 0.268 | 0.036  | 0.312 |
| 45 | 7  | 0.075  | 0.272 | 0.065  | 0.295 | 0.047  | 0.339 |
| 45 | 8  | 0.092  | 0.298 | 0.080  | 0.321 | 0.060  | 0.366 |
| 45 | 9  | 0.108  | 0.323 | 0.096  | 0.346 | 0.074  | 0.392 |
| 45 | 10 | 0.126  | 0.348 | 0.112  | 0.371 | 0.088  | 0.417 |
| 45 | 11 | 0.144  | 0.372 | 0.129  | 0.395 | 0.103  | 0.442 |
| 45 | 12 | 0.162  | 0.396 | 0.146  | 0.419 | 0.118  | 0.466 |
| 45 | 13 | 0.180  | 0.420 | 0.164  | 0.443 | 0.134  | 0.489 |
| 45 | 14 | 0.199  | 0.443 | 0.182  | 0.466 | 0.151  | 0.513 |
| 45 | 15 | 0.218  | 0.466 | 0.200  | 0.490 | 0.167  | 0.535 |
| 45 | 16 | 0.237  | 0.489 | 0.219  | 0.512 | 0.185  | 0.558 |
| 45 | 17 | 0.257  | 0.511 | 0.238  | 0.535 | 0.202  | 0.580 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 45 | 18 | 0.277  | 0.533 | 0.257  | 0.557 | 0.220  | 0.601 |
| 45 | 19 | 0.297  | 0.555 | 0.277  | 0.578 | 0.239  | 0.623 |
| 45 | 20 | 0.317  | 0.577 | 0.296  | 0.600 | 0.257  | 0.643 |
| 45 | 21 | 0.338  | 0.599 | 0.317  | 0.621 | 0.277  | 0.664 |
| 45 | 22 | 0.359  | 0.620 | 0.337  | 0.642 | 0.296  | 0.684 |
| 45 | 23 | 0.380  | 0.641 | 0.358  | 0.663 | 0.316  | 0.704 |
| 45 | 24 | 0.401  | 0.662 | 0.379  | 0.683 | 0.336  | 0.723 |
| 45 | 25 | 0.423  | 0.683 | 0.400  | 0.704 | 0.357  | 0.743 |
| 45 | 26 | 0.445  | 0.703 | 0.422  | 0.723 | 0.377  | 0.761 |
| 45 | 27 | 0.467  | 0.723 | 0.443  | 0.743 | 0.399  | 0.780 |
| 45 | 28 | 0.489  | 0.743 | 0.465  | 0.762 | 0.420  | 0.798 |
| 45 | 29 | 0.511  | 0.763 | 0.488  | 0.781 | 0.442  | 0.815 |
| 45 | 30 | 0.534  | 0.782 | 0.510  | 0.800 | 0.465  | 0.833 |
| 45 | 31 | 0.557  | 0.801 | 0.534  | 0.818 | 0.487  | 0.849 |
| 45 | 32 | 0.580  | 0.820 | 0.557  | 0.836 | 0.511  | 0.866 |
| 45 | 33 | 0.604  | 0.838 | 0.581  | 0.854 | 0.534  | 0.882 |
| 45 | 34 | 0.628  | 0.856 | 0.605  | 0.871 | 0.556  | 0.897 |
| 45 | 35 | 0.652  | 0.874 | 0.629  | 0.888 | 0.583  | 0.912 |
| 45 | 36 | 0.677  | 0.892 | 0.654  | 0.904 | 0.608  | 0.926 |
| 45 | 37 | 0.702  | 0.908 | 0.679  | 0.920 | 0.634  | 0.940 |
| 45 | 38 | 0.728  | 0.925 | 0.705  | 0.935 | 0.661  | 0.953 |
| 45 | 39 | 0.754  | 0.940 | 0.732  | 0.949 | 0.688  | 0.964 |
| 45 | 40 | 0.780  | 0.955 | 0.759  | 0.963 | 0.716  | 0.975 |
| 45 | 41 | 0.808  | 0.969 | 0.788  | 0.975 | 0.746  | 0.985 |
| 45 | 42 | 0.837  | 0.982 | 0.817  | 0.986 | 0.777  | 0.992 |
| 45 | 43 | 0.867  | 0.992 | 0.849  | 0.995 | 0.810  | 0.998 |
| 45 | 44 | 0.899  | 0.999 | 0.882  | 0.999 | 0.846  | 1.000 |
| 45 | 45 | 0.936  | 1.000 | 0.921  | 1.000 | 0.889  | 1.000 |
| 46 | 0  | 0.000  | 0.063 | 0.000  | 0.077 | 0.000  | 0.109 |
| 46 | 1  | 0.001  | 0.099 | 0.001  | 0.115 | 0.000  | 0.151 |
| 46 | 2  | 0.008  | 0.131 | 0.005  | 0.148 | 0.002  | 0.186 |
| 46 | 3  | 0.018  | 0.160 | 0.014  | 0.179 | 0.007  | 0.219 |
| 46 | 4  | 0.030  | 0.188 | 0.024  | 0.208 | 0.015  | 0.249 |
| 46 | 5  | 0.044  | 0.215 | 0.036  | 0.236 | 0.024  | 0.278 |
| 46 | 6  | 0.058  | 0.241 | 0.049  | 0.263 | 0.035  | 0.306 |
| 46 | 7  | 0.074  | 0.267 | 0.063  | 0.289 | 0.046  | 0.333 |
| 46 | 8  | 0.090  | 0.292 | 0.078  | 0.314 | 0.059  | 0.359 |
| 46 | 9  | 0.106  | 0.317 | 0.094  | 0.339 | 0.072  | 0.384 |
| 46 | 10 | 0.123  | 0.341 | 0.109  | 0.364 | 0.086  | 0.409 |
| 46 | 11 | 0.140  | 0.365 | 0.126  | 0.388 | 0.100  | 0.433 |
| 46 | 12 | 0.158  | 0.388 | 0.143  | 0.411 | 0.115  | 0.457 |
| 46 | 13 | 0.176  | 0.411 | 0.160  | 0.435 | 0.131  | 0.480 |
| 46 | 14 | 0.194  | 0.434 | 0.177  | 0.458 | 0.147  | 0.503 |
| 46 | 15 | 0.213  | 0.457 | 0.195  | 0.480 | 0.163  | 0.526 |
| 46 | 16 | 0.232  | 0.479 | 0.214  | 0.502 | 0.180  | 0.548 |
| 46 | 17 | 0.251  | 0.501 | 0.232  | 0.525 | 0.197  | 0.569 |
| 46 | 18 | 0.270  | 0.523 | 0.251  | 0.546 | 0.215  | 0.591 |
| 46 | 19 | 0.290  | 0.545 | 0.270  | 0.568 | 0.233  | 0.612 |
| 46 | 20 | 0.310  | 0.566 | 0.289  | 0.589 | 0.251  | 0.632 |
| 46 | 21 | 0.330  | 0.587 | 0.309  | 0.610 | 0.270  | 0.653 |
| 46 | 22 | 0.350  | 0.608 | 0.329  | 0.631 | 0.289  | 0.672 |
| 46 | 23 | 0.371  | 0.629 | 0.349  | 0.651 | 0.308  | 0.692 |
| 46 | 24 | 0.392  | 0.650 | 0.369  | 0.671 | 0.328  | 0.711 |
| 46 | 25 | 0.413  | 0.670 | 0.390  | 0.691 | 0.347  | 0.730 |
| 46 | 26 | 0.434  | 0.690 | 0.411  | 0.711 | 0.368  | 0.749 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 46 | 27 | 0.455  | 0.710 | 0.432  | 0.730 | 0.388  | 0.767 |
| 46 | 28 | 0.477  | 0.730 | 0.454  | 0.749 | 0.409  | 0.785 |
| 46 | 29 | 0.499  | 0.749 | 0.475  | 0.768 | 0.431  | 0.803 |
| 46 | 30 | 0.521  | 0.768 | 0.498  | 0.786 | 0.452  | 0.820 |
| 46 | 31 | 0.543  | 0.787 | 0.520  | 0.805 | 0.474  | 0.837 |
| 46 | 32 | 0.566  | 0.806 | 0.542  | 0.823 | 0.497  | 0.853 |
| 46 | 33 | 0.589  | 0.824 | 0.565  | 0.840 | 0.520  | 0.869 |
| 46 | 34 | 0.612  | 0.842 | 0.589  | 0.857 | 0.543  | 0.885 |
| 46 | 35 | 0.635  | 0.860 | 0.612  | 0.874 | 0.567  | 0.900 |
| 46 | 36 | 0.659  | 0.877 | 0.636  | 0.891 | 0.591  | 0.914 |
| 46 | 37 | 0.683  | 0.894 | 0.661  | 0.906 | 0.616  | 0.928 |
| 46 | 38 | 0.708  | 0.910 | 0.686  | 0.922 | 0.641  | 0.941 |
| 46 | 39 | 0.733  | 0.926 | 0.711  | 0.937 | 0.667  | 0.954 |
| 46 | 40 | 0.759  | 0.942 | 0.737  | 0.951 | 0.694  | 0.965 |
| 46 | 41 | 0.785  | 0.956 | 0.764  | 0.964 | 0.722  | 0.976 |
| 46 | 42 | 0.812  | 0.970 | 0.792  | 0.976 | 0.751  | 0.985 |
| 46 | 43 | 0.840  | 0.982 | 0.821  | 0.986 | 0.781  | 0.993 |
| 46 | 44 | 0.869  | 0.992 | 0.852  | 0.995 | 0.814  | 0.998 |
| 46 | 45 | 0.901  | 0.999 | 0.885  | 0.999 | 0.849  | 1.000 |
| 46 | 46 | 0.937  | 1.000 | 0.923  | 1.000 | 0.891  | 1.000 |
| 47 | 0  | 0.000  | 0.062 | 0.000  | 0.075 | 0.000  | 0.107 |
| 47 | 1  | 0.001  | 0.097 | 0.001  | 0.113 | 0.000  | 0.148 |
| 47 | 2  | 0.008  | 0.128 | 0.005  | 0.145 | 0.002  | 0.183 |
| 47 | 3  | 0.018  | 0.157 | 0.013  | 0.175 | 0.007  | 0.215 |
| 47 | 4  | 0.030  | 0.184 | 0.024  | 0.204 | 0.015  | 0.244 |
| 47 | 5  | 0.043  | 0.211 | 0.035  | 0.231 | 0.024  | 0.273 |
| 47 | 6  | 0.057  | 0.237 | 0.048  | 0.257 | 0.034  | 0.300 |
| 47 | 7  | 0.072  | 0.262 | 0.062  | 0.283 | 0.045  | 0.327 |
| 47 | 8  | 0.088  | 0.286 | 0.076  | 0.308 | 0.057  | 0.352 |
| 47 | 9  | 0.104  | 0.310 | 0.091  | 0.333 | 0.070  | 0.377 |
| 47 | 10 | 0.120  | 0.334 | 0.107  | 0.357 | 0.084  | 0.402 |
| 47 | 11 | 0.137  | 0.358 | 0.123  | 0.380 | 0.098  | 0.425 |
| 47 | 12 | 0.154  | 0.381 | 0.139  | 0.403 | 0.113  | 0.449 |
| 47 | 13 | 0.172  | 0.403 | 0.156  | 0.426 | 0.128  | 0.472 |
| 47 | 14 | 0.190  | 0.426 | 0.173  | 0.449 | 0.144  | 0.494 |
| 47 | 15 | 0.208  | 0.448 | 0.191  | 0.471 | 0.160  | 0.516 |
| 47 | 16 | 0.227  | 0.470 | 0.209  | 0.493 | 0.176  | 0.538 |
| 47 | 17 | 0.245  | 0.492 | 0.227  | 0.515 | 0.193  | 0.559 |
| 47 | 18 | 0.264  | 0.513 | 0.245  | 0.536 | 0.210  | 0.580 |
| 47 | 19 | 0.283  | 0.535 | 0.264  | 0.557 | 0.227  | 0.601 |
| 47 | 20 | 0.303  | 0.556 | 0.283  | 0.578 | 0.245  | 0.621 |
| 47 | 21 | 0.322  | 0.577 | 0.302  | 0.599 | 0.263  | 0.641 |
| 47 | 22 | 0.342  | 0.597 | 0.321  | 0.619 | 0.282  | 0.661 |
| 47 | 23 | 0.362  | 0.618 | 0.341  | 0.639 | 0.300  | 0.681 |
| 47 | 24 | 0.382  | 0.638 | 0.361  | 0.659 | 0.319  | 0.700 |
| 47 | 25 | 0.403  | 0.658 | 0.381  | 0.679 | 0.339  | 0.718 |
| 47 | 26 | 0.423  | 0.678 | 0.401  | 0.698 | 0.359  | 0.737 |
| 47 | 27 | 0.444  | 0.697 | 0.422  | 0.717 | 0.379  | 0.755 |
| 47 | 28 | 0.465  | 0.717 | 0.443  | 0.736 | 0.399  | 0.773 |
| 47 | 29 | 0.487  | 0.736 | 0.464  | 0.755 | 0.420  | 0.790 |
| 47 | 30 | 0.508  | 0.755 | 0.485  | 0.773 | 0.441  | 0.807 |
| 47 | 31 | 0.530  | 0.773 | 0.507  | 0.791 | 0.462  | 0.824 |
| 47 | 32 | 0.552  | 0.792 | 0.529  | 0.809 | 0.484  | 0.840 |
| 47 | 33 | 0.574  | 0.810 | 0.551  | 0.827 | 0.506  | 0.856 |
| 47 | 34 | 0.597  | 0.828 | 0.574  | 0.844 | 0.528  | 0.872 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 47 | 35 | 0.619  | 0.846 | 0.597  | 0.861 | 0.551  | 0.887 |
| 47 | 36 | 0.642  | 0.863 | 0.620  | 0.877 | 0.575  | 0.902 |
| 47 | 37 | 0.666  | 0.880 | 0.643  | 0.893 | 0.598  | 0.916 |
| 47 | 38 | 0.690  | 0.896 | 0.667  | 0.909 | 0.623  | 0.930 |
| 47 | 39 | 0.714  | 0.912 | 0.692  | 0.924 | 0.648  | 0.943 |
| 47 | 40 | 0.738  | 0.928 | 0.717  | 0.938 | 0.673  | 0.955 |
| 47 | 41 | 0.763  | 0.943 | 0.743  | 0.952 | 0.700  | 0.966 |
| 47 | 42 | 0.789  | 0.957 | 0.769  | 0.965 | 0.727  | 0.976 |
| 47 | 43 | 0.816  | 0.970 | 0.796  | 0.976 | 0.756  | 0.985 |
| 47 | 44 | 0.843  | 0.982 | 0.825  | 0.987 | 0.785  | 0.993 |
| 47 | 45 | 0.872  | 0.992 | 0.855  | 0.995 | 0.817  | 0.998 |
| 47 | 46 | 0.903  | 0.999 | 0.887  | 0.999 | 0.852  | 1.000 |
| 47 | 47 | 0.938  | 1.000 | 0.925  | 1.000 | 0.893  | 1.000 |
| 48 | 0  | 0.000  | 0.061 | 0.000  | 0.074 | 0.000  | 0.105 |
| 48 | 1  | 0.001  | 0.095 | 0.001  | 0.111 | 0.000  | 0.145 |
| 48 | 2  | 0.007  | 0.125 | 0.005  | 0.143 | 0.002  | 0.179 |
| 48 | 3  | 0.017  | 0.154 | 0.013  | 0.172 | 0.007  | 0.210 |
| 48 | 4  | 0.029  | 0.181 | 0.023  | 0.200 | 0.014  | 0.240 |
| 48 | 5  | 0.042  | 0.207 | 0.035  | 0.227 | 0.023  | 0.268 |
| 48 | 6  | 0.056  | 0.232 | 0.047  | 0.252 | 0.033  | 0.295 |
| 48 | 7  | 0.071  | 0.257 | 0.061  | 0.278 | 0.044  | 0.321 |
| 48 | 8  | 0.086  | 0.281 | 0.075  | 0.302 | 0.056  | 0.346 |
| 48 | 9  | 0.101  | 0.304 | 0.090  | 0.326 | 0.069  | 0.370 |
| 48 | 10 | 0.118  | 0.328 | 0.105  | 0.350 | 0.082  | 0.394 |
| 48 | 11 | 0.134  | 0.351 | 0.120  | 0.373 | 0.096  | 0.418 |
| 48 | 12 | 0.151  | 0.373 | 0.136  | 0.396 | 0.110  | 0.441 |
| 48 | 13 | 0.168  | 0.396 | 0.153  | 0.418 | 0.125  | 0.463 |
| 48 | 14 | 0.186  | 0.418 | 0.170  | 0.441 | 0.140  | 0.485 |
| 48 | 15 | 0.203  | 0.440 | 0.187  | 0.463 | 0.156  | 0.507 |
| 48 | 16 | 0.222  | 0.461 | 0.204  | 0.484 | 0.172  | 0.529 |
| 48 | 17 | 0.240  | 0.483 | 0.222  | 0.505 | 0.188  | 0.550 |
| 48 | 18 | 0.258  | 0.504 | 0.240  | 0.526 | 0.205  | 0.570 |
| 48 | 19 | 0.277  | 0.525 | 0.258  | 0.547 | 0.222  | 0.591 |
| 48 | 20 | 0.296  | 0.545 | 0.276  | 0.568 | 0.239  | 0.611 |
| 48 | 21 | 0.315  | 0.566 | 0.295  | 0.588 | 0.257  | 0.631 |
| 48 | 22 | 0.334  | 0.586 | 0.314  | 0.608 | 0.275  | 0.650 |
| 48 | 23 | 0.354  | 0.606 | 0.333  | 0.628 | 0.293  | 0.669 |
| 48 | 24 | 0.374  | 0.626 | 0.352  | 0.648 | 0.312  | 0.688 |
| 48 | 25 | 0.394  | 0.646 | 0.372  | 0.667 | 0.331  | 0.707 |
| 48 | 26 | 0.414  | 0.666 | 0.392  | 0.686 | 0.350  | 0.725 |
| 48 | 27 | 0.434  | 0.685 | 0.412  | 0.705 | 0.369  | 0.743 |
| 48 | 28 | 0.455  | 0.704 | 0.432  | 0.724 | 0.389  | 0.761 |
| 48 | 29 | 0.475  | 0.723 | 0.453  | 0.742 | 0.409  | 0.778 |
| 48 | 30 | 0.496  | 0.742 | 0.474  | 0.760 | 0.430  | 0.795 |
| 48 | 31 | 0.517  | 0.760 | 0.495  | 0.778 | 0.450  | 0.812 |
| 48 | 32 | 0.539  | 0.778 | 0.516  | 0.796 | 0.471  | 0.828 |
| 48 | 33 | 0.560  | 0.797 | 0.537  | 0.813 | 0.493  | 0.844 |
| 48 | 34 | 0.582  | 0.814 | 0.559  | 0.830 | 0.515  | 0.860 |
| 48 | 35 | 0.604  | 0.832 | 0.582  | 0.847 | 0.537  | 0.875 |
| 48 | 36 | 0.627  | 0.849 | 0.604  | 0.864 | 0.559  | 0.890 |
| 48 | 37 | 0.649  | 0.866 | 0.627  | 0.880 | 0.582  | 0.904 |
| 48 | 38 | 0.672  | 0.882 | 0.650  | 0.895 | 0.606  | 0.918 |
| 48 | 39 | 0.696  | 0.899 | 0.674  | 0.910 | 0.630  | 0.931 |
| 48 | 40 | 0.719  | 0.914 | 0.698  | 0.925 | 0.654  | 0.944 |
| 48 | 41 | 0.743  | 0.929 | 0.722  | 0.939 | 0.679  | 0.956 |
| 48 | 42 | 0.768  | 0.944 | 0.748  | 0.953 | 0.705  | 0.967 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 48 | 43 | 0.793  | 0.958 | 0.773  | 0.965 | 0.732  | 0.977 |
| 48 | 44 | 0.819  | 0.971 | 0.800  | 0.977 | 0.760  | 0.986 |
| 48 | 45 | 0.846  | 0.983 | 0.828  | 0.987 | 0.790  | 0.993 |
| 48 | 46 | 0.875  | 0.993 | 0.857  | 0.995 | 0.821  | 0.998 |
| 48 | 47 | 0.905  | 0.999 | 0.889  | 0.999 | 0.855  | 1.000 |
| 48 | 48 | 0.939  | 1.000 | 0.926  | 1.000 | 0.895  | 1.000 |
| 49 | 0  | 0.000  | 0.059 | 0.000  | 0.073 | 0.000  | 0.102 |
| 49 | 1  | 0.001  | 0.093 | 0.001  | 0.109 | 0.000  | 0.142 |
| 49 | 2  | 0.007  | 0.123 | 0.005  | 0.140 | 0.002  | 0.176 |
| 49 | 3  | 0.017  | 0.151 | 0.013  | 0.169 | 0.007  | 0.207 |
| 49 | 4  | 0.028  | 0.177 | 0.023  | 0.196 | 0.014  | 0.235 |
| 49 | 5  | 0.041  | 0.203 | 0.034  | 0.222 | 0.023  | 0.263 |
| 49 | 6  | 0.055  | 0.227 | 0.046  | 0.248 | 0.033  | 0.289 |
| 49 | 7  | 0.069  | 0.252 | 0.059  | 0.272 | 0.043  | 0.315 |
| 49 | 8  | 0.084  | 0.275 | 0.073  | 0.297 | 0.055  | 0.340 |
| 49 | 9  | 0.099  | 0.299 | 0.088  | 0.320 | 0.067  | 0.364 |
| 49 | 10 | 0.115  | 0.322 | 0.102  | 0.343 | 0.080  | 0.387 |
| 49 | 11 | 0.131  | 0.344 | 0.118  | 0.366 | 0.094  | 0.410 |
| 49 | 12 | 0.148  | 0.366 | 0.133  | 0.389 | 0.108  | 0.433 |
| 49 | 13 | 0.165  | 0.388 | 0.149  | 0.411 | 0.122  | 0.455 |
| 49 | 14 | 0.182  | 0.410 | 0.166  | 0.433 | 0.137  | 0.477 |
| 49 | 15 | 0.199  | 0.432 | 0.183  | 0.454 | 0.152  | 0.498 |
| 49 | 16 | 0.217  | 0.453 | 0.199  | 0.475 | 0.168  | 0.520 |
| 49 | 17 | 0.235  | 0.474 | 0.217  | 0.496 | 0.184  | 0.540 |
| 49 | 18 | 0.253  | 0.495 | 0.234  | 0.517 | 0.200  | 0.561 |
| 49 | 19 | 0.271  | 0.515 | 0.252  | 0.538 | 0.217  | 0.581 |
| 49 | 20 | 0.289  | 0.536 | 0.270  | 0.558 | 0.234  | 0.601 |
| 49 | 21 | 0.308  | 0.556 | 0.288  | 0.578 | 0.251  | 0.620 |
| 49 | 22 | 0.327  | 0.576 | 0.307  | 0.598 | 0.269  | 0.639 |
| 49 | 23 | 0.346  | 0.596 | 0.325  | 0.617 | 0.286  | 0.658 |
| 49 | 24 | 0.365  | 0.615 | 0.344  | 0.637 | 0.305  | 0.677 |
| 49 | 25 | 0.385  | 0.635 | 0.363  | 0.656 | 0.323  | 0.695 |
| 49 | 26 | 0.404  | 0.654 | 0.383  | 0.675 | 0.342  | 0.714 |
| 49 | 27 | 0.424  | 0.673 | 0.402  | 0.693 | 0.361  | 0.731 |
| 49 | 28 | 0.444  | 0.692 | 0.422  | 0.712 | 0.380  | 0.749 |
| 49 | 29 | 0.464  | 0.711 | 0.442  | 0.730 | 0.399  | 0.766 |
| 49 | 30 | 0.485  | 0.729 | 0.462  | 0.748 | 0.419  | 0.783 |
| 49 | 31 | 0.505  | 0.747 | 0.483  | 0.766 | 0.439  | 0.800 |
| 49 | 32 | 0.526  | 0.765 | 0.504  | 0.783 | 0.460  | 0.816 |
| 49 | 33 | 0.547  | 0.783 | 0.525  | 0.801 | 0.480  | 0.832 |
| 49 | 34 | 0.568  | 0.801 | 0.546  | 0.817 | 0.502  | 0.848 |
| 49 | 35 | 0.590  | 0.818 | 0.567  | 0.834 | 0.523  | 0.863 |
| 49 | 36 | 0.612  | 0.835 | 0.589  | 0.851 | 0.545  | 0.878 |
| 49 | 37 | 0.634  | 0.852 | 0.611  | 0.867 | 0.567  | 0.892 |
| 49 | 38 | 0.656  | 0.869 | 0.634  | 0.882 | 0.590  | 0.906 |
| 49 | 39 | 0.678  | 0.885 | 0.657  | 0.898 | 0.613  | 0.920 |
| 49 | 40 | 0.701  | 0.901 | 0.680  | 0.912 | 0.636  | 0.933 |
| 49 | 41 | 0.725  | 0.916 | 0.703  | 0.927 | 0.660  | 0.945 |
| 49 | 42 | 0.748  | 0.931 | 0.728  | 0.941 | 0.685  | 0.957 |
| 49 | 43 | 0.773  | 0.945 | 0.752  | 0.954 | 0.711  | 0.967 |
| 49 | 44 | 0.797  | 0.959 | 0.778  | 0.966 | 0.737  | 0.977 |
| 49 | 45 | 0.823  | 0.972 | 0.804  | 0.977 | 0.765  | 0.986 |
| 49 | 46 | 0.849  | 0.983 | 0.831  | 0.987 | 0.793  | 0.993 |
| 49 | 47 | 0.877  | 0.993 | 0.860  | 0.995 | 0.824  | 0.998 |
| 49 | 48 | 0.907  | 0.999 | 0.891  | 0.999 | 0.858  | 1.000 |
| 49 | 49 | 0.941  | 1.000 | 0.927  | 1.000 | 0.898  | 1.000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 50 | 0  | 0.000  | 0.058 | 0.000  | 0.071 | 0.000  | 0.101 |
| 50 | 1  | 0.001  | 0.091 | 0.001  | 0.106 | 0.000  | 0.139 |
| 50 | 2  | 0.007  | 0.121 | 0.005  | 0.137 | 0.002  | 0.173 |
| 50 | 3  | 0.017  | 0.148 | 0.013  | 0.165 | 0.007  | 0.203 |
| 50 | 4  | 0.028  | 0.174 | 0.022  | 0.192 | 0.014  | 0.231 |
| 50 | 5  | 0.040  | 0.199 | 0.033  | 0.218 | 0.022  | 0.258 |
| 50 | 6  | 0.054  | 0.223 | 0.045  | 0.243 | 0.032  | 0.284 |
| 50 | 7  | 0.068  | 0.247 | 0.058  | 0.267 | 0.042  | 0.309 |
| 50 | 8  | 0.082  | 0.270 | 0.072  | 0.291 | 0.054  | 0.333 |
| 50 | 9  | 0.097  | 0.293 | 0.086  | 0.314 | 0.066  | 0.357 |
| 50 | 10 | 0.113  | 0.316 | 0.100  | 0.337 | 0.079  | 0.380 |
| 50 | 11 | 0.129  | 0.338 | 0.115  | 0.360 | 0.092  | 0.403 |
| 50 | 12 | 0.145  | 0.360 | 0.131  | 0.382 | 0.106  | 0.425 |
| 50 | 13 | 0.161  | 0.381 | 0.146  | 0.403 | 0.120  | 0.447 |
| 50 | 14 | 0.178  | 0.403 | 0.162  | 0.425 | 0.134  | 0.469 |
| 50 | 15 | 0.195  | 0.424 | 0.179  | 0.446 | 0.149  | 0.490 |
| 50 | 16 | 0.212  | 0.445 | 0.195  | 0.467 | 0.164  | 0.511 |
| 50 | 17 | 0.230  | 0.465 | 0.212  | 0.488 | 0.180  | 0.531 |
| 50 | 18 | 0.247  | 0.486 | 0.229  | 0.508 | 0.196  | 0.551 |
| 50 | 19 | 0.265  | 0.506 | 0.246  | 0.528 | 0.212  | 0.571 |
| 50 | 20 | 0.283  | 0.526 | 0.264  | 0.548 | 0.229  | 0.591 |
| 50 | 21 | 0.301  | 0.546 | 0.282  | 0.568 | 0.245  | 0.610 |
| 50 | 22 | 0.320  | 0.566 | 0.300  | 0.587 | 0.263  | 0.629 |
| 50 | 23 | 0.338  | 0.585 | 0.318  | 0.607 | 0.280  | 0.648 |
| 50 | 24 | 0.357  | 0.605 | 0.337  | 0.626 | 0.298  | 0.666 |
| 50 | 25 | 0.376  | 0.624 | 0.355  | 0.645 | 0.316  | 0.684 |
| 50 | 26 | 0.395  | 0.643 | 0.374  | 0.663 | 0.334  | 0.702 |
| 50 | 27 | 0.415  | 0.662 | 0.393  | 0.682 | 0.352  | 0.720 |
| 50 | 28 | 0.434  | 0.680 | 0.413  | 0.700 | 0.371  | 0.737 |
| 50 | 29 | 0.454  | 0.699 | 0.432  | 0.718 | 0.390  | 0.755 |
| 50 | 30 | 0.474  | 0.717 | 0.452  | 0.736 | 0.409  | 0.771 |
| 50 | 31 | 0.494  | 0.735 | 0.472  | 0.754 | 0.429  | 0.788 |
| 50 | 32 | 0.514  | 0.753 | 0.492  | 0.771 | 0.449  | 0.804 |
| 50 | 33 | 0.535  | 0.770 | 0.512  | 0.788 | 0.469  | 0.820 |
| 50 | 34 | 0.555  | 0.788 | 0.533  | 0.805 | 0.489  | 0.836 |
| 50 | 35 | 0.576  | 0.805 | 0.554  | 0.821 | 0.510  | 0.851 |
| 50 | 36 | 0.597  | 0.822 | 0.575  | 0.838 | 0.531  | 0.866 |
| 50 | 37 | 0.619  | 0.839 | 0.597  | 0.854 | 0.553  | 0.880 |
| 50 | 38 | 0.640  | 0.855 | 0.618  | 0.869 | 0.575  | 0.894 |
| 50 | 39 | 0.662  | 0.871 | 0.640  | 0.885 | 0.597  | 0.908 |
| 50 | 40 | 0.684  | 0.887 | 0.663  | 0.900 | 0.620  | 0.921 |
| 50 | 41 | 0.707  | 0.903 | 0.686  | 0.914 | 0.643  | 0.934 |
| 50 | 42 | 0.730  | 0.918 | 0.709  | 0.928 | 0.667  | 0.946 |
| 50 | 43 | 0.753  | 0.932 | 0.733  | 0.942 | 0.691  | 0.958 |
| 50 | 44 | 0.777  | 0.946 | 0.757  | 0.955 | 0.716  | 0.968 |
| 50 | 45 | 0.801  | 0.960 | 0.782  | 0.967 | 0.742  | 0.978 |
| 50 | 46 | 0.826  | 0.972 | 0.808  | 0.978 | 0.769  | 0.986 |
| 50 | 47 | 0.852  | 0.983 | 0.835  | 0.987 | 0.797  | 0.993 |
| 50 | 48 | 0.879  | 0.993 | 0.863  | 0.995 | 0.827  | 0.998 |
| 50 | 49 | 0.909  | 0.999 | 0.894  | 0.999 | 0.861  | 1.000 |
| 50 | 50 | 0.942  | 1.000 | 0.929  | 1.000 | 0.899  | 1.000 |
| 51 | 0  | 0.000  | 0.057 | 0.000  | 0.070 | 0.000  | 0.099 |
| 51 | 1  | 0.001  | 0.090 | 0.000  | 0.104 | 0.000  | 0.137 |
| 51 | 2  | 0.007  | 0.118 | 0.005  | 0.135 | 0.002  | 0.169 |
| 51 | 3  | 0.016  | 0.145 | 0.012  | 0.162 | 0.007  | 0.199 |
| 51 | 4  | 0.027  | 0.171 | 0.022  | 0.189 | 0.013  | 0.227 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 51 | 5  | 0.039  | 0.195 | 0.033  | 0.214 | 0.022  | 0.253 |
| 51 | 6  | 0.052  | 0.219 | 0.044  | 0.239 | 0.031  | 0.279 |
| 51 | 7  | 0.066  | 0.242 | 0.057  | 0.263 | 0.042  | 0.304 |
| 51 | 8  | 0.081  | 0.265 | 0.070  | 0.286 | 0.053  | 0.328 |
| 51 | 9  | 0.095  | 0.288 | 0.084  | 0.309 | 0.065  | 0.351 |
| 51 | 10 | 0.110  | 0.310 | 0.098  | 0.331 | 0.077  | 0.374 |
| 51 | 11 | 0.126  | 0.332 | 0.113  | 0.353 | 0.090  | 0.396 |
| 51 | 12 | 0.142  | 0.353 | 0.128  | 0.375 | 0.103  | 0.418 |
| 51 | 13 | 0.158  | 0.374 | 0.143  | 0.396 | 0.117  | 0.440 |
| 51 | 14 | 0.174  | 0.395 | 0.159  | 0.417 | 0.131  | 0.461 |
| 51 | 15 | 0.191  | 0.416 | 0.175  | 0.438 | 0.146  | 0.482 |
| 51 | 16 | 0.208  | 0.437 | 0.191  | 0.459 | 0.161  | 0.502 |
| 51 | 17 | 0.225  | 0.457 | 0.208  | 0.479 | 0.176  | 0.522 |
| 51 | 18 | 0.242  | 0.477 | 0.224  | 0.499 | 0.192  | 0.542 |
| 51 | 19 | 0.259  | 0.497 | 0.241  | 0.519 | 0.208  | 0.562 |
| 51 | 20 | 0.277  | 0.517 | 0.258  | 0.539 | 0.224  | 0.581 |
| 51 | 21 | 0.295  | 0.537 | 0.276  | 0.558 | 0.240  | 0.600 |
| 51 | 22 | 0.313  | 0.556 | 0.293  | 0.578 | 0.257  | 0.619 |
| 51 | 23 | 0.331  | 0.575 | 0.311  | 0.597 | 0.274  | 0.638 |
| 51 | 24 | 0.350  | 0.594 | 0.329  | 0.615 | 0.291  | 0.656 |
| 51 | 25 | 0.368  | 0.613 | 0.348  | 0.634 | 0.308  | 0.674 |
| 51 | 26 | 0.387  | 0.632 | 0.366  | 0.652 | 0.326  | 0.692 |
| 51 | 27 | 0.406  | 0.650 | 0.385  | 0.671 | 0.344  | 0.709 |
| 51 | 28 | 0.425  | 0.669 | 0.403  | 0.689 | 0.362  | 0.726 |
| 51 | 29 | 0.444  | 0.687 | 0.422  | 0.707 | 0.381  | 0.743 |
| 51 | 30 | 0.463  | 0.705 | 0.442  | 0.724 | 0.400  | 0.760 |
| 51 | 31 | 0.483  | 0.723 | 0.461  | 0.742 | 0.419  | 0.776 |
| 51 | 32 | 0.503  | 0.741 | 0.481  | 0.759 | 0.438  | 0.792 |
| 51 | 33 | 0.523  | 0.758 | 0.501  | 0.776 | 0.458  | 0.808 |
| 51 | 34 | 0.543  | 0.775 | 0.521  | 0.792 | 0.478  | 0.824 |
| 51 | 35 | 0.563  | 0.792 | 0.541  | 0.809 | 0.498  | 0.839 |
| 51 | 36 | 0.584  | 0.809 | 0.562  | 0.825 | 0.518  | 0.854 |
| 51 | 37 | 0.605  | 0.826 | 0.583  | 0.841 | 0.539  | 0.869 |
| 51 | 38 | 0.626  | 0.842 | 0.604  | 0.857 | 0.560  | 0.883 |
| 51 | 39 | 0.647  | 0.858 | 0.625  | 0.872 | 0.582  | 0.897 |
| 51 | 40 | 0.668  | 0.874 | 0.647  | 0.887 | 0.604  | 0.910 |
| 51 | 41 | 0.690  | 0.890 | 0.669  | 0.902 | 0.626  | 0.923 |
| 51 | 42 | 0.712  | 0.905 | 0.691  | 0.916 | 0.649  | 0.935 |
| 51 | 43 | 0.735  | 0.919 | 0.714  | 0.930 | 0.672  | 0.947 |
| 51 | 44 | 0.758  | 0.934 | 0.737  | 0.943 | 0.696  | 0.958 |
| 51 | 45 | 0.781  | 0.948 | 0.761  | 0.956 | 0.721  | 0.969 |
| 51 | 46 | 0.805  | 0.961 | 0.786  | 0.967 | 0.747  | 0.978 |
| 51 | 47 | 0.829  | 0.973 | 0.811  | 0.978 | 0.773  | 0.987 |
| 51 | 48 | 0.855  | 0.984 | 0.838  | 0.988 | 0.801  | 0.993 |
| 51 | 49 | 0.882  | 0.993 | 0.865  | 0.995 | 0.831  | 0.998 |
| 51 | 50 | 0.910  | 0.999 | 0.896  | 1.000 | 0.863  | 1.000 |
| 51 | 51 | 0.943  | 1.000 | 0.930  | 1.000 | 0.901  | 1.000 |
| 52 | 0  | 0.000  | 0.056 | 0.000  | 0.068 | 0.000  | 0.097 |
| 52 | 1  | 0.001  | 0.088 | 0.000  | 0.103 | 0.000  | 0.134 |
| 52 | 2  | 0.007  | 0.116 | 0.005  | 0.132 | 0.002  | 0.166 |
| 52 | 3  | 0.016  | 0.142 | 0.012  | 0.159 | 0.007  | 0.196 |
| 52 | 4  | 0.027  | 0.167 | 0.021  | 0.185 | 0.013  | 0.223 |
| 52 | 5  | 0.039  | 0.192 | 0.032  | 0.210 | 0.021  | 0.249 |
| 52 | 6  | 0.051  | 0.215 | 0.044  | 0.234 | 0.031  | 0.274 |
| 52 | 7  | 0.065  | 0.238 | 0.056  | 0.258 | 0.041  | 0.298 |
| 52 | 8  | 0.079  | 0.261 | 0.069  | 0.281 | 0.052  | 0.322 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 52 | 9  | 0.093  | 0.283 | 0.082  | 0.303 | 0.063  | 0.345 |
| 52 | 10 | 0.108  | 0.304 | 0.096  | 0.325 | 0.075  | 0.368 |
| 52 | 11 | 0.123  | 0.326 | 0.111  | 0.347 | 0.088  | 0.390 |
| 52 | 12 | 0.139  | 0.347 | 0.125  | 0.368 | 0.101  | 0.411 |
| 52 | 13 | 0.155  | 0.368 | 0.140  | 0.389 | 0.115  | 0.432 |
| 52 | 14 | 0.171  | 0.388 | 0.156  | 0.410 | 0.129  | 0.453 |
| 52 | 15 | 0.187  | 0.409 | 0.171  | 0.431 | 0.143  | 0.474 |
| 52 | 16 | 0.203  | 0.429 | 0.187  | 0.451 | 0.158  | 0.494 |
| 52 | 17 | 0.220  | 0.449 | 0.203  | 0.471 | 0.172  | 0.514 |
| 52 | 18 | 0.237  | 0.469 | 0.220  | 0.491 | 0.188  | 0.534 |
| 52 | 19 | 0.254  | 0.489 | 0.236  | 0.510 | 0.203  | 0.553 |
| 52 | 20 | 0.271  | 0.508 | 0.253  | 0.530 | 0.219  | 0.572 |
| 52 | 21 | 0.289  | 0.527 | 0.270  | 0.549 | 0.235  | 0.591 |
| 52 | 22 | 0.307  | 0.546 | 0.287  | 0.568 | 0.251  | 0.609 |
| 52 | 23 | 0.324  | 0.565 | 0.305  | 0.587 | 0.268  | 0.628 |
| 52 | 24 | 0.342  | 0.584 | 0.322  | 0.605 | 0.285  | 0.646 |
| 52 | 25 | 0.360  | 0.603 | 0.340  | 0.624 | 0.302  | 0.663 |
| 52 | 26 | 0.379  | 0.621 | 0.358  | 0.642 | 0.319  | 0.681 |
| 52 | 27 | 0.397  | 0.640 | 0.376  | 0.660 | 0.337  | 0.698 |
| 52 | 28 | 0.416  | 0.658 | 0.395  | 0.678 | 0.354  | 0.715 |
| 52 | 29 | 0.435  | 0.676 | 0.413  | 0.695 | 0.372  | 0.732 |
| 52 | 30 | 0.454  | 0.693 | 0.432  | 0.713 | 0.391  | 0.749 |
| 52 | 31 | 0.473  | 0.711 | 0.451  | 0.730 | 0.409  | 0.765 |
| 52 | 32 | 0.492  | 0.729 | 0.470  | 0.747 | 0.428  | 0.781 |
| 52 | 33 | 0.511  | 0.746 | 0.490  | 0.764 | 0.447  | 0.797 |
| 52 | 34 | 0.531  | 0.763 | 0.509  | 0.780 | 0.466  | 0.812 |
| 52 | 35 | 0.551  | 0.780 | 0.529  | 0.797 | 0.486  | 0.828 |
| 52 | 36 | 0.571  | 0.797 | 0.549  | 0.813 | 0.506  | 0.842 |
| 52 | 37 | 0.591  | 0.813 | 0.569  | 0.829 | 0.526  | 0.857 |
| 52 | 38 | 0.612  | 0.829 | 0.590  | 0.844 | 0.547  | 0.871 |
| 52 | 39 | 0.632  | 0.845 | 0.611  | 0.860 | 0.568  | 0.885 |
| 52 | 40 | 0.653  | 0.861 | 0.632  | 0.875 | 0.589  | 0.899 |
| 52 | 41 | 0.674  | 0.877 | 0.653  | 0.889 | 0.610  | 0.912 |
| 52 | 42 | 0.696  | 0.892 | 0.675  | 0.904 | 0.632  | 0.925 |
| 52 | 43 | 0.717  | 0.907 | 0.697  | 0.918 | 0.655  | 0.937 |
| 52 | 44 | 0.739  | 0.921 | 0.719  | 0.931 | 0.678  | 0.948 |
| 52 | 45 | 0.762  | 0.935 | 0.742  | 0.944 | 0.702  | 0.959 |
| 52 | 46 | 0.785  | 0.949 | 0.766  | 0.956 | 0.726  | 0.969 |
| 52 | 47 | 0.808  | 0.961 | 0.790  | 0.968 | 0.751  | 0.979 |
| 52 | 48 | 0.833  | 0.973 | 0.815  | 0.979 | 0.777  | 0.987 |
| 52 | 49 | 0.858  | 0.984 | 0.841  | 0.988 | 0.804  | 0.993 |
| 52 | 50 | 0.884  | 0.993 | 0.868  | 0.995 | 0.834  | 0.998 |
| 52 | 51 | 0.912  | 0.999 | 0.897  | 1.000 | 0.866  | 1.000 |
| 52 | 52 | 0.944  | 1.000 | 0.932  | 1.000 | 0.903  | 1.000 |
| 53 | 0  | 0.000  | 0.055 | 0.000  | 0.067 | 0.000  | 0.095 |
| 53 | 1  | 0.001  | 0.086 | 0.000  | 0.101 | 0.000  | 0.132 |
| 53 | 2  | 0.007  | 0.114 | 0.005  | 0.130 | 0.002  | 0.163 |
| 53 | 3  | 0.016  | 0.140 | 0.012  | 0.157 | 0.006  | 0.192 |
| 53 | 4  | 0.026  | 0.164 | 0.021  | 0.182 | 0.013  | 0.219 |
| 53 | 5  | 0.038  | 0.188 | 0.031  | 0.207 | 0.021  | 0.245 |
| 53 | 6  | 0.050  | 0.211 | 0.043  | 0.230 | 0.030  | 0.269 |
| 53 | 7  | 0.064  | 0.234 | 0.055  | 0.253 | 0.040  | 0.293 |
| 53 | 8  | 0.077  | 0.256 | 0.067  | 0.276 | 0.051  | 0.317 |
| 53 | 9  | 0.092  | 0.278 | 0.081  | 0.298 | 0.062  | 0.339 |
| 53 | 10 | 0.106  | 0.299 | 0.094  | 0.320 | 0.074  | 0.361 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 53 | 11 | 0.121  | 0.320 | 0.108  | 0.341 | 0.086  | 0.383 |
| 53 | 12 | 0.136  | 0.341 | 0.123  | 0.362 | 0.099  | 0.404 |
| 53 | 13 | 0.152  | 0.361 | 0.138  | 0.383 | 0.112  | 0.425 |
| 53 | 14 | 0.167  | 0.382 | 0.153  | 0.403 | 0.126  | 0.446 |
| 53 | 15 | 0.183  | 0.402 | 0.168  | 0.423 | 0.140  | 0.466 |
| 53 | 16 | 0.199  | 0.422 | 0.183  | 0.443 | 0.154  | 0.486 |
| 53 | 17 | 0.216  | 0.441 | 0.199  | 0.463 | 0.169  | 0.506 |
| 53 | 18 | 0.232  | 0.461 | 0.215  | 0.483 | 0.184  | 0.525 |
| 53 | 19 | 0.249  | 0.480 | 0.231  | 0.502 | 0.199  | 0.544 |
| 53 | 20 | 0.266  | 0.499 | 0.248  | 0.521 | 0.214  | 0.563 |
| 53 | 21 | 0.283  | 0.518 | 0.265  | 0.540 | 0.230  | 0.582 |
| 53 | 22 | 0.300  | 0.537 | 0.281  | 0.559 | 0.246  | 0.600 |
| 53 | 23 | 0.318  | 0.556 | 0.298  | 0.577 | 0.262  | 0.618 |
| 53 | 24 | 0.335  | 0.574 | 0.316  | 0.595 | 0.279  | 0.636 |
| 53 | 25 | 0.353  | 0.593 | 0.333  | 0.614 | 0.295  | 0.653 |
| 53 | 26 | 0.371  | 0.611 | 0.351  | 0.632 | 0.312  | 0.671 |
| 53 | 27 | 0.389  | 0.629 | 0.368  | 0.649 | 0.329  | 0.688 |
| 53 | 28 | 0.407  | 0.647 | 0.386  | 0.667 | 0.347  | 0.705 |
| 53 | 29 | 0.426  | 0.665 | 0.405  | 0.684 | 0.364  | 0.721 |
| 53 | 30 | 0.444  | 0.682 | 0.423  | 0.702 | 0.382  | 0.738 |
| 53 | 31 | 0.463  | 0.700 | 0.441  | 0.719 | 0.400  | 0.754 |
| 53 | 32 | 0.482  | 0.717 | 0.460  | 0.735 | 0.418  | 0.770 |
| 53 | 33 | 0.501  | 0.734 | 0.479  | 0.752 | 0.437  | 0.786 |
| 53 | 34 | 0.520  | 0.751 | 0.498  | 0.769 | 0.456  | 0.801 |
| 53 | 35 | 0.539  | 0.768 | 0.517  | 0.785 | 0.475  | 0.816 |
| 53 | 36 | 0.559  | 0.784 | 0.537  | 0.801 | 0.494  | 0.831 |
| 53 | 37 | 0.578  | 0.801 | 0.557  | 0.817 | 0.514  | 0.846 |
| 53 | 38 | 0.598  | 0.817 | 0.577  | 0.832 | 0.534  | 0.860 |
| 53 | 39 | 0.618  | 0.833 | 0.597  | 0.847 | 0.554  | 0.874 |
| 53 | 40 | 0.639  | 0.848 | 0.617  | 0.862 | 0.575  | 0.888 |
| 53 | 41 | 0.659  | 0.864 | 0.638  | 0.877 | 0.596  | 0.901 |
| 53 | 42 | 0.680  | 0.879 | 0.659  | 0.892 | 0.617  | 0.914 |
| 53 | 43 | 0.701  | 0.894 | 0.680  | 0.906 | 0.639  | 0.926 |
| 53 | 44 | 0.722  | 0.908 | 0.702  | 0.919 | 0.661  | 0.938 |
| 53 | 45 | 0.744  | 0.923 | 0.724  | 0.933 | 0.683  | 0.949 |
| 53 | 46 | 0.766  | 0.936 | 0.747  | 0.945 | 0.707  | 0.960 |
| 53 | 47 | 0.789  | 0.950 | 0.770  | 0.957 | 0.731  | 0.970 |
| 53 | 48 | 0.812  | 0.962 | 0.793  | 0.969 | 0.755  | 0.979 |
| 53 | 49 | 0.836  | 0.974 | 0.818  | 0.979 | 0.781  | 0.987 |
| 53 | 50 | 0.860  | 0.984 | 0.843  | 0.988 | 0.808  | 0.994 |
| 53 | 51 | 0.886  | 0.993 | 0.870  | 0.995 | 0.837  | 0.998 |
| 53 | 52 | 0.914  | 0.999 | 0.899  | 1.000 | 0.868  | 1.000 |
| 53 | 53 | 0.945  | 1.000 | 0.933  | 1.000 | 0.905  | 1.000 |
| 54 | 0  | 0.000  | 0.054 | 0.000  | 0.066 | 0.000  | 0.093 |
| 54 | 1  | 0.001  | 0.085 | 0.000  | 0.099 | 0.000  | 0.130 |
| 54 | 2  | 0.007  | 0.112 | 0.005  | 0.127 | 0.002  | 0.161 |
| 54 | 3  | 0.015  | 0.137 | 0.012  | 0.154 | 0.006  | 0.189 |
| 54 | 4  | 0.026  | 0.162 | 0.021  | 0.179 | 0.013  | 0.215 |
| 54 | 5  | 0.037  | 0.185 | 0.031  | 0.203 | 0.021  | 0.241 |
| 54 | 6  | 0.050  | 0.208 | 0.042  | 0.226 | 0.029  | 0.265 |
| 54 | 7  | 0.062  | 0.230 | 0.054  | 0.249 | 0.039  | 0.288 |
| 54 | 8  | 0.076  | 0.251 | 0.066  | 0.271 | 0.050  | 0.311 |
| 54 | 9  | 0.090  | 0.273 | 0.079  | 0.293 | 0.061  | 0.334 |
| 54 | 10 | 0.104  | 0.294 | 0.093  | 0.314 | 0.073  | 0.355 |
| 54 | 11 | 0.119  | 0.315 | 0.106  | 0.335 | 0.085  | 0.377 |
| 54 | 12 | 0.134  | 0.335 | 0.120  | 0.356 | 0.097  | 0.398 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 54 | 13 | 0.149  | 0.355 | 0.135  | 0.376 | 0.110  | 0.418 |
| 54 | 14 | 0.164  | 0.375 | 0.150  | 0.397 | 0.124  | 0.439 |
| 54 | 15 | 0.180  | 0.395 | 0.165  | 0.416 | 0.137  | 0.459 |
| 54 | 16 | 0.196  | 0.415 | 0.180  | 0.436 | 0.151  | 0.478 |
| 54 | 17 | 0.212  | 0.434 | 0.195  | 0.456 | 0.165  | 0.498 |
| 54 | 18 | 0.228  | 0.453 | 0.211  | 0.475 | 0.180  | 0.517 |
| 54 | 19 | 0.244  | 0.472 | 0.227  | 0.494 | 0.195  | 0.536 |
| 54 | 20 | 0.261  | 0.491 | 0.243  | 0.513 | 0.210  | 0.554 |
| 54 | 21 | 0.277  | 0.510 | 0.259  | 0.531 | 0.225  | 0.573 |
| 54 | 22 | 0.294  | 0.528 | 0.276  | 0.550 | 0.241  | 0.591 |
| 54 | 23 | 0.311  | 0.547 | 0.292  | 0.568 | 0.257  | 0.609 |
| 54 | 24 | 0.329  | 0.565 | 0.309  | 0.586 | 0.273  | 0.626 |
| 54 | 25 | 0.346  | 0.583 | 0.326  | 0.604 | 0.289  | 0.644 |
| 54 | 26 | 0.363  | 0.601 | 0.343  | 0.622 | 0.306  | 0.661 |
| 54 | 27 | 0.381  | 0.619 | 0.361  | 0.639 | 0.322  | 0.678 |
| 54 | 28 | 0.399  | 0.637 | 0.378  | 0.657 | 0.339  | 0.694 |
| 54 | 29 | 0.417  | 0.654 | 0.396  | 0.674 | 0.356  | 0.711 |
| 54 | 30 | 0.435  | 0.671 | 0.414  | 0.691 | 0.374  | 0.727 |
| 54 | 31 | 0.453  | 0.689 | 0.432  | 0.708 | 0.391  | 0.743 |
| 54 | 32 | 0.472  | 0.706 | 0.450  | 0.724 | 0.409  | 0.759 |
| 54 | 33 | 0.490  | 0.723 | 0.469  | 0.741 | 0.427  | 0.775 |
| 54 | 34 | 0.509  | 0.739 | 0.487  | 0.757 | 0.446  | 0.790 |
| 54 | 35 | 0.528  | 0.756 | 0.506  | 0.773 | 0.464  | 0.805 |
| 54 | 36 | 0.547  | 0.772 | 0.525  | 0.789 | 0.483  | 0.820 |
| 54 | 37 | 0.566  | 0.788 | 0.544  | 0.805 | 0.502  | 0.835 |
| 54 | 38 | 0.585  | 0.804 | 0.564  | 0.820 | 0.522  | 0.849 |
| 54 | 39 | 0.605  | 0.820 | 0.584  | 0.835 | 0.541  | 0.863 |
| 54 | 40 | 0.625  | 0.836 | 0.603  | 0.850 | 0.561  | 0.876 |
| 54 | 41 | 0.645  | 0.851 | 0.624  | 0.865 | 0.582  | 0.890 |
| 54 | 42 | 0.665  | 0.866 | 0.644  | 0.880 | 0.602  | 0.903 |
| 54 | 43 | 0.685  | 0.881 | 0.665  | 0.894 | 0.623  | 0.915 |
| 54 | 44 | 0.706  | 0.896 | 0.686  | 0.907 | 0.645  | 0.927 |
| 54 | 45 | 0.727  | 0.910 | 0.707  | 0.921 | 0.666  | 0.939 |
| 54 | 46 | 0.749  | 0.924 | 0.729  | 0.934 | 0.689  | 0.950 |
| 54 | 47 | 0.770  | 0.938 | 0.751  | 0.946 | 0.712  | 0.961 |
| 54 | 48 | 0.792  | 0.950 | 0.774  | 0.958 | 0.735  | 0.971 |
| 54 | 49 | 0.815  | 0.963 | 0.797  | 0.969 | 0.759  | 0.979 |
| 54 | 50 | 0.838  | 0.974 | 0.821  | 0.979 | 0.785  | 0.987 |
| 54 | 51 | 0.863  | 0.985 | 0.846  | 0.988 | 0.811  | 0.994 |
| 54 | 52 | 0.888  | 0.993 | 0.873  | 0.995 | 0.839  | 0.998 |
| 54 | 53 | 0.915  | 0.999 | 0.901  | 1.000 | 0.870  | 1.000 |
| 54 | 54 | 0.946  | 1.000 | 0.934  | 1.000 | 0.907  | 1.000 |
| 55 | 0  | 0.000  | 0.053 | 0.000  | 0.065 | 0.000  | 0.092 |
| 55 | 1  | 0.001  | 0.083 | 0.000  | 0.097 | 0.000  | 0.127 |
| 55 | 2  | 0.006  | 0.110 | 0.004  | 0.125 | 0.002  | 0.158 |
| 55 | 3  | 0.015  | 0.135 | 0.011  | 0.151 | 0.006  | 0.186 |
| 55 | 4  | 0.025  | 0.159 | 0.020  | 0.176 | 0.012  | 0.212 |
| 55 | 5  | 0.037  | 0.182 | 0.030  | 0.200 | 0.020  | 0.237 |
| 55 | 6  | 0.049  | 0.204 | 0.041  | 0.222 | 0.029  | 0.261 |
| 55 | 7  | 0.061  | 0.226 | 0.053  | 0.245 | 0.038  | 0.284 |
| 55 | 8  | 0.074  | 0.247 | 0.065  | 0.267 | 0.049  | 0.306 |
| 55 | 9  | 0.088  | 0.268 | 0.078  | 0.288 | 0.060  | 0.328 |
| 55 | 10 | 0.102  | 0.289 | 0.091  | 0.309 | 0.071  | 0.350 |
| 55 | 11 | 0.116  | 0.309 | 0.104  | 0.330 | 0.083  | 0.371 |
| 55 | 12 | 0.131  | 0.329 | 0.118  | 0.350 | 0.095  | 0.391 |
| 55 | 13 | 0.146  | 0.349 | 0.132  | 0.370 | 0.108  | 0.412 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 55 | 14 | 0.161  | 0.369 | 0.147  | 0.390 | 0.121  | 0.432 |
| 55 | 15 | 0.176  | 0.388 | 0.161  | 0.410 | 0.134  | 0.451 |
| 55 | 16 | 0.192  | 0.408 | 0.176  | 0.429 | 0.148  | 0.471 |
| 55 | 17 | 0.207  | 0.427 | 0.191  | 0.448 | 0.162  | 0.490 |
| 55 | 18 | 0.223  | 0.446 | 0.207  | 0.467 | 0.176  | 0.509 |
| 55 | 19 | 0.239  | 0.465 | 0.222  | 0.486 | 0.191  | 0.527 |
| 55 | 20 | 0.256  | 0.483 | 0.238  | 0.504 | 0.206  | 0.546 |
| 55 | 21 | 0.272  | 0.502 | 0.254  | 0.523 | 0.221  | 0.564 |
| 55 | 22 | 0.289  | 0.520 | 0.270  | 0.541 | 0.236  | 0.582 |
| 55 | 23 | 0.305  | 0.538 | 0.287  | 0.559 | 0.251  | 0.599 |
| 55 | 24 | 0.322  | 0.556 | 0.303  | 0.577 | 0.267  | 0.617 |
| 55 | 25 | 0.339  | 0.574 | 0.320  | 0.594 | 0.283  | 0.634 |
| 55 | 26 | 0.356  | 0.591 | 0.337  | 0.612 | 0.299  | 0.651 |
| 55 | 27 | 0.374  | 0.609 | 0.354  | 0.629 | 0.316  | 0.668 |
| 55 | 28 | 0.391  | 0.626 | 0.371  | 0.646 | 0.332  | 0.684 |
| 55 | 29 | 0.409  | 0.644 | 0.388  | 0.663 | 0.349  | 0.701 |
| 55 | 30 | 0.426  | 0.661 | 0.406  | 0.680 | 0.366  | 0.717 |
| 55 | 31 | 0.444  | 0.678 | 0.423  | 0.697 | 0.383  | 0.733 |
| 55 | 32 | 0.462  | 0.695 | 0.441  | 0.713 | 0.401  | 0.749 |
| 55 | 33 | 0.480  | 0.711 | 0.459  | 0.730 | 0.418  | 0.764 |
| 55 | 34 | 0.498  | 0.728 | 0.477  | 0.746 | 0.436  | 0.779 |
| 55 | 35 | 0.517  | 0.744 | 0.496  | 0.762 | 0.454  | 0.794 |
| 55 | 36 | 0.535  | 0.761 | 0.514  | 0.778 | 0.473  | 0.809 |
| 55 | 37 | 0.554  | 0.777 | 0.533  | 0.793 | 0.491  | 0.824 |
| 55 | 38 | 0.573  | 0.793 | 0.552  | 0.809 | 0.510  | 0.838 |
| 55 | 39 | 0.592  | 0.808 | 0.571  | 0.824 | 0.529  | 0.852 |
| 55 | 40 | 0.612  | 0.824 | 0.590  | 0.839 | 0.549  | 0.866 |
| 55 | 41 | 0.631  | 0.839 | 0.610  | 0.853 | 0.568  | 0.879 |
| 55 | 42 | 0.651  | 0.854 | 0.630  | 0.868 | 0.588  | 0.892 |
| 55 | 43 | 0.671  | 0.869 | 0.650  | 0.882 | 0.609  | 0.905 |
| 55 | 44 | 0.691  | 0.884 | 0.670  | 0.896 | 0.629  | 0.917 |
| 55 | 45 | 0.711  | 0.898 | 0.691  | 0.909 | 0.650  | 0.929 |
| 55 | 46 | 0.732  | 0.912 | 0.712  | 0.922 | 0.672  | 0.940 |
| 55 | 47 | 0.753  | 0.926 | 0.733  | 0.935 | 0.694  | 0.951 |
| 55 | 48 | 0.774  | 0.939 | 0.755  | 0.947 | 0.716  | 0.962 |
| 55 | 49 | 0.796  | 0.951 | 0.778  | 0.959 | 0.739  | 0.971 |
| 55 | 50 | 0.818  | 0.963 | 0.800  | 0.970 | 0.763  | 0.980 |
| 55 | 51 | 0.841  | 0.975 | 0.824  | 0.980 | 0.788  | 0.988 |
| 55 | 52 | 0.865  | 0.985 | 0.849  | 0.989 | 0.814  | 0.994 |
| 55 | 53 | 0.890  | 0.994 | 0.875  | 0.996 | 0.842  | 0.998 |
| 55 | 54 | 0.917  | 0.999 | 0.903  | 1.000 | 0.873  | 1.000 |
| 55 | 55 | 0.947  | 1.000 | 0.935  | 1.000 | 0.908  | 1.000 |
| 56 | 0  | 0.000  | 0.052 | 0.000  | 0.064 | 0.000  | 0.090 |
| 56 | 1  | 0.001  | 0.082 | 0.000  | 0.096 | 0.000  | 0.125 |
| 56 | 2  | 0.006  | 0.108 | 0.004  | 0.123 | 0.002  | 0.155 |
| 56 | 3  | 0.015  | 0.133 | 0.011  | 0.149 | 0.006  | 0.183 |
| 56 | 4  | 0.025  | 0.156 | 0.020  | 0.173 | 0.012  | 0.208 |
| 56 | 5  | 0.036  | 0.179 | 0.030  | 0.196 | 0.020  | 0.233 |
| 56 | 6  | 0.048  | 0.201 | 0.040  | 0.219 | 0.028  | 0.256 |
| 56 | 7  | 0.060  | 0.222 | 0.052  | 0.241 | 0.038  | 0.279 |
| 56 | 8  | 0.073  | 0.243 | 0.064  | 0.262 | 0.048  | 0.301 |
| 56 | 9  | 0.086  | 0.264 | 0.076  | 0.283 | 0.059  | 0.323 |
| 56 | 10 | 0.100  | 0.284 | 0.089  | 0.304 | 0.070  | 0.344 |
| 56 | 11 | 0.114  | 0.304 | 0.102  | 0.324 | 0.081  | 0.365 |
| 56 | 12 | 0.129  | 0.324 | 0.116  | 0.344 | 0.094  | 0.385 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 56 | 13 | 0.143  | 0.344 | 0.130  | 0.364 | 0.106  | 0.405 |
| 56 | 14 | 0.158  | 0.363 | 0.144  | 0.384 | 0.119  | 0.425 |
| 56 | 15 | 0.173  | 0.382 | 0.158  | 0.403 | 0.132  | 0.444 |
| 56 | 16 | 0.188  | 0.401 | 0.173  | 0.422 | 0.145  | 0.464 |
| 56 | 17 | 0.204  | 0.420 | 0.188  | 0.441 | 0.159  | 0.482 |
| 56 | 18 | 0.219  | 0.439 | 0.203  | 0.460 | 0.173  | 0.501 |
| 56 | 19 | 0.235  | 0.457 | 0.218  | 0.478 | 0.187  | 0.519 |
| 56 | 20 | 0.251  | 0.475 | 0.234  | 0.496 | 0.202  | 0.537 |
| 56 | 21 | 0.267  | 0.493 | 0.249  | 0.515 | 0.216  | 0.555 |
| 56 | 22 | 0.283  | 0.511 | 0.265  | 0.532 | 0.231  | 0.573 |
| 56 | 23 | 0.299  | 0.529 | 0.281  | 0.550 | 0.246  | 0.591 |
| 56 | 24 | 0.316  | 0.547 | 0.297  | 0.568 | 0.262  | 0.608 |
| 56 | 25 | 0.333  | 0.565 | 0.313  | 0.585 | 0.277  | 0.625 |
| 56 | 26 | 0.349  | 0.582 | 0.330  | 0.603 | 0.293  | 0.642 |
| 56 | 27 | 0.366  | 0.599 | 0.347  | 0.620 | 0.309  | 0.658 |
| 56 | 28 | 0.383  | 0.617 | 0.363  | 0.637 | 0.325  | 0.675 |
| 56 | 29 | 0.401  | 0.634 | 0.380  | 0.653 | 0.342  | 0.691 |
| 56 | 30 | 0.418  | 0.651 | 0.397  | 0.670 | 0.358  | 0.707 |
| 56 | 31 | 0.435  | 0.667 | 0.415  | 0.687 | 0.375  | 0.723 |
| 56 | 32 | 0.453  | 0.684 | 0.432  | 0.703 | 0.392  | 0.738 |
| 56 | 33 | 0.471  | 0.701 | 0.450  | 0.719 | 0.409  | 0.754 |
| 56 | 34 | 0.489  | 0.717 | 0.468  | 0.735 | 0.427  | 0.769 |
| 56 | 35 | 0.507  | 0.733 | 0.485  | 0.751 | 0.445  | 0.784 |
| 56 | 36 | 0.525  | 0.749 | 0.504  | 0.766 | 0.463  | 0.798 |
| 56 | 37 | 0.543  | 0.765 | 0.522  | 0.782 | 0.481  | 0.813 |
| 56 | 38 | 0.561  | 0.781 | 0.540  | 0.797 | 0.499  | 0.827 |
| 56 | 39 | 0.580  | 0.796 | 0.559  | 0.812 | 0.518  | 0.841 |
| 56 | 40 | 0.599  | 0.812 | 0.578  | 0.827 | 0.536  | 0.855 |
| 56 | 41 | 0.618  | 0.827 | 0.597  | 0.842 | 0.556  | 0.868 |
| 56 | 42 | 0.637  | 0.842 | 0.616  | 0.856 | 0.575  | 0.881 |
| 56 | 43 | 0.656  | 0.857 | 0.636  | 0.870 | 0.595  | 0.894 |
| 56 | 44 | 0.676  | 0.871 | 0.656  | 0.884 | 0.615  | 0.906 |
| 56 | 45 | 0.696  | 0.886 | 0.676  | 0.898 | 0.635  | 0.919 |
| 56 | 46 | 0.716  | 0.900 | 0.696  | 0.911 | 0.656  | 0.930 |
| 56 | 47 | 0.736  | 0.914 | 0.717  | 0.924 | 0.677  | 0.941 |
| 56 | 48 | 0.757  | 0.927 | 0.738  | 0.936 | 0.699  | 0.952 |
| 56 | 49 | 0.778  | 0.940 | 0.759  | 0.948 | 0.721  | 0.962 |
| 56 | 50 | 0.799  | 0.952 | 0.781  | 0.960 | 0.744  | 0.972 |
| 56 | 51 | 0.821  | 0.964 | 0.804  | 0.970 | 0.767  | 0.980 |
| 56 | 52 | 0.844  | 0.975 | 0.827  | 0.980 | 0.792  | 0.988 |
| 56 | 53 | 0.867  | 0.985 | 0.851  | 0.989 | 0.817  | 0.994 |
| 56 | 54 | 0.892  | 0.994 | 0.877  | 0.996 | 0.845  | 0.998 |
| 56 | 55 | 0.918  | 0.999 | 0.904  | 1.000 | 0.875  | 1.000 |
| 56 | 56 | 0.948  | 1.000 | 0.936  | 1.000 | 0.910  | 1.000 |
| 57 | 0  | 0.000  | 0.051 | 0.000  | 0.063 | 0.000  | 0.089 |
| 57 | 1  | 0.001  | 0.081 | 0.000  | 0.094 | 0.000  | 0.123 |
| 57 | 2  | 0.006  | 0.106 | 0.004  | 0.121 | 0.002  | 0.153 |
| 57 | 3  | 0.014  | 0.130 | 0.011  | 0.146 | 0.006  | 0.180 |
| 57 | 4  | 0.024  | 0.153 | 0.019  | 0.170 | 0.012  | 0.205 |
| 57 | 5  | 0.035  | 0.176 | 0.029  | 0.193 | 0.019  | 0.229 |
| 57 | 6  | 0.047  | 0.197 | 0.040  | 0.215 | 0.028  | 0.252 |
| 57 | 7  | 0.059  | 0.218 | 0.051  | 0.237 | 0.037  | 0.275 |
| 57 | 8  | 0.072  | 0.239 | 0.063  | 0.258 | 0.047  | 0.297 |
| 57 | 9  | 0.085  | 0.259 | 0.075  | 0.279 | 0.057  | 0.318 |
| 57 | 10 | 0.098  | 0.279 | 0.087  | 0.299 | 0.068  | 0.339 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 57 | 11 | 0.112  | 0.299 | 0.100  | 0.319 | 0.080  | 0.359 |
| 57 | 12 | 0.126  | 0.319 | 0.114  | 0.339 | 0.092  | 0.379 |
| 57 | 13 | 0.141  | 0.338 | 0.127  | 0.358 | 0.104  | 0.399 |
| 57 | 14 | 0.155  | 0.357 | 0.141  | 0.378 | 0.117  | 0.419 |
| 57 | 15 | 0.170  | 0.376 | 0.155  | 0.397 | 0.129  | 0.438 |
| 57 | 16 | 0.185  | 0.395 | 0.170  | 0.415 | 0.143  | 0.457 |
| 57 | 17 | 0.200  | 0.413 | 0.184  | 0.434 | 0.156  | 0.475 |
| 57 | 18 | 0.215  | 0.431 | 0.199  | 0.452 | 0.170  | 0.493 |
| 57 | 19 | 0.230  | 0.450 | 0.214  | 0.471 | 0.184  | 0.512 |
| 57 | 20 | 0.246  | 0.468 | 0.229  | 0.489 | 0.198  | 0.530 |
| 57 | 21 | 0.262  | 0.486 | 0.244  | 0.507 | 0.212  | 0.547 |
| 57 | 22 | 0.278  | 0.503 | 0.260  | 0.524 | 0.227  | 0.565 |
| 57 | 23 | 0.294  | 0.521 | 0.276  | 0.542 | 0.242  | 0.582 |
| 57 | 24 | 0.310  | 0.539 | 0.291  | 0.559 | 0.257  | 0.599 |
| 57 | 25 | 0.326  | 0.556 | 0.307  | 0.576 | 0.272  | 0.616 |
| 57 | 26 | 0.343  | 0.573 | 0.324  | 0.593 | 0.287  | 0.632 |
| 57 | 27 | 0.359  | 0.590 | 0.340  | 0.610 | 0.303  | 0.649 |
| 57 | 28 | 0.376  | 0.607 | 0.356  | 0.627 | 0.319  | 0.665 |
| 57 | 29 | 0.393  | 0.624 | 0.373  | 0.644 | 0.335  | 0.681 |
| 57 | 30 | 0.410  | 0.641 | 0.390  | 0.660 | 0.351  | 0.697 |
| 57 | 31 | 0.427  | 0.657 | 0.407  | 0.676 | 0.368  | 0.713 |
| 57 | 32 | 0.444  | 0.674 | 0.424  | 0.693 | 0.384  | 0.728 |
| 57 | 33 | 0.461  | 0.690 | 0.441  | 0.709 | 0.401  | 0.743 |
| 57 | 34 | 0.479  | 0.706 | 0.458  | 0.724 | 0.418  | 0.758 |
| 57 | 35 | 0.497  | 0.722 | 0.476  | 0.740 | 0.435  | 0.773 |
| 57 | 36 | 0.514  | 0.738 | 0.493  | 0.756 | 0.453  | 0.788 |
| 57 | 37 | 0.532  | 0.754 | 0.511  | 0.771 | 0.470  | 0.802 |
| 57 | 38 | 0.550  | 0.770 | 0.529  | 0.786 | 0.488  | 0.816 |
| 57 | 39 | 0.569  | 0.785 | 0.548  | 0.801 | 0.507  | 0.830 |
| 57 | 40 | 0.587  | 0.800 | 0.566  | 0.816 | 0.525  | 0.844 |
| 57 | 41 | 0.605  | 0.815 | 0.585  | 0.830 | 0.543  | 0.857 |
| 57 | 42 | 0.624  | 0.830 | 0.603  | 0.845 | 0.562  | 0.871 |
| 57 | 43 | 0.643  | 0.845 | 0.622  | 0.859 | 0.581  | 0.883 |
| 57 | 44 | 0.662  | 0.859 | 0.642  | 0.873 | 0.601  | 0.896 |
| 57 | 45 | 0.681  | 0.874 | 0.661  | 0.886 | 0.621  | 0.908 |
| 57 | 46 | 0.701  | 0.888 | 0.681  | 0.900 | 0.641  | 0.920 |
| 57 | 47 | 0.721  | 0.902 | 0.701  | 0.913 | 0.661  | 0.932 |
| 57 | 48 | 0.741  | 0.915 | 0.721  | 0.925 | 0.682  | 0.943 |
| 57 | 49 | 0.761  | 0.928 | 0.742  | 0.937 | 0.703  | 0.953 |
| 57 | 50 | 0.782  | 0.941 | 0.763  | 0.949 | 0.725  | 0.963 |
| 57 | 51 | 0.803  | 0.953 | 0.785  | 0.960 | 0.748  | 0.972 |
| 57 | 52 | 0.824  | 0.965 | 0.807  | 0.971 | 0.771  | 0.981 |
| 57 | 53 | 0.847  | 0.976 | 0.830  | 0.981 | 0.795  | 0.988 |
| 57 | 54 | 0.870  | 0.986 | 0.854  | 0.989 | 0.820  | 0.994 |
| 57 | 55 | 0.894  | 0.994 | 0.879  | 0.996 | 0.847  | 0.998 |
| 57 | 56 | 0.919  | 0.999 | 0.906  | 1.000 | 0.877  | 1.000 |
| 57 | 57 | 0.949  | 1.000 | 0.937  | 1.000 | 0.911  | 1.000 |
| 58 | 0  | 0.000  | 0.050 | 0.000  | 0.062 | 0.000  | 0.087 |
| 58 | 1  | 0.001  | 0.079 | 0.000  | 0.092 | 0.000  | 0.121 |
| 58 | 2  | 0.006  | 0.105 | 0.004  | 0.119 | 0.002  | 0.150 |
| 58 | 3  | 0.014  | 0.128 | 0.011  | 0.144 | 0.006  | 0.177 |
| 58 | 4  | 0.024  | 0.151 | 0.019  | 0.167 | 0.012  | 0.202 |
| 58 | 5  | 0.035  | 0.173 | 0.029  | 0.190 | 0.019  | 0.225 |
| 58 | 6  | 0.046  | 0.194 | 0.039  | 0.212 | 0.027  | 0.248 |
| 58 | 7  | 0.058  | 0.215 | 0.050  | 0.233 | 0.036  | 0.270 |
| 58 | 8  | 0.071  | 0.235 | 0.061  | 0.254 | 0.046  | 0.292 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 58 | 9  | 0.083  | 0.255 | 0.073  | 0.274 | 0.056  | 0.313 |
| 58 | 10 | 0.097  | 0.275 | 0.086  | 0.294 | 0.067  | 0.334 |
| 58 | 11 | 0.110  | 0.294 | 0.099  | 0.314 | 0.078  | 0.354 |
| 58 | 12 | 0.124  | 0.314 | 0.112  | 0.334 | 0.090  | 0.374 |
| 58 | 13 | 0.138  | 0.333 | 0.125  | 0.353 | 0.102  | 0.393 |
| 58 | 14 | 0.152  | 0.351 | 0.139  | 0.372 | 0.114  | 0.412 |
| 58 | 15 | 0.167  | 0.370 | 0.153  | 0.390 | 0.127  | 0.431 |
| 58 | 16 | 0.181  | 0.388 | 0.167  | 0.409 | 0.140  | 0.450 |
| 58 | 17 | 0.196  | 0.407 | 0.181  | 0.427 | 0.153  | 0.468 |
| 58 | 18 | 0.211  | 0.425 | 0.195  | 0.445 | 0.167  | 0.486 |
| 58 | 19 | 0.226  | 0.443 | 0.210  | 0.463 | 0.180  | 0.504 |
| 58 | 20 | 0.242  | 0.460 | 0.225  | 0.481 | 0.194  | 0.522 |
| 58 | 21 | 0.257  | 0.478 | 0.240  | 0.499 | 0.208  | 0.533 |
| 58 | 22 | 0.273  | 0.496 | 0.255  | 0.516 | 0.223  | 0.556 |
| 58 | 23 | 0.288  | 0.513 | 0.270  | 0.534 | 0.237  | 0.573 |
| 58 | 24 | 0.304  | 0.530 | 0.286  | 0.551 | 0.252  | 0.590 |
| 58 | 25 | 0.320  | 0.547 | 0.302  | 0.568 | 0.267  | 0.607 |
| 58 | 26 | 0.336  | 0.564 | 0.317  | 0.585 | 0.282  | 0.623 |
| 58 | 27 | 0.353  | 0.581 | 0.333  | 0.601 | 0.297  | 0.640 |
| 58 | 28 | 0.369  | 0.598 | 0.350  | 0.618 | 0.313  | 0.656 |
| 58 | 29 | 0.385  | 0.615 | 0.366  | 0.634 | 0.328  | 0.672 |
| 58 | 30 | 0.402  | 0.631 | 0.382  | 0.650 | 0.344  | 0.687 |
| 58 | 31 | 0.419  | 0.647 | 0.399  | 0.667 | 0.360  | 0.703 |
| 58 | 32 | 0.436  | 0.664 | 0.415  | 0.683 | 0.377  | 0.718 |
| 58 | 33 | 0.453  | 0.680 | 0.432  | 0.698 | 0.393  | 0.733 |
| 58 | 34 | 0.470  | 0.696 | 0.449  | 0.714 | 0.410  | 0.748 |
| 58 | 35 | 0.487  | 0.712 | 0.466  | 0.730 | 0.427  | 0.763 |
| 58 | 36 | 0.504  | 0.727 | 0.484  | 0.745 | 0.444  | 0.777 |
| 58 | 37 | 0.522  | 0.743 | 0.501  | 0.760 | 0.461  | 0.792 |
| 58 | 38 | 0.540  | 0.758 | 0.519  | 0.775 | 0.478  | 0.806 |
| 58 | 39 | 0.557  | 0.774 | 0.537  | 0.790 | 0.496  | 0.820 |
| 58 | 40 | 0.575  | 0.789 | 0.555  | 0.805 | 0.514  | 0.833 |
| 58 | 41 | 0.593  | 0.804 | 0.573  | 0.819 | 0.532  | 0.847 |
| 58 | 42 | 0.612  | 0.819 | 0.591  | 0.833 | 0.550  | 0.860 |
| 58 | 43 | 0.630  | 0.833 | 0.610  | 0.847 | 0.569  | 0.873 |
| 58 | 44 | 0.649  | 0.848 | 0.628  | 0.861 | 0.588  | 0.886 |
| 58 | 45 | 0.667  | 0.862 | 0.647  | 0.875 | 0.607  | 0.898 |
| 58 | 46 | 0.686  | 0.876 | 0.666  | 0.888 | 0.626  | 0.910 |
| 58 | 47 | 0.706  | 0.890 | 0.686  | 0.901 | 0.646  | 0.922 |
| 58 | 48 | 0.725  | 0.903 | 0.706  | 0.914 | 0.666  | 0.933 |
| 58 | 49 | 0.745  | 0.917 | 0.726  | 0.927 | 0.687  | 0.944 |
| 58 | 50 | 0.765  | 0.929 | 0.746  | 0.939 | 0.708  | 0.954 |
| 58 | 51 | 0.785  | 0.942 | 0.767  | 0.950 | 0.730  | 0.964 |
| 58 | 52 | 0.806  | 0.954 | 0.788  | 0.961 | 0.752  | 0.973 |
| 58 | 53 | 0.827  | 0.965 | 0.810  | 0.971 | 0.775  | 0.981 |
| 58 | 54 | 0.849  | 0.976 | 0.833  | 0.981 | 0.798  | 0.988 |
| 58 | 55 | 0.872  | 0.986 | 0.856  | 0.989 | 0.823  | 0.994 |
| 58 | 56 | 0.895  | 0.994 | 0.881  | 0.996 | 0.850  | 0.998 |
| 58 | 57 | 0.921  | 0.999 | 0.908  | 1.000 | 0.879  | 1.000 |
| 58 | 58 | 0.950  | 1.000 | 0.938  | 1.000 | 0.913  | 1.000 |
| 59 | 0  | 0.000  | 0.050 | 0.000  | 0.061 | 0.000  | 0.086 |
| 59 | 1  | 0.001  | 0.078 | 0.000  | 0.091 | 0.000  | 0.119 |
| 59 | 2  | 0.006  | 0.103 | 0.004  | 0.117 | 0.002  | 0.148 |
| 59 | 3  | 0.014  | 0.126 | 0.011  | 0.141 | 0.006  | 0.174 |
| 59 | 4  | 0.023  | 0.148 | 0.019  | 0.165 | 0.012  | 0.198 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 59 | 5  | 0.034  | 0.170 | 0.028  | 0.187 | 0.019  | 0.222 |
| 59 | 6  | 0.045  | 0.191 | 0.038  | 0.208 | 0.027  | 0.244 |
| 59 | 7  | 0.057  | 0.211 | 0.049  | 0.229 | 0.036  | 0.266 |
| 59 | 8  | 0.069  | 0.231 | 0.060  | 0.250 | 0.045  | 0.287 |
| 59 | 9  | 0.082  | 0.251 | 0.072  | 0.270 | 0.055  | 0.308 |
| 59 | 10 | 0.095  | 0.271 | 0.084  | 0.290 | 0.066  | 0.328 |
| 59 | 11 | 0.108  | 0.290 | 0.097  | 0.309 | 0.077  | 0.348 |
| 59 | 12 | 0.122  | 0.309 | 0.110  | 0.328 | 0.088  | 0.368 |
| 59 | 13 | 0.136  | 0.327 | 0.123  | 0.347 | 0.100  | 0.387 |
| 59 | 14 | 0.150  | 0.346 | 0.136  | 0.366 | 0.112  | 0.406 |
| 59 | 15 | 0.164  | 0.364 | 0.150  | 0.384 | 0.125  | 0.425 |
| 59 | 16 | 0.178  | 0.382 | 0.164  | 0.403 | 0.137  | 0.443 |
| 59 | 17 | 0.193  | 0.400 | 0.178  | 0.421 | 0.150  | 0.461 |
| 59 | 18 | 0.207  | 0.418 | 0.192  | 0.439 | 0.163  | 0.479 |
| 59 | 19 | 0.222  | 0.436 | 0.206  | 0.456 | 0.177  | 0.497 |
| 59 | 20 | 0.237  | 0.453 | 0.221  | 0.474 | 0.190  | 0.514 |
| 59 | 21 | 0.252  | 0.471 | 0.236  | 0.491 | 0.204  | 0.531 |
| 59 | 22 | 0.268  | 0.488 | 0.250  | 0.509 | 0.218  | 0.548 |
| 59 | 23 | 0.283  | 0.505 | 0.265  | 0.526 | 0.233  | 0.565 |
| 59 | 24 | 0.299  | 0.522 | 0.281  | 0.543 | 0.247  | 0.582 |
| 59 | 25 | 0.314  | 0.539 | 0.296  | 0.559 | 0.262  | 0.598 |
| 59 | 26 | 0.330  | 0.556 | 0.312  | 0.576 | 0.276  | 0.615 |
| 59 | 27 | 0.346  | 0.572 | 0.327  | 0.592 | 0.291  | 0.631 |
| 59 | 28 | 0.362  | 0.589 | 0.343  | 0.609 | 0.307  | 0.647 |
| 59 | 29 | 0.378  | 0.605 | 0.359  | 0.625 | 0.322  | 0.662 |
| 59 | 30 | 0.395  | 0.622 | 0.375  | 0.641 | 0.338  | 0.678 |
| 59 | 31 | 0.411  | 0.638 | 0.391  | 0.657 | 0.353  | 0.693 |
| 59 | 32 | 0.428  | 0.654 | 0.408  | 0.673 | 0.369  | 0.709 |
| 59 | 33 | 0.444  | 0.670 | 0.424  | 0.688 | 0.385  | 0.724 |
| 59 | 34 | 0.461  | 0.686 | 0.441  | 0.704 | 0.402  | 0.738 |
| 59 | 35 | 0.478  | 0.701 | 0.457  | 0.719 | 0.418  | 0.753 |
| 59 | 36 | 0.495  | 0.717 | 0.474  | 0.735 | 0.435  | 0.767 |
| 59 | 37 | 0.512  | 0.732 | 0.491  | 0.750 | 0.452  | 0.782 |
| 59 | 38 | 0.529  | 0.748 | 0.509  | 0.764 | 0.469  | 0.796 |
| 59 | 39 | 0.547  | 0.763 | 0.526  | 0.779 | 0.486  | 0.810 |
| 59 | 40 | 0.564  | 0.778 | 0.544  | 0.794 | 0.503  | 0.823 |
| 59 | 41 | 0.582  | 0.793 | 0.561  | 0.808 | 0.521  | 0.837 |
| 59 | 42 | 0.600  | 0.807 | 0.579  | 0.822 | 0.539  | 0.850 |
| 59 | 43 | 0.618  | 0.822 | 0.597  | 0.836 | 0.557  | 0.863 |
| 59 | 44 | 0.636  | 0.836 | 0.616  | 0.850 | 0.575  | 0.875 |
| 59 | 45 | 0.654  | 0.850 | 0.634  | 0.864 | 0.594  | 0.888 |
| 59 | 46 | 0.673  | 0.864 | 0.653  | 0.877 | 0.613  | 0.900 |
| 59 | 47 | 0.691  | 0.878 | 0.672  | 0.890 | 0.632  | 0.912 |
| 59 | 48 | 0.710  | 0.892 | 0.691  | 0.903 | 0.652  | 0.923 |
| 59 | 49 | 0.729  | 0.905 | 0.710  | 0.916 | 0.672  | 0.934 |
| 59 | 50 | 0.749  | 0.918 | 0.730  | 0.928 | 0.692  | 0.945 |
| 59 | 51 | 0.769  | 0.931 | 0.750  | 0.940 | 0.713  | 0.955 |
| 59 | 52 | 0.789  | 0.943 | 0.771  | 0.951 | 0.734  | 0.964 |
| 59 | 53 | 0.809  | 0.955 | 0.792  | 0.962 | 0.756  | 0.973 |
| 59 | 54 | 0.830  | 0.966 | 0.813  | 0.972 | 0.778  | 0.981 |
| 59 | 55 | 0.852  | 0.977 | 0.835  | 0.981 | 0.802  | 0.988 |
| 59 | 56 | 0.874  | 0.986 | 0.859  | 0.989 | 0.826  | 0.994 |
| 59 | 57 | 0.897  | 0.994 | 0.883  | 0.996 | 0.852  | 0.998 |
| 59 | 58 | 0.922  | 0.999 | 0.909  | 1.000 | 0.881  | 1.000 |
| 59 | 59 | 0.950  | 1.000 | 0.939  | 1.000 | 0.914  | 1.000 |
| 60 | 0  | 0.000  | 0.049 | 0.000  | 0.060 | 0.000  | 0.085 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 60 | 1  | 0.001  | 0.077 | 0.000  | 0.089 | 0.000  | 0.117 |
| 60 | 2  | 0.006  | 0.101 | 0.004  | 0.115 | 0.002  | 0.145 |
| 60 | 3  | 0.014  | 0.124 | 0.010  | 0.139 | 0.006  | 0.171 |
| 60 | 4  | 0.023  | 0.146 | 0.018  | 0.162 | 0.011  | 0.195 |
| 60 | 5  | 0.033  | 0.167 | 0.028  | 0.184 | 0.018  | 0.218 |
| 60 | 6  | 0.044  | 0.188 | 0.038  | 0.205 | 0.026  | 0.241 |
| 60 | 7  | 0.056  | 0.208 | 0.048  | 0.226 | 0.035  | 0.262 |
| 60 | 8  | 0.068  | 0.228 | 0.059  | 0.246 | 0.045  | 0.283 |
| 60 | 9  | 0.081  | 0.247 | 0.071  | 0.266 | 0.054  | 0.304 |
| 60 | 10 | 0.093  | 0.266 | 0.083  | 0.285 | 0.065  | 0.324 |
| 60 | 11 | 0.106  | 0.285 | 0.095  | 0.304 | 0.076  | 0.343 |
| 60 | 12 | 0.120  | 0.304 | 0.108  | 0.323 | 0.087  | 0.362 |
| 60 | 13 | 0.133  | 0.322 | 0.121  | 0.342 | 0.098  | 0.381 |
| 60 | 14 | 0.147  | 0.340 | 0.134  | 0.360 | 0.110  | 0.400 |
| 60 | 15 | 0.161  | 0.359 | 0.147  | 0.379 | 0.123  | 0.418 |
| 60 | 16 | 0.175  | 0.376 | 0.161  | 0.397 | 0.135  | 0.437 |
| 60 | 17 | 0.189  | 0.394 | 0.175  | 0.414 | 0.148  | 0.454 |
| 60 | 18 | 0.204  | 0.412 | 0.188  | 0.432 | 0.161  | 0.472 |
| 60 | 19 | 0.218  | 0.429 | 0.203  | 0.450 | 0.174  | 0.490 |
| 60 | 20 | 0.233  | 0.446 | 0.217  | 0.467 | 0.187  | 0.507 |
| 60 | 21 | 0.248  | 0.464 | 0.231  | 0.484 | 0.201  | 0.524 |
| 60 | 22 | 0.263  | 0.481 | 0.246  | 0.501 | 0.214  | 0.541 |
| 60 | 23 | 0.278  | 0.498 | 0.261  | 0.518 | 0.228  | 0.557 |
| 60 | 24 | 0.293  | 0.514 | 0.276  | 0.535 | 0.242  | 0.574 |
| 60 | 25 | 0.309  | 0.531 | 0.291  | 0.551 | 0.257  | 0.590 |
| 60 | 26 | 0.324  | 0.548 | 0.306  | 0.568 | 0.271  | 0.606 |
| 60 | 27 | 0.340  | 0.564 | 0.321  | 0.584 | 0.286  | 0.622 |
| 60 | 28 | 0.356  | 0.580 | 0.337  | 0.600 | 0.301  | 0.638 |
| 60 | 29 | 0.371  | 0.597 | 0.352  | 0.616 | 0.316  | 0.653 |
| 60 | 30 | 0.387  | 0.613 | 0.368  | 0.632 | 0.331  | 0.669 |
| 60 | 31 | 0.403  | 0.629 | 0.384  | 0.648 | 0.347  | 0.684 |
| 60 | 32 | 0.420  | 0.644 | 0.400  | 0.663 | 0.362  | 0.699 |
| 60 | 33 | 0.436  | 0.660 | 0.416  | 0.679 | 0.378  | 0.714 |
| 60 | 34 | 0.452  | 0.676 | 0.432  | 0.694 | 0.394  | 0.729 |
| 60 | 35 | 0.469  | 0.691 | 0.449  | 0.709 | 0.410  | 0.743 |
| 60 | 36 | 0.486  | 0.707 | 0.465  | 0.724 | 0.426  | 0.758 |
| 60 | 37 | 0.502  | 0.722 | 0.482  | 0.739 | 0.443  | 0.772 |
| 60 | 38 | 0.519  | 0.737 | 0.499  | 0.754 | 0.459  | 0.786 |
| 60 | 39 | 0.536  | 0.752 | 0.516  | 0.769 | 0.476  | 0.799 |
| 60 | 40 | 0.554  | 0.767 | 0.533  | 0.783 | 0.493  | 0.813 |
| 60 | 41 | 0.571  | 0.782 | 0.550  | 0.797 | 0.510  | 0.826 |
| 60 | 42 | 0.588  | 0.796 | 0.568  | 0.812 | 0.528  | 0.839 |
| 60 | 43 | 0.606  | 0.811 | 0.586  | 0.825 | 0.546  | 0.852 |
| 60 | 44 | 0.624  | 0.825 | 0.603  | 0.839 | 0.563  | 0.865 |
| 60 | 45 | 0.641  | 0.839 | 0.621  | 0.853 | 0.582  | 0.877 |
| 60 | 46 | 0.660  | 0.853 | 0.640  | 0.866 | 0.600  | 0.890 |
| 60 | 47 | 0.678  | 0.867 | 0.658  | 0.879 | 0.619  | 0.902 |
| 60 | 48 | 0.696  | 0.880 | 0.677  | 0.892 | 0.638  | 0.913 |
| 60 | 49 | 0.715  | 0.894 | 0.696  | 0.905 | 0.657  | 0.924 |
| 60 | 50 | 0.734  | 0.907 | 0.715  | 0.917 | 0.676  | 0.935 |
| 60 | 51 | 0.753  | 0.919 | 0.734  | 0.929 | 0.696  | 0.946 |
| 60 | 52 | 0.772  | 0.932 | 0.754  | 0.941 | 0.717  | 0.955 |
| 60 | 53 | 0.792  | 0.944 | 0.774  | 0.952 | 0.738  | 0.965 |
| 60 | 54 | 0.812  | 0.956 | 0.795  | 0.962 | 0.759  | 0.974 |
| 60 | 55 | 0.833  | 0.967 | 0.816  | 0.972 | 0.782  | 0.982 |
| 60 | 56 | 0.854  | 0.977 | 0.838  | 0.982 | 0.805  | 0.989 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 60 | 57 | 0.876  | 0.986 | 0.861  | 0.990 | 0.829  | 0.994 |
| 60 | 58 | 0.899  | 0.994 | 0.885  | 0.996 | 0.855  | 0.998 |
| 60 | 59 | 0.923  | 0.999 | 0.911  | 1.000 | 0.883  | 1.000 |
| 60 | 60 | 0.951  | 1.000 | 0.940  | 1.000 | 0.915  | 1.000 |
| 61 | 0  | 0.000  | 0.048 | 0.000  | 0.059 | 0.000  | 0.083 |
| 61 | 1  | 0.001  | 0.075 | 0.000  | 0.088 | 0.000  | 0.116 |
| 61 | 2  | 0.006  | 0.100 | 0.004  | 0.113 | 0.002  | 0.143 |
| 61 | 3  | 0.014  | 0.122 | 0.010  | 0.137 | 0.006  | 0.169 |
| 61 | 4  | 0.023  | 0.144 | 0.018  | 0.159 | 0.011  | 0.192 |
| 61 | 5  | 0.033  | 0.165 | 0.027  | 0.181 | 0.018  | 0.215 |
| 61 | 6  | 0.044  | 0.185 | 0.037  | 0.202 | 0.026  | 0.237 |
| 61 | 7  | 0.055  | 0.205 | 0.047  | 0.222 | 0.035  | 0.258 |
| 61 | 8  | 0.067  | 0.224 | 0.058  | 0.242 | 0.044  | 0.279 |
| 61 | 9  | 0.079  | 0.243 | 0.070  | 0.262 | 0.054  | 0.299 |
| 61 | 10 | 0.092  | 0.262 | 0.082  | 0.281 | 0.064  | 0.319 |
| 61 | 11 | 0.105  | 0.281 | 0.094  | 0.300 | 0.074  | 0.338 |
| 61 | 12 | 0.118  | 0.299 | 0.106  | 0.318 | 0.085  | 0.357 |
| 61 | 13 | 0.131  | 0.317 | 0.119  | 0.337 | 0.097  | 0.376 |
| 61 | 14 | 0.144  | 0.335 | 0.132  | 0.355 | 0.108  | 0.394 |
| 61 | 15 | 0.158  | 0.353 | 0.145  | 0.373 | 0.120  | 0.412 |
| 61 | 16 | 0.172  | 0.371 | 0.158  | 0.391 | 0.133  | 0.430 |
| 61 | 17 | 0.186  | 0.388 | 0.171  | 0.408 | 0.145  | 0.448 |
| 61 | 18 | 0.200  | 0.406 | 0.185  | 0.426 | 0.158  | 0.465 |
| 61 | 19 | 0.215  | 0.423 | 0.199  | 0.443 | 0.171  | 0.483 |
| 61 | 20 | 0.229  | 0.440 | 0.213  | 0.460 | 0.184  | 0.500 |
| 61 | 21 | 0.244  | 0.457 | 0.227  | 0.477 | 0.197  | 0.517 |
| 61 | 22 | 0.258  | 0.474 | 0.242  | 0.494 | 0.211  | 0.533 |
| 61 | 23 | 0.273  | 0.490 | 0.256  | 0.510 | 0.224  | 0.550 |
| 61 | 24 | 0.288  | 0.507 | 0.271  | 0.527 | 0.238  | 0.566 |
| 61 | 25 | 0.303  | 0.523 | 0.285  | 0.543 | 0.252  | 0.582 |
| 61 | 26 | 0.319  | 0.540 | 0.300  | 0.559 | 0.266  | 0.598 |
| 61 | 27 | 0.334  | 0.556 | 0.315  | 0.576 | 0.281  | 0.614 |
| 61 | 28 | 0.349  | 0.572 | 0.331  | 0.591 | 0.295  | 0.629 |
| 61 | 29 | 0.365  | 0.588 | 0.346  | 0.607 | 0.310  | 0.645 |
| 61 | 30 | 0.381  | 0.604 | 0.361  | 0.623 | 0.325  | 0.660 |
| 61 | 31 | 0.396  | 0.619 | 0.377  | 0.639 | 0.340  | 0.675 |
| 61 | 32 | 0.412  | 0.635 | 0.393  | 0.654 | 0.355  | 0.690 |
| 61 | 33 | 0.428  | 0.651 | 0.409  | 0.669 | 0.371  | 0.705 |
| 61 | 34 | 0.444  | 0.666 | 0.424  | 0.685 | 0.386  | 0.719 |
| 61 | 35 | 0.460  | 0.681 | 0.441  | 0.700 | 0.402  | 0.734 |
| 61 | 36 | 0.477  | 0.697 | 0.457  | 0.715 | 0.418  | 0.748 |
| 61 | 37 | 0.493  | 0.712 | 0.473  | 0.729 | 0.434  | 0.762 |
| 61 | 38 | 0.510  | 0.727 | 0.490  | 0.744 | 0.450  | 0.776 |
| 61 | 39 | 0.526  | 0.742 | 0.506  | 0.758 | 0.467  | 0.789 |
| 61 | 40 | 0.543  | 0.756 | 0.523  | 0.773 | 0.483  | 0.803 |
| 61 | 41 | 0.560  | 0.771 | 0.540  | 0.787 | 0.500  | 0.816 |
| 61 | 42 | 0.577  | 0.785 | 0.557  | 0.801 | 0.517  | 0.829 |
| 61 | 43 | 0.594  | 0.800 | 0.574  | 0.815 | 0.535  | 0.842 |
| 61 | 44 | 0.612  | 0.814 | 0.592  | 0.829 | 0.552  | 0.855 |
| 61 | 45 | 0.629  | 0.828 | 0.609  | 0.842 | 0.570  | 0.867 |
| 61 | 46 | 0.647  | 0.842 | 0.627  | 0.855 | 0.588  | 0.880 |
| 61 | 47 | 0.665  | 0.856 | 0.645  | 0.868 | 0.606  | 0.892 |
| 61 | 48 | 0.683  | 0.869 | 0.663  | 0.881 | 0.624  | 0.903 |
| 61 | 49 | 0.701  | 0.882 | 0.682  | 0.894 | 0.643  | 0.915 |
| 61 | 50 | 0.719  | 0.895 | 0.700  | 0.906 | 0.662  | 0.926 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 61 | 51 | 0.738  | 0.908 | 0.719  | 0.918 | 0.681  | 0.936 |
| 61 | 52 | 0.757  | 0.921 | 0.738  | 0.930 | 0.701  | 0.946 |
| 61 | 53 | 0.776  | 0.933 | 0.758  | 0.942 | 0.721  | 0.956 |
| 61 | 54 | 0.795  | 0.945 | 0.778  | 0.953 | 0.742  | 0.965 |
| 61 | 55 | 0.815  | 0.956 | 0.798  | 0.963 | 0.763  | 0.974 |
| 61 | 56 | 0.835  | 0.967 | 0.819  | 0.973 | 0.785  | 0.982 |
| 61 | 57 | 0.856  | 0.977 | 0.841  | 0.982 | 0.808  | 0.989 |
| 61 | 58 | 0.878  | 0.986 | 0.863  | 0.990 | 0.831  | 0.994 |
| 61 | 59 | 0.900  | 0.994 | 0.887  | 0.996 | 0.857  | 0.998 |
| 61 | 60 | 0.925  | 0.999 | 0.912  | 1.000 | 0.884  | 1.000 |
| 61 | 61 | 0.952  | 1.000 | 0.941  | 1.000 | 0.917  | 1.000 |
| 62 | 0  | 0.000  | 0.047 | 0.000  | 0.058 | 0.000  | 0.082 |
| 62 | 1  | 0.001  | 0.074 | 0.000  | 0.087 | 0.000  | 0.114 |
| 62 | 2  | 0.006  | 0.098 | 0.004  | 0.112 | 0.002  | 0.141 |
| 62 | 3  | 0.013  | 0.120 | 0.010  | 0.135 | 0.006  | 0.166 |
| 62 | 4  | 0.022  | 0.142 | 0.018  | 0.157 | 0.011  | 0.189 |
| 62 | 5  | 0.032  | 0.162 | 0.027  | 0.178 | 0.016  | 0.212 |
| 62 | 6  | 0.043  | 0.182 | 0.036  | 0.199 | 0.026  | 0.233 |
| 62 | 7  | 0.054  | 0.202 | 0.047  | 0.219 | 0.034  | 0.254 |
| 62 | 8  | 0.066  | 0.221 | 0.057  | 0.239 | 0.043  | 0.275 |
| 62 | 9  | 0.078  | 0.240 | 0.069  | 0.258 | 0.053  | 0.295 |
| 62 | 10 | 0.090  | 0.258 | 0.080  | 0.277 | 0.063  | 0.314 |
| 62 | 11 | 0.103  | 0.277 | 0.092  | 0.295 | 0.073  | 0.333 |
| 62 | 12 | 0.116  | 0.295 | 0.104  | 0.314 | 0.084  | 0.352 |
| 62 | 13 | 0.129  | 0.313 | 0.117  | 0.332 | 0.095  | 0.370 |
| 62 | 14 | 0.142  | 0.330 | 0.129  | 0.350 | 0.107  | 0.389 |
| 62 | 15 | 0.155  | 0.348 | 0.142  | 0.367 | 0.118  | 0.407 |
| 62 | 16 | 0.169  | 0.365 | 0.155  | 0.385 | 0.130  | 0.424 |
| 62 | 17 | 0.183  | 0.382 | 0.169  | 0.402 | 0.142  | 0.442 |
| 62 | 18 | 0.197  | 0.400 | 0.182  | 0.419 | 0.155  | 0.459 |
| 62 | 19 | 0.211  | 0.416 | 0.196  | 0.437 | 0.168  | 0.476 |
| 62 | 20 | 0.225  | 0.433 | 0.209  | 0.453 | 0.180  | 0.493 |
| 62 | 21 | 0.239  | 0.450 | 0.223  | 0.470 | 0.194  | 0.509 |
| 62 | 22 | 0.254  | 0.467 | 0.237  | 0.487 | 0.207  | 0.526 |
| 62 | 23 | 0.269  | 0.483 | 0.252  | 0.503 | 0.220  | 0.542 |
| 62 | 24 | 0.283  | 0.499 | 0.266  | 0.519 | 0.234  | 0.558 |
| 62 | 25 | 0.298  | 0.516 | 0.281  | 0.535 | 0.248  | 0.574 |
| 62 | 26 | 0.313  | 0.532 | 0.295  | 0.552 | 0.262  | 0.590 |
| 62 | 27 | 0.328  | 0.548 | 0.310  | 0.567 | 0.276  | 0.605 |
| 62 | 28 | 0.343  | 0.564 | 0.325  | 0.583 | 0.290  | 0.621 |
| 62 | 29 | 0.358  | 0.579 | 0.340  | 0.599 | 0.304  | 0.636 |
| 62 | 30 | 0.374  | 0.595 | 0.355  | 0.614 | 0.319  | 0.651 |
| 62 | 31 | 0.389  | 0.611 | 0.370  | 0.630 | 0.334  | 0.666 |
| 62 | 32 | 0.405  | 0.626 | 0.386  | 0.645 | 0.349  | 0.681 |
| 62 | 33 | 0.421  | 0.642 | 0.401  | 0.660 | 0.364  | 0.696 |
| 62 | 34 | 0.436  | 0.657 | 0.417  | 0.675 | 0.379  | 0.710 |
| 62 | 35 | 0.452  | 0.672 | 0.433  | 0.690 | 0.395  | 0.724 |
| 62 | 36 | 0.468  | 0.687 | 0.448  | 0.705 | 0.410  | 0.738 |
| 62 | 37 | 0.484  | 0.702 | 0.465  | 0.719 | 0.426  | 0.752 |
| 62 | 38 | 0.501  | 0.717 | 0.481  | 0.734 | 0.442  | 0.766 |
| 62 | 39 | 0.517  | 0.731 | 0.497  | 0.748 | 0.458  | 0.780 |
| 62 | 40 | 0.533  | 0.746 | 0.513  | 0.763 | 0.474  | 0.793 |
| 62 | 41 | 0.550  | 0.761 | 0.530  | 0.777 | 0.491  | 0.806 |
| 62 | 42 | 0.567  | 0.775 | 0.547  | 0.791 | 0.507  | 0.820 |
| 62 | 43 | 0.584  | 0.789 | 0.563  | 0.804 | 0.524  | 0.832 |
| 62 | 44 | 0.600  | 0.803 | 0.581  | 0.818 | 0.541  | 0.845 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 62 | 45 | 0.618  | 0.817 | 0.598  | 0.831 | 0.558  | 0.858 |
| 62 | 46 | 0.635  | 0.831 | 0.615  | 0.845 | 0.576  | 0.870 |
| 62 | 47 | 0.652  | 0.845 | 0.633  | 0.858 | 0.593  | 0.882 |
| 62 | 48 | 0.670  | 0.858 | 0.650  | 0.871 | 0.611  | 0.893 |
| 62 | 49 | 0.687  | 0.871 | 0.668  | 0.883 | 0.630  | 0.905 |
| 62 | 50 | 0.705  | 0.884 | 0.686  | 0.896 | 0.648  | 0.916 |
| 62 | 51 | 0.723  | 0.897 | 0.705  | 0.908 | 0.667  | 0.927 |
| 62 | 52 | 0.742  | 0.910 | 0.723  | 0.920 | 0.686  | 0.937 |
| 62 | 53 | 0.760  | 0.922 | 0.742  | 0.931 | 0.705  | 0.947 |
| 62 | 54 | 0.779  | 0.934 | 0.761  | 0.943 | 0.725  | 0.957 |
| 62 | 55 | 0.798  | 0.946 | 0.781  | 0.953 | 0.746  | 0.966 |
| 62 | 56 | 0.818  | 0.957 | 0.801  | 0.964 | 0.767  | 0.974 |
| 62 | 57 | 0.838  | 0.968 | 0.822  | 0.973 | 0.788  | 0.982 |
| 62 | 58 | 0.856  | 0.978 | 0.843  | 0.982 | 0.811  | 0.989 |
| 62 | 59 | 0.880  | 0.987 | 0.865  | 0.990 | 0.834  | 0.994 |
| 62 | 60 | 0.902  | 0.994 | 0.888  | 0.996 | 0.859  | 0.998 |
| 62 | 61 | 0.926  | 0.999 | 0.913  | 1.000 | 0.886  | 1.000 |
| 62 | 62 | 0.953  | 1.000 | 0.942  | 1.000 | 0.918  | 1.000 |
| 63 | 0  | 0.000  | 0.046 | 0.000  | 0.057 | 0.000  | 0.081 |
| 63 | 1  | 0.001  | 0.073 | 0.000  | 0.085 | 0.000  | 0.112 |
| 63 | 2  | 0.006  | 0.097 | 0.004  | 0.110 | 0.002  | 0.139 |
| 63 | 3  | 0.013  | 0.118 | 0.010  | 0.133 | 0.005  | 0.164 |
| 63 | 4  | 0.022  | 0.139 | 0.018  | 0.155 | 0.011  | 0.187 |
| 63 | 5  | 0.032  | 0.160 | 0.026  | 0.176 | 0.018  | 0.209 |
| 63 | 6  | 0.042  | 0.179 | 0.036  | 0.196 | 0.025  | 0.230 |
| 63 | 7  | 0.053  | 0.199 | 0.046  | 0.216 | 0.033  | 0.251 |
| 63 | 8  | 0.065  | 0.217 | 0.056  | 0.235 | 0.042  | 0.271 |
| 63 | 9  | 0.077  | 0.236 | 0.067  | 0.254 | 0.052  | 0.290 |
| 63 | 10 | 0.089  | 0.254 | 0.079  | 0.273 | 0.062  | 0.310 |
| 63 | 11 | 0.101  | 0.272 | 0.091  | 0.291 | 0.072  | 0.328 |
| 63 | 12 | 0.114  | 0.290 | 0.102  | 0.309 | 0.083  | 0.347 |
| 63 | 13 | 0.127  | 0.308 | 0.115  | 0.327 | 0.094  | 0.365 |
| 63 | 14 | 0.140  | 0.325 | 0.127  | 0.345 | 0.105  | 0.383 |
| 63 | 15 | 0.153  | 0.343 | 0.140  | 0.362 | 0.116  | 0.401 |
| 63 | 16 | 0.166  | 0.360 | 0.153  | 0.379 | 0.128  | 0.418 |
| 63 | 17 | 0.180  | 0.377 | 0.166  | 0.397 | 0.140  | 0.435 |
| 63 | 18 | 0.194  | 0.394 | 0.179  | 0.413 | 0.152  | 0.453 |
| 63 | 19 | 0.207  | 0.410 | 0.192  | 0.430 | 0.165  | 0.469 |
| 63 | 20 | 0.221  | 0.427 | 0.206  | 0.447 | 0.177  | 0.486 |
| 63 | 21 | 0.235  | 0.443 | 0.220  | 0.463 | 0.190  | 0.502 |
| 63 | 22 | 0.250  | 0.460 | 0.233  | 0.480 | 0.203  | 0.519 |
| 63 | 23 | 0.264  | 0.476 | 0.247  | 0.496 | 0.216  | 0.535 |
| 63 | 24 | 0.278  | 0.492 | 0.261  | 0.512 | 0.230  | 0.551 |
| 63 | 25 | 0.293  | 0.508 | 0.276  | 0.528 | 0.243  | 0.566 |
| 63 | 26 | 0.308  | 0.524 | 0.290  | 0.544 | 0.257  | 0.582 |
| 63 | 27 | 0.322  | 0.540 | 0.305  | 0.560 | 0.271  | 0.597 |
| 63 | 28 | 0.337  | 0.556 | 0.319  | 0.575 | 0.285  | 0.613 |
| 63 | 29 | 0.352  | 0.571 | 0.334  | 0.591 | 0.299  | 0.628 |
| 63 | 30 | 0.367  | 0.587 | 0.349  | 0.606 | 0.313  | 0.643 |
| 63 | 31 | 0.383  | 0.602 | 0.364  | 0.621 | 0.328  | 0.657 |
| 63 | 32 | 0.398  | 0.617 | 0.379  | 0.636 | 0.343  | 0.672 |
| 63 | 33 | 0.413  | 0.633 | 0.394  | 0.651 | 0.357  | 0.687 |
| 63 | 34 | 0.429  | 0.648 | 0.409  | 0.666 | 0.372  | 0.701 |
| 63 | 35 | 0.444  | 0.663 | 0.425  | 0.681 | 0.387  | 0.715 |
| 63 | 36 | 0.460  | 0.678 | 0.440  | 0.695 | 0.403  | 0.729 |
| 63 | 37 | 0.476  | 0.692 | 0.456  | 0.710 | 0.418  | 0.743 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 63 | 38 | 0.492  | 0.707 | 0.472  | 0.724 | 0.434  | 0.757 |
| 63 | 39 | 0.508  | 0.722 | 0.488  | 0.739 | 0.449  | 0.770 |
| 63 | 40 | 0.524  | 0.736 | 0.504  | 0.753 | 0.465  | 0.784 |
| 63 | 41 | 0.540  | 0.750 | 0.520  | 0.767 | 0.481  | 0.797 |
| 63 | 42 | 0.557  | 0.765 | 0.537  | 0.780 | 0.498  | 0.810 |
| 63 | 43 | 0.573  | 0.779 | 0.553  | 0.794 | 0.514  | 0.823 |
| 63 | 44 | 0.590  | 0.793 | 0.570  | 0.808 | 0.531  | 0.835 |
| 63 | 45 | 0.606  | 0.806 | 0.587  | 0.821 | 0.547  | 0.848 |
| 63 | 46 | 0.623  | 0.820 | 0.603  | 0.834 | 0.565  | 0.860 |
| 63 | 47 | 0.640  | 0.834 | 0.621  | 0.847 | 0.582  | 0.872 |
| 63 | 48 | 0.657  | 0.847 | 0.638  | 0.860 | 0.599  | 0.884 |
| 63 | 49 | 0.675  | 0.860 | 0.655  | 0.873 | 0.617  | 0.895 |
| 63 | 50 | 0.692  | 0.873 | 0.673  | 0.885 | 0.635  | 0.906 |
| 63 | 51 | 0.710  | 0.886 | 0.691  | 0.898 | 0.653  | 0.917 |
| 63 | 52 | 0.728  | 0.899 | 0.709  | 0.909 | 0.672  | 0.928 |
| 63 | 53 | 0.746  | 0.911 | 0.727  | 0.921 | 0.690  | 0.938 |
| 63 | 54 | 0.764  | 0.923 | 0.746  | 0.933 | 0.710  | 0.948 |
| 63 | 55 | 0.783  | 0.935 | 0.765  | 0.944 | 0.729  | 0.958 |
| 63 | 56 | 0.801  | 0.947 | 0.784  | 0.954 | 0.749  | 0.967 |
| 63 | 57 | 0.821  | 0.958 | 0.804  | 0.964 | 0.770  | 0.975 |
| 63 | 58 | 0.840  | 0.968 | 0.824  | 0.974 | 0.791  | 0.982 |
| 63 | 59 | 0.861  | 0.978 | 0.845  | 0.982 | 0.813  | 0.989 |
| 63 | 60 | 0.882  | 0.987 | 0.867  | 0.990 | 0.836  | 0.995 |
| 63 | 61 | 0.903  | 0.994 | 0.890  | 0.996 | 0.861  | 0.998 |
| 63 | 62 | 0.927  | 0.999 | 0.915  | 1.000 | 0.888  | 1.000 |
| 63 | 63 | 0.954  | 1.000 | 0.943  | 1.000 | 0.919  | 1.000 |
| 64 | 0  | 0.000  | 0.046 | 0.000  | 0.056 | 0.000  | 0.079 |
| 64 | 1  | 0.001  | 0.072 | 0.000  | 0.084 | 0.000  | 0.110 |
| 64 | 2  | 0.006  | 0.095 | 0.004  | 0.108 | 0.002  | 0.137 |
| 64 | 3  | 0.013  | 0.117 | 0.010  | 0.131 | 0.005  | 0.161 |
| 64 | 4  | 0.022  | 0.137 | 0.017  | 0.152 | 0.011  | 0.184 |
| 64 | 5  | 0.031  | 0.157 | 0.026  | 0.173 | 0.017  | 0.206 |
| 64 | 6  | 0.042  | 0.177 | 0.035  | 0.193 | 0.025  | 0.227 |
| 64 | 7  | 0.052  | 0.196 | 0.045  | 0.212 | 0.033  | 0.247 |
| 64 | 8  | 0.064  | 0.214 | 0.056  | 0.232 | 0.042  | 0.267 |
| 64 | 9  | 0.075  | 0.233 | 0.066  | 0.250 | 0.051  | 0.286 |
| 64 | 10 | 0.087  | 0.251 | 0.078  | 0.269 | 0.061  | 0.305 |
| 64 | 11 | 0.099  | 0.268 | 0.089  | 0.287 | 0.071  | 0.324 |
| 64 | 12 | 0.112  | 0.286 | 0.101  | 0.305 | 0.081  | 0.342 |
| 64 | 13 | 0.125  | 0.303 | 0.113  | 0.322 | 0.092  | 0.360 |
| 64 | 14 | 0.137  | 0.321 | 0.125  | 0.340 | 0.103  | 0.378 |
| 64 | 15 | 0.150  | 0.338 | 0.138  | 0.357 | 0.114  | 0.395 |
| 64 | 16 | 0.164  | 0.355 | 0.150  | 0.374 | 0.126  | 0.412 |
| 64 | 17 | 0.177  | 0.371 | 0.163  | 0.391 | 0.138  | 0.430 |
| 64 | 18 | 0.190  | 0.388 | 0.176  | 0.408 | 0.150  | 0.446 |
| 64 | 19 | 0.204  | 0.405 | 0.189  | 0.424 | 0.162  | 0.463 |
| 64 | 20 | 0.218  | 0.421 | 0.202  | 0.441 | 0.174  | 0.479 |
| 64 | 21 | 0.232  | 0.437 | 0.216  | 0.457 | 0.187  | 0.496 |
| 64 | 22 | 0.245  | 0.453 | 0.229  | 0.473 | 0.200  | 0.512 |
| 64 | 23 | 0.260  | 0.469 | 0.243  | 0.489 | 0.213  | 0.528 |
| 64 | 24 | 0.274  | 0.485 | 0.257  | 0.505 | 0.226  | 0.543 |
| 64 | 25 | 0.288  | 0.501 | 0.271  | 0.521 | 0.239  | 0.559 |
| 64 | 26 | 0.302  | 0.517 | 0.285  | 0.536 | 0.253  | 0.574 |
| 64 | 27 | 0.317  | 0.532 | 0.299  | 0.552 | 0.266  | 0.590 |
| 64 | 28 | 0.332  | 0.548 | 0.314  | 0.567 | 0.280  | 0.605 |
| 64 | 29 | 0.346  | 0.563 | 0.328  | 0.583 | 0.294  | 0.620 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 64 | 30 | 0.361  | 0.579 | 0.343  | 0.598 | 0.308  | 0.634 |
| 64 | 31 | 0.376  | 0.594 | 0.358  | 0.613 | 0.322  | 0.649 |
| 64 | 32 | 0.391  | 0.609 | 0.372  | 0.628 | 0.336  | 0.664 |
| 64 | 33 | 0.406  | 0.624 | 0.387  | 0.642 | 0.351  | 0.678 |
| 64 | 34 | 0.421  | 0.639 | 0.402  | 0.657 | 0.366  | 0.692 |
| 64 | 35 | 0.437  | 0.654 | 0.417  | 0.672 | 0.380  | 0.706 |
| 64 | 36 | 0.452  | 0.668 | 0.433  | 0.686 | 0.395  | 0.720 |
| 64 | 37 | 0.468  | 0.683 | 0.448  | 0.701 | 0.410  | 0.734 |
| 64 | 38 | 0.483  | 0.698 | 0.464  | 0.715 | 0.426  | 0.747 |
| 64 | 39 | 0.499  | 0.712 | 0.479  | 0.729 | 0.441  | 0.761 |
| 64 | 40 | 0.515  | 0.726 | 0.495  | 0.743 | 0.457  | 0.774 |
| 64 | 41 | 0.531  | 0.740 | 0.511  | 0.757 | 0.472  | 0.787 |
| 64 | 42 | 0.547  | 0.755 | 0.527  | 0.771 | 0.488  | 0.800 |
| 64 | 43 | 0.563  | 0.768 | 0.543  | 0.784 | 0.504  | 0.813 |
| 64 | 44 | 0.579  | 0.782 | 0.559  | 0.798 | 0.521  | 0.826 |
| 64 | 45 | 0.595  | 0.796 | 0.576  | 0.811 | 0.537  | 0.838 |
| 64 | 46 | 0.612  | 0.810 | 0.592  | 0.824 | 0.554  | 0.850 |
| 64 | 47 | 0.629  | 0.823 | 0.609  | 0.837 | 0.570  | 0.862 |
| 64 | 48 | 0.645  | 0.836 | 0.626  | 0.850 | 0.588  | 0.874 |
| 64 | 49 | 0.662  | 0.850 | 0.643  | 0.862 | 0.605  | 0.886 |
| 64 | 50 | 0.679  | 0.863 | 0.660  | 0.875 | 0.622  | 0.897 |
| 64 | 51 | 0.697  | 0.875 | 0.678  | 0.887 | 0.640  | 0.908 |
| 64 | 52 | 0.714  | 0.888 | 0.695  | 0.899 | 0.658  | 0.919 |
| 64 | 53 | 0.732  | 0.901 | 0.713  | 0.911 | 0.676  | 0.929 |
| 64 | 54 | 0.749  | 0.913 | 0.731  | 0.922 | 0.695  | 0.939 |
| 64 | 55 | 0.767  | 0.925 | 0.750  | 0.934 | 0.714  | 0.949 |
| 64 | 56 | 0.786  | 0.936 | 0.768  | 0.944 | 0.733  | 0.958 |
| 64 | 57 | 0.804  | 0.948 | 0.788  | 0.955 | 0.753  | 0.967 |
| 64 | 58 | 0.823  | 0.958 | 0.807  | 0.965 | 0.773  | 0.975 |
| 64 | 59 | 0.843  | 0.969 | 0.827  | 0.974 | 0.794  | 0.983 |
| 64 | 60 | 0.863  | 0.978 | 0.848  | 0.983 | 0.816  | 0.989 |
| 64 | 61 | 0.883  | 0.987 | 0.869  | 0.990 | 0.839  | 0.995 |
| 64 | 62 | 0.905  | 0.994 | 0.892  | 0.996 | 0.863  | 0.998 |
| 64 | 63 | 0.928  | 0.999 | 0.916  | 1.000 | 0.890  | 1.000 |
| 64 | 64 | 0.954  | 1.000 | 0.944  | 1.000 | 0.921  | 1.000 |
| 65 | 0  | 0.000  | 0.045 | 0.000  | 0.055 | 0.000  | 0.078 |
| 65 | 1  | 0.001  | 0.071 | 0.000  | 0.083 | 0.000  | 0.109 |
| 65 | 2  | 0.005  | 0.094 | 0.004  | 0.107 | 0.002  | 0.135 |
| 65 | 3  | 0.013  | 0.115 | 0.010  | 0.129 | 0.005  | 0.159 |
| 65 | 4  | 0.021  | 0.135 | 0.017  | 0.150 | 0.011  | 0.181 |
| 65 | 5  | 0.031  | 0.155 | 0.025  | 0.170 | 0.017  | 0.203 |
| 65 | 6  | 0.041  | 0.174 | 0.035  | 0.190 | 0.024  | 0.224 |
| 65 | 7  | 0.052  | 0.193 | 0.044  | 0.209 | 0.032  | 0.244 |
| 65 | 8  | 0.063  | 0.211 | 0.055  | 0.228 | 0.041  | 0.263 |
| 65 | 9  | 0.074  | 0.229 | 0.065  | 0.247 | 0.050  | 0.282 |
| 65 | 10 | 0.086  | 0.247 | 0.076  | 0.265 | 0.060  | 0.301 |
| 65 | 11 | 0.098  | 0.265 | 0.088  | 0.283 | 0.070  | 0.319 |
| 65 | 12 | 0.110  | 0.282 | 0.099  | 0.300 | 0.080  | 0.337 |
| 65 | 13 | 0.123  | 0.299 | 0.111  | 0.318 | 0.090  | 0.355 |
| 65 | 14 | 0.135  | 0.316 | 0.123  | 0.335 | 0.101  | 0.373 |
| 65 | 15 | 0.148  | 0.333 | 0.135  | 0.352 | 0.112  | 0.390 |
| 65 | 16 | 0.161  | 0.350 | 0.148  | 0.369 | 0.124  | 0.407 |
| 65 | 17 | 0.174  | 0.366 | 0.160  | 0.385 | 0.135  | 0.424 |
| 65 | 18 | 0.187  | 0.382 | 0.173  | 0.402 | 0.147  | 0.440 |
| 65 | 19 | 0.201  | 0.399 | 0.186  | 0.418 | 0.159  | 0.457 |
| 65 | 20 | 0.214  | 0.415 | 0.199  | 0.434 | 0.171  | 0.473 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 65 | 21 | 0.228  | 0.431 | 0.212  | 0.451 | 0.184  | 0.489 |
| 65 | 22 | 0.241  | 0.447 | 0.226  | 0.466 | 0.196  | 0.505 |
| 65 | 23 | 0.255  | 0.463 | 0.239  | 0.482 | 0.209  | 0.521 |
| 65 | 24 | 0.269  | 0.478 | 0.253  | 0.498 | 0.222  | 0.536 |
| 65 | 25 | 0.283  | 0.494 | 0.267  | 0.514 | 0.235  | 0.552 |
| 65 | 26 | 0.298  | 0.510 | 0.280  | 0.529 | 0.248  | 0.567 |
| 65 | 27 | 0.312  | 0.525 | 0.294  | 0.544 | 0.262  | 0.582 |
| 65 | 28 | 0.326  | 0.540 | 0.308  | 0.560 | 0.275  | 0.597 |
| 65 | 29 | 0.341  | 0.555 | 0.323  | 0.575 | 0.289  | 0.612 |
| 65 | 30 | 0.355  | 0.571 | 0.337  | 0.590 | 0.303  | 0.626 |
| 65 | 31 | 0.370  | 0.586 | 0.351  | 0.605 | 0.317  | 0.641 |
| 65 | 32 | 0.385  | 0.601 | 0.366  | 0.619 | 0.331  | 0.655 |
| 65 | 33 | 0.399  | 0.615 | 0.381  | 0.634 | 0.345  | 0.669 |
| 65 | 34 | 0.414  | 0.630 | 0.395  | 0.649 | 0.359  | 0.683 |
| 65 | 35 | 0.429  | 0.645 | 0.410  | 0.663 | 0.374  | 0.697 |
| 65 | 36 | 0.445  | 0.659 | 0.425  | 0.677 | 0.388  | 0.711 |
| 65 | 37 | 0.460  | 0.674 | 0.440  | 0.692 | 0.403  | 0.725 |
| 65 | 38 | 0.475  | 0.688 | 0.456  | 0.706 | 0.418  | 0.738 |
| 65 | 39 | 0.490  | 0.702 | 0.471  | 0.720 | 0.433  | 0.752 |
| 65 | 40 | 0.506  | 0.717 | 0.486  | 0.733 | 0.448  | 0.765 |
| 65 | 41 | 0.522  | 0.731 | 0.502  | 0.747 | 0.464  | 0.778 |
| 65 | 42 | 0.537  | 0.745 | 0.518  | 0.761 | 0.479  | 0.791 |
| 65 | 43 | 0.553  | 0.759 | 0.534  | 0.774 | 0.495  | 0.804 |
| 65 | 44 | 0.569  | 0.772 | 0.549  | 0.788 | 0.511  | 0.816 |
| 65 | 45 | 0.585  | 0.786 | 0.566  | 0.801 | 0.527  | 0.829 |
| 65 | 46 | 0.601  | 0.799 | 0.582  | 0.814 | 0.543  | 0.841 |
| 65 | 47 | 0.618  | 0.813 | 0.598  | 0.827 | 0.560  | 0.853 |
| 65 | 48 | 0.634  | 0.826 | 0.615  | 0.840 | 0.576  | 0.865 |
| 65 | 49 | 0.650  | 0.839 | 0.631  | 0.852 | 0.593  | 0.876 |
| 65 | 50 | 0.667  | 0.852 | 0.648  | 0.865 | 0.610  | 0.888 |
| 65 | 51 | 0.684  | 0.865 | 0.665  | 0.877 | 0.627  | 0.899 |
| 65 | 52 | 0.701  | 0.877 | 0.682  | 0.889 | 0.645  | 0.910 |
| 65 | 53 | 0.718  | 0.890 | 0.700  | 0.901 | 0.663  | 0.920 |
| 65 | 54 | 0.735  | 0.902 | 0.717  | 0.912 | 0.681  | 0.930 |
| 65 | 55 | 0.753  | 0.914 | 0.735  | 0.924 | 0.699  | 0.940 |
| 65 | 56 | 0.771  | 0.926 | 0.753  | 0.935 | 0.718  | 0.950 |
| 65 | 57 | 0.789  | 0.937 | 0.772  | 0.945 | 0.737  | 0.959 |
| 65 | 58 | 0.807  | 0.948 | 0.791  | 0.956 | 0.756  | 0.968 |
| 65 | 59 | 0.826  | 0.959 | 0.810  | 0.965 | 0.776  | 0.976 |
| 65 | 60 | 0.845  | 0.969 | 0.830  | 0.975 | 0.797  | 0.983 |
| 65 | 61 | 0.865  | 0.979 | 0.850  | 0.983 | 0.819  | 0.989 |
| 65 | 62 | 0.885  | 0.987 | 0.871  | 0.990 | 0.841  | 0.995 |
| 65 | 63 | 0.906  | 0.995 | 0.893  | 0.996 | 0.865  | 0.998 |
| 65 | 64 | 0.929  | 0.999 | 0.917  | 1.000 | 0.891  | 1.000 |
| 65 | 65 | 0.955  | 1.000 | 0.945  | 1.000 | 0.922  | 1.000 |
| 66 | 0  | 0.000  | 0.044 | 0.000  | 0.054 | 0.000  | 0.077 |
| 66 | 1  | 0.001  | 0.070 | 0.000  | 0.082 | 0.000  | 0.107 |
| 66 | 2  | 0.005  | 0.092 | 0.004  | 0.105 | 0.002  | 0.133 |
| 66 | 3  | 0.013  | 0.113 | 0.009  | 0.127 | 0.005  | 0.157 |
| 66 | 4  | 0.021  | 0.133 | 0.017  | 0.148 | 0.010  | 0.179 |
| 66 | 5  | 0.030  | 0.153 | 0.025  | 0.168 | 0.017  | 0.200 |
| 66 | 6  | 0.040  | 0.172 | 0.034  | 0.187 | 0.024  | 0.220 |
| 66 | 7  | 0.051  | 0.190 | 0.044  | 0.206 | 0.032  | 0.240 |
| 66 | 8  | 0.062  | 0.208 | 0.054  | 0.225 | 0.040  | 0.259 |
| 66 | 9  | 0.073  | 0.226 | 0.064  | 0.243 | 0.049  | 0.278 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 66 | 10 | 0.085  | 0.243 | 0.075  | 0.261 | 0.059  | 0.297 |
| 66 | 11 | 0.096  | 0.261 | 0.086  | 0.279 | 0.069  | 0.315 |
| 66 | 12 | 0.106  | 0.278 | 0.098  | 0.296 | 0.079  | 0.333 |
| 66 | 13 | 0.121  | 0.295 | 0.109  | 0.313 | 0.089  | 0.350 |
| 66 | 14 | 0.133  | 0.312 | 0.121  | 0.330 | 0.100  | 0.368 |
| 66 | 15 | 0.146  | 0.328 | 0.133  | 0.347 | 0.111  | 0.385 |
| 66 | 16 | 0.158  | 0.345 | 0.145  | 0.364 | 0.122  | 0.401 |
| 66 | 17 | 0.171  | 0.361 | 0.158  | 0.380 | 0.133  | 0.418 |
| 66 | 18 | 0.184  | 0.377 | 0.170  | 0.396 | 0.145  | 0.434 |
| 66 | 19 | 0.197  | 0.393 | 0.183  | 0.413 | 0.157  | 0.451 |
| 66 | 20 | 0.211  | 0.409 | 0.196  | 0.429 | 0.169  | 0.467 |
| 66 | 21 | 0.224  | 0.425 | 0.209  | 0.444 | 0.181  | 0.483 |
| 66 | 22 | 0.238  | 0.441 | 0.222  | 0.460 | 0.193  | 0.498 |
| 66 | 23 | 0.251  | 0.456 | 0.235  | 0.476 | 0.206  | 0.514 |
| 66 | 24 | 0.265  | 0.472 | 0.249  | 0.491 | 0.218  | 0.529 |
| 66 | 25 | 0.279  | 0.487 | 0.262  | 0.507 | 0.231  | 0.544 |
| 66 | 26 | 0.293  | 0.503 | 0.276  | 0.522 | 0.244  | 0.559 |
| 66 | 27 | 0.307  | 0.518 | 0.290  | 0.537 | 0.257  | 0.574 |
| 66 | 28 | 0.321  | 0.533 | 0.303  | 0.552 | 0.270  | 0.589 |
| 66 | 29 | 0.335  | 0.548 | 0.317  | 0.567 | 0.284  | 0.604 |
| 66 | 30 | 0.349  | 0.563 | 0.331  | 0.582 | 0.297  | 0.618 |
| 66 | 31 | 0.364  | 0.578 | 0.346  | 0.597 | 0.311  | 0.633 |
| 66 | 32 | 0.378  | 0.592 | 0.360  | 0.611 | 0.325  | 0.647 |
| 66 | 33 | 0.393  | 0.607 | 0.374  | 0.626 | 0.339  | 0.661 |
| 66 | 34 | 0.408  | 0.622 | 0.389  | 0.640 | 0.353  | 0.675 |
| 66 | 35 | 0.422  | 0.636 | 0.403  | 0.654 | 0.367  | 0.689 |
| 66 | 36 | 0.437  | 0.651 | 0.418  | 0.669 | 0.382  | 0.703 |
| 66 | 37 | 0.452  | 0.665 | 0.433  | 0.683 | 0.396  | 0.716 |
| 66 | 38 | 0.467  | 0.679 | 0.448  | 0.697 | 0.411  | 0.730 |
| 66 | 39 | 0.482  | 0.693 | 0.463  | 0.710 | 0.426  | 0.743 |
| 66 | 40 | 0.497  | 0.707 | 0.478  | 0.724 | 0.441  | 0.756 |
| 66 | 41 | 0.513  | 0.721 | 0.493  | 0.738 | 0.456  | 0.769 |
| 66 | 42 | 0.528  | 0.735 | 0.509  | 0.751 | 0.471  | 0.782 |
| 66 | 43 | 0.544  | 0.749 | 0.524  | 0.765 | 0.486  | 0.794 |
| 66 | 44 | 0.559  | 0.762 | 0.540  | 0.778 | 0.502  | 0.807 |
| 66 | 45 | 0.575  | 0.776 | 0.556  | 0.791 | 0.517  | 0.819 |
| 66 | 46 | 0.591  | 0.789 | 0.571  | 0.804 | 0.533  | 0.831 |
| 66 | 47 | 0.607  | 0.803 | 0.587  | 0.817 | 0.549  | 0.843 |
| 66 | 48 | 0.623  | 0.816 | 0.604  | 0.830 | 0.566  | 0.855 |
| 66 | 49 | 0.639  | 0.829 | 0.620  | 0.842 | 0.582  | 0.867 |
| 66 | 50 | 0.655  | 0.842 | 0.636  | 0.855 | 0.599  | 0.878 |
| 66 | 51 | 0.672  | 0.854 | 0.653  | 0.867 | 0.615  | 0.889 |
| 66 | 52 | 0.688  | 0.867 | 0.670  | 0.879 | 0.632  | 0.900 |
| 66 | 53 | 0.705  | 0.879 | 0.687  | 0.891 | 0.650  | 0.911 |
| 66 | 54 | 0.722  | 0.892 | 0.704  | 0.902 | 0.667  | 0.921 |
| 66 | 55 | 0.739  | 0.904 | 0.721  | 0.914 | 0.685  | 0.931 |
| 66 | 56 | 0.757  | 0.915 | 0.739  | 0.925 | 0.703  | 0.941 |
| 66 | 57 | 0.774  | 0.927 | 0.757  | 0.936 | 0.722  | 0.951 |
| 66 | 58 | 0.792  | 0.938 | 0.775  | 0.946 | 0.741  | 0.960 |
| 66 | 59 | 0.810  | 0.949 | 0.794  | 0.956 | 0.760  | 0.968 |
| 66 | 60 | 0.828  | 0.960 | 0.813  | 0.966 | 0.780  | 0.976 |
| 66 | 61 | 0.847  | 0.970 | 0.832  | 0.975 | 0.800  | 0.983 |
| 66 | 62 | 0.867  | 0.979 | 0.852  | 0.983 | 0.821  | 0.990 |
| 66 | 63 | 0.887  | 0.987 | 0.873  | 0.991 | 0.843  | 0.995 |
| 66 | 64 | 0.908  | 0.995 | 0.895  | 0.996 | 0.867  | 0.998 |
| 66 | 65 | 0.930  | 0.999 | 0.918  | 1.000 | 0.893  | 1.000 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 66 | 66 | 0.956  | 1.000 | 0.946  | 1.000 | 0.923  | 1.000 |
| 67 | 0  | 0.000  | 0.044 | 0.000  | 0.054 | 0.000  | 0.076 |
| 67 | 1  | 0.001  | 0.069 | 0.000  | 0.080 | 0.000  | 0.106 |
| 67 | 2  | 0.005  | 0.091 | 0.004  | 0.104 | 0.002  | 0.131 |
| 67 | 3  | 0.012  | 0.112 | 0.009  | 0.125 | 0.005  | 0.154 |
| 67 | 4  | 0.021  | 0.131 | 0.017  | 0.146 | 0.010  | 0.176 |
| 67 | 5  | 0.030  | 0.151 | 0.025  | 0.166 | 0.016  | 0.197 |
| 67 | 6  | 0.040  | 0.169 | 0.034  | 0.185 | 0.024  | 0.217 |
| 67 | 7  | 0.050  | 0.187 | 0.043  | 0.203 | 0.031  | 0.237 |
| 67 | 8  | 0.061  | 0.205 | 0.053  | 0.222 | 0.040  | 0.256 |
| 67 | 9  | 0.072  | 0.223 | 0.063  | 0.240 | 0.049  | 0.275 |
| 67 | 10 | 0.083  | 0.240 | 0.074  | 0.257 | 0.058  | 0.293 |
| 67 | 11 | 0.095  | 0.257 | 0.085  | 0.275 | 0.067  | 0.311 |
| 67 | 12 | 0.107  | 0.274 | 0.096  | 0.292 | 0.077  | 0.328 |
| 67 | 13 | 0.119  | 0.291 | 0.108  | 0.309 | 0.088  | 0.346 |
| 67 | 14 | 0.131  | 0.307 | 0.119  | 0.326 | 0.098  | 0.363 |
| 67 | 15 | 0.143  | 0.324 | 0.131  | 0.342 | 0.109  | 0.379 |
| 67 | 16 | 0.156  | 0.340 | 0.143  | 0.359 | 0.120  | 0.396 |
| 67 | 17 | 0.169  | 0.356 | 0.155  | 0.375 | 0.131  | 0.412 |
| 67 | 18 | 0.181  | 0.372 | 0.168  | 0.391 | 0.143  | 0.429 |
| 67 | 19 | 0.194  | 0.388 | 0.180  | 0.407 | 0.154  | 0.445 |
| 67 | 20 | 0.207  | 0.404 | 0.193  | 0.423 | 0.166  | 0.461 |
| 67 | 21 | 0.221  | 0.419 | 0.206  | 0.438 | 0.178  | 0.476 |
| 67 | 22 | 0.234  | 0.435 | 0.218  | 0.454 | 0.190  | 0.492 |
| 67 | 23 | 0.247  | 0.450 | 0.232  | 0.469 | 0.202  | 0.507 |
| 67 | 24 | 0.261  | 0.465 | 0.245  | 0.485 | 0.215  | 0.522 |
| 67 | 25 | 0.274  | 0.481 | 0.258  | 0.500 | 0.227  | 0.537 |
| 67 | 26 | 0.288  | 0.496 | 0.271  | 0.515 | 0.240  | 0.552 |
| 67 | 27 | 0.302  | 0.511 | 0.285  | 0.530 | 0.253  | 0.567 |
| 67 | 28 | 0.316  | 0.526 | 0.298  | 0.545 | 0.266  | 0.582 |
| 67 | 29 | 0.330  | 0.541 | 0.312  | 0.560 | 0.279  | 0.596 |
| 67 | 30 | 0.344  | 0.555 | 0.326  | 0.574 | 0.292  | 0.611 |
| 67 | 31 | 0.358  | 0.570 | 0.340  | 0.589 | 0.306  | 0.625 |
| 67 | 32 | 0.372  | 0.585 | 0.354  | 0.603 | 0.319  | 0.639 |
| 67 | 33 | 0.386  | 0.599 | 0.368  | 0.618 | 0.333  | 0.653 |
| 67 | 34 | 0.401  | 0.614 | 0.382  | 0.632 | 0.347  | 0.667 |
| 67 | 35 | 0.415  | 0.628 | 0.397  | 0.646 | 0.361  | 0.681 |
| 67 | 36 | 0.430  | 0.642 | 0.411  | 0.660 | 0.375  | 0.694 |
| 67 | 37 | 0.445  | 0.656 | 0.426  | 0.674 | 0.389  | 0.708 |
| 67 | 38 | 0.459  | 0.670 | 0.440  | 0.688 | 0.404  | 0.721 |
| 67 | 39 | 0.474  | 0.684 | 0.455  | 0.702 | 0.418  | 0.734 |
| 67 | 40 | 0.489  | 0.698 | 0.470  | 0.715 | 0.433  | 0.747 |
| 67 | 41 | 0.504  | 0.712 | 0.485  | 0.729 | 0.448  | 0.760 |
| 67 | 42 | 0.519  | 0.726 | 0.500  | 0.742 | 0.463  | 0.773 |
| 67 | 43 | 0.535  | 0.739 | 0.515  | 0.755 | 0.478  | 0.785 |
| 67 | 44 | 0.550  | 0.753 | 0.531  | 0.768 | 0.493  | 0.798 |
| 67 | 45 | 0.565  | 0.766 | 0.546  | 0.782 | 0.508  | 0.810 |
| 67 | 46 | 0.581  | 0.779 | 0.562  | 0.794 | 0.524  | 0.822 |
| 67 | 47 | 0.596  | 0.793 | 0.577  | 0.807 | 0.539  | 0.834 |
| 67 | 48 | 0.612  | 0.806 | 0.593  | 0.820 | 0.555  | 0.846 |
| 67 | 49 | 0.628  | 0.819 | 0.609  | 0.832 | 0.571  | 0.857 |
| 67 | 50 | 0.644  | 0.831 | 0.625  | 0.845 | 0.588  | 0.869 |
| 67 | 51 | 0.660  | 0.844 | 0.641  | 0.857 | 0.604  | 0.880 |
| 67 | 52 | 0.676  | 0.857 | 0.658  | 0.869 | 0.621  | 0.891 |
| 67 | 53 | 0.693  | 0.869 | 0.674  | 0.881 | 0.637  | 0.902 |
| 67 | 54 | 0.709  | 0.881 | 0.691  | 0.892 | 0.654  | 0.912 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 67 | 55 | 0.726  | 0.893 | 0.708  | 0.904 | 0.672  | 0.923 |
| 67 | 56 | 0.743  | 0.905 | 0.725  | 0.915 | 0.689  | 0.933 |
| 67 | 57 | 0.760  | 0.917 | 0.743  | 0.926 | 0.707  | 0.942 |
| 67 | 58 | 0.777  | 0.928 | 0.760  | 0.937 | 0.725  | 0.951 |
| 67 | 59 | 0.795  | 0.939 | 0.778  | 0.947 | 0.744  | 0.960 |
| 67 | 60 | 0.813  | 0.950 | 0.797  | 0.957 | 0.763  | 0.969 |
| 67 | 61 | 0.831  | 0.960 | 0.815  | 0.966 | 0.783  | 0.976 |
| 67 | 62 | 0.849  | 0.970 | 0.834  | 0.975 | 0.803  | 0.984 |
| 67 | 63 | 0.869  | 0.979 | 0.854  | 0.983 | 0.824  | 0.990 |
| 67 | 64 | 0.888  | 0.988 | 0.875  | 0.991 | 0.846  | 0.995 |
| 67 | 65 | 0.909  | 0.995 | 0.896  | 0.996 | 0.869  | 0.998 |
| 67 | 66 | 0.931  | 0.999 | 0.920  | 1.000 | 0.894  | 1.000 |
| 67 | 67 | 0.956  | 1.000 | 0.946  | 1.000 | 0.924  | 1.000 |
| 68 | 0  | 0.000  | 0.043 | 0.000  | 0.053 | 0.000  | 0.075 |
| 68 | 1  | 0.001  | 0.068 | 0.000  | 0.079 | 0.000  | 0.104 |
| 68 | 2  | 0.005  | 0.090 | 0.004  | 0.102 | 0.002  | 0.129 |
| 68 | 3  | 0.012  | 0.110 | 0.009  | 0.124 | 0.005  | 0.152 |
| 68 | 4  | 0.020  | 0.130 | 0.016  | 0.144 | 0.010  | 0.174 |
| 68 | 5  | 0.029  | 0.148 | 0.024  | 0.163 | 0.016  | 0.194 |
| 68 | 6  | 0.039  | 0.167 | 0.033  | 0.182 | 0.023  | 0.214 |
| 68 | 7  | 0.049  | 0.185 | 0.042  | 0.201 | 0.031  | 0.234 |
| 68 | 8  | 0.060  | 0.202 | 0.052  | 0.219 | 0.039  | 0.252 |
| 68 | 9  | 0.071  | 0.220 | 0.062  | 0.236 | 0.048  | 0.271 |
| 68 | 10 | 0.082  | 0.237 | 0.073  | 0.254 | 0.057  | 0.289 |
| 68 | 11 | 0.093  | 0.254 | 0.084  | 0.271 | 0.066  | 0.306 |
| 68 | 12 | 0.105  | 0.270 | 0.095  | 0.288 | 0.076  | 0.324 |
| 68 | 13 | 0.117  | 0.287 | 0.106  | 0.305 | 0.086  | 0.341 |
| 68 | 14 | 0.129  | 0.303 | 0.117  | 0.321 | 0.097  | 0.358 |
| 68 | 15 | 0.141  | 0.319 | 0.129  | 0.338 | 0.107  | 0.374 |
| 68 | 16 | 0.154  | 0.335 | 0.141  | 0.354 | 0.118  | 0.391 |
| 68 | 17 | 0.166  | 0.351 | 0.153  | 0.370 | 0.129  | 0.407 |
| 68 | 18 | 0.179  | 0.367 | 0.165  | 0.386 | 0.140  | 0.423 |
| 68 | 19 | 0.191  | 0.382 | 0.177  | 0.401 | 0.152  | 0.439 |
| 68 | 20 | 0.204  | 0.398 | 0.190  | 0.417 | 0.163  | 0.455 |
| 68 | 21 | 0.217  | 0.413 | 0.202  | 0.433 | 0.175  | 0.470 |
| 68 | 22 | 0.230  | 0.429 | 0.215  | 0.448 | 0.187  | 0.485 |
| 68 | 23 | 0.243  | 0.444 | 0.228  | 0.463 | 0.199  | 0.501 |
| 68 | 24 | 0.257  | 0.459 | 0.241  | 0.478 | 0.211  | 0.516 |
| 68 | 25 | 0.270  | 0.474 | 0.254  | 0.493 | 0.224  | 0.531 |
| 68 | 26 | 0.284  | 0.489 | 0.267  | 0.508 | 0.236  | 0.545 |
| 68 | 27 | 0.297  | 0.504 | 0.280  | 0.523 | 0.249  | 0.560 |
| 68 | 28 | 0.311  | 0.519 | 0.294  | 0.538 | 0.262  | 0.575 |
| 68 | 29 | 0.324  | 0.533 | 0.307  | 0.552 | 0.275  | 0.589 |
| 68 | 30 | 0.338  | 0.548 | 0.321  | 0.567 | 0.288  | 0.603 |
| 68 | 31 | 0.352  | 0.563 | 0.335  | 0.581 | 0.301  | 0.617 |
| 68 | 32 | 0.366  | 0.577 | 0.348  | 0.596 | 0.314  | 0.631 |
| 68 | 33 | 0.380  | 0.591 | 0.362  | 0.610 | 0.328  | 0.645 |
| 68 | 34 | 0.394  | 0.606 | 0.376  | 0.624 | 0.341  | 0.659 |
| 68 | 35 | 0.409  | 0.620 | 0.390  | 0.638 | 0.355  | 0.672 |
| 68 | 36 | 0.423  | 0.634 | 0.404  | 0.652 | 0.369  | 0.686 |
| 68 | 37 | 0.437  | 0.648 | 0.419  | 0.665 | 0.383  | 0.699 |
| 68 | 38 | 0.452  | 0.662 | 0.433  | 0.679 | 0.397  | 0.712 |
| 68 | 39 | 0.467  | 0.676 | 0.448  | 0.693 | 0.411  | 0.725 |
| 68 | 40 | 0.481  | 0.689 | 0.462  | 0.706 | 0.425  | 0.738 |
| 68 | 41 | 0.496  | 0.703 | 0.477  | 0.720 | 0.440  | 0.751 |
| 68 | 42 | 0.511  | 0.716 | 0.492  | 0.733 | 0.455  | 0.764 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 68 | 43 | 0.526  | 0.730 | 0.507  | 0.746 | 0.469  | 0.776 |
| 68 | 44 | 0.541  | 0.743 | 0.522  | 0.759 | 0.484  | 0.789 |
| 68 | 45 | 0.556  | 0.757 | 0.537  | 0.772 | 0.499  | 0.801 |
| 68 | 46 | 0.571  | 0.770 | 0.552  | 0.785 | 0.515  | 0.813 |
| 68 | 47 | 0.587  | 0.783 | 0.567  | 0.798 | 0.530  | 0.825 |
| 68 | 48 | 0.602  | 0.796 | 0.583  | 0.810 | 0.545  | 0.837 |
| 68 | 49 | 0.618  | 0.809 | 0.599  | 0.823 | 0.561  | 0.848 |
| 68 | 50 | 0.633  | 0.821 | 0.614  | 0.835 | 0.577  | 0.860 |
| 68 | 51 | 0.649  | 0.834 | 0.630  | 0.847 | 0.593  | 0.871 |
| 68 | 52 | 0.665  | 0.846 | 0.646  | 0.859 | 0.609  | 0.882 |
| 68 | 53 | 0.681  | 0.859 | 0.662  | 0.871 | 0.626  | 0.893 |
| 68 | 54 | 0.697  | 0.871 | 0.679  | 0.883 | 0.642  | 0.903 |
| 68 | 55 | 0.713  | 0.883 | 0.695  | 0.894 | 0.659  | 0.914 |
| 68 | 56 | 0.730  | 0.895 | 0.712  | 0.905 | 0.676  | 0.924 |
| 68 | 57 | 0.746  | 0.907 | 0.729  | 0.916 | 0.694  | 0.934 |
| 68 | 58 | 0.763  | 0.918 | 0.746  | 0.927 | 0.711  | 0.943 |
| 68 | 59 | 0.780  | 0.929 | 0.764  | 0.938 | 0.729  | 0.952 |
| 68 | 60 | 0.798  | 0.940 | 0.781  | 0.948 | 0.748  | 0.961 |
| 68 | 61 | 0.815  | 0.951 | 0.799  | 0.958 | 0.766  | 0.969 |
| 68 | 62 | 0.833  | 0.961 | 0.818  | 0.967 | 0.786  | 0.977 |
| 68 | 63 | 0.852  | 0.971 | 0.837  | 0.976 | 0.806  | 0.984 |
| 68 | 64 | 0.870  | 0.980 | 0.856  | 0.984 | 0.826  | 0.990 |
| 68 | 65 | 0.890  | 0.988 | 0.876  | 0.991 | 0.848  | 0.995 |
| 68 | 66 | 0.910  | 0.995 | 0.898  | 0.996 | 0.871  | 0.998 |
| 68 | 67 | 0.932  | 0.999 | 0.921  | 1.000 | 0.896  | 1.000 |
| 68 | 68 | 0.957  | 1.000 | 0.947  | 1.000 | 0.925  | 1.000 |
| 69 | 0  | 0.000  | 0.042 | 0.000  | 0.052 | 0.000  | 0.074 |
| 69 | 1  | 0.001  | 0.067 | 0.000  | 0.078 | 0.000  | 0.103 |
| 69 | 2  | 0.005  | 0.088 | 0.004  | 0.101 | 0.002  | 0.128 |
| 69 | 3  | 0.012  | 0.109 | 0.009  | 0.122 | 0.005  | 0.150 |
| 69 | 4  | 0.020  | 0.128 | 0.016  | 0.142 | 0.010  | 0.171 |
| 69 | 5  | 0.029  | 0.146 | 0.024  | 0.161 | 0.016  | 0.192 |
| 69 | 6  | 0.039  | 0.164 | 0.033  | 0.180 | 0.023  | 0.211 |
| 69 | 7  | 0.049  | 0.182 | 0.042  | 0.198 | 0.030  | 0.231 |
| 69 | 8  | 0.059  | 0.199 | 0.051  | 0.216 | 0.039  | 0.249 |
| 69 | 9  | 0.070  | 0.217 | 0.061  | 0.233 | 0.047  | 0.267 |
| 69 | 10 | 0.081  | 0.233 | 0.072  | 0.250 | 0.056  | 0.285 |
| 69 | 11 | 0.092  | 0.250 | 0.082  | 0.267 | 0.065  | 0.302 |
| 69 | 12 | 0.104  | 0.267 | 0.093  | 0.284 | 0.075  | 0.320 |
| 69 | 13 | 0.115  | 0.283 | 0.104  | 0.301 | 0.085  | 0.337 |
| 69 | 14 | 0.127  | 0.299 | 0.116  | 0.317 | 0.095  | 0.353 |
| 69 | 15 | 0.139  | 0.315 | 0.127  | 0.333 | 0.106  | 0.370 |
| 69 | 16 | 0.151  | 0.331 | 0.139  | 0.349 | 0.116  | 0.386 |
| 69 | 17 | 0.163  | 0.346 | 0.151  | 0.365 | 0.127  | 0.402 |
| 69 | 18 | 0.176  | 0.362 | 0.163  | 0.381 | 0.138  | 0.418 |
| 69 | 19 | 0.188  | 0.377 | 0.175  | 0.396 | 0.149  | 0.433 |
| 69 | 20 | 0.201  | 0.393 | 0.187  | 0.412 | 0.161  | 0.449 |
| 69 | 21 | 0.214  | 0.408 | 0.199  | 0.427 | 0.172  | 0.464 |
| 69 | 22 | 0.227  | 0.423 | 0.212  | 0.442 | 0.184  | 0.479 |
| 69 | 23 | 0.240  | 0.438 | 0.224  | 0.457 | 0.196  | 0.494 |
| 69 | 24 | 0.253  | 0.453 | 0.237  | 0.472 | 0.208  | 0.509 |
| 69 | 25 | 0.266  | 0.468 | 0.250  | 0.487 | 0.220  | 0.524 |
| 69 | 26 | 0.279  | 0.483 | 0.263  | 0.502 | 0.232  | 0.539 |
| 69 | 27 | 0.293  | 0.497 | 0.276  | 0.516 | 0.245  | 0.553 |
| 69 | 28 | 0.306  | 0.512 | 0.289  | 0.531 | 0.257  | 0.567 |
| 69 | 29 | 0.319  | 0.526 | 0.302  | 0.545 | 0.270  | 0.582 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 69 | 30 | 0.333  | 0.541 | 0.316  | 0.560 | 0.283  | 0.596 |
| 69 | 31 | 0.347  | 0.555 | 0.329  | 0.574 | 0.296  | 0.610 |
| 69 | 32 | 0.361  | 0.569 | 0.343  | 0.588 | 0.309  | 0.624 |
| 69 | 33 | 0.374  | 0.584 | 0.356  | 0.602 | 0.322  | 0.637 |
| 69 | 34 | 0.388  | 0.598 | 0.370  | 0.616 | 0.336  | 0.651 |
| 69 | 35 | 0.402  | 0.612 | 0.384  | 0.630 | 0.349  | 0.664 |
| 69 | 36 | 0.416  | 0.626 | 0.398  | 0.644 | 0.363  | 0.678 |
| 69 | 37 | 0.431  | 0.639 | 0.412  | 0.657 | 0.376  | 0.691 |
| 69 | 38 | 0.445  | 0.653 | 0.426  | 0.671 | 0.390  | 0.704 |
| 69 | 39 | 0.459  | 0.667 | 0.440  | 0.684 | 0.404  | 0.717 |
| 69 | 40 | 0.474  | 0.681 | 0.455  | 0.698 | 0.418  | 0.730 |
| 69 | 41 | 0.488  | 0.694 | 0.469  | 0.711 | 0.433  | 0.743 |
| 69 | 42 | 0.503  | 0.707 | 0.484  | 0.724 | 0.447  | 0.755 |
| 69 | 43 | 0.517  | 0.721 | 0.498  | 0.737 | 0.461  | 0.768 |
| 69 | 44 | 0.532  | 0.734 | 0.513  | 0.750 | 0.476  | 0.780 |
| 69 | 45 | 0.547  | 0.747 | 0.528  | 0.763 | 0.491  | 0.792 |
| 69 | 46 | 0.562  | 0.760 | 0.543  | 0.776 | 0.506  | 0.804 |
| 69 | 47 | 0.577  | 0.773 | 0.558  | 0.788 | 0.521  | 0.816 |
| 69 | 48 | 0.592  | 0.786 | 0.573  | 0.801 | 0.536  | 0.828 |
| 69 | 49 | 0.607  | 0.799 | 0.588  | 0.813 | 0.551  | 0.839 |
| 69 | 50 | 0.623  | 0.812 | 0.604  | 0.825 | 0.567  | 0.851 |
| 69 | 51 | 0.638  | 0.824 | 0.619  | 0.837 | 0.582  | 0.862 |
| 69 | 52 | 0.654  | 0.837 | 0.635  | 0.849 | 0.598  | 0.873 |
| 69 | 53 | 0.669  | 0.849 | 0.651  | 0.861 | 0.614  | 0.884 |
| 69 | 54 | 0.685  | 0.861 | 0.667  | 0.873 | 0.630  | 0.894 |
| 69 | 55 | 0.701  | 0.873 | 0.683  | 0.884 | 0.647  | 0.905 |
| 69 | 56 | 0.717  | 0.885 | 0.699  | 0.896 | 0.663  | 0.915 |
| 69 | 57 | 0.733  | 0.896 | 0.716  | 0.907 | 0.680  | 0.925 |
| 69 | 58 | 0.750  | 0.908 | 0.733  | 0.918 | 0.698  | 0.935 |
| 69 | 59 | 0.767  | 0.919 | 0.750  | 0.928 | 0.715  | 0.944 |
| 69 | 60 | 0.783  | 0.930 | 0.767  | 0.939 | 0.733  | 0.953 |
| 69 | 61 | 0.801  | 0.941 | 0.784  | 0.949 | 0.751  | 0.961 |
| 69 | 62 | 0.818  | 0.951 | 0.802  | 0.958 | 0.769  | 0.970 |
| 69 | 63 | 0.836  | 0.961 | 0.820  | 0.967 | 0.789  | 0.977 |
| 69 | 64 | 0.854  | 0.971 | 0.839  | 0.976 | 0.808  | 0.984 |
| 69 | 65 | 0.872  | 0.980 | 0.858  | 0.984 | 0.829  | 0.990 |
| 69 | 66 | 0.891  | 0.988 | 0.878  | 0.991 | 0.850  | 0.995 |
| 69 | 67 | 0.912  | 0.995 | 0.899  | 0.996 | 0.872  | 0.998 |
| 69 | 68 | 0.933  | 0.999 | 0.922  | 1.000 | 0.897  | 1.000 |
| 69 | 69 | 0.958  | 1.000 | 0.948  | 1.000 | 0.926  | 1.000 |
| 70 | 0  | 0.000  | 0.042 | 0.000  | 0.051 | 0.000  | 0.073 |
| 70 | 1  | 0.001  | 0.066 | 0.000  | 0.077 | 0.000  | 0.101 |
| 70 | 2  | 0.005  | 0.087 | 0.003  | 0.099 | 0.001  | 0.126 |
| 70 | 3  | 0.012  | 0.107 | 0.009  | 0.120 | 0.005  | 0.148 |
| 70 | 4  | 0.020  | 0.126 | 0.016  | 0.140 | 0.010  | 0.169 |
| 70 | 5  | 0.029  | 0.144 | 0.024  | 0.159 | 0.016  | 0.189 |
| 70 | 6  | 0.038  | 0.162 | 0.032  | 0.177 | 0.023  | 0.209 |
| 70 | 7  | 0.048  | 0.180 | 0.041  | 0.195 | 0.030  | 0.227 |
| 70 | 8  | 0.058  | 0.197 | 0.051  | 0.213 | 0.038  | 0.246 |
| 70 | 9  | 0.069  | 0.214 | 0.061  | 0.230 | 0.046  | 0.264 |
| 70 | 10 | 0.080  | 0.230 | 0.071  | 0.247 | 0.055  | 0.281 |
| 70 | 11 | 0.091  | 0.247 | 0.081  | 0.264 | 0.064  | 0.299 |
| 70 | 12 | 0.102  | 0.263 | 0.092  | 0.280 | 0.074  | 0.315 |
| 70 | 13 | 0.114  | 0.279 | 0.103  | 0.297 | 0.084  | 0.332 |
| 70 | 14 | 0.125  | 0.295 | 0.114  | 0.313 | 0.094  | 0.349 |
| 70 | 15 | 0.137  | 0.311 | 0.125  | 0.329 | 0.104  | 0.365 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 70 | 16 | 0.149  | 0.326 | 0.137  | 0.344 | 0.114  | 0.381 |
| 70 | 17 | 0.161  | 0.342 | 0.148  | 0.360 | 0.125  | 0.397 |
| 70 | 18 | 0.173  | 0.357 | 0.160  | 0.376 | 0.136  | 0.412 |
| 70 | 19 | 0.186  | 0.372 | 0.172  | 0.391 | 0.147  | 0.428 |
| 70 | 20 | 0.198  | 0.388 | 0.184  | 0.406 | 0.158  | 0.443 |
| 70 | 21 | 0.211  | 0.403 | 0.196  | 0.421 | 0.170  | 0.458 |
| 70 | 22 | 0.223  | 0.418 | 0.209  | 0.436 | 0.181  | 0.473 |
| 70 | 23 | 0.236  | 0.432 | 0.221  | 0.451 | 0.193  | 0.488 |
| 70 | 24 | 0.249  | 0.447 | 0.233  | 0.466 | 0.205  | 0.503 |
| 70 | 25 | 0.262  | 0.462 | 0.246  | 0.481 | 0.217  | 0.518 |
| 70 | 26 | 0.275  | 0.476 | 0.259  | 0.495 | 0.229  | 0.532 |
| 70 | 27 | 0.288  | 0.491 | 0.272  | 0.510 | 0.241  | 0.546 |
| 70 | 28 | 0.301  | 0.505 | 0.285  | 0.524 | 0.253  | 0.561 |
| 70 | 29 | 0.315  | 0.520 | 0.298  | 0.538 | 0.266  | 0.575 |
| 70 | 30 | 0.328  | 0.534 | 0.311  | 0.553 | 0.279  | 0.589 |
| 70 | 31 | 0.341  | 0.548 | 0.324  | 0.567 | 0.291  | 0.602 |
| 70 | 32 | 0.355  | 0.562 | 0.337  | 0.581 | 0.304  | 0.616 |
| 70 | 33 | 0.369  | 0.576 | 0.351  | 0.594 | 0.317  | 0.630 |
| 70 | 34 | 0.382  | 0.590 | 0.364  | 0.608 | 0.330  | 0.643 |
| 70 | 35 | 0.396  | 0.604 | 0.378  | 0.622 | 0.343  | 0.657 |
| 70 | 36 | 0.410  | 0.618 | 0.392  | 0.636 | 0.357  | 0.670 |
| 70 | 37 | 0.424  | 0.631 | 0.406  | 0.649 | 0.370  | 0.683 |
| 70 | 38 | 0.438  | 0.645 | 0.419  | 0.663 | 0.384  | 0.696 |
| 70 | 39 | 0.452  | 0.659 | 0.433  | 0.676 | 0.398  | 0.709 |
| 70 | 40 | 0.466  | 0.672 | 0.447  | 0.689 | 0.411  | 0.721 |
| 70 | 41 | 0.480  | 0.685 | 0.462  | 0.702 | 0.425  | 0.734 |
| 70 | 42 | 0.495  | 0.699 | 0.476  | 0.715 | 0.439  | 0.747 |
| 70 | 43 | 0.509  | 0.712 | 0.490  | 0.728 | 0.454  | 0.759 |
| 70 | 44 | 0.524  | 0.725 | 0.505  | 0.741 | 0.468  | 0.771 |
| 70 | 45 | 0.538  | 0.738 | 0.519  | 0.754 | 0.482  | 0.783 |
| 70 | 46 | 0.553  | 0.751 | 0.534  | 0.767 | 0.497  | 0.795 |
| 70 | 47 | 0.568  | 0.764 | 0.549  | 0.779 | 0.512  | 0.807 |
| 70 | 48 | 0.582  | 0.777 | 0.564  | 0.791 | 0.527  | 0.819 |
| 70 | 49 | 0.597  | 0.789 | 0.579  | 0.804 | 0.542  | 0.830 |
| 70 | 50 | 0.612  | 0.802 | 0.594  | 0.816 | 0.557  | 0.842 |
| 70 | 51 | 0.628  | 0.814 | 0.609  | 0.828 | 0.572  | 0.853 |
| 70 | 52 | 0.643  | 0.827 | 0.624  | 0.840 | 0.588  | 0.864 |
| 70 | 53 | 0.658  | 0.839 | 0.640  | 0.852 | 0.603  | 0.875 |
| 70 | 54 | 0.674  | 0.851 | 0.656  | 0.863 | 0.619  | 0.886 |
| 70 | 55 | 0.689  | 0.863 | 0.671  | 0.875 | 0.635  | 0.896 |
| 70 | 56 | 0.705  | 0.875 | 0.687  | 0.886 | 0.651  | 0.906 |
| 70 | 57 | 0.721  | 0.886 | 0.703  | 0.897 | 0.668  | 0.916 |
| 70 | 58 | 0.737  | 0.898 | 0.720  | 0.908 | 0.685  | 0.926 |
| 70 | 59 | 0.753  | 0.909 | 0.736  | 0.919 | 0.701  | 0.936 |
| 70 | 60 | 0.770  | 0.920 | 0.753  | 0.929 | 0.719  | 0.945 |
| 70 | 61 | 0.786  | 0.931 | 0.770  | 0.939 | 0.736  | 0.954 |
| 70 | 62 | 0.803  | 0.942 | 0.787  | 0.949 | 0.754  | 0.962 |
| 70 | 63 | 0.820  | 0.952 | 0.805  | 0.959 | 0.773  | 0.970 |
| 70 | 64 | 0.838  | 0.962 | 0.823  | 0.968 | 0.791  | 0.977 |
| 70 | 65 | 0.856  | 0.971 | 0.841  | 0.976 | 0.811  | 0.984 |
| 70 | 66 | 0.874  | 0.980 | 0.860  | 0.984 | 0.831  | 0.990 |
| 70 | 67 | 0.893  | 0.988 | 0.880  | 0.991 | 0.852  | 0.995 |
| 70 | 68 | 0.913  | 0.995 | 0.901  | 0.997 | 0.874  | 0.999 |
| 70 | 69 | 0.934  | 0.999 | 0.923  | 1.000 | 0.899  | 1.000 |
| 70 | 70 | 0.958  | 1.000 | 0.949  | 1.000 | 0.927  | 1.000 |
| 71 | 0  | 0.000  | 0.041 | 0.000  | 0.051 | 0.000  | 0.072 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 71 | 1  | 0.001  | 0.065 | 0.000  | 0.076 | 0.000  | 0.100 |
| 71 | 2  | 0.005  | 0.086 | 0.003  | 0.098 | 0.001  | 0.124 |
| 71 | 3  | 0.012  | 0.106 | 0.009  | 0.119 | 0.005  | 0.146 |
| 71 | 4  | 0.019  | 0.124 | 0.016  | 0.138 | 0.010  | 0.167 |
| 71 | 5  | 0.028  | 0.142 | 0.023  | 0.157 | 0.016  | 0.187 |
| 71 | 6  | 0.037  | 0.160 | 0.032  | 0.175 | 0.022  | 0.206 |
| 71 | 7  | 0.047  | 0.177 | 0.041  | 0.193 | 0.030  | 0.225 |
| 71 | 8  | 0.057  | 0.194 | 0.050  | 0.210 | 0.037  | 0.243 |
| 71 | 9  | 0.068  | 0.211 | 0.060  | 0.227 | 0.046  | 0.260 |
| 71 | 10 | 0.078  | 0.227 | 0.070  | 0.244 | 0.054  | 0.278 |
| 71 | 11 | 0.089  | 0.243 | 0.080  | 0.260 | 0.063  | 0.295 |
| 71 | 12 | 0.101  | 0.259 | 0.091  | 0.277 | 0.073  | 0.311 |
| 71 | 13 | 0.112  | 0.275 | 0.101  | 0.293 | 0.082  | 0.328 |
| 71 | 14 | 0.123  | 0.291 | 0.112  | 0.309 | 0.092  | 0.344 |
| 71 | 15 | 0.135  | 0.307 | 0.123  | 0.324 | 0.102  | 0.360 |
| 71 | 16 | 0.147  | 0.322 | 0.135  | 0.340 | 0.113  | 0.376 |
| 71 | 17 | 0.159  | 0.337 | 0.146  | 0.355 | 0.123  | 0.392 |
| 71 | 18 | 0.171  | 0.352 | 0.158  | 0.371 | 0.134  | 0.407 |
| 71 | 19 | 0.183  | 0.367 | 0.169  | 0.386 | 0.145  | 0.423 |
| 71 | 20 | 0.195  | 0.382 | 0.181  | 0.401 | 0.156  | 0.438 |
| 71 | 21 | 0.208  | 0.397 | 0.193  | 0.416 | 0.167  | 0.453 |
| 71 | 22 | 0.220  | 0.412 | 0.205  | 0.431 | 0.178  | 0.468 |
| 71 | 23 | 0.233  | 0.427 | 0.216  | 0.445 | 0.190  | 0.482 |
| 71 | 24 | 0.245  | 0.441 | 0.230  | 0.460 | 0.202  | 0.497 |
| 71 | 25 | 0.258  | 0.456 | 0.242  | 0.475 | 0.213  | 0.511 |
| 71 | 26 | 0.271  | 0.470 | 0.255  | 0.489 | 0.225  | 0.526 |
| 71 | 27 | 0.284  | 0.485 | 0.268  | 0.503 | 0.237  | 0.540 |
| 71 | 28 | 0.297  | 0.499 | 0.280  | 0.517 | 0.250  | 0.554 |
| 71 | 29 | 0.310  | 0.513 | 0.293  | 0.532 | 0.262  | 0.568 |
| 71 | 30 | 0.323  | 0.527 | 0.306  | 0.546 | 0.274  | 0.582 |
| 71 | 31 | 0.336  | 0.541 | 0.319  | 0.560 | 0.287  | 0.595 |
| 71 | 32 | 0.350  | 0.555 | 0.332  | 0.573 | 0.299  | 0.609 |
| 71 | 33 | 0.363  | 0.569 | 0.345  | 0.587 | 0.312  | 0.622 |
| 71 | 34 | 0.376  | 0.583 | 0.359  | 0.601 | 0.325  | 0.636 |
| 71 | 35 | 0.390  | 0.596 | 0.372  | 0.614 | 0.338  | 0.649 |
| 71 | 36 | 0.404  | 0.610 | 0.386  | 0.628 | 0.351  | 0.662 |
| 71 | 37 | 0.417  | 0.624 | 0.399  | 0.641 | 0.364  | 0.675 |
| 71 | 38 | 0.431  | 0.637 | 0.413  | 0.655 | 0.378  | 0.688 |
| 71 | 39 | 0.445  | 0.650 | 0.427  | 0.668 | 0.391  | 0.701 |
| 71 | 40 | 0.459  | 0.664 | 0.440  | 0.681 | 0.405  | 0.713 |
| 71 | 41 | 0.473  | 0.677 | 0.454  | 0.694 | 0.418  | 0.726 |
| 71 | 42 | 0.487  | 0.690 | 0.468  | 0.707 | 0.432  | 0.738 |
| 71 | 43 | 0.501  | 0.703 | 0.483  | 0.720 | 0.446  | 0.750 |
| 71 | 44 | 0.515  | 0.716 | 0.497  | 0.732 | 0.460  | 0.763 |
| 71 | 45 | 0.530  | 0.729 | 0.511  | 0.745 | 0.474  | 0.775 |
| 71 | 46 | 0.544  | 0.742 | 0.525  | 0.758 | 0.489  | 0.787 |
| 71 | 47 | 0.559  | 0.755 | 0.540  | 0.770 | 0.503  | 0.798 |
| 71 | 48 | 0.573  | 0.767 | 0.555  | 0.782 | 0.518  | 0.810 |
| 71 | 49 | 0.588  | 0.780 | 0.569  | 0.795 | 0.532  | 0.822 |
| 71 | 50 | 0.603  | 0.792 | 0.584  | 0.807 | 0.547  | 0.833 |
| 71 | 51 | 0.618  | 0.805 | 0.599  | 0.819 | 0.562  | 0.844 |
| 71 | 52 | 0.633  | 0.817 | 0.614  | 0.831 | 0.577  | 0.855 |
| 71 | 53 | 0.648  | 0.829 | 0.629  | 0.842 | 0.593  | 0.866 |
| 71 | 54 | 0.663  | 0.841 | 0.645  | 0.854 | 0.608  | 0.877 |
| 71 | 55 | 0.678  | 0.853 | 0.660  | 0.865 | 0.624  | 0.887 |
| 71 | 56 | 0.693  | 0.865 | 0.676  | 0.877 | 0.640  | 0.898 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 71 | 57 | 0.709  | 0.877 | 0.691  | 0.888 | 0.656  | 0.908 |
| 71 | 58 | 0.725  | 0.888 | 0.707  | 0.899 | 0.672  | 0.918 |
| 71 | 59 | 0.741  | 0.899 | 0.723  | 0.909 | 0.689  | 0.927 |
| 71 | 60 | 0.757  | 0.911 | 0.740  | 0.920 | 0.705  | 0.937 |
| 71 | 61 | 0.773  | 0.922 | 0.756  | 0.930 | 0.722  | 0.946 |
| 71 | 62 | 0.789  | 0.932 | 0.773  | 0.940 | 0.740  | 0.954 |
| 71 | 63 | 0.806  | 0.943 | 0.790  | 0.950 | 0.757  | 0.963 |
| 71 | 64 | 0.823  | 0.953 | 0.807  | 0.959 | 0.775  | 0.970 |
| 71 | 65 | 0.840  | 0.963 | 0.825  | 0.968 | 0.794  | 0.978 |
| 71 | 66 | 0.858  | 0.972 | 0.843  | 0.977 | 0.813  | 0.984 |
| 71 | 67 | 0.876  | 0.981 | 0.862  | 0.984 | 0.833  | 0.990 |
| 71 | 68 | 0.894  | 0.988 | 0.881  | 0.991 | 0.854  | 0.995 |
| 71 | 69 | 0.914  | 0.995 | 0.902  | 0.997 | 0.876  | 0.999 |
| 71 | 70 | 0.935  | 0.999 | 0.924  | 1.000 | 0.900  | 1.000 |
| 71 | 71 | 0.959  | 1.000 | 0.949  | 1.000 | 0.928  | 1.000 |
| 72 | 0  | 0.000  | 0.041 | 0.000  | 0.050 | 0.000  | 0.071 |
| 72 | 1  | 0.001  | 0.064 | 0.000  | 0.075 | 0.000  | 0.099 |
| 72 | 2  | 0.005  | 0.085 | 0.003  | 0.097 | 0.001  | 0.122 |
| 72 | 3  | 0.011  | 0.104 | 0.009  | 0.117 | 0.005  | 0.144 |
| 72 | 4  | 0.019  | 0.123 | 0.015  | 0.136 | 0.009  | 0.165 |
| 72 | 5  | 0.028  | 0.140 | 0.023  | 0.155 | 0.015  | 0.184 |
| 72 | 6  | 0.037  | 0.158 | 0.031  | 0.173 | 0.022  | 0.203 |
| 72 | 7  | 0.047  | 0.175 | 0.040  | 0.190 | 0.029  | 0.222 |
| 72 | 8  | 0.056  | 0.192 | 0.049  | 0.207 | 0.037  | 0.239 |
| 72 | 9  | 0.067  | 0.208 | 0.059  | 0.224 | 0.045  | 0.257 |
| 72 | 10 | 0.077  | 0.224 | 0.069  | 0.241 | 0.054  | 0.274 |
| 72 | 11 | 0.088  | 0.240 | 0.079  | 0.257 | 0.063  | 0.291 |
| 72 | 12 | 0.099  | 0.256 | 0.089  | 0.273 | 0.072  | 0.308 |
| 72 | 13 | 0.110  | 0.272 | 0.100  | 0.289 | 0.081  | 0.324 |
| 72 | 14 | 0.122  | 0.287 | 0.111  | 0.305 | 0.091  | 0.340 |
| 72 | 15 | 0.133  | 0.303 | 0.122  | 0.320 | 0.101  | 0.356 |
| 72 | 16 | 0.145  | 0.318 | 0.133  | 0.336 | 0.111  | 0.371 |
| 72 | 17 | 0.156  | 0.333 | 0.144  | 0.351 | 0.121  | 0.387 |
| 72 | 18 | 0.168  | 0.348 | 0.155  | 0.366 | 0.132  | 0.402 |
| 72 | 19 | 0.180  | 0.363 | 0.167  | 0.381 | 0.143  | 0.417 |
| 72 | 20 | 0.192  | 0.378 | 0.179  | 0.396 | 0.154  | 0.432 |
| 72 | 21 | 0.204  | 0.392 | 0.190  | 0.411 | 0.165  | 0.447 |
| 72 | 22 | 0.217  | 0.407 | 0.202  | 0.425 | 0.176  | 0.462 |
| 72 | 23 | 0.229  | 0.421 | 0.214  | 0.440 | 0.187  | 0.476 |
| 72 | 24 | 0.242  | 0.436 | 0.227  | 0.454 | 0.199  | 0.491 |
| 72 | 25 | 0.254  | 0.450 | 0.239  | 0.469 | 0.210  | 0.505 |
| 72 | 26 | 0.267  | 0.464 | 0.251  | 0.483 | 0.222  | 0.519 |
| 72 | 27 | 0.280  | 0.478 | 0.264  | 0.497 | 0.234  | 0.533 |
| 72 | 28 | 0.292  | 0.493 | 0.276  | 0.511 | 0.246  | 0.547 |
| 72 | 29 | 0.305  | 0.506 | 0.289  | 0.525 | 0.258  | 0.561 |
| 72 | 30 | 0.318  | 0.520 | 0.302  | 0.539 | 0.270  | 0.575 |
| 72 | 31 | 0.331  | 0.534 | 0.314  | 0.553 | 0.282  | 0.588 |
| 72 | 32 | 0.344  | 0.548 | 0.327  | 0.566 | 0.295  | 0.602 |
| 72 | 33 | 0.358  | 0.562 | 0.340  | 0.580 | 0.307  | 0.615 |
| 72 | 34 | 0.371  | 0.575 | 0.353  | 0.593 | 0.320  | 0.628 |
| 72 | 35 | 0.384  | 0.589 | 0.366  | 0.607 | 0.333  | 0.641 |
| 72 | 36 | 0.398  | 0.602 | 0.380  | 0.620 | 0.346  | 0.654 |
| 72 | 37 | 0.411  | 0.616 | 0.393  | 0.634 | 0.359  | 0.667 |
| 72 | 38 | 0.425  | 0.629 | 0.407  | 0.647 | 0.372  | 0.680 |
| 72 | 39 | 0.438  | 0.642 | 0.420  | 0.660 | 0.385  | 0.693 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 72 | 40 | 0.452  | 0.656 | 0.434  | 0.673 | 0.398  | 0.705 |
| 72 | 41 | 0.466  | 0.669 | 0.447  | 0.686 | 0.412  | 0.718 |
| 72 | 42 | 0.480  | 0.682 | 0.461  | 0.698 | 0.425  | 0.730 |
| 72 | 43 | 0.494  | 0.695 | 0.475  | 0.711 | 0.439  | 0.742 |
| 72 | 44 | 0.507  | 0.708 | 0.489  | 0.724 | 0.453  | 0.754 |
| 72 | 45 | 0.522  | 0.720 | 0.503  | 0.736 | 0.467  | 0.766 |
| 72 | 46 | 0.536  | 0.733 | 0.517  | 0.749 | 0.481  | 0.778 |
| 72 | 47 | 0.550  | 0.746 | 0.531  | 0.761 | 0.495  | 0.790 |
| 72 | 48 | 0.564  | 0.758 | 0.546  | 0.773 | 0.509  | 0.801 |
| 72 | 49 | 0.579  | 0.771 | 0.560  | 0.786 | 0.524  | 0.813 |
| 72 | 50 | 0.593  | 0.783 | 0.575  | 0.798 | 0.538  | 0.824 |
| 72 | 51 | 0.608  | 0.796 | 0.589  | 0.810 | 0.553  | 0.835 |
| 72 | 52 | 0.622  | 0.808 | 0.604  | 0.821 | 0.568  | 0.846 |
| 72 | 53 | 0.637  | 0.820 | 0.619  | 0.833 | 0.583  | 0.857 |
| 72 | 54 | 0.652  | 0.832 | 0.634  | 0.845 | 0.598  | 0.868 |
| 72 | 55 | 0.667  | 0.844 | 0.649  | 0.856 | 0.613  | 0.879 |
| 72 | 56 | 0.682  | 0.855 | 0.664  | 0.867 | 0.629  | 0.889 |
| 72 | 57 | 0.697  | 0.867 | 0.680  | 0.878 | 0.644  | 0.899 |
| 72 | 58 | 0.713  | 0.878 | 0.695  | 0.889 | 0.660  | 0.909 |
| 72 | 59 | 0.728  | 0.890 | 0.711  | 0.900 | 0.676  | 0.919 |
| 72 | 60 | 0.744  | 0.901 | 0.727  | 0.911 | 0.692  | 0.928 |
| 72 | 61 | 0.760  | 0.912 | 0.743  | 0.921 | 0.709  | 0.937 |
| 72 | 62 | 0.776  | 0.923 | 0.759  | 0.931 | 0.726  | 0.946 |
| 72 | 63 | 0.792  | 0.933 | 0.776  | 0.941 | 0.743  | 0.955 |
| 72 | 64 | 0.808  | 0.944 | 0.793  | 0.951 | 0.761  | 0.963 |
| 72 | 65 | 0.825  | 0.953 | 0.810  | 0.960 | 0.778  | 0.971 |
| 72 | 66 | 0.842  | 0.963 | 0.827  | 0.969 | 0.797  | 0.978 |
| 72 | 67 | 0.860  | 0.972 | 0.845  | 0.977 | 0.816  | 0.985 |
| 72 | 68 | 0.877  | 0.981 | 0.864  | 0.985 | 0.835  | 0.991 |
| 72 | 69 | 0.896  | 0.989 | 0.883  | 0.991 | 0.856  | 0.995 |
| 72 | 70 | 0.915  | 0.995 | 0.903  | 0.997 | 0.878  | 0.999 |
| 72 | 71 | 0.936  | 0.999 | 0.925  | 1.000 | 0.901  | 1.000 |
| 72 | 72 | 0.959  | 1.000 | 0.950  | 1.000 | 0.929  | 1.000 |
| 73 | 0  | 0.000  | 0.040 | 0.000  | 0.049 | 0.000  | 0.070 |
| 73 | 1  | 0.001  | 0.063 | 0.000  | 0.074 | 0.000  | 0.097 |
| 73 | 2  | 0.005  | 0.084 | 0.003  | 0.095 | 0.001  | 0.121 |
| 73 | 3  | 0.011  | 0.103 | 0.009  | 0.115 | 0.005  | 0.142 |
| 73 | 5  | 0.027  | 0.139 | 0.023  | 0.153 | 0.015  | 0.182 |
| 73 | 6  | 0.036  | 0.156 | 0.031  | 0.170 | 0.022  | 0.201 |
| 73 | 7  | 0.046  | 0.173 | 0.039  | 0.188 | 0.029  | 0.219 |
| 73 | 8  | 0.056  | 0.189 | 0.049  | 0.205 | 0.036  | 0.236 |
| 73 | 9  | 0.066  | 0.205 | 0.058  | 0.221 | 0.044  | 0.254 |
| 73 | 10 | 0.076  | 0.221 | 0.068  | 0.238 | 0.053  | 0.271 |
| 73 | 11 | 0.087  | 0.237 | 0.078  | 0.254 | 0.062  | 0.287 |
| 73 | 12 | 0.098  | 0.253 | 0.088  | 0.270 | 0.071  | 0.304 |
| 73 | 13 | 0.109  | 0.268 | 0.098  | 0.285 | 0.080  | 0.320 |
| 73 | 14 | 0.120  | 0.283 | 0.109  | 0.301 | 0.090  | 0.336 |
| 73 | 15 | 0.131  | 0.299 | 0.120  | 0.316 | 0.099  | 0.351 |
| 73 | 16 | 0.143  | 0.314 | 0.131  | 0.331 | 0.109  | 0.367 |
| 73 | 17 | 0.154  | 0.329 | 0.142  | 0.346 | 0.120  | 0.382 |
| 73 | 18 | 0.166  | 0.343 | 0.153  | 0.361 | 0.130  | 0.397 |
| 73 | 19 | 0.178  | 0.358 | 0.165  | 0.376 | 0.141  | 0.412 |
| 73 | 20 | 0.190  | 0.373 | 0.176  | 0.391 | 0.151  | 0.427 |
| 73 | 21 | 0.202  | 0.387 | 0.188  | 0.406 | 0.162  | 0.442 |
| 73 | 22 | 0.214  | 0.402 | 0.199  | 0.420 | 0.173  | 0.456 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 73 | 23 | 0.226  | 0.416 | 0.211  | 0.434 | 0.184  | 0.471 |
| 73 | 24 | 0.238  | 0.430 | 0.223  | 0.449 | 0.196  | 0.485 |
| 73 | 25 | 0.250  | 0.444 | 0.235  | 0.463 | 0.207  | 0.499 |
| 73 | 26 | 0.263  | 0.458 | 0.247  | 0.477 | 0.219  | 0.513 |
| 73 | 27 | 0.275  | 0.472 | 0.260  | 0.491 | 0.230  | 0.527 |
| 73 | 28 | 0.288  | 0.486 | 0.272  | 0.505 | 0.242  | 0.541 |
| 73 | 29 | 0.301  | 0.500 | 0.285  | 0.519 | 0.254  | 0.554 |
| 73 | 30 | 0.314  | 0.514 | 0.297  | 0.532 | 0.266  | 0.568 |
| 73 | 31 | 0.326  | 0.528 | 0.310  | 0.546 | 0.278  | 0.581 |
| 73 | 32 | 0.339  | 0.541 | 0.322  | 0.559 | 0.290  | 0.595 |
| 73 | 33 | 0.352  | 0.555 | 0.335  | 0.573 | 0.303  | 0.608 |
| 73 | 34 | 0.365  | 0.568 | 0.348  | 0.586 | 0.315  | 0.621 |
| 73 | 35 | 0.378  | 0.582 | 0.361  | 0.600 | 0.328  | 0.634 |
| 73 | 36 | 0.392  | 0.595 | 0.374  | 0.613 | 0.340  | 0.647 |
| 73 | 37 | 0.405  | 0.608 | 0.387  | 0.626 | 0.353  | 0.660 |
| 73 | 38 | 0.418  | 0.622 | 0.400  | 0.639 | 0.366  | 0.672 |
| 73 | 39 | 0.432  | 0.635 | 0.414  | 0.652 | 0.379  | 0.685 |
| 73 | 40 | 0.445  | 0.648 | 0.427  | 0.665 | 0.392  | 0.697 |
| 73 | 41 | 0.459  | 0.661 | 0.441  | 0.678 | 0.405  | 0.710 |
| 73 | 42 | 0.472  | 0.674 | 0.454  | 0.690 | 0.419  | 0.722 |
| 73 | 43 | 0.486  | 0.686 | 0.468  | 0.703 | 0.432  | 0.734 |
| 73 | 44 | 0.500  | 0.699 | 0.481  | 0.715 | 0.446  | 0.746 |
| 73 | 45 | 0.514  | 0.712 | 0.495  | 0.728 | 0.459  | 0.758 |
| 73 | 46 | 0.528  | 0.725 | 0.509  | 0.740 | 0.473  | 0.770 |
| 73 | 47 | 0.542  | 0.737 | 0.523  | 0.753 | 0.487  | 0.781 |
| 73 | 48 | 0.556  | 0.750 | 0.537  | 0.765 | 0.501  | 0.793 |
| 73 | 49 | 0.570  | 0.762 | 0.551  | 0.777 | 0.515  | 0.804 |
| 73 | 50 | 0.584  | 0.774 | 0.566  | 0.789 | 0.529  | 0.816 |
| 73 | 51 | 0.598  | 0.786 | 0.580  | 0.801 | 0.544  | 0.827 |
| 73 | 52 | 0.613  | 0.798 | 0.594  | 0.812 | 0.558  | 0.838 |
| 73 | 53 | 0.627  | 0.810 | 0.609  | 0.824 | 0.573  | 0.849 |
| 73 | 54 | 0.642  | 0.822 | 0.624  | 0.835 | 0.588  | 0.859 |
| 73 | 55 | 0.657  | 0.834 | 0.639  | 0.847 | 0.603  | 0.870 |
| 73 | 56 | 0.671  | 0.846 | 0.654  | 0.858 | 0.618  | 0.880 |
| 73 | 57 | 0.686  | 0.857 | 0.669  | 0.869 | 0.633  | 0.891 |
| 73 | 58 | 0.701  | 0.869 | 0.684  | 0.880 | 0.649  | 0.901 |
| 73 | 59 | 0.717  | 0.880 | 0.699  | 0.891 | 0.664  | 0.910 |
| 73 | 60 | 0.732  | 0.891 | 0.715  | 0.902 | 0.680  | 0.920 |
| 73 | 61 | 0.747  | 0.902 | 0.730  | 0.912 | 0.696  | 0.929 |
| 73 | 62 | 0.763  | 0.913 | 0.746  | 0.922 | 0.713  | 0.938 |
| 73 | 63 | 0.779  | 0.924 | 0.762  | 0.932 | 0.729  | 0.947 |
| 73 | 64 | 0.795  | 0.934 | 0.779  | 0.942 | 0.746  | 0.956 |
| 73 | 65 | 0.811  | 0.944 | 0.795  | 0.951 | 0.764  | 0.964 |
| 73 | 66 | 0.827  | 0.954 | 0.812  | 0.961 | 0.781  | 0.971 |
| 73 | 67 | 0.844  | 0.964 | 0.830  | 0.969 | 0.799  | 0.978 |
| 73 | 68 | 0.861  | 0.973 | 0.847  | 0.977 | 0.818  | 0.985 |
| 73 | 69 | 0.879  | 0.981 | 0.866  | 0.985 | 0.837  | 0.991 |
| 73 | 70 | 0.897  | 0.989 | 0.885  | 0.991 | 0.858  | 0.995 |
| 73 | 71 | 0.916  | 0.995 | 0.905  | 0.997 | 0.879  | 0.999 |
| 73 | 72 | 0.937  | 0.999 | 0.926  | 1.000 | 0.903  | 1.000 |
| 73 | 73 | 0.960  | 1.000 | 0.951  | 1.000 | 0.930  | 1.000 |
| 74 | 0  | 0.000  | 0.040 | 0.000  | 0.049 | 0.000  | 0.069 |
| 74 | 1  | 0.001  | 0.063 | 0.000  | 0.073 | 0.000  | 0.096 |
| 74 | 2  | 0.005  | 0.083 | 0.003  | 0.094 | 0.001  | 0.119 |
| 74 | 3  | 0.011  | 0.101 | 0.008  | 0.114 | 0.005  | 0.141 |
| 74 | 4  | 0.019  | 0.119 | 0.015  | 0.133 | 0.009  | 0.161 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 74 | 5  | 0.027  | 0.137 | 0.022  | 0.151 | 0.015  | 0.180 |
| 74 | 6  | 0.036  | 0.154 | 0.030  | 0.168 | 0.021  | 0.198 |
| 74 | 7  | 0.045  | 0.170 | 0.039  | 0.185 | 0.028  | 0.216 |
| 74 | 8  | 0.055  | 0.187 | 0.048  | 0.202 | 0.036  | 0.233 |
| 74 | 9  | 0.065  | 0.203 | 0.057  | 0.218 | 0.044  | 0.251 |
| 74 | 10 | 0.075  | 0.218 | 0.067  | 0.235 | 0.052  | 0.267 |
| 74 | 11 | 0.086  | 0.234 | 0.077  | 0.250 | 0.061  | 0.284 |
| 74 | 12 | 0.096  | 0.249 | 0.087  | 0.266 | 0.070  | 0.300 |
| 74 | 13 | 0.107  | 0.265 | 0.097  | 0.282 | 0.079  | 0.316 |
| 74 | 14 | 0.118  | 0.280 | 0.107  | 0.297 | 0.088  | 0.332 |
| 74 | 15 | 0.129  | 0.295 | 0.118  | 0.312 | 0.098  | 0.347 |
| 74 | 16 | 0.141  | 0.310 | 0.129  | 0.327 | 0.108  | 0.362 |
| 74 | 17 | 0.152  | 0.324 | 0.140  | 0.342 | 0.118  | 0.377 |
| 74 | 18 | 0.164  | 0.339 | 0.151  | 0.357 | 0.128  | 0.392 |
| 74 | 19 | 0.175  | 0.354 | 0.162  | 0.372 | 0.139  | 0.407 |
| 74 | 20 | 0.187  | 0.368 | 0.174  | 0.386 | 0.149  | 0.422 |
| 74 | 21 | 0.199  | 0.382 | 0.185  | 0.401 | 0.160  | 0.436 |
| 74 | 22 | 0.211  | 0.397 | 0.197  | 0.415 | 0.171  | 0.451 |
| 74 | 23 | 0.223  | 0.411 | 0.208  | 0.429 | 0.182  | 0.465 |
| 74 | 24 | 0.235  | 0.425 | 0.220  | 0.443 | 0.193  | 0.479 |
| 74 | 25 | 0.247  | 0.439 | 0.232  | 0.457 | 0.204  | 0.493 |
| 74 | 26 | 0.259  | 0.453 | 0.244  | 0.471 | 0.215  | 0.507 |
| 74 | 27 | 0.272  | 0.467 | 0.256  | 0.485 | 0.227  | 0.521 |
| 74 | 28 | 0.284  | 0.480 | 0.268  | 0.499 | 0.238  | 0.534 |
| 74 | 29 | 0.296  | 0.494 | 0.280  | 0.512 | 0.250  | 0.548 |
| 74 | 30 | 0.309  | 0.508 | 0.293  | 0.526 | 0.262  | 0.561 |
| 74 | 31 | 0.322  | 0.521 | 0.305  | 0.539 | 0.274  | 0.575 |
| 74 | 32 | 0.334  | 0.535 | 0.318  | 0.553 | 0.286  | 0.588 |
| 74 | 33 | 0.347  | 0.548 | 0.330  | 0.566 | 0.298  | 0.601 |
| 74 | 34 | 0.360  | 0.561 | 0.343  | 0.579 | 0.310  | 0.614 |
| 74 | 35 | 0.373  | 0.575 | 0.356  | 0.593 | 0.323  | 0.627 |
| 74 | 36 | 0.386  | 0.588 | 0.369  | 0.606 | 0.335  | 0.640 |
| 74 | 37 | 0.399  | 0.601 | 0.381  | 0.619 | 0.348  | 0.652 |
| 74 | 38 | 0.412  | 0.614 | 0.394  | 0.631 | 0.360  | 0.665 |
| 74 | 39 | 0.425  | 0.627 | 0.407  | 0.644 | 0.373  | 0.677 |
| 74 | 40 | 0.439  | 0.640 | 0.421  | 0.657 | 0.386  | 0.690 |
| 74 | 41 | 0.452  | 0.653 | 0.434  | 0.670 | 0.399  | 0.702 |
| 74 | 42 | 0.465  | 0.666 | 0.447  | 0.682 | 0.412  | 0.714 |
| 74 | 43 | 0.478  | 0.678 | 0.461  | 0.695 | 0.425  | 0.726 |
| 74 | 44 | 0.492  | 0.691 | 0.474  | 0.707 | 0.439  | 0.738 |
| 74 | 45 | 0.506  | 0.704 | 0.488  | 0.720 | 0.452  | 0.750 |
| 74 | 46 | 0.520  | 0.716 | 0.501  | 0.732 | 0.466  | 0.762 |
| 74 | 47 | 0.533  | 0.728 | 0.515  | 0.744 | 0.479  | 0.773 |
| 74 | 48 | 0.547  | 0.741 | 0.529  | 0.756 | 0.493  | 0.785 |
| 74 | 49 | 0.561  | 0.753 | 0.543  | 0.768 | 0.507  | 0.796 |
| 74 | 50 | 0.575  | 0.765 | 0.557  | 0.780 | 0.521  | 0.807 |
| 74 | 51 | 0.589  | 0.777 | 0.571  | 0.792 | 0.535  | 0.818 |
| 74 | 52 | 0.603  | 0.789 | 0.585  | 0.803 | 0.549  | 0.829 |
| 74 | 53 | 0.618  | 0.801 | 0.599  | 0.815 | 0.564  | 0.840 |
| 74 | 54 | 0.632  | 0.813 | 0.614  | 0.826 | 0.578  | 0.851 |
| 74 | 55 | 0.646  | 0.825 | 0.628  | 0.838 | 0.593  | 0.861 |
| 74 | 56 | 0.661  | 0.836 | 0.643  | 0.849 | 0.608  | 0.872 |
| 74 | 57 | 0.676  | 0.848 | 0.658  | 0.860 | 0.623  | 0.882 |
| 74 | 58 | 0.690  | 0.859 | 0.673  | 0.871 | 0.638  | 0.892 |
| 74 | 59 | 0.705  | 0.871 | 0.688  | 0.882 | 0.653  | 0.902 |
| 74 | 60 | 0.720  | 0.882 | 0.703  | 0.893 | 0.668  | 0.912 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 74 | 61 | 0.735  | 0.893 | 0.718  | 0.903 | 0.684  | 0.921 |
| 74 | 62 | 0.751  | 0.904 | 0.734  | 0.913 | 0.700  | 0.930 |
| 74 | 63 | 0.766  | 0.914 | 0.750  | 0.923 | 0.716  | 0.939 |
| 74 | 64 | 0.782  | 0.925 | 0.765  | 0.933 | 0.733  | 0.946 |
| 74 | 65 | 0.797  | 0.935 | 0.782  | 0.943 | 0.749  | 0.956 |
| 74 | 66 | 0.813  | 0.945 | 0.798  | 0.952 | 0.767  | 0.964 |
| 74 | 67 | 0.830  | 0.955 | 0.815  | 0.961 | 0.784  | 0.972 |
| 74 | 68 | 0.846  | 0.964 | 0.832  | 0.970 | 0.802  | 0.979 |
| 74 | 69 | 0.863  | 0.973 | 0.849  | 0.978 | 0.820  | 0.985 |
| 74 | 70 | 0.881  | 0.981 | 0.867  | 0.985 | 0.839  | 0.991 |
| 74 | 71 | 0.899  | 0.989 | 0.886  | 0.992 | 0.859  | 0.995 |
| 74 | 72 | 0.917  | 0.995 | 0.906  | 0.997 | 0.881  | 0.999 |
| 74 | 73 | 0.937  | 0.999 | 0.927  | 1.000 | 0.904  | 1.000 |
| 74 | 74 | 0.960  | 1.000 | 0.951  | 1.000 | 0.931  | 1.000 |
| 75 | 0  | 0.000  | 0.039 | 0.000  | 0.048 | 0.000  | 0.068 |
| 75 | 1  | 0.001  | 0.062 | 0.000  | 0.072 | 0.000  | 0.095 |
| 75 | 2  | 0.005  | 0.082 | 0.003  | 0.093 | 0.001  | 0.118 |
| 75 | 3  | 0.011  | 0.100 | 0.008  | 0.112 | 0.005  | 0.139 |
| 75 | 4  | 0.018  | 0.118 | 0.015  | 0.131 | 0.009  | 0.159 |
| 75 | 5  | 0.027  | 0.135 | 0.022  | 0.149 | 0.015  | 0.177 |
| 75 | 6  | 0.035  | 0.152 | 0.030  | 0.166 | 0.021  | 0.196 |
| 75 | 7  | 0.045  | 0.168 | 0.038  | 0.183 | 0.028  | 0.213 |
| 75 | 8  | 0.054  | 0.184 | 0.047  | 0.199 | 0.035  | 0.231 |
| 75 | 9  | 0.064  | 0.200 | 0.056  | 0.216 | 0.043  | 0.247 |
| 75 | 10 | 0.074  | 0.216 | 0.066  | 0.232 | 0.051  | 0.264 |
| 75 | 11 | 0.084  | 0.231 | 0.076  | 0.247 | 0.060  | 0.280 |
| 75 | 12 | 0.095  | 0.246 | 0.086  | 0.263 | 0.069  | 0.296 |
| 75 | 13 | 0.106  | 0.261 | 0.096  | 0.278 | 0.078  | 0.312 |
| 75 | 14 | 0.117  | 0.276 | 0.106  | 0.293 | 0.087  | 0.328 |
| 75 | 15 | 0.128  | 0.291 | 0.116  | 0.308 | 0.097  | 0.343 |
| 75 | 16 | 0.139  | 0.306 | 0.127  | 0.323 | 0.106  | 0.358 |
| 75 | 17 | 0.150  | 0.320 | 0.138  | 0.338 | 0.116  | 0.373 |
| 75 | 18 | 0.161  | 0.335 | 0.149  | 0.353 | 0.126  | 0.388 |
| 75 | 19 | 0.173  | 0.349 | 0.160  | 0.367 | 0.137  | 0.402 |
| 75 | 20 | 0.184  | 0.363 | 0.171  | 0.381 | 0.147  | 0.417 |
| 75 | 21 | 0.196  | 0.378 | 0.182  | 0.396 | 0.158  | 0.431 |
| 75 | 22 | 0.208  | 0.392 | 0.194  | 0.410 | 0.168  | 0.446 |
| 75 | 23 | 0.220  | 0.406 | 0.205  | 0.424 | 0.179  | 0.460 |
| 75 | 24 | 0.231  | 0.420 | 0.217  | 0.438 | 0.190  | 0.474 |
| 75 | 25 | 0.243  | 0.433 | 0.229  | 0.452 | 0.201  | 0.487 |
| 75 | 26 | 0.256  | 0.447 | 0.240  | 0.465 | 0.212  | 0.501 |
| 75 | 27 | 0.268  | 0.461 | 0.252  | 0.479 | 0.224  | 0.515 |
| 75 | 28 | 0.280  | 0.474 | 0.264  | 0.493 | 0.235  | 0.528 |
| 75 | 29 | 0.292  | 0.488 | 0.276  | 0.506 | 0.246  | 0.542 |
| 75 | 30 | 0.305  | 0.501 | 0.289  | 0.520 | 0.258  | 0.555 |
| 75 | 31 | 0.317  | 0.515 | 0.301  | 0.533 | 0.270  | 0.568 |
| 75 | 32 | 0.330  | 0.528 | 0.313  | 0.546 | 0.282  | 0.581 |
| 75 | 33 | 0.342  | 0.541 | 0.325  | 0.559 | 0.294  | 0.594 |
| 75 | 34 | 0.355  | 0.555 | 0.338  | 0.573 | 0.306  | 0.607 |
| 75 | 35 | 0.368  | 0.568 | 0.351  | 0.586 | 0.318  | 0.620 |
| 75 | 36 | 0.380  | 0.581 | 0.363  | 0.598 | 0.330  | 0.632 |
| 75 | 37 | 0.393  | 0.594 | 0.376  | 0.611 | 0.343  | 0.645 |
| 75 | 38 | 0.406  | 0.607 | 0.389  | 0.624 | 0.355  | 0.657 |
| 75 | 39 | 0.419  | 0.620 | 0.402  | 0.637 | 0.368  | 0.670 |
| 75 | 40 | 0.432  | 0.632 | 0.414  | 0.649 | 0.380  | 0.682 |
| 75 | 41 | 0.445  | 0.645 | 0.427  | 0.662 | 0.393  | 0.694 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 75 | 42 | 0.459  | 0.658 | 0.441  | 0.675 | 0.406  | 0.706 |
| 75 | 43 | 0.472  | 0.670 | 0.454  | 0.687 | 0.419  | 0.718 |
| 75 | 44 | 0.485  | 0.683 | 0.467  | 0.699 | 0.432  | 0.730 |
| 75 | 45 | 0.499  | 0.695 | 0.480  | 0.711 | 0.445  | 0.742 |
| 75 | 46 | 0.512  | 0.708 | 0.494  | 0.724 | 0.458  | 0.754 |
| 75 | 47 | 0.526  | 0.720 | 0.507  | 0.736 | 0.472  | 0.765 |
| 75 | 48 | 0.539  | 0.732 | 0.521  | 0.748 | 0.485  | 0.776 |
| 75 | 49 | 0.553  | 0.744 | 0.535  | 0.760 | 0.499  | 0.788 |
| 75 | 50 | 0.567  | 0.757 | 0.548  | 0.771 | 0.513  | 0.799 |
| 75 | 51 | 0.580  | 0.769 | 0.562  | 0.783 | 0.526  | 0.810 |
| 75 | 52 | 0.594  | 0.780 | 0.576  | 0.795 | 0.540  | 0.821 |
| 75 | 53 | 0.608  | 0.792 | 0.590  | 0.806 | 0.554  | 0.832 |
| 75 | 54 | 0.622  | 0.804 | 0.604  | 0.818 | 0.569  | 0.842 |
| 75 | 55 | 0.637  | 0.816 | 0.619  | 0.829 | 0.583  | 0.853 |
| 75 | 56 | 0.651  | 0.827 | 0.633  | 0.840 | 0.598  | 0.863 |
| 75 | 57 | 0.665  | 0.839 | 0.647  | 0.851 | 0.612  | 0.874 |
| 75 | 58 | 0.680  | 0.850 | 0.662  | 0.862 | 0.627  | 0.884 |
| 75 | 59 | 0.694  | 0.861 | 0.677  | 0.873 | 0.642  | 0.894 |
| 75 | 60 | 0.709  | 0.872 | 0.692  | 0.884 | 0.657  | 0.903 |
| 75 | 61 | 0.724  | 0.883 | 0.707  | 0.894 | 0.672  | 0.913 |
| 75 | 62 | 0.739  | 0.894 | 0.722  | 0.904 | 0.688  | 0.922 |
| 75 | 63 | 0.754  | 0.905 | 0.737  | 0.914 | 0.704  | 0.931 |
| 75 | 64 | 0.769  | 0.916 | 0.753  | 0.924 | 0.720  | 0.940 |
| 75 | 65 | 0.784  | 0.926 | 0.768  | 0.934 | 0.736  | 0.949 |
| 75 | 66 | 0.800  | 0.936 | 0.784  | 0.944 | 0.753  | 0.957 |
| 75 | 67 | 0.816  | 0.946 | 0.801  | 0.953 | 0.769  | 0.965 |
| 75 | 68 | 0.832  | 0.955 | 0.817  | 0.962 | 0.787  | 0.972 |
| 75 | 69 | 0.848  | 0.965 | 0.834  | 0.970 | 0.804  | 0.979 |
| 75 | 70 | 0.865  | 0.973 | 0.851  | 0.978 | 0.823  | 0.985 |
| 75 | 71 | 0.882  | 0.982 | 0.869  | 0.985 | 0.841  | 0.991 |
| 75 | 72 | 0.900  | 0.989 | 0.888  | 0.992 | 0.861  | 0.995 |
| 75 | 73 | 0.918  | 0.995 | 0.907  | 0.997 | 0.882  | 0.999 |
| 75 | 74 | 0.938  | 0.999 | 0.928  | 1.000 | 0.905  | 1.000 |
| 75 | 75 | 0.961  | 1.000 | 0.952  | 1.000 | 0.932  | 1.000 |
| 76 | 0  | 0.000  | 0.039 | 0.000  | 0.047 | 0.000  | 0.067 |
| 76 | 1  | 0.001  | 0.061 | 0.000  | 0.071 | 0.000  | 0.094 |
| 76 | 2  | 0.005  | 0.081 | 0.003  | 0.092 | 0.001  | 0.116 |
| 76 | 3  | 0.011  | 0.099 | 0.008  | 0.111 | 0.004  | 0.137 |
| 76 | 4  | 0.016  | 0.116 | 0.015  | 0.129 | 0.009  | 0.157 |
| 76 | 5  | 0.026  | 0.133 | 0.022  | 0.147 | 0.014  | 0.175 |
| 76 | 6  | 0.035  | 0.150 | 0.030  | 0.164 | 0.021  | 0.193 |
| 76 | 7  | 0.044  | 0.166 | 0.038  | 0.181 | 0.028  | 0.211 |
| 76 | 8  | 0.053  | 0.182 | 0.047  | 0.197 | 0.035  | 0.228 |
| 76 | 9  | 0.063  | 0.198 | 0.056  | 0.213 | 0.043  | 0.244 |
| 76 | 10 | 0.073  | 0.213 | 0.065  | 0.229 | 0.051  | 0.261 |
| 76 | 11 | 0.083  | 0.228 | 0.075  | 0.244 | 0.059  | 0.277 |
| 76 | 12 | 0.094  | 0.243 | 0.084  | 0.260 | 0.068  | 0.293 |
| 76 | 13 | 0.104  | 0.258 | 0.094  | 0.275 | 0.077  | 0.308 |
| 76 | 14 | 0.115  | 0.273 | 0.105  | 0.290 | 0.086  | 0.324 |
| 76 | 15 | 0.126  | 0.288 | 0.115  | 0.305 | 0.095  | 0.339 |
| 76 | 16 | 0.137  | 0.302 | 0.125  | 0.319 | 0.105  | 0.354 |
| 76 | 17 | 0.148  | 0.316 | 0.136  | 0.334 | 0.115  | 0.369 |
| 76 | 18 | 0.159  | 0.331 | 0.147  | 0.348 | 0.125  | 0.383 |
| 76 | 19 | 0.170  | 0.345 | 0.158  | 0.363 | 0.135  | 0.398 |
| 76 | 20 | 0.182  | 0.359 | 0.169  | 0.377 | 0.145  | 0.412 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 76 | 21 | 0.193  | 0.373 | 0.180  | 0.391 | 0.155  | 0.426 |
| 76 | 22 | 0.205  | 0.387 | 0.191  | 0.405 | 0.166  | 0.440 |
| 76 | 23 | 0.216  | 0.401 | 0.202  | 0.419 | 0.176  | 0.454 |
| 76 | 24 | 0.228  | 0.414 | 0.214  | 0.433 | 0.187  | 0.468 |
| 76 | 25 | 0.240  | 0.428 | 0.225  | 0.446 | 0.198  | 0.482 |
| 76 | 26 | 0.252  | 0.442 | 0.237  | 0.460 | 0.209  | 0.495 |
| 76 | 27 | 0.264  | 0.455 | 0.249  | 0.473 | 0.220  | 0.509 |
| 76 | 28 | 0.276  | 0.469 | 0.261  | 0.487 | 0.232  | 0.522 |
| 76 | 29 | 0.288  | 0.482 | 0.272  | 0.500 | 0.243  | 0.535 |
| 76 | 30 | 0.300  | 0.495 | 0.284  | 0.514 | 0.254  | 0.549 |
| 76 | 31 | 0.313  | 0.509 | 0.296  | 0.527 | 0.266  | 0.562 |
| 76 | 32 | 0.325  | 0.522 | 0.309  | 0.540 | 0.278  | 0.575 |
| 76 | 33 | 0.337  | 0.535 | 0.321  | 0.553 | 0.289  | 0.588 |
| 76 | 34 | 0.350  | 0.548 | 0.333  | 0.566 | 0.301  | 0.600 |
| 76 | 35 | 0.362  | 0.561 | 0.345  | 0.579 | 0.313  | 0.613 |
| 76 | 36 | 0.375  | 0.574 | 0.358  | 0.592 | 0.325  | 0.625 |
| 76 | 37 | 0.388  | 0.587 | 0.370  | 0.604 | 0.337  | 0.638 |
| 76 | 38 | 0.400  | 0.600 | 0.383  | 0.617 | 0.350  | 0.650 |
| 76 | 39 | 0.413  | 0.612 | 0.396  | 0.630 | 0.362  | 0.663 |
| 76 | 40 | 0.426  | 0.625 | 0.408  | 0.642 | 0.375  | 0.675 |
| 76 | 41 | 0.439  | 0.638 | 0.421  | 0.655 | 0.387  | 0.687 |
| 76 | 42 | 0.452  | 0.650 | 0.434  | 0.667 | 0.400  | 0.699 |
| 76 | 43 | 0.465  | 0.663 | 0.447  | 0.679 | 0.412  | 0.711 |
| 76 | 44 | 0.478  | 0.675 | 0.460  | 0.691 | 0.425  | 0.722 |
| 76 | 45 | 0.491  | 0.687 | 0.473  | 0.704 | 0.438  | 0.734 |
| 76 | 46 | 0.505  | 0.700 | 0.486  | 0.716 | 0.451  | 0.746 |
| 76 | 47 | 0.518  | 0.712 | 0.500  | 0.728 | 0.465  | 0.757 |
| 76 | 48 | 0.531  | 0.724 | 0.513  | 0.739 | 0.478  | 0.768 |
| 76 | 49 | 0.545  | 0.736 | 0.527  | 0.751 | 0.491  | 0.780 |
| 76 | 50 | 0.558  | 0.748 | 0.540  | 0.763 | 0.505  | 0.791 |
| 76 | 51 | 0.572  | 0.760 | 0.554  | 0.775 | 0.518  | 0.802 |
| 76 | 52 | 0.586  | 0.772 | 0.567  | 0.786 | 0.532  | 0.813 |
| 76 | 53 | 0.599  | 0.784 | 0.581  | 0.798 | 0.546  | 0.824 |
| 76 | 54 | 0.613  | 0.795 | 0.595  | 0.809 | 0.560  | 0.834 |
| 76 | 55 | 0.627  | 0.807 | 0.609  | 0.820 | 0.574  | 0.845 |
| 76 | 56 | 0.641  | 0.818 | 0.623  | 0.831 | 0.588  | 0.855 |
| 76 | 57 | 0.655  | 0.830 | 0.637  | 0.842 | 0.602  | 0.865 |
| 76 | 58 | 0.669  | 0.841 | 0.652  | 0.853 | 0.617  | 0.875 |
| 76 | 59 | 0.684  | 0.852 | 0.666  | 0.864 | 0.631  | 0.885 |
| 76 | 60 | 0.698  | 0.863 | 0.681  | 0.875 | 0.646  | 0.895 |
| 76 | 61 | 0.712  | 0.874 | 0.695  | 0.885 | 0.661  | 0.905 |
| 76 | 62 | 0.727  | 0.885 | 0.710  | 0.895 | 0.676  | 0.914 |
| 76 | 63 | 0.742  | 0.896 | 0.725  | 0.906 | 0.692  | 0.923 |
| 76 | 64 | 0.757  | 0.906 | 0.740  | 0.916 | 0.707  | 0.932 |
| 76 | 65 | 0.772  | 0.917 | 0.756  | 0.925 | 0.723  | 0.941 |
| 76 | 66 | 0.787  | 0.927 | 0.771  | 0.935 | 0.739  | 0.949 |
| 76 | 67 | 0.802  | 0.937 | 0.787  | 0.944 | 0.756  | 0.957 |
| 76 | 68 | 0.818  | 0.947 | 0.803  | 0.953 | 0.772  | 0.965 |
| 76 | 69 | 0.834  | 0.956 | 0.819  | 0.962 | 0.789  | 0.972 |
| 76 | 70 | 0.850  | 0.965 | 0.836  | 0.970 | 0.807  | 0.979 |
| 76 | 71 | 0.867  | 0.974 | 0.853  | 0.978 | 0.825  | 0.986 |
| 76 | 72 | 0.884  | 0.982 | 0.871  | 0.985 | 0.843  | 0.991 |
| 76 | 73 | 0.901  | 0.989 | 0.889  | 0.992 | 0.863  | 0.996 |
| 76 | 74 | 0.919  | 0.995 | 0.908  | 0.997 | 0.884  | 0.999 |
| 76 | 75 | 0.939  | 0.999 | 0.929  | 1.000 | 0.906  | 1.000 |
| 76 | 76 | 0.961  | 1.000 | 0.953  | 1.000 | 0.933  | 1.000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 77 | 0  | 0.000  | 0.038 | 0.000  | 0.047 | 0.000  | 0.066 |
| 77 | 1  | 0.001  | 0.060 | 0.000  | 0.070 | 0.000  | 0.093 |
| 77 | 2  | 0.005  | 0.080 | 0.003  | 0.091 | 0.001  | 0.115 |
| 77 | 3  | 0.011  | 0.098 | 0.008  | 0.110 | 0.004  | 0.135 |
| 77 | 4  | 0.018  | 0.115 | 0.014  | 0.128 | 0.009  | 0.155 |
| 77 | 5  | 0.026  | 0.132 | 0.021  | 0.145 | 0.014  | 0.173 |
| 77 | 6  | 0.034  | 0.148 | 0.029  | 0.162 | 0.020  | 0.191 |
| 77 | 7  | 0.043  | 0.164 | 0.037  | 0.178 | 0.027  | 0.208 |
| 77 | 8  | 0.053  | 0.180 | 0.046  | 0.194 | 0.034  | 0.225 |
| 77 | 9  | 0.062  | 0.195 | 0.055  | 0.210 | 0.042  | 0.242 |
| 77 | 10 | 0.072  | 0.210 | 0.064  | 0.226 | 0.050  | 0.258 |
| 77 | 11 | 0.082  | 0.225 | 0.074  | 0.241 | 0.058  | 0.274 |
| 77 | 12 | 0.092  | 0.240 | 0.083  | 0.256 | 0.067  | 0.289 |
| 77 | 13 | 0.103  | 0.255 | 0.093  | 0.271 | 0.076  | 0.305 |
| 77 | 14 | 0.113  | 0.270 | 0.103  | 0.286 | 0.085  | 0.320 |
| 77 | 15 | 0.124  | 0.284 | 0.113  | 0.301 | 0.094  | 0.335 |
| 77 | 16 | 0.135  | 0.298 | 0.124  | 0.315 | 0.103  | 0.350 |
| 77 | 17 | 0.146  | 0.313 | 0.134  | 0.330 | 0.113  | 0.364 |
| 77 | 18 | 0.157  | 0.327 | 0.145  | 0.344 | 0.123  | 0.379 |
| 77 | 19 | 0.168  | 0.341 | 0.156  | 0.358 | 0.133  | 0.393 |
| 77 | 20 | 0.179  | 0.355 | 0.166  | 0.372 | 0.143  | 0.407 |
| 77 | 21 | 0.191  | 0.368 | 0.177  | 0.386 | 0.153  | 0.421 |
| 77 | 22 | 0.202  | 0.382 | 0.188  | 0.400 | 0.164  | 0.435 |
| 77 | 23 | 0.214  | 0.396 | 0.200  | 0.414 | 0.174  | 0.449 |
| 77 | 24 | 0.225  | 0.410 | 0.211  | 0.427 | 0.185  | 0.463 |
| 77 | 25 | 0.237  | 0.423 | 0.222  | 0.441 | 0.195  | 0.476 |
| 77 | 26 | 0.249  | 0.436 | 0.234  | 0.454 | 0.206  | 0.490 |
| 77 | 27 | 0.260  | 0.450 | 0.245  | 0.468 | 0.217  | 0.503 |
| 77 | 28 | 0.272  | 0.463 | 0.257  | 0.481 | 0.228  | 0.516 |
| 77 | 29 | 0.284  | 0.476 | 0.269  | 0.494 | 0.239  | 0.529 |
| 77 | 30 | 0.296  | 0.490 | 0.280  | 0.508 | 0.251  | 0.542 |
| 77 | 31 | 0.308  | 0.503 | 0.292  | 0.521 | 0.262  | 0.555 |
| 77 | 32 | 0.320  | 0.516 | 0.304  | 0.534 | 0.274  | 0.568 |
| 77 | 33 | 0.333  | 0.529 | 0.316  | 0.546 | 0.285  | 0.581 |
| 77 | 34 | 0.345  | 0.542 | 0.328  | 0.559 | 0.297  | 0.594 |
| 77 | 35 | 0.357  | 0.554 | 0.341  | 0.572 | 0.309  | 0.606 |
| 77 | 36 | 0.370  | 0.567 | 0.353  | 0.585 | 0.321  | 0.619 |
| 77 | 37 | 0.382  | 0.580 | 0.365  | 0.597 | 0.333  | 0.631 |
| 77 | 38 | 0.395  | 0.593 | 0.378  | 0.610 | 0.345  | 0.643 |
| 77 | 39 | 0.407  | 0.605 | 0.390  | 0.622 | 0.357  | 0.655 |
| 77 | 40 | 0.420  | 0.618 | 0.403  | 0.635 | 0.369  | 0.667 |
| 77 | 41 | 0.433  | 0.630 | 0.415  | 0.647 | 0.381  | 0.679 |
| 77 | 42 | 0.446  | 0.643 | 0.428  | 0.659 | 0.394  | 0.691 |
| 77 | 43 | 0.458  | 0.655 | 0.441  | 0.672 | 0.406  | 0.703 |
| 77 | 44 | 0.471  | 0.667 | 0.454  | 0.684 | 0.419  | 0.715 |
| 77 | 45 | 0.484  | 0.680 | 0.466  | 0.696 | 0.432  | 0.726 |
| 77 | 46 | 0.497  | 0.692 | 0.479  | 0.708 | 0.445  | 0.738 |
| 77 | 47 | 0.510  | 0.704 | 0.492  | 0.720 | 0.458  | 0.749 |
| 77 | 48 | 0.524  | 0.716 | 0.506  | 0.731 | 0.471  | 0.761 |
| 77 | 49 | 0.537  | 0.728 | 0.519  | 0.743 | 0.484  | 0.772 |
| 77 | 50 | 0.550  | 0.740 | 0.532  | 0.755 | 0.497  | 0.783 |
| 77 | 51 | 0.564  | 0.751 | 0.546  | 0.766 | 0.510  | 0.794 |
| 77 | 52 | 0.577  | 0.763 | 0.559  | 0.778 | 0.524  | 0.805 |
| 77 | 53 | 0.590  | 0.775 | 0.573  | 0.789 | 0.537  | 0.815 |
| 77 | 54 | 0.604  | 0.786 | 0.586  | 0.800 | 0.551  | 0.826 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 77 | 55 | 0.618  | 0.798 | 0.600  | 0.812 | 0.565  | 0.836 |
| 77 | 56 | 0.632  | 0.809 | 0.614  | 0.823 | 0.579  | 0.847 |
| 77 | 57 | 0.645  | 0.821 | 0.628  | 0.834 | 0.593  | 0.857 |
| 77 | 58 | 0.659  | 0.832 | 0.642  | 0.844 | 0.607  | 0.867 |
| 77 | 59 | 0.673  | 0.843 | 0.656  | 0.855 | 0.621  | 0.877 |
| 77 | 60 | 0.687  | 0.854 | 0.670  | 0.866 | 0.636  | 0.887 |
| 77 | 61 | 0.702  | 0.865 | 0.685  | 0.876 | 0.650  | 0.897 |
| 77 | 62 | 0.716  | 0.876 | 0.699  | 0.887 | 0.665  | 0.906 |
| 77 | 63 | 0.730  | 0.887 | 0.714  | 0.897 | 0.680  | 0.915 |
| 77 | 64 | 0.745  | 0.897 | 0.729  | 0.907 | 0.695  | 0.924 |
| 77 | 65 | 0.760  | 0.908 | 0.744  | 0.917 | 0.711  | 0.933 |
| 77 | 66 | 0.775  | 0.918 | 0.759  | 0.926 | 0.726  | 0.942 |
| 77 | 67 | 0.790  | 0.928 | 0.774  | 0.936 | 0.742  | 0.950 |
| 77 | 68 | 0.805  | 0.938 | 0.790  | 0.945 | 0.758  | 0.958 |
| 77 | 69 | 0.820  | 0.947 | 0.806  | 0.954 | 0.775  | 0.966 |
| 77 | 70 | 0.836  | 0.957 | 0.822  | 0.963 | 0.792  | 0.973 |
| 77 | 71 | 0.852  | 0.966 | 0.838  | 0.971 | 0.809  | 0.980 |
| 77 | 72 | 0.868  | 0.974 | 0.855  | 0.979 | 0.827  | 0.986 |
| 77 | 73 | 0.885  | 0.982 | 0.872  | 0.986 | 0.845  | 0.991 |
| 77 | 74 | 0.902  | 0.989 | 0.890  | 0.992 | 0.865  | 0.996 |
| 77 | 75 | 0.920  | 0.995 | 0.909  | 0.997 | 0.885  | 0.999 |
| 77 | 76 | 0.940  | 0.999 | 0.930  | 1.000 | 0.907  | 1.000 |
| 77 | 77 | 0.962  | 1.000 | 0.953  | 1.000 | 0.934  | 1.000 |
| 78 | 0  | 0.000  | 0.038 | 0.000  | 0.046 | 0.000  | 0.066 |
| 78 | 1  | 0.001  | 0.059 | 0.000  | 0.069 | 0.000  | 0.091 |
| 78 | 2  | 0.005  | 0.079 | 0.003  | 0.090 | 0.001  | 0.113 |
| 78 | 3  | 0.011  | 0.096 | 0.008  | 0.108 | 0.004  | 0.134 |
| 78 | 4  | 0.018  | 0.114 | 0.014  | 0.126 | 0.009  | 0.153 |
| 78 | 5  | 0.026  | 0.130 | 0.021  | 0.143 | 0.014  | 0.171 |
| 78 | 6  | 0.034  | 0.146 | 0.029  | 0.160 | 0.020  | 0.189 |
| 78 | 7  | 0.043  | 0.162 | 0.037  | 0.176 | 0.027  | 0.206 |
| 78 | 8  | 0.052  | 0.177 | 0.045  | 0.192 | 0.034  | 0.222 |
| 78 | 9  | 0.062  | 0.193 | 0.054  | 0.208 | 0.041  | 0.239 |
| 78 | 10 | 0.071  | 0.208 | 0.063  | 0.223 | 0.049  | 0.255 |
| 78 | 11 | 0.081  | 0.223 | 0.073  | 0.238 | 0.058  | 0.270 |
| 78 | 12 | 0.091  | 0.237 | 0.082  | 0.253 | 0.066  | 0.286 |
| 78 | 13 | 0.101  | 0.252 | 0.092  | 0.268 | 0.075  | 0.301 |
| 78 | 14 | 0.112  | 0.266 | 0.102  | 0.283 | 0.084  | 0.316 |
| 78 | 15 | 0.122  | 0.281 | 0.112  | 0.297 | 0.093  | 0.331 |
| 78 | 16 | 0.133  | 0.295 | 0.122  | 0.312 | 0.102  | 0.346 |
| 78 | 17 | 0.144  | 0.309 | 0.132  | 0.326 | 0.112  | 0.360 |
| 78 | 18 | 0.155  | 0.323 | 0.143  | 0.340 | 0.121  | 0.374 |
| 78 | 19 | 0.166  | 0.337 | 0.153  | 0.354 | 0.131  | 0.389 |
| 78 | 20 | 0.177  | 0.350 | 0.164  | 0.368 | 0.141  | 0.403 |
| 78 | 21 | 0.188  | 0.364 | 0.175  | 0.382 | 0.151  | 0.416 |
| 78 | 22 | 0.199  | 0.378 | 0.186  | 0.395 | 0.161  | 0.430 |
| 78 | 23 | 0.211  | 0.391 | 0.197  | 0.409 | 0.172  | 0.444 |
| 78 | 24 | 0.222  | 0.405 | 0.208  | 0.422 | 0.182  | 0.457 |
| 78 | 25 | 0.234  | 0.418 | 0.219  | 0.436 | 0.193  | 0.471 |
| 78 | 26 | 0.245  | 0.431 | 0.231  | 0.449 | 0.203  | 0.484 |
| 78 | 27 | 0.257  | 0.445 | 0.242  | 0.462 | 0.214  | 0.497 |
| 78 | 28 | 0.269  | 0.458 | 0.253  | 0.476 | 0.225  | 0.511 |
| 78 | 29 | 0.280  | 0.471 | 0.265  | 0.489 | 0.236  | 0.524 |
| 78 | 30 | 0.292  | 0.484 | 0.277  | 0.502 | 0.247  | 0.536 |
| 78 | 31 | 0.304  | 0.497 | 0.288  | 0.515 | 0.258  | 0.549 |
| 78 | 32 | 0.316  | 0.510 | 0.300  | 0.527 | 0.270  | 0.562 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 78 | 33 | 0.328  | 0.523 | 0.312  | 0.540 | 0.281  | 0.575 |
| 78 | 34 | 0.340  | 0.535 | 0.324  | 0.553 | 0.293  | 0.587 |
| 78 | 35 | 0.352  | 0.548 | 0.336  | 0.566 | 0.304  | 0.600 |
| 78 | 36 | 0.365  | 0.561 | 0.348  | 0.578 | 0.316  | 0.612 |
| 78 | 37 | 0.377  | 0.573 | 0.360  | 0.591 | 0.328  | 0.624 |
| 78 | 38 | 0.389  | 0.586 | 0.372  | 0.603 | 0.340  | 0.636 |
| 78 | 39 | 0.402  | 0.598 | 0.385  | 0.615 | 0.352  | 0.648 |
| 78 | 40 | 0.414  | 0.611 | 0.397  | 0.628 | 0.364  | 0.660 |
| 78 | 41 | 0.427  | 0.623 | 0.409  | 0.640 | 0.376  | 0.672 |
| 78 | 42 | 0.439  | 0.635 | 0.422  | 0.652 | 0.388  | 0.684 |
| 78 | 43 | 0.452  | 0.648 | 0.434  | 0.664 | 0.400  | 0.696 |
| 78 | 44 | 0.465  | 0.660 | 0.447  | 0.676 | 0.413  | 0.707 |
| 78 | 45 | 0.477  | 0.672 | 0.460  | 0.688 | 0.425  | 0.719 |
| 78 | 46 | 0.490  | 0.684 | 0.473  | 0.700 | 0.438  | 0.730 |
| 78 | 47 | 0.503  | 0.696 | 0.485  | 0.712 | 0.451  | 0.742 |
| 78 | 48 | 0.516  | 0.708 | 0.498  | 0.723 | 0.464  | 0.753 |
| 78 | 49 | 0.529  | 0.720 | 0.511  | 0.735 | 0.476  | 0.764 |
| 78 | 50 | 0.542  | 0.731 | 0.524  | 0.747 | 0.489  | 0.775 |
| 78 | 51 | 0.555  | 0.743 | 0.538  | 0.758 | 0.503  | 0.786 |
| 78 | 52 | 0.569  | 0.755 | 0.551  | 0.769 | 0.516  | 0.797 |
| 78 | 53 | 0.582  | 0.766 | 0.564  | 0.781 | 0.529  | 0.807 |
| 78 | 54 | 0.595  | 0.778 | 0.578  | 0.792 | 0.543  | 0.818 |
| 78 | 55 | 0.609  | 0.789 | 0.591  | 0.803 | 0.556  | 0.828 |
| 78 | 56 | 0.622  | 0.801 | 0.605  | 0.814 | 0.570  | 0.839 |
| 78 | 57 | 0.636  | 0.812 | 0.618  | 0.825 | 0.584  | 0.849 |
| 78 | 58 | 0.650  | 0.823 | 0.632  | 0.836 | 0.597  | 0.859 |
| 78 | 59 | 0.663  | 0.834 | 0.646  | 0.847 | 0.611  | 0.869 |
| 78 | 60 | 0.677  | 0.845 | 0.660  | 0.857 | 0.626  | 0.879 |
| 78 | 61 | 0.691  | 0.856 | 0.674  | 0.868 | 0.640  | 0.888 |
| 78 | 62 | 0.705  | 0.867 | 0.688  | 0.878 | 0.654  | 0.898 |
| 78 | 63 | 0.719  | 0.878 | 0.703  | 0.888 | 0.669  | 0.907 |
| 78 | 64 | 0.734  | 0.888 | 0.717  | 0.898 | 0.684  | 0.916 |
| 78 | 65 | 0.748  | 0.899 | 0.732  | 0.908 | 0.699  | 0.925 |
| 78 | 66 | 0.763  | 0.909 | 0.747  | 0.918 | 0.714  | 0.934 |
| 78 | 67 | 0.777  | 0.919 | 0.762  | 0.927 | 0.730  | 0.942 |
| 78 | 68 | 0.792  | 0.929 | 0.777  | 0.937 | 0.745  | 0.951 |
| 78 | 69 | 0.807  | 0.938 | 0.792  | 0.946 | 0.761  | 0.959 |
| 78 | 70 | 0.823  | 0.948 | 0.808  | 0.955 | 0.778  | 0.966 |
| 78 | 71 | 0.838  | 0.957 | 0.824  | 0.963 | 0.794  | 0.973 |
| 78 | 72 | 0.854  | 0.966 | 0.840  | 0.971 | 0.811  | 0.980 |
| 78 | 73 | 0.870  | 0.974 | 0.857  | 0.979 | 0.829  | 0.986 |
| 78 | 74 | 0.886  | 0.982 | 0.874  | 0.986 | 0.847  | 0.991 |
| 78 | 75 | 0.904  | 0.989 | 0.892  | 0.992 | 0.866  | 0.996 |
| 78 | 76 | 0.921  | 0.995 | 0.910  | 0.997 | 0.887  | 0.999 |
| 78 | 77 | 0.941  | 0.999 | 0.931  | 1.000 | 0.909  | 1.000 |
| 78 | 78 | 0.962  | 1.000 | 0.954  | 1.000 | 0.934  | 1.000 |
| 79 | 0  | 0.000  | 0.037 | 0.000  | 0.046 | 0.000  | 0.065 |
| 79 | 1  | 0.001  | 0.059 | 0.000  | 0.069 | 0.000  | 0.090 |
| 79 | 2  | 0.005  | 0.078 | 0.003  | 0.088 | 0.001  | 0.112 |
| 79 | 3  | 0.010  | 0.095 | 0.008  | 0.107 | 0.004  | 0.132 |
| 79 | 4  | 0.017  | 0.112 | 0.014  | 0.125 | 0.009  | 0.151 |
| 79 | 5  | 0.025  | 0.128 | 0.021  | 0.142 | 0.014  | 0.169 |
| 79 | 6  | 0.034  | 0.144 | 0.028  | 0.158 | 0.020  | 0.186 |
| 79 | 7  | 0.042  | 0.160 | 0.036  | 0.174 | 0.026  | 0.203 |
| 79 | 8  | 0.051  | 0.175 | 0.045  | 0.190 | 0.034  | 0.220 |
| 79 | 9  | 0.061  | 0.190 | 0.053  | 0.205 | 0.041  | 0.236 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 79 | 10 | 0.070  | 0.205 | 0.062  | 0.220 | 0.049  | 0.252 |
| 79 | 11 | 0.080  | 0.220 | 0.072  | 0.235 | 0.057  | 0.267 |
| 79 | 12 | 0.090  | 0.234 | 0.081  | 0.250 | 0.065  | 0.282 |
| 79 | 13 | 0.100  | 0.249 | 0.091  | 0.265 | 0.074  | 0.298 |
| 79 | 14 | 0.110  | 0.263 | 0.100  | 0.279 | 0.083  | 0.312 |
| 79 | 15 | 0.121  | 0.277 | 0.110  | 0.294 | 0.092  | 0.327 |
| 79 | 16 | 0.131  | 0.291 | 0.120  | 0.308 | 0.101  | 0.342 |
| 79 | 17 | 0.142  | 0.305 | 0.131  | 0.322 | 0.110  | 0.356 |
| 79 | 18 | 0.153  | 0.319 | 0.141  | 0.336 | 0.120  | 0.370 |
| 79 | 19 | 0.164  | 0.333 | 0.151  | 0.350 | 0.129  | 0.384 |
| 79 | 20 | 0.175  | 0.346 | 0.162  | 0.364 | 0.139  | 0.398 |
| 79 | 21 | 0.186  | 0.360 | 0.173  | 0.377 | 0.149  | 0.412 |
| 79 | 22 | 0.197  | 0.373 | 0.183  | 0.391 | 0.159  | 0.425 |
| 79 | 23 | 0.208  | 0.387 | 0.194  | 0.404 | 0.169  | 0.439 |
| 79 | 24 | 0.219  | 0.400 | 0.205  | 0.418 | 0.180  | 0.452 |
| 79 | 25 | 0.230  | 0.413 | 0.216  | 0.431 | 0.190  | 0.466 |
| 79 | 26 | 0.242  | 0.426 | 0.227  | 0.444 | 0.201  | 0.479 |
| 79 | 27 | 0.253  | 0.439 | 0.239  | 0.457 | 0.211  | 0.492 |
| 79 | 28 | 0.265  | 0.452 | 0.250  | 0.470 | 0.222  | 0.505 |
| 79 | 29 | 0.277  | 0.465 | 0.261  | 0.483 | 0.233  | 0.518 |
| 79 | 30 | 0.288  | 0.478 | 0.273  | 0.496 | 0.244  | 0.531 |
| 79 | 31 | 0.300  | 0.491 | 0.284  | 0.509 | 0.255  | 0.543 |
| 79 | 32 | 0.312  | 0.504 | 0.296  | 0.521 | 0.266  | 0.556 |
| 79 | 33 | 0.324  | 0.516 | 0.308  | 0.534 | 0.277  | 0.568 |
| 79 | 34 | 0.336  | 0.529 | 0.319  | 0.547 | 0.289  | 0.581 |
| 79 | 35 | 0.348  | 0.542 | 0.331  | 0.559 | 0.300  | 0.593 |
| 79 | 36 | 0.360  | 0.554 | 0.343  | 0.572 | 0.312  | 0.605 |
| 79 | 37 | 0.372  | 0.567 | 0.355  | 0.584 | 0.323  | 0.617 |
| 79 | 38 | 0.384  | 0.579 | 0.367  | 0.596 | 0.335  | 0.630 |
| 79 | 39 | 0.396  | 0.591 | 0.379  | 0.609 | 0.347  | 0.641 |
| 79 | 40 | 0.409  | 0.604 | 0.391  | 0.621 | 0.359  | 0.653 |
| 79 | 41 | 0.421  | 0.616 | 0.404  | 0.633 | 0.370  | 0.665 |
| 79 | 42 | 0.433  | 0.628 | 0.416  | 0.645 | 0.383  | 0.677 |
| 79 | 43 | 0.446  | 0.640 | 0.428  | 0.657 | 0.395  | 0.688 |
| 79 | 44 | 0.458  | 0.652 | 0.441  | 0.669 | 0.407  | 0.700 |
| 79 | 45 | 0.471  | 0.664 | 0.453  | 0.681 | 0.419  | 0.711 |
| 79 | 46 | 0.484  | 0.676 | 0.466  | 0.692 | 0.432  | 0.723 |
| 79 | 47 | 0.496  | 0.688 | 0.479  | 0.704 | 0.444  | 0.734 |
| 79 | 48 | 0.509  | 0.700 | 0.491  | 0.716 | 0.457  | 0.745 |
| 79 | 49 | 0.522  | 0.712 | 0.504  | 0.727 | 0.469  | 0.756 |
| 79 | 50 | 0.535  | 0.723 | 0.517  | 0.739 | 0.482  | 0.767 |
| 79 | 51 | 0.548  | 0.735 | 0.530  | 0.750 | 0.495  | 0.778 |
| 79 | 52 | 0.561  | 0.747 | 0.543  | 0.761 | 0.508  | 0.789 |
| 79 | 53 | 0.574  | 0.758 | 0.556  | 0.773 | 0.521  | 0.799 |
| 79 | 54 | 0.587  | 0.770 | 0.569  | 0.784 | 0.534  | 0.810 |
| 79 | 55 | 0.600  | 0.781 | 0.582  | 0.795 | 0.548  | 0.820 |
| 79 | 56 | 0.613  | 0.792 | 0.596  | 0.806 | 0.561  | 0.831 |
| 79 | 57 | 0.627  | 0.803 | 0.609  | 0.817 | 0.575  | 0.841 |
| 79 | 58 | 0.640  | 0.814 | 0.623  | 0.827 | 0.588  | 0.851 |
| 79 | 59 | 0.654  | 0.825 | 0.636  | 0.838 | 0.602  | 0.861 |
| 79 | 60 | 0.667  | 0.836 | 0.650  | 0.849 | 0.616  | 0.871 |
| 79 | 61 | 0.681  | 0.847 | 0.664  | 0.859 | 0.630  | 0.880 |
| 79 | 62 | 0.695  | 0.858 | 0.678  | 0.869 | 0.644  | 0.890 |
| 79 | 63 | 0.709  | 0.869 | 0.692  | 0.880 | 0.658  | 0.899 |
| 79 | 64 | 0.723  | 0.879 | 0.706  | 0.890 | 0.673  | 0.908 |
| 79 | 65 | 0.737  | 0.890 | 0.721  | 0.900 | 0.688  | 0.917 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 79 | 66 | 0.751  | 0.900 | 0.735  | 0.909 | 0.702  | 0.926 |
| 79 | 67 | 0.766  | 0.910 | 0.750  | 0.919 | 0.718  | 0.935 |
| 79 | 68 | 0.780  | 0.920 | 0.765  | 0.928 | 0.733  | 0.943 |
| 79 | 69 | 0.795  | 0.930 | 0.780  | 0.938 | 0.748  | 0.951 |
| 79 | 70 | 0.810  | 0.939 | 0.795  | 0.947 | 0.764  | 0.959 |
| 79 | 71 | 0.825  | 0.949 | 0.810  | 0.955 | 0.780  | 0.966 |
| 79 | 72 | 0.840  | 0.958 | 0.826  | 0.964 | 0.797  | 0.974 |
| 79 | 73 | 0.856  | 0.966 | 0.842  | 0.972 | 0.814  | 0.980 |
| 79 | 74 | 0.872  | 0.975 | 0.858  | 0.979 | 0.831  | 0.986 |
| 79 | 75 | 0.888  | 0.983 | 0.875  | 0.986 | 0.849  | 0.991 |
| 79 | 76 | 0.905  | 0.990 | 0.893  | 0.992 | 0.868  | 0.996 |
| 79 | 77 | 0.922  | 0.995 | 0.912  | 0.997 | 0.888  | 0.999 |
| 79 | 78 | 0.941  | 0.999 | 0.931  | 1.000 | 0.910  | 1.000 |
| 79 | 79 | 0.963  | 1.000 | 0.954  | 1.000 | 0.935  | 1.000 |
| 80 | 0  | 0.000  | 0.037 | 0.000  | 0.045 | 0.000  | 0.064 |
| 80 | 1  | 0.001  | 0.058 | 0.000  | 0.068 | 0.000  | 0.089 |
| 80 | 2  | 0.004  | 0.077 | 0.003  | 0.087 | 0.001  | 0.111 |
| 80 | 3  | 0.010  | 0.094 | 0.008  | 0.106 | 0.004  | 0.131 |
| 80 | 4  | 0.017  | 0.111 | 0.014  | 0.123 | 0.009  | 0.149 |
| 80 | 5  | 0.025  | 0.127 | 0.021  | 0.140 | 0.014  | 0.167 |
| 80 | 6  | 0.033  | 0.143 | 0.028  | 0.156 | 0.020  | 0.184 |
| 80 | 7  | 0.042  | 0.158 | 0.036  | 0.172 | 0.026  | 0.201 |
| 80 | 8  | 0.051  | 0.173 | 0.044  | 0.188 | 0.033  | 0.217 |
| 80 | 9  | 0.060  | 0.188 | 0.053  | 0.203 | 0.040  | 0.233 |
| 80 | 10 | 0.069  | 0.203 | 0.062  | 0.218 | 0.048  | 0.249 |
| 80 | 11 | 0.079  | 0.217 | 0.071  | 0.233 | 0.056  | 0.264 |
| 80 | 12 | 0.089  | 0.232 | 0.080  | 0.247 | 0.064  | 0.279 |
| 80 | 13 | 0.099  | 0.246 | 0.089  | 0.262 | 0.073  | 0.294 |
| 80 | 14 | 0.109  | 0.260 | 0.099  | 0.276 | 0.081  | 0.309 |
| 80 | 15 | 0.119  | 0.274 | 0.109  | 0.290 | 0.090  | 0.323 |
| 80 | 16 | 0.130  | 0.288 | 0.119  | 0.304 | 0.099  | 0.338 |
| 80 | 17 | 0.140  | 0.302 | 0.129  | 0.318 | 0.109  | 0.352 |
| 80 | 18 | 0.151  | 0.315 | 0.139  | 0.332 | 0.118  | 0.366 |
| 80 | 19 | 0.161  | 0.329 | 0.149  | 0.346 | 0.128  | 0.380 |
| 80 | 20 | 0.172  | 0.342 | 0.160  | 0.359 | 0.137  | 0.394 |
| 80 | 21 | 0.183  | 0.356 | 0.170  | 0.373 | 0.147  | 0.407 |
| 80 | 22 | 0.194  | 0.369 | 0.181  | 0.386 | 0.157  | 0.421 |
| 80 | 23 | 0.205  | 0.382 | 0.192  | 0.400 | 0.167  | 0.434 |
| 80 | 24 | 0.216  | 0.395 | 0.203  | 0.413 | 0.177  | 0.447 |
| 80 | 25 | 0.227  | 0.408 | 0.213  | 0.426 | 0.187  | 0.461 |
| 80 | 26 | 0.239  | 0.421 | 0.224  | 0.439 | 0.198  | 0.474 |
| 80 | 27 | 0.250  | 0.434 | 0.236  | 0.452 | 0.208  | 0.487 |
| 80 | 28 | 0.261  | 0.447 | 0.247  | 0.465 | 0.219  | 0.499 |
| 80 | 29 | 0.273  | 0.460 | 0.258  | 0.478 | 0.230  | 0.512 |
| 80 | 30 | 0.284  | 0.473 | 0.269  | 0.490 | 0.240  | 0.525 |
| 80 | 31 | 0.296  | 0.485 | 0.281  | 0.503 | 0.251  | 0.537 |
| 80 | 32 | 0.308  | 0.498 | 0.292  | 0.516 | 0.262  | 0.550 |
| 80 | 33 | 0.319  | 0.511 | 0.304  | 0.528 | 0.273  | 0.562 |
| 80 | 34 | 0.331  | 0.523 | 0.315  | 0.541 | 0.285  | 0.575 |
| 80 | 35 | 0.343  | 0.536 | 0.327  | 0.553 | 0.296  | 0.587 |
| 80 | 36 | 0.355  | 0.548 | 0.338  | 0.565 | 0.307  | 0.599 |
| 80 | 37 | 0.367  | 0.560 | 0.350  | 0.578 | 0.319  | 0.611 |
| 80 | 38 | 0.379  | 0.573 | 0.362  | 0.590 | 0.330  | 0.623 |
| 80 | 39 | 0.391  | 0.585 | 0.374  | 0.602 | 0.342  | 0.635 |
| 80 | 40 | 0.403  | 0.597 | 0.386  | 0.614 | 0.353  | 0.647 |
| 80 | 41 | 0.415  | 0.609 | 0.398  | 0.626 | 0.365  | 0.658 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 80 | 42 | 0.427  | 0.621 | 0.410  | 0.638 | 0.377  | 0.670 |
| 80 | 43 | 0.440  | 0.633 | 0.422  | 0.650 | 0.389  | 0.681 |
| 80 | 44 | 0.452  | 0.645 | 0.435  | 0.662 | 0.401  | 0.693 |
| 80 | 45 | 0.464  | 0.657 | 0.447  | 0.673 | 0.413  | 0.704 |
| 80 | 46 | 0.477  | 0.669 | 0.459  | 0.685 | 0.425  | 0.715 |
| 80 | 47 | 0.489  | 0.681 | 0.472  | 0.696 | 0.438  | 0.727 |
| 80 | 48 | 0.502  | 0.692 | 0.484  | 0.708 | 0.450  | 0.738 |
| 80 | 49 | 0.515  | 0.704 | 0.497  | 0.719 | 0.463  | 0.749 |
| 80 | 50 | 0.527  | 0.716 | 0.510  | 0.731 | 0.475  | 0.760 |
| 80 | 51 | 0.540  | 0.727 | 0.522  | 0.742 | 0.488  | 0.770 |
| 80 | 52 | 0.553  | 0.739 | 0.535  | 0.753 | 0.501  | 0.781 |
| 80 | 53 | 0.566  | 0.750 | 0.548  | 0.764 | 0.513  | 0.792 |
| 80 | 54 | 0.579  | 0.761 | 0.561  | 0.776 | 0.526  | 0.802 |
| 80 | 55 | 0.592  | 0.773 | 0.574  | 0.787 | 0.539  | 0.813 |
| 80 | 56 | 0.605  | 0.784 | 0.587  | 0.797 | 0.553  | 0.823 |
| 80 | 57 | 0.618  | 0.795 | 0.600  | 0.808 | 0.566  | 0.833 |
| 80 | 58 | 0.631  | 0.806 | 0.614  | 0.819 | 0.579  | 0.843 |
| 80 | 59 | 0.644  | 0.817 | 0.627  | 0.830 | 0.593  | 0.853 |
| 80 | 60 | 0.658  | 0.828 | 0.641  | 0.840 | 0.606  | 0.863 |
| 80 | 61 | 0.671  | 0.839 | 0.654  | 0.851 | 0.620  | 0.872 |
| 80 | 62 | 0.685  | 0.849 | 0.668  | 0.861 | 0.634  | 0.882 |
| 80 | 63 | 0.698  | 0.860 | 0.682  | 0.871 | 0.648  | 0.891 |
| 80 | 64 | 0.712  | 0.870 | 0.696  | 0.881 | 0.662  | 0.901 |
| 80 | 65 | 0.726  | 0.881 | 0.710  | 0.891 | 0.677  | 0.910 |
| 80 | 66 | 0.740  | 0.891 | 0.724  | 0.901 | 0.691  | 0.919 |
| 80 | 67 | 0.754  | 0.901 | 0.738  | 0.911 | 0.706  | 0.927 |
| 80 | 68 | 0.768  | 0.911 | 0.753  | 0.920 | 0.721  | 0.936 |
| 80 | 69 | 0.783  | 0.921 | 0.767  | 0.929 | 0.736  | 0.944 |
| 80 | 70 | 0.797  | 0.931 | 0.782  | 0.938 | 0.751  | 0.952 |
| 80 | 71 | 0.812  | 0.940 | 0.797  | 0.947 | 0.767  | 0.960 |
| 80 | 72 | 0.827  | 0.949 | 0.812  | 0.956 | 0.783  | 0.967 |
| 80 | 73 | 0.842  | 0.958 | 0.828  | 0.964 | 0.799  | 0.974 |
| 80 | 74 | 0.857  | 0.967 | 0.844  | 0.972 | 0.816  | 0.980 |
| 80 | 75 | 0.873  | 0.975 | 0.860  | 0.979 | 0.833  | 0.986 |
| 80 | 76 | 0.889  | 0.983 | 0.877  | 0.986 | 0.851  | 0.991 |
| 80 | 77 | 0.906  | 0.990 | 0.894  | 0.992 | 0.869  | 0.996 |
| 80 | 78 | 0.923  | 0.996 | 0.913  | 0.997 | 0.889  | 0.999 |
| 80 | 79 | 0.942  | 0.999 | 0.932  | 1.000 | 0.911  | 1.000 |
| 80 | 80 | 0.963  | 1.000 | 0.955  | 1.000 | 0.936  | 1.000 |
| 81 | 0  | 0.000  | 0.036 | 0.000  | 0.045 | 0.000  | 0.063 |
| 81 | 1  | 0.001  | 0.057 | 0.000  | 0.067 | 0.000  | 0.088 |
| 81 | 2  | 0.004  | 0.076 | 0.003  | 0.086 | 0.001  | 0.109 |
| 81 | 3  | 0.010  | 0.093 | 0.008  | 0.104 | 0.004  | 0.129 |
| 81 | 4  | 0.017  | 0.109 | 0.014  | 0.122 | 0.008  | 0.147 |
| 81 | 5  | 0.025  | 0.125 | 0.020  | 0.138 | 0.014  | 0.165 |
| 81 | 6  | 0.033  | 0.141 | 0.028  | 0.154 | 0.019  | 0.182 |
| 81 | 7  | 0.041  | 0.156 | 0.035  | 0.170 | 0.026  | 0.199 |
| 81 | 8  | 0.050  | 0.171 | 0.044  | 0.185 | 0.033  | 0.215 |
| 81 | 9  | 0.059  | 0.186 | 0.052  | 0.200 | 0.040  | 0.230 |
| 81 | 10 | 0.069  | 0.200 | 0.061  | 0.215 | 0.047  | 0.246 |
| 81 | 11 | 0.078  | 0.215 | 0.070  | 0.230 | 0.055  | 0.261 |
| 81 | 12 | 0.088  | 0.229 | 0.079  | 0.244 | 0.063  | 0.276 |
| 81 | 13 | 0.098  | 0.243 | 0.088  | 0.259 | 0.072  | 0.291 |
| 81 | 14 | 0.108  | 0.257 | 0.098  | 0.273 | 0.080  | 0.305 |
| 81 | 15 | 0.118  | 0.271 | 0.108  | 0.287 | 0.089  | 0.320 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 81 | 16 | 0.128  | 0.284 | 0.117  | 0.301 | 0.098  | 0.334 |
| 81 | 17 | 0.138  | 0.298 | 0.127  | 0.315 | 0.107  | 0.348 |
| 81 | 18 | 0.149  | 0.312 | 0.137  | 0.328 | 0.116  | 0.362 |
| 81 | 19 | 0.159  | 0.325 | 0.148  | 0.342 | 0.126  | 0.376 |
| 81 | 20 | 0.170  | 0.338 | 0.158  | 0.355 | 0.135  | 0.389 |
| 81 | 21 | 0.181  | 0.351 | 0.168  | 0.369 | 0.145  | 0.403 |
| 81 | 22 | 0.192  | 0.365 | 0.179  | 0.382 | 0.155  | 0.416 |
| 81 | 23 | 0.202  | 0.378 | 0.189  | 0.395 | 0.165  | 0.429 |
| 81 | 24 | 0.213  | 0.391 | 0.200  | 0.408 | 0.175  | 0.442 |
| 81 | 25 | 0.225  | 0.404 | 0.211  | 0.421 | 0.185  | 0.455 |
| 81 | 26 | 0.236  | 0.416 | 0.222  | 0.434 | 0.195  | 0.468 |
| 81 | 27 | 0.247  | 0.429 | 0.232  | 0.447 | 0.206  | 0.481 |
| 81 | 28 | 0.258  | 0.442 | 0.243  | 0.460 | 0.216  | 0.494 |
| 81 | 29 | 0.269  | 0.455 | 0.254  | 0.472 | 0.227  | 0.507 |
| 81 | 30 | 0.281  | 0.467 | 0.266  | 0.485 | 0.237  | 0.519 |
| 81 | 31 | 0.292  | 0.480 | 0.277  | 0.497 | 0.248  | 0.532 |
| 81 | 32 | 0.304  | 0.492 | 0.288  | 0.510 | 0.259  | 0.544 |
| 81 | 33 | 0.315  | 0.505 | 0.299  | 0.522 | 0.270  | 0.556 |
| 81 | 34 | 0.327  | 0.517 | 0.311  | 0.535 | 0.281  | 0.568 |
| 81 | 35 | 0.338  | 0.530 | 0.322  | 0.547 | 0.292  | 0.581 |
| 81 | 36 | 0.350  | 0.542 | 0.334  | 0.559 | 0.303  | 0.593 |
| 81 | 37 | 0.362  | 0.554 | 0.346  | 0.571 | 0.314  | 0.604 |
| 81 | 38 | 0.374  | 0.566 | 0.357  | 0.583 | 0.326  | 0.616 |
| 81 | 39 | 0.386  | 0.578 | 0.369  | 0.595 | 0.337  | 0.628 |
| 81 | 40 | 0.398  | 0.590 | 0.381  | 0.607 | 0.349  | 0.640 |
| 81 | 41 | 0.410  | 0.602 | 0.393  | 0.619 | 0.360  | 0.651 |
| 81 | 42 | 0.422  | 0.614 | 0.405  | 0.631 | 0.372  | 0.663 |
| 81 | 43 | 0.434  | 0.626 | 0.417  | 0.643 | 0.384  | 0.674 |
| 81 | 44 | 0.446  | 0.638 | 0.429  | 0.654 | 0.396  | 0.686 |
| 81 | 45 | 0.458  | 0.650 | 0.441  | 0.666 | 0.407  | 0.697 |
| 81 | 46 | 0.470  | 0.662 | 0.453  | 0.678 | 0.419  | 0.708 |
| 81 | 47 | 0.483  | 0.673 | 0.465  | 0.689 | 0.432  | 0.719 |
| 81 | 48 | 0.495  | 0.685 | 0.478  | 0.701 | 0.444  | 0.730 |
| 81 | 49 | 0.508  | 0.696 | 0.490  | 0.712 | 0.456  | 0.741 |
| 81 | 50 | 0.520  | 0.708 | 0.503  | 0.723 | 0.468  | 0.752 |
| 81 | 51 | 0.533  | 0.719 | 0.515  | 0.734 | 0.481  | 0.763 |
| 81 | 52 | 0.545  | 0.731 | 0.528  | 0.746 | 0.493  | 0.773 |
| 81 | 53 | 0.558  | 0.742 | 0.540  | 0.757 | 0.506  | 0.784 |
| 81 | 54 | 0.571  | 0.753 | 0.553  | 0.768 | 0.519  | 0.794 |
| 81 | 55 | 0.584  | 0.764 | 0.566  | 0.778 | 0.532  | 0.805 |
| 81 | 56 | 0.596  | 0.775 | 0.579  | 0.789 | 0.545  | 0.815 |
| 81 | 57 | 0.609  | 0.787 | 0.592  | 0.800 | 0.558  | 0.825 |
| 81 | 58 | 0.622  | 0.798 | 0.605  | 0.811 | 0.571  | 0.835 |
| 81 | 59 | 0.635  | 0.808 | 0.618  | 0.821 | 0.584  | 0.845 |
| 81 | 60 | 0.649  | 0.819 | 0.631  | 0.832 | 0.597  | 0.855 |
| 81 | 61 | 0.662  | 0.830 | 0.645  | 0.842 | 0.611  | 0.865 |
| 81 | 62 | 0.675  | 0.841 | 0.658  | 0.852 | 0.624  | 0.874 |
| 81 | 63 | 0.688  | 0.851 | 0.672  | 0.863 | 0.638  | 0.884 |
| 81 | 64 | 0.702  | 0.862 | 0.685  | 0.873 | 0.652  | 0.893 |
| 81 | 65 | 0.716  | 0.872 | 0.699  | 0.883 | 0.666  | 0.902 |
| 81 | 66 | 0.729  | 0.882 | 0.713  | 0.892 | 0.680  | 0.911 |
| 81 | 67 | 0.743  | 0.892 | 0.727  | 0.902 | 0.695  | 0.920 |
| 81 | 68 | 0.757  | 0.902 | 0.741  | 0.912 | 0.709  | 0.928 |
| 81 | 69 | 0.771  | 0.912 | 0.756  | 0.921 | 0.724  | 0.937 |
| 81 | 70 | 0.785  | 0.922 | 0.770  | 0.930 | 0.739  | 0.945 |
| 81 | 71 | 0.800  | 0.931 | 0.785  | 0.939 | 0.754  | 0.953 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 81 | 72 | 0.814  | 0.941 | 0.800  | 0.948 | 0.770  | 0.960 |
| 81 | 73 | 0.829  | 0.950 | 0.815  | 0.956 | 0.785  | 0.967 |
| 81 | 74 | 0.844  | 0.959 | 0.830  | 0.965 | 0.801  | 0.974 |
| 81 | 75 | 0.859  | 0.967 | 0.846  | 0.972 | 0.818  | 0.981 |
| 81 | 76 | 0.875  | 0.975 | 0.862  | 0.980 | 0.835  | 0.986 |
| 81 | 77 | 0.891  | 0.983 | 0.878  | 0.986 | 0.853  | 0.992 |
| 81 | 78 | 0.907  | 0.990 | 0.896  | 0.992 | 0.871  | 0.996 |
| 81 | 79 | 0.924  | 0.996 | 0.914  | 0.997 | 0.891  | 0.999 |
| 81 | 80 | 0.943  | 0.999 | 0.933  | 1.000 | 0.912  | 1.000 |
| 81 | 81 | 0.964  | 1.000 | 0.955  | 1.000 | 0.937  | 1.000 |
| 82 | 0  | 0.000  | 0.036 | 0.000  | 0.044 | 0.000  | 0.063 |
| 82 | 1  | 0.001  | 0.057 | 0.000  | 0.066 | 0.000  | 0.087 |
| 82 | 2  | 0.004  | 0.075 | 0.003  | 0.085 | 0.001  | 0.108 |
| 82 | 3  | 0.010  | 0.092 | 0.008  | 0.103 | 0.004  | 0.128 |
| 82 | 4  | 0.017  | 0.108 | 0.013  | 0.120 | 0.008  | 0.146 |
| 82 | 5  | 0.024  | 0.124 | 0.020  | 0.137 | 0.013  | 0.163 |
| 82 | 6  | 0.032  | 0.139 | 0.027  | 0.152 | 0.019  | 0.180 |
| 82 | 7  | 0.041  | 0.154 | 0.035  | 0.168 | 0.025  | 0.196 |
| 82 | 8  | 0.049  | 0.169 | 0.043  | 0.183 | 0.032  | 0.212 |
| 82 | 9  | 0.058  | 0.184 | 0.051  | 0.198 | 0.039  | 0.228 |
| 82 | 10 | 0.068  | 0.198 | 0.060  | 0.213 | 0.047  | 0.243 |
| 82 | 11 | 0.077  | 0.212 | 0.069  | 0.227 | 0.055  | 0.258 |
| 82 | 12 | 0.087  | 0.226 | 0.078  | 0.242 | 0.063  | 0.273 |
| 82 | 13 | 0.096  | 0.240 | 0.087  | 0.256 | 0.071  | 0.288 |
| 82 | 14 | 0.106  | 0.254 | 0.097  | 0.270 | 0.079  | 0.302 |
| 82 | 15 | 0.116  | 0.268 | 0.106  | 0.284 | 0.088  | 0.316 |
| 82 | 16 | 0.126  | 0.281 | 0.116  | 0.297 | 0.097  | 0.330 |
| 82 | 17 | 0.137  | 0.295 | 0.126  | 0.311 | 0.106  | 0.344 |
| 82 | 18 | 0.147  | 0.308 | 0.136  | 0.325 | 0.115  | 0.358 |
| 82 | 19 | 0.157  | 0.321 | 0.146  | 0.338 | 0.124  | 0.371 |
| 82 | 20 | 0.168  | 0.334 | 0.156  | 0.351 | 0.134  | 0.385 |
| 82 | 21 | 0.178  | 0.347 | 0.166  | 0.364 | 0.143  | 0.398 |
| 82 | 22 | 0.189  | 0.360 | 0.176  | 0.378 | 0.153  | 0.411 |
| 82 | 23 | 0.200  | 0.373 | 0.187  | 0.391 | 0.163  | 0.425 |
| 82 | 24 | 0.211  | 0.386 | 0.197  | 0.404 | 0.173  | 0.438 |
| 82 | 25 | 0.222  | 0.399 | 0.208  | 0.416 | 0.183  | 0.451 |
| 82 | 26 | 0.233  | 0.412 | 0.219  | 0.429 | 0.193  | 0.463 |
| 82 | 27 | 0.244  | 0.424 | 0.229  | 0.442 | 0.203  | 0.476 |
| 82 | 28 | 0.255  | 0.437 | 0.240  | 0.454 | 0.213  | 0.489 |
| 82 | 29 | 0.266  | 0.450 | 0.251  | 0.467 | 0.224  | 0.501 |
| 82 | 30 | 0.277  | 0.462 | 0.262  | 0.480 | 0.234  | 0.514 |
| 82 | 31 | 0.288  | 0.475 | 0.273  | 0.492 | 0.245  | 0.526 |
| 82 | 32 | 0.300  | 0.487 | 0.284  | 0.504 | 0.255  | 0.538 |
| 82 | 33 | 0.311  | 0.499 | 0.296  | 0.517 | 0.266  | 0.550 |
| 82 | 34 | 0.323  | 0.511 | 0.307  | 0.529 | 0.277  | 0.562 |
| 82 | 35 | 0.334  | 0.524 | 0.318  | 0.541 | 0.288  | 0.574 |
| 82 | 36 | 0.346  | 0.536 | 0.330  | 0.553 | 0.299  | 0.586 |
| 82 | 37 | 0.357  | 0.548 | 0.341  | 0.565 | 0.310  | 0.598 |
| 82 | 38 | 0.369  | 0.560 | 0.353  | 0.577 | 0.321  | 0.610 |
| 82 | 39 | 0.381  | 0.572 | 0.364  | 0.589 | 0.332  | 0.622 |
| 82 | 40 | 0.392  | 0.584 | 0.376  | 0.601 | 0.344  | 0.633 |
| 82 | 41 | 0.404  | 0.596 | 0.387  | 0.613 | 0.355  | 0.645 |
| 82 | 42 | 0.416  | 0.608 | 0.399  | 0.624 | 0.367  | 0.656 |
| 82 | 43 | 0.428  | 0.619 | 0.411  | 0.636 | 0.378  | 0.668 |
| 82 | 44 | 0.440  | 0.631 | 0.423  | 0.647 | 0.390  | 0.679 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | P  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 82 | 45 | 0.452  | 0.643 | 0.435  | 0.659 | 0.402  | 0.690 |
| 82 | 46 | 0.464  | 0.654 | 0.447  | 0.670 | 0.414  | 0.701 |
| 82 | 47 | 0.476  | 0.666 | 0.459  | 0.682 | 0.426  | 0.712 |
| 82 | 48 | 0.489  | 0.677 | 0.471  | 0.693 | 0.438  | 0.723 |
| 82 | 49 | 0.501  | 0.689 | 0.483  | 0.704 | 0.450  | 0.734 |
| 82 | 50 | 0.513  | 0.700 | 0.496  | 0.716 | 0.462  | 0.745 |
| 82 | 51 | 0.525  | 0.712 | 0.508  | 0.727 | 0.474  | 0.755 |
| 82 | 52 | 0.538  | 0.723 | 0.520  | 0.738 | 0.486  | 0.766 |
| 82 | 53 | 0.550  | 0.734 | 0.533  | 0.749 | 0.499  | 0.776 |
| 92 | 54 | 0.563  | 0.745 | 0.546  | 0.760 | 0.511  | 0.787 |
| 82 | 55 | 0.576  | 0.756 | 0.558  | 0.771 | 0.524  | 0.797 |
| 82 | 56 | 0.588  | 0.767 | 0.571  | 0.781 | 0.537  | 0.807 |
| 82 | 57 | 0.601  | 0.778 | 0.584  | 0.792 | 0.549  | 0.817 |
| 82 | 58 | 0.614  | 0.789 | 0.596  | 0.803 | 0.562  | 0.827 |
| 82 | 59 | 0.627  | 0.800 | 0.609  | 0.813 | 0.575  | 0.837 |
| 82 | 60 | 0.640  | 0.811 | 0.622  | 0.824 | 0.589  | 0.847 |
| 82 | 61 | 0.653  | 0.822 | 0.636  | 0.834 | 0.602  | 0.857 |
| 82 | 62 | 0.666  | 0.832 | 0.649  | 0.844 | 0.615  | 0.866 |
| 82 | 63 | 0.679  | 0.843 | 0.662  | 0.854 | 0.629  | 0.876 |
| 82 | 64 | 0.692  | 0.853 | 0.675  | 0.864 | 0.642  | 0.885 |
| 82 | 65 | 0.705  | 0.863 | 0.689  | 0.874 | 0.656  | 0.894 |
| 82 | 66 | 0.719  | 0.874 | 0.703  | 0.884 | 0.670  | 0.903 |
| 82 | 67 | 0.732  | 0.884 | 0.716  | 0.894 | 0.684  | 0.912 |
| 82 | 68 | 0.746  | 0.894 | 0.730  | 0.903 | 0.698  | 0.921 |
| 82 | 69 | 0.760  | 0.904 | 0.744  | 0.913 | 0.712  | 0.929 |
| 82 | 70 | 0.774  | 0.913 | 0.758  | 0.922 | 0.727  | 0.937 |
| 82 | 71 | 0.788  | 0.923 | 0.773  | 0.931 | 0.742  | 0.945 |
| 82 | 72 | 0.802  | 0.932 | 0.787  | 0.940 | 0.757  | 0.953 |
| 82 | 73 | 0.816  | 0.942 | 0.802  | 0.949 | 0.772  | 0.961 |
| 82 | 74 | 0.831  | 0.951 | 0.817  | 0.957 | 0.788  | 0.968 |
| 82 | 75 | 0.846  | 0.959 | 0.832  | 0.965 | 0.804  | 0.975 |
| 82 | 76 | 0.861  | 0.968 | 0.848  | 0.973 | 0.820  | 0.981 |
| 82 | 77 | 0.876  | 0.976 | 0.863  | 0.980 | 0.837  | 0.987 |
| 82 | 78 | 0.892  | 0.983 | 0.880  | 0.987 | 0.854  | 0.992 |
| 82 | 79 | 0.908  | 0.990 | 0.897  | 0.992 | 0.872  | 0.996 |
| 82 | 80 | 0.925  | 0.996 | 0.915  | 0.997 | 0.892  | 0.999 |
| 82 | 81 | 0.943  | 0.999 | 0.934  | 1.000 | 0.913  | 1.000 |
| 82 | 82 | 0.964  | 1.000 | 0.956  | 1.000 | 0.937  | 1.000 |
| 83 | 0  | 0.000  | 0.035 | 0.000  | 0.043 | 0.000  | 0.062 |
| 83 | 1  | 0.001  | 0.056 | 0.000  | 0.065 | 0.000  | 0.086 |
| 83 | 2  | 0.004  | 0.074 | 0.003  | 0.084 | 0.001  | 0.107 |
| 83 | 3  | 0.010  | 0.091 | 0.008  | 0.102 | 0.004  | 0.126 |
| 83 | 4  | 0.017  | 0.107 | 0.013  | 0.119 | 0.008  | 0.144 |
| 83 | 5  | 0.024  | 0.122 | 0.020  | 0.135 | 0.013  | 0.161 |
| 83 | 6  | 0.032  | 0.138 | 0.027  | 0.151 | 0.019  | 0.178 |
| 83 | 7  | 0.040  | 0.153 | 0.035  | 0.166 | 0.025  | 0.194 |
| 83 | 8  | 0.049  | 0.167 | 0.043  | 0.181 | 0.032  | 0.210 |
| 83 | 9  | 0.058  | 0.182 | 0.051  | 0.196 | 0.039  | 0.225 |
| 83 | 10 | 0.067  | 0.196 | 0.059  | 0.210 | 0.046  | 0.240 |
| 83 | 11 | 0.076  | 0.210 | 0.068  | 0.225 | 0.054  | 0.255 |
| 83 | 12 | 0.086  | 0.224 | 0.077  | 0.239 | 0.062  | 0.270 |
| 83 | 13 | 0.095  | 0.237 | 0.086  | 0.253 | 0.070  | 0.284 |
| 83 | 14 | 0.105  | 0.251 | 0.095  | 0.267 | 0.078  | 0.299 |
| 83 | 15 | 0.115  | 0.265 | 0.105  | 0.280 | 0.087  | 0.313 |
| 83 | 16 | 0.125  | 0.278 | 0.114  | 0.294 | 0.096  | 0.327 |
| 83 | 17 | 0.135  | 0.291 | 0.124  | 0.308 | 0.104  | 0.340 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 83 | 18 | 0.145  | 0.304 | 0.134  | 0.321 | 0.114  | 0.354 |
| 83 | 19 | 0.155  | 0.318 | 0.144  | 0.334 | 0.123  | 0.367 |
| 83 | 20 | 0.166  | 0.331 | 0.154  | 0.347 | 0.132  | 0.381 |
| 83 | 21 | 0.176  | 0.344 | 0.164  | 0.360 | 0.141  | 0.394 |
| 83 | 22 | 0.187  | 0.356 | 0.174  | 0.373 | 0.151  | 0.407 |
| 83 | 23 | 0.197  | 0.369 | 0.184  | 0.386 | 0.161  | 0.420 |
| 83 | 24 | 0.208  | 0.382 | 0.195  | 0.399 | 0.170  | 0.433 |
| 83 | 25 | 0.219  | 0.395 | 0.205  | 0.412 | 0.180  | 0.446 |
| 83 | 26 | 0.230  | 0.407 | 0.216  | 0.424 | 0.190  | 0.458 |
| 83 | 27 | 0.241  | 0.420 | 0.226  | 0.437 | 0.200  | 0.471 |
| 83 | 28 | 0.251  | 0.432 | 0.237  | 0.450 | 0.210  | 0.483 |
| 83 | 29 | 0.263  | 0.445 | 0.248  | 0.462 | 0.221  | 0.496 |
| 83 | 30 | 0.274  | 0.457 | 0.259  | 0.474 | 0.231  | 0.508 |
| 83 | 31 | 0.285  | 0.469 | 0.270  | 0.487 | 0.241  | 0.520 |
| 83 | 32 | 0.296  | 0.481 | 0.281  | 0.499 | 0.252  | 0.533 |
| 83 | 33 | 0.307  | 0.494 | 0.292  | 0.511 | 0.263  | 0.545 |
| 83 | 34 | 0.318  | 0.506 | 0.303  | 0.523 | 0.273  | 0.557 |
| 83 | 35 | 0.330  | 0.518 | 0.314  | 0.535 | 0.284  | 0.569 |
| 83 | 36 | 0.341  | 0.530 | 0.325  | 0.547 | 0.295  | 0.580 |
| 83 | 37 | 0.353  | 0.542 | 0.337  | 0.559 | 0.306  | 0.592 |
| 83 | 38 | 0.364  | 0.554 | 0.348  | 0.571 | 0.317  | 0.604 |
| 83 | 39 | 0.376  | 0.566 | 0.359  | 0.583 | 0.328  | 0.615 |
| 83 | 40 | 0.387  | 0.578 | 0.371  | 0.594 | 0.339  | 0.627 |
| 83 | 41 | 0.399  | 0.589 | 0.382  | 0.606 | 0.350  | 0.638 |
| 83 | 42 | 0.411  | 0.601 | 0.394  | 0.618 | 0.362  | 0.650 |
| 83 | 43 | 0.422  | 0.613 | 0.406  | 0.629 | 0.373  | 0.661 |
| 83 | 44 | 0.434  | 0.624 | 0.417  | 0.641 | 0.385  | 0.672 |
| 83 | 45 | 0.446  | 0.636 | 0.429  | 0.652 | 0.396  | 0.683 |
| 83 | 46 | 0.458  | 0.647 | 0.441  | 0.663 | 0.408  | 0.694 |
| 83 | 47 | 0.470  | 0.659 | 0.453  | 0.675 | 0.420  | 0.705 |
| 83 | 48 | 0.482  | 0.670 | 0.465  | 0.686 | 0.431  | 0.716 |
| 83 | 49 | 0.494  | 0.682 | 0.477  | 0.697 | 0.443  | 0.727 |
| 83 | 50 | 0.506  | 0.693 | 0.489  | 0.708 | 0.455  | 0.737 |
| 83 | 51 | 0.519  | 0.704 | 0.501  | 0.719 | 0.467  | 0.748 |
| 83 | 52 | 0.531  | 0.715 | 0.513  | 0.730 | 0.480  | 0.759 |
| 83 | 53 | 0.543  | 0.726 | 0.526  | 0.741 | 0.492  | 0.769 |
| 83 | 54 | 0.555  | 0.737 | 0.538  | 0.752 | 0.504  | 0.779 |
| 83 | 55 | 0.568  | 0.749 | 0.550  | 0.763 | 0.517  | 0.790 |
| 83 | 56 | 0.580  | 0.759 | 0.563  | 0.774 | 0.529  | 0.800 |
| 83 | 57 | 0.593  | 0.770 | 0.576  | 0.784 | 0.542  | 0.810 |
| 83 | 58 | 0.605  | 0.781 | 0.588  | 0.795 | 0.554  | 0.820 |
| 83 | 59 | 0.618  | 0.792 | 0.601  | 0.805 | 0.567  | 0.830 |
| 83 | 60 | 0.631  | 0.803 | 0.614  | 0.816 | 0.580  | 0.839 |
| 83 | 61 | 0.644  | 0.813 | 0.627  | 0.826 | 0.593  | 0.849 |
| 83 | 62 | 0.656  | 0.824 | 0.640  | 0.836 | 0.606  | 0.859 |
| 83 | 63 | 0.669  | 0.834 | 0.653  | 0.846 | 0.619  | 0.868 |
| 83 | 64 | 0.682  | 0.845 | 0.666  | 0.856 | 0.633  | 0.877 |
| 83 | 65 | 0.696  | 0.855 | 0.679  | 0.866 | 0.646  | 0.886 |
| 83 | 66 | 0.709  | 0.865 | 0.692  | 0.876 | 0.660  | 0.896 |
| 83 | 67 | 0.722  | 0.875 | 0.706  | 0.886 | 0.673  | 0.904 |
| 83 | 68 | 0.735  | 0.885 | 0.720  | 0.895 | 0.687  | 0.913 |
| 83 | 69 | 0.749  | 0.895 | 0.733  | 0.905 | 0.701  | 0.922 |
| 83 | 70 | 0.763  | 0.905 | 0.747  | 0.914 | 0.716  | 0.930 |
| 83 | 71 | 0.776  | 0.914 | 0.761  | 0.923 | 0.730  | 0.938 |
| 83 | 72 | 0.790  | 0.924 | 0.775  | 0.932 | 0.745  | 0.946 |
| 83 | 73 | 0.804  | 0.933 | 0.790  | 0.941 | 0.760  | 0.954 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 83 | 74 | 0.818  | 0.942 | 0.804  | 0.949 | 0.775  | 0.961 |
| 83 | 75 | 0.833  | 0.951 | 0.819  | 0.957 | 0.790  | 0.968 |
| 83 | 76 | 0.847  | 0.960 | 0.834  | 0.965 | 0.806  | 0.975 |
| 83 | 77 | 0.862  | 0.968 | 0.849  | 0.973 | 0.822  | 0.981 |
| 83 | 78 | 0.878  | 0.976 | 0.865  | 0.980 | 0.839  | 0.987 |
| 83 | 79 | 0.893  | 0.983 | 0.881  | 0.987 | 0.856  | 0.992 |
| 83 | 80 | 0.909  | 0.990 | 0.898  | 0.992 | 0.874  | 0.996 |
| 83 | 81 | 0.926  | 0.996 | 0.916  | 0.997 | 0.893  | 0.999 |
| 83 | 82 | 0.944  | 0.999 | 0.935  | 1.000 | 0.914  | 1.000 |
| 83 | 83 | 0.965  | 1.000 | 0.957  | 1.000 | 0.938  | 1.000 |
| 84 | 0  | 0.000  | 0.035 | 0.000  | 0.043 | 0.000  | 0.061 |
| 84 | 1  | 0.001  | 0.055 | 0.000  | 0.065 | 0.000  | 0.085 |
| 84 | 2  | 0.004  | 0.073 | 0.003  | 0.083 | 0.001  | 0.106 |
| 84 | 3  | 0.010  | 0.090 | 0.007  | 0.101 | 0.004  | 0.125 |
| 84 | 4  | 0.016  | 0.106 | 0.013  | 0.117 | 0.008  | 0.142 |
| 84 | 5  | 0.024  | 0.121 | 0.020  | 0.133 | 0.013  | 0.159 |
| 84 | 6  | 0.032  | 0.136 | 0.027  | 0.149 | 0.019  | 0.176 |
| 84 | 7  | 0.040  | 0.151 | 0.034  | 0.164 | 0.025  | 0.192 |
| 84 | 8  | 0.048  | 0.165 | 0.042  | 0.179 | 0.031  | 0.208 |
| 84 | 9  | 0.057  | 0.180 | 0.050  | 0.194 | 0.038  | 0.223 |
| 84 | 10 | 0.066  | 0.194 | 0.059  | 0.208 | 0.046  | 0.238 |
| 84 | 11 | 0.075  | 0.207 | 0.067  | 0.222 | 0.053  | 0.252 |
| 84 | 12 | 0.085  | 0.221 | 0.076  | 0.236 | 0.061  | 0.267 |
| 84 | 13 | 0.094  | 0.235 | 0.085  | 0.250 | 0.069  | 0.281 |
| 84 | 14 | 0.104  | 0.248 | 0.094  | 0.264 | 0.077  | 0.295 |
| 84 | 15 | 0.113  | 0.262 | 0.104  | 0.277 | 0.086  | 0.309 |
| 84 | 16 | 0.123  | 0.275 | 0.113  | 0.291 | 0.094  | 0.323 |
| 84 | 17 | 0.133  | 0.288 | 0.123  | 0.304 | 0.103  | 0.337 |
| 84 | 18 | 0.143  | 0.301 | 0.132  | 0.317 | 0.112  | 0.350 |
| 84 | 19 | 0.153  | 0.314 | 0.142  | 0.330 | 0.121  | 0.363 |
| 84 | 20 | 0.164  | 0.327 | 0.152  | 0.343 | 0.130  | 0.377 |
| 84 | 21 | 0.174  | 0.340 | 0.162  | 0.356 | 0.140  | 0.390 |
| 84 | 22 | 0.184  | 0.352 | 0.172  | 0.369 | 0.149  | 0.403 |
| 84 | 23 | 0.195  | 0.365 | 0.182  | 0.382 | 0.159  | 0.416 |
| 84 | 24 | 0.205  | 0.378 | 0.192  | 0.395 | 0.168  | 0.428 |
| 84 | 25 | 0.216  | 0.390 | 0.203  | 0.407 | 0.178  | 0.441 |
| 84 | 26 | 0.227  | 0.403 | 0.213  | 0.420 | 0.188  | 0.454 |
| 84 | 27 | 0.238  | 0.415 | 0.224  | 0.432 | 0.198  | 0.466 |
| 84 | 28 | 0.248  | 0.427 | 0.234  | 0.445 | 0.208  | 0.478 |
| 84 | 29 | 0.259  | 0.440 | 0.245  | 0.457 | 0.218  | 0.491 |
| 84 | 30 | 0.270  | 0.452 | 0.256  | 0.469 | 0.228  | 0.503 |
| 84 | 31 | 0.281  | 0.464 | 0.266  | 0.481 | 0.238  | 0.515 |
| 84 | 32 | 0.292  | 0.476 | 0.277  | 0.493 | 0.249  | 0.527 |
| 84 | 33 | 0.303  | 0.488 | 0.288  | 0.505 | 0.259  | 0.539 |
| 84 | 34 | 0.314  | 0.500 | 0.299  | 0.517 | 0.270  | 0.551 |
| 84 | 35 | 0.326  | 0.512 | 0.310  | 0.529 | 0.280  | 0.563 |
| 84 | 36 | 0.337  | 0.524 | 0.321  | 0.541 | 0.291  | 0.574 |
| 84 | 37 | 0.348  | 0.536 | 0.332  | 0.553 | 0.302  | 0.586 |
| 84 | 38 | 0.360  | 0.548 | 0.343  | 0.565 | 0.313  | 0.598 |
| 84 | 39 | 0.371  | 0.560 | 0.355  | 0.576 | 0.324  | 0.609 |
| 84 | 40 | 0.382  | 0.571 | 0.366  | 0.588 | 0.335  | 0.620 |
| 84 | 41 | 0.394  | 0.583 | 0.377  | 0.600 | 0.346  | 0.632 |
| 84 | 42 | 0.405  | 0.595 | 0.389  | 0.611 | 0.357  | 0.643 |
| 84 | 43 | 0.417  | 0.606 | 0.400  | 0.623 | 0.368  | 0.654 |
| 84 | 44 | 0.429  | 0.618 | 0.412  | 0.634 | 0.380  | 0.665 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 84 | 45 | 0.440  | 0.629 | 0.424  | 0.645 | 0.391  | 0.676 |
| 84 | 46 | 0.452  | 0.640 | 0.435  | 0.657 | 0.402  | 0.687 |
| 84 | 47 | 0.464  | 0.652 | 0.447  | 0.668 | 0.414  | 0.698 |
| 84 | 48 | 0.476  | 0.663 | 0.459  | 0.679 | 0.426  | 0.709 |
| 84 | 49 | 0.488  | 0.674 | 0.471  | 0.690 | 0.437  | 0.720 |
| 84 | 50 | 0.500  | 0.686 | 0.483  | 0.701 | 0.449  | 0.730 |
| 84 | 51 | 0.512  | 0.697 | 0.495  | 0.712 | 0.461  | 0.741 |
| 84 | 52 | 0.524  | 0.708 | 0.507  | 0.723 | 0.473  | 0.751 |
| 84 | 53 | 0.536  | 0.719 | 0.519  | 0.734 | 0.485  | 0.762 |
| 84 | 54 | 0.548  | 0.730 | 0.531  | 0.744 | 0.497  | 0.772 |
| 84 | 55 | 0.560  | 0.741 | 0.543  | 0.755 | 0.509  | 0.782 |
| 84 | 56 | 0.573  | 0.752 | 0.555  | 0.766 | 0.522  | 0.792 |
| 84 | 57 | 0.585  | 0.762 | 0.568  | 0.776 | 0.534  | 0.802 |
| 84 | 58 | 0.597  | 0.773 | 0.580  | 0.787 | 0.546  | 0.812 |
| 84 | 59 | 0.610  | 0.784 | 0.593  | 0.797 | 0.559  | 0.822 |
| 84 | 60 | 0.622  | 0.795 | 0.605  | 0.808 | 0.572  | 0.832 |
| 84 | 61 | 0.635  | 0.805 | 0.618  | 0.818 | 0.584  | 0.841 |
| 84 | 62 | 0.648  | 0.816 | 0.631  | 0.828 | 0.597  | 0.851 |
| 84 | 63 | 0.660  | 0.826 | 0.644  | 0.838 | 0.610  | 0.860 |
| 84 | 64 | 0.673  | 0.836 | 0.657  | 0.848 | 0.623  | 0.870 |
| 84 | 65 | 0.686  | 0.847 | 0.670  | 0.858 | 0.637  | 0.879 |
| 84 | 66 | 0.699  | 0.857 | 0.683  | 0.868 | 0.650  | 0.888 |
| 84 | 67 | 0.712  | 0.867 | 0.696  | 0.877 | 0.663  | 0.897 |
| 84 | 68 | 0.725  | 0.877 | 0.709  | 0.887 | 0.677  | 0.906 |
| 84 | 69 | 0.738  | 0.887 | 0.723  | 0.896 | 0.691  | 0.914 |
| 84 | 70 | 0.752  | 0.896 | 0.736  | 0.906 | 0.705  | 0.923 |
| 84 | 71 | 0.765  | 0.906 | 0.750  | 0.915 | 0.719  | 0.931 |
| 84 | 72 | 0.779  | 0.915 | 0.764  | 0.924 | 0.733  | 0.939 |
| 84 | 73 | 0.793  | 0.925 | 0.778  | 0.933 | 0.748  | 0.947 |
| 84 | 74 | 0.806  | 0.934 | 0.792  | 0.941 | 0.762  | 0.954 |
| 84 | 75 | 0.820  | 0.943 | 0.806  | 0.950 | 0.777  | 0.962 |
| 84 | 76 | 0.835  | 0.952 | 0.821  | 0.958 | 0.792  | 0.969 |
| 84 | 77 | 0.849  | 0.960 | 0.836  | 0.966 | 0.808  | 0.975 |
| 84 | 78 | 0.864  | 0.968 | 0.851  | 0.973 | 0.824  | 0.981 |
| 84 | 79 | 0.879  | 0.976 | 0.867  | 0.980 | 0.841  | 0.987 |
| 84 | 80 | 0.894  | 0.984 | 0.883  | 0.987 | 0.858  | 0.992 |
| 84 | 81 | 0.910  | 0.990 | 0.899  | 0.993 | 0.875  | 0.996 |
| 84 | 82 | 0.927  | 0.996 | 0.917  | 0.997 | 0.894  | 0.999 |
| 84 | 83 | 0.945  | 0.999 | 0.935  | 1.000 | 0.915  | 1.000 |
| 84 | 84 | 0.965  | 1.000 | 0.957  | 1.000 | 0.939  | 1.000 |
| 85 | 0  | 0.000  | 0.035 | 0.000  | 0.042 | 0.000  | 0.060 |
| 85 | 1  | 0.001  | 0.055 | 0.000  | 0.064 | 0.000  | 0.084 |
| 85 | 2  | 0.004  | 0.072 | 0.003  | 0.082 | 0.001  | 0.105 |
| 85 | 3  | 0.010  | 0.089 | 0.007  | 0.100 | 0.004  | 0.123 |
| 85 | 4  | 0.016  | 0.104 | 0.013  | 0.116 | 0.008  | 0.141 |
| 85 | 5  | 0.023  | 0.120 | 0.019  | 0.132 | 0.013  | 0.158 |
| 85 | 6  | 0.031  | 0.135 | 0.026  | 0.147 | 0.018  | 0.174 |
| 85 | 7  | 0.039  | 0.149 | 0.034  | 0.162 | 0.025  | 0.190 |
| 85 | 8  | 0.048  | 0.163 | 0.042  | 0.177 | 0.031  | 0.205 |
| 85 | 9  | 0.056  | 0.177 | 0.050  | 0.192 | 0.038  | 0.220 |
| 85 | 10 | 0.065  | 0.191 | 0.058  | 0.206 | 0.045  | 0.235 |
| 85 | 11 | 0.074  | 0.205 | 0.066  | 0.220 | 0.053  | 0.250 |
| 85 | 12 | 0.084  | 0.219 | 0.075  | 0.234 | 0.060  | 0.264 |
| 85 | 13 | 0.093  | 0.232 | 0.084  | 0.247 | 0.068  | 0.278 |
| 85 | 14 | 0.102  | 0.245 | 0.093  | 0.261 | 0.076  | 0.292 |
| 85 | 15 | 0.112  | 0.259 | 0.102  | 0.274 | 0.085  | 0.306 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 85 | 16 | 0.122  | 0.272 | 0.112  | 0.288 | 0.093  | 0.320 |
| 85 | 17 | 0.132  | 0.285 | 0.121  | 0.301 | 0.102  | 0.333 |
| 85 | 18 | 0.142  | 0.298 | 0.131  | 0.314 | 0.111  | 0.346 |
| 85 | 19 | 0.152  | 0.311 | 0.140  | 0.327 | 0.120  | 0.360 |
| 85 | 20 | 0.162  | 0.323 | 0.150  | 0.340 | 0.129  | 0.373 |
| 85 | 21 | 0.172  | 0.336 | 0.160  | 0.353 | 0.138  | 0.386 |
| 85 | 22 | 0.182  | 0.349 | 0.170  | 0.365 | 0.147  | 0.398 |
| 85 | 23 | 0.193  | 0.361 | 0.180  | 0.378 | 0.157  | 0.411 |
| 85 | 24 | 0.203  | 0.374 | 0.190  | 0.390 | 0.166  | 0.424 |
| 85 | 25 | 0.213  | 0.386 | 0.200  | 0.403 | 0.176  | 0.436 |
| 85 | 26 | 0.224  | 0.398 | 0.210  | 0.415 | 0.185  | 0.449 |
| 85 | 27 | 0.235  | 0.411 | 0.221  | 0.428 | 0.195  | 0.461 |
| 85 | 28 | 0.245  | 0.423 | 0.231  | 0.440 | 0.205  | 0.473 |
| 85 | 29 | 0.256  | 0.435 | 0.242  | 0.452 | 0.215  | 0.486 |
| 85 | 30 | 0.267  | 0.447 | 0.252  | 0.464 | 0.225  | 0.498 |
| 85 | 31 | 0.278  | 0.459 | 0.263  | 0.476 | 0.235  | 0.510 |
| 85 | 32 | 0.289  | 0.471 | 0.274  | 0.488 | 0.246  | 0.522 |
| 85 | 33 | 0.299  | 0.483 | 0.284  | 0.500 | 0.256  | 0.533 |
| 85 | 34 | 0.310  | 0.495 | 0.295  | 0.512 | 0.266  | 0.545 |
| 85 | 35 | 0.322  | 0.507 | 0.306  | 0.524 | 0.277  | 0.557 |
| 85 | 36 | 0.333  | 0.519 | 0.317  | 0.536 | 0.287  | 0.569 |
| 85 | 37 | 0.344  | 0.530 | 0.328  | 0.547 | 0.298  | 0.580 |
| 85 | 38 | 0.355  | 0.542 | 0.339  | 0.559 | 0.309  | 0.592 |
| 85 | 39 | 0.366  | 0.554 | 0.350  | 0.570 | 0.319  | 0.603 |
| 85 | 40 | 0.378  | 0.565 | 0.361  | 0.582 | 0.330  | 0.614 |
| 85 | 41 | 0.389  | 0.577 | 0.373  | 0.593 | 0.341  | 0.625 |
| 85 | 42 | 0.400  | 0.588 | 0.384  | 0.605 | 0.352  | 0.637 |
| 85 | 43 | 0.412  | 0.600 | 0.395  | 0.616 | 0.363  | 0.648 |
| 85 | 44 | 0.423  | 0.611 | 0.407  | 0.627 | 0.375  | 0.659 |
| 85 | 45 | 0.435  | 0.622 | 0.418  | 0.639 | 0.386  | 0.670 |
| 85 | 46 | 0.446  | 0.634 | 0.430  | 0.650 | 0.397  | 0.681 |
| 85 | 47 | 0.458  | 0.645 | 0.441  | 0.661 | 0.408  | 0.691 |
| 85 | 48 | 0.470  | 0.656 | 0.453  | 0.672 | 0.420  | 0.702 |
| 85 | 49 | 0.481  | 0.667 | 0.464  | 0.683 | 0.431  | 0.713 |
| 85 | 50 | 0.493  | 0.678 | 0.476  | 0.694 | 0.443  | 0.723 |
| 85 | 51 | 0.505  | 0.690 | 0.488  | 0.705 | 0.455  | 0.734 |
| 85 | 52 | 0.517  | 0.701 | 0.500  | 0.716 | 0.467  | 0.744 |
| 85 | 53 | 0.529  | 0.711 | 0.512  | 0.726 | 0.478  | 0.754 |
| 85 | 54 | 0.541  | 0.722 | 0.524  | 0.737 | 0.490  | 0.765 |
| 85 | 55 | 0.553  | 0.733 | 0.536  | 0.748 | 0.502  | 0.775 |
| 85 | 56 | 0.565  | 0.744 | 0.548  | 0.758 | 0.514  | 0.785 |
| 85 | 57 | 0.577  | 0.755 | 0.560  | 0.769 | 0.527  | 0.795 |
| 85 | 58 | 0.589  | 0.765 | 0.572  | 0.779 | 0.539  | 0.805 |
| 85 | 59 | 0.602  | 0.776 | 0.585  | 0.790 | 0.551  | 0.815 |
| 85 | 60 | 0.614  | 0.787 | 0.597  | 0.800 | 0.564  | 0.824 |
| 85 | 61 | 0.626  | 0.797 | 0.610  | 0.810 | 0.576  | 0.834 |
| 85 | 62 | 0.639  | 0.807 | 0.622  | 0.820 | 0.589  | 0.843 |
| 85 | 63 | 0.651  | 0.818 | 0.635  | 0.830 | 0.602  | 0.853 |
| 85 | 64 | 0.664  | 0.828 | 0.647  | 0.840 | 0.614  | 0.862 |
| 85 | 65 | 0.677  | 0.838 | 0.660  | 0.850 | 0.627  | 0.871 |
| 85 | 66 | 0.689  | 0.848 | 0.673  | 0.860 | 0.640  | 0.880 |
| 85 | 67 | 0.702  | 0.858 | 0.686  | 0.869 | 0.654  | 0.889 |
| 85 | 68 | 0.715  | 0.868 | 0.699  | 0.879 | 0.667  | 0.898 |
| 85 | 69 | 0.728  | 0.878 | 0.712  | 0.888 | 0.680  | 0.907 |
| 85 | 70 | 0.741  | 0.888 | 0.726  | 0.898 | 0.694  | 0.915 |
| 85 | 71 | 0.755  | 0.898 | 0.739  | 0.907 | 0.708  | 0.924 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 85 | 72 | 0.768  | 0.907 | 0.753  | 0.916 | 0.722  | 0.932 |
| 85 | 73 | 0.781  | 0.916 | 0.766  | 0.925 | 0.736  | 0.940 |
| 85 | 74 | 0.795  | 0.926 | 0.780  | 0.934 | 0.750  | 0.947 |
| 85 | 75 | 0.809  | 0.935 | 0.794  | 0.942 | 0.765  | 0.955 |
| 85 | 76 | 0.823  | 0.944 | 0.808  | 0.950 | 0.780  | 0.962 |
| 85 | 77 | 0.837  | 0.952 | 0.823  | 0.958 | 0.795  | 0.969 |
| 85 | 78 | 0.851  | 0.961 | 0.838  | 0.966 | 0.810  | 0.975 |
| 85 | 79 | 0.865  | 0.969 | 0.853  | 0.974 | 0.826  | 0.982 |
| 85 | 80 | 0.880  | 0.977 | 0.868  | 0.981 | 0.842  | 0.987 |
| 85 | 81 | 0.896  | 0.984 | 0.884  | 0.987 | 0.859  | 0.992 |
| 85 | 82 | 0.911  | 0.990 | 0.900  | 0.993 | 0.877  | 0.996 |
| 85 | 83 | 0.928  | 0.996 | 0.918  | 0.997 | 0.895  | 0.999 |
| 85 | 84 | 0.945  | 0.999 | 0.936  | 1.000 | 0.916  | 1.000 |
| 85 | 85 | 0.965  | 1.000 | 0.958  | 1.000 | 0.940  | 1.000 |
| 86 | 0  | 0.000  | 0.034 | 0.000  | 0.042 | 0.000  | 0.060 |
| 86 | 1  | 0.001  | 0.054 | 0.000  | 0.063 | 0.000  | 0.083 |
| 86 | 2  | 0.004  | 0.071 | 0.003  | 0.081 | 0.001  | 0.103 |
| 86 | 3  | 0.010  | 0.088 | 0.007  | 0.099 | 0.004  | 0.122 |
| 86 | 4  | 0.016  | 0.103 | 0.013  | 0.115 | 0.008  | 0.139 |
| 86 | 5  | 0.023  | 0.118 | 0.019  | 0.130 | 0.013  | 0.156 |
| 86 | 6  | 0.031  | 0.133 | 0.026  | 0.146 | 0.018  | 0.172 |
| 86 | 7  | 0.039  | 0.147 | 0.033  | 0.161 | 0.024  | 0.188 |
| 86 | 8  | 0.047  | 0.162 | 0.041  | 0.175 | 0.031  | 0.203 |
| 86 | 9  | 0.056  | 0.176 | 0.049  | 0.189 | 0.037  | 0.218 |
| 86 | 10 | 0.064  | 0.189 | 0.057  | 0.203 | 0.045  | 0.233 |
| 86 | 11 | 0.073  | 0.203 | 0.066  | 0.217 | 0.052  | 0.247 |
| 86 | 12 | 0.083  | 0.216 | 0.074  | 0.231 | 0.060  | 0.261 |
| 86 | 13 | 0.092  | 0.230 | 0.083  | 0.245 | 0.067  | 0.275 |
| 86 | 14 | 0.101  | 0.243 | 0.092  | 0.258 | 0.076  | 0.289 |
| 86 | 15 | 0.111  | 0.256 | 0.101  | 0.271 | 0.084  | 0.303 |
| 86 | 16 | 0.120  | 0.269 | 0.110  | 0.284 | 0.092  | 0.316 |
| 86 | 17 | 0.130  | 0.282 | 0.120  | 0.298 | 0.101  | 0.329 |
| 86 | 18 | 0.140  | 0.294 | 0.129  | 0.310 | 0.109  | 0.343 |
| 86 | 19 | 0.150  | 0.307 | 0.139  | 0.323 | 0.118  | 0.356 |
| 86 | 20 | 0.160  | 0.320 | 0.148  | 0.336 | 0.127  | 0.369 |
| 86 | 21 | 0.170  | 0.332 | 0.158  | 0.349 | 0.136  | 0.382 |
| 86 | 22 | 0.180  | 0.345 | 0.168  | 0.361 | 0.145  | 0.394 |
| 86 | 23 | 0.190  | 0.357 | 0.178  | 0.374 | 0.155  | 0.407 |
| 86 | 24 | 0.200  | 0.369 | 0.188  | 0.386 | 0.164  | 0.419 |
| 86 | 25 | 0.211  | 0.382 | 0.198  | 0.399 | 0.173  | 0.432 |
| 86 | 26 | 0.221  | 0.394 | 0.208  | 0.411 | 0.183  | 0.444 |
| 86 | 27 | 0.232  | 0.406 | 0.218  | 0.423 | 0.193  | 0.456 |
| 86 | 28 | 0.242  | 0.418 | 0.228  | 0.435 | 0.203  | 0.469 |
| 86 | 29 | 0.253  | 0.430 | 0.239  | 0.447 | 0.212  | 0.481 |
| 86 | 30 | 0.264  | 0.442 | 0.249  | 0.459 | 0.222  | 0.493 |
| 86 | 31 | 0.274  | 0.454 | 0.260  | 0.471 | 0.232  | 0.504 |
| 86 | 32 | 0.285  | 0.466 | 0.270  | 0.483 | 0.242  | 0.516 |
| 86 | 33 | 0.296  | 0.478 | 0.281  | 0.495 | 0.253  | 0.528 |
| 86 | 34 | 0.307  | 0.490 | 0.292  | 0.507 | 0.263  | 0.540 |
| 86 | 35 | 0.318  | 0.501 | 0.302  | 0.518 | 0.273  | 0.551 |
| 86 | 36 | 0.329  | 0.513 | 0.313  | 0.530 | 0.284  | 0.563 |
| 86 | 37 | 0.340  | 0.525 | 0.324  | 0.542 | 0.294  | 0.574 |
| 86 | 38 | 0.351  | 0.536 | 0.335  | 0.553 | 0.305  | 0.586 |
| 86 | 39 | 0.362  | 0.548 | 0.346  | 0.565 | 0.315  | 0.597 |
| 86 | 40 | 0.373  | 0.559 | 0.357  | 0.576 | 0.326  | 0.608 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 86 | 41 | 0.384  | 0.571 | 0.368  | 0.587 | 0.337  | 0.619 |
| 86 | 42 | 0.395  | 0.582 | 0.379  | 0.599 | 0.348  | 0.630 |
| 86 | 43 | 0.407  | 0.593 | 0.390  | 0.610 | 0.359  | 0.641 |
| 86 | 44 | 0.418  | 0.605 | 0.401  | 0.621 | 0.370  | 0.652 |
| 86 | 45 | 0.429  | 0.616 | 0.413  | 0.632 | 0.381  | 0.663 |
| 86 | 46 | 0.441  | 0.627 | 0.424  | 0.643 | 0.392  | 0.674 |
| 86 | 47 | 0.452  | 0.638 | 0.435  | 0.654 | 0.403  | 0.685 |
| 86 | 48 | 0.464  | 0.649 | 0.447  | 0.665 | 0.414  | 0.695 |
| 86 | 49 | 0.475  | 0.660 | 0.458  | 0.676 | 0.426  | 0.706 |
| 86 | 50 | 0.487  | 0.671 | 0.470  | 0.687 | 0.437  | 0.716 |
| 86 | 51 | 0.499  | 0.682 | 0.482  | 0.698 | 0.449  | 0.727 |
| 86 | 52 | 0.510  | 0.693 | 0.493  | 0.708 | 0.460  | 0.737 |
| 86 | 53 | 0.522  | 0.704 | 0.505  | 0.719 | 0.472  | 0.747 |
| 86 | 54 | 0.534  | 0.715 | 0.517  | 0.730 | 0.484  | 0.758 |
| 86 | 55 | 0.546  | 0.726 | 0.529  | 0.740 | 0.496  | 0.768 |
| 86 | 56 | 0.558  | 0.736 | 0.541  | 0.751 | 0.507  | 0.778 |
| 86 | 57 | 0.570  | 0.747 | 0.553  | 0.761 | 0.519  | 0.788 |
| 86 | 58 | 0.582  | 0.758 | 0.565  | 0.772 | 0.531  | 0.797 |
| 86 | 59 | 0.594  | 0.768 | 0.577  | 0.782 | 0.544  | 0.807 |
| 86 | 60 | 0.606  | 0.779 | 0.589  | 0.792 | 0.556  | 0.817 |
| 86 | 61 | 0.618  | 0.789 | 0.601  | 0.802 | 0.568  | 0.827 |
| 86 | 62 | 0.631  | 0.800 | 0.614  | 0.812 | 0.581  | 0.836 |
| 86 | 63 | 0.643  | 0.810 | 0.626  | 0.822 | 0.593  | 0.845 |
| 86 | 64 | 0.655  | 0.820 | 0.639  | 0.832 | 0.606  | 0.855 |
| 86 | 65 | 0.668  | 0.830 | 0.651  | 0.842 | 0.618  | 0.864 |
| 86 | 66 | 0.680  | 0.840 | 0.664  | 0.852 | 0.631  | 0.873 |
| 86 | 67 | 0.693  | 0.850 | 0.677  | 0.861 | 0.644  | 0.882 |
| 86 | 68 | 0.706  | 0.860 | 0.690  | 0.871 | 0.657  | 0.891 |
| 86 | 69 | 0.718  | 0.870 | 0.702  | 0.880 | 0.671  | 0.899 |
| 86 | 70 | 0.731  | 0.880 | 0.716  | 0.890 | 0.684  | 0.908 |
| 86 | 71 | 0.744  | 0.889 | 0.729  | 0.899 | 0.697  | 0.916 |
| 86 | 72 | 0.757  | 0.899 | 0.742  | 0.908 | 0.711  | 0.924 |
| 86 | 73 | 0.770  | 0.908 | 0.755  | 0.917 | 0.725  | 0.933 |
| 86 | 74 | 0.784  | 0.917 | 0.769  | 0.926 | 0.739  | 0.940 |
| 86 | 75 | 0.797  | 0.927 | 0.783  | 0.934 | 0.753  | 0.948 |
| 86 | 76 | 0.811  | 0.936 | 0.797  | 0.943 | 0.767  | 0.955 |
| 86 | 77 | 0.824  | 0.944 | 0.811  | 0.951 | 0.782  | 0.963 |
| 86 | 78 | 0.838  | 0.953 | 0.825  | 0.959 | 0.797  | 0.969 |
| 86 | 79 | 0.853  | 0.961 | 0.839  | 0.967 | 0.812  | 0.976 |
| 86 | 80 | 0.867  | 0.969 | 0.854  | 0.974 | 0.828  | 0.982 |
| 86 | 81 | 0.882  | 0.977 | 0.870  | 0.981 | 0.844  | 0.987 |
| 86 | 82 | 0.897  | 0.984 | 0.885  | 0.987 | 0.861  | 0.992 |
| 86 | 83 | 0.912  | 0.990 | 0.901  | 0.993 | 0.878  | 0.996 |
| 86 | 84 | 0.929  | 0.996 | 0.919  | 0.997 | 0.897  | 0.999 |
| 86 | 85 | 0.946  | 0.999 | 0.937  | 1.000 | 0.917  | 1.000 |
| 86 | 86 | 0.966  | 1.000 | 0.958  | 1.000 | 0.940  | 1.000 |
| 87 | 0  | 0.000  | 0.034 | 0.000  | 0.042 | 0.000  | 0.059 |
| 87 | 1  | 0.001  | 0.053 | 0.000  | 0.062 | 0.000  | 0.082 |
| 87 | 2  | 0.004  | 0.071 | 0.003  | 0.081 | 0.001  | 0.102 |
| 87 | 3  | 0.009  | 0.087 | 0.007  | 0.097 | 0.004  | 0.121 |
| 87 | 4  | 0.016  | 0.102 | 0.013  | 0.114 | 0.008  | 0.138 |
| 87 | 5  | 0.023  | 0.117 | 0.019  | 0.129 | 0.013  | 0.154 |
| 87 | 6  | 0.030  | 0.132 | 0.026  | 0.144 | 0.018  | 0.170 |
| 87 | 7  | 0.038  | 0.146 | 0.033  | 0.159 | 0.024  | 0.186 |
| 87 | 8  | 0.047  | 0.160 | 0.041  | 0.173 | 0.030  | 0.201 |
| 87 | 9  | 0.055  | 0.174 | 0.048  | 0.187 | 0.037  | 0.216 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 87 | 10 | 0.064  | 0.187 | 0.057  | 0.201 | 0.044  | 0.230 |
| 87 | 11 | 0.073  | 0.201 | 0.065  | 0.215 | 0.051  | 0.244 |
| 87 | 12 | 0.082  | 0.214 | 0.073  | 0.229 | 0.059  | 0.258 |
| 87 | 13 | 0.091  | 0.227 | 0.082  | 0.242 | 0.067  | 0.272 |
| 87 | 14 | 0.100  | 0.240 | 0.091  | 0.255 | 0.075  | 0.286 |
| 87 | 15 | 0.109  | 0.253 | 0.100  | 0.268 | 0.083  | 0.299 |
| 87 | 16 | 0.119  | 0.266 | 0.109  | 0.281 | 0.091  | 0.313 |
| 87 | 17 | 0.129  | 0.279 | 0.118  | 0.294 | 0.099  | 0.326 |
| 87 | 18 | 0.138  | 0.291 | 0.127  | 0.307 | 0.108  | 0.339 |
| 87 | 19 | 0.148  | 0.304 | 0.137  | 0.320 | 0.117  | 0.352 |
| 87 | 20 | 0.158  | 0.316 | 0.146  | 0.332 | 0.126  | 0.365 |
| 87 | 21 | 0.168  | 0.329 | 0.156  | 0.345 | 0.134  | 0.378 |
| 87 | 22 | 0.178  | 0.341 | 0.166  | 0.357 | 0.144  | 0.390 |
| 87 | 23 | 0.188  | 0.353 | 0.176  | 0.370 | 0.153  | 0.403 |
| 87 | 24 | 0.198  | 0.365 | 0.185  | 0.382 | 0.162  | 0.415 |
| 87 | 25 | 0.208  | 0.378 | 0.195  | 0.394 | 0.171  | 0.427 |
| 87 | 26 | 0.219  | 0.390 | 0.205  | 0.406 | 0.181  | 0.440 |
| 87 | 27 | 0.229  | 0.402 | 0.215  | 0.419 | 0.190  | 0.452 |
| 87 | 28 | 0.239  | 0.414 | 0.226  | 0.431 | 0.200  | 0.464 |
| 87 | 29 | 0.250  | 0.426 | 0.236  | 0.443 | 0.210  | 0.476 |
| 87 | 30 | 0.260  | 0.437 | 0.246  | 0.454 | 0.220  | 0.488 |
| 87 | 31 | 0.271  | 0.449 | 0.256  | 0.466 | 0.229  | 0.499 |
| 87 | 32 | 0.282  | 0.461 | 0.267  | 0.478 | 0.239  | 0.511 |
| 87 | 33 | 0.292  | 0.473 | 0.277  | 0.490 | 0.249  | 0.523 |
| 87 | 34 | 0.303  | 0.484 | 0.288  | 0.501 | 0.260  | 0.534 |
| 87 | 35 | 0.314  | 0.496 | 0.299  | 0.513 | 0.270  | 0.546 |
| 87 | 36 | 0.325  | 0.508 | 0.309  | 0.524 | 0.280  | 0.557 |
| 87 | 37 | 0.335  | 0.519 | 0.320  | 0.536 | 0.290  | 0.569 |
| 87 | 38 | 0.346  | 0.531 | 0.331  | 0.547 | 0.301  | 0.580 |
| 87 | 39 | 0.357  | 0.542 | 0.341  | 0.559 | 0.311  | 0.591 |
| 87 | 40 | 0.368  | 0.553 | 0.352  | 0.570 | 0.322  | 0.602 |
| 87 | 41 | 0.379  | 0.565 | 0.363  | 0.581 | 0.333  | 0.613 |
| 87 | 42 | 0.390  | 0.576 | 0.374  | 0.592 | 0.343  | 0.624 |
| 87 | 43 | 0.402  | 0.587 | 0.385  | 0.604 | 0.354  | 0.635 |
| 87 | 44 | 0.413  | 0.598 | 0.396  | 0.615 | 0.365  | 0.646 |
| 87 | 45 | 0.424  | 0.610 | 0.408  | 0.626 | 0.376  | 0.657 |
| 87 | 46 | 0.435  | 0.621 | 0.419  | 0.637 | 0.387  | 0.667 |
| 87 | 47 | 0.447  | 0.632 | 0.430  | 0.648 | 0.398  | 0.678 |
| 87 | 48 | 0.458  | 0.643 | 0.441  | 0.659 | 0.409  | 0.689 |
| 87 | 49 | 0.469  | 0.654 | 0.453  | 0.669 | 0.420  | 0.699 |
| 87 | 50 | 0.481  | 0.665 | 0.464  | 0.680 | 0.431  | 0.710 |
| 87 | 51 | 0.492  | 0.675 | 0.476  | 0.691 | 0.443  | 0.720 |
| 87 | 52 | 0.504  | 0.686 | 0.487  | 0.701 | 0.454  | 0.730 |
| 87 | 53 | 0.516  | 0.697 | 0.499  | 0.712 | 0.466  | 0.740 |
| 87 | 54 | 0.527  | 0.708 | 0.510  | 0.723 | 0.477  | 0.751 |
| 87 | 55 | 0.539  | 0.718 | 0.522  | 0.733 | 0.489  | 0.761 |
| 87 | 56 | 0.551  | 0.729 | 0.534  | 0.744 | 0.501  | 0.771 |
| 87 | 57 | 0.563  | 0.740 | 0.546  | 0.754 | 0.512  | 0.780 |
| 87 | 58 | 0.574  | 0.750 | 0.557  | 0.764 | 0.524  | 0.790 |
| 87 | 59 | 0.586  | 0.761 | 0.569  | 0.774 | 0.536  | 0.800 |
| 87 | 60 | 0.598  | 0.771 | 0.581  | 0.785 | 0.548  | 0.810 |
| 87 | 61 | 0.610  | 0.781 | 0.594  | 0.795 | 0.560  | 0.819 |
| 87 | 62 | 0.622  | 0.792 | 0.606  | 0.805 | 0.573  | 0.829 |
| 87 | 63 | 0.635  | 0.802 | 0.618  | 0.815 | 0.585  | 0.838 |
| 87 | 64 | 0.647  | 0.812 | 0.630  | 0.824 | 0.597  | 0.847 |
| 87 | 65 | 0.659  | 0.822 | 0.643  | 0.834 | 0.610  | 0.856 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 87 | 66 | 0.671  | 0.832 | 0.655  | 0.844 | 0.622  | 0.866 |
| 87 | 67 | 0.684  | 0.842 | 0.668  | 0.854 | 0.635  | 0.874 |
| 87 | 68 | 0.696  | 0.852 | 0.680  | 0.863 | 0.648  | 0.883 |
| 87 | 69 | 0.709  | 0.862 | 0.693  | 0.873 | 0.661  | 0.892 |
| 87 | 70 | 0.721  | 0.871 | 0.706  | 0.882 | 0.674  | 0.901 |
| 87 | 71 | 0.734  | 0.881 | 0.719  | 0.891 | 0.687  | 0.909 |
| 87 | 72 | 0.747  | 0.891 | 0.732  | 0.900 | 0.701  | 0.917 |
| 87 | 73 | 0.760  | 0.900 | 0.745  | 0.909 | 0.714  | 0.925 |
| 87 | 74 | 0.773  | 0.909 | 0.758  | 0.918 | 0.728  | 0.933 |
| 87 | 75 | 0.786  | 0.918 | 0.771  | 0.927 | 0.742  | 0.941 |
| 87 | 76 | 0.799  | 0.927 | 0.785  | 0.935 | 0.756  | 0.949 |
| 87 | 77 | 0.813  | 0.936 | 0.799  | 0.943 | 0.770  | 0.956 |
| 87 | 78 | 0.826  | 0.945 | 0.813  | 0.952 | 0.784  | 0.963 |
| 87 | 79 | 0.840  | 0.953 | 0.827  | 0.959 | 0.799  | 0.970 |
| 87 | 80 | 0.854  | 0.962 | 0.841  | 0.967 | 0.814  | 0.976 |
| 87 | 81 | 0.866  | 0.970 | 0.856  | 0.974 | 0.830  | 0.982 |
| 87 | 82 | 0.883  | 0.977 | 0.871  | 0.981 | 0.846  | 0.987 |
| 87 | 83 | 0.898  | 0.984 | 0.886  | 0.987 | 0.862  | 0.992 |
| 87 | 84 | 0.913  | 0.991 | 0.903  | 0.993 | 0.879  | 0.996 |
| 87 | 85 | 0.929  | 0.996 | 0.919  | 0.997 | 0.898  | 0.999 |
| 87 | 86 | 0.947  | 0.999 | 0.936  | 1.000 | 0.918  | 1.000 |
| 87 | 87 | 0.966  | 1.000 | 0.958  | 1.000 | 0.941  | 1.000 |
| 88 | 0  | 0.000  | 0.033 | 0.000  | 0.041 | 0.000  | 0.058 |
| 88 | 1  | 0.001  | 0.053 | 0.000  | 0.062 | 0.000  | 0.081 |
| 88 | 2  | 0.004  | 0.070 | 0.003  | 0.080 | 0.001  | 0.101 |
| 88 | 3  | 0.009  | 0.086 | 0.007  | 0.096 | 0.004  | 0.119 |
| 88 | 4  | 0.016  | 0.101 | 0.013  | 0.112 | 0.008  | 0.136 |
| 88 | 5  | 0.023  | 0.116 | 0.019  | 0.128 | 0.012  | 0.153 |
| 88 | 6  | 0.030  | 0.130 | 0.025  | 0.143 | 0.018  | 0.168 |
| 88 | 7  | 0.038  | 0.144 | 0.033  | 0.157 | 0.024  | 0.184 |
| 88 | 8  | 0.046  | 0.158 | 0.040  | 0.171 | 0.030  | 0.199 |
| 88 | 9  | 0.054  | 0.172 | 0.048  | 0.185 | 0.037  | 0.213 |
| 88 | 10 | 0.063  | 0.185 | 0.056  | 0.199 | 0.044  | 0.228 |
| 88 | 11 | 0.072  | 0.198 | 0.064  | 0.213 | 0.051  | 0.242 |
| 88 | 12 | 0.081  | 0.212 | 0.072  | 0.226 | 0.058  | 0.256 |
| 88 | 13 | 0.090  | 0.225 | 0.081  | 0.239 | 0.066  | 0.269 |
| 88 | 14 | 0.099  | 0.237 | 0.090  | 0.252 | 0.074  | 0.283 |
| 88 | 15 | 0.108  | 0.250 | 0.099  | 0.265 | 0.082  | 0.296 |
| 88 | 16 | 0.118  | 0.263 | 0.108  | 0.278 | 0.090  | 0.310 |
| 88 | 17 | 0.127  | 0.276 | 0.117  | 0.291 | 0.098  | 0.323 |
| 88 | 18 | 0.137  | 0.288 | 0.126  | 0.304 | 0.107  | 0.336 |
| 88 | 19 | 0.146  | 0.301 | 0.135  | 0.316 | 0.115  | 0.348 |
| 88 | 20 | 0.156  | 0.313 | 0.145  | 0.329 | 0.124  | 0.361 |
| 88 | 21 | 0.166  | 0.325 | 0.154  | 0.341 | 0.133  | 0.374 |
| 88 | 22 | 0.176  | 0.337 | 0.164  | 0.354 | 0.142  | 0.386 |
| 88 | 23 | 0.186  | 0.350 | 0.173  | 0.366 | 0.151  | 0.399 |
| 88 | 24 | 0.196  | 0.362 | 0.183  | 0.378 | 0.160  | 0.411 |
| 88 | 25 | 0.206  | 0.374 | 0.193  | 0.390 | 0.169  | 0.423 |
| 88 | 26 | 0.216  | 0.386 | 0.203  | 0.402 | 0.179  | 0.435 |
| 88 | 27 | 0.226  | 0.397 | 0.213  | 0.414 | 0.188  | 0.447 |
| 88 | 28 | 0.236  | 0.409 | 0.223  | 0.426 | 0.198  | 0.459 |
| 88 | 29 | 0.247  | 0.421 | 0.233  | 0.438 | 0.207  | 0.471 |
| 88 | 30 | 0.257  | 0.433 | 0.243  | 0.450 | 0.217  | 0.483 |
| 88 | 31 | 0.266  | 0.445 | 0.253  | 0.461 | 0.227  | 0.494 |
| 88 | 32 | 0.278  | 0.456 | 0.264  | 0.473 | 0.236  | 0.506 |
| 88 | 33 | 0.289  | 0.468 | 0.274  | 0.485 | 0.246  | 0.518 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 88 | 34 | 0.299  | 0.479 | 0.284  | 0.496 | 0.256  | 0.529 |
| 88 | 35 | 0.310  | 0.491 | 0.295  | 0.508 | 0.266  | 0.540 |
| 88 | 36 | 0.321  | 0.502 | 0.305  | 0.519 | 0.277  | 0.552 |
| 88 | 37 | 0.331  | 0.514 | 0.316  | 0.530 | 0.287  | 0.563 |
| 88 | 38 | 0.342  | 0.525 | 0.327  | 0.542 | 0.297  | 0.574 |
| 88 | 39 | 0.353  | 0.536 | 0.337  | 0.553 | 0.307  | 0.585 |
| 88 | 40 | 0.364  | 0.548 | 0.348  | 0.564 | 0.318  | 0.596 |
| 88 | 41 | 0.375  | 0.559 | 0.359  | 0.575 | 0.328  | 0.607 |
| 88 | 42 | 0.386  | 0.570 | 0.370  | 0.586 | 0.339  | 0.618 |
| 88 | 43 | 0.397  | 0.581 | 0.381  | 0.598 | 0.350  | 0.629 |
| 88 | 44 | 0.408  | 0.592 | 0.391  | 0.609 | 0.360  | 0.640 |
| 88 | 45 | 0.419  | 0.603 | 0.402  | 0.619 | 0.371  | 0.650 |
| 88 | 46 | 0.430  | 0.614 | 0.414  | 0.630 | 0.382  | 0.661 |
| 88 | 47 | 0.441  | 0.625 | 0.425  | 0.641 | 0.393  | 0.672 |
| 88 | 48 | 0.452  | 0.636 | 0.436  | 0.652 | 0.404  | 0.682 |
| 88 | 49 | 0.464  | 0.647 | 0.447  | 0.663 | 0.415  | 0.693 |
| 88 | 50 | 0.475  | 0.658 | 0.458  | 0.673 | 0.426  | 0.703 |
| 88 | 51 | 0.486  | 0.669 | 0.470  | 0.684 | 0.437  | 0.713 |
| 88 | 52 | 0.498  | 0.679 | 0.481  | 0.695 | 0.448  | 0.723 |
| 88 | 53 | 0.509  | 0.690 | 0.492  | 0.705 | 0.460  | 0.734 |
| 88 | 54 | 0.521  | 0.701 | 0.504  | 0.716 | 0.471  | 0.744 |
| 88 | 55 | 0.532  | 0.711 | 0.515  | 0.726 | 0.482  | 0.754 |
| 88 | 56 | 0.544  | 0.722 | 0.527  | 0.736 | 0.494  | 0.764 |
| 88 | 57 | 0.555  | 0.732 | 0.539  | 0.747 | 0.506  | 0.773 |
| 88 | 58 | 0.567  | 0.743 | 0.550  | 0.757 | 0.517  | 0.783 |
| 88 | 59 | 0.579  | 0.753 | 0.562  | 0.767 | 0.529  | 0.793 |
| 88 | 60 | 0.591  | 0.764 | 0.574  | 0.777 | 0.541  | 0.802 |
| 88 | 61 | 0.603  | 0.774 | 0.586  | 0.787 | 0.553  | 0.812 |
| 88 | 62 | 0.614  | 0.784 | 0.598  | 0.797 | 0.565  | 0.821 |
| 88 | 63 | 0.626  | 0.794 | 0.610  | 0.807 | 0.577  | 0.831 |
| 88 | 64 | 0.638  | 0.804 | 0.622  | 0.817 | 0.589  | 0.840 |
| 88 | 65 | 0.650  | 0.814 | 0.634  | 0.827 | 0.601  | 0.849 |
| 88 | 66 | 0.663  | 0.824 | 0.646  | 0.836 | 0.614  | 0.858 |
| 88 | 67 | 0.675  | 0.834 | 0.659  | 0.846 | 0.626  | 0.867 |
| 88 | 68 | 0.687  | 0.844 | 0.671  | 0.855 | 0.639  | 0.876 |
| 88 | 69 | 0.699  | 0.854 | 0.684  | 0.865 | 0.652  | 0.885 |
| 88 | 70 | 0.712  | 0.863 | 0.696  | 0.874 | 0.664  | 0.893 |
| 88 | 71 | 0.724  | 0.873 | 0.709  | 0.883 | 0.677  | 0.902 |
| 88 | 72 | 0.737  | 0.882 | 0.722  | 0.892 | 0.690  | 0.910 |
| 88 | 73 | 0.750  | 0.892 | 0.734  | 0.901 | 0.704  | 0.918 |
| 88 | 74 | 0.763  | 0.901 | 0.748  | 0.910 | 0.717  | 0.926 |
| 88 | 75 | 0.775  | 0.910 | 0.761  | 0.919 | 0.731  | 0.934 |
| 88 | 76 | 0.788  | 0.919 | 0.774  | 0.928 | 0.744  | 0.942 |
| 88 | 77 | 0.802  | 0.928 | 0.787  | 0.936 | 0.758  | 0.949 |
| 88 | 78 | 0.815  | 0.937 | 0.801  | 0.944 | 0.772  | 0.956 |
| 88 | 79 | 0.828  | 0.946 | 0.815  | 0.952 | 0.787  | 0.963 |
| 88 | 80 | 0.842  | 0.954 | 0.829  | 0.960 | 0.801  | 0.970 |
| 88 | 81 | 0.856  | 0.962 | 0.843  | 0.967 | 0.816  | 0.976 |
| 88 | 82 | 0.870  | 0.970 | 0.857  | 0.975 | 0.832  | 0.982 |
| 88 | 83 | 0.884  | 0.977 | 0.872  | 0.981 | 0.847  | 0.988 |
| 88 | 84 | 0.899  | 0.984 | 0.888  | 0.987 | 0.864  | 0.992 |
| 88 | 85 | 0.914  | 0.991 | 0.904  | 0.993 | 0.881  | 0.996 |
| 88 | 86 | 0.930  | 0.996 | 0.920  | 0.997 | 0.899  | 0.999 |
| 88 | 87 | 0.947  | 0.999 | 0.938  | 1.000 | 0.919  | 1.000 |
| 88 | 88 | 0.967  | 1.000 | 0.959  | 1.000 | 0.942  | 1.000 |
| 89 | 0  | 0.000  | 0.033 | 0.000  | 0.041 | 0.000  | 0.058 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 89 | 1  | 0.001  | 0.052 | 0.000  | 0.061 | 0.000  | 0.081 |
| 89 | 2  | 0.004  | 0.069 | 0.003  | 0.079 | 0.001  | 0.100 |
| 89 | 3  | 0.009  | 0.085 | 0.007  | 0.095 | 0.004  | 0.118 |
| 89 | 4  | 0.015  | 0.100 | 0.012  | 0.111 | 0.008  | 0.135 |
| 89 | 5  | 0.022  | 0.114 | 0.018  | 0.126 | 0.012  | 0.151 |
| 89 | 6  | 0.030  | 0.129 | 0.025  | 0.141 | 0.018  | 0.167 |
| 89 | 7  | 0.037  | 0.143 | 0.032  | 0.155 | 0.023  | 0.182 |
| 89 | 8  | 0.046  | 0.156 | 0.040  | 0.169 | 0.030  | 0.197 |
| 89 | 9  | 0.054  | 0.170 | 0.047  | 0.183 | 0.036  | 0.211 |
| 89 | 10 | 0.062  | 0.183 | 0.055  | 0.197 | 0.043  | 0.225 |
| 89 | 11 | 0.071  | 0.196 | 0.063  | 0.210 | 0.050  | 0.239 |
| 89 | 12 | 0.080  | 0.209 | 0.072  | 0.224 | 0.058  | 0.253 |
| 89 | 13 | 0.089  | 0.222 | 0.080  | 0.237 | 0.065  | 0.267 |
| 89 | 14 | 0.098  | 0.235 | 0.089  | 0.250 | 0.073  | 0.280 |
| 89 | 15 | 0.107  | 0.248 | 0.098  | 0.263 | 0.081  | 0.293 |
| 89 | 16 | 0.116  | 0.260 | 0.106  | 0.275 | 0.089  | 0.306 |
| 89 | 17 | 0.126  | 0.273 | 0.115  | 0.288 | 0.097  | 0.319 |
| 89 | 18 | 0.135  | 0.285 | 0.124  | 0.301 | 0.105  | 0.332 |
| 89 | 19 | 0.145  | 0.297 | 0.134  | 0.313 | 0.114  | 0.345 |
| 89 | 20 | 0.154  | 0.310 | 0.143  | 0.326 | 0.123  | 0.357 |
| 89 | 21 | 0.164  | 0.322 | 0.152  | 0.338 | 0.131  | 0.370 |
| 89 | 22 | 0.174  | 0.334 | 0.162  | 0.350 | 0.140  | 0.382 |
| 89 | 23 | 0.184  | 0.346 | 0.171  | 0.362 | 0.149  | 0.394 |
| 89 | 24 | 0.193  | 0.358 | 0.181  | 0.374 | 0.158  | 0.407 |
| 89 | 25 | 0.203  | 0.370 | 0.191  | 0.386 | 0.167  | 0.419 |
| 89 | 26 | 0.213  | 0.382 | 0.201  | 0.398 | 0.176  | 0.431 |
| 89 | 27 | 0.224  | 0.393 | 0.210  | 0.410 | 0.186  | 0.443 |
| 89 | 28 | 0.234  | 0.405 | 0.220  | 0.422 | 0.195  | 0.454 |
| 89 | 29 | 0.244  | 0.417 | 0.230  | 0.433 | 0.205  | 0.466 |
| 89 | 30 | 0.254  | 0.428 | 0.240  | 0.445 | 0.214  | 0.478 |
| 89 | 31 | 0.264  | 0.440 | 0.250  | 0.457 | 0.224  | 0.489 |
| 89 | 32 | 0.275  | 0.451 | 0.261  | 0.468 | 0.234  | 0.501 |
| 89 | 33 | 0.285  | 0.463 | 0.271  | 0.480 | 0.243  | 0.512 |
| 89 | 34 | 0.296  | 0.474 | 0.281  | 0.491 | 0.253  | 0.524 |
| 89 | 35 | 0.306  | 0.486 | 0.291  | 0.503 | 0.263  | 0.535 |
| 89 | 36 | 0.317  | 0.497 | 0.302  | 0.514 | 0.273  | 0.546 |
| 89 | 37 | 0.327  | 0.508 | 0.312  | 0.525 | 0.283  | 0.557 |
| 89 | 38 | 0.338  | 0.520 | 0.323  | 0.536 | 0.293  | 0.569 |
| 89 | 39 | 0.349  | 0.531 | 0.333  | 0.547 | 0.304  | 0.580 |
| 89 | 40 | 0.359  | 0.542 | 0.344  | 0.559 | 0.314  | 0.591 |
| 89 | 41 | 0.370  | 0.553 | 0.354  | 0.570 | 0.324  | 0.601 |
| 89 | 42 | 0.381  | 0.564 | 0.365  | 0.581 | 0.335  | 0.612 |
| 89 | 43 | 0.392  | 0.575 | 0.376  | 0.592 | 0.345  | 0.623 |
| 89 | 44 | 0.403  | 0.586 | 0.387  | 0.602 | 0.356  | 0.634 |
| 89 | 45 | 0.414  | 0.597 | 0.398  | 0.613 | 0.366  | 0.644 |
| 89 | 46 | 0.425  | 0.608 | 0.408  | 0.624 | 0.377  | 0.655 |
| 89 | 47 | 0.436  | 0.619 | 0.419  | 0.635 | 0.388  | 0.665 |
| 89 | 48 | 0.447  | 0.630 | 0.430  | 0.646 | 0.399  | 0.676 |
| 89 | 49 | 0.458  | 0.641 | 0.441  | 0.656 | 0.409  | 0.686 |
| 89 | 50 | 0.469  | 0.651 | 0.453  | 0.667 | 0.420  | 0.696 |
| 89 | 51 | 0.480  | 0.662 | 0.464  | 0.677 | 0.431  | 0.707 |
| 89 | 52 | 0.492  | 0.673 | 0.475  | 0.688 | 0.443  | 0.717 |
| 89 | 53 | 0.503  | 0.683 | 0.486  | 0.698 | 0.454  | 0.727 |
| 89 | 54 | 0.514  | 0.694 | 0.497  | 0.709 | 0.465  | 0.737 |
| 89 | 55 | 0.526  | 0.704 | 0.509  | 0.719 | 0.476  | 0.747 |
| 89 | 56 | 0.537  | 0.715 | 0.520  | 0.729 | 0.488  | 0.757 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 89 | 57 | 0.549  | 0.725 | 0.532  | 0.739 | 0.499  | 0.766 |
| 89 | 58 | 0.560  | 0.736 | 0.543  | 0.750 | 0.511  | 0.776 |
| 89 | 59 | 0.572  | 0.746 | 0.555  | 0.760 | 0.522  | 0.786 |
| 89 | 60 | 0.583  | 0.756 | 0.567  | 0.770 | 0.534  | 0.795 |
| 89 | 61 | 0.595  | 0.766 | 0.578  | 0.780 | 0.546  | 0.805 |
| 89 | 62 | 0.607  | 0.776 | 0.590  | 0.790 | 0.557  | 0.814 |
| 89 | 63 | 0.618  | 0.787 | 0.602  | 0.799 | 0.569  | 0.824 |
| 89 | 64 | 0.630  | 0.797 | 0.614  | 0.809 | 0.581  | 0.833 |
| 89 | 65 | 0.642  | 0.807 | 0.626  | 0.819 | 0.593  | 0.842 |
| 89 | 66 | 0.654  | 0.816 | 0.638  | 0.829 | 0.606  | 0.851 |
| 89 | 67 | 0.666  | 0.826 | 0.650  | 0.838 | 0.618  | 0.860 |
| 89 | 68 | 0.678  | 0.836 | 0.662  | 0.848 | 0.630  | 0.869 |
| 89 | 69 | 0.690  | 0.846 | 0.674  | 0.857 | 0.643  | 0.877 |
| 89 | 70 | 0.703  | 0.855 | 0.687  | 0.866 | 0.655  | 0.886 |
| 89 | 71 | 0.715  | 0.865 | 0.699  | 0.876 | 0.668  | 0.895 |
| 89 | 72 | 0.727  | 0.874 | 0.712  | 0.885 | 0.681  | 0.903 |
| 89 | 73 | 0.740  | 0.884 | 0.725  | 0.894 | 0.694  | 0.911 |
| 89 | 74 | 0.752  | 0.893 | 0.737  | 0.902 | 0.707  | 0.919 |
| 89 | 75 | 0.765  | 0.902 | 0.750  | 0.911 | 0.720  | 0.927 |
| 89 | 76 | 0.778  | 0.911 | 0.763  | 0.920 | 0.733  | 0.935 |
| 89 | 77 | 0.791  | 0.920 | 0.776  | 0.928 | 0.747  | 0.942 |
| 89 | 78 | 0.804  | 0.929 | 0.790  | 0.937 | 0.761  | 0.950 |
| 89 | 79 | 0.817  | 0.938 | 0.803  | 0.945 | 0.775  | 0.957 |
| 89 | 80 | 0.830  | 0.946 | 0.817  | 0.953 | 0.789  | 0.964 |
| 89 | 81 | 0.844  | 0.954 | 0.831  | 0.960 | 0.803  | 0.970 |
| 89 | 82 | 0.857  | 0.963 | 0.845  | 0.968 | 0.818  | 0.977 |
| 89 | 83 | 0.871  | 0.970 | 0.859  | 0.975 | 0.833  | 0.982 |
| 89 | 84 | 0.886  | 0.978 | 0.874  | 0.982 | 0.849  | 0.988 |
| 89 | 85 | 0.900  | 0.985 | 0.889  | 0.988 | 0.865  | 0.992 |
| 89 | 86 | 0.915  | 0.991 | 0.905  | 0.993 | 0.882  | 0.996 |
| 89 | 87 | 0.931  | 0.996 | 0.921  | 0.997 | 0.900  | 0.999 |
| 89 | 88 | 0.948  | 0.999 | 0.939  | 1.000 | 0.919  | 1.000 |
| 89 | 89 | 0.967  | 1.000 | 0.959  | 1.000 | 0.942  | 1.000 |
| 90 | 0  | 0.000  | 0.033 | 0.000  | 0.040 | 0.000  | 0.057 |
| 90 | 1  | 0.001  | 0.052 | 0.000  | 0.060 | 0.000  | 0.080 |
| 90 | 2  | 0.004  | 0.068 | 0.003  | 0.078 | 0.001  | 0.099 |
| 90 | 3  | 0.009  | 0.084 | 0.007  | 0.094 | 0.004  | 0.117 |
| 90 | 4  | 0.015  | 0.099 | 0.012  | 0.110 | 0.008  | 0.133 |
| 90 | 5  | 0.022  | 0.113 | 0.018  | 0.125 | 0.012  | 0.149 |
| 90 | 6  | 0.029  | 0.127 | 0.025  | 0.139 | 0.017  | 0.165 |
| 90 | 7  | 0.037  | 0.141 | 0.032  | 0.154 | 0.023  | 0.180 |
| 90 | 8  | 0.045  | 0.155 | 0.039  | 0.168 | 0.029  | 0.194 |
| 90 | 9  | 0.053  | 0.168 | 0.047  | 0.181 | 0.036  | 0.209 |
| 90 | 10 | 0.062  | 0.181 | 0.055  | 0.195 | 0.043  | 0.223 |
| 90 | 11 | 0.070  | 0.194 | 0.063  | 0.208 | 0.050  | 0.237 |
| 90 | 12 | 0.079  | 0.207 | 0.071  | 0.221 | 0.057  | 0.250 |
| 90 | 13 | 0.088  | 0.220 | 0.079  | 0.234 | 0.064  | 0.264 |
| 90 | 14 | 0.097  | 0.232 | 0.088  | 0.247 | 0.072  | 0.277 |
| 90 | 15 | 0.106  | 0.245 | 0.096  | 0.260 | 0.080  | 0.290 |
| 90 | 16 | 0.115  | 0.257 | 0.105  | 0.273 | 0.088  | 0.303 |
| 90 | 17 | 0.124  | 0.270 | 0.114  | 0.285 | 0.096  | 0.316 |
| 90 | 18 | 0.133  | 0.282 | 0.123  | 0.298 | 0.104  | 0.329 |
| 90 | 19 | 0.143  | 0.294 | 0.132  | 0.310 | 0.113  | 0.341 |
| 90 | 20 | 0.152  | 0.306 | 0.141  | 0.322 | 0.121  | 0.354 |
| 90 | 21 | 0.162  | 0.318 | 0.151  | 0.334 | 0.130  | 0.366 |
| 90 | 22 | 0.172  | 0.330 | 0.160  | 0.346 | 0.138  | 0.378 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 90 | 23 | 0.181  | 0.342 | 0.169  | 0.358 | 0.147  | 0.391 |
| 90 | 24 | 0.191  | 0.354 | 0.179  | 0.370 | 0.156  | 0.403 |
| 90 | 25 | 0.201  | 0.366 | 0.188  | 0.382 | 0.165  | 0.415 |
| 90 | 26 | 0.211  | 0.378 | 0.198  | 0.394 | 0.174  | 0.426 |
| 90 | 27 | 0.221  | 0.389 | 0.208  | 0.406 | 0.184  | 0.438 |
| 90 | 28 | 0.231  | 0.401 | 0.218  | 0.417 | 0.193  | 0.450 |
| 90 | 29 | 0.241  | 0.412 | 0.228  | 0.429 | 0.202  | 0.462 |
| 90 | 30 | 0.251  | 0.424 | 0.237  | 0.441 | 0.212  | 0.473 |
| 90 | 31 | 0.261  | 0.435 | 0.247  | 0.452 | 0.221  | 0.485 |
| 90 | 32 | 0.272  | 0.447 | 0.257  | 0.463 | 0.231  | 0.496 |
| 90 | 33 | 0.282  | 0.458 | 0.268  | 0.475 | 0.240  | 0.507 |
| 90 | 34 | 0.292  | 0.470 | 0.278  | 0.486 | 0.250  | 0.519 |
| 90 | 35 | 0.303  | 0.481 | 0.288  | 0.497 | 0.260  | 0.530 |
| 90 | 36 | 0.313  | 0.492 | 0.298  | 0.509 | 0.270  | 0.541 |
| 90 | 37 | 0.323  | 0.503 | 0.308  | 0.520 | 0.280  | 0.552 |
| 90 | 38 | 0.334  | 0.514 | 0.319  | 0.531 | 0.290  | 0.563 |
| 90 | 39 | 0.345  | 0.525 | 0.329  | 0.542 | 0.300  | 0.574 |
| 90 | 40 | 0.355  | 0.537 | 0.340  | 0.553 | 0.310  | 0.585 |
| 90 | 41 | 0.366  | 0.548 | 0.350  | 0.564 | 0.320  | 0.596 |
| 90 | 42 | 0.376  | 0.559 | 0.361  | 0.575 | 0.331  | 0.606 |
| 90 | 43 | 0.387  | 0.569 | 0.371  | 0.586 | 0.341  | 0.617 |
| 90 | 44 | 0.398  | 0.580 | 0.382  | 0.597 | 0.351  | 0.628 |
| 90 | 45 | 0.409  | 0.591 | 0.393  | 0.607 | 0.362  | 0.638 |
| 90 | 46 | 0.420  | 0.602 | 0.403  | 0.618 | 0.372  | 0.649 |
| 90 | 47 | 0.431  | 0.613 | 0.414  | 0.629 | 0.383  | 0.659 |
| 90 | 48 | 0.441  | 0.624 | 0.425  | 0.639 | 0.394  | 0.669 |
| 90 | 49 | 0.452  | 0.634 | 0.436  | 0.650 | 0.404  | 0.680 |
| 90 | 50 | 0.463  | 0.645 | 0.447  | 0.660 | 0.415  | 0.690 |
| 90 | 51 | 0.475  | 0.655 | 0.458  | 0.671 | 0.426  | 0.700 |
| 90 | 52 | 0.486  | 0.666 | 0.469  | 0.681 | 0.437  | 0.710 |
| 90 | 53 | 0.497  | 0.677 | 0.480  | 0.692 | 0.448  | 0.720 |
| 90 | 54 | 0.508  | 0.687 | 0.491  | 0.702 | 0.459  | 0.730 |
| 90 | 55 | 0.519  | 0.697 | 0.503  | 0.712 | 0.470  | 0.740 |
| 90 | 56 | 0.530  | 0.708 | 0.514  | 0.722 | 0.481  | 0.750 |
| 90 | 57 | 0.542  | 0.718 | 0.525  | 0.732 | 0.493  | 0.760 |
| 90 | 58 | 0.553  | 0.728 | 0.537  | 0.743 | 0.504  | 0.769 |
| 90 | 59 | 0.565  | 0.739 | 0.548  | 0.753 | 0.515  | 0.779 |
| 90 | 60 | 0.576  | 0.749 | 0.559  | 0.763 | 0.527  | 0.788 |
| 90 | 61 | 0.588  | 0.759 | 0.571  | 0.772 | 0.538  | 0.798 |
| 90 | 62 | 0.599  | 0.769 | 0.583  | 0.782 | 0.550  | 0.807 |
| 90 | 63 | 0.611  | 0.779 | 0.594  | 0.792 | 0.562  | 0.816 |
| 90 | 64 | 0.622  | 0.789 | 0.606  | 0.802 | 0.574  | 0.826 |
| 90 | 65 | 0.634  | 0.799 | 0.618  | 0.812 | 0.585  | 0.835 |
| 90 | 66 | 0.646  | 0.809 | 0.630  | 0.821 | 0.597  | 0.844 |
| 90 | 67 | 0.658  | 0.819 | 0.642  | 0.831 | 0.609  | 0.853 |
| 90 | 68 | 0.670  | 0.828 | 0.654  | 0.840 | 0.622  | 0.862 |
| 90 | 69 | 0.682  | 0.838 | 0.666  | 0.849 | 0.634  | 0.870 |
| 90 | 70 | 0.694  | 0.848 | 0.678  | 0.859 | 0.646  | 0.879 |
| 90 | 71 | 0.706  | 0.857 | 0.690  | 0.868 | 0.659  | 0.887 |
| 90 | 72 | 0.718  | 0.867 | 0.702  | 0.877 | 0.671  | 0.896 |
| 90 | 73 | 0.730  | 0.876 | 0.715  | 0.886 | 0.684  | 0.904 |
| 90 | 74 | 0.743  | 0.885 | 0.727  | 0.895 | 0.697  | 0.912 |
| 90 | 75 | 0.755  | 0.894 | 0.740  | 0.904 | 0.710  | 0.920 |
| 90 | 76 | 0.768  | 0.903 | 0.753  | 0.912 | 0.723  | 0.928 |
| 90 | 77 | 0.780  | 0.912 | 0.766  | 0.921 | 0.736  | 0.936 |
| 90 | 78 | 0.793  | 0.921 | 0.779  | 0.929 | 0.750  | 0.943 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 90 | 79 | 0.806  | 0.930 | 0.792  | 0.937 | 0.763  | 0.950 |
| 90 | 80 | 0.819  | 0.936 | 0.805  | 0.945 | 0.777  | 0.957 |
| 90 | 81 | 0.832  | 0.947 | 0.819  | 0.953 | 0.791  | 0.964 |
| 90 | 82 | 0.845  | 0.955 | 0.832  | 0.961 | 0.806  | 0.971 |
| 90 | 83 | 0.859  | 0.963 | 0.846  | 0.968 | 0.820  | 0.977 |
| 90 | 84 | 0.873  | 0.971 | 0.861  | 0.975 | 0.835  | 0.983 |
| 90 | 85 | 0.887  | 0.978 | 0.875  | 0.982 | 0.851  | 0.988 |
| 90 | 86 | 0.901  | 0.985 | 0.890  | 0.988 | 0.867  | 0.992 |
| 90 | 87 | 0.916  | 0.991 | 0.906  | 0.993 | 0.883  | 0.996 |
| 90 | 88 | 0.932  | 0.996 | 0.922  | 0.997 | 0.901  | 0.999 |
| 90 | 89 | 0.948  | 0.999 | 0.940  | 1.000 | 0.920  | 1.000 |
| 90 | 90 | 0.967  | 1.000 | 0.960  | 1.000 | 0.943  | 1.000 |
| 91 | 0  | 0.000  | 0.032 | 0.000  | 0.040 | 0.000  | 0.057 |
| 91 | 1  | 0.001  | 0.051 | 0.000  | 0.060 | 0.000  | 0.079 |
| 91 | 2  | 0.004  | 0.068 | 0.003  | 0.077 | 0.001  | 0.098 |
| 91 | 3  | 0.009  | 0.083 | 0.007  | 0.093 | 0.004  | 0.115 |
| 91 | 4  | 0.015  | 0.098 | 0.012  | 0.109 | 0.007  | 0.132 |
| 91 | 5  | 0.022  | 0.112 | 0.018  | 0.124 | 0.012  | 0.148 |
| 91 | 6  | 0.029  | 0.126 | 0.025  | 0.138 | 0.017  | 0.163 |
| 91 | 7  | 0.037  | 0.140 | 0.031  | 0.152 | 0.023  | 0.178 |
| 91 | 8  | 0.044  | 0.153 | 0.039  | 0.166 | 0.029  | 0.192 |
| 91 | 9  | 0.053  | 0.166 | 0.046  | 0.179 | 0.035  | 0.207 |
| 91 | 10 | 0.061  | 0.179 | 0.054  | 0.193 | 0.042  | 0.221 |
| 91 | 11 | 0.069  | 0.192 | 0.062  | 0.206 | 0.049  | 0.234 |
| 91 | 12 | 0.078  | 0.205 | 0.070  | 0.219 | 0.056  | 0.248 |
| 91 | 13 | 0.087  | 0.218 | 0.078  | 0.232 | 0.064  | 0.261 |
| 91 | 14 | 0.095  | 0.230 | 0.087  | 0.245 | 0.071  | 0.274 |
| 91 | 15 | 0.104  | 0.242 | 0.095  | 0.257 | 0.079  | 0.287 |
| 91 | 16 | 0.114  | 0.255 | 0.104  | 0.270 | 0.087  | 0.300 |
| 91 | 17 | 0.123  | 0.267 | 0.113  | 0.282 | 0.095  | 0.313 |
| 91 | 18 | 0.132  | 0.279 | 0.122  | 0.294 | 0.103  | 0.325 |
| 91 | 19 | 0.141  | 0.291 | 0.131  | 0.307 | 0.111  | 0.338 |
| 91 | 20 | 0.151  | 0.303 | 0.140  | 0.319 | 0.120  | 0.350 |
| 91 | 21 | 0.160  | 0.315 | 0.149  | 0.331 | 0.128  | 0.362 |
| 91 | 22 | 0.170  | 0.327 | 0.158  | 0.343 | 0.137  | 0.375 |
| 91 | 23 | 0.179  | 0.339 | 0.167  | 0.355 | 0.146  | 0.387 |
| 91 | 24 | 0.189  | 0.350 | 0.177  | 0.367 | 0.154  | 0.399 |
| 91 | 25 | 0.199  | 0.362 | 0.186  | 0.378 | 0.163  | 0.410 |
| 91 | 26 | 0.209  | 0.374 | 0.196  | 0.390 | 0.172  | 0.422 |
| 91 | 27 | 0.218  | 0.385 | 0.205  | 0.402 | 0.181  | 0.434 |
| 91 | 28 | 0.228  | 0.397 | 0.215  | 0.413 | 0.191  | 0.446 |
| 91 | 29 | 0.238  | 0.408 | 0.225  | 0.425 | 0.200  | 0.457 |
| 91 | 30 | 0.248  | 0.420 | 0.235  | 0.436 | 0.209  | 0.469 |
| 91 | 31 | 0.258  | 0.431 | 0.245  | 0.448 | 0.219  | 0.480 |
| 91 | 32 | 0.268  | 0.442 | 0.254  | 0.459 | 0.228  | 0.491 |
| 91 | 33 | 0.279  | 0.454 | 0.264  | 0.470 | 0.238  | 0.502 |
| 91 | 34 | 0.289  | 0.465 | 0.274  | 0.481 | 0.247  | 0.514 |
| 91 | 35 | 0.299  | 0.476 | 0.284  | 0.492 | 0.257  | 0.525 |
| 91 | 36 | 0.309  | 0.487 | 0.295  | 0.504 | 0.267  | 0.536 |
| 91 | 37 | 0.320  | 0.498 | 0.305  | 0.515 | 0.276  | 0.547 |
| 91 | 38 | 0.330  | 0.509 | 0.315  | 0.526 | 0.286  | 0.558 |
| 91 | 39 | 0.341  | 0.520 | 0.325  | 0.537 | 0.296  | 0.569 |
| 91 | 40 | 0.351  | 0.531 | 0.336  | 0.548 | 0.306  | 0.579 |
| 91 | 41 | 0.361  | 0.542 | 0.346  | 0.558 | 0.316  | 0.590 |
| 91 | 42 | 0.372  | 0.553 | 0.356  | 0.569 | 0.327  | 0.601 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 91 | 43 | 0.383  | 0.564 | 0.367  | 0.580 | 0.337  | 0.611 |
| 91 | 44 | 0.393  | 0.575 | 0.377  | 0.591 | 0.347  | 0.622 |
| 91 | 45 | 0.404  | 0.585 | 0.388  | 0.601 | 0.357  | 0.632 |
| 91 | 46 | 0.415  | 0.596 | 0.399  | 0.612 | 0.368  | 0.643 |
| 91 | 47 | 0.425  | 0.607 | 0.409  | 0.623 | 0.378  | 0.653 |
| 91 | 48 | 0.436  | 0.617 | 0.420  | 0.633 | 0.389  | 0.663 |
| 91 | 49 | 0.447  | 0.628 | 0.431  | 0.644 | 0.399  | 0.673 |
| 91 | 50 | 0.458  | 0.639 | 0.442  | 0.654 | 0.410  | 0.684 |
| 91 | 51 | 0.469  | 0.649 | 0.452  | 0.664 | 0.421  | 0.694 |
| 91 | 52 | 0.480  | 0.659 | 0.463  | 0.675 | 0.431  | 0.704 |
| 91 | 53 | 0.491  | 0.670 | 0.474  | 0.685 | 0.442  | 0.714 |
| 91 | 54 | 0.502  | 0.680 | 0.485  | 0.695 | 0.453  | 0.724 |
| 91 | 55 | 0.513  | 0.691 | 0.496  | 0.705 | 0.464  | 0.733 |
| 91 | 56 | 0.524  | 0.701 | 0.508  | 0.716 | 0.475  | 0.743 |
| 91 | 57 | 0.535  | 0.711 | 0.519  | 0.726 | 0.486  | 0.753 |
| 91 | 58 | 0.546  | 0.721 | 0.530  | 0.736 | 0.498  | 0.762 |
| 91 | 59 | 0.558  | 0.732 | 0.541  | 0.746 | 0.509  | 0.772 |
| 91 | 60 | 0.569  | 0.742 | 0.552  | 0.755 | 0.520  | 0.781 |
| 91 | 61 | 0.580  | 0.752 | 0.564  | 0.765 | 0.531  | 0.791 |
| 91 | 62 | 0.592  | 0.762 | 0.575  | 0.775 | 0.543  | 0.800 |
| 91 | 63 | 0.603  | 0.772 | 0.587  | 0.785 | 0.554  | 0.809 |
| 91 | 64 | 0.615  | 0.782 | 0.598  | 0.795 | 0.566  | 0.819 |
| 91 | 65 | 0.626  | 0.791 | 0.610  | 0.804 | 0.578  | 0.828 |
| 91 | 66 | 0.638  | 0.801 | 0.622  | 0.814 | 0.590  | 0.837 |
| 91 | 67 | 0.650  | 0.811 | 0.633  | 0.823 | 0.601  | 0.846 |
| 91 | 68 | 0.661  | 0.821 | 0.645  | 0.833 | 0.613  | 0.854 |
| 91 | 69 | 0.673  | 0.830 | 0.657  | 0.842 | 0.625  | 0.863 |
| 91 | 70 | 0.685  | 0.840 | 0.669  | 0.851 | 0.638  | 0.872 |
| 91 | 71 | 0.697  | 0.849 | 0.681  | 0.860 | 0.650  | 0.880 |
| 91 | 72 | 0.709  | 0.859 | 0.693  | 0.869 | 0.662  | 0.889 |
| 91 | 73 | 0.721  | 0.868 | 0.706  | 0.878 | 0.675  | 0.897 |
| 91 | 74 | 0.733  | 0.877 | 0.718  | 0.887 | 0.687  | 0.905 |
| 91 | 75 | 0.745  | 0.886 | 0.730  | 0.896 | 0.700  | 0.913 |
| 91 | 76 | 0.758  | 0.896 | 0.743  | 0.905 | 0.713  | 0.921 |
| 91 | 77 | 0.770  | 0.905 | 0.755  | 0.913 | 0.726  | 0.929 |
| 91 | 78 | 0.782  | 0.913 | 0.768  | 0.922 | 0.739  | 0.936 |
| 91 | 79 | 0.795  | 0.922 | 0.781  | 0.930 | 0.752  | 0.944 |
| 91 | 80 | 0.808  | 0.931 | 0.794  | 0.938 | 0.766  | 0.951 |
| 91 | 81 | 0.821  | 0.939 | 0.807  | 0.946 | 0.779  | 0.958 |
| 91 | 82 | 0.834  | 0.947 | 0.821  | 0.954 | 0.793  | 0.965 |
| 91 | 83 | 0.847  | 0.956 | 0.834  | 0.961 | 0.808  | 0.971 |
| 91 | 84 | 0.860  | 0.963 | 0.848  | 0.969 | 0.822  | 0.977 |
| 91 | 85 | 0.874  | 0.971 | 0.862  | 0.975 | 0.837  | 0.983 |
| 91 | 86 | 0.888  | 0.978 | 0.876  | 0.982 | 0.852  | 0.988 |
| 91 | 87 | 0.902  | 0.985 | 0.891  | 0.988 | 0.868  | 0.993 |
| 91 | 88 | 0.917  | 0.991 | 0.907  | 0.993 | 0.885  | 0.996 |
| 91 | 89 | 0.932  | 0.996 | 0.923  | 0.997 | 0.902  | 0.999 |
| 91 | 90 | 0.949  | 0.999 | 0.940  | 1.000 | 0.921  | 1.000 |
| 91 | 91 | 0.968  | 1.000 | 0.960  | 1.000 | 0.943  | 1.000 |
| 92 | 0  | 0.000  | 0.032 | 0.000  | 0.039 | 0.000  | 0.056 |
| 92 | 1  | 0.001  | 0.051 | 0.000  | 0.059 | 0.000  | 0.078 |
| 92 | 2  | 0.004  | 0.067 | 0.003  | 0.076 | 0.001  | 0.097 |
| 92 | 3  | 0.009  | 0.082 | 0.007  | 0.092 | 0.004  | 0.114 |
| 92 | 4  | 0.015  | 0.097 | 0.012  | 0.108 | 0.007  | 0.131 |
| 92 | 5  | 0.022  | 0.111 | 0.018  | 0.122 | 0.012  | 0.146 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 92 | 6  | 0.029  | 0.125 | 0.024  | 0.137 | 0.017  | 0.161 |
| 92 | 7  | 0.036  | 0.138 | 0.031  | 0.151 | 0.023  | 0.176 |
| 92 | 8  | 0.044  | 0.151 | 0.038  | 0.164 | 0.029  | 0.191 |
| 92 | 9  | 0.052  | 0.164 | 0.046  | 0.178 | 0.035  | 0.205 |
| 92 | 10 | 0.060  | 0.177 | 0.053  | 0.191 | 0.042  | 0.218 |
| 92 | 11 | 0.069  | 0.190 | 0.061  | 0.204 | 0.049  | 0.232 |
| 92 | 12 | 0.077  | 0.203 | 0.069  | 0.217 | 0.056  | 0.245 |
| 92 | 13 | 0.086  | 0.215 | 0.077  | 0.229 | 0.063  | 0.259 |
| 92 | 14 | 0.094  | 0.228 | 0.086  | 0.242 | 0.070  | 0.272 |
| 92 | 15 | 0.103  | 0.240 | 0.094  | 0.255 | 0.078  | 0.284 |
| 92 | 16 | 0.112  | 0.252 | 0.103  | 0.267 | 0.086  | 0.297 |
| 92 | 17 | 0.121  | 0.264 | 0.111  | 0.279 | 0.094  | 0.310 |
| 92 | 18 | 0.130  | 0.276 | 0.120  | 0.291 | 0.102  | 0.322 |
| 92 | 19 | 0.140  | 0.288 | 0.129  | 0.304 | 0.110  | 0.335 |
| 92 | 20 | 0.149  | 0.300 | 0.138  | 0.316 | 0.118  | 0.347 |
| 92 | 21 | 0.158  | 0.312 | 0.147  | 0.328 | 0.127  | 0.359 |
| 92 | 22 | 0.168  | 0.324 | 0.156  | 0.339 | 0.135  | 0.371 |
| 92 | 23 | 0.177  | 0.335 | 0.166  | 0.351 | 0.144  | 0.383 |
| 92 | 24 | 0.187  | 0.347 | 0.175  | 0.363 | 0.153  | 0.395 |
| 92 | 25 | 0.196  | 0.358 | 0.184  | 0.374 | 0.161  | 0.406 |
| 92 | 26 | 0.206  | 0.370 | 0.194  | 0.386 | 0.170  | 0.418 |
| 92 | 27 | 0.216  | 0.381 | 0.203  | 0.398 | 0.179  | 0.430 |
| 92 | 28 | 0.226  | 0.393 | 0.213  | 0.409 | 0.188  | 0.441 |
| 92 | 29 | 0.236  | 0.404 | 0.222  | 0.420 | 0.197  | 0.453 |
| 92 | 30 | 0.245  | 0.415 | 0.232  | 0.432 | 0.207  | 0.464 |
| 92 | 31 | 0.255  | 0.427 | 0.242  | 0.443 | 0.216  | 0.475 |
| 92 | 32 | 0.265  | 0.438 | 0.251  | 0.454 | 0.225  | 0.487 |
| 92 | 33 | 0.275  | 0.449 | 0.261  | 0.465 | 0.235  | 0.498 |
| 92 | 34 | 0.286  | 0.460 | 0.271  | 0.477 | 0.244  | 0.509 |
| 92 | 35 | 0.296  | 0.471 | 0.281  | 0.488 | 0.254  | 0.520 |
| 92 | 36 | 0.306  | 0.482 | 0.291  | 0.499 | 0.263  | 0.531 |
| 92 | 37 | 0.316  | 0.493 | 0.301  | 0.510 | 0.273  | 0.542 |
| 92 | 38 | 0.326  | 0.504 | 0.311  | 0.521 | 0.283  | 0.552 |
| 92 | 39 | 0.337  | 0.515 | 0.321  | 0.531 | 0.293  | 0.563 |
| 92 | 40 | 0.347  | 0.526 | 0.332  | 0.542 | 0.303  | 0.574 |
| 92 | 41 | 0.357  | 0.537 | 0.342  | 0.553 | 0.313  | 0.584 |
| 92 | 42 | 0.368  | 0.547 | 0.352  | 0.564 | 0.323  | 0.595 |
| 92 | 43 | 0.378  | 0.558 | 0.363  | 0.574 | 0.333  | 0.606 |
| 92 | 44 | 0.389  | 0.569 | 0.373  | 0.585 | 0.343  | 0.616 |
| 92 | 45 | 0.399  | 0.580 | 0.383  | 0.596 | 0.353  | 0.626 |
| 92 | 46 | 0.410  | 0.590 | 0.394  | 0.606 | 0.363  | 0.637 |
| 92 | 47 | 0.420  | 0.601 | 0.404  | 0.617 | 0.374  | 0.647 |
| 92 | 48 | 0.431  | 0.611 | 0.415  | 0.627 | 0.384  | 0.657 |
| 92 | 49 | 0.442  | 0.622 | 0.426  | 0.637 | 0.394  | 0.667 |
| 92 | 50 | 0.453  | 0.632 | 0.436  | 0.648 | 0.405  | 0.677 |
| 92 | 51 | 0.463  | 0.643 | 0.447  | 0.658 | 0.416  | 0.687 |
| 92 | 52 | 0.474  | 0.653 | 0.458  | 0.668 | 0.426  | 0.697 |
| 92 | 53 | 0.485  | 0.663 | 0.469  | 0.679 | 0.437  | 0.707 |
| 92 | 54 | 0.496  | 0.674 | 0.479  | 0.689 | 0.448  | 0.717 |
| 92 | 55 | 0.507  | 0.684 | 0.490  | 0.699 | 0.458  | 0.727 |
| 92 | 56 | 0.518  | 0.694 | 0.501  | 0.709 | 0.469  | 0.737 |
| 92 | 57 | 0.529  | 0.704 | 0.512  | 0.719 | 0.480  | 0.746 |
| 92 | 58 | 0.540  | 0.714 | 0.523  | 0.729 | 0.491  | 0.756 |
| 92 | 59 | 0.551  | 0.725 | 0.535  | 0.739 | 0.502  | 0.765 |
| 92 | 60 | 0.562  | 0.735 | 0.546  | 0.749 | 0.513  | 0.775 |
| 92 | 61 | 0.573  | 0.745 | 0.557  | 0.758 | 0.525  | 0.784 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 92 | 62 | 0.585  | 0.755 | 0.568  | 0.768 | 0.536  | 0.793 |
| 92 | 63 | 0.596  | 0.764 | 0.580  | 0.778 | 0.547  | 0.803 |
| 92 | 64 | 0.607  | 0.774 | 0.591  | 0.787 | 0.559  | 0.812 |
| 92 | 65 | 0.619  | 0.784 | 0.602  | 0.797 | 0.570  | 0.821 |
| 92 | 66 | 0.630  | 0.794 | 0.614  | 0.806 | 0.582  | 0.830 |
| 92 | 67 | 0.642  | 0.804 | 0.626  | 0.816 | 0.594  | 0.839 |
| 92 | 68 | 0.653  | 0.813 | 0.637  | 0.825 | 0.605  | 0.847 |
| 92 | 69 | 0.665  | 0.823 | 0.649  | 0.834 | 0.617  | 0.856 |
| 92 | 70 | 0.676  | 0.832 | 0.661  | 0.844 | 0.629  | 0.865 |
| 92 | 71 | 0.686  | 0.842 | 0.672  | 0.853 | 0.641  | 0.873 |
| 92 | 72 | 0.700  | 0.851 | 0.684  | 0.862 | 0.653  | 0.882 |
| 92 | 73 | 0.712  | 0.860 | 0.696  | 0.871 | 0.665  | 0.890 |
| 92 | 74 | 0.724  | 0.870 | 0.709  | 0.880 | 0.678  | 0.898 |
| 92 | 75 | 0.736  | 0.879 | 0.721  | 0.889 | 0.690  | 0.906 |
| 92 | 76 | 0.748  | 0.888 | 0.733  | 0.897 | 0.703  | 0.914 |
| 92 | 77 | 0.760  | 0.897 | 0.745  | 0.906 | 0.716  | 0.922 |
| 92 | 78 | 0.772  | 0.906 | 0.758  | 0.914 | 0.728  | 0.930 |
| 92 | 79 | 0.785  | 0.914 | 0.771  | 0.923 | 0.741  | 0.937 |
| 92 | 80 | 0.797  | 0.923 | 0.783  | 0.931 | 0.755  | 0.944 |
| 92 | 81 | 0.810  | 0.931 | 0.796  | 0.939 | 0.768  | 0.951 |
| 92 | 82 | 0.823  | 0.940 | 0.809  | 0.947 | 0.782  | 0.958 |
| 92 | 83 | 0.836  | 0.948 | 0.822  | 0.954 | 0.795  | 0.965 |
| 92 | 84 | 0.849  | 0.956 | 0.836  | 0.962 | 0.809  | 0.971 |
| 92 | 85 | 0.862  | 0.964 | 0.849  | 0.969 | 0.824  | 0.977 |
| 92 | 86 | 0.875  | 0.971 | 0.863  | 0.976 | 0.839  | 0.983 |
| 92 | 87 | 0.889  | 0.978 | 0.878  | 0.982 | 0.854  | 0.988 |
| 92 | 88 | 0.903  | 0.985 | 0.892  | 0.988 | 0.869  | 0.993 |
| 92 | 89 | 0.918  | 0.991 | 0.908  | 0.993 | 0.886  | 0.996 |
| 92 | 90 | 0.933  | 0.996 | 0.924  | 0.997 | 0.903  | 0.999 |
| 92 | 91 | 0.949  | 0.999 | 0.941  | 1.000 | 0.922  | 1.000 |
| 92 | 92 | 0.968  | 1.000 | 0.961  | 1.000 | 0.944  | 1.000 |
| 93 | 0  | 0.000  | 0.032 | 0.000  | 0.039 | 0.000  | 0.055 |
| 93 | 1  | 0.001  | 0.050 | 0.000  | 0.058 | 0.000  | 0.077 |
| 93 | 2  | 0.004  | 0.066 | 0.003  | 0.076 | 0.001  | 0.096 |
| 93 | 3  | 0.009  | 0.081 | 0.007  | 0.091 | 0.004  | 0.113 |
| 93 | 4  | 0.015  | 0.096 | 0.012  | 0.106 | 0.007  | 0.129 |
| 93 | 5  | 0.021  | 0.110 | 0.018  | 0.121 | 0.012  | 0.145 |
| 93 | 6  | 0.028  | 0.123 | 0.024  | 0.135 | 0.017  | 0.160 |
| 93 | 7  | 0.036  | 0.137 | 0.031  | 0.149 | 0.022  | 0.174 |
| 93 | 8  | 0.044  | 0.150 | 0.038  | 0.162 | 0.028  | 0.189 |
| 93 | 9  | 0.051  | 0.163 | 0.045  | 0.176 | 0.035  | 0.203 |
| 93 | 10 | 0.060  | 0.176 | 0.053  | 0.189 | 0.041  | 0.216 |
| 93 | 11 | 0.068  | 0.188 | 0.061  | 0.202 | 0.048  | 0.230 |
| 93 | 12 | 0.076  | 0.201 | 0.068  | 0.215 | 0.055  | 0.243 |
| 93 | 13 | 0.085  | 0.213 | 0.077  | 0.227 | 0.062  | 0.256 |
| 93 | 14 | 0.093  | 0.225 | 0.085  | 0.240 | 0.070  | 0.269 |
| 93 | 15 | 0.102  | 0.237 | 0.093  | 0.252 | 0.077  | 0.282 |
| 93 | 16 | 0.111  | 0.250 | 0.102  | 0.264 | 0.085  | 0.294 |
| 93 | 17 | 0.120  | 0.261 | 0.110  | 0.276 | 0.093  | 0.307 |
| 93 | 18 | 0.129  | 0.273 | 0.119  | 0.289 | 0.101  | 0.319 |
| 93 | 19 | 0.138  | 0.285 | 0.128  | 0.301 | 0.109  | 0.331 |
| 93 | 20 | 0.147  | 0.297 | 0.137  | 0.312 | 0.117  | 0.343 |
| 93 | 21 | 0.157  | 0.309 | 0.146  | 0.324 | 0.125  | 0.355 |
| 93 | 22 | 0.166  | 0.320 | 0.155  | 0.336 | 0.134  | 0.367 |
| 93 | 23 | 0.175  | 0.332 | 0.164  | 0.348 | 0.142  | 0.379 |
| 93 | 24 | 0.185  | 0.343 | 0.173  | 0.359 | 0.151  | 0.391 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 93 | 25 | 0.194  | 0.355 | 0.182  | 0.371 | 0.160  | 0.402 |
| 93 | 26 | 0.204  | 0.366 | 0.191  | 0.382 | 0.168  | 0.414 |
| 93 | 27 | 0.213  | 0.377 | 0.201  | 0.394 | 0.177  | 0.426 |
| 93 | 28 | 0.223  | 0.389 | 0.210  | 0.405 | 0.186  | 0.437 |
| 93 | 29 | 0.233  | 0.400 | 0.220  | 0.416 | 0.195  | 0.448 |
| 93 | 30 | 0.243  | 0.411 | 0.229  | 0.427 | 0.204  | 0.460 |
| 93 | 31 | 0.253  | 0.422 | 0.239  | 0.439 | 0.213  | 0.471 |
| 93 | 32 | 0.262  | 0.433 | 0.249  | 0.450 | 0.223  | 0.482 |
| 93 | 33 | 0.272  | 0.444 | 0.258  | 0.461 | 0.232  | 0.493 |
| 93 | 34 | 0.282  | 0.456 | 0.268  | 0.472 | 0.241  | 0.504 |
| 93 | 35 | 0.292  | 0.466 | 0.278  | 0.483 | 0.251  | 0.515 |
| 93 | 36 | 0.302  | 0.477 | 0.288  | 0.494 | 0.260  | 0.526 |
| 93 | 37 | 0.312  | 0.488 | 0.298  | 0.505 | 0.270  | 0.536 |
| 93 | 38 | 0.323  | 0.499 | 0.308  | 0.515 | 0.280  | 0.547 |
| 93 | 39 | 0.333  | 0.510 | 0.318  | 0.526 | 0.289  | 0.558 |
| 93 | 40 | 0.343  | 0.521 | 0.328  | 0.537 | 0.299  | 0.568 |
| 93 | 41 | 0.353  | 0.531 | 0.338  | 0.548 | 0.309  | 0.579 |
| 93 | 42 | 0.364  | 0.542 | 0.348  | 0.558 | 0.319  | 0.590 |
| 93 | 43 | 0.374  | 0.553 | 0.358  | 0.569 | 0.329  | 0.600 |
| 93 | 44 | 0.384  | 0.563 | 0.369  | 0.579 | 0.339  | 0.610 |
| 93 | 45 | 0.395  | 0.574 | 0.379  | 0.590 | 0.349  | 0.621 |
| 93 | 46 | 0.405  | 0.584 | 0.389  | 0.600 | 0.359  | 0.631 |
| 93 | 47 | 0.416  | 0.595 | 0.400  | 0.611 | 0.369  | 0.641 |
| 93 | 48 | 0.426  | 0.605 | 0.410  | 0.621 | 0.379  | 0.651 |
| 93 | 49 | 0.437  | 0.616 | 0.421  | 0.631 | 0.390  | 0.661 |
| 93 | 50 | 0.447  | 0.626 | 0.431  | 0.642 | 0.400  | 0.671 |
| 93 | 51 | 0.458  | 0.636 | 0.442  | 0.652 | 0.410  | 0.681 |
| 93 | 52 | 0.469  | 0.647 | 0.452  | 0.662 | 0.421  | 0.691 |
| 93 | 53 | 0.479  | 0.657 | 0.463  | 0.672 | 0.432  | 0.701 |
| 93 | 54 | 0.490  | 0.667 | 0.474  | 0.682 | 0.442  | 0.711 |
| 93 | 55 | 0.501  | 0.677 | 0.485  | 0.692 | 0.453  | 0.720 |
| 93 | 56 | 0.512  | 0.688 | 0.495  | 0.702 | 0.464  | 0.730 |
| 93 | 57 | 0.523  | 0.698 | 0.506  | 0.712 | 0.474  | 0.740 |
| 93 | 58 | 0.534  | 0.708 | 0.517  | 0.722 | 0.485  | 0.749 |
| 93 | 59 | 0.544  | 0.718 | 0.528  | 0.732 | 0.496  | 0.759 |
| 93 | 60 | 0.556  | 0.728 | 0.539  | 0.742 | 0.507  | 0.768 |
| 93 | 61 | 0.567  | 0.738 | 0.550  | 0.751 | 0.518  | 0.777 |
| 93 | 62 | 0.578  | 0.747 | 0.561  | 0.761 | 0.529  | 0.787 |
| 93 | 63 | 0.589  | 0.757 | 0.573  | 0.771 | 0.540  | 0.796 |
| 93 | 64 | 0.600  | 0.767 | 0.584  | 0.780 | 0.552  | 0.805 |
| 93 | 65 | 0.611  | 0.777 | 0.595  | 0.790 | 0.563  | 0.814 |
| 93 | 66 | 0.623  | 0.787 | 0.606  | 0.799 | 0.574  | 0.823 |
| 93 | 67 | 0.634  | 0.796 | 0.618  | 0.809 | 0.586  | 0.832 |
| 93 | 68 | 0.645  | 0.806 | 0.629  | 0.818 | 0.598  | 0.840 |
| 93 | 69 | 0.657  | 0.815 | 0.641  | 0.827 | 0.609  | 0.849 |
| 93 | 70 | 0.668  | 0.825 | 0.652  | 0.836 | 0.621  | 0.858 |
| 93 | 71 | 0.680  | 0.834 | 0.664  | 0.845 | 0.633  | 0.866 |
| 93 | 72 | 0.691  | 0.843 | 0.676  | 0.854 | 0.645  | 0.875 |
| 93 | 73 | 0.703  | 0.853 | 0.688  | 0.863 | 0.657  | 0.883 |
| 93 | 74 | 0.715  | 0.862 | 0.699  | 0.872 | 0.669  | 0.891 |
| 93 | 75 | 0.727  | 0.871 | 0.711  | 0.881 | 0.681  | 0.899 |
| 93 | 76 | 0.739  | 0.880 | 0.724  | 0.890 | 0.693  | 0.907 |
| 93 | 77 | 0.750  | 0.889 | 0.736  | 0.898 | 0.706  | 0.915 |
| 93 | 78 | 0.763  | 0.898 | 0.748  | 0.907 | 0.718  | 0.923 |
| 93 | 79 | 0.775  | 0.907 | 0.760  | 0.915 | 0.731  | 0.930 |
| 93 | 80 | 0.787  | 0.915 | 0.773  | 0.923 | 0.744  | 0.938 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 93 | 81 | 0.799  | 0.924 | 0.785  | 0.932 | 0.757  | 0.945 |
| 93 | 82 | 0.812  | 0.932 | 0.798  | 0.939 | 0.770  | 0.952 |
| 93 | 83 | 0.824  | 0.940 | 0.811  | 0.947 | 0.784  | 0.959 |
| 93 | 84 | 0.837  | 0.949 | 0.824  | 0.955 | 0.797  | 0.965 |
| 93 | 85 | 0.850  | 0.956 | 0.838  | 0.962 | 0.811  | 0.972 |
| 93 | 86 | 0.863  | 0.964 | 0.851  | 0.969 | 0.826  | 0.978 |
| 93 | 87 | 0.877  | 0.972 | 0.865  | 0.976 | 0.840  | 0.983 |
| 93 | 88 | 0.890  | 0.979 | 0.879  | 0.982 | 0.855  | 0.988 |
| 93 | 89 | 0.904  | 0.985 | 0.894  | 0.988 | 0.871  | 0.993 |
| 93 | 90 | 0.919  | 0.991 | 0.909  | 0.993 | 0.887  | 0.996 |
| 93 | 91 | 0.934  | 0.996 | 0.924  | 0.997 | 0.904  | 0.999 |
| 93 | 92 | 0.950  | 0.999 | 0.942  | 1.000 | 0.923  | 1.000 |
| 93 | 93 | 0.968  | 1.000 | 0.961  | 1.000 | 0.945  | 1.000 |
| 94 | 0  | 0.000  | 0.031 | 0.000  | 0.038 | 0.000  | 0.055 |
| 94 | 1  | 0.001  | 0.049 | 0.000  | 0.058 | 0.000  | 0.076 |
| 94 | 2  | 0.004  | 0.065 | 0.003  | 0.075 | 0.001  | 0.095 |
| 94 | 3  | 0.009  | 0.080 | 0.007  | 0.090 | 0.004  | 0.112 |
| 94 | 4  | 0.015  | 0.095 | 0.012  | 0.105 | 0.007  | 0.126 |
| 94 | 5  | 0.021  | 0.109 | 0.017  | 0.120 | 0.012  | 0.143 |
| 94 | 6  | 0.028  | 0.122 | 0.024  | 0.134 | 0.017  | 0.156 |
| 94 | 7  | 0.035  | 0.135 | 0.030  | 0.147 | 0.022  | 0.173 |
| 94 | 8  | 0.043  | 0.148 | 0.037  | 0.161 | 0.028  | 0.187 |
| 94 | 9  | 0.051  | 0.161 | 0.045  | 0.174 | 0.034  | 0.201 |
| 94 | 10 | 0.059  | 0.174 | 0.052  | 0.187 | 0.041  | 0.214 |
| 94 | 11 | 0.067  | 0.186 | 0.060  | 0.200 | 0.047  | 0.227 |
| 94 | 12 | 0.075  | 0.199 | 0.068  | 0.212 | 0.054  | 0.240 |
| 94 | 13 | 0.084  | 0.211 | 0.076  | 0.225 | 0.062  | 0.253 |
| 94 | 14 | 0.092  | 0.223 | 0.084  | 0.237 | 0.069  | 0.266 |
| 94 | 15 | 0.101  | 0.235 | 0.092  | 0.250 | 0.076  | 0.279 |
| 94 | 16 | 0.110  | 0.247 | 0.101  | 0.262 | 0.084  | 0.291 |
| 94 | 17 | 0.119  | 0.259 | 0.109  | 0.274 | 0.092  | 0.304 |
| 94 | 18 | 0.128  | 0.271 | 0.118  | 0.286 | 0.100  | 0.316 |
| 94 | 19 | 0.137  | 0.282 | 0.126  | 0.298 | 0.108  | 0.328 |
| 94 | 20 | 0.146  | 0.294 | 0.135  | 0.309 | 0.116  | 0.340 |
| 94 | 21 | 0.155  | 0.306 | 0.144  | 0.321 | 0.124  | 0.352 |
| 94 | 22 | 0.164  | 0.317 | 0.153  | 0.333 | 0.132  | 0.364 |
| 94 | 23 | 0.173  | 0.328 | 0.162  | 0.344 | 0.141  | 0.375 |
| 94 | 24 | 0.183  | 0.340 | 0.171  | 0.356 | 0.149  | 0.387 |
| 94 | 25 | 0.192  | 0.351 | 0.180  | 0.367 | 0.158  | 0.399 |
| 94 | 26 | 0.202  | 0.362 | 0.189  | 0.378 | 0.166  | 0.410 |
| 94 | 27 | 0.211  | 0.374 | 0.199  | 0.390 | 0.175  | 0.421 |
| 94 | 28 | 0.221  | 0.385 | 0.208  | 0.401 | 0.184  | 0.433 |
| 94 | 29 | 0.230  | 0.396 | 0.217  | 0.412 | 0.193  | 0.444 |
| 94 | 30 | 0.240  | 0.407 | 0.227  | 0.423 | 0.202  | 0.455 |
| 94 | 31 | 0.250  | 0.418 | 0.236  | 0.434 | 0.211  | 0.466 |
| 94 | 32 | 0.259  | 0.429 | 0.246  | 0.445 | 0.220  | 0.477 |
| 94 | 33 | 0.269  | 0.440 | 0.255  | 0.456 | 0.229  | 0.488 |
| 94 | 34 | 0.279  | 0.451 | 0.265  | 0.467 | 0.239  | 0.499 |
| 94 | 35 | 0.289  | 0.462 | 0.275  | 0.478 | 0.248  | 0.510 |
| 94 | 36 | 0.299  | 0.473 | 0.285  | 0.489 | 0.257  | 0.521 |
| 94 | 37 | 0.309  | 0.483 | 0.294  | 0.500 | 0.267  | 0.531 |
| 94 | 38 | 0.319  | 0.494 | 0.304  | 0.510 | 0.276  | 0.542 |
| 94 | 39 | 0.329  | 0.505 | 0.314  | 0.521 | 0.286  | 0.553 |
| 94 | 40 | 0.339  | 0.516 | 0.324  | 0.532 | 0.296  | 0.563 |
| 94 | 41 | 0.349  | 0.526 | 0.334  | 0.542 | 0.305  | 0.574 |
| 94 | 42 | 0.359  | 0.537 | 0.344  | 0.553 | 0.315  | 0.584 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 94 | 43 | 0.370  | 0.547 | 0.354  | 0.563 | 0.325  | 0.594 |
| 94 | 44 | 0.380  | 0.556 | 0.364  | 0.574 | 0.335  | 0.605 |
| 94 | 45 | 0.390  | 0.568 | 0.375  | 0.584 | 0.345  | 0.615 |
| 94 | 46 | 0.400  | 0.579 | 0.385  | 0.595 | 0.355  | 0.625 |
| 94 | 47 | 0.411  | 0.589 | 0.395  | 0.605 | 0.365  | 0.635 |
| 94 | 48 | 0.421  | 0.600 | 0.405  | 0.615 | 0.375  | 0.645 |
| 94 | 49 | 0.432  | 0.610 | 0.416  | 0.625 | 0.385  | 0.655 |
| 94 | 50 | 0.442  | 0.620 | 0.426  | 0.636 | 0.395  | 0.665 |
| 94 | 51 | 0.453  | 0.630 | 0.437  | 0.646 | 0.406  | 0.675 |
| 94 | 52 | 0.463  | 0.641 | 0.447  | 0.656 | 0.416  | 0.685 |
| 94 | 53 | 0.474  | 0.651 | 0.458  | 0.666 | 0.426  | 0.695 |
| 94 | 54 | 0.484  | 0.661 | 0.468  | 0.676 | 0.437  | 0.704 |
| 94 | 55 | 0.495  | 0.671 | 0.479  | 0.686 | 0.447  | 0.714 |
| 94 | 56 | 0.506  | 0.681 | 0.490  | 0.696 | 0.458  | 0.724 |
| 94 | 57 | 0.517  | 0.691 | 0.500  | 0.706 | 0.469  | 0.733 |
| 94 | 58 | 0.527  | 0.701 | 0.511  | 0.715 | 0.479  | 0.743 |
| 94 | 59 | 0.538  | 0.711 | 0.522  | 0.725 | 0.490  | 0.752 |
| 94 | 60 | 0.549  | 0.721 | 0.533  | 0.735 | 0.501  | 0.761 |
| 94 | 61 | 0.560  | 0.731 | 0.544  | 0.745 | 0.512  | 0.771 |
| 94 | 62 | 0.571  | 0.741 | 0.555  | 0.754 | 0.523  | 0.780 |
| 94 | 63 | 0.582  | 0.750 | 0.566  | 0.764 | 0.534  | 0.789 |
| 94 | 64 | 0.593  | 0.760 | 0.577  | 0.773 | 0.545  | 0.798 |
| 94 | 65 | 0.604  | 0.770 | 0.588  | 0.783 | 0.556  | 0.807 |
| 94 | 66 | 0.615  | 0.779 | 0.599  | 0.792 | 0.567  | 0.816 |
| 94 | 67 | 0.626  | 0.789 | 0.610  | 0.801 | 0.579  | 0.825 |
| 94 | 68 | 0.638  | 0.798 | 0.622  | 0.811 | 0.590  | 0.834 |
| 94 | 69 | 0.649  | 0.808 | 0.633  | 0.820 | 0.601  | 0.842 |
| 94 | 70 | 0.660  | 0.817 | 0.644  | 0.829 | 0.613  | 0.851 |
| 94 | 71 | 0.672  | 0.827 | 0.656  | 0.838 | 0.625  | 0.859 |
| 94 | 72 | 0.683  | 0.836 | 0.667  | 0.847 | 0.636  | 0.868 |
| 94 | 73 | 0.694  | 0.845 | 0.679  | 0.856 | 0.648  | 0.876 |
| 94 | 74 | 0.706  | 0.854 | 0.691  | 0.865 | 0.660  | 0.884 |
| 94 | 75 | 0.718  | 0.863 | 0.702  | 0.874 | 0.672  | 0.892 |
| 94 | 76 | 0.729  | 0.872 | 0.714  | 0.882 | 0.684  | 0.900 |
| 94 | 77 | 0.741  | 0.881 | 0.726  | 0.891 | 0.696  | 0.908 |
| 94 | 78 | 0.753  | 0.890 | 0.738  | 0.899 | 0.709  | 0.916 |
| 94 | 79 | 0.765  | 0.899 | 0.750  | 0.908 | 0.721  | 0.924 |
| 94 | 80 | 0.777  | 0.908 | 0.763  | 0.916 | 0.734  | 0.931 |
| 94 | 81 | 0.789  | 0.916 | 0.775  | 0.924 | 0.747  | 0.938 |
| 94 | 82 | 0.801  | 0.925 | 0.788  | 0.932 | 0.760  | 0.946 |
| 94 | 83 | 0.814  | 0.933 | 0.800  | 0.940 | 0.773  | 0.953 |
| 94 | 84 | 0.826  | 0.941 | 0.813  | 0.948 | 0.786  | 0.959 |
| 94 | 85 | 0.839  | 0.949 | 0.826  | 0.955 | 0.799  | 0.966 |
| 94 | 86 | 0.852  | 0.957 | 0.839  | 0.963 | 0.813  | 0.972 |
| 94 | 87 | 0.865  | 0.965 | 0.853  | 0.970 | 0.827  | 0.978 |
| 94 | 88 | 0.878  | 0.972 | 0.866  | 0.976 | 0.842  | 0.983 |
| 94 | 89 | 0.891  | 0.979 | 0.880  | 0.983 | 0.857  | 0.988 |
| 94 | 90 | 0.905  | 0.985 | 0.895  | 0.988 | 0.872  | 0.993 |
| 94 | 91 | 0.920  | 0.991 | 0.910  | 0.993 | 0.888  | 0.996 |
| 94 | 92 | 0.935  | 0.996 | 0.925  | 0.997 | 0.905  | 0.999 |
| 94 | 93 | 0.951  | 0.999 | 0.942  | 1.000 | 0.924  | 1.000 |
| 94 | 94 | 0.969  | 1.000 | 0.962  | 1.000 | 0.945  | 1.000 |
| 95 | 0  | 0.000  | 0.031 | 0.000  | 0.038 | 0.000  | 0.054 |
| 95 | 1  | 0.001  | 0.049 | 0.000  | 0.057 | 0.000  | 0.076 |
| 95 | 2  | 0.004  | 0.065 | 0.003  | 0.074 | 0.001  | 0.094 |
| 95 | 3  | 0.009  | 0.080 | 0.007  | 0.090 | 0.004  | 0.111 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 95 | 4  | 0.015  | 0.094 | 0.012  | 0.104 | 0.007  | 0.127 |
| 95 | 5  | 0.021  | 0.107 | 0.017  | 0.119 | 0.012  | 0.142 |
| 95 | 6  | 0.028  | 0.121 | 0.024  | 0.132 | 0.016  | 0.157 |
| 95 | 7  | 0.035  | 0.134 | 0.030  | 0.146 | 0.022  | 0.171 |
| 95 | 8  | 0.043  | 0.147 | 0.037  | 0.159 | 0.028  | 0.185 |
| 95 | 9  | 0.050  | 0.159 | 0.044  | 0.172 | 0.034  | 0.199 |
| 95 | 10 | 0.058  | 0.172 | 0.052  | 0.185 | 0.040  | 0.212 |
| 95 | 11 | 0.066  | 0.184 | 0.059  | 0.198 | 0.047  | 0.225 |
| 95 | 12 | 0.075  | 0.197 | 0.067  | 0.210 | 0.054  | 0.238 |
| 95 | 13 | 0.083  | 0.209 | 0.075  | 0.223 | 0.061  | 0.251 |
| 95 | 14 | 0.091  | 0.221 | 0.083  | 0.235 | 0.068  | 0.264 |
| 95 | 15 | 0.100  | 0.233 | 0.091  | 0.247 | 0.075  | 0.276 |
| 95 | 16 | 0.109  | 0.244 | 0.099  | 0.259 | 0.083  | 0.288 |
| 95 | 17 | 0.117  | 0.256 | 0.108  | 0.271 | 0.091  | 0.301 |
| 95 | 18 | 0.126  | 0.268 | 0.116  | 0.283 | 0.098  | 0.313 |
| 95 | 19 | 0.135  | 0.280 | 0.125  | 0.295 | 0.106  | 0.325 |
| 95 | 20 | 0.144  | 0.291 | 0.134  | 0.306 | 0.114  | 0.337 |
| 95 | 21 | 0.153  | 0.302 | 0.142  | 0.318 | 0.123  | 0.349 |
| 95 | 22 | 0.162  | 0.314 | 0.151  | 0.329 | 0.131  | 0.360 |
| 95 | 23 | 0.171  | 0.325 | 0.160  | 0.341 | 0.139  | 0.372 |
| 95 | 24 | 0.181  | 0.337 | 0.169  | 0.352 | 0.147  | 0.383 |
| 95 | 25 | 0.190  | 0.348 | 0.178  | 0.364 | 0.156  | 0.395 |
| 95 | 26 | 0.199  | 0.359 | 0.187  | 0.375 | 0.165  | 0.406 |
| 95 | 27 | 0.209  | 0.370 | 0.196  | 0.386 | 0.173  | 0.417 |
| 95 | 28 | 0.218  | 0.381 | 0.206  | 0.397 | 0.182  | 0.429 |
| 95 | 29 | 0.228  | 0.392 | 0.215  | 0.408 | 0.191  | 0.440 |
| 95 | 30 | 0.237  | 0.403 | 0.224  | 0.419 | 0.200  | 0.451 |
| 95 | 31 | 0.247  | 0.414 | 0.234  | 0.430 | 0.209  | 0.462 |
| 95 | 32 | 0.257  | 0.425 | 0.243  | 0.441 | 0.218  | 0.473 |
| 95 | 33 | 0.266  | 0.436 | 0.253  | 0.452 | 0.227  | 0.484 |
| 95 | 34 | 0.276  | 0.447 | 0.262  | 0.463 | 0.236  | 0.495 |
| 95 | 35 | 0.286  | 0.457 | 0.272  | 0.474 | 0.245  | 0.505 |
| 95 | 36 | 0.296  | 0.468 | 0.281  | 0.484 | 0.254  | 0.516 |
| 95 | 37 | 0.305  | 0.479 | 0.291  | 0.495 | 0.264  | 0.527 |
| 95 | 38 | 0.315  | 0.489 | 0.301  | 0.506 | 0.273  | 0.537 |
| 95 | 39 | 0.325  | 0.500 | 0.311  | 0.516 | 0.283  | 0.548 |
| 95 | 40 | 0.335  | 0.511 | 0.320  | 0.527 | 0.292  | 0.558 |
| 95 | 41 | 0.345  | 0.521 | 0.330  | 0.537 | 0.302  | 0.568 |
| 95 | 42 | 0.355  | 0.532 | 0.340  | 0.548 | 0.311  | 0.579 |
| 95 | 43 | 0.365  | 0.542 | 0.350  | 0.558 | 0.321  | 0.589 |
| 95 | 44 | 0.376  | 0.553 | 0.360  | 0.568 | 0.331  | 0.599 |
| 95 | 45 | 0.386  | 0.563 | 0.370  | 0.579 | 0.341  | 0.609 |
| 95 | 46 | 0.396  | 0.573 | 0.380  | 0.589 | 0.351  | 0.619 |
| 95 | 47 | 0.406  | 0.584 | 0.391  | 0.599 | 0.360  | 0.630 |
| 95 | 48 | 0.416  | 0.594 | 0.401  | 0.609 | 0.370  | 0.640 |
| 95 | 49 | 0.427  | 0.604 | 0.411  | 0.620 | 0.381  | 0.649 |
| 95 | 50 | 0.437  | 0.614 | 0.421  | 0.630 | 0.391  | 0.659 |
| 95 | 51 | 0.447  | 0.624 | 0.432  | 0.640 | 0.401  | 0.669 |
| 95 | 52 | 0.458  | 0.635 | 0.442  | 0.650 | 0.411  | 0.679 |
| 95 | 53 | 0.468  | 0.645 | 0.452  | 0.660 | 0.421  | 0.689 |
| 95 | 54 | 0.479  | 0.655 | 0.463  | 0.670 | 0.432  | 0.698 |
| 95 | 55 | 0.489  | 0.665 | 0.473  | 0.680 | 0.442  | 0.708 |
| 95 | 56 | 0.500  | 0.675 | 0.484  | 0.689 | 0.452  | 0.717 |
| 95 | 57 | 0.511  | 0.685 | 0.494  | 0.699 | 0.463  | 0.727 |
| 95 | 58 | 0.521  | 0.695 | 0.505  | 0.709 | 0.473  | 0.736 |
| 95 | 59 | 0.532  | 0.704 | 0.516  | 0.719 | 0.484  | 0.746 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 95 | 60 | 0.543  | 0.714 | 0.526  | 0.728 | 0.495  | 0.755 |
| 95 | 61 | 0.553  | 0.724 | 0.537  | 0.738 | 0.505  | 0.764 |
| 95 | 62 | 0.564  | 0.734 | 0.548  | 0.747 | 0.516  | 0.773 |
| 95 | 63 | 0.575  | 0.743 | 0.559  | 0.757 | 0.527  | 0.782 |
| 95 | 64 | 0.586  | 0.753 | 0.570  | 0.766 | 0.538  | 0.791 |
| 95 | 65 | 0.597  | 0.763 | 0.581  | 0.776 | 0.549  | 0.800 |
| 95 | 66 | 0.608  | 0.772 | 0.592  | 0.785 | 0.560  | 0.809 |
| 95 | 67 | 0.619  | 0.782 | 0.603  | 0.794 | 0.571  | 0.818 |
| 95 | 68 | 0.630  | 0.791 | 0.614  | 0.804 | 0.583  | 0.827 |
| 95 | 69 | 0.641  | 0.801 | 0.625  | 0.813 | 0.594  | 0.835 |
| 95 | 70 | 0.652  | 0.810 | 0.636  | 0.822 | 0.605  | 0.844 |
| 95 | 71 | 0.663  | 0.819 | 0.648  | 0.831 | 0.617  | 0.853 |
| 95 | 72 | 0.675  | 0.829 | 0.659  | 0.840 | 0.628  | 0.861 |
| 95 | 73 | 0.686  | 0.838 | 0.671  | 0.849 | 0.640  | 0.869 |
| 95 | 74 | 0.698  | 0.847 | 0.682  | 0.856 | 0.651  | 0.877 |
| 95 | 75 | 0.709  | 0.856 | 0.694  | 0.866 | 0.663  | 0.886 |
| 95 | 76 | 0.720  | 0.865 | 0.705  | 0.875 | 0.675  | 0.894 |
| 95 | 77 | 0.732  | 0.874 | 0.717  | 0.884 | 0.687  | 0.902 |
| 95 | 78 | 0.744  | 0.883 | 0.729  | 0.892 | 0.699  | 0.909 |
| 95 | 79 | 0.756  | 0.891 | 0.741  | 0.901 | 0.712  | 0.917 |
| 95 | 80 | 0.767  | 0.900 | 0.753  | 0.909 | 0.724  | 0.925 |
| 95 | 81 | 0.779  | 0.909 | 0.765  | 0.917 | 0.736  | 0.932 |
| 95 | 82 | 0.791  | 0.917 | 0.777  | 0.925 | 0.749  | 0.939 |
| 95 | 83 | 0.803  | 0.925 | 0.790  | 0.933 | 0.762  | 0.946 |
| 95 | 84 | 0.816  | 0.934 | 0.802  | 0.941 | 0.775  | 0.953 |
| 95 | 85 | 0.828  | 0.942 | 0.815  | 0.948 | 0.788  | 0.960 |
| 95 | 86 | 0.841  | 0.950 | 0.828  | 0.956 | 0.801  | 0.966 |
| 95 | 87 | 0.853  | 0.957 | 0.841  | 0.963 | 0.815  | 0.972 |
| 95 | 88 | 0.866  | 0.965 | 0.854  | 0.970 | 0.829  | 0.978 |
| 95 | 89 | 0.879  | 0.972 | 0.868  | 0.976 | 0.843  | 0.984 |
| 95 | 90 | 0.893  | 0.979 | 0.881  | 0.983 | 0.858  | 0.988 |
| 95 | 91 | 0.906  | 0.985 | 0.896  | 0.988 | 0.873  | 0.993 |
| 95 | 92 | 0.920  | 0.991 | 0.910  | 0.993 | 0.889  | 0.996 |
| 95 | 93 | 0.935  | 0.996 | 0.926  | 0.997 | 0.906  | 0.999 |
| 95 | 94 | 0.951  | 0.999 | 0.943  | 1.000 | 0.924  | 1.000 |
| 95 | 95 | 0.969  | 1.000 | 0.962  | 1.000 | 0.946  | 1.000 |
| 96 | 0  | 0.000  | 0.031 | 0.000  | 0.038 | 0.000  | 0.054 |
| 96 | 1  | 0.001  | 0.048 | 0.000  | 0.057 | 0.000  | 0.075 |
| 96 | 2  | 0.004  | 0.064 | 0.003  | 0.073 | 0.001  | 0.093 |
| 96 | 3  | 0.009  | 0.079 | 0.006  | 0.089 | 0.004  | 0.110 |
| 96 | 4  | 0.014  | 0.093 | 0.011  | 0.103 | 0.007  | 0.125 |
| 96 | 5  | 0.021  | 0.106 | 0.017  | 0.117 | 0.011  | 0.141 |
| 96 | 6  | 0.028  | 0.120 | 0.023  | 0.131 | 0.016  | 0.155 |
| 96 | 7  | 0.035  | 0.133 | 0.030  | 0.144 | 0.022  | 0.169 |
| 96 | 8  | 0.042  | 0.145 | 0.037  | 0.158 | 0.027  | 0.183 |
| 96 | 9  | 0.050  | 0.158 | 0.044  | 0.171 | 0.033  | 0.197 |
| 96 | 10 | 0.058  | 0.170 | 0.051  | 0.183 | 0.040  | 0.210 |
| 96 | 11 | 0.066  | 0.183 | 0.059  | 0.196 | 0.046  | 0.223 |
| 96 | 12 | 0.074  | 0.195 | 0.066  | 0.208 | 0.053  | 0.236 |
| 96 | 13 | 0.082  | 0.207 | 0.074  | 0.220 | 0.060  | 0.248 |
| 96 | 14 | 0.090  | 0.219 | 0.082  | 0.233 | 0.067  | 0.261 |
| 96 | 15 | 0.099  | 0.230 | 0.090  | 0.245 | 0.075  | 0.273 |
| 96 | 16 | 0.107  | 0.242 | 0.098  | 0.256 | 0.082  | 0.286 |
| 96 | 17 | 0.116  | 0.254 | 0.107  | 0.268 | 0.090  | 0.298 |
| 96 | 18 | 0.125  | 0.265 | 0.115  | 0.280 | 0.097  | 0.310 |
| 96 | 19 | 0.134  | 0.277 | 0.124  | 0.292 | 0.105  | 0.322 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 96 | 20 | 0.143  | 0.288 | 0.132  | 0.303 | 0.113  | 0.334 |
| 96 | 21 | 0.152  | 0.300 | 0.141  | 0.315 | 0.121  | 0.345 |
| 96 | 22 | 0.161  | 0.311 | 0.150  | 0.326 | 0.129  | 0.357 |
| 96 | 23 | 0.170  | 0.322 | 0.158  | 0.337 | 0.138  | 0.368 |
| 96 | 24 | 0.179  | 0.333 | 0.167  | 0.349 | 0.146  | 0.380 |
| 96 | 25 | 0.188  | 0.344 | 0.176  | 0.360 | 0.154  | 0.391 |
| 96 | 26 | 0.197  | 0.355 | 0.185  | 0.371 | 0.163  | 0.402 |
| 96 | 27 | 0.207  | 0.366 | 0.194  | 0.382 | 0.171  | 0.414 |
| 96 | 28 | 0.216  | 0.377 | 0.203  | 0.393 | 0.180  | 0.425 |
| 96 | 29 | 0.225  | 0.388 | 0.213  | 0.404 | 0.189  | 0.436 |
| 96 | 30 | 0.235  | 0.399 | 0.222  | 0.415 | 0.197  | 0.447 |
| 96 | 31 | 0.244  | 0.410 | 0.231  | 0.426 | 0.206  | 0.458 |
| 96 | 32 | 0.254  | 0.421 | 0.240  | 0.437 | 0.215  | 0.468 |
| 96 | 33 | 0.263  | 0.432 | 0.250  | 0.448 | 0.224  | 0.479 |
| 96 | 34 | 0.273  | 0.442 | 0.259  | 0.458 | 0.233  | 0.490 |
| 96 | 35 | 0.283  | 0.453 | 0.269  | 0.469 | 0.242  | 0.501 |
| 96 | 36 | 0.292  | 0.464 | 0.278  | 0.480 | 0.252  | 0.511 |
| 96 | 37 | 0.302  | 0.474 | 0.288  | 0.490 | 0.261  | 0.522 |
| 96 | 38 | 0.312  | 0.485 | 0.297  | 0.501 | 0.270  | 0.532 |
| 96 | 39 | 0.322  | 0.495 | 0.307  | 0.511 | 0.279  | 0.543 |
| 96 | 40 | 0.332  | 0.506 | 0.317  | 0.522 | 0.289  | 0.553 |
| 96 | 41 | 0.341  | 0.516 | 0.327  | 0.532 | 0.298  | 0.563 |
| 96 | 42 | 0.351  | 0.527 | 0.336  | 0.543 | 0.308  | 0.574 |
| 96 | 43 | 0.361  | 0.537 | 0.346  | 0.553 | 0.317  | 0.584 |
| 96 | 44 | 0.371  | 0.547 | 0.356  | 0.563 | 0.327  | 0.594 |
| 96 | 45 | 0.381  | 0.558 | 0.366  | 0.573 | 0.337  | 0.604 |
| 96 | 46 | 0.392  | 0.568 | 0.376  | 0.584 | 0.346  | 0.614 |
| 96 | 47 | 0.402  | 0.578 | 0.386  | 0.594 | 0.356  | 0.624 |
| 96 | 48 | 0.412  | 0.588 | 0.396  | 0.604 | 0.366  | 0.634 |
| 96 | 49 | 0.422  | 0.598 | 0.406  | 0.614 | 0.376  | 0.644 |
| 96 | 50 | 0.432  | 0.608 | 0.416  | 0.624 | 0.386  | 0.654 |
| 96 | 51 | 0.442  | 0.619 | 0.427  | 0.634 | 0.396  | 0.663 |
| 96 | 52 | 0.453  | 0.629 | 0.437  | 0.644 | 0.406  | 0.673 |
| 96 | 53 | 0.463  | 0.639 | 0.447  | 0.654 | 0.416  | 0.683 |
| 96 | 54 | 0.473  | 0.649 | 0.457  | 0.664 | 0.426  | 0.692 |
| 96 | 55 | 0.484  | 0.659 | 0.468  | 0.673 | 0.437  | 0.702 |
| 96 | 56 | 0.494  | 0.668 | 0.478  | 0.683 | 0.447  | 0.711 |
| 96 | 57 | 0.505  | 0.678 | 0.489  | 0.693 | 0.457  | 0.721 |
| 96 | 58 | 0.515  | 0.688 | 0.499  | 0.703 | 0.468  | 0.730 |
| 96 | 59 | 0.526  | 0.698 | 0.510  | 0.712 | 0.478  | 0.739 |
| 96 | 60 | 0.536  | 0.708 | 0.520  | 0.722 | 0.489  | 0.748 |
| 96 | 61 | 0.547  | 0.717 | 0.531  | 0.731 | 0.499  | 0.758 |
| 96 | 62 | 0.558  | 0.727 | 0.542  | 0.741 | 0.510  | 0.767 |
| 96 | 63 | 0.568  | 0.737 | 0.552  | 0.750 | 0.521  | 0.776 |
| 96 | 64 | 0.579  | 0.746 | 0.563  | 0.760 | 0.532  | 0.785 |
| 96 | 65 | 0.590  | 0.756 | 0.574  | 0.769 | 0.542  | 0.794 |
| 96 | 66 | 0.601  | 0.765 | 0.585  | 0.778 | 0.553  | 0.803 |
| 96 | 67 | 0.612  | 0.775 | 0.596  | 0.787 | 0.564  | 0.811 |
| 96 | 68 | 0.623  | 0.784 | 0.607  | 0.797 | 0.575  | 0.820 |
| 96 | 69 | 0.634  | 0.793 | 0.618  | 0.806 | 0.586  | 0.829 |
| 96 | 70 | 0.645  | 0.803 | 0.629  | 0.815 | 0.598  | 0.837 |
| 96 | 71 | 0.656  | 0.812 | 0.640  | 0.824 | 0.609  | 0.846 |
| 96 | 72 | 0.667  | 0.821 | 0.651  | 0.833 | 0.620  | 0.854 |
| 96 | 73 | 0.678  | 0.830 | 0.663  | 0.842 | 0.632  | 0.862 |
| 96 | 74 | 0.689  | 0.839 | 0.674  | 0.850 | 0.643  | 0.871 |
| 96 | 75 | 0.700  | 0.848 | 0.685  | 0.859 | 0.655  | 0.879 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 96 | 76 | 0.712  | 0.857 | 0.697  | 0.868 | 0.666  | 0.887 |
| 96 | 77 | 0.723  | 0.866 | 0.708  | 0.876 | 0.678  | 0.895 |
| 96 | 78 | 0.735  | 0.875 | 0.720  | 0.885 | 0.690  | 0.903 |
| 96 | 79 | 0.746  | 0.884 | 0.732  | 0.893 | 0.702  | 0.910 |
| 96 | 80 | 0.758  | 0.893 | 0.744  | 0.902 | 0.714  | 0.918 |
| 96 | 81 | 0.770  | 0.901 | 0.755  | 0.910 | 0.727  | 0.925 |
| 96 | 82 | 0.781  | 0.910 | 0.767  | 0.918 | 0.739  | 0.933 |
| 96 | 83 | 0.793  | 0.918 | 0.780  | 0.926 | 0.752  | 0.940 |
| 96 | 84 | 0.805  | 0.926 | 0.792  | 0.934 | 0.764  | 0.947 |
| 96 | 85 | 0.817  | 0.934 | 0.804  | 0.941 | 0.777  | 0.954 |
| 96 | 86 | 0.830  | 0.942 | 0.817  | 0.949 | 0.790  | 0.960 |
| 96 | 87 | 0.842  | 0.950 | 0.829  | 0.956 | 0.803  | 0.967 |
| 96 | 88 | 0.855  | 0.958 | 0.842  | 0.963 | 0.817  | 0.973 |
| 96 | 89 | 0.867  | 0.965 | 0.856  | 0.970 | 0.831  | 0.978 |
| 96 | 90 | 0.880  | 0.972 | 0.869  | 0.977 | 0.845  | 0.984 |
| 96 | 91 | 0.894  | 0.979 | 0.883  | 0.983 | 0.859  | 0.989 |
| 96 | 92 | 0.907  | 0.986 | 0.897  | 0.989 | 0.875  | 0.993 |
| 96 | 93 | 0.921  | 0.991 | 0.911  | 0.994 | 0.890  | 0.996 |
| 96 | 94 | 0.936  | 0.996 | 0.927  | 0.997 | 0.907  | 0.999 |
| 96 | 95 | 0.952  | 0.999 | 0.943  | 1.000 | 0.925  | 1.000 |
| 96 | 96 | 0.969  | 1.000 | 0.962  | 1.000 | 0.946  | 1.000 |
| 97 | 0  | 0.000  | 0.030 | 0.000  | 0.037 | 0.000  | 0.053 |
| 97 | 1  | 0.001  | 0.048 | 0.000  | 0.056 | 0.000  | 0.074 |
| 97 | 2  | 0.004  | 0.063 | 0.003  | 0.073 | 0.001  | 0.092 |
| 97 | 3  | 0.008  | 0.078 | 0.006  | 0.088 | 0.004  | 0.109 |
| 97 | 4  | 0.014  | 0.092 | 0.011  | 0.102 | 0.007  | 0.124 |
| 97 | 5  | 0.021  | 0.105 | 0.017  | 0.116 | 0.011  | 0.139 |
| 97 | 6  | 0.027  | 0.118 | 0.023  | 0.130 | 0.016  | 0.154 |
| 97 | 7  | 0.034  | 0.131 | 0.030  | 0.143 | 0.021  | 0.168 |
| 97 | 8  | 0.042  | 0.144 | 0.036  | 0.156 | 0.027  | 0.181 |
| 97 | 9  | 0.049  | 0.156 | 0.043  | 0.169 | 0.033  | 0.195 |
| 97 | 10 | 0.057  | 0.169 | 0.051  | 0.181 | 0.039  | 0.208 |
| 97 | 11 | 0.065  | 0.181 | 0.058  | 0.194 | 0.046  | 0.221 |
| 97 | 12 | 0.073  | 0.193 | 0.066  | 0.206 | 0.053  | 0.234 |
| 97 | 13 | 0.081  | 0.205 | 0.073  | 0.218 | 0.060  | 0.246 |
| 97 | 14 | 0.089  | 0.216 | 0.081  | 0.230 | 0.067  | 0.259 |
| 97 | 15 | 0.098  | 0.228 | 0.089  | 0.242 | 0.074  | 0.271 |
| 97 | 16 | 0.106  | 0.240 | 0.097  | 0.254 | 0.081  | 0.283 |
| 97 | 17 | 0.115  | 0.251 | 0.106  | 0.266 | 0.089  | 0.295 |
| 97 | 18 | 0.124  | 0.263 | 0.114  | 0.277 | 0.096  | 0.307 |
| 97 | 19 | 0.132  | 0.274 | 0.122  | 0.289 | 0.104  | 0.319 |
| 97 | 20 | 0.141  | 0.285 | 0.131  | 0.300 | 0.112  | 0.330 |
| 97 | 21 | 0.150  | 0.297 | 0.139  | 0.312 | 0.120  | 0.342 |
| 97 | 22 | 0.159  | 0.308 | 0.148  | 0.323 | 0.128  | 0.353 |
| 97 | 23 | 0.168  | 0.319 | 0.157  | 0.334 | 0.136  | 0.365 |
| 97 | 24 | 0.177  | 0.330 | 0.165  | 0.345 | 0.144  | 0.376 |
| 97 | 25 | 0.186  | 0.341 | 0.174  | 0.357 | 0.153  | 0.387 |
| 97 | 26 | 0.195  | 0.352 | 0.183  | 0.368 | 0.161  | 0.399 |
| 97 | 27 | 0.204  | 0.363 | 0.192  | 0.379 | 0.169  | 0.410 |
| 97 | 28 | 0.214  | 0.374 | 0.201  | 0.390 | 0.178  | 0.421 |
| 97 | 29 | 0.223  | 0.385 | 0.210  | 0.400 | 0.187  | 0.432 |
| 97 | 30 | 0.232  | 0.395 | 0.219  | 0.411 | 0.195  | 0.443 |
| 97 | 31 | 0.242  | 0.406 | 0.229  | 0.422 | 0.204  | 0.453 |
| 97 | 32 | 0.251  | 0.417 | 0.238  | 0.433 | 0.213  | 0.464 |
| 97 | 33 | 0.261  | 0.427 | 0.247  | 0.443 | 0.222  | 0.475 |
| 97 | 34 | 0.270  | 0.438 | 0.256  | 0.454 | 0.231  | 0.485 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 97 | 35 | 0.280  | 0.449 | 0.266  | 0.465 | 0.240  | 0.496 |
| 97 | 36 | 0.289  | 0.459 | 0.275  | 0.475 | 0.249  | 0.507 |
| 97 | 37 | 0.299  | 0.470 | 0.285  | 0.486 | 0.258  | 0.517 |
| 97 | 38 | 0.308  | 0.480 | 0.294  | 0.496 | 0.267  | 0.527 |
| 97 | 39 | 0.318  | 0.491 | 0.304  | 0.507 | 0.276  | 0.538 |
| 97 | 40 | 0.328  | 0.501 | 0.313  | 0.517 | 0.286  | 0.548 |
| 97 | 41 | 0.338  | 0.511 | 0.323  | 0.527 | 0.295  | 0.558 |
| 97 | 42 | 0.348  | 0.522 | 0.333  | 0.537 | 0.304  | 0.568 |
| 97 | 43 | 0.357  | 0.532 | 0.342  | 0.548 | 0.314  | 0.578 |
| 97 | 44 | 0.367  | 0.542 | 0.352  | 0.558 | 0.323  | 0.589 |
| 97 | 45 | 0.377  | 0.552 | 0.362  | 0.568 | 0.333  | 0.599 |
| 97 | 46 | 0.387  | 0.562 | 0.372  | 0.578 | 0.343  | 0.608 |
| 97 | 47 | 0.397  | 0.573 | 0.382  | 0.588 | 0.352  | 0.618 |
| 97 | 48 | 0.407  | 0.583 | 0.392  | 0.598 | 0.362  | 0.628 |
| 97 | 49 | 0.417  | 0.593 | 0.402  | 0.608 | 0.372  | 0.638 |
| 97 | 50 | 0.427  | 0.603 | 0.412  | 0.618 | 0.382  | 0.648 |
| 97 | 51 | 0.438  | 0.613 | 0.422  | 0.628 | 0.392  | 0.657 |
| 97 | 52 | 0.448  | 0.623 | 0.432  | 0.638 | 0.401  | 0.667 |
| 97 | 53 | 0.458  | 0.633 | 0.442  | 0.648 | 0.411  | 0.677 |
| 97 | 54 | 0.468  | 0.643 | 0.452  | 0.658 | 0.422  | 0.686 |
| 97 | 55 | 0.478  | 0.652 | 0.463  | 0.667 | 0.432  | 0.696 |
| 97 | 56 | 0.489  | 0.662 | 0.473  | 0.677 | 0.442  | 0.705 |
| 97 | 57 | 0.499  | 0.672 | 0.483  | 0.687 | 0.452  | 0.714 |
| 97 | 58 | 0.509  | 0.682 | 0.493  | 0.696 | 0.462  | 0.724 |
| 97 | 59 | 0.520  | 0.692 | 0.504  | 0.706 | 0.473  | 0.733 |
| 97 | 60 | 0.530  | 0.701 | 0.514  | 0.715 | 0.483  | 0.742 |
| 97 | 61 | 0.541  | 0.711 | 0.525  | 0.725 | 0.493  | 0.751 |
| 97 | 62 | 0.551  | 0.720 | 0.535  | 0.734 | 0.504  | 0.760 |
| 97 | 63 | 0.562  | 0.730 | 0.546  | 0.744 | 0.515  | 0.769 |
| 97 | 64 | 0.573  | 0.739 | 0.557  | 0.753 | 0.525  | 0.778 |
| 97 | 65 | 0.583  | 0.749 | 0.567  | 0.762 | 0.536  | 0.787 |
| 97 | 66 | 0.594  | 0.758 | 0.578  | 0.771 | 0.547  | 0.796 |
| 97 | 67 | 0.605  | 0.768 | 0.589  | 0.781 | 0.557  | 0.805 |
| 97 | 68 | 0.615  | 0.777 | 0.600  | 0.790 | 0.568  | 0.813 |
| 97 | 69 | 0.626  | 0.786 | 0.610  | 0.799 | 0.579  | 0.822 |
| 97 | 70 | 0.637  | 0.796 | 0.621  | 0.808 | 0.590  | 0.831 |
| 97 | 71 | 0.648  | 0.805 | 0.632  | 0.817 | 0.601  | 0.839 |
| 97 | 72 | 0.659  | 0.814 | 0.643  | 0.826 | 0.612  | 0.847 |
| 97 | 73 | 0.670  | 0.823 | 0.655  | 0.835 | 0.624  | 0.856 |
| 97 | 74 | 0.681  | 0.832 | 0.666  | 0.843 | 0.635  | 0.864 |
| 97 | 75 | 0.692  | 0.841 | 0.677  | 0.852 | 0.647  | 0.872 |
| 97 | 76 | 0.703  | 0.850 | 0.688  | 0.861 | 0.658  | 0.880 |
| 97 | 77 | 0.715  | 0.859 | 0.700  | 0.869 | 0.670  | 0.888 |
| 97 | 78 | 0.726  | 0.868 | 0.711  | 0.878 | 0.681  | 0.896 |
| 97 | 79 | 0.737  | 0.876 | 0.723  | 0.886 | 0.693  | 0.904 |
| 97 | 80 | 0.749  | 0.885 | 0.734  | 0.894 | 0.705  | 0.911 |
| 97 | 81 | 0.760  | 0.894 | 0.746  | 0.903 | 0.717  | 0.919 |
| 97 | 82 | 0.772  | 0.902 | 0.758  | 0.911 | 0.729  | 0.926 |
| 97 | 83 | 0.784  | 0.911 | 0.770  | 0.919 | 0.741  | 0.933 |
| 97 | 84 | 0.795  | 0.919 | 0.782  | 0.927 | 0.754  | 0.940 |
| 97 | 85 | 0.807  | 0.927 | 0.794  | 0.934 | 0.766  | 0.947 |
| 97 | 86 | 0.819  | 0.935 | 0.806  | 0.942 | 0.779  | 0.954 |
| 97 | 87 | 0.831  | 0.943 | 0.819  | 0.949 | 0.792  | 0.961 |
| 97 | 88 | 0.844  | 0.951 | 0.831  | 0.957 | 0.805  | 0.967 |
| 97 | 89 | 0.856  | 0.958 | 0.844  | 0.964 | 0.819  | 0.973 |
| 97 | 90 | 0.869  | 0.966 | 0.857  | 0.970 | 0.832  | 0.979 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 97 | 91 | 0.882  | 0.973 | 0.870  | 0.977 | 0.846  | 0.984 |
| 97 | 92 | 0.895  | 0.979 | 0.884  | 0.983 | 0.861  | 0.989 |
| 97 | 93 | 0.908  | 0.986 | 0.898  | 0.989 | 0.876  | 0.993 |
| 97 | 94 | 0.922  | 0.992 | 0.912  | 0.994 | 0.891  | 0.996 |
| 97 | 95 | 0.937  | 0.996 | 0.927  | 0.997 | 0.908  | 0.999 |
| 97 | 96 | 0.952  | 0.999 | 0.944  | 1.000 | 0.926  | 1.000 |
| 97 | 97 | 0.970  | 1.000 | 0.963  | 1.000 | 0.947  | 1.000 |
| 98 | 0  | 0.000  | 0.030 | 0.000  | 0.037 | 0.000  | 0.053 |
| 98 | 1  | 0.001  | 0.047 | 0.000  | 0.056 | 0.000  | 0.073 |
| 98 | 2  | 0.004  | 0.063 | 0.002  | 0.072 | 0.001  | 0.091 |
| 98 | 3  | 0.008  | 0.077 | 0.006  | 0.087 | 0.003  | 0.108 |
| 98 | 4  | 0.014  | 0.091 | 0.011  | 0.101 | 0.007  | 0.123 |
| 98 | 5  | 0.020  | 0.104 | 0.017  | 0.115 | 0.014  | 0.138 |
| 98 | 6  | 0.027  | 0.117 | 0.023  | 0.129 | 0.016  | 0.152 |
| 98 | 7  | 0.034  | 0.130 | 0.029  | 0.142 | 0.021  | 0.166 |
| 98 | 8  | 0.041  | 0.142 | 0.036  | 0.155 | 0.027  | 0.180 |
| 98 | 9  | 0.049  | 0.155 | 0.043  | 0.167 | 0.033  | 0.193 |
| 98 | 10 | 0.056  | 0.167 | 0.050  | 0.180 | 0.039  | 0.206 |
| 98 | 11 | 0.064  | 0.179 | 0.057  | 0.192 | 0.045  | 0.219 |
| 98 | 12 | 0.072  | 0.191 | 0.065  | 0.204 | 0.052  | 0.231 |
| 98 | 13 | 0.080  | 0.203 | 0.073  | 0.216 | 0.059  | 0.244 |
| 98 | 14 | 0.088  | 0.214 | 0.080  | 0.228 | 0.066  | 0.256 |
| 98 | 15 | 0.097  | 0.226 | 0.088  | 0.240 | 0.073  | 0.268 |
| 98 | 16 | 0.105  | 0.237 | 0.096  | 0.252 | 0.080  | 0.280 |
| 98 | 17 | 0.114  | 0.249 | 0.104  | 0.263 | 0.088  | 0.292 |
| 98 | 18 | 0.122  | 0.260 | 0.113  | 0.275 | 0.095  | 0.304 |
| 98 | 19 | 0.131  | 0.271 | 0.121  | 0.286 | 0.103  | 0.316 |
| 98 | 20 | 0.140  | 0.283 | 0.129  | 0.297 | 0.111  | 0.327 |
| 98 | 21 | 0.148  | 0.294 | 0.138  | 0.309 | 0.119  | 0.339 |
| 98 | 22 | 0.157  | 0.305 | 0.146  | 0.320 | 0.127  | 0.350 |
| 98 | 23 | 0.166  | 0.316 | 0.155  | 0.331 | 0.135  | 0.361 |
| 98 | 24 | 0.175  | 0.327 | 0.164  | 0.342 | 0.143  | 0.373 |
| 98 | 25 | 0.184  | 0.338 | 0.172  | 0.353 | 0.151  | 0.384 |
| 98 | 26 | 0.193  | 0.349 | 0.181  | 0.364 | 0.159  | 0.395 |
| 98 | 27 | 0.202  | 0.359 | 0.190  | 0.375 | 0.168  | 0.406 |
| 98 | 28 | 0.211  | 0.370 | 0.199  | 0.386 | 0.176  | 0.417 |
| 98 | 29 | 0.220  | 0.381 | 0.208  | 0.397 | 0.185  | 0.428 |
| 98 | 30 | 0.230  | 0.392 | 0.217  | 0.407 | 0.193  | 0.439 |
| 98 | 31 | 0.239  | 0.402 | 0.226  | 0.418 | 0.202  | 0.449 |
| 98 | 32 | 0.248  | 0.413 | 0.235  | 0.429 | 0.210  | 0.460 |
| 98 | 33 | 0.258  | 0.423 | 0.244  | 0.439 | 0.219  | 0.471 |
| 98 | 34 | 0.267  | 0.434 | 0.254  | 0.450 | 0.228  | 0.481 |
| 98 | 35 | 0.277  | 0.444 | 0.263  | 0.460 | 0.237  | 0.492 |
| 98 | 36 | 0.286  | 0.455 | 0.272  | 0.471 | 0.246  | 0.502 |
| 98 | 37 | 0.296  | 0.465 | 0.282  | 0.481 | 0.255  | 0.512 |
| 98 | 38 | 0.305  | 0.476 | 0.291  | 0.492 | 0.264  | 0.523 |
| 98 | 39 | 0.315  | 0.486 | 0.300  | 0.502 | 0.273  | 0.533 |
| 98 | 40 | 0.324  | 0.496 | 0.310  | 0.512 | 0.282  | 0.543 |
| 98 | 41 | 0.334  | 0.506 | 0.319  | 0.522 | 0.292  | 0.553 |
| 98 | 42 | 0.344  | 0.517 | 0.329  | 0.533 | 0.301  | 0.563 |
| 98 | 43 | 0.354  | 0.527 | 0.339  | 0.543 | 0.310  | 0.573 |
| 98 | 44 | 0.363  | 0.537 | 0.348  | 0.553 | 0.320  | 0.583 |
| 98 | 45 | 0.373  | 0.547 | 0.358  | 0.563 | 0.329  | 0.593 |
| 98 | 46 | 0.383  | 0.557 | 0.368  | 0.573 | 0.339  | 0.603 |
| 98 | 47 | 0.393  | 0.567 | 0.378  | 0.583 | 0.348  | 0.613 |
| 98 | 48 | 0.403  | 0.577 | 0.387  | 0.593 | 0.358  | 0.623 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 98 | 49 | 0.413  | 0.587 | 0.397  | 0.603 | 0.368  | 0.632 |
| 98 | 50 | 0.423  | 0.597 | 0.407  | 0.613 | 0.377  | 0.642 |
| 98 | 51 | 0.433  | 0.607 | 0.417  | 0.622 | 0.387  | 0.652 |
| 98 | 52 | 0.443  | 0.617 | 0.427  | 0.632 | 0.397  | 0.661 |
| 98 | 53 | 0.453  | 0.627 | 0.437  | 0.642 | 0.407  | 0.671 |
| 98 | 54 | 0.463  | 0.637 | 0.447  | 0.652 | 0.417  | 0.680 |
| 98 | 55 | 0.473  | 0.646 | 0.457  | 0.661 | 0.427  | 0.690 |
| 98 | 56 | 0.483  | 0.656 | 0.467  | 0.671 | 0.437  | 0.699 |
| 98 | 57 | 0.494  | 0.666 | 0.478  | 0.681 | 0.447  | 0.708 |
| 98 | 58 | 0.504  | 0.676 | 0.488  | 0.690 | 0.457  | 0.718 |
| 98 | 59 | 0.514  | 0.685 | 0.498  | 0.700 | 0.467  | 0.727 |
| 98 | 60 | 0.524  | 0.695 | 0.508  | 0.709 | 0.477  | 0.736 |
| 98 | 61 | 0.535  | 0.704 | 0.519  | 0.718 | 0.488  | 0.745 |
| 98 | 62 | 0.545  | 0.714 | 0.529  | 0.728 | 0.498  | 0.754 |
| 98 | 63 | 0.556  | 0.723 | 0.540  | 0.737 | 0.508  | 0.763 |
| 98 | 64 | 0.566  | 0.733 | 0.550  | 0.746 | 0.519  | 0.772 |
| 98 | 65 | 0.577  | 0.742 | 0.561  | 0.756 | 0.529  | 0.781 |
| 98 | 66 | 0.587  | 0.752 | 0.571  | 0.765 | 0.540  | 0.790 |
| 98 | 67 | 0.598  | 0.761 | 0.582  | 0.774 | 0.551  | 0.798 |
| 98 | 68 | 0.608  | 0.770 | 0.593  | 0.783 | 0.561  | 0.807 |
| 98 | 69 | 0.619  | 0.780 | 0.603  | 0.792 | 0.572  | 0.815 |
| 98 | 70 | 0.630  | 0.789 | 0.614  | 0.801 | 0.583  | 0.824 |
| 98 | 71 | 0.641  | 0.798 | 0.625  | 0.810 | 0.594  | 0.832 |
| 98 | 72 | 0.651  | 0.807 | 0.636  | 0.819 | 0.605  | 0.841 |
| 98 | 73 | 0.662  | 0.816 | 0.647  | 0.828 | 0.616  | 0.849 |
| 98 | 74 | 0.673  | 0.825 | 0.658  | 0.836 | 0.627  | 0.857 |
| 98 | 75 | 0.684  | 0.834 | 0.669  | 0.845 | 0.639  | 0.865 |
| 98 | 76 | 0.695  | 0.843 | 0.680  | 0.854 | 0.650  | 0.873 |
| 98 | 77 | 0.706  | 0.852 | 0.691  | 0.862 | 0.661  | 0.881 |
| 98 | 78 | 0.717  | 0.860 | 0.703  | 0.871 | 0.673  | 0.889 |
| 98 | 79 | 0.729  | 0.869 | 0.714  | 0.879 | 0.684  | 0.897 |
| 98 | 80 | 0.740  | 0.878 | 0.725  | 0.887 | 0.696  | 0.905 |
| 98 | 81 | 0.751  | 0.886 | 0.737  | 0.896 | 0.708  | 0.912 |
| 98 | 82 | 0.763  | 0.895 | 0.748  | 0.904 | 0.720  | 0.920 |
| 98 | 83 | 0.774  | 0.903 | 0.760  | 0.912 | 0.732  | 0.927 |
| 98 | 84 | 0.786  | 0.912 | 0.772  | 0.920 | 0.744  | 0.934 |
| 98 | 85 | 0.797  | 0.920 | 0.784  | 0.927 | 0.756  | 0.941 |
| 98 | 86 | 0.809  | 0.928 | 0.796  | 0.935 | 0.769  | 0.948 |
| 98 | 87 | 0.821  | 0.936 | 0.808  | 0.943 | 0.781  | 0.955 |
| 98 | 88 | 0.833  | 0.944 | 0.820  | 0.950 | 0.794  | 0.961 |
| 98 | 89 | 0.845  | 0.951 | 0.833  | 0.957 | 0.807  | 0.967 |
| 98 | 90 | 0.858  | 0.959 | 0.845  | 0.964 | 0.820  | 0.973 |
| 98 | 91 | 0.870  | 0.966 | 0.858  | 0.971 | 0.834  | 0.979 |
| 98 | 92 | 0.883  | 0.973 | 0.871  | 0.977 | 0.848  | 0.984 |
| 98 | 93 | 0.896  | 0.980 | 0.885  | 0.983 | 0.862  | 0.989 |
| 98 | 94 | 0.909  | 0.986 | 0.899  | 0.989 | 0.877  | 0.993 |
| 98 | 95 | 0.923  | 0.992 | 0.913  | 0.994 | 0.892  | 0.997 |
| 98 | 96 | 0.937  | 0.996 | 0.928  | 0.998 | 0.909  | 0.999 |
| 98 | 97 | 0.953  | 0.999 | 0.944  | 1.000 | 0.927  | 1.000 |
| 98 | 98 | 0.970  | 1.000 | 0.963  | 1.000 | 0.947  | 1.000 |
| 99 | 0  | 0.000  | 0.030 | 0.000  | 0.037 | 0.000  | 0.052 |
| 99 | 1  | 0.001  | 0.047 | 0.000  | 0.055 | 0.000  | 0.073 |
| 99 | 2  | 0.004  | 0.062 | 0.002  | 0.071 | 0.001  | 0.090 |
| 99 | 3  | 0.008  | 0.076 | 0.006  | 0.086 | 0.003  | 0.107 |
| 99 | 4  | 0.014  | 0.090 | 0.011  | 0.100 | 0.007  | 0.122 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N  | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|----|----|--------|-------|--------|-------|--------|-------|
|    |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 99 | 5  | 0.020  | 0.103 | 0.017  | 0.114 | 0.011  | 0.136 |
| 99 | 6  | 0.027  | 0.116 | 0.023  | 0.127 | 0.016  | 0.151 |
| 99 | 7  | 0.034  | 0.129 | 0.029  | 0.140 | 0.021  | 0.164 |
| 99 | 8  | 0.041  | 0.141 | 0.036  | 0.153 | 0.027  | 0.178 |
| 99 | 9  | 0.048  | 0.153 | 0.042  | 0.166 | 0.032  | 0.191 |
| 99 | 10 | 0.056  | 0.165 | 0.050  | 0.178 | 0.039  | 0.204 |
| 99 | 11 | 0.064  | 0.177 | 0.057  | 0.190 | 0.045  | 0.217 |
| 99 | 12 | 0.071  | 0.189 | 0.064  | 0.202 | 0.052  | 0.229 |
| 99 | 13 | 0.079  | 0.201 | 0.072  | 0.214 | 0.058  | 0.241 |
| 99 | 14 | 0.088  | 0.212 | 0.080  | 0.226 | 0.065  | 0.254 |
| 99 | 15 | 0.096  | 0.224 | 0.087  | 0.238 | 0.072  | 0.266 |
| 99 | 16 | 0.104  | 0.235 | 0.095  | 0.249 | 0.080  | 0.278 |
| 99 | 17 | 0.112  | 0.246 | 0.103  | 0.261 | 0.087  | 0.289 |
| 99 | 18 | 0.121  | 0.258 | 0.111  | 0.272 | 0.094  | 0.301 |
| 99 | 19 | 0.129  | 0.269 | 0.120  | 0.283 | 0.102  | 0.313 |
| 99 | 20 | 0.138  | 0.280 | 0.128  | 0.295 | 0.110  | 0.324 |
| 99 | 21 | 0.147  | 0.291 | 0.136  | 0.306 | 0.117  | 0.336 |
| 99 | 22 | 0.155  | 0.302 | 0.145  | 0.317 | 0.125  | 0.347 |
| 99 | 23 | 0.164  | 0.313 | 0.153  | 0.328 | 0.133  | 0.358 |
| 99 | 24 | 0.173  | 0.324 | 0.162  | 0.339 | 0.141  | 0.369 |
| 99 | 25 | 0.182  | 0.334 | 0.171  | 0.350 | 0.149  | 0.380 |
| 99 | 26 | 0.191  | 0.345 | 0.179  | 0.361 | 0.158  | 0.391 |
| 99 | 27 | 0.200  | 0.356 | 0.188  | 0.371 | 0.166  | 0.402 |
| 99 | 28 | 0.209  | 0.367 | 0.197  | 0.382 | 0.174  | 0.413 |
| 99 | 29 | 0.218  | 0.377 | 0.206  | 0.393 | 0.183  | 0.424 |
| 99 | 30 | 0.227  | 0.388 | 0.215  | 0.404 | 0.191  | 0.435 |
| 99 | 31 | 0.236  | 0.398 | 0.224  | 0.414 | 0.200  | 0.445 |
| 99 | 32 | 0.246  | 0.409 | 0.233  | 0.425 | 0.208  | 0.456 |
| 99 | 33 | 0.255  | 0.419 | 0.242  | 0.435 | 0.217  | 0.466 |
| 99 | 34 | 0.264  | 0.430 | 0.251  | 0.446 | 0.226  | 0.477 |
| 99 | 35 | 0.274  | 0.440 | 0.260  | 0.456 | 0.234  | 0.487 |
| 99 | 36 | 0.283  | 0.451 | 0.269  | 0.466 | 0.243  | 0.497 |
| 99 | 37 | 0.292  | 0.461 | 0.279  | 0.477 | 0.252  | 0.508 |
| 99 | 38 | 0.302  | 0.471 | 0.288  | 0.487 | 0.261  | 0.518 |
| 99 | 39 | 0.311  | 0.481 | 0.297  | 0.497 | 0.270  | 0.528 |
| 99 | 40 | 0.321  | 0.492 | 0.307  | 0.507 | 0.279  | 0.538 |
| 99 | 41 | 0.330  | 0.502 | 0.316  | 0.518 | 0.288  | 0.548 |
| 99 | 42 | 0.340  | 0.512 | 0.325  | 0.528 | 0.298  | 0.558 |
| 99 | 43 | 0.350  | 0.522 | 0.335  | 0.538 | 0.307  | 0.568 |
| 99 | 44 | 0.359  | 0.532 | 0.345  | 0.548 | 0.316  | 0.578 |
| 99 | 45 | 0.369  | 0.542 | 0.354  | 0.558 | 0.326  | 0.588 |
| 99 | 46 | 0.379  | 0.552 | 0.364  | 0.568 | 0.335  | 0.598 |
| 99 | 47 | 0.389  | 0.562 | 0.373  | 0.578 | 0.344  | 0.608 |
| 99 | 48 | 0.398  | 0.572 | 0.383  | 0.587 | 0.354  | 0.617 |
| 99 | 49 | 0.408  | 0.582 | 0.393  | 0.597 | 0.363  | 0.627 |
| 99 | 50 | 0.418  | 0.592 | 0.403  | 0.607 | 0.373  | 0.637 |
| 99 | 51 | 0.428  | 0.602 | 0.413  | 0.617 | 0.383  | 0.646 |
| 99 | 52 | 0.438  | 0.611 | 0.422  | 0.627 | 0.392  | 0.656 |
| 99 | 53 | 0.448  | 0.621 | 0.432  | 0.636 | 0.402  | 0.665 |
| 99 | 54 | 0.458  | 0.631 | 0.442  | 0.646 | 0.412  | 0.674 |
| 99 | 55 | 0.468  | 0.641 | 0.452  | 0.655 | 0.422  | 0.684 |
| 99 | 56 | 0.478  | 0.650 | 0.462  | 0.665 | 0.432  | 0.693 |
| 99 | 57 | 0.488  | 0.660 | 0.472  | 0.675 | 0.442  | 0.702 |
| 99 | 58 | 0.498  | 0.670 | 0.482  | 0.684 | 0.452  | 0.712 |
| 99 | 59 | 0.508  | 0.679 | 0.493  | 0.693 | 0.462  | 0.721 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 99  | 60 | 0.519  | 0.689 | 0.503  | 0.703 | 0.472  | 0.730 |
| 99  | 61 | 0.529  | 0.698 | 0.513  | 0.712 | 0.482  | 0.739 |
| 99  | 62 | 0.539  | 0.708 | 0.523  | 0.721 | 0.492  | 0.748 |
| 99  | 63 | 0.549  | 0.717 | 0.534  | 0.731 | 0.503  | 0.757 |
| 99  | 64 | 0.560  | 0.726 | 0.544  | 0.740 | 0.513  | 0.766 |
| 99  | 65 | 0.570  | 0.736 | 0.554  | 0.749 | 0.523  | 0.774 |
| 99  | 66 | 0.581  | 0.745 | 0.565  | 0.758 | 0.534  | 0.783 |
| 99  | 67 | 0.591  | 0.754 | 0.575  | 0.767 | 0.544  | 0.792 |
| 99  | 68 | 0.602  | 0.764 | 0.586  | 0.776 | 0.555  | 0.800 |
| 99  | 69 | 0.612  | 0.773 | 0.596  | 0.785 | 0.565  | 0.809 |
| 99  | 70 | 0.623  | 0.782 | 0.607  | 0.794 | 0.576  | 0.817 |
| 99  | 71 | 0.633  | 0.791 | 0.618  | 0.803 | 0.587  | 0.826 |
| 99  | 72 | 0.644  | 0.800 | 0.629  | 0.812 | 0.598  | 0.834 |
| 99  | 73 | 0.655  | 0.809 | 0.639  | 0.821 | 0.609  | 0.842 |
| 99  | 74 | 0.666  | 0.818 | 0.650  | 0.829 | 0.620  | 0.851 |
| 99  | 75 | 0.676  | 0.827 | 0.661  | 0.838 | 0.631  | 0.859 |
| 99  | 76 | 0.687  | 0.836 | 0.672  | 0.847 | 0.642  | 0.867 |
| 99  | 77 | 0.698  | 0.845 | 0.683  | 0.855 | 0.653  | 0.875 |
| 99  | 78 | 0.709  | 0.853 | 0.694  | 0.864 | 0.664  | 0.883 |
| 99  | 79 | 0.720  | 0.862 | 0.705  | 0.872 | 0.676  | 0.890 |
| 99  | 80 | 0.731  | 0.871 | 0.717  | 0.880 | 0.687  | 0.898 |
| 99  | 81 | 0.742  | 0.879 | 0.728  | 0.889 | 0.699  | 0.906 |
| 99  | 82 | 0.754  | 0.888 | 0.739  | 0.897 | 0.711  | 0.913 |
| 99  | 83 | 0.765  | 0.896 | 0.751  | 0.905 | 0.722  | 0.920 |
| 99  | 84 | 0.776  | 0.904 | 0.762  | 0.913 | 0.734  | 0.928 |
| 99  | 85 | 0.788  | 0.912 | 0.774  | 0.920 | 0.746  | 0.935 |
| 99  | 86 | 0.799  | 0.921 | 0.786  | 0.928 | 0.759  | 0.942 |
| 99  | 87 | 0.811  | 0.929 | 0.798  | 0.936 | 0.771  | 0.948 |
| 99  | 88 | 0.823  | 0.936 | 0.810  | 0.943 | 0.783  | 0.955 |
| 99  | 89 | 0.835  | 0.944 | 0.822  | 0.950 | 0.796  | 0.961 |
| 99  | 90 | 0.847  | 0.952 | 0.834  | 0.958 | 0.809  | 0.968 |
| 99  | 91 | 0.859  | 0.959 | 0.847  | 0.964 | 0.822  | 0.973 |
| 99  | 92 | 0.871  | 0.966 | 0.860  | 0.971 | 0.836  | 0.979 |
| 99  | 93 | 0.884  | 0.973 | 0.873  | 0.977 | 0.849  | 0.984 |
| 99  | 94 | 0.897  | 0.980 | 0.886  | 0.983 | 0.864  | 0.989 |
| 99  | 95 | 0.910  | 0.986 | 0.900  | 0.989 | 0.878  | 0.993 |
| 99  | 96 | 0.924  | 0.992 | 0.914  | 0.994 | 0.893  | 0.997 |
| 99  | 97 | 0.938  | 0.996 | 0.929  | 0.998 | 0.910  | 0.999 |
| 99  | 98 | 0.953  | 0.999 | 0.945  | 1.000 | 0.927  | 1.000 |
| 99  | 99 | 0.970  | 1.000 | 0.963  | 1.000 | 0.948  | 1.000 |
| 100 | 0  | 0.000  | 0.030 | 0.000  | 0.036 | 0.000  | 0.052 |
| 100 | 1  | 0.001  | 0.047 | 0.000  | 0.054 | 0.000  | 0.072 |
| 100 | 2  | 0.004  | 0.062 | 0.002  | 0.070 | 0.001  | 0.089 |
| 100 | 3  | 0.008  | 0.076 | 0.006  | 0.085 | 0.003  | 0.105 |
| 100 | 4  | 0.014  | 0.089 | 0.011  | 0.099 | 0.007  | 0.121 |
| 100 | 5  | 0.020  | 0.102 | 0.016  | 0.113 | 0.011  | 0.135 |
| 100 | 6  | 0.026  | 0.115 | 0.022  | 0.126 | 0.016  | 0.149 |
| 100 | 7  | 0.033  | 0.127 | 0.029  | 0.139 | 0.021  | 0.163 |
| 100 | 8  | 0.040  | 0.140 | 0.035  | 0.152 | 0.026  | 0.176 |
| 100 | 9  | 0.048  | 0.152 | 0.042  | 0.164 | 0.032  | 0.189 |
| 100 | 10 | 0.055  | 0.164 | 0.049  | 0.176 | 0.038  | 0.202 |
| 100 | 11 | 0.063  | 0.175 | 0.056  | 0.188 | 0.045  | 0.215 |
| 100 | 12 | 0.071  | 0.187 | 0.064  | 0.200 | 0.051  | 0.227 |
| 100 | 13 | 0.079  | 0.199 | 0.071  | 0.212 | 0.058  | 0.239 |
| 100 | 14 | 0.087  | 0.210 | 0.079  | 0.224 | 0.065  | 0.251 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 100 | 15 | 0.095  | 0.222 | 0.086  | 0.235 | 0.072  | 0.263 |
| 100 | 16 | 0.103  | 0.233 | 0.094  | 0.247 | 0.079  | 0.275 |
| 100 | 17 | 0.111  | 0.244 | 0.102  | 0.258 | 0.086  | 0.287 |
| 100 | 18 | 0.120  | 0.255 | 0.110  | 0.269 | 0.093  | 0.298 |
| 100 | 19 | 0.128  | 0.266 | 0.118  | 0.281 | 0.101  | 0.310 |
| 100 | 20 | 0.137  | 0.277 | 0.127  | 0.292 | 0.108  | 0.321 |
| 100 | 21 | 0.145  | 0.288 | 0.135  | 0.303 | 0.116  | 0.333 |
| 100 | 22 | 0.154  | 0.299 | 0.143  | 0.314 | 0.124  | 0.344 |
| 100 | 23 | 0.163  | 0.310 | 0.152  | 0.325 | 0.132  | 0.355 |
| 100 | 24 | 0.171  | 0.321 | 0.160  | 0.336 | 0.140  | 0.366 |
| 100 | 25 | 0.180  | 0.331 | 0.169  | 0.347 | 0.148  | 0.377 |
| 100 | 26 | 0.189  | 0.342 | 0.177  | 0.357 | 0.156  | 0.388 |
| 100 | 27 | 0.198  | 0.353 | 0.186  | 0.368 | 0.164  | 0.399 |
| 100 | 28 | 0.207  | 0.363 | 0.195  | 0.379 | 0.172  | 0.409 |
| 100 | 29 | 0.216  | 0.374 | 0.204  | 0.389 | 0.181  | 0.420 |
| 100 | 30 | 0.225  | 0.384 | 0.212  | 0.400 | 0.189  | 0.431 |
| 100 | 31 | 0.234  | 0.395 | 0.221  | 0.410 | 0.197  | 0.441 |
| 100 | 32 | 0.243  | 0.405 | 0.230  | 0.421 | 0.206  | 0.452 |
| 100 | 33 | 0.252  | 0.415 | 0.239  | 0.431 | 0.215  | 0.462 |
| 100 | 34 | 0.262  | 0.426 | 0.248  | 0.442 | 0.223  | 0.472 |
| 100 | 35 | 0.271  | 0.436 | 0.257  | 0.452 | 0.232  | 0.483 |
| 100 | 36 | 0.280  | 0.446 | 0.266  | 0.462 | 0.241  | 0.493 |
| 100 | 37 | 0.289  | 0.457 | 0.276  | 0.472 | 0.249  | 0.503 |
| 100 | 38 | 0.299  | 0.467 | 0.285  | 0.483 | 0.258  | 0.513 |
| 100 | 39 | 0.308  | 0.477 | 0.294  | 0.493 | 0.267  | 0.523 |
| 100 | 40 | 0.318  | 0.487 | 0.303  | 0.503 | 0.276  | 0.534 |
| 100 | 41 | 0.327  | 0.497 | 0.313  | 0.513 | 0.285  | 0.544 |
| 100 | 42 | 0.336  | 0.507 | 0.322  | 0.523 | 0.294  | 0.553 |
| 100 | 43 | 0.346  | 0.517 | 0.331  | 0.533 | 0.304  | 0.563 |
| 100 | 44 | 0.356  | 0.527 | 0.341  | 0.543 | 0.313  | 0.573 |
| 100 | 45 | 0.365  | 0.537 | 0.350  | 0.553 | 0.322  | 0.583 |
| 100 | 46 | 0.375  | 0.547 | 0.360  | 0.563 | 0.331  | 0.593 |
| 100 | 47 | 0.384  | 0.557 | 0.369  | 0.572 | 0.341  | 0.602 |
| 100 | 48 | 0.394  | 0.567 | 0.379  | 0.582 | 0.350  | 0.612 |
| 100 | 49 | 0.404  | 0.577 | 0.389  | 0.592 | 0.359  | 0.622 |
| 100 | 50 | 0.414  | 0.586 | 0.398  | 0.602 | 0.369  | 0.631 |
| 100 | 51 | 0.423  | 0.596 | 0.408  | 0.611 | 0.378  | 0.641 |
| 100 | 52 | 0.433  | 0.606 | 0.418  | 0.621 | 0.388  | 0.650 |
| 100 | 53 | 0.443  | 0.616 | 0.428  | 0.631 | 0.398  | 0.659 |
| 100 | 54 | 0.453  | 0.625 | 0.437  | 0.640 | 0.407  | 0.669 |
| 100 | 55 | 0.463  | 0.635 | 0.447  | 0.650 | 0.417  | 0.678 |
| 100 | 56 | 0.473  | 0.644 | 0.457  | 0.659 | 0.427  | 0.687 |
| 100 | 57 | 0.483  | 0.654 | 0.467  | 0.669 | 0.437  | 0.696 |
| 100 | 58 | 0.493  | 0.664 | 0.477  | 0.678 | 0.447  | 0.706 |
| 100 | 59 | 0.503  | 0.673 | 0.487  | 0.687 | 0.456  | 0.715 |
| 100 | 60 | 0.513  | 0.682 | 0.497  | 0.697 | 0.466  | 0.724 |
| 100 | 61 | 0.523  | 0.692 | 0.507  | 0.706 | 0.477  | 0.733 |
| 100 | 62 | 0.533  | 0.701 | 0.517  | 0.715 | 0.487  | 0.742 |
| 100 | 63 | 0.543  | 0.711 | 0.528  | 0.724 | 0.497  | 0.751 |
| 100 | 64 | 0.554  | 0.720 | 0.538  | 0.734 | 0.507  | 0.759 |
| 100 | 65 | 0.564  | 0.729 | 0.548  | 0.743 | 0.517  | 0.768 |
| 100 | 66 | 0.574  | 0.738 | 0.558  | 0.752 | 0.528  | 0.777 |
| 100 | 67 | 0.585  | 0.748 | 0.569  | 0.761 | 0.538  | 0.785 |
| 100 | 68 | 0.595  | 0.757 | 0.579  | 0.770 | 0.548  | 0.794 |
| 100 | 69 | 0.605  | 0.766 | 0.590  | 0.779 | 0.559  | 0.803 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 100 | 70  | 0.616  | 0.775 | 0.600  | 0.788 | 0.569  | 0.811 |
| 100 | 71  | 0.626  | 0.784 | 0.611  | 0.796 | 0.580  | 0.819 |
| 100 | 72  | 0.637  | 0.793 | 0.621  | 0.805 | 0.591  | 0.828 |
| 100 | 73  | 0.647  | 0.802 | 0.632  | 0.814 | 0.601  | 0.836 |
| 100 | 74  | 0.658  | 0.811 | 0.643  | 0.823 | 0.612  | 0.844 |
| 100 | 75  | 0.669  | 0.820 | 0.653  | 0.831 | 0.623  | 0.852 |
| 100 | 76  | 0.679  | 0.829 | 0.664  | 0.840 | 0.634  | 0.860 |
| 100 | 77  | 0.690  | 0.837 | 0.675  | 0.848 | 0.645  | 0.868 |
| 100 | 78  | 0.701  | 0.846 | 0.686  | 0.857 | 0.656  | 0.876 |
| 100 | 79  | 0.712  | 0.855 | 0.697  | 0.865 | 0.667  | 0.884 |
| 100 | 80  | 0.723  | 0.863 | 0.708  | 0.873 | 0.679  | 0.892 |
| 100 | 81  | 0.734  | 0.872 | 0.719  | 0.882 | 0.690  | 0.899 |
| 100 | 82  | 0.745  | 0.880 | 0.731  | 0.890 | 0.702  | 0.907 |
| 100 | 83  | 0.756  | 0.889 | 0.742  | 0.898 | 0.713  | 0.914 |
| 100 | 84  | 0.767  | 0.897 | 0.753  | 0.906 | 0.725  | 0.921 |
| 100 | 85  | 0.778  | 0.905 | 0.765  | 0.914 | 0.737  | 0.928 |
| 100 | 86  | 0.790  | 0.913 | 0.776  | 0.921 | 0.749  | 0.935 |
| 100 | 87  | 0.801  | 0.921 | 0.788  | 0.929 | 0.761  | 0.942 |
| 100 | 88  | 0.813  | 0.929 | 0.800  | 0.936 | 0.773  | 0.949 |
| 100 | 89  | 0.825  | 0.937 | 0.812  | 0.944 | 0.785  | 0.955 |
| 100 | 90  | 0.836  | 0.945 | 0.824  | 0.951 | 0.798  | 0.962 |
| 100 | 91  | 0.848  | 0.952 | 0.836  | 0.958 | 0.811  | 0.968 |
| 100 | 92  | 0.860  | 0.960 | 0.848  | 0.965 | 0.824  | 0.974 |
| 100 | 93  | 0.873  | 0.967 | 0.861  | 0.971 | 0.837  | 0.979 |
| 100 | 94  | 0.885  | 0.974 | 0.874  | 0.978 | 0.851  | 0.984 |
| 100 | 95  | 0.896  | 0.980 | 0.887  | 0.984 | 0.865  | 0.989 |
| 100 | 96  | 0.911  | 0.986 | 0.901  | 0.989 | 0.879  | 0.993 |
| 100 | 97  | 0.924  | 0.992 | 0.915  | 0.994 | 0.895  | 0.997 |
| 100 | 98  | 0.938  | 0.996 | 0.930  | 0.998 | 0.911  | 0.999 |
| 100 | 99  | 0.953  | 0.999 | 0.946  | 1.000 | 0.928  | 1.000 |
| 100 | 100 | 0.970  | 1.000 | 0.964  | 1.000 | 0.948  | 1.000 |
| 105 | 0   | 0.000  | 0.028 | 0.000  | 0.035 | 0.000  | 0.049 |
| 105 | 1   | 0.000  | 0.044 | 0.000  | 0.052 | 0.000  | 0.069 |
| 105 | 2   | 0.003  | 0.059 | 0.002  | 0.067 | 0.001  | 0.085 |
| 105 | 3   | 0.008  | 0.072 | 0.006  | 0.081 | 0.003  | 0.101 |
| 105 | 4   | 0.013  | 0.085 | 0.010  | 0.095 | 0.006  | 0.115 |
| 105 | 5   | 0.019  | 0.098 | 0.016  | 0.108 | 0.010  | 0.129 |
| 105 | 6   | 0.025  | 0.110 | 0.021  | 0.120 | 0.015  | 0.142 |
| 105 | 7   | 0.032  | 0.122 | 0.027  | 0.133 | 0.020  | 0.155 |
| 105 | 8   | 0.038  | 0.133 | 0.033  | 0.145 | 0.025  | 0.168 |
| 105 | 9   | 0.045  | 0.145 | 0.040  | 0.156 | 0.031  | 0.181 |
| 105 | 10  | 0.053  | 0.156 | 0.047  | 0.168 | 0.036  | 0.193 |
| 105 | 11  | 0.060  | 0.167 | 0.053  | 0.180 | 0.042  | 0.205 |
| 105 | 12  | 0.067  | 0.179 | 0.060  | 0.191 | 0.049  | 0.217 |
| 105 | 13  | 0.075  | 0.190 | 0.068  | 0.202 | 0.055  | 0.229 |
| 105 | 14  | 0.082  | 0.201 | 0.075  | 0.214 | 0.061  | 0.240 |
| 105 | 15  | 0.090  | 0.211 | 0.082  | 0.225 | 0.068  | 0.252 |
| 105 | 16  | 0.098  | 0.222 | 0.090  | 0.236 | 0.075  | 0.263 |
| 105 | 17  | 0.106  | 0.233 | 0.097  | 0.247 | 0.082  | 0.274 |
| 105 | 18  | 0.114  | 0.244 | 0.105  | 0.257 | 0.089  | 0.285 |
| 105 | 19  | 0.122  | 0.254 | 0.113  | 0.268 | 0.096  | 0.296 |
| 105 | 20  | 0.130  | 0.265 | 0.120  | 0.279 | 0.103  | 0.307 |
| 105 | 21  | 0.138  | 0.275 | 0.128  | 0.289 | 0.110  | 0.318 |
| 105 | 22  | 0.146  | 0.285 | 0.136  | 0.300 | 0.118  | 0.329 |
| 105 | 23  | 0.155  | 0.296 | 0.144  | 0.310 | 0.125  | 0.339 |
| 105 | 24  | 0.163  | 0.306 | 0.152  | 0.321 | 0.133  | 0.350 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 105 | 25 | 0.171  | 0.316 | 0.160  | 0.331 | 0.140  | 0.360 |
| 105 | 26 | 0.180  | 0.327 | 0.169  | 0.341 | 0.148  | 0.371 |
| 105 | 27 | 0.188  | 0.337 | 0.177  | 0.352 | 0.156  | 0.381 |
| 105 | 28 | 0.197  | 0.347 | 0.185  | 0.362 | 0.164  | 0.392 |
| 105 | 29 | 0.205  | 0.357 | 0.193  | 0.372 | 0.171  | 0.402 |
| 105 | 30 | 0.214  | 0.367 | 0.202  | 0.382 | 0.179  | 0.412 |
| 105 | 31 | 0.222  | 0.377 | 0.210  | 0.392 | 0.187  | 0.422 |
| 105 | 32 | 0.231  | 0.387 | 0.219  | 0.402 | 0.196  | 0.432 |
| 105 | 33 | 0.240  | 0.397 | 0.227  | 0.412 | 0.204  | 0.442 |
| 105 | 34 | 0.248  | 0.407 | 0.236  | 0.422 | 0.212  | 0.452 |
| 105 | 35 | 0.257  | 0.417 | 0.244  | 0.432 | 0.220  | 0.462 |
| 105 | 36 | 0.266  | 0.426 | 0.253  | 0.442 | 0.228  | 0.472 |
| 105 | 37 | 0.275  | 0.436 | 0.262  | 0.452 | 0.237  | 0.482 |
| 105 | 38 | 0.284  | 0.446 | 0.270  | 0.461 | 0.245  | 0.492 |
| 105 | 39 | 0.293  | 0.456 | 0.279  | 0.471 | 0.254  | 0.501 |
| 105 | 40 | 0.302  | 0.465 | 0.288  | 0.481 | 0.262  | 0.511 |
| 105 | 41 | 0.311  | 0.475 | 0.297  | 0.491 | 0.271  | 0.521 |
| 105 | 42 | 0.320  | 0.485 | 0.306  | 0.500 | 0.279  | 0.530 |
| 105 | 43 | 0.329  | 0.494 | 0.315  | 0.510 | 0.288  | 0.540 |
| 105 | 44 | 0.338  | 0.504 | 0.323  | 0.519 | 0.296  | 0.549 |
| 105 | 45 | 0.347  | 0.514 | 0.332  | 0.529 | 0.305  | 0.559 |
| 105 | 46 | 0.356  | 0.523 | 0.341  | 0.538 | 0.314  | 0.568 |
| 105 | 47 | 0.365  | 0.533 | 0.350  | 0.548 | 0.323  | 0.577 |
| 105 | 48 | 0.374  | 0.542 | 0.360  | 0.557 | 0.332  | 0.587 |
| 105 | 49 | 0.383  | 0.551 | 0.369  | 0.567 | 0.340  | 0.596 |
| 105 | 50 | 0.393  | 0.561 | 0.378  | 0.576 | 0.349  | 0.605 |
| 105 | 51 | 0.402  | 0.570 | 0.387  | 0.585 | 0.358  | 0.614 |
| 105 | 52 | 0.411  | 0.580 | 0.396  | 0.595 | 0.367  | 0.623 |
| 105 | 53 | 0.420  | 0.589 | 0.405  | 0.604 | 0.377  | 0.633 |
| 105 | 54 | 0.430  | 0.598 | 0.415  | 0.613 | 0.386  | 0.642 |
| 105 | 55 | 0.439  | 0.607 | 0.424  | 0.622 | 0.395  | 0.651 |
| 105 | 56 | 0.449  | 0.617 | 0.433  | 0.631 | 0.404  | 0.660 |
| 105 | 57 | 0.458  | 0.626 | 0.443  | 0.640 | 0.413  | 0.668 |
| 105 | 58 | 0.467  | 0.635 | 0.452  | 0.650 | 0.423  | 0.677 |
| 105 | 59 | 0.477  | 0.644 | 0.462  | 0.659 | 0.432  | 0.686 |
| 105 | 60 | 0.486  | 0.653 | 0.471  | 0.668 | 0.441  | 0.695 |
| 105 | 61 | 0.496  | 0.662 | 0.481  | 0.677 | 0.451  | 0.704 |
| 105 | 62 | 0.506  | 0.671 | 0.490  | 0.685 | 0.460  | 0.712 |
| 105 | 63 | 0.515  | 0.680 | 0.500  | 0.694 | 0.470  | 0.721 |
| 105 | 64 | 0.525  | 0.689 | 0.509  | 0.703 | 0.479  | 0.729 |
| 105 | 65 | 0.535  | 0.698 | 0.519  | 0.712 | 0.489  | 0.738 |
| 105 | 66 | 0.544  | 0.707 | 0.529  | 0.721 | 0.499  | 0.746 |
| 105 | 67 | 0.554  | 0.716 | 0.539  | 0.730 | 0.508  | 0.755 |
| 105 | 68 | 0.564  | 0.725 | 0.548  | 0.738 | 0.518  | 0.763 |
| 105 | 69 | 0.574  | 0.734 | 0.558  | 0.747 | 0.528  | 0.772 |
| 105 | 70 | 0.583  | 0.743 | 0.568  | 0.756 | 0.538  | 0.780 |
| 105 | 71 | 0.593  | 0.752 | 0.578  | 0.764 | 0.548  | 0.788 |
| 105 | 72 | 0.603  | 0.760 | 0.588  | 0.773 | 0.558  | 0.796 |
| 105 | 73 | 0.613  | 0.769 | 0.598  | 0.781 | 0.568  | 0.804 |
| 105 | 74 | 0.623  | 0.778 | 0.608  | 0.790 | 0.578  | 0.813 |
| 105 | 75 | 0.633  | 0.786 | 0.618  | 0.798 | 0.588  | 0.821 |
| 105 | 76 | 0.643  | 0.795 | 0.628  | 0.807 | 0.598  | 0.829 |
| 105 | 77 | 0.653  | 0.803 | 0.638  | 0.815 | 0.608  | 0.836 |
| 105 | 78 | 0.663  | 0.812 | 0.648  | 0.823 | 0.619  | 0.844 |
| 105 | 79 | 0.673  | 0.820 | 0.659  | 0.831 | 0.629  | 0.852 |
| 105 | 80 | 0.684  | 0.829 | 0.669  | 0.840 | 0.640  | 0.860 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 105 | 81  | 0.694  | 0.837 | 0.679  | 0.848 | 0.650  | 0.867 |
| 105 | 82  | 0.704  | 0.845 | 0.690  | 0.856 | 0.661  | 0.875 |
| 105 | 83  | 0.715  | 0.854 | 0.700  | 0.864 | 0.671  | 0.882 |
| 105 | 84  | 0.725  | 0.862 | 0.711  | 0.872 | 0.682  | 0.890 |
| 105 | 85  | 0.735  | 0.870 | 0.721  | 0.880 | 0.693  | 0.897 |
| 105 | 86  | 0.746  | 0.878 | 0.732  | 0.887 | 0.704  | 0.904 |
| 105 | 87  | 0.756  | 0.886 | 0.743  | 0.895 | 0.715  | 0.911 |
| 105 | 88  | 0.767  | 0.894 | 0.753  | 0.903 | 0.726  | 0.918 |
| 105 | 89  | 0.778  | 0.902 | 0.764  | 0.910 | 0.737  | 0.925 |
| 105 | 90  | 0.789  | 0.910 | 0.775  | 0.918 | 0.748  | 0.932 |
| 105 | 91  | 0.799  | 0.918 | 0.786  | 0.925 | 0.760  | 0.939 |
| 105 | 92  | 0.810  | 0.925 | 0.798  | 0.932 | 0.771  | 0.945 |
| 105 | 93  | 0.821  | 0.933 | 0.809  | 0.940 | 0.783  | 0.951 |
| 105 | 94  | 0.833  | 0.940 | 0.820  | 0.947 | 0.795  | 0.958 |
| 105 | 95  | 0.844  | 0.947 | 0.832  | 0.953 | 0.807  | 0.964 |
| 105 | 96  | 0.855  | 0.955 | 0.844  | 0.960 | 0.819  | 0.969 |
| 105 | 97  | 0.867  | 0.962 | 0.855  | 0.967 | 0.832  | 0.975 |
| 105 | 98  | 0.878  | 0.968 | 0.867  | 0.973 | 0.845  | 0.980 |
| 105 | 99  | 0.890  | 0.975 | 0.880  | 0.979 | 0.858  | 0.985 |
| 105 | 100 | 0.902  | 0.981 | 0.892  | 0.984 | 0.871  | 0.990 |
| 105 | 101 | 0.915  | 0.987 | 0.905  | 0.990 | 0.885  | 0.994 |
| 105 | 102 | 0.928  | 0.992 | 0.919  | 0.994 | 0.899  | 0.997 |
| 105 | 103 | 0.941  | 0.997 | 0.933  | 0.998 | 0.915  | 0.999 |
| 105 | 104 | 0.956  | 1.000 | 0.948  | 1.000 | 0.931  | 1.000 |
| 105 | 105 | 0.972  | 1.000 | 0.965  | 1.000 | 0.951  | 1.000 |
| 110 | 0   | 0.000  | 0.027 | 0.000  | 0.033 | 0.000  | 0.047 |
| 110 | 1   | 0.000  | 0.042 | 0.000  | 0.050 | 0.000  | 0.066 |
| 110 | 2   | 0.003  | 0.056 | 0.002  | 0.064 | 0.001  | 0.082 |
| 110 | 3   | 0.007  | 0.069 | 0.006  | 0.078 | 0.003  | 0.096 |
| 110 | 4   | 0.013  | 0.081 | 0.010  | 0.090 | 0.006  | 0.110 |
| 110 | 5   | 0.018  | 0.093 | 0.015  | 0.103 | 0.010  | 0.123 |
| 110 | 6   | 0.024  | 0.105 | 0.020  | 0.115 | 0.014  | 0.136 |
| 110 | 7   | 0.030  | 0.116 | 0.026  | 0.127 | 0.019  | 0.149 |
| 110 | 8   | 0.037  | 0.127 | 0.032  | 0.138 | 0.024  | 0.161 |
| 110 | 9   | 0.043  | 0.138 | 0.038  | 0.150 | 0.029  | 0.173 |
| 110 | 10  | 0.050  | 0.149 | 0.044  | 0.161 | 0.035  | 0.185 |
| 110 | 11  | 0.057  | 0.160 | 0.051  | 0.172 | 0.040  | 0.196 |
| 110 | 12  | 0.064  | 0.171 | 0.058  | 0.183 | 0.046  | 0.208 |
| 110 | 13  | 0.071  | 0.181 | 0.064  | 0.194 | 0.052  | 0.219 |
| 110 | 14  | 0.079  | 0.192 | 0.071  | 0.204 | 0.058  | 0.230 |
| 110 | 15  | 0.086  | 0.202 | 0.078  | 0.215 | 0.065  | 0.241 |
| 110 | 16  | 0.093  | 0.213 | 0.085  | 0.225 | 0.071  | 0.252 |
| 110 | 17  | 0.101  | 0.223 | 0.093  | 0.236 | 0.078  | 0.262 |
| 110 | 18  | 0.109  | 0.233 | 0.100  | 0.246 | 0.084  | 0.273 |
| 110 | 19  | 0.116  | 0.243 | 0.107  | 0.257 | 0.091  | 0.284 |
| 110 | 20  | 0.124  | 0.253 | 0.115  | 0.267 | 0.098  | 0.294 |
| 110 | 21  | 0.132  | 0.263 | 0.122  | 0.277 | 0.105  | 0.305 |
| 110 | 22  | 0.139  | 0.273 | 0.130  | 0.287 | 0.112  | 0.315 |
| 110 | 23  | 0.147  | 0.283 | 0.137  | 0.297 | 0.119  | 0.325 |
| 110 | 24  | 0.155  | 0.293 | 0.145  | 0.307 | 0.126  | 0.335 |
| 110 | 25  | 0.163  | 0.303 | 0.153  | 0.317 | 0.134  | 0.345 |
| 110 | 26  | 0.171  | 0.313 | 0.161  | 0.327 | 0.141  | 0.355 |
| 110 | 27  | 0.179  | 0.322 | 0.168  | 0.337 | 0.148  | 0.365 |
| 110 | 28  | 0.187  | 0.332 | 0.176  | 0.346 | 0.156  | 0.375 |
| 110 | 29  | 0.195  | 0.342 | 0.184  | 0.356 | 0.163  | 0.385 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 110 | 30 | 0.204  | 0.351 | 0.192  | 0.366 | 0.171  | 0.395 |
| 110 | 31 | 0.212  | 0.361 | 0.200  | 0.376 | 0.178  | 0.405 |
| 110 | 32 | 0.220  | 0.370 | 0.208  | 0.385 | 0.186  | 0.414 |
| 110 | 33 | 0.228  | 0.380 | 0.216  | 0.395 | 0.194  | 0.424 |
| 110 | 34 | 0.237  | 0.389 | 0.224  | 0.404 | 0.202  | 0.434 |
| 110 | 35 | 0.245  | 0.399 | 0.233  | 0.414 | 0.209  | 0.443 |
| 110 | 36 | 0.253  | 0.408 | 0.241  | 0.423 | 0.217  | 0.453 |
| 110 | 37 | 0.262  | 0.418 | 0.249  | 0.433 | 0.225  | 0.462 |
| 110 | 38 | 0.270  | 0.427 | 0.257  | 0.442 | 0.233  | 0.472 |
| 110 | 39 | 0.279  | 0.436 | 0.266  | 0.451 | 0.241  | 0.481 |
| 110 | 40 | 0.287  | 0.446 | 0.274  | 0.461 | 0.249  | 0.490 |
| 110 | 41 | 0.296  | 0.455 | 0.282  | 0.470 | 0.257  | 0.500 |
| 110 | 42 | 0.304  | 0.464 | 0.291  | 0.479 | 0.265  | 0.509 |
| 110 | 43 | 0.313  | 0.474 | 0.299  | 0.489 | 0.274  | 0.518 |
| 110 | 44 | 0.321  | 0.483 | 0.308  | 0.498 | 0.282  | 0.527 |
| 110 | 45 | 0.330  | 0.492 | 0.316  | 0.507 | 0.290  | 0.536 |
| 110 | 46 | 0.339  | 0.501 | 0.325  | 0.516 | 0.298  | 0.545 |
| 110 | 47 | 0.347  | 0.510 | 0.333  | 0.525 | 0.307  | 0.554 |
| 110 | 48 | 0.356  | 0.519 | 0.342  | 0.534 | 0.315  | 0.563 |
| 110 | 49 | 0.365  | 0.528 | 0.351  | 0.543 | 0.324  | 0.572 |
| 110 | 50 | 0.374  | 0.537 | 0.359  | 0.552 | 0.332  | 0.581 |
| 110 | 51 | 0.382  | 0.546 | 0.368  | 0.561 | 0.341  | 0.590 |
| 110 | 52 | 0.391  | 0.555 | 0.377  | 0.570 | 0.349  | 0.599 |
| 110 | 53 | 0.400  | 0.564 | 0.386  | 0.579 | 0.358  | 0.608 |
| 110 | 54 | 0.409  | 0.573 | 0.394  | 0.588 | 0.366  | 0.616 |
| 110 | 55 | 0.418  | 0.582 | 0.403  | 0.597 | 0.375  | 0.625 |
| 110 | 56 | 0.427  | 0.591 | 0.412  | 0.606 | 0.384  | 0.634 |
| 110 | 57 | 0.436  | 0.600 | 0.421  | 0.614 | 0.392  | 0.642 |
| 110 | 58 | 0.445  | 0.609 | 0.430  | 0.623 | 0.401  | 0.651 |
| 110 | 59 | 0.454  | 0.618 | 0.439  | 0.632 | 0.410  | 0.659 |
| 110 | 60 | 0.463  | 0.626 | 0.448  | 0.641 | 0.419  | 0.668 |
| 110 | 61 | 0.472  | 0.635 | 0.457  | 0.649 | 0.428  | 0.676 |
| 110 | 62 | 0.481  | 0.644 | 0.466  | 0.658 | 0.437  | 0.685 |
| 110 | 63 | 0.490  | 0.653 | 0.475  | 0.667 | 0.446  | 0.693 |
| 110 | 64 | 0.499  | 0.661 | 0.484  | 0.675 | 0.455  | 0.702 |
| 110 | 65 | 0.508  | 0.670 | 0.493  | 0.684 | 0.464  | 0.710 |
| 110 | 66 | 0.517  | 0.679 | 0.502  | 0.692 | 0.473  | 0.718 |
| 110 | 67 | 0.526  | 0.687 | 0.511  | 0.701 | 0.482  | 0.726 |
| 110 | 68 | 0.536  | 0.696 | 0.521  | 0.709 | 0.491  | 0.735 |
| 110 | 69 | 0.545  | 0.704 | 0.530  | 0.718 | 0.500  | 0.743 |
| 110 | 70 | 0.554  | 0.713 | 0.539  | 0.726 | 0.510  | 0.751 |
| 110 | 71 | 0.564  | 0.721 | 0.549  | 0.734 | 0.519  | 0.759 |
| 110 | 72 | 0.573  | 0.730 | 0.558  | 0.743 | 0.528  | 0.767 |
| 110 | 73 | 0.582  | 0.738 | 0.567  | 0.751 | 0.538  | 0.775 |
| 110 | 74 | 0.592  | 0.747 | 0.577  | 0.759 | 0.547  | 0.783 |
| 110 | 75 | 0.601  | 0.755 | 0.586  | 0.767 | 0.557  | 0.791 |
| 110 | 76 | 0.611  | 0.763 | 0.596  | 0.776 | 0.566  | 0.798 |
| 110 | 77 | 0.620  | 0.772 | 0.605  | 0.784 | 0.576  | 0.806 |
| 110 | 78 | 0.630  | 0.780 | 0.615  | 0.792 | 0.586  | 0.814 |
| 110 | 79 | 0.639  | 0.788 | 0.624  | 0.800 | 0.595  | 0.822 |
| 110 | 80 | 0.649  | 0.796 | 0.634  | 0.808 | 0.605  | 0.829 |
| 110 | 81 | 0.658  | 0.805 | 0.644  | 0.816 | 0.615  | 0.837 |
| 110 | 82 | 0.668  | 0.813 | 0.654  | 0.824 | 0.625  | 0.844 |
| 110 | 83 | 0.678  | 0.821 | 0.663  | 0.832 | 0.635  | 0.852 |
| 110 | 84 | 0.687  | 0.829 | 0.673  | 0.839 | 0.645  | 0.859 |
| 110 | 85 | 0.697  | 0.837 | 0.683  | 0.847 | 0.655  | 0.866 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 110 | 86  | 0.707  | 0.845 | 0.693  | 0.855 | 0.665  | 0.874 |
| 110 | 87  | 0.717  | 0.853 | 0.703  | 0.863 | 0.675  | 0.881 |
| 110 | 88  | 0.727  | 0.861 | 0.713  | 0.870 | 0.685  | 0.888 |
| 110 | 89  | 0.737  | 0.868 | 0.723  | 0.878 | 0.695  | 0.895 |
| 110 | 90  | 0.747  | 0.876 | 0.733  | 0.885 | 0.706  | 0.902 |
| 110 | 91  | 0.757  | 0.884 | 0.743  | 0.893 | 0.716  | 0.909 |
| 110 | 92  | 0.767  | 0.891 | 0.754  | 0.900 | 0.727  | 0.916 |
| 110 | 93  | 0.777  | 0.899 | 0.764  | 0.907 | 0.738  | 0.922 |
| 110 | 94  | 0.787  | 0.907 | 0.775  | 0.915 | 0.748  | 0.929 |
| 110 | 95  | 0.798  | 0.914 | 0.785  | 0.922 | 0.759  | 0.935 |
| 110 | 96  | 0.808  | 0.921 | 0.796  | 0.929 | 0.770  | 0.942 |
| 110 | 97  | 0.819  | 0.929 | 0.806  | 0.936 | 0.781  | 0.948 |
| 110 | 98  | 0.829  | 0.936 | 0.817  | 0.942 | 0.792  | 0.954 |
| 110 | 99  | 0.840  | 0.943 | 0.828  | 0.949 | 0.804  | 0.960 |
| 110 | 100 | 0.851  | 0.950 | 0.839  | 0.956 | 0.815  | 0.965 |
| 110 | 101 | 0.862  | 0.957 | 0.850  | 0.962 | 0.827  | 0.971 |
| 110 | 102 | 0.873  | 0.963 | 0.862  | 0.968 | 0.839  | 0.976 |
| 110 | 103 | 0.884  | 0.970 | 0.873  | 0.974 | 0.851  | 0.981 |
| 110 | 104 | 0.895  | 0.976 | 0.885  | 0.980 | 0.864  | 0.986 |
| 110 | 105 | 0.907  | 0.982 | 0.897  | 0.985 | 0.877  | 0.990 |
| 110 | 106 | 0.919  | 0.987 | 0.910  | 0.990 | 0.890  | 0.994 |
| 110 | 107 | 0.931  | 0.993 | 0.922  | 0.994 | 0.904  | 0.997 |
| 110 | 108 | 0.944  | 0.997 | 0.936  | 0.998 | 0.918  | 0.999 |
| 110 | 109 | 0.958  | 1.000 | 0.950  | 1.000 | 0.934  | 1.000 |
| 110 | 110 | 0.973  | 1.000 | 0.967  | 1.000 | 0.953  | 1.000 |
| 115 | 0   | 0.000  | 0.026 | 0.000  | 0.032 | 0.000  | 0.045 |
| 115 | 1   | 0.000  | 0.041 | 0.000  | 0.047 | 0.000  | 0.063 |
| 115 | 2   | 0.003  | 0.054 | 0.002  | 0.061 | 0.001  | 0.078 |
| 115 | 3   | 0.007  | 0.066 | 0.005  | 0.074 | 0.003  | 0.092 |
| 115 | 4   | 0.012  | 0.078 | 0.010  | 0.087 | 0.006  | 0.105 |
| 115 | 5   | 0.017  | 0.089 | 0.014  | 0.099 | 0.009  | 0.118 |
| 115 | 6   | 0.023  | 0.100 | 0.019  | 0.110 | 0.014  | 0.131 |
| 115 | 7   | 0.029  | 0.111 | 0.025  | 0.121 | 0.018  | 0.143 |
| 115 | 8   | 0.035  | 0.122 | 0.031  | 0.132 | 0.023  | 0.154 |
| 115 | 9   | 0.041  | 0.133 | 0.036  | 0.143 | 0.028  | 0.166 |
| 115 | 10  | 0.048  | 0.143 | 0.042  | 0.154 | 0.033  | 0.177 |
| 115 | 11  | 0.055  | 0.153 | 0.049  | 0.165 | 0.039  | 0.188 |
| 115 | 12  | 0.061  | 0.164 | 0.055  | 0.175 | 0.044  | 0.199 |
| 115 | 13  | 0.068  | 0.174 | 0.062  | 0.186 | 0.050  | 0.210 |
| 115 | 14  | 0.075  | 0.184 | 0.068  | 0.196 | 0.056  | 0.220 |
| 115 | 15  | 0.082  | 0.194 | 0.075  | 0.206 | 0.062  | 0.231 |
| 115 | 16  | 0.089  | 0.204 | 0.082  | 0.216 | 0.068  | 0.241 |
| 115 | 17  | 0.096  | 0.213 | 0.089  | 0.226 | 0.074  | 0.252 |
| 115 | 18  | 0.104  | 0.223 | 0.095  | 0.236 | 0.081  | 0.262 |
| 115 | 19  | 0.111  | 0.233 | 0.103  | 0.246 | 0.087  | 0.272 |
| 115 | 20  | 0.118  | 0.243 | 0.110  | 0.256 | 0.094  | 0.282 |
| 115 | 21  | 0.126  | 0.252 | 0.117  | 0.265 | 0.100  | 0.292 |
| 115 | 22  | 0.133  | 0.262 | 0.124  | 0.275 | 0.107  | 0.302 |
| 115 | 23  | 0.141  | 0.271 | 0.131  | 0.285 | 0.114  | 0.312 |
| 115 | 24  | 0.148  | 0.281 | 0.139  | 0.294 | 0.121  | 0.322 |
| 115 | 25  | 0.156  | 0.290 | 0.146  | 0.304 | 0.127  | 0.332 |
| 115 | 26  | 0.164  | 0.300 | 0.153  | 0.313 | 0.134  | 0.341 |
| 115 | 27  | 0.171  | 0.309 | 0.161  | 0.323 | 0.142  | 0.351 |
| 115 | 28  | 0.179  | 0.318 | 0.168  | 0.332 | 0.149  | 0.360 |
| 115 | 29  | 0.187  | 0.328 | 0.176  | 0.342 | 0.156  | 0.370 |
| 115 | 30  | 0.194  | 0.337 | 0.183  | 0.351 | 0.163  | 0.379 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 115 | 31 | 0.202  | 0.346 | 0.191  | 0.360 | 0.170  | 0.389 |
| 115 | 32 | 0.210  | 0.355 | 0.199  | 0.370 | 0.177  | 0.398 |
| 115 | 33 | 0.218  | 0.364 | 0.206  | 0.379 | 0.185  | 0.407 |
| 115 | 34 | 0.226  | 0.373 | 0.214  | 0.388 | 0.192  | 0.417 |
| 115 | 35 | 0.234  | 0.383 | 0.222  | 0.397 | 0.200  | 0.426 |
| 115 | 36 | 0.242  | 0.392 | 0.230  | 0.406 | 0.207  | 0.435 |
| 115 | 37 | 0.250  | 0.401 | 0.238  | 0.415 | 0.215  | 0.444 |
| 115 | 38 | 0.258  | 0.410 | 0.246  | 0.424 | 0.222  | 0.453 |
| 115 | 39 | 0.266  | 0.419 | 0.253  | 0.433 | 0.230  | 0.462 |
| 115 | 40 | 0.274  | 0.428 | 0.261  | 0.442 | 0.238  | 0.471 |
| 115 | 41 | 0.282  | 0.437 | 0.269  | 0.451 | 0.245  | 0.480 |
| 115 | 42 | 0.290  | 0.445 | 0.277  | 0.460 | 0.253  | 0.489 |
| 115 | 43 | 0.299  | 0.454 | 0.285  | 0.469 | 0.261  | 0.498 |
| 115 | 44 | 0.307  | 0.463 | 0.294  | 0.478 | 0.269  | 0.507 |
| 115 | 45 | 0.315  | 0.472 | 0.302  | 0.487 | 0.276  | 0.515 |
| 115 | 46 | 0.323  | 0.481 | 0.310  | 0.496 | 0.284  | 0.524 |
| 115 | 47 | 0.331  | 0.490 | 0.318  | 0.504 | 0.292  | 0.533 |
| 115 | 48 | 0.340  | 0.498 | 0.326  | 0.513 | 0.300  | 0.542 |
| 115 | 49 | 0.348  | 0.507 | 0.334  | 0.522 | 0.308  | 0.550 |
| 115 | 50 | 0.356  | 0.516 | 0.343  | 0.530 | 0.316  | 0.559 |
| 115 | 51 | 0.365  | 0.524 | 0.351  | 0.539 | 0.324  | 0.567 |
| 115 | 52 | 0.373  | 0.533 | 0.359  | 0.548 | 0.332  | 0.576 |
| 115 | 53 | 0.382  | 0.542 | 0.368  | 0.556 | 0.341  | 0.584 |
| 115 | 54 | 0.390  | 0.550 | 0.376  | 0.565 | 0.349  | 0.593 |
| 115 | 55 | 0.398  | 0.559 | 0.384  | 0.573 | 0.357  | 0.601 |
| 115 | 56 | 0.407  | 0.568 | 0.393  | 0.582 | 0.365  | 0.610 |
| 115 | 57 | 0.415  | 0.576 | 0.401  | 0.590 | 0.374  | 0.618 |
| 115 | 58 | 0.424  | 0.585 | 0.410  | 0.599 | 0.382  | 0.626 |
| 115 | 59 | 0.432  | 0.593 | 0.418  | 0.607 | 0.390  | 0.635 |
| 115 | 60 | 0.441  | 0.602 | 0.427  | 0.616 | 0.399  | 0.643 |
| 115 | 61 | 0.450  | 0.610 | 0.435  | 0.624 | 0.407  | 0.651 |
| 115 | 62 | 0.458  | 0.618 | 0.444  | 0.632 | 0.416  | 0.659 |
| 115 | 63 | 0.467  | 0.627 | 0.452  | 0.641 | 0.424  | 0.668 |
| 115 | 64 | 0.476  | 0.635 | 0.461  | 0.649 | 0.433  | 0.676 |
| 115 | 65 | 0.484  | 0.644 | 0.470  | 0.657 | 0.441  | 0.684 |
| 115 | 66 | 0.493  | 0.652 | 0.478  | 0.666 | 0.450  | 0.692 |
| 115 | 67 | 0.502  | 0.660 | 0.487  | 0.674 | 0.458  | 0.700 |
| 115 | 68 | 0.510  | 0.669 | 0.496  | 0.682 | 0.467  | 0.708 |
| 115 | 69 | 0.519  | 0.677 | 0.504  | 0.690 | 0.476  | 0.716 |
| 115 | 70 | 0.528  | 0.685 | 0.513  | 0.698 | 0.485  | 0.724 |
| 115 | 71 | 0.537  | 0.693 | 0.522  | 0.706 | 0.493  | 0.731 |
| 115 | 72 | 0.546  | 0.701 | 0.531  | 0.715 | 0.502  | 0.739 |
| 115 | 73 | 0.555  | 0.710 | 0.540  | 0.723 | 0.511  | 0.747 |
| 115 | 74 | 0.563  | 0.718 | 0.549  | 0.731 | 0.520  | 0.755 |
| 115 | 75 | 0.572  | 0.726 | 0.558  | 0.739 | 0.529  | 0.762 |
| 115 | 76 | 0.581  | 0.734 | 0.567  | 0.747 | 0.538  | 0.770 |
| 115 | 77 | 0.590  | 0.742 | 0.576  | 0.754 | 0.547  | 0.778 |
| 115 | 78 | 0.599  | 0.750 | 0.585  | 0.762 | 0.556  | 0.785 |
| 115 | 79 | 0.608  | 0.758 | 0.594  | 0.770 | 0.565  | 0.793 |
| 115 | 80 | 0.617  | 0.766 | 0.603  | 0.778 | 0.574  | 0.800 |
| 115 | 81 | 0.627  | 0.774 | 0.612  | 0.786 | 0.583  | 0.808 |
| 115 | 82 | 0.636  | 0.782 | 0.621  | 0.794 | 0.593  | 0.815 |
| 115 | 83 | 0.645  | 0.790 | 0.630  | 0.801 | 0.602  | 0.823 |
| 115 | 84 | 0.654  | 0.798 | 0.640  | 0.809 | 0.611  | 0.830 |
| 115 | 85 | 0.663  | 0.806 | 0.649  | 0.817 | 0.621  | 0.837 |
| 115 | 86 | 0.672  | 0.813 | 0.658  | 0.824 | 0.630  | 0.844 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 115 | 87  | 0.682  | 0.821 | 0.668  | 0.832 | 0.640  | 0.851 |
| 115 | 88  | 0.691  | 0.829 | 0.677  | 0.839 | 0.649  | 0.858 |
| 115 | 89  | 0.700  | 0.836 | 0.687  | 0.847 | 0.659  | 0.866 |
| 115 | 90  | 0.710  | 0.844 | 0.696  | 0.854 | 0.668  | 0.873 |
| 115 | 91  | 0.719  | 0.852 | 0.706  | 0.861 | 0.678  | 0.879 |
| 115 | 92  | 0.729  | 0.859 | 0.715  | 0.869 | 0.688  | 0.886 |
| 115 | 93  | 0.738  | 0.867 | 0.725  | 0.876 | 0.698  | 0.893 |
| 115 | 94  | 0.748  | 0.874 | 0.735  | 0.883 | 0.708  | 0.900 |
| 115 | 95  | 0.757  | 0.882 | 0.744  | 0.890 | 0.718  | 0.906 |
| 115 | 96  | 0.767  | 0.889 | 0.754  | 0.897 | 0.728  | 0.913 |
| 115 | 97  | 0.777  | 0.896 | 0.764  | 0.905 | 0.738  | 0.919 |
| 115 | 98  | 0.787  | 0.904 | 0.774  | 0.911 | 0.748  | 0.926 |
| 115 | 99  | 0.796  | 0.911 | 0.784  | 0.918 | 0.759  | 0.932 |
| 115 | 100 | 0.806  | 0.918 | 0.794  | 0.925 | 0.769  | 0.938 |
| 115 | 101 | 0.816  | 0.925 | 0.804  | 0.932 | 0.780  | 0.944 |
| 115 | 102 | 0.826  | 0.932 | 0.814  | 0.938 | 0.790  | 0.950 |
| 115 | 103 | 0.836  | 0.939 | 0.825  | 0.945 | 0.801  | 0.956 |
| 115 | 104 | 0.847  | 0.945 | 0.835  | 0.951 | 0.812  | 0.961 |
| 115 | 105 | 0.857  | 0.952 | 0.846  | 0.958 | 0.823  | 0.967 |
| 115 | 106 | 0.867  | 0.959 | 0.857  | 0.964 | 0.834  | 0.972 |
| 115 | 107 | 0.878  | 0.965 | 0.868  | 0.969 | 0.846  | 0.977 |
| 115 | 108 | 0.889  | 0.971 | 0.879  | 0.975 | 0.857  | 0.982 |
| 115 | 109 | 0.900  | 0.977 | 0.890  | 0.981 | 0.869  | 0.986 |
| 115 | 110 | 0.911  | 0.983 | 0.901  | 0.986 | 0.882  | 0.991 |
| 115 | 111 | 0.922  | 0.988 | 0.913  | 0.990 | 0.895  | 0.994 |
| 115 | 112 | 0.934  | 0.993 | 0.926  | 0.995 | 0.908  | 0.997 |
| 115 | 113 | 0.946  | 0.997 | 0.939  | 0.998 | 0.922  | 0.999 |
| 115 | 114 | 0.959  | 1.000 | 0.953  | 1.000 | 0.937  | 1.000 |
| 115 | 115 | 0.974  | 1.000 | 0.968  | 1.000 | 0.955  | 1.000 |
| 120 | 0   | 0.000  | 0.025 | 0.000  | 0.030 | 0.000  | 0.043 |
| 120 | 1   | 0.000  | 0.039 | 0.000  | 0.046 | 0.000  | 0.060 |
| 120 | 2   | 0.003  | 0.052 | 0.002  | 0.059 | 0.001  | 0.075 |
| 120 | 3   | 0.007  | 0.063 | 0.005  | 0.071 | 0.003  | 0.088 |
| 120 | 4   | 0.011  | 0.075 | 0.009  | 0.083 | 0.006  | 0.101 |
| 120 | 5   | 0.017  | 0.086 | 0.014  | 0.095 | 0.009  | 0.113 |
| 120 | 6   | 0.022  | 0.096 | 0.019  | 0.106 | 0.013  | 0.125 |
| 120 | 7   | 0.028  | 0.107 | 0.024  | 0.116 | 0.017  | 0.137 |
| 120 | 8   | 0.034  | 0.117 | 0.029  | 0.127 | 0.022  | 0.148 |
| 120 | 9   | 0.040  | 0.127 | 0.035  | 0.138 | 0.027  | 0.159 |
| 120 | 10  | 0.046  | 0.137 | 0.041  | 0.148 | 0.032  | 0.170 |
| 120 | 11  | 0.052  | 0.147 | 0.047  | 0.158 | 0.037  | 0.181 |
| 120 | 12  | 0.059  | 0.157 | 0.053  | 0.168 | 0.042  | 0.191 |
| 120 | 13  | 0.065  | 0.167 | 0.059  | 0.178 | 0.048  | 0.201 |
| 120 | 14  | 0.072  | 0.176 | 0.065  | 0.188 | 0.053  | 0.212 |
| 120 | 15  | 0.079  | 0.186 | 0.072  | 0.198 | 0.059  | 0.222 |
| 120 | 16  | 0.085  | 0.195 | 0.078  | 0.207 | 0.065  | 0.232 |
| 120 | 17  | 0.092  | 0.205 | 0.085  | 0.217 | 0.071  | 0.242 |
| 120 | 18  | 0.099  | 0.214 | 0.091  | 0.227 | 0.077  | 0.252 |
| 120 | 19  | 0.106  | 0.224 | 0.098  | 0.236 | 0.083  | 0.262 |
| 120 | 20  | 0.113  | 0.233 | 0.105  | 0.246 | 0.090  | 0.271 |
| 120 | 21  | 0.120  | 0.242 | 0.112  | 0.255 | 0.096  | 0.281 |
| 120 | 22  | 0.127  | 0.251 | 0.119  | 0.264 | 0.102  | 0.290 |
| 120 | 23  | 0.135  | 0.260 | 0.126  | 0.274 | 0.109  | 0.300 |
| 120 | 24  | 0.142  | 0.270 | 0.133  | 0.283 | 0.115  | 0.309 |
| 120 | 25  | 0.149  | 0.279 | 0.140  | 0.292 | 0.122  | 0.319 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 120 | 26 | 0.156  | 0.288 | 0.147  | 0.301 | 0.129  | 0.328 |
| 120 | 27 | 0.164  | 0.297 | 0.154  | 0.310 | 0.135  | 0.337 |
| 120 | 28 | 0.171  | 0.306 | 0.161  | 0.319 | 0.142  | 0.346 |
| 120 | 29 | 0.179  | 0.315 | 0.168  | 0.328 | 0.149  | 0.356 |
| 120 | 30 | 0.186  | 0.323 | 0.175  | 0.337 | 0.156  | 0.365 |
| 120 | 31 | 0.194  | 0.332 | 0.183  | 0.346 | 0.163  | 0.374 |
| 120 | 32 | 0.201  | 0.341 | 0.190  | 0.355 | 0.170  | 0.383 |
| 120 | 33 | 0.209  | 0.350 | 0.197  | 0.364 | 0.177  | 0.392 |
| 120 | 34 | 0.216  | 0.359 | 0.205  | 0.373 | 0.184  | 0.401 |
| 120 | 35 | 0.224  | 0.368 | 0.212  | 0.382 | 0.191  | 0.410 |
| 120 | 36 | 0.231  | 0.376 | 0.220  | 0.390 | 0.198  | 0.418 |
| 120 | 37 | 0.239  | 0.385 | 0.227  | 0.399 | 0.205  | 0.427 |
| 120 | 38 | 0.247  | 0.394 | 0.235  | 0.408 | 0.212  | 0.436 |
| 120 | 39 | 0.254  | 0.402 | 0.242  | 0.417 | 0.220  | 0.445 |
| 120 | 40 | 0.262  | 0.411 | 0.250  | 0.425 | 0.227  | 0.453 |
| 120 | 41 | 0.270  | 0.419 | 0.258  | 0.434 | 0.234  | 0.462 |
| 120 | 42 | 0.278  | 0.428 | 0.265  | 0.442 | 0.242  | 0.471 |
| 120 | 43 | 0.285  | 0.437 | 0.273  | 0.451 | 0.249  | 0.479 |
| 120 | 44 | 0.293  | 0.445 | 0.281  | 0.459 | 0.257  | 0.488 |
| 120 | 45 | 0.301  | 0.454 | 0.288  | 0.468 | 0.264  | 0.496 |
| 120 | 46 | 0.309  | 0.462 | 0.296  | 0.476 | 0.271  | 0.505 |
| 120 | 47 | 0.317  | 0.471 | 0.304  | 0.485 | 0.279  | 0.513 |
| 120 | 48 | 0.325  | 0.479 | 0.312  | 0.493 | 0.287  | 0.522 |
| 120 | 49 | 0.333  | 0.487 | 0.320  | 0.502 | 0.294  | 0.530 |
| 120 | 50 | 0.341  | 0.496 | 0.327  | 0.510 | 0.302  | 0.538 |
| 120 | 51 | 0.349  | 0.504 | 0.335  | 0.519 | 0.310  | 0.547 |
| 120 | 52 | 0.357  | 0.513 | 0.343  | 0.527 | 0.317  | 0.555 |
| 120 | 53 | 0.365  | 0.521 | 0.351  | 0.535 | 0.325  | 0.563 |
| 120 | 54 | 0.373  | 0.529 | 0.359  | 0.543 | 0.333  | 0.571 |
| 120 | 55 | 0.381  | 0.537 | 0.367  | 0.552 | 0.341  | 0.579 |
| 120 | 56 | 0.389  | 0.546 | 0.375  | 0.560 | 0.349  | 0.588 |
| 120 | 57 | 0.397  | 0.554 | 0.383  | 0.568 | 0.356  | 0.596 |
| 120 | 58 | 0.405  | 0.562 | 0.391  | 0.576 | 0.364  | 0.604 |
| 120 | 59 | 0.413  | 0.570 | 0.399  | 0.584 | 0.372  | 0.612 |
| 120 | 60 | 0.421  | 0.579 | 0.407  | 0.593 | 0.380  | 0.620 |
| 120 | 61 | 0.430  | 0.587 | 0.416  | 0.601 | 0.388  | 0.628 |
| 120 | 62 | 0.438  | 0.595 | 0.424  | 0.609 | 0.396  | 0.636 |
| 120 | 63 | 0.446  | 0.603 | 0.432  | 0.617 | 0.404  | 0.644 |
| 120 | 64 | 0.454  | 0.611 | 0.440  | 0.625 | 0.412  | 0.651 |
| 120 | 65 | 0.463  | 0.619 | 0.448  | 0.633 | 0.421  | 0.659 |
| 120 | 66 | 0.471  | 0.627 | 0.457  | 0.641 | 0.429  | 0.667 |
| 120 | 67 | 0.479  | 0.635 | 0.465  | 0.649 | 0.437  | 0.675 |
| 120 | 68 | 0.487  | 0.643 | 0.473  | 0.657 | 0.445  | 0.683 |
| 120 | 69 | 0.496  | 0.651 | 0.481  | 0.665 | 0.453  | 0.690 |
| 120 | 70 | 0.504  | 0.659 | 0.490  | 0.673 | 0.462  | 0.698 |
| 120 | 71 | 0.513  | 0.667 | 0.498  | 0.680 | 0.470  | 0.706 |
| 120 | 72 | 0.521  | 0.675 | 0.507  | 0.688 | 0.478  | 0.713 |
| 120 | 73 | 0.529  | 0.683 | 0.515  | 0.696 | 0.487  | 0.721 |
| 120 | 74 | 0.538  | 0.691 | 0.524  | 0.704 | 0.495  | 0.729 |
| 120 | 75 | 0.546  | 0.699 | 0.532  | 0.712 | 0.504  | 0.736 |
| 120 | 76 | 0.555  | 0.707 | 0.541  | 0.719 | 0.512  | 0.743 |
| 120 | 77 | 0.563  | 0.715 | 0.549  | 0.727 | 0.521  | 0.751 |
| 120 | 78 | 0.572  | 0.722 | 0.558  | 0.735 | 0.529  | 0.758 |
| 120 | 79 | 0.581  | 0.730 | 0.566  | 0.742 | 0.538  | 0.766 |
| 120 | 80 | 0.589  | 0.738 | 0.575  | 0.750 | 0.547  | 0.773 |
| 120 | 81 | 0.598  | 0.746 | 0.583  | 0.758 | 0.555  | 0.780 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 120 | 82  | 0.606  | 0.753 | 0.592  | 0.765 | 0.564  | 0.788 |
| 120 | 83  | 0.615  | 0.761 | 0.601  | 0.773 | 0.573  | 0.795 |
| 120 | 84  | 0.624  | 0.769 | 0.610  | 0.780 | 0.582  | 0.802 |
| 120 | 85  | 0.632  | 0.776 | 0.618  | 0.788 | 0.590  | 0.809 |
| 120 | 86  | 0.641  | 0.784 | 0.627  | 0.795 | 0.599  | 0.816 |
| 120 | 87  | 0.650  | 0.791 | 0.636  | 0.803 | 0.608  | 0.823 |
| 120 | 88  | 0.659  | 0.799 | 0.645  | 0.810 | 0.617  | 0.830 |
| 120 | 89  | 0.668  | 0.806 | 0.654  | 0.817 | 0.626  | 0.837 |
| 120 | 90  | 0.677  | 0.814 | 0.663  | 0.825 | 0.635  | 0.844 |
| 120 | 91  | 0.685  | 0.821 | 0.672  | 0.832 | 0.644  | 0.851 |
| 120 | 92  | 0.694  | 0.829 | 0.681  | 0.839 | 0.654  | 0.858 |
| 120 | 93  | 0.703  | 0.836 | 0.690  | 0.846 | 0.663  | 0.865 |
| 120 | 94  | 0.712  | 0.844 | 0.699  | 0.853 | 0.672  | 0.871 |
| 120 | 95  | 0.721  | 0.851 | 0.708  | 0.860 | 0.681  | 0.878 |
| 120 | 96  | 0.730  | 0.858 | 0.717  | 0.867 | 0.691  | 0.885 |
| 120 | 97  | 0.740  | 0.865 | 0.726  | 0.874 | 0.700  | 0.891 |
| 120 | 98  | 0.749  | 0.873 | 0.736  | 0.881 | 0.710  | 0.898 |
| 120 | 99  | 0.758  | 0.880 | 0.745  | 0.888 | 0.719  | 0.904 |
| 120 | 100 | 0.767  | 0.887 | 0.754  | 0.895 | 0.729  | 0.910 |
| 120 | 101 | 0.776  | 0.894 | 0.764  | 0.902 | 0.738  | 0.917 |
| 120 | 102 | 0.786  | 0.901 | 0.773  | 0.909 | 0.748  | 0.923 |
| 120 | 103 | 0.795  | 0.908 | 0.783  | 0.915 | 0.758  | 0.929 |
| 120 | 104 | 0.805  | 0.915 | 0.793  | 0.922 | 0.768  | 0.935 |
| 120 | 105 | 0.814  | 0.921 | 0.802  | 0.928 | 0.778  | 0.941 |
| 120 | 106 | 0.824  | 0.928 | 0.812  | 0.935 | 0.788  | 0.947 |
| 120 | 107 | 0.833  | 0.935 | 0.822  | 0.941 | 0.799  | 0.952 |
| 120 | 108 | 0.843  | 0.941 | 0.832  | 0.947 | 0.809  | 0.958 |
| 120 | 109 | 0.853  | 0.948 | 0.842  | 0.953 | 0.819  | 0.963 |
| 120 | 110 | 0.863  | 0.954 | 0.852  | 0.959 | 0.830  | 0.968 |
| 120 | 111 | 0.873  | 0.960 | 0.862  | 0.965 | 0.841  | 0.973 |
| 120 | 112 | 0.883  | 0.966 | 0.873  | 0.971 | 0.852  | 0.978 |
| 120 | 113 | 0.893  | 0.972 | 0.884  | 0.976 | 0.863  | 0.983 |
| 120 | 114 | 0.904  | 0.978 | 0.894  | 0.981 | 0.875  | 0.987 |
| 120 | 115 | 0.914  | 0.983 | 0.905  | 0.986 | 0.887  | 0.991 |
| 120 | 116 | 0.925  | 0.989 | 0.917  | 0.991 | 0.899  | 0.994 |
| 120 | 117 | 0.937  | 0.993 | 0.929  | 0.995 | 0.912  | 0.997 |
| 120 | 118 | 0.948  | 0.997 | 0.941  | 0.998 | 0.925  | 0.999 |
| 120 | 119 | 0.961  | 1.000 | 0.954  | 1.000 | 0.940  | 1.000 |
| 120 | 120 | 0.975  | 1.000 | 0.970  | 1.000 | 0.957  | 1.000 |
| 125 | 0   | 0.000  | 0.024 | 0.000  | 0.029 | 0.000  | 0.042 |
| 125 | 1   | 0.000  | 0.037 | 0.000  | 0.044 | 0.000  | 0.058 |
| 125 | 2   | 0.003  | 0.050 | 0.002  | 0.057 | 0.001  | 0.072 |
| 125 | 3   | 0.007  | 0.061 | 0.005  | 0.069 | 0.003  | 0.085 |
| 125 | 4   | 0.011  | 0.072 | 0.009  | 0.080 | 0.005  | 0.097 |
| 125 | 5   | 0.016  | 0.082 | 0.013  | 0.091 | 0.009  | 0.109 |
| 125 | 6   | 0.021  | 0.093 | 0.018  | 0.102 | 0.012  | 0.121 |
| 125 | 7   | 0.027  | 0.103 | 0.023  | 0.112 | 0.017  | 0.132 |
| 125 | 8   | 0.032  | 0.113 | 0.028  | 0.122 | 0.021  | 0.142 |
| 125 | 9   | 0.038  | 0.122 | 0.033  | 0.132 | 0.026  | 0.153 |
| 125 | 10  | 0.044  | 0.132 | 0.039  | 0.142 | 0.030  | 0.163 |
| 125 | 11  | 0.050  | 0.141 | 0.045  | 0.152 | 0.035  | 0.174 |
| 125 | 12  | 0.056  | 0.151 | 0.051  | 0.162 | 0.041  | 0.184 |
| 125 | 13  | 0.063  | 0.160 | 0.057  | 0.171 | 0.046  | 0.194 |
| 125 | 14  | 0.069  | 0.170 | 0.063  | 0.181 | 0.051  | 0.204 |
| 125 | 15  | 0.075  | 0.179 | 0.069  | 0.190 | 0.057  | 0.214 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 125 | 16 | 0.082  | 0.188 | 0.075  | 0.200 | 0.062  | 0.223 |
| 125 | 17 | 0.089  | 0.197 | 0.081  | 0.209 | 0.068  | 0.233 |
| 125 | 18 | 0.095  | 0.206 | 0.088  | 0.218 | 0.074  | 0.242 |
| 125 | 19 | 0.102  | 0.215 | 0.094  | 0.227 | 0.080  | 0.252 |
| 125 | 20 | 0.109  | 0.224 | 0.101  | 0.236 | 0.086  | 0.261 |
| 125 | 21 | 0.115  | 0.233 | 0.107  | 0.245 | 0.092  | 0.270 |
| 125 | 22 | 0.122  | 0.242 | 0.114  | 0.254 | 0.098  | 0.280 |
| 125 | 23 | 0.129  | 0.250 | 0.120  | 0.263 | 0.104  | 0.289 |
| 125 | 24 | 0.136  | 0.259 | 0.127  | 0.272 | 0.111  | 0.298 |
| 125 | 25 | 0.143  | 0.268 | 0.134  | 0.281 | 0.117  | 0.307 |
| 125 | 26 | 0.150  | 0.277 | 0.141  | 0.290 | 0.123  | 0.316 |
| 125 | 27 | 0.157  | 0.285 | 0.147  | 0.298 | 0.130  | 0.325 |
| 125 | 28 | 0.164  | 0.294 | 0.154  | 0.307 | 0.136  | 0.334 |
| 125 | 29 | 0.171  | 0.303 | 0.161  | 0.316 | 0.143  | 0.342 |
| 125 | 30 | 0.178  | 0.311 | 0.168  | 0.325 | 0.149  | 0.351 |
| 125 | 31 | 0.186  | 0.320 | 0.175  | 0.333 | 0.156  | 0.360 |
| 125 | 32 | 0.193  | 0.328 | 0.182  | 0.342 | 0.162  | 0.369 |
| 125 | 33 | 0.200  | 0.337 | 0.189  | 0.350 | 0.169  | 0.377 |
| 125 | 34 | 0.207  | 0.345 | 0.196  | 0.359 | 0.176  | 0.386 |
| 125 | 35 | 0.214  | 0.354 | 0.203  | 0.367 | 0.183  | 0.395 |
| 125 | 36 | 0.222  | 0.362 | 0.211  | 0.376 | 0.190  | 0.403 |
| 125 | 37 | 0.229  | 0.370 | 0.218  | 0.384 | 0.196  | 0.412 |
| 125 | 38 | 0.236  | 0.379 | 0.225  | 0.393 | 0.203  | 0.420 |
| 125 | 39 | 0.244  | 0.387 | 0.232  | 0.401 | 0.210  | 0.428 |
| 125 | 40 | 0.251  | 0.395 | 0.239  | 0.409 | 0.217  | 0.437 |
| 125 | 41 | 0.259  | 0.404 | 0.247  | 0.418 | 0.224  | 0.445 |
| 125 | 42 | 0.266  | 0.412 | 0.254  | 0.426 | 0.231  | 0.454 |
| 125 | 43 | 0.273  | 0.420 | 0.261  | 0.434 | 0.238  | 0.462 |
| 125 | 44 | 0.281  | 0.428 | 0.269  | 0.442 | 0.245  | 0.470 |
| 125 | 45 | 0.288  | 0.437 | 0.276  | 0.451 | 0.253  | 0.478 |
| 125 | 46 | 0.296  | 0.445 | 0.284  | 0.459 | 0.260  | 0.487 |
| 125 | 47 | 0.304  | 0.453 | 0.291  | 0.467 | 0.267  | 0.495 |
| 125 | 48 | 0.311  | 0.461 | 0.298  | 0.475 | 0.274  | 0.503 |
| 125 | 49 | 0.319  | 0.469 | 0.306  | 0.483 | 0.282  | 0.511 |
| 125 | 50 | 0.326  | 0.477 | 0.313  | 0.491 | 0.289  | 0.519 |
| 125 | 51 | 0.334  | 0.485 | 0.321  | 0.499 | 0.296  | 0.527 |
| 125 | 52 | 0.342  | 0.493 | 0.329  | 0.508 | 0.304  | 0.535 |
| 125 | 53 | 0.349  | 0.501 | 0.336  | 0.516 | 0.311  | 0.543 |
| 125 | 54 | 0.357  | 0.510 | 0.344  | 0.524 | 0.318  | 0.551 |
| 125 | 55 | 0.365  | 0.518 | 0.351  | 0.532 | 0.326  | 0.559 |
| 125 | 56 | 0.372  | 0.525 | 0.359  | 0.540 | 0.333  | 0.567 |
| 125 | 57 | 0.380  | 0.533 | 0.367  | 0.547 | 0.341  | 0.575 |
| 125 | 58 | 0.388  | 0.541 | 0.374  | 0.555 | 0.348  | 0.582 |
| 125 | 59 | 0.396  | 0.549 | 0.382  | 0.563 | 0.356  | 0.590 |
| 125 | 60 | 0.403  | 0.557 | 0.390  | 0.571 | 0.364  | 0.598 |
| 125 | 61 | 0.411  | 0.565 | 0.398  | 0.579 | 0.371  | 0.606 |
| 125 | 62 | 0.419  | 0.573 | 0.405  | 0.587 | 0.379  | 0.613 |
| 125 | 63 | 0.427  | 0.581 | 0.413  | 0.595 | 0.387  | 0.621 |
| 125 | 64 | 0.435  | 0.589 | 0.421  | 0.602 | 0.394  | 0.629 |
| 125 | 65 | 0.443  | 0.597 | 0.429  | 0.610 | 0.402  | 0.636 |
| 125 | 66 | 0.451  | 0.604 | 0.437  | 0.618 | 0.410  | 0.644 |
| 125 | 67 | 0.459  | 0.612 | 0.445  | 0.626 | 0.418  | 0.652 |
| 125 | 68 | 0.467  | 0.620 | 0.453  | 0.633 | 0.425  | 0.659 |
| 125 | 69 | 0.475  | 0.628 | 0.460  | 0.641 | 0.433  | 0.667 |
| 125 | 70 | 0.482  | 0.635 | 0.468  | 0.649 | 0.441  | 0.674 |
| 125 | 71 | 0.490  | 0.643 | 0.476  | 0.656 | 0.449  | 0.682 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 125 | 72  | 0.499  | 0.651 | 0.484  | 0.664 | 0.457  | 0.689 |
| 125 | 73  | 0.507  | 0.658 | 0.492  | 0.671 | 0.465  | 0.696 |
| 125 | 74  | 0.515  | 0.666 | 0.501  | 0.679 | 0.473  | 0.704 |
| 125 | 75  | 0.523  | 0.674 | 0.509  | 0.687 | 0.481  | 0.711 |
| 125 | 76  | 0.531  | 0.681 | 0.517  | 0.694 | 0.489  | 0.718 |
| 125 | 77  | 0.539  | 0.689 | 0.525  | 0.702 | 0.497  | 0.726 |
| 125 | 78  | 0.547  | 0.696 | 0.533  | 0.709 | 0.505  | 0.733 |
| 125 | 79  | 0.555  | 0.704 | 0.541  | 0.716 | 0.513  | 0.740 |
| 125 | 80  | 0.563  | 0.712 | 0.549  | 0.724 | 0.522  | 0.747 |
| 125 | 81  | 0.572  | 0.719 | 0.558  | 0.731 | 0.530  | 0.755 |
| 125 | 82  | 0.580  | 0.727 | 0.566  | 0.739 | 0.538  | 0.762 |
| 125 | 83  | 0.588  | 0.734 | 0.574  | 0.746 | 0.546  | 0.769 |
| 125 | 84  | 0.596  | 0.741 | 0.582  | 0.753 | 0.555  | 0.776 |
| 125 | 85  | 0.605  | 0.749 | 0.591  | 0.761 | 0.563  | 0.783 |
| 125 | 86  | 0.613  | 0.756 | 0.599  | 0.768 | 0.572  | 0.790 |
| 125 | 87  | 0.621  | 0.764 | 0.607  | 0.775 | 0.580  | 0.797 |
| 125 | 88  | 0.630  | 0.771 | 0.616  | 0.782 | 0.588  | 0.804 |
| 125 | 89  | 0.638  | 0.778 | 0.624  | 0.789 | 0.597  | 0.810 |
| 125 | 90  | 0.646  | 0.786 | 0.633  | 0.797 | 0.605  | 0.817 |
| 125 | 91  | 0.655  | 0.793 | 0.641  | 0.804 | 0.614  | 0.824 |
| 125 | 92  | 0.663  | 0.800 | 0.650  | 0.811 | 0.623  | 0.831 |
| 125 | 93  | 0.672  | 0.807 | 0.658  | 0.818 | 0.631  | 0.838 |
| 125 | 94  | 0.680  | 0.814 | 0.667  | 0.825 | 0.640  | 0.844 |
| 125 | 95  | 0.689  | 0.822 | 0.675  | 0.832 | 0.649  | 0.851 |
| 125 | 96  | 0.697  | 0.829 | 0.684  | 0.839 | 0.658  | 0.857 |
| 125 | 97  | 0.706  | 0.836 | 0.693  | 0.846 | 0.666  | 0.864 |
| 125 | 98  | 0.715  | 0.843 | 0.702  | 0.853 | 0.675  | 0.870 |
| 125 | 99  | 0.723  | 0.850 | 0.710  | 0.859 | 0.684  | 0.877 |
| 125 | 100 | 0.732  | 0.857 | 0.719  | 0.866 | 0.693  | 0.883 |
| 125 | 101 | 0.741  | 0.864 | 0.728  | 0.873 | 0.702  | 0.889 |
| 125 | 102 | 0.750  | 0.871 | 0.737  | 0.880 | 0.711  | 0.896 |
| 125 | 103 | 0.758  | 0.878 | 0.746  | 0.886 | 0.720  | 0.902 |
| 125 | 104 | 0.767  | 0.885 | 0.755  | 0.893 | 0.730  | 0.908 |
| 125 | 105 | 0.776  | 0.891 | 0.764  | 0.899 | 0.739  | 0.914 |
| 125 | 106 | 0.785  | 0.898 | 0.773  | 0.906 | 0.748  | 0.920 |
| 125 | 107 | 0.794  | 0.905 | 0.782  | 0.912 | 0.758  | 0.926 |
| 125 | 108 | 0.803  | 0.911 | 0.791  | 0.919 | 0.767  | 0.932 |
| 125 | 109 | 0.812  | 0.918 | 0.800  | 0.925 | 0.777  | 0.938 |
| 125 | 110 | 0.821  | 0.925 | 0.810  | 0.931 | 0.786  | 0.943 |
| 125 | 111 | 0.830  | 0.931 | 0.819  | 0.937 | 0.796  | 0.949 |
| 125 | 112 | 0.840  | 0.937 | 0.829  | 0.943 | 0.806  | 0.954 |
| 125 | 113 | 0.849  | 0.944 | 0.838  | 0.949 | 0.816  | 0.959 |
| 125 | 114 | 0.859  | 0.950 | 0.848  | 0.955 | 0.826  | 0.965 |
| 125 | 115 | 0.868  | 0.956 | 0.858  | 0.961 | 0.837  | 0.970 |
| 125 | 116 | 0.878  | 0.962 | 0.868  | 0.967 | 0.847  | 0.974 |
| 125 | 117 | 0.887  | 0.968 | 0.878  | 0.972 | 0.858  | 0.979 |
| 125 | 118 | 0.897  | 0.973 | 0.888  | 0.977 | 0.868  | 0.983 |
| 125 | 119 | 0.907  | 0.979 | 0.898  | 0.982 | 0.879  | 0.988 |
| 125 | 120 | 0.918  | 0.984 | 0.909  | 0.987 | 0.891  | 0.991 |
| 125 | 121 | 0.928  | 0.989 | 0.920  | 0.991 | 0.903  | 0.995 |
| 125 | 122 | 0.939  | 0.993 | 0.931  | 0.995 | 0.915  | 0.997 |
| 125 | 123 | 0.950  | 0.997 | 0.943  | 0.998 | 0.928  | 0.999 |
| 125 | 124 | 0.963  | 1.000 | 0.956  | 1.000 | 0.942  | 1.000 |
| 125 | 125 | 0.976  | 1.000 | 0.971  | 1.000 | 0.958  | 1.000 |
| 130 | 0   | 0.000  | 0.023 | 0.000  | 0.028 | 0.000  | 0.040 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 130 | 1  | 0.000  | 0.036 | 0.000  | 0.042 | 0.000  | 0.056 |
| 130 | 2  | 0.003  | 0.048 | 0.002  | 0.054 | 0.001  | 0.069 |
| 130 | 3  | 0.006  | 0.059 | 0.005  | 0.066 | 0.003  | 0.082 |
| 130 | 4  | 0.011  | 0.069 | 0.008  | 0.077 | 0.005  | 0.094 |
| 130 | 5  | 0.015  | 0.079 | 0.013  | 0.087 | 0.008  | 0.105 |
| 130 | 6  | 0.020  | 0.089 | 0.017  | 0.098 | 0.012  | 0.116 |
| 130 | 7  | 0.026  | 0.099 | 0.022  | 0.108 | 0.016  | 0.127 |
| 130 | 8  | 0.031  | 0.108 | 0.027  | 0.118 | 0.020  | 0.137 |
| 130 | 9  | 0.037  | 0.118 | 0.032  | 0.127 | 0.025  | 0.147 |
| 130 | 10 | 0.042  | 0.127 | 0.038  | 0.137 | 0.029  | 0.157 |
| 130 | 11 | 0.048  | 0.136 | 0.043  | 0.146 | 0.034  | 0.167 |
| 130 | 12 | 0.054  | 0.145 | 0.049  | 0.156 | 0.039  | 0.177 |
| 130 | 13 | 0.060  | 0.154 | 0.054  | 0.165 | 0.044  | 0.187 |
| 130 | 14 | 0.066  | 0.163 | 0.060  | 0.174 | 0.049  | 0.196 |
| 130 | 15 | 0.072  | 0.172 | 0.066  | 0.183 | 0.055  | 0.206 |
| 130 | 16 | 0.079  | 0.181 | 0.072  | 0.192 | 0.060  | 0.215 |
| 130 | 17 | 0.085  | 0.190 | 0.078  | 0.201 | 0.065  | 0.224 |
| 130 | 18 | 0.091  | 0.198 | 0.084  | 0.210 | 0.071  | 0.233 |
| 130 | 19 | 0.098  | 0.207 | 0.090  | 0.219 | 0.077  | 0.243 |
| 130 | 20 | 0.104  | 0.216 | 0.097  | 0.228 | 0.082  | 0.252 |
| 130 | 21 | 0.111  | 0.224 | 0.103  | 0.236 | 0.088  | 0.261 |
| 130 | 22 | 0.117  | 0.233 | 0.109  | 0.245 | 0.094  | 0.269 |
| 130 | 23 | 0.124  | 0.241 | 0.116  | 0.254 | 0.100  | 0.278 |
| 130 | 24 | 0.131  | 0.250 | 0.122  | 0.262 | 0.106  | 0.287 |
| 130 | 25 | 0.137  | 0.258 | 0.128  | 0.271 | 0.112  | 0.296 |
| 130 | 26 | 0.144  | 0.267 | 0.135  | 0.279 | 0.118  | 0.305 |
| 130 | 27 | 0.151  | 0.275 | 0.142  | 0.288 | 0.124  | 0.313 |
| 130 | 28 | 0.158  | 0.283 | 0.148  | 0.296 | 0.131  | 0.322 |
| 130 | 29 | 0.164  | 0.291 | 0.155  | 0.304 | 0.137  | 0.330 |
| 130 | 30 | 0.171  | 0.300 | 0.161  | 0.313 | 0.143  | 0.339 |
| 130 | 31 | 0.178  | 0.308 | 0.168  | 0.321 | 0.150  | 0.347 |
| 130 | 32 | 0.185  | 0.316 | 0.175  | 0.329 | 0.156  | 0.356 |
| 130 | 33 | 0.192  | 0.324 | 0.182  | 0.338 | 0.162  | 0.364 |
| 130 | 34 | 0.199  | 0.333 | 0.188  | 0.346 | 0.169  | 0.372 |
| 130 | 35 | 0.206  | 0.341 | 0.195  | 0.354 | 0.175  | 0.381 |
| 130 | 36 | 0.213  | 0.349 | 0.202  | 0.362 | 0.182  | 0.389 |
| 130 | 37 | 0.220  | 0.357 | 0.209  | 0.370 | 0.188  | 0.397 |
| 130 | 38 | 0.227  | 0.365 | 0.216  | 0.378 | 0.195  | 0.405 |
| 130 | 39 | 0.234  | 0.373 | 0.223  | 0.387 | 0.202  | 0.413 |
| 130 | 40 | 0.241  | 0.381 | 0.230  | 0.395 | 0.208  | 0.422 |
| 130 | 41 | 0.248  | 0.389 | 0.237  | 0.403 | 0.215  | 0.430 |
| 130 | 42 | 0.255  | 0.397 | 0.244  | 0.411 | 0.222  | 0.438 |
| 130 | 43 | 0.263  | 0.405 | 0.251  | 0.419 | 0.229  | 0.446 |
| 130 | 44 | 0.270  | 0.413 | 0.258  | 0.427 | 0.235  | 0.454 |
| 130 | 45 | 0.277  | 0.421 | 0.265  | 0.435 | 0.242  | 0.462 |
| 130 | 46 | 0.284  | 0.429 | 0.272  | 0.442 | 0.249  | 0.470 |
| 130 | 47 | 0.291  | 0.437 | 0.279  | 0.450 | 0.256  | 0.477 |
| 130 | 48 | 0.299  | 0.444 | 0.286  | 0.458 | 0.263  | 0.485 |
| 130 | 49 | 0.306  | 0.452 | 0.293  | 0.466 | 0.270  | 0.493 |
| 130 | 50 | 0.313  | 0.460 | 0.301  | 0.474 | 0.277  | 0.501 |
| 130 | 51 | 0.320  | 0.468 | 0.308  | 0.482 | 0.284  | 0.509 |
| 130 | 52 | 0.328  | 0.476 | 0.315  | 0.490 | 0.291  | 0.517 |
| 130 | 53 | 0.335  | 0.483 | 0.322  | 0.497 | 0.298  | 0.524 |
| 130 | 54 | 0.342  | 0.491 | 0.330  | 0.505 | 0.305  | 0.532 |
| 130 | 55 | 0.350  | 0.499 | 0.337  | 0.513 | 0.312  | 0.540 |
| 130 | 56 | 0.357  | 0.507 | 0.344  | 0.520 | 0.319  | 0.547 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 130 | 57  | 0.365  | 0.514 | 0.352  | 0.528 | 0.327  | 0.555 |
| 130 | 58  | 0.372  | 0.522 | 0.359  | 0.536 | 0.334  | 0.563 |
| 130 | 59  | 0.380  | 0.530 | 0.366  | 0.543 | 0.341  | 0.570 |
| 130 | 60  | 0.387  | 0.537 | 0.374  | 0.551 | 0.348  | 0.578 |
| 130 | 61  | 0.394  | 0.545 | 0.381  | 0.559 | 0.356  | 0.585 |
| 130 | 62  | 0.402  | 0.553 | 0.389  | 0.566 | 0.363  | 0.593 |
| 130 | 63  | 0.410  | 0.560 | 0.396  | 0.574 | 0.370  | 0.600 |
| 130 | 64  | 0.417  | 0.568 | 0.404  | 0.581 | 0.378  | 0.608 |
| 130 | 65  | 0.425  | 0.575 | 0.411  | 0.589 | 0.385  | 0.615 |
| 130 | 66  | 0.432  | 0.583 | 0.419  | 0.596 | 0.392  | 0.622 |
| 130 | 67  | 0.440  | 0.590 | 0.426  | 0.604 | 0.400  | 0.630 |
| 130 | 68  | 0.447  | 0.598 | 0.434  | 0.611 | 0.407  | 0.637 |
| 130 | 69  | 0.455  | 0.606 | 0.441  | 0.619 | 0.415  | 0.644 |
| 130 | 70  | 0.463  | 0.613 | 0.449  | 0.626 | 0.422  | 0.652 |
| 130 | 71  | 0.470  | 0.620 | 0.457  | 0.634 | 0.430  | 0.659 |
| 130 | 72  | 0.478  | 0.628 | 0.464  | 0.641 | 0.437  | 0.666 |
| 130 | 73  | 0.486  | 0.635 | 0.472  | 0.648 | 0.445  | 0.673 |
| 130 | 74  | 0.493  | 0.643 | 0.480  | 0.656 | 0.453  | 0.681 |
| 130 | 75  | 0.501  | 0.650 | 0.487  | 0.663 | 0.460  | 0.688 |
| 130 | 76  | 0.509  | 0.658 | 0.495  | 0.670 | 0.468  | 0.695 |
| 130 | 77  | 0.517  | 0.665 | 0.503  | 0.678 | 0.476  | 0.702 |
| 130 | 78  | 0.524  | 0.672 | 0.510  | 0.685 | 0.483  | 0.709 |
| 130 | 79  | 0.532  | 0.680 | 0.518  | 0.692 | 0.491  | 0.716 |
| 130 | 80  | 0.540  | 0.687 | 0.526  | 0.699 | 0.499  | 0.723 |
| 130 | 81  | 0.548  | 0.694 | 0.534  | 0.707 | 0.507  | 0.730 |
| 130 | 82  | 0.556  | 0.701 | 0.542  | 0.714 | 0.515  | 0.737 |
| 130 | 83  | 0.563  | 0.709 | 0.550  | 0.721 | 0.523  | 0.744 |
| 130 | 84  | 0.571  | 0.716 | 0.558  | 0.728 | 0.530  | 0.751 |
| 130 | 85  | 0.579  | 0.723 | 0.565  | 0.735 | 0.538  | 0.758 |
| 130 | 86  | 0.587  | 0.730 | 0.573  | 0.742 | 0.546  | 0.765 |
| 130 | 87  | 0.595  | 0.737 | 0.581  | 0.749 | 0.554  | 0.771 |
| 130 | 88  | 0.603  | 0.745 | 0.589  | 0.756 | 0.562  | 0.778 |
| 130 | 89  | 0.611  | 0.752 | 0.597  | 0.763 | 0.570  | 0.785 |
| 130 | 90  | 0.619  | 0.759 | 0.605  | 0.770 | 0.578  | 0.792 |
| 130 | 91  | 0.627  | 0.766 | 0.613  | 0.777 | 0.587  | 0.798 |
| 130 | 92  | 0.635  | 0.773 | 0.622  | 0.784 | 0.595  | 0.805 |
| 130 | 93  | 0.643  | 0.780 | 0.630  | 0.791 | 0.603  | 0.812 |
| 130 | 94  | 0.651  | 0.787 | 0.638  | 0.798 | 0.611  | 0.818 |
| 130 | 95  | 0.659  | 0.794 | 0.646  | 0.805 | 0.619  | 0.825 |
| 130 | 96  | 0.667  | 0.801 | 0.654  | 0.812 | 0.628  | 0.831 |
| 130 | 97  | 0.676  | 0.808 | 0.662  | 0.818 | 0.636  | 0.838 |
| 130 | 98  | 0.684  | 0.815 | 0.671  | 0.825 | 0.644  | 0.844 |
| 130 | 99  | 0.692  | 0.822 | 0.679  | 0.832 | 0.653  | 0.850 |
| 130 | 100 | 0.700  | 0.829 | 0.687  | 0.839 | 0.661  | 0.857 |
| 130 | 101 | 0.709  | 0.836 | 0.696  | 0.845 | 0.670  | 0.863 |
| 130 | 102 | 0.717  | 0.842 | 0.704  | 0.852 | 0.678  | 0.869 |
| 130 | 103 | 0.725  | 0.849 | 0.712  | 0.858 | 0.687  | 0.876 |
| 130 | 104 | 0.733  | 0.856 | 0.721  | 0.865 | 0.695  | 0.882 |
| 130 | 105 | 0.742  | 0.863 | 0.729  | 0.872 | 0.704  | 0.888 |
| 130 | 106 | 0.750  | 0.869 | 0.738  | 0.878 | 0.713  | 0.894 |
| 130 | 107 | 0.759  | 0.876 | 0.746  | 0.884 | 0.722  | 0.900 |
| 130 | 108 | 0.767  | 0.883 | 0.755  | 0.891 | 0.731  | 0.906 |
| 130 | 109 | 0.776  | 0.889 | 0.764  | 0.897 | 0.739  | 0.912 |
| 130 | 110 | 0.784  | 0.896 | 0.772  | 0.903 | 0.748  | 0.918 |
| 130 | 111 | 0.793  | 0.902 | 0.781  | 0.910 | 0.757  | 0.923 |
| 130 | 112 | 0.802  | 0.909 | 0.790  | 0.916 | 0.767  | 0.929 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 130 | 113 | 0.810  | 0.915 | 0.799  | 0.922 | 0.776  | 0.935 |
| 130 | 114 | 0.819  | 0.921 | 0.808  | 0.928 | 0.785  | 0.940 |
| 130 | 115 | 0.828  | 0.928 | 0.817  | 0.934 | 0.794  | 0.945 |
| 130 | 116 | 0.837  | 0.934 | 0.826  | 0.940 | 0.804  | 0.951 |
| 130 | 117 | 0.846  | 0.940 | 0.835  | 0.946 | 0.813  | 0.956 |
| 130 | 118 | 0.855  | 0.946 | 0.844  | 0.951 | 0.823  | 0.961 |
| 130 | 119 | 0.864  | 0.952 | 0.854  | 0.957 | 0.833  | 0.966 |
| 130 | 120 | 0.873  | 0.958 | 0.863  | 0.962 | 0.843  | 0.971 |
| 130 | 121 | 0.882  | 0.963 | 0.873  | 0.968 | 0.853  | 0.975 |
| 130 | 122 | 0.892  | 0.969 | 0.882  | 0.973 | 0.863  | 0.980 |
| 130 | 123 | 0.901  | 0.974 | 0.892  | 0.978 | 0.873  | 0.984 |
| 130 | 124 | 0.911  | 0.980 | 0.902  | 0.983 | 0.884  | 0.988 |
| 130 | 125 | 0.921  | 0.985 | 0.913  | 0.987 | 0.895  | 0.992 |
| 130 | 126 | 0.931  | 0.989 | 0.923  | 0.992 | 0.906  | 0.995 |
| 130 | 127 | 0.941  | 0.994 | 0.934  | 0.995 | 0.918  | 0.997 |
| 130 | 128 | 0.952  | 0.997 | 0.946  | 0.998 | 0.931  | 0.999 |
| 130 | 129 | 0.964  | 1.000 | 0.958  | 1.000 | 0.944  | 1.000 |
| 130 | 130 | 0.977  | 1.000 | 0.972  | 1.000 | 0.960  | 1.000 |
| 135 | 0   | 0.000  | 0.022 | 0.000  | 0.027 | 0.000  | 0.038 |
| 135 | 1   | 0.000  | 0.035 | 0.000  | 0.041 | 0.000  | 0.054 |
| 135 | 2   | 0.003  | 0.046 | 0.002  | 0.052 | 0.001  | 0.067 |
| 135 | 3   | 0.006  | 0.056 | 0.005  | 0.064 | 0.003  | 0.079 |
| 135 | 4   | 0.010  | 0.067 | 0.008  | 0.074 | 0.005  | 0.090 |
| 135 | 5   | 0.015  | 0.076 | 0.012  | 0.084 | 0.008  | 0.101 |
| 135 | 6   | 0.020  | 0.086 | 0.016  | 0.094 | 0.012  | 0.112 |
| 135 | 7   | 0.025  | 0.095 | 0.021  | 0.104 | 0.015  | 0.122 |
| 135 | 8   | 0.030  | 0.104 | 0.026  | 0.113 | 0.019  | 0.132 |
| 135 | 9   | 0.035  | 0.113 | 0.031  | 0.123 | 0.024  | 0.142 |
| 135 | 10  | 0.041  | 0.122 | 0.036  | 0.132 | 0.028  | 0.152 |
| 135 | 11  | 0.046  | 0.131 | 0.041  | 0.141 | 0.033  | 0.161 |
| 135 | 12  | 0.052  | 0.140 | 0.047  | 0.150 | 0.037  | 0.171 |
| 135 | 13  | 0.058  | 0.149 | 0.052  | 0.159 | 0.042  | 0.180 |
| 135 | 14  | 0.064  | 0.157 | 0.058  | 0.168 | 0.047  | 0.189 |
| 135 | 15  | 0.070  | 0.166 | 0.064  | 0.177 | 0.052  | 0.199 |
| 135 | 16  | 0.076  | 0.174 | 0.069  | 0.185 | 0.058  | 0.208 |
| 135 | 17  | 0.082  | 0.183 | 0.075  | 0.194 | 0.063  | 0.216 |
| 135 | 18  | 0.088  | 0.191 | 0.081  | 0.203 | 0.068  | 0.225 |
| 135 | 19  | 0.094  | 0.200 | 0.087  | 0.211 | 0.074  | 0.234 |
| 135 | 20  | 0.100  | 0.208 | 0.093  | 0.219 | 0.079  | 0.243 |
| 135 | 21  | 0.107  | 0.216 | 0.099  | 0.228 | 0.085  | 0.252 |
| 135 | 22  | 0.113  | 0.224 | 0.105  | 0.236 | 0.091  | 0.260 |
| 135 | 23  | 0.119  | 0.233 | 0.111  | 0.245 | 0.096  | 0.269 |
| 135 | 24  | 0.126  | 0.241 | 0.117  | 0.253 | 0.102  | 0.277 |
| 135 | 25  | 0.132  | 0.249 | 0.124  | 0.261 | 0.108  | 0.286 |
| 135 | 26  | 0.139  | 0.257 | 0.130  | 0.269 | 0.114  | 0.294 |
| 135 | 27  | 0.145  | 0.265 | 0.136  | 0.277 | 0.120  | 0.302 |
| 135 | 28  | 0.152  | 0.273 | 0.142  | 0.286 | 0.126  | 0.311 |
| 135 | 29  | 0.158  | 0.281 | 0.149  | 0.294 | 0.132  | 0.319 |
| 135 | 30  | 0.165  | 0.289 | 0.155  | 0.302 | 0.138  | 0.327 |
| 135 | 31  | 0.171  | 0.297 | 0.162  | 0.310 | 0.144  | 0.335 |
| 135 | 32  | 0.178  | 0.305 | 0.168  | 0.318 | 0.150  | 0.343 |
| 135 | 33  | 0.185  | 0.313 | 0.175  | 0.326 | 0.156  | 0.352 |
| 135 | 34  | 0.191  | 0.321 | 0.181  | 0.334 | 0.162  | 0.360 |
| 135 | 35  | 0.198  | 0.329 | 0.188  | 0.342 | 0.168  | 0.368 |
| 135 | 36  | 0.205  | 0.336 | 0.194  | 0.350 | 0.175  | 0.376 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 135 | 37 | 0.211  | 0.344 | 0.201  | 0.357 | 0.181  | 0.384 |
| 135 | 38 | 0.218  | 0.352 | 0.208  | 0.365 | 0.187  | 0.391 |
| 135 | 39 | 0.225  | 0.360 | 0.214  | 0.373 | 0.194  | 0.399 |
| 135 | 40 | 0.232  | 0.368 | 0.221  | 0.381 | 0.200  | 0.407 |
| 135 | 41 | 0.239  | 0.375 | 0.228  | 0.389 | 0.207  | 0.415 |
| 135 | 42 | 0.246  | 0.383 | 0.234  | 0.396 | 0.213  | 0.423 |
| 135 | 43 | 0.252  | 0.391 | 0.241  | 0.404 | 0.220  | 0.431 |
| 135 | 44 | 0.259  | 0.398 | 0.248  | 0.412 | 0.226  | 0.438 |
| 135 | 45 | 0.266  | 0.406 | 0.255  | 0.420 | 0.233  | 0.446 |
| 135 | 46 | 0.273  | 0.414 | 0.261  | 0.427 | 0.239  | 0.454 |
| 135 | 47 | 0.280  | 0.421 | 0.268  | 0.435 | 0.246  | 0.461 |
| 135 | 48 | 0.287  | 0.429 | 0.275  | 0.442 | 0.253  | 0.469 |
| 135 | 49 | 0.294  | 0.437 | 0.282  | 0.450 | 0.259  | 0.477 |
| 135 | 50 | 0.301  | 0.444 | 0.289  | 0.458 | 0.266  | 0.484 |
| 135 | 51 | 0.308  | 0.452 | 0.296  | 0.465 | 0.273  | 0.492 |
| 135 | 52 | 0.315  | 0.459 | 0.303  | 0.473 | 0.279  | 0.499 |
| 135 | 53 | 0.322  | 0.467 | 0.310  | 0.480 | 0.286  | 0.507 |
| 135 | 54 | 0.329  | 0.474 | 0.317  | 0.488 | 0.293  | 0.514 |
| 135 | 55 | 0.336  | 0.482 | 0.324  | 0.495 | 0.300  | 0.522 |
| 135 | 56 | 0.343  | 0.489 | 0.331  | 0.503 | 0.307  | 0.529 |
| 135 | 57 | 0.350  | 0.497 | 0.338  | 0.510 | 0.313  | 0.537 |
| 135 | 58 | 0.358  | 0.504 | 0.345  | 0.518 | 0.320  | 0.544 |
| 135 | 59 | 0.365  | 0.511 | 0.352  | 0.525 | 0.327  | 0.551 |
| 135 | 60 | 0.372  | 0.519 | 0.359  | 0.532 | 0.334  | 0.559 |
| 135 | 61 | 0.379  | 0.526 | 0.366  | 0.540 | 0.341  | 0.566 |
| 135 | 62 | 0.386  | 0.534 | 0.373  | 0.547 | 0.348  | 0.573 |
| 135 | 63 | 0.393  | 0.541 | 0.380  | 0.554 | 0.355  | 0.580 |
| 135 | 64 | 0.401  | 0.548 | 0.388  | 0.562 | 0.362  | 0.588 |
| 135 | 65 | 0.408  | 0.556 | 0.395  | 0.569 | 0.369  | 0.595 |
| 135 | 66 | 0.415  | 0.563 | 0.402  | 0.576 | 0.376  | 0.602 |
| 135 | 67 | 0.422  | 0.570 | 0.409  | 0.584 | 0.384  | 0.609 |
| 135 | 68 | 0.430  | 0.578 | 0.416  | 0.591 | 0.391  | 0.616 |
| 135 | 69 | 0.437  | 0.585 | 0.424  | 0.598 | 0.398  | 0.624 |
| 135 | 70 | 0.444  | 0.592 | 0.431  | 0.605 | 0.405  | 0.631 |
| 135 | 71 | 0.452  | 0.599 | 0.438  | 0.612 | 0.412  | 0.638 |
| 135 | 72 | 0.459  | 0.607 | 0.446  | 0.620 | 0.420  | 0.645 |
| 135 | 73 | 0.466  | 0.614 | 0.453  | 0.627 | 0.427  | 0.652 |
| 135 | 74 | 0.474  | 0.621 | 0.460  | 0.634 | 0.434  | 0.659 |
| 135 | 75 | 0.481  | 0.628 | 0.468  | 0.641 | 0.441  | 0.666 |
| 135 | 76 | 0.489  | 0.635 | 0.475  | 0.648 | 0.449  | 0.673 |
| 135 | 77 | 0.496  | 0.642 | 0.482  | 0.655 | 0.456  | 0.680 |
| 135 | 78 | 0.503  | 0.650 | 0.490  | 0.662 | 0.463  | 0.687 |
| 135 | 79 | 0.511  | 0.657 | 0.497  | 0.669 | 0.471  | 0.693 |
| 135 | 80 | 0.518  | 0.664 | 0.505  | 0.676 | 0.478  | 0.700 |
| 135 | 81 | 0.526  | 0.671 | 0.512  | 0.683 | 0.486  | 0.707 |
| 135 | 82 | 0.533  | 0.678 | 0.520  | 0.690 | 0.493  | 0.714 |
| 135 | 83 | 0.541  | 0.685 | 0.527  | 0.697 | 0.501  | 0.721 |
| 135 | 84 | 0.548  | 0.692 | 0.535  | 0.704 | 0.508  | 0.727 |
| 135 | 85 | 0.556  | 0.699 | 0.542  | 0.711 | 0.516  | 0.734 |
| 135 | 86 | 0.563  | 0.706 | 0.550  | 0.718 | 0.523  | 0.741 |
| 135 | 87 | 0.571  | 0.713 | 0.558  | 0.725 | 0.531  | 0.747 |
| 135 | 88 | 0.579  | 0.720 | 0.565  | 0.732 | 0.539  | 0.754 |
| 135 | 89 | 0.586  | 0.727 | 0.573  | 0.739 | 0.546  | 0.761 |
| 135 | 90 | 0.594  | 0.734 | 0.580  | 0.745 | 0.554  | 0.767 |
| 135 | 91 | 0.602  | 0.741 | 0.588  | 0.752 | 0.562  | 0.774 |
| 135 | 92 | 0.609  | 0.748 | 0.596  | 0.759 | 0.569  | 0.780 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 135 | 93  | 0.617  | 0.754 | 0.604  | 0.766 | 0.577  | 0.787 |
| 135 | 94  | 0.625  | 0.761 | 0.611  | 0.772 | 0.585  | 0.793 |
| 135 | 95  | 0.632  | 0.768 | 0.619  | 0.779 | 0.593  | 0.800 |
| 135 | 96  | 0.640  | 0.775 | 0.627  | 0.786 | 0.601  | 0.806 |
| 135 | 97  | 0.648  | 0.782 | 0.635  | 0.792 | 0.609  | 0.813 |
| 135 | 98  | 0.656  | 0.789 | 0.643  | 0.799 | 0.616  | 0.819 |
| 135 | 99  | 0.664  | 0.795 | 0.650  | 0.806 | 0.624  | 0.825 |
| 135 | 100 | 0.671  | 0.802 | 0.658  | 0.812 | 0.632  | 0.832 |
| 135 | 101 | 0.679  | 0.809 | 0.666  | 0.819 | 0.640  | 0.838 |
| 135 | 102 | 0.687  | 0.815 | 0.674  | 0.825 | 0.648  | 0.844 |
| 135 | 103 | 0.695  | 0.822 | 0.682  | 0.832 | 0.657  | 0.850 |
| 135 | 104 | 0.703  | 0.829 | 0.690  | 0.838 | 0.665  | 0.856 |
| 135 | 105 | 0.711  | 0.835 | 0.698  | 0.845 | 0.673  | 0.862 |
| 135 | 106 | 0.719  | 0.842 | 0.706  | 0.851 | 0.681  | 0.868 |
| 135 | 107 | 0.727  | 0.848 | 0.714  | 0.858 | 0.689  | 0.874 |
| 135 | 108 | 0.735  | 0.855 | 0.723  | 0.864 | 0.698  | 0.880 |
| 135 | 109 | 0.743  | 0.861 | 0.731  | 0.870 | 0.706  | 0.886 |
| 135 | 110 | 0.751  | 0.868 | 0.739  | 0.876 | 0.714  | 0.892 |
| 135 | 111 | 0.759  | 0.874 | 0.747  | 0.883 | 0.723  | 0.898 |
| 135 | 112 | 0.767  | 0.881 | 0.755  | 0.889 | 0.731  | 0.904 |
| 135 | 113 | 0.776  | 0.887 | 0.764  | 0.895 | 0.740  | 0.909 |
| 135 | 114 | 0.784  | 0.893 | 0.772  | 0.901 | 0.748  | 0.915 |
| 135 | 115 | 0.792  | 0.900 | 0.781  | 0.907 | 0.757  | 0.921 |
| 135 | 116 | 0.800  | 0.906 | 0.789  | 0.913 | 0.766  | 0.926 |
| 135 | 117 | 0.809  | 0.912 | 0.797  | 0.919 | 0.775  | 0.932 |
| 135 | 118 | 0.817  | 0.918 | 0.806  | 0.925 | 0.784  | 0.937 |
| 135 | 119 | 0.826  | 0.924 | 0.815  | 0.931 | 0.792  | 0.942 |
| 135 | 120 | 0.834  | 0.930 | 0.823  | 0.936 | 0.801  | 0.948 |
| 135 | 121 | 0.843  | 0.936 | 0.832  | 0.942 | 0.811  | 0.953 |
| 135 | 122 | 0.851  | 0.942 | 0.841  | 0.948 | 0.820  | 0.958 |
| 135 | 123 | 0.860  | 0.948 | 0.850  | 0.953 | 0.829  | 0.963 |
| 135 | 124 | 0.869  | 0.954 | 0.859  | 0.959 | 0.839  | 0.967 |
| 135 | 125 | 0.878  | 0.959 | 0.868  | 0.964 | 0.848  | 0.972 |
| 135 | 126 | 0.887  | 0.965 | 0.877  | 0.969 | 0.858  | 0.976 |
| 135 | 127 | 0.896  | 0.970 | 0.887  | 0.974 | 0.868  | 0.981 |
| 135 | 128 | 0.905  | 0.975 | 0.896  | 0.979 | 0.878  | 0.985 |
| 135 | 129 | 0.914  | 0.980 | 0.906  | 0.984 | 0.888  | 0.988 |
| 135 | 130 | 0.924  | 0.985 | 0.916  | 0.988 | 0.899  | 0.992 |
| 135 | 131 | 0.933  | 0.990 | 0.926  | 0.992 | 0.910  | 0.995 |
| 135 | 132 | 0.944  | 0.994 | 0.936  | 0.995 | 0.921  | 0.997 |
| 135 | 133 | 0.954  | 0.997 | 0.948  | 0.998 | 0.933  | 0.999 |
| 135 | 134 | 0.965  | 1.000 | 0.959  | 1.000 | 0.946  | 1.000 |
| 135 | 135 | 0.978  | 1.000 | 0.973  | 1.000 | 0.962  | 1.000 |
| 140 | 0   | 0.000  | 0.021 | 0.000  | 0.026 | 0.000  | 0.037 |
| 140 | 1   | 0.000  | 0.033 | 0.000  | 0.039 | 0.000  | 0.052 |
| 140 | 2   | 0.003  | 0.044 | 0.002  | 0.051 | 0.001  | 0.065 |
| 140 | 3   | 0.006  | 0.054 | 0.004  | 0.061 | 0.002  | 0.076 |
| 140 | 4   | 0.010  | 0.064 | 0.008  | 0.072 | 0.005  | 0.087 |
| 140 | 5   | 0.014  | 0.074 | 0.012  | 0.081 | 0.008  | 0.098 |
| 140 | 6   | 0.019  | 0.083 | 0.016  | 0.091 | 0.011  | 0.108 |
| 140 | 7   | 0.024  | 0.092 | 0.020  | 0.100 | 0.015  | 0.118 |
| 140 | 8   | 0.029  | 0.101 | 0.025  | 0.109 | 0.019  | 0.128 |
| 140 | 9   | 0.034  | 0.109 | 0.030  | 0.119 | 0.023  | 0.137 |
| 140 | 10  | 0.039  | 0.118 | 0.035  | 0.127 | 0.027  | 0.147 |
| 140 | 11  | 0.045  | 0.127 | 0.040  | 0.136 | 0.032  | 0.156 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 140 | 12 | 0.050  | 0.135 | 0.045  | 0.145 | 0.036  | 0.165 |
| 140 | 13 | 0.056  | 0.144 | 0.050  | 0.154 | 0.041  | 0.174 |
| 140 | 14 | 0.061  | 0.152 | 0.056  | 0.162 | 0.046  | 0.183 |
| 140 | 15 | 0.067  | 0.160 | 0.061  | 0.171 | 0.051  | 0.192 |
| 140 | 16 | 0.073  | 0.168 | 0.067  | 0.179 | 0.056  | 0.200 |
| 140 | 17 | 0.079  | 0.177 | 0.072  | 0.187 | 0.061  | 0.209 |
| 140 | 18 | 0.085  | 0.185 | 0.078  | 0.196 | 0.066  | 0.218 |
| 140 | 19 | 0.091  | 0.193 | 0.084  | 0.204 | 0.071  | 0.226 |
| 140 | 20 | 0.097  | 0.201 | 0.090  | 0.212 | 0.076  | 0.235 |
| 140 | 21 | 0.103  | 0.209 | 0.095  | 0.220 | 0.082  | 0.243 |
| 140 | 22 | 0.109  | 0.217 | 0.101  | 0.228 | 0.087  | 0.251 |
| 140 | 23 | 0.115  | 0.225 | 0.107  | 0.236 | 0.093  | 0.260 |
| 140 | 24 | 0.121  | 0.233 | 0.113  | 0.244 | 0.098  | 0.268 |
| 140 | 25 | 0.127  | 0.240 | 0.119  | 0.252 | 0.104  | 0.276 |
| 140 | 26 | 0.134  | 0.248 | 0.125  | 0.260 | 0.109  | 0.284 |
| 140 | 27 | 0.140  | 0.256 | 0.131  | 0.268 | 0.115  | 0.292 |
| 140 | 28 | 0.146  | 0.264 | 0.137  | 0.276 | 0.121  | 0.300 |
| 140 | 29 | 0.152  | 0.272 | 0.143  | 0.284 | 0.127  | 0.308 |
| 140 | 30 | 0.159  | 0.279 | 0.149  | 0.292 | 0.132  | 0.316 |
| 140 | 31 | 0.165  | 0.287 | 0.156  | 0.299 | 0.138  | 0.324 |
| 140 | 32 | 0.171  | 0.295 | 0.162  | 0.307 | 0.144  | 0.332 |
| 140 | 33 | 0.178  | 0.302 | 0.168  | 0.315 | 0.150  | 0.340 |
| 140 | 34 | 0.184  | 0.310 | 0.174  | 0.322 | 0.156  | 0.348 |
| 140 | 35 | 0.191  | 0.317 | 0.181  | 0.330 | 0.162  | 0.355 |
| 140 | 36 | 0.197  | 0.325 | 0.187  | 0.338 | 0.168  | 0.363 |
| 140 | 37 | 0.204  | 0.333 | 0.193  | 0.345 | 0.174  | 0.371 |
| 140 | 38 | 0.210  | 0.340 | 0.200  | 0.353 | 0.180  | 0.379 |
| 140 | 39 | 0.217  | 0.348 | 0.206  | 0.361 | 0.186  | 0.386 |
| 140 | 40 | 0.223  | 0.355 | 0.213  | 0.368 | 0.193  | 0.394 |
| 140 | 41 | 0.230  | 0.363 | 0.219  | 0.376 | 0.199  | 0.401 |
| 140 | 42 | 0.236  | 0.370 | 0.226  | 0.383 | 0.205  | 0.409 |
| 140 | 43 | 0.243  | 0.378 | 0.232  | 0.391 | 0.211  | 0.417 |
| 140 | 44 | 0.250  | 0.385 | 0.239  | 0.398 | 0.218  | 0.424 |
| 140 | 45 | 0.256  | 0.392 | 0.245  | 0.406 | 0.224  | 0.432 |
| 140 | 46 | 0.263  | 0.400 | 0.252  | 0.413 | 0.230  | 0.439 |
| 140 | 47 | 0.270  | 0.407 | 0.258  | 0.420 | 0.237  | 0.446 |
| 140 | 48 | 0.276  | 0.414 | 0.265  | 0.428 | 0.243  | 0.454 |
| 140 | 49 | 0.283  | 0.422 | 0.271  | 0.435 | 0.249  | 0.461 |
| 140 | 50 | 0.290  | 0.429 | 0.278  | 0.442 | 0.256  | 0.469 |
| 140 | 51 | 0.296  | 0.436 | 0.285  | 0.450 | 0.262  | 0.476 |
| 140 | 52 | 0.303  | 0.444 | 0.291  | 0.457 | 0.269  | 0.483 |
| 140 | 53 | 0.310  | 0.451 | 0.298  | 0.464 | 0.275  | 0.490 |
| 140 | 54 | 0.317  | 0.458 | 0.305  | 0.472 | 0.282  | 0.498 |
| 140 | 55 | 0.324  | 0.466 | 0.311  | 0.479 | 0.288  | 0.505 |
| 140 | 56 | 0.330  | 0.473 | 0.318  | 0.486 | 0.295  | 0.512 |
| 140 | 57 | 0.337  | 0.480 | 0.325  | 0.493 | 0.301  | 0.519 |
| 140 | 58 | 0.344  | 0.487 | 0.332  | 0.501 | 0.308  | 0.527 |
| 140 | 59 | 0.351  | 0.494 | 0.339  | 0.508 | 0.315  | 0.534 |
| 140 | 60 | 0.358  | 0.502 | 0.345  | 0.515 | 0.321  | 0.541 |
| 140 | 61 | 0.365  | 0.509 | 0.352  | 0.522 | 0.328  | 0.548 |
| 140 | 62 | 0.372  | 0.516 | 0.359  | 0.529 | 0.335  | 0.555 |
| 140 | 63 | 0.379  | 0.523 | 0.366  | 0.536 | 0.341  | 0.562 |
| 140 | 64 | 0.386  | 0.530 | 0.373  | 0.543 | 0.348  | 0.569 |
| 140 | 65 | 0.392  | 0.537 | 0.380  | 0.550 | 0.355  | 0.576 |
| 140 | 66 | 0.399  | 0.544 | 0.387  | 0.558 | 0.362  | 0.583 |
| 140 | 67 | 0.406  | 0.551 | 0.394  | 0.565 | 0.369  | 0.590 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 140 | 68  | 0.413  | 0.558 | 0.400  | 0.572 | 0.375  | 0.597 |
| 140 | 69  | 0.420  | 0.566 | 0.407  | 0.579 | 0.382  | 0.604 |
| 140 | 70  | 0.427  | 0.573 | 0.414  | 0.586 | 0.389  | 0.611 |
| 140 | 71  | 0.434  | 0.580 | 0.421  | 0.593 | 0.396  | 0.618 |
| 140 | 72  | 0.442  | 0.587 | 0.428  | 0.600 | 0.403  | 0.625 |
| 140 | 73  | 0.449  | 0.594 | 0.435  | 0.606 | 0.410  | 0.631 |
| 140 | 74  | 0.456  | 0.601 | 0.442  | 0.613 | 0.417  | 0.638 |
| 140 | 75  | 0.463  | 0.608 | 0.450  | 0.620 | 0.424  | 0.645 |
| 140 | 76  | 0.470  | 0.614 | 0.457  | 0.627 | 0.431  | 0.652 |
| 140 | 77  | 0.477  | 0.621 | 0.464  | 0.634 | 0.438  | 0.659 |
| 140 | 78  | 0.484  | 0.628 | 0.471  | 0.641 | 0.445  | 0.665 |
| 140 | 79  | 0.491  | 0.635 | 0.478  | 0.648 | 0.452  | 0.672 |
| 140 | 80  | 0.498  | 0.642 | 0.485  | 0.655 | 0.459  | 0.679 |
| 140 | 81  | 0.506  | 0.649 | 0.492  | 0.661 | 0.466  | 0.685 |
| 140 | 82  | 0.513  | 0.656 | 0.499  | 0.668 | 0.473  | 0.692 |
| 140 | 83  | 0.520  | 0.663 | 0.507  | 0.675 | 0.481  | 0.699 |
| 140 | 84  | 0.527  | 0.670 | 0.514  | 0.682 | 0.488  | 0.705 |
| 140 | 85  | 0.534  | 0.676 | 0.521  | 0.689 | 0.495  | 0.712 |
| 140 | 86  | 0.542  | 0.683 | 0.528  | 0.695 | 0.502  | 0.718 |
| 140 | 87  | 0.549  | 0.690 | 0.536  | 0.702 | 0.510  | 0.725 |
| 140 | 88  | 0.556  | 0.697 | 0.543  | 0.709 | 0.517  | 0.731 |
| 140 | 89  | 0.564  | 0.704 | 0.550  | 0.715 | 0.524  | 0.738 |
| 140 | 90  | 0.571  | 0.710 | 0.558  | 0.722 | 0.531  | 0.744 |
| 140 | 91  | 0.578  | 0.717 | 0.565  | 0.729 | 0.539  | 0.751 |
| 140 | 92  | 0.586  | 0.724 | 0.572  | 0.735 | 0.546  | 0.757 |
| 140 | 93  | 0.593  | 0.730 | 0.580  | 0.742 | 0.554  | 0.763 |
| 140 | 94  | 0.600  | 0.737 | 0.587  | 0.748 | 0.561  | 0.770 |
| 140 | 95  | 0.608  | 0.744 | 0.594  | 0.755 | 0.568  | 0.776 |
| 140 | 96  | 0.615  | 0.750 | 0.602  | 0.761 | 0.576  | 0.782 |
| 140 | 97  | 0.622  | 0.757 | 0.609  | 0.768 | 0.583  | 0.789 |
| 140 | 98  | 0.630  | 0.764 | 0.617  | 0.774 | 0.591  | 0.795 |
| 140 | 99  | 0.637  | 0.770 | 0.624  | 0.781 | 0.599  | 0.801 |
| 140 | 100 | 0.645  | 0.777 | 0.632  | 0.787 | 0.606  | 0.807 |
| 140 | 101 | 0.652  | 0.783 | 0.639  | 0.794 | 0.614  | 0.814 |
| 140 | 102 | 0.660  | 0.790 | 0.647  | 0.800 | 0.621  | 0.820 |
| 140 | 103 | 0.667  | 0.796 | 0.655  | 0.807 | 0.629  | 0.826 |
| 140 | 104 | 0.675  | 0.803 | 0.662  | 0.813 | 0.637  | 0.832 |
| 140 | 105 | 0.683  | 0.809 | 0.670  | 0.819 | 0.645  | 0.838 |
| 140 | 106 | 0.690  | 0.816 | 0.678  | 0.826 | 0.652  | 0.844 |
| 140 | 107 | 0.698  | 0.822 | 0.685  | 0.832 | 0.660  | 0.850 |
| 140 | 108 | 0.705  | 0.829 | 0.693  | 0.838 | 0.668  | 0.856 |
| 140 | 109 | 0.713  | 0.835 | 0.701  | 0.844 | 0.676  | 0.862 |
| 140 | 110 | 0.721  | 0.841 | 0.708  | 0.851 | 0.684  | 0.868 |
| 140 | 111 | 0.728  | 0.848 | 0.716  | 0.857 | 0.692  | 0.873 |
| 140 | 112 | 0.736  | 0.854 | 0.724  | 0.863 | 0.700  | 0.879 |
| 140 | 113 | 0.744  | 0.860 | 0.732  | 0.869 | 0.708  | 0.885 |
| 140 | 114 | 0.752  | 0.866 | 0.740  | 0.875 | 0.716  | 0.891 |
| 140 | 115 | 0.760  | 0.873 | 0.748  | 0.881 | 0.724  | 0.896 |
| 140 | 116 | 0.767  | 0.879 | 0.756  | 0.887 | 0.732  | 0.902 |
| 140 | 117 | 0.775  | 0.885 | 0.764  | 0.893 | 0.740  | 0.907 |
| 140 | 118 | 0.783  | 0.891 | 0.772  | 0.899 | 0.749  | 0.913 |
| 140 | 119 | 0.791  | 0.897 | 0.780  | 0.905 | 0.757  | 0.918 |
| 140 | 120 | 0.799  | 0.903 | 0.788  | 0.910 | 0.765  | 0.924 |
| 140 | 121 | 0.807  | 0.909 | 0.796  | 0.916 | 0.774  | 0.929 |
| 140 | 122 | 0.815  | 0.915 | 0.804  | 0.922 | 0.782  | 0.934 |
| 140 | 123 | 0.823  | 0.921 | 0.813  | 0.928 | 0.791  | 0.939 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 140 | 124 | 0.832  | 0.927 | 0.821  | 0.933 | 0.800  | 0.944 |
| 140 | 125 | 0.840  | 0.933 | 0.829  | 0.939 | 0.808  | 0.949 |
| 140 | 126 | 0.848  | 0.939 | 0.838  | 0.944 | 0.817  | 0.954 |
| 140 | 127 | 0.856  | 0.944 | 0.846  | 0.950 | 0.826  | 0.959 |
| 140 | 128 | 0.865  | 0.950 | 0.855  | 0.955 | 0.835  | 0.964 |
| 140 | 129 | 0.873  | 0.955 | 0.864  | 0.960 | 0.844  | 0.968 |
| 140 | 130 | 0.882  | 0.961 | 0.873  | 0.965 | 0.853  | 0.973 |
| 140 | 131 | 0.891  | 0.966 | 0.881  | 0.970 | 0.863  | 0.977 |
| 140 | 132 | 0.899  | 0.971 | 0.891  | 0.975 | 0.872  | 0.981 |
| 140 | 133 | 0.908  | 0.976 | 0.900  | 0.980 | 0.882  | 0.985 |
| 140 | 134 | 0.917  | 0.981 | 0.909  | 0.984 | 0.892  | 0.989 |
| 140 | 135 | 0.926  | 0.986 | 0.919  | 0.988 | 0.902  | 0.992 |
| 140 | 136 | 0.936  | 0.990 | 0.928  | 0.992 | 0.913  | 0.995 |
| 140 | 137 | 0.946  | 0.994 | 0.939  | 0.996 | 0.924  | 0.998 |
| 140 | 138 | 0.956  | 0.997 | 0.949  | 0.998 | 0.935  | 0.999 |
| 140 | 139 | 0.967  | 1.000 | 0.961  | 1.000 | 0.948  | 1.000 |
| 140 | 140 | 0.979  | 1.000 | 0.974  | 1.000 | 0.963  | 1.000 |
| 145 | 0   | 0.000  | 0.020 | 0.000  | 0.025 | 0.000  | 0.036 |
| 145 | 1   | 0.000  | 0.032 | 0.000  | 0.038 | 0.000  | 0.050 |
| 145 | 2   | 0.002  | 0.043 | 0.002  | 0.049 | 0.001  | 0.062 |
| 145 | 3   | 0.006  | 0.053 | 0.004  | 0.059 | 0.002  | 0.074 |
| 145 | 4   | 0.009  | 0.062 | 0.008  | 0.069 | 0.005  | 0.084 |
| 145 | 5   | 0.014  | 0.071 | 0.011  | 0.079 | 0.008  | 0.095 |
| 145 | 6   | 0.018  | 0.080 | 0.015  | 0.088 | 0.011  | 0.104 |
| 145 | 7   | 0.023  | 0.089 | 0.020  | 0.097 | 0.014  | 0.114 |
| 145 | 8   | 0.028  | 0.097 | 0.024  | 0.106 | 0.018  | 0.124 |
| 145 | 9   | 0.033  | 0.106 | 0.029  | 0.115 | 0.022  | 0.133 |
| 145 | 10  | 0.038  | 0.114 | 0.034  | 0.123 | 0.026  | 0.142 |
| 145 | 11  | 0.043  | 0.122 | 0.038  | 0.132 | 0.030  | 0.151 |
| 145 | 12  | 0.048  | 0.131 | 0.043  | 0.140 | 0.035  | 0.160 |
| 145 | 13  | 0.054  | 0.139 | 0.049  | 0.148 | 0.039  | 0.168 |
| 145 | 14  | 0.059  | 0.147 | 0.054  | 0.157 | 0.044  | 0.177 |
| 145 | 15  | 0.065  | 0.155 | 0.059  | 0.165 | 0.049  | 0.185 |
| 145 | 16  | 0.070  | 0.163 | 0.064  | 0.173 | 0.054  | 0.194 |
| 145 | 17  | 0.076  | 0.171 | 0.070  | 0.181 | 0.058  | 0.202 |
| 145 | 18  | 0.082  | 0.179 | 0.075  | 0.189 | 0.063  | 0.211 |
| 145 | 19  | 0.088  | 0.186 | 0.081  | 0.197 | 0.069  | 0.219 |
| 145 | 20  | 0.093  | 0.194 | 0.086  | 0.205 | 0.074  | 0.227 |
| 145 | 21  | 0.099  | 0.202 | 0.092  | 0.213 | 0.079  | 0.235 |
| 145 | 22  | 0.105  | 0.210 | 0.098  | 0.221 | 0.084  | 0.243 |
| 145 | 23  | 0.111  | 0.217 | 0.103  | 0.228 | 0.089  | 0.251 |
| 145 | 24  | 0.117  | 0.225 | 0.109  | 0.236 | 0.095  | 0.259 |
| 145 | 25  | 0.123  | 0.232 | 0.115  | 0.244 | 0.100  | 0.267 |
| 145 | 26  | 0.129  | 0.240 | 0.121  | 0.252 | 0.106  | 0.275 |
| 145 | 27  | 0.135  | 0.248 | 0.126  | 0.259 | 0.111  | 0.283 |
| 145 | 28  | 0.141  | 0.255 | 0.132  | 0.267 | 0.117  | 0.291 |
| 145 | 29  | 0.147  | 0.263 | 0.138  | 0.274 | 0.122  | 0.298 |
| 145 | 30  | 0.153  | 0.270 | 0.144  | 0.282 | 0.128  | 0.306 |
| 145 | 31  | 0.159  | 0.277 | 0.150  | 0.290 | 0.133  | 0.314 |
| 145 | 32  | 0.165  | 0.285 | 0.156  | 0.297 | 0.139  | 0.321 |
| 145 | 33  | 0.171  | 0.292 | 0.162  | 0.304 | 0.145  | 0.329 |
| 145 | 34  | 0.178  | 0.300 | 0.168  | 0.312 | 0.150  | 0.337 |
| 145 | 35  | 0.184  | 0.307 | 0.174  | 0.319 | 0.156  | 0.344 |
| 145 | 36  | 0.190  | 0.314 | 0.180  | 0.327 | 0.162  | 0.352 |
| 145 | 37  | 0.196  | 0.322 | 0.186  | 0.334 | 0.168  | 0.359 |
| 145 | 38  | 0.203  | 0.329 | 0.193  | 0.342 | 0.174  | 0.366 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 145 | 39 | 0.209  | 0.336 | 0.199  | 0.349 | 0.180  | 0.374 |
| 145 | 40 | 0.215  | 0.343 | 0.205  | 0.356 | 0.186  | 0.381 |
| 145 | 41 | 0.222  | 0.351 | 0.211  | 0.363 | 0.192  | 0.389 |
| 145 | 42 | 0.228  | 0.358 | 0.217  | 0.371 | 0.198  | 0.396 |
| 145 | 43 | 0.234  | 0.365 | 0.224  | 0.378 | 0.204  | 0.403 |
| 145 | 44 | 0.241  | 0.372 | 0.230  | 0.385 | 0.210  | 0.411 |
| 145 | 45 | 0.247  | 0.380 | 0.236  | 0.392 | 0.216  | 0.418 |
| 145 | 46 | 0.253  | 0.387 | 0.243  | 0.400 | 0.222  | 0.425 |
| 145 | 47 | 0.260  | 0.394 | 0.249  | 0.407 | 0.228  | 0.432 |
| 145 | 48 | 0.266  | 0.401 | 0.255  | 0.414 | 0.234  | 0.440 |
| 145 | 49 | 0.273  | 0.408 | 0.262  | 0.421 | 0.240  | 0.447 |
| 145 | 50 | 0.279  | 0.415 | 0.268  | 0.428 | 0.246  | 0.454 |
| 145 | 51 | 0.286  | 0.422 | 0.274  | 0.435 | 0.253  | 0.461 |
| 145 | 52 | 0.292  | 0.429 | 0.281  | 0.442 | 0.259  | 0.468 |
| 145 | 53 | 0.299  | 0.436 | 0.287  | 0.449 | 0.265  | 0.475 |
| 145 | 54 | 0.305  | 0.443 | 0.294  | 0.457 | 0.271  | 0.482 |
| 145 | 55 | 0.312  | 0.450 | 0.300  | 0.464 | 0.278  | 0.489 |
| 145 | 56 | 0.318  | 0.457 | 0.307  | 0.471 | 0.284  | 0.496 |
| 145 | 57 | 0.325  | 0.464 | 0.313  | 0.478 | 0.290  | 0.503 |
| 145 | 58 | 0.332  | 0.471 | 0.320  | 0.485 | 0.297  | 0.510 |
| 145 | 59 | 0.338  | 0.478 | 0.326  | 0.492 | 0.303  | 0.517 |
| 145 | 60 | 0.345  | 0.485 | 0.333  | 0.498 | 0.309  | 0.524 |
| 145 | 61 | 0.352  | 0.492 | 0.339  | 0.505 | 0.316  | 0.531 |
| 145 | 62 | 0.358  | 0.499 | 0.346  | 0.512 | 0.322  | 0.538 |
| 145 | 63 | 0.365  | 0.506 | 0.352  | 0.519 | 0.329  | 0.545 |
| 145 | 64 | 0.371  | 0.513 | 0.359  | 0.526 | 0.335  | 0.552 |
| 145 | 65 | 0.378  | 0.520 | 0.366  | 0.533 | 0.342  | 0.558 |
| 145 | 66 | 0.385  | 0.527 | 0.372  | 0.540 | 0.348  | 0.565 |
| 145 | 67 | 0.392  | 0.534 | 0.379  | 0.547 | 0.355  | 0.572 |
| 145 | 68 | 0.398  | 0.541 | 0.386  | 0.554 | 0.361  | 0.579 |
| 145 | 69 | 0.405  | 0.547 | 0.392  | 0.560 | 0.368  | 0.585 |
| 145 | 70 | 0.412  | 0.554 | 0.399  | 0.567 | 0.375  | 0.592 |
| 145 | 71 | 0.419  | 0.561 | 0.406  | 0.574 | 0.381  | 0.599 |
| 145 | 72 | 0.425  | 0.568 | 0.413  | 0.581 | 0.388  | 0.606 |
| 145 | 73 | 0.432  | 0.575 | 0.419  | 0.587 | 0.394  | 0.612 |
| 145 | 74 | 0.439  | 0.581 | 0.426  | 0.594 | 0.401  | 0.619 |
| 145 | 75 | 0.446  | 0.588 | 0.433  | 0.601 | 0.408  | 0.625 |
| 145 | 76 | 0.453  | 0.595 | 0.440  | 0.608 | 0.415  | 0.632 |
| 145 | 77 | 0.459  | 0.602 | 0.446  | 0.614 | 0.421  | 0.639 |
| 145 | 78 | 0.466  | 0.608 | 0.453  | 0.621 | 0.428  | 0.645 |
| 145 | 79 | 0.473  | 0.615 | 0.460  | 0.628 | 0.435  | 0.652 |
| 145 | 80 | 0.480  | 0.622 | 0.467  | 0.634 | 0.442  | 0.658 |
| 145 | 81 | 0.487  | 0.629 | 0.474  | 0.641 | 0.448  | 0.665 |
| 145 | 82 | 0.494  | 0.635 | 0.481  | 0.648 | 0.455  | 0.671 |
| 145 | 83 | 0.501  | 0.642 | 0.488  | 0.654 | 0.462  | 0.678 |
| 145 | 84 | 0.508  | 0.648 | 0.495  | 0.661 | 0.469  | 0.684 |
| 145 | 85 | 0.515  | 0.655 | 0.502  | 0.667 | 0.476  | 0.691 |
| 145 | 86 | 0.522  | 0.662 | 0.508  | 0.674 | 0.483  | 0.697 |
| 145 | 87 | 0.529  | 0.668 | 0.515  | 0.680 | 0.490  | 0.703 |
| 145 | 88 | 0.536  | 0.675 | 0.522  | 0.687 | 0.497  | 0.710 |
| 145 | 89 | 0.543  | 0.682 | 0.529  | 0.693 | 0.504  | 0.716 |
| 145 | 90 | 0.550  | 0.688 | 0.536  | 0.700 | 0.511  | 0.722 |
| 145 | 91 | 0.557  | 0.695 | 0.543  | 0.706 | 0.518  | 0.729 |
| 145 | 92 | 0.564  | 0.701 | 0.551  | 0.713 | 0.525  | 0.735 |
| 145 | 93 | 0.571  | 0.708 | 0.558  | 0.719 | 0.532  | 0.741 |
| 145 | 94 | 0.578  | 0.714 | 0.565  | 0.726 | 0.539  | 0.747 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 145 | 95  | 0.585  | 0.721 | 0.572  | 0.732 | 0.546  | 0.754 |
| 145 | 96  | 0.592  | 0.727 | 0.579  | 0.738 | 0.553  | 0.760 |
| 145 | 97  | 0.599  | 0.734 | 0.586  | 0.745 | 0.560  | 0.766 |
| 145 | 98  | 0.606  | 0.740 | 0.593  | 0.751 | 0.568  | 0.772 |
| 145 | 99  | 0.613  | 0.747 | 0.600  | 0.757 | 0.575  | 0.778 |
| 145 | 100 | 0.620  | 0.753 | 0.608  | 0.764 | 0.582  | 0.784 |
| 145 | 101 | 0.628  | 0.759 | 0.615  | 0.770 | 0.589  | 0.790 |
| 145 | 102 | 0.635  | 0.766 | 0.622  | 0.776 | 0.597  | 0.796 |
| 145 | 103 | 0.642  | 0.772 | 0.629  | 0.783 | 0.604  | 0.802 |
| 145 | 104 | 0.649  | 0.778 | 0.637  | 0.789 | 0.611  | 0.808 |
| 145 | 105 | 0.657  | 0.785 | 0.644  | 0.795 | 0.619  | 0.814 |
| 145 | 106 | 0.664  | 0.791 | 0.651  | 0.801 | 0.626  | 0.820 |
| 145 | 107 | 0.671  | 0.797 | 0.658  | 0.807 | 0.634  | 0.826 |
| 145 | 108 | 0.678  | 0.804 | 0.666  | 0.814 | 0.641  | 0.832 |
| 145 | 109 | 0.686  | 0.810 | 0.673  | 0.820 | 0.648  | 0.838 |
| 145 | 110 | 0.693  | 0.816 | 0.681  | 0.826 | 0.656  | 0.844 |
| 145 | 111 | 0.700  | 0.822 | 0.688  | 0.832 | 0.663  | 0.850 |
| 145 | 112 | 0.708  | 0.829 | 0.696  | 0.838 | 0.671  | 0.855 |
| 145 | 113 | 0.715  | 0.835 | 0.703  | 0.844 | 0.679  | 0.861 |
| 145 | 114 | 0.723  | 0.841 | 0.710  | 0.850 | 0.686  | 0.867 |
| 145 | 115 | 0.730  | 0.847 | 0.718  | 0.856 | 0.694  | 0.872 |
| 145 | 116 | 0.737  | 0.853 | 0.726  | 0.862 | 0.702  | 0.878 |
| 145 | 117 | 0.745  | 0.859 | 0.733  | 0.868 | 0.709  | 0.883 |
| 145 | 118 | 0.752  | 0.865 | 0.741  | 0.874 | 0.717  | 0.889 |
| 145 | 119 | 0.760  | 0.871 | 0.748  | 0.879 | 0.725  | 0.894 |
| 145 | 120 | 0.768  | 0.877 | 0.756  | 0.885 | 0.733  | 0.900 |
| 145 | 121 | 0.775  | 0.883 | 0.764  | 0.891 | 0.741  | 0.905 |
| 145 | 122 | 0.783  | 0.889 | 0.772  | 0.897 | 0.749  | 0.911 |
| 145 | 123 | 0.790  | 0.895 | 0.779  | 0.902 | 0.757  | 0.916 |
| 145 | 124 | 0.798  | 0.901 | 0.787  | 0.908 | 0.765  | 0.921 |
| 145 | 125 | 0.806  | 0.907 | 0.795  | 0.914 | 0.773  | 0.926 |
| 145 | 126 | 0.814  | 0.912 | 0.803  | 0.919 | 0.781  | 0.931 |
| 145 | 127 | 0.821  | 0.918 | 0.811  | 0.925 | 0.789  | 0.937 |
| 145 | 128 | 0.829  | 0.924 | 0.819  | 0.930 | 0.798  | 0.942 |
| 145 | 129 | 0.837  | 0.930 | 0.827  | 0.936 | 0.806  | 0.946 |
| 145 | 130 | 0.845  | 0.935 | 0.835  | 0.941 | 0.815  | 0.951 |
| 145 | 131 | 0.853  | 0.941 | 0.843  | 0.946 | 0.823  | 0.956 |
| 145 | 132 | 0.861  | 0.946 | 0.852  | 0.951 | 0.832  | 0.961 |
| 145 | 133 | 0.869  | 0.952 | 0.860  | 0.957 | 0.840  | 0.965 |
| 145 | 134 | 0.878  | 0.957 | 0.868  | 0.962 | 0.849  | 0.970 |
| 145 | 135 | 0.886  | 0.962 | 0.877  | 0.966 | 0.858  | 0.974 |
| 145 | 136 | 0.894  | 0.967 | 0.885  | 0.971 | 0.867  | 0.978 |
| 145 | 137 | 0.903  | 0.972 | 0.894  | 0.976 | 0.876  | 0.982 |
| 145 | 138 | 0.911  | 0.977 | 0.903  | 0.980 | 0.886  | 0.986 |
| 145 | 139 | 0.920  | 0.982 | 0.912  | 0.985 | 0.896  | 0.989 |
| 145 | 140 | 0.929  | 0.986 | 0.921  | 0.989 | 0.905  | 0.992 |
| 145 | 141 | 0.938  | 0.991 | 0.931  | 0.992 | 0.916  | 0.995 |
| 145 | 142 | 0.947  | 0.994 | 0.941  | 0.996 | 0.926  | 0.998 |
| 145 | 143 | 0.957  | 0.998 | 0.951  | 0.998 | 0.938  | 0.999 |
| 145 | 144 | 0.968  | 1.000 | 0.962  | 1.000 | 0.950  | 1.000 |
| 145 | 145 | 0.980  | 1.000 | 0.975  | 1.000 | 0.964  | 1.000 |
| 150 | 0   | 0.000  | 0.020 | 0.000  | 0.024 | 0.000  | 0.035 |
| 150 | 1   | 0.000  | 0.031 | 0.000  | 0.037 | 0.000  | 0.048 |
| 150 | 2   | 0.002  | 0.041 | 0.002  | 0.047 | 0.001  | 0.060 |
| 150 | 3   | 0.005  | 0.051 | 0.004  | 0.057 | 0.002  | 0.071 |
| 150 | 4   | 0.009  | 0.060 | 0.007  | 0.067 | 0.005  | 0.082 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 150 | 5  | 0.013  | 0.069 | 0.011  | 0.076 | 0.007  | 0.091 |
| 150 | 6  | 0.018  | 0.077 | 0.015  | 0.085 | 0.010  | 0.101 |
| 150 | 7  | 0.022  | 0.086 | 0.019  | 0.094 | 0.014  | 0.110 |
| 150 | 8  | 0.027  | 0.094 | 0.023  | 0.102 | 0.017  | 0.120 |
| 150 | 9  | 0.032  | 0.102 | 0.028  | 0.111 | 0.021  | 0.128 |
| 150 | 10 | 0.037  | 0.110 | 0.032  | 0.119 | 0.025  | 0.137 |
| 150 | 11 | 0.042  | 0.118 | 0.037  | 0.127 | 0.029  | 0.146 |
| 150 | 12 | 0.047  | 0.126 | 0.042  | 0.136 | 0.034  | 0.154 |
| 150 | 13 | 0.052  | 0.134 | 0.047  | 0.144 | 0.038  | 0.163 |
| 150 | 14 | 0.057  | 0.142 | 0.052  | 0.152 | 0.043  | 0.171 |
| 150 | 15 | 0.063  | 0.150 | 0.057  | 0.160 | 0.047  | 0.180 |
| 150 | 16 | 0.068  | 0.157 | 0.062  | 0.167 | 0.052  | 0.188 |
| 150 | 17 | 0.074  | 0.165 | 0.067  | 0.175 | 0.056  | 0.196 |
| 150 | 18 | 0.079  | 0.173 | 0.073  | 0.183 | 0.061  | 0.204 |
| 150 | 19 | 0.085  | 0.180 | 0.078  | 0.191 | 0.066  | 0.212 |
| 150 | 20 | 0.090  | 0.188 | 0.083  | 0.198 | 0.071  | 0.220 |
| 150 | 21 | 0.096  | 0.195 | 0.089  | 0.206 | 0.076  | 0.228 |
| 150 | 22 | 0.101  | 0.203 | 0.094  | 0.214 | 0.081  | 0.236 |
| 150 | 23 | 0.107  | 0.210 | 0.100  | 0.221 | 0.086  | 0.243 |
| 150 | 24 | 0.113  | 0.218 | 0.105  | 0.229 | 0.091  | 0.251 |
| 150 | 25 | 0.119  | 0.225 | 0.111  | 0.236 | 0.097  | 0.259 |
| 150 | 26 | 0.124  | 0.232 | 0.116  | 0.244 | 0.102  | 0.266 |
| 150 | 27 | 0.130  | 0.240 | 0.122  | 0.251 | 0.107  | 0.274 |
| 150 | 28 | 0.136  | 0.247 | 0.128  | 0.258 | 0.112  | 0.281 |
| 150 | 29 | 0.142  | 0.254 | 0.133  | 0.266 | 0.118  | 0.289 |
| 150 | 30 | 0.148  | 0.261 | 0.139  | 0.273 | 0.123  | 0.296 |
| 150 | 31 | 0.154  | 0.269 | 0.145  | 0.280 | 0.129  | 0.304 |
| 150 | 32 | 0.160  | 0.276 | 0.151  | 0.288 | 0.134  | 0.311 |
| 150 | 33 | 0.166  | 0.283 | 0.157  | 0.295 | 0.140  | 0.319 |
| 150 | 34 | 0.172  | 0.290 | 0.162  | 0.302 | 0.145  | 0.326 |
| 150 | 35 | 0.178  | 0.297 | 0.168  | 0.309 | 0.151  | 0.333 |
| 150 | 36 | 0.184  | 0.304 | 0.174  | 0.316 | 0.156  | 0.341 |
| 150 | 37 | 0.190  | 0.311 | 0.180  | 0.324 | 0.162  | 0.348 |
| 150 | 38 | 0.196  | 0.318 | 0.186  | 0.331 | 0.168  | 0.355 |
| 150 | 39 | 0.202  | 0.326 | 0.192  | 0.338 | 0.173  | 0.362 |
| 150 | 40 | 0.208  | 0.333 | 0.198  | 0.345 | 0.179  | 0.370 |
| 150 | 41 | 0.214  | 0.340 | 0.204  | 0.352 | 0.185  | 0.377 |
| 150 | 42 | 0.220  | 0.347 | 0.210  | 0.359 | 0.191  | 0.384 |
| 150 | 43 | 0.226  | 0.354 | 0.216  | 0.366 | 0.196  | 0.391 |
| 150 | 44 | 0.232  | 0.361 | 0.222  | 0.373 | 0.202  | 0.398 |
| 150 | 45 | 0.239  | 0.368 | 0.228  | 0.380 | 0.208  | 0.405 |
| 150 | 46 | 0.245  | 0.374 | 0.234  | 0.387 | 0.214  | 0.412 |
| 150 | 47 | 0.251  | 0.381 | 0.240  | 0.394 | 0.220  | 0.419 |
| 150 | 48 | 0.257  | 0.388 | 0.246  | 0.401 | 0.226  | 0.426 |
| 150 | 49 | 0.263  | 0.395 | 0.252  | 0.408 | 0.232  | 0.433 |
| 150 | 50 | 0.270  | 0.402 | 0.259  | 0.415 | 0.238  | 0.440 |
| 150 | 51 | 0.276  | 0.409 | 0.265  | 0.422 | 0.244  | 0.447 |
| 150 | 52 | 0.282  | 0.416 | 0.271  | 0.429 | 0.250  | 0.454 |
| 150 | 53 | 0.288  | 0.423 | 0.277  | 0.435 | 0.256  | 0.461 |
| 150 | 54 | 0.295  | 0.429 | 0.283  | 0.442 | 0.262  | 0.468 |
| 150 | 55 | 0.301  | 0.436 | 0.290  | 0.449 | 0.268  | 0.474 |
| 150 | 56 | 0.307  | 0.443 | 0.296  | 0.456 | 0.274  | 0.481 |
| 150 | 57 | 0.314  | 0.450 | 0.302  | 0.463 | 0.280  | 0.488 |
| 150 | 58 | 0.320  | 0.457 | 0.308  | 0.470 | 0.286  | 0.495 |
| 150 | 59 | 0.326  | 0.463 | 0.315  | 0.476 | 0.292  | 0.502 |
| 150 | 60 | 0.333  | 0.470 | 0.321  | 0.483 | 0.298  | 0.508 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 150 | 61  | 0.339  | 0.477 | 0.327  | 0.490 | 0.304  | 0.515 |
| 150 | 62  | 0.346  | 0.484 | 0.334  | 0.497 | 0.311  | 0.522 |
| 150 | 63  | 0.352  | 0.490 | 0.340  | 0.503 | 0.317  | 0.528 |
| 150 | 64  | 0.358  | 0.497 | 0.346  | 0.510 | 0.323  | 0.535 |
| 150 | 65  | 0.365  | 0.504 | 0.353  | 0.517 | 0.329  | 0.542 |
| 150 | 66  | 0.371  | 0.510 | 0.359  | 0.523 | 0.336  | 0.548 |
| 150 | 67  | 0.378  | 0.517 | 0.366  | 0.530 | 0.342  | 0.555 |
| 150 | 68  | 0.384  | 0.524 | 0.372  | 0.537 | 0.348  | 0.561 |
| 150 | 69  | 0.391  | 0.530 | 0.378  | 0.543 | 0.355  | 0.568 |
| 150 | 70  | 0.397  | 0.537 | 0.385  | 0.550 | 0.361  | 0.575 |
| 150 | 71  | 0.404  | 0.544 | 0.391  | 0.556 | 0.367  | 0.581 |
| 150 | 72  | 0.410  | 0.550 | 0.398  | 0.563 | 0.374  | 0.588 |
| 150 | 73  | 0.417  | 0.557 | 0.404  | 0.570 | 0.380  | 0.594 |
| 150 | 74  | 0.423  | 0.563 | 0.411  | 0.576 | 0.386  | 0.601 |
| 150 | 75  | 0.430  | 0.570 | 0.417  | 0.583 | 0.393  | 0.607 |
| 150 | 76  | 0.437  | 0.577 | 0.424  | 0.589 | 0.399  | 0.614 |
| 150 | 77  | 0.443  | 0.583 | 0.430  | 0.596 | 0.406  | 0.620 |
| 150 | 78  | 0.450  | 0.590 | 0.437  | 0.602 | 0.412  | 0.626 |
| 150 | 79  | 0.456  | 0.596 | 0.444  | 0.609 | 0.419  | 0.633 |
| 150 | 80  | 0.463  | 0.603 | 0.450  | 0.615 | 0.425  | 0.639 |
| 150 | 81  | 0.470  | 0.609 | 0.457  | 0.622 | 0.432  | 0.645 |
| 150 | 82  | 0.476  | 0.616 | 0.463  | 0.628 | 0.439  | 0.652 |
| 150 | 83  | 0.483  | 0.622 | 0.470  | 0.634 | 0.445  | 0.658 |
| 150 | 84  | 0.490  | 0.629 | 0.477  | 0.641 | 0.452  | 0.664 |
| 150 | 85  | 0.496  | 0.635 | 0.483  | 0.647 | 0.458  | 0.671 |
| 150 | 86  | 0.503  | 0.642 | 0.490  | 0.654 | 0.465  | 0.677 |
| 150 | 87  | 0.510  | 0.648 | 0.497  | 0.660 | 0.472  | 0.683 |
| 150 | 88  | 0.516  | 0.654 | 0.503  | 0.666 | 0.478  | 0.689 |
| 150 | 89  | 0.523  | 0.661 | 0.510  | 0.673 | 0.485  | 0.696 |
| 150 | 90  | 0.530  | 0.667 | 0.517  | 0.679 | 0.492  | 0.702 |
| 150 | 91  | 0.537  | 0.674 | 0.524  | 0.685 | 0.498  | 0.708 |
| 150 | 92  | 0.543  | 0.680 | 0.530  | 0.692 | 0.505  | 0.714 |
| 150 | 93  | 0.550  | 0.686 | 0.537  | 0.698 | 0.512  | 0.720 |
| 150 | 94  | 0.557  | 0.693 | 0.544  | 0.704 | 0.519  | 0.726 |
| 150 | 95  | 0.564  | 0.699 | 0.551  | 0.710 | 0.526  | 0.732 |
| 150 | 96  | 0.571  | 0.705 | 0.558  | 0.717 | 0.532  | 0.738 |
| 150 | 97  | 0.577  | 0.712 | 0.565  | 0.723 | 0.539  | 0.744 |
| 150 | 98  | 0.584  | 0.718 | 0.571  | 0.729 | 0.546  | 0.750 |
| 150 | 99  | 0.591  | 0.724 | 0.578  | 0.735 | 0.553  | 0.756 |
| 150 | 100 | 0.598  | 0.730 | 0.585  | 0.741 | 0.560  | 0.762 |
| 150 | 101 | 0.605  | 0.737 | 0.592  | 0.748 | 0.567  | 0.768 |
| 150 | 102 | 0.612  | 0.743 | 0.599  | 0.754 | 0.574  | 0.774 |
| 150 | 103 | 0.619  | 0.749 | 0.606  | 0.760 | 0.581  | 0.780 |
| 150 | 104 | 0.626  | 0.755 | 0.613  | 0.766 | 0.588  | 0.786 |
| 150 | 105 | 0.632  | 0.761 | 0.620  | 0.772 | 0.595  | 0.792 |
| 150 | 106 | 0.639  | 0.768 | 0.627  | 0.778 | 0.602  | 0.798 |
| 150 | 107 | 0.646  | 0.774 | 0.634  | 0.784 | 0.609  | 0.804 |
| 150 | 108 | 0.653  | 0.780 | 0.641  | 0.790 | 0.616  | 0.809 |
| 150 | 109 | 0.660  | 0.786 | 0.648  | 0.796 | 0.623  | 0.815 |
| 150 | 110 | 0.667  | 0.792 | 0.655  | 0.802 | 0.630  | 0.821 |
| 150 | 111 | 0.674  | 0.798 | 0.662  | 0.808 | 0.638  | 0.827 |
| 150 | 112 | 0.682  | 0.804 | 0.669  | 0.814 | 0.645  | 0.832 |
| 150 | 113 | 0.689  | 0.810 | 0.676  | 0.820 | 0.652  | 0.838 |
| 150 | 114 | 0.696  | 0.816 | 0.684  | 0.826 | 0.659  | 0.844 |
| 150 | 115 | 0.703  | 0.822 | 0.691  | 0.832 | 0.667  | 0.849 |
| 150 | 116 | 0.710  | 0.828 | 0.698  | 0.838 | 0.674  | 0.855 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 150 | 117 | 0.717  | 0.834 | 0.705  | 0.843 | 0.681  | 0.860 |
| 150 | 118 | 0.724  | 0.840 | 0.712  | 0.849 | 0.689  | 0.866 |
| 150 | 119 | 0.731  | 0.846 | 0.720  | 0.855 | 0.696  | 0.871 |
| 150 | 120 | 0.739  | 0.852 | 0.727  | 0.861 | 0.704  | 0.877 |
| 150 | 121 | 0.746  | 0.858 | 0.734  | 0.867 | 0.711  | 0.882 |
| 150 | 122 | 0.753  | 0.864 | 0.742  | 0.872 | 0.719  | 0.888 |
| 150 | 123 | 0.760  | 0.870 | 0.749  | 0.878 | 0.726  | 0.893 |
| 150 | 124 | 0.768  | 0.876 | 0.756  | 0.884 | 0.734  | 0.898 |
| 150 | 125 | 0.775  | 0.881 | 0.764  | 0.889 | 0.741  | 0.903 |
| 150 | 126 | 0.782  | 0.887 | 0.771  | 0.895 | 0.749  | 0.909 |
| 150 | 127 | 0.790  | 0.893 | 0.779  | 0.900 | 0.757  | 0.914 |
| 150 | 128 | 0.797  | 0.899 | 0.786  | 0.906 | 0.764  | 0.919 |
| 150 | 129 | 0.805  | 0.904 | 0.794  | 0.911 | 0.772  | 0.924 |
| 150 | 130 | 0.812  | 0.910 | 0.802  | 0.917 | 0.780  | 0.929 |
| 150 | 131 | 0.820  | 0.915 | 0.809  | 0.922 | 0.788  | 0.934 |
| 150 | 132 | 0.827  | 0.921 | 0.817  | 0.927 | 0.796  | 0.939 |
| 150 | 133 | 0.835  | 0.926 | 0.825  | 0.933 | 0.804  | 0.944 |
| 150 | 134 | 0.843  | 0.932 | 0.833  | 0.938 | 0.812  | 0.948 |
| 150 | 135 | 0.850  | 0.937 | 0.840  | 0.943 | 0.820  | 0.953 |
| 150 | 136 | 0.858  | 0.943 | 0.848  | 0.948 | 0.829  | 0.957 |
| 150 | 137 | 0.866  | 0.948 | 0.856  | 0.953 | 0.837  | 0.962 |
| 150 | 138 | 0.874  | 0.953 | 0.864  | 0.958 | 0.846  | 0.966 |
| 150 | 139 | 0.882  | 0.958 | 0.873  | 0.963 | 0.854  | 0.971 |
| 150 | 140 | 0.890  | 0.963 | 0.881  | 0.968 | 0.863  | 0.975 |
| 150 | 141 | 0.898  | 0.968 | 0.889  | 0.972 | 0.872  | 0.979 |
| 150 | 142 | 0.906  | 0.973 | 0.898  | 0.977 | 0.880  | 0.983 |
| 150 | 143 | 0.914  | 0.978 | 0.906  | 0.981 | 0.890  | 0.986 |
| 150 | 144 | 0.923  | 0.982 | 0.915  | 0.985 | 0.899  | 0.990 |
| 150 | 145 | 0.931  | 0.987 | 0.924  | 0.989 | 0.909  | 0.993 |
| 150 | 146 | 0.940  | 0.991 | 0.933  | 0.993 | 0.918  | 0.995 |
| 150 | 147 | 0.949  | 0.995 | 0.943  | 0.996 | 0.929  | 0.998 |
| 150 | 148 | 0.959  | 0.998 | 0.953  | 0.998 | 0.940  | 0.999 |
| 150 | 149 | 0.969  | 1.000 | 0.963  | 1.000 | 0.952  | 1.000 |
| 150 | 150 | 0.980  | 1.000 | 0.976  | 1.000 | 0.965  | 1.000 |
| 155 | 0   | 0.000  | 0.019 | 0.000  | 0.024 | 0.000  | 0.034 |
| 155 | 1   | 0.000  | 0.030 | 0.000  | 0.035 | 0.000  | 0.047 |
| 155 | 2   | 0.002  | 0.040 | 0.002  | 0.046 | 0.001  | 0.058 |
| 155 | 3   | 0.005  | 0.049 | 0.004  | 0.056 | 0.002  | 0.069 |
| 155 | 4   | 0.009  | 0.058 | 0.007  | 0.065 | 0.004  | 0.079 |
| 155 | 5   | 0.013  | 0.067 | 0.011  | 0.074 | 0.007  | 0.089 |
| 155 | 6   | 0.017  | 0.075 | 0.014  | 0.082 | 0.010  | 0.098 |
| 155 | 7   | 0.021  | 0.083 | 0.018  | 0.091 | 0.013  | 0.107 |
| 155 | 8   | 0.026  | 0.091 | 0.023  | 0.099 | 0.017  | 0.116 |
| 155 | 9   | 0.031  | 0.099 | 0.027  | 0.107 | 0.021  | 0.124 |
| 155 | 10  | 0.035  | 0.107 | 0.031  | 0.115 | 0.024  | 0.133 |
| 155 | 11  | 0.040  | 0.115 | 0.036  | 0.123 | 0.028  | 0.141 |
| 155 | 12  | 0.045  | 0.122 | 0.041  | 0.131 | 0.033  | 0.150 |
| 155 | 13  | 0.050  | 0.130 | 0.045  | 0.139 | 0.037  | 0.158 |
| 155 | 14  | 0.055  | 0.138 | 0.050  | 0.147 | 0.041  | 0.166 |
| 155 | 15  | 0.061  | 0.145 | 0.055  | 0.155 | 0.046  | 0.174 |
| 155 | 16  | 0.066  | 0.153 | 0.060  | 0.162 | 0.050  | 0.182 |
| 155 | 17  | 0.071  | 0.160 | 0.065  | 0.170 | 0.055  | 0.190 |
| 155 | 18  | 0.076  | 0.167 | 0.070  | 0.177 | 0.059  | 0.198 |
| 155 | 19  | 0.082  | 0.175 | 0.075  | 0.185 | 0.064  | 0.205 |
| 155 | 20  | 0.087  | 0.182 | 0.081  | 0.192 | 0.069  | 0.213 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 155 | 21 | 0.093  | 0.189 | 0.086  | 0.200 | 0.074  | 0.221 |
| 155 | 22 | 0.098  | 0.196 | 0.091  | 0.207 | 0.078  | 0.228 |
| 155 | 23 | 0.104  | 0.204 | 0.096  | 0.214 | 0.083  | 0.236 |
| 155 | 24 | 0.109  | 0.211 | 0.102  | 0.222 | 0.088  | 0.243 |
| 155 | 25 | 0.115  | 0.218 | 0.107  | 0.229 | 0.093  | 0.251 |
| 155 | 26 | 0.120  | 0.225 | 0.113  | 0.236 | 0.098  | 0.258 |
| 155 | 27 | 0.126  | 0.232 | 0.118  | 0.243 | 0.104  | 0.266 |
| 155 | 28 | 0.132  | 0.239 | 0.124  | 0.250 | 0.109  | 0.273 |
| 155 | 29 | 0.137  | 0.246 | 0.129  | 0.258 | 0.114  | 0.280 |
| 155 | 30 | 0.143  | 0.253 | 0.135  | 0.265 | 0.119  | 0.287 |
| 155 | 31 | 0.149  | 0.260 | 0.140  | 0.272 | 0.124  | 0.295 |
| 155 | 32 | 0.154  | 0.267 | 0.146  | 0.279 | 0.130  | 0.302 |
| 155 | 33 | 0.160  | 0.274 | 0.151  | 0.286 | 0.135  | 0.309 |
| 155 | 34 | 0.166  | 0.281 | 0.157  | 0.293 | 0.140  | 0.316 |
| 155 | 35 | 0.172  | 0.288 | 0.163  | 0.300 | 0.146  | 0.323 |
| 155 | 36 | 0.177  | 0.295 | 0.168  | 0.307 | 0.151  | 0.330 |
| 155 | 37 | 0.183  | 0.302 | 0.174  | 0.314 | 0.157  | 0.337 |
| 155 | 38 | 0.189  | 0.309 | 0.180  | 0.321 | 0.162  | 0.344 |
| 155 | 39 | 0.195  | 0.315 | 0.185  | 0.328 | 0.167  | 0.351 |
| 155 | 40 | 0.201  | 0.322 | 0.191  | 0.334 | 0.173  | 0.358 |
| 155 | 41 | 0.207  | 0.329 | 0.197  | 0.341 | 0.179  | 0.365 |
| 155 | 42 | 0.213  | 0.336 | 0.203  | 0.348 | 0.184  | 0.372 |
| 155 | 43 | 0.219  | 0.343 | 0.209  | 0.355 | 0.190  | 0.379 |
| 155 | 44 | 0.225  | 0.349 | 0.214  | 0.362 | 0.195  | 0.386 |
| 155 | 45 | 0.231  | 0.356 | 0.220  | 0.369 | 0.201  | 0.393 |
| 155 | 46 | 0.237  | 0.363 | 0.226  | 0.375 | 0.207  | 0.400 |
| 155 | 47 | 0.243  | 0.370 | 0.232  | 0.382 | 0.212  | 0.407 |
| 155 | 48 | 0.249  | 0.376 | 0.238  | 0.389 | 0.218  | 0.413 |
| 155 | 49 | 0.255  | 0.383 | 0.244  | 0.396 | 0.224  | 0.420 |
| 155 | 50 | 0.261  | 0.390 | 0.250  | 0.402 | 0.229  | 0.427 |
| 155 | 51 | 0.267  | 0.396 | 0.256  | 0.409 | 0.235  | 0.434 |
| 155 | 52 | 0.273  | 0.403 | 0.262  | 0.416 | 0.241  | 0.440 |
| 155 | 53 | 0.279  | 0.410 | 0.268  | 0.422 | 0.247  | 0.447 |
| 155 | 54 | 0.285  | 0.416 | 0.274  | 0.429 | 0.253  | 0.454 |
| 155 | 55 | 0.291  | 0.423 | 0.280  | 0.436 | 0.258  | 0.460 |
| 155 | 56 | 0.297  | 0.430 | 0.286  | 0.442 | 0.264  | 0.467 |
| 155 | 57 | 0.303  | 0.436 | 0.292  | 0.449 | 0.270  | 0.474 |
| 155 | 58 | 0.309  | 0.443 | 0.298  | 0.455 | 0.276  | 0.480 |
| 155 | 59 | 0.315  | 0.449 | 0.304  | 0.462 | 0.282  | 0.487 |
| 155 | 60 | 0.322  | 0.456 | 0.310  | 0.469 | 0.288  | 0.493 |
| 155 | 61 | 0.328  | 0.462 | 0.316  | 0.475 | 0.294  | 0.500 |
| 155 | 62 | 0.334  | 0.469 | 0.322  | 0.482 | 0.300  | 0.506 |
| 155 | 63 | 0.340  | 0.476 | 0.328  | 0.488 | 0.306  | 0.513 |
| 155 | 64 | 0.346  | 0.482 | 0.335  | 0.495 | 0.312  | 0.519 |
| 155 | 65 | 0.353  | 0.489 | 0.341  | 0.501 | 0.318  | 0.526 |
| 155 | 66 | 0.359  | 0.495 | 0.347  | 0.508 | 0.324  | 0.532 |
| 155 | 67 | 0.365  | 0.501 | 0.353  | 0.514 | 0.330  | 0.539 |
| 155 | 68 | 0.371  | 0.508 | 0.359  | 0.521 | 0.336  | 0.545 |
| 155 | 69 | 0.378  | 0.514 | 0.365  | 0.527 | 0.342  | 0.552 |
| 155 | 70 | 0.384  | 0.521 | 0.372  | 0.533 | 0.348  | 0.558 |
| 155 | 71 | 0.390  | 0.527 | 0.378  | 0.540 | 0.354  | 0.564 |
| 155 | 72 | 0.396  | 0.534 | 0.384  | 0.546 | 0.361  | 0.571 |
| 155 | 73 | 0.403  | 0.540 | 0.390  | 0.553 | 0.367  | 0.577 |
| 155 | 74 | 0.409  | 0.547 | 0.397  | 0.559 | 0.373  | 0.583 |
| 155 | 75 | 0.415  | 0.553 | 0.403  | 0.565 | 0.379  | 0.590 |
| 155 | 76 | 0.422  | 0.559 | 0.409  | 0.572 | 0.385  | 0.596 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 155 | 77  | 0.428  | 0.566 | 0.416  | 0.578 | 0.392  | 0.602 |
| 155 | 78  | 0.434  | 0.572 | 0.422  | 0.584 | 0.398  | 0.608 |
| 155 | 79  | 0.441  | 0.578 | 0.428  | 0.591 | 0.404  | 0.615 |
| 155 | 80  | 0.447  | 0.585 | 0.435  | 0.597 | 0.410  | 0.621 |
| 155 | 81  | 0.453  | 0.591 | 0.441  | 0.603 | 0.417  | 0.627 |
| 155 | 82  | 0.460  | 0.597 | 0.447  | 0.610 | 0.423  | 0.633 |
| 155 | 83  | 0.466  | 0.604 | 0.454  | 0.616 | 0.429  | 0.639 |
| 155 | 84  | 0.473  | 0.610 | 0.460  | 0.622 | 0.436  | 0.646 |
| 155 | 85  | 0.479  | 0.616 | 0.467  | 0.628 | 0.442  | 0.652 |
| 155 | 86  | 0.486  | 0.622 | 0.473  | 0.635 | 0.448  | 0.658 |
| 155 | 87  | 0.492  | 0.629 | 0.479  | 0.641 | 0.455  | 0.664 |
| 155 | 88  | 0.499  | 0.635 | 0.486  | 0.647 | 0.461  | 0.670 |
| 155 | 89  | 0.505  | 0.641 | 0.492  | 0.653 | 0.468  | 0.676 |
| 155 | 90  | 0.511  | 0.647 | 0.499  | 0.659 | 0.474  | 0.682 |
| 155 | 91  | 0.518  | 0.654 | 0.505  | 0.665 | 0.481  | 0.688 |
| 155 | 92  | 0.524  | 0.660 | 0.512  | 0.672 | 0.487  | 0.694 |
| 155 | 93  | 0.531  | 0.666 | 0.518  | 0.678 | 0.494  | 0.700 |
| 155 | 94  | 0.538  | 0.672 | 0.525  | 0.684 | 0.500  | 0.706 |
| 155 | 95  | 0.544  | 0.678 | 0.531  | 0.690 | 0.507  | 0.712 |
| 155 | 96  | 0.551  | 0.685 | 0.538  | 0.696 | 0.513  | 0.718 |
| 155 | 97  | 0.557  | 0.691 | 0.545  | 0.702 | 0.520  | 0.724 |
| 155 | 98  | 0.564  | 0.697 | 0.551  | 0.708 | 0.526  | 0.730 |
| 155 | 99  | 0.570  | 0.703 | 0.558  | 0.714 | 0.533  | 0.736 |
| 155 | 100 | 0.577  | 0.709 | 0.564  | 0.720 | 0.540  | 0.742 |
| 155 | 101 | 0.584  | 0.715 | 0.571  | 0.726 | 0.546  | 0.747 |
| 155 | 102 | 0.590  | 0.721 | 0.578  | 0.732 | 0.553  | 0.753 |
| 155 | 103 | 0.597  | 0.727 | 0.584  | 0.738 | 0.560  | 0.759 |
| 155 | 104 | 0.604  | 0.733 | 0.591  | 0.744 | 0.566  | 0.765 |
| 155 | 105 | 0.610  | 0.739 | 0.598  | 0.750 | 0.573  | 0.771 |
| 155 | 106 | 0.617  | 0.745 | 0.604  | 0.756 | 0.580  | 0.776 |
| 155 | 107 | 0.624  | 0.751 | 0.611  | 0.762 | 0.587  | 0.782 |
| 155 | 108 | 0.630  | 0.757 | 0.618  | 0.768 | 0.593  | 0.788 |
| 155 | 109 | 0.637  | 0.763 | 0.625  | 0.774 | 0.600  | 0.793 |
| 155 | 110 | 0.644  | 0.769 | 0.631  | 0.780 | 0.607  | 0.799 |
| 155 | 111 | 0.651  | 0.775 | 0.638  | 0.786 | 0.614  | 0.805 |
| 155 | 112 | 0.657  | 0.781 | 0.645  | 0.791 | 0.621  | 0.810 |
| 155 | 113 | 0.664  | 0.787 | 0.652  | 0.797 | 0.628  | 0.816 |
| 155 | 114 | 0.671  | 0.793 | 0.659  | 0.803 | 0.635  | 0.821 |
| 155 | 115 | 0.678  | 0.799 | 0.666  | 0.809 | 0.642  | 0.827 |
| 155 | 116 | 0.685  | 0.805 | 0.672  | 0.815 | 0.649  | 0.833 |
| 155 | 117 | 0.691  | 0.811 | 0.679  | 0.820 | 0.656  | 0.838 |
| 155 | 118 | 0.698  | 0.817 | 0.686  | 0.826 | 0.663  | 0.843 |
| 155 | 119 | 0.705  | 0.823 | 0.693  | 0.832 | 0.670  | 0.849 |
| 155 | 120 | 0.712  | 0.828 | 0.700  | 0.837 | 0.677  | 0.854 |
| 155 | 121 | 0.719  | 0.834 | 0.707  | 0.843 | 0.684  | 0.860 |
| 155 | 122 | 0.726  | 0.840 | 0.714  | 0.849 | 0.691  | 0.865 |
| 155 | 123 | 0.733  | 0.846 | 0.721  | 0.854 | 0.698  | 0.870 |
| 155 | 124 | 0.740  | 0.851 | 0.728  | 0.860 | 0.705  | 0.876 |
| 155 | 125 | 0.747  | 0.857 | 0.735  | 0.865 | 0.713  | 0.881 |
| 155 | 126 | 0.754  | 0.863 | 0.742  | 0.871 | 0.720  | 0.886 |
| 155 | 127 | 0.761  | 0.868 | 0.750  | 0.876 | 0.727  | 0.891 |
| 155 | 128 | 0.768  | 0.874 | 0.757  | 0.882 | 0.734  | 0.896 |
| 155 | 129 | 0.775  | 0.880 | 0.764  | 0.887 | 0.742  | 0.902 |
| 155 | 130 | 0.782  | 0.885 | 0.771  | 0.893 | 0.749  | 0.907 |
| 155 | 131 | 0.789  | 0.891 | 0.778  | 0.898 | 0.757  | 0.912 |
| 155 | 132 | 0.796  | 0.896 | 0.786  | 0.904 | 0.764  | 0.917 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 155 | 133 | 0.804  | 0.902 | 0.793  | 0.909 | 0.772  | 0.922 |
| 155 | 134 | 0.811  | 0.907 | 0.800  | 0.914 | 0.779  | 0.926 |
| 155 | 135 | 0.818  | 0.913 | 0.808  | 0.919 | 0.787  | 0.931 |
| 155 | 136 | 0.825  | 0.916 | 0.815  | 0.925 | 0.795  | 0.936 |
| 155 | 137 | 0.833  | 0.924 | 0.823  | 0.930 | 0.802  | 0.941 |
| 155 | 138 | 0.840  | 0.929 | 0.830  | 0.935 | 0.810  | 0.945 |
| 155 | 139 | 0.847  | 0.934 | 0.838  | 0.940 | 0.818  | 0.950 |
| 155 | 140 | 0.855  | 0.939 | 0.845  | 0.945 | 0.826  | 0.954 |
| 155 | 141 | 0.862  | 0.945 | 0.853  | 0.950 | 0.834  | 0.959 |
| 155 | 142 | 0.870  | 0.950 | 0.861  | 0.955 | 0.842  | 0.963 |
| 155 | 143 | 0.878  | 0.955 | 0.869  | 0.959 | 0.850  | 0.967 |
| 155 | 144 | 0.885  | 0.960 | 0.877  | 0.964 | 0.859  | 0.972 |
| 155 | 145 | 0.893  | 0.965 | 0.885  | 0.969 | 0.867  | 0.976 |
| 155 | 146 | 0.901  | 0.969 | 0.893  | 0.973 | 0.876  | 0.979 |
| 155 | 147 | 0.909  | 0.974 | 0.901  | 0.977 | 0.884  | 0.983 |
| 155 | 148 | 0.917  | 0.979 | 0.909  | 0.982 | 0.893  | 0.987 |
| 155 | 149 | 0.925  | 0.983 | 0.918  | 0.986 | 0.902  | 0.990 |
| 155 | 150 | 0.933  | 0.987 | 0.926  | 0.989 | 0.911  | 0.993 |
| 155 | 151 | 0.942  | 0.991 | 0.935  | 0.993 | 0.921  | 0.996 |
| 155 | 152 | 0.951  | 0.995 | 0.944  | 0.996 | 0.931  | 0.998 |
| 155 | 153 | 0.960  | 0.998 | 0.954  | 0.998 | 0.942  | 0.999 |
| 155 | 154 | 0.970  | 1.000 | 0.965  | 1.000 | 0.953  | 1.000 |
| 155 | 155 | 0.981  | 1.000 | 0.976  | 1.000 | 0.966  | 1.000 |
| 160 | 0   | 0.000  | 0.019 | 0.000  | 0.023 | 0.000  | 0.033 |
| 160 | 1   | 0.000  | 0.029 | 0.000  | 0.034 | 0.000  | 0.046 |
| 160 | 2   | 0.002  | 0.039 | 0.002  | 0.044 | 0.001  | 0.057 |
| 160 | 3   | 0.005  | 0.048 | 0.004  | 0.054 | 0.002  | 0.067 |
| 160 | 4   | 0.009  | 0.056 | 0.007  | 0.063 | 0.004  | 0.077 |
| 160 | 5   | 0.012  | 0.065 | 0.010  | 0.071 | 0.007  | 0.086 |
| 160 | 6   | 0.016  | 0.073 | 0.014  | 0.080 | 0.010  | 0.095 |
| 160 | 7   | 0.021  | 0.081 | 0.018  | 0.088 | 0.013  | 0.104 |
| 160 | 8   | 0.025  | 0.088 | 0.022  | 0.096 | 0.016  | 0.112 |
| 160 | 9   | 0.030  | 0.096 | 0.026  | 0.104 | 0.020  | 0.121 |
| 160 | 10  | 0.034  | 0.104 | 0.030  | 0.112 | 0.024  | 0.129 |
| 160 | 11  | 0.039  | 0.111 | 0.035  | 0.120 | 0.028  | 0.137 |
| 160 | 12  | 0.044  | 0.119 | 0.039  | 0.127 | 0.031  | 0.145 |
| 160 | 13  | 0.049  | 0.126 | 0.044  | 0.135 | 0.036  | 0.153 |
| 160 | 14  | 0.054  | 0.133 | 0.049  | 0.142 | 0.040  | 0.161 |
| 160 | 15  | 0.059  | 0.141 | 0.053  | 0.150 | 0.044  | 0.169 |
| 160 | 16  | 0.064  | 0.148 | 0.058  | 0.157 | 0.048  | 0.177 |
| 160 | 17  | 0.069  | 0.155 | 0.063  | 0.165 | 0.053  | 0.184 |
| 160 | 18  | 0.074  | 0.162 | 0.068  | 0.172 | 0.057  | 0.192 |
| 160 | 19  | 0.079  | 0.169 | 0.073  | 0.179 | 0.062  | 0.199 |
| 160 | 20  | 0.084  | 0.176 | 0.078  | 0.186 | 0.067  | 0.207 |
| 160 | 21  | 0.090  | 0.183 | 0.083  | 0.194 | 0.071  | 0.214 |
| 160 | 22  | 0.095  | 0.190 | 0.088  | 0.201 | 0.076  | 0.222 |
| 160 | 23  | 0.100  | 0.197 | 0.093  | 0.208 | 0.081  | 0.229 |
| 160 | 24  | 0.106  | 0.204 | 0.099  | 0.215 | 0.086  | 0.236 |
| 160 | 25  | 0.111  | 0.211 | 0.104  | 0.222 | 0.090  | 0.243 |
| 160 | 26  | 0.116  | 0.218 | 0.109  | 0.229 | 0.095  | 0.251 |
| 160 | 27  | 0.122  | 0.225 | 0.114  | 0.236 | 0.100  | 0.258 |
| 160 | 28  | 0.127  | 0.232 | 0.120  | 0.243 | 0.105  | 0.265 |
| 160 | 29  | 0.133  | 0.239 | 0.125  | 0.250 | 0.110  | 0.272 |
| 160 | 30  | 0.138  | 0.246 | 0.130  | 0.257 | 0.115  | 0.279 |
| 160 | 31  | 0.144  | 0.252 | 0.136  | 0.264 | 0.120  | 0.286 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 160 | 32 | 0.149  | 0.259 | 0.141  | 0.270 | 0.125  | 0.293 |
| 160 | 33 | 0.155  | 0.266 | 0.146  | 0.277 | 0.131  | 0.300 |
| 160 | 34 | 0.161  | 0.273 | 0.152  | 0.284 | 0.136  | 0.307 |
| 160 | 35 | 0.166  | 0.279 | 0.157  | 0.291 | 0.141  | 0.314 |
| 160 | 36 | 0.172  | 0.286 | 0.163  | 0.298 | 0.146  | 0.321 |
| 160 | 37 | 0.177  | 0.293 | 0.168  | 0.304 | 0.151  | 0.328 |
| 160 | 38 | 0.183  | 0.299 | 0.174  | 0.311 | 0.157  | 0.334 |
| 160 | 39 | 0.189  | 0.306 | 0.179  | 0.318 | 0.162  | 0.341 |
| 160 | 40 | 0.194  | 0.313 | 0.185  | 0.325 | 0.167  | 0.348 |
| 160 | 41 | 0.200  | 0.319 | 0.191  | 0.331 | 0.173  | 0.355 |
| 160 | 42 | 0.206  | 0.326 | 0.196  | 0.338 | 0.178  | 0.362 |
| 160 | 43 | 0.212  | 0.332 | 0.202  | 0.344 | 0.183  | 0.368 |
| 160 | 44 | 0.217  | 0.339 | 0.207  | 0.351 | 0.189  | 0.375 |
| 160 | 45 | 0.223  | 0.346 | 0.213  | 0.358 | 0.194  | 0.382 |
| 160 | 46 | 0.229  | 0.352 | 0.219  | 0.364 | 0.200  | 0.388 |
| 160 | 47 | 0.235  | 0.359 | 0.224  | 0.371 | 0.205  | 0.395 |
| 160 | 48 | 0.240  | 0.365 | 0.230  | 0.377 | 0.211  | 0.401 |
| 160 | 49 | 0.246  | 0.372 | 0.236  | 0.384 | 0.216  | 0.408 |
| 160 | 50 | 0.252  | 0.378 | 0.242  | 0.390 | 0.222  | 0.415 |
| 160 | 51 | 0.258  | 0.385 | 0.247  | 0.397 | 0.227  | 0.421 |
| 160 | 52 | 0.264  | 0.391 | 0.253  | 0.403 | 0.233  | 0.428 |
| 160 | 53 | 0.270  | 0.398 | 0.259  | 0.410 | 0.239  | 0.434 |
| 160 | 54 | 0.276  | 0.404 | 0.265  | 0.416 | 0.244  | 0.441 |
| 160 | 55 | 0.281  | 0.410 | 0.271  | 0.423 | 0.250  | 0.447 |
| 160 | 56 | 0.287  | 0.417 | 0.276  | 0.429 | 0.256  | 0.454 |
| 160 | 57 | 0.293  | 0.423 | 0.282  | 0.436 | 0.261  | 0.460 |
| 160 | 58 | 0.299  | 0.430 | 0.288  | 0.442 | 0.267  | 0.467 |
| 160 | 59 | 0.305  | 0.436 | 0.294  | 0.449 | 0.273  | 0.473 |
| 160 | 60 | 0.311  | 0.442 | 0.300  | 0.455 | 0.278  | 0.479 |
| 160 | 61 | 0.317  | 0.449 | 0.306  | 0.461 | 0.284  | 0.486 |
| 160 | 62 | 0.323  | 0.455 | 0.312  | 0.468 | 0.290  | 0.492 |
| 160 | 63 | 0.329  | 0.462 | 0.318  | 0.474 | 0.296  | 0.498 |
| 160 | 64 | 0.335  | 0.468 | 0.323  | 0.480 | 0.301  | 0.505 |
| 160 | 65 | 0.341  | 0.474 | 0.329  | 0.487 | 0.307  | 0.511 |
| 160 | 66 | 0.347  | 0.480 | 0.335  | 0.493 | 0.313  | 0.517 |
| 160 | 67 | 0.353  | 0.487 | 0.341  | 0.499 | 0.319  | 0.524 |
| 160 | 68 | 0.359  | 0.493 | 0.347  | 0.506 | 0.325  | 0.530 |
| 160 | 69 | 0.365  | 0.499 | 0.353  | 0.512 | 0.331  | 0.536 |
| 160 | 70 | 0.371  | 0.506 | 0.359  | 0.518 | 0.337  | 0.542 |
| 160 | 71 | 0.377  | 0.512 | 0.365  | 0.524 | 0.342  | 0.548 |
| 160 | 72 | 0.383  | 0.518 | 0.371  | 0.531 | 0.348  | 0.555 |
| 160 | 73 | 0.389  | 0.524 | 0.377  | 0.537 | 0.354  | 0.561 |
| 160 | 74 | 0.395  | 0.531 | 0.383  | 0.543 | 0.360  | 0.567 |
| 160 | 75 | 0.402  | 0.537 | 0.390  | 0.549 | 0.366  | 0.573 |
| 160 | 76 | 0.408  | 0.543 | 0.396  | 0.555 | 0.372  | 0.579 |
| 160 | 77 | 0.414  | 0.549 | 0.402  | 0.562 | 0.378  | 0.585 |
| 160 | 78 | 0.420  | 0.555 | 0.408  | 0.568 | 0.384  | 0.591 |
| 160 | 79 | 0.426  | 0.562 | 0.414  | 0.574 | 0.390  | 0.598 |
| 160 | 80 | 0.432  | 0.568 | 0.420  | 0.580 | 0.396  | 0.604 |
| 160 | 81 | 0.438  | 0.574 | 0.426  | 0.586 | 0.402  | 0.610 |
| 160 | 82 | 0.445  | 0.580 | 0.432  | 0.592 | 0.409  | 0.616 |
| 160 | 83 | 0.451  | 0.586 | 0.438  | 0.598 | 0.415  | 0.622 |
| 160 | 84 | 0.457  | 0.592 | 0.445  | 0.604 | 0.421  | 0.628 |
| 160 | 85 | 0.463  | 0.598 | 0.451  | 0.610 | 0.427  | 0.634 |
| 160 | 86 | 0.469  | 0.605 | 0.457  | 0.617 | 0.433  | 0.640 |
| 160 | 87 | 0.476  | 0.611 | 0.463  | 0.623 | 0.439  | 0.646 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 160 | 88  | 0.482  | 0.617 | 0.469  | 0.629 | 0.445  | 0.652 |
| 160 | 89  | 0.488  | 0.623 | 0.476  | 0.635 | 0.452  | 0.658 |
| 160 | 90  | 0.494  | 0.629 | 0.482  | 0.641 | 0.458  | 0.663 |
| 160 | 91  | 0.501  | 0.635 | 0.488  | 0.647 | 0.464  | 0.669 |
| 160 | 92  | 0.507  | 0.641 | 0.494  | 0.653 | 0.470  | 0.675 |
| 160 | 93  | 0.513  | 0.647 | 0.501  | 0.659 | 0.476  | 0.681 |
| 160 | 94  | 0.520  | 0.653 | 0.507  | 0.665 | 0.483  | 0.687 |
| 160 | 95  | 0.526  | 0.659 | 0.513  | 0.671 | 0.489  | 0.693 |
| 160 | 96  | 0.532  | 0.665 | 0.520  | 0.677 | 0.495  | 0.699 |
| 160 | 97  | 0.538  | 0.671 | 0.526  | 0.682 | 0.502  | 0.704 |
| 160 | 98  | 0.545  | 0.677 | 0.532  | 0.688 | 0.508  | 0.710 |
| 160 | 99  | 0.551  | 0.683 | 0.539  | 0.694 | 0.514  | 0.716 |
| 160 | 100 | 0.558  | 0.689 | 0.545  | 0.700 | 0.521  | 0.722 |
| 160 | 101 | 0.564  | 0.695 | 0.551  | 0.706 | 0.527  | 0.727 |
| 160 | 102 | 0.570  | 0.701 | 0.558  | 0.712 | 0.533  | 0.733 |
| 160 | 103 | 0.577  | 0.707 | 0.564  | 0.718 | 0.540  | 0.739 |
| 160 | 104 | 0.583  | 0.713 | 0.571  | 0.724 | 0.546  | 0.744 |
| 160 | 105 | 0.590  | 0.719 | 0.577  | 0.729 | 0.553  | 0.750 |
| 160 | 106 | 0.596  | 0.724 | 0.584  | 0.735 | 0.559  | 0.756 |
| 160 | 107 | 0.602  | 0.730 | 0.590  | 0.741 | 0.566  | 0.761 |
| 160 | 108 | 0.609  | 0.736 | 0.597  | 0.747 | 0.572  | 0.767 |
| 160 | 109 | 0.615  | 0.742 | 0.603  | 0.753 | 0.579  | 0.773 |
| 160 | 110 | 0.622  | 0.748 | 0.610  | 0.758 | 0.585  | 0.778 |
| 160 | 111 | 0.628  | 0.754 | 0.616  | 0.764 | 0.592  | 0.784 |
| 160 | 112 | 0.635  | 0.760 | 0.623  | 0.770 | 0.599  | 0.789 |
| 160 | 113 | 0.641  | 0.765 | 0.629  | 0.776 | 0.605  | 0.795 |
| 160 | 114 | 0.648  | 0.771 | 0.636  | 0.781 | 0.612  | 0.800 |
| 160 | 115 | 0.654  | 0.777 | 0.642  | 0.787 | 0.618  | 0.806 |
| 160 | 116 | 0.661  | 0.783 | 0.649  | 0.793 | 0.625  | 0.811 |
| 160 | 117 | 0.668  | 0.788 | 0.656  | 0.798 | 0.632  | 0.817 |
| 160 | 118 | 0.674  | 0.794 | 0.662  | 0.804 | 0.638  | 0.822 |
| 160 | 119 | 0.681  | 0.800 | 0.669  | 0.809 | 0.645  | 0.827 |
| 160 | 120 | 0.687  | 0.806 | 0.675  | 0.815 | 0.652  | 0.833 |
| 160 | 121 | 0.694  | 0.811 | 0.682  | 0.821 | 0.659  | 0.838 |
| 160 | 122 | 0.701  | 0.817 | 0.689  | 0.826 | 0.666  | 0.843 |
| 160 | 123 | 0.707  | 0.823 | 0.696  | 0.832 | 0.672  | 0.849 |
| 160 | 124 | 0.714  | 0.828 | 0.702  | 0.837 | 0.679  | 0.854 |
| 160 | 125 | 0.721  | 0.834 | 0.709  | 0.843 | 0.686  | 0.859 |
| 160 | 126 | 0.727  | 0.839 | 0.716  | 0.848 | 0.693  | 0.864 |
| 160 | 127 | 0.734  | 0.845 | 0.723  | 0.854 | 0.700  | 0.869 |
| 160 | 128 | 0.741  | 0.851 | 0.730  | 0.859 | 0.707  | 0.875 |
| 160 | 129 | 0.748  | 0.856 | 0.736  | 0.864 | 0.714  | 0.880 |
| 160 | 130 | 0.754  | 0.862 | 0.743  | 0.870 | 0.721  | 0.885 |
| 160 | 131 | 0.761  | 0.867 | 0.750  | 0.875 | 0.728  | 0.890 |
| 160 | 132 | 0.768  | 0.873 | 0.757  | 0.880 | 0.735  | 0.895 |
| 160 | 133 | 0.775  | 0.878 | 0.764  | 0.886 | 0.742  | 0.900 |
| 160 | 134 | 0.782  | 0.884 | 0.771  | 0.891 | 0.749  | 0.905 |
| 160 | 135 | 0.789  | 0.889 | 0.778  | 0.896 | 0.757  | 0.910 |
| 160 | 136 | 0.796  | 0.894 | 0.785  | 0.901 | 0.764  | 0.914 |
| 160 | 137 | 0.803  | 0.900 | 0.792  | 0.907 | 0.771  | 0.919 |
| 160 | 138 | 0.810  | 0.905 | 0.799  | 0.912 | 0.778  | 0.924 |
| 160 | 139 | 0.817  | 0.910 | 0.806  | 0.917 | 0.786  | 0.929 |
| 160 | 140 | 0.824  | 0.916 | 0.814  | 0.922 | 0.793  | 0.933 |
| 160 | 141 | 0.831  | 0.921 | 0.821  | 0.927 | 0.801  | 0.938 |
| 160 | 142 | 0.838  | 0.926 | 0.828  | 0.932 | 0.808  | 0.943 |
| 160 | 143 | 0.845  | 0.931 | 0.835  | 0.937 | 0.816  | 0.947 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 160 | 144 | 0.852  | 0.936 | 0.843  | 0.942 | 0.823  | 0.952 |
| 160 | 145 | 0.859  | 0.941 | 0.850  | 0.947 | 0.831  | 0.956 |
| 160 | 146 | 0.867  | 0.946 | 0.858  | 0.951 | 0.839  | 0.960 |
| 160 | 147 | 0.874  | 0.951 | 0.865  | 0.956 | 0.847  | 0.964 |
| 160 | 148 | 0.881  | 0.956 | 0.873  | 0.961 | 0.855  | 0.969 |
| 160 | 149 | 0.889  | 0.961 | 0.880  | 0.965 | 0.863  | 0.972 |
| 160 | 150 | 0.896  | 0.966 | 0.888  | 0.970 | 0.871  | 0.976 |
| 160 | 151 | 0.904  | 0.970 | 0.896  | 0.974 | 0.879  | 0.980 |
| 160 | 152 | 0.912  | 0.975 | 0.904  | 0.978 | 0.888  | 0.984 |
| 160 | 153 | 0.919  | 0.979 | 0.912  | 0.982 | 0.896  | 0.987 |
| 160 | 154 | 0.927  | 0.984 | 0.920  | 0.986 | 0.905  | 0.990 |
| 160 | 155 | 0.935  | 0.988 | 0.929  | 0.990 | 0.914  | 0.993 |
| 160 | 156 | 0.944  | 0.991 | 0.937  | 0.993 | 0.923  | 0.996 |
| 160 | 157 | 0.952  | 0.995 | 0.946  | 0.996 | 0.933  | 0.998 |
| 160 | 158 | 0.961  | 0.998 | 0.956  | 0.998 | 0.943  | 0.999 |
| 160 | 159 | 0.971  | 1.000 | 0.966  | 1.000 | 0.954  | 1.000 |
| 160 | 160 | 0.981  | 1.000 | 0.977  | 1.000 | 0.967  | 1.000 |
| 165 | 0   | 0.000  | 0.018 | 0.000  | 0.022 | 0.000  | 0.032 |
| 165 | 1   | 0.000  | 0.028 | 0.000  | 0.033 | 0.000  | 0.044 |
| 165 | 2   | 0.002  | 0.038 | 0.001  | 0.043 | 0.001  | 0.055 |
| 165 | 3   | 0.005  | 0.046 | 0.004  | 0.052 | 0.002  | 0.065 |
| 165 | 4   | 0.008  | 0.055 | 0.007  | 0.061 | 0.004  | 0.074 |
| 165 | 5   | 0.012  | 0.063 | 0.010  | 0.069 | 0.007  | 0.083 |
| 165 | 6   | 0.016  | 0.071 | 0.013  | 0.077 | 0.009  | 0.092 |
| 165 | 7   | 0.020  | 0.078 | 0.017  | 0.085 | 0.012  | 0.101 |
| 165 | 8   | 0.024  | 0.086 | 0.021  | 0.093 | 0.016  | 0.109 |
| 165 | 9   | 0.029  | 0.093 | 0.025  | 0.101 | 0.019  | 0.117 |
| 165 | 10  | 0.033  | 0.101 | 0.029  | 0.109 | 0.023  | 0.125 |
| 165 | 11  | 0.038  | 0.108 | 0.034  | 0.116 | 0.027  | 0.133 |
| 165 | 12  | 0.042  | 0.115 | 0.038  | 0.124 | 0.031  | 0.141 |
| 165 | 13  | 0.047  | 0.122 | 0.043  | 0.131 | 0.034  | 0.149 |
| 165 | 14  | 0.052  | 0.129 | 0.047  | 0.138 | 0.039  | 0.156 |
| 165 | 15  | 0.057  | 0.137 | 0.052  | 0.146 | 0.043  | 0.164 |
| 165 | 16  | 0.062  | 0.144 | 0.056  | 0.153 | 0.047  | 0.171 |
| 165 | 17  | 0.067  | 0.151 | 0.061  | 0.160 | 0.051  | 0.179 |
| 165 | 18  | 0.072  | 0.157 | 0.066  | 0.167 | 0.056  | 0.186 |
| 165 | 19  | 0.077  | 0.164 | 0.071  | 0.174 | 0.060  | 0.194 |
| 165 | 20  | 0.082  | 0.171 | 0.076  | 0.181 | 0.064  | 0.201 |
| 165 | 21  | 0.087  | 0.178 | 0.081  | 0.188 | 0.069  | 0.208 |
| 165 | 22  | 0.092  | 0.185 | 0.085  | 0.195 | 0.074  | 0.215 |
| 165 | 23  | 0.097  | 0.192 | 0.090  | 0.202 | 0.078  | 0.222 |
| 165 | 24  | 0.102  | 0.198 | 0.095  | 0.209 | 0.083  | 0.229 |
| 165 | 25  | 0.108  | 0.205 | 0.101  | 0.215 | 0.088  | 0.236 |
| 165 | 26  | 0.113  | 0.212 | 0.106  | 0.222 | 0.092  | 0.243 |
| 165 | 27  | 0.118  | 0.219 | 0.111  | 0.229 | 0.097  | 0.250 |
| 165 | 28  | 0.123  | 0.225 | 0.116  | 0.236 | 0.102  | 0.257 |
| 165 | 29  | 0.129  | 0.232 | 0.121  | 0.243 | 0.107  | 0.264 |
| 165 | 30  | 0.134  | 0.238 | 0.126  | 0.249 | 0.112  | 0.271 |
| 165 | 31  | 0.139  | 0.245 | 0.131  | 0.256 | 0.117  | 0.278 |
| 165 | 32  | 0.145  | 0.252 | 0.137  | 0.263 | 0.121  | 0.285 |
| 165 | 33  | 0.150  | 0.258 | 0.142  | 0.269 | 0.126  | 0.291 |
| 165 | 34  | 0.156  | 0.265 | 0.147  | 0.276 | 0.131  | 0.298 |
| 165 | 35  | 0.161  | 0.271 | 0.152  | 0.282 | 0.136  | 0.305 |
| 165 | 36  | 0.166  | 0.278 | 0.158  | 0.289 | 0.142  | 0.312 |
| 165 | 37  | 0.172  | 0.284 | 0.163  | 0.296 | 0.147  | 0.318 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 165 | 38 | 0.177  | 0.291 | 0.168  | 0.302 | 0.152  | 0.325 |
| 165 | 39 | 0.183  | 0.297 | 0.174  | 0.309 | 0.157  | 0.332 |
| 165 | 40 | 0.188  | 0.304 | 0.179  | 0.315 | 0.162  | 0.338 |
| 165 | 41 | 0.194  | 0.310 | 0.185  | 0.322 | 0.167  | 0.345 |
| 165 | 42 | 0.199  | 0.316 | 0.190  | 0.328 | 0.172  | 0.351 |
| 165 | 43 | 0.205  | 0.323 | 0.195  | 0.335 | 0.178  | 0.358 |
| 165 | 44 | 0.211  | 0.329 | 0.201  | 0.341 | 0.183  | 0.364 |
| 165 | 45 | 0.216  | 0.336 | 0.206  | 0.347 | 0.188  | 0.371 |
| 165 | 46 | 0.222  | 0.342 | 0.212  | 0.354 | 0.193  | 0.377 |
| 165 | 47 | 0.227  | 0.348 | 0.217  | 0.360 | 0.199  | 0.384 |
| 165 | 48 | 0.233  | 0.355 | 0.223  | 0.367 | 0.204  | 0.390 |
| 165 | 49 | 0.239  | 0.361 | 0.228  | 0.373 | 0.209  | 0.397 |
| 165 | 50 | 0.244  | 0.367 | 0.234  | 0.379 | 0.215  | 0.403 |
| 165 | 51 | 0.250  | 0.374 | 0.240  | 0.386 | 0.220  | 0.409 |
| 165 | 52 | 0.256  | 0.380 | 0.245  | 0.392 | 0.226  | 0.416 |
| 165 | 53 | 0.261  | 0.386 | 0.251  | 0.398 | 0.231  | 0.422 |
| 165 | 54 | 0.267  | 0.392 | 0.256  | 0.405 | 0.236  | 0.428 |
| 165 | 55 | 0.273  | 0.399 | 0.262  | 0.411 | 0.242  | 0.435 |
| 165 | 56 | 0.278  | 0.405 | 0.268  | 0.417 | 0.247  | 0.441 |
| 165 | 57 | 0.284  | 0.411 | 0.273  | 0.423 | 0.253  | 0.447 |
| 165 | 58 | 0.290  | 0.417 | 0.279  | 0.430 | 0.258  | 0.454 |
| 165 | 59 | 0.295  | 0.424 | 0.285  | 0.436 | 0.264  | 0.460 |
| 165 | 60 | 0.301  | 0.430 | 0.290  | 0.442 | 0.269  | 0.466 |
| 165 | 61 | 0.307  | 0.436 | 0.296  | 0.448 | 0.275  | 0.472 |
| 165 | 62 | 0.313  | 0.442 | 0.302  | 0.454 | 0.280  | 0.478 |
| 165 | 63 | 0.319  | 0.448 | 0.307  | 0.461 | 0.286  | 0.485 |
| 165 | 64 | 0.324  | 0.454 | 0.313  | 0.467 | 0.292  | 0.491 |
| 165 | 65 | 0.330  | 0.461 | 0.319  | 0.473 | 0.297  | 0.497 |
| 165 | 66 | 0.336  | 0.467 | 0.325  | 0.479 | 0.303  | 0.503 |
| 165 | 67 | 0.342  | 0.473 | 0.330  | 0.485 | 0.309  | 0.509 |
| 165 | 68 | 0.348  | 0.479 | 0.336  | 0.491 | 0.314  | 0.515 |
| 165 | 69 | 0.353  | 0.485 | 0.342  | 0.497 | 0.320  | 0.521 |
| 165 | 70 | 0.359  | 0.491 | 0.348  | 0.503 | 0.326  | 0.527 |
| 165 | 71 | 0.365  | 0.497 | 0.354  | 0.510 | 0.331  | 0.533 |
| 165 | 72 | 0.371  | 0.503 | 0.359  | 0.516 | 0.337  | 0.540 |
| 165 | 73 | 0.377  | 0.509 | 0.365  | 0.522 | 0.343  | 0.546 |
| 165 | 74 | 0.383  | 0.516 | 0.371  | 0.528 | 0.348  | 0.552 |
| 165 | 75 | 0.389  | 0.522 | 0.377  | 0.534 | 0.354  | 0.558 |
| 165 | 76 | 0.395  | 0.528 | 0.383  | 0.540 | 0.360  | 0.564 |
| 165 | 77 | 0.401  | 0.534 | 0.389  | 0.546 | 0.366  | 0.569 |
| 165 | 78 | 0.407  | 0.540 | 0.395  | 0.552 | 0.372  | 0.575 |
| 165 | 79 | 0.412  | 0.546 | 0.401  | 0.558 | 0.377  | 0.581 |
| 165 | 80 | 0.418  | 0.552 | 0.406  | 0.564 | 0.383  | 0.587 |
| 165 | 81 | 0.424  | 0.558 | 0.412  | 0.570 | 0.389  | 0.593 |
| 165 | 82 | 0.430  | 0.564 | 0.418  | 0.576 | 0.395  | 0.599 |
| 165 | 83 | 0.436  | 0.570 | 0.424  | 0.582 | 0.401  | 0.605 |
| 165 | 84 | 0.442  | 0.576 | 0.430  | 0.588 | 0.407  | 0.611 |
| 165 | 85 | 0.448  | 0.582 | 0.436  | 0.594 | 0.413  | 0.617 |
| 165 | 86 | 0.454  | 0.588 | 0.442  | 0.599 | 0.419  | 0.623 |
| 165 | 87 | 0.460  | 0.593 | 0.448  | 0.605 | 0.425  | 0.628 |
| 165 | 88 | 0.466  | 0.599 | 0.454  | 0.611 | 0.431  | 0.634 |
| 165 | 89 | 0.472  | 0.605 | 0.460  | 0.617 | 0.436  | 0.640 |
| 165 | 90 | 0.478  | 0.611 | 0.466  | 0.623 | 0.442  | 0.646 |
| 165 | 91 | 0.484  | 0.617 | 0.472  | 0.629 | 0.448  | 0.652 |
| 165 | 92 | 0.491  | 0.623 | 0.478  | 0.635 | 0.454  | 0.657 |
| 165 | 93 | 0.497  | 0.629 | 0.484  | 0.641 | 0.460  | 0.663 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 165 | 94  | 0.503  | 0.635 | 0.490  | 0.646 | 0.467  | 0.663 |
| 165 | 95  | 0.509  | 0.641 | 0.497  | 0.652 | 0.473  | 0.674 |
| 165 | 96  | 0.515  | 0.647 | 0.503  | 0.658 | 0.479  | 0.680 |
| 165 | 97  | 0.521  | 0.652 | 0.509  | 0.664 | 0.485  | 0.686 |
| 165 | 98  | 0.527  | 0.658 | 0.515  | 0.670 | 0.491  | 0.691 |
| 165 | 99  | 0.533  | 0.664 | 0.521  | 0.675 | 0.497  | 0.697 |
| 165 | 100 | 0.539  | 0.670 | 0.527  | 0.681 | 0.503  | 0.703 |
| 165 | 101 | 0.546  | 0.676 | 0.533  | 0.687 | 0.509  | 0.708 |
| 165 | 102 | 0.552  | 0.681 | 0.539  | 0.693 | 0.515  | 0.714 |
| 165 | 103 | 0.558  | 0.687 | 0.546  | 0.698 | 0.522  | 0.720 |
| 165 | 104 | 0.564  | 0.693 | 0.552  | 0.704 | 0.528  | 0.725 |
| 165 | 105 | 0.570  | 0.699 | 0.558  | 0.710 | 0.534  | 0.731 |
| 165 | 106 | 0.576  | 0.705 | 0.564  | 0.715 | 0.540  | 0.736 |
| 165 | 107 | 0.583  | 0.710 | 0.570  | 0.721 | 0.546  | 0.742 |
| 165 | 108 | 0.589  | 0.716 | 0.577  | 0.727 | 0.553  | 0.747 |
| 165 | 109 | 0.595  | 0.722 | 0.583  | 0.732 | 0.559  | 0.753 |
| 165 | 110 | 0.601  | 0.727 | 0.589  | 0.738 | 0.565  | 0.758 |
| 165 | 111 | 0.608  | 0.733 | 0.595  | 0.744 | 0.572  | 0.764 |
| 165 | 112 | 0.614  | 0.739 | 0.602  | 0.749 | 0.578  | 0.769 |
| 165 | 113 | 0.620  | 0.744 | 0.608  | 0.755 | 0.584  | 0.774 |
| 165 | 114 | 0.626  | 0.750 | 0.614  | 0.760 | 0.591  | 0.780 |
| 165 | 115 | 0.633  | 0.756 | 0.621  | 0.766 | 0.597  | 0.785 |
| 165 | 116 | 0.639  | 0.761 | 0.627  | 0.772 | 0.603  | 0.791 |
| 165 | 117 | 0.645  | 0.767 | 0.633  | 0.777 | 0.610  | 0.796 |
| 165 | 118 | 0.652  | 0.773 | 0.640  | 0.783 | 0.616  | 0.801 |
| 165 | 119 | 0.658  | 0.778 | 0.646  | 0.788 | 0.623  | 0.807 |
| 165 | 120 | 0.664  | 0.784 | 0.653  | 0.794 | 0.629  | 0.812 |
| 165 | 121 | 0.671  | 0.789 | 0.659  | 0.799 | 0.636  | 0.817 |
| 165 | 122 | 0.677  | 0.795 | 0.665  | 0.805 | 0.642  | 0.822 |
| 165 | 123 | 0.684  | 0.801 | 0.672  | 0.810 | 0.649  | 0.828 |
| 165 | 124 | 0.690  | 0.806 | 0.678  | 0.815 | 0.655  | 0.833 |
| 165 | 125 | 0.696  | 0.812 | 0.685  | 0.821 | 0.662  | 0.838 |
| 165 | 126 | 0.703  | 0.817 | 0.691  | 0.826 | 0.668  | 0.843 |
| 165 | 127 | 0.709  | 0.823 | 0.698  | 0.832 | 0.675  | 0.848 |
| 165 | 128 | 0.716  | 0.828 | 0.704  | 0.837 | 0.682  | 0.853 |
| 165 | 129 | 0.722  | 0.834 | 0.711  | 0.842 | 0.688  | 0.858 |
| 165 | 130 | 0.729  | 0.839 | 0.718  | 0.848 | 0.695  | 0.864 |
| 165 | 131 | 0.735  | 0.844 | 0.724  | 0.853 | 0.702  | 0.869 |
| 165 | 132 | 0.742  | 0.850 | 0.731  | 0.858 | 0.709  | 0.874 |
| 165 | 133 | 0.748  | 0.855 | 0.737  | 0.863 | 0.715  | 0.879 |
| 165 | 134 | 0.755  | 0.861 | 0.744  | 0.869 | 0.722  | 0.883 |
| 165 | 135 | 0.762  | 0.866 | 0.751  | 0.874 | 0.729  | 0.888 |
| 165 | 136 | 0.768  | 0.871 | 0.757  | 0.879 | 0.736  | 0.893 |
| 165 | 137 | 0.775  | 0.877 | 0.764  | 0.884 | 0.743  | 0.898 |
| 165 | 138 | 0.781  | 0.882 | 0.771  | 0.889 | 0.750  | 0.903 |
| 165 | 139 | 0.788  | 0.887 | 0.778  | 0.894 | 0.757  | 0.908 |
| 165 | 140 | 0.795  | 0.892 | 0.785  | 0.899 | 0.764  | 0.912 |
| 165 | 141 | 0.802  | 0.898 | 0.791  | 0.905 | 0.771  | 0.917 |
| 165 | 142 | 0.808  | 0.903 | 0.798  | 0.910 | 0.778  | 0.922 |
| 165 | 143 | 0.815  | 0.908 | 0.805  | 0.915 | 0.785  | 0.926 |
| 165 | 144 | 0.822  | 0.913 | 0.812  | 0.919 | 0.792  | 0.931 |
| 165 | 145 | 0.829  | 0.918 | 0.819  | 0.924 | 0.799  | 0.936 |
| 165 | 146 | 0.836  | 0.923 | 0.826  | 0.929 | 0.806  | 0.940 |
| 165 | 147 | 0.843  | 0.928 | 0.833  | 0.934 | 0.814  | 0.944 |
| 165 | 148 | 0.849  | 0.933 | 0.840  | 0.939 | 0.821  | 0.949 |
| 165 | 149 | 0.856  | 0.938 | 0.847  | 0.944 | 0.829  | 0.953 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 165 | 150 | 0.863  | 0.943 | 0.854  | 0.948 | 0.836  | 0.957 |
| 165 | 151 | 0.871  | 0.948 | 0.862  | 0.953 | 0.844  | 0.961 |
| 165 | 152 | 0.878  | 0.953 | 0.869  | 0.957 | 0.851  | 0.966 |
| 165 | 153 | 0.885  | 0.958 | 0.876  | 0.962 | 0.859  | 0.969 |
| 165 | 154 | 0.892  | 0.962 | 0.884  | 0.966 | 0.867  | 0.973 |
| 165 | 155 | 0.899  | 0.967 | 0.891  | 0.971 | 0.875  | 0.977 |
| 165 | 156 | 0.907  | 0.971 | 0.899  | 0.975 | 0.883  | 0.981 |
| 165 | 157 | 0.914  | 0.976 | 0.907  | 0.979 | 0.891  | 0.984 |
| 165 | 158 | 0.922  | 0.980 | 0.915  | 0.983 | 0.899  | 0.988 |
| 165 | 159 | 0.929  | 0.984 | 0.923  | 0.987 | 0.908  | 0.991 |
| 165 | 160 | 0.937  | 0.988 | 0.931  | 0.990 | 0.917  | 0.993 |
| 165 | 161 | 0.945  | 0.992 | 0.939  | 0.993 | 0.926  | 0.996 |
| 165 | 162 | 0.954  | 0.995 | 0.948  | 0.996 | 0.935  | 0.998 |
| 165 | 163 | 0.962  | 0.998 | 0.957  | 0.999 | 0.945  | 0.999 |
| 165 | 164 | 0.972  | 1.000 | 0.967  | 1.000 | 0.956  | 1.000 |
| 165 | 165 | 0.982  | 1.000 | 0.978  | 1.000 | 0.968  | 1.000 |
| 170 | 0   | 0.000  | 0.017 | 0.000  | 0.021 | 0.000  | 0.031 |
| 170 | 1   | 0.000  | 0.028 | 0.000  | 0.032 | 0.000  | 0.043 |
| 170 | 2   | 0.002  | 0.037 | 0.001  | 0.042 | 0.001  | 0.053 |
| 170 | 3   | 0.005  | 0.045 | 0.004  | 0.051 | 0.002  | 0.063 |
| 170 | 4   | 0.008  | 0.053 | 0.006  | 0.059 | 0.004  | 0.072 |
| 170 | 5   | 0.012  | 0.061 | 0.010  | 0.067 | 0.006  | 0.081 |
| 170 | 6   | 0.015  | 0.068 | 0.013  | 0.075 | 0.009  | 0.090 |
| 170 | 7   | 0.019  | 0.076 | 0.017  | 0.083 | 0.012  | 0.098 |
| 170 | 8   | 0.024  | 0.083 | 0.021  | 0.091 | 0.015  | 0.106 |
| 170 | 9   | 0.028  | 0.091 | 0.024  | 0.098 | 0.019  | 0.114 |
| 170 | 10  | 0.032  | 0.098 | 0.029  | 0.106 | 0.022  | 0.122 |
| 170 | 11  | 0.037  | 0.105 | 0.033  | 0.113 | 0.026  | 0.129 |
| 170 | 12  | 0.041  | 0.112 | 0.037  | 0.120 | 0.030  | 0.137 |
| 170 | 13  | 0.046  | 0.119 | 0.041  | 0.127 | 0.033  | 0.145 |
| 170 | 14  | 0.050  | 0.126 | 0.046  | 0.134 | 0.037  | 0.152 |
| 170 | 15  | 0.055  | 0.133 | 0.050  | 0.141 | 0.041  | 0.159 |
| 170 | 16  | 0.060  | 0.139 | 0.055  | 0.148 | 0.046  | 0.167 |
| 170 | 17  | 0.065  | 0.146 | 0.059  | 0.155 | 0.050  | 0.174 |
| 170 | 18  | 0.070  | 0.153 | 0.064  | 0.162 | 0.054  | 0.181 |
| 170 | 19  | 0.074  | 0.160 | 0.069  | 0.169 | 0.058  | 0.188 |
| 170 | 20  | 0.079  | 0.166 | 0.073  | 0.176 | 0.063  | 0.195 |
| 170 | 21  | 0.084  | 0.173 | 0.078  | 0.183 | 0.067  | 0.202 |
| 170 | 22  | 0.089  | 0.180 | 0.083  | 0.189 | 0.071  | 0.209 |
| 170 | 23  | 0.094  | 0.186 | 0.088  | 0.196 | 0.076  | 0.216 |
| 170 | 24  | 0.099  | 0.193 | 0.093  | 0.203 | 0.080  | 0.223 |
| 170 | 25  | 0.104  | 0.199 | 0.097  | 0.209 | 0.085  | 0.230 |
| 170 | 26  | 0.109  | 0.206 | 0.102  | 0.216 | 0.090  | 0.237 |
| 170 | 27  | 0.115  | 0.212 | 0.107  | 0.223 | 0.094  | 0.243 |
| 170 | 28  | 0.120  | 0.219 | 0.112  | 0.229 | 0.099  | 0.250 |
| 170 | 29  | 0.125  | 0.225 | 0.117  | 0.236 | 0.103  | 0.257 |
| 170 | 30  | 0.130  | 0.232 | 0.122  | 0.242 | 0.108  | 0.263 |
| 170 | 31  | 0.135  | 0.238 | 0.127  | 0.249 | 0.113  | 0.270 |
| 170 | 32  | 0.140  | 0.244 | 0.132  | 0.255 | 0.118  | 0.277 |
| 170 | 33  | 0.146  | 0.251 | 0.138  | 0.262 | 0.123  | 0.283 |
| 170 | 34  | 0.151  | 0.257 | 0.143  | 0.268 | 0.127  | 0.290 |
| 170 | 35  | 0.156  | 0.264 | 0.148  | 0.275 | 0.132  | 0.296 |
| 170 | 36  | 0.161  | 0.270 | 0.153  | 0.281 | 0.137  | 0.303 |
| 170 | 37  | 0.167  | 0.276 | 0.158  | 0.287 | 0.142  | 0.310 |
| 170 | 38  | 0.172  | 0.282 | 0.163  | 0.294 | 0.147  | 0.316 |
| 170 | 39  | 0.177  | 0.289 | 0.169  | 0.300 | 0.152  | 0.322 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 170 | 40 | 0.183  | 0.295 | 0.174  | 0.306 | 0.157  | 0.329 |
| 170 | 41 | 0.188  | 0.301 | 0.179  | 0.313 | 0.162  | 0.335 |
| 170 | 42 | 0.193  | 0.308 | 0.184  | 0.319 | 0.167  | 0.342 |
| 170 | 43 | 0.199  | 0.314 | 0.190  | 0.325 | 0.172  | 0.348 |
| 170 | 44 | 0.204  | 0.320 | 0.195  | 0.331 | 0.177  | 0.354 |
| 170 | 45 | 0.210  | 0.326 | 0.200  | 0.338 | 0.182  | 0.361 |
| 170 | 46 | 0.215  | 0.332 | 0.205  | 0.344 | 0.187  | 0.367 |
| 170 | 47 | 0.220  | 0.339 | 0.211  | 0.350 | 0.193  | 0.373 |
| 170 | 48 | 0.226  | 0.345 | 0.216  | 0.356 | 0.198  | 0.380 |
| 170 | 49 | 0.231  | 0.351 | 0.221  | 0.363 | 0.203  | 0.386 |
| 170 | 50 | 0.237  | 0.357 | 0.227  | 0.369 | 0.208  | 0.392 |
| 170 | 51 | 0.242  | 0.363 | 0.232  | 0.375 | 0.213  | 0.398 |
| 170 | 52 | 0.248  | 0.369 | 0.238  | 0.381 | 0.219  | 0.404 |
| 170 | 53 | 0.253  | 0.375 | 0.243  | 0.387 | 0.224  | 0.411 |
| 170 | 54 | 0.259  | 0.381 | 0.248  | 0.393 | 0.229  | 0.417 |
| 170 | 55 | 0.264  | 0.387 | 0.254  | 0.399 | 0.234  | 0.423 |
| 170 | 56 | 0.270  | 0.394 | 0.259  | 0.406 | 0.240  | 0.429 |
| 170 | 57 | 0.275  | 0.400 | 0.265  | 0.412 | 0.245  | 0.435 |
| 170 | 58 | 0.281  | 0.406 | 0.270  | 0.418 | 0.250  | 0.441 |
| 170 | 59 | 0.286  | 0.412 | 0.276  | 0.424 | 0.256  | 0.447 |
| 170 | 60 | 0.292  | 0.418 | 0.281  | 0.430 | 0.261  | 0.453 |
| 170 | 61 | 0.298  | 0.424 | 0.287  | 0.436 | 0.266  | 0.459 |
| 170 | 62 | 0.303  | 0.430 | 0.292  | 0.442 | 0.272  | 0.466 |
| 170 | 63 | 0.309  | 0.436 | 0.298  | 0.448 | 0.277  | 0.472 |
| 170 | 64 | 0.314  | 0.442 | 0.303  | 0.454 | 0.282  | 0.478 |
| 170 | 65 | 0.320  | 0.448 | 0.309  | 0.460 | 0.288  | 0.484 |
| 170 | 66 | 0.326  | 0.454 | 0.315  | 0.466 | 0.293  | 0.490 |
| 170 | 67 | 0.331  | 0.460 | 0.320  | 0.472 | 0.299  | 0.496 |
| 170 | 68 | 0.337  | 0.466 | 0.326  | 0.478 | 0.304  | 0.501 |
| 170 | 69 | 0.343  | 0.472 | 0.331  | 0.484 | 0.310  | 0.507 |
| 170 | 70 | 0.348  | 0.478 | 0.337  | 0.490 | 0.315  | 0.513 |
| 170 | 71 | 0.354  | 0.484 | 0.343  | 0.496 | 0.321  | 0.519 |
| 170 | 72 | 0.360  | 0.489 | 0.348  | 0.502 | 0.326  | 0.525 |
| 170 | 73 | 0.365  | 0.495 | 0.354  | 0.507 | 0.332  | 0.531 |
| 170 | 74 | 0.371  | 0.501 | 0.360  | 0.513 | 0.337  | 0.537 |
| 170 | 75 | 0.377  | 0.507 | 0.365  | 0.519 | 0.343  | 0.543 |
| 170 | 76 | 0.382  | 0.513 | 0.371  | 0.525 | 0.349  | 0.549 |
| 170 | 77 | 0.388  | 0.519 | 0.377  | 0.531 | 0.354  | 0.554 |
| 170 | 78 | 0.394  | 0.525 | 0.382  | 0.537 | 0.360  | 0.560 |
| 170 | 79 | 0.400  | 0.531 | 0.388  | 0.543 | 0.365  | 0.566 |
| 170 | 80 | 0.405  | 0.537 | 0.394  | 0.549 | 0.371  | 0.572 |
| 170 | 81 | 0.411  | 0.542 | 0.399  | 0.554 | 0.377  | 0.578 |
| 170 | 82 | 0.417  | 0.548 | 0.405  | 0.560 | 0.382  | 0.583 |
| 170 | 83 | 0.423  | 0.554 | 0.411  | 0.566 | 0.388  | 0.589 |
| 170 | 84 | 0.429  | 0.560 | 0.417  | 0.572 | 0.394  | 0.595 |
| 170 | 85 | 0.434  | 0.566 | 0.422  | 0.578 | 0.399  | 0.601 |
| 170 | 86 | 0.440  | 0.571 | 0.428  | 0.583 | 0.405  | 0.606 |
| 170 | 87 | 0.446  | 0.577 | 0.434  | 0.589 | 0.411  | 0.612 |
| 170 | 88 | 0.452  | 0.583 | 0.440  | 0.595 | 0.417  | 0.618 |
| 170 | 89 | 0.458  | 0.589 | 0.446  | 0.601 | 0.422  | 0.623 |
| 170 | 90 | 0.463  | 0.595 | 0.451  | 0.606 | 0.428  | 0.629 |
| 170 | 91 | 0.469  | 0.600 | 0.457  | 0.612 | 0.434  | 0.635 |
| 170 | 92 | 0.475  | 0.606 | 0.463  | 0.618 | 0.440  | 0.640 |
| 170 | 93 | 0.481  | 0.612 | 0.469  | 0.623 | 0.446  | 0.646 |
| 170 | 94 | 0.487  | 0.618 | 0.475  | 0.629 | 0.451  | 0.651 |
| 170 | 95 | 0.493  | 0.623 | 0.481  | 0.635 | 0.457  | 0.657 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 170 | 96  | 0.499  | 0.629 | 0.487  | 0.640 | 0.463  | 0.663 |
| 170 | 97  | 0.505  | 0.635 | 0.493  | 0.646 | 0.469  | 0.668 |
| 170 | 98  | 0.511  | 0.640 | 0.498  | 0.652 | 0.475  | 0.674 |
| 170 | 99  | 0.516  | 0.646 | 0.504  | 0.657 | 0.481  | 0.679 |
| 170 | 100 | 0.522  | 0.652 | 0.510  | 0.663 | 0.487  | 0.685 |
| 170 | 101 | 0.528  | 0.657 | 0.516  | 0.669 | 0.493  | 0.690 |
| 170 | 102 | 0.534  | 0.663 | 0.522  | 0.674 | 0.499  | 0.696 |
| 170 | 103 | 0.540  | 0.669 | 0.528  | 0.680 | 0.504  | 0.701 |
| 170 | 104 | 0.546  | 0.674 | 0.534  | 0.685 | 0.510  | 0.707 |
| 170 | 105 | 0.552  | 0.680 | 0.540  | 0.691 | 0.516  | 0.712 |
| 170 | 106 | 0.558  | 0.686 | 0.546  | 0.697 | 0.522  | 0.718 |
| 170 | 107 | 0.564  | 0.691 | 0.552  | 0.702 | 0.528  | 0.723 |
| 170 | 108 | 0.570  | 0.697 | 0.558  | 0.708 | 0.534  | 0.728 |
| 170 | 109 | 0.576  | 0.702 | 0.564  | 0.713 | 0.541  | 0.734 |
| 170 | 110 | 0.582  | 0.708 | 0.570  | 0.719 | 0.547  | 0.739 |
| 170 | 111 | 0.588  | 0.714 | 0.576  | 0.724 | 0.553  | 0.744 |
| 170 | 112 | 0.594  | 0.719 | 0.582  | 0.730 | 0.559  | 0.750 |
| 170 | 113 | 0.600  | 0.725 | 0.588  | 0.735 | 0.565  | 0.755 |
| 170 | 114 | 0.606  | 0.730 | 0.594  | 0.741 | 0.571  | 0.760 |
| 170 | 115 | 0.613  | 0.736 | 0.601  | 0.746 | 0.577  | 0.766 |
| 170 | 116 | 0.619  | 0.741 | 0.607  | 0.752 | 0.583  | 0.771 |
| 170 | 117 | 0.625  | 0.747 | 0.613  | 0.757 | 0.589  | 0.776 |
| 170 | 118 | 0.631  | 0.752 | 0.619  | 0.762 | 0.596  | 0.781 |
| 170 | 119 | 0.637  | 0.758 | 0.625  | 0.768 | 0.602  | 0.787 |
| 170 | 120 | 0.643  | 0.763 | 0.631  | 0.773 | 0.608  | 0.792 |
| 170 | 121 | 0.649  | 0.769 | 0.637  | 0.779 | 0.614  | 0.797 |
| 170 | 122 | 0.655  | 0.774 | 0.644  | 0.784 | 0.620  | 0.802 |
| 170 | 123 | 0.661  | 0.780 | 0.650  | 0.789 | 0.627  | 0.807 |
| 170 | 124 | 0.668  | 0.785 | 0.656  | 0.795 | 0.633  | 0.813 |
| 170 | 125 | 0.674  | 0.790 | 0.662  | 0.800 | 0.639  | 0.818 |
| 170 | 126 | 0.680  | 0.796 | 0.669  | 0.805 | 0.646  | 0.823 |
| 170 | 127 | 0.686  | 0.801 | 0.675  | 0.810 | 0.652  | 0.828 |
| 170 | 128 | 0.692  | 0.807 | 0.681  | 0.816 | 0.658  | 0.833 |
| 170 | 129 | 0.699  | 0.812 | 0.687  | 0.821 | 0.665  | 0.838 |
| 170 | 130 | 0.705  | 0.817 | 0.694  | 0.826 | 0.671  | 0.843 |
| 170 | 131 | 0.711  | 0.823 | 0.700  | 0.831 | 0.678  | 0.848 |
| 170 | 132 | 0.718  | 0.828 | 0.706  | 0.837 | 0.684  | 0.853 |
| 170 | 133 | 0.724  | 0.833 | 0.713  | 0.842 | 0.690  | 0.858 |
| 170 | 134 | 0.730  | 0.839 | 0.719  | 0.847 | 0.697  | 0.863 |
| 170 | 135 | 0.736  | 0.844 | 0.725  | 0.852 | 0.704  | 0.868 |
| 170 | 136 | 0.743  | 0.849 | 0.732  | 0.857 | 0.710  | 0.873 |
| 170 | 137 | 0.749  | 0.854 | 0.738  | 0.862 | 0.717  | 0.877 |
| 170 | 138 | 0.756  | 0.860 | 0.745  | 0.868 | 0.723  | 0.882 |
| 170 | 139 | 0.762  | 0.865 | 0.751  | 0.873 | 0.730  | 0.887 |
| 170 | 140 | 0.768  | 0.870 | 0.758  | 0.878 | 0.737  | 0.892 |
| 170 | 141 | 0.775  | 0.875 | 0.764  | 0.883 | 0.743  | 0.897 |
| 170 | 142 | 0.781  | 0.880 | 0.771  | 0.888 | 0.750  | 0.901 |
| 170 | 143 | 0.788  | 0.885 | 0.777  | 0.893 | 0.757  | 0.906 |
| 170 | 144 | 0.794  | 0.891 | 0.784  | 0.898 | 0.763  | 0.910 |
| 170 | 145 | 0.801  | 0.896 | 0.791  | 0.903 | 0.770  | 0.915 |
| 170 | 146 | 0.807  | 0.901 | 0.797  | 0.907 | 0.777  | 0.920 |
| 170 | 147 | 0.814  | 0.906 | 0.804  | 0.912 | 0.784  | 0.924 |
| 170 | 148 | 0.820  | 0.911 | 0.811  | 0.917 | 0.791  | 0.929 |
| 170 | 149 | 0.827  | 0.916 | 0.817  | 0.922 | 0.798  | 0.933 |
| 170 | 150 | 0.834  | 0.921 | 0.824  | 0.927 | 0.805  | 0.937 |
| 170 | 151 | 0.840  | 0.926 | 0.831  | 0.931 | 0.812  | 0.942 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 170 | 152 | 0.847  | 0.930 | 0.838  | 0.936 | 0.819  | 0.946 |
| 170 | 153 | 0.854  | 0.935 | 0.845  | 0.941 | 0.826  | 0.950 |
| 170 | 154 | 0.861  | 0.940 | 0.852  | 0.945 | 0.833  | 0.954 |
| 170 | 155 | 0.867  | 0.945 | 0.859  | 0.950 | 0.841  | 0.959 |
| 170 | 156 | 0.874  | 0.950 | 0.866  | 0.954 | 0.848  | 0.963 |
| 170 | 157 | 0.881  | 0.954 | 0.873  | 0.959 | 0.855  | 0.967 |
| 170 | 158 | 0.888  | 0.959 | 0.880  | 0.963 | 0.863  | 0.970 |
| 170 | 159 | 0.895  | 0.963 | 0.887  | 0.967 | 0.871  | 0.974 |
| 170 | 160 | 0.902  | 0.968 | 0.894  | 0.971 | 0.878  | 0.978 |
| 170 | 161 | 0.909  | 0.972 | 0.902  | 0.976 | 0.886  | 0.981 |
| 170 | 162 | 0.917  | 0.976 | 0.909  | 0.979 | 0.894  | 0.985 |
| 170 | 163 | 0.924  | 0.981 | 0.917  | 0.983 | 0.902  | 0.988 |
| 170 | 164 | 0.932  | 0.985 | 0.925  | 0.987 | 0.910  | 0.991 |
| 170 | 165 | 0.939  | 0.988 | 0.933  | 0.990 | 0.919  | 0.994 |
| 170 | 166 | 0.947  | 0.992 | 0.941  | 0.994 | 0.928  | 0.996 |
| 170 | 167 | 0.955  | 0.995 | 0.949  | 0.996 | 0.937  | 0.998 |
| 170 | 168 | 0.963  | 0.998 | 0.958  | 0.999 | 0.947  | 0.999 |
| 170 | 169 | 0.972  | 1.000 | 0.968  | 1.000 | 0.957  | 1.000 |
| 170 | 170 | 0.983  | 1.000 | 0.979  | 1.000 | 0.969  | 1.000 |
| 175 | 0   | 0.000  | 0.017 | 0.000  | 0.021 | 0.000  | 0.030 |
| 175 | 1   | 0.000  | 0.027 | 0.000  | 0.031 | 0.000  | 0.042 |
| 175 | 2   | 0.002  | 0.036 | 0.001  | 0.041 | 0.001  | 0.052 |
| 175 | 3   | 0.005  | 0.044 | 0.004  | 0.049 | 0.002  | 0.061 |
| 175 | 4   | 0.008  | 0.052 | 0.006  | 0.057 | 0.004  | 0.070 |
| 175 | 5   | 0.011  | 0.059 | 0.009  | 0.065 | 0.006  | 0.079 |
| 175 | 6   | 0.015  | 0.067 | 0.013  | 0.073 | 0.009  | 0.087 |
| 175 | 7   | 0.019  | 0.074 | 0.016  | 0.081 | 0.012  | 0.095 |
| 175 | 8   | 0.023  | 0.081 | 0.020  | 0.088 | 0.015  | 0.103 |
| 175 | 9   | 0.027  | 0.088 | 0.024  | 0.095 | 0.018  | 0.111 |
| 175 | 10  | 0.031  | 0.095 | 0.028  | 0.103 | 0.022  | 0.118 |
| 175 | 11  | 0.036  | 0.102 | 0.032  | 0.110 | 0.025  | 0.126 |
| 175 | 12  | 0.040  | 0.109 | 0.036  | 0.117 | 0.029  | 0.133 |
| 175 | 13  | 0.044  | 0.116 | 0.040  | 0.124 | 0.032  | 0.141 |
| 175 | 14  | 0.049  | 0.122 | 0.044  | 0.131 | 0.036  | 0.148 |
| 175 | 15  | 0.054  | 0.129 | 0.049  | 0.137 | 0.040  | 0.155 |
| 175 | 16  | 0.058  | 0.136 | 0.053  | 0.144 | 0.044  | 0.162 |
| 175 | 17  | 0.063  | 0.142 | 0.058  | 0.151 | 0.048  | 0.169 |
| 175 | 18  | 0.068  | 0.149 | 0.062  | 0.158 | 0.052  | 0.176 |
| 175 | 19  | 0.072  | 0.155 | 0.067  | 0.164 | 0.056  | 0.183 |
| 175 | 20  | 0.077  | 0.162 | 0.071  | 0.171 | 0.061  | 0.190 |
| 175 | 21  | 0.082  | 0.168 | 0.076  | 0.178 | 0.065  | 0.197 |
| 175 | 22  | 0.087  | 0.175 | 0.080  | 0.184 | 0.069  | 0.203 |
| 175 | 23  | 0.092  | 0.181 | 0.085  | 0.191 | 0.074  | 0.210 |
| 175 | 24  | 0.096  | 0.187 | 0.090  | 0.197 | 0.078  | 0.217 |
| 175 | 25  | 0.101  | 0.194 | 0.095  | 0.204 | 0.082  | 0.224 |
| 175 | 26  | 0.106  | 0.200 | 0.099  | 0.210 | 0.087  | 0.230 |
| 175 | 27  | 0.111  | 0.206 | 0.104  | 0.216 | 0.091  | 0.237 |
| 175 | 28  | 0.116  | 0.213 | 0.109  | 0.223 | 0.096  | 0.243 |
| 175 | 29  | 0.121  | 0.219 | 0.114  | 0.229 | 0.100  | 0.250 |
| 175 | 30  | 0.126  | 0.225 | 0.119  | 0.236 | 0.105  | 0.256 |
| 175 | 31  | 0.131  | 0.231 | 0.124  | 0.242 | 0.110  | 0.263 |
| 175 | 32  | 0.136  | 0.238 | 0.129  | 0.248 | 0.114  | 0.269 |
| 175 | 33  | 0.141  | 0.244 | 0.134  | 0.255 | 0.119  | 0.276 |
| 175 | 34  | 0.146  | 0.250 | 0.138  | 0.261 | 0.124  | 0.282 |
| 175 | 35  | 0.152  | 0.256 | 0.143  | 0.267 | 0.128  | 0.289 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 175 | 36 | 0.157  | 0.262 | 0.148  | 0.273 | 0.133  | 0.295 |
| 175 | 37 | 0.162  | 0.269 | 0.153  | 0.279 | 0.138  | 0.301 |
| 175 | 38 | 0.167  | 0.275 | 0.158  | 0.286 | 0.143  | 0.307 |
| 175 | 39 | 0.172  | 0.281 | 0.164  | 0.292 | 0.148  | 0.314 |
| 175 | 40 | 0.177  | 0.287 | 0.169  | 0.298 | 0.152  | 0.320 |
| 175 | 41 | 0.182  | 0.293 | 0.174  | 0.304 | 0.157  | 0.326 |
| 175 | 42 | 0.188  | 0.299 | 0.179  | 0.310 | 0.162  | 0.332 |
| 175 | 43 | 0.193  | 0.305 | 0.184  | 0.316 | 0.167  | 0.339 |
| 175 | 44 | 0.198  | 0.311 | 0.189  | 0.322 | 0.172  | 0.345 |
| 175 | 45 | 0.203  | 0.317 | 0.194  | 0.329 | 0.177  | 0.351 |
| 175 | 46 | 0.209  | 0.323 | 0.199  | 0.335 | 0.182  | 0.357 |
| 175 | 47 | 0.214  | 0.329 | 0.204  | 0.341 | 0.187  | 0.363 |
| 175 | 48 | 0.219  | 0.335 | 0.210  | 0.347 | 0.192  | 0.369 |
| 175 | 49 | 0.224  | 0.341 | 0.215  | 0.353 | 0.197  | 0.376 |
| 175 | 50 | 0.230  | 0.347 | 0.220  | 0.359 | 0.202  | 0.382 |
| 175 | 51 | 0.235  | 0.353 | 0.225  | 0.365 | 0.207  | 0.388 |
| 175 | 52 | 0.240  | 0.359 | 0.231  | 0.371 | 0.212  | 0.394 |
| 175 | 53 | 0.246  | 0.365 | 0.236  | 0.377 | 0.217  | 0.400 |
| 175 | 54 | 0.251  | 0.371 | 0.241  | 0.383 | 0.222  | 0.406 |
| 175 | 55 | 0.256  | 0.377 | 0.246  | 0.389 | 0.227  | 0.412 |
| 175 | 56 | 0.262  | 0.383 | 0.252  | 0.395 | 0.232  | 0.418 |
| 175 | 57 | 0.267  | 0.389 | 0.257  | 0.401 | 0.237  | 0.424 |
| 175 | 58 | 0.273  | 0.395 | 0.262  | 0.406 | 0.243  | 0.430 |
| 175 | 59 | 0.278  | 0.401 | 0.268  | 0.412 | 0.248  | 0.436 |
| 175 | 60 | 0.283  | 0.406 | 0.273  | 0.418 | 0.253  | 0.442 |
| 175 | 61 | 0.289  | 0.412 | 0.278  | 0.424 | 0.258  | 0.447 |
| 175 | 62 | 0.294  | 0.418 | 0.284  | 0.430 | 0.263  | 0.453 |
| 175 | 63 | 0.300  | 0.424 | 0.289  | 0.436 | 0.269  | 0.459 |
| 175 | 64 | 0.305  | 0.430 | 0.294  | 0.442 | 0.274  | 0.465 |
| 175 | 65 | 0.310  | 0.436 | 0.300  | 0.448 | 0.279  | 0.471 |
| 175 | 66 | 0.316  | 0.442 | 0.305  | 0.453 | 0.284  | 0.477 |
| 175 | 67 | 0.321  | 0.447 | 0.311  | 0.459 | 0.290  | 0.483 |
| 175 | 68 | 0.327  | 0.453 | 0.316  | 0.465 | 0.295  | 0.488 |
| 175 | 69 | 0.332  | 0.459 | 0.321  | 0.471 | 0.300  | 0.494 |
| 175 | 70 | 0.338  | 0.465 | 0.327  | 0.477 | 0.306  | 0.500 |
| 175 | 71 | 0.343  | 0.470 | 0.332  | 0.482 | 0.311  | 0.506 |
| 175 | 72 | 0.349  | 0.476 | 0.338  | 0.488 | 0.316  | 0.511 |
| 175 | 73 | 0.354  | 0.482 | 0.343  | 0.494 | 0.322  | 0.517 |
| 175 | 74 | 0.360  | 0.488 | 0.349  | 0.500 | 0.327  | 0.523 |
| 175 | 75 | 0.365  | 0.494 | 0.354  | 0.505 | 0.332  | 0.529 |
| 175 | 76 | 0.371  | 0.499 | 0.360  | 0.511 | 0.338  | 0.534 |
| 175 | 77 | 0.377  | 0.505 | 0.365  | 0.517 | 0.343  | 0.540 |
| 175 | 78 | 0.382  | 0.511 | 0.371  | 0.523 | 0.349  | 0.546 |
| 175 | 79 | 0.388  | 0.516 | 0.376  | 0.528 | 0.354  | 0.551 |
| 175 | 80 | 0.393  | 0.522 | 0.382  | 0.534 | 0.360  | 0.557 |
| 175 | 81 | 0.399  | 0.528 | 0.387  | 0.540 | 0.365  | 0.563 |
| 175 | 82 | 0.404  | 0.534 | 0.393  | 0.545 | 0.371  | 0.568 |
| 175 | 83 | 0.410  | 0.539 | 0.398  | 0.551 | 0.376  | 0.574 |
| 175 | 84 | 0.416  | 0.545 | 0.404  | 0.557 | 0.382  | 0.580 |
| 175 | 85 | 0.421  | 0.551 | 0.410  | 0.562 | 0.387  | 0.585 |
| 175 | 86 | 0.427  | 0.556 | 0.415  | 0.568 | 0.393  | 0.591 |
| 175 | 87 | 0.433  | 0.562 | 0.421  | 0.574 | 0.398  | 0.596 |
| 175 | 88 | 0.438  | 0.567 | 0.426  | 0.579 | 0.404  | 0.602 |
| 175 | 89 | 0.444  | 0.573 | 0.432  | 0.585 | 0.409  | 0.607 |
| 175 | 90 | 0.449  | 0.579 | 0.438  | 0.590 | 0.415  | 0.613 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 175 | 91  | 0.455  | 0.584 | 0.443  | 0.596 | 0.420  | 0.618 |
| 175 | 92  | 0.461  | 0.590 | 0.449  | 0.602 | 0.426  | 0.624 |
| 175 | 93  | 0.466  | 0.596 | 0.455  | 0.607 | 0.432  | 0.629 |
| 175 | 94  | 0.472  | 0.601 | 0.460  | 0.613 | 0.437  | 0.635 |
| 175 | 95  | 0.478  | 0.607 | 0.466  | 0.618 | 0.443  | 0.640 |
| 175 | 96  | 0.484  | 0.612 | 0.472  | 0.624 | 0.449  | 0.646 |
| 175 | 97  | 0.489  | 0.618 | 0.477  | 0.629 | 0.454  | 0.651 |
| 175 | 98  | 0.495  | 0.623 | 0.483  | 0.635 | 0.460  | 0.657 |
| 175 | 99  | 0.501  | 0.629 | 0.489  | 0.640 | 0.466  | 0.662 |
| 175 | 100 | 0.506  | 0.635 | 0.495  | 0.646 | 0.471  | 0.668 |
| 175 | 101 | 0.512  | 0.640 | 0.500  | 0.651 | 0.477  | 0.673 |
| 175 | 102 | 0.518  | 0.646 | 0.506  | 0.657 | 0.483  | 0.678 |
| 175 | 103 | 0.524  | 0.651 | 0.512  | 0.662 | 0.489  | 0.684 |
| 175 | 104 | 0.530  | 0.657 | 0.518  | 0.668 | 0.494  | 0.689 |
| 175 | 105 | 0.535  | 0.662 | 0.523  | 0.673 | 0.500  | 0.694 |
| 175 | 106 | 0.541  | 0.668 | 0.529  | 0.679 | 0.506  | 0.700 |
| 175 | 107 | 0.547  | 0.673 | 0.535  | 0.684 | 0.512  | 0.705 |
| 175 | 108 | 0.553  | 0.679 | 0.541  | 0.689 | 0.517  | 0.710 |
| 175 | 109 | 0.558  | 0.684 | 0.547  | 0.695 | 0.523  | 0.716 |
| 175 | 110 | 0.564  | 0.690 | 0.552  | 0.700 | 0.529  | 0.721 |
| 175 | 111 | 0.570  | 0.695 | 0.558  | 0.706 | 0.535  | 0.726 |
| 175 | 112 | 0.576  | 0.700 | 0.564  | 0.711 | 0.541  | 0.731 |
| 175 | 113 | 0.582  | 0.706 | 0.570  | 0.716 | 0.547  | 0.737 |
| 175 | 114 | 0.588  | 0.711 | 0.576  | 0.722 | 0.553  | 0.742 |
| 175 | 115 | 0.594  | 0.717 | 0.582  | 0.727 | 0.558  | 0.747 |
| 175 | 116 | 0.599  | 0.722 | 0.588  | 0.732 | 0.564  | 0.752 |
| 175 | 117 | 0.605  | 0.727 | 0.594  | 0.738 | 0.570  | 0.757 |
| 175 | 118 | 0.611  | 0.733 | 0.599  | 0.743 | 0.576  | 0.763 |
| 175 | 119 | 0.617  | 0.738 | 0.605  | 0.748 | 0.582  | 0.768 |
| 175 | 120 | 0.623  | 0.744 | 0.611  | 0.754 | 0.588  | 0.773 |
| 175 | 121 | 0.629  | 0.749 | 0.617  | 0.759 | 0.594  | 0.778 |
| 175 | 122 | 0.635  | 0.754 | 0.623  | 0.764 | 0.600  | 0.783 |
| 175 | 123 | 0.641  | 0.760 | 0.629  | 0.769 | 0.606  | 0.788 |
| 175 | 124 | 0.647  | 0.765 | 0.635  | 0.775 | 0.612  | 0.793 |
| 175 | 125 | 0.653  | 0.770 | 0.641  | 0.780 | 0.618  | 0.798 |
| 175 | 126 | 0.659  | 0.776 | 0.647  | 0.785 | 0.624  | 0.803 |
| 175 | 127 | 0.665  | 0.781 | 0.653  | 0.790 | 0.631  | 0.808 |
| 175 | 128 | 0.671  | 0.786 | 0.659  | 0.796 | 0.637  | 0.813 |
| 175 | 129 | 0.677  | 0.791 | 0.665  | 0.801 | 0.643  | 0.818 |
| 175 | 130 | 0.683  | 0.797 | 0.671  | 0.806 | 0.649  | 0.823 |
| 175 | 131 | 0.689  | 0.802 | 0.678  | 0.811 | 0.655  | 0.828 |
| 175 | 132 | 0.695  | 0.807 | 0.684  | 0.816 | 0.661  | 0.833 |
| 175 | 133 | 0.701  | 0.812 | 0.690  | 0.821 | 0.668  | 0.838 |
| 175 | 134 | 0.707  | 0.818 | 0.696  | 0.826 | 0.674  | 0.843 |
| 175 | 135 | 0.713  | 0.823 | 0.702  | 0.831 | 0.680  | 0.848 |
| 175 | 136 | 0.719  | 0.828 | 0.708  | 0.836 | 0.686  | 0.852 |
| 175 | 137 | 0.725  | 0.833 | 0.714  | 0.842 | 0.693  | 0.857 |
| 175 | 138 | 0.731  | 0.838 | 0.721  | 0.847 | 0.699  | 0.862 |
| 175 | 139 | 0.738  | 0.843 | 0.727  | 0.852 | 0.705  | 0.867 |
| 175 | 140 | 0.744  | 0.848 | 0.733  | 0.857 | 0.711  | 0.872 |
| 175 | 141 | 0.750  | 0.854 | 0.739  | 0.862 | 0.718  | 0.876 |
| 175 | 142 | 0.756  | 0.859 | 0.745  | 0.866 | 0.724  | 0.881 |
| 175 | 143 | 0.762  | 0.864 | 0.752  | 0.871 | 0.731  | 0.886 |
| 175 | 144 | 0.769  | 0.869 | 0.758  | 0.876 | 0.737  | 0.890 |
| 175 | 145 | 0.775  | 0.874 | 0.764  | 0.881 | 0.744  | 0.895 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 175 | 146 | 0.781  | 0.879 | 0.771  | 0.886 | 0.750  | 0.900 |
| 175 | 147 | 0.787  | 0.884 | 0.777  | 0.891 | 0.757  | 0.904 |
| 175 | 148 | 0.794  | 0.889 | 0.784  | 0.896 | 0.763  | 0.909 |
| 175 | 149 | 0.800  | 0.894 | 0.790  | 0.901 | 0.770  | 0.913 |
| 175 | 150 | 0.806  | 0.899 | 0.796  | 0.905 | 0.776  | 0.918 |
| 175 | 151 | 0.813  | 0.904 | 0.803  | 0.910 | 0.783  | 0.922 |
| 175 | 152 | 0.819  | 0.906 | 0.809  | 0.915 | 0.790  | 0.926 |
| 175 | 153 | 0.825  | 0.913 | 0.816  | 0.920 | 0.797  | 0.931 |
| 175 | 154 | 0.832  | 0.918 | 0.822  | 0.924 | 0.803  | 0.935 |
| 175 | 155 | 0.838  | 0.923 | 0.829  | 0.929 | 0.810  | 0.939 |
| 175 | 156 | 0.845  | 0.928 | 0.836  | 0.933 | 0.817  | 0.944 |
| 175 | 157 | 0.851  | 0.932 | 0.842  | 0.938 | 0.824  | 0.948 |
| 175 | 158 | 0.858  | 0.937 | 0.849  | 0.942 | 0.831  | 0.952 |
| 175 | 159 | 0.864  | 0.942 | 0.856  | 0.947 | 0.838  | 0.956 |
| 175 | 160 | 0.871  | 0.946 | 0.863  | 0.951 | 0.845  | 0.960 |
| 175 | 161 | 0.878  | 0.951 | 0.869  | 0.956 | 0.852  | 0.964 |
| 175 | 162 | 0.884  | 0.956 | 0.876  | 0.960 | 0.859  | 0.968 |
| 175 | 163 | 0.891  | 0.960 | 0.883  | 0.964 | 0.867  | 0.971 |
| 175 | 164 | 0.896  | 0.964 | 0.890  | 0.968 | 0.874  | 0.975 |
| 175 | 165 | 0.905  | 0.969 | 0.897  | 0.972 | 0.882  | 0.978 |
| 175 | 166 | 0.912  | 0.973 | 0.905  | 0.976 | 0.889  | 0.982 |
| 175 | 167 | 0.919  | 0.977 | 0.912  | 0.980 | 0.897  | 0.985 |
| 175 | 168 | 0.926  | 0.981 | 0.919  | 0.984 | 0.905  | 0.988 |
| 175 | 169 | 0.933  | 0.985 | 0.927  | 0.987 | 0.913  | 0.991 |
| 175 | 170 | 0.941  | 0.989 | 0.935  | 0.991 | 0.921  | 0.994 |
| 175 | 171 | 0.948  | 0.992 | 0.943  | 0.994 | 0.930  | 0.996 |
| 175 | 172 | 0.956  | 0.995 | 0.951  | 0.996 | 0.939  | 0.998 |
| 175 | 173 | 0.964  | 0.998 | 0.959  | 0.999 | 0.948  | 0.999 |
| 175 | 174 | 0.973  | 1.000 | 0.969  | 1.000 | 0.958  | 1.000 |
| 175 | 175 | 0.983  | 1.000 | 0.979  | 1.000 | 0.970  | 1.000 |
| 180 | 0   | 0.000  | 0.017 | 0.000  | 0.020 | 0.000  | 0.029 |
| 180 | 1   | 0.000  | 0.026 | 0.000  | 0.031 | 0.000  | 0.041 |
| 180 | 2   | 0.002  | 0.035 | 0.001  | 0.040 | 0.001  | 0.050 |
| 180 | 3   | 0.005  | 0.043 | 0.003  | 0.048 | 0.002  | 0.060 |
| 180 | 4   | 0.008  | 0.050 | 0.006  | 0.056 | 0.004  | 0.068 |
| 180 | 5   | 0.011  | 0.058 | 0.009  | 0.064 | 0.006  | 0.077 |
| 180 | 6   | 0.015  | 0.065 | 0.012  | 0.071 | 0.009  | 0.085 |
| 180 | 7   | 0.016  | 0.072 | 0.016  | 0.078 | 0.011  | 0.093 |
| 180 | 8   | 0.022  | 0.079 | 0.019  | 0.086 | 0.014  | 0.100 |
| 180 | 9   | 0.026  | 0.086 | 0.023  | 0.093 | 0.018  | 0.108 |
| 180 | 10  | 0.030  | 0.092 | 0.027  | 0.100 | 0.021  | 0.115 |
| 180 | 11  | 0.035  | 0.099 | 0.031  | 0.107 | 0.024  | 0.122 |
| 180 | 12  | 0.039  | 0.106 | 0.035  | 0.114 | 0.028  | 0.130 |
| 180 | 13  | 0.043  | 0.112 | 0.039  | 0.120 | 0.032  | 0.137 |
| 180 | 14  | 0.048  | 0.119 | 0.043  | 0.127 | 0.035  | 0.144 |
| 180 | 15  | 0.052  | 0.125 | 0.047  | 0.134 | 0.039  | 0.151 |
| 180 | 16  | 0.057  | 0.132 | 0.052  | 0.140 | 0.043  | 0.158 |
| 180 | 17  | 0.061  | 0.138 | 0.056  | 0.147 | 0.047  | 0.165 |
| 180 | 18  | 0.066  | 0.145 | 0.060  | 0.153 | 0.051  | 0.171 |
| 180 | 19  | 0.070  | 0.151 | 0.065  | 0.160 | 0.055  | 0.178 |
| 180 | 20  | 0.075  | 0.157 | 0.069  | 0.166 | 0.059  | 0.185 |
| 180 | 21  | 0.080  | 0.164 | 0.074  | 0.173 | 0.063  | 0.191 |
| 180 | 22  | 0.084  | 0.170 | 0.078  | 0.179 | 0.067  | 0.198 |
| 180 | 23  | 0.089  | 0.176 | 0.083  | 0.186 | 0.071  | 0.205 |
| 180 | 24  | 0.094  | 0.182 | 0.087  | 0.192 | 0.076  | 0.211 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 180 | 25 | 0.098  | 0.189 | 0.092  | 0.198 | 0.080  | 0.218 |
| 180 | 26 | 0.103  | 0.195 | 0.097  | 0.204 | 0.084  | 0.224 |
| 180 | 27 | 0.108  | 0.201 | 0.101  | 0.211 | 0.089  | 0.231 |
| 180 | 28 | 0.113  | 0.207 | 0.106  | 0.217 | 0.093  | 0.237 |
| 180 | 29 | 0.118  | 0.213 | 0.111  | 0.223 | 0.098  | 0.243 |
| 180 | 30 | 0.123  | 0.219 | 0.115  | 0.229 | 0.102  | 0.250 |
| 180 | 31 | 0.127  | 0.225 | 0.120  | 0.235 | 0.106  | 0.256 |
| 180 | 32 | 0.132  | 0.231 | 0.125  | 0.242 | 0.111  | 0.262 |
| 180 | 33 | 0.137  | 0.237 | 0.130  | 0.248 | 0.116  | 0.268 |
| 180 | 34 | 0.142  | 0.243 | 0.134  | 0.254 | 0.120  | 0.275 |
| 180 | 35 | 0.147  | 0.249 | 0.139  | 0.260 | 0.125  | 0.281 |
| 180 | 36 | 0.152  | 0.255 | 0.144  | 0.266 | 0.129  | 0.287 |
| 180 | 37 | 0.157  | 0.261 | 0.149  | 0.272 | 0.134  | 0.293 |
| 180 | 38 | 0.162  | 0.267 | 0.154  | 0.278 | 0.139  | 0.299 |
| 180 | 39 | 0.167  | 0.273 | 0.159  | 0.284 | 0.143  | 0.306 |
| 180 | 40 | 0.172  | 0.279 | 0.164  | 0.290 | 0.148  | 0.312 |
| 180 | 41 | 0.177  | 0.285 | 0.169  | 0.296 | 0.153  | 0.318 |
| 180 | 42 | 0.182  | 0.291 | 0.174  | 0.302 | 0.157  | 0.324 |
| 180 | 43 | 0.187  | 0.297 | 0.179  | 0.308 | 0.162  | 0.330 |
| 180 | 44 | 0.192  | 0.303 | 0.184  | 0.314 | 0.167  | 0.336 |
| 180 | 45 | 0.198  | 0.309 | 0.189  | 0.320 | 0.172  | 0.342 |
| 180 | 46 | 0.203  | 0.315 | 0.194  | 0.326 | 0.177  | 0.348 |
| 180 | 47 | 0.208  | 0.320 | 0.199  | 0.332 | 0.181  | 0.354 |
| 180 | 48 | 0.213  | 0.326 | 0.204  | 0.338 | 0.186  | 0.360 |
| 180 | 49 | 0.218  | 0.332 | 0.209  | 0.343 | 0.191  | 0.366 |
| 180 | 50 | 0.223  | 0.338 | 0.214  | 0.349 | 0.196  | 0.372 |
| 180 | 51 | 0.228  | 0.344 | 0.219  | 0.355 | 0.201  | 0.378 |
| 180 | 52 | 0.233  | 0.350 | 0.224  | 0.361 | 0.206  | 0.384 |
| 180 | 53 | 0.239  | 0.355 | 0.229  | 0.367 | 0.211  | 0.389 |
| 180 | 54 | 0.244  | 0.361 | 0.234  | 0.373 | 0.216  | 0.395 |
| 180 | 55 | 0.249  | 0.367 | 0.239  | 0.378 | 0.221  | 0.401 |
| 180 | 56 | 0.254  | 0.373 | 0.244  | 0.384 | 0.226  | 0.407 |
| 180 | 57 | 0.259  | 0.378 | 0.249  | 0.390 | 0.231  | 0.413 |
| 180 | 58 | 0.265  | 0.384 | 0.255  | 0.396 | 0.236  | 0.419 |
| 180 | 59 | 0.270  | 0.390 | 0.260  | 0.402 | 0.241  | 0.424 |
| 180 | 60 | 0.275  | 0.396 | 0.265  | 0.407 | 0.246  | 0.430 |
| 180 | 61 | 0.280  | 0.401 | 0.270  | 0.413 | 0.251  | 0.436 |
| 180 | 62 | 0.286  | 0.407 | 0.275  | 0.419 | 0.256  | 0.442 |
| 180 | 63 | 0.291  | 0.413 | 0.281  | 0.424 | 0.261  | 0.447 |
| 180 | 64 | 0.296  | 0.419 | 0.286  | 0.430 | 0.266  | 0.453 |
| 180 | 65 | 0.302  | 0.424 | 0.291  | 0.436 | 0.271  | 0.459 |
| 180 | 66 | 0.307  | 0.430 | 0.296  | 0.442 | 0.276  | 0.465 |
| 180 | 67 | 0.312  | 0.436 | 0.301  | 0.447 | 0.281  | 0.470 |
| 180 | 68 | 0.317  | 0.441 | 0.307  | 0.453 | 0.286  | 0.476 |
| 180 | 69 | 0.323  | 0.447 | 0.312  | 0.459 | 0.291  | 0.482 |
| 180 | 70 | 0.328  | 0.452 | 0.317  | 0.464 | 0.297  | 0.487 |
| 180 | 71 | 0.333  | 0.458 | 0.323  | 0.470 | 0.302  | 0.493 |
| 180 | 72 | 0.339  | 0.464 | 0.328  | 0.476 | 0.307  | 0.499 |
| 180 | 73 | 0.344  | 0.469 | 0.333  | 0.481 | 0.312  | 0.504 |
| 180 | 74 | 0.349  | 0.475 | 0.338  | 0.487 | 0.317  | 0.510 |
| 180 | 75 | 0.355  | 0.481 | 0.344  | 0.492 | 0.323  | 0.515 |
| 180 | 76 | 0.360  | 0.486 | 0.349  | 0.498 | 0.328  | 0.521 |
| 180 | 77 | 0.366  | 0.492 | 0.354  | 0.504 | 0.333  | 0.526 |
| 180 | 78 | 0.371  | 0.497 | 0.360  | 0.509 | 0.338  | 0.532 |
| 180 | 79 | 0.376  | 0.503 | 0.365  | 0.515 | 0.344  | 0.538 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 180 | 80  | 0.382  | 0.508 | 0.371  | 0.520 | 0.349  | 0.543 |
| 180 | 81  | 0.387  | 0.514 | 0.376  | 0.526 | 0.354  | 0.549 |
| 180 | 82  | 0.393  | 0.520 | 0.381  | 0.531 | 0.359  | 0.554 |
| 180 | 83  | 0.396  | 0.525 | 0.387  | 0.537 | 0.365  | 0.560 |
| 180 | 84  | 0.403  | 0.531 | 0.392  | 0.542 | 0.370  | 0.565 |
| 180 | 85  | 0.409  | 0.536 | 0.398  | 0.548 | 0.375  | 0.571 |
| 180 | 86  | 0.414  | 0.542 | 0.403  | 0.553 | 0.381  | 0.576 |
| 180 | 87  | 0.420  | 0.547 | 0.408  | 0.559 | 0.386  | 0.581 |
| 180 | 88  | 0.425  | 0.553 | 0.414  | 0.564 | 0.392  | 0.587 |
| 180 | 89  | 0.431  | 0.558 | 0.419  | 0.570 | 0.397  | 0.592 |
| 180 | 90  | 0.436  | 0.564 | 0.425  | 0.575 | 0.402  | 0.598 |
| 180 | 91  | 0.442  | 0.569 | 0.430  | 0.581 | 0.408  | 0.603 |
| 180 | 92  | 0.447  | 0.575 | 0.436  | 0.586 | 0.413  | 0.608 |
| 180 | 93  | 0.453  | 0.580 | 0.441  | 0.592 | 0.419  | 0.614 |
| 180 | 94  | 0.458  | 0.586 | 0.447  | 0.597 | 0.424  | 0.619 |
| 180 | 95  | 0.464  | 0.591 | 0.452  | 0.602 | 0.429  | 0.625 |
| 180 | 96  | 0.469  | 0.597 | 0.458  | 0.608 | 0.435  | 0.630 |
| 180 | 97  | 0.475  | 0.602 | 0.463  | 0.613 | 0.440  | 0.635 |
| 180 | 98  | 0.480  | 0.607 | 0.469  | 0.619 | 0.446  | 0.641 |
| 180 | 99  | 0.486  | 0.613 | 0.474  | 0.624 | 0.451  | 0.646 |
| 180 | 100 | 0.492  | 0.618 | 0.480  | 0.629 | 0.457  | 0.651 |
| 180 | 101 | 0.497  | 0.624 | 0.485  | 0.635 | 0.462  | 0.656 |
| 180 | 102 | 0.503  | 0.629 | 0.491  | 0.640 | 0.468  | 0.662 |
| 180 | 103 | 0.508  | 0.634 | 0.496  | 0.646 | 0.474  | 0.667 |
| 180 | 104 | 0.514  | 0.640 | 0.502  | 0.651 | 0.479  | 0.672 |
| 180 | 105 | 0.519  | 0.645 | 0.508  | 0.656 | 0.485  | 0.677 |
| 180 | 106 | 0.525  | 0.651 | 0.513  | 0.662 | 0.490  | 0.683 |
| 180 | 107 | 0.531  | 0.656 | 0.519  | 0.667 | 0.496  | 0.688 |
| 180 | 108 | 0.536  | 0.661 | 0.524  | 0.672 | 0.501  | 0.693 |
| 180 | 109 | 0.542  | 0.667 | 0.530  | 0.677 | 0.507  | 0.698 |
| 180 | 110 | 0.548  | 0.672 | 0.536  | 0.683 | 0.513  | 0.703 |
| 180 | 111 | 0.553  | 0.677 | 0.541  | 0.688 | 0.518  | 0.709 |
| 180 | 112 | 0.559  | 0.683 | 0.547  | 0.693 | 0.524  | 0.714 |
| 180 | 113 | 0.564  | 0.688 | 0.553  | 0.699 | 0.530  | 0.719 |
| 180 | 114 | 0.570  | 0.693 | 0.558  | 0.704 | 0.535  | 0.724 |
| 180 | 115 | 0.576  | 0.698 | 0.564  | 0.709 | 0.541  | 0.729 |
| 180 | 116 | 0.581  | 0.704 | 0.570  | 0.714 | 0.547  | 0.734 |
| 180 | 117 | 0.587  | 0.709 | 0.576  | 0.719 | 0.553  | 0.739 |
| 180 | 118 | 0.593  | 0.714 | 0.581  | 0.725 | 0.558  | 0.744 |
| 180 | 119 | 0.599  | 0.720 | 0.587  | 0.730 | 0.564  | 0.749 |
| 180 | 120 | 0.604  | 0.725 | 0.593  | 0.735 | 0.570  | 0.754 |
| 180 | 121 | 0.610  | 0.730 | 0.598  | 0.740 | 0.576  | 0.759 |
| 180 | 122 | 0.616  | 0.735 | 0.604  | 0.745 | 0.581  | 0.764 |
| 180 | 123 | 0.622  | 0.741 | 0.610  | 0.751 | 0.587  | 0.769 |
| 180 | 124 | 0.627  | 0.746 | 0.616  | 0.756 | 0.593  | 0.774 |
| 180 | 125 | 0.633  | 0.751 | 0.622  | 0.761 | 0.599  | 0.779 |
| 180 | 126 | 0.639  | 0.756 | 0.627  | 0.766 | 0.605  | 0.784 |
| 180 | 127 | 0.645  | 0.761 | 0.633  | 0.771 | 0.611  | 0.789 |
| 180 | 128 | 0.650  | 0.767 | 0.639  | 0.776 | 0.616  | 0.794 |
| 180 | 129 | 0.656  | 0.772 | 0.645  | 0.781 | 0.622  | 0.799 |
| 180 | 130 | 0.662  | 0.777 | 0.651  | 0.786 | 0.628  | 0.804 |
| 180 | 131 | 0.668  | 0.782 | 0.657  | 0.791 | 0.634  | 0.809 |
| 180 | 132 | 0.674  | 0.787 | 0.662  | 0.796 | 0.640  | 0.814 |
| 180 | 133 | 0.680  | 0.792 | 0.668  | 0.801 | 0.646  | 0.819 |
| 180 | 134 | 0.685  | 0.797 | 0.674  | 0.806 | 0.652  | 0.823 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 180 | 135 | 0.691  | 0.802 | 0.680  | 0.811 | 0.658  | 0.828 |
| 180 | 136 | 0.697  | 0.808 | 0.686  | 0.816 | 0.664  | 0.833 |
| 180 | 137 | 0.703  | 0.813 | 0.692  | 0.821 | 0.670  | 0.838 |
| 180 | 138 | 0.709  | 0.818 | 0.698  | 0.826 | 0.676  | 0.843 |
| 180 | 139 | 0.715  | 0.823 | 0.704  | 0.831 | 0.682  | 0.847 |
| 180 | 140 | 0.721  | 0.828 | 0.710  | 0.836 | 0.688  | 0.852 |
| 180 | 141 | 0.727  | 0.833 | 0.716  | 0.841 | 0.694  | 0.857 |
| 180 | 142 | 0.733  | 0.838 | 0.722  | 0.846 | 0.701  | 0.861 |
| 180 | 143 | 0.739  | 0.843 | 0.728  | 0.851 | 0.707  | 0.866 |
| 180 | 144 | 0.745  | 0.848 | 0.734  | 0.856 | 0.713  | 0.871 |
| 180 | 145 | 0.751  | 0.853 | 0.740  | 0.861 | 0.719  | 0.875 |
| 180 | 146 | 0.757  | 0.858 | 0.746  | 0.866 | 0.725  | 0.880 |
| 180 | 147 | 0.763  | 0.863 | 0.752  | 0.870 | 0.732  | 0.884 |
| 180 | 148 | 0.769  | 0.868 | 0.758  | 0.875 | 0.738  | 0.889 |
| 180 | 149 | 0.775  | 0.873 | 0.765  | 0.880 | 0.744  | 0.894 |
| 180 | 150 | 0.781  | 0.877 | 0.771  | 0.885 | 0.750  | 0.898 |
| 180 | 151 | 0.787  | 0.882 | 0.777  | 0.889 | 0.757  | 0.902 |
| 180 | 152 | 0.793  | 0.887 | 0.783  | 0.894 | 0.763  | 0.907 |
| 180 | 153 | 0.799  | 0.892 | 0.789  | 0.899 | 0.769  | 0.911 |
| 180 | 154 | 0.805  | 0.897 | 0.796  | 0.903 | 0.776  | 0.916 |
| 180 | 155 | 0.811  | 0.902 | 0.802  | 0.908 | 0.782  | 0.920 |
| 180 | 156 | 0.818  | 0.906 | 0.808  | 0.913 | 0.789  | 0.924 |
| 180 | 157 | 0.824  | 0.911 | 0.814  | 0.917 | 0.795  | 0.929 |
| 180 | 158 | 0.830  | 0.916 | 0.821  | 0.922 | 0.802  | 0.933 |
| 180 | 159 | 0.836  | 0.920 | 0.827  | 0.926 | 0.809  | 0.937 |
| 180 | 160 | 0.843  | 0.925 | 0.834  | 0.931 | 0.815  | 0.941 |
| 180 | 161 | 0.849  | 0.930 | 0.840  | 0.935 | 0.822  | 0.945 |
| 180 | 162 | 0.855  | 0.934 | 0.847  | 0.940 | 0.829  | 0.949 |
| 180 | 163 | 0.862  | 0.939 | 0.853  | 0.944 | 0.835  | 0.953 |
| 180 | 164 | 0.868  | 0.943 | 0.860  | 0.948 | 0.842  | 0.957 |
| 180 | 165 | 0.875  | 0.948 | 0.866  | 0.953 | 0.849  | 0.961 |
| 180 | 166 | 0.881  | 0.952 | 0.873  | 0.957 | 0.856  | 0.965 |
| 180 | 167 | 0.888  | 0.957 | 0.880  | 0.961 | 0.863  | 0.968 |
| 180 | 168 | 0.894  | 0.961 | 0.886  | 0.965 | 0.870  | 0.972 |
| 180 | 169 | 0.901  | 0.965 | 0.893  | 0.969 | 0.878  | 0.976 |
| 180 | 170 | 0.908  | 0.970 | 0.900  | 0.973 | 0.885  | 0.979 |
| 180 | 171 | 0.914  | 0.974 | 0.907  | 0.977 | 0.892  | 0.982 |
| 180 | 172 | 0.921  | 0.978 | 0.914  | 0.981 | 0.900  | 0.986 |
| 180 | 173 | 0.928  | 0.982 | 0.922  | 0.984 | 0.907  | 0.989 |
| 180 | 174 | 0.935  | 0.985 | 0.929  | 0.988 | 0.915  | 0.991 |
| 180 | 175 | 0.942  | 0.989 | 0.936  | 0.991 | 0.923  | 0.994 |
| 180 | 176 | 0.950  | 0.992 | 0.944  | 0.994 | 0.932  | 0.996 |
| 180 | 177 | 0.957  | 0.995 | 0.952  | 0.997 | 0.940  | 0.998 |
| 180 | 178 | 0.965  | 0.998 | 0.960  | 0.999 | 0.950  | 0.999 |
| 180 | 179 | 0.974  | 1.000 | 0.969  | 1.000 | 0.959  | 1.000 |
| 180 | 180 | 0.983  | 1.000 | 0.980  | 1.000 | 0.971  | 1.000 |
| 185 | 0   | 0.000  | 0.016 | 0.000  | 0.020 | 0.000  | 0.028 |
| 185 | 1   | 0.000  | 0.025 | 0.000  | 0.030 | 0.000  | 0.039 |
| 185 | 2   | 0.002  | 0.034 | 0.001  | 0.039 | 0.001  | 0.049 |
| 185 | 3   | 0.004  | 0.041 | 0.003  | 0.047 | 0.002  | 0.058 |
| 185 | 4   | 0.007  | 0.049 | 0.006  | 0.054 | 0.004  | 0.067 |
| 185 | 5   | 0.011  | 0.056 | 0.009  | 0.062 | 0.006  | 0.075 |
| 185 | 6   | 0.014  | 0.063 | 0.012  | 0.069 | 0.008  | 0.082 |
| 185 | 7   | 0.018  | 0.070 | 0.015  | 0.076 | 0.011  | 0.090 |
| 185 | 8   | 0.022  | 0.077 | 0.019  | 0.083 | 0.014  | 0.098 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 185 | 9  | 0.026  | 0.083 | 0.022  | 0.090 | 0.017  | 0.105 |
| 185 | 10 | 0.030  | 0.090 | 0.026  | 0.097 | 0.020  | 0.112 |
| 185 | 11 | 0.034  | 0.096 | 0.030  | 0.104 | 0.024  | 0.119 |
| 185 | 12 | 0.038  | 0.103 | 0.034  | 0.111 | 0.027  | 0.126 |
| 185 | 13 | 0.042  | 0.109 | 0.038  | 0.117 | 0.031  | 0.133 |
| 185 | 14 | 0.046  | 0.116 | 0.042  | 0.124 | 0.034  | 0.140 |
| 185 | 15 | 0.051  | 0.122 | 0.046  | 0.130 | 0.038  | 0.147 |
| 185 | 16 | 0.055  | 0.128 | 0.050  | 0.137 | 0.042  | 0.154 |
| 185 | 17 | 0.059  | 0.135 | 0.054  | 0.143 | 0.046  | 0.160 |
| 185 | 18 | 0.064  | 0.141 | 0.059  | 0.149 | 0.049  | 0.167 |
| 185 | 19 | 0.068  | 0.147 | 0.063  | 0.156 | 0.053  | 0.173 |
| 185 | 20 | 0.073  | 0.153 | 0.067  | 0.162 | 0.057  | 0.180 |
| 185 | 21 | 0.077  | 0.159 | 0.072  | 0.168 | 0.061  | 0.186 |
| 185 | 22 | 0.082  | 0.165 | 0.076  | 0.175 | 0.065  | 0.193 |
| 185 | 23 | 0.086  | 0.172 | 0.080  | 0.181 | 0.070  | 0.199 |
| 185 | 24 | 0.091  | 0.178 | 0.085  | 0.187 | 0.074  | 0.206 |
| 185 | 25 | 0.096  | 0.184 | 0.089  | 0.193 | 0.078  | 0.212 |
| 185 | 26 | 0.100  | 0.190 | 0.094  | 0.199 | 0.082  | 0.218 |
| 185 | 27 | 0.105  | 0.196 | 0.098  | 0.205 | 0.086  | 0.225 |
| 185 | 28 | 0.110  | 0.202 | 0.103  | 0.211 | 0.091  | 0.231 |
| 185 | 29 | 0.114  | 0.208 | 0.108  | 0.217 | 0.095  | 0.237 |
| 185 | 30 | 0.119  | 0.213 | 0.112  | 0.223 | 0.099  | 0.243 |
| 185 | 31 | 0.124  | 0.219 | 0.117  | 0.229 | 0.104  | 0.249 |
| 185 | 32 | 0.129  | 0.225 | 0.121  | 0.235 | 0.108  | 0.255 |
| 185 | 33 | 0.134  | 0.231 | 0.126  | 0.241 | 0.112  | 0.262 |
| 185 | 34 | 0.138  | 0.237 | 0.131  | 0.247 | 0.117  | 0.268 |
| 185 | 35 | 0.143  | 0.243 | 0.135  | 0.253 | 0.121  | 0.274 |
| 185 | 36 | 0.148  | 0.249 | 0.140  | 0.259 | 0.126  | 0.280 |
| 185 | 37 | 0.153  | 0.255 | 0.145  | 0.265 | 0.130  | 0.286 |
| 185 | 38 | 0.158  | 0.260 | 0.150  | 0.271 | 0.135  | 0.292 |
| 185 | 39 | 0.163  | 0.266 | 0.154  | 0.277 | 0.139  | 0.298 |
| 185 | 40 | 0.167  | 0.272 | 0.159  | 0.283 | 0.144  | 0.304 |
| 185 | 41 | 0.172  | 0.278 | 0.164  | 0.288 | 0.148  | 0.310 |
| 185 | 42 | 0.177  | 0.284 | 0.169  | 0.294 | 0.153  | 0.316 |
| 185 | 43 | 0.182  | 0.289 | 0.174  | 0.300 | 0.158  | 0.321 |
| 185 | 44 | 0.187  | 0.295 | 0.178  | 0.306 | 0.162  | 0.327 |
| 185 | 45 | 0.192  | 0.301 | 0.183  | 0.312 | 0.167  | 0.333 |
| 185 | 46 | 0.197  | 0.306 | 0.188  | 0.317 | 0.172  | 0.339 |
| 185 | 47 | 0.202  | 0.312 | 0.193  | 0.323 | 0.176  | 0.345 |
| 185 | 48 | 0.207  | 0.318 | 0.198  | 0.329 | 0.181  | 0.351 |
| 185 | 49 | 0.212  | 0.324 | 0.203  | 0.335 | 0.186  | 0.357 |
| 185 | 50 | 0.217  | 0.329 | 0.208  | 0.340 | 0.190  | 0.362 |
| 185 | 51 | 0.222  | 0.335 | 0.213  | 0.346 | 0.195  | 0.368 |
| 185 | 52 | 0.227  | 0.341 | 0.218  | 0.352 | 0.200  | 0.374 |
| 185 | 53 | 0.232  | 0.346 | 0.223  | 0.357 | 0.205  | 0.380 |
| 185 | 54 | 0.237  | 0.352 | 0.228  | 0.363 | 0.209  | 0.385 |
| 185 | 55 | 0.242  | 0.357 | 0.232  | 0.369 | 0.214  | 0.391 |
| 185 | 56 | 0.247  | 0.363 | 0.237  | 0.374 | 0.219  | 0.397 |
| 185 | 57 | 0.252  | 0.369 | 0.242  | 0.380 | 0.224  | 0.402 |
| 185 | 58 | 0.257  | 0.374 | 0.247  | 0.386 | 0.229  | 0.408 |
| 185 | 59 | 0.262  | 0.380 | 0.252  | 0.391 | 0.234  | 0.414 |
| 185 | 60 | 0.267  | 0.385 | 0.257  | 0.397 | 0.239  | 0.419 |
| 185 | 61 | 0.273  | 0.391 | 0.263  | 0.403 | 0.243  | 0.425 |
| 185 | 62 | 0.278  | 0.397 | 0.268  | 0.408 | 0.248  | 0.431 |
| 185 | 63 | 0.283  | 0.402 | 0.273  | 0.414 | 0.253  | 0.436 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 185 | 64  | 0.288  | 0.408 | 0.278  | 0.419 | 0.258  | 0.442 |
| 185 | 65  | 0.293  | 0.413 | 0.283  | 0.425 | 0.263  | 0.447 |
| 185 | 66  | 0.298  | 0.419 | 0.288  | 0.430 | 0.268  | 0.453 |
| 185 | 67  | 0.303  | 0.424 | 0.293  | 0.436 | 0.273  | 0.459 |
| 185 | 68  | 0.308  | 0.430 | 0.298  | 0.441 | 0.278  | 0.464 |
| 185 | 69  | 0.314  | 0.435 | 0.303  | 0.447 | 0.283  | 0.470 |
| 185 | 70  | 0.319  | 0.441 | 0.308  | 0.452 | 0.288  | 0.475 |
| 185 | 71  | 0.324  | 0.446 | 0.313  | 0.458 | 0.293  | 0.481 |
| 185 | 72  | 0.329  | 0.452 | 0.319  | 0.463 | 0.298  | 0.486 |
| 185 | 73  | 0.334  | 0.457 | 0.324  | 0.469 | 0.303  | 0.492 |
| 185 | 74  | 0.340  | 0.463 | 0.329  | 0.474 | 0.308  | 0.497 |
| 185 | 75  | 0.345  | 0.468 | 0.334  | 0.480 | 0.313  | 0.503 |
| 185 | 76  | 0.350  | 0.474 | 0.339  | 0.485 | 0.318  | 0.508 |
| 185 | 77  | 0.355  | 0.479 | 0.344  | 0.491 | 0.323  | 0.513 |
| 185 | 78  | 0.360  | 0.485 | 0.350  | 0.496 | 0.328  | 0.519 |
| 185 | 79  | 0.366  | 0.490 | 0.355  | 0.502 | 0.334  | 0.524 |
| 185 | 80  | 0.371  | 0.496 | 0.360  | 0.507 | 0.339  | 0.530 |
| 185 | 81  | 0.376  | 0.501 | 0.365  | 0.513 | 0.344  | 0.535 |
| 185 | 82  | 0.381  | 0.506 | 0.370  | 0.518 | 0.349  | 0.540 |
| 185 | 83  | 0.387  | 0.512 | 0.376  | 0.523 | 0.354  | 0.546 |
| 185 | 84  | 0.392  | 0.517 | 0.381  | 0.529 | 0.359  | 0.551 |
| 185 | 85  | 0.397  | 0.523 | 0.386  | 0.534 | 0.364  | 0.557 |
| 185 | 86  | 0.403  | 0.528 | 0.391  | 0.539 | 0.370  | 0.562 |
| 185 | 87  | 0.408  | 0.533 | 0.397  | 0.545 | 0.375  | 0.567 |
| 185 | 88  | 0.413  | 0.539 | 0.402  | 0.550 | 0.380  | 0.573 |
| 185 | 89  | 0.419  | 0.544 | 0.407  | 0.556 | 0.385  | 0.578 |
| 185 | 90  | 0.424  | 0.549 | 0.412  | 0.561 | 0.390  | 0.583 |
| 185 | 91  | 0.429  | 0.555 | 0.418  | 0.566 | 0.396  | 0.588 |
| 185 | 92  | 0.435  | 0.560 | 0.423  | 0.572 | 0.401  | 0.594 |
| 185 | 93  | 0.440  | 0.565 | 0.428  | 0.577 | 0.406  | 0.599 |
| 185 | 94  | 0.445  | 0.571 | 0.434  | 0.582 | 0.412  | 0.604 |
| 185 | 95  | 0.451  | 0.576 | 0.439  | 0.588 | 0.417  | 0.610 |
| 185 | 96  | 0.456  | 0.581 | 0.444  | 0.593 | 0.422  | 0.615 |
| 185 | 97  | 0.461  | 0.587 | 0.450  | 0.598 | 0.427  | 0.620 |
| 185 | 98  | 0.467  | 0.592 | 0.455  | 0.603 | 0.433  | 0.625 |
| 185 | 99  | 0.472  | 0.597 | 0.461  | 0.609 | 0.438  | 0.630 |
| 185 | 100 | 0.477  | 0.603 | 0.466  | 0.614 | 0.443  | 0.636 |
| 185 | 101 | 0.483  | 0.608 | 0.471  | 0.619 | 0.449  | 0.641 |
| 185 | 102 | 0.488  | 0.613 | 0.477  | 0.624 | 0.454  | 0.646 |
| 185 | 103 | 0.494  | 0.619 | 0.482  | 0.630 | 0.460  | 0.651 |
| 185 | 104 | 0.499  | 0.624 | 0.487  | 0.635 | 0.465  | 0.656 |
| 185 | 105 | 0.504  | 0.629 | 0.493  | 0.640 | 0.470  | 0.661 |
| 185 | 106 | 0.510  | 0.634 | 0.498  | 0.645 | 0.476  | 0.666 |
| 185 | 107 | 0.515  | 0.640 | 0.504  | 0.650 | 0.481  | 0.672 |
| 185 | 108 | 0.521  | 0.645 | 0.509  | 0.656 | 0.487  | 0.677 |
| 185 | 109 | 0.526  | 0.650 | 0.515  | 0.661 | 0.492  | 0.682 |
| 185 | 110 | 0.532  | 0.655 | 0.520  | 0.666 | 0.497  | 0.687 |
| 185 | 111 | 0.537  | 0.660 | 0.526  | 0.671 | 0.503  | 0.692 |
| 185 | 112 | 0.543  | 0.666 | 0.531  | 0.676 | 0.508  | 0.697 |
| 185 | 113 | 0.548  | 0.671 | 0.537  | 0.681 | 0.514  | 0.702 |
| 185 | 114 | 0.554  | 0.676 | 0.542  | 0.687 | 0.519  | 0.707 |
| 185 | 115 | 0.559  | 0.681 | 0.548  | 0.692 | 0.525  | 0.712 |
| 185 | 116 | 0.565  | 0.686 | 0.553  | 0.697 | 0.530  | 0.717 |
| 185 | 117 | 0.570  | 0.692 | 0.559  | 0.702 | 0.536  | 0.722 |
| 185 | 118 | 0.576  | 0.697 | 0.564  | 0.707 | 0.541  | 0.727 |



TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 185 | 119 | 0.581  | 0.702 | 0.570  | 0.712 | 0.547  | 0.732 |
| 185 | 120 | 0.587  | 0.707 | 0.575  | 0.717 | 0.553  | 0.737 |
| 185 | 121 | 0.592  | 0.712 | 0.581  | 0.722 | 0.558  | 0.742 |
| 185 | 122 | 0.598  | 0.717 | 0.586  | 0.727 | 0.564  | 0.747 |
| 185 | 123 | 0.603  | 0.722 | 0.592  | 0.732 | 0.569  | 0.752 |
| 185 | 124 | 0.609  | 0.727 | 0.597  | 0.737 | 0.575  | 0.757 |
| 185 | 125 | 0.615  | 0.733 | 0.603  | 0.743 | 0.581  | 0.761 |
| 185 | 126 | 0.620  | 0.738 | 0.609  | 0.748 | 0.586  | 0.766 |
| 185 | 127 | 0.626  | 0.743 | 0.614  | 0.753 | 0.592  | 0.771 |
| 185 | 128 | 0.631  | 0.748 | 0.620  | 0.758 | 0.598  | 0.776 |
| 185 | 129 | 0.637  | 0.753 | 0.626  | 0.763 | 0.603  | 0.781 |
| 185 | 130 | 0.643  | 0.758 | 0.631  | 0.768 | 0.609  | 0.786 |
| 185 | 131 | 0.648  | 0.763 | 0.637  | 0.772 | 0.615  | 0.791 |
| 185 | 132 | 0.654  | 0.768 | 0.643  | 0.777 | 0.620  | 0.795 |
| 185 | 133 | 0.659  | 0.773 | 0.648  | 0.782 | 0.626  | 0.800 |
| 185 | 134 | 0.665  | 0.778 | 0.654  | 0.787 | 0.632  | 0.805 |
| 185 | 135 | 0.671  | 0.783 | 0.660  | 0.792 | 0.638  | 0.810 |
| 185 | 136 | 0.676  | 0.788 | 0.665  | 0.797 | 0.643  | 0.814 |
| 185 | 137 | 0.682  | 0.793 | 0.671  | 0.802 | 0.649  | 0.819 |
| 185 | 138 | 0.688  | 0.798 | 0.677  | 0.807 | 0.655  | 0.824 |
| 185 | 139 | 0.694  | 0.803 | 0.683  | 0.812 | 0.661  | 0.828 |
| 185 | 140 | 0.699  | 0.808 | 0.688  | 0.817 | 0.667  | 0.833 |
| 185 | 141 | 0.705  | 0.813 | 0.694  | 0.822 | 0.673  | 0.838 |
| 185 | 142 | 0.711  | 0.818 | 0.700  | 0.826 | 0.679  | 0.842 |
| 185 | 143 | 0.716  | 0.823 | 0.706  | 0.831 | 0.684  | 0.847 |
| 185 | 144 | 0.722  | 0.828 | 0.712  | 0.836 | 0.690  | 0.852 |
| 185 | 145 | 0.728  | 0.833 | 0.717  | 0.841 | 0.696  | 0.856 |
| 185 | 146 | 0.734  | 0.837 | 0.723  | 0.846 | 0.702  | 0.861 |
| 185 | 147 | 0.740  | 0.842 | 0.729  | 0.850 | 0.708  | 0.865 |
| 185 | 148 | 0.745  | 0.847 | 0.735  | 0.855 | 0.714  | 0.870 |
| 185 | 149 | 0.751  | 0.852 | 0.741  | 0.860 | 0.720  | 0.874 |
| 185 | 150 | 0.757  | 0.857 | 0.747  | 0.865 | 0.726  | 0.879 |
| 185 | 151 | 0.763  | 0.862 | 0.753  | 0.869 | 0.732  | 0.883 |
| 185 | 152 | 0.769  | 0.866 | 0.759  | 0.874 | 0.738  | 0.888 |
| 185 | 153 | 0.775  | 0.871 | 0.765  | 0.879 | 0.745  | 0.892 |
| 185 | 154 | 0.781  | 0.876 | 0.771  | 0.883 | 0.751  | 0.896 |
| 185 | 155 | 0.787  | 0.881 | 0.777  | 0.888 | 0.757  | 0.901 |
| 185 | 156 | 0.792  | 0.886 | 0.783  | 0.892 | 0.763  | 0.905 |
| 185 | 157 | 0.798  | 0.890 | 0.789  | 0.897 | 0.769  | 0.909 |
| 185 | 158 | 0.804  | 0.895 | 0.795  | 0.902 | 0.775  | 0.914 |
| 185 | 159 | 0.810  | 0.900 | 0.801  | 0.906 | 0.782  | 0.918 |
| 185 | 160 | 0.816  | 0.904 | 0.807  | 0.911 | 0.788  | 0.922 |
| 185 | 161 | 0.822  | 0.909 | 0.813  | 0.915 | 0.794  | 0.926 |
| 185 | 162 | 0.828  | 0.914 | 0.819  | 0.920 | 0.801  | 0.930 |
| 185 | 163 | 0.835  | 0.918 | 0.825  | 0.924 | 0.807  | 0.935 |
| 185 | 164 | 0.841  | 0.923 | 0.832  | 0.928 | 0.814  | 0.939 |
| 185 | 165 | 0.847  | 0.927 | 0.838  | 0.933 | 0.820  | 0.943 |
| 185 | 166 | 0.853  | 0.932 | 0.844  | 0.937 | 0.827  | 0.947 |
| 185 | 167 | 0.859  | 0.936 | 0.851  | 0.941 | 0.833  | 0.951 |
| 185 | 168 | 0.865  | 0.941 | 0.857  | 0.946 | 0.840  | 0.954 |
| 185 | 169 | 0.872  | 0.945 | 0.863  | 0.950 | 0.846  | 0.958 |
| 185 | 170 | 0.878  | 0.949 | 0.870  | 0.954 | 0.853  | 0.962 |
| 185 | 171 | 0.884  | 0.954 | 0.876  | 0.958 | 0.860  | 0.966 |
| 185 | 172 | 0.891  | 0.958 | 0.883  | 0.962 | 0.867  | 0.969 |
| 185 | 173 | 0.897  | 0.962 | 0.889  | 0.966 | 0.874  | 0.973 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 185 | 174 | 0.904  | 0.966 | 0.896  | 0.970 | 0.881  | 0.976 |
| 185 | 175 | 0.910  | 0.970 | 0.903  | 0.974 | 0.888  | 0.980 |
| 185 | 176 | 0.917  | 0.974 | 0.910  | 0.978 | 0.895  | 0.983 |
| 185 | 177 | 0.923  | 0.978 | 0.917  | 0.981 | 0.902  | 0.986 |
| 185 | 178 | 0.930  | 0.982 | 0.924  | 0.985 | 0.910  | 0.989 |
| 185 | 179 | 0.937  | 0.986 | 0.931  | 0.988 | 0.918  | 0.992 |
| 185 | 180 | 0.944  | 0.989 | 0.938  | 0.991 | 0.925  | 0.994 |
| 185 | 181 | 0.951  | 0.993 | 0.946  | 0.994 | 0.933  | 0.996 |
| 185 | 182 | 0.959  | 0.996 | 0.953  | 0.997 | 0.942  | 0.998 |
| 185 | 183 | 0.966  | 0.998 | 0.961  | 0.999 | 0.951  | 0.999 |
| 185 | 184 | 0.975  | 1.000 | 0.970  | 1.000 | 0.961  | 1.000 |
| 185 | 185 | 0.984  | 1.000 | 0.980  | 1.000 | 0.972  | 1.000 |
| 190 | 0   | 0.000  | 0.016 | 0.000  | 0.019 | 0.000  | 0.028 |
| 190 | 1   | 0.000  | 0.025 | 0.000  | 0.029 | 0.000  | 0.038 |
| 190 | 2   | 0.002  | 0.033 | 0.001  | 0.038 | 0.001  | 0.048 |
| 190 | 3   | 0.004  | 0.040 | 0.003  | 0.045 | 0.002  | 0.057 |
| 190 | 4   | 0.007  | 0.048 | 0.006  | 0.053 | 0.004  | 0.065 |
| 190 | 5   | 0.010  | 0.055 | 0.009  | 0.060 | 0.006  | 0.073 |
| 190 | 6   | 0.014  | 0.061 | 0.012  | 0.067 | 0.008  | 0.080 |
| 190 | 7   | 0.017  | 0.068 | 0.015  | 0.074 | 0.011  | 0.088 |
| 190 | 8   | 0.021  | 0.075 | 0.018  | 0.081 | 0.014  | 0.095 |
| 190 | 9   | 0.025  | 0.081 | 0.022  | 0.088 | 0.017  | 0.102 |
| 190 | 10  | 0.029  | 0.088 | 0.026  | 0.095 | 0.020  | 0.109 |
| 190 | 11  | 0.033  | 0.094 | 0.029  | 0.101 | 0.023  | 0.116 |
| 190 | 12  | 0.037  | 0.100 | 0.033  | 0.108 | 0.026  | 0.123 |
| 190 | 13  | 0.041  | 0.107 | 0.037  | 0.114 | 0.030  | 0.130 |
| 190 | 14  | 0.045  | 0.113 | 0.041  | 0.121 | 0.033  | 0.136 |
| 190 | 15  | 0.049  | 0.119 | 0.045  | 0.127 | 0.037  | 0.143 |
| 190 | 16  | 0.054  | 0.125 | 0.049  | 0.133 | 0.041  | 0.150 |
| 190 | 17  | 0.058  | 0.131 | 0.053  | 0.139 | 0.044  | 0.156 |
| 190 | 18  | 0.062  | 0.137 | 0.057  | 0.146 | 0.048  | 0.163 |
| 190 | 19  | 0.066  | 0.143 | 0.061  | 0.152 | 0.052  | 0.169 |
| 190 | 20  | 0.071  | 0.149 | 0.065  | 0.158 | 0.056  | 0.175 |
| 190 | 21  | 0.075  | 0.155 | 0.070  | 0.164 | 0.060  | 0.182 |
| 190 | 22  | 0.080  | 0.161 | 0.074  | 0.170 | 0.064  | 0.188 |
| 190 | 23  | 0.084  | 0.167 | 0.078  | 0.176 | 0.068  | 0.194 |
| 190 | 24  | 0.089  | 0.173 | 0.083  | 0.182 | 0.072  | 0.200 |
| 190 | 25  | 0.093  | 0.179 | 0.087  | 0.188 | 0.076  | 0.207 |
| 190 | 26  | 0.098  | 0.185 | 0.091  | 0.194 | 0.080  | 0.213 |
| 190 | 27  | 0.102  | 0.191 | 0.096  | 0.200 | 0.084  | 0.219 |
| 190 | 28  | 0.107  | 0.196 | 0.100  | 0.206 | 0.088  | 0.225 |
| 190 | 29  | 0.111  | 0.202 | 0.105  | 0.212 | 0.092  | 0.231 |
| 190 | 30  | 0.116  | 0.208 | 0.109  | 0.218 | 0.096  | 0.237 |
| 190 | 31  | 0.121  | 0.214 | 0.114  | 0.224 | 0.101  | 0.243 |
| 190 | 32  | 0.125  | 0.220 | 0.118  | 0.229 | 0.105  | 0.249 |
| 190 | 33  | 0.130  | 0.225 | 0.123  | 0.235 | 0.109  | 0.255 |
| 190 | 34  | 0.135  | 0.231 | 0.127  | 0.241 | 0.114  | 0.261 |
| 190 | 35  | 0.139  | 0.237 | 0.132  | 0.247 | 0.118  | 0.267 |
| 190 | 36  | 0.144  | 0.242 | 0.136  | 0.253 | 0.122  | 0.273 |
| 190 | 37  | 0.149  | 0.248 | 0.141  | 0.258 | 0.127  | 0.279 |
| 190 | 38  | 0.153  | 0.254 | 0.146  | 0.264 | 0.131  | 0.285 |
| 190 | 39  | 0.158  | 0.259 | 0.150  | 0.270 | 0.135  | 0.290 |
| 190 | 40  | 0.163  | 0.265 | 0.155  | 0.275 | 0.140  | 0.296 |
| 190 | 41  | 0.168  | 0.271 | 0.160  | 0.281 | 0.144  | 0.302 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 190 | 42 | 0.172  | 0.276 | 0.164  | 0.287 | 0.149  | 0.306 |
| 190 | 43 | 0.177  | 0.282 | 0.169  | 0.292 | 0.153  | 0.314 |
| 190 | 44 | 0.182  | 0.288 | 0.174  | 0.298 | 0.158  | 0.319 |
| 190 | 45 | 0.187  | 0.293 | 0.178  | 0.304 | 0.162  | 0.325 |
| 190 | 46 | 0.192  | 0.299 | 0.183  | 0.309 | 0.167  | 0.331 |
| 190 | 47 | 0.196  | 0.304 | 0.188  | 0.315 | 0.171  | 0.336 |
| 190 | 48 | 0.201  | 0.310 | 0.193  | 0.321 | 0.176  | 0.342 |
| 190 | 49 | 0.206  | 0.315 | 0.197  | 0.326 | 0.181  | 0.348 |
| 190 | 50 | 0.211  | 0.321 | 0.202  | 0.332 | 0.185  | 0.353 |
| 190 | 51 | 0.216  | 0.326 | 0.207  | 0.337 | 0.190  | 0.359 |
| 190 | 52 | 0.221  | 0.332 | 0.212  | 0.343 | 0.194  | 0.365 |
| 190 | 53 | 0.226  | 0.337 | 0.216  | 0.348 | 0.199  | 0.370 |
| 190 | 54 | 0.231  | 0.343 | 0.221  | 0.354 | 0.204  | 0.376 |
| 190 | 55 | 0.235  | 0.348 | 0.226  | 0.360 | 0.208  | 0.381 |
| 190 | 56 | 0.240  | 0.354 | 0.231  | 0.365 | 0.213  | 0.387 |
| 190 | 57 | 0.245  | 0.359 | 0.236  | 0.371 | 0.218  | 0.393 |
| 190 | 58 | 0.250  | 0.365 | 0.241  | 0.376 | 0.222  | 0.398 |
| 190 | 59 | 0.255  | 0.370 | 0.246  | 0.382 | 0.227  | 0.404 |
| 190 | 60 | 0.260  | 0.376 | 0.250  | 0.387 | 0.232  | 0.409 |
| 190 | 61 | 0.265  | 0.381 | 0.255  | 0.392 | 0.237  | 0.415 |
| 190 | 62 | 0.270  | 0.387 | 0.260  | 0.398 | 0.241  | 0.420 |
| 190 | 63 | 0.275  | 0.392 | 0.265  | 0.403 | 0.246  | 0.426 |
| 190 | 64 | 0.280  | 0.398 | 0.270  | 0.409 | 0.251  | 0.431 |
| 190 | 65 | 0.285  | 0.403 | 0.275  | 0.414 | 0.256  | 0.437 |
| 190 | 66 | 0.290  | 0.408 | 0.280  | 0.420 | 0.261  | 0.442 |
| 190 | 67 | 0.295  | 0.414 | 0.285  | 0.425 | 0.265  | 0.447 |
| 190 | 68 | 0.300  | 0.419 | 0.290  | 0.430 | 0.270  | 0.453 |
| 190 | 69 | 0.305  | 0.424 | 0.295  | 0.436 | 0.275  | 0.458 |
| 190 | 70 | 0.310  | 0.430 | 0.300  | 0.441 | 0.280  | 0.464 |
| 190 | 71 | 0.315  | 0.435 | 0.305  | 0.447 | 0.285  | 0.469 |
| 190 | 72 | 0.320  | 0.441 | 0.310  | 0.452 | 0.290  | 0.474 |
| 190 | 73 | 0.325  | 0.446 | 0.315  | 0.457 | 0.295  | 0.480 |
| 190 | 74 | 0.330  | 0.451 | 0.320  | 0.463 | 0.299  | 0.485 |
| 190 | 75 | 0.335  | 0.457 | 0.325  | 0.468 | 0.304  | 0.490 |
| 190 | 76 | 0.340  | 0.462 | 0.330  | 0.473 | 0.309  | 0.496 |
| 190 | 77 | 0.345  | 0.467 | 0.335  | 0.479 | 0.314  | 0.501 |
| 190 | 78 | 0.351  | 0.473 | 0.340  | 0.484 | 0.319  | 0.506 |
| 190 | 79 | 0.356  | 0.478 | 0.345  | 0.489 | 0.324  | 0.512 |
| 190 | 80 | 0.361  | 0.483 | 0.350  | 0.495 | 0.329  | 0.517 |
| 190 | 81 | 0.366  | 0.489 | 0.355  | 0.500 | 0.334  | 0.522 |
| 190 | 82 | 0.371  | 0.494 | 0.360  | 0.505 | 0.339  | 0.528 |
| 190 | 83 | 0.376  | 0.499 | 0.365  | 0.511 | 0.344  | 0.533 |
| 190 | 84 | 0.381  | 0.504 | 0.370  | 0.516 | 0.349  | 0.538 |
| 190 | 85 | 0.386  | 0.510 | 0.375  | 0.521 | 0.354  | 0.543 |
| 190 | 86 | 0.391  | 0.515 | 0.380  | 0.526 | 0.359  | 0.549 |
| 190 | 87 | 0.397  | 0.520 | 0.386  | 0.532 | 0.364  | 0.554 |
| 190 | 88 | 0.402  | 0.525 | 0.391  | 0.537 | 0.369  | 0.559 |
| 190 | 89 | 0.407  | 0.531 | 0.396  | 0.542 | 0.374  | 0.564 |
| 190 | 90 | 0.412  | 0.536 | 0.401  | 0.547 | 0.379  | 0.569 |
| 190 | 91 | 0.417  | 0.541 | 0.406  | 0.552 | 0.384  | 0.574 |
| 190 | 92 | 0.422  | 0.546 | 0.411  | 0.558 | 0.390  | 0.580 |
| 190 | 93 | 0.428  | 0.552 | 0.416  | 0.563 | 0.395  | 0.585 |
| 190 | 94 | 0.433  | 0.557 | 0.422  | 0.568 | 0.400  | 0.590 |
| 190 | 95 | 0.438  | 0.562 | 0.427  | 0.573 | 0.405  | 0.595 |
| 190 | 96 | 0.443  | 0.567 | 0.432  | 0.578 | 0.410  | 0.600 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 190 | 97  | 0.448  | 0.572 | 0.437  | 0.584 | 0.415  | 0.605 |
| 190 | 98  | 0.454  | 0.578 | 0.442  | 0.589 | 0.420  | 0.610 |
| 190 | 99  | 0.459  | 0.583 | 0.448  | 0.594 | 0.426  | 0.616 |
| 190 | 100 | 0.464  | 0.588 | 0.453  | 0.599 | 0.431  | 0.621 |
| 190 | 101 | 0.469  | 0.593 | 0.458  | 0.604 | 0.436  | 0.626 |
| 190 | 102 | 0.475  | 0.598 | 0.463  | 0.609 | 0.441  | 0.631 |
| 190 | 103 | 0.480  | 0.603 | 0.468  | 0.614 | 0.446  | 0.636 |
| 190 | 104 | 0.485  | 0.609 | 0.474  | 0.620 | 0.451  | 0.641 |
| 190 | 105 | 0.490  | 0.614 | 0.479  | 0.625 | 0.457  | 0.646 |
| 190 | 106 | 0.496  | 0.619 | 0.484  | 0.630 | 0.462  | 0.651 |
| 190 | 107 | 0.501  | 0.624 | 0.489  | 0.635 | 0.467  | 0.656 |
| 190 | 108 | 0.506  | 0.629 | 0.495  | 0.640 | 0.472  | 0.661 |
| 190 | 109 | 0.511  | 0.634 | 0.500  | 0.645 | 0.478  | 0.666 |
| 190 | 110 | 0.517  | 0.639 | 0.505  | 0.650 | 0.483  | 0.671 |
| 190 | 111 | 0.522  | 0.644 | 0.511  | 0.655 | 0.488  | 0.676 |
| 190 | 112 | 0.527  | 0.649 | 0.516  | 0.660 | 0.494  | 0.681 |
| 190 | 113 | 0.533  | 0.655 | 0.521  | 0.665 | 0.499  | 0.686 |
| 190 | 114 | 0.538  | 0.660 | 0.527  | 0.670 | 0.504  | 0.691 |
| 190 | 115 | 0.543  | 0.665 | 0.532  | 0.675 | 0.510  | 0.696 |
| 190 | 116 | 0.549  | 0.670 | 0.537  | 0.680 | 0.515  | 0.701 |
| 190 | 117 | 0.554  | 0.675 | 0.543  | 0.685 | 0.520  | 0.705 |
| 190 | 118 | 0.559  | 0.680 | 0.548  | 0.690 | 0.526  | 0.710 |
| 190 | 119 | 0.565  | 0.685 | 0.553  | 0.695 | 0.531  | 0.715 |
| 190 | 120 | 0.570  | 0.690 | 0.559  | 0.700 | 0.536  | 0.720 |
| 190 | 121 | 0.576  | 0.695 | 0.564  | 0.705 | 0.542  | 0.725 |
| 190 | 122 | 0.581  | 0.700 | 0.570  | 0.710 | 0.547  | 0.730 |
| 190 | 123 | 0.586  | 0.705 | 0.575  | 0.715 | 0.553  | 0.735 |
| 190 | 124 | 0.592  | 0.710 | 0.580  | 0.720 | 0.558  | 0.739 |
| 190 | 125 | 0.597  | 0.715 | 0.586  | 0.725 | 0.563  | 0.744 |
| 190 | 126 | 0.602  | 0.720 | 0.591  | 0.730 | 0.569  | 0.749 |
| 190 | 127 | 0.608  | 0.725 | 0.597  | 0.735 | 0.574  | 0.754 |
| 190 | 128 | 0.613  | 0.730 | 0.602  | 0.740 | 0.580  | 0.759 |
| 190 | 129 | 0.619  | 0.735 | 0.608  | 0.745 | 0.585  | 0.763 |
| 190 | 130 | 0.624  | 0.740 | 0.613  | 0.750 | 0.591  | 0.768 |
| 190 | 131 | 0.630  | 0.745 | 0.618  | 0.754 | 0.596  | 0.773 |
| 190 | 132 | 0.635  | 0.750 | 0.624  | 0.759 | 0.602  | 0.778 |
| 190 | 133 | 0.641  | 0.755 | 0.629  | 0.764 | 0.607  | 0.782 |
| 190 | 134 | 0.646  | 0.760 | 0.635  | 0.769 | 0.613  | 0.787 |
| 190 | 135 | 0.652  | 0.765 | 0.640  | 0.774 | 0.619  | 0.792 |
| 190 | 136 | 0.657  | 0.769 | 0.646  | 0.779 | 0.624  | 0.796 |
| 190 | 137 | 0.663  | 0.774 | 0.652  | 0.784 | 0.630  | 0.801 |
| 190 | 138 | 0.668  | 0.779 | 0.657  | 0.788 | 0.635  | 0.806 |
| 190 | 139 | 0.674  | 0.784 | 0.663  | 0.793 | 0.641  | 0.810 |
| 190 | 140 | 0.679  | 0.789 | 0.668  | 0.798 | 0.647  | 0.815 |
| 190 | 141 | 0.685  | 0.794 | 0.674  | 0.803 | 0.652  | 0.819 |
| 190 | 142 | 0.690  | 0.799 | 0.679  | 0.807 | 0.658  | 0.824 |
| 190 | 143 | 0.696  | 0.804 | 0.685  | 0.812 | 0.664  | 0.829 |
| 190 | 144 | 0.701  | 0.808 | 0.691  | 0.817 | 0.669  | 0.833 |
| 190 | 145 | 0.707  | 0.813 | 0.696  | 0.822 | 0.675  | 0.838 |
| 190 | 146 | 0.712  | 0.818 | 0.702  | 0.826 | 0.681  | 0.842 |
| 190 | 147 | 0.718  | 0.823 | 0.708  | 0.831 | 0.686  | 0.847 |
| 190 | 148 | 0.724  | 0.828 | 0.713  | 0.836 | 0.692  | 0.851 |
| 190 | 149 | 0.729  | 0.832 | 0.719  | 0.840 | 0.698  | 0.856 |
| 190 | 150 | 0.735  | 0.837 | 0.725  | 0.845 | 0.704  | 0.860 |
| 190 | 151 | 0.741  | 0.842 | 0.730  | 0.850 | 0.710  | 0.865 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 190 | 152 | 0.746  | 0.847 | 0.736  | 0.854 | 0.715  | 0.869 |
| 190 | 153 | 0.752  | 0.851 | 0.742  | 0.859 | 0.721  | 0.873 |
| 190 | 154 | 0.758  | 0.856 | 0.747  | 0.864 | 0.727  | 0.878 |
| 190 | 155 | 0.763  | 0.861 | 0.753  | 0.868 | 0.733  | 0.882 |
| 190 | 156 | 0.769  | 0.865 | 0.759  | 0.873 | 0.739  | 0.886 |
| 190 | 157 | 0.775  | 0.870 | 0.765  | 0.877 | 0.745  | 0.891 |
| 190 | 158 | 0.780  | 0.875 | 0.771  | 0.882 | 0.751  | 0.895 |
| 190 | 159 | 0.786  | 0.879 | 0.776  | 0.886 | 0.757  | 0.899 |
| 190 | 160 | 0.792  | 0.884 | 0.782  | 0.891 | 0.763  | 0.904 |
| 190 | 161 | 0.798  | 0.889 | 0.788  | 0.895 | 0.769  | 0.908 |
| 190 | 162 | 0.804  | 0.893 | 0.794  | 0.900 | 0.775  | 0.912 |
| 190 | 163 | 0.809  | 0.898 | 0.800  | 0.904 | 0.781  | 0.916 |
| 190 | 164 | 0.815  | 0.902 | 0.806  | 0.909 | 0.787  | 0.920 |
| 190 | 165 | 0.821  | 0.907 | 0.812  | 0.913 | 0.793  | 0.924 |
| 190 | 166 | 0.827  | 0.911 | 0.818  | 0.917 | 0.800  | 0.928 |
| 190 | 167 | 0.833  | 0.916 | 0.824  | 0.922 | 0.806  | 0.932 |
| 190 | 168 | 0.839  | 0.920 | 0.830  | 0.926 | 0.812  | 0.936 |
| 190 | 169 | 0.845  | 0.925 | 0.836  | 0.930 | 0.818  | 0.940 |
| 190 | 170 | 0.851  | 0.929 | 0.842  | 0.935 | 0.825  | 0.944 |
| 190 | 171 | 0.857  | 0.934 | 0.848  | 0.939 | 0.831  | 0.948 |
| 190 | 172 | 0.863  | 0.938 | 0.854  | 0.943 | 0.837  | 0.952 |
| 190 | 173 | 0.869  | 0.942 | 0.861  | 0.947 | 0.844  | 0.956 |
| 190 | 174 | 0.875  | 0.946 | 0.867  | 0.951 | 0.850  | 0.959 |
| 190 | 175 | 0.881  | 0.951 | 0.873  | 0.955 | 0.857  | 0.963 |
| 190 | 176 | 0.887  | 0.955 | 0.879  | 0.959 | 0.864  | 0.967 |
| 190 | 177 | 0.893  | 0.959 | 0.886  | 0.963 | 0.870  | 0.970 |
| 190 | 178 | 0.900  | 0.963 | 0.892  | 0.967 | 0.877  | 0.974 |
| 190 | 179 | 0.906  | 0.967 | 0.899  | 0.971 | 0.884  | 0.977 |
| 190 | 180 | 0.912  | 0.971 | 0.905  | 0.974 | 0.891  | 0.980 |
| 190 | 181 | 0.919  | 0.975 | 0.912  | 0.978 | 0.898  | 0.983 |
| 190 | 182 | 0.925  | 0.979 | 0.919  | 0.982 | 0.905  | 0.986 |
| 190 | 183 | 0.932  | 0.983 | 0.926  | 0.985 | 0.912  | 0.989 |
| 190 | 184 | 0.939  | 0.986 | 0.933  | 0.988 | 0.920  | 0.992 |
| 190 | 185 | 0.945  | 0.990 | 0.940  | 0.991 | 0.927  | 0.994 |
| 190 | 186 | 0.952  | 0.993 | 0.947  | 0.994 | 0.935  | 0.996 |
| 190 | 187 | 0.960  | 0.996 | 0.955  | 0.997 | 0.943  | 0.998 |
| 190 | 188 | 0.967  | 0.998 | 0.962  | 0.999 | 0.952  | 0.999 |
| 190 | 189 | 0.975  | 1.000 | 0.971  | 1.000 | 0.962  | 1.000 |
| 190 | 190 | 0.984  | 1.000 | 0.981  | 1.000 | 0.972  | 1.000 |
| 195 | 0   | 0.000  | 0.015 | 0.000  | 0.019 | 0.000  | 0.027 |
| 195 | 1   | 0.000  | 0.024 | 0.000  | 0.028 | 0.000  | 0.037 |
| 195 | 2   | 0.002  | 0.032 | 0.001  | 0.037 | 0.001  | 0.047 |
| 195 | 3   | 0.004  | 0.039 | 0.003  | 0.044 | 0.002  | 0.055 |
| 195 | 4   | 0.007  | 0.046 | 0.006  | 0.052 | 0.003  | 0.063 |
| 195 | 5   | 0.010  | 0.053 | 0.008  | 0.059 | 0.006  | 0.071 |
| 195 | 6   | 0.013  | 0.060 | 0.011  | 0.066 | 0.008  | 0.078 |
| 195 | 7   | 0.017  | 0.066 | 0.015  | 0.073 | 0.011  | 0.086 |
| 195 | 8   | 0.021  | 0.073 | 0.018  | 0.079 | 0.013  | 0.093 |
| 195 | 9   | 0.024  | 0.079 | 0.021  | 0.086 | 0.016  | 0.100 |
| 195 | 10  | 0.028  | 0.085 | 0.025  | 0.092 | 0.019  | 0.107 |
| 195 | 11  | 0.032  | 0.092 | 0.028  | 0.099 | 0.022  | 0.113 |
| 195 | 12  | 0.036  | 0.098 | 0.032  | 0.105 | 0.026  | 0.120 |
| 195 | 13  | 0.040  | 0.104 | 0.036  | 0.111 | 0.029  | 0.127 |
| 195 | 14  | 0.044  | 0.110 | 0.040  | 0.118 | 0.033  | 0.133 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|----|--------|-------|--------|-------|--------|-------|
|     |    | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 195 | 15 | 0.048  | 0.116 | 0.044  | 0.124 | 0.036  | 0.140 |
| 195 | 16 | 0.052  | 0.122 | 0.048  | 0.130 | 0.040  | 0.146 |
| 195 | 17 | 0.056  | 0.128 | 0.052  | 0.136 | 0.043  | 0.152 |
| 195 | 18 | 0.061  | 0.134 | 0.056  | 0.142 | 0.047  | 0.159 |
| 195 | 19 | 0.065  | 0.140 | 0.060  | 0.148 | 0.051  | 0.165 |
| 195 | 20 | 0.069  | 0.146 | 0.064  | 0.154 | 0.054  | 0.171 |
| 195 | 21 | 0.073  | 0.151 | 0.068  | 0.160 | 0.058  | 0.177 |
| 195 | 22 | 0.078  | 0.157 | 0.072  | 0.166 | 0.062  | 0.183 |
| 195 | 23 | 0.082  | 0.163 | 0.076  | 0.172 | 0.066  | 0.190 |
| 195 | 24 | 0.086  | 0.169 | 0.080  | 0.178 | 0.070  | 0.196 |
| 195 | 25 | 0.091  | 0.174 | 0.085  | 0.183 | 0.074  | 0.202 |
| 195 | 26 | 0.095  | 0.180 | 0.089  | 0.189 | 0.078  | 0.208 |
| 195 | 27 | 0.100  | 0.186 | 0.093  | 0.195 | 0.082  | 0.214 |
| 195 | 28 | 0.104  | 0.192 | 0.098  | 0.201 | 0.086  | 0.220 |
| 195 | 29 | 0.108  | 0.197 | 0.102  | 0.207 | 0.090  | 0.225 |
| 195 | 30 | 0.113  | 0.203 | 0.106  | 0.212 | 0.094  | 0.231 |
| 195 | 31 | 0.117  | 0.208 | 0.111  | 0.218 | 0.098  | 0.237 |
| 195 | 32 | 0.122  | 0.214 | 0.115  | 0.224 | 0.102  | 0.243 |
| 195 | 33 | 0.127  | 0.220 | 0.119  | 0.229 | 0.106  | 0.249 |
| 195 | 34 | 0.131  | 0.225 | 0.124  | 0.235 | 0.111  | 0.255 |
| 195 | 35 | 0.136  | 0.231 | 0.128  | 0.241 | 0.115  | 0.260 |
| 195 | 36 | 0.140  | 0.236 | 0.133  | 0.246 | 0.119  | 0.266 |
| 195 | 37 | 0.145  | 0.242 | 0.137  | 0.252 | 0.123  | 0.272 |
| 195 | 38 | 0.149  | 0.247 | 0.142  | 0.258 | 0.127  | 0.278 |
| 195 | 39 | 0.154  | 0.253 | 0.146  | 0.263 | 0.132  | 0.283 |
| 195 | 40 | 0.159  | 0.258 | 0.151  | 0.269 | 0.136  | 0.289 |
| 195 | 41 | 0.163  | 0.264 | 0.155  | 0.274 | 0.140  | 0.295 |
| 195 | 42 | 0.168  | 0.269 | 0.160  | 0.280 | 0.145  | 0.300 |
| 195 | 43 | 0.173  | 0.275 | 0.164  | 0.285 | 0.149  | 0.306 |
| 195 | 44 | 0.177  | 0.280 | 0.169  | 0.291 | 0.154  | 0.312 |
| 195 | 45 | 0.182  | 0.286 | 0.174  | 0.296 | 0.158  | 0.317 |
| 195 | 46 | 0.187  | 0.291 | 0.178  | 0.302 | 0.162  | 0.323 |
| 195 | 47 | 0.191  | 0.297 | 0.183  | 0.307 | 0.167  | 0.328 |
| 195 | 48 | 0.196  | 0.302 | 0.187  | 0.313 | 0.171  | 0.334 |
| 195 | 49 | 0.201  | 0.308 | 0.192  | 0.318 | 0.176  | 0.339 |
| 195 | 50 | 0.205  | 0.313 | 0.197  | 0.324 | 0.180  | 0.345 |
| 195 | 51 | 0.210  | 0.318 | 0.201  | 0.329 | 0.185  | 0.350 |
| 195 | 52 | 0.215  | 0.324 | 0.206  | 0.335 | 0.189  | 0.356 |
| 195 | 53 | 0.220  | 0.329 | 0.211  | 0.340 | 0.194  | 0.361 |
| 195 | 54 | 0.224  | 0.335 | 0.215  | 0.345 | 0.198  | 0.367 |
| 195 | 55 | 0.229  | 0.340 | 0.220  | 0.351 | 0.203  | 0.372 |
| 195 | 56 | 0.234  | 0.345 | 0.225  | 0.356 | 0.207  | 0.378 |
| 195 | 57 | 0.239  | 0.351 | 0.230  | 0.362 | 0.212  | 0.383 |
| 195 | 58 | 0.244  | 0.356 | 0.234  | 0.367 | 0.216  | 0.389 |
| 195 | 59 | 0.248  | 0.361 | 0.239  | 0.372 | 0.221  | 0.394 |
| 195 | 60 | 0.253  | 0.367 | 0.244  | 0.378 | 0.226  | 0.399 |
| 195 | 61 | 0.258  | 0.372 | 0.248  | 0.383 | 0.230  | 0.405 |
| 195 | 62 | 0.263  | 0.377 | 0.253  | 0.388 | 0.235  | 0.410 |
| 195 | 63 | 0.268  | 0.382 | 0.258  | 0.394 | 0.240  | 0.416 |
| 195 | 64 | 0.273  | 0.388 | 0.263  | 0.399 | 0.244  | 0.421 |
| 195 | 65 | 0.277  | 0.393 | 0.268  | 0.404 | 0.249  | 0.426 |
| 195 | 66 | 0.282  | 0.398 | 0.272  | 0.410 | 0.254  | 0.431 |
| 195 | 67 | 0.287  | 0.404 | 0.277  | 0.415 | 0.258  | 0.437 |
| 195 | 68 | 0.292  | 0.409 | 0.282  | 0.420 | 0.263  | 0.442 |
| 195 | 69 | 0.297  | 0.414 | 0.287  | 0.425 | 0.268  | 0.447 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 195 | 70  | 0.302  | 0.419 | 0.292  | 0.431 | 0.272  | 0.453 |
| 195 | 71  | 0.307  | 0.425 | 0.297  | 0.436 | 0.277  | 0.458 |
| 195 | 72  | 0.312  | 0.430 | 0.301  | 0.441 | 0.282  | 0.463 |
| 195 | 73  | 0.317  | 0.435 | 0.306  | 0.446 | 0.287  | 0.468 |
| 195 | 74  | 0.321  | 0.440 | 0.311  | 0.452 | 0.291  | 0.474 |
| 195 | 75  | 0.326  | 0.446 | 0.316  | 0.457 | 0.296  | 0.479 |
| 195 | 76  | 0.331  | 0.451 | 0.321  | 0.462 | 0.301  | 0.484 |
| 195 | 77  | 0.336  | 0.456 | 0.326  | 0.467 | 0.306  | 0.489 |
| 195 | 78  | 0.341  | 0.461 | 0.331  | 0.472 | 0.310  | 0.495 |
| 195 | 79  | 0.346  | 0.466 | 0.336  | 0.478 | 0.315  | 0.500 |
| 195 | 80  | 0.351  | 0.471 | 0.340  | 0.483 | 0.320  | 0.505 |
| 195 | 81  | 0.356  | 0.477 | 0.345  | 0.488 | 0.325  | 0.510 |
| 195 | 82  | 0.361  | 0.482 | 0.350  | 0.493 | 0.330  | 0.515 |
| 195 | 83  | 0.366  | 0.487 | 0.355  | 0.498 | 0.335  | 0.520 |
| 195 | 84  | 0.371  | 0.492 | 0.360  | 0.503 | 0.340  | 0.525 |
| 195 | 85  | 0.376  | 0.497 | 0.365  | 0.509 | 0.344  | 0.531 |
| 195 | 86  | 0.381  | 0.502 | 0.370  | 0.514 | 0.349  | 0.536 |
| 195 | 87  | 0.386  | 0.508 | 0.375  | 0.519 | 0.354  | 0.541 |
| 195 | 88  | 0.391  | 0.513 | 0.380  | 0.524 | 0.359  | 0.546 |
| 195 | 89  | 0.396  | 0.518 | 0.385  | 0.529 | 0.364  | 0.551 |
| 195 | 90  | 0.401  | 0.523 | 0.390  | 0.534 | 0.369  | 0.556 |
| 195 | 91  | 0.406  | 0.528 | 0.395  | 0.539 | 0.374  | 0.561 |
| 195 | 92  | 0.411  | 0.533 | 0.400  | 0.544 | 0.379  | 0.566 |
| 195 | 93  | 0.416  | 0.538 | 0.405  | 0.549 | 0.384  | 0.571 |
| 195 | 94  | 0.421  | 0.543 | 0.410  | 0.555 | 0.389  | 0.576 |
| 195 | 95  | 0.426  | 0.548 | 0.415  | 0.560 | 0.394  | 0.581 |
| 195 | 96  | 0.431  | 0.554 | 0.420  | 0.565 | 0.399  | 0.586 |
| 195 | 97  | 0.436  | 0.559 | 0.425  | 0.570 | 0.404  | 0.591 |
| 195 | 98  | 0.441  | 0.564 | 0.430  | 0.575 | 0.409  | 0.596 |
| 195 | 99  | 0.446  | 0.569 | 0.435  | 0.580 | 0.414  | 0.601 |
| 195 | 100 | 0.452  | 0.574 | 0.440  | 0.585 | 0.419  | 0.606 |
| 195 | 101 | 0.457  | 0.579 | 0.445  | 0.590 | 0.424  | 0.611 |
| 195 | 102 | 0.462  | 0.584 | 0.451  | 0.595 | 0.429  | 0.616 |
| 195 | 103 | 0.467  | 0.589 | 0.456  | 0.600 | 0.434  | 0.621 |
| 195 | 104 | 0.472  | 0.594 | 0.461  | 0.605 | 0.439  | 0.626 |
| 195 | 105 | 0.477  | 0.599 | 0.466  | 0.610 | 0.444  | 0.631 |
| 195 | 106 | 0.482  | 0.604 | 0.471  | 0.615 | 0.449  | 0.636 |
| 195 | 107 | 0.487  | 0.609 | 0.476  | 0.620 | 0.454  | 0.641 |
| 195 | 108 | 0.492  | 0.614 | 0.481  | 0.625 | 0.459  | 0.646 |
| 195 | 109 | 0.498  | 0.619 | 0.486  | 0.630 | 0.464  | 0.651 |
| 195 | 110 | 0.503  | 0.624 | 0.491  | 0.635 | 0.469  | 0.656 |
| 195 | 111 | 0.508  | 0.629 | 0.497  | 0.640 | 0.475  | 0.660 |
| 195 | 112 | 0.513  | 0.634 | 0.502  | 0.645 | 0.480  | 0.665 |
| 195 | 113 | 0.518  | 0.639 | 0.507  | 0.650 | 0.485  | 0.670 |
| 195 | 114 | 0.523  | 0.644 | 0.512  | 0.655 | 0.490  | 0.675 |
| 195 | 115 | 0.529  | 0.649 | 0.517  | 0.660 | 0.495  | 0.680 |
| 195 | 116 | 0.534  | 0.654 | 0.522  | 0.664 | 0.500  | 0.685 |
| 195 | 117 | 0.539  | 0.659 | 0.528  | 0.669 | 0.505  | 0.690 |
| 195 | 118 | 0.544  | 0.664 | 0.533  | 0.674 | 0.511  | 0.694 |
| 195 | 119 | 0.549  | 0.669 | 0.538  | 0.679 | 0.516  | 0.699 |
| 195 | 120 | 0.554  | 0.674 | 0.543  | 0.684 | 0.521  | 0.704 |
| 195 | 121 | 0.560  | 0.679 | 0.548  | 0.689 | 0.526  | 0.709 |
| 195 | 122 | 0.565  | 0.683 | 0.554  | 0.694 | 0.532  | 0.713 |
| 195 | 123 | 0.570  | 0.688 | 0.559  | 0.699 | 0.537  | 0.718 |
| 195 | 124 | 0.575  | 0.693 | 0.564  | 0.703 | 0.542  | 0.723 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 195 | 125 | 0.581  | 0.698 | 0.569  | 0.708 | 0.547  | 0.728 |
| 195 | 126 | 0.586  | 0.703 | 0.575  | 0.713 | 0.553  | 0.732 |
| 195 | 127 | 0.591  | 0.708 | 0.580  | 0.718 | 0.558  | 0.737 |
| 195 | 128 | 0.596  | 0.713 | 0.585  | 0.723 | 0.563  | 0.742 |
| 195 | 129 | 0.602  | 0.718 | 0.590  | 0.728 | 0.569  | 0.746 |
| 195 | 130 | 0.607  | 0.723 | 0.596  | 0.732 | 0.574  | 0.751 |
| 195 | 131 | 0.612  | 0.727 | 0.601  | 0.737 | 0.579  | 0.756 |
| 195 | 132 | 0.618  | 0.732 | 0.606  | 0.742 | 0.584  | 0.760 |
| 195 | 133 | 0.623  | 0.737 | 0.612  | 0.747 | 0.590  | 0.765 |
| 195 | 134 | 0.628  | 0.742 | 0.617  | 0.752 | 0.595  | 0.770 |
| 195 | 135 | 0.633  | 0.747 | 0.622  | 0.756 | 0.601  | 0.774 |
| 195 | 136 | 0.639  | 0.752 | 0.628  | 0.761 | 0.606  | 0.779 |
| 195 | 137 | 0.644  | 0.756 | 0.633  | 0.766 | 0.611  | 0.784 |
| 195 | 138 | 0.649  | 0.761 | 0.638  | 0.770 | 0.617  | 0.788 |
| 195 | 139 | 0.655  | 0.766 | 0.644  | 0.775 | 0.622  | 0.793 |
| 195 | 140 | 0.660  | 0.771 | 0.649  | 0.780 | 0.628  | 0.797 |
| 195 | 141 | 0.665  | 0.776 | 0.655  | 0.785 | 0.633  | 0.802 |
| 195 | 142 | 0.671  | 0.780 | 0.660  | 0.789 | 0.639  | 0.806 |
| 195 | 143 | 0.676  | 0.785 | 0.665  | 0.794 | 0.644  | 0.811 |
| 195 | 144 | 0.682  | 0.790 | 0.671  | 0.799 | 0.650  | 0.815 |
| 195 | 145 | 0.687  | 0.795 | 0.676  | 0.803 | 0.655  | 0.820 |
| 195 | 146 | 0.692  | 0.799 | 0.682  | 0.808 | 0.661  | 0.824 |
| 195 | 147 | 0.698  | 0.804 | 0.687  | 0.813 | 0.666  | 0.829 |
| 195 | 148 | 0.703  | 0.809 | 0.693  | 0.817 | 0.672  | 0.833 |
| 195 | 149 | 0.705  | 0.813 | 0.698  | 0.822 | 0.677  | 0.838 |
| 195 | 150 | 0.714  | 0.818 | 0.704  | 0.826 | 0.683  | 0.842 |
| 195 | 151 | 0.720  | 0.823 | 0.709  | 0.831 | 0.688  | 0.846 |
| 195 | 152 | 0.725  | 0.827 | 0.715  | 0.836 | 0.694  | 0.851 |
| 195 | 153 | 0.731  | 0.832 | 0.720  | 0.840 | 0.700  | 0.855 |
| 195 | 154 | 0.736  | 0.837 | 0.726  | 0.845 | 0.705  | 0.860 |
| 195 | 155 | 0.742  | 0.841 | 0.731  | 0.849 | 0.711  | 0.864 |
| 195 | 156 | 0.747  | 0.846 | 0.737  | 0.854 | 0.717  | 0.868 |
| 195 | 157 | 0.753  | 0.851 | 0.742  | 0.858 | 0.722  | 0.873 |
| 195 | 158 | 0.758  | 0.855 | 0.748  | 0.863 | 0.728  | 0.877 |
| 195 | 159 | 0.764  | 0.860 | 0.754  | 0.867 | 0.734  | 0.881 |
| 195 | 160 | 0.769  | 0.864 | 0.759  | 0.872 | 0.740  | 0.885 |
| 195 | 161 | 0.775  | 0.869 | 0.765  | 0.876 | 0.745  | 0.889 |
| 195 | 162 | 0.780  | 0.873 | 0.771  | 0.881 | 0.751  | 0.894 |
| 195 | 163 | 0.786  | 0.878 | 0.776  | 0.885 | 0.757  | 0.898 |
| 195 | 164 | 0.792  | 0.883 | 0.782  | 0.889 | 0.763  | 0.902 |
| 195 | 165 | 0.797  | 0.887 | 0.788  | 0.894 | 0.769  | 0.906 |
| 195 | 166 | 0.803  | 0.892 | 0.793  | 0.898 | 0.775  | 0.910 |
| 195 | 167 | 0.808  | 0.896 | 0.799  | 0.902 | 0.780  | 0.914 |
| 195 | 168 | 0.814  | 0.900 | 0.805  | 0.907 | 0.786  | 0.918 |
| 195 | 169 | 0.820  | 0.905 | 0.811  | 0.911 | 0.792  | 0.922 |
| 195 | 170 | 0.826  | 0.909 | 0.817  | 0.915 | 0.798  | 0.926 |
| 195 | 171 | 0.831  | 0.914 | 0.822  | 0.920 | 0.804  | 0.930 |
| 195 | 172 | 0.837  | 0.918 | 0.828  | 0.924 | 0.810  | 0.934 |
| 195 | 173 | 0.843  | 0.922 | 0.834  | 0.928 | 0.817  | 0.938 |
| 195 | 174 | 0.849  | 0.927 | 0.840  | 0.932 | 0.823  | 0.942 |
| 195 | 175 | 0.854  | 0.931 | 0.846  | 0.936 | 0.829  | 0.946 |
| 195 | 176 | 0.860  | 0.935 | 0.852  | 0.940 | 0.835  | 0.949 |
| 195 | 177 | 0.866  | 0.939 | 0.858  | 0.944 | 0.841  | 0.953 |
| 195 | 178 | 0.872  | 0.944 | 0.864  | 0.948 | 0.848  | 0.957 |
| 195 | 179 | 0.878  | 0.948 | 0.870  | 0.952 | 0.854  | 0.960 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |       | 95% CL |       | 99% CL |       |
|-----|-----|--------|-------|--------|-------|--------|-------|
|     |     | LOWER  | UPPER | LOWER  | UPPER | LOWER  | UPPER |
| 195 | 180 | 0.884  | 0.952 | 0.876  | 0.956 | 0.860  | 0.964 |
| 195 | 181 | 0.890  | 0.956 | 0.882  | 0.960 | 0.867  | 0.967 |
| 195 | 182 | 0.896  | 0.960 | 0.889  | 0.964 | 0.873  | 0.971 |
| 195 | 183 | 0.902  | 0.964 | 0.895  | 0.968 | 0.880  | 0.974 |
| 195 | 184 | 0.908  | 0.968 | 0.901  | 0.972 | 0.887  | 0.978 |
| 195 | 185 | 0.915  | 0.972 | 0.908  | 0.975 | 0.893  | 0.981 |
| 195 | 186 | 0.921  | 0.976 | 0.914  | 0.979 | 0.900  | 0.984 |
| 195 | 187 | 0.927  | 0.979 | 0.921  | 0.982 | 0.907  | 0.987 |
| 195 | 188 | 0.934  | 0.983 | 0.927  | 0.985 | 0.914  | 0.989 |
| 195 | 189 | 0.940  | 0.987 | 0.934  | 0.989 | 0.922  | 0.992 |
| 195 | 190 | 0.947  | 0.990 | 0.941  | 0.992 | 0.929  | 0.994 |
| 195 | 191 | 0.954  | 0.993 | 0.948  | 0.994 | 0.937  | 0.997 |
| 195 | 192 | 0.961  | 0.996 | 0.956  | 0.997 | 0.945  | 0.998 |
| 195 | 193 | 0.968  | 0.998 | 0.963  | 0.999 | 0.953  | 0.999 |
| 195 | 194 | 0.976  | 1.000 | 0.972  | 1.000 | 0.963  | 1.000 |
| 195 | 195 | 0.985  | 1.000 | 0.981  | 1.000 | 0.973  | 1.000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|----|--------|--------|--------|--------|--------|--------|
|     |    | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 200 | 0  | 0.0000 | 0.0149 | 0.0000 | 0.0183 | 0.0000 | 0.0261 |
| 200 | 1  | 0.0003 | 0.0235 | 0.0001 | 0.0275 | 0.0000 | 0.0366 |
| 200 | 2  | 0.0018 | 0.0311 | 0.0012 | 0.0357 | 0.0005 | 0.0455 |
| 200 | 3  | 0.0041 | 0.0383 | 0.0031 | 0.0432 | 0.0017 | 0.0538 |
| 200 | 4  | 0.0069 | 0.0452 | 0.0055 | 0.0504 | 0.0034 | 0.0616 |
| 200 | 5  | 0.0099 | 0.0518 | 0.0082 | 0.0574 | 0.0054 | 0.0691 |
| 200 | 6  | 0.0131 | 0.0583 | 0.0111 | 0.0642 | 0.0078 | 0.0764 |
| 200 | 7  | 0.0165 | 0.0647 | 0.0142 | 0.0708 | 0.0103 | 0.0835 |
| 200 | 8  | 0.0201 | 0.0710 | 0.0174 | 0.0773 | 0.0130 | 0.0905 |
| 200 | 9  | 0.0237 | 0.0772 | 0.0206 | 0.0837 | 0.0159 | 0.0973 |
| 200 | 10 | 0.0274 | 0.0833 | 0.0242 | 0.0900 | 0.0186 | 0.1040 |
| 200 | 11 | 0.0311 | 0.0894 | 0.0278 | 0.0963 | 0.0219 | 0.1106 |
| 200 | 12 | 0.0350 | 0.0954 | 0.0314 | 0.1025 | 0.0251 | 0.1171 |
| 200 | 13 | 0.0389 | 0.1014 | 0.0351 | 0.1086 | 0.0284 | 0.1235 |
| 200 | 14 | 0.0428 | 0.1073 | 0.0388 | 0.1147 | 0.0317 | 0.1299 |
| 200 | 15 | 0.0468 | 0.1131 | 0.0426 | 0.1207 | 0.0351 | 0.1362 |
| 200 | 16 | 0.0508 | 0.1190 | 0.0464 | 0.1267 | 0.0386 | 0.1425 |
| 200 | 17 | 0.0549 | 0.1248 | 0.0503 | 0.1326 | 0.0421 | 0.1487 |
| 200 | 18 | 0.0590 | 0.1305 | 0.0542 | 0.1385 | 0.0457 | 0.1548 |
| 200 | 19 | 0.0631 | 0.1363 | 0.0582 | 0.1444 | 0.0493 | 0.1609 |
| 200 | 20 | 0.0673 | 0.1420 | 0.0622 | 0.1502 | 0.0529 | 0.1670 |
| 200 | 21 | 0.0714 | 0.1477 | 0.0662 | 0.1560 | 0.0566 | 0.1730 |
| 200 | 22 | 0.0756 | 0.1533 | 0.0702 | 0.1618 | 0.0604 | 0.1790 |
| 200 | 23 | 0.0799 | 0.1590 | 0.0743 | 0.1675 | 0.0642 | 0.1849 |
| 200 | 24 | 0.0841 | 0.1646 | 0.0784 | 0.1733 | 0.0680 | 0.1909 |
| 200 | 25 | 0.0884 | 0.1702 | 0.0826 | 0.1790 | 0.0718 | 0.1968 |
| 200 | 26 | 0.0927 | 0.1758 | 0.0867 | 0.1847 | 0.0757 | 0.2026 |
| 200 | 27 | 0.0970 | 0.1813 | 0.0909 | 0.1903 | 0.0796 | 0.2085 |
| 200 | 28 | 0.1014 | 0.1869 | 0.0951 | 0.1959 | 0.0835 | 0.2143 |
| 200 | 29 | 0.1057 | 0.1924 | 0.0993 | 0.2016 | 0.0875 | 0.2200 |
| 200 | 30 | 0.1101 | 0.1979 | 0.1036 | 0.2072 | 0.0915 | 0.2258 |
| 200 | 31 | 0.1145 | 0.2034 | 0.1078 | 0.2127 | 0.0955 | 0.2315 |
| 200 | 32 | 0.1189 | 0.2089 | 0.1121 | 0.2183 | 0.0995 | 0.2372 |
| 200 | 33 | 0.1233 | 0.2143 | 0.1164 | 0.2238 | 0.1036 | 0.2429 |
| 200 | 34 | 0.1277 | 0.2198 | 0.1207 | 0.2294 | 0.1077 | 0.2486 |
| 200 | 35 | 0.1321 | 0.2252 | 0.1250 | 0.2349 | 0.1118 | 0.2542 |
| 200 | 36 | 0.1366 | 0.2307 | 0.1294 | 0.2404 | 0.1159 | 0.2599 |
| 200 | 37 | 0.1411 | 0.2361 | 0.1337 | 0.2459 | 0.1200 | 0.2655 |
| 200 | 38 | 0.1456 | 0.2415 | 0.1381 | 0.2513 | 0.1242 | 0.2710 |
| 200 | 39 | 0.1500 | 0.2469 | 0.1425 | 0.2568 | 0.1284 | 0.2766 |
| 200 | 40 | 0.1545 | 0.2523 | 0.1469 | 0.2622 | 0.1326 | 0.2822 |
| 200 | 41 | 0.1591 | 0.2576 | 0.1513 | 0.2676 | 0.1368 | 0.2877 |
| 200 | 42 | 0.1636 | 0.2630 | 0.1557 | 0.2731 | 0.1410 | 0.2932 |
| 200 | 43 | 0.1681 | 0.2683 | 0.1602 | 0.2785 | 0.1453 | 0.2987 |
| 200 | 44 | 0.1727 | 0.2737 | 0.1646 | 0.2839 | 0.1495 | 0.3042 |
| 200 | 45 | 0.1772 | 0.2790 | 0.1691 | 0.2892 | 0.1538 | 0.3097 |
| 200 | 46 | 0.1818 | 0.2843 | 0.1736 | 0.2946 | 0.1581 | 0.3151 |
| 200 | 47 | 0.1864 | 0.2896 | 0.1781 | 0.3000 | 0.1624 | 0.3206 |
| 200 | 48 | 0.1910 | 0.2949 | 0.1826 | 0.3053 | 0.1667 | 0.3260 |
| 200 | 49 | 0.1956 | 0.3002 | 0.1871 | 0.3106 | 0.1711 | 0.3314 |
| 200 | 50 | 0.2002 | 0.3055 | 0.1916 | 0.3160 | 0.1754 | 0.3368 |
| 200 | 51 | 0.2048 | 0.3107 | 0.1961 | 0.3213 | 0.1798 | 0.3422 |
| 200 | 52 | 0.2094 | 0.3160 | 0.2007 | 0.3266 | 0.1842 | 0.3476 |
| 200 | 53 | 0.2140 | 0.3213 | 0.2052 | 0.3319 | 0.1886 | 0.3529 |
| 200 | 54 | 0.2187 | 0.3265 | 0.2098 | 0.3372 | 0.1930 | 0.3583 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 200 | 55  | 0.2233 | 0.3317 | 0.2144 | 0.3424 | 0.1974 | 0.3636 |
| 200 | 56  | 0.2280 | 0.3370 | 0.2190 | 0.3477 | 0.2018 | 0.3689 |
| 200 | 57  | 0.2327 | 0.3422 | 0.2235 | 0.3529 | 0.2063 | 0.3742 |
| 200 | 58  | 0.2373 | 0.3474 | 0.2282 | 0.3582 | 0.2108 | 0.3795 |
| 200 | 59  | 0.2420 | 0.3526 | 0.2328 | 0.3634 | 0.2152 | 0.3848 |
| 200 | 60  | 0.2467 | 0.3578 | 0.2374 | 0.3686 | 0.2197 | 0.3901 |
| 200 | 61  | 0.2514 | 0.3630 | 0.2420 | 0.3739 | 0.2242 | 0.3953 |
| 200 | 62  | 0.2561 | 0.3682 | 0.2467 | 0.3791 | 0.2287 | 0.4006 |
| 200 | 63  | 0.2608 | 0.3733 | 0.2513 | 0.3843 | 0.2332 | 0.4058 |
| 200 | 64  | 0.2655 | 0.3785 | 0.2560 | 0.3895 | 0.2377 | 0.4111 |
| 200 | 65  | 0.2703 | 0.3837 | 0.2606 | 0.3947 | 0.2423 | 0.4163 |
| 200 | 66  | 0.2750 | 0.3888 | 0.2653 | 0.3998 | 0.2468 | 0.4215 |
| 200 | 67  | 0.2797 | 0.3940 | 0.2700 | 0.4050 | 0.2514 | 0.4267 |
| 200 | 68  | 0.2845 | 0.3991 | 0.2747 | 0.4101 | 0.2559 | 0.4319 |
| 200 | 69  | 0.2892 | 0.4043 | 0.2794 | 0.4153 | 0.2606 | 0.4370 |
| 200 | 70  | 0.2940 | 0.4094 | 0.2841 | 0.4204 | 0.2651 | 0.4422 |
| 200 | 71  | 0.2987 | 0.4145 | 0.2888 | 0.4256 | 0.2697 | 0.4473 |
| 200 | 72  | 0.3035 | 0.4196 | 0.2935 | 0.4307 | 0.2743 | 0.4525 |
| 200 | 73  | 0.3083 | 0.4247 | 0.2982 | 0.4358 | 0.2790 | 0.4576 |
| 200 | 74  | 0.3131 | 0.4298 | 0.3030 | 0.4409 | 0.2836 | 0.4627 |
| 200 | 75  | 0.3179 | 0.4349 | 0.3077 | 0.4461 | 0.2882 | 0.4679 |
| 200 | 76  | 0.3227 | 0.4400 | 0.3125 | 0.4511 | 0.2929 | 0.4730 |
| 200 | 77  | 0.3275 | 0.4451 | 0.3172 | 0.4562 | 0.2976 | 0.4781 |
| 200 | 78  | 0.3323 | 0.4502 | 0.3220 | 0.4613 | 0.3022 | 0.4831 |
| 200 | 79  | 0.3371 | 0.4553 | 0.3268 | 0.4664 | 0.3069 | 0.4882 |
| 200 | 80  | 0.3419 | 0.4603 | 0.3315 | 0.4715 | 0.3116 | 0.4933 |
| 200 | 81  | 0.3467 | 0.4654 | 0.3363 | 0.4765 | 0.3163 | 0.4983 |
| 200 | 82  | 0.3516 | 0.4704 | 0.3411 | 0.4816 | 0.3210 | 0.5034 |
| 200 | 83  | 0.3564 | 0.4755 | 0.3459 | 0.4866 | 0.3257 | 0.5084 |
| 200 | 84  | 0.3613 | 0.4805 | 0.3507 | 0.4917 | 0.3304 | 0.5135 |
| 200 | 85  | 0.3661 | 0.4855 | 0.3556 | 0.4967 | 0.3352 | 0.5185 |
| 200 | 86  | 0.3710 | 0.4906 | 0.3604 | 0.5017 | 0.3399 | 0.5235 |
| 200 | 87  | 0.3759 | 0.4956 | 0.3652 | 0.5067 | 0.3447 | 0.5285 |
| 200 | 88  | 0.3807 | 0.5006 | 0.3701 | 0.5118 | 0.3495 | 0.5335 |
| 200 | 89  | 0.3856 | 0.5056 | 0.3749 | 0.5167 | 0.3542 | 0.5384 |
| 200 | 90  | 0.3905 | 0.5106 | 0.3798 | 0.5218 | 0.3590 | 0.5434 |
| 200 | 91  | 0.3954 | 0.5156 | 0.3846 | 0.5267 | 0.3638 | 0.5484 |
| 200 | 92  | 0.4003 | 0.5206 | 0.3895 | 0.5317 | 0.3686 | 0.5533 |
| 200 | 93  | 0.4052 | 0.5256 | 0.3943 | 0.5367 | 0.3734 | 0.5583 |
| 200 | 94  | 0.4101 | 0.5306 | 0.3992 | 0.5417 | 0.3782 | 0.5632 |
| 200 | 95  | 0.4150 | 0.5356 | 0.4041 | 0.5466 | 0.3831 | 0.5682 |
| 200 | 96  | 0.4199 | 0.5405 | 0.4090 | 0.5516 | 0.3879 | 0.5731 |
| 200 | 97  | 0.4248 | 0.5455 | 0.4139 | 0.5565 | 0.3928 | 0.5780 |
| 200 | 98  | 0.4298 | 0.5505 | 0.4188 | 0.5615 | 0.3976 | 0.5829 |
| 200 | 99  | 0.4347 | 0.5554 | 0.4237 | 0.5664 | 0.4025 | 0.5878 |
| 200 | 100 | 0.4396 | 0.5604 | 0.4286 | 0.5714 | 0.4073 | 0.5927 |
| 200 | 101 | 0.4446 | 0.5653 | 0.4336 | 0.5763 | 0.4122 | 0.5975 |
| 200 | 102 | 0.4495 | 0.5702 | 0.4385 | 0.5812 | 0.4171 | 0.6024 |
| 200 | 103 | 0.4545 | 0.5752 | 0.4435 | 0.5861 | 0.4220 | 0.6072 |
| 200 | 104 | 0.4595 | 0.5801 | 0.4484 | 0.5910 | 0.4269 | 0.6121 |
| 200 | 105 | 0.4644 | 0.5850 | 0.4534 | 0.5959 | 0.4318 | 0.6169 |
| 200 | 106 | 0.4694 | 0.5899 | 0.4583 | 0.6008 | 0.4368 | 0.6218 |
| 200 | 107 | 0.4744 | 0.5948 | 0.4633 | 0.6057 | 0.4417 | 0.6266 |
| 200 | 108 | 0.4794 | 0.5997 | 0.4683 | 0.6105 | 0.4467 | 0.6314 |
| 200 | 109 | 0.4844 | 0.6046 | 0.4733 | 0.6154 | 0.4516 | 0.6362 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 200 | 110 | 0.4894 | 0.6095 | 0.4782 | 0.6202 | 0.4566 | 0.6410 |
| 200 | 111 | 0.4944 | 0.6144 | 0.4833 | 0.6251 | 0.4616 | 0.6458 |
| 200 | 112 | 0.4994 | 0.6193 | 0.4882 | 0.6299 | 0.4665 | 0.6505 |
| 200 | 113 | 0.5044 | 0.6241 | 0.4933 | 0.6348 | 0.4715 | 0.6553 |
| 200 | 114 | 0.5094 | 0.6290 | 0.4983 | 0.6396 | 0.4765 | 0.6601 |
| 200 | 115 | 0.5145 | 0.6339 | 0.5033 | 0.6444 | 0.4815 | 0.6648 |
| 200 | 116 | 0.5195 | 0.6387 | 0.5083 | 0.6493 | 0.4865 | 0.6696 |
| 200 | 117 | 0.5245 | 0.6436 | 0.5134 | 0.6541 | 0.4916 | 0.6743 |
| 200 | 118 | 0.5296 | 0.6484 | 0.5184 | 0.6589 | 0.4966 | 0.6790 |
| 200 | 119 | 0.5346 | 0.6533 | 0.5235 | 0.6637 | 0.5017 | 0.6837 |
| 200 | 120 | 0.5397 | 0.6581 | 0.5285 | 0.6685 | 0.5067 | 0.6884 |
| 200 | 121 | 0.5447 | 0.6629 | 0.5336 | 0.6732 | 0.5118 | 0.6931 |
| 200 | 122 | 0.5498 | 0.6677 | 0.5387 | 0.6780 | 0.5169 | 0.6978 |
| 200 | 123 | 0.5549 | 0.6725 | 0.5438 | 0.6828 | 0.5219 | 0.7024 |
| 200 | 124 | 0.5600 | 0.6773 | 0.5489 | 0.6875 | 0.5270 | 0.7071 |
| 200 | 125 | 0.5651 | 0.6821 | 0.5539 | 0.6923 | 0.5321 | 0.7118 |
| 200 | 126 | 0.5702 | 0.6869 | 0.5591 | 0.6970 | 0.5373 | 0.7164 |
| 200 | 127 | 0.5753 | 0.6917 | 0.5642 | 0.7018 | 0.5424 | 0.7210 |
| 200 | 128 | 0.5804 | 0.6965 | 0.5693 | 0.7065 | 0.5475 | 0.7257 |
| 200 | 129 | 0.5855 | 0.7013 | 0.5744 | 0.7112 | 0.5527 | 0.7303 |
| 200 | 130 | 0.5906 | 0.7060 | 0.5796 | 0.7159 | 0.5578 | 0.7349 |
| 200 | 131 | 0.5957 | 0.7108 | 0.5847 | 0.7206 | 0.5630 | 0.7394 |
| 200 | 132 | 0.6009 | 0.7155 | 0.5899 | 0.7253 | 0.5681 | 0.7441 |
| 200 | 133 | 0.6060 | 0.7203 | 0.5950 | 0.7300 | 0.5733 | 0.7486 |
| 200 | 134 | 0.6112 | 0.7250 | 0.6002 | 0.7347 | 0.5785 | 0.7532 |
| 200 | 135 | 0.6163 | 0.7297 | 0.6053 | 0.7394 | 0.5837 | 0.7577 |
| 200 | 136 | 0.6215 | 0.7345 | 0.6105 | 0.7440 | 0.5889 | 0.7623 |
| 200 | 137 | 0.6267 | 0.7392 | 0.6157 | 0.7487 | 0.5942 | 0.7668 |
| 200 | 138 | 0.6318 | 0.7439 | 0.6209 | 0.7533 | 0.5994 | 0.7713 |
| 200 | 139 | 0.6370 | 0.7486 | 0.6261 | 0.7580 | 0.6047 | 0.7758 |
| 200 | 140 | 0.6422 | 0.7533 | 0.6314 | 0.7626 | 0.6099 | 0.7803 |
| 200 | 141 | 0.6474 | 0.7580 | 0.6366 | 0.7672 | 0.6152 | 0.7848 |
| 200 | 142 | 0.6526 | 0.7627 | 0.6418 | 0.7718 | 0.6205 | 0.7892 |
| 200 | 143 | 0.6578 | 0.7673 | 0.6471 | 0.7765 | 0.6258 | 0.7937 |
| 200 | 144 | 0.6630 | 0.7720 | 0.6523 | 0.7810 | 0.6311 | 0.7982 |
| 200 | 145 | 0.6683 | 0.7767 | 0.6576 | 0.7856 | 0.6364 | 0.8026 |
| 200 | 146 | 0.6735 | 0.7813 | 0.6628 | 0.7902 | 0.6417 | 0.8070 |
| 200 | 147 | 0.6787 | 0.7860 | 0.6681 | 0.7948 | 0.6471 | 0.8114 |
| 200 | 148 | 0.6840 | 0.7906 | 0.6734 | 0.7993 | 0.6524 | 0.8158 |
| 200 | 149 | 0.6893 | 0.7952 | 0.6787 | 0.8039 | 0.6578 | 0.8202 |
| 200 | 150 | 0.6945 | 0.7998 | 0.6840 | 0.8084 | 0.6632 | 0.8246 |
| 200 | 151 | 0.6998 | 0.8044 | 0.6894 | 0.8129 | 0.6686 | 0.8289 |
| 200 | 152 | 0.7051 | 0.8090 | 0.6947 | 0.8174 | 0.6740 | 0.8333 |
| 200 | 153 | 0.7104 | 0.8136 | 0.7000 | 0.8219 | 0.6794 | 0.8376 |
| 200 | 154 | 0.7157 | 0.8182 | 0.7054 | 0.8264 | 0.6849 | 0.8419 |
| 200 | 155 | 0.7210 | 0.8228 | 0.7108 | 0.8309 | 0.6903 | 0.8462 |
| 200 | 156 | 0.7263 | 0.8273 | 0.7161 | 0.8354 | 0.6958 | 0.8505 |
| 200 | 157 | 0.7317 | 0.8319 | 0.7215 | 0.8398 | 0.7013 | 0.8547 |
| 200 | 158 | 0.7370 | 0.8364 | 0.7269 | 0.8443 | 0.7068 | 0.8590 |
| 200 | 159 | 0.7424 | 0.8409 | 0.7324 | 0.8487 | 0.7123 | 0.8632 |
| 200 | 160 | 0.7477 | 0.8455 | 0.7378 | 0.8531 | 0.7178 | 0.8674 |
| 200 | 161 | 0.7531 | 0.8500 | 0.7432 | 0.8575 | 0.7234 | 0.8716 |
| 200 | 162 | 0.7585 | 0.8544 | 0.7487 | 0.8619 | 0.7290 | 0.8758 |
| 200 | 163 | 0.7639 | 0.8589 | 0.7541 | 0.8663 | 0.7345 | 0.8800 |
| 200 | 164 | 0.7693 | 0.8634 | 0.7596 | 0.8706 | 0.7401 | 0.8841 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 200 | 165 | 0.7748 | 0.8679 | 0.7651 | 0.8750 | 0.7458 | 0.8882 |
| 200 | 166 | 0.7802 | 0.8723 | 0.7706 | 0.8793 | 0.7514 | 0.8923 |
| 200 | 167 | 0.7857 | 0.8767 | 0.7762 | 0.8836 | 0.7571 | 0.8964 |
| 200 | 168 | 0.7911 | 0.8811 | 0.7817 | 0.8879 | 0.7628 | 0.9005 |
| 200 | 169 | 0.7966 | 0.8855 | 0.7873 | 0.8922 | 0.7685 | 0.9045 |
|     |     |        |        |        |        |        |        |
| 200 | 170 | 0.8021 | 0.8899 | 0.7928 | 0.8964 | 0.7742 | 0.9085 |
| 200 | 171 | 0.8076 | 0.8943 | 0.7984 | 0.9007 | 0.7800 | 0.9125 |
| 200 | 172 | 0.8131 | 0.8986 | 0.8041 | 0.9049 | 0.7857 | 0.9165 |
| 200 | 173 | 0.8187 | 0.9030 | 0.8097 | 0.9091 | 0.7915 | 0.9204 |
| 200 | 174 | 0.8242 | 0.9073 | 0.8153 | 0.9133 | 0.7974 | 0.9243 |
|     |     |        |        |        |        |        |        |
| 200 | 175 | 0.8298 | 0.9116 | 0.8210 | 0.9174 | 0.8032 | 0.9282 |
| 200 | 176 | 0.8354 | 0.9159 | 0.8267 | 0.9216 | 0.8091 | 0.9320 |
| 200 | 177 | 0.8410 | 0.9201 | 0.8325 | 0.9257 | 0.8151 | 0.9358 |
| 200 | 178 | 0.8467 | 0.9244 | 0.8382 | 0.9298 | 0.8210 | 0.9396 |
| 200 | 179 | 0.8523 | 0.9286 | 0.8440 | 0.9338 | 0.8270 | 0.9434 |
|     |     |        |        |        |        |        |        |
| 200 | 180 | 0.8580 | 0.9327 | 0.8498 | 0.9378 | 0.8330 | 0.9471 |
| 200 | 181 | 0.8637 | 0.9369 | 0.8556 | 0.9418 | 0.8391 | 0.9507 |
| 200 | 182 | 0.8695 | 0.9410 | 0.8615 | 0.9458 | 0.8452 | 0.9543 |
| 200 | 183 | 0.8752 | 0.9451 | 0.8674 | 0.9497 | 0.8513 | 0.9579 |
| 200 | 184 | 0.8810 | 0.9492 | 0.8733 | 0.9536 | 0.8575 | 0.9614 |
|     |     |        |        |        |        |        |        |
| 200 | 185 | 0.8869 | 0.9532 | 0.8793 | 0.9574 | 0.8638 | 0.9649 |
| 200 | 186 | 0.8927 | 0.9572 | 0.8853 | 0.9612 | 0.8701 | 0.9683 |
| 200 | 187 | 0.8986 | 0.9611 | 0.8914 | 0.9649 | 0.8765 | 0.9716 |
| 200 | 188 | 0.9046 | 0.9650 | 0.8975 | 0.9686 | 0.8829 | 0.9749 |
| 200 | 189 | 0.9106 | 0.9689 | 0.9037 | 0.9722 | 0.8894 | 0.9781 |
|     |     |        |        |        |        |        |        |
| 200 | 190 | 0.9167 | 0.9726 | 0.9100 | 0.9758 | 0.8960 | 0.9812 |
| 200 | 191 | 0.9228 | 0.9763 | 0.9163 | 0.9792 | 0.9027 | 0.9841 |
| 200 | 192 | 0.9290 | 0.9799 | 0.9227 | 0.9826 | 0.9095 | 0.9870 |
| 200 | 193 | 0.9353 | 0.9835 | 0.9292 | 0.9858 | 0.9165 | 0.9897 |
| 200 | 194 | 0.9417 | 0.9869 | 0.9358 | 0.9889 | 0.9236 | 0.9922 |
|     |     |        |        |        |        |        |        |
| 200 | 195 | 0.9482 | 0.9901 | 0.9426 | 0.9918 | 0.9309 | 0.9946 |
| 200 | 196 | 0.9548 | 0.9931 | 0.9496 | 0.9945 | 0.9384 | 0.9966 |
| 200 | 197 | 0.9617 | 0.9959 | 0.9568 | 0.9969 | 0.9462 | 0.9983 |
| 200 | 198 | 0.9689 | 0.9982 | 0.9643 | 0.9988 | 0.9545 | 0.9995 |
| 200 | 199 | 0.9765 | 0.9997 | 0.9725 | 0.9999 | 0.9634 | 1.0000 |
|     |     |        |        |        |        |        |        |
| 200 | 200 | 0.9851 | 1.0000 | 0.9817 | 1.0000 | 0.9739 | 1.0000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K  | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|----|--------|--------|--------|--------|--------|--------|
|     |    | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 0  | 0.0000 | 0.0060 | 0.0000 | 0.0074 | 0.0000 | 0.0105 |
| 500 | 1  | 0.0001 | 0.0095 | 0.0001 | 0.0111 | 0.0000 | 0.0148 |
| 500 | 2  | 0.0007 | 0.0125 | 0.0005 | 0.0144 | 0.0002 | 0.0184 |
| 500 | 3  | 0.0016 | 0.0154 | 0.0012 | 0.0174 | 0.0007 | 0.0218 |
| 500 | 4  | 0.0027 | 0.0182 | 0.0022 | 0.0204 | 0.0013 | 0.0250 |
| 500 | 5  | 0.0039 | 0.0209 | 0.0033 | 0.0232 | 0.0022 | 0.0280 |
| 500 | 6  | 0.0052 | 0.0235 | 0.0044 | 0.0259 | 0.0031 | 0.0310 |
| 500 | 7  | 0.0066 | 0.0261 | 0.0056 | 0.0286 | 0.0041 | 0.0339 |
| 500 | 8  | 0.0080 | 0.0287 | 0.0069 | 0.0313 | 0.0052 | 0.0368 |
| 500 | 9  | 0.0094 | 0.0312 | 0.0083 | 0.0339 | 0.0063 | 0.0396 |
| 500 | 10 | 0.0109 | 0.0337 | 0.0096 | 0.0365 | 0.0075 | 0.0423 |
| 500 | 11 | 0.0124 | 0.0362 | 0.0110 | 0.0390 | 0.0087 | 0.0450 |
| 500 | 12 | 0.0139 | 0.0386 | 0.0125 | 0.0415 | 0.0099 | 0.0477 |
| 500 | 13 | 0.0154 | 0.0410 | 0.0139 | 0.0440 | 0.0112 | 0.0504 |
| 500 | 14 | 0.0170 | 0.0434 | 0.0154 | 0.0465 | 0.0125 | 0.0530 |
| 500 | 15 | 0.0186 | 0.0458 | 0.0169 | 0.0490 | 0.0139 | 0.0556 |
| 500 | 16 | 0.0202 | 0.0482 | 0.0184 | 0.0514 | 0.0152 | 0.0582 |
| 500 | 17 | 0.0218 | 0.0506 | 0.0199 | 0.0539 | 0.0166 | 0.0607 |
| 500 | 18 | 0.0234 | 0.0529 | 0.0215 | 0.0563 | 0.0180 | 0.0633 |
| 500 | 19 | 0.0250 | 0.0553 | 0.0230 | 0.0587 | 0.0195 | 0.0658 |
| 500 | 20 | 0.0267 | 0.0576 | 0.0246 | 0.0611 | 0.0209 | 0.0683 |
| 500 | 21 | 0.0283 | 0.0599 | 0.0262 | 0.0635 | 0.0223 | 0.0708 |
| 500 | 22 | 0.0300 | 0.0622 | 0.0278 | 0.0659 | 0.0238 | 0.0733 |
| 500 | 23 | 0.0316 | 0.0645 | 0.0294 | 0.0682 | 0.0253 | 0.0758 |
| 500 | 24 | 0.0333 | 0.0668 | 0.0310 | 0.0706 | 0.0268 | 0.0782 |
| 500 | 25 | 0.0350 | 0.0691 | 0.0326 | 0.0729 | 0.0283 | 0.0807 |
| 500 | 26 | 0.0367 | 0.0714 | 0.0342 | 0.0753 | 0.0298 | 0.0831 |
| 500 | 27 | 0.0384 | 0.0737 | 0.0359 | 0.0776 | 0.0313 | 0.0856 |
| 500 | 28 | 0.0401 | 0.0760 | 0.0375 | 0.0799 | 0.0328 | 0.0880 |
| 500 | 29 | 0.0418 | 0.0782 | 0.0392 | 0.0822 | 0.0344 | 0.0904 |
| 500 | 30 | 0.0435 | 0.0805 | 0.0408 | 0.0845 | 0.0359 | 0.0928 |
| 500 | 31 | 0.0452 | 0.0828 | 0.0425 | 0.0869 | 0.0375 | 0.0952 |
| 500 | 32 | 0.0470 | 0.0850 | 0.0442 | 0.0892 | 0.0391 | 0.0976 |
| 500 | 33 | 0.0487 | 0.0873 | 0.0459 | 0.0914 | 0.0406 | 0.0999 |
| 500 | 34 | 0.0504 | 0.0895 | 0.0475 | 0.0937 | 0.0422 | 0.1023 |
| 500 | 35 | 0.0522 | 0.0917 | 0.0492 | 0.0960 | 0.0438 | 0.1047 |
| 500 | 36 | 0.0539 | 0.0940 | 0.0509 | 0.0983 | 0.0454 | 0.1070 |
| 500 | 37 | 0.0557 | 0.0962 | 0.0526 | 0.1006 | 0.0470 | 0.1094 |
| 500 | 38 | 0.0574 | 0.0984 | 0.0543 | 0.1028 | 0.0486 | 0.1117 |
| 500 | 39 | 0.0592 | 0.1006 | 0.0561 | 0.1051 | 0.0503 | 0.1141 |
| 500 | 40 | 0.0609 | 0.1029 | 0.0578 | 0.1073 | 0.0519 | 0.1164 |
| 500 | 41 | 0.0627 | 0.1051 | 0.0595 | 0.1096 | 0.0535 | 0.1187 |
| 500 | 42 | 0.0645 | 0.1073 | 0.0612 | 0.1118 | 0.0551 | 0.1211 |
| 500 | 43 | 0.0662 | 0.1095 | 0.0629 | 0.1141 | 0.0568 | 0.1234 |
| 500 | 44 | 0.0680 | 0.1117 | 0.0647 | 0.1163 | 0.0584 | 0.1257 |
| 500 | 45 | 0.0698 | 0.1139 | 0.0664 | 0.1186 | 0.0601 | 0.1280 |
| 500 | 46 | 0.0716 | 0.1161 | 0.0681 | 0.1208 | 0.0617 | 0.1303 |
| 500 | 47 | 0.0734 | 0.1183 | 0.0699 | 0.1230 | 0.0634 | 0.1326 |
| 500 | 48 | 0.0752 | 0.1205 | 0.0716 | 0.1253 | 0.0651 | 0.1349 |
| 500 | 49 | 0.0769 | 0.1227 | 0.0734 | 0.1275 | 0.0667 | 0.1372 |
| 500 | 50 | 0.0787 | 0.1249 | 0.0751 | 0.1297 | 0.0684 | 0.1395 |
| 500 | 51 | 0.0805 | 0.1271 | 0.0769 | 0.1319 | 0.0701 | 0.1417 |
| 500 | 52 | 0.0823 | 0.1292 | 0.0787 | 0.1341 | 0.0718 | 0.1440 |
| 500 | 53 | 0.0841 | 0.1314 | 0.0804 | 0.1363 | 0.0734 | 0.1463 |
| 500 | 54 | 0.0859 | 0.1336 | 0.0822 | 0.1386 | 0.0751 | 0.1486 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 55  | 0.0877 | 0.1358 | 0.0839 | 0.1408 | 0.0768 | 0.1508 |
| 500 | 56  | 0.0896 | 0.1379 | 0.0857 | 0.1430 | 0.0785 | 0.1531 |
| 500 | 57  | 0.0914 | 0.1401 | 0.0875 | 0.1452 | 0.0802 | 0.1554 |
| 500 | 58  | 0.0932 | 0.1423 | 0.0893 | 0.1474 | 0.0819 | 0.1576 |
| 500 | 59  | 0.0950 | 0.1444 | 0.0911 | 0.1496 | 0.0836 | 0.1599 |
| 500 | 60  | 0.0968 | 0.1466 | 0.0928 | 0.1518 | 0.0854 | 0.1621 |
| 500 | 61  | 0.0986 | 0.1488 | 0.0946 | 0.1539 | 0.0871 | 0.1643 |
| 500 | 62  | 0.1005 | 0.1509 | 0.0964 | 0.1561 | 0.0888 | 0.1666 |
| 500 | 63  | 0.1023 | 0.1531 | 0.0982 | 0.1583 | 0.0905 | 0.1688 |
| 500 | 64  | 0.1041 | 0.1552 | 0.1000 | 0.1605 | 0.0922 | 0.1711 |
| 500 | 65  | 0.1059 | 0.1574 | 0.1018 | 0.1627 | 0.0940 | 0.1733 |
| 500 | 66  | 0.1078 | 0.1595 | 0.1036 | 0.1648 | 0.0957 | 0.1755 |
| 500 | 67  | 0.1096 | 0.1617 | 0.1054 | 0.1670 | 0.0974 | 0.1778 |
| 500 | 68  | 0.1114 | 0.1638 | 0.1072 | 0.1692 | 0.0992 | 0.1800 |
| 500 | 69  | 0.1133 | 0.1660 | 0.1090 | 0.1714 | 0.1009 | 0.1822 |
| 500 | 70  | 0.1151 | 0.1681 | 0.1108 | 0.1735 | 0.1026 | 0.1844 |
| 500 | 71  | 0.1170 | 0.1702 | 0.1126 | 0.1757 | 0.1044 | 0.1866 |
| 500 | 72  | 0.1188 | 0.1724 | 0.1144 | 0.1779 | 0.1061 | 0.1889 |
| 500 | 73  | 0.1206 | 0.1745 | 0.1162 | 0.1800 | 0.1079 | 0.1911 |
| 500 | 74  | 0.1225 | 0.1767 | 0.1180 | 0.1822 | 0.1096 | 0.1933 |
| 500 | 75  | 0.1243 | 0.1788 | 0.1199 | 0.1843 | 0.1114 | 0.1954 |
| 500 | 76  | 0.1262 | 0.1809 | 0.1217 | 0.1865 | 0.1131 | 0.1977 |
| 500 | 77  | 0.1280 | 0.1831 | 0.1235 | 0.1887 | 0.1149 | 0.1999 |
| 500 | 78  | 0.1299 | 0.1852 | 0.1253 | 0.1908 | 0.1167 | 0.2021 |
| 500 | 79  | 0.1317 | 0.1873 | 0.1271 | 0.1930 | 0.1184 | 0.2043 |
| 500 | 80  | 0.1336 | 0.1895 | 0.1290 | 0.1951 | 0.1202 | 0.2065 |
| 500 | 81  | 0.1354 | 0.1916 | 0.1308 | 0.1973 | 0.1220 | 0.2086 |
| 500 | 82  | 0.1373 | 0.1937 | 0.1326 | 0.1994 | 0.1237 | 0.2108 |
| 500 | 83  | 0.1392 | 0.1958 | 0.1344 | 0.2016 | 0.1255 | 0.2130 |
| 500 | 84  | 0.1410 | 0.1979 | 0.1363 | 0.2037 | 0.1273 | 0.2152 |
| 500 | 85  | 0.1429 | 0.2001 | 0.1381 | 0.2058 | 0.1291 | 0.2174 |
| 500 | 86  | 0.1447 | 0.2022 | 0.1399 | 0.2080 | 0.1308 | 0.2196 |
| 500 | 87  | 0.1466 | 0.2043 | 0.1418 | 0.2101 | 0.1326 | 0.2217 |
| 500 | 88  | 0.1485 | 0.2064 | 0.1436 | 0.2123 | 0.1344 | 0.2239 |
| 500 | 89  | 0.1503 | 0.2085 | 0.1455 | 0.2144 | 0.1362 | 0.2261 |
| 500 | 90  | 0.1522 | 0.2107 | 0.1473 | 0.2165 | 0.1380 | 0.2283 |
| 500 | 91  | 0.1541 | 0.2128 | 0.1491 | 0.2187 | 0.1398 | 0.2304 |
| 500 | 92  | 0.1559 | 0.2149 | 0.1510 | 0.2208 | 0.1416 | 0.2326 |
| 500 | 93  | 0.1578 | 0.2170 | 0.1528 | 0.2229 | 0.1434 | 0.2348 |
| 500 | 94  | 0.1597 | 0.2191 | 0.1547 | 0.2251 | 0.1452 | 0.2369 |
| 500 | 95  | 0.1616 | 0.2212 | 0.1565 | 0.2272 | 0.1470 | 0.2391 |
| 500 | 96  | 0.1634 | 0.2233 | 0.1584 | 0.2293 | 0.1488 | 0.2412 |
| 500 | 97  | 0.1653 | 0.2254 | 0.1602 | 0.2314 | 0.1506 | 0.2434 |
| 500 | 98  | 0.1672 | 0.2275 | 0.1621 | 0.2336 | 0.1524 | 0.2456 |
| 500 | 99  | 0.1691 | 0.2296 | 0.1639 | 0.2357 | 0.1542 | 0.2477 |
| 500 | 100 | 0.1710 | 0.2317 | 0.1658 | 0.2378 | 0.1560 | 0.2499 |
| 500 | 101 | 0.1728 | 0.2338 | 0.1677 | 0.2399 | 0.1578 | 0.2520 |
| 500 | 102 | 0.1747 | 0.2359 | 0.1695 | 0.2420 | 0.1596 | 0.2542 |
| 500 | 103 | 0.1766 | 0.2380 | 0.1714 | 0.2441 | 0.1614 | 0.2563 |
| 500 | 104 | 0.1785 | 0.2401 | 0.1732 | 0.2463 | 0.1632 | 0.2585 |
| 500 | 105 | 0.1804 | 0.2422 | 0.1751 | 0.2484 | 0.1650 | 0.2606 |
| 500 | 106 | 0.1823 | 0.2443 | 0.1770 | 0.2505 | 0.1669 | 0.2627 |
| 500 | 107 | 0.1842 | 0.2464 | 0.1788 | 0.2526 | 0.1687 | 0.2649 |
| 500 | 108 | 0.1860 | 0.2485 | 0.1807 | 0.2547 | 0.1705 | 0.2670 |
| 500 | 109 | 0.1879 | 0.2506 | 0.1826 | 0.2568 | 0.1723 | 0.2692 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 110 | 0.1898 | 0.2527 | 0.1844 | 0.2589 | 0.1742 | 0.2713 |
| 500 | 111 | 0.1917 | 0.2548 | 0.1863 | 0.2610 | 0.1760 | 0.2734 |
| 500 | 112 | 0.1936 | 0.2568 | 0.1882 | 0.2631 | 0.1778 | 0.2756 |
| 500 | 113 | 0.1955 | 0.2589 | 0.1901 | 0.2652 | 0.1796 | 0.2777 |
| 500 | 114 | 0.1974 | 0.2610 | 0.1919 | 0.2673 | 0.1815 | 0.2798 |
| 500 | 115 | 0.1993 | 0.2631 | 0.1938 | 0.2694 | 0.1833 | 0.2819 |
| 500 | 116 | 0.2012 | 0.2652 | 0.1957 | 0.2715 | 0.1851 | 0.2841 |
| 500 | 117 | 0.2031 | 0.2673 | 0.1976 | 0.2736 | 0.1870 | 0.2862 |
| 500 | 118 | 0.2050 | 0.2694 | 0.1994 | 0.2757 | 0.1888 | 0.2883 |
| 500 | 119 | 0.2069 | 0.2714 | 0.2013 | 0.2778 | 0.1907 | 0.2904 |
| 500 | 120 | 0.2088 | 0.2735 | 0.2032 | 0.2799 | 0.1925 | 0.2926 |
| 500 | 121 | 0.2107 | 0.2756 | 0.2051 | 0.2820 | 0.1943 | 0.2947 |
| 500 | 122 | 0.2126 | 0.2777 | 0.2069 | 0.2841 | 0.1962 | 0.2968 |
| 500 | 123 | 0.2145 | 0.2798 | 0.2088 | 0.2862 | 0.1980 | 0.2989 |
| 500 | 124 | 0.2164 | 0.2818 | 0.2107 | 0.2883 | 0.1999 | 0.3010 |
| 500 | 125 | 0.2183 | 0.2839 | 0.2126 | 0.2904 | 0.2017 | 0.3031 |
| 500 | 126 | 0.2202 | 0.2860 | 0.2145 | 0.2925 | 0.2036 | 0.3053 |
| 500 | 127 | 0.2221 | 0.2881 | 0.2164 | 0.2945 | 0.2054 | 0.3074 |
| 500 | 128 | 0.2240 | 0.2901 | 0.2183 | 0.2966 | 0.2073 | 0.3095 |
| 500 | 129 | 0.2259 | 0.2922 | 0.2202 | 0.2987 | 0.2091 | 0.3116 |
| 500 | 130 | 0.2279 | 0.2943 | 0.2221 | 0.3008 | 0.2110 | 0.3137 |
| 500 | 131 | 0.2298 | 0.2963 | 0.2240 | 0.3029 | 0.2128 | 0.3158 |
| 500 | 132 | 0.2317 | 0.2984 | 0.2259 | 0.3050 | 0.2147 | 0.3179 |
| 500 | 133 | 0.2336 | 0.3005 | 0.2277 | 0.3070 | 0.2165 | 0.3200 |
| 500 | 134 | 0.2355 | 0.3026 | 0.2297 | 0.3091 | 0.2184 | 0.3221 |
| 500 | 135 | 0.2374 | 0.3046 | 0.2315 | 0.3112 | 0.2203 | 0.3242 |
| 500 | 136 | 0.2393 | 0.3067 | 0.2334 | 0.3133 | 0.2221 | 0.3263 |
| 500 | 137 | 0.2412 | 0.3088 | 0.2353 | 0.3154 | 0.2240 | 0.3284 |
| 500 | 138 | 0.2432 | 0.3108 | 0.2373 | 0.3174 | 0.2259 | 0.3305 |
| 500 | 139 | 0.2451 | 0.3129 | 0.2391 | 0.3195 | 0.2277 | 0.3326 |
| 500 | 140 | 0.2470 | 0.3149 | 0.2411 | 0.3216 | 0.2296 | 0.3347 |
| 500 | 141 | 0.2489 | 0.3170 | 0.2429 | 0.3236 | 0.2315 | 0.3368 |
| 500 | 142 | 0.2508 | 0.3191 | 0.2449 | 0.3257 | 0.2333 | 0.3389 |
| 500 | 143 | 0.2528 | 0.3211 | 0.2468 | 0.3278 | 0.2352 | 0.3410 |
| 500 | 144 | 0.2547 | 0.3232 | 0.2487 | 0.3299 | 0.2371 | 0.3430 |
| 500 | 145 | 0.2566 | 0.3252 | 0.2506 | 0.3319 | 0.2390 | 0.3451 |
| 500 | 146 | 0.2585 | 0.3273 | 0.2525 | 0.3340 | 0.2409 | 0.3472 |
| 500 | 147 | 0.2605 | 0.3294 | 0.2544 | 0.3361 | 0.2427 | 0.3493 |
| 500 | 148 | 0.2624 | 0.3314 | 0.2563 | 0.3381 | 0.2446 | 0.3514 |
| 500 | 149 | 0.2643 | 0.3335 | 0.2582 | 0.3402 | 0.2465 | 0.3535 |
| 500 | 150 | 0.2662 | 0.3355 | 0.2601 | 0.3423 | 0.2484 | 0.3555 |
| 500 | 151 | 0.2682 | 0.3376 | 0.2620 | 0.3443 | 0.2502 | 0.3576 |
| 500 | 152 | 0.2701 | 0.3396 | 0.2639 | 0.3464 | 0.2521 | 0.3597 |
| 500 | 153 | 0.2720 | 0.3417 | 0.2659 | 0.3485 | 0.2540 | 0.3618 |
| 500 | 154 | 0.2739 | 0.3437 | 0.2678 | 0.3505 | 0.2559 | 0.3639 |
| 500 | 155 | 0.2759 | 0.3458 | 0.2697 | 0.3526 | 0.2577 | 0.3659 |
| 500 | 156 | 0.2778 | 0.3478 | 0.2716 | 0.3546 | 0.2597 | 0.3680 |
| 500 | 157 | 0.2797 | 0.3499 | 0.2735 | 0.3567 | 0.2616 | 0.3701 |
| 500 | 158 | 0.2817 | 0.3520 | 0.2754 | 0.3588 | 0.2635 | 0.3721 |
| 500 | 159 | 0.2836 | 0.3540 | 0.2774 | 0.3608 | 0.2653 | 0.3742 |
| 500 | 160 | 0.2855 | 0.3560 | 0.2793 | 0.3629 | 0.2672 | 0.3763 |
| 500 | 161 | 0.2875 | 0.3581 | 0.2812 | 0.3649 | 0.2691 | 0.3783 |
| 500 | 162 | 0.2894 | 0.3601 | 0.2831 | 0.3670 | 0.2710 | 0.3804 |
| 500 | 163 | 0.2914 | 0.3622 | 0.2851 | 0.3690 | 0.2729 | 0.3825 |
| 500 | 164 | 0.2933 | 0.3642 | 0.2870 | 0.3711 | 0.2748 | 0.3845 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 165 | 0.2952 | 0.3663 | 0.2889 | 0.3731 | 0.2767 | 0.3866 |
| 500 | 166 | 0.2972 | 0.3683 | 0.2908 | 0.3752 | 0.2786 | 0.3887 |
| 500 | 167 | 0.2991 | 0.3704 | 0.2928 | 0.3772 | 0.2805 | 0.3907 |
| 500 | 168 | 0.3010 | 0.3724 | 0.2947 | 0.3793 | 0.2824 | 0.3928 |
| 500 | 169 | 0.3030 | 0.3744 | 0.2966 | 0.3813 | 0.2843 | 0.3949 |
| 500 | 170 | 0.3049 | 0.3765 | 0.2985 | 0.3834 | 0.2862 | 0.3969 |
| 500 | 171 | 0.3069 | 0.3785 | 0.3005 | 0.3854 | 0.2881 | 0.3990 |
| 500 | 172 | 0.3088 | 0.3806 | 0.3024 | 0.3875 | 0.2900 | 0.4010 |
| 500 | 173 | 0.3108 | 0.3826 | 0.3043 | 0.3895 | 0.2919 | 0.4031 |
| 500 | 174 | 0.3127 | 0.3847 | 0.3063 | 0.3915 | 0.2938 | 0.4051 |
| 500 | 175 | 0.3146 | 0.3867 | 0.3082 | 0.3936 | 0.2957 | 0.4072 |
| 500 | 176 | 0.3166 | 0.3887 | 0.3101 | 0.3956 | 0.2976 | 0.4092 |
| 500 | 177 | 0.3185 | 0.3908 | 0.3120 | 0.3977 | 0.2996 | 0.4113 |
| 500 | 178 | 0.3205 | 0.3928 | 0.3140 | 0.3997 | 0.3015 | 0.4133 |
| 500 | 179 | 0.3224 | 0.3948 | 0.3159 | 0.4018 | 0.3033 | 0.4154 |
| 500 | 180 | 0.3244 | 0.3969 | 0.3179 | 0.4038 | 0.3053 | 0.4174 |
| 500 | 181 | 0.3263 | 0.3989 | 0.3198 | 0.4058 | 0.3072 | 0.4195 |
| 500 | 182 | 0.3283 | 0.4009 | 0.3217 | 0.4079 | 0.3091 | 0.4215 |
| 500 | 183 | 0.3302 | 0.4030 | 0.3237 | 0.4099 | 0.3111 | 0.4236 |
| 500 | 184 | 0.3322 | 0.4050 | 0.3256 | 0.4119 | 0.3130 | 0.4256 |
| 500 | 185 | 0.3341 | 0.4070 | 0.3276 | 0.4140 | 0.3149 | 0.4277 |
| 500 | 186 | 0.3361 | 0.4090 | 0.3295 | 0.4160 | 0.3168 | 0.4297 |
| 500 | 187 | 0.3380 | 0.4111 | 0.3314 | 0.4181 | 0.3187 | 0.4317 |
| 500 | 188 | 0.3400 | 0.4131 | 0.3334 | 0.4201 | 0.3206 | 0.4338 |
| 500 | 189 | 0.3419 | 0.4151 | 0.3353 | 0.4221 | 0.3225 | 0.4358 |
| 500 | 190 | 0.3439 | 0.4172 | 0.3373 | 0.4242 | 0.3245 | 0.4379 |
| 500 | 191 | 0.3458 | 0.4192 | 0.3392 | 0.4262 | 0.3264 | 0.4399 |
| 500 | 192 | 0.3478 | 0.4212 | 0.3411 | 0.4282 | 0.3283 | 0.4419 |
| 500 | 193 | 0.3498 | 0.4232 | 0.3431 | 0.4302 | 0.3302 | 0.4440 |
| 500 | 194 | 0.3517 | 0.4253 | 0.3451 | 0.4323 | 0.3321 | 0.4460 |
| 500 | 195 | 0.3537 | 0.4273 | 0.3470 | 0.4343 | 0.3341 | 0.4480 |
| 500 | 196 | 0.3556 | 0.4293 | 0.3490 | 0.4363 | 0.3360 | 0.4501 |
| 500 | 197 | 0.3576 | 0.4313 | 0.3509 | 0.4383 | 0.3379 | 0.4521 |
| 500 | 198 | 0.3596 | 0.4334 | 0.3529 | 0.4404 | 0.3399 | 0.4541 |
| 500 | 199 | 0.3615 | 0.4354 | 0.3548 | 0.4424 | 0.3418 | 0.4562 |
| 500 | 200 | 0.3635 | 0.4374 | 0.3567 | 0.4444 | 0.3437 | 0.4582 |
| 500 | 201 | 0.3654 | 0.4394 | 0.3587 | 0.4464 | 0.3457 | 0.4602 |
| 500 | 202 | 0.3674 | 0.4414 | 0.3607 | 0.4485 | 0.3476 | 0.4622 |
| 500 | 203 | 0.3694 | 0.4435 | 0.3626 | 0.4505 | 0.3496 | 0.4643 |
| 500 | 204 | 0.3713 | 0.4455 | 0.3646 | 0.4525 | 0.3515 | 0.4663 |
| 500 | 205 | 0.3733 | 0.4475 | 0.3665 | 0.4545 | 0.3534 | 0.4683 |
| 500 | 206 | 0.3753 | 0.4495 | 0.3685 | 0.4566 | 0.3554 | 0.4703 |
| 500 | 207 | 0.3772 | 0.4515 | 0.3704 | 0.4586 | 0.3573 | 0.4723 |
| 500 | 208 | 0.3792 | 0.4536 | 0.3724 | 0.4606 | 0.3592 | 0.4744 |
| 500 | 209 | 0.3811 | 0.4556 | 0.3744 | 0.4626 | 0.3612 | 0.4764 |
| 500 | 210 | 0.3831 | 0.4576 | 0.3763 | 0.4646 | 0.3631 | 0.4784 |
| 500 | 211 | 0.3851 | 0.4596 | 0.3783 | 0.4667 | 0.3651 | 0.4804 |
| 500 | 212 | 0.3870 | 0.4616 | 0.3802 | 0.4687 | 0.3670 | 0.4824 |
| 500 | 213 | 0.3890 | 0.4636 | 0.3822 | 0.4707 | 0.3690 | 0.4845 |
| 500 | 214 | 0.3910 | 0.4656 | 0.3842 | 0.4727 | 0.3709 | 0.4865 |
| 500 | 215 | 0.3930 | 0.4677 | 0.3861 | 0.4747 | 0.3729 | 0.4885 |
| 500 | 216 | 0.3949 | 0.4697 | 0.3881 | 0.4767 | 0.3748 | 0.4905 |
| 500 | 217 | 0.3969 | 0.4717 | 0.3901 | 0.4787 | 0.3768 | 0.4925 |
| 500 | 218 | 0.3989 | 0.4737 | 0.3920 | 0.4807 | 0.3787 | 0.4945 |
| 500 | 219 | 0.4009 | 0.4757 | 0.3940 | 0.4827 | 0.3807 | 0.4965 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 220 | 0.4028 | 0.4777 | 0.3959 | 0.4847 | 0.3826 | 0.4985 |
| 500 | 221 | 0.4048 | 0.4797 | 0.3979 | 0.4868 | 0.3846 | 0.5005 |
| 500 | 222 | 0.4068 | 0.4817 | 0.3999 | 0.4888 | 0.3865 | 0.5026 |
| 500 | 223 | 0.4087 | 0.4837 | 0.4019 | 0.4908 | 0.3885 | 0.5046 |
| 500 | 224 | 0.4107 | 0.4857 | 0.4038 | 0.4928 | 0.3905 | 0.5066 |
| 500 | 225 | 0.4127 | 0.4877 | 0.4058 | 0.4948 | 0.3924 | 0.5086 |
| 500 | 226 | 0.4147 | 0.4898 | 0.4078 | 0.4968 | 0.3944 | 0.5106 |
| 500 | 227 | 0.4166 | 0.4918 | 0.4097 | 0.4988 | 0.3963 | 0.5126 |
| 500 | 228 | 0.4186 | 0.4938 | 0.4117 | 0.5008 | 0.3983 | 0.5146 |
| 500 | 229 | 0.4206 | 0.4958 | 0.4137 | 0.5028 | 0.4002 | 0.5166 |
| 500 | 230 | 0.4226 | 0.4978 | 0.4157 | 0.5048 | 0.4022 | 0.5186 |
| 500 | 231 | 0.4246 | 0.4998 | 0.4176 | 0.5068 | 0.4041 | 0.5206 |
| 500 | 232 | 0.4266 | 0.5018 | 0.4196 | 0.5088 | 0.4061 | 0.5226 |
| 500 | 233 | 0.4285 | 0.5038 | 0.4216 | 0.5108 | 0.4081 | 0.5246 |
| 500 | 234 | 0.4305 | 0.5058 | 0.4236 | 0.5128 | 0.4101 | 0.5266 |
| 500 | 235 | 0.4325 | 0.5078 | 0.4255 | 0.5148 | 0.4120 | 0.5286 |
| 500 | 236 | 0.4345 | 0.5098 | 0.4275 | 0.5168 | 0.4140 | 0.5306 |
| 500 | 237 | 0.4365 | 0.5118 | 0.4295 | 0.5188 | 0.4159 | 0.5325 |
| 500 | 238 | 0.4384 | 0.5138 | 0.4315 | 0.5208 | 0.4179 | 0.5345 |
| 500 | 239 | 0.4404 | 0.5158 | 0.4334 | 0.5228 | 0.4199 | 0.5365 |
| 500 | 240 | 0.4424 | 0.5178 | 0.4354 | 0.5248 | 0.4219 | 0.5385 |
| 500 | 241 | 0.4444 | 0.5198 | 0.4374 | 0.5268 | 0.4238 | 0.5405 |
| 500 | 242 | 0.4464 | 0.5218 | 0.4394 | 0.5288 | 0.4258 | 0.5425 |
| 500 | 243 | 0.4484 | 0.5238 | 0.4414 | 0.5308 | 0.4278 | 0.5445 |
| 500 | 244 | 0.4504 | 0.5257 | 0.4434 | 0.5328 | 0.4297 | 0.5465 |
| 500 | 245 | 0.4523 | 0.5277 | 0.4454 | 0.5348 | 0.4317 | 0.5485 |
| 500 | 246 | 0.4543 | 0.5297 | 0.4473 | 0.5368 | 0.4337 | 0.5504 |
| 500 | 247 | 0.4563 | 0.5317 | 0.4493 | 0.5387 | 0.4357 | 0.5524 |
| 500 | 248 | 0.4583 | 0.5337 | 0.4513 | 0.5407 | 0.4377 | 0.5544 |
| 500 | 249 | 0.4603 | 0.5357 | 0.4533 | 0.5427 | 0.4397 | 0.5564 |
| 500 | 250 | 0.4623 | 0.5377 | 0.4553 | 0.5447 | 0.4416 | 0.5584 |
| 500 | 251 | 0.4643 | 0.5397 | 0.4573 | 0.5467 | 0.4436 | 0.5603 |
| 500 | 252 | 0.4663 | 0.5417 | 0.4593 | 0.5487 | 0.4456 | 0.5623 |
| 500 | 253 | 0.4683 | 0.5437 | 0.4613 | 0.5507 | 0.4476 | 0.5643 |
| 500 | 254 | 0.4703 | 0.5457 | 0.4632 | 0.5527 | 0.4496 | 0.5663 |
| 500 | 255 | 0.4723 | 0.5477 | 0.4652 | 0.5546 | 0.4515 | 0.5683 |
| 500 | 256 | 0.4743 | 0.5496 | 0.4672 | 0.5566 | 0.4535 | 0.5703 |
| 500 | 257 | 0.4762 | 0.5516 | 0.4692 | 0.5586 | 0.4555 | 0.5722 |
| 500 | 258 | 0.4782 | 0.5536 | 0.4712 | 0.5606 | 0.4575 | 0.5742 |
| 500 | 259 | 0.4802 | 0.5556 | 0.4732 | 0.5626 | 0.4595 | 0.5762 |
| 500 | 260 | 0.4822 | 0.5576 | 0.4752 | 0.5646 | 0.4615 | 0.5781 |
| 500 | 261 | 0.4842 | 0.5596 | 0.4772 | 0.5666 | 0.4635 | 0.5801 |
| 500 | 262 | 0.4862 | 0.5616 | 0.4792 | 0.5685 | 0.4655 | 0.5821 |
| 500 | 263 | 0.4882 | 0.5635 | 0.4812 | 0.5705 | 0.4675 | 0.5841 |
| 500 | 264 | 0.4902 | 0.5655 | 0.4832 | 0.5725 | 0.4694 | 0.5860 |
| 500 | 265 | 0.4922 | 0.5675 | 0.4852 | 0.5745 | 0.4714 | 0.5880 |
| 500 | 266 | 0.4942 | 0.5695 | 0.4872 | 0.5764 | 0.4734 | 0.5899 |
| 500 | 267 | 0.4962 | 0.5715 | 0.4892 | 0.5784 | 0.4754 | 0.5919 |
| 500 | 268 | 0.4982 | 0.5734 | 0.4912 | 0.5804 | 0.4774 | 0.5939 |
| 500 | 269 | 0.5002 | 0.5754 | 0.4932 | 0.5824 | 0.4794 | 0.5959 |
| 500 | 270 | 0.5022 | 0.5774 | 0.4952 | 0.5843 | 0.4814 | 0.5978 |
| 500 | 271 | 0.5042 | 0.5794 | 0.4972 | 0.5863 | 0.4834 | 0.5998 |
| 500 | 272 | 0.5062 | 0.5814 | 0.4992 | 0.5883 | 0.4854 | 0.6017 |
| 500 | 273 | 0.5082 | 0.5834 | 0.5012 | 0.5903 | 0.4874 | 0.6037 |
| 500 | 274 | 0.5102 | 0.5853 | 0.5032 | 0.5922 | 0.4894 | 0.6056 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 275 | 0.5123 | 0.5873 | 0.5052 | 0.5942 | 0.4914 | 0.6076 |
| 500 | 276 | 0.5143 | 0.5893 | 0.5072 | 0.5962 | 0.4934 | 0.6095 |
| 500 | 277 | 0.5163 | 0.5913 | 0.5092 | 0.5981 | 0.4954 | 0.6115 |
| 500 | 278 | 0.5183 | 0.5932 | 0.5112 | 0.6001 | 0.4974 | 0.6135 |
| 500 | 279 | 0.5203 | 0.5952 | 0.5132 | 0.6021 | 0.4995 | 0.6154 |
| 500 | 280 | 0.5223 | 0.5972 | 0.5153 | 0.6041 | 0.5015 | 0.6174 |
| 500 | 281 | 0.5243 | 0.5991 | 0.5173 | 0.6060 | 0.5035 | 0.6193 |
| 500 | 282 | 0.5263 | 0.6011 | 0.5193 | 0.6080 | 0.5055 | 0.6213 |
| 500 | 283 | 0.5283 | 0.6031 | 0.5213 | 0.6099 | 0.5075 | 0.6232 |
| 500 | 284 | 0.5303 | 0.6051 | 0.5233 | 0.6119 | 0.5095 | 0.6252 |
| 500 | 285 | 0.5323 | 0.6070 | 0.5253 | 0.6139 | 0.5115 | 0.6271 |
| 500 | 286 | 0.5344 | 0.6090 | 0.5273 | 0.6158 | 0.5135 | 0.6291 |
| 500 | 287 | 0.5364 | 0.6110 | 0.5293 | 0.6178 | 0.5155 | 0.6310 |
| 500 | 288 | 0.5384 | 0.6130 | 0.5313 | 0.6198 | 0.5176 | 0.6330 |
| 500 | 289 | 0.5404 | 0.6149 | 0.5333 | 0.6217 | 0.5196 | 0.6349 |
| 500 | 290 | 0.5424 | 0.6169 | 0.5354 | 0.6237 | 0.5216 | 0.6369 |
| 500 | 291 | 0.5444 | 0.6189 | 0.5374 | 0.6256 | 0.5236 | 0.6388 |
| 500 | 292 | 0.5464 | 0.6208 | 0.5394 | 0.6276 | 0.5256 | 0.6408 |
| 500 | 293 | 0.5485 | 0.6228 | 0.5414 | 0.6296 | 0.5277 | 0.6427 |
| 500 | 294 | 0.5505 | 0.6247 | 0.5434 | 0.6315 | 0.5297 | 0.6446 |
| 500 | 295 | 0.5525 | 0.6267 | 0.5455 | 0.6335 | 0.5317 | 0.6466 |
| 500 | 296 | 0.5545 | 0.6287 | 0.5475 | 0.6354 | 0.5337 | 0.6485 |
| 500 | 297 | 0.5565 | 0.6306 | 0.5495 | 0.6374 | 0.5357 | 0.6504 |
| 500 | 298 | 0.5586 | 0.6326 | 0.5515 | 0.6393 | 0.5378 | 0.6524 |
| 500 | 299 | 0.5606 | 0.6346 | 0.5536 | 0.6413 | 0.5398 | 0.6543 |
| 500 | 300 | 0.5626 | 0.6365 | 0.5556 | 0.6433 | 0.5418 | 0.6563 |
| 500 | 301 | 0.5646 | 0.6385 | 0.5576 | 0.6452 | 0.5438 | 0.6582 |
| 500 | 302 | 0.5666 | 0.6404 | 0.5596 | 0.6471 | 0.5459 | 0.6601 |
| 500 | 303 | 0.5687 | 0.6424 | 0.5617 | 0.6491 | 0.5479 | 0.6621 |
| 500 | 304 | 0.5707 | 0.6444 | 0.5637 | 0.6510 | 0.5499 | 0.6640 |
| 500 | 305 | 0.5727 | 0.6463 | 0.5657 | 0.6530 | 0.5520 | 0.6659 |
| 500 | 306 | 0.5747 | 0.6483 | 0.5677 | 0.6549 | 0.5540 | 0.6679 |
| 500 | 307 | 0.5768 | 0.6502 | 0.5698 | 0.6569 | 0.5560 | 0.6698 |
| 500 | 308 | 0.5788 | 0.6522 | 0.5718 | 0.6589 | 0.5581 | 0.6717 |
| 500 | 309 | 0.5808 | 0.6542 | 0.5738 | 0.6608 | 0.5601 | 0.6736 |
| 500 | 310 | 0.5828 | 0.6561 | 0.5758 | 0.6627 | 0.5621 | 0.6755 |
| 500 | 311 | 0.5849 | 0.6581 | 0.5779 | 0.6647 | 0.5642 | 0.6775 |
| 500 | 312 | 0.5869 | 0.6600 | 0.5799 | 0.6666 | 0.5662 | 0.6794 |
| 500 | 313 | 0.5889 | 0.6620 | 0.5819 | 0.6686 | 0.5683 | 0.6813 |
| 500 | 314 | 0.5910 | 0.6639 | 0.5840 | 0.6705 | 0.5703 | 0.6832 |
| 500 | 315 | 0.5930 | 0.6659 | 0.5860 | 0.6724 | 0.5723 | 0.6851 |
| 500 | 316 | 0.5950 | 0.6678 | 0.5881 | 0.6744 | 0.5744 | 0.6870 |
| 500 | 317 | 0.5970 | 0.6698 | 0.5901 | 0.6763 | 0.5764 | 0.6889 |
| 500 | 318 | 0.5991 | 0.6717 | 0.5921 | 0.6783 | 0.5785 | 0.6909 |
| 500 | 319 | 0.6011 | 0.6737 | 0.5942 | 0.6802 | 0.5805 | 0.6928 |
| 500 | 320 | 0.6031 | 0.6756 | 0.5962 | 0.6821 | 0.5826 | 0.6947 |
| 500 | 321 | 0.6052 | 0.6776 | 0.5982 | 0.6841 | 0.5846 | 0.6967 |
| 500 | 322 | 0.6072 | 0.6795 | 0.6003 | 0.6860 | 0.5867 | 0.6985 |
| 500 | 323 | 0.6092 | 0.6815 | 0.6023 | 0.6880 | 0.5887 | 0.7004 |
| 500 | 324 | 0.6113 | 0.6834 | 0.6044 | 0.6899 | 0.5908 | 0.7024 |
| 500 | 325 | 0.6133 | 0.6854 | 0.6064 | 0.6918 | 0.5928 | 0.7043 |
| 500 | 326 | 0.6153 | 0.6873 | 0.6085 | 0.6937 | 0.5949 | 0.7062 |
| 500 | 327 | 0.6174 | 0.6892 | 0.6105 | 0.6957 | 0.5969 | 0.7081 |
| 500 | 328 | 0.6194 | 0.6912 | 0.6125 | 0.6976 | 0.5990 | 0.7100 |
| 500 | 329 | 0.6215 | 0.6931 | 0.6146 | 0.6995 | 0.6010 | 0.7119 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 330 | 0.6235 | 0.6951 | 0.6166 | 0.7015 | 0.6031 | 0.7138 |
| 500 | 331 | 0.6256 | 0.6970 | 0.6187 | 0.7034 | 0.6051 | 0.7157 |
| 500 | 332 | 0.6276 | 0.6990 | 0.6207 | 0.7053 | 0.6072 | 0.7176 |
| 500 | 333 | 0.6296 | 0.7009 | 0.6228 | 0.7072 | 0.6093 | 0.7195 |
| 500 | 334 | 0.6317 | 0.7028 | 0.6248 | 0.7092 | 0.6113 | 0.7214 |
| 500 | 335 | 0.6337 | 0.7048 | 0.6269 | 0.7111 | 0.6134 | 0.7233 |
| 500 | 336 | 0.6358 | 0.7067 | 0.6289 | 0.7130 | 0.6155 | 0.7252 |
| 500 | 337 | 0.6378 | 0.7086 | 0.6310 | 0.7149 | 0.6175 | 0.7271 |
| 500 | 338 | 0.6399 | 0.7106 | 0.6330 | 0.7169 | 0.6196 | 0.7290 |
| 500 | 339 | 0.6419 | 0.7125 | 0.6351 | 0.7188 | 0.6217 | 0.7309 |
| 500 | 340 | 0.6440 | 0.7145 | 0.6371 | 0.7207 | 0.6237 | 0.7328 |
| 500 | 341 | 0.6460 | 0.7164 | 0.6392 | 0.7226 | 0.6258 | 0.7347 |
| 500 | 342 | 0.6480 | 0.7183 | 0.6412 | 0.7246 | 0.6279 | 0.7365 |
| 500 | 343 | 0.6501 | 0.7203 | 0.6433 | 0.7265 | 0.6299 | 0.7384 |
| 500 | 344 | 0.6522 | 0.7222 | 0.6454 | 0.7284 | 0.6320 | 0.7403 |
| 500 | 345 | 0.6542 | 0.7241 | 0.6474 | 0.7303 | 0.6341 | 0.7423 |
| 500 | 346 | 0.6563 | 0.7261 | 0.6495 | 0.7322 | 0.6361 | 0.7441 |
| 500 | 347 | 0.6583 | 0.7280 | 0.6515 | 0.7341 | 0.6382 | 0.7460 |
| 500 | 348 | 0.6604 | 0.7299 | 0.6536 | 0.7361 | 0.6403 | 0.7479 |
| 500 | 349 | 0.6624 | 0.7318 | 0.6557 | 0.7380 | 0.6424 | 0.7498 |
| 500 | 350 | 0.6645 | 0.7338 | 0.6577 | 0.7399 | 0.6445 | 0.7516 |
| 500 | 351 | 0.6665 | 0.7357 | 0.6598 | 0.7418 | 0.6465 | 0.7535 |
| 500 | 352 | 0.6686 | 0.7376 | 0.6619 | 0.7437 | 0.6486 | 0.7554 |
| 500 | 353 | 0.6706 | 0.7395 | 0.6639 | 0.7456 | 0.6507 | 0.7573 |
| 500 | 354 | 0.6727 | 0.7415 | 0.6660 | 0.7475 | 0.6528 | 0.7591 |
| 500 | 355 | 0.6748 | 0.7434 | 0.6681 | 0.7494 | 0.6549 | 0.7610 |
| 500 | 356 | 0.6768 | 0.7453 | 0.6701 | 0.7513 | 0.6570 | 0.7629 |
| 500 | 357 | 0.6789 | 0.7472 | 0.6722 | 0.7532 | 0.6590 | 0.7648 |
| 500 | 358 | 0.6809 | 0.7492 | 0.6743 | 0.7551 | 0.6611 | 0.7667 |
| 500 | 359 | 0.6830 | 0.7511 | 0.6764 | 0.7571 | 0.6632 | 0.7685 |
| 500 | 360 | 0.6851 | 0.7530 | 0.6784 | 0.7589 | 0.6653 | 0.7704 |
| 500 | 361 | 0.6871 | 0.7549 | 0.6805 | 0.7609 | 0.6674 | 0.7723 |
| 500 | 362 | 0.6892 | 0.7568 | 0.6826 | 0.7627 | 0.6695 | 0.7741 |
| 500 | 363 | 0.6912 | 0.7588 | 0.6846 | 0.7647 | 0.6716 | 0.7760 |
| 500 | 364 | 0.6933 | 0.7607 | 0.6867 | 0.7666 | 0.6737 | 0.7779 |
| 500 | 365 | 0.6954 | 0.7626 | 0.6888 | 0.7685 | 0.6758 | 0.7797 |
| 500 | 366 | 0.6974 | 0.7645 | 0.6909 | 0.7703 | 0.6779 | 0.7816 |
| 500 | 367 | 0.6995 | 0.7664 | 0.6930 | 0.7723 | 0.6800 | 0.7835 |
| 500 | 368 | 0.7016 | 0.7683 | 0.6950 | 0.7741 | 0.6821 | 0.7853 |
| 500 | 369 | 0.7037 | 0.7702 | 0.6971 | 0.7760 | 0.6842 | 0.7872 |
| 500 | 370 | 0.7057 | 0.7721 | 0.6992 | 0.7779 | 0.6863 | 0.7890 |
| 500 | 371 | 0.7078 | 0.7741 | 0.7013 | 0.7798 | 0.6884 | 0.7909 |
| 500 | 372 | 0.7099 | 0.7760 | 0.7034 | 0.7817 | 0.6905 | 0.7927 |
| 500 | 373 | 0.7119 | 0.7779 | 0.7055 | 0.7836 | 0.6926 | 0.7946 |
| 500 | 374 | 0.7140 | 0.7798 | 0.7075 | 0.7855 | 0.6947 | 0.7964 |
| 500 | 375 | 0.7161 | 0.7817 | 0.7096 | 0.7874 | 0.6969 | 0.7983 |
| 500 | 376 | 0.7182 | 0.7836 | 0.7117 | 0.7893 | 0.6990 | 0.8001 |
| 500 | 377 | 0.7202 | 0.7855 | 0.7138 | 0.7912 | 0.7011 | 0.8020 |
| 500 | 378 | 0.7223 | 0.7874 | 0.7159 | 0.7931 | 0.7032 | 0.8038 |
| 500 | 379 | 0.7244 | 0.7893 | 0.7180 | 0.7949 | 0.7053 | 0.8057 |
| 500 | 380 | 0.7265 | 0.7912 | 0.7201 | 0.7968 | 0.7074 | 0.8075 |
| 500 | 381 | 0.7286 | 0.7931 | 0.7222 | 0.7987 | 0.7096 | 0.8093 |
| 500 | 382 | 0.7306 | 0.7950 | 0.7243 | 0.8006 | 0.7117 | 0.8112 |
| 500 | 383 | 0.7327 | 0.7969 | 0.7264 | 0.8024 | 0.7138 | 0.8130 |
| 500 | 384 | 0.7348 | 0.7988 | 0.7285 | 0.8043 | 0.7159 | 0.8149 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 385 | 0.7369 | 0.8007 | 0.7306 | 0.8062 | 0.7181 | 0.8167 |
| 500 | 386 | 0.7390 | 0.8026 | 0.7327 | 0.8081 | 0.7202 | 0.8185 |
| 500 | 387 | 0.7411 | 0.8045 | 0.7348 | 0.8099 | 0.7223 | 0.8204 |
| 500 | 388 | 0.7432 | 0.8064 | 0.7369 | 0.8118 | 0.7244 | 0.8222 |
| 500 | 389 | 0.7452 | 0.8083 | 0.7390 | 0.8137 | 0.7266 | 0.8240 |
| 500 | 390 | 0.7473 | 0.8102 | 0.7411 | 0.8156 | 0.7287 | 0.8258 |
| 500 | 391 | 0.7494 | 0.8121 | 0.7432 | 0.8174 | 0.7308 | 0.8277 |
| 500 | 392 | 0.7515 | 0.8140 | 0.7453 | 0.8193 | 0.7330 | 0.8295 |
| 500 | 393 | 0.7536 | 0.8158 | 0.7474 | 0.8212 | 0.7351 | 0.8313 |
| 500 | 394 | 0.7557 | 0.8177 | 0.7495 | 0.8230 | 0.7373 | 0.8331 |
| 500 | 395 | 0.7578 | 0.8196 | 0.7516 | 0.8249 | 0.7394 | 0.8350 |
| 500 | 396 | 0.7599 | 0.8215 | 0.7537 | 0.8268 | 0.7415 | 0.8368 |
| 500 | 397 | 0.7620 | 0.8234 | 0.7559 | 0.8286 | 0.7437 | 0.8386 |
| 500 | 398 | 0.7641 | 0.8253 | 0.7580 | 0.8305 | 0.7458 | 0.8404 |
| 500 | 399 | 0.7662 | 0.8272 | 0.7601 | 0.8323 | 0.7480 | 0.8422 |
| 500 | 400 | 0.7683 | 0.8290 | 0.7622 | 0.8342 | 0.7501 | 0.8440 |
| 500 | 401 | 0.7704 | 0.8309 | 0.7643 | 0.8361 | 0.7523 | 0.8458 |
| 500 | 402 | 0.7725 | 0.8328 | 0.7664 | 0.8379 | 0.7544 | 0.8476 |
| 500 | 403 | 0.7746 | 0.8347 | 0.7686 | 0.8398 | 0.7566 | 0.8494 |
| 500 | 404 | 0.7767 | 0.8366 | 0.7707 | 0.8416 | 0.7588 | 0.8512 |
| 500 | 405 | 0.7788 | 0.8384 | 0.7728 | 0.8435 | 0.7609 | 0.8530 |
| 500 | 406 | 0.7809 | 0.8403 | 0.7749 | 0.8453 | 0.7631 | 0.8548 |
| 500 | 407 | 0.7830 | 0.8422 | 0.7771 | 0.8472 | 0.7652 | 0.8566 |
| 500 | 408 | 0.7851 | 0.8441 | 0.7792 | 0.8490 | 0.7674 | 0.8584 |
| 500 | 409 | 0.7872 | 0.8459 | 0.7813 | 0.8509 | 0.7696 | 0.8602 |
| 500 | 410 | 0.7893 | 0.8478 | 0.7835 | 0.8527 | 0.7717 | 0.8620 |
| 500 | 411 | 0.7915 | 0.8497 | 0.7856 | 0.8545 | 0.7739 | 0.8638 |
| 500 | 412 | 0.7936 | 0.8515 | 0.7877 | 0.8564 | 0.7761 | 0.8656 |
| 500 | 413 | 0.7957 | 0.8534 | 0.7899 | 0.8582 | 0.7783 | 0.8674 |
| 500 | 414 | 0.7978 | 0.8553 | 0.7920 | 0.8601 | 0.7804 | 0.8692 |
| 500 | 415 | 0.7999 | 0.8571 | 0.7942 | 0.8619 | 0.7826 | 0.8709 |
| 500 | 416 | 0.8021 | 0.8590 | 0.7963 | 0.8637 | 0.7848 | 0.8727 |
| 500 | 417 | 0.8042 | 0.8608 | 0.7984 | 0.8656 | 0.7870 | 0.8745 |
| 500 | 418 | 0.8063 | 0.8627 | 0.8006 | 0.8674 | 0.7892 | 0.8763 |
| 500 | 419 | 0.8084 | 0.8646 | 0.8027 | 0.8692 | 0.7914 | 0.8780 |
| 500 | 420 | 0.8105 | 0.8664 | 0.8049 | 0.8710 | 0.7935 | 0.8798 |
| 500 | 421 | 0.8127 | 0.8683 | 0.8070 | 0.8729 | 0.7957 | 0.8816 |
| 500 | 422 | 0.8148 | 0.8701 | 0.8092 | 0.8747 | 0.7979 | 0.8833 |
| 500 | 423 | 0.8169 | 0.8720 | 0.8113 | 0.8765 | 0.8001 | 0.8851 |
| 500 | 424 | 0.8191 | 0.8738 | 0.8135 | 0.8783 | 0.8023 | 0.8869 |
| 500 | 425 | 0.8212 | 0.8757 | 0.8157 | 0.8801 | 0.8046 | 0.8886 |
| 500 | 426 | 0.8233 | 0.8775 | 0.8178 | 0.8820 | 0.8067 | 0.8904 |
| 500 | 427 | 0.8255 | 0.8794 | 0.8200 | 0.8838 | 0.8089 | 0.8921 |
| 500 | 428 | 0.8276 | 0.8812 | 0.8221 | 0.8856 | 0.8111 | 0.8939 |
| 500 | 429 | 0.8298 | 0.8830 | 0.8243 | 0.8874 | 0.8134 | 0.8956 |
| 500 | 430 | 0.8319 | 0.8849 | 0.8265 | 0.8892 | 0.8156 | 0.8974 |
| 500 | 431 | 0.8340 | 0.8867 | 0.8286 | 0.8910 | 0.8178 | 0.8991 |
| 500 | 432 | 0.8362 | 0.8886 | 0.8308 | 0.8928 | 0.8200 | 0.9008 |
| 500 | 433 | 0.8383 | 0.8904 | 0.8330 | 0.8946 | 0.8222 | 0.9026 |
| 500 | 434 | 0.8405 | 0.8922 | 0.8352 | 0.8964 | 0.8245 | 0.9043 |
| 500 | 435 | 0.8426 | 0.8941 | 0.8373 | 0.8982 | 0.8267 | 0.9060 |
| 500 | 436 | 0.8448 | 0.8959 | 0.8395 | 0.9000 | 0.8289 | 0.9078 |
| 500 | 437 | 0.8469 | 0.8977 | 0.8417 | 0.9018 | 0.8312 | 0.9095 |
| 500 | 438 | 0.8491 | 0.8995 | 0.8439 | 0.9036 | 0.8334 | 0.9112 |
| 500 | 439 | 0.8512 | 0.9014 | 0.8461 | 0.9054 | 0.8357 | 0.9129 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 440 | 0.8534 | 0.9032 | 0.8482 | 0.9072 | 0.8379 | 0.9146 |
| 500 | 441 | 0.8556 | 0.9050 | 0.8504 | 0.9089 | 0.8401 | 0.9164 |
| 500 | 442 | 0.8577 | 0.9068 | 0.8526 | 0.9107 | 0.8424 | 0.9181 |
| 500 | 443 | 0.8599 | 0.9086 | 0.8548 | 0.9125 | 0.8446 | 0.9198 |
| 500 | 444 | 0.8621 | 0.9104 | 0.8570 | 0.9143 | 0.8469 | 0.9215 |
| 500 | 445 | 0.8642 | 0.9123 | 0.8592 | 0.9161 | 0.8492 | 0.9232 |
| 500 | 446 | 0.8664 | 0.9141 | 0.8614 | 0.9178 | 0.8514 | 0.9249 |
| 500 | 447 | 0.8686 | 0.9159 | 0.8637 | 0.9196 | 0.8537 | 0.9266 |
| 500 | 448 | 0.8708 | 0.9177 | 0.8659 | 0.9213 | 0.8560 | 0.9282 |
| 500 | 449 | 0.8729 | 0.9195 | 0.8681 | 0.9231 | 0.8583 | 0.9299 |
| 500 | 450 | 0.8751 | 0.9213 | 0.8703 | 0.9249 | 0.8605 | 0.9316 |
| 500 | 451 | 0.8773 | 0.9231 | 0.8725 | 0.9266 | 0.8628 | 0.9333 |
| 500 | 452 | 0.8795 | 0.9248 | 0.8747 | 0.9284 | 0.8651 | 0.9349 |
| 500 | 453 | 0.8817 | 0.9266 | 0.8770 | 0.9301 | 0.8674 | 0.9366 |
| 500 | 454 | 0.8839 | 0.9284 | 0.8792 | 0.9319 | 0.8697 | 0.9383 |
| 500 | 455 | 0.8861 | 0.9302 | 0.8814 | 0.9336 | 0.8720 | 0.9399 |
| 500 | 456 | 0.8883 | 0.9320 | 0.8837 | 0.9353 | 0.8743 | 0.9416 |
| 500 | 457 | 0.8905 | 0.9338 | 0.8859 | 0.9371 | 0.8766 | 0.9432 |
| 500 | 458 | 0.8927 | 0.9355 | 0.8882 | 0.9388 | 0.8789 | 0.9449 |
| 500 | 459 | 0.8949 | 0.9373 | 0.8904 | 0.9405 | 0.8813 | 0.9465 |
| 500 | 460 | 0.8971 | 0.9391 | 0.8927 | 0.9422 | 0.8836 | 0.9481 |
| 500 | 461 | 0.8994 | 0.9408 | 0.8949 | 0.9439 | 0.8859 | 0.9497 |
| 500 | 462 | 0.9016 | 0.9426 | 0.8972 | 0.9457 | 0.8883 | 0.9514 |
| 500 | 463 | 0.9038 | 0.9443 | 0.8994 | 0.9474 | 0.8906 | 0.9530 |
| 500 | 464 | 0.9060 | 0.9461 | 0.9017 | 0.9491 | 0.8930 | 0.9546 |
| 500 | 465 | 0.9083 | 0.9478 | 0.9040 | 0.9508 | 0.8953 | 0.9562 |
| 500 | 466 | 0.9105 | 0.9496 | 0.9063 | 0.9525 | 0.8977 | 0.9578 |
| 500 | 467 | 0.9127 | 0.9513 | 0.9086 | 0.9541 | 0.9001 | 0.9594 |
| 500 | 468 | 0.9150 | 0.9530 | 0.9108 | 0.9558 | 0.9024 | 0.9609 |
| 500 | 469 | 0.9172 | 0.9548 | 0.9131 | 0.9575 | 0.9048 | 0.9625 |
| 500 | 470 | 0.9195 | 0.9565 | 0.9155 | 0.9592 | 0.9072 | 0.9641 |
| 500 | 471 | 0.9218 | 0.9582 | 0.9178 | 0.9608 | 0.9096 | 0.9656 |
| 500 | 472 | 0.9240 | 0.9599 | 0.9201 | 0.9625 | 0.9120 | 0.9672 |
| 500 | 473 | 0.9263 | 0.9616 | 0.9224 | 0.9641 | 0.9144 | 0.9687 |
| 500 | 474 | 0.9286 | 0.9633 | 0.9247 | 0.9658 | 0.9169 | 0.9702 |
| 500 | 475 | 0.9309 | 0.9650 | 0.9271 | 0.9674 | 0.9193 | 0.9717 |
| 500 | 476 | 0.9332 | 0.9667 | 0.9294 | 0.9690 | 0.9218 | 0.9732 |
| 500 | 477 | 0.9355 | 0.9684 | 0.9318 | 0.9706 | 0.9242 | 0.9747 |
| 500 | 478 | 0.9378 | 0.9700 | 0.9341 | 0.9722 | 0.9267 | 0.9762 |
| 500 | 479 | 0.9401 | 0.9717 | 0.9365 | 0.9738 | 0.9292 | 0.9777 |
| 500 | 480 | 0.9424 | 0.9733 | 0.9389 | 0.9754 | 0.9317 | 0.9791 |
| 500 | 481 | 0.9447 | 0.9750 | 0.9413 | 0.9770 | 0.9342 | 0.9805 |
| 500 | 482 | 0.9471 | 0.9766 | 0.9437 | 0.9785 | 0.9367 | 0.9820 |
| 500 | 483 | 0.9494 | 0.9782 | 0.9461 | 0.9801 | 0.9393 | 0.9834 |
| 500 | 484 | 0.9518 | 0.9798 | 0.9486 | 0.9816 | 0.9418 | 0.9848 |
| 500 | 485 | 0.9542 | 0.9814 | 0.9510 | 0.9831 | 0.9444 | 0.9861 |
| 500 | 486 | 0.9566 | 0.9830 | 0.9535 | 0.9846 | 0.9470 | 0.9875 |
| 500 | 487 | 0.9590 | 0.9846 | 0.9560 | 0.9861 | 0.9496 | 0.9888 |
| 500 | 488 | 0.9614 | 0.9861 | 0.9585 | 0.9875 | 0.9523 | 0.9901 |
| 500 | 489 | 0.9638 | 0.9876 | 0.9610 | 0.9890 | 0.9550 | 0.9913 |
| 500 | 490 | 0.9663 | 0.9891 | 0.9635 | 0.9904 | 0.9577 | 0.9925 |
| 500 | 491 | 0.9688 | 0.9906 | 0.9661 | 0.9917 | 0.9604 | 0.9937 |
| 500 | 492 | 0.9713 | 0.9920 | 0.9687 | 0.9931 | 0.9632 | 0.9948 |
| 500 | 493 | 0.9739 | 0.9934 | 0.9714 | 0.9944 | 0.9661 | 0.9959 |
| 500 | 494 | 0.9765 | 0.9948 | 0.9741 | 0.9956 | 0.9690 | 0.9969 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N   | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 500 | 495 | 0.9791 | 0.9961 | 0.9768 | 0.9967 | 0.9720 | 0.9978 |
| 500 | 496 | 0.9818 | 0.9973 | 0.9796 | 0.9978 | 0.9750 | 0.9987 |
| 500 | 497 | 0.9846 | 0.9984 | 0.9826 | 0.9988 | 0.9782 | 0.9993 |
| 500 | 498 | 0.9875 | 0.9993 | 0.9856 | 0.9995 | 0.9816 | 0.9998 |
| 500 | 499 | 0.9905 | 0.9999 | 0.9389 | 0.9999 | 0.9852 | 1.0000 |
| 500 | 500 | 0.9940 | 1.0000 | 0.9926 | 1.0000 | 0.9895 | 1.0000 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K  | 90% CL |        | 95% CL |        | 99% CL |        |
|------|----|--------|--------|--------|--------|--------|--------|
|      |    | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 0  | 0.0000 | 0.0030 | 0.0000 | 0.0037 | 0.0000 | 0.0053 |
| 1000 | 1  | 0.0001 | 0.0047 | 0.0000 | 0.0056 | 0.0000 | 0.0074 |
| 1000 | 2  | 0.0004 | 0.0063 | 0.0002 | 0.0072 | 0.0001 | 0.0092 |
| 1000 | 3  | 0.0008 | 0.0077 | 0.0006 | 0.0087 | 0.0003 | 0.0109 |
| 1000 | 4  | 0.0014 | 0.0091 | 0.0011 | 0.0102 | 0.0007 | 0.0125 |
| 1000 | 5  | 0.0020 | 0.0105 | 0.0016 | 0.0116 | 0.0011 | 0.0141 |
| 1000 | 6  | 0.0026 | 0.0118 | 0.0022 | 0.0130 | 0.0015 | 0.0156 |
| 1000 | 7  | 0.0033 | 0.0131 | 0.0028 | 0.0144 | 0.0020 | 0.0170 |
| 1000 | 8  | 0.0040 | 0.0144 | 0.0035 | 0.0157 | 0.0026 | 0.0185 |
| 1000 | 9  | 0.0047 | 0.0157 | 0.0041 | 0.0170 | 0.0031 | 0.0199 |
| 1000 | 10 | 0.0054 | 0.0169 | 0.0048 | 0.0183 | 0.0037 | 0.0213 |
| 1000 | 11 | 0.0062 | 0.0181 | 0.0055 | 0.0196 | 0.0043 | 0.0226 |
| 1000 | 12 | 0.0069 | 0.0194 | 0.0062 | 0.0209 | 0.0050 | 0.0240 |
| 1000 | 13 | 0.0077 | 0.0206 | 0.0069 | 0.0221 | 0.0056 | 0.0253 |
| 1000 | 14 | 0.0085 | 0.0218 | 0.0077 | 0.0234 | 0.0063 | 0.0267 |
| 1000 | 15 | 0.0093 | 0.0230 | 0.0084 | 0.0246 | 0.0069 | 0.0280 |
| 1000 | 16 | 0.0101 | 0.0242 | 0.0092 | 0.0259 | 0.0076 | 0.0293 |
| 1000 | 17 | 0.0109 | 0.0254 | 0.0099 | 0.0271 | 0.0083 | 0.0306 |
| 1000 | 18 | 0.0117 | 0.0266 | 0.0107 | 0.0283 | 0.0090 | 0.0319 |
| 1000 | 19 | 0.0125 | 0.0278 | 0.0115 | 0.0295 | 0.0097 | 0.0331 |
| 1000 | 20 | 0.0133 | 0.0289 | 0.0123 | 0.0307 | 0.0104 | 0.0344 |
| 1000 | 21 | 0.0141 | 0.0301 | 0.0130 | 0.0319 | 0.0111 | 0.0357 |
| 1000 | 22 | 0.0149 | 0.0313 | 0.0138 | 0.0331 | 0.0118 | 0.0369 |
| 1000 | 23 | 0.0158 | 0.0324 | 0.0146 | 0.0343 | 0.0126 | 0.0382 |
| 1000 | 24 | 0.0166 | 0.0336 | 0.0154 | 0.0355 | 0.0133 | 0.0394 |
| 1000 | 25 | 0.0174 | 0.0347 | 0.0162 | 0.0367 | 0.0141 | 0.0407 |
| 1000 | 26 | 0.0183 | 0.0359 | 0.0171 | 0.0379 | 0.0148 | 0.0419 |
| 1000 | 27 | 0.0191 | 0.0370 | 0.0179 | 0.0390 | 0.0156 | 0.0431 |
| 1000 | 28 | 0.0200 | 0.0382 | 0.0187 | 0.0402 | 0.0163 | 0.0444 |
| 1000 | 29 | 0.0208 | 0.0393 | 0.0195 | 0.0414 | 0.0171 | 0.0456 |
| 1000 | 30 | 0.0217 | 0.0405 | 0.0203 | 0.0426 | 0.0179 | 0.0468 |
| 1000 | 31 | 0.0225 | 0.0416 | 0.0212 | 0.0437 | 0.0186 | 0.0480 |
| 1000 | 32 | 0.0234 | 0.0427 | 0.0220 | 0.0449 | 0.0194 | 0.0492 |
| 1000 | 33 | 0.0242 | 0.0439 | 0.0228 | 0.0460 | 0.0202 | 0.0504 |
| 1000 | 34 | 0.0251 | 0.0450 | 0.0237 | 0.0472 | 0.0210 | 0.0516 |
| 1000 | 35 | 0.0260 | 0.0461 | 0.0245 | 0.0483 | 0.0218 | 0.0528 |
| 1000 | 36 | 0.0268 | 0.0473 | 0.0253 | 0.0495 | 0.0226 | 0.0540 |
| 1000 | 37 | 0.0277 | 0.0484 | 0.0262 | 0.0506 | 0.0234 | 0.0552 |
| 1000 | 38 | 0.0286 | 0.0495 | 0.0270 | 0.0518 | 0.0242 | 0.0564 |
| 1000 | 39 | 0.0295 | 0.0506 | 0.0279 | 0.0529 | 0.0250 | 0.0576 |
| 1000 | 40 | 0.0303 | 0.0518 | 0.0287 | 0.0541 | 0.0258 | 0.0588 |
| 1000 | 41 | 0.0312 | 0.0529 | 0.0296 | 0.0552 | 0.0266 | 0.0600 |
| 1000 | 42 | 0.0321 | 0.0540 | 0.0304 | 0.0563 | 0.0274 | 0.0611 |
| 1000 | 43 | 0.0330 | 0.0551 | 0.0313 | 0.0575 | 0.0282 | 0.0623 |
| 1000 | 44 | 0.0338 | 0.0562 | 0.0322 | 0.0586 | 0.0290 | 0.0635 |
| 1000 | 45 | 0.0347 | 0.0573 | 0.0330 | 0.0598 | 0.0298 | 0.0647 |
| 1000 | 46 | 0.0356 | 0.0584 | 0.0339 | 0.0609 | 0.0306 | 0.0658 |
| 1000 | 47 | 0.0365 | 0.0595 | 0.0347 | 0.0620 | 0.0315 | 0.0670 |
| 1000 | 48 | 0.0374 | 0.0607 | 0.0356 | 0.0631 | 0.0323 | 0.0682 |
| 1000 | 49 | 0.0383 | 0.0618 | 0.0365 | 0.0643 | 0.0331 | 0.0693 |
| 1000 | 50 | 0.0392 | 0.0629 | 0.0373 | 0.0654 | 0.0339 | 0.0705 |
| 1000 | 51 | 0.0401 | 0.0640 | 0.0382 | 0.0665 | 0.0348 | 0.0717 |
| 1000 | 52 | 0.0409 | 0.0651 | 0.0391 | 0.0676 | 0.0356 | 0.0728 |
| 1000 | 53 | 0.0418 | 0.0662 | 0.0399 | 0.0688 | 0.0364 | 0.0740 |
| 1000 | 54 | 0.0427 | 0.0673 | 0.0408 | 0.0699 | 0.0373 | 0.0751 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 55  | 0.0436 | 0.0684 | 0.0417 | 0.0710 | 0.0381 | 0.0763 |
| 1000 | 56  | 0.0445 | 0.0695 | 0.0426 | 0.0721 | 0.0389 | 0.0774 |
| 1000 | 57  | 0.0454 | 0.0706 | 0.0435 | 0.0732 | 0.0398 | 0.0786 |
| 1000 | 58  | 0.0463 | 0.0717 | 0.0443 | 0.0743 | 0.0406 | 0.0797 |
| 1000 | 59  | 0.0472 | 0.0728 | 0.0452 | 0.0754 | 0.0414 | 0.0809 |
| 1000 | 60  | 0.0481 | 0.0738 | 0.0461 | 0.0766 | 0.0423 | 0.0820 |
| 1000 | 61  | 0.0490 | 0.0749 | 0.0470 | 0.0777 | 0.0431 | 0.0832 |
| 1000 | 62  | 0.0499 | 0.0760 | 0.0479 | 0.0788 | 0.0440 | 0.0843 |
| 1000 | 63  | 0.0508 | 0.0771 | 0.0487 | 0.0799 | 0.0448 | 0.0855 |
| 1000 | 64  | 0.0517 | 0.0782 | 0.0496 | 0.0810 | 0.0457 | 0.0866 |
| 1000 | 65  | 0.0526 | 0.0793 | 0.0505 | 0.0821 | 0.0465 | 0.0877 |
| 1000 | 66  | 0.0536 | 0.0804 | 0.0514 | 0.0832 | 0.0474 | 0.0889 |
| 1000 | 67  | 0.0545 | 0.0815 | 0.0523 | 0.0843 | 0.0482 | 0.0900 |
| 1000 | 68  | 0.0554 | 0.0826 | 0.0532 | 0.0854 | 0.0491 | 0.0911 |
| 1000 | 69  | 0.0563 | 0.0837 | 0.0541 | 0.0865 | 0.0500 | 0.0923 |
| 1000 | 70  | 0.0572 | 0.0847 | 0.0550 | 0.0876 | 0.0508 | 0.0934 |
| 1000 | 71  | 0.0581 | 0.0858 | 0.0559 | 0.0887 | 0.0517 | 0.0945 |
| 1000 | 72  | 0.0590 | 0.0869 | 0.0568 | 0.0898 | 0.0525 | 0.0957 |
| 1000 | 73  | 0.0599 | 0.0880 | 0.0577 | 0.0909 | 0.0534 | 0.0968 |
| 1000 | 74  | 0.0608 | 0.0891 | 0.0586 | 0.0920 | 0.0543 | 0.0979 |
| 1000 | 75  | 0.0617 | 0.0902 | 0.0594 | 0.0931 | 0.0551 | 0.0990 |
| 1000 | 76  | 0.0627 | 0.0912 | 0.0603 | 0.0942 | 0.0560 | 0.1002 |
| 1000 | 77  | 0.0636 | 0.0923 | 0.0612 | 0.0953 | 0.0568 | 0.1013 |
| 1000 | 78  | 0.0645 | 0.0934 | 0.0621 | 0.0964 | 0.0577 | 0.1024 |
| 1000 | 79  | 0.0654 | 0.0945 | 0.0630 | 0.0975 | 0.0586 | 0.1035 |
| 1000 | 80  | 0.0663 | 0.0955 | 0.0639 | 0.0986 | 0.0594 | 0.1047 |
| 1000 | 81  | 0.0672 | 0.0966 | 0.0648 | 0.0997 | 0.0603 | 0.1058 |
| 1000 | 82  | 0.0682 | 0.0977 | 0.0657 | 0.1008 | 0.0612 | 0.1069 |
| 1000 | 83  | 0.0691 | 0.0988 | 0.0666 | 0.1019 | 0.0621 | 0.1080 |
| 1000 | 84  | 0.0700 | 0.0999 | 0.0676 | 0.1029 | 0.0629 | 0.1091 |
| 1000 | 85  | 0.0709 | 0.1009 | 0.0685 | 0.1040 | 0.0638 | 0.1102 |
| 1000 | 86  | 0.0718 | 0.1020 | 0.0694 | 0.1051 | 0.0647 | 0.1114 |
| 1000 | 87  | 0.0728 | 0.1031 | 0.0703 | 0.1062 | 0.0656 | 0.1125 |
| 1000 | 88  | 0.0737 | 0.1042 | 0.0712 | 0.1073 | 0.0664 | 0.1136 |
| 1000 | 89  | 0.0746 | 0.1052 | 0.0721 | 0.1084 | 0.0673 | 0.1147 |
| 1000 | 90  | 0.0755 | 0.1063 | 0.0730 | 0.1095 | 0.0682 | 0.1158 |
| 1000 | 91  | 0.0764 | 0.1074 | 0.0739 | 0.1106 | 0.0691 | 0.1169 |
| 1000 | 92  | 0.0774 | 0.1084 | 0.0748 | 0.1116 | 0.0700 | 0.1180 |
| 1000 | 93  | 0.0783 | 0.1095 | 0.0757 | 0.1127 | 0.0708 | 0.1191 |
| 1000 | 94  | 0.0792 | 0.1106 | 0.0766 | 0.1138 | 0.0717 | 0.1202 |
| 1000 | 95  | 0.0801 | 0.1117 | 0.0775 | 0.1149 | 0.0726 | 0.1214 |
| 1000 | 96  | 0.0811 | 0.1127 | 0.0785 | 0.1160 | 0.0735 | 0.1225 |
| 1000 | 97  | 0.0820 | 0.1138 | 0.0794 | 0.1170 | 0.0744 | 0.1236 |
| 1000 | 98  | 0.0829 | 0.1149 | 0.0803 | 0.1181 | 0.0752 | 0.1247 |
| 1000 | 99  | 0.0839 | 0.1159 | 0.0812 | 0.1192 | 0.0761 | 0.1258 |
| 1000 | 100 | 0.0848 | 0.1170 | 0.0821 | 0.1203 | 0.0770 | 0.1269 |
| 1000 | 101 | 0.0857 | 0.1180 | 0.0830 | 0.1214 | 0.0779 | 0.1280 |
| 1000 | 102 | 0.0866 | 0.1191 | 0.0839 | 0.1224 | 0.0788 | 0.1291 |
| 1000 | 103 | 0.0876 | 0.1202 | 0.0848 | 0.1235 | 0.0797 | 0.1302 |
| 1000 | 104 | 0.0885 | 0.1213 | 0.0858 | 0.1246 | 0.0806 | 0.1313 |
| 1000 | 105 | 0.0894 | 0.1223 | 0.0867 | 0.1257 | 0.0815 | 0.1324 |
| 1000 | 106 | 0.0904 | 0.1234 | 0.0876 | 0.1267 | 0.0824 | 0.1335 |
| 1000 | 107 | 0.0913 | 0.1244 | 0.0885 | 0.1278 | 0.0832 | 0.1346 |
| 1000 | 108 | 0.0922 | 0.1255 | 0.0894 | 0.1289 | 0.0841 | 0.1357 |
| 1000 | 109 | 0.0932 | 0.1266 | 0.0904 | 0.1300 | 0.0850 | 0.1368 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 110 | 0.0941 | 0.1276 | 0.0913 | 0.1311 | 0.0859 | 0.1379 |
| 1000 | 111 | 0.0950 | 0.1287 | 0.0922 | 0.1321 | 0.0868 | 0.1390 |
| 1000 | 112 | 0.0960 | 0.1298 | 0.0931 | 0.1332 | 0.0877 | 0.1401 |
| 1000 | 113 | 0.0969 | 0.1308 | 0.0940 | 0.1343 | 0.0886 | 0.1412 |
| 1000 | 114 | 0.0978 | 0.1319 | 0.0950 | 0.1354 | 0.0895 | 0.1423 |
| 1000 | 115 | 0.0988 | 0.1329 | 0.0959 | 0.1364 | 0.0904 | 0.1434 |
| 1000 | 116 | 0.0997 | 0.1340 | 0.0968 | 0.1375 | 0.0913 | 0.1444 |
| 1000 | 117 | 0.1006 | 0.1351 | 0.0977 | 0.1386 | 0.0922 | 0.1455 |
| 1000 | 118 | 0.1016 | 0.1361 | 0.0987 | 0.1396 | 0.0931 | 0.1466 |
| 1000 | 119 | 0.1025 | 0.1372 | 0.0996 | 0.1407 | 0.0940 | 0.1477 |
| 1000 | 120 | 0.1034 | 0.1382 | 0.1005 | 0.1418 | 0.0949 | 0.1488 |
| 1000 | 121 | 0.1044 | 0.1393 | 0.1014 | 0.1428 | 0.0958 | 0.1499 |
| 1000 | 122 | 0.1053 | 0.1404 | 0.1023 | 0.1439 | 0.0967 | 0.1510 |
| 1000 | 123 | 0.1063 | 0.1414 | 0.1033 | 0.1450 | 0.0976 | 0.1521 |
| 1000 | 124 | 0.1072 | 0.1425 | 0.1042 | 0.1460 | 0.0985 | 0.1531 |
| 1000 | 125 | 0.1081 | 0.1435 | 0.1051 | 0.1471 | 0.0994 | 0.1543 |
| 1000 | 126 | 0.1091 | 0.1446 | 0.1061 | 0.1482 | 0.1003 | 0.1553 |
| 1000 | 127 | 0.1100 | 0.1456 | 0.1070 | 0.1492 | 0.1012 | 0.1564 |
| 1000 | 128 | 0.1110 | 0.1467 | 0.1079 | 0.1503 | 0.1021 | 0.1575 |
| 1000 | 129 | 0.1119 | 0.1477 | 0.1088 | 0.1514 | 0.1030 | 0.1585 |
| 1000 | 130 | 0.1128 | 0.1488 | 0.1098 | 0.1524 | 0.1039 | 0.1597 |
| 1000 | 131 | 0.1138 | 0.1499 | 0.1107 | 0.1535 | 0.1048 | 0.1608 |
| 1000 | 132 | 0.1147 | 0.1509 | 0.1116 | 0.1546 | 0.1057 | 0.1618 |
| 1000 | 133 | 0.1157 | 0.1520 | 0.1126 | 0.1556 | 0.1067 | 0.1629 |
| 1000 | 134 | 0.1166 | 0.1530 | 0.1135 | 0.1567 | 0.1076 | 0.1640 |
| 1000 | 135 | 0.1175 | 0.1541 | 0.1144 | 0.1578 | 0.1085 | 0.1651 |
| 1000 | 136 | 0.1185 | 0.1551 | 0.1153 | 0.1588 | 0.1094 | 0.1662 |
| 1000 | 137 | 0.1194 | 0.1562 | 0.1163 | 0.1599 | 0.1103 | 0.1672 |
| 1000 | 138 | 0.1204 | 0.1572 | 0.1172 | 0.1609 | 0.1112 | 0.1683 |
| 1000 | 139 | 0.1213 | 0.1583 | 0.1181 | 0.1620 | 0.1121 | 0.1694 |
| 1000 | 140 | 0.1223 | 0.1593 | 0.1191 | 0.1631 | 0.1130 | 0.1705 |
| 1000 | 141 | 0.1232 | 0.1604 | 0.1200 | 0.1641 | 0.1139 | 0.1716 |
| 1000 | 142 | 0.1241 | 0.1614 | 0.1209 | 0.1652 | 0.1148 | 0.1727 |
| 1000 | 143 | 0.1251 | 0.1625 | 0.1219 | 0.1663 | 0.1157 | 0.1737 |
| 1000 | 144 | 0.1260 | 0.1635 | 0.1228 | 0.1673 | 0.1167 | 0.1748 |
| 1000 | 145 | 0.1270 | 0.1646 | 0.1237 | 0.1684 | 0.1176 | 0.1759 |
| 1000 | 146 | 0.1279 | 0.1656 | 0.1247 | 0.1694 | 0.1185 | 0.1769 |
| 1000 | 147 | 0.1289 | 0.1667 | 0.1256 | 0.1705 | 0.1194 | 0.1780 |
| 1000 | 148 | 0.1298 | 0.1677 | 0.1265 | 0.1715 | 0.1203 | 0.1791 |
| 1000 | 149 | 0.1308 | 0.1688 | 0.1275 | 0.1726 | 0.1212 | 0.1802 |
| 1000 | 150 | 0.1317 | 0.1698 | 0.1284 | 0.1737 | 0.1221 | 0.1812 |
| 1000 | 151 | 0.1327 | 0.1709 | 0.1294 | 0.1747 | 0.1231 | 0.1824 |
| 1000 | 152 | 0.1336 | 0.1719 | 0.1303 | 0.1758 | 0.1240 | 0.1834 |
| 1000 | 153 | 0.1345 | 0.1730 | 0.1312 | 0.1768 | 0.1249 | 0.1845 |
| 1000 | 154 | 0.1355 | 0.1740 | 0.1322 | 0.1779 | 0.1258 | 0.1856 |
| 1000 | 155 | 0.1365 | 0.1751 | 0.1331 | 0.1789 | 0.1267 | 0.1866 |
| 1000 | 156 | 0.1374 | 0.1761 | 0.1341 | 0.1800 | 0.1276 | 0.1877 |
| 1000 | 157 | 0.1383 | 0.1772 | 0.1350 | 0.1811 | 0.1286 | 0.1888 |
| 1000 | 158 | 0.1393 | 0.1782 | 0.1359 | 0.1821 | 0.1295 | 0.1899 |
| 1000 | 159 | 0.1402 | 0.1793 | 0.1369 | 0.1832 | 0.1304 | 0.1909 |
| 1000 | 160 | 0.1412 | 0.1803 | 0.1378 | 0.1842 | 0.1313 | 0.1920 |
| 1000 | 161 | 0.1421 | 0.1814 | 0.1387 | 0.1853 | 0.1322 | 0.1930 |
| 1000 | 162 | 0.1431 | 0.1824 | 0.1397 | 0.1863 | 0.1332 | 0.1941 |
| 1000 | 163 | 0.1440 | 0.1834 | 0.1406 | 0.1874 | 0.1341 | 0.1952 |
| 1000 | 164 | 0.1450 | 0.1845 | 0.1416 | 0.1884 | 0.1350 | 0.1962 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 165 | 0.1459 | 0.1855 | 0.1425 | 0.1895 | 0.1359 | 0.1974 |
| 1000 | 166 | 0.1469 | 0.1866 | 0.1435 | 0.1905 | 0.1368 | 0.1984 |
| 1000 | 167 | 0.1479 | 0.1876 | 0.1444 | 0.1916 | 0.1378 | 0.1995 |
| 1000 | 168 | 0.1488 | 0.1887 | 0.1453 | 0.1926 | 0.1387 | 0.2005 |
| 1000 | 169 | 0.1497 | 0.1897 | 0.1463 | 0.1937 | 0.1396 | 0.2016 |
| 1000 | 170 | 0.1507 | 0.1908 | 0.1472 | 0.1947 | 0.1405 | 0.2027 |
| 1000 | 171 | 0.1516 | 0.1918 | 0.1482 | 0.1958 | 0.1415 | 0.2037 |
| 1000 | 172 | 0.1526 | 0.1928 | 0.1491 | 0.1968 | 0.1424 | 0.2048 |
| 1000 | 173 | 0.1536 | 0.1939 | 0.1500 | 0.1979 | 0.1433 | 0.2059 |
| 1000 | 174 | 0.1545 | 0.1949 | 0.1510 | 0.1990 | 0.1442 | 0.2069 |
| 1000 | 175 | 0.1555 | 0.1960 | 0.1519 | 0.2000 | 0.1452 | 0.2080 |
| 1000 | 176 | 0.1564 | 0.1970 | 0.1529 | 0.2010 | 0.1461 | 0.2091 |
| 1000 | 177 | 0.1574 | 0.1981 | 0.1538 | 0.2021 | 0.1470 | 0.2101 |
| 1000 | 178 | 0.1583 | 0.1991 | 0.1548 | 0.2031 | 0.1479 | 0.2112 |
| 1000 | 179 | 0.1593 | 0.2001 | 0.1557 | 0.2042 | 0.1489 | 0.2122 |
| 1000 | 180 | 0.1602 | 0.2012 | 0.1567 | 0.2052 | 0.1498 | 0.2133 |
| 1000 | 181 | 0.1612 | 0.2022 | 0.1576 | 0.2063 | 0.1507 | 0.2144 |
| 1000 | 182 | 0.1621 | 0.2033 | 0.1585 | 0.2073 | 0.1516 | 0.2154 |
| 1000 | 183 | 0.1631 | 0.2043 | 0.1595 | 0.2084 | 0.1526 | 0.2165 |
| 1000 | 184 | 0.1641 | 0.2053 | 0.1604 | 0.2094 | 0.1535 | 0.2176 |
| 1000 | 185 | 0.1650 | 0.2064 | 0.1614 | 0.2105 | 0.1544 | 0.2186 |
| 1000 | 186 | 0.1660 | 0.2074 | 0.1623 | 0.2115 | 0.1554 | 0.2197 |
| 1000 | 187 | 0.1669 | 0.2085 | 0.1633 | 0.2126 | 0.1563 | 0.2207 |
| 1000 | 188 | 0.1679 | 0.2095 | 0.1642 | 0.2136 | 0.1572 | 0.2218 |
| 1000 | 189 | 0.1688 | 0.2105 | 0.1652 | 0.2147 | 0.1582 | 0.2228 |
| 1000 | 190 | 0.1698 | 0.2116 | 0.1661 | 0.2157 | 0.1591 | 0.2239 |
| 1000 | 191 | 0.1708 | 0.2126 | 0.1671 | 0.2168 | 0.1600 | 0.2250 |
| 1000 | 192 | 0.1717 | 0.2136 | 0.1680 | 0.2178 | 0.1610 | 0.2260 |
| 1000 | 193 | 0.1727 | 0.2147 | 0.1690 | 0.2188 | 0.1619 | 0.2271 |
| 1000 | 194 | 0.1736 | 0.2157 | 0.1699 | 0.2199 | 0.1628 | 0.2281 |
| 1000 | 195 | 0.1746 | 0.2168 | 0.1709 | 0.2209 | 0.1637 | 0.2292 |
| 1000 | 196 | 0.1755 | 0.2178 | 0.1718 | 0.2220 | 0.1647 | 0.2303 |
| 1000 | 197 | 0.1765 | 0.2188 | 0.1728 | 0.2230 | 0.1656 | 0.2313 |
| 1000 | 198 | 0.1775 | 0.2199 | 0.1737 | 0.2241 | 0.1666 | 0.2324 |
| 1000 | 199 | 0.1784 | 0.2209 | 0.1747 | 0.2251 | 0.1675 | 0.2334 |
| 1000 | 200 | 0.1794 | 0.2219 | 0.1756 | 0.2262 | 0.1684 | 0.2345 |
| 1000 | 201 | 0.1803 | 0.2230 | 0.1766 | 0.2272 | 0.1693 | 0.2355 |
| 1000 | 202 | 0.1813 | 0.2240 | 0.1775 | 0.2282 | 0.1703 | 0.2366 |
| 1000 | 203 | 0.1822 | 0.2251 | 0.1785 | 0.2293 | 0.1712 | 0.2376 |
| 1000 | 204 | 0.1832 | 0.2261 | 0.1794 | 0.2303 | 0.1722 | 0.2387 |
| 1000 | 205 | 0.1842 | 0.2271 | 0.1804 | 0.2314 | 0.1731 | 0.2398 |
| 1000 | 206 | 0.1851 | 0.2282 | 0.1813 | 0.2324 | 0.1740 | 0.2408 |
| 1000 | 207 | 0.1861 | 0.2292 | 0.1823 | 0.2335 | 0.1750 | 0.2419 |
| 1000 | 208 | 0.1870 | 0.2302 | 0.1832 | 0.2345 | 0.1759 | 0.2429 |
| 1000 | 209 | 0.1880 | 0.2313 | 0.1842 | 0.2355 | 0.1768 | 0.2440 |
| 1000 | 210 | 0.1890 | 0.2323 | 0.1851 | 0.2366 | 0.1778 | 0.2450 |
| 1000 | 211 | 0.1899 | 0.2333 | 0.1861 | 0.2376 | 0.1787 | 0.2461 |
| 1000 | 212 | 0.1909 | 0.2344 | 0.1870 | 0.2387 | 0.1796 | 0.2471 |
| 1000 | 213 | 0.1919 | 0.2354 | 0.1880 | 0.2397 | 0.1806 | 0.2482 |
| 1000 | 214 | 0.1928 | 0.2364 | 0.1890 | 0.2407 | 0.1815 | 0.2492 |
| 1000 | 215 | 0.1938 | 0.2375 | 0.1899 | 0.2418 | 0.1825 | 0.2503 |
| 1000 | 216 | 0.1947 | 0.2385 | 0.1909 | 0.2428 | 0.1834 | 0.2514 |
| 1000 | 217 | 0.1957 | 0.2395 | 0.1918 | 0.2439 | 0.1843 | 0.2524 |
| 1000 | 218 | 0.1967 | 0.2406 | 0.1928 | 0.2449 | 0.1853 | 0.2534 |
| 1000 | 219 | 0.1976 | 0.2416 | 0.1937 | 0.2459 | 0.1862 | 0.2545 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 220 | 0.1986 | 0.2427 | 0.1947 | 0.2470 | 0.1872 | 0.2555 |
| 1000 | 221 | 0.1995 | 0.2437 | 0.1956 | 0.2480 | 0.1881 | 0.2566 |
| 1000 | 222 | 0.2005 | 0.2447 | 0.1966 | 0.2491 | 0.1890 | 0.2577 |
| 1000 | 223 | 0.2015 | 0.2458 | 0.1975 | 0.2501 | 0.1900 | 0.2587 |
| 1000 | 224 | 0.2024 | 0.2468 | 0.1985 | 0.2511 | 0.1909 | 0.2597 |
| 1000 | 225 | 0.2034 | 0.2478 | 0.1995 | 0.2522 | 0.1919 | 0.2608 |
| 1000 | 226 | 0.2044 | 0.2488 | 0.2004 | 0.2532 | 0.1928 | 0.2618 |
| 1000 | 227 | 0.2053 | 0.2499 | 0.2014 | 0.2542 | 0.1937 | 0.2629 |
| 1000 | 228 | 0.2063 | 0.2509 | 0.2023 | 0.2553 | 0.1947 | 0.2639 |
| 1000 | 229 | 0.2073 | 0.2519 | 0.2033 | 0.2563 | 0.1956 | 0.2650 |
| 1000 | 230 | 0.2082 | 0.2530 | 0.2042 | 0.2574 | 0.1966 | 0.2660 |
| 1000 | 231 | 0.2092 | 0.2540 | 0.2052 | 0.2584 | 0.1975 | 0.2671 |
| 1000 | 232 | 0.2102 | 0.2550 | 0.2062 | 0.2594 | 0.1985 | 0.2681 |
| 1000 | 233 | 0.2111 | 0.2561 | 0.2071 | 0.2605 | 0.1994 | 0.2692 |
| 1000 | 234 | 0.2121 | 0.2571 | 0.2081 | 0.2615 | 0.2003 | 0.2702 |
| 1000 | 235 | 0.2131 | 0.2581 | 0.2090 | 0.2625 | 0.2013 | 0.2713 |
| 1000 | 236 | 0.2140 | 0.2591 | 0.2100 | 0.2636 | 0.2023 | 0.2723 |
| 1000 | 237 | 0.2150 | 0.2602 | 0.2109 | 0.2646 | 0.2032 | 0.2734 |
| 1000 | 238 | 0.2159 | 0.2612 | 0.2119 | 0.2656 | 0.2041 | 0.2744 |
| 1000 | 239 | 0.2169 | 0.2622 | 0.2129 | 0.2667 | 0.2051 | 0.2754 |
| 1000 | 240 | 0.2179 | 0.2633 | 0.2138 | 0.2677 | 0.2060 | 0.2765 |
| 1000 | 241 | 0.2188 | 0.2643 | 0.2148 | 0.2687 | 0.2069 | 0.2775 |
| 1000 | 242 | 0.2198 | 0.2653 | 0.2158 | 0.2698 | 0.2080 | 0.2786 |
| 1000 | 243 | 0.2208 | 0.2663 | 0.2167 | 0.2708 | 0.2089 | 0.2796 |
| 1000 | 244 | 0.2217 | 0.2674 | 0.2177 | 0.2718 | 0.2098 | 0.2807 |
| 1000 | 245 | 0.2227 | 0.2684 | 0.2186 | 0.2729 | 0.2107 | 0.2817 |
| 1000 | 246 | 0.2237 | 0.2694 | 0.2196 | 0.2739 | 0.2117 | 0.2828 |
| 1000 | 247 | 0.2246 | 0.2705 | 0.2206 | 0.2750 | 0.2126 | 0.2838 |
| 1000 | 248 | 0.2256 | 0.2715 | 0.2215 | 0.2760 | 0.2136 | 0.2848 |
| 1000 | 249 | 0.2266 | 0.2725 | 0.2225 | 0.2770 | 0.2146 | 0.2859 |
| 1000 | 250 | 0.2275 | 0.2736 | 0.2234 | 0.2781 | 0.2155 | 0.2869 |
| 1000 | 251 | 0.2285 | 0.2746 | 0.2244 | 0.2791 | 0.2165 | 0.2880 |
| 1000 | 252 | 0.2295 | 0.2756 | 0.2253 | 0.2801 | 0.2174 | 0.2890 |
| 1000 | 253 | 0.2304 | 0.2766 | 0.2263 | 0.2812 | 0.2183 | 0.2900 |
| 1000 | 254 | 0.2314 | 0.2777 | 0.2273 | 0.2822 | 0.2192 | 0.2911 |
| 1000 | 255 | 0.2324 | 0.2787 | 0.2282 | 0.2832 | 0.2203 | 0.2921 |
| 1000 | 256 | 0.2333 | 0.2797 | 0.2292 | 0.2842 | 0.2212 | 0.2932 |
| 1000 | 257 | 0.2343 | 0.2807 | 0.2302 | 0.2853 | 0.2222 | 0.2942 |
| 1000 | 258 | 0.2353 | 0.2818 | 0.2311 | 0.2863 | 0.2231 | 0.2952 |
| 1000 | 259 | 0.2363 | 0.2828 | 0.2321 | 0.2873 | 0.2240 | 0.2963 |
| 1000 | 260 | 0.2372 | 0.2838 | 0.2331 | 0.2884 | 0.2250 | 0.2973 |
| 1000 | 261 | 0.2382 | 0.2848 | 0.2340 | 0.2894 | 0.2259 | 0.2984 |
| 1000 | 262 | 0.2392 | 0.2859 | 0.2350 | 0.2904 | 0.2269 | 0.2994 |
| 1000 | 263 | 0.2401 | 0.2869 | 0.2359 | 0.2915 | 0.2278 | 0.3005 |
| 1000 | 264 | 0.2411 | 0.2879 | 0.2369 | 0.2925 | 0.2288 | 0.3015 |
| 1000 | 265 | 0.2421 | 0.2889 | 0.2379 | 0.2935 | 0.2297 | 0.3025 |
| 1000 | 266 | 0.2430 | 0.2900 | 0.2388 | 0.2945 | 0.2307 | 0.3036 |
| 1000 | 267 | 0.2440 | 0.2910 | 0.2398 | 0.2956 | 0.2316 | 0.3046 |
| 1000 | 268 | 0.2450 | 0.2920 | 0.2408 | 0.2966 | 0.2326 | 0.3056 |
| 1000 | 269 | 0.2460 | 0.2931 | 0.2417 | 0.2976 | 0.2336 | 0.3067 |
| 1000 | 270 | 0.2469 | 0.2941 | 0.2427 | 0.2987 | 0.2345 | 0.3077 |
| 1000 | 271 | 0.2479 | 0.2951 | 0.2437 | 0.2997 | 0.2355 | 0.3088 |
| 1000 | 272 | 0.2489 | 0.2961 | 0.2446 | 0.3007 | 0.2364 | 0.3098 |
| 1000 | 273 | 0.2498 | 0.2972 | 0.2456 | 0.3018 | 0.2374 | 0.3108 |
| 1000 | 274 | 0.2508 | 0.2982 | 0.2466 | 0.3028 | 0.2383 | 0.3119 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 275 | 0.2518 | 0.2992 | 0.2475 | 0.3038 | 0.2393 | 0.3129 |
| 1000 | 276 | 0.2528 | 0.3002 | 0.2485 | 0.3048 | 0.2402 | 0.3139 |
| 1000 | 277 | 0.2537 | 0.3012 | 0.2495 | 0.3059 | 0.2412 | 0.3150 |
| 1000 | 278 | 0.2547 | 0.3023 | 0.2504 | 0.3069 | 0.2422 | 0.3160 |
| 1000 | 279 | 0.2557 | 0.3033 | 0.2514 | 0.3079 | 0.2431 | 0.3170 |
| 1000 | 280 | 0.2566 | 0.3043 | 0.2524 | 0.3090 | 0.2441 | 0.3181 |
| 1000 | 281 | 0.2576 | 0.3053 | 0.2533 | 0.3100 | 0.2451 | 0.3191 |
| 1000 | 282 | 0.2586 | 0.3064 | 0.2543 | 0.3110 | 0.2460 | 0.3201 |
| 1000 | 283 | 0.2596 | 0.3074 | 0.2552 | 0.3120 | 0.2469 | 0.3212 |
| 1000 | 284 | 0.2605 | 0.3084 | 0.2562 | 0.3131 | 0.2479 | 0.3222 |
| 1000 | 285 | 0.2615 | 0.3094 | 0.2572 | 0.3141 | 0.2488 | 0.3232 |
| 1000 | 286 | 0.2625 | 0.3104 | 0.2582 | 0.3151 | 0.2498 | 0.3243 |
| 1000 | 287 | 0.2635 | 0.3115 | 0.2591 | 0.3161 | 0.2508 | 0.3253 |
| 1000 | 288 | 0.2644 | 0.3125 | 0.2601 | 0.3172 | 0.2517 | 0.3263 |
| 1000 | 289 | 0.2654 | 0.3135 | 0.2611 | 0.3182 | 0.2527 | 0.3274 |
| 1000 | 290 | 0.2664 | 0.3145 | 0.2620 | 0.3192 | 0.2536 | 0.3284 |
| 1000 | 291 | 0.2674 | 0.3156 | 0.2630 | 0.3202 | 0.2546 | 0.3294 |
| 1000 | 292 | 0.2683 | 0.3166 | 0.2640 | 0.3213 | 0.2556 | 0.3305 |
| 1000 | 293 | 0.2693 | 0.3176 | 0.2649 | 0.3223 | 0.2565 | 0.3315 |
| 1000 | 294 | 0.2703 | 0.3186 | 0.2659 | 0.3233 | 0.2574 | 0.3325 |
| 1000 | 295 | 0.2712 | 0.3196 | 0.2669 | 0.3243 | 0.2584 | 0.3336 |
| 1000 | 296 | 0.2722 | 0.3207 | 0.2678 | 0.3254 | 0.2594 | 0.3346 |
| 1000 | 297 | 0.2732 | 0.3217 | 0.2688 | 0.3264 | 0.2603 | 0.3356 |
| 1000 | 298 | 0.2742 | 0.3227 | 0.2698 | 0.3274 | 0.2613 | 0.3367 |
| 1000 | 299 | 0.2752 | 0.3237 | 0.2708 | 0.3284 | 0.2623 | 0.3377 |
| 1000 | 300 | 0.2761 | 0.3248 | 0.2717 | 0.3295 | 0.2632 | 0.3387 |
| 1000 | 301 | 0.2771 | 0.3258 | 0.2727 | 0.3305 | 0.2642 | 0.3398 |
| 1000 | 302 | 0.2781 | 0.3268 | 0.2737 | 0.3315 | 0.2651 | 0.3408 |
| 1000 | 303 | 0.2790 | 0.3278 | 0.2746 | 0.3325 | 0.2661 | 0.3418 |
| 1000 | 304 | 0.2800 | 0.3288 | 0.2756 | 0.3335 | 0.2671 | 0.3428 |
| 1000 | 305 | 0.2810 | 0.3299 | 0.2766 | 0.3346 | 0.2680 | 0.3439 |
| 1000 | 306 | 0.2820 | 0.3309 | 0.2775 | 0.3356 | 0.2690 | 0.3449 |
| 1000 | 307 | 0.2830 | 0.3319 | 0.2785 | 0.3366 | 0.2699 | 0.3459 |
| 1000 | 308 | 0.2839 | 0.3329 | 0.2795 | 0.3377 | 0.2708 | 0.3470 |
| 1000 | 309 | 0.2849 | 0.3339 | 0.2805 | 0.3387 | 0.2719 | 0.3480 |
| 1000 | 310 | 0.2859 | 0.3350 | 0.2814 | 0.3397 | 0.2729 | 0.3490 |
| 1000 | 311 | 0.2869 | 0.3360 | 0.2824 | 0.3407 | 0.2738 | 0.3500 |
| 1000 | 312 | 0.2878 | 0.3370 | 0.2834 | 0.3417 | 0.2747 | 0.3511 |
| 1000 | 313 | 0.2888 | 0.3380 | 0.2844 | 0.3428 | 0.2758 | 0.3521 |
| 1000 | 314 | 0.2898 | 0.3390 | 0.2853 | 0.3438 | 0.2767 | 0.3531 |
| 1000 | 315 | 0.2908 | 0.3400 | 0.2863 | 0.3448 | 0.2776 | 0.3542 |
| 1000 | 316 | 0.2917 | 0.3411 | 0.2873 | 0.3458 | 0.2786 | 0.3552 |
| 1000 | 317 | 0.2927 | 0.3421 | 0.2882 | 0.3468 | 0.2796 | 0.3562 |
| 1000 | 318 | 0.2937 | 0.3431 | 0.2892 | 0.3479 | 0.2805 | 0.3572 |
| 1000 | 319 | 0.2947 | 0.3441 | 0.2902 | 0.3489 | 0.2814 | 0.3583 |
| 1000 | 320 | 0.2956 | 0.3451 | 0.2912 | 0.3499 | 0.2824 | 0.3593 |
| 1000 | 321 | 0.2966 | 0.3462 | 0.2921 | 0.3509 | 0.2834 | 0.3603 |
| 1000 | 322 | 0.2976 | 0.3472 | 0.2931 | 0.3520 | 0.2843 | 0.3614 |
| 1000 | 323 | 0.2986 | 0.3482 | 0.2941 | 0.3530 | 0.2853 | 0.3624 |
| 1000 | 324 | 0.2996 | 0.3492 | 0.2951 | 0.3540 | 0.2864 | 0.3634 |
| 1000 | 325 | 0.3005 | 0.3502 | 0.2960 | 0.3550 | 0.2873 | 0.3644 |
| 1000 | 326 | 0.3015 | 0.3512 | 0.2970 | 0.3560 | 0.2883 | 0.3655 |
| 1000 | 327 | 0.3025 | 0.3523 | 0.2980 | 0.3570 | 0.2892 | 0.3665 |
| 1000 | 328 | 0.3035 | 0.3533 | 0.2989 | 0.3581 | 0.2902 | 0.3675 |
| 1000 | 329 | 0.3045 | 0.3543 | 0.2999 | 0.3591 | 0.2911 | 0.3685 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 330 | 0.3054 | 0.3553 | 0.3009 | 0.3601 | 0.2920 | 0.3695 |
| 1000 | 331 | 0.3064 | 0.3563 | 0.3019 | 0.3611 | 0.2931 | 0.3706 |
| 1000 | 332 | 0.3074 | 0.3573 | 0.3028 | 0.3621 | 0.2940 | 0.3716 |
| 1000 | 333 | 0.3084 | 0.3584 | 0.3038 | 0.3632 | 0.2949 | 0.3726 |
| 1000 | 334 | 0.3093 | 0.3594 | 0.3048 | 0.3642 | 0.2960 | 0.3736 |
| 1000 | 335 | 0.3103 | 0.3604 | 0.3058 | 0.3652 | 0.2970 | 0.3747 |
| 1000 | 336 | 0.3113 | 0.3614 | 0.3067 | 0.3662 | 0.2979 | 0.3757 |
| 1000 | 337 | 0.3123 | 0.3624 | 0.3077 | 0.3672 | 0.2989 | 0.3767 |
| 1000 | 338 | 0.3133 | 0.3634 | 0.3087 | 0.3683 | 0.2998 | 0.3777 |
| 1000 | 339 | 0.3142 | 0.3644 | 0.3097 | 0.3693 | 0.3008 | 0.3788 |
| 1000 | 340 | 0.3152 | 0.3655 | 0.3107 | 0.3703 | 0.3018 | 0.3798 |
| 1000 | 341 | 0.3162 | 0.3665 | 0.3116 | 0.3713 | 0.3027 | 0.3808 |
| 1000 | 342 | 0.3172 | 0.3675 | 0.3126 | 0.3723 | 0.3037 | 0.3818 |
| 1000 | 343 | 0.3182 | 0.3685 | 0.3136 | 0.3733 | 0.3046 | 0.3829 |
| 1000 | 344 | 0.3192 | 0.3695 | 0.3146 | 0.3744 | 0.3057 | 0.3839 |
| 1000 | 345 | 0.3201 | 0.3705 | 0.3155 | 0.3754 | 0.3066 | 0.3849 |
| 1000 | 346 | 0.3211 | 0.3716 | 0.3165 | 0.3764 | 0.3076 | 0.3859 |
| 1000 | 347 | 0.3221 | 0.3726 | 0.3175 | 0.3774 | 0.3086 | 0.3869 |
| 1000 | 348 | 0.3231 | 0.3736 | 0.3185 | 0.3784 | 0.3095 | 0.3880 |
| 1000 | 349 | 0.3241 | 0.3746 | 0.3194 | 0.3794 | 0.3105 | 0.3890 |
| 1000 | 350 | 0.3251 | 0.3756 | 0.3204 | 0.3805 | 0.3115 | 0.3900 |
| 1000 | 351 | 0.3260 | 0.3766 | 0.3214 | 0.3815 | 0.3124 | 0.3910 |
| 1000 | 352 | 0.3270 | 0.3776 | 0.3224 | 0.3825 | 0.3134 | 0.3920 |
| 1000 | 353 | 0.3280 | 0.3787 | 0.3233 | 0.3835 | 0.3143 | 0.3931 |
| 1000 | 354 | 0.3290 | 0.3797 | 0.3243 | 0.3845 | 0.3153 | 0.3941 |
| 1000 | 355 | 0.3300 | 0.3807 | 0.3253 | 0.3856 | 0.3163 | 0.3951 |
| 1000 | 356 | 0.3309 | 0.3817 | 0.3263 | 0.3866 | 0.3173 | 0.3961 |
| 1000 | 357 | 0.3319 | 0.3827 | 0.3273 | 0.3876 | 0.3182 | 0.3971 |
| 1000 | 358 | 0.3329 | 0.3837 | 0.3283 | 0.3886 | 0.3193 | 0.3982 |
| 1000 | 359 | 0.3339 | 0.3847 | 0.3292 | 0.3896 | 0.3202 | 0.3992 |
| 1000 | 360 | 0.3349 | 0.3857 | 0.3302 | 0.3906 | 0.3211 | 0.4002 |
| 1000 | 361 | 0.3359 | 0.3868 | 0.3312 | 0.3916 | 0.3221 | 0.4012 |
| 1000 | 362 | 0.3368 | 0.3878 | 0.3322 | 0.3927 | 0.3231 | 0.4022 |
| 1000 | 363 | 0.3378 | 0.3888 | 0.3331 | 0.3937 | 0.3241 | 0.4033 |
| 1000 | 364 | 0.3388 | 0.3898 | 0.3341 | 0.3947 | 0.3251 | 0.4043 |
| 1000 | 365 | 0.3398 | 0.3908 | 0.3351 | 0.3957 | 0.3260 | 0.4053 |
| 1000 | 366 | 0.3408 | 0.3918 | 0.3361 | 0.3967 | 0.3270 | 0.4063 |
| 1000 | 367 | 0.3417 | 0.3928 | 0.3370 | 0.3977 | 0.3279 | 0.4073 |
| 1000 | 368 | 0.3427 | 0.3939 | 0.3380 | 0.3988 | 0.3289 | 0.4083 |
| 1000 | 369 | 0.3437 | 0.3949 | 0.3390 | 0.3998 | 0.3299 | 0.4094 |
| 1000 | 370 | 0.3447 | 0.3959 | 0.3400 | 0.4008 | 0.3309 | 0.4104 |
| 1000 | 371 | 0.3457 | 0.3969 | 0.3410 | 0.4018 | 0.3319 | 0.4114 |
| 1000 | 372 | 0.3467 | 0.3979 | 0.3419 | 0.4028 | 0.3328 | 0.4124 |
| 1000 | 373 | 0.3476 | 0.3989 | 0.3429 | 0.4038 | 0.3338 | 0.4134 |
| 1000 | 374 | 0.3486 | 0.3999 | 0.3439 | 0.4048 | 0.3348 | 0.4145 |
| 1000 | 375 | 0.3496 | 0.4009 | 0.3449 | 0.4058 | 0.3358 | 0.4155 |
| 1000 | 376 | 0.3506 | 0.4019 | 0.3459 | 0.4069 | 0.3367 | 0.4165 |
| 1000 | 377 | 0.3516 | 0.4029 | 0.3469 | 0.4079 | 0.3376 | 0.4175 |
| 1000 | 378 | 0.3526 | 0.4040 | 0.3478 | 0.4089 | 0.3387 | 0.4185 |
| 1000 | 379 | 0.3536 | 0.4050 | 0.3488 | 0.4099 | 0.3397 | 0.4195 |
| 1000 | 380 | 0.3545 | 0.4060 | 0.3498 | 0.4109 | 0.3406 | 0.4205 |
| 1000 | 381 | 0.3555 | 0.4070 | 0.3508 | 0.4119 | 0.3416 | 0.4216 |
| 1000 | 382 | 0.3565 | 0.4080 | 0.3518 | 0.4129 | 0.3426 | 0.4226 |
| 1000 | 383 | 0.3575 | 0.4090 | 0.3527 | 0.4139 | 0.3435 | 0.4236 |
| 1000 | 384 | 0.3585 | 0.4100 | 0.3537 | 0.4150 | 0.3445 | 0.4246 |

TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 385 | 0.3595 | 0.4110 | 0.3547 | 0.4160 | 0.3455 | 0.4256 |
| 1000 | 386 | 0.3605 | 0.4120 | 0.3557 | 0.4170 | 0.3465 | 0.4266 |
| 1000 | 387 | 0.3614 | 0.4131 | 0.3567 | 0.4180 | 0.3475 | 0.4277 |
| 1000 | 388 | 0.3624 | 0.4141 | 0.3576 | 0.4190 | 0.3484 | 0.4287 |
| 1000 | 389 | 0.3634 | 0.4151 | 0.3587 | 0.4200 | 0.3494 | 0.4297 |
| 1000 | 390 | 0.3644 | 0.4161 | 0.3596 | 0.4210 | 0.3503 | 0.4307 |
| 1000 | 391 | 0.3654 | 0.4171 | 0.3606 | 0.4220 | 0.3514 | 0.4317 |
| 1000 | 392 | 0.3664 | 0.4181 | 0.3616 | 0.4230 | 0.3523 | 0.4327 |
| 1000 | 393 | 0.3673 | 0.4191 | 0.3626 | 0.4240 | 0.3533 | 0.4337 |
| 1000 | 394 | 0.3683 | 0.4201 | 0.3635 | 0.4251 | 0.3542 | 0.4347 |
| 1000 | 395 | 0.3693 | 0.4211 | 0.3646 | 0.4261 | 0.3552 | 0.4358 |
| 1000 | 396 | 0.3703 | 0.4221 | 0.3655 | 0.4271 | 0.3562 | 0.4368 |
| 1000 | 397 | 0.3713 | 0.4231 | 0.3665 | 0.4281 | 0.3572 | 0.4378 |
| 1000 | 398 | 0.3723 | 0.4242 | 0.3675 | 0.4291 | 0.3582 | 0.4388 |
| 1000 | 399 | 0.3733 | 0.4252 | 0.3685 | 0.4301 | 0.3592 | 0.4398 |
| 1000 | 400 | 0.3743 | 0.4262 | 0.3695 | 0.4311 | 0.3601 | 0.4408 |
| 1000 | 401 | 0.3753 | 0.4272 | 0.3705 | 0.4321 | 0.3611 | 0.4418 |
| 1000 | 402 | 0.3762 | 0.4282 | 0.3715 | 0.4331 | 0.3621 | 0.4428 |
| 1000 | 403 | 0.3772 | 0.4292 | 0.3724 | 0.4342 | 0.3631 | 0.4438 |
| 1000 | 404 | 0.3782 | 0.4302 | 0.3734 | 0.4352 | 0.3641 | 0.4449 |
| 1000 | 405 | 0.3792 | 0.4312 | 0.3744 | 0.4362 | 0.3650 | 0.4459 |
| 1000 | 406 | 0.3802 | 0.4322 | 0.3754 | 0.4372 | 0.3661 | 0.4469 |
| 1000 | 407 | 0.3812 | 0.4332 | 0.3764 | 0.4382 | 0.3670 | 0.4479 |
| 1000 | 408 | 0.3822 | 0.4342 | 0.3774 | 0.4392 | 0.3680 | 0.4489 |
| 1000 | 409 | 0.3832 | 0.4352 | 0.3783 | 0.4402 | 0.3690 | 0.4499 |
| 1000 | 410 | 0.3841 | 0.4363 | 0.3793 | 0.4412 | 0.3700 | 0.4509 |
| 1000 | 411 | 0.3851 | 0.4373 | 0.3803 | 0.4422 | 0.3709 | 0.4519 |
| 1000 | 412 | 0.3861 | 0.4383 | 0.3813 | 0.4432 | 0.3719 | 0.4529 |
| 1000 | 413 | 0.3871 | 0.4393 | 0.3823 | 0.4442 | 0.3729 | 0.4539 |
| 1000 | 414 | 0.3881 | 0.4403 | 0.3833 | 0.4452 | 0.3739 | 0.4550 |
| 1000 | 415 | 0.3891 | 0.4413 | 0.3843 | 0.4463 | 0.3749 | 0.4560 |
| 1000 | 416 | 0.3901 | 0.4423 | 0.3852 | 0.4473 | 0.3758 | 0.4570 |
| 1000 | 417 | 0.3911 | 0.4433 | 0.3862 | 0.4483 | 0.3768 | 0.4580 |
| 1000 | 418 | 0.3920 | 0.4443 | 0.3872 | 0.4493 | 0.3777 | 0.4590 |
| 1000 | 419 | 0.3930 | 0.4453 | 0.3882 | 0.4503 | 0.3788 | 0.4600 |
| 1000 | 420 | 0.3940 | 0.4463 | 0.3892 | 0.4513 | 0.3798 | 0.4610 |
| 1000 | 421 | 0.3950 | 0.4473 | 0.3902 | 0.4523 | 0.3807 | 0.4620 |
| 1000 | 422 | 0.3960 | 0.4483 | 0.3912 | 0.4533 | 0.3817 | 0.4630 |
| 1000 | 423 | 0.3970 | 0.4493 | 0.3921 | 0.4543 | 0.3826 | 0.4640 |
| 1000 | 424 | 0.3980 | 0.4503 | 0.3932 | 0.4553 | 0.3837 | 0.4650 |
| 1000 | 425 | 0.3990 | 0.4513 | 0.3941 | 0.4563 | 0.3846 | 0.4661 |
| 1000 | 426 | 0.4000 | 0.4524 | 0.3951 | 0.4573 | 0.3857 | 0.4671 |
| 1000 | 427 | 0.4010 | 0.4534 | 0.3961 | 0.4583 | 0.3866 | 0.4681 |
| 1000 | 428 | 0.4019 | 0.4544 | 0.3971 | 0.4593 | 0.3876 | 0.4691 |
| 1000 | 429 | 0.4029 | 0.4554 | 0.3981 | 0.4604 | 0.3885 | 0.4701 |
| 1000 | 430 | 0.4039 | 0.4564 | 0.3991 | 0.4614 | 0.3896 | 0.4711 |
| 1000 | 431 | 0.4049 | 0.4574 | 0.4000 | 0.4624 | 0.3906 | 0.4721 |
| 1000 | 432 | 0.4059 | 0.4584 | 0.4010 | 0.4634 | 0.3916 | 0.4731 |
| 1000 | 433 | 0.4069 | 0.4594 | 0.4020 | 0.4644 | 0.3926 | 0.4741 |
| 1000 | 434 | 0.4079 | 0.4604 | 0.4030 | 0.4654 | 0.3935 | 0.4751 |
| 1000 | 435 | 0.4089 | 0.4614 | 0.4040 | 0.4664 | 0.3945 | 0.4761 |
| 1000 | 436 | 0.4099 | 0.4624 | 0.4050 | 0.4674 | 0.3955 | 0.4771 |
| 1000 | 437 | 0.4109 | 0.4634 | 0.4060 | 0.4684 | 0.3965 | 0.4781 |
| 1000 | 438 | 0.4119 | 0.4644 | 0.4070 | 0.4694 | 0.3974 | 0.4791 |
| 1000 | 439 | 0.4128 | 0.4654 | 0.4080 | 0.4704 | 0.3984 | 0.4801 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 440 | 0.4138 | 0.4664 | 0.4089 | 0.4714 | 0.3993 | 0.4811 |
| 1000 | 441 | 0.4148 | 0.4674 | 0.4099 | 0.4724 | 0.4004 | 0.4822 |
| 1000 | 442 | 0.4158 | 0.4684 | 0.4109 | 0.4734 | 0.4014 | 0.4831 |
| 1000 | 443 | 0.4168 | 0.4694 | 0.4119 | 0.4744 | 0.4024 | 0.4842 |
| 1000 | 444 | 0.4178 | 0.4704 | 0.4129 | 0.4754 | 0.4033 | 0.4852 |
| 1000 | 445 | 0.4188 | 0.4714 | 0.4139 | 0.4764 | 0.4042 | 0.4862 |
| 1000 | 446 | 0.4198 | 0.4725 | 0.4149 | 0.4774 | 0.4054 | 0.4872 |
| 1000 | 447 | 0.4208 | 0.4735 | 0.4159 | 0.4784 | 0.4063 | 0.4882 |
| 1000 | 448 | 0.4218 | 0.4744 | 0.4169 | 0.4794 | 0.4073 | 0.4892 |
| 1000 | 449 | 0.4228 | 0.4755 | 0.4178 | 0.4804 | 0.4083 | 0.4902 |
| 1000 | 450 | 0.4238 | 0.4765 | 0.4189 | 0.4814 | 0.4093 | 0.4912 |
| 1000 | 451 | 0.4248 | 0.4775 | 0.4199 | 0.4824 | 0.4103 | 0.4922 |
| 1000 | 452 | 0.4257 | 0.4785 | 0.4208 | 0.4835 | 0.4113 | 0.4932 |
| 1000 | 453 | 0.4267 | 0.4795 | 0.4218 | 0.4845 | 0.4123 | 0.4942 |
| 1000 | 454 | 0.4277 | 0.4805 | 0.4228 | 0.4855 | 0.4132 | 0.4952 |
| 1000 | 455 | 0.4287 | 0.4815 | 0.4238 | 0.4865 | 0.4142 | 0.4962 |
| 1000 | 456 | 0.4297 | 0.4825 | 0.4248 | 0.4875 | 0.4152 | 0.4972 |
| 1000 | 457 | 0.4307 | 0.4835 | 0.4258 | 0.4885 | 0.4162 | 0.4982 |
| 1000 | 458 | 0.4317 | 0.4845 | 0.4268 | 0.4895 | 0.4171 | 0.4992 |
| 1000 | 459 | 0.4327 | 0.4855 | 0.4278 | 0.4905 | 0.4182 | 0.5002 |
| 1000 | 460 | 0.4337 | 0.4865 | 0.4288 | 0.4915 | 0.4191 | 0.5012 |
| 1000 | 461 | 0.4347 | 0.4875 | 0.4297 | 0.4925 | 0.4201 | 0.5022 |
| 1000 | 462 | 0.4357 | 0.4885 | 0.4308 | 0.4935 | 0.4212 | 0.5032 |
| 1000 | 463 | 0.4367 | 0.4895 | 0.4317 | 0.4945 | 0.4221 | 0.5042 |
| 1000 | 464 | 0.4377 | 0.4905 | 0.4327 | 0.4955 | 0.4231 | 0.5052 |
| 1000 | 465 | 0.4387 | 0.4915 | 0.4337 | 0.4965 | 0.4241 | 0.5062 |
| 1000 | 466 | 0.4397 | 0.4925 | 0.4347 | 0.4975 | 0.4251 | 0.5072 |
| 1000 | 467 | 0.4406 | 0.4935 | 0.4357 | 0.4985 | 0.4260 | 0.5082 |
| 1000 | 468 | 0.4416 | 0.4945 | 0.4367 | 0.4995 | 0.4270 | 0.5092 |
| 1000 | 469 | 0.4426 | 0.4955 | 0.4377 | 0.5005 | 0.4281 | 0.5102 |
| 1000 | 470 | 0.4436 | 0.4965 | 0.4387 | 0.5015 | 0.4291 | 0.5112 |
| 1000 | 471 | 0.4446 | 0.4975 | 0.4397 | 0.5025 | 0.4300 | 0.5122 |
| 1000 | 472 | 0.4456 | 0.4985 | 0.4407 | 0.5035 | 0.4310 | 0.5132 |
| 1000 | 473 | 0.4466 | 0.4995 | 0.4417 | 0.5045 | 0.4320 | 0.5142 |
| 1000 | 474 | 0.4476 | 0.5005 | 0.4427 | 0.5055 | 0.4330 | 0.5152 |
| 1000 | 475 | 0.4486 | 0.5015 | 0.4437 | 0.5065 | 0.4340 | 0.5162 |
| 1000 | 476 | 0.4496 | 0.5025 | 0.4447 | 0.5075 | 0.4351 | 0.5172 |
| 1000 | 477 | 0.4506 | 0.5035 | 0.4456 | 0.5085 | 0.4359 | 0.5182 |
| 1000 | 478 | 0.4516 | 0.5045 | 0.4466 | 0.5095 | 0.4370 | 0.5192 |
| 1000 | 479 | 0.4526 | 0.5055 | 0.4476 | 0.5105 | 0.4380 | 0.5202 |
| 1000 | 480 | 0.4536 | 0.5065 | 0.4486 | 0.5115 | 0.4389 | 0.5212 |
| 1000 | 481 | 0.4546 | 0.5075 | 0.4496 | 0.5125 | 0.4400 | 0.5222 |
| 1000 | 482 | 0.4556 | 0.5085 | 0.4506 | 0.5135 | 0.4409 | 0.5232 |
| 1000 | 483 | 0.4566 | 0.5095 | 0.4516 | 0.5145 | 0.4420 | 0.5242 |
| 1000 | 484 | 0.4576 | 0.5105 | 0.4526 | 0.5155 | 0.4429 | 0.5252 |
| 1000 | 485 | 0.4585 | 0.5115 | 0.4536 | 0.5165 | 0.4439 | 0.5262 |
| 1000 | 486 | 0.4596 | 0.5125 | 0.4546 | 0.5175 | 0.4450 | 0.5272 |
| 1000 | 487 | 0.4606 | 0.5135 | 0.4556 | 0.5185 | 0.4460 | 0.5282 |
| 1000 | 488 | 0.4615 | 0.5145 | 0.4566 | 0.5195 | 0.4469 | 0.5292 |
| 1000 | 489 | 0.4625 | 0.5155 | 0.4576 | 0.5205 | 0.4480 | 0.5302 |
| 1000 | 490 | 0.4635 | 0.5165 | 0.4586 | 0.5215 | 0.4489 | 0.5312 |
| 1000 | 491 | 0.4645 | 0.5175 | 0.4596 | 0.5225 | 0.4498 | 0.5322 |
| 1000 | 492 | 0.4655 | 0.5185 | 0.4606 | 0.5235 | 0.4508 | 0.5332 |
| 1000 | 493 | 0.4665 | 0.5195 | 0.4616 | 0.5245 | 0.4518 | 0.5342 |
| 1000 | 494 | 0.4675 | 0.5205 | 0.4626 | 0.5255 | 0.4529 | 0.5352 |



## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 495 | 0.4685 | 0.5215 | 0.4636 | 0.5265 | 0.4538 | 0.5362 |
| 1000 | 496 | 0.4695 | 0.5225 | 0.4646 | 0.5275 | 0.4549 | 0.5372 |
| 1000 | 497 | 0.4705 | 0.5235 | 0.4656 | 0.5285 | 0.4558 | 0.5382 |
| 1000 | 498 | 0.4715 | 0.5245 | 0.4665 | 0.5295 | 0.4568 | 0.5392 |
| 1000 | 499 | 0.4725 | 0.5255 | 0.4676 | 0.5304 | 0.4579 | 0.5402 |
| 1000 | 500 | 0.4735 | 0.5265 | 0.4686 | 0.5314 | 0.4588 | 0.5412 |
| 1000 | 501 | 0.4745 | 0.5275 | 0.4696 | 0.5324 | 0.4598 | 0.5421 |
| 1000 | 502 | 0.4755 | 0.5285 | 0.4705 | 0.5335 | 0.4608 | 0.5432 |
| 1000 | 503 | 0.4765 | 0.5295 | 0.4715 | 0.5344 | 0.4618 | 0.5442 |
| 1000 | 504 | 0.4775 | 0.5305 | 0.4725 | 0.5354 | 0.4628 | 0.5451 |
| 1000 | 505 | 0.4785 | 0.5315 | 0.4735 | 0.5364 | 0.4638 | 0.5462 |
| 1000 | 506 | 0.4795 | 0.5325 | 0.4745 | 0.5374 | 0.4648 | 0.5471 |
| 1000 | 507 | 0.4805 | 0.5335 | 0.4755 | 0.5384 | 0.4658 | 0.5482 |
| 1000 | 508 | 0.4815 | 0.5345 | 0.4765 | 0.5394 | 0.4668 | 0.5492 |
| 1000 | 509 | 0.4825 | 0.5355 | 0.4775 | 0.5404 | 0.4678 | 0.5502 |
| 1000 | 510 | 0.4835 | 0.5365 | 0.4785 | 0.5414 | 0.4688 | 0.5511 |
| 1000 | 511 | 0.4845 | 0.5375 | 0.4795 | 0.5424 | 0.4698 | 0.5520 |
| 1000 | 512 | 0.4855 | 0.5385 | 0.4805 | 0.5434 | 0.4708 | 0.5531 |
| 1000 | 513 | 0.4865 | 0.5394 | 0.4815 | 0.5444 | 0.4718 | 0.5540 |
| 1000 | 514 | 0.4875 | 0.5404 | 0.4825 | 0.5454 | 0.4728 | 0.5550 |
| 1000 | 515 | 0.4885 | 0.5415 | 0.4835 | 0.5464 | 0.4738 | 0.5561 |
| 1000 | 516 | 0.4895 | 0.5424 | 0.4845 | 0.5474 | 0.4748 | 0.5571 |
| 1000 | 517 | 0.4905 | 0.5434 | 0.4855 | 0.5484 | 0.4758 | 0.5580 |
| 1000 | 518 | 0.4915 | 0.5444 | 0.4865 | 0.5494 | 0.4768 | 0.5591 |
| 1000 | 519 | 0.4925 | 0.5454 | 0.4875 | 0.5504 | 0.4778 | 0.5600 |
| 1000 | 520 | 0.4935 | 0.5464 | 0.4885 | 0.5514 | 0.4788 | 0.5611 |
| 1000 | 521 | 0.4945 | 0.5474 | 0.4895 | 0.5524 | 0.4798 | 0.5620 |
| 1000 | 522 | 0.4955 | 0.5484 | 0.4905 | 0.5534 | 0.4808 | 0.5630 |
| 1000 | 523 | 0.4965 | 0.5494 | 0.4915 | 0.5544 | 0.4818 | 0.5641 |
| 1000 | 524 | 0.4975 | 0.5504 | 0.4925 | 0.5553 | 0.4828 | 0.5649 |
| 1000 | 525 | 0.4985 | 0.5514 | 0.4935 | 0.5563 | 0.4838 | 0.5660 |
| 1000 | 526 | 0.4995 | 0.5524 | 0.4945 | 0.5573 | 0.4848 | 0.5670 |
| 1000 | 527 | 0.5005 | 0.5534 | 0.4955 | 0.5583 | 0.4858 | 0.5680 |
| 1000 | 528 | 0.5015 | 0.5544 | 0.4965 | 0.5593 | 0.4868 | 0.5690 |
| 1000 | 529 | 0.5025 | 0.5554 | 0.4975 | 0.5603 | 0.4878 | 0.5700 |
| 1000 | 530 | 0.5035 | 0.5564 | 0.4985 | 0.5613 | 0.4888 | 0.5709 |
| 1000 | 531 | 0.5045 | 0.5574 | 0.4995 | 0.5623 | 0.4898 | 0.5719 |
| 1000 | 532 | 0.5055 | 0.5584 | 0.5005 | 0.5633 | 0.4908 | 0.5730 |
| 1000 | 533 | 0.5065 | 0.5594 | 0.5015 | 0.5643 | 0.4918 | 0.5740 |
| 1000 | 534 | 0.5075 | 0.5603 | 0.5025 | 0.5653 | 0.4928 | 0.5749 |
| 1000 | 535 | 0.5085 | 0.5613 | 0.5035 | 0.5663 | 0.4938 | 0.5759 |
| 1000 | 536 | 0.5095 | 0.5623 | 0.5045 | 0.5673 | 0.4948 | 0.5769 |
| 1000 | 537 | 0.5105 | 0.5633 | 0.5055 | 0.5683 | 0.4958 | 0.5779 |
| 1000 | 538 | 0.5115 | 0.5643 | 0.5065 | 0.5692 | 0.4968 | 0.5788 |
| 1000 | 539 | 0.5125 | 0.5653 | 0.5075 | 0.5703 | 0.4978 | 0.5799 |
| 1000 | 540 | 0.5135 | 0.5663 | 0.5085 | 0.5712 | 0.4988 | 0.5809 |
| 1000 | 541 | 0.5145 | 0.5673 | 0.5095 | 0.5722 | 0.4998 | 0.5818 |
| 1000 | 542 | 0.5155 | 0.5683 | 0.5105 | 0.5732 | 0.5008 | 0.5829 |
| 1000 | 543 | 0.5165 | 0.5693 | 0.5115 | 0.5742 | 0.5018 | 0.5838 |
| 1000 | 544 | 0.5175 | 0.5703 | 0.5125 | 0.5752 | 0.5028 | 0.5848 |
| 1000 | 545 | 0.5185 | 0.5713 | 0.5135 | 0.5762 | 0.5038 | 0.5858 |
| 1000 | 546 | 0.5195 | 0.5723 | 0.5145 | 0.5772 | 0.5048 | 0.5868 |
| 1000 | 547 | 0.5205 | 0.5733 | 0.5155 | 0.5782 | 0.5058 | 0.5877 |
| 1000 | 548 | 0.5215 | 0.5743 | 0.5165 | 0.5792 | 0.5068 | 0.5887 |
| 1000 | 549 | 0.5225 | 0.5752 | 0.5176 | 0.5801 | 0.5078 | 0.5897 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 550 | 0.5235 | 0.5762 | 0.5186 | 0.5811 | 0.5088 | 0.5907 |
| 1000 | 551 | 0.5245 | 0.5772 | 0.5196 | 0.5822 | 0.5098 | 0.5917 |
| 1000 | 552 | 0.5256 | 0.5782 | 0.5206 | 0.5831 | 0.5108 | 0.5927 |
| 1000 | 553 | 0.5265 | 0.5792 | 0.5216 | 0.5841 | 0.5118 | 0.5937 |
| 1000 | 554 | 0.5275 | 0.5802 | 0.5226 | 0.5851 | 0.5128 | 0.5946 |
| 1000 | 555 | 0.5286 | 0.5812 | 0.5236 | 0.5861 | 0.5138 | 0.5958 |
| 1000 | 556 | 0.5296 | 0.5822 | 0.5246 | 0.5871 | 0.5148 | 0.5967 |
| 1000 | 557 | 0.5306 | 0.5832 | 0.5256 | 0.5881 | 0.5158 | 0.5976 |
| 1000 | 558 | 0.5316 | 0.5842 | 0.5266 | 0.5891 | 0.5169 | 0.5986 |
| 1000 | 559 | 0.5326 | 0.5852 | 0.5276 | 0.5901 | 0.5178 | 0.5996 |
| 1000 | 560 | 0.5336 | 0.5862 | 0.5286 | 0.5911 | 0.5189 | 0.6007 |
| 1000 | 561 | 0.5346 | 0.5872 | 0.5296 | 0.5920 | 0.5199 | 0.6016 |
| 1000 | 562 | 0.5356 | 0.5881 | 0.5306 | 0.5930 | 0.5209 | 0.6026 |
| 1000 | 563 | 0.5366 | 0.5891 | 0.5316 | 0.5940 | 0.5219 | 0.6035 |
| 1000 | 564 | 0.5376 | 0.5901 | 0.5326 | 0.5950 | 0.5229 | 0.6045 |
| 1000 | 565 | 0.5386 | 0.5911 | 0.5336 | 0.5960 | 0.5239 | 0.6055 |
| 1000 | 566 | 0.5396 | 0.5921 | 0.5346 | 0.5970 | 0.5249 | 0.6065 |
| 1000 | 567 | 0.5406 | 0.5931 | 0.5356 | 0.5980 | 0.5259 | 0.6074 |
| 1000 | 568 | 0.5416 | 0.5941 | 0.5366 | 0.5990 | 0.5269 | 0.6084 |
| 1000 | 569 | 0.5426 | 0.5951 | 0.5376 | 0.6000 | 0.5279 | 0.6094 |
| 1000 | 570 | 0.5436 | 0.5961 | 0.5386 | 0.6009 | 0.5289 | 0.6104 |
| 1000 | 571 | 0.5446 | 0.5971 | 0.5396 | 0.6019 | 0.5299 | 0.6115 |
| 1000 | 572 | 0.5456 | 0.5981 | 0.5407 | 0.6029 | 0.5309 | 0.6124 |
| 1000 | 573 | 0.5466 | 0.5990 | 0.5417 | 0.6039 | 0.5319 | 0.6134 |
| 1000 | 574 | 0.5476 | 0.6000 | 0.5427 | 0.6049 | 0.5329 | 0.6143 |
| 1000 | 575 | 0.5487 | 0.6010 | 0.5437 | 0.6059 | 0.5339 | 0.6154 |
| 1000 | 576 | 0.5497 | 0.6020 | 0.5447 | 0.6068 | 0.5350 | 0.6163 |
| 1000 | 577 | 0.5507 | 0.6030 | 0.5457 | 0.6079 | 0.5360 | 0.6174 |
| 1000 | 578 | 0.5517 | 0.6040 | 0.5467 | 0.6088 | 0.5370 | 0.6183 |
| 1000 | 579 | 0.5527 | 0.6050 | 0.5477 | 0.6098 | 0.5380 | 0.6193 |
| 1000 | 580 | 0.5537 | 0.6060 | 0.5487 | 0.6108 | 0.5390 | 0.6202 |
| 1000 | 581 | 0.5547 | 0.6070 | 0.5497 | 0.6118 | 0.5400 | 0.6212 |
| 1000 | 582 | 0.5557 | 0.6080 | 0.5507 | 0.6128 | 0.5410 | 0.6223 |
| 1000 | 583 | 0.5567 | 0.6089 | 0.5517 | 0.6138 | 0.5420 | 0.6232 |
| 1000 | 584 | 0.5577 | 0.6099 | 0.5527 | 0.6148 | 0.5430 | 0.6242 |
| 1000 | 585 | 0.5587 | 0.6109 | 0.5537 | 0.6157 | 0.5440 | 0.6251 |
| 1000 | 586 | 0.5597 | 0.6119 | 0.5548 | 0.6167 | 0.5450 | 0.6261 |
| 1000 | 587 | 0.5607 | 0.6129 | 0.5558 | 0.6177 | 0.5461 | 0.6271 |
| 1000 | 588 | 0.5617 | 0.6139 | 0.5568 | 0.6187 | 0.5471 | 0.6281 |
| 1000 | 589 | 0.5627 | 0.6149 | 0.5578 | 0.6197 | 0.5481 | 0.6291 |
| 1000 | 590 | 0.5637 | 0.6159 | 0.5588 | 0.6207 | 0.5491 | 0.6300 |
| 1000 | 591 | 0.5648 | 0.6168 | 0.5598 | 0.6217 | 0.5501 | 0.6310 |
| 1000 | 592 | 0.5658 | 0.6178 | 0.5608 | 0.6226 | 0.5511 | 0.6320 |
| 1000 | 593 | 0.5668 | 0.6188 | 0.5618 | 0.6236 | 0.5521 | 0.6330 |
| 1000 | 594 | 0.5678 | 0.6198 | 0.5628 | 0.6246 | 0.5531 | 0.6339 |
| 1000 | 595 | 0.5688 | 0.6208 | 0.5638 | 0.6256 | 0.5541 | 0.6350 |
| 1000 | 596 | 0.5698 | 0.6218 | 0.5648 | 0.6266 | 0.5551 | 0.6359 |
| 1000 | 597 | 0.5708 | 0.6228 | 0.5658 | 0.6276 | 0.5562 | 0.6369 |
| 1000 | 598 | 0.5718 | 0.6238 | 0.5669 | 0.6285 | 0.5572 | 0.6379 |
| 1000 | 599 | 0.5728 | 0.6247 | 0.5679 | 0.6295 | 0.5582 | 0.6389 |
| 1000 | 600 | 0.5738 | 0.6257 | 0.5689 | 0.6305 | 0.5592 | 0.6399 |
| 1000 | 601 | 0.5748 | 0.6267 | 0.5699 | 0.6315 | 0.5602 | 0.6408 |
| 1000 | 602 | 0.5758 | 0.6277 | 0.5709 | 0.6325 | 0.5612 | 0.6418 |
| 1000 | 603 | 0.5769 | 0.6287 | 0.5719 | 0.6335 | 0.5622 | 0.6428 |
| 1000 | 604 | 0.5779 | 0.6297 | 0.5729 | 0.6345 | 0.5632 | 0.6438 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 605 | 0.5789 | 0.6307 | 0.5739 | 0.6354 | 0.5642 | 0.6448 |
| 1000 | 606 | 0.5799 | 0.6317 | 0.5749 | 0.6365 | 0.5653 | 0.6458 |
| 1000 | 607 | 0.5809 | 0.6327 | 0.5760 | 0.6374 | 0.5663 | 0.6467 |
| 1000 | 608 | 0.5819 | 0.6336 | 0.5770 | 0.6384 | 0.5673 | 0.6477 |
| 1000 | 609 | 0.5829 | 0.6346 | 0.5780 | 0.6394 | 0.5683 | 0.6486 |
| 1000 | 610 | 0.5839 | 0.6356 | 0.5790 | 0.6404 | 0.5693 | 0.6497 |
| 1000 | 611 | 0.5849 | 0.6366 | 0.5800 | 0.6413 | 0.5703 | 0.6506 |
| 1000 | 612 | 0.5859 | 0.6376 | 0.5810 | 0.6424 | 0.5713 | 0.6516 |
| 1000 | 613 | 0.5869 | 0.6386 | 0.5820 | 0.6433 | 0.5723 | 0.6525 |
| 1000 | 614 | 0.5880 | 0.6395 | 0.5830 | 0.6443 | 0.5734 | 0.6535 |
| 1000 | 615 | 0.5890 | 0.6405 | 0.5840 | 0.6453 | 0.5744 | 0.6545 |
| 1000 | 616 | 0.5900 | 0.6415 | 0.5850 | 0.6463 | 0.5754 | 0.6555 |
| 1000 | 617 | 0.5910 | 0.6425 | 0.5861 | 0.6473 | 0.5764 | 0.6565 |
| 1000 | 618 | 0.5920 | 0.6435 | 0.5871 | 0.6482 | 0.5774 | 0.6574 |
| 1000 | 619 | 0.5930 | 0.6445 | 0.5881 | 0.6492 | 0.5784 | 0.6584 |
| 1000 | 620 | 0.5940 | 0.6455 | 0.5891 | 0.6502 | 0.5795 | 0.6594 |
| 1000 | 621 | 0.5950 | 0.6464 | 0.5901 | 0.6512 | 0.5805 | 0.6603 |
| 1000 | 622 | 0.5960 | 0.6474 | 0.5911 | 0.6522 | 0.5815 | 0.6613 |
| 1000 | 623 | 0.5971 | 0.6484 | 0.5921 | 0.6531 | 0.5825 | 0.6624 |
| 1000 | 624 | 0.5981 | 0.6494 | 0.5931 | 0.6541 | 0.5835 | 0.6633 |
| 1000 | 625 | 0.5991 | 0.6504 | 0.5942 | 0.6551 | 0.5845 | 0.6642 |
| 1000 | 626 | 0.6001 | 0.6514 | 0.5952 | 0.6561 | 0.5855 | 0.6652 |
| 1000 | 627 | 0.6011 | 0.6524 | 0.5962 | 0.6571 | 0.5866 | 0.6662 |
| 1000 | 628 | 0.6021 | 0.6533 | 0.5972 | 0.6581 | 0.5876 | 0.6672 |
| 1000 | 629 | 0.6031 | 0.6543 | 0.5982 | 0.6590 | 0.5886 | 0.6681 |
| 1000 | 630 | 0.6041 | 0.6553 | 0.5992 | 0.6600 | 0.5896 | 0.6691 |
| 1000 | 631 | 0.6051 | 0.6563 | 0.6002 | 0.6610 | 0.5906 | 0.6701 |
| 1000 | 632 | 0.6061 | 0.6573 | 0.6012 | 0.6620 | 0.5917 | 0.6711 |
| 1000 | 633 | 0.6072 | 0.6583 | 0.6023 | 0.6630 | 0.5927 | 0.6721 |
| 1000 | 634 | 0.6082 | 0.6592 | 0.6033 | 0.6639 | 0.5937 | 0.6730 |
| 1000 | 635 | 0.6092 | 0.6602 | 0.6043 | 0.6649 | 0.5947 | 0.6740 |
| 1000 | 636 | 0.6102 | 0.6612 | 0.6053 | 0.6659 | 0.5957 | 0.6749 |
| 1000 | 637 | 0.6112 | 0.6622 | 0.6063 | 0.6669 | 0.5967 | 0.6759 |
| 1000 | 638 | 0.6122 | 0.6632 | 0.6073 | 0.6678 | 0.5978 | 0.6769 |
| 1000 | 639 | 0.6132 | 0.6641 | 0.6084 | 0.6688 | 0.5988 | 0.6779 |
| 1000 | 640 | 0.6143 | 0.6651 | 0.6094 | 0.6698 | 0.5998 | 0.6789 |
| 1000 | 641 | 0.6153 | 0.6661 | 0.6104 | 0.6708 | 0.6008 | 0.6798 |
| 1000 | 642 | 0.6163 | 0.6671 | 0.6114 | 0.6717 | 0.6018 | 0.6807 |
| 1000 | 643 | 0.6173 | 0.6681 | 0.6124 | 0.6727 | 0.6029 | 0.6818 |
| 1000 | 644 | 0.6183 | 0.6691 | 0.6134 | 0.6737 | 0.6039 | 0.6827 |
| 1000 | 645 | 0.6193 | 0.6700 | 0.6144 | 0.6747 | 0.6049 | 0.6837 |
| 1000 | 646 | 0.6203 | 0.6710 | 0.6155 | 0.6757 | 0.6059 | 0.6847 |
| 1000 | 647 | 0.6213 | 0.6720 | 0.6165 | 0.6767 | 0.6069 | 0.6857 |
| 1000 | 648 | 0.6224 | 0.6730 | 0.6175 | 0.6776 | 0.6080 | 0.6866 |
| 1000 | 649 | 0.6234 | 0.6740 | 0.6185 | 0.6786 | 0.6090 | 0.6876 |
| 1000 | 650 | 0.6244 | 0.6749 | 0.6195 | 0.6796 | 0.6100 | 0.6885 |
| 1000 | 651 | 0.6254 | 0.6759 | 0.6206 | 0.6806 | 0.6110 | 0.6895 |
| 1000 | 652 | 0.6264 | 0.6769 | 0.6216 | 0.6815 | 0.6120 | 0.6905 |
| 1000 | 653 | 0.6274 | 0.6779 | 0.6226 | 0.6825 | 0.6131 | 0.6914 |
| 1000 | 654 | 0.6284 | 0.6789 | 0.6236 | 0.6835 | 0.6141 | 0.6924 |
| 1000 | 655 | 0.6295 | 0.6799 | 0.6246 | 0.6845 | 0.6151 | 0.6934 |
| 1000 | 656 | 0.6305 | 0.6808 | 0.6256 | 0.6854 | 0.6161 | 0.6943 |
| 1000 | 657 | 0.6315 | 0.6818 | 0.6267 | 0.6864 | 0.6171 | 0.6954 |
| 1000 | 658 | 0.6325 | 0.6828 | 0.6277 | 0.6874 | 0.6182 | 0.6963 |
| 1000 | 659 | 0.6335 | 0.6838 | 0.6287 | 0.6884 | 0.6192 | 0.6973 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 660 | 0.6345 | 0.6848 | 0.6297 | 0.6893 | 0.6202 | 0.6982 |
| 1000 | 661 | 0.6356 | 0.6858 | 0.6307 | 0.6903 | 0.6212 | 0.6992 |
| 1000 | 662 | 0.6366 | 0.6867 | 0.6317 | 0.6913 | 0.6223 | 0.7002 |
| 1000 | 663 | 0.6376 | 0.6877 | 0.6328 | 0.6923 | 0.6233 | 0.7011 |
| 1000 | 664 | 0.6386 | 0.6887 | 0.6338 | 0.6933 | 0.6243 | 0.7021 |
| 1000 | 665 | 0.6396 | 0.6897 | 0.6348 | 0.6942 | 0.6253 | 0.7030 |
| 1000 | 666 | 0.6406 | 0.6907 | 0.6358 | 0.6952 | 0.6264 | 0.7040 |
| 1000 | 667 | 0.6416 | 0.6916 | 0.6368 | 0.6962 | 0.6274 | 0.7051 |
| 1000 | 668 | 0.6427 | 0.6926 | 0.6379 | 0.6972 | 0.6284 | 0.7060 |
| 1000 | 669 | 0.6437 | 0.6936 | 0.6389 | 0.6981 | 0.6294 | 0.7069 |
| 1000 | 670 | 0.6447 | 0.6946 | 0.6399 | 0.6991 | 0.6305 | 0.7080 |
| 1000 | 671 | 0.6457 | 0.6955 | 0.6409 | 0.7001 | 0.6315 | 0.7089 |
| 1000 | 672 | 0.6467 | 0.6965 | 0.6419 | 0.7011 | 0.6325 | 0.7098 |
| 1000 | 673 | 0.6477 | 0.6975 | 0.6430 | 0.7020 | 0.6335 | 0.7108 |
| 1000 | 674 | 0.6488 | 0.6985 | 0.6440 | 0.7030 | 0.6345 | 0.7117 |
| 1000 | 675 | 0.6498 | 0.6995 | 0.6450 | 0.7040 | 0.6356 | 0.7127 |
| 1000 | 676 | 0.6508 | 0.7004 | 0.6460 | 0.7049 | 0.6366 | 0.7136 |
| 1000 | 677 | 0.6518 | 0.7014 | 0.6470 | 0.7059 | 0.6376 | 0.7147 |
| 1000 | 678 | 0.6528 | 0.7024 | 0.6480 | 0.7069 | 0.6386 | 0.7157 |
| 1000 | 679 | 0.6538 | 0.7034 | 0.6491 | 0.7079 | 0.6397 | 0.7166 |
| 1000 | 680 | 0.6549 | 0.7044 | 0.6501 | 0.7088 | 0.6407 | 0.7176 |
| 1000 | 681 | 0.6559 | 0.7053 | 0.6511 | 0.7098 | 0.6417 | 0.7186 |
| 1000 | 682 | 0.6569 | 0.7063 | 0.6521 | 0.7108 | 0.6428 | 0.7195 |
| 1000 | 683 | 0.6579 | 0.7073 | 0.6532 | 0.7118 | 0.6438 | 0.7204 |
| 1000 | 684 | 0.6589 | 0.7083 | 0.6542 | 0.7127 | 0.6448 | 0.7214 |
| 1000 | 685 | 0.6600 | 0.7092 | 0.6552 | 0.7137 | 0.6458 | 0.7224 |
| 1000 | 686 | 0.6610 | 0.7102 | 0.6562 | 0.7147 | 0.6469 | 0.7233 |
| 1000 | 687 | 0.6620 | 0.7112 | 0.6572 | 0.7156 | 0.6479 | 0.7242 |
| 1000 | 688 | 0.6630 | 0.7122 | 0.6583 | 0.7166 | 0.6489 | 0.7253 |
| 1000 | 689 | 0.6640 | 0.7131 | 0.6593 | 0.7176 | 0.6500 | 0.7262 |
| 1000 | 690 | 0.6650 | 0.7141 | 0.6603 | 0.7186 | 0.6510 | 0.7271 |
| 1000 | 691 | 0.6661 | 0.7151 | 0.6613 | 0.7195 | 0.6520 | 0.7281 |
| 1000 | 692 | 0.6671 | 0.7161 | 0.6623 | 0.7205 | 0.6530 | 0.7292 |
| 1000 | 693 | 0.6681 | 0.7170 | 0.6634 | 0.7215 | 0.6541 | 0.7301 |
| 1000 | 694 | 0.6691 | 0.7180 | 0.6644 | 0.7225 | 0.6551 | 0.7310 |
| 1000 | 695 | 0.6701 | 0.7190 | 0.6654 | 0.7234 | 0.6561 | 0.7320 |
| 1000 | 696 | 0.6712 | 0.7200 | 0.6665 | 0.7244 | 0.6572 | 0.7329 |
| 1000 | 697 | 0.6722 | 0.7210 | 0.6675 | 0.7254 | 0.6582 | 0.7339 |
| 1000 | 698 | 0.6732 | 0.7219 | 0.6685 | 0.7263 | 0.6592 | 0.7349 |
| 1000 | 699 | 0.6742 | 0.7229 | 0.6695 | 0.7273 | 0.6602 | 0.7358 |
| 1000 | 700 | 0.6752 | 0.7239 | 0.6705 | 0.7283 | 0.6613 | 0.7368 |
| 1000 | 701 | 0.6763 | 0.7248 | 0.6716 | 0.7292 | 0.6623 | 0.7377 |
| 1000 | 702 | 0.6773 | 0.7258 | 0.6726 | 0.7302 | 0.6633 | 0.7387 |
| 1000 | 703 | 0.6783 | 0.7268 | 0.6736 | 0.7312 | 0.6644 | 0.7397 |
| 1000 | 704 | 0.6793 | 0.7278 | 0.6746 | 0.7322 | 0.6654 | 0.7406 |
| 1000 | 705 | 0.6804 | 0.7288 | 0.6757 | 0.7331 | 0.6664 | 0.7416 |
| 1000 | 706 | 0.6814 | 0.7297 | 0.6757 | 0.7341 | 0.6675 | 0.7426 |
| 1000 | 707 | 0.6824 | 0.7307 | 0.6777 | 0.7351 | 0.6685 | 0.7435 |
| 1000 | 708 | 0.6834 | 0.7317 | 0.6787 | 0.7360 | 0.6695 | 0.7444 |
| 1000 | 709 | 0.6844 | 0.7326 | 0.6798 | 0.7370 | 0.6706 | 0.7454 |
| 1000 | 710 | 0.6855 | 0.7336 | 0.6808 | 0.7380 | 0.6716 | 0.7464 |
| 1000 | 711 | 0.6865 | 0.7346 | 0.6819 | 0.7389 | 0.6726 | 0.7473 |
| 1000 | 712 | 0.6875 | 0.7356 | 0.6828 | 0.7399 | 0.6737 | 0.7483 |
| 1000 | 713 | 0.6885 | 0.7365 | 0.6839 | 0.7409 | 0.6747 | 0.7492 |
| 1000 | 714 | 0.6896 | 0.7375 | 0.6849 | 0.7418 | 0.6757 | 0.7502 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 715 | 0.6906 | 0.7385 | 0.6859 | 0.7428 | 0.6768 | 0.7512 |
| 1000 | 716 | 0.6916 | 0.7395 | 0.6869 | 0.7438 | 0.6778 | 0.7521 |
| 1000 | 717 | 0.6926 | 0.7404 | 0.6880 | 0.7448 | 0.6788 | 0.7531 |
| 1000 | 718 | 0.6936 | 0.7414 | 0.6890 | 0.7457 | 0.6799 | 0.7540 |
| 1000 | 719 | 0.6947 | 0.7424 | 0.6900 | 0.7467 | 0.6809 | 0.7549 |
| 1000 | 720 | 0.6957 | 0.7434 | 0.6910 | 0.7476 | 0.6819 | 0.7559 |
| 1000 | 721 | 0.6967 | 0.7443 | 0.6921 | 0.7486 | 0.6830 | 0.7569 |
| 1000 | 722 | 0.6977 | 0.7453 | 0.6931 | 0.7496 | 0.6840 | 0.7578 |
| 1000 | 723 | 0.6988 | 0.7463 | 0.6941 | 0.7505 | 0.6850 | 0.7588 |
| 1000 | 724 | 0.6998 | 0.7472 | 0.6952 | 0.7515 | 0.6861 | 0.7598 |
| 1000 | 725 | 0.7008 | 0.7482 | 0.6962 | 0.7525 | 0.6871 | 0.7607 |
| 1000 | 726 | 0.7018 | 0.7492 | 0.6972 | 0.7534 | 0.6881 | 0.7617 |
| 1000 | 727 | 0.7028 | 0.7502 | 0.6982 | 0.7544 | 0.6892 | 0.7626 |
| 1000 | 728 | 0.7039 | 0.7511 | 0.6993 | 0.7554 | 0.6902 | 0.7636 |
| 1000 | 729 | 0.7049 | 0.7521 | 0.7003 | 0.7563 | 0.6912 | 0.7645 |
| 1000 | 730 | 0.7059 | 0.7531 | 0.7013 | 0.7573 | 0.6923 | 0.7655 |
| 1000 | 731 | 0.7069 | 0.7540 | 0.7024 | 0.7583 | 0.6933 | 0.7664 |
| 1000 | 732 | 0.7080 | 0.7550 | 0.7034 | 0.7592 | 0.6944 | 0.7674 |
| 1000 | 733 | 0.7090 | 0.7560 | 0.7044 | 0.7602 | 0.6954 | 0.7684 |
| 1000 | 734 | 0.7100 | 0.7570 | 0.7055 | 0.7612 | 0.6964 | 0.7693 |
| 1000 | 735 | 0.7111 | 0.7579 | 0.7065 | 0.7621 | 0.6975 | 0.7703 |
| 1000 | 736 | 0.7121 | 0.7589 | 0.7075 | 0.7631 | 0.6985 | 0.7712 |
| 1000 | 737 | 0.7131 | 0.7599 | 0.7085 | 0.7641 | 0.6995 | 0.7722 |
| 1000 | 738 | 0.7141 | 0.7608 | 0.7096 | 0.7650 | 0.7006 | 0.7731 |
| 1000 | 739 | 0.7152 | 0.7618 | 0.7106 | 0.7660 | 0.7016 | 0.7741 |
| 1000 | 740 | 0.7162 | 0.7628 | 0.7116 | 0.7669 | 0.7027 | 0.7750 |
| 1000 | 741 | 0.7172 | 0.7637 | 0.7127 | 0.7679 | 0.7037 | 0.7760 |
| 1000 | 742 | 0.7182 | 0.7647 | 0.7137 | 0.7689 | 0.7048 | 0.7769 |
| 1000 | 743 | 0.7193 | 0.7657 | 0.7147 | 0.7698 | 0.7058 | 0.7778 |
| 1000 | 744 | 0.7203 | 0.7667 | 0.7158 | 0.7708 | 0.7068 | 0.7788 |
| 1000 | 745 | 0.7213 | 0.7676 | 0.7168 | 0.7718 | 0.7079 | 0.7797 |
| 1000 | 746 | 0.7223 | 0.7686 | 0.7178 | 0.7727 | 0.7089 | 0.7808 |
| 1000 | 747 | 0.7234 | 0.7696 | 0.7188 | 0.7737 | 0.7100 | 0.7817 |
| 1000 | 748 | 0.7244 | 0.7705 | 0.7199 | 0.7747 | 0.7110 | 0.7826 |
| 1000 | 749 | 0.7254 | 0.7715 | 0.7209 | 0.7756 | 0.7120 | 0.7835 |
| 1000 | 750 | 0.7264 | 0.7725 | 0.7219 | 0.7766 | 0.7131 | 0.7845 |
| 1000 | 751 | 0.7275 | 0.7734 | 0.7230 | 0.7775 | 0.7141 | 0.7854 |
| 1000 | 752 | 0.7285 | 0.7744 | 0.7240 | 0.7785 | 0.7152 | 0.7864 |
| 1000 | 753 | 0.7295 | 0.7754 | 0.7250 | 0.7794 | 0.7162 | 0.7874 |
| 1000 | 754 | 0.7306 | 0.7763 | 0.7261 | 0.7804 | 0.7172 | 0.7883 |
| 1000 | 755 | 0.7316 | 0.7773 | 0.7271 | 0.7814 | 0.7183 | 0.7893 |
| 1000 | 756 | 0.7326 | 0.7783 | 0.7282 | 0.7823 | 0.7193 | 0.7902 |
| 1000 | 757 | 0.7337 | 0.7792 | 0.7292 | 0.7833 | 0.7204 | 0.7911 |
| 1000 | 758 | 0.7347 | 0.7802 | 0.7302 | 0.7842 | 0.7214 | 0.7920 |
| 1000 | 759 | 0.7357 | 0.7812 | 0.7313 | 0.7852 | 0.7225 | 0.7931 |
| 1000 | 760 | 0.7367 | 0.7821 | 0.7323 | 0.7862 | 0.7235 | 0.7940 |
| 1000 | 761 | 0.7378 | 0.7831 | 0.7333 | 0.7871 | 0.7246 | 0.7949 |
| 1000 | 762 | 0.7388 | 0.7841 | 0.7344 | 0.7881 | 0.7256 | 0.7959 |
| 1000 | 763 | 0.7398 | 0.7850 | 0.7354 | 0.7891 | 0.7266 | 0.7968 |
| 1000 | 764 | 0.7409 | 0.7860 | 0.7364 | 0.7900 | 0.7277 | 0.7977 |
| 1000 | 765 | 0.7419 | 0.7869 | 0.7375 | 0.7910 | 0.7287 | 0.7987 |
| 1000 | 766 | 0.7429 | 0.7879 | 0.7385 | 0.7919 | 0.7298 | 0.7997 |
| 1000 | 767 | 0.7439 | 0.7889 | 0.7395 | 0.7929 | 0.7308 | 0.8006 |
| 1000 | 768 | 0.7450 | 0.7898 | 0.7406 | 0.7938 | 0.7319 | 0.8015 |
| 1000 | 769 | 0.7460 | 0.7908 | 0.7416 | 0.7948 | 0.7329 | 0.8025 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 770 | 0.7470 | 0.7918 | 0.7426 | 0.7958 | 0.7340 | 0.8034 |
| 1000 | 771 | 0.7481 | 0.7927 | 0.7437 | 0.7967 | 0.7350 | 0.8044 |
| 1000 | 772 | 0.7491 | 0.7937 | 0.7447 | 0.7977 | 0.7361 | 0.8053 |
| 1000 | 773 | 0.7501 | 0.7947 | 0.7458 | 0.7986 | 0.7371 | 0.8063 |
| 1000 | 774 | 0.7512 | 0.7956 | 0.7468 | 0.7996 | 0.7382 | 0.8072 |
| 1000 | 775 | 0.7522 | 0.7966 | 0.7478 | 0.8005 | 0.7392 | 0.8081 |
| 1000 | 776 | 0.7532 | 0.7976 | 0.7489 | 0.8015 | 0.7403 | 0.8091 |
| 1000 | 777 | 0.7542 | 0.7985 | 0.7499 | 0.8025 | 0.7413 | 0.8100 |
| 1000 | 778 | 0.7553 | 0.7995 | 0.7509 | 0.8034 | 0.7423 | 0.8110 |
| 1000 | 779 | 0.7563 | 0.8005 | 0.7520 | 0.8044 | 0.7434 | 0.8119 |
| 1000 | 780 | 0.7573 | 0.8014 | 0.7530 | 0.8053 | 0.7445 | 0.8128 |
| 1000 | 781 | 0.7584 | 0.8024 | 0.7541 | 0.8063 | 0.7455 | 0.8138 |
| 1000 | 782 | 0.7594 | 0.8033 | 0.7551 | 0.8072 | 0.7466 | 0.8147 |
| 1000 | 783 | 0.7605 | 0.8043 | 0.7561 | 0.8082 | 0.7476 | 0.8157 |
| 1000 | 784 | 0.7615 | 0.8053 | 0.7572 | 0.8091 | 0.7486 | 0.8166 |
| 1000 | 785 | 0.7625 | 0.8062 | 0.7582 | 0.8101 | 0.7497 | 0.8175 |
| 1000 | 786 | 0.7636 | 0.8072 | 0.7593 | 0.8110 | 0.7508 | 0.8185 |
| 1000 | 787 | 0.7646 | 0.8081 | 0.7603 | 0.8120 | 0.7518 | 0.8194 |
| 1000 | 788 | 0.7656 | 0.8091 | 0.7613 | 0.8130 | 0.7529 | 0.8204 |
| 1000 | 789 | 0.7667 | 0.8101 | 0.7624 | 0.8139 | 0.7539 | 0.8213 |
| 1000 | 790 | 0.7677 | 0.8110 | 0.7634 | 0.8149 | 0.7550 | 0.8222 |
| 1000 | 791 | 0.7687 | 0.8120 | 0.7645 | 0.8158 | 0.7560 | 0.8232 |
| 1000 | 792 | 0.7698 | 0.8130 | 0.7655 | 0.8168 | 0.7571 | 0.8241 |
| 1000 | 793 | 0.7708 | 0.8139 | 0.7665 | 0.8177 | 0.7581 | 0.8250 |
| 1000 | 794 | 0.7718 | 0.8149 | 0.7676 | 0.8187 | 0.7592 | 0.8260 |
| 1000 | 795 | 0.7729 | 0.8158 | 0.7686 | 0.8196 | 0.7602 | 0.8269 |
| 1000 | 796 | 0.7739 | 0.8168 | 0.7697 | 0.8206 | 0.7613 | 0.8278 |
| 1000 | 797 | 0.7749 | 0.8178 | 0.7707 | 0.8215 | 0.7624 | 0.8288 |
| 1000 | 798 | 0.7760 | 0.8187 | 0.7718 | 0.8225 | 0.7634 | 0.8297 |
| 1000 | 799 | 0.7770 | 0.8197 | 0.7728 | 0.8234 | 0.7645 | 0.8307 |
| 1000 | 800 | 0.7781 | 0.8206 | 0.7738 | 0.8244 | 0.7655 | 0.8316 |
| 1000 | 801 | 0.7791 | 0.8216 | 0.7749 | 0.8253 | 0.7666 | 0.8325 |
| 1000 | 802 | 0.7801 | 0.8225 | 0.7759 | 0.8263 | 0.7676 | 0.8334 |
| 1000 | 803 | 0.7812 | 0.8235 | 0.7770 | 0.8272 | 0.7687 | 0.8344 |
| 1000 | 804 | 0.7822 | 0.8245 | 0.7780 | 0.8282 | 0.7697 | 0.8353 |
| 1000 | 805 | 0.7832 | 0.8254 | 0.7791 | 0.8291 | 0.7708 | 0.8363 |
| 1000 | 806 | 0.7843 | 0.8264 | 0.7801 | 0.8301 | 0.7719 | 0.8372 |
| 1000 | 807 | 0.7853 | 0.8273 | 0.7812 | 0.8310 | 0.7729 | 0.8381 |
| 1000 | 808 | 0.7864 | 0.8283 | 0.7822 | 0.8320 | 0.7740 | 0.8390 |
| 1000 | 809 | 0.7874 | 0.8292 | 0.7832 | 0.8329 | 0.7750 | 0.8400 |
| 1000 | 810 | 0.7884 | 0.8302 | 0.7843 | 0.8339 | 0.7761 | 0.8409 |
| 1000 | 811 | 0.7895 | 0.8312 | 0.7853 | 0.8348 | 0.7772 | 0.8418 |
| 1000 | 812 | 0.7905 | 0.8321 | 0.7864 | 0.8358 | 0.7782 | 0.8428 |
| 1000 | 813 | 0.7915 | 0.8331 | 0.7874 | 0.8367 | 0.7793 | 0.8437 |
| 1000 | 814 | 0.7926 | 0.8340 | 0.7885 | 0.8377 | 0.7803 | 0.8446 |
| 1000 | 815 | 0.7936 | 0.8350 | 0.7895 | 0.8386 | 0.7814 | 0.8456 |
| 1000 | 816 | 0.7947 | 0.8359 | 0.7906 | 0.8396 | 0.7824 | 0.8465 |
| 1000 | 817 | 0.7957 | 0.8369 | 0.7916 | 0.8405 | 0.7835 | 0.8474 |
| 1000 | 818 | 0.7967 | 0.8379 | 0.7927 | 0.8415 | 0.7846 | 0.8484 |
| 1000 | 819 | 0.7978 | 0.8388 | 0.7937 | 0.8424 | 0.7856 | 0.8493 |
| 1000 | 820 | 0.7988 | 0.8398 | 0.7948 | 0.8433 | 0.7867 | 0.8502 |
| 1000 | 821 | 0.7999 | 0.8407 | 0.7958 | 0.8443 | 0.7878 | 0.8511 |
| 1000 | 822 | 0.8009 | 0.8417 | 0.7969 | 0.8452 | 0.7888 | 0.8521 |
| 1000 | 823 | 0.8019 | 0.8426 | 0.7979 | 0.8462 | 0.7899 | 0.8530 |
| 1000 | 824 | 0.8030 | 0.8436 | 0.7990 | 0.8471 | 0.7909 | 0.8539 |

## TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 825 | 0.8040 | 0.8445 | 0.8000 | 0.8481 | 0.7920 | 0.8548 |
| 1000 | 826 | 0.8051 | 0.8455 | 0.8010 | 0.8490 | 0.7931 | 0.8558 |
| 1000 | 827 | 0.8061 | 0.8464 | 0.8021 | 0.8500 | 0.7941 | 0.8567 |
| 1000 | 828 | 0.8072 | 0.8474 | 0.8032 | 0.8509 | 0.7952 | 0.8576 |
| 1000 | 829 | 0.8082 | 0.8484 | 0.8042 | 0.8518 | 0.7963 | 0.8585 |
| 1000 | 830 | 0.8092 | 0.8493 | 0.8053 | 0.8528 | 0.7973 | 0.8595 |
| 1000 | 831 | 0.8103 | 0.8503 | 0.8063 | 0.8537 | 0.7984 | 0.8604 |
| 1000 | 832 | 0.8113 | 0.8512 | 0.8074 | 0.8547 | 0.7995 | 0.8613 |
| 1000 | 833 | 0.8124 | 0.8521 | 0.8084 | 0.8556 | 0.8005 | 0.8622 |
| 1000 | 834 | 0.8134 | 0.8531 | 0.8095 | 0.8565 | 0.8016 | 0.8632 |
| 1000 | 835 | 0.8145 | 0.8541 | 0.8105 | 0.8575 | 0.8026 | 0.8641 |
| 1000 | 836 | 0.8155 | 0.8550 | 0.8116 | 0.8584 | 0.8038 | 0.8650 |
| 1000 | 837 | 0.8166 | 0.8560 | 0.8126 | 0.8594 | 0.8048 | 0.8659 |
| 1000 | 838 | 0.8176 | 0.8569 | 0.8137 | 0.8603 | 0.8059 | 0.8668 |
| 1000 | 839 | 0.8186 | 0.8579 | 0.8147 | 0.8613 | 0.8070 | 0.8678 |
| 1000 | 840 | 0.8197 | 0.8588 | 0.8158 | 0.8622 | 0.8080 | 0.8687 |
| 1000 | 841 | 0.8207 | 0.8598 | 0.8168 | 0.8631 | 0.8091 | 0.8696 |
| 1000 | 842 | 0.8218 | 0.8607 | 0.8179 | 0.8641 | 0.8101 | 0.8705 |
| 1000 | 843 | 0.8228 | 0.8617 | 0.8189 | 0.8650 | 0.8112 | 0.8714 |
| 1000 | 844 | 0.8239 | 0.8626 | 0.8200 | 0.8659 | 0.8123 | 0.8724 |
| 1000 | 845 | 0.8249 | 0.8635 | 0.8211 | 0.8669 | 0.8134 | 0.8733 |
| 1000 | 846 | 0.8260 | 0.8645 | 0.8221 | 0.8678 | 0.8144 | 0.8742 |
| 1000 | 847 | 0.8270 | 0.8655 | 0.8232 | 0.8688 | 0.8155 | 0.8751 |
| 1000 | 848 | 0.8281 | 0.8664 | 0.8242 | 0.8697 | 0.8166 | 0.8760 |
| 1000 | 849 | 0.8291 | 0.8673 | 0.8253 | 0.8706 | 0.8176 | 0.8769 |
| 1000 | 850 | 0.8302 | 0.8683 | 0.8263 | 0.8716 | 0.8188 | 0.8779 |
| 1000 | 851 | 0.8312 | 0.8692 | 0.8274 | 0.8725 | 0.8198 | 0.8788 |
| 1000 | 852 | 0.8323 | 0.8702 | 0.8285 | 0.8735 | 0.8209 | 0.8797 |
| 1000 | 853 | 0.8333 | 0.8711 | 0.8295 | 0.8744 | 0.8220 | 0.8806 |
| 1000 | 854 | 0.8344 | 0.8721 | 0.8306 | 0.8753 | 0.8231 | 0.8815 |
| 1000 | 855 | 0.8354 | 0.8730 | 0.8316 | 0.8763 | 0.8241 | 0.8824 |
| 1000 | 856 | 0.8365 | 0.8740 | 0.8327 | 0.8772 | 0.8252 | 0.8833 |
| 1000 | 857 | 0.8375 | 0.8749 | 0.8337 | 0.8781 | 0.8263 | 0.8843 |
| 1000 | 858 | 0.8386 | 0.8759 | 0.8348 | 0.8791 | 0.8273 | 0.8852 |
| 1000 | 859 | 0.8396 | 0.8768 | 0.8359 | 0.8800 | 0.8284 | 0.8861 |
| 1000 | 860 | 0.8407 | 0.8777 | 0.8369 | 0.8809 | 0.8295 | 0.8870 |
| 1000 | 861 | 0.8417 | 0.8787 | 0.8380 | 0.8819 | 0.8306 | 0.8879 |
| 1000 | 862 | 0.8428 | 0.8796 | 0.8391 | 0.8828 | 0.8317 | 0.8888 |
| 1000 | 863 | 0.8438 | 0.8806 | 0.8401 | 0.8837 | 0.8328 | 0.8897 |
| 1000 | 864 | 0.8449 | 0.8815 | 0.8412 | 0.8847 | 0.8338 | 0.8906 |
| 1000 | 865 | 0.8459 | 0.8825 | 0.8422 | 0.8856 | 0.8349 | 0.8915 |
| 1000 | 866 | 0.8470 | 0.8834 | 0.8433 | 0.8865 | 0.8360 | 0.8924 |
| 1000 | 867 | 0.8480 | 0.8843 | 0.8444 | 0.8874 | 0.8371 | 0.8933 |
| 1000 | 868 | 0.8491 | 0.8853 | 0.8454 | 0.8884 | 0.8382 | 0.8943 |
| 1000 | 869 | 0.8501 | 0.8862 | 0.8465 | 0.8893 | 0.8392 | 0.8952 |
| 1000 | 870 | 0.8512 | 0.8872 | 0.8476 | 0.8902 | 0.8403 | 0.8961 |
| 1000 | 871 | 0.8523 | 0.8881 | 0.8486 | 0.8912 | 0.8415 | 0.8970 |
| 1000 | 872 | 0.8533 | 0.8890 | 0.8497 | 0.8921 | 0.8425 | 0.8979 |
| 1000 | 873 | 0.8544 | 0.8900 | 0.8508 | 0.8930 | 0.8436 | 0.8988 |
| 1000 | 874 | 0.8554 | 0.8909 | 0.8518 | 0.8939 | 0.8447 | 0.8997 |
| 1000 | 875 | 0.8565 | 0.8919 | 0.8529 | 0.8949 | 0.8457 | 0.9006 |
| 1000 | 876 | 0.8575 | 0.8928 | 0.8540 | 0.8958 | 0.8469 | 0.9015 |
| 1000 | 877 | 0.8586 | 0.8937 | 0.8550 | 0.8967 | 0.8479 | 0.9024 |
| 1000 | 878 | 0.8596 | 0.8947 | 0.8561 | 0.8977 | 0.8490 | 0.9033 |
| 1000 | 879 | 0.8607 | 0.8956 | 0.8572 | 0.8986 | 0.8501 | 0.9042 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 880 | 0.8618 | 0.8966 | 0.8582 | 0.8995 | 0.8512 | 0.9051 |
| 1000 | 881 | 0.8628 | 0.8975 | 0.8593 | 0.9004 | 0.8523 | 0.9060 |
| 1000 | 882 | 0.8639 | 0.8984 | 0.8604 | 0.9013 | 0.8534 | 0.9069 |
| 1000 | 883 | 0.8649 | 0.8994 | 0.8614 | 0.9023 | 0.8545 | 0.9078 |
| 1000 | 884 | 0.8660 | 0.9003 | 0.8625 | 0.9032 | 0.8556 | 0.9087 |
| 1000 | 885 | 0.8671 | 0.9012 | 0.8636 | 0.9041 | 0.8566 | 0.9096 |
| 1000 | 886 | 0.8681 | 0.9022 | 0.8646 | 0.9050 | 0.8577 | 0.9105 |
| 1000 | 887 | 0.8692 | 0.9031 | 0.8657 | 0.9060 | 0.8588 | 0.9114 |
| 1000 | 888 | 0.8702 | 0.9040 | 0.8668 | 0.9069 | 0.8599 | 0.9123 |
| 1000 | 889 | 0.8713 | 0.9050 | 0.8679 | 0.9078 | 0.8610 | 0.9132 |
| 1000 | 890 | 0.8724 | 0.9059 | 0.8689 | 0.9087 | 0.8621 | 0.9141 |
| 1000 | 891 | 0.8734 | 0.9068 | 0.8700 | 0.9096 | 0.8632 | 0.9150 |
| 1000 | 892 | 0.8745 | 0.9078 | 0.8711 | 0.9106 | 0.8643 | 0.9159 |
| 1000 | 893 | 0.8756 | 0.9087 | 0.8722 | 0.9115 | 0.8654 | 0.9168 |
| 1000 | 894 | 0.8766 | 0.9096 | 0.8733 | 0.9124 | 0.8665 | 0.9176 |
| 1000 | 895 | 0.8777 | 0.9106 | 0.8743 | 0.9133 | 0.8676 | 0.9185 |
| 1000 | 896 | 0.8787 | 0.9115 | 0.8754 | 0.9142 | 0.8687 | 0.9194 |
| 1000 | 897 | 0.8798 | 0.9124 | 0.8765 | 0.9152 | 0.8698 | 0.9203 |
| 1000 | 898 | 0.8809 | 0.9134 | 0.8776 | 0.9161 | 0.8709 | 0.9212 |
| 1000 | 899 | 0.8820 | 0.9143 | 0.8786 | 0.9170 | 0.8720 | 0.9221 |
| 1000 | 900 | 0.8830 | 0.9152 | 0.8797 | 0.9179 | 0.8731 | 0.9230 |
| 1000 | 901 | 0.8841 | 0.9161 | 0.8808 | 0.9188 | 0.8742 | 0.9239 |
| 1000 | 902 | 0.8851 | 0.9171 | 0.8819 | 0.9197 | 0.8753 | 0.9248 |
| 1000 | 903 | 0.8862 | 0.9180 | 0.8830 | 0.9206 | 0.8764 | 0.9256 |
| 1000 | 904 | 0.8873 | 0.9189 | 0.8840 | 0.9215 | 0.8775 | 0.9265 |
| 1000 | 905 | 0.8883 | 0.9199 | 0.8851 | 0.9225 | 0.8786 | 0.9274 |
| 1000 | 906 | 0.8894 | 0.9208 | 0.8862 | 0.9234 | 0.8798 | 0.9283 |
| 1000 | 907 | 0.8905 | 0.9217 | 0.8873 | 0.9243 | 0.8809 | 0.9292 |
| 1000 | 908 | 0.8916 | 0.9226 | 0.8884 | 0.9252 | 0.8820 | 0.9300 |
| 1000 | 909 | 0.8926 | 0.9236 | 0.8894 | 0.9261 | 0.8831 | 0.9309 |
| 1000 | 910 | 0.8937 | 0.9245 | 0.8905 | 0.9270 | 0.8842 | 0.9318 |
| 1000 | 911 | 0.8948 | 0.9254 | 0.8916 | 0.9279 | 0.8853 | 0.9327 |
| 1000 | 912 | 0.8958 | 0.9263 | 0.8927 | 0.9288 | 0.8864 | 0.9336 |
| 1000 | 913 | 0.8969 | 0.9272 | 0.8938 | 0.9297 | 0.8875 | 0.9344 |
| 1000 | 914 | 0.8980 | 0.9282 | 0.8949 | 0.9306 | 0.8886 | 0.9353 |
| 1000 | 915 | 0.8991 | 0.9291 | 0.8960 | 0.9315 | 0.8898 | 0.9362 |
| 1000 | 916 | 0.9001 | 0.9300 | 0.8971 | 0.9324 | 0.8909 | 0.9371 |
| 1000 | 917 | 0.9012 | 0.9309 | 0.8981 | 0.9334 | 0.8920 | 0.9379 |
| 1000 | 918 | 0.9023 | 0.9318 | 0.8992 | 0.9343 | 0.8931 | 0.9388 |
| 1000 | 919 | 0.9034 | 0.9328 | 0.9003 | 0.9352 | 0.8942 | 0.9397 |
| 1000 | 920 | 0.9045 | 0.9337 | 0.9014 | 0.9361 | 0.8953 | 0.9406 |
| 1000 | 921 | 0.9055 | 0.9346 | 0.9025 | 0.9370 | 0.8965 | 0.9414 |
| 1000 | 922 | 0.9066 | 0.9355 | 0.9036 | 0.9379 | 0.8976 | 0.9423 |
| 1000 | 923 | 0.9077 | 0.9364 | 0.9047 | 0.9388 | 0.8987 | 0.9432 |
| 1000 | 924 | 0.9088 | 0.9373 | 0.9058 | 0.9397 | 0.8998 | 0.9440 |
| 1000 | 925 | 0.9098 | 0.9383 | 0.9069 | 0.9406 | 0.9010 | 0.9449 |
| 1000 | 926 | 0.9109 | 0.9392 | 0.9080 | 0.9414 | 0.9021 | 0.9457 |
| 1000 | 927 | 0.9120 | 0.9401 | 0.9091 | 0.9423 | 0.9032 | 0.9466 |
| 1000 | 928 | 0.9131 | 0.9410 | 0.9102 | 0.9432 | 0.9043 | 0.9475 |
| 1000 | 929 | 0.9142 | 0.9419 | 0.9113 | 0.9441 | 0.9055 | 0.9483 |
| 1000 | 930 | 0.9153 | 0.9428 | 0.9124 | 0.9450 | 0.9066 | 0.9492 |
| 1000 | 931 | 0.9163 | 0.9437 | 0.9135 | 0.9459 | 0.9077 | 0.9500 |
| 1000 | 932 | 0.9174 | 0.9446 | 0.9146 | 0.9468 | 0.9089 | 0.9509 |
| 1000 | 933 | 0.9185 | 0.9455 | 0.9157 | 0.9477 | 0.9100 | 0.9518 |
| 1000 | 934 | 0.9196 | 0.9464 | 0.9168 | 0.9486 | 0.9111 | 0.9526 |



# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K   | 90% CL |        | 95% CL |        | 99% CL |        |
|------|-----|--------|--------|--------|--------|--------|--------|
|      |     | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 935 | 0.9207 | 0.9474 | 0.9179 | 0.9495 | 0.9123 | 0.9535 |
| 1000 | 936 | 0.9218 | 0.9483 | 0.9190 | 0.9504 | 0.9134 | 0.9543 |
| 1000 | 937 | 0.9229 | 0.9492 | 0.9201 | 0.9513 | 0.9145 | 0.9552 |
| 1000 | 938 | 0.9240 | 0.9501 | 0.9212 | 0.9521 | 0.9157 | 0.9560 |
| 1000 | 939 | 0.9251 | 0.9510 | 0.9223 | 0.9530 | 0.9168 | 0.9569 |
| 1000 | 940 | 0.9262 | 0.9519 | 0.9234 | 0.9539 | 0.9180 | 0.9577 |
| 1000 | 941 | 0.9272 | 0.9528 | 0.9246 | 0.9548 | 0.9191 | 0.9586 |
| 1000 | 942 | 0.9283 | 0.9537 | 0.9257 | 0.9557 | 0.9203 | 0.9594 |
| 1000 | 943 | 0.9294 | 0.9546 | 0.9268 | 0.9565 | 0.9214 | 0.9602 |
| 1000 | 944 | 0.9305 | 0.9555 | 0.9279 | 0.9574 | 0.9226 | 0.9611 |
| 1000 | 945 | 0.9316 | 0.9564 | 0.9290 | 0.9583 | 0.9237 | 0.9619 |
| 1000 | 946 | 0.9327 | 0.9573 | 0.9301 | 0.9592 | 0.9249 | 0.9627 |
| 1000 | 947 | 0.9338 | 0.9582 | 0.9312 | 0.9601 | 0.9260 | 0.9636 |
| 1000 | 948 | 0.9349 | 0.9591 | 0.9324 | 0.9609 | 0.9272 | 0.9644 |
| 1000 | 949 | 0.9360 | 0.9599 | 0.9335 | 0.9618 | 0.9283 | 0.9652 |
| 1000 | 950 | 0.9371 | 0.9608 | 0.9346 | 0.9627 | 0.9295 | 0.9661 |
| 1000 | 951 | 0.9382 | 0.9617 | 0.9357 | 0.9635 | 0.9307 | 0.9669 |
| 1000 | 952 | 0.9393 | 0.9626 | 0.9369 | 0.9644 | 0.9318 | 0.9677 |
| 1000 | 953 | 0.9405 | 0.9635 | 0.9380 | 0.9653 | 0.9330 | 0.9685 |
| 1000 | 954 | 0.9416 | 0.9644 | 0.9391 | 0.9661 | 0.9342 | 0.9694 |
| 1000 | 955 | 0.9427 | 0.9653 | 0.9402 | 0.9670 | 0.9353 | 0.9702 |
| 1000 | 956 | 0.9438 | 0.9662 | 0.9414 | 0.9678 | 0.9365 | 0.9710 |
| 1000 | 957 | 0.9449 | 0.9670 | 0.9425 | 0.9687 | 0.9377 | 0.9718 |
| 1000 | 958 | 0.9460 | 0.9679 | 0.9437 | 0.9696 | 0.9389 | 0.9726 |
| 1000 | 959 | 0.9471 | 0.9688 | 0.9448 | 0.9704 | 0.9400 | 0.9734 |
| 1000 | 960 | 0.9482 | 0.9697 | 0.9459 | 0.9713 | 0.9412 | 0.9742 |
| 1000 | 961 | 0.9494 | 0.9705 | 0.9471 | 0.9721 | 0.9424 | 0.9750 |
| 1000 | 962 | 0.9505 | 0.9714 | 0.9482 | 0.9730 | 0.9436 | 0.9758 |
| 1000 | 963 | 0.9516 | 0.9723 | 0.9494 | 0.9738 | 0.9448 | 0.9766 |
| 1000 | 964 | 0.9527 | 0.9732 | 0.9505 | 0.9747 | 0.9460 | 0.9774 |
| 1000 | 965 | 0.9539 | 0.9740 | 0.9517 | 0.9755 | 0.9472 | 0.9782 |
| 1000 | 966 | 0.9550 | 0.9749 | 0.9528 | 0.9763 | 0.9484 | 0.9790 |
| 1000 | 967 | 0.9561 | 0.9758 | 0.9540 | 0.9772 | 0.9496 | 0.9798 |
| 1000 | 968 | 0.9573 | 0.9766 | 0.9551 | 0.9780 | 0.9508 | 0.9806 |
| 1000 | 969 | 0.9584 | 0.9775 | 0.9563 | 0.9788 | 0.9520 | 0.9814 |
| 1000 | 970 | 0.9595 | 0.9783 | 0.9574 | 0.9797 | 0.9532 | 0.9821 |
| 1000 | 971 | 0.9607 | 0.9792 | 0.9586 | 0.9805 | 0.9544 | 0.9829 |
| 1000 | 972 | 0.9618 | 0.9800 | 0.9598 | 0.9813 | 0.9556 | 0.9837 |
| 1000 | 973 | 0.9630 | 0.9809 | 0.9610 | 0.9821 | 0.9569 | 0.9844 |
| 1000 | 974 | 0.9641 | 0.9817 | 0.9621 | 0.9829 | 0.9581 | 0.9852 |
| 1000 | 975 | 0.9653 | 0.9826 | 0.9633 | 0.9838 | 0.9593 | 0.9859 |
| 1000 | 976 | 0.9664 | 0.9834 | 0.9645 | 0.9846 | 0.9606 | 0.9867 |
| 1000 | 977 | 0.9676 | 0.9842 | 0.9657 | 0.9854 | 0.9618 | 0.9874 |
| 1000 | 978 | 0.9687 | 0.9851 | 0.9669 | 0.9862 | 0.9631 | 0.9882 |
| 1000 | 979 | 0.9699 | 0.9859 | 0.9681 | 0.9870 | 0.9643 | 0.9889 |
| 1000 | 980 | 0.9711 | 0.9867 | 0.9693 | 0.9877 | 0.9656 | 0.9896 |
| 1000 | 981 | 0.9722 | 0.9875 | 0.9705 | 0.9885 | 0.9669 | 0.9903 |
| 1000 | 982 | 0.9734 | 0.9883 | 0.9717 | 0.9893 | 0.9681 | 0.9910 |
| 1000 | 983 | 0.9746 | 0.9891 | 0.9729 | 0.9901 | 0.9694 | 0.9917 |
| 1000 | 984 | 0.9758 | 0.9899 | 0.9741 | 0.9908 | 0.9707 | 0.9924 |
| 1000 | 985 | 0.9770 | 0.9907 | 0.9754 | 0.9916 | 0.9720 | 0.9931 |
| 1000 | 986 | 0.9782 | 0.9915 | 0.9766 | 0.9923 | 0.9733 | 0.9937 |
| 1000 | 987 | 0.9794 | 0.9923 | 0.9779 | 0.9931 | 0.9747 | 0.9944 |
| 1000 | 988 | 0.9806 | 0.9931 | 0.9791 | 0.9938 | 0.9760 | 0.9950 |
| 1000 | 989 | 0.9819 | 0.9938 | 0.9804 | 0.9945 | 0.9774 | 0.9957 |

# TWO-SIDED CONFIDENCE LIMITS FOR PROPORTIONS

| N    | K    | 90% CL |        | 95% CL |        | 99% CL |        |
|------|------|--------|--------|--------|--------|--------|--------|
|      |      | LOWER  | UPPER  | LOWER  | UPPER  | LOWER  | UPPER  |
| 1000 | 990  | 0.9831 | 0.9946 | 0.9817 | 0.9952 | 0.9787 | 0.9963 |
| 1000 | 991  | 0.9843 | 0.9953 | 0.9830 | 0.9959 | 0.9801 | 0.9969 |
| 1000 | 992  | 0.9856 | 0.9960 | 0.9843 | 0.9965 | 0.9815 | 0.9974 |
| 1000 | 993  | 0.9869 | 0.9967 | 0.9856 | 0.9972 | 0.9830 | 0.9980 |
| 1000 | 994  | 0.9882 | 0.9974 | 0.9870 | 0.9978 | 0.9844 | 0.9985 |
| 1000 | 995  | 0.9895 | 0.9980 | 0.9884 | 0.9984 | 0.9859 | 0.9989 |
| 1000 | 996  | 0.9909 | 0.9986 | 0.9898 | 0.9989 | 0.9875 | 0.9993 |
| 1000 | 997  | 0.9923 | 0.9992 | 0.9913 | 0.9994 | 0.9891 | 0.9997 |
| 1000 | 998  | 0.9937 | 0.9996 | 0.9928 | 0.9998 | 0.9908 | 0.9999 |
| 1000 | 999  | 0.9953 | 0.9999 | 0.9944 | 1.0000 | 0.9926 | 1.0000 |
| 1000 | 1000 | 0.9970 | 1.0000 | 0.9963 | 1.0000 | 0.9947 | 1.0000 |

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TABLE 2.  
(Pages 193 through 280)

One-sided  
LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N | K | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% | N  | K  | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% |
|---|---|-------------------|-------------------|--------------|----|----|-------------------|-------------------|--------------|
| 1 | 0 | 0.000             | 0.000             | 0.000        | 10 | 0  | 0.000             | 0.000             | 0.000        |
| 1 | 1 | 0.100             | 0.050             | 0.010        | 10 | 1  | 0.010             | 0.005             | 0.001        |
|   |   |                   |                   |              | 10 | 2  | 0.055             | 0.037             | 0.016        |
| 2 | 0 | 0.000             | 0.000             | 0.000        | 10 | 3  | 0.116             | 0.087             | 0.048        |
| 2 | 1 | 0.051             | 0.025             | 0.005        | 10 | 4  | 0.188             | 0.150             | 0.093        |
| 2 | 2 | 0.316             | 0.224             | 0.100        |    |    |                   |                   |              |
|   |   |                   |                   |              | 10 | 5  | 0.267             | 0.222             | 0.150        |
| 3 | 0 | 0.000             | 0.000             | 0.000        | 10 | 6  | 0.354             | 0.304             | 0.218        |
| 3 | 1 | 0.035             | 0.017             | 0.003        | 10 | 7  | 0.448             | 0.393             | 0.297        |
| 3 | 2 | 0.196             | 0.135             | 0.059        | 10 | 8  | 0.550             | 0.493             | 0.388        |
| 3 | 3 | 0.464             | 0.369             | 0.215        | 10 | 9  | 0.663             | 0.606             | 0.496        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 4 | 0 | 0.000             | 0.000             | 0.000        | 10 | 10 | 0.794             | 0.741             | 0.631        |
| 4 | 1 | 0.026             | 0.013             | 0.003        |    |    |                   |                   |              |
| 4 | 2 | 0.143             | 0.098             | 0.042        | 11 | 0  | 0.000             | 0.000             | 0.000        |
| 4 | 3 | 0.320             | 0.249             | 0.141        | 11 | 1  | 0.010             | 0.005             | 0.001        |
| 4 | 4 | 0.562             | 0.473             | 0.316        | 11 | 2  | 0.050             | 0.033             | 0.014        |
|   |   |                   |                   |              | 11 | 3  | 0.105             | 0.079             | 0.043        |
| 5 | 0 | 0.000             | 0.000             | 0.000        | 11 | 4  | 0.169             | 0.135             | 0.084        |
| 5 | 1 | 0.021             | 0.010             | 0.002        |    |    |                   |                   |              |
| 5 | 2 | 0.112             | 0.077             | 0.033        | 11 | 5  | 0.240             | 0.199             | 0.134        |
| 5 | 3 | 0.247             | 0.189             | 0.106        | 11 | 6  | 0.318             | 0.271             | 0.194        |
| 5 | 4 | 0.416             | 0.343             | 0.222        | 11 | 7  | 0.401             | 0.350             | 0.262        |
|   |   |                   |                   |              | 11 | 8  | 0.489             | 0.436             | 0.340        |
| 5 | 5 | 0.631             | 0.549             | 0.398        | 11 | 9  | 0.585             | 0.530             | 0.428        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 6 | 0 | 0.000             | 0.000             | 0.000        | 11 | 10 | 0.690             | 0.636             | 0.530        |
| 6 | 1 | 0.018             | 0.009             | 0.002        | 11 | 11 | 0.811             | 0.762             | 0.658        |
| 6 | 2 | 0.093             | 0.063             | 0.027        |    |    |                   |                   |              |
| 6 | 3 | 0.201             | 0.153             | 0.085        | 12 | 0  | 0.000             | 0.000             | 0.000        |
| 6 | 4 | 0.333             | 0.271             | 0.173        | 12 | 1  | 0.009             | 0.004             | 0.001        |
|   |   |                   |                   |              | 12 | 2  | 0.045             | 0.031             | 0.013        |
| 6 | 5 | 0.490             | 0.418             | 0.294        | 12 | 3  | 0.096             | 0.072             | 0.039        |
| 6 | 6 | 0.681             | 0.607             | 0.464        | 12 | 4  | 0.154             | 0.123             | 0.076        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 7 | 0 | 0.000             | 0.000             | 0.000        | 12 | 5  | 0.219             | 0.181             | 0.121        |
| 7 | 1 | 0.015             | 0.007             | 0.002        | 12 | 6  | 0.288             | 0.245             | 0.174        |
| 7 | 2 | 0.079             | 0.053             | 0.023        | 12 | 7  | 0.362             | 0.315             | 0.235        |
| 7 | 3 | 0.170             | 0.129             | 0.071        | 12 | 8  | 0.441             | 0.391             | 0.302        |
| 7 | 4 | 0.279             | 0.225             | 0.142        | 12 | 9  | 0.525             | 0.473             | 0.378        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 7 | 5 | 0.404             | 0.341             | 0.236        | 12 | 10 | 0.615             | 0.562             | 0.463        |
| 7 | 6 | 0.548             | 0.479             | 0.357        | 12 | 11 | 0.713             | 0.661             | 0.561        |
| 7 | 7 | 0.720             | 0.652             | 0.518        | 12 | 12 | 0.825             | 0.779             | 0.681        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 8 | 0 | 0.000             | 0.000             | 0.000        | 13 | 0  | 0.000             | 0.000             | 0.000        |
| 8 | 1 | 0.013             | 0.006             | 0.001        | 13 | 1  | 0.008             | 0.004             | 0.001        |
| 8 | 2 | 0.069             | 0.046             | 0.020        | 13 | 2  | 0.042             | 0.028             | 0.012        |
| 8 | 3 | 0.147             | 0.111             | 0.061        | 13 | 3  | 0.088             | 0.066             | 0.036        |
| 8 | 4 | 0.240             | 0.193             | 0.121        | 13 | 4  | 0.142             | 0.113             | 0.070        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 8 | 5 | 0.345             | 0.289             | 0.198        | 13 | 5  | 0.200             | 0.166             | 0.111        |
| 8 | 6 | 0.462             | 0.400             | 0.293        | 13 | 6  | 0.264             | 0.224             | 0.159        |
| 8 | 7 | 0.594             | 0.529             | 0.410        | 13 | 7  | 0.331             | 0.287             | 0.213        |
| 8 | 8 | 0.750             | 0.688             | 0.562        | 13 | 8  | 0.402             | 0.355             | 0.273        |
|   |   |                   |                   |              | 13 | 9  | 0.477             | 0.427             | 0.339        |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 9 | 0 | 0.000             | 0.000             | 0.000        | 13 | 10 | 0.556             | 0.505             | 0.412        |
| 9 | 1 | 0.012             | 0.006             | 0.001        | 13 | 11 | 0.640             | 0.590             | 0.494        |
| 9 | 2 | 0.061             | 0.041             | 0.017        | 13 | 12 | 0.732             | 0.684             | 0.587        |
| 9 | 3 | 0.130             | 0.098             | 0.053        | 13 | 13 | 0.838             | 0.794             | 0.702        |
| 9 | 4 | 0.210             | 0.169             | 0.105        |    |    |                   |                   |              |
|   |   |                   |                   |              |    |    |                   |                   |              |
| 9 | 5 | 0.301             | 0.251             | 0.171        | 14 | 0  | 0.000             | 0.000             | 0.000        |
| 9 | 6 | 0.401             | 0.345             | 0.250        | 14 | 1  | 0.008             | 0.004             | 0.001        |
| 9 | 7 | 0.510             | 0.450             | 0.344        | 14 | 2  | 0.039             | 0.026             | 0.011        |
| 9 | 8 | 0.632             | 0.571             | 0.456        | 14 | 3  | 0.082             | 0.061             | 0.033        |
| 9 | 9 | 0.774             | 0.717             | 0.600        | 14 | 4  | 0.131             | 0.104             | 0.064        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 14 | 5  | 0.185            | 0.153 | 0.102 | 17 | 13 | 0.584            | 0.540 | 0.457 |
| 14 | 6  | 0.243            | 0.206 | 0.146 | 17 | 14 | 0.648            | 0.604 | 0.520 |
| 14 | 7  | 0.304            | 0.263 | 0.195 |    |    |                  |       |       |
| 14 | 8  | 0.369            | 0.325 | 0.249 | 17 | 15 | 0.716            | 0.674 | 0.590 |
| 14 | 9  | 0.437            | 0.390 | 0.308 | 17 | 16 | 0.790            | 0.750 | 0.668 |
|    |    |                  |       |       | 17 | 17 | 0.873            | 0.838 | 0.763 |
| 14 | 10 | 0.508            | 0.460 | 0.373 |    |    |                  |       |       |
| 14 | 11 | 0.583            | 0.534 | 0.443 | 18 | 0  | 0.000            | 0.000 | 0.000 |
| 14 | 12 | 0.663            | 0.615 | 0.522 | 18 | 1  | 0.006            | 0.003 | 0.001 |
| 14 | 13 | 0.749            | 0.703 | 0.611 | 18 | 2  | 0.030            | 0.020 | 0.008 |
| 14 | 14 | 0.848            | 0.807 | 0.720 | 18 | 3  | 0.063            | 0.047 | 0.025 |
|    |    |                  |       |       | 18 | 4  | 0.101            | 0.080 | 0.049 |
| 15 | 0  | 0.000            | 0.000 | 0.000 |    |    |                  |       |       |
| 15 | 1  | 0.007            | 0.003 | 0.001 | 18 | 5  | 0.142            | 0.116 | 0.077 |
| 15 | 2  | 0.036            | 0.024 | 0.010 | 18 | 6  | 0.185            | 0.156 | 0.110 |
| 15 | 3  | 0.076            | 0.057 | 0.031 | 18 | 7  | 0.231            | 0.199 | 0.145 |
| 15 | 4  | 0.122            | 0.097 | 0.059 | 18 | 8  | 0.279            | 0.244 | 0.184 |
|    |    |                  |       |       | 18 | 9  | 0.329            | 0.291 | 0.226 |
| 15 | 5  | 0.172            | 0.142 | 0.094 |    |    |                  |       |       |
| 15 | 6  | 0.225            | 0.191 | 0.134 | 18 | 10 | 0.380            | 0.340 | 0.271 |
| 15 | 7  | 0.282            | 0.244 | 0.179 | 18 | 11 | 0.433            | 0.392 | 0.318 |
| 15 | 8  | 0.341            | 0.300 | 0.229 | 18 | 12 | 0.488            | 0.446 | 0.369 |
| 15 | 9  | 0.403            | 0.359 | 0.282 | 18 | 13 | 0.545            | 0.502 | 0.423 |
|    |    |                  |       |       | 18 | 14 | 0.604            | 0.561 | 0.480 |
| 15 | 10 | 0.468            | 0.422 | 0.340 |    |    |                  |       |       |
| 15 | 11 | 0.536            | 0.489 | 0.403 | 18 | 15 | 0.666            | 0.623 | 0.542 |
| 15 | 12 | 0.607            | 0.560 | 0.472 | 18 | 16 | 0.731            | 0.690 | 0.609 |
| 15 | 13 | 0.683            | 0.637 | 0.547 | 18 | 17 | 0.801            | 0.762 | 0.684 |
| 15 | 14 | 0.764            | 0.721 | 0.632 | 18 | 18 | 0.880            | 0.847 | 0.774 |
|    |    |                  |       |       |    |    |                  |       |       |
| 15 | 15 | 0.858            | 0.819 | 0.736 | 19 | 0  | 0.000            | 0.000 | 0.000 |
|    |    |                  |       |       | 19 | 1  | 0.006            | 0.003 | 0.001 |
| 16 | 0  | 0.000            | 0.000 | 0.000 | 19 | 2  | 0.028            | 0.019 | 0.008 |
| 16 | 1  | 0.007            | 0.003 | 0.001 | 19 | 3  | 0.060            | 0.045 | 0.024 |
| 16 | 2  | 0.034            | 0.023 | 0.010 | 19 | 4  | 0.095            | 0.075 | 0.046 |
| 16 | 3  | 0.071            | 0.053 | 0.029 |    |    |                  |       |       |
| 16 | 4  | 0.114            | 0.090 | 0.055 | 19 | 5  | 0.134            | 0.110 | 0.073 |
|    |    |                  |       |       | 19 | 6  | 0.175            | 0.147 | 0.103 |
| 16 | 5  | 0.160            | 0.132 | 0.088 | 19 | 7  | 0.218            | 0.187 | 0.137 |
| 16 | 6  | 0.210            | 0.178 | 0.125 | 19 | 8  | 0.263            | 0.230 | 0.173 |
| 16 | 7  | 0.263            | 0.227 | 0.166 | 19 | 9  | 0.310            | 0.274 | 0.212 |
| 16 | 8  | 0.318            | 0.278 | 0.212 |    |    |                  |       |       |
| 16 | 9  | 0.375            | 0.333 | 0.261 | 19 | 10 | 0.358            | 0.320 | 0.254 |
|    |    |                  |       |       | 19 | 11 | 0.407            | 0.368 | 0.298 |
| 16 | 10 | 0.434            | 0.391 | 0.313 | 19 | 12 | 0.459            | 0.418 | 0.345 |
| 16 | 11 | 0.496            | 0.452 | 0.370 | 19 | 13 | 0.511            | 0.470 | 0.394 |
| 16 | 12 | 0.561            | 0.516 | 0.431 | 19 | 14 | 0.566            | 0.524 | 0.446 |
| 16 | 13 | 0.629            | 0.583 | 0.497 |    |    |                  |       |       |
| 16 | 14 | 0.700            | 0.656 | 0.570 | 19 | 15 | 0.623            | 0.581 | 0.502 |
|    |    |                  |       |       | 19 | 16 | 0.681            | 0.641 | 0.561 |
| 16 | 15 | 0.778            | 0.736 | 0.651 | 19 | 17 | 0.744            | 0.704 | 0.626 |
| 16 | 16 | 0.866            | 0.829 | 0.750 | 19 | 18 | 0.810            | 0.774 | 0.698 |
|    |    |                  |       |       | 19 | 19 | 0.886            | 0.854 | 0.785 |
| 17 | 0  | 0.000            | 0.000 | 0.000 |    |    |                  |       |       |
| 17 | 1  | 0.006            | 0.003 | 0.001 | 20 | 0  | 0.000            | 0.000 | 0.000 |
| 17 | 2  | 0.032            | 0.021 | 0.009 | 20 | 1  | 0.005            | 0.003 | 0.001 |
| 17 | 3  | 0.067            | 0.050 | 0.027 | 20 | 2  | 0.027            | 0.018 | 0.008 |
| 17 | 4  | 0.107            | 0.085 | 0.052 | 20 | 3  | 0.057            | 0.042 | 0.023 |
|    |    |                  |       |       | 20 | 4  | 0.090            | 0.071 | 0.044 |
| 17 | 5  | 0.150            | 0.124 | 0.082 |    |    |                  |       |       |
| 17 | 6  | 0.197            | 0.166 | 0.117 | 20 | 5  | 0.127            | 0.104 | 0.069 |
| 17 | 7  | 0.246            | 0.212 | 0.155 | 20 | 6  | 0.166            | 0.139 | 0.097 |
| 17 | 8  | 0.297            | 0.260 | 0.197 | 20 | 7  | 0.207            | 0.177 | 0.129 |
| 17 | 9  | 0.350            | 0.311 | 0.242 | 20 | 8  | 0.249            | 0.217 | 0.163 |
|    |    |                  |       |       | 20 | 9  | 0.293            | 0.259 | 0.200 |
| 17 | 10 | 0.405            | 0.364 | 0.290 |    |    |                  |       |       |
| 17 | 11 | 0.462            | 0.420 | 0.342 | 20 | 10 | 0.338            | 0.302 | 0.239 |
| 17 | 12 | 0.522            | 0.478 | 0.397 | 20 | 11 | 0.385            | 0.347 | 0.280 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 20 | 12 | 0.433            | 0.393 | 0.323 | 23 | 2  | 0.023            | 0.016 | 0.007 |
| 20 | 13 | 0.482            | 0.442 | 0.369 | 23 | 3  | 0.049            | 0.037 | 0.020 |
| 20 | 14 | 0.533            | 0.492 | 0.417 | 23 | 4  | 0.078            | 0.062 | 0.038 |
| 20 | 15 | 0.585            | 0.544 | 0.468 | 23 | 5  | 0.110            | 0.090 | 0.059 |
| 20 | 16 | 0.639            | 0.599 | 0.522 | 23 | 6  | 0.143            | 0.120 | 0.084 |
| 20 | 17 | 0.696            | 0.656 | 0.579 | 23 | 7  | 0.178            | 0.152 | 0.111 |
| 20 | 18 | 0.755            | 0.717 | 0.642 | 23 | 8  | 0.214            | 0.186 | 0.140 |
| 20 | 19 | 0.819            | 0.784 | 0.711 | 23 | 9  | 0.252            | 0.221 | 0.170 |
| 20 | 20 | 0.891            | 0.861 | 0.794 | 23 | 10 | 0.290            | 0.258 | 0.203 |
| 21 | 0  | 0.000            | 0.000 | 0.000 | 23 | 11 | 0.330            | 0.296 | 0.237 |
| 21 | 1  | 0.005            | 0.002 | 0.000 | 23 | 12 | 0.370            | 0.335 | 0.273 |
| 21 | 2  | 0.026            | 0.017 | 0.007 | 23 | 13 | 0.411            | 0.375 | 0.311 |
| 21 | 3  | 0.054            | 0.040 | 0.022 | 23 | 14 | 0.454            | 0.417 | 0.350 |
| 21 | 4  | 0.086            | 0.068 | 0.042 | 23 | 15 | 0.497            | 0.459 | 0.390 |
| 21 | 5  | 0.121            | 0.099 | 0.065 | 23 | 16 | 0.541            | 0.503 | 0.433 |
| 21 | 6  | 0.157            | 0.132 | 0.092 | 23 | 17 | 0.587            | 0.549 | 0.477 |
| 21 | 7  | 0.196            | 0.168 | 0.122 | 23 | 18 | 0.634            | 0.596 | 0.524 |
| 21 | 8  | 0.236            | 0.206 | 0.154 | 23 | 19 | 0.682            | 0.645 | 0.573 |
| 21 | 9  | 0.278            | 0.245 | 0.189 | 23 | 20 | 0.732            | 0.696 | 0.626 |
| 21 | 10 | 0.320            | 0.286 | 0.226 | 23 | 21 | 0.785            | 0.751 | 0.682 |
| 21 | 11 | 0.364            | 0.328 | 0.264 | 23 | 22 | 0.841            | 0.810 | 0.744 |
| 21 | 12 | 0.409            | 0.372 | 0.305 | 23 | 23 | 0.905            | 0.878 | 0.819 |
| 21 | 13 | 0.456            | 0.417 | 0.347 | 24 | 0  | 0.000            | 0.000 | 0.000 |
| 21 | 14 | 0.503            | 0.464 | 0.392 | 24 | 1  | 0.004            | 0.002 | 0.000 |
| 21 | 15 | 0.552            | 0.512 | 0.439 | 24 | 2  | 0.022            | 0.015 | 0.006 |
| 21 | 16 | 0.603            | 0.563 | 0.488 | 24 | 3  | 0.047            | 0.035 | 0.019 |
| 21 | 17 | 0.655            | 0.616 | 0.540 | 24 | 4  | 0.075            | 0.059 | 0.036 |
| 21 | 18 | 0.709            | 0.671 | 0.596 | 24 | 5  | 0.105            | 0.086 | 0.057 |
| 21 | 19 | 0.766            | 0.729 | 0.656 | 24 | 6  | 0.137            | 0.115 | 0.080 |
| 21 | 20 | 0.827            | 0.793 | 0.723 | 24 | 7  | 0.170            | 0.146 | 0.106 |
| 21 | 21 | 0.896            | 0.867 | 0.803 | 24 | 8  | 0.205            | 0.178 | 0.133 |
| 22 | 0  | 0.000            | 0.000 | 0.000 | 24 | 9  | 0.240            | 0.211 | 0.162 |
| 22 | 1  | 0.005            | 0.002 | 0.000 | 24 | 10 | 0.277            | 0.246 | 0.193 |
| 22 | 2  | 0.025            | 0.016 | 0.007 | 24 | 11 | 0.315            | 0.282 | 0.226 |
| 22 | 3  | 0.051            | 0.038 | 0.021 | 24 | 12 | 0.353            | 0.319 | 0.260 |
| 22 | 4  | 0.082            | 0.065 | 0.040 | 24 | 13 | 0.392            | 0.357 | 0.295 |
| 22 | 5  | 0.115            | 0.094 | 0.062 | 24 | 14 | 0.432            | 0.397 | 0.332 |
| 22 | 6  | 0.150            | 0.126 | 0.088 | 24 | 15 | 0.473            | 0.437 | 0.370 |
| 22 | 7  | 0.187            | 0.160 | 0.116 | 24 | 16 | 0.515            | 0.478 | 0.410 |
| 22 | 8  | 0.225            | 0.195 | 0.147 | 24 | 17 | 0.558            | 0.521 | 0.452 |
| 22 | 9  | 0.264            | 0.233 | 0.179 | 24 | 18 | 0.602            | 0.565 | 0.495 |
| 22 | 10 | 0.304            | 0.271 | 0.214 | 24 | 19 | 0.647            | 0.611 | 0.540 |
| 22 | 11 | 0.346            | 0.311 | 0.250 | 24 | 20 | 0.694            | 0.658 | 0.588 |
| 22 | 12 | 0.389            | 0.352 | 0.288 | 24 | 21 | 0.743            | 0.708 | 0.639 |
| 22 | 13 | 0.432            | 0.395 | 0.328 | 24 | 22 | 0.793            | 0.760 | 0.693 |
| 22 | 14 | 0.477            | 0.439 | 0.369 | 24 | 23 | 0.847            | 0.817 | 0.754 |
| 22 | 15 | 0.523            | 0.484 | 0.413 | 24 | 24 | 0.909            | 0.883 | 0.825 |
| 22 | 16 | 0.570            | 0.531 | 0.459 | 25 | 0  | 0.000            | 0.000 | 0.000 |
| 22 | 17 | 0.619            | 0.580 | 0.507 | 25 | 1  | 0.004            | 0.002 | 0.000 |
| 22 | 18 | 0.669            | 0.631 | 0.557 | 25 | 2  | 0.022            | 0.014 | 0.006 |
| 22 | 19 | 0.721            | 0.684 | 0.611 | 25 | 3  | 0.045            | 0.034 | 0.018 |
| 22 | 20 | 0.776            | 0.741 | 0.670 | 25 | 4  | 0.072            | 0.057 | 0.035 |
| 22 | 21 | 0.834            | 0.802 | 0.734 | 25 | 5  | 0.101            | 0.082 | 0.054 |
| 22 | 22 | 0.901            | 0.873 | 0.811 | 25 | 6  | 0.131            | 0.110 | 0.076 |
| 23 | 0  | 0.000            | 0.000 | 0.000 | 25 | 7  | 0.163            | 0.139 | 0.101 |
| 23 | 1  | 0.005            | 0.002 | 0.000 | 25 | 8  | 0.196            | 0.170 | 0.127 |
|    |    |                  |       |       | 25 | 9  | 0.230            | 0.202 | 0.155 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 25 | 10 | 0.265      | 0.235 | 0.185 | 27 | 10 | 0.415      | 0.381 | 0.321 |
| 25 | 11 | 0.301      | 0.270 | 0.215 | 27 | 16 | 0.451      | 0.417 | 0.355 |
| 25 | 12 | 0.338      | 0.305 | 0.248 | 27 | 17 | 0.488      | 0.453 | 0.390 |
| 25 | 13 | 0.375      | 0.341 | 0.281 | 27 | 18 | 0.525      | 0.490 | 0.426 |
| 25 | 14 | 0.413      | 0.378 | 0.316 | 27 | 19 | 0.563      | 0.528 | 0.463 |
| 25 | 15 | 0.452      | 0.417 | 0.352 | 27 | 20 | 0.603      | 0.568 | 0.501 |
| 25 | 16 | 0.492      | 0.456 | 0.390 | 27 | 21 | 0.642      | 0.608 | 0.541 |
| 25 | 17 | 0.533      | 0.496 | 0.429 | 27 | 22 | 0.683      | 0.649 | 0.583 |
| 25 | 18 | 0.574      | 0.538 | 0.469 | 27 | 23 | 0.726      | 0.692 | 0.627 |
| 25 | 19 | 0.617      | 0.580 | 0.511 | 27 | 24 | 0.769      | 0.737 | 0.674 |
| 25 | 20 | 0.660      | 0.625 | 0.556 | 27 | 25 | 0.815      | 0.785 | 0.723 |
| 25 | 21 | 0.705      | 0.670 | 0.602 | 27 | 26 | 0.863      | 0.836 | 0.778 |
| 25 | 22 | 0.752      | 0.718 | 0.651 | 27 | 27 | 0.918      | 0.895 | 0.843 |
| 25 | 23 | 0.801      | 0.769 | 0.704 | 28 | 0  | 0.000      | 0.000 | 0.000 |
| 25 | 24 | 0.853      | 0.824 | 0.763 | 28 | 1  | 0.004      | 0.002 | 0.000 |
| 25 | 25 | 0.912      | 0.887 | 0.832 | 28 | 2  | 0.019      | 0.013 | 0.005 |
| 26 | 0  | 0.000      | 0.000 | 0.000 | 28 | 3  | 0.040      | 0.030 | 0.016 |
| 26 | 1  | 0.004      | 0.002 | 0.000 | 28 | 4  | 0.064      | 0.050 | 0.031 |
| 26 | 2  | 0.021      | 0.014 | 0.006 | 28 | 5  | 0.089      | 0.073 | 0.048 |
| 26 | 3  | 0.043      | 0.032 | 0.017 | 28 | 6  | 0.117      | 0.098 | 0.068 |
| 26 | 4  | 0.069      | 0.054 | 0.033 | 28 | 7  | 0.145      | 0.124 | 0.089 |
| 26 | 5  | 0.097      | 0.079 | 0.052 | 28 | 8  | 0.174      | 0.151 | 0.112 |
| 26 | 6  | 0.126      | 0.106 | 0.073 | 28 | 9  | 0.204      | 0.179 | 0.137 |
| 26 | 7  | 0.156      | 0.134 | 0.097 | 28 | 10 | 0.235      | 0.208 | 0.163 |
| 26 | 8  | 0.188      | 0.163 | 0.122 | 28 | 11 | 0.266      | 0.238 | 0.189 |
| 26 | 9  | 0.221      | 0.194 | 0.149 | 28 | 12 | 0.299      | 0.269 | 0.217 |
| 26 | 10 | 0.254      | 0.226 | 0.177 | 28 | 13 | 0.331      | 0.301 | 0.247 |
| 26 | 11 | 0.288      | 0.258 | 0.206 | 28 | 14 | 0.365      | 0.333 | 0.277 |
| 26 | 12 | 0.323      | 0.292 | 0.237 | 28 | 15 | 0.399      | 0.366 | 0.308 |
| 26 | 13 | 0.359      | 0.326 | 0.269 | 28 | 16 | 0.433      | 0.400 | 0.340 |
| 26 | 14 | 0.396      | 0.362 | 0.302 | 28 | 17 | 0.468      | 0.434 | 0.373 |
| 26 | 15 | 0.433      | 0.398 | 0.336 | 28 | 18 | 0.504      | 0.470 | 0.407 |
| 26 | 16 | 0.471      | 0.436 | 0.371 | 28 | 19 | 0.540      | 0.506 | 0.442 |
| 26 | 17 | 0.509      | 0.474 | 0.408 | 28 | 20 | 0.577      | 0.543 | 0.478 |
| 26 | 18 | 0.549      | 0.513 | 0.446 | 28 | 21 | 0.615      | 0.581 | 0.516 |
| 26 | 19 | 0.589      | 0.553 | 0.486 | 28 | 22 | 0.654      | 0.620 | 0.555 |
| 26 | 20 | 0.630      | 0.594 | 0.527 | 28 | 23 | 0.694      | 0.661 | 0.596 |
| 26 | 21 | 0.672      | 0.637 | 0.570 | 28 | 24 | 0.735      | 0.702 | 0.639 |
| 26 | 22 | 0.716      | 0.682 | 0.615 | 28 | 25 | 0.777      | 0.746 | 0.684 |
| 26 | 23 | 0.761      | 0.728 | 0.663 | 28 | 26 | 0.821      | 0.792 | 0.732 |
| 26 | 24 | 0.808      | 0.777 | 0.714 | 28 | 27 | 0.868      | 0.842 | 0.785 |
| 26 | 25 | 0.858      | 0.830 | 0.771 | 28 | 28 | 0.921      | 0.899 | 0.848 |
| 26 | 26 | 0.915      | 0.891 | 0.838 | 29 | 0  | 0.000      | 0.000 | 0.000 |
| 27 | 0  | 0.000      | 0.000 | 0.000 | 29 | 1  | 0.004      | 0.002 | 0.000 |
| 27 | 1  | 0.004      | 0.002 | 0.000 | 29 | 2  | 0.019      | 0.012 | 0.005 |
| 27 | 2  | 0.020      | 0.013 | 0.006 | 29 | 3  | 0.039      | 0.029 | 0.015 |
| 27 | 3  | 0.042      | 0.031 | 0.017 | 29 | 4  | 0.062      | 0.049 | 0.030 |
| 27 | 4  | 0.066      | 0.052 | 0.032 | 29 | 5  | 0.086      | 0.070 | 0.046 |
| 27 | 5  | 0.093      | 0.076 | 0.050 | 29 | 6  | 0.112      | 0.094 | 0.065 |
| 27 | 6  | 0.121      | 0.101 | 0.070 | 29 | 7  | 0.140      | 0.119 | 0.086 |
| 27 | 7  | 0.150      | 0.128 | 0.093 | 29 | 8  | 0.168      | 0.145 | 0.108 |
| 27 | 8  | 0.181      | 0.157 | 0.117 | 29 | 9  | 0.197      | 0.172 | 0.132 |
| 27 | 9  | 0.212      | 0.186 | 0.142 | 29 | 10 | 0.226      | 0.200 | 0.156 |
| 27 | 10 | 0.244      | 0.216 | 0.169 | 29 | 11 | 0.257      | 0.229 | 0.182 |
| 27 | 11 | 0.277      | 0.248 | 0.197 | 29 | 12 | 0.287      | 0.259 | 0.209 |
| 27 | 12 | 0.310      | 0.280 | 0.227 | 29 | 13 | 0.319      | 0.289 | 0.237 |
| 27 | 13 | 0.345      | 0.313 | 0.257 | 29 | 14 | 0.351      | 0.320 | 0.266 |
| 27 | 14 | 0.379      | 0.347 | 0.289 | 29 | 15 | 0.384      | 0.352 | 0.295 |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 29 | 16 | 0.417      | 0.384 | 0.326 | 31 | 12 | 0.268      | 0.241 | 0.194 |
| 29 | 17 | 0.450      | 0.417 | 0.357 | 31 | 13 | 0.297      | 0.269 | 0.220 |
| 29 | 18 | 0.484      | 0.451 | 0.390 | 31 | 14 | 0.326      | 0.297 | 0.246 |
| 29 | 19 | 0.519      | 0.486 | 0.423 | 31 | 15 | 0.357      | 0.327 | 0.273 |
| 29 | 20 | 0.555      | 0.521 | 0.458 | 31 | 16 | 0.387      | 0.356 | 0.301 |
| 29 | 21 | 0.591      | 0.557 | 0.493 | 31 | 17 | 0.418      | 0.387 | 0.330 |
| 29 | 22 | 0.627      | 0.594 | 0.530 | 31 | 18 | 0.450      | 0.418 | 0.360 |
| 29 | 23 | 0.665      | 0.632 | 0.568 | 31 | 19 | 0.482      | 0.449 | 0.390 |
| 29 | 24 | 0.703      | 0.671 | 0.608 | 31 | 20 | 0.514      | 0.482 | 0.421 |
| 29 | 25 | 0.743      | 0.712 | 0.650 | 31 | 21 | 0.547      | 0.514 | 0.453 |
| 29 | 26 | 0.784      | 0.754 | 0.693 | 31 | 22 | 0.581      | 0.548 | 0.486 |
| 29 | 27 | 0.827      | 0.798 | 0.740 | 31 | 23 | 0.615      | 0.582 | 0.520 |
| 29 | 28 | 0.872      | 0.847 | 0.792 | 31 | 24 | 0.649      | 0.617 | 0.556 |
| 29 | 29 | 0.924      | 0.902 | 0.853 | 31 | 25 | 0.685      | 0.653 | 0.592 |
| 30 | 0  | 0.000      | 0.000 | 0.000 | 31 | 26 | 0.721      | 0.690 | 0.630 |
| 30 | 1  | 0.004      | 0.002 | 0.000 | 31 | 27 | 0.759      | 0.729 | 0.669 |
| 30 | 2  | 0.018      | 0.012 | 0.005 | 31 | 28 | 0.797      | 0.769 | 0.711 |
| 30 | 3  | 0.037      | 0.028 | 0.015 | 31 | 29 | 0.837      | 0.811 | 0.755 |
| 30 | 4  | 0.060      | 0.047 | 0.029 | 31 | 30 | 0.880      | 0.856 | 0.804 |
| 30 | 5  | 0.083      | 0.068 | 0.045 | 31 | 31 | 0.928      | 0.908 | 0.862 |
| 30 | 6  | 0.109      | 0.091 | 0.063 | 32 | 0  | 0.000      | 0.000 | 0.000 |
| 30 | 7  | 0.135      | 0.115 | 0.083 | 32 | 1  | 0.003      | 0.002 | 0.000 |
| 30 | 8  | 0.162      | 0.140 | 0.104 | 32 | 2  | 0.017      | 0.011 | 0.005 |
| 30 | 9  | 0.190      | 0.166 | 0.127 | 32 | 3  | 0.035      | 0.026 | 0.014 |
| 30 | 10 | 0.218      | 0.193 | 0.151 | 32 | 4  | 0.056      | 0.044 | 0.027 |
| 30 | 11 | 0.247      | 0.221 | 0.175 | 32 | 5  | 0.078      | 0.064 | 0.042 |
| 30 | 12 | 0.277      | 0.249 | 0.201 | 32 | 6  | 0.102      | 0.085 | 0.059 |
| 30 | 13 | 0.307      | 0.279 | 0.228 | 32 | 7  | 0.126      | 0.107 | 0.077 |
| 30 | 14 | 0.338      | 0.308 | 0.255 | 32 | 8  | 0.151      | 0.131 | 0.097 |
| 30 | 15 | 0.370      | 0.339 | 0.284 | 32 | 9  | 0.177      | 0.155 | 0.118 |
| 30 | 16 | 0.401      | 0.370 | 0.313 | 32 | 10 | 0.204      | 0.180 | 0.140 |
| 30 | 17 | 0.434      | 0.401 | 0.343 | 32 | 11 | 0.231      | 0.206 | 0.163 |
| 30 | 18 | 0.466      | 0.434 | 0.374 | 32 | 12 | 0.259      | 0.232 | 0.187 |
| 30 | 19 | 0.500      | 0.467 | 0.406 | 32 | 13 | 0.287      | 0.260 | 0.212 |
| 30 | 20 | 0.534      | 0.500 | 0.439 | 32 | 14 | 0.315      | 0.287 | 0.237 |
| 30 | 21 | 0.568      | 0.535 | 0.472 | 32 | 15 | 0.345      | 0.315 | 0.263 |
| 30 | 22 | 0.603      | 0.570 | 0.507 | 32 | 16 | 0.374      | 0.344 | 0.290 |
| 30 | 23 | 0.639      | 0.606 | 0.543 | 32 | 17 | 0.404      | 0.373 | 0.318 |
| 30 | 24 | 0.675      | 0.643 | 0.580 | 32 | 18 | 0.434      | 0.403 | 0.346 |
| 30 | 25 | 0.713      | 0.681 | 0.619 | 32 | 19 | 0.465      | 0.433 | 0.375 |
| 30 | 26 | 0.751      | 0.720 | 0.660 | 32 | 20 | 0.496      | 0.464 | 0.405 |
| 30 | 27 | 0.791      | 0.761 | 0.702 | 32 | 21 | 0.528      | 0.496 | 0.436 |
| 30 | 28 | 0.832      | 0.805 | 0.748 | 32 | 22 | 0.560      | 0.528 | 0.467 |
| 30 | 29 | 0.876      | 0.851 | 0.798 | 32 | 23 | 0.592      | 0.560 | 0.500 |
| 30 | 30 | 0.926      | 0.905 | 0.858 | 32 | 24 | 0.626      | 0.594 | 0.533 |
| 31 | 0  | 0.000      | 0.000 | 0.000 | 32 | 25 | 0.660      | 0.628 | 0.567 |
| 31 | 1  | 0.003      | 0.002 | 0.000 | 32 | 26 | 0.694      | 0.663 | 0.603 |
| 31 | 2  | 0.017      | 0.012 | 0.005 | 32 | 27 | 0.729      | 0.699 | 0.640 |
| 31 | 3  | 0.036      | 0.027 | 0.014 | 32 | 28 | 0.766      | 0.736 | 0.678 |
| 31 | 4  | 0.058      | 0.045 | 0.028 | 32 | 29 | 0.803      | 0.775 | 0.719 |
| 31 | 5  | 0.081      | 0.066 | 0.043 | 32 | 30 | 0.842      | 0.816 | 0.762 |
| 31 | 6  | 0.105      | 0.088 | 0.061 | 32 | 31 | 0.884      | 0.860 | 0.810 |
| 31 | 7  | 0.130      | 0.111 | 0.080 | 32 | 32 | 0.931      | 0.911 | 0.866 |
| 31 | 8  | 0.156      | 0.135 | 0.101 | 33 | 0  | 0.000      | 0.000 | 0.000 |
| 31 | 9  | 0.183      | 0.160 | 0.122 | 33 | 1  | 0.003      | 0.002 | 0.000 |
| 31 | 10 | 0.211      | 0.186 | 0.145 | 33 | 2  | 0.016      | 0.011 | 0.005 |
| 31 | 11 | 0.239      | 0.213 | 0.169 | 33 | 3  | 0.034      | 0.025 | 0.014 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 33 | 4  | 0.054      | 0.043 | 0.026 | 34 | 26 | 0.646      | 0.615 | 0.556 |
| 33 | 5  | 0.076      | 0.062 | 0.040 | 34 | 27 | 0.678      | 0.648 | 0.589 |
| 33 | 6  | 0.098      | 0.082 | 0.057 | 34 | 28 | 0.711      | 0.681 | 0.623 |
| 33 | 7  | 0.122      | 0.104 | 0.075 | 34 | 29 | 0.744      | 0.715 | 0.658 |
| 33 | 8  | 0.146      | 0.127 | 0.094 | 34 | 30 | 0.779      | 0.751 | 0.695 |
| 33 | 9  | 0.172      | 0.150 | 0.114 | 34 | 31 | 0.814      | 0.787 | 0.734 |
| 33 | 10 | 0.197      | 0.174 | 0.136 | 34 | 32 | 0.851      | 0.826 | 0.775 |
| 33 | 11 | 0.224      | 0.199 | 0.158 | 34 | 33 | 0.890      | 0.868 | 0.820 |
| 33 | 12 | 0.250      | 0.225 | 0.181 | 34 | 34 | 0.935      | 0.916 | 0.873 |
| 33 | 13 | 0.278      | 0.251 | 0.205 | 35 | 0  | 0.000      | 0.000 | 0.000 |
| 33 | 14 | 0.305      | 0.278 | 0.229 | 35 | 1  | 0.007      | 0.002 | 0.000 |
| 33 | 15 | 0.333      | 0.305 | 0.254 | 35 | 2  | 0.015      | 0.010 | 0.004 |
| 33 | 16 | 0.362      | 0.332 | 0.280 | 35 | 3  | 0.032      | 0.024 | 0.013 |
| 33 | 17 | 0.390      | 0.361 | 0.307 | 35 | 4  | 0.051      | 0.040 | 0.024 |
| 33 | 18 | 0.420      | 0.389 | 0.334 | 35 | 5  | 0.071      | 0.058 | 0.038 |
| 33 | 19 | 0.449      | 0.418 | 0.362 | 35 | 6  | 0.093      | 0.077 | 0.053 |
| 33 | 20 | 0.479      | 0.448 | 0.391 | 35 | 7  | 0.115      | 0.098 | 0.070 |
| 33 | 21 | 0.510      | 0.478 | 0.420 | 35 | 8  | 0.138      | 0.119 | 0.088 |
| 33 | 22 | 0.541      | 0.509 | 0.450 | 35 | 9  | 0.161      | 0.141 | 0.107 |
| 33 | 23 | 0.572      | 0.540 | 0.481 | 35 | 10 | 0.186      | 0.164 | 0.127 |
| 33 | 24 | 0.604      | 0.572 | 0.512 | 35 | 11 | 0.210      | 0.187 | 0.148 |
| 33 | 25 | 0.636      | 0.605 | 0.545 | 35 | 12 | 0.235      | 0.211 | 0.169 |
| 33 | 26 | 0.669      | 0.638 | 0.579 | 35 | 13 | 0.261      | 0.235 | 0.192 |
| 33 | 27 | 0.703      | 0.672 | 0.613 | 35 | 14 | 0.287      | 0.260 | 0.214 |
| 33 | 28 | 0.737      | 0.707 | 0.649 | 35 | 15 | 0.313      | 0.286 | 0.238 |
| 33 | 29 | 0.772      | 0.744 | 0.687 | 35 | 16 | 0.339      | 0.312 | 0.262 |
| 33 | 30 | 0.809      | 0.782 | 0.727 | 35 | 17 | 0.366      | 0.338 | 0.287 |
| 33 | 31 | 0.847      | 0.821 | 0.769 | 35 | 18 | 0.394      | 0.364 | 0.312 |
| 33 | 32 | 0.887      | 0.864 | 0.815 | 35 | 19 | 0.421      | 0.392 | 0.338 |
| 33 | 33 | 0.933      | 0.913 | 0.870 | 35 | 20 | 0.449      | 0.419 | 0.364 |
| 34 | 0  | 0.000      | 0.000 | 0.000 | 35 | 21 | 0.477      | 0.447 | 0.391 |
| 34 | 1  | 0.003      | 0.002 | 0.000 | 35 | 22 | 0.506      | 0.475 | 0.419 |
| 34 | 2  | 0.016      | 0.011 | 0.004 | 35 | 23 | 0.535      | 0.504 | 0.447 |
| 34 | 3  | 0.033      | 0.025 | 0.013 | 35 | 24 | 0.564      | 0.534 | 0.476 |
| 34 | 4  | 0.052      | 0.041 | 0.025 | 35 | 25 | 0.594      | 0.564 | 0.506 |
| 34 | 5  | 0.073      | 0.060 | 0.039 | 35 | 26 | 0.625      | 0.594 | 0.536 |
| 34 | 6  | 0.095      | 0.080 | 0.055 | 35 | 27 | 0.655      | 0.625 | 0.567 |
| 34 | 7  | 0.118      | 0.101 | 0.073 | 35 | 28 | 0.687      | 0.657 | 0.599 |
| 34 | 8  | 0.142      | 0.123 | 0.091 | 35 | 29 | 0.718      | 0.689 | 0.633 |
| 34 | 9  | 0.166      | 0.145 | 0.111 | 35 | 30 | 0.751      | 0.723 | 0.667 |
| 34 | 10 | 0.191      | 0.169 | 0.131 | 35 | 31 | 0.785      | 0.757 | 0.703 |
| 34 | 11 | 0.217      | 0.193 | 0.153 | 35 | 32 | 0.819      | 0.793 | 0.741 |
| 34 | 12 | 0.243      | 0.218 | 0.175 | 35 | 33 | 0.855      | 0.831 | 0.781 |
| 34 | 13 | 0.269      | 0.243 | 0.198 | 35 | 34 | 0.893      | 0.872 | 0.825 |
| 34 | 14 | 0.296      | 0.269 | 0.222 | 35 | 35 | 0.936      | 0.918 | 0.877 |
| 34 | 15 | 0.323      | 0.295 | 0.246 | 36 | 0  | 0.000      | 0.000 | 0.000 |
| 34 | 16 | 0.350      | 0.322 | 0.271 | 36 | 1  | 0.003      | 0.002 | 0.000 |
| 34 | 17 | 0.378      | 0.349 | 0.296 | 36 | 2  | 0.015      | 0.010 | 0.004 |
| 34 | 18 | 0.406      | 0.376 | 0.323 | 36 | 3  | 0.031      | 0.023 | 0.012 |
| 34 | 19 | 0.435      | 0.405 | 0.349 | 36 | 4  | 0.049      | 0.039 | 0.024 |
| 34 | 20 | 0.464      | 0.433 | 0.377 | 36 | 5  | 0.069      | 0.056 | 0.037 |
| 34 | 21 | 0.493      | 0.462 | 0.405 | 36 | 6  | 0.090      | 0.075 | 0.052 |
| 34 | 22 | 0.523      | 0.492 | 0.434 | 36 | 7  | 0.112      | 0.095 | 0.068 |
| 34 | 23 | 0.553      | 0.522 | 0.463 | 36 | 8  | 0.134      | 0.116 | 0.086 |
| 34 | 24 | 0.583      | 0.552 | 0.493 | 36 | 9  | 0.157      | 0.137 | 0.104 |
| 34 | 25 | 0.614      | 0.583 | 0.524 | 36 | 10 | 0.180      | 0.159 | 0.124 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 36 | 11 | 0.204            | 0.182 | 0.143 | 37 | 29 | 0.673            | 0.644 | 0.587 |
| 36 | 12 | 0.228            | 0.205 | 0.164 | 37 | 30 | 0.702            | 0.674 | 0.618 |
| 36 | 13 | 0.253            | 0.228 | 0.186 | 37 | 31 | 0.733            | 0.705 | 0.650 |
| 36 | 14 | 0.278            | 0.253 | 0.208 | 37 | 32 | 0.764            | 0.737 | 0.683 |
| 36 | 15 | 0.303            | 0.277 | 0.230 | 37 | 33 | 0.795            | 0.769 | 0.717 |
| 36 | 16 | 0.329            | 0.302 | 0.254 | 37 | 34 | 0.828            | 0.804 | 0.753 |
| 36 | 17 | 0.355            | 0.327 | 0.278 | 37 | 35 | 0.863            | 0.839 | 0.792 |
| 36 | 18 | 0.382            | 0.353 | 0.302 | 37 | 36 | 0.899            | 0.878 | 0.834 |
| 36 | 19 | 0.408            | 0.379 | 0.327 | 37 | 37 | 0.940            | 0.922 | 0.883 |
| 36 | 20 | 0.435            | 0.406 | 0.352 | 38 | 0  | 0.000            | 0.000 | 0.000 |
| 36 | 21 | 0.463            | 0.433 | 0.378 | 38 | 1  | 0.003            | 0.001 | 0.000 |
| 36 | 22 | 0.490            | 0.460 | 0.405 | 38 | 2  | 0.014            | 0.009 | 0.004 |
| 36 | 23 | 0.518            | 0.488 | 0.432 | 38 | 3  | 0.029            | 0.022 | 0.012 |
| 36 | 24 | 0.547            | 0.516 | 0.460 | 38 | 4  | 0.047            | 0.037 | 0.022 |
| 36 | 25 | 0.575            | 0.545 | 0.488 | 38 | 5  | 0.065            | 0.053 | 0.035 |
| 36 | 26 | 0.605            | 0.574 | 0.517 | 38 | 6  | 0.085            | 0.071 | 0.049 |
| 36 | 27 | 0.634            | 0.604 | 0.547 | 38 | 7  | 0.106            | 0.090 | 0.064 |
| 36 | 28 | 0.664            | 0.635 | 0.578 | 38 | 8  | 0.127            | 0.109 | 0.081 |
| 36 | 29 | 0.695            | 0.666 | 0.609 | 38 | 9  | 0.148            | 0.129 | 0.098 |
| 36 | 30 | 0.726            | 0.697 | 0.642 | 38 | 10 | 0.170            | 0.150 | 0.117 |
| 36 | 31 | 0.757            | 0.730 | 0.675 | 38 | 11 | 0.193            | 0.171 | 0.135 |
| 36 | 32 | 0.790            | 0.764 | 0.710 | 38 | 12 | 0.216            | 0.193 | 0.155 |
| 36 | 33 | 0.824            | 0.799 | 0.747 | 38 | 13 | 0.239            | 0.216 | 0.175 |
| 36 | 34 | 0.859            | 0.835 | 0.786 | 38 | 14 | 0.263            | 0.238 | 0.196 |
| 36 | 35 | 0.896            | 0.875 | 0.829 | 38 | 15 | 0.286            | 0.261 | 0.217 |
| 36 | 36 | 0.938            | 0.920 | 0.880 | 38 | 16 | 0.311            | 0.285 | 0.239 |
| 37 | 0  | 0.000            | 0.000 | 0.000 | 38 | 17 | 0.335            | 0.309 | 0.261 |
| 37 | 1  | 0.003            | 0.002 | 0.000 | 38 | 18 | 0.360            | 0.333 | 0.284 |
| 37 | 2  | 0.014            | 0.010 | 0.004 | 38 | 19 | 0.385            | 0.357 | 0.307 |
| 37 | 3  | 0.030            | 0.023 | 0.012 | 38 | 20 | 0.410            | 0.382 | 0.331 |
| 37 | 4  | 0.048            | 0.038 | 0.023 | 38 | 21 | 0.436            | 0.407 | 0.355 |
| 37 | 5  | 0.067            | 0.055 | 0.036 | 38 | 22 | 0.462            | 0.433 | 0.380 |
| 37 | 6  | 0.087            | 0.073 | 0.050 | 38 | 23 | 0.488            | 0.459 | 0.405 |
| 37 | 7  | 0.108            | 0.092 | 0.066 | 38 | 24 | 0.515            | 0.485 | 0.431 |
| 37 | 8  | 0.130            | 0.112 | 0.083 | 38 | 25 | 0.541            | 0.512 | 0.457 |
| 37 | 9  | 0.152            | 0.133 | 0.101 | 38 | 26 | 0.568            | 0.539 | 0.484 |
| 37 | 10 | 0.175            | 0.154 | 0.120 | 38 | 27 | 0.596            | 0.567 | 0.511 |
| 37 | 11 | 0.198            | 0.176 | 0.139 | 38 | 28 | 0.624            | 0.594 | 0.539 |
| 37 | 12 | 0.222            | 0.199 | 0.159 | 38 | 29 | 0.652            | 0.623 | 0.567 |
| 37 | 13 | 0.246            | 0.222 | 0.180 | 38 | 30 | 0.681            | 0.652 | 0.597 |
| 37 | 14 | 0.270            | 0.245 | 0.202 | 38 | 31 | 0.710            | 0.682 | 0.627 |
| 37 | 15 | 0.295            | 0.269 | 0.223 | 38 | 32 | 0.739            | 0.712 | 0.658 |
| 37 | 16 | 0.320            | 0.293 | 0.246 | 38 | 33 | 0.769            | 0.743 | 0.690 |
| 37 | 17 | 0.345            | 0.318 | 0.269 | 38 | 34 | 0.801            | 0.775 | 0.724 |
| 37 | 18 | 0.370            | 0.343 | 0.293 | 38 | 35 | 0.833            | 0.808 | 0.759 |
| 37 | 19 | 0.396            | 0.368 | 0.317 | 38 | 36 | 0.866            | 0.843 | 0.797 |
| 37 | 20 | 0.423            | 0.394 | 0.341 | 38 | 37 | 0.901            | 0.881 | 0.838 |
| 37 | 21 | 0.449            | 0.420 | 0.366 | 38 | 38 | 0.941            | 0.924 | 0.886 |
| 37 | 22 | 0.476            | 0.446 | 0.392 | 39 | 0  | 0.000            | 0.000 | 0.000 |
| 37 | 23 | 0.503            | 0.473 | 0.418 | 39 | 1  | 0.003            | 0.001 | 0.000 |
| 37 | 24 | 0.530            | 0.500 | 0.445 | 39 | 2  | 0.014            | 0.009 | 0.004 |
| 37 | 25 | 0.558            | 0.528 | 0.472 | 39 | 3  | 0.029            | 0.021 | 0.011 |
| 37 | 26 | 0.586            | 0.556 | 0.500 | 39 | 4  | 0.046            | 0.036 | 0.022 |
| 37 | 27 | 0.614            | 0.585 | 0.528 | 39 | 5  | 0.064            | 0.052 | 0.034 |
| 37 | 28 | 0.643            | 0.614 | 0.557 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 39 | 6  | 0.083      | 0.069 | 0.048 | 40 | 22 | 0.437      | 0.409 | 0.358 |
| 39 | 7  | 0.103      | 0.087 | 0.063 | 40 | 23 | 0.461      | 0.433 | 0.381 |
| 39 | 8  | 0.123      | 0.106 | 0.079 | 40 | 24 | 0.486      | 0.458 | 0.405 |
| 39 | 9  | 0.144      | 0.126 | 0.096 | 40 | 25 | 0.511      | 0.483 | 0.429 |
| 39 | 10 | 0.166      | 0.146 | 0.113 | 40 | 26 | 0.537      | 0.508 | 0.454 |
| 39 | 11 | 0.188      | 0.167 | 0.132 | 40 | 27 | 0.562      | 0.534 | 0.480 |
| 39 | 12 | 0.210      | 0.188 | 0.150 | 40 | 28 | 0.588      | 0.560 | 0.505 |
| 39 | 13 | 0.232      | 0.210 | 0.170 | 40 | 29 | 0.615      | 0.586 | 0.532 |
| 39 | 14 | 0.255      | 0.232 | 0.190 | 40 | 30 | 0.641      | 0.613 | 0.559 |
| 39 | 15 | 0.279      | 0.254 | 0.211 | 40 | 31 | 0.668      | 0.640 | 0.586 |
| 39 | 16 | 0.302      | 0.277 | 0.232 | 40 | 32 | 0.695      | 0.668 | 0.615 |
| 39 | 17 | 0.326      | 0.300 | 0.253 | 40 | 33 | 0.723      | 0.696 | 0.643 |
| 39 | 18 | 0.350      | 0.323 | 0.275 | 40 | 34 | 0.751      | 0.725 | 0.673 |
| 39 | 19 | 0.374      | 0.347 | 0.298 | 40 | 35 | 0.780      | 0.755 | 0.704 |
| 39 | 20 | 0.399      | 0.371 | 0.321 | 40 | 36 | 0.810      | 0.786 | 0.736 |
| 39 | 21 | 0.424      | 0.396 | 0.344 | 40 | 37 | 0.841      | 0.817 | 0.770 |
| 39 | 22 | 0.449      | 0.420 | 0.368 | 40 | 38 | 0.872      | 0.851 | 0.806 |
| 39 | 23 | 0.474      | 0.446 | 0.393 | 40 | 39 | 0.906      | 0.887 | 0.845 |
| 39 | 24 | 0.500      | 0.471 | 0.417 | 40 | 40 | 0.944      | 0.928 | 0.891 |
| 39 | 25 | 0.526      | 0.497 | 0.443 | 41 | 0  | 0.000      | 0.000 | 0.000 |
| 39 | 26 | 0.552      | 0.523 | 0.468 | 41 | 1  | 0.003      | 0.001 | 0.000 |
| 39 | 27 | 0.579      | 0.550 | 0.495 | 41 | 2  | 0.013      | 0.009 | 0.004 |
| 39 | 28 | 0.606      | 0.576 | 0.522 | 41 | 3  | 0.027      | 0.020 | 0.011 |
| 39 | 29 | 0.633      | 0.604 | 0.549 | 41 | 4  | 0.043      | 0.034 | 0.021 |
| 39 | 30 | 0.660      | 0.632 | 0.577 | 41 | 5  | 0.060      | 0.049 | 0.032 |
| 39 | 31 | 0.688      | 0.660 | 0.606 | 41 | 6  | 0.079      | 0.066 | 0.045 |
| 39 | 32 | 0.717      | 0.689 | 0.635 | 41 | 7  | 0.098      | 0.083 | 0.060 |
| 39 | 33 | 0.746      | 0.719 | 0.666 | 41 | 8  | 0.117      | 0.101 | 0.075 |
| 39 | 34 | 0.775      | 0.749 | 0.697 | 41 | 9  | 0.137      | 0.120 | 0.091 |
| 39 | 35 | 0.805      | 0.781 | 0.730 | 41 | 10 | 0.157      | 0.139 | 0.107 |
| 39 | 36 | 0.837      | 0.813 | 0.765 | 41 | 11 | 0.178      | 0.158 | 0.125 |
| 39 | 37 | 0.869      | 0.847 | 0.801 | 41 | 12 | 0.199      | 0.178 | 0.143 |
| 39 | 38 | 0.904      | 0.884 | 0.842 | 41 | 13 | 0.221      | 0.199 | 0.161 |
| 39 | 39 | 0.943      | 0.926 | 0.889 | 41 | 14 | 0.242      | 0.219 | 0.180 |
| 40 | 0  | 0.000      | 0.000 | 0.000 | 41 | 15 | 0.264      | 0.241 | 0.199 |
| 40 | 1  | 0.003      | 0.001 | 0.000 | 41 | 16 | 0.286      | 0.262 | 0.219 |
| 40 | 2  | 0.013      | 0.009 | 0.004 | 41 | 17 | 0.309      | 0.284 | 0.240 |
| 40 | 3  | 0.028      | 0.021 | 0.011 | 41 | 18 | 0.332      | 0.306 | 0.260 |
| 40 | 4  | 0.044      | 0.035 | 0.021 | 41 | 19 | 0.355      | 0.329 | 0.282 |
| 40 | 5  | 0.062      | 0.051 | 0.033 | 41 | 20 | 0.378      | 0.351 | 0.303 |
| 40 | 6  | 0.081      | 0.067 | 0.047 | 41 | 21 | 0.401      | 0.374 | 0.325 |
| 40 | 7  | 0.100      | 0.085 | 0.061 | 41 | 22 | 0.425      | 0.398 | 0.347 |
| 40 | 8  | 0.120      | 0.104 | 0.077 | 41 | 23 | 0.449      | 0.421 | 0.370 |
| 40 | 9  | 0.140      | 0.123 | 0.093 | 41 | 24 | 0.473      | 0.445 | 0.393 |
| 40 | 10 | 0.161      | 0.142 | 0.110 | 41 | 25 | 0.497      | 0.469 | 0.417 |
| 40 | 11 | 0.183      | 0.162 | 0.128 | 41 | 26 | 0.522      | 0.494 | 0.441 |
| 40 | 12 | 0.204      | 0.183 | 0.146 | 41 | 27 | 0.547      | 0.519 | 0.465 |
| 40 | 13 | 0.226      | 0.204 | 0.165 | 41 | 28 | 0.572      | 0.544 | 0.490 |
| 40 | 14 | 0.249      | 0.225 | 0.185 | 41 | 29 | 0.598      | 0.569 | 0.516 |
| 40 | 15 | 0.271      | 0.247 | 0.205 | 41 | 30 | 0.623      | 0.595 | 0.542 |
| 40 | 16 | 0.294      | 0.269 | 0.225 | 41 | 31 | 0.649      | 0.621 | 0.568 |
| 40 | 17 | 0.317      | 0.292 | 0.246 | 41 | 32 | 0.676      | 0.648 | 0.595 |
| 40 | 18 | 0.341      | 0.314 | 0.268 | 41 | 33 | 0.702      | 0.675 | 0.623 |
| 40 | 19 | 0.364      | 0.338 | 0.290 | 41 | 34 | 0.730      | 0.703 | 0.651 |
| 40 | 20 | 0.388      | 0.361 | 0.312 | 41 | 35 | 0.757      | 0.731 | 0.680 |
| 40 | 21 | 0.412      | 0.385 | 0.334 |    |    |            |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       |       | LEVEL | N  | K  | CONFIDENCE |       |       | LEVEL |
|----|----|------------|-------|-------|-------|----|----|------------|-------|-------|-------|
|    |    | 90%        | 95%   | 98%   |       |    |    | 90%        | 95%   | 98%   |       |
| 41 | 36 | 0.785      | 0.760 | 0.711 |       | 43 | 7  | 0.093      | 0.079 | 0.057 |       |
| 41 | 37 | 0.814      | 0.791 | 0.742 |       | 43 | 8  | 0.111      | 0.086 | 0.071 |       |
| 41 | 38 | 0.844      | 0.822 | 0.775 |       | 43 | 9  | 0.130      | 0.114 | 0.086 |       |
| 41 | 39 | 0.875      | 0.854 | 0.810 |       | 43 | 10 | 0.150      | 0.132 | 0.102 |       |
| 41 | 40 | 0.908      | 0.889 | 0.849 |       | 43 | 11 | 0.169      | 0.150 | 0.118 |       |
| 41 | 41 | 0.945      | 0.930 | 0.894 |       | 43 | 12 | 0.189      | 0.169 | 0.135 |       |
| 42 | 0  | 0.000      | 0.000 | 0.000 |       | 43 | 13 | 0.210      | 0.189 | 0.153 |       |
| 42 | 1  | 0.003      | 0.001 | 0.000 |       | 43 | 14 | 0.230      | 0.209 | 0.171 |       |
| 42 | 2  | 0.013      | 0.009 | 0.004 |       | 43 | 15 | 0.251      | 0.229 | 0.189 |       |
| 42 | 3  | 0.027      | 0.020 | 0.011 |       | 43 | 16 | 0.272      | 0.249 | 0.208 |       |
| 42 | 4  | 0.042      | 0.033 | 0.020 |       | 43 | 17 | 0.294      | 0.270 | 0.227 |       |
| 42 | 5  | 0.059      | 0.048 | 0.031 |       | 43 | 18 | 0.315      | 0.291 | 0.247 |       |
| 42 | 6  | 0.077      | 0.064 | 0.044 |       | 43 | 19 | 0.337      | 0.312 | 0.267 |       |
| 42 | 7  | 0.095      | 0.081 | 0.058 |       | 43 | 20 | 0.359      | 0.333 | 0.287 |       |
| 42 | 8  | 0.114      | 0.098 | 0.073 |       | 43 | 21 | 0.381      | 0.355 | 0.308 |       |
| 42 | 9  | 0.134      | 0.117 | 0.088 |       | 43 | 22 | 0.404      | 0.377 | 0.329 |       |
| 42 | 10 | 0.153      | 0.135 | 0.105 |       | 43 | 23 | 0.426      | 0.399 | 0.350 |       |
| 42 | 11 | 0.174      | 0.154 | 0.122 |       | 43 | 24 | 0.449      | 0.422 | 0.372 |       |
| 42 | 12 | 0.194      | 0.174 | 0.139 |       | 43 | 25 | 0.472      | 0.445 | 0.394 |       |
| 42 | 13 | 0.215      | 0.194 | 0.157 |       | 43 | 26 | 0.495      | 0.468 | 0.417 |       |
| 42 | 14 | 0.236      | 0.214 | 0.175 |       | 43 | 27 | 0.519      | 0.491 | 0.439 |       |
| 42 | 15 | 0.258      | 0.235 | 0.194 |       | 43 | 28 | 0.542      | 0.515 | 0.463 |       |
| 42 | 16 | 0.279      | 0.255 | 0.214 |       | 43 | 29 | 0.566      | 0.539 | 0.486 |       |
| 42 | 17 | 0.301      | 0.277 | 0.233 |       | 43 | 30 | 0.590      | 0.563 | 0.510 |       |
| 42 | 18 | 0.323      | 0.298 | 0.253 |       | 43 | 31 | 0.615      | 0.587 | 0.535 |       |
| 42 | 19 | 0.346      | 0.320 | 0.274 |       | 43 | 32 | 0.640      | 0.612 | 0.560 |       |
| 42 | 20 | 0.368      | 0.342 | 0.295 |       | 43 | 33 | 0.664      | 0.637 | 0.585 |       |
| 42 | 21 | 0.391      | 0.364 | 0.316 |       | 43 | 34 | 0.690      | 0.663 | 0.612 |       |
| 42 | 22 | 0.414      | 0.387 | 0.338 |       | 43 | 35 | 0.715      | 0.689 | 0.638 |       |
| 42 | 23 | 0.437      | 0.410 | 0.360 |       | 43 | 36 | 0.741      | 0.716 | 0.666 |       |
| 42 | 24 | 0.461      | 0.433 | 0.382 |       | 43 | 37 | 0.768      | 0.743 | 0.694 |       |
| 42 | 25 | 0.484      | 0.457 | 0.405 |       | 43 | 38 | 0.795      | 0.771 | 0.723 |       |
| 42 | 26 | 0.508      | 0.480 | 0.428 |       | 43 | 39 | 0.823      | 0.800 | 0.753 |       |
| 42 | 27 | 0.532      | 0.504 | 0.452 |       | 43 | 40 | 0.851      | 0.829 | 0.785 |       |
| 42 | 28 | 0.557      | 0.529 | 0.476 |       | 43 | 41 | 0.881      | 0.861 | 0.819 |       |
| 42 | 29 | 0.581      | 0.553 | 0.501 |       | 43 | 42 | 0.913      | 0.894 | 0.855 |       |
| 42 | 30 | 0.606      | 0.578 | 0.526 |       | 43 | 43 | 0.948      | 0.933 | 0.898 |       |
| 42 | 31 | 0.632      | 0.604 | 0.551 |       | 44 | 0  | 0.000      | 0.000 | 0.000 |       |
| 42 | 32 | 0.657      | 0.630 | 0.577 |       | 44 | 1  | 0.002      | 0.001 | 0.000 |       |
| 42 | 33 | 0.683      | 0.656 | 0.604 |       | 44 | 2  | 0.012      | 0.008 | 0.003 |       |
| 42 | 34 | 0.709      | 0.682 | 0.631 |       | 44 | 3  | 0.025      | 0.019 | 0.010 |       |
| 42 | 35 | 0.736      | 0.710 | 0.659 |       | 44 | 4  | 0.040      | 0.032 | 0.019 |       |
| 42 | 36 | 0.763      | 0.737 | 0.687 |       | 44 | 5  | 0.056      | 0.046 | 0.030 |       |
| 42 | 37 | 0.790      | 0.766 | 0.717 |       | 44 | 6  | 0.073      | 0.061 | 0.042 |       |
| 42 | 38 | 0.819      | 0.795 | 0.748 |       | 44 | 7  | 0.091      | 0.077 | 0.055 |       |
| 42 | 39 | 0.848      | 0.826 | 0.780 |       | 44 | 8  | 0.109      | 0.094 | 0.069 |       |
| 42 | 40 | 0.878      | 0.858 | 0.815 |       | 44 | 9  | 0.127      | 0.111 | 0.084 |       |
| 42 | 41 | 0.911      | 0.892 | 0.852 |       | 44 | 10 | 0.146      | 0.129 | 0.100 |       |
| 42 | 42 | 0.947      | 0.931 | 0.896 |       | 44 | 11 | 0.165      | 0.147 | 0.116 |       |
| 43 | 0  | 0.000      | 0.000 | 0.000 |       | 44 | 12 | 0.185      | 0.165 | 0.132 |       |
| 43 | 1  | 0.002      | 0.001 | 0.000 |       | 44 | 13 | 0.205      | 0.184 | 0.149 |       |
| 43 | 2  | 0.012      | 0.008 | 0.003 |       | 44 | 14 | 0.225      | 0.204 | 0.167 |       |
| 43 | 3  | 0.026      | 0.019 | 0.010 |       | 44 | 15 | 0.245      | 0.223 | 0.185 |       |
| 43 | 4  | 0.041      | 0.033 | 0.020 |       | 44 | 16 | 0.266      | 0.243 | 0.203 |       |
| 43 | 5  | 0.058      | 0.047 | 0.031 |       | 44 | 17 | 0.287      | 0.263 | 0.222 |       |
| 43 | 6  | 0.075      | 0.063 | 0.043 |       | 44 | 18 | 0.308      | 0.283 | 0.241 |       |
|    |    |            |       |       |       | 44 | 19 | 0.329      | 0.304 | 0.260 |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 44 | 20 | 0.350      | 0.325 | 0.280 | 45 | 31 | 0.584      | 0.557 | 0.506 |
| 44 | 21 | 0.372      | 0.346 | 0.300 | 45 | 32 | 0.607      | 0.580 | 0.529 |
| 44 | 22 | 0.394      | 0.368 | 0.320 | 45 | 33 | 0.631      | 0.604 | 0.553 |
| 44 | 23 | 0.416      | 0.389 | 0.341 | 45 | 34 | 0.654      | 0.628 | 0.577 |
| 44 | 24 | 0.438      | 0.411 | 0.362 | 45 | 35 | 0.678      | 0.652 | 0.602 |
| 44 | 25 | 0.460      | 0.433 | 0.384 | 45 | 36 | 0.703      | 0.677 | 0.627 |
| 44 | 26 | 0.483      | 0.456 | 0.405 | 45 | 37 | 0.727      | 0.702 | 0.653 |
| 44 | 27 | 0.506      | 0.478 | 0.428 | 45 | 38 | 0.752      | 0.728 | 0.679 |
| 44 | 28 | 0.529      | 0.501 | 0.450 | 45 | 39 | 0.778      | 0.754 | 0.706 |
| 44 | 29 | 0.552      | 0.524 | 0.473 | 45 | 40 | 0.804      | 0.780 | 0.734 |
| 44 | 30 | 0.575      | 0.548 | 0.496 | 45 | 41 | 0.830      | 0.808 | 0.763 |
| 44 | 31 | 0.599      | 0.572 | 0.520 | 45 | 42 | 0.858      | 0.837 | 0.794 |
| 44 | 32 | 0.623      | 0.596 | 0.544 | 45 | 43 | 0.886      | 0.867 | 0.826 |
| 44 | 33 | 0.647      | 0.620 | 0.569 | 45 | 44 | 0.916      | 0.899 | 0.861 |
| 44 | 34 | 0.672      | 0.645 | 0.594 | 45 | 45 | 0.950      | 0.936 | 0.903 |
| 44 | 35 | 0.696      | 0.670 | 0.619 | 46 | 0  | 0.000      | 0.000 | 0.000 |
| 44 | 36 | 0.721      | 0.696 | 0.646 | 46 | 1  | 0.002      | 0.001 | 0.000 |
| 44 | 37 | 0.747      | 0.722 | 0.672 | 46 | 2  | 0.012      | 0.008 | 0.003 |
| 44 | 38 | 0.773      | 0.748 | 0.700 | 46 | 3  | 0.024      | 0.018 | 0.010 |
| 44 | 39 | 0.799      | 0.776 | 0.729 | 46 | 4  | 0.039      | 0.030 | 0.018 |
| 44 | 40 | 0.827      | 0.804 | 0.758 | 46 | 5  | 0.054      | 0.044 | 0.029 |
| 44 | 41 | 0.854      | 0.833 | 0.789 | 46 | 6  | 0.070      | 0.058 | 0.040 |
| 44 | 42 | 0.884      | 0.864 | 0.822 | 46 | 7  | 0.087      | 0.074 | 0.053 |
| 44 | 43 | 0.914      | 0.897 | 0.858 | 46 | 8  | 0.104      | 0.090 | 0.066 |
| 44 | 44 | 0.949      | 0.934 | 0.901 | 46 | 9  | 0.122      | 0.106 | 0.080 |
| 45 | 0  | 0.000      | 0.000 | 0.000 | 46 | 10 | 0.140      | 0.123 | 0.095 |
| 45 | 1  | 0.002      | 0.001 | 0.000 | 46 | 11 | 0.158      | 0.140 | 0.110 |
| 45 | 2  | 0.012      | 0.008 | 0.003 | 46 | 12 | 0.177      | 0.158 | 0.126 |
| 45 | 3  | 0.025      | 0.019 | 0.010 | 46 | 13 | 0.195      | 0.176 | 0.142 |
| 45 | 4  | 0.039      | 0.031 | 0.019 | 46 | 14 | 0.215      | 0.194 | 0.159 |
| 45 | 5  | 0.055      | 0.045 | 0.029 | 46 | 15 | 0.234      | 0.213 | 0.176 |
| 45 | 6  | 0.072      | 0.060 | 0.041 | 46 | 16 | 0.254      | 0.232 | 0.193 |
| 45 | 7  | 0.089      | 0.075 | 0.054 | 46 | 17 | 0.273      | 0.251 | 0.211 |
| 45 | 8  | 0.106      | 0.092 | 0.068 | 46 | 18 | 0.293      | 0.270 | 0.229 |
| 45 | 9  | 0.124      | 0.108 | 0.082 | 46 | 19 | 0.314      | 0.290 | 0.247 |
| 45 | 10 | 0.143      | 0.126 | 0.097 | 46 | 20 | 0.334      | 0.310 | 0.266 |
| 45 | 11 | 0.162      | 0.143 | 0.113 | 46 | 21 | 0.355      | 0.330 | 0.285 |
| 45 | 12 | 0.181      | 0.162 | 0.129 | 46 | 22 | 0.375      | 0.350 | 0.305 |
| 45 | 13 | 0.200      | 0.180 | 0.146 | 46 | 23 | 0.396      | 0.371 | 0.324 |
| 45 | 14 | 0.220      | 0.199 | 0.163 | 46 | 24 | 0.417      | 0.391 | 0.344 |
| 45 | 15 | 0.240      | 0.218 | 0.180 | 46 | 25 | 0.439      | 0.412 | 0.364 |
| 45 | 16 | 0.260      | 0.237 | 0.198 | 46 | 26 | 0.460      | 0.434 | 0.385 |
| 45 | 17 | 0.280      | 0.257 | 0.216 | 46 | 27 | 0.482      | 0.455 | 0.406 |
| 45 | 18 | 0.300      | 0.277 | 0.235 | 46 | 28 | 0.503      | 0.477 | 0.427 |
| 45 | 19 | 0.321      | 0.297 | 0.254 | 46 | 29 | 0.525      | 0.499 | 0.449 |
| 45 | 20 | 0.342      | 0.317 | 0.273 | 46 | 30 | 0.547      | 0.521 | 0.470 |
| 45 | 21 | 0.363      | 0.338 | 0.292 | 46 | 31 | 0.570      | 0.543 | 0.493 |
| 45 | 22 | 0.384      | 0.359 | 0.312 | 46 | 32 | 0.592      | 0.566 | 0.515 |
| 45 | 23 | 0.406      | 0.380 | 0.332 | 46 | 33 | 0.615      | 0.589 | 0.538 |
| 45 | 24 | 0.427      | 0.401 | 0.353 | 46 | 34 | 0.638      | 0.612 | 0.561 |
| 45 | 25 | 0.449      | 0.423 | 0.374 | 46 | 35 | 0.661      | 0.635 | 0.585 |
| 45 | 26 | 0.471      | 0.444 | 0.395 | 46 | 36 | 0.685      | 0.659 | 0.609 |
| 45 | 27 | 0.493      | 0.466 | 0.416 | 46 | 37 | 0.709      | 0.683 | 0.634 |
| 45 | 28 | 0.516      | 0.489 | 0.438 | 46 | 38 | 0.733      | 0.708 | 0.659 |
| 45 | 29 | 0.538      | 0.511 | 0.460 | 46 | 39 | 0.757      | 0.733 | 0.685 |
| 45 | 30 | 0.561      | 0.534 | 0.483 |    |    |            |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 46 | 40 | 0.782            | 0.759 | 0.712 | 48 | 0  | 0.000            | 0.000 | 0.000 |
| 46 | 41 | 0.808            | 0.785 | 0.739 | 48 | 1  | 0.002            | 0.001 | 0.000 |
| 46 | 42 | 0.834            | 0.812 | 0.768 | 48 | 2  | 0.011            | 0.007 | 0.003 |
| 46 | 43 | 0.861            | 0.840 | 0.798 | 48 | 3  | 0.023            | 0.017 | 0.009 |
| 46 | 44 | 0.888            | 0.869 | 0.830 | 48 | 4  | 0.037            | 0.029 | 0.018 |
| 46 | 45 | 0.918            | 0.901 | 0.864 | 48 | 5  | 0.051            | 0.042 | 0.027 |
| 46 | 46 | 0.951            | 0.937 | 0.905 | 48 | 6  | 0.067            | 0.056 | 0.038 |
| 47 | 0  | 0.000            | 0.000 | 0.000 | 48 | 7  | 0.083            | 0.070 | 0.050 |
| 47 | 1  | 0.002            | 0.001 | 0.000 | 48 | 8  | 0.099            | 0.086 | 0.063 |
| 47 | 2  | 0.011            | 0.008 | 0.003 | 48 | 9  | 0.116            | 0.101 | 0.077 |
| 47 | 3  | 0.024            | 0.018 | 0.009 | 48 | 10 | 0.134            | 0.118 | 0.091 |
| 47 | 4  | 0.038            | 0.030 | 0.018 | 48 | 11 | 0.151            | 0.134 | 0.105 |
| 47 | 5  | 0.053            | 0.043 | 0.028 | 48 | 12 | 0.169            | 0.151 | 0.120 |
| 47 | 6  | 0.068            | 0.057 | 0.039 | 48 | 13 | 0.187            | 0.168 | 0.136 |
| 47 | 7  | 0.085            | 0.072 | 0.052 | 48 | 14 | 0.205            | 0.186 | 0.152 |
| 47 | 8  | 0.102            | 0.088 | 0.065 | 48 | 15 | 0.224            | 0.203 | 0.168 |
| 47 | 9  | 0.119            | 0.104 | 0.078 | 48 | 16 | 0.243            | 0.221 | 0.184 |
| 47 | 10 | 0.136            | 0.120 | 0.093 | 48 | 17 | 0.261            | 0.240 | 0.201 |
| 47 | 11 | 0.154            | 0.137 | 0.108 | 48 | 18 | 0.281            | 0.258 | 0.218 |
| 47 | 12 | 0.173            | 0.154 | 0.123 | 48 | 19 | 0.300            | 0.277 | 0.236 |
| 47 | 13 | 0.191            | 0.172 | 0.139 | 48 | 20 | 0.319            | 0.296 | 0.254 |
| 47 | 14 | 0.210            | 0.190 | 0.155 | 48 | 21 | 0.339            | 0.315 | 0.272 |
| 47 | 15 | 0.229            | 0.208 | 0.172 | 48 | 22 | 0.359            | 0.334 | 0.290 |
| 47 | 16 | 0.248            | 0.226 | 0.189 | 48 | 23 | 0.378            | 0.354 | 0.309 |
| 47 | 17 | 0.267            | 0.245 | 0.206 | 48 | 24 | 0.399            | 0.373 | 0.328 |
| 47 | 18 | 0.287            | 0.264 | 0.224 | 48 | 25 | 0.419            | 0.393 | 0.347 |
| 47 | 19 | 0.307            | 0.283 | 0.242 | 48 | 26 | 0.439            | 0.414 | 0.366 |
| 47 | 20 | 0.326            | 0.303 | 0.260 | 48 | 27 | 0.460            | 0.434 | 0.386 |
| 47 | 21 | 0.346            | 0.322 | 0.278 | 48 | 28 | 0.480            | 0.454 | 0.406 |
| 47 | 22 | 0.367            | 0.342 | 0.297 | 48 | 29 | 0.501            | 0.475 | 0.427 |
| 47 | 23 | 0.387            | 0.362 | 0.316 | 48 | 30 | 0.522            | 0.496 | 0.447 |
| 47 | 24 | 0.408            | 0.382 | 0.336 | 48 | 31 | 0.543            | 0.517 | 0.468 |
| 47 | 25 | 0.428            | 0.403 | 0.356 | 48 | 32 | 0.565            | 0.539 | 0.489 |
| 47 | 26 | 0.449            | 0.423 | 0.376 | 48 | 33 | 0.586            | 0.560 | 0.511 |
| 47 | 27 | 0.470            | 0.444 | 0.396 | 48 | 34 | 0.608            | 0.582 | 0.533 |
| 47 | 28 | 0.492            | 0.465 | 0.416 | 48 | 35 | 0.630            | 0.604 | 0.555 |
| 47 | 29 | 0.513            | 0.487 | 0.437 | 48 | 36 | 0.652            | 0.627 | 0.577 |
| 47 | 30 | 0.535            | 0.508 | 0.458 | 48 | 37 | 0.675            | 0.649 | 0.600 |
| 47 | 31 | 0.556            | 0.530 | 0.480 | 48 | 38 | 0.697            | 0.672 | 0.624 |
| 47 | 32 | 0.578            | 0.552 | 0.502 | 48 | 39 | 0.720            | 0.696 | 0.648 |
| 47 | 33 | 0.600            | 0.574 | 0.524 | 48 | 40 | 0.743            | 0.719 | 0.672 |
| 47 | 34 | 0.623            | 0.597 | 0.547 | 48 | 41 | 0.767            | 0.743 | 0.697 |
| 47 | 35 | 0.645            | 0.619 | 0.569 | 48 | 42 | 0.791            | 0.768 | 0.723 |
| 47 | 36 | 0.668            | 0.642 | 0.593 | 48 | 43 | 0.815            | 0.793 | 0.749 |
| 47 | 37 | 0.691            | 0.666 | 0.617 | 48 | 44 | 0.840            | 0.819 | 0.777 |
| 47 | 38 | 0.715            | 0.690 | 0.641 | 48 | 45 | 0.866            | 0.846 | 0.806 |
| 47 | 39 | 0.738            | 0.714 | 0.666 | 48 | 46 | 0.893            | 0.875 | 0.836 |
| 47 | 40 | 0.762            | 0.738 | 0.691 | 48 | 47 | 0.921            | 0.905 | 0.870 |
| 47 | 41 | 0.787            | 0.763 | 0.717 | 48 | 48 | 0.953            | 0.940 | 0.909 |
| 47 | 42 | 0.812            | 0.789 | 0.744 | 49 | 0  | 0.000            | 0.000 | 0.000 |
| 47 | 43 | 0.837            | 0.816 | 0.772 | 49 | 1  | 0.002            | 0.001 | 0.000 |
| 47 | 44 | 0.863            | 0.843 | 0.802 | 49 | 2  | 0.011            | 0.007 | 0.003 |
| 47 | 45 | 0.891            | 0.872 | 0.833 | 49 | 3  | 0.023            | 0.017 | 0.009 |
| 47 | 46 | 0.920            | 0.903 | 0.867 | 49 | 4  | 0.036            | 0.028 | 0.017 |
| 47 | 47 | 0.952            | 0.938 | 0.907 | 49 | 5  | 0.050            | 0.041 | 0.027 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       |           | N  | K  | CONFIDENCE |       |           |
|----|----|------------|-------|-----------|----|----|------------|-------|-----------|
|    |    | 90%        | 95%   | LEVEL 99% |    |    | 90%        | 95%   | LEVEL 99% |
| 49 | 6  | 0.066      | 0.055 | 0.038     | 50 | 13 | 0.179      | 0.161 | 0.130     |
| 49 | 7  | 0.081      | 0.069 | 0.049     | 50 | 14 | 0.197      | 0.178 | 0.145     |
| 49 | 8  | 0.097      | 0.084 | 0.062     | 50 | 15 | 0.214      | 0.195 | 0.161     |
| 49 | 9  | 0.114      | 0.099 | 0.075     | 50 | 16 | 0.232      | 0.212 | 0.176     |
| 49 | 10 | 0.131      | 0.115 | 0.089     | 50 | 17 | 0.250      | 0.229 | 0.192     |
| 49 | 11 | 0.148      | 0.131 | 0.103     | 50 | 18 | 0.269      | 0.247 | 0.209     |
| 49 | 12 | 0.165      | 0.148 | 0.118     | 50 | 19 | 0.287      | 0.265 | 0.226     |
| 49 | 13 | 0.183      | 0.164 | 0.133     | 50 | 20 | 0.306      | 0.283 | 0.243     |
| 49 | 14 | 0.201      | 0.182 | 0.148     | 50 | 21 | 0.324      | 0.301 | 0.260     |
| 49 | 15 | 0.219      | 0.199 | 0.164     | 50 | 22 | 0.343      | 0.320 | 0.277     |
| 49 | 16 | 0.237      | 0.217 | 0.180     | 50 | 23 | 0.362      | 0.338 | 0.295     |
| 49 | 17 | 0.256      | 0.234 | 0.197     | 50 | 24 | 0.381      | 0.357 | 0.313     |
| 49 | 18 | 0.274      | 0.252 | 0.214     | 50 | 25 | 0.401      | 0.376 | 0.331     |
| 49 | 19 | 0.293      | 0.271 | 0.231     | 50 | 26 | 0.420      | 0.395 | 0.350     |
| 49 | 20 | 0.312      | 0.289 | 0.248     | 50 | 27 | 0.440      | 0.415 | 0.368     |
| 49 | 21 | 0.331      | 0.308 | 0.266     | 50 | 28 | 0.459      | 0.434 | 0.387     |
| 49 | 22 | 0.351      | 0.327 | 0.284     | 50 | 29 | 0.479      | 0.454 | 0.407     |
| 49 | 23 | 0.370      | 0.346 | 0.302     | 50 | 30 | 0.499      | 0.474 | 0.426     |
| 49 | 24 | 0.390      | 0.365 | 0.320     | 50 | 31 | 0.519      | 0.494 | 0.446     |
| 49 | 25 | 0.410      | 0.385 | 0.339     | 50 | 32 | 0.540      | 0.514 | 0.466     |
| 49 | 26 | 0.429      | 0.404 | 0.358     | 50 | 33 | 0.560      | 0.535 | 0.486     |
| 49 | 27 | 0.449      | 0.424 | 0.377     | 50 | 34 | 0.581      | 0.555 | 0.507     |
| 49 | 28 | 0.470      | 0.444 | 0.397     | 50 | 35 | 0.602      | 0.576 | 0.528     |
| 49 | 29 | 0.490      | 0.464 | 0.416     | 50 | 36 | 0.623      | 0.597 | 0.549     |
| 49 | 30 | 0.511      | 0.485 | 0.436     | 50 | 37 | 0.644      | 0.619 | 0.570     |
| 49 | 31 | 0.531      | 0.505 | 0.457     | 50 | 38 | 0.665      | 0.640 | 0.592     |
| 49 | 32 | 0.552      | 0.526 | 0.477     | 50 | 39 | 0.687      | 0.662 | 0.615     |
| 49 | 33 | 0.573      | 0.547 | 0.498     | 50 | 40 | 0.709      | 0.684 | 0.637     |
| 49 | 34 | 0.594      | 0.568 | 0.519     | 50 | 41 | 0.731      | 0.707 | 0.660     |
| 49 | 35 | 0.616      | 0.590 | 0.541     | 50 | 42 | 0.753      | 0.730 | 0.684     |
| 49 | 36 | 0.637      | 0.612 | 0.563     | 50 | 43 | 0.776      | 0.753 | 0.708     |
| 49 | 37 | 0.659      | 0.634 | 0.585     | 50 | 44 | 0.799      | 0.777 | 0.733     |
| 49 | 38 | 0.681      | 0.656 | 0.608     | 50 | 45 | 0.822      | 0.801 | 0.758     |
| 49 | 39 | 0.703      | 0.678 | 0.631     | 50 | 46 | 0.846      | 0.826 | 0.785     |
| 49 | 40 | 0.726      | 0.701 | 0.654     | 50 | 47 | 0.871      | 0.852 | 0.813     |
| 49 | 41 | 0.748      | 0.725 | 0.678     | 50 | 48 | 0.897      | 0.879 | 0.842     |
| 49 | 42 | 0.771      | 0.748 | 0.703     | 50 | 49 | 0.924      | 0.909 | 0.874     |
| 49 | 43 | 0.795      | 0.773 | 0.728     | 50 | 50 | 0.955      | 0.942 | 0.912     |
| 49 | 44 | 0.819      | 0.797 | 0.754     | 51 | 0  | 0.000      | 0.000 | 0.000     |
| 49 | 45 | 0.843      | 0.823 | 0.781     | 51 | 1  | 0.002      | 0.001 | 0.000     |
| 49 | 46 | 0.869      | 0.849 | 0.809     | 51 | 2  | 0.010      | 0.007 | 0.003     |
| 49 | 47 | 0.895      | 0.877 | 0.839     | 51 | 3  | 0.022      | 0.016 | 0.009     |
| 49 | 48 | 0.923      | 0.907 | 0.872     | 51 | 4  | 0.035      | 0.027 | 0.016     |
| 49 | 49 | 0.954      | 0.941 | 0.910     | 51 | 5  | 0.048      | 0.039 | 0.026     |
| 50 | 0  | 0.000      | 0.000 | 0.000     | 51 | 6  | 0.063      | 0.052 | 0.036     |
| 50 | 1  | 0.002      | 0.001 | 0.000     | 51 | 7  | 0.078      | 0.066 | 0.047     |
| 50 | 2  | 0.011      | 0.007 | 0.003     | 51 | 8  | 0.093      | 0.080 | 0.059     |
| 50 | 3  | 0.022      | 0.017 | 0.009     | 51 | 9  | 0.109      | 0.095 | 0.072     |
| 50 | 4  | 0.035      | 0.028 | 0.017     | 51 | 10 | 0.126      | 0.110 | 0.085     |
| 50 | 5  | 0.049      | 0.040 | 0.026     | 51 | 11 | 0.142      | 0.126 | 0.099     |
| 50 | 6  | 0.064      | 0.054 | 0.037     | 51 | 12 | 0.159      | 0.142 | 0.113     |
| 50 | 7  | 0.080      | 0.068 | 0.048     | 51 | 13 | 0.176      | 0.158 | 0.127     |
| 50 | 8  | 0.095      | 0.082 | 0.061     | 51 | 14 | 0.193      | 0.174 | 0.142     |
| 50 | 9  | 0.112      | 0.097 | 0.074     | 51 | 15 | 0.210      | 0.191 | 0.157     |
| 50 | 10 | 0.128      | 0.113 | 0.087     | 51 | 16 | 0.228      | 0.208 | 0.173     |
| 50 | 11 | 0.145      | 0.129 | 0.101     | 51 | 17 | 0.245      | 0.225 | 0.188     |
| 50 | 12 | 0.162      | 0.145 | 0.115     |    |    |            |       |           |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 51 | 18 | 0.263            | 0.242 | 0.204 | 52 | 22 | 0.329            | 0.306 | 0.265 |
| 51 | 19 | 0.281            | 0.259 | 0.221 | 52 | 23 | 0.347            | 0.324 | 0.282 |
|    |    |                  |       |       | 52 | 24 | 0.366            | 0.342 | 0.300 |
| 51 | 20 | 0.299            | 0.277 | 0.237 | 52 | 25 | 0.384            | 0.360 | 0.317 |
| 51 | 21 | 0.318            | 0.295 | 0.254 | 52 | 26 | 0.403            | 0.379 | 0.334 |
| 51 | 22 | 0.336            | 0.313 | 0.271 | 52 | 27 | 0.421            | 0.397 | 0.352 |
| 51 | 23 | 0.355            | 0.331 | 0.289 | 52 | 28 | 0.440            | 0.416 | 0.370 |
| 51 | 24 | 0.373            | 0.349 | 0.306 | 52 | 29 | 0.459            | 0.434 | 0.389 |
|    |    |                  |       |       | 52 | 30 | 0.478            | 0.453 | 0.407 |
| 51 | 25 | 0.392            | 0.368 | 0.324 | 52 | 31 | 0.498            | 0.473 | 0.426 |
| 51 | 26 | 0.411            | 0.387 | 0.342 | 52 | 32 | 0.517            | 0.492 | 0.445 |
| 51 | 27 | 0.430            | 0.406 | 0.360 | 52 | 33 | 0.536            | 0.511 | 0.464 |
| 51 | 28 | 0.450            | 0.425 | 0.379 | 52 | 34 | 0.556            | 0.531 | 0.484 |
| 51 | 29 | 0.469            | 0.444 | 0.397 |    |    |                  |       |       |
|    |    |                  |       |       | 52 | 35 | 0.576            | 0.551 | 0.503 |
| 51 | 30 | 0.489            | 0.463 | 0.416 | 52 | 36 | 0.596            | 0.571 | 0.523 |
| 51 | 31 | 0.508            | 0.483 | 0.436 | 52 | 37 | 0.616            | 0.591 | 0.544 |
| 51 | 32 | 0.528            | 0.503 | 0.455 | 52 | 38 | 0.636            | 0.611 | 0.564 |
| 51 | 33 | 0.548            | 0.523 | 0.475 | 52 | 39 | 0.657            | 0.632 | 0.585 |
| 51 | 34 | 0.568            | 0.543 | 0.495 |    |    |                  |       |       |
|    |    |                  |       |       | 52 | 40 | 0.677            | 0.653 | 0.606 |
| 51 | 35 | 0.588            | 0.563 | 0.515 | 52 | 41 | 0.698            | 0.674 | 0.626 |
| 51 | 36 | 0.609            | 0.584 | 0.536 | 52 | 42 | 0.719            | 0.696 | 0.650 |
| 51 | 37 | 0.630            | 0.605 | 0.557 | 52 | 43 | 0.741            | 0.717 | 0.672 |
| 51 | 38 | 0.650            | 0.626 | 0.578 | 52 | 44 | 0.762            | 0.739 | 0.695 |
| 51 | 39 | 0.671            | 0.647 | 0.599 |    |    |                  |       |       |
|    |    |                  |       |       | 52 | 45 | 0.784            | 0.762 | 0.718 |
| 51 | 40 | 0.693            | 0.668 | 0.621 | 52 | 46 | 0.806            | 0.785 | 0.742 |
| 51 | 41 | 0.714            | 0.690 | 0.644 | 52 | 47 | 0.829            | 0.808 | 0.767 |
| 51 | 42 | 0.736            | 0.712 | 0.666 | 52 | 48 | 0.852            | 0.833 | 0.793 |
| 51 | 43 | 0.758            | 0.735 | 0.689 | 52 | 49 | 0.876            | 0.858 | 0.820 |
| 51 | 44 | 0.780            | 0.758 | 0.713 |    |    |                  |       |       |
|    |    |                  |       |       | 52 | 50 | 0.901            | 0.884 | 0.848 |
| 51 | 45 | 0.803            | 0.781 | 0.738 | 52 | 51 | 0.927            | 0.912 | 0.879 |
| 51 | 46 | 0.826            | 0.805 | 0.763 | 52 | 52 | 0.957            | 0.944 | 0.915 |
| 51 | 47 | 0.849            | 0.829 | 0.789 |    |    |                  |       |       |
| 51 | 48 | 0.874            | 0.855 | 0.816 | 53 | 0  | 0.000            | 0.000 | 0.000 |
| 51 | 49 | 0.899            | 0.882 | 0.845 | 53 | 1  | 0.002            | 0.001 | 0.000 |
|    |    |                  |       |       | 53 | 2  | 0.010            | 0.007 | 0.003 |
| 51 | 50 | 0.926            | 0.910 | 0.877 | 53 | 3  | 0.021            | 0.016 | 0.008 |
| 51 | 51 | 0.956            | 0.943 | 0.914 | 53 | 4  | 0.033            | 0.026 | 0.016 |
|    |    |                  |       |       |    |    |                  |       |       |
| 52 | 0  | 0.000            | 0.000 | 0.000 | 53 | 5  | 0.047            | 0.038 | 0.025 |
| 52 | 1  | 0.002            | 0.001 | 0.000 | 53 | 6  | 0.061            | 0.050 | 0.035 |
| 52 | 2  | 0.010            | 0.007 | 0.003 | 53 | 7  | 0.075            | 0.064 | 0.046 |
| 52 | 3  | 0.021            | 0.016 | 0.009 | 53 | 8  | 0.090            | 0.077 | 0.057 |
| 52 | 4  | 0.034            | 0.027 | 0.016 | 53 | 9  | 0.106            | 0.092 | 0.069 |
|    |    |                  |       |       |    |    |                  |       |       |
| 52 | 5  | 0.047            | 0.039 | 0.025 | 53 | 10 | 0.121            | 0.106 | 0.082 |
| 52 | 6  | 0.062            | 0.051 | 0.035 | 53 | 11 | 0.136            | 0.121 | 0.095 |
| 52 | 7  | 0.076            | 0.065 | 0.046 | 53 | 12 | 0.152            | 0.136 | 0.108 |
| 52 | 8  | 0.092            | 0.079 | 0.058 | 53 | 13 | 0.169            | 0.151 | 0.122 |
| 52 | 9  | 0.107            | 0.093 | 0.071 | 53 | 14 | 0.185            | 0.167 | 0.136 |
|    |    |                  |       |       |    |    |                  |       |       |
| 52 | 10 | 0.123            | 0.108 | 0.083 | 53 | 15 | 0.202            | 0.183 | 0.151 |
| 52 | 11 | 0.139            | 0.123 | 0.097 | 53 | 16 | 0.219            | 0.199 | 0.166 |
| 52 | 12 | 0.155            | 0.139 | 0.111 | 53 | 17 | 0.236            | 0.216 | 0.181 |
| 52 | 13 | 0.172            | 0.155 | 0.125 | 53 | 18 | 0.253            | 0.232 | 0.196 |
| 52 | 14 | 0.189            | 0.171 | 0.139 | 53 | 19 | 0.270            | 0.249 | 0.212 |
|    |    |                  |       |       |    |    |                  |       |       |
| 52 | 15 | 0.206            | 0.187 | 0.154 | 53 | 20 | 0.287            | 0.266 | 0.227 |
| 52 | 16 | 0.223            | 0.203 | 0.169 | 53 | 21 | 0.305            | 0.283 | 0.244 |
| 52 | 17 | 0.240            | 0.220 | 0.184 | 53 | 22 | 0.323            | 0.300 | 0.260 |
| 52 | 18 | 0.258            | 0.237 | 0.200 | 53 | 23 | 0.340            | 0.318 | 0.276 |
| 52 | 19 | 0.275            | 0.254 | 0.216 | 53 | 24 | 0.358            | 0.335 | 0.293 |
|    |    |                  |       |       |    |    |                  |       |       |
| 52 | 20 | 0.293            | 0.271 | 0.232 |    |    |                  |       |       |
| 52 | 21 | 0.311            | 0.289 | 0.249 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | 99% | N  | K  | CONFIDENCE |       | LEVEL | 99% |
|----|----|------------|-------|-------|-----|----|----|------------|-------|-------|-----|
|    |    | 90%        | 95%   |       |     |    |    | 90%        | 95%   |       |     |
| 53 | 25 | 0.376      | 0.353 | 0.310 |     | 54 | 27 | 0.405      | 0.381 | 0.338 |     |
| 53 | 26 | 0.395      | 0.371 | 0.327 |     | 54 | 28 | 0.423      | 0.399 | 0.355 |     |
| 53 | 27 | 0.413      | 0.389 | 0.345 |     | 54 | 29 | 0.441      | 0.417 | 0.372 |     |
| 53 | 28 | 0.431      | 0.407 | 0.362 |     | 54 | 30 | 0.459      | 0.435 | 0.390 |     |
| 53 | 29 | 0.450      | 0.425 | 0.380 |     | 54 | 31 | 0.478      | 0.453 | 0.408 |     |
| 53 | 30 | 0.469      | 0.444 | 0.398 |     | 54 | 32 | 0.496      | 0.471 | 0.426 |     |
| 53 | 31 | 0.487      | 0.463 | 0.417 |     | 54 | 33 | 0.515      | 0.490 | 0.444 |     |
| 53 | 32 | 0.506      | 0.481 | 0.435 |     | 54 | 34 | 0.533      | 0.509 | 0.462 |     |
| 53 | 33 | 0.525      | 0.500 | 0.454 |     | 54 | 35 | 0.552      | 0.528 | 0.481 |     |
| 53 | 34 | 0.545      | 0.520 | 0.473 |     | 54 | 36 | 0.571      | 0.547 | 0.500 |     |
| 53 | 35 | 0.564      | 0.539 | 0.492 |     | 54 | 37 | 0.590      | 0.566 | 0.519 |     |
| 53 | 36 | 0.583      | 0.558 | 0.511 |     | 54 | 38 | 0.610      | 0.585 | 0.539 |     |
| 53 | 37 | 0.603      | 0.578 | 0.531 |     | 54 | 39 | 0.629      | 0.605 | 0.558 |     |
| 53 | 38 | 0.623      | 0.598 | 0.551 |     | 54 | 40 | 0.649      | 0.625 | 0.578 |     |
| 53 | 39 | 0.643      | 0.618 | 0.571 |     | 54 | 41 | 0.669      | 0.645 | 0.599 |     |
| 53 | 40 | 0.663      | 0.639 | 0.592 |     | 54 | 42 | 0.689      | 0.665 | 0.619 |     |
| 53 | 41 | 0.683      | 0.659 | 0.613 |     | 54 | 43 | 0.709      | 0.685 | 0.640 |     |
| 53 | 42 | 0.704      | 0.680 | 0.634 |     | 54 | 44 | 0.729      | 0.706 | 0.661 |     |
| 53 | 43 | 0.724      | 0.701 | 0.656 |     | 54 | 45 | 0.750      | 0.727 | 0.683 |     |
| 53 | 44 | 0.745      | 0.722 | 0.678 |     | 54 | 46 | 0.770      | 0.748 | 0.705 |     |
| 53 | 45 | 0.766      | 0.744 | 0.700 |     | 54 | 47 | 0.792      | 0.770 | 0.728 |     |
| 53 | 46 | 0.788      | 0.766 | 0.723 |     | 54 | 48 | 0.813      | 0.792 | 0.751 |     |
| 53 | 47 | 0.810      | 0.789 | 0.747 |     | 54 | 49 | 0.835      | 0.815 | 0.775 |     |
| 53 | 48 | 0.832      | 0.812 | 0.771 |     | 54 | 50 | 0.857      | 0.838 | 0.800 |     |
| 53 | 49 | 0.855      | 0.836 | 0.796 |     | 54 | 51 | 0.880      | 0.863 | 0.826 |     |
| 53 | 50 | 0.878      | 0.860 | 0.823 |     | 54 | 52 | 0.904      | 0.888 | 0.853 |     |
| 53 | 51 | 0.903      | 0.886 | 0.851 |     | 54 | 53 | 0.930      | 0.915 | 0.883 |     |
| 53 | 52 | 0.929      | 0.914 | 0.881 |     | 54 | 54 | 0.958      | 0.946 | 0.918 |     |
| 53 | 53 | 0.958      | 0.945 | 0.917 |     | 55 | 0  | 0.000      | 0.000 | 0.000 |     |
| 54 | 0  | 0.000      | 0.000 | 0.000 |     | 55 | 1  | 0.002      | 0.001 | 0.000 |     |
| 54 | 1  | 0.002      | 0.001 | 0.000 |     | 55 | 2  | 0.010      | 0.006 | 0.003 |     |
| 54 | 2  | 0.010      | 0.007 | 0.003 |     | 55 | 3  | 0.020      | 0.015 | 0.008 |     |
| 54 | 3  | 0.021      | 0.015 | 0.008 |     | 55 | 4  | 0.032      | 0.025 | 0.015 |     |
| 54 | 4  | 0.033      | 0.026 | 0.016 |     | 55 | 5  | 0.045      | 0.036 | 0.024 |     |
| 54 | 5  | 0.046      | 0.037 | 0.024 |     | 55 | 6  | 0.058      | 0.049 | 0.033 |     |
| 54 | 6  | 0.059      | 0.049 | 0.034 |     | 55 | 7  | 0.072      | 0.061 | 0.044 |     |
| 54 | 7  | 0.074      | 0.062 | 0.045 |     | 55 | 8  | 0.087      | 0.074 | 0.055 |     |
| 54 | 8  | 0.088      | 0.076 | 0.056 |     | 55 | 9  | 0.101      | 0.088 | 0.067 |     |
| 54 | 9  | 0.103      | 0.090 | 0.068 |     | 55 | 10 | 0.116      | 0.102 | 0.079 |     |
| 54 | 10 | 0.118      | 0.104 | 0.080 |     | 55 | 11 | 0.131      | 0.116 | 0.091 |     |
| 54 | 11 | 0.134      | 0.119 | 0.093 |     | 55 | 12 | 0.147      | 0.131 | 0.104 |     |
| 54 | 12 | 0.149      | 0.133 | 0.106 |     | 55 | 13 | 0.162      | 0.146 | 0.117 |     |
| 54 | 13 | 0.165      | 0.149 | 0.120 |     | 55 | 14 | 0.178      | 0.161 | 0.131 |     |
| 54 | 14 | 0.182      | 0.164 | 0.134 |     | 55 | 15 | 0.194      | 0.176 | 0.145 |     |
| 54 | 15 | 0.198      | 0.180 | 0.148 |     | 55 | 16 | 0.210      | 0.192 | 0.159 |     |
| 54 | 16 | 0.214      | 0.195 | 0.162 |     | 55 | 17 | 0.227      | 0.207 | 0.174 |     |
| 54 | 17 | 0.231      | 0.211 | 0.177 |     | 55 | 18 | 0.243      | 0.223 | 0.188 |     |
| 54 | 18 | 0.248      | 0.228 | 0.192 |     | 55 | 19 | 0.260      | 0.239 | 0.203 |     |
| 54 | 19 | 0.265      | 0.244 | 0.207 |     | 55 | 20 | 0.276      | 0.255 | 0.218 |     |
| 54 | 20 | 0.282      | 0.261 | 0.223 |     | 55 | 21 | 0.293      | 0.272 | 0.234 |     |
| 54 | 21 | 0.299      | 0.277 | 0.239 |     | 55 | 22 | 0.310      | 0.288 | 0.249 |     |
| 54 | 22 | 0.316      | 0.294 | 0.255 |     | 55 | 23 | 0.327      | 0.305 | 0.265 |     |
| 54 | 23 | 0.334      | 0.311 | 0.271 |     | 55 | 24 | 0.345      | 0.322 | 0.281 |     |
| 54 | 24 | 0.351      | 0.328 | 0.287 |     | 55 | 25 | 0.362      | 0.339 | 0.298 |     |
| 54 | 25 | 0.369      | 0.346 | 0.304 |     | 55 | 26 | 0.379      | 0.356 | 0.314 |     |
| 54 | 26 | 0.387      | 0.363 | 0.321 |     | 55 | 27 | 0.397      | 0.373 | 0.331 |     |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 55 | 28 | 0.414      | 0.391 | 0.347 | 56 | 27 | 0.389      | 0.366 | 0.324 |
| 55 | 29 | 0.432      | 0.408 | 0.364 | 56 | 28 | 0.407      | 0.383 | 0.340 |
|    |    |            |       |       | 56 | 29 | 0.424      | 0.400 | 0.357 |
| 55 | 30 | 0.450      | 0.426 | 0.382 | 56 | 30 | 0.441      | 0.418 | 0.374 |
| 55 | 31 | 0.468      | 0.444 | 0.399 | 56 | 31 | 0.459      | 0.435 | 0.391 |
| 55 | 32 | 0.486      | 0.462 | 0.417 | 56 | 32 | 0.477      | 0.453 | 0.408 |
| 55 | 33 | 0.504      | 0.480 | 0.435 | 56 | 33 | 0.495      | 0.470 | 0.426 |
| 55 | 34 | 0.523      | 0.498 | 0.453 | 56 | 34 | 0.513      | 0.488 | 0.443 |
|    |    |            |       |       |    |    |            |       |       |
| 55 | 35 | 0.541      | 0.517 | 0.471 | 56 | 35 | 0.531      | 0.506 | 0.461 |
| 55 | 36 | 0.560      | 0.535 | 0.489 | 56 | 36 | 0.549      | 0.525 | 0.479 |
| 55 | 37 | 0.579      | 0.554 | 0.508 | 56 | 37 | 0.567      | 0.543 | 0.497 |
| 55 | 38 | 0.598      | 0.573 | 0.527 | 56 | 38 | 0.586      | 0.561 | 0.516 |
| 55 | 39 | 0.616      | 0.592 | 0.546 | 56 | 39 | 0.604      | 0.580 | 0.534 |
|    |    |            |       |       |    |    |            |       |       |
| 55 | 40 | 0.636      | 0.612 | 0.565 | 56 | 40 | 0.623      | 0.599 | 0.553 |
| 55 | 41 | 0.655      | 0.631 | 0.585 | 56 | 41 | 0.642      | 0.618 | 0.572 |
| 55 | 42 | 0.674      | 0.651 | 0.605 | 56 | 42 | 0.661      | 0.637 | 0.592 |
| 55 | 43 | 0.694      | 0.671 | 0.625 | 56 | 43 | 0.680      | 0.656 | 0.611 |
| 55 | 44 | 0.714      | 0.691 | 0.646 | 56 | 44 | 0.699      | 0.676 | 0.631 |
|    |    |            |       |       |    |    |            |       |       |
| 55 | 45 | 0.734      | 0.711 | 0.667 | 56 | 45 | 0.719      | 0.696 | 0.652 |
| 55 | 46 | 0.754      | 0.732 | 0.688 | 56 | 46 | 0.738      | 0.716 | 0.672 |
| 55 | 47 | 0.774      | 0.753 | 0.710 | 56 | 47 | 0.758      | 0.736 | 0.693 |
| 55 | 48 | 0.795      | 0.774 | 0.732 | 56 | 48 | 0.778      | 0.757 | 0.715 |
| 55 | 49 | 0.816      | 0.796 | 0.755 | 56 | 49 | 0.799      | 0.778 | 0.737 |
|    |    |            |       |       |    |    |            |       |       |
| 55 | 50 | 0.838      | 0.818 | 0.779 | 56 | 50 | 0.819      | 0.799 | 0.759 |
| 55 | 51 | 0.860      | 0.841 | 0.803 | 56 | 51 | 0.841      | 0.821 | 0.782 |
| 55 | 52 | 0.883      | 0.865 | 0.829 | 56 | 52 | 0.862      | 0.844 | 0.806 |
| 55 | 53 | 0.906      | 0.890 | 0.856 | 56 | 53 | 0.885      | 0.867 | 0.832 |
| 55 | 54 | 0.931      | 0.917 | 0.885 | 56 | 54 | 0.908      | 0.892 | 0.858 |
|    |    |            |       |       |    |    |            |       |       |
| 55 | 55 | 0.959      | 0.947 | 0.920 | 56 | 55 | 0.932      | 0.918 | 0.887 |
|    |    |            |       |       | 56 | 56 | 0.960      | 0.948 | 0.921 |
| 56 | 0  | 0.000      | 0.000 | 0.000 |    |    |            |       |       |
| 56 | 1  | 0.002      | 0.001 | 0.000 | 57 | 0  | 0.000      | 0.000 | 0.000 |
| 56 | 2  | 0.010      | 0.006 | 0.003 | 57 | 1  | 0.002      | 0.001 | 0.000 |
| 56 | 3  | 0.020      | 0.015 | 0.008 | 57 | 2  | 0.009      | 0.006 | 0.003 |
| 56 | 4  | 0.032      | 0.025 | 0.015 | 57 | 3  | 0.020      | 0.014 | 0.008 |
|    |    |            |       |       | 57 | 4  | 0.031      | 0.024 | 0.015 |
| 56 | 5  | 0.044      | 0.036 | 0.023 |    |    |            |       |       |
| 56 | 6  | 0.057      | 0.048 | 0.033 | 57 | 5  | 0.043      | 0.035 | 0.023 |
| 56 | 7  | 0.071      | 0.060 | 0.043 | 57 | 6  | 0.056      | 0.047 | 0.032 |
| 56 | 8  | 0.085      | 0.073 | 0.054 | 57 | 7  | 0.070      | 0.059 | 0.042 |
| 56 | 9  | 0.099      | 0.086 | 0.065 | 57 | 8  | 0.083      | 0.072 | 0.053 |
|    |    |            |       |       | 57 | 9  | 0.098      | 0.085 | 0.064 |
| 56 | 10 | 0.114      | 0.100 | 0.077 |    |    |            |       |       |
| 56 | 11 | 0.129      | 0.114 | 0.089 | 57 | 10 | 0.112      | 0.098 | 0.076 |
| 56 | 12 | 0.144      | 0.129 | 0.102 | 57 | 11 | 0.127      | 0.112 | 0.088 |
| 56 | 13 | 0.159      | 0.143 | 0.115 | 57 | 12 | 0.141      | 0.126 | 0.100 |
| 56 | 14 | 0.175      | 0.158 | 0.129 | 57 | 13 | 0.156      | 0.140 | 0.113 |
|    |    |            |       |       | 57 | 14 | 0.172      | 0.155 | 0.126 |
| 56 | 15 | 0.191      | 0.173 | 0.142 |    |    |            |       |       |
| 56 | 16 | 0.206      | 0.188 | 0.156 | 57 | 15 | 0.187      | 0.170 | 0.139 |
| 56 | 17 | 0.222      | 0.203 | 0.170 | 57 | 16 | 0.203      | 0.185 | 0.153 |
| 56 | 18 | 0.239      | 0.219 | 0.185 | 57 | 17 | 0.218      | 0.200 | 0.167 |
| 56 | 19 | 0.255      | 0.235 | 0.199 | 57 | 18 | 0.234      | 0.215 | 0.181 |
|    |    |            |       |       | 57 | 19 | 0.250      | 0.230 | 0.195 |
| 56 | 20 | 0.271      | 0.251 | 0.214 |    |    |            |       |       |
| 56 | 21 | 0.288      | 0.267 | 0.229 | 57 | 20 | 0.266      | 0.246 | 0.210 |
| 56 | 22 | 0.304      | 0.283 | 0.245 | 57 | 21 | 0.282      | 0.262 | 0.225 |
| 56 | 23 | 0.321      | 0.299 | 0.260 | 57 | 22 | 0.299      | 0.278 | 0.240 |
| 56 | 24 | 0.338      | 0.316 | 0.276 | 57 | 23 | 0.315      | 0.294 | 0.255 |
|    |    |            |       |       | 57 | 24 | 0.332      | 0.310 | 0.270 |
| 56 | 25 | 0.355      | 0.332 | 0.292 |    |    |            |       |       |
| 56 | 26 | 0.372      | 0.349 | 0.308 |    |    |            |       |       |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL<br>99% | N  | K  | CONFIDENCE |       | LEVEL<br>99% |
|----|----|------------|-------|--------------|----|----|------------|-------|--------------|
|    |    | 90%        | 95%   |              |    |    | 90%        | 95%   |              |
| 57 | 25 | 0.348      | 0.326 | 0.286        | 58 | 23 | 0.309      | 0.288 | 0.250        |
| 57 | 26 | 0.365      | 0.343 | 0.302        | 58 | 24 | 0.326      | 0.304 | 0.265        |
| 57 | 27 | 0.382      | 0.359 | 0.318        | 58 | 25 | 0.342      | 0.320 | 0.280        |
| 57 | 28 | 0.399      | 0.376 | 0.334        | 58 | 26 | 0.358      | 0.336 | 0.296        |
| 57 | 29 | 0.416      | 0.393 | 0.350        | 58 | 27 | 0.375      | 0.352 | 0.311        |
| 57 | 30 | 0.433      | 0.410 | 0.366        | 58 | 28 | 0.392      | 0.369 | 0.327        |
| 57 | 31 | 0.450      | 0.427 | 0.383        | 58 | 29 | 0.408      | 0.385 | 0.343        |
| 57 | 32 | 0.468      | 0.444 | 0.400        | 58 | 30 | 0.425      | 0.402 | 0.359        |
| 57 | 33 | 0.485      | 0.461 | 0.417        | 58 | 31 | 0.442      | 0.419 | 0.376        |
| 57 | 34 | 0.503      | 0.479 | 0.434        | 58 | 32 | 0.459      | 0.436 | 0.392        |
| 57 | 35 | 0.520      | 0.496 | 0.452        | 58 | 33 | 0.476      | 0.452 | 0.409        |
| 57 | 36 | 0.538      | 0.514 | 0.469        | 58 | 34 | 0.493      | 0.470 | 0.425        |
| 57 | 37 | 0.556      | 0.532 | 0.487        | 58 | 35 | 0.511      | 0.487 | 0.442        |
| 57 | 38 | 0.574      | 0.550 | 0.505        | 58 | 36 | 0.528      | 0.504 | 0.460        |
| 57 | 39 | 0.592      | 0.568 | 0.523        | 58 | 37 | 0.546      | 0.522 | 0.477        |
| 57 | 40 | 0.611      | 0.587 | 0.541        | 58 | 38 | 0.563      | 0.539 | 0.495        |
| 57 | 41 | 0.629      | 0.605 | 0.560        | 58 | 39 | 0.581      | 0.557 | 0.512        |
| 57 | 42 | 0.648      | 0.624 | 0.579        | 58 | 40 | 0.599      | 0.575 | 0.530        |
| 57 | 43 | 0.666      | 0.643 | 0.598        | 58 | 41 | 0.617      | 0.593 | 0.548        |
| 57 | 44 | 0.685      | 0.662 | 0.617        | 58 | 42 | 0.635      | 0.612 | 0.567        |
| 57 | 45 | 0.704      | 0.681 | 0.637        | 58 | 43 | 0.653      | 0.630 | 0.585        |
| 57 | 46 | 0.723      | 0.701 | 0.657        | 58 | 44 | 0.672      | 0.649 | 0.604        |
| 57 | 47 | 0.743      | 0.721 | 0.677        | 58 | 45 | 0.690      | 0.667 | 0.623        |
| 57 | 48 | 0.762      | 0.741 | 0.698        | 58 | 46 | 0.709      | 0.686 | 0.643        |
| 57 | 49 | 0.782      | 0.761 | 0.719        | 58 | 47 | 0.728      | 0.706 | 0.662        |
| 57 | 50 | 0.802      | 0.782 | 0.741        | 58 | 48 | 0.747      | 0.725 | 0.683        |
| 57 | 51 | 0.822      | 0.803 | 0.763        | 58 | 49 | 0.766      | 0.745 | 0.703        |
| 57 | 52 | 0.843      | 0.824 | 0.786        | 58 | 50 | 0.786      | 0.765 | 0.724        |
| 57 | 53 | 0.865      | 0.847 | 0.810        | 58 | 51 | 0.805      | 0.785 | 0.745        |
| 57 | 54 | 0.887      | 0.870 | 0.834        | 58 | 52 | 0.825      | 0.806 | 0.767        |
| 57 | 55 | 0.909      | 0.894 | 0.861        | 58 | 53 | 0.846      | 0.827 | 0.789        |
| 57 | 56 | 0.933      | 0.919 | 0.889        | 58 | 54 | 0.867      | 0.849 | 0.813        |
| 57 | 57 | 0.961      | 0.949 | 0.922        | 58 | 55 | 0.888      | 0.872 | 0.837        |
| 58 | 0  | 0.000      | 0.000 | 0.000        | 58 | 56 | 0.911      | 0.895 | 0.863        |
| 58 | 1  | 0.002      | 0.001 | 0.000        | 58 | 57 | 0.935      | 0.921 | 0.891        |
| 58 | 2  | 0.009      | 0.006 | 0.003        | 58 | 58 | 0.961      | 0.950 | 0.924        |
| 58 | 3  | 0.019      | 0.014 | 0.008        | 59 | 0  | 0.000      | 0.000 | 0.000        |
| 58 | 4  | 0.031      | 0.024 | 0.014        | 59 | 1  | 0.002      | 0.001 | 0.000        |
| 58 | 5  | 0.042      | 0.034 | 0.022        | 59 | 2  | 0.009      | 0.006 | 0.003        |
| 58 | 6  | 0.055      | 0.046 | 0.032        | 59 | 3  | 0.019      | 0.014 | 0.007        |
| 58 | 7  | 0.068      | 0.058 | 0.041        | 59 | 4  | 0.030      | 0.024 | 0.014        |
| 58 | 8  | 0.082      | 0.070 | 0.052        | 59 | 5  | 0.042      | 0.034 | 0.022        |
| 58 | 9  | 0.096      | 0.083 | 0.063        | 59 | 6  | 0.054      | 0.045 | 0.031        |
| 58 | 10 | 0.110      | 0.097 | 0.074        | 59 | 7  | 0.067      | 0.057 | 0.041        |
| 58 | 11 | 0.124      | 0.110 | 0.086        | 59 | 8  | 0.081      | 0.069 | 0.051        |
| 58 | 12 | 0.139      | 0.124 | 0.098        | 59 | 9  | 0.094      | 0.082 | 0.062        |
| 58 | 13 | 0.154      | 0.138 | 0.111        | 59 | 10 | 0.108      | 0.095 | 0.073        |
| 58 | 14 | 0.169      | 0.152 | 0.124        | 59 | 11 | 0.122      | 0.108 | 0.085        |
| 58 | 15 | 0.184      | 0.167 | 0.137        | 59 | 12 | 0.136      | 0.122 | 0.097        |
| 58 | 16 | 0.199      | 0.181 | 0.150        | 59 | 13 | 0.151      | 0.135 | 0.109        |
| 58 | 17 | 0.214      | 0.196 | 0.164        | 59 | 14 | 0.166      | 0.149 | 0.122        |
| 58 | 18 | 0.230      | 0.211 | 0.178        | 59 | 15 | 0.180      | 0.164 | 0.134        |
| 58 | 19 | 0.246      | 0.226 | 0.192        | 59 | 16 | 0.195      | 0.178 | 0.148        |
| 58 | 20 | 0.261      | 0.241 | 0.206        | 59 | 17 | 0.211      | 0.192 | 0.161        |
| 58 | 21 | 0.277      | 0.257 | 0.221        | 59 | 18 | 0.226      | 0.207 | 0.175        |
| 58 | 22 | 0.293      | 0.272 | 0.235        | 59 | 19 | 0.241      | 0.222 | 0.188        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 59 | 20 | 0.257            | 0.237 | 0.202 | 60 | 17 | 0.207            | 0.189 | 0.158 |
| 59 | 21 | 0.272            | 0.252 | 0.217 | 60 | 18 | 0.222            | 0.204 | 0.171 |
| 59 | 22 | 0.288            | 0.268 | 0.231 | 60 | 19 | 0.237            | 0.218 | 0.185 |
| 59 | 23 | 0.304            | 0.283 | 0.246 |    |    |                  |       |       |
| 59 | 24 | 0.320            | 0.299 | 0.260 | 60 | 20 | 0.252            | 0.233 | 0.199 |
|    |    |                  |       |       | 60 | 21 | 0.268            | 0.248 | 0.213 |
| 59 | 25 | 0.336            | 0.314 | 0.275 | 60 | 22 | 0.283            | 0.263 | 0.227 |
| 59 | 26 | 0.352            | 0.330 | 0.290 | 60 | 23 | 0.299            | 0.278 | 0.241 |
| 59 | 27 | 0.368            | 0.346 | 0.306 | 60 | 24 | 0.314            | 0.293 | 0.256 |
| 59 | 28 | 0.384            | 0.362 | 0.321 |    |    |                  |       |       |
| 59 | 29 | 0.401            | 0.378 | 0.337 | 60 | 25 | 0.330            | 0.309 | 0.270 |
|    |    |                  |       |       | 60 | 26 | 0.346            | 0.324 | 0.285 |
| 59 | 30 | 0.417            | 0.394 | 0.352 | 60 | 27 | 0.362            | 0.340 | 0.300 |
| 59 | 31 | 0.434            | 0.411 | 0.368 | 60 | 28 | 0.378            | 0.355 | 0.315 |
| 59 | 32 | 0.451            | 0.427 | 0.384 | 60 | 29 | 0.394            | 0.371 | 0.330 |
| 59 | 33 | 0.467            | 0.444 | 0.401 |    |    |                  |       |       |
| 59 | 34 | 0.484            | 0.461 | 0.417 | 60 | 30 | 0.410            | 0.387 | 0.346 |
|    |    |                  |       |       | 60 | 31 | 0.426            | 0.403 | 0.361 |
| 59 | 35 | 0.501            | 0.478 | 0.434 | 60 | 32 | 0.443            | 0.420 | 0.377 |
| 59 | 36 | 0.518            | 0.495 | 0.451 | 60 | 33 | 0.459            | 0.436 | 0.393 |
| 59 | 37 | 0.535            | 0.512 | 0.468 | 60 | 34 | 0.476            | 0.452 | 0.409 |
| 59 | 38 | 0.553            | 0.529 | 0.485 |    |    |                  |       |       |
| 59 | 39 | 0.570            | 0.547 | 0.502 | 60 | 35 | 0.492            | 0.469 | 0.425 |
|    |    |                  |       |       | 60 | 36 | 0.509            | 0.486 | 0.442 |
| 59 | 40 | 0.588            | 0.564 | 0.519 | 60 | 37 | 0.526            | 0.502 | 0.458 |
| 59 | 41 | 0.605            | 0.582 | 0.537 | 60 | 38 | 0.543            | 0.519 | 0.475 |
| 59 | 42 | 0.623            | 0.600 | 0.555 | 60 | 39 | 0.560            | 0.536 | 0.492 |
| 59 | 43 | 0.641            | 0.618 | 0.573 |    |    |                  |       |       |
| 59 | 44 | 0.659            | 0.636 | 0.592 | 60 | 40 | 0.577            | 0.553 | 0.509 |
|    |    |                  |       |       | 60 | 41 | 0.594            | 0.571 | 0.526 |
| 59 | 45 | 0.677            | 0.654 | 0.610 | 60 | 42 | 0.611            | 0.588 | 0.544 |
| 59 | 46 | 0.695            | 0.673 | 0.629 | 60 | 43 | 0.629            | 0.606 | 0.562 |
| 59 | 47 | 0.714            | 0.691 | 0.648 | 60 | 44 | 0.646            | 0.624 | 0.580 |
| 59 | 48 | 0.732            | 0.710 | 0.668 |    |    |                  |       |       |
| 59 | 49 | 0.751            | 0.729 | 0.687 | 60 | 45 | 0.664            | 0.641 | 0.598 |
|    |    |                  |       |       | 60 | 46 | 0.682            | 0.659 | 0.616 |
| 59 | 50 | 0.770            | 0.749 | 0.707 | 60 | 47 | 0.700            | 0.678 | 0.635 |
| 59 | 51 | 0.789            | 0.769 | 0.728 | 60 | 48 | 0.718            | 0.696 | 0.654 |
| 59 | 52 | 0.808            | 0.789 | 0.749 | 60 | 49 | 0.736            | 0.715 | 0.673 |
| 59 | 53 | 0.828            | 0.809 | 0.770 |    |    |                  |       |       |
| 59 | 54 | 0.848            | 0.830 | 0.793 | 60 | 50 | 0.755            | 0.734 | 0.692 |
|    |    |                  |       |       | 60 | 51 | 0.774            | 0.753 | 0.712 |
| 59 | 55 | 0.869            | 0.852 | 0.816 | 60 | 52 | 0.792            | 0.772 | 0.732 |
| 59 | 56 | 0.890            | 0.874 | 0.840 | 60 | 53 | 0.812            | 0.792 | 0.753 |
| 59 | 57 | 0.912            | 0.897 | 0.865 | 60 | 54 | 0.831            | 0.812 | 0.774 |
| 59 | 58 | 0.936            | 0.922 | 0.893 |    |    |                  |       |       |
| 59 | 59 | 0.962            | 0.951 | 0.925 | 60 | 55 | 0.851            | 0.833 | 0.796 |
|    |    |                  |       |       | 60 | 56 | 0.871            | 0.854 | 0.819 |
| 60 | 0  | 0.000            | 0.000 | 0.000 | 60 | 57 | 0.892            | 0.876 | 0.842 |
| 60 | 1  | 0.002            | 0.001 | 0.000 | 60 | 58 | 0.914            | 0.899 | 0.867 |
| 60 | 2  | 0.009            | 0.006 | 0.002 | 60 | 59 | 0.937            | 0.923 | 0.894 |
| 60 | 3  | 0.019            | 0.014 | 0.007 |    |    |                  |       |       |
| 60 | 4  | 0.029            | 0.023 | 0.014 | 60 | 60 | 0.962            | 0.951 | 0.926 |
|    |    |                  |       |       |    |    |                  |       |       |
| 60 | 5  | 0.041            | 0.033 | 0.022 | 61 | 0  | 0.000            | 0.000 | 0.000 |
| 60 | 6  | 0.053            | 0.044 | 0.030 | 61 | 1  | 0.002            | 0.001 | 0.000 |
| 60 | 7  | 0.066            | 0.056 | 0.040 | 61 | 2  | 0.009            | 0.006 | 0.002 |
| 60 | 8  | 0.079            | 0.068 | 0.050 | 61 | 3  | 0.018            | 0.014 | 0.007 |
| 60 | 9  | 0.093            | 0.080 | 0.061 | 61 | 4  | 0.029            | 0.023 | 0.014 |
|    |    |                  |       |       |    |    |                  |       |       |
| 60 | 10 | 0.106            | 0.093 | 0.072 | 61 | 5  | 0.040            | 0.033 | 0.021 |
| 60 | 11 | 0.120            | 0.106 | 0.083 | 61 | 6  | 0.052            | 0.044 | 0.030 |
| 60 | 12 | 0.134            | 0.120 | 0.095 | 61 | 7  | 0.065            | 0.055 | 0.039 |
| 60 | 13 | 0.148            | 0.133 | 0.107 | 61 | 8  | 0.078            | 0.067 | 0.049 |
| 60 | 14 | 0.163            | 0.147 | 0.119 | 61 | 9  | 0.091            | 0.079 | 0.060 |
|    |    |                  |       |       |    |    |                  |       |       |
| 60 | 15 | 0.177            | 0.161 | 0.132 | 61 | 10 | 0.104            | 0.092 | 0.071 |
| 60 | 16 | 0.192            | 0.175 | 0.145 | 61 | 11 | 0.118            | 0.105 | 0.082 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% | N  | K  | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% |
|----|----|-------------------|-------------------|--------------|----|----|-------------------|-------------------|--------------|
| 61 | 12 | 0.132             | 0.118             | 0.093        | 62 | 7  | 0.064             | 0.054             | 0.039        |
| 61 | 13 | 0.146             | 0.131             | 0.105        | 62 | 8  | 0.077             | 0.066             | 0.048        |
| 61 | 14 | 0.160             | 0.144             | 0.117        | 62 | 9  | 0.089             | 0.078             | 0.059        |
| 61 | 15 | 0.174             | 0.158             | 0.130        | 62 | 10 | 0.103             | 0.090             | 0.069        |
| 61 | 16 | 0.189             | 0.172             | 0.142        | 62 | 11 | 0.116             | 0.103             | 0.080        |
| 61 | 17 | 0.203             | 0.186             | 0.155        | 62 | 12 | 0.130             | 0.116             | 0.092        |
| 61 | 18 | 0.218             | 0.200             | 0.168        | 62 | 13 | 0.143             | 0.129             | 0.103        |
| 61 | 19 | 0.233             | 0.214             | 0.182        | 62 | 14 | 0.157             | 0.142             | 0.115        |
| 61 | 20 | 0.248             | 0.229             | 0.195        | 62 | 15 | 0.171             | 0.155             | 0.128        |
| 61 | 21 | 0.263             | 0.243             | 0.209        | 62 | 16 | 0.186             | 0.169             | 0.140        |
| 61 | 22 | 0.278             | 0.258             | 0.223        | 62 | 17 | 0.200             | 0.183             | 0.153        |
| 61 | 23 | 0.293             | 0.273             | 0.237        | 62 | 18 | 0.214             | 0.197             | 0.165        |
| 61 | 24 | 0.309             | 0.288             | 0.251        | 62 | 19 | 0.229             | 0.211             | 0.179        |
| 61 | 25 | 0.324             | 0.303             | 0.265        | 62 | 20 | 0.244             | 0.225             | 0.192        |
| 61 | 26 | 0.340             | 0.318             | 0.280        | 62 | 21 | 0.259             | 0.239             | 0.205        |
| 61 | 27 | 0.355             | 0.334             | 0.294        | 62 | 22 | 0.273             | 0.254             | 0.219        |
| 61 | 28 | 0.371             | 0.349             | 0.309        | 62 | 23 | 0.288             | 0.268             | 0.233        |
| 61 | 29 | 0.387             | 0.365             | 0.324        | 62 | 24 | 0.303             | 0.283             | 0.246        |
| 61 | 30 | 0.403             | 0.380             | 0.339        | 62 | 25 | 0.319             | 0.298             | 0.261        |
| 61 | 31 | 0.419             | 0.396             | 0.355        | 62 | 26 | 0.334             | 0.313             | 0.275        |
| 61 | 32 | 0.435             | 0.412             | 0.370        | 62 | 27 | 0.349             | 0.328             | 0.289        |
| 61 | 33 | 0.451             | 0.428             | 0.386        | 62 | 28 | 0.365             | 0.343             | 0.304        |
| 61 | 34 | 0.467             | 0.444             | 0.402        | 62 | 29 | 0.380             | 0.358             | 0.318        |
| 61 | 35 | 0.483             | 0.460             | 0.417        | 62 | 30 | 0.396             | 0.374             | 0.333        |
| 61 | 36 | 0.500             | 0.477             | 0.434        | 62 | 31 | 0.411             | 0.389             | 0.348        |
| 61 | 37 | 0.516             | 0.493             | 0.450        | 62 | 32 | 0.427             | 0.405             | 0.363        |
| 61 | 38 | 0.533             | 0.510             | 0.466        | 62 | 33 | 0.443             | 0.420             | 0.379        |
| 61 | 39 | 0.550             | 0.526             | 0.483        | 62 | 34 | 0.459             | 0.436             | 0.394        |
| 61 | 40 | 0.566             | 0.543             | 0.499        | 62 | 35 | 0.475             | 0.452             | 0.410        |
| 61 | 41 | 0.583             | 0.560             | 0.516        | 62 | 36 | 0.491             | 0.468             | 0.425        |
| 61 | 42 | 0.600             | 0.577             | 0.533        | 62 | 37 | 0.507             | 0.484             | 0.441        |
| 61 | 43 | 0.617             | 0.594             | 0.551        | 62 | 38 | 0.524             | 0.500             | 0.457        |
| 61 | 44 | 0.635             | 0.612             | 0.568        | 62 | 39 | 0.540             | 0.517             | 0.474        |
| 61 | 45 | 0.652             | 0.629             | 0.586        | 62 | 40 | 0.556             | 0.533             | 0.490        |
| 61 | 46 | 0.669             | 0.647             | 0.604        | 62 | 41 | 0.573             | 0.550             | 0.506        |
| 61 | 47 | 0.687             | 0.665             | 0.622        | 62 | 42 | 0.590             | 0.567             | 0.523        |
| 61 | 48 | 0.705             | 0.683             | 0.640        | 62 | 43 | 0.606             | 0.583             | 0.540        |
| 61 | 49 | 0.722             | 0.701             | 0.659        | 62 | 44 | 0.623             | 0.600             | 0.557        |
| 61 | 50 | 0.740             | 0.719             | 0.678        | 62 | 45 | 0.640             | 0.618             | 0.574        |
| 61 | 51 | 0.759             | 0.738             | 0.697        | 62 | 46 | 0.657             | 0.635             | 0.592        |
| 61 | 52 | 0.777             | 0.757             | 0.716        | 62 | 47 | 0.674             | 0.652             | 0.609        |
| 61 | 53 | 0.796             | 0.776             | 0.736        | 62 | 48 | 0.692             | 0.670             | 0.627        |
| 61 | 54 | 0.815             | 0.795             | 0.757        | 62 | 49 | 0.709             | 0.687             | 0.645        |
| 61 | 55 | 0.834             | 0.815             | 0.777        | 62 | 50 | 0.727             | 0.705             | 0.664        |
| 61 | 56 | 0.853             | 0.835             | 0.799        | 62 | 51 | 0.744             | 0.723             | 0.682        |
| 61 | 57 | 0.873             | 0.856             | 0.821        | 62 | 52 | 0.762             | 0.742             | 0.701        |
| 61 | 58 | 0.894             | 0.878             | 0.845        | 62 | 53 | 0.780             | 0.760             | 0.720        |
| 61 | 59 | 0.915             | 0.900             | 0.869        | 62 | 54 | 0.799             | 0.779             | 0.740        |
| 61 | 60 | 0.938             | 0.925             | 0.896        | 62 | 55 | 0.817             | 0.798             | 0.760        |
| 61 | 61 | 0.963             | 0.952             | 0.927        | 62 | 56 | 0.836             | 0.818             | 0.781        |
| 62 | 0  | 0.000             | 0.000             | 0.000        | 62 | 57 | 0.855             | 0.838             | 0.802        |
| 62 | 1  | 0.002             | 0.001             | 0.000        | 62 | 58 | 0.875             | 0.858             | 0.824        |
| 62 | 2  | 0.009             | 0.006             | 0.002        | 62 | 59 | 0.895             | 0.880             | 0.847        |
| 62 | 3  | 0.018             | 0.013             | 0.007        | 62 | 60 | 0.916             | 0.902             | 0.871        |
| 62 | 4  | 0.029             | 0.022             | 0.014        | 62 | 61 | 0.939             | 0.926             | 0.898        |
| 62 | 5  | 0.040             | 0.032             | 0.021        | 62 | 62 | 0.964             | 0.953             | 0.928        |
| 62 | 6  | 0.052             | 0.043             | 0.029        | 63 | 0  | 0.000             | 0.000             | 0.000        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 63 | 1  | 0.002            | 0.001 | 0.000 | 63 | 56 | 0.820            | 0.801 | 0.764 |
| 63 | 2  | 0.008            | 0.006 | 0.002 | 63 | 57 | 0.839            | 0.821 | 0.784 |
| 63 | 3  | 0.018            | 0.013 | 0.007 | 63 | 58 | 0.858            | 0.840 | 0.805 |
| 63 | 4  | 0.028            | 0.022 | 0.013 | 63 | 59 | 0.877            | 0.861 | 0.827 |
| 63 | 5  | 0.039            | 0.032 | 0.021 | 63 | 60 | 0.897            | 0.882 | 0.849 |
| 63 | 6  | 0.051            | 0.042 | 0.029 | 63 | 61 | 0.918            | 0.903 | 0.873 |
| 63 | 7  | 0.063            | 0.053 | 0.038 | 63 | 62 | 0.940            | 0.927 | 0.899 |
| 63 | 8  | 0.075            | 0.065 | 0.048 | 63 | 63 | 0.964            | 0.954 | 0.930 |
| 63 | 9  | 0.088            | 0.077 | 0.058 |    |    |                  |       |       |
| 63 | 10 | 0.101            | 0.089 | 0.068 | 64 | 0  | 0.000            | 0.000 | 0.000 |
| 63 | 11 | 0.114            | 0.101 | 0.079 | 64 | 1  | 0.002            | 0.001 | 0.000 |
| 63 | 12 | 0.128            | 0.114 | 0.090 | 64 | 2  | 0.008            | 0.006 | 0.002 |
| 63 | 13 | 0.141            | 0.127 | 0.102 | 64 | 3  | 0.017            | 0.013 | 0.007 |
| 63 | 14 | 0.155            | 0.139 | 0.113 | 64 | 4  | 0.028            | 0.022 | 0.013 |
| 63 | 15 | 0.169            | 0.153 | 0.125 | 64 | 5  | 0.038            | 0.031 | 0.020 |
| 63 | 16 | 0.183            | 0.166 | 0.138 | 64 | 6  | 0.050            | 0.042 | 0.028 |
| 63 | 17 | 0.197            | 0.180 | 0.150 | 64 | 7  | 0.062            | 0.052 | 0.037 |
| 63 | 18 | 0.211            | 0.193 | 0.163 | 64 | 8  | 0.074            | 0.064 | 0.047 |
| 63 | 19 | 0.225            | 0.207 | 0.175 | 64 | 9  | 0.087            | 0.075 | 0.057 |
| 63 | 20 | 0.240            | 0.221 | 0.188 | 64 | 10 | 0.099            | 0.087 | 0.067 |
| 63 | 21 | 0.254            | 0.235 | 0.202 | 64 | 11 | 0.112            | 0.099 | 0.078 |
| 63 | 22 | 0.269            | 0.249 | 0.215 | 64 | 12 | 0.126            | 0.112 | 0.089 |
| 63 | 23 | 0.284            | 0.264 | 0.229 | 64 | 13 | 0.139            | 0.124 | 0.100 |
| 63 | 24 | 0.298            | 0.278 | 0.242 | 64 | 14 | 0.152            | 0.137 | 0.112 |
| 63 | 25 | 0.313            | 0.293 | 0.256 | 64 | 15 | 0.166            | 0.150 | 0.123 |
| 63 | 26 | 0.328            | 0.308 | 0.270 | 64 | 16 | 0.180            | 0.163 | 0.135 |
| 63 | 27 | 0.343            | 0.322 | 0.284 | 64 | 17 | 0.194            | 0.177 | 0.147 |
| 63 | 28 | 0.359            | 0.337 | 0.298 | 64 | 18 | 0.207            | 0.190 | 0.160 |
| 63 | 29 | 0.374            | 0.352 | 0.313 | 64 | 19 | 0.222            | 0.204 | 0.173 |
| 63 | 30 | 0.389            | 0.367 | 0.327 | 64 | 20 | 0.236            | 0.218 | 0.185 |
| 63 | 31 | 0.404            | 0.382 | 0.342 | 64 | 21 | 0.250            | 0.231 | 0.198 |
| 63 | 32 | 0.420            | 0.398 | 0.357 | 64 | 22 | 0.264            | 0.245 | 0.211 |
| 63 | 33 | 0.436            | 0.413 | 0.372 | 64 | 23 | 0.279            | 0.259 | 0.225 |
| 63 | 34 | 0.451            | 0.429 | 0.387 | 64 | 24 | 0.293            | 0.274 | 0.238 |
| 63 | 35 | 0.467            | 0.444 | 0.402 | 64 | 25 | 0.308            | 0.288 | 0.252 |
| 63 | 36 | 0.483            | 0.460 | 0.418 | 64 | 26 | 0.323            | 0.302 | 0.265 |
| 63 | 37 | 0.499            | 0.476 | 0.433 | 64 | 27 | 0.338            | 0.317 | 0.279 |
| 63 | 38 | 0.515            | 0.492 | 0.449 | 64 | 28 | 0.353            | 0.331 | 0.293 |
| 63 | 39 | 0.531            | 0.508 | 0.465 | 64 | 29 | 0.368            | 0.346 | 0.307 |
| 63 | 40 | 0.547            | 0.524 | 0.481 | 64 | 30 | 0.383            | 0.361 | 0.322 |
| 63 | 41 | 0.563            | 0.540 | 0.497 | 64 | 31 | 0.398            | 0.376 | 0.336 |
| 63 | 42 | 0.579            | 0.556 | 0.513 | 64 | 32 | 0.413            | 0.391 | 0.351 |
| 63 | 43 | 0.596            | 0.573 | 0.530 | 64 | 33 | 0.428            | 0.406 | 0.365 |
| 63 | 44 | 0.612            | 0.589 | 0.546 | 64 | 34 | 0.444            | 0.421 | 0.380 |
| 63 | 45 | 0.629            | 0.606 | 0.563 | 64 | 35 | 0.459            | 0.437 | 0.395 |
| 63 | 46 | 0.646            | 0.623 | 0.580 | 64 | 36 | 0.475            | 0.452 | 0.410 |
| 63 | 47 | 0.662            | 0.640 | 0.598 | 64 | 37 | 0.490            | 0.468 | 0.426 |
| 63 | 48 | 0.679            | 0.657 | 0.615 | 64 | 38 | 0.506            | 0.483 | 0.441 |
| 63 | 49 | 0.696            | 0.675 | 0.633 | 64 | 39 | 0.522            | 0.499 | 0.456 |
| 63 | 50 | 0.714            | 0.692 | 0.650 | 64 | 40 | 0.537            | 0.515 | 0.472 |
| 63 | 51 | 0.731            | 0.710 | 0.668 | 64 | 41 | 0.553            | 0.531 | 0.488 |
| 63 | 52 | 0.748            | 0.728 | 0.687 | 64 | 42 | 0.569            | 0.547 | 0.504 |
| 63 | 53 | 0.766            | 0.746 | 0.706 | 64 | 43 | 0.585            | 0.563 | 0.520 |
| 63 | 54 | 0.784            | 0.764 | 0.725 | 64 | 44 | 0.602            | 0.579 | 0.536 |
| 63 | 55 | 0.802            | 0.782 | 0.744 | 64 | 45 | 0.618            | 0.595 | 0.553 |
|    |    |                  |       |       | 64 | 46 | 0.634            | 0.612 | 0.569 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 64 | 47 | 0.651      | 0.629 | 0.586 | 65 | 38 | 0.497      | 0.475 | 0.433 |
| 64 | 48 | 0.667      | 0.645 | 0.603 | 65 | 39 | 0.513      | 0.490 | 0.448 |
| 64 | 49 | 0.684      | 0.662 | 0.620 | 65 | 40 | 0.528      | 0.506 | 0.464 |
| 64 | 50 | 0.701      | 0.679 | 0.638 | 65 | 41 | 0.544      | 0.521 | 0.479 |
| 64 | 51 | 0.718      | 0.697 | 0.655 | 65 | 42 | 0.560      | 0.537 | 0.495 |
| 64 | 52 | 0.735      | 0.714 | 0.673 | 65 | 43 | 0.575      | 0.553 | 0.511 |
| 64 | 53 | 0.752      | 0.732 | 0.691 | 65 | 44 | 0.591      | 0.569 | 0.526 |
| 64 | 54 | 0.769      | 0.749 | 0.710 | 65 | 45 | 0.607      | 0.585 | 0.543 |
| 64 | 55 | 0.787      | 0.767 | 0.729 | 65 | 46 | 0.623      | 0.601 | 0.559 |
| 64 | 56 | 0.805      | 0.786 | 0.748 | 65 | 47 | 0.640      | 0.617 | 0.575 |
| 64 | 57 | 0.823      | 0.804 | 0.767 | 65 | 48 | 0.656      | 0.634 | 0.592 |
| 64 | 58 | 0.841      | 0.823 | 0.787 | 65 | 49 | 0.672      | 0.650 | 0.609 |
| 64 | 59 | 0.860      | 0.843 | 0.808 | 65 | 50 | 0.689      | 0.667 | 0.626 |
| 64 | 60 | 0.879      | 0.863 | 0.829 | 65 | 51 | 0.705      | 0.684 | 0.643 |
| 64 | 61 | 0.899      | 0.883 | 0.851 | 65 | 52 | 0.722      | 0.701 | 0.660 |
| 64 | 62 | 0.919      | 0.905 | 0.875 | 65 | 53 | 0.739      | 0.718 | 0.678 |
| 64 | 63 | 0.941      | 0.928 | 0.901 | 65 | 54 | 0.756      | 0.735 | 0.696 |
| 64 | 64 | 0.965      | 0.954 | 0.931 | 65 | 55 | 0.773      | 0.753 | 0.714 |
| 65 | 0  | 0.000      | 0.000 | 0.000 | 65 | 56 | 0.790      | 0.771 | 0.732 |
| 65 | 1  | 0.002      | 0.001 | 0.000 | 65 | 57 | 0.808      | 0.789 | 0.751 |
| 65 | 2  | 0.008      | 0.005 | 0.002 | 65 | 58 | 0.825      | 0.807 | 0.770 |
| 65 | 3  | 0.017      | 0.013 | 0.007 | 65 | 59 | 0.844      | 0.826 | 0.790 |
| 65 | 4  | 0.027      | 0.021 | 0.013 | 65 | 60 | 0.862      | 0.845 | 0.811 |
| 65 | 5  | 0.038      | 0.031 | 0.020 | 65 | 61 | 0.881      | 0.865 | 0.832 |
| 65 | 6  | 0.049      | 0.041 | 0.028 | 65 | 62 | 0.900      | 0.885 | 0.854 |
| 65 | 7  | 0.061      | 0.052 | 0.037 | 65 | 63 | 0.920      | 0.906 | 0.877 |
| 65 | 8  | 0.073      | 0.063 | 0.046 | 65 | 64 | 0.942      | 0.929 | 0.902 |
| 65 | 9  | 0.085      | 0.074 | 0.056 | 65 | 65 | 0.965      | 0.955 | 0.932 |
| 65 | 10 | 0.098      | 0.086 | 0.066 | 66 | 0  | 0.000      | 0.000 | 0.000 |
| 65 | 11 | 0.111      | 0.098 | 0.077 | 66 | 1  | 0.002      | 0.001 | 0.000 |
| 65 | 12 | 0.124      | 0.110 | 0.087 | 66 | 2  | 0.008      | 0.005 | 0.002 |
| 65 | 13 | 0.137      | 0.123 | 0.098 | 66 | 3  | 0.017      | 0.013 | 0.007 |
| 65 | 14 | 0.150      | 0.135 | 0.110 | 66 | 4  | 0.027      | 0.021 | 0.013 |
| 65 | 15 | 0.163      | 0.148 | 0.121 | 66 | 5  | 0.037      | 0.030 | 0.020 |
| 65 | 16 | 0.177      | 0.161 | 0.133 | 66 | 6  | 0.048      | 0.040 | 0.028 |
| 65 | 17 | 0.190      | 0.174 | 0.145 | 66 | 7  | 0.060      | 0.051 | 0.036 |
| 65 | 18 | 0.204      | 0.187 | 0.157 | 66 | 8  | 0.072      | 0.062 | 0.045 |
| 65 | 19 | 0.218      | 0.200 | 0.170 | 66 | 9  | 0.084      | 0.073 | 0.055 |
| 65 | 20 | 0.232      | 0.214 | 0.182 | 66 | 10 | 0.096      | 0.085 | 0.065 |
| 65 | 21 | 0.246      | 0.228 | 0.195 | 66 | 11 | 0.109      | 0.096 | 0.075 |
| 65 | 22 | 0.260      | 0.241 | 0.208 | 66 | 12 | 0.122      | 0.108 | 0.086 |
| 65 | 23 | 0.274      | 0.255 | 0.221 | 66 | 13 | 0.134      | 0.121 | 0.097 |
| 65 | 24 | 0.289      | 0.269 | 0.234 | 66 | 14 | 0.147      | 0.133 | 0.108 |
| 65 | 25 | 0.303      | 0.283 | 0.247 | 66 | 15 | 0.161      | 0.145 | 0.119 |
| 65 | 26 | 0.318      | 0.297 | 0.261 | 66 | 16 | 0.174      | 0.158 | 0.131 |
| 65 | 27 | 0.332      | 0.312 | 0.275 | 66 | 17 | 0.187      | 0.171 | 0.143 |
| 65 | 28 | 0.347      | 0.326 | 0.288 | 66 | 18 | 0.201      | 0.184 | 0.155 |
| 65 | 29 | 0.362      | 0.340 | 0.302 | 66 | 19 | 0.215      | 0.197 | 0.167 |
| 65 | 30 | 0.376      | 0.355 | 0.316 | 66 | 20 | 0.228      | 0.211 | 0.179 |
| 65 | 31 | 0.391      | 0.370 | 0.330 | 66 | 21 | 0.242      | 0.224 | 0.192 |
| 65 | 32 | 0.406      | 0.384 | 0.345 | 66 | 22 | 0.256      | 0.237 | 0.204 |
| 65 | 33 | 0.421      | 0.399 | 0.359 | 66 | 23 | 0.270      | 0.251 | 0.217 |
| 65 | 34 | 0.436      | 0.414 | 0.374 | 66 | 24 | 0.284      | 0.265 | 0.230 |
| 65 | 35 | 0.451      | 0.429 | 0.388 | 66 | 25 | 0.298      | 0.279 | 0.243 |
| 65 | 36 | 0.467      | 0.444 | 0.403 | 66 | 26 | 0.313      | 0.293 | 0.257 |
| 65 | 37 | 0.482      | 0.460 | 0.418 |    |    |            |       |       |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 66 | 27 | 0.327      | 0.307 | 0.270 | 67 | 17 | 0.185      | 0.168 | 0.140 |
| 66 | 28 | 0.341      | 0.321 | 0.283 | 67 | 18 | 0.198      | 0.181 | 0.152 |
| 66 | 29 | 0.356      | 0.335 | 0.297 | 67 | 19 | 0.211      | 0.194 | 0.164 |
| 66 | 30 | 0.370      | 0.349 | 0.311 | 67 | 20 | 0.225      | 0.207 | 0.176 |
| 66 | 31 | 0.385      | 0.364 | 0.325 | 67 | 21 | 0.238      | 0.220 | 0.189 |
| 66 | 32 | 0.400      | 0.378 | 0.339 | 67 | 22 | 0.252      | 0.234 | 0.201 |
| 66 | 33 | 0.414      | 0.393 | 0.353 | 67 | 23 | 0.266      | 0.247 | 0.214 |
| 66 | 34 | 0.429      | 0.407 | 0.367 | 67 | 24 | 0.280      | 0.261 | 0.226 |
| 66 | 35 | 0.444      | 0.422 | 0.382 | 67 | 25 | 0.294      | 0.274 | 0.239 |
| 66 | 36 | 0.459      | 0.437 | 0.396 | 67 | 26 | 0.308      | 0.288 | 0.252 |
| 66 | 37 | 0.474      | 0.452 | 0.411 | 67 | 27 | 0.322      | 0.302 | 0.266 |
| 66 | 38 | 0.489      | 0.467 | 0.426 | 67 | 28 | 0.336      | 0.316 | 0.279 |
| 66 | 39 | 0.504      | 0.482 | 0.440 | 67 | 29 | 0.350      | 0.330 | 0.292 |
| 66 | 40 | 0.520      | 0.497 | 0.456 | 67 | 30 | 0.364      | 0.344 | 0.306 |
| 66 | 41 | 0.535      | 0.513 | 0.471 | 67 | 31 | 0.379      | 0.358 | 0.319 |
| 66 | 42 | 0.550      | 0.528 | 0.486 | 67 | 32 | 0.393      | 0.372 | 0.333 |
| 66 | 43 | 0.566      | 0.544 | 0.501 | 67 | 33 | 0.408      | 0.386 | 0.347 |
| 66 | 44 | 0.581      | 0.559 | 0.517 | 67 | 34 | 0.422      | 0.401 | 0.361 |
| 66 | 45 | 0.597      | 0.575 | 0.533 | 67 | 35 | 0.437      | 0.415 | 0.375 |
| 66 | 46 | 0.613      | 0.591 | 0.549 | 67 | 36 | 0.452      | 0.430 | 0.389 |
| 66 | 47 | 0.629      | 0.607 | 0.565 | 67 | 37 | 0.466      | 0.445 | 0.404 |
| 66 | 48 | 0.645      | 0.623 | 0.581 | 67 | 38 | 0.481      | 0.459 | 0.418 |
| 66 | 49 | 0.661      | 0.639 | 0.597 | 67 | 39 | 0.496      | 0.474 | 0.433 |
| 66 | 50 | 0.677      | 0.655 | 0.614 | 67 | 40 | 0.511      | 0.489 | 0.448 |
| 66 | 51 | 0.693      | 0.672 | 0.631 | 67 | 41 | 0.526      | 0.504 | 0.463 |
| 66 | 52 | 0.709      | 0.688 | 0.648 | 67 | 42 | 0.541      | 0.519 | 0.478 |
| 66 | 53 | 0.726      | 0.705 | 0.665 | 67 | 43 | 0.557      | 0.534 | 0.493 |
| 66 | 54 | 0.742      | 0.722 | 0.682 | 67 | 44 | 0.572      | 0.550 | 0.508 |
| 66 | 55 | 0.759      | 0.739 | 0.700 | 67 | 45 | 0.587      | 0.565 | 0.523 |
| 66 | 56 | 0.776      | 0.757 | 0.718 | 67 | 46 | 0.603      | 0.581 | 0.539 |
| 66 | 57 | 0.793      | 0.774 | 0.736 | 67 | 47 | 0.618      | 0.596 | 0.555 |
| 66 | 58 | 0.811      | 0.792 | 0.755 | 67 | 48 | 0.634      | 0.612 | 0.570 |
| 66 | 59 | 0.828      | 0.810 | 0.774 | 67 | 49 | 0.650      | 0.628 | 0.587 |
| 66 | 60 | 0.846      | 0.828 | 0.793 | 67 | 50 | 0.666      | 0.644 | 0.603 |
| 66 | 61 | 0.864      | 0.847 | 0.813 | 67 | 51 | 0.681      | 0.660 | 0.619 |
| 66 | 62 | 0.883      | 0.867 | 0.834 | 67 | 52 | 0.697      | 0.676 | 0.636 |
| 66 | 63 | 0.902      | 0.887 | 0.856 | 67 | 53 | 0.714      | 0.693 | 0.652 |
| 66 | 64 | 0.921      | 0.908 | 0.879 | 67 | 54 | 0.730      | 0.709 | 0.669 |
| 66 | 65 | 0.942      | 0.930 | 0.904 | 67 | 55 | 0.746      | 0.726 | 0.687 |
| 66 | 66 | 0.966      | 0.956 | 0.933 | 67 | 56 | 0.763      | 0.743 | 0.704 |
| 67 | 0  | 0.000      | 0.000 | 0.000 | 67 | 57 | 0.779      | 0.760 | 0.722 |
| 67 | 1  | 0.002      | 0.001 | 0.000 | 67 | 58 | 0.796      | 0.777 | 0.740 |
| 67 | 2  | 0.008      | 0.005 | 0.002 | 67 | 59 | 0.813      | 0.795 | 0.758 |
| 67 | 3  | 0.017      | 0.012 | 0.007 | 67 | 60 | 0.831      | 0.813 | 0.777 |
| 67 | 4  | 0.026      | 0.021 | 0.012 | 67 | 61 | 0.848      | 0.831 | 0.796 |
| 67 | 5  | 0.037      | 0.030 | 0.019 | 67 | 62 | 0.866      | 0.849 | 0.816 |
| 67 | 6  | 0.048      | 0.040 | 0.027 | 67 | 63 | 0.884      | 0.869 | 0.836 |
| 67 | 7  | 0.059      | 0.050 | 0.036 | 67 | 64 | 0.903      | 0.888 | 0.858 |
| 67 | 8  | 0.071      | 0.061 | 0.045 | 67 | 65 | 0.923      | 0.909 | 0.880 |
| 67 | 9  | 0.083      | 0.072 | 0.054 | 67 | 66 | 0.943      | 0.931 | 0.905 |
| 67 | 10 | 0.095      | 0.083 | 0.064 | 67 | 67 | 0.966      | 0.956 | 0.934 |
| 67 | 11 | 0.107      | 0.095 | 0.074 | 68 | 0  | 0.000      | 0.000 | 0.000 |
| 67 | 12 | 0.120      | 0.107 | 0.085 | 68 | 1  | 0.002      | 0.001 | 0.000 |
| 67 | 13 | 0.132      | 0.119 | 0.095 | 68 | 2  | 0.008      | 0.005 | 0.002 |
| 67 | 14 | 0.145      | 0.131 | 0.106 | 68 | 3  | 0.016      | 0.012 | 0.006 |
| 67 | 15 | 0.158      | 0.143 | 0.118 | 68 | 4  | 0.026      | 0.020 | 0.012 |
| 67 | 16 | 0.171      | 0.156 | 0.129 | 68 | 5  | 0.036      | 0.029 | 0.019 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 68 | 6  | 0.047      | 0.039 | 0.027 | 68 | 61 | 0.833      | 0.815 | 0.780 |
| 68 | 7  | 0.058      | 0.049 | 0.035 | 68 | 62 | 0.850      | 0.833 | 0.799 |
| 68 | 8  | 0.070      | 0.060 | 0.044 | 68 | 63 | 0.868      | 0.852 | 0.818 |
| 68 | 9  | 0.081      | 0.071 | 0.053 | 68 | 64 | 0.886      | 0.870 | 0.839 |
| 68 | 10 | 0.093      | 0.082 | 0.063 | 68 | 65 | 0.904      | 0.890 | 0.860 |
| 68 | 11 | 0.106      | 0.093 | 0.073 | 68 | 66 | 0.924      | 0.910 | 0.882 |
| 68 | 12 | 0.118      | 0.105 | 0.083 | 68 | 67 | 0.944      | 0.932 | 0.906 |
| 68 | 13 | 0.130      | 0.117 | 0.094 | 68 | 68 | 0.967      | 0.957 | 0.935 |
| 68 | 14 | 0.143      | 0.129 | 0.105 | 69 | 0  | 0.000      | 0.000 | 0.000 |
| 68 | 15 | 0.156      | 0.141 | 0.116 | 69 | 1  | 0.002      | 0.001 | 0.000 |
| 68 | 16 | 0.169      | 0.153 | 0.127 | 69 | 2  | 0.008      | 0.005 | 0.002 |
| 68 | 17 | 0.182      | 0.166 | 0.138 | 69 | 3  | 0.016      | 0.012 | 0.006 |
| 68 | 18 | 0.195      | 0.178 | 0.150 | 69 | 4  | 0.026      | 0.020 | 0.012 |
| 68 | 19 | 0.208      | 0.191 | 0.162 | 68 | 5  | 0.036      | 0.029 | 0.019 |
| 68 | 20 | 0.221      | 0.204 | 0.174 | 68 | 6  | 0.046      | 0.038 | 0.026 |
| 68 | 21 | 0.235      | 0.217 | 0.186 | 69 | 7  | 0.057      | 0.049 | 0.035 |
| 68 | 22 | 0.248      | 0.230 | 0.198 | 69 | 8  | 0.069      | 0.059 | 0.043 |
| 68 | 23 | 0.262      | 0.243 | 0.210 | 69 | 9  | 0.080      | 0.070 | 0.053 |
| 68 | 24 | 0.275      | 0.257 | 0.223 | 69 | 10 | 0.092      | 0.081 | 0.062 |
| 68 | 25 | 0.289      | 0.270 | 0.236 | 69 | 11 | 0.104      | 0.092 | 0.072 |
| 68 | 26 | 0.303      | 0.283 | 0.248 | 69 | 12 | 0.116      | 0.103 | 0.082 |
| 68 | 27 | 0.317      | 0.297 | 0.261 | 69 | 13 | 0.129      | 0.115 | 0.092 |
| 68 | 28 | 0.331      | 0.311 | 0.274 | 69 | 14 | 0.141      | 0.127 | 0.103 |
| 68 | 29 | 0.345      | 0.324 | 0.287 | 69 | 15 | 0.153      | 0.139 | 0.114 |
| 68 | 30 | 0.359      | 0.338 | 0.301 | 69 | 16 | 0.166      | 0.151 | 0.125 |
| 68 | 31 | 0.373      | 0.352 | 0.314 | 69 | 17 | 0.179      | 0.163 | 0.136 |
| 68 | 32 | 0.387      | 0.366 | 0.328 | 69 | 18 | 0.192      | 0.176 | 0.148 |
| 68 | 33 | 0.401      | 0.380 | 0.341 | 69 | 19 | 0.205      | 0.188 | 0.159 |
| 68 | 34 | 0.416      | 0.394 | 0.355 | 69 | 20 | 0.218      | 0.201 | 0.171 |
| 68 | 35 | 0.430      | 0.409 | 0.369 | 69 | 21 | 0.231      | 0.214 | 0.183 |
| 68 | 36 | 0.445      | 0.423 | 0.383 | 69 | 22 | 0.244      | 0.227 | 0.195 |
| 68 | 37 | 0.459      | 0.437 | 0.397 | 69 | 23 | 0.258      | 0.240 | 0.207 |
| 68 | 38 | 0.474      | 0.452 | 0.411 | 69 | 24 | 0.271      | 0.253 | 0.219 |
| 68 | 39 | 0.488      | 0.466 | 0.426 | 69 | 25 | 0.285      | 0.266 | 0.232 |
| 68 | 40 | 0.503      | 0.481 | 0.440 | 69 | 26 | 0.298      | 0.279 | 0.244 |
| 68 | 41 | 0.518      | 0.496 | 0.455 | 69 | 27 | 0.312      | 0.292 | 0.257 |
| 68 | 42 | 0.533      | 0.511 | 0.469 | 69 | 28 | 0.326      | 0.306 | 0.270 |
| 68 | 43 | 0.548      | 0.526 | 0.484 | 69 | 29 | 0.339      | 0.319 | 0.283 |
| 68 | 44 | 0.563      | 0.541 | 0.499 | 69 | 30 | 0.353      | 0.333 | 0.296 |
| 68 | 45 | 0.578      | 0.556 | 0.514 | 69 | 31 | 0.367      | 0.347 | 0.309 |
| 68 | 46 | 0.593      | 0.571 | 0.530 | 69 | 32 | 0.381      | 0.360 | 0.322 |
| 68 | 47 | 0.608      | 0.586 | 0.545 | 69 | 33 | 0.395      | 0.374 | 0.336 |
| 68 | 48 | 0.624      | 0.602 | 0.560 | 69 | 34 | 0.409      | 0.388 | 0.349 |
| 68 | 49 | 0.639      | 0.617 | 0.576 | 69 | 35 | 0.423      | 0.402 | 0.363 |
| 68 | 50 | 0.655      | 0.633 | 0.592 | 69 | 36 | 0.438      | 0.416 | 0.377 |
| 68 | 51 | 0.670      | 0.649 | 0.608 | 69 | 37 | 0.452      | 0.430 | 0.391 |
| 68 | 52 | 0.686      | 0.665 | 0.624 | 69 | 38 | 0.466      | 0.445 | 0.405 |
| 68 | 53 | 0.702      | 0.681 | 0.641 | 69 | 39 | 0.481      | 0.459 | 0.419 |
| 68 | 54 | 0.718      | 0.697 | 0.657 | 69 | 40 | 0.495      | 0.473 | 0.433 |
| 68 | 55 | 0.734      | 0.713 | 0.674 | 69 | 41 | 0.510      | 0.488 | 0.447 |
| 68 | 56 | 0.750      | 0.730 | 0.691 | 69 | 42 | 0.524      | 0.503 | 0.462 |
| 68 | 57 | 0.766      | 0.746 | 0.708 | 69 | 43 | 0.539      | 0.517 | 0.476 |
| 68 | 58 | 0.782      | 0.763 | 0.725 | 69 | 44 | 0.554      | 0.532 | 0.491 |
| 68 | 59 | 0.799      | 0.780 | 0.743 | 69 | 45 | 0.569      | 0.547 | 0.506 |
| 68 | 60 | 0.816      | 0.798 | 0.761 | 69 | 46 | 0.584      | 0.562 | 0.521 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 69 | 47 | 0.599            | 0.577 | 0.536 | 70 | 33 | 0.389            | 0.368 | 0.331 |
| 69 | 48 | 0.614            | 0.592 | 0.551 | 70 | 34 | 0.403            | 0.382 | 0.344 |
| 69 | 49 | 0.629            | 0.607 | 0.566 | 70 | 35 | 0.417            | 0.396 | 0.357 |
| 69 | 50 | 0.644            | 0.623 | 0.582 | 70 | 36 | 0.431            | 0.410 | 0.371 |
| 69 | 51 | 0.659            | 0.638 | 0.597 | 70 | 37 | 0.445            | 0.424 | 0.384 |
| 69 | 52 | 0.675            | 0.654 | 0.613 | 70 | 38 | 0.459            | 0.438 | 0.398 |
| 69 | 53 | 0.690            | 0.669 | 0.629 | 70 | 39 | 0.473            | 0.452 | 0.412 |
| 69 | 54 | 0.706            | 0.685 | 0.645 | 70 | 40 | 0.488            | 0.466 | 0.426 |
| 69 | 55 | 0.721            | 0.701 | 0.662 | 70 | 41 | 0.502            | 0.480 | 0.440 |
| 69 | 56 | 0.737            | 0.717 | 0.678 | 70 | 42 | 0.516            | 0.495 | 0.454 |
| 69 | 57 | 0.753            | 0.733 | 0.695 | 70 | 43 | 0.531            | 0.509 | 0.468 |
| 69 | 58 | 0.769            | 0.750 | 0.712 | 70 | 44 | 0.545            | 0.523 | 0.483 |
| 69 | 59 | 0.785            | 0.767 | 0.729 | 70 | 45 | 0.560            | 0.538 | 0.497 |
| 69 | 60 | 0.802            | 0.783 | 0.747 | 70 | 46 | 0.574            | 0.553 | 0.512 |
| 69 | 61 | 0.818            | 0.800 | 0.765 | 70 | 47 | 0.589            | 0.568 | 0.527 |
| 69 | 62 | 0.835            | 0.818 | 0.783 | 70 | 48 | 0.604            | 0.582 | 0.542 |
| 69 | 63 | 0.852            | 0.836 | 0.802 | 70 | 49 | 0.619            | 0.597 | 0.557 |
| 69 | 64 | 0.870            | 0.854 | 0.821 | 70 | 50 | 0.634            | 0.612 | 0.572 |
| 69 | 65 | 0.887            | 0.872 | 0.841 | 70 | 51 | 0.649            | 0.628 | 0.587 |
| 69 | 66 | 0.906            | 0.891 | 0.862 | 70 | 52 | 0.664            | 0.643 | 0.603 |
| 69 | 67 | 0.925            | 0.912 | 0.884 | 70 | 53 | 0.679            | 0.658 | 0.618 |
| 69 | 68 | 0.945            | 0.933 | 0.908 | 70 | 54 | 0.694            | 0.674 | 0.634 |
| 69 | 69 | 0.967            | 0.958 | 0.935 | 70 | 55 | 0.710            | 0.689 | 0.650 |
| 70 | 0  | 0.000            | 0.000 | 0.000 | 70 | 56 | 0.725            | 0.705 | 0.666 |
| 70 | 1  | 0.002            | 0.001 | 0.000 | 70 | 57 | 0.741            | 0.721 | 0.682 |
| 70 | 2  | 0.008            | 0.005 | 0.002 | 70 | 58 | 0.757            | 0.737 | 0.699 |
| 70 | 3  | 0.016            | 0.012 | 0.006 | 70 | 59 | 0.772            | 0.753 | 0.716 |
| 70 | 4  | 0.025            | 0.020 | 0.012 | 70 | 60 | 0.788            | 0.770 | 0.733 |
| 70 | 5  | 0.035            | 0.028 | 0.019 | 70 | 61 | 0.805            | 0.786 | 0.750 |
| 70 | 6  | 0.046            | 0.038 | 0.026 | 70 | 62 | 0.821            | 0.803 | 0.768 |
| 70 | 7  | 0.056            | 0.048 | 0.034 | 70 | 63 | 0.838            | 0.820 | 0.786 |
| 70 | 8  | 0.068            | 0.058 | 0.043 | 70 | 64 | 0.854            | 0.838 | 0.804 |
| 70 | 9  | 0.079            | 0.069 | 0.052 | 70 | 65 | 0.871            | 0.856 | 0.823 |
| 70 | 10 | 0.091            | 0.080 | 0.061 | 70 | 66 | 0.889            | 0.874 | 0.843 |
| 70 | 11 | 0.103            | 0.091 | 0.071 | 70 | 67 | 0.907            | 0.893 | 0.864 |
| 70 | 12 | 0.115            | 0.102 | 0.081 | 70 | 68 | 0.926            | 0.913 | 0.885 |
| 70 | 13 | 0.127            | 0.113 | 0.091 | 70 | 69 | 0.946            | 0.934 | 0.909 |
| 70 | 14 | 0.139            | 0.125 | 0.102 | 70 | 70 | 0.968            | 0.958 | 0.936 |
| 70 | 15 | 0.151            | 0.137 | 0.112 | 71 | 0  | 0.000            | 0.000 | 0.000 |
| 70 | 16 | 0.164            | 0.149 | 0.123 | 71 | 1  | 0.002            | 0.001 | 0.000 |
| 70 | 17 | 0.176            | 0.161 | 0.134 | 71 | 2  | 0.008            | 0.005 | 0.002 |
| 70 | 18 | 0.189            | 0.173 | 0.145 | 71 | 3  | 0.016            | 0.012 | 0.006 |
| 70 | 19 | 0.202            | 0.185 | 0.157 | 71 | 4  | 0.025            | 0.020 | 0.012 |
| 70 | 20 | 0.215            | 0.198 | 0.168 | 71 | 5  | 0.035            | 0.028 | 0.018 |
| 70 | 21 | 0.228            | 0.210 | 0.180 | 71 | 6  | 0.045            | 0.037 | 0.026 |
| 70 | 22 | 0.241            | 0.223 | 0.192 | 71 | 7  | 0.056            | 0.047 | 0.034 |
| 70 | 23 | 0.254            | 0.236 | 0.204 | 71 | 8  | 0.067            | 0.057 | 0.042 |
| 70 | 24 | 0.267            | 0.249 | 0.216 | 71 | 9  | 0.078            | 0.068 | 0.051 |
| 70 | 25 | 0.280            | 0.262 | 0.228 | 71 | 10 | 0.089            | 0.078 | 0.060 |
| 70 | 26 | 0.294            | 0.275 | 0.241 | 71 | 11 | 0.101            | 0.089 | 0.070 |
| 70 | 27 | 0.307            | 0.288 | 0.253 | 71 | 12 | 0.113            | 0.100 | 0.080 |
| 70 | 28 | 0.321            | 0.301 | 0.266 | 71 | 13 | 0.125            | 0.112 | 0.090 |
| 70 | 29 | 0.334            | 0.314 | 0.278 | 71 | 14 | 0.137            | 0.123 | 0.100 |
| 70 | 30 | 0.348            | 0.328 | 0.291 | 71 | 15 | 0.149            | 0.135 | 0.111 |
| 70 | 31 | 0.362            | 0.341 | 0.304 | 71 | 16 | 0.161            | 0.147 | 0.121 |
| 70 | 32 | 0.375            | 0.355 | 0.317 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       |       | LEVEL | N  | K  | CONFIDENCE |       |       | LEVEL |
|----|----|------------|-------|-------|-------|----|----|------------|-------|-------|-------|
|    |    | 90%        | 95%   | 99%   |       |    |    | 90%        | 95%   | 99%   |       |
| 71 | 17 | 0.174      | 0.159 | 0.132 |       | 72 | 0  | 0.000      | 0.000 | 0.000 |       |
| 71 | 18 | 0.186      | 0.171 | 0.143 |       | 72 | 1  | 0.002      | 0.001 | 0.000 |       |
| 71 | 19 | 0.199      | 0.183 | 0.154 |       | 72 | 2  | 0.007      | 0.005 | 0.002 |       |
|    |    |            |       |       |       | 72 | 3  | 0.015      | 0.011 | 0.006 |       |
| 71 | 20 | 0.212      | 0.195 | 0.166 |       | 72 | 4  | 0.025      | 0.019 | 0.012 |       |
| 71 | 21 | 0.224      | 0.207 | 0.177 |       |    |    |            |       |       |       |
| 71 | 22 | 0.237      | 0.220 | 0.189 |       | 72 | 5  | 0.034      | 0.028 | 0.018 |       |
| 71 | 23 | 0.250      | 0.232 | 0.201 |       | 72 | 6  | 0.044      | 0.037 | 0.025 |       |
| 71 | 24 | 0.263      | 0.245 | 0.213 |       | 72 | 7  | 0.055      | 0.046 | 0.033 |       |
|    |    |            |       |       |       | 72 | 8  | 0.066      | 0.056 | 0.042 |       |
| 71 | 25 | 0.276      | 0.258 | 0.225 |       | 72 | 9  | 0.077      | 0.067 | 0.050 |       |
| 71 | 26 | 0.289      | 0.271 | 0.237 |       |    |    |            |       |       |       |
| 71 | 27 | 0.303      | 0.284 | 0.249 |       | 72 | 10 | 0.088      | 0.077 | 0.059 |       |
| 71 | 28 | 0.316      | 0.297 | 0.262 |       | 72 | 11 | 0.100      | 0.088 | 0.069 |       |
| 71 | 29 | 0.329      | 0.310 | 0.274 |       | 72 | 12 | 0.111      | 0.099 | 0.078 |       |
|    |    |            |       |       |       | 72 | 13 | 0.123      | 0.110 | 0.088 |       |
| 71 | 30 | 0.343      | 0.323 | 0.287 |       | 72 | 14 | 0.135      | 0.122 | 0.099 |       |
| 71 | 31 | 0.356      | 0.336 | 0.300 |       |    |    |            |       |       |       |
| 71 | 32 | 0.370      | 0.349 | 0.312 |       | 72 | 15 | 0.147      | 0.133 | 0.109 |       |
| 71 | 33 | 0.383      | 0.363 | 0.325 |       | 72 | 16 | 0.159      | 0.144 | 0.120 |       |
| 71 | 34 | 0.397      | 0.376 | 0.338 |       | 72 | 17 | 0.171      | 0.156 | 0.130 |       |
|    |    |            |       |       |       | 72 | 18 | 0.184      | 0.168 | 0.141 |       |
| 71 | 35 | 0.411      | 0.390 | 0.352 |       | 72 | 19 | 0.196      | 0.180 | 0.152 |       |
| 71 | 36 | 0.425      | 0.404 | 0.365 |       |    |    |            |       |       |       |
| 71 | 37 | 0.438      | 0.417 | 0.378 |       | 72 | 20 | 0.209      | 0.192 | 0.163 |       |
| 71 | 38 | 0.452      | 0.431 | 0.392 |       | 72 | 21 | 0.221      | 0.204 | 0.175 |       |
| 71 | 39 | 0.466      | 0.445 | 0.405 |       | 72 | 22 | 0.234      | 0.217 | 0.186 |       |
|    |    |            |       |       |       | 72 | 23 | 0.247      | 0.229 | 0.198 |       |
| 71 | 40 | 0.480      | 0.459 | 0.419 |       | 72 | 24 | 0.259      | 0.241 | 0.210 |       |
| 71 | 41 | 0.494      | 0.473 | 0.433 |       |    |    |            |       |       |       |
| 71 | 42 | 0.508      | 0.487 | 0.447 |       | 72 | 25 | 0.272      | 0.254 | 0.221 |       |
| 71 | 43 | 0.523      | 0.501 | 0.461 |       | 72 | 26 | 0.285      | 0.267 | 0.233 |       |
| 71 | 44 | 0.537      | 0.515 | 0.475 |       | 72 | 27 | 0.298      | 0.279 | 0.245 |       |
|    |    |            |       |       |       | 72 | 28 | 0.311      | 0.292 | 0.258 |       |
| 71 | 45 | 0.551      | 0.530 | 0.489 |       | 72 | 29 | 0.325      | 0.305 | 0.270 |       |
| 71 | 46 | 0.566      | 0.544 | 0.503 |       |    |    |            |       |       |       |
| 71 | 47 | 0.580      | 0.559 | 0.518 |       | 72 | 30 | 0.338      | 0.318 | 0.282 |       |
| 71 | 48 | 0.595      | 0.573 | 0.533 |       | 72 | 31 | 0.351      | 0.331 | 0.295 |       |
| 71 | 49 | 0.609      | 0.588 | 0.547 |       | 72 | 32 | 0.364      | 0.344 | 0.308 |       |
|    |    |            |       |       |       | 72 | 33 | 0.378      | 0.357 | 0.320 |       |
| 71 | 50 | 0.624      | 0.603 | 0.562 |       | 72 | 34 | 0.391      | 0.371 | 0.333 |       |
| 71 | 51 | 0.639      | 0.618 | 0.577 |       |    |    |            |       |       |       |
| 71 | 52 | 0.653      | 0.632 | 0.592 |       | 72 | 35 | 0.405      | 0.384 | 0.346 |       |
| 71 | 53 | 0.668      | 0.648 | 0.608 |       | 72 | 36 | 0.418      | 0.397 | 0.359 |       |
| 71 | 54 | 0.683      | 0.663 | 0.623 |       | 72 | 37 | 0.432      | 0.411 | 0.372 |       |
|    |    |            |       |       |       | 72 | 38 | 0.446      | 0.424 | 0.386 |       |
| 71 | 55 | 0.698      | 0.678 | 0.639 |       | 72 | 39 | 0.459      | 0.438 | 0.399 |       |
| 71 | 56 | 0.714      | 0.693 | 0.654 |       |    |    |            |       |       |       |
| 71 | 57 | 0.729      | 0.709 | 0.670 |       | 72 | 40 | 0.473      | 0.452 | 0.412 |       |
| 71 | 58 | 0.744      | 0.725 | 0.686 |       | 72 | 41 | 0.487      | 0.466 | 0.426 |       |
| 71 | 59 | 0.760      | 0.741 | 0.703 |       | 72 | 42 | 0.501      | 0.479 | 0.440 |       |
|    |    |            |       |       |       | 72 | 43 | 0.515      | 0.493 | 0.453 |       |
| 71 | 60 | 0.775      | 0.757 | 0.719 |       | 72 | 44 | 0.529      | 0.507 | 0.467 |       |
| 71 | 61 | 0.791      | 0.773 | 0.736 |       |    |    |            |       |       |       |
| 71 | 62 | 0.807      | 0.789 | 0.753 |       | 72 | 45 | 0.543      | 0.521 | 0.481 |       |
| 71 | 63 | 0.823      | 0.806 | 0.771 |       | 72 | 46 | 0.557      | 0.536 | 0.495 |       |
| 71 | 64 | 0.840      | 0.823 | 0.789 |       | 72 | 47 | 0.571      | 0.550 | 0.510 |       |
|    |    |            |       |       |       | 72 | 48 | 0.585      | 0.564 | 0.524 |       |
| 71 | 65 | 0.856      | 0.840 | 0.807 |       | 72 | 49 | 0.600      | 0.579 | 0.538 |       |
| 71 | 66 | 0.873      | 0.858 | 0.826 |       |    |    |            |       |       |       |
| 71 | 67 | 0.891      | 0.876 | 0.845 |       | 72 | 50 | 0.614      | 0.593 | 0.553 |       |
| 71 | 68 | 0.908      | 0.894 | 0.865 |       | 72 | 51 | 0.629      | 0.608 | 0.568 |       |
| 71 | 69 | 0.927      | 0.914 | 0.887 |       | 72 | 52 | 0.643      | 0.622 | 0.582 |       |
|    |    |            |       |       |       | 72 | 53 | 0.658      | 0.637 | 0.597 |       |
| 71 | 70 | 0.946      | 0.935 | 0.910 |       | 72 | 54 | 0.673      | 0.652 | 0.613 |       |
| 71 | 71 | 0.968      | 0.959 | 0.937 |       |    |    |            |       |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 72 | 55 | 0.688            | 0.667 | 0.628 | 73 | 38 | 0.439            | 0.418 | 0.380 |
| 72 | 56 | 0.702            | 0.682 | 0.643 | 73 | 39 | 0.453            | 0.432 | 0.393 |
| 72 | 57 | 0.717            | 0.697 | 0.659 |    |    |                  |       |       |
| 72 | 58 | 0.732            | 0.713 | 0.674 | 73 | 40 | 0.466            | 0.445 | 0.406 |
| 72 | 59 | 0.748            | 0.728 | 0.690 | 73 | 41 | 0.480            | 0.459 | 0.419 |
|    |    |                  |       |       | 73 | 42 | 0.493            | 0.472 | 0.433 |
| 72 | 60 | 0.763            | 0.744 | 0.707 | 73 | 43 | 0.507            | 0.486 | 0.446 |
| 72 | 61 | 0.778            | 0.760 | 0.723 | 73 | 44 | 0.521            | 0.500 | 0.460 |
| 72 | 62 | 0.794            | 0.776 | 0.740 |    |    |                  |       |       |
| 72 | 63 | 0.810            | 0.792 | 0.757 | 73 | 45 | 0.535            | 0.514 | 0.474 |
| 72 | 64 | 0.826            | 0.808 | 0.774 | 73 | 46 | 0.549            | 0.527 | 0.487 |
|    |    |                  |       |       | 73 | 47 | 0.563            | 0.541 | 0.501 |
| 72 | 65 | 0.842            | 0.825 | 0.791 | 73 | 48 | 0.577            | 0.556 | 0.515 |
| 72 | 66 | 0.858            | 0.842 | 0.809 | 73 | 49 | 0.591            | 0.570 | 0.530 |
| 72 | 67 | 0.875            | 0.859 | 0.828 |    |    |                  |       |       |
| 72 | 68 | 0.892            | 0.877 | 0.847 | 73 | 50 | 0.605            | 0.584 | 0.544 |
| 72 | 69 | 0.910            | 0.896 | 0.867 | 73 | 51 | 0.619            | 0.598 | 0.558 |
|    |    |                  |       |       | 73 | 52 | 0.634            | 0.613 | 0.573 |
| 72 | 70 | 0.928            | 0.915 | 0.888 | 73 | 53 | 0.648            | 0.627 | 0.587 |
| 72 | 71 | 0.947            | 0.936 | 0.911 | 73 | 54 | 0.662            | 0.642 | 0.602 |
| 72 | 72 | 0.969            | 0.959 | 0.938 |    |    |                  |       |       |
|    |    |                  |       |       | 73 | 55 | 0.677            | 0.657 | 0.617 |
| 73 | 0  | 0.000            | 0.000 | 0.000 | 73 | 56 | 0.692            | 0.671 | 0.632 |
| 73 | 1  | 0.002            | 0.001 | 0.000 | 73 | 57 | 0.706            | 0.686 | 0.648 |
| 73 | 2  | 0.007            | 0.005 | 0.002 | 73 | 58 | 0.721            | 0.701 | 0.663 |
| 73 | 3  | 0.015            | 0.011 | 0.006 | 73 | 59 | 0.736            | 0.716 | 0.679 |
| 73 | 4  | 0.024            | 0.019 | 0.011 |    |    |                  |       |       |
|    |    |                  |       |       | 73 | 60 | 0.751            | 0.732 | 0.694 |
| 73 | 5  | 0.034            | 0.027 | 0.018 | 73 | 61 | 0.766            | 0.747 | 0.710 |
| 73 | 6  | 0.044            | 0.036 | 0.025 | 73 | 62 | 0.781            | 0.763 | 0.726 |
| 73 | 7  | 0.054            | 0.046 | 0.033 | 73 | 63 | 0.797            | 0.779 | 0.743 |
| 73 | 8  | 0.065            | 0.056 | 0.041 | 73 | 64 | 0.812            | 0.795 | 0.760 |
| 73 | 9  | 0.076            | 0.066 | 0.050 |    |    |                  |       |       |
|    |    |                  |       |       | 73 | 65 | 0.828            | 0.811 | 0.777 |
| 73 | 10 | 0.087            | 0.076 | 0.059 | 73 | 66 | 0.844            | 0.827 | 0.794 |
| 73 | 11 | 0.098            | 0.087 | 0.068 | 73 | 67 | 0.860            | 0.844 | 0.812 |
| 73 | 12 | 0.110            | 0.098 | 0.077 | 73 | 68 | 0.877            | 0.861 | 0.830 |
| 73 | 13 | 0.121            | 0.109 | 0.087 | 73 | 69 | 0.893            | 0.879 | 0.849 |
| 73 | 14 | 0.133            | 0.120 | 0.097 |    |    |                  |       |       |
|    |    |                  |       |       | 73 | 70 | 0.911            | 0.897 | 0.869 |
| 73 | 15 | 0.145            | 0.131 | 0.107 | 73 | 71 | 0.929            | 0.916 | 0.890 |
| 73 | 16 | 0.157            | 0.142 | 0.118 | 73 | 72 | 0.948            | 0.937 | 0.913 |
| 73 | 17 | 0.169            | 0.154 | 0.128 | 73 | 73 | 0.969            | 0.960 | 0.939 |
| 73 | 18 | 0.181            | 0.166 | 0.139 |    |    |                  |       |       |
| 73 | 19 | 0.193            | 0.177 | 0.150 | 74 | 0  | 0.000            | 0.000 | 0.000 |
|    |    |                  |       |       | 74 | 1  | 0.002            | 0.001 | 0.000 |
| 73 | 20 | 0.206            | 0.189 | 0.161 | 74 | 2  | 0.007            | 0.005 | 0.002 |
| 73 | 21 | 0.218            | 0.201 | 0.172 | 74 | 3  | 0.015            | 0.011 | 0.006 |
| 73 | 22 | 0.231            | 0.214 | 0.183 | 74 | 4  | 0.024            | 0.019 | 0.011 |
| 73 | 23 | 0.243            | 0.226 | 0.195 |    |    |                  |       |       |
| 73 | 24 | 0.256            | 0.238 | 0.206 | 74 | 5  | 0.033            | 0.027 | 0.018 |
|    |    |                  |       |       | 74 | 6  | 0.043            | 0.036 | 0.025 |
| 73 | 25 | 0.268            | 0.250 | 0.218 | 74 | 7  | 0.053            | 0.045 | 0.032 |
| 73 | 26 | 0.281            | 0.263 | 0.230 | 74 | 8  | 0.064            | 0.055 | 0.040 |
| 73 | 27 | 0.294            | 0.275 | 0.242 | 74 | 9  | 0.075            | 0.065 | 0.049 |
| 73 | 28 | 0.307            | 0.288 | 0.254 |    |    |                  |       |       |
| 73 | 29 | 0.320            | 0.301 | 0.266 | 74 | 10 | 0.086            | 0.075 | 0.058 |
|    |    |                  |       |       | 74 | 11 | 0.097            | 0.086 | 0.067 |
| 73 | 30 | 0.333            | 0.313 | 0.278 | 74 | 12 | 0.108            | 0.096 | 0.076 |
| 73 | 31 | 0.346            | 0.326 | 0.291 | 74 | 13 | 0.120            | 0.107 | 0.086 |
| 73 | 32 | 0.359            | 0.339 | 0.303 | 74 | 14 | 0.131            | 0.118 | 0.096 |
| 73 | 33 | 0.372            | 0.352 | 0.316 |    |    |                  |       |       |
| 73 | 34 | 0.385            | 0.365 | 0.328 | 74 | 15 | 0.143            | 0.129 | 0.106 |
|    |    |                  |       |       | 74 | 16 | 0.155            | 0.140 | 0.116 |
| 73 | 35 | 0.399            | 0.378 | 0.341 | 74 | 17 | 0.166            | 0.152 | 0.127 |
| 73 | 36 | 0.412            | 0.392 | 0.354 | 74 | 18 | 0.178            | 0.163 | 0.137 |
| 73 | 37 | 0.426            | 0.405 | 0.367 | 74 | 19 | 0.191            | 0.175 | 0.148 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 74 | 20 | 0.203            | 0.187 | 0.159 | 75 | 3  | 0.015            | 0.011 | 0.006 |
| 74 | 21 | 0.215            | 0.199 | 0.170 | 75 | 4  | 0.024            | 0.019 | 0.011 |
| 74 | 22 | 0.227            | 0.210 | 0.181 | 75 | 5  | 0.033            | 0.026 | 0.017 |
| 74 | 23 | 0.240            | 0.222 | 0.192 | 75 | 6  | 0.043            | 0.035 | 0.024 |
| 74 | 24 | 0.252            | 0.235 | 0.203 | 75 | 7  | 0.053            | 0.045 | 0.032 |
| 74 | 25 | 0.265            | 0.247 | 0.215 | 75 | 8  | 0.063            | 0.054 | 0.040 |
| 74 | 26 | 0.277            | 0.259 | 0.227 | 75 | 9  | 0.074            | 0.064 | 0.048 |
| 74 | 27 | 0.290            | 0.271 | 0.238 | 75 | 10 | 0.085            | 0.074 | 0.057 |
| 74 | 28 | 0.303            | 0.284 | 0.250 | 75 | 11 | 0.096            | 0.084 | 0.066 |
| 74 | 29 | 0.315            | 0.296 | 0.262 | 75 | 12 | 0.107            | 0.095 | 0.075 |
| 74 | 30 | 0.328            | 0.309 | 0.274 | 75 | 13 | 0.118            | 0.106 | 0.085 |
| 74 | 31 | 0.341            | 0.322 | 0.286 | 75 | 14 | 0.129            | 0.116 | 0.094 |
| 74 | 32 | 0.354            | 0.334 | 0.298 | 75 | 15 | 0.141            | 0.127 | 0.104 |
| 74 | 33 | 0.367            | 0.347 | 0.311 | 75 | 16 | 0.152            | 0.138 | 0.114 |
| 74 | 34 | 0.380            | 0.360 | 0.323 | 75 | 17 | 0.164            | 0.150 | 0.125 |
| 74 | 35 | 0.393            | 0.373 | 0.336 | 75 | 18 | 0.176            | 0.161 | 0.135 |
| 74 | 36 | 0.406            | 0.386 | 0.348 | 75 | 19 | 0.188            | 0.173 | 0.146 |
| 74 | 37 | 0.419            | 0.399 | 0.361 | 75 | 20 | 0.200            | 0.184 | 0.156 |
| 74 | 38 | 0.433            | 0.412 | 0.374 | 75 | 21 | 0.212            | 0.196 | 0.167 |
| 74 | 39 | 0.446            | 0.425 | 0.387 | 75 | 22 | 0.224            | 0.208 | 0.178 |
| 74 | 40 | 0.459            | 0.438 | 0.400 | 75 | 23 | 0.236            | 0.219 | 0.189 |
| 74 | 41 | 0.473            | 0.452 | 0.413 | 75 | 24 | 0.249            | 0.231 | 0.201 |
| 74 | 42 | 0.486            | 0.465 | 0.426 | 75 | 25 | 0.261            | 0.243 | 0.212 |
| 74 | 43 | 0.500            | 0.479 | 0.439 | 75 | 26 | 0.273            | 0.255 | 0.223 |
| 74 | 44 | 0.513            | 0.492 | 0.453 | 75 | 27 | 0.286            | 0.268 | 0.235 |
| 74 | 45 | 0.527            | 0.506 | 0.466 | 75 | 28 | 0.298            | 0.280 | 0.246 |
| 74 | 46 | 0.541            | 0.520 | 0.480 | 75 | 29 | 0.311            | 0.292 | 0.258 |
| 74 | 47 | 0.554            | 0.533 | 0.494 | 75 | 30 | 0.324            | 0.304 | 0.270 |
| 74 | 48 | 0.568            | 0.547 | 0.507 | 75 | 31 | 0.336            | 0.317 | 0.282 |
| 74 | 49 | 0.582            | 0.561 | 0.521 | 75 | 32 | 0.349            | 0.329 | 0.294 |
| 74 | 50 | 0.596            | 0.575 | 0.535 | 75 | 33 | 0.362            | 0.342 | 0.306 |
| 74 | 51 | 0.610            | 0.589 | 0.549 | 75 | 34 | 0.375            | 0.355 | 0.318 |
| 74 | 52 | 0.624            | 0.603 | 0.564 | 75 | 35 | 0.387            | 0.367 | 0.331 |
| 74 | 53 | 0.638            | 0.618 | 0.578 | 75 | 36 | 0.400            | 0.380 | 0.343 |
| 74 | 54 | 0.652            | 0.632 | 0.593 | 75 | 37 | 0.413            | 0.393 | 0.356 |
| 74 | 55 | 0.667            | 0.646 | 0.607 | 75 | 38 | 0.427            | 0.406 | 0.368 |
| 74 | 56 | 0.681            | 0.661 | 0.622 | 75 | 39 | 0.440            | 0.419 | 0.381 |
| 74 | 57 | 0.696            | 0.676 | 0.637 | 75 | 40 | 0.453            | 0.432 | 0.394 |
| 74 | 58 | 0.710            | 0.690 | 0.652 | 75 | 41 | 0.466            | 0.445 | 0.407 |
| 74 | 59 | 0.725            | 0.705 | 0.667 | 75 | 42 | 0.479            | 0.458 | 0.420 |
| 74 | 60 | 0.739            | 0.720 | 0.683 | 75 | 43 | 0.493            | 0.472 | 0.433 |
| 74 | 61 | 0.754            | 0.735 | 0.698 | 75 | 44 | 0.506            | 0.485 | 0.446 |
| 74 | 62 | 0.769            | 0.750 | 0.714 | 75 | 45 | 0.519            | 0.498 | 0.459 |
| 74 | 63 | 0.784            | 0.766 | 0.730 | 75 | 46 | 0.533            | 0.512 | 0.473 |
| 74 | 64 | 0.799            | 0.782 | 0.746 | 75 | 47 | 0.546            | 0.525 | 0.486 |
| 74 | 65 | 0.815            | 0.797 | 0.763 | 75 | 48 | 0.560            | 0.539 | 0.500 |
| 74 | 66 | 0.830            | 0.813 | 0.779 | 75 | 49 | 0.574            | 0.553 | 0.513 |
| 74 | 67 | 0.846            | 0.830 | 0.797 | 75 | 50 | 0.587            | 0.566 | 0.527 |
| 74 | 68 | 0.862            | 0.846 | 0.814 | 75 | 51 | 0.601            | 0.580 | 0.541 |
| 74 | 69 | 0.878            | 0.863 | 0.832 | 75 | 52 | 0.615            | 0.594 | 0.555 |
| 74 | 70 | 0.895            | 0.881 | 0.851 | 75 | 53 | 0.629            | 0.608 | 0.569 |
| 74 | 71 | 0.912            | 0.899 | 0.871 | 75 | 54 | 0.643            | 0.622 | 0.583 |
| 74 | 72 | 0.930            | 0.917 | 0.891 | 75 | 55 | 0.657            | 0.637 | 0.598 |
| 74 | 73 | 0.949            | 0.937 | 0.914 | 75 | 56 | 0.671            | 0.651 | 0.612 |
| 74 | 74 | 0.969            | 0.960 | 0.940 | 75 | 57 | 0.685            | 0.665 | 0.627 |
| 75 | 0  | 0.000            | 0.000 | 0.000 | 75 | 58 | 0.699            | 0.680 | 0.641 |
| 75 | 1  | 0.002            | 0.001 | 0.000 | 75 | 59 | 0.714            | 0.694 | 0.656 |
| 75 | 2  | 0.007            | 0.005 | 0.002 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 75 | 60 | 0.728            | 0.709 | 0.671 | 76 | 40 | 0.446            | 0.426 | 0.388 |
| 75 | 61 | 0.743            | 0.724 | 0.686 | 76 | 41 | 0.459            | 0.439 | 0.401 |
| 75 | 62 | 0.757            | 0.739 | 0.702 | 76 | 42 | 0.472            | 0.452 | 0.413 |
| 75 | 63 | 0.772            | 0.754 | 0.717 | 76 | 43 | 0.486            | 0.465 | 0.426 |
| 75 | 64 | 0.787            | 0.769 | 0.733 | 76 | 44 | 0.499            | 0.478 | 0.439 |
| 75 | 65 | 0.802            | 0.784 | 0.749 | 76 | 45 | 0.512            | 0.491 | 0.452 |
| 75 | 66 | 0.817            | 0.800 | 0.766 | 76 | 46 | 0.525            | 0.504 | 0.465 |
| 75 | 67 | 0.832            | 0.816 | 0.782 | 76 | 47 | 0.539            | 0.518 | 0.479 |
| 75 | 68 | 0.848            | 0.832 | 0.799 | 76 | 48 | 0.552            | 0.531 | 0.492 |
| 75 | 69 | 0.864            | 0.848 | 0.817 | 76 | 49 | 0.565            | 0.545 | 0.505 |
| 75 | 70 | 0.880            | 0.865 | 0.834 | 76 | 50 | 0.579            | 0.558 | 0.519 |
| 75 | 71 | 0.896            | 0.882 | 0.853 | 76 | 51 | 0.592            | 0.572 | 0.532 |
| 75 | 72 | 0.913            | 0.900 | 0.872 | 76 | 52 | 0.606            | 0.585 | 0.546 |
| 75 | 73 | 0.931            | 0.918 | 0.893 | 76 | 53 | 0.620            | 0.599 | 0.560 |
| 75 | 74 | 0.949            | 0.938 | 0.915 | 76 | 54 | 0.634            | 0.613 | 0.574 |
| 75 | 75 | 0.970            | 0.961 | 0.940 | 76 | 55 | 0.647            | 0.627 | 0.588 |
| 76 | 0  | 0.000            | 0.000 | 0.000 | 76 | 56 | 0.661            | 0.641 | 0.602 |
| 76 | 1  | 0.002            | 0.001 | 0.000 | 76 | 57 | 0.675            | 0.655 | 0.617 |
| 76 | 2  | 0.007            | 0.005 | 0.002 | 76 | 58 | 0.689            | 0.669 | 0.631 |
| 76 | 3  | 0.015            | 0.011 | 0.006 | 76 | 59 | 0.703            | 0.684 | 0.646 |
| 76 | 4  | 0.023            | 0.018 | 0.011 | 76 | 60 | 0.717            | 0.698 | 0.660 |
| 76 | 5  | 0.032            | 0.026 | 0.017 | 76 | 61 | 0.732            | 0.712 | 0.675 |
| 76 | 6  | 0.042            | 0.035 | 0.024 | 76 | 62 | 0.746            | 0.727 | 0.690 |
| 76 | 7  | 0.052            | 0.044 | 0.031 | 76 | 63 | 0.760            | 0.742 | 0.705 |
| 76 | 8  | 0.062            | 0.053 | 0.039 | 76 | 64 | 0.775            | 0.757 | 0.721 |
| 76 | 9  | 0.073            | 0.063 | 0.048 | 76 | 65 | 0.790            | 0.772 | 0.736 |
| 76 | 10 | 0.083            | 0.073 | 0.056 | 76 | 66 | 0.804            | 0.787 | 0.752 |
| 76 | 11 | 0.094            | 0.083 | 0.065 | 76 | 67 | 0.819            | 0.802 | 0.768 |
| 76 | 12 | 0.105            | 0.094 | 0.074 | 76 | 68 | 0.835            | 0.818 | 0.785 |
| 76 | 13 | 0.116            | 0.104 | 0.084 | 76 | 69 | 0.850            | 0.834 | 0.802 |
| 76 | 14 | 0.128            | 0.115 | 0.093 | 76 | 70 | 0.865            | 0.850 | 0.819 |
| 76 | 15 | 0.139            | 0.126 | 0.103 | 76 | 71 | 0.881            | 0.867 | 0.836 |
| 76 | 16 | 0.150            | 0.137 | 0.113 | 76 | 72 | 0.898            | 0.884 | 0.855 |
| 76 | 17 | 0.162            | 0.148 | 0.123 | 76 | 73 | 0.914            | 0.901 | 0.874 |
| 76 | 18 | 0.174            | 0.159 | 0.133 | 76 | 74 | 0.931            | 0.919 | 0.894 |
| 76 | 19 | 0.185            | 0.170 | 0.144 | 76 | 75 | 0.950            | 0.939 | 0.916 |
| 76 | 20 | 0.197            | 0.182 | 0.154 | 76 | 76 | 0.970            | 0.961 | 0.941 |
| 76 | 21 | 0.209            | 0.193 | 0.165 | 77 | 0  | 0.000            | 0.000 | 0.000 |
| 76 | 22 | 0.221            | 0.205 | 0.176 | 77 | 1  | 0.001            | 0.001 | 0.000 |
| 76 | 23 | 0.233            | 0.216 | 0.187 | 77 | 2  | 0.007            | 0.005 | 0.002 |
| 76 | 24 | 0.245            | 0.228 | 0.198 | 77 | 3  | 0.014            | 0.011 | 0.006 |
| 76 | 25 | 0.257            | 0.240 | 0.209 | 77 | 4  | 0.023            | 0.018 | 0.011 |
| 76 | 26 | 0.270            | 0.252 | 0.220 | 77 | 5  | 0.032            | 0.026 | 0.017 |
| 76 | 27 | 0.282            | 0.264 | 0.231 | 77 | 6  | 0.041            | 0.034 | 0.024 |
| 76 | 28 | 0.294            | 0.276 | 0.243 | 77 | 7  | 0.051            | 0.043 | 0.031 |
| 76 | 29 | 0.307            | 0.288 | 0.255 | 77 | 8  | 0.061            | 0.053 | 0.039 |
| 76 | 30 | 0.319            | 0.300 | 0.266 | 77 | 9  | 0.072            | 0.062 | 0.047 |
| 76 | 31 | 0.332            | 0.313 | 0.278 | 77 | 10 | 0.082            | 0.072 | 0.055 |
| 76 | 32 | 0.344            | 0.325 | 0.290 | 77 | 11 | 0.093            | 0.082 | 0.064 |
| 76 | 33 | 0.357            | 0.337 | 0.302 | 77 | 12 | 0.104            | 0.092 | 0.073 |
| 76 | 34 | 0.369            | 0.350 | 0.314 | 77 | 13 | 0.115            | 0.103 | 0.082 |
| 76 | 35 | 0.382            | 0.362 | 0.326 | 77 | 14 | 0.126            | 0.113 | 0.092 |
| 76 | 36 | 0.395            | 0.375 | 0.338 | 77 | 15 | 0.137            | 0.124 | 0.102 |
| 76 | 37 | 0.408            | 0.388 | 0.351 | 77 | 16 | 0.148            | 0.135 | 0.111 |
| 76 | 38 | 0.421            | 0.400 | 0.363 | 77 | 17 | 0.160            | 0.146 | 0.121 |
| 76 | 39 | 0.433            | 0.413 | 0.375 | 77 | 18 | 0.171            | 0.157 | 0.131 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 77 | 19 | 0.183            | 0.168 | 0.142 | 77 | 75 | 0.932            | 0.920 | 0.895 |
| 77 | 20 | 0.195            | 0.179 | 0.152 | 77 | 76 | 0.951            | 0.940 | 0.917 |
| 77 | 21 | 0.206            | 0.190 | 0.163 | 77 | 77 | 0.971            | 0.962 | 0.942 |
| 77 | 22 | 0.218            | 0.202 | 0.173 | 78 | 0  | 0.000            | 0.000 | 0.000 |
| 77 | 23 | 0.230            | 0.213 | 0.184 | 78 | 1  | 0.001            | 0.001 | 0.000 |
| 77 | 24 | 0.242            | 0.225 | 0.195 | 78 | 2  | 0.007            | 0.005 | 0.002 |
| 77 | 25 | 0.254            | 0.237 | 0.206 | 78 | 3  | 0.014            | 0.011 | 0.006 |
| 77 | 26 | 0.266            | 0.248 | 0.217 | 78 | 4  | 0.023            | 0.018 | 0.011 |
| 77 | 27 | 0.278            | 0.260 | 0.228 | 78 | 5  | 0.031            | 0.025 | 0.017 |
| 77 | 28 | 0.290            | 0.272 | 0.240 | 78 | 6  | 0.041            | 0.034 | 0.023 |
| 77 | 29 | 0.302            | 0.284 | 0.251 | 78 | 7  | 0.051            | 0.043 | 0.030 |
| 77 | 30 | 0.315            | 0.296 | 0.262 | 78 | 8  | 0.061            | 0.052 | 0.038 |
| 77 | 31 | 0.327            | 0.308 | 0.274 | 78 | 9  | 0.071            | 0.061 | 0.046 |
| 77 | 32 | 0.339            | 0.320 | 0.286 | 78 | 10 | 0.081            | 0.071 | 0.055 |
| 77 | 33 | 0.352            | 0.333 | 0.298 | 78 | 11 | 0.092            | 0.081 | 0.063 |
| 77 | 34 | 0.364            | 0.345 | 0.309 | 78 | 12 | 0.102            | 0.091 | 0.072 |
| 77 | 35 | 0.377            | 0.357 | 0.321 | 78 | 13 | 0.113            | 0.101 | 0.081 |
| 77 | 36 | 0.389            | 0.370 | 0.333 | 78 | 14 | 0.124            | 0.112 | 0.091 |
| 77 | 37 | 0.402            | 0.382 | 0.345 | 78 | 15 | 0.135            | 0.122 | 0.100 |
| 77 | 38 | 0.415            | 0.395 | 0.358 | 78 | 16 | 0.146            | 0.133 | 0.110 |
| 77 | 39 | 0.427            | 0.407 | 0.370 | 78 | 17 | 0.158            | 0.144 | 0.120 |
| 77 | 40 | 0.440            | 0.420 | 0.382 | 78 | 18 | 0.169            | 0.155 | 0.130 |
| 77 | 41 | 0.453            | 0.433 | 0.395 | 78 | 19 | 0.180            | 0.166 | 0.140 |
| 77 | 42 | 0.466            | 0.445 | 0.407 | 78 | 20 | 0.192            | 0.177 | 0.150 |
| 77 | 43 | 0.479            | 0.458 | 0.420 | 78 | 21 | 0.204            | 0.188 | 0.160 |
| 77 | 44 | 0.492            | 0.471 | 0.433 | 78 | 22 | 0.215            | 0.199 | 0.171 |
| 77 | 45 | 0.505            | 0.484 | 0.446 | 78 | 23 | 0.227            | 0.211 | 0.182 |
| 77 | 46 | 0.518            | 0.497 | 0.459 | 78 | 24 | 0.239            | 0.222 | 0.192 |
| 77 | 47 | 0.531            | 0.510 | 0.472 | 78 | 25 | 0.250            | 0.233 | 0.203 |
| 77 | 48 | 0.544            | 0.523 | 0.485 | 78 | 26 | 0.262            | 0.245 | 0.214 |
| 77 | 49 | 0.557            | 0.537 | 0.498 | 78 | 27 | 0.274            | 0.257 | 0.225 |
| 77 | 50 | 0.571            | 0.550 | 0.511 | 78 | 28 | 0.286            | 0.268 | 0.236 |
| 77 | 51 | 0.584            | 0.563 | 0.524 | 78 | 29 | 0.298            | 0.280 | 0.247 |
| 77 | 52 | 0.597            | 0.577 | 0.538 | 78 | 30 | 0.310            | 0.292 | 0.259 |
| 77 | 53 | 0.611            | 0.590 | 0.551 | 78 | 31 | 0.323            | 0.304 | 0.270 |
| 77 | 54 | 0.624            | 0.604 | 0.565 | 78 | 32 | 0.335            | 0.316 | 0.282 |
| 77 | 55 | 0.638            | 0.618 | 0.579 | 78 | 33 | 0.347            | 0.328 | 0.293 |
| 77 | 56 | 0.652            | 0.631 | 0.593 | 78 | 34 | 0.359            | 0.340 | 0.305 |
| 77 | 57 | 0.665            | 0.645 | 0.607 | 78 | 35 | 0.372            | 0.352 | 0.317 |
| 77 | 58 | 0.679            | 0.659 | 0.621 | 78 | 36 | 0.384            | 0.365 | 0.329 |
| 77 | 59 | 0.693            | 0.673 | 0.635 | 78 | 37 | 0.397            | 0.377 | 0.341 |
| 77 | 60 | 0.707            | 0.687 | 0.650 | 78 | 38 | 0.409            | 0.389 | 0.353 |
| 77 | 61 | 0.721            | 0.702 | 0.664 | 78 | 39 | 0.422            | 0.402 | 0.365 |
| 77 | 62 | 0.735            | 0.716 | 0.679 | 78 | 40 | 0.434            | 0.414 | 0.377 |
| 77 | 63 | 0.749            | 0.730 | 0.694 | 78 | 41 | 0.447            | 0.427 | 0.389 |
| 77 | 64 | 0.763            | 0.745 | 0.709 | 78 | 42 | 0.460            | 0.439 | 0.402 |
| 77 | 65 | 0.778            | 0.760 | 0.724 | 78 | 43 | 0.472            | 0.452 | 0.414 |
| 77 | 66 | 0.792            | 0.775 | 0.740 | 78 | 44 | 0.485            | 0.465 | 0.427 |
| 77 | 67 | 0.807            | 0.790 | 0.755 | 78 | 45 | 0.498            | 0.477 | 0.439 |
| 77 | 68 | 0.822            | 0.805 | 0.771 | 78 | 46 | 0.511            | 0.490 | 0.452 |
| 77 | 69 | 0.837            | 0.820 | 0.788 | 78 | 47 | 0.524            | 0.503 | 0.465 |
| 77 | 70 | 0.852            | 0.836 | 0.804 | 78 | 48 | 0.537            | 0.516 | 0.477 |
| 77 | 71 | 0.867            | 0.852 | 0.821 | 78 | 49 | 0.550            | 0.529 | 0.490 |
| 77 | 72 | 0.883            | 0.868 | 0.838 | 78 | 50 | 0.563            | 0.542 | 0.503 |
| 77 | 73 | 0.899            | 0.885 | 0.857 | 78 | 51 | 0.576            | 0.555 | 0.517 |
| 77 | 74 | 0.915            | 0.902 | 0.875 | 78 | 52 | 0.589            | 0.569 | 0.530 |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       |       | N  | K  | CONFIDENCE |       |       |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   | 99%   |    |    | 90%        | 95%   | 99%   |
| 78 | 53 | 0.602      | 0.582 | 0.543 | 79 | 30 | 0.306      | 0.288 | 0.255 |
| 78 | 54 | 0.616      | 0.595 | 0.557 | 79 | 31 | 0.318      | 0.300 | 0.267 |
| 78 | 55 | 0.629      | 0.609 | 0.570 | 79 | 32 | 0.330      | 0.312 | 0.278 |
| 78 | 56 | 0.642      | 0.622 | 0.584 | 79 | 33 | 0.342      | 0.324 | 0.289 |
| 78 | 57 | 0.656      | 0.636 | 0.598 | 79 | 34 | 0.355      | 0.336 | 0.301 |
| 78 | 58 | 0.669      | 0.650 | 0.612 | 79 | 35 | 0.367      | 0.348 | 0.312 |
| 78 | 59 | 0.683      | 0.663 | 0.626 | 79 | 36 | 0.379      | 0.360 | 0.324 |
| 78 | 60 | 0.697      | 0.677 | 0.640 | 79 | 37 | 0.391      | 0.372 | 0.336 |
| 78 | 61 | 0.710      | 0.691 | 0.654 | 79 | 38 | 0.404      | 0.384 | 0.348 |
| 78 | 62 | 0.724      | 0.705 | 0.668 | 79 | 39 | 0.416      | 0.396 | 0.360 |
| 78 | 63 | 0.738      | 0.719 | 0.683 | 79 | 40 | 0.428      | 0.408 | 0.372 |
| 78 | 64 | 0.752      | 0.734 | 0.698 | 79 | 41 | 0.441      | 0.421 | 0.384 |
| 78 | 65 | 0.766      | 0.748 | 0.712 | 79 | 42 | 0.453      | 0.433 | 0.396 |
| 78 | 66 | 0.781      | 0.763 | 0.727 | 79 | 43 | 0.466      | 0.446 | 0.408 |
| 78 | 67 | 0.795      | 0.777 | 0.743 | 79 | 44 | 0.478      | 0.458 | 0.420 |
| 78 | 68 | 0.809      | 0.792 | 0.758 | 79 | 45 | 0.491      | 0.471 | 0.433 |
| 78 | 69 | 0.824      | 0.807 | 0.774 | 79 | 46 | 0.504      | 0.483 | 0.445 |
| 78 | 70 | 0.839      | 0.822 | 0.790 | 79 | 47 | 0.517      | 0.496 | 0.458 |
| 78 | 71 | 0.854      | 0.838 | 0.806 | 79 | 48 | 0.529      | 0.509 | 0.471 |
| 78 | 72 | 0.869      | 0.854 | 0.823 | 79 | 49 | 0.542      | 0.522 | 0.483 |
| 78 | 73 | 0.884      | 0.870 | 0.840 | 79 | 50 | 0.555      | 0.535 | 0.496 |
| 78 | 74 | 0.900      | 0.886 | 0.858 | 79 | 51 | 0.568      | 0.548 | 0.509 |
| 78 | 75 | 0.914      | 0.904 | 0.877 | 79 | 52 | 0.581      | 0.561 | 0.522 |
| 78 | 76 | 0.928      | 0.921 | 0.897 | 79 | 53 | 0.594      | 0.574 | 0.535 |
| 78 | 77 | 0.941      | 0.941 | 0.918 | 79 | 54 | 0.607      | 0.587 | 0.548 |
| 78 | 78 | 0.957      | 0.962 | 0.943 | 79 | 55 | 0.620      | 0.600 | 0.562 |
| 79 | 0  | 0.000      | 0.000 | 0.000 | 79 | 56 | 0.633      | 0.613 | 0.575 |
| 79 | 1  | 0.001      | 0.001 | 0.000 | 79 | 57 | 0.647      | 0.627 | 0.589 |
| 79 | 2  | 0.007      | 0.005 | 0.002 | 79 | 58 | 0.660      | 0.640 | 0.602 |
| 79 | 3  | 0.014      | 0.010 | 0.006 | 79 | 59 | 0.673      | 0.654 | 0.616 |
| 79 | 4  | 0.022      | 0.018 | 0.011 | 79 | 60 | 0.687      | 0.667 | 0.630 |
| 79 | 5  | 0.031      | 0.025 | 0.016 | 79 | 61 | 0.700      | 0.681 | 0.644 |
| 79 | 6  | 0.040      | 0.033 | 0.023 | 79 | 62 | 0.714      | 0.695 | 0.658 |
| 79 | 7  | 0.050      | 0.042 | 0.030 | 79 | 63 | 0.728      | 0.709 | 0.672 |
| 79 | 8  | 0.060      | 0.051 | 0.038 | 79 | 64 | 0.741      | 0.723 | 0.687 |
| 79 | 9  | 0.070      | 0.061 | 0.046 | 79 | 65 | 0.755      | 0.737 | 0.701 |
| 79 | 10 | 0.080      | 0.070 | 0.054 | 79 | 66 | 0.769      | 0.751 | 0.716 |
| 79 | 11 | 0.091      | 0.080 | 0.062 | 79 | 67 | 0.783      | 0.765 | 0.731 |
| 79 | 12 | 0.101      | 0.090 | 0.071 | 79 | 68 | 0.797      | 0.780 | 0.746 |
| 79 | 13 | 0.112      | 0.100 | 0.080 | 79 | 69 | 0.812      | 0.795 | 0.761 |
| 79 | 14 | 0.123      | 0.110 | 0.089 | 79 | 70 | 0.826      | 0.810 | 0.777 |
| 79 | 15 | 0.134      | 0.121 | 0.099 | 79 | 71 | 0.841      | 0.825 | 0.793 |
| 79 | 16 | 0.145      | 0.131 | 0.108 | 79 | 72 | 0.855      | 0.840 | 0.809 |
| 79 | 17 | 0.156      | 0.142 | 0.118 | 79 | 73 | 0.870      | 0.856 | 0.825 |
| 79 | 18 | 0.167      | 0.153 | 0.128 | 79 | 74 | 0.886      | 0.871 | 0.842 |
| 79 | 19 | 0.178      | 0.163 | 0.138 | 79 | 75 | 0.901      | 0.888 | 0.860 |
| 79 | 20 | 0.189      | 0.174 | 0.148 | 79 | 76 | 0.917      | 0.905 | 0.878 |
| 79 | 21 | 0.201      | 0.185 | 0.158 | 79 | 77 | 0.934      | 0.922 | 0.898 |
| 79 | 22 | 0.212      | 0.197 | 0.169 | 79 | 78 | 0.952      | 0.941 | 0.919 |
| 79 | 23 | 0.224      | 0.208 | 0.179 | 79 | 79 | 0.971      | 0.963 | 0.943 |
| 79 | 24 | 0.236      | 0.219 | 0.190 | 80 | 0  | 0.000      | 0.000 | 0.000 |
| 79 | 25 | 0.247      | 0.230 | 0.200 | 80 | 1  | 0.001      | 0.001 | 0.000 |
| 79 | 26 | 0.259      | 0.242 | 0.211 | 80 | 2  | 0.007      | 0.004 | 0.002 |
| 79 | 27 | 0.271      | 0.253 | 0.222 | 80 | 3  | 0.014      | 0.010 | 0.006 |
| 79 | 28 | 0.283      | 0.265 | 0.233 | 80 | 4  | 0.022      | 0.017 | 0.010 |
| 79 | 29 | 0.294      | 0.276 | 0.244 | 80 | 5  | 0.031      | 0.025 | 0.016 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 80 | 6  | 0.040            | 0.033 | 0.023 | 80 | 62 | 0.704            | 0.685 | 0.648 |
| 80 | 7  | 0.049            | 0.042 | 0.030 | 80 | 63 | 0.717            | 0.698 | 0.662 |
| 80 | 8  | 0.059            | 0.051 | 0.037 | 80 | 64 | 0.731            | 0.712 | 0.676 |
| 80 | 9  | 0.069            | 0.060 | 0.045 | 80 | 65 | 0.744            | 0.726 | 0.690 |
| 80 | 10 | 0.079            | 0.069 | 0.053 | 80 | 66 | 0.758            | 0.740 | 0.705 |
| 80 | 11 | 0.089            | 0.079 | 0.062 | 80 | 67 | 0.772            | 0.754 | 0.719 |
| 80 | 12 | 0.100            | 0.089 | 0.070 | 80 | 68 | 0.786            | 0.768 | 0.734 |
| 80 | 13 | 0.110            | 0.099 | 0.079 | 80 | 69 | 0.800            | 0.783 | 0.749 |
| 80 | 14 | 0.121            | 0.109 | 0.088 | 80 | 70 | 0.814            | 0.797 | 0.764 |
| 80 | 15 | 0.132            | 0.119 | 0.098 | 80 | 71 | 0.828            | 0.812 | 0.779 |
| 80 | 16 | 0.143            | 0.130 | 0.107 | 80 | 72 | 0.843            | 0.827 | 0.795 |
| 80 | 17 | 0.154            | 0.140 | 0.117 | 80 | 73 | 0.857            | 0.842 | 0.811 |
| 80 | 18 | 0.165            | 0.151 | 0.126 | 80 | 74 | 0.872            | 0.857 | 0.827 |
| 80 | 19 | 0.176            | 0.161 | 0.136 | 80 | 75 | 0.887            | 0.873 | 0.844 |
| 80 | 20 | 0.187            | 0.172 | 0.146 | 80 | 76 | 0.903            | 0.889 | 0.862 |
| 80 | 21 | 0.198            | 0.183 | 0.156 | 80 | 77 | 0.918            | 0.906 | 0.880 |
| 80 | 22 | 0.210            | 0.194 | 0.166 | 80 | 78 | 0.935            | 0.923 | 0.899 |
| 80 | 23 | 0.221            | 0.205 | 0.177 | 80 | 79 | 0.952            | 0.942 | 0.920 |
| 80 | 24 | 0.232            | 0.216 | 0.187 | 80 | 80 | 0.972            | 0.963 | 0.944 |
| 80 | 25 | 0.244            | 0.227 | 0.198 | 81 | 0  | 0.000            | 0.000 | 0.000 |
| 80 | 26 | 0.256            | 0.239 | 0.208 | 81 | 1  | 0.001            | 0.001 | 0.000 |
| 80 | 27 | 0.267            | 0.250 | 0.219 | 81 | 2  | 0.007            | 0.004 | 0.002 |
| 80 | 28 | 0.279            | 0.261 | 0.230 | 81 | 3  | 0.014            | 0.010 | 0.005 |
| 80 | 29 | 0.291            | 0.273 | 0.241 | 81 | 4  | 0.022            | 0.017 | 0.010 |
| 80 | 30 | 0.302            | 0.284 | 0.252 | 81 | 5  | 0.030            | 0.024 | 0.016 |
| 80 | 31 | 0.314            | 0.296 | 0.263 | 81 | 6  | 0.039            | 0.033 | 0.022 |
| 80 | 32 | 0.326            | 0.308 | 0.274 | 81 | 7  | 0.049            | 0.041 | 0.029 |
| 80 | 33 | 0.338            | 0.319 | 0.285 | 81 | 8  | 0.058            | 0.050 | 0.037 |
| 80 | 34 | 0.350            | 0.331 | 0.297 | 81 | 9  | 0.068            | 0.059 | 0.045 |
| 80 | 35 | 0.362            | 0.343 | 0.308 | 81 | 10 | 0.078            | 0.068 | 0.053 |
| 80 | 36 | 0.374            | 0.355 | 0.320 | 81 | 11 | 0.088            | 0.078 | 0.061 |
| 80 | 37 | 0.386            | 0.367 | 0.331 | 81 | 12 | 0.099            | 0.088 | 0.069 |
| 80 | 38 | 0.398            | 0.379 | 0.343 | 81 | 13 | 0.109            | 0.098 | 0.078 |
| 80 | 39 | 0.410            | 0.391 | 0.355 | 81 | 14 | 0.120            | 0.108 | 0.087 |
| 80 | 40 | 0.423            | 0.403 | 0.366 | 81 | 15 | 0.130            | 0.118 | 0.096 |
| 80 | 41 | 0.435            | 0.415 | 0.378 | 81 | 16 | 0.141            | 0.128 | 0.106 |
| 80 | 42 | 0.447            | 0.427 | 0.390 | 81 | 17 | 0.152            | 0.138 | 0.115 |
| 80 | 43 | 0.460            | 0.440 | 0.402 | 81 | 18 | 0.163            | 0.149 | 0.125 |
| 80 | 44 | 0.472            | 0.452 | 0.414 | 81 | 19 | 0.174            | 0.159 | 0.134 |
| 80 | 45 | 0.485            | 0.464 | 0.427 | 81 | 20 | 0.185            | 0.170 | 0.144 |
| 80 | 46 | 0.497            | 0.477 | 0.439 | 81 | 21 | 0.196            | 0.181 | 0.154 |
| 80 | 47 | 0.510            | 0.489 | 0.451 | 81 | 22 | 0.207            | 0.191 | 0.164 |
| 80 | 48 | 0.522            | 0.502 | 0.464 | 81 | 23 | 0.218            | 0.202 | 0.174 |
| 80 | 49 | 0.535            | 0.514 | 0.476 | 81 | 24 | 0.229            | 0.213 | 0.185 |
| 80 | 50 | 0.547            | 0.527 | 0.489 | 81 | 25 | 0.241            | 0.224 | 0.195 |
| 80 | 51 | 0.560            | 0.540 | 0.502 | 81 | 26 | 0.252            | 0.235 | 0.206 |
| 80 | 52 | 0.573            | 0.553 | 0.514 | 81 | 27 | 0.264            | 0.247 | 0.216 |
| 80 | 53 | 0.586            | 0.566 | 0.527 | 81 | 28 | 0.275            | 0.258 | 0.227 |
| 80 | 54 | 0.599            | 0.579 | 0.540 | 81 | 29 | 0.287            | 0.269 | 0.238 |
| 80 | 55 | 0.612            | 0.592 | 0.553 | 81 | 30 | 0.298            | 0.281 | 0.248 |
| 80 | 56 | 0.625            | 0.605 | 0.567 | 81 | 31 | 0.310            | 0.292 | 0.259 |
| 80 | 57 | 0.638            | 0.618 | 0.580 | 81 | 32 | 0.322            | 0.304 | 0.270 |
| 80 | 58 | 0.651            | 0.631 | 0.593 | 81 | 33 | 0.334            | 0.315 | 0.281 |
| 80 | 59 | 0.664            | 0.644 | 0.607 | 81 | 34 | 0.345            | 0.327 | 0.293 |
| 80 | 60 | 0.677            | 0.658 | 0.620 | 81 | 35 | 0.357            | 0.338 | 0.304 |
| 80 | 61 | 0.691            | 0.671 | 0.634 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 81 | 36 | 0.369            | 0.350 | 0.315 | 82 | 12 | 0.097            | 0.087 | 0.069 |
| 81 | 37 | 0.381            | 0.362 | 0.327 | 82 | 13 | 0.108            | 0.096 | 0.077 |
| 81 | 38 | 0.393            | 0.374 | 0.338 | 82 | 14 | 0.118            | 0.106 | 0.086 |
| 81 | 39 | 0.405            | 0.386 | 0.350 | 82 | 15 | 0.129            | 0.116 | 0.095 |
| 81 | 40 | 0.417            | 0.398 | 0.361 | 82 | 16 | 0.139            | 0.126 | 0.104 |
| 81 | 41 | 0.429            | 0.410 | 0.373 | 82 | 17 | 0.150            | 0.136 | 0.114 |
| 81 | 42 | 0.441            | 0.422 | 0.385 | 82 | 18 | 0.161            | 0.147 | 0.123 |
| 81 | 43 | 0.454            | 0.434 | 0.397 | 82 | 19 | 0.171            | 0.157 | 0.133 |
| 81 | 44 | 0.466            | 0.446 | 0.409 | 82 | 20 | 0.182            | 0.168 | 0.142 |
| 81 | 45 | 0.478            | 0.458 | 0.421 | 82 | 21 | 0.193            | 0.178 | 0.152 |
| 81 | 46 | 0.490            | 0.470 | 0.433 | 82 | 22 | 0.204            | 0.189 | 0.162 |
| 81 | 47 | 0.503            | 0.483 | 0.445 | 82 | 23 | 0.215            | 0.200 | 0.172 |
| 81 | 48 | 0.515            | 0.495 | 0.457 | 82 | 24 | 0.227            | 0.211 | 0.182 |
| 81 | 49 | 0.528            | 0.507 | 0.470 | 82 | 25 | 0.238            | 0.221 | 0.192 |
| 81 | 50 | 0.540            | 0.520 | 0.482 | 82 | 26 | 0.249            | 0.232 | 0.203 |
| 81 | 51 | 0.553            | 0.533 | 0.495 | 82 | 27 | 0.260            | 0.243 | 0.213 |
| 81 | 52 | 0.565            | 0.545 | 0.507 | 82 | 28 | 0.272            | 0.255 | 0.224 |
| 81 | 53 | 0.578            | 0.558 | 0.520 | 82 | 29 | 0.283            | 0.266 | 0.234 |
| 81 | 54 | 0.591            | 0.571 | 0.533 | 82 | 30 | 0.295            | 0.277 | 0.245 |
| 81 | 55 | 0.603            | 0.583 | 0.545 | 82 | 31 | 0.306            | 0.288 | 0.256 |
| 81 | 56 | 0.616            | 0.596 | 0.558 | 82 | 32 | 0.318            | 0.300 | 0.267 |
| 81 | 57 | 0.629            | 0.609 | 0.571 | 82 | 33 | 0.329            | 0.311 | 0.278 |
| 81 | 58 | 0.642            | 0.622 | 0.585 | 82 | 34 | 0.341            | 0.322 | 0.289 |
| 81 | 59 | 0.655            | 0.635 | 0.598 | 82 | 35 | 0.353            | 0.334 | 0.300 |
| 81 | 60 | 0.668            | 0.648 | 0.611 | 82 | 36 | 0.364            | 0.345 | 0.311 |
| 81 | 61 | 0.681            | 0.662 | 0.625 | 82 | 37 | 0.376            | 0.357 | 0.322 |
| 81 | 62 | 0.694            | 0.675 | 0.638 | 82 | 38 | 0.388            | 0.369 | 0.334 |
| 81 | 63 | 0.707            | 0.688 | 0.652 | 82 | 39 | 0.400            | 0.381 | 0.345 |
| 81 | 64 | 0.721            | 0.702 | 0.666 | 82 | 40 | 0.412            | 0.392 | 0.357 |
| 81 | 65 | 0.734            | 0.716 | 0.680 | 82 | 41 | 0.424            | 0.404 | 0.368 |
| 81 | 66 | 0.747            | 0.729 | 0.694 | 82 | 42 | 0.436            | 0.416 | 0.380 |
| 81 | 67 | 0.761            | 0.743 | 0.708 | 82 | 43 | 0.448            | 0.428 | 0.391 |
| 81 | 68 | 0.775            | 0.757 | 0.722 | 82 | 44 | 0.460            | 0.440 | 0.403 |
| 81 | 69 | 0.788            | 0.771 | 0.737 | 82 | 45 | 0.472            | 0.452 | 0.415 |
| 81 | 70 | 0.802            | 0.785 | 0.752 | 82 | 46 | 0.484            | 0.464 | 0.427 |
| 81 | 71 | 0.816            | 0.800 | 0.767 | 82 | 47 | 0.496            | 0.476 | 0.439 |
| 81 | 72 | 0.830            | 0.814 | 0.782 | 82 | 48 | 0.508            | 0.488 | 0.451 |
| 81 | 73 | 0.844            | 0.829 | 0.797 | 82 | 49 | 0.521            | 0.501 | 0.463 |
| 81 | 74 | 0.859            | 0.844 | 0.813 | 82 | 50 | 0.533            | 0.513 | 0.475 |
| 81 | 75 | 0.874            | 0.859 | 0.829 | 82 | 51 | 0.545            | 0.525 | 0.488 |
| 81 | 76 | 0.888            | 0.875 | 0.846 | 82 | 52 | 0.558            | 0.538 | 0.500 |
| 81 | 77 | 0.904            | 0.891 | 0.863 | 82 | 53 | 0.570            | 0.550 | 0.513 |
| 81 | 78 | 0.919            | 0.907 | 0.881 | 82 | 54 | 0.583            | 0.563 | 0.525 |
| 81 | 79 | 0.936            | 0.924 | 0.900 | 82 | 55 | 0.595            | 0.575 | 0.538 |
| 81 | 80 | 0.953            | 0.943 | 0.921 | 82 | 56 | 0.608            | 0.588 | 0.550 |
| 81 | 81 | 0.972            | 0.964 | 0.945 | 82 | 57 | 0.621            | 0.601 | 0.563 |
| 82 | 0  | 0.000            | 0.000 | 0.000 | 82 | 58 | 0.633            | 0.614 | 0.576 |
| 82 | 1  | 0.001            | 0.001 | 0.000 | 82 | 59 | 0.646            | 0.627 | 0.589 |
| 82 | 2  | 0.007            | 0.004 | 0.002 | 82 | 60 | 0.659            | 0.639 | 0.602 |
| 82 | 3  | 0.014            | 0.010 | 0.005 | 82 | 61 | 0.672            | 0.653 | 0.615 |
| 82 | 4  | 0.022            | 0.017 | 0.010 | 82 | 62 | 0.685            | 0.666 | 0.629 |
| 82 | 5  | 0.030            | 0.024 | 0.016 | 82 | 63 | 0.698            | 0.679 | 0.642 |
| 82 | 6  | 0.039            | 0.032 | 0.022 | 82 | 64 | 0.711            | 0.692 | 0.656 |
| 82 | 7  | 0.048            | 0.041 | 0.029 | 82 | 65 | 0.724            | 0.705 | 0.669 |
| 82 | 8  | 0.058            | 0.049 | 0.036 | 82 | 66 | 0.737            | 0.719 | 0.683 |
| 82 | 9  | 0.067            | 0.058 | 0.044 | 82 | 67 | 0.750            | 0.732 | 0.697 |
| 82 | 10 | 0.077            | 0.068 | 0.052 | 82 | 68 | 0.764            | 0.746 | 0.711 |
| 82 | 11 | 0.087            | 0.077 | 0.060 | 82 | 69 | 0.777            | 0.760 | 0.725 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 82 | 70 | 0.791      | 0.774 | 0.740 | 83 | 43 | 0.442      | 0.422 | 0.386 |
| 82 | 71 | 0.804      | 0.788 | 0.754 | 83 | 44 | 0.454      | 0.434 | 0.398 |
| 82 | 72 | 0.818      | 0.802 | 0.769 | 83 | 45 | 0.466      | 0.446 | 0.409 |
| 82 | 73 | 0.832      | 0.816 | 0.784 | 83 | 46 | 0.478      | 0.458 | 0.421 |
| 82 | 74 | 0.846      | 0.831 | 0.800 | 83 | 47 | 0.490      | 0.470 | 0.433 |
| 82 | 75 | 0.861      | 0.846 | 0.815 | 83 | 48 | 0.502      | 0.482 | 0.445 |
| 82 | 76 | 0.875      | 0.861 | 0.831 | 83 | 49 | 0.514      | 0.494 | 0.457 |
| 82 | 77 | 0.890      | 0.876 | 0.848 | 83 | 50 | 0.526      | 0.506 | 0.469 |
| 82 | 78 | 0.905      | 0.892 | 0.865 | 83 | 51 | 0.538      | 0.518 | 0.481 |
| 82 | 79 | 0.920      | 0.908 | 0.883 | 83 | 52 | 0.551      | 0.531 | 0.493 |
| 82 | 80 | 0.936      | 0.925 | 0.901 | 83 | 53 | 0.563      | 0.543 | 0.505 |
| 82 | 81 | 0.953      | 0.944 | 0.922 | 83 | 54 | 0.575      | 0.555 | 0.518 |
| 82 | 82 | 0.972      | 0.964 | 0.945 | 83 | 55 | 0.588      | 0.568 | 0.530 |
| 83 | 0  | 0.000      | 0.000 | 0.000 | 83 | 56 | 0.600      | 0.580 | 0.543 |
| 83 | 1  | 0.001      | 0.001 | 0.000 | 83 | 57 | 0.612      | 0.593 | 0.555 |
| 83 | 2  | 0.006      | 0.004 | 0.002 | 83 | 58 | 0.625      | 0.605 | 0.568 |
| 83 | 3  | 0.013      | 0.010 | 0.005 | 83 | 59 | 0.638      | 0.618 | 0.581 |
| 83 | 4  | 0.021      | 0.017 | 0.010 | 83 | 60 | 0.650      | 0.631 | 0.594 |
| 83 | 5  | 0.029      | 0.024 | 0.016 | 83 | 61 | 0.663      | 0.644 | 0.607 |
| 83 | 6  | 0.038      | 0.032 | 0.022 | 83 | 62 | 0.676      | 0.656 | 0.620 |
| 83 | 7  | 0.047      | 0.040 | 0.029 | 83 | 63 | 0.688      | 0.669 | 0.633 |
| 83 | 8  | 0.057      | 0.049 | 0.036 | 83 | 64 | 0.701      | 0.682 | 0.646 |
| 83 | 9  | 0.066      | 0.058 | 0.043 | 83 | 65 | 0.714      | 0.696 | 0.660 |
| 83 | 10 | 0.076      | 0.067 | 0.051 | 83 | 66 | 0.727      | 0.709 | 0.673 |
| 83 | 11 | 0.086      | 0.076 | 0.059 | 83 | 67 | 0.740      | 0.722 | 0.687 |
| 83 | 12 | 0.096      | 0.086 | 0.068 | 83 | 68 | 0.753      | 0.735 | 0.700 |
| 83 | 13 | 0.106      | 0.095 | 0.076 | 83 | 69 | 0.767      | 0.749 | 0.714 |
| 83 | 14 | 0.117      | 0.105 | 0.085 | 83 | 70 | 0.780      | 0.763 | 0.729 |
| 83 | 15 | 0.127      | 0.115 | 0.094 | 83 | 71 | 0.793      | 0.776 | 0.743 |
| 83 | 16 | 0.137      | 0.125 | 0.103 | 83 | 72 | 0.807      | 0.790 | 0.757 |
| 83 | 17 | 0.148      | 0.135 | 0.112 | 83 | 73 | 0.820      | 0.804 | 0.772 |
| 83 | 18 | 0.159      | 0.145 | 0.121 | 83 | 74 | 0.834      | 0.818 | 0.787 |
| 83 | 19 | 0.169      | 0.155 | 0.131 | 83 | 75 | 0.848      | 0.833 | 0.802 |
| 83 | 20 | 0.180      | 0.166 | 0.140 | 83 | 76 | 0.862      | 0.847 | 0.817 |
| 83 | 21 | 0.191      | 0.176 | 0.150 | 83 | 77 | 0.877      | 0.862 | 0.833 |
| 83 | 22 | 0.202      | 0.187 | 0.160 | 83 | 78 | 0.891      | 0.877 | 0.850 |
| 83 | 23 | 0.213      | 0.197 | 0.170 | 83 | 79 | 0.906      | 0.893 | 0.866 |
| 83 | 24 | 0.224      | 0.208 | 0.180 | 83 | 80 | 0.921      | 0.909 | 0.884 |
| 83 | 25 | 0.235      | 0.219 | 0.190 | 83 | 81 | 0.937      | 0.926 | 0.903 |
| 83 | 26 | 0.246      | 0.230 | 0.200 | 83 | 82 | 0.954      | 0.944 | 0.923 |
| 83 | 27 | 0.257      | 0.240 | 0.211 | 83 | 83 | 0.973      | 0.965 | 0.946 |
| 83 | 28 | 0.268      | 0.251 | 0.221 | 84 | 0  | 0.000      | 0.000 | 0.000 |
| 83 | 29 | 0.280      | 0.262 | 0.231 | 84 | 1  | 0.001      | 0.001 | 0.000 |
| 83 | 30 | 0.291      | 0.273 | 0.242 | 84 | 2  | 0.006      | 0.004 | 0.002 |
| 83 | 31 | 0.302      | 0.285 | 0.253 | 84 | 3  | 0.013      | 0.010 | 0.005 |
| 83 | 32 | 0.314      | 0.296 | 0.263 | 84 | 4  | 0.021      | 0.016 | 0.010 |
| 83 | 33 | 0.325      | 0.307 | 0.274 | 84 | 5  | 0.029      | 0.024 | 0.015 |
| 83 | 34 | 0.337      | 0.318 | 0.285 | 84 | 6  | 0.038      | 0.031 | 0.022 |
| 83 | 35 | 0.348      | 0.330 | 0.296 | 84 | 7  | 0.047      | 0.040 | 0.028 |
| 83 | 36 | 0.360      | 0.341 | 0.307 | 84 | 8  | 0.056      | 0.048 | 0.035 |
| 83 | 37 | 0.371      | 0.353 | 0.318 | 84 | 9  | 0.066      | 0.057 | 0.043 |
| 83 | 38 | 0.383      | 0.364 | 0.329 | 84 | 10 | 0.075      | 0.066 | 0.051 |
| 83 | 39 | 0.395      | 0.376 | 0.340 | 84 | 11 | 0.085      | 0.075 | 0.059 |
| 83 | 40 | 0.406      | 0.387 | 0.352 | 84 | 12 | 0.095      | 0.085 | 0.067 |
| 83 | 41 | 0.418      | 0.399 | 0.363 | 84 | 13 | 0.105      | 0.094 | 0.075 |
| 83 | 42 | 0.430      | 0.411 | 0.375 | 84 | 14 | 0.115      | 0.104 | 0.084 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 84 | 15 | 0.125            | 0.113 | 0.093 | 84 | 71 | 0.782            | 0.765 | 0.732 |
| 84 | 16 | 0.136            | 0.123 | 0.102 | 84 | 72 | 0.796            | 0.779 | 0.746 |
| 84 | 17 | 0.146            | 0.133 | 0.111 | 84 | 73 | 0.809            | 0.793 | 0.760 |
| 84 | 18 | 0.157            | 0.143 | 0.120 | 84 | 74 | 0.822            | 0.806 | 0.774 |
| 84 | 19 | 0.167            | 0.153 | 0.129 | 84 | 75 | 0.836            | 0.820 | 0.789 |
| 84 | 20 | 0.178            | 0.164 | 0.139 | 84 | 76 | 0.850            | 0.835 | 0.804 |
| 84 | 21 | 0.189            | 0.174 | 0.148 | 84 | 77 | 0.864            | 0.849 | 0.820 |
| 84 | 22 | 0.199            | 0.184 | 0.158 | 84 | 78 | 0.878            | 0.864 | 0.835 |
| 84 | 23 | 0.210            | 0.195 | 0.168 | 84 | 79 | 0.892            | 0.879 | 0.851 |
| 84 | 24 | 0.221            | 0.205 | 0.178 | 84 | 80 | 0.907            | 0.894 | 0.868 |
| 84 | 25 | 0.232            | 0.216 | 0.188 | 84 | 81 | 0.922            | 0.910 | 0.885 |
| 84 | 26 | 0.243            | 0.227 | 0.198 | 84 | 82 | 0.938            | 0.927 | 0.904 |
| 84 | 27 | 0.254            | 0.237 | 0.208 | 84 | 83 | 0.955            | 0.945 | 0.924 |
| 84 | 28 | 0.265            | 0.248 | 0.218 | 84 | 84 | 0.973            | 0.965 | 0.947 |
| 84 | 29 | 0.276            | 0.259 | 0.228 | 85 | 0  | 0.000            | 0.000 | 0.000 |
| 84 | 30 | 0.287            | 0.270 | 0.239 | 85 | 1  | 0.001            | 0.001 | 0.000 |
| 84 | 31 | 0.299            | 0.281 | 0.249 | 85 | 2  | 0.006            | 0.004 | 0.002 |
| 84 | 32 | 0.310            | 0.292 | 0.260 | 85 | 3  | 0.013            | 0.010 | 0.005 |
| 84 | 33 | 0.321            | 0.303 | 0.271 | 85 | 4  | 0.021            | 0.016 | 0.010 |
| 84 | 34 | 0.332            | 0.314 | 0.281 | 85 | 5  | 0.029            | 0.023 | 0.015 |
| 84 | 35 | 0.344            | 0.325 | 0.292 | 85 | 6  | 0.037            | 0.031 | 0.021 |
| 84 | 36 | 0.355            | 0.337 | 0.303 | 85 | 7  | 0.046            | 0.039 | 0.028 |
| 84 | 37 | 0.367            | 0.348 | 0.314 | 85 | 8  | 0.056            | 0.048 | 0.035 |
| 84 | 38 | 0.378            | 0.359 | 0.325 | 85 | 9  | 0.065            | 0.056 | 0.042 |
| 84 | 39 | 0.390            | 0.371 | 0.336 | 85 | 10 | 0.074            | 0.065 | 0.050 |
| 84 | 40 | 0.401            | 0.382 | 0.347 | 85 | 11 | 0.084            | 0.074 | 0.058 |
| 84 | 41 | 0.413            | 0.394 | 0.358 | 85 | 12 | 0.094            | 0.083 | 0.066 |
| 84 | 42 | 0.425            | 0.405 | 0.370 | 85 | 13 | 0.104            | 0.093 | 0.074 |
| 84 | 43 | 0.436            | 0.417 | 0.381 | 85 | 14 | 0.114            | 0.102 | 0.083 |
| 84 | 44 | 0.448            | 0.429 | 0.392 | 85 | 15 | 0.124            | 0.112 | 0.092 |
| 84 | 45 | 0.460            | 0.440 | 0.404 | 85 | 16 | 0.134            | 0.122 | 0.100 |
| 84 | 46 | 0.472            | 0.452 | 0.416 | 85 | 17 | 0.144            | 0.132 | 0.109 |
| 84 | 47 | 0.484            | 0.464 | 0.427 | 85 | 18 | 0.155            | 0.141 | 0.118 |
| 84 | 48 | 0.495            | 0.476 | 0.439 | 85 | 19 | 0.165            | 0.151 | 0.128 |
| 84 | 49 | 0.507            | 0.488 | 0.451 | 85 | 20 | 0.176            | 0.162 | 0.137 |
| 84 | 50 | 0.519            | 0.500 | 0.462 | 85 | 21 | 0.186            | 0.172 | 0.146 |
| 84 | 51 | 0.531            | 0.512 | 0.474 | 85 | 22 | 0.197            | 0.182 | 0.156 |
| 84 | 52 | 0.543            | 0.524 | 0.486 | 85 | 23 | 0.208            | 0.192 | 0.166 |
| 84 | 53 | 0.556            | 0.536 | 0.498 | 85 | 24 | 0.218            | 0.203 | 0.175 |
| 84 | 54 | 0.568            | 0.548 | 0.511 | 85 | 25 | 0.229            | 0.213 | 0.185 |
| 84 | 55 | 0.580            | 0.560 | 0.523 | 85 | 26 | 0.240            | 0.224 | 0.195 |
| 84 | 56 | 0.592            | 0.572 | 0.535 | 85 | 27 | 0.251            | 0.234 | 0.205 |
| 84 | 57 | 0.605            | 0.585 | 0.548 | 85 | 28 | 0.262            | 0.245 | 0.215 |
| 84 | 58 | 0.617            | 0.597 | 0.560 | 85 | 29 | 0.273            | 0.256 | 0.226 |
| 84 | 59 | 0.629            | 0.610 | 0.573 | 85 | 30 | 0.284            | 0.267 | 0.236 |
| 84 | 60 | 0.642            | 0.622 | 0.585 | 85 | 31 | 0.295            | 0.277 | 0.246 |
| 84 | 61 | 0.654            | 0.635 | 0.598 | 85 | 32 | 0.306            | 0.288 | 0.257 |
| 84 | 62 | 0.667            | 0.648 | 0.611 | 85 | 33 | 0.317            | 0.299 | 0.267 |
| 84 | 63 | 0.679            | 0.660 | 0.624 | 85 | 34 | 0.328            | 0.310 | 0.278 |
| 84 | 64 | 0.692            | 0.673 | 0.637 | 85 | 35 | 0.340            | 0.321 | 0.288 |
| 84 | 65 | 0.705            | 0.686 | 0.650 | 85 | 36 | 0.351            | 0.332 | 0.299 |
| 84 | 66 | 0.717            | 0.699 | 0.663 | 85 | 37 | 0.362            | 0.344 | 0.310 |
| 84 | 67 | 0.730            | 0.712 | 0.677 | 85 | 38 | 0.374            | 0.355 | 0.321 |
| 84 | 68 | 0.743            | 0.725 | 0.690 | 85 | 39 | 0.385            | 0.366 | 0.332 |
| 84 | 69 | 0.756            | 0.738 | 0.704 | 85 | 40 | 0.396            | 0.377 | 0.343 |
| 84 | 70 | 0.769            | 0.752 | 0.718 | 85 | 41 | 0.408            | 0.389 | 0.354 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 85 | 42 | 0.419      | 0.400 | 0.365 | 86 | 13 | 0.103      | 0.092 | 0.073 |
| 85 | 43 | 0.431      | 0.412 | 0.376 | 86 | 14 | 0.112      | 0.101 | 0.082 |
| 85 | 44 | 0.442      | 0.423 | 0.387 | 86 | 15 | 0.122      | 0.111 | 0.090 |
| 85 | 45 | 0.454      | 0.435 | 0.399 | 86 | 16 | 0.132      | 0.120 | 0.099 |
| 85 | 46 | 0.466      | 0.446 | 0.410 | 86 | 17 | 0.143      | 0.130 | 0.108 |
| 85 | 47 | 0.477      | 0.458 | 0.421 | 86 | 18 | 0.153      | 0.140 | 0.117 |
| 85 | 48 | 0.489      | 0.470 | 0.433 | 86 | 19 | 0.163      | 0.150 | 0.126 |
| 85 | 49 | 0.501      | 0.481 | 0.445 | 86 | 20 | 0.174      | 0.160 | 0.135 |
| 85 | 50 | 0.513      | 0.493 | 0.456 | 86 | 21 | 0.184      | 0.170 | 0.145 |
| 85 | 51 | 0.525      | 0.505 | 0.468 | 86 | 22 | 0.194      | 0.180 | 0.154 |
| 85 | 52 | 0.537      | 0.517 | 0.480 | 86 | 23 | 0.205      | 0.190 | 0.164 |
| 85 | 53 | 0.548      | 0.529 | 0.492 | 86 | 24 | 0.216      | 0.200 | 0.173 |
| 85 | 54 | 0.560      | 0.541 | 0.504 | 86 | 25 | 0.226      | 0.211 | 0.183 |
| 85 | 55 | 0.572      | 0.553 | 0.516 | 86 | 26 | 0.237      | 0.221 | 0.193 |
| 85 | 56 | 0.585      | 0.565 | 0.528 | 86 | 27 | 0.248      | 0.232 | 0.203 |
| 85 | 57 | 0.597      | 0.577 | 0.540 | 86 | 28 | 0.259      | 0.242 | 0.213 |
| 85 | 58 | 0.609      | 0.589 | 0.552 | 86 | 29 | 0.269      | 0.253 | 0.223 |
| 85 | 59 | 0.621      | 0.602 | 0.565 | 86 | 30 | 0.280      | 0.263 | 0.233 |
| 85 | 60 | 0.633      | 0.614 | 0.577 | 86 | 31 | 0.291      | 0.274 | 0.243 |
| 85 | 61 | 0.646      | 0.626 | 0.590 | 86 | 32 | 0.302      | 0.285 | 0.253 |
| 85 | 62 | 0.658      | 0.639 | 0.602 | 86 | 33 | 0.313      | 0.296 | 0.264 |
| 85 | 63 | 0.670      | 0.651 | 0.615 | 86 | 34 | 0.324      | 0.306 | 0.274 |
| 85 | 64 | 0.683      | 0.664 | 0.628 | 86 | 35 | 0.335      | 0.317 | 0.285 |
| 85 | 65 | 0.695      | 0.677 | 0.641 | 86 | 36 | 0.347      | 0.328 | 0.295 |
| 85 | 66 | 0.708      | 0.689 | 0.654 | 86 | 37 | 0.358      | 0.339 | 0.306 |
| 85 | 67 | 0.721      | 0.702 | 0.667 | 86 | 38 | 0.369      | 0.350 | 0.317 |
| 85 | 68 | 0.733      | 0.715 | 0.680 | 86 | 39 | 0.380      | 0.362 | 0.327 |
| 85 | 69 | 0.746      | 0.728 | 0.693 | 86 | 40 | 0.391      | 0.373 | 0.338 |
| 85 | 70 | 0.759      | 0.741 | 0.707 | 86 | 41 | 0.403      | 0.384 | 0.349 |
| 85 | 71 | 0.772      | 0.755 | 0.721 | 86 | 42 | 0.414      | 0.395 | 0.360 |
| 85 | 72 | 0.785      | 0.768 | 0.734 | 86 | 43 | 0.426      | 0.406 | 0.371 |
| 85 | 73 | 0.798      | 0.781 | 0.748 | 86 | 44 | 0.437      | 0.416 | 0.382 |
| 85 | 74 | 0.811      | 0.795 | 0.763 | 86 | 45 | 0.448      | 0.429 | 0.393 |
| 85 | 75 | 0.824      | 0.809 | 0.777 | 86 | 46 | 0.460      | 0.441 | 0.405 |
| 85 | 76 | 0.838      | 0.822 | 0.792 | 86 | 47 | 0.472      | 0.452 | 0.416 |
| 85 | 77 | 0.852      | 0.837 | 0.806 | 86 | 48 | 0.483      | 0.464 | 0.427 |
| 85 | 78 | 0.865      | 0.851 | 0.822 | 86 | 49 | 0.495      | 0.475 | 0.439 |
| 85 | 79 | 0.879      | 0.865 | 0.837 | 86 | 50 | 0.506      | 0.487 | 0.450 |
| 85 | 80 | 0.894      | 0.880 | 0.853 | 86 | 51 | 0.518      | 0.499 | 0.462 |
| 85 | 81 | 0.908      | 0.896 | 0.869 | 86 | 52 | 0.530      | 0.510 | 0.474 |
| 85 | 82 | 0.923      | 0.911 | 0.887 | 86 | 53 | 0.542      | 0.522 | 0.485 |
| 85 | 83 | 0.939      | 0.928 | 0.905 | 86 | 54 | 0.553      | 0.534 | 0.497 |
| 85 | 84 | 0.955      | 0.946 | 0.924 | 86 | 55 | 0.565      | 0.546 | 0.509 |
| 85 | 85 | 0.973      | 0.965 | 0.947 | 86 | 56 | 0.577      | 0.558 | 0.521 |
| 86 | 0  | 0.000      | 0.000 | 0.000 | 86 | 57 | 0.589      | 0.570 | 0.533 |
| 86 | 1  | 0.001      | 0.001 | 0.000 | 86 | 58 | 0.601      | 0.582 | 0.545 |
| 86 | 2  | 0.006      | 0.004 | 0.002 | 86 | 59 | 0.613      | 0.594 | 0.557 |
| 86 | 3  | 0.013      | 0.010 | 0.005 | 86 | 60 | 0.625      | 0.606 | 0.569 |
| 86 | 4  | 0.021      | 0.016 | 0.010 | 86 | 61 | 0.637      | 0.618 | 0.582 |
| 86 | 5  | 0.028      | 0.023 | 0.015 | 86 | 62 | 0.650      | 0.630 | 0.594 |
| 86 | 6  | 0.037      | 0.031 | 0.021 | 86 | 63 | 0.662      | 0.643 | 0.607 |
| 86 | 7  | 0.046      | 0.039 | 0.028 | 86 | 64 | 0.674      | 0.655 | 0.619 |
| 86 | 8  | 0.055      | 0.047 | 0.034 | 86 | 65 | 0.686      | 0.668 | 0.632 |
| 86 | 9  | 0.064      | 0.056 | 0.042 | 86 | 66 | 0.699      | 0.680 | 0.645 |
| 86 | 10 | 0.074      | 0.064 | 0.049 | 86 | 67 | 0.711      | 0.693 | 0.657 |
| 86 | 11 | 0.083      | 0.073 | 0.057 | 86 | 68 | 0.724      | 0.706 | 0.670 |
| 86 | 12 | 0.093      | 0.082 | 0.065 | 86 | 69 | 0.736      | 0.718 | 0.684 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 86 | 70 | 0.749            | 0.731 | 0.697 | 87 | 40 | 0.387            | 0.368 | 0.334 |
| 86 | 71 | 0.762            | 0.744 | 0.710 | 87 | 41 | 0.398            | 0.379 | 0.345 |
| 86 | 72 | 0.774            | 0.757 | 0.724 | 87 | 42 | 0.409            | 0.390 | 0.356 |
| 86 | 73 | 0.787            | 0.770 | 0.737 | 87 | 43 | 0.420            | 0.401 | 0.366 |
| 86 | 74 | 0.800            | 0.784 | 0.751 | 87 | 44 | 0.432            | 0.413 | 0.377 |
|    |    |                  |       |       |    |    |                  |       |       |
| 86 | 75 | 0.813            | 0.797 | 0.765 | 87 | 45 | 0.443            | 0.424 | 0.388 |
| 86 | 76 | 0.826            | 0.811 | 0.779 | 87 | 46 | 0.454            | 0.435 | 0.400 |
| 86 | 77 | 0.840            | 0.824 | 0.794 | 87 | 47 | 0.466            | 0.446 | 0.411 |
| 86 | 78 | 0.853            | 0.838 | 0.808 | 87 | 48 | 0.477            | 0.458 | 0.422 |
| 86 | 79 | 0.867            | 0.852 | 0.823 | 87 | 49 | 0.489            | 0.469 | 0.433 |
|    |    |                  |       |       |    |    |                  |       |       |
| 86 | 80 | 0.881            | 0.867 | 0.839 | 87 | 50 | 0.500            | 0.481 | 0.444 |
| 86 | 81 | 0.895            | 0.882 | 0.855 | 87 | 51 | 0.512            | 0.492 | 0.456 |
| 86 | 82 | 0.909            | 0.897 | 0.871 | 87 | 52 | 0.523            | 0.504 | 0.467 |
| 86 | 83 | 0.924            | 0.912 | 0.888 | 87 | 53 | 0.535            | 0.515 | 0.479 |
| 86 | 84 | 0.939            | 0.929 | 0.906 | 87 | 54 | 0.547            | 0.527 | 0.490 |
|    |    |                  |       |       |    |    |                  |       |       |
| 86 | 85 | 0.956            | 0.946 | 0.925 | 87 | 55 | 0.558            | 0.539 | 0.502 |
| 86 | 86 | 0.974            | 0.966 | 0.948 | 87 | 56 | 0.570            | 0.551 | 0.514 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 0  | 0.000            | 0.000 | 0.000 | 87 | 57 | 0.582            | 0.562 | 0.526 |
| 87 | 1  | 0.001            | 0.001 | 0.000 | 87 | 58 | 0.594            | 0.574 | 0.538 |
| 87 | 2  | 0.006            | 0.004 | 0.002 | 87 | 59 | 0.606            | 0.586 | 0.550 |
| 87 | 3  | 0.013            | 0.009 | 0.005 |    |    |                  |       |       |
| 87 | 4  | 0.020            | 0.016 | 0.010 | 87 | 60 | 0.617            | 0.598 | 0.562 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 5  | 0.028            | 0.023 | 0.015 | 87 | 61 | 0.629            | 0.610 | 0.574 |
| 87 | 6  | 0.036            | 0.030 | 0.021 | 87 | 62 | 0.641            | 0.622 | 0.586 |
| 87 | 7  | 0.045            | 0.038 | 0.027 | 87 | 63 | 0.653            | 0.634 | 0.598 |
| 87 | 8  | 0.054            | 0.047 | 0.034 | 87 | 64 | 0.665            | 0.647 | 0.611 |
| 87 | 9  | 0.063            | 0.055 | 0.041 |    |    |                  |       |       |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 10 | 0.073            | 0.064 | 0.049 | 87 | 65 | 0.678            | 0.659 | 0.623 |
| 87 | 11 | 0.082            | 0.073 | 0.057 | 87 | 66 | 0.690            | 0.671 | 0.636 |
| 87 | 12 | 0.092            | 0.082 | 0.064 | 87 | 67 | 0.702            | 0.684 | 0.648 |
| 87 | 13 | 0.101            | 0.091 | 0.073 | 87 | 68 | 0.714            | 0.696 | 0.661 |
| 87 | 14 | 0.111            | 0.100 | 0.081 | 87 | 69 | 0.727            | 0.709 | 0.674 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 15 | 0.121            | 0.109 | 0.089 | 87 | 70 | 0.739            | 0.721 | 0.687 |
| 87 | 16 | 0.131            | 0.119 | 0.098 | 87 | 71 | 0.752            | 0.734 | 0.700 |
| 87 | 17 | 0.141            | 0.128 | 0.107 | 87 | 72 | 0.764            | 0.747 | 0.713 |
| 87 | 18 | 0.151            | 0.138 | 0.116 | 87 | 73 | 0.777            | 0.760 | 0.727 |
| 87 | 19 | 0.161            | 0.148 | 0.125 | 87 | 74 | 0.790            | 0.773 | 0.740 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 20 | 0.171            | 0.158 | 0.134 | 87 | 75 | 0.802            | 0.786 | 0.754 |
| 87 | 21 | 0.182            | 0.168 | 0.143 | 87 | 76 | 0.815            | 0.799 | 0.768 |
| 87 | 22 | 0.192            | 0.178 | 0.152 | 87 | 77 | 0.828            | 0.813 | 0.782 |
| 87 | 23 | 0.203            | 0.188 | 0.162 | 87 | 78 | 0.842            | 0.826 | 0.796 |
| 87 | 24 | 0.213            | 0.198 | 0.171 | 87 | 79 | 0.855            | 0.840 | 0.811 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 25 | 0.224            | 0.208 | 0.181 | 87 | 80 | 0.868            | 0.854 | 0.825 |
| 87 | 26 | 0.234            | 0.218 | 0.190 | 87 | 81 | 0.882            | 0.868 | 0.841 |
| 87 | 27 | 0.245            | 0.229 | 0.200 | 87 | 82 | 0.896            | 0.883 | 0.856 |
| 87 | 28 | 0.255            | 0.239 | 0.210 | 87 | 83 | 0.910            | 0.898 | 0.872 |
| 87 | 29 | 0.266            | 0.250 | 0.220 | 87 | 84 | 0.925            | 0.913 | 0.889 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 30 | 0.277            | 0.260 | 0.230 | 87 | 85 | 0.940            | 0.929 | 0.907 |
| 87 | 31 | 0.288            | 0.271 | 0.240 | 87 | 86 | 0.956            | 0.947 | 0.926 |
| 87 | 32 | 0.299            | 0.281 | 0.250 | 87 | 87 | 0.974            | 0.966 | 0.949 |
| 87 | 33 | 0.309            | 0.292 | 0.260 |    |    |                  |       |       |
| 87 | 34 | 0.320            | 0.303 | 0.271 | 88 | 0  | 0.000            | 0.000 | 0.000 |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 35 | 0.331            | 0.314 | 0.281 | 88 | 1  | 0.001            | 0.001 | 0.000 |
| 87 | 36 | 0.342            | 0.324 | 0.292 | 88 | 2  | 0.006            | 0.004 | 0.002 |
| 87 | 37 | 0.353            | 0.335 | 0.302 | 88 | 3  | 0.013            | 0.009 | 0.005 |
| 87 | 38 | 0.364            | 0.346 | 0.313 | 88 | 4  | 0.020            | 0.016 | 0.009 |
| 87 | 39 | 0.376            | 0.357 | 0.323 |    |    |                  |       |       |
|    |    |                  |       |       |    |    |                  |       |       |
| 87 | 35 | 0.331            | 0.314 | 0.281 | 88 | 5  | 0.028            | 0.023 | 0.015 |
| 87 | 36 | 0.342            | 0.324 | 0.292 | 88 | 6  | 0.036            | 0.030 | 0.021 |
| 87 | 37 | 0.353            | 0.335 | 0.302 | 88 | 7  | 0.045            | 0.038 | 0.027 |
| 87 | 38 | 0.364            | 0.346 | 0.313 | 88 | 8  | 0.054            | 0.046 | 0.034 |
| 87 | 39 | 0.376            | 0.357 | 0.323 |    |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL |  | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|--|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |  |    |    | 90%        | 95%   |       |
| 88 | 9  | 0.063      | 0.054 | 0.041 |  | 88 | 65 | 0.669      | 0.650 | 0.615 |
| 88 | 10 | 0.072      | 0.063 | 0.048 |  | 88 | 66 | 0.681      | 0.663 | 0.627 |
| 88 | 11 | 0.081      | 0.072 | 0.056 |  | 88 | 67 | 0.693      | 0.675 | 0.639 |
| 88 | 12 | 0.091      | 0.081 | 0.064 |  | 88 | 68 | 0.705      | 0.687 | 0.652 |
| 88 | 13 | 0.100      | 0.090 | 0.072 |  | 88 | 69 | 0.717      | 0.699 | 0.665 |
| 88 | 14 | 0.110      | 0.099 | 0.080 |  | 88 | 70 | 0.730      | 0.712 | 0.677 |
| 88 | 15 | 0.120      | 0.108 | 0.088 |  | 88 | 71 | 0.742      | 0.724 | 0.690 |
| 88 | 16 | 0.129      | 0.117 | 0.097 |  | 88 | 72 | 0.754      | 0.737 | 0.703 |
| 88 | 17 | 0.139      | 0.127 | 0.105 |  | 88 | 73 | 0.767      | 0.750 | 0.716 |
| 88 | 18 | 0.149      | 0.136 | 0.114 |  | 88 | 74 | 0.779      | 0.762 | 0.730 |
| 88 | 19 | 0.159      | 0.146 | 0.123 |  | 88 | 75 | 0.792      | 0.775 | 0.743 |
| 88 | 20 | 0.169      | 0.156 | 0.132 |  | 88 | 76 | 0.805      | 0.788 | 0.756 |
| 88 | 21 | 0.180      | 0.166 | 0.141 |  | 88 | 77 | 0.817      | 0.802 | 0.770 |
| 88 | 22 | 0.190      | 0.176 | 0.150 |  | 88 | 78 | 0.830      | 0.815 | 0.784 |
| 88 | 23 | 0.200      | 0.186 | 0.160 |  | 88 | 79 | 0.843      | 0.828 | 0.798 |
| 88 | 24 | 0.211      | 0.196 | 0.169 |  | 88 | 80 | 0.856      | 0.842 | 0.813 |
| 88 | 25 | 0.221      | 0.206 | 0.179 |  | 88 | 81 | 0.870      | 0.856 | 0.827 |
| 88 | 26 | 0.231      | 0.216 | 0.188 |  | 88 | 82 | 0.883      | 0.870 | 0.842 |
| 88 | 27 | 0.242      | 0.226 | 0.198 |  | 88 | 83 | 0.897      | 0.884 | 0.858 |
| 88 | 28 | 0.252      | 0.236 | 0.207 |  | 88 | 84 | 0.911      | 0.899 | 0.874 |
| 88 | 29 | 0.263      | 0.247 | 0.217 |  | 88 | 85 | 0.926      | 0.914 | 0.890 |
| 88 | 30 | 0.274      | 0.257 | 0.227 |  | 88 | 86 | 0.941      | 0.930 | 0.908 |
| 88 | 31 | 0.284      | 0.267 | 0.237 |  | 88 | 87 | 0.957      | 0.947 | 0.927 |
| 88 | 32 | 0.295      | 0.278 | 0.247 |  | 88 | 88 | 0.974      | 0.967 | 0.949 |
| 88 | 33 | 0.306      | 0.289 | 0.257 |  | 89 | 0  | 0.000      | 0.000 | 0.000 |
| 88 | 34 | 0.317      | 0.299 | 0.267 |  | 89 | 1  | 0.001      | 0.001 | 0.000 |
| 88 | 35 | 0.327      | 0.310 | 0.278 |  | 89 | 2  | 0.006      | 0.004 | 0.002 |
| 88 | 36 | 0.338      | 0.320 | 0.288 |  | 89 | 3  | 0.012      | 0.009 | 0.005 |
| 88 | 37 | 0.349      | 0.331 | 0.298 |  | 89 | 4  | 0.020      | 0.015 | 0.009 |
| 88 | 38 | 0.360      | 0.342 | 0.309 |  | 89 | 5  | 0.027      | 0.022 | 0.015 |
| 88 | 39 | 0.371      | 0.353 | 0.319 |  | 89 | 6  | 0.036      | 0.030 | 0.020 |
| 88 | 40 | 0.382      | 0.364 | 0.330 |  | 89 | 7  | 0.044      | 0.037 | 0.027 |
| 88 | 41 | 0.393      | 0.375 | 0.340 |  | 89 | 8  | 0.053      | 0.045 | 0.033 |
| 88 | 42 | 0.404      | 0.386 | 0.351 |  | 89 | 9  | 0.062      | 0.054 | 0.040 |
| 88 | 43 | 0.415      | 0.397 | 0.362 |  | 89 | 10 | 0.071      | 0.062 | 0.048 |
| 88 | 44 | 0.426      | 0.408 | 0.373 |  | 89 | 11 | 0.080      | 0.071 | 0.055 |
| 88 | 45 | 0.438      | 0.419 | 0.384 |  | 89 | 12 | 0.090      | 0.080 | 0.063 |
| 88 | 46 | 0.449      | 0.430 | 0.394 |  | 89 | 13 | 0.099      | 0.089 | 0.071 |
| 88 | 47 | 0.460      | 0.441 | 0.405 |  | 89 | 14 | 0.109      | 0.098 | 0.079 |
| 88 | 48 | 0.471      | 0.452 | 0.416 |  | 89 | 15 | 0.118      | 0.107 | 0.087 |
| 88 | 49 | 0.483      | 0.463 | 0.428 |  | 89 | 16 | 0.128      | 0.116 | 0.096 |
| 88 | 50 | 0.494      | 0.475 | 0.439 |  | 89 | 17 | 0.138      | 0.125 | 0.104 |
| 88 | 51 | 0.505      | 0.486 | 0.450 |  | 89 | 18 | 0.148      | 0.135 | 0.113 |
| 88 | 52 | 0.517      | 0.498 | 0.461 |  | 89 | 19 | 0.158      | 0.144 | 0.122 |
| 88 | 53 | 0.528      | 0.509 | 0.473 |  | 89 | 20 | 0.168      | 0.154 | 0.131 |
| 88 | 54 | 0.540      | 0.520 | 0.484 |  | 89 | 21 | 0.178      | 0.164 | 0.139 |
| 88 | 55 | 0.551      | 0.532 | 0.496 |  | 89 | 22 | 0.188      | 0.174 | 0.149 |
| 88 | 56 | 0.563      | 0.544 | 0.507 |  | 89 | 23 | 0.198      | 0.183 | 0.158 |
| 88 | 57 | 0.575      | 0.555 | 0.519 |  | 89 | 24 | 0.208      | 0.193 | 0.167 |
| 88 | 58 | 0.586      | 0.567 | 0.531 |  | 89 | 25 | 0.218      | 0.203 | 0.176 |
| 88 | 59 | 0.598      | 0.579 | 0.542 |  | 89 | 26 | 0.229      | 0.213 | 0.186 |
| 88 | 60 | 0.610      | 0.591 | 0.554 |  | 89 | 27 | 0.239      | 0.223 | 0.195 |
| 88 | 61 | 0.622      | 0.602 | 0.566 |  | 89 | 28 | 0.250      | 0.234 | 0.205 |
| 88 | 62 | 0.633      | 0.614 | 0.578 |  | 89 | 29 | 0.260      | 0.244 | 0.215 |
| 88 | 63 | 0.645      | 0.626 | 0.590 |  | 89 | 30 | 0.270      | 0.254 | 0.224 |
| 88 | 64 | 0.657      | 0.638 | 0.602 |  | 89 | 31 | 0.281      | 0.264 | 0.234 |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% | N  | K  | CONFIDENCE<br>90% | CONFIDENCE<br>95% | LEVEL<br>99% |
|----|----|-------------------|-------------------|--------------|----|----|-------------------|-------------------|--------------|
| 89 | 32 | 0.292             | 0.275             | 0.244        | 89 | 87 | 0.941             | 0.931             | 0.909        |
| 89 | 33 | 0.302             | 0.285             | 0.254        | 89 | 88 | 0.957             | 0.948             | 0.928        |
| 89 | 34 | 0.313             | 0.296             | 0.264        | 89 | 89 | 0.975             | 0.967             | 0.950        |
| 89 | 35 | 0.324             | 0.306             | 0.274        | 90 | 0  | 0.000             | 0.000             | 0.000        |
| 89 | 36 | 0.334             | 0.317             | 0.284        | 90 | 1  | 0.001             | 0.001             | 0.000        |
| 89 | 37 | 0.345             | 0.327             | 0.295        | 90 | 2  | 0.006             | 0.004             | 0.002        |
| 89 | 38 | 0.356             | 0.338             | 0.305        | 90 | 3  | 0.012             | 0.009             | 0.005        |
| 89 | 39 | 0.367             | 0.349             | 0.315        | 90 | 4  | 0.020             | 0.015             | 0.009        |
| 89 | 40 | 0.378             | 0.359             | 0.326        | 90 | 5  | 0.027             | 0.022             | 0.014        |
| 89 | 41 | 0.388             | 0.370             | 0.336        | 90 | 6  | 0.035             | 0.029             | 0.020        |
| 89 | 42 | 0.399             | 0.381             | 0.347        | 90 | 7  | 0.044             | 0.037             | 0.026        |
| 89 | 43 | 0.410             | 0.392             | 0.357        | 90 | 8  | 0.052             | 0.045             | 0.033        |
| 89 | 44 | 0.421             | 0.403             | 0.368        | 90 | 9  | 0.061             | 0.053             | 0.040        |
| 89 | 45 | 0.432             | 0.414             | 0.379        | 90 | 10 | 0.070             | 0.061             | 0.047        |
| 89 | 46 | 0.444             | 0.425             | 0.390        | 90 | 11 | 0.079             | 0.070             | 0.055        |
| 89 | 47 | 0.455             | 0.436             | 0.400        | 90 | 12 | 0.089             | 0.079             | 0.062        |
| 89 | 48 | 0.466             | 0.447             | 0.411        | 90 | 13 | 0.098             | 0.088             | 0.070        |
| 89 | 49 | 0.477             | 0.458             | 0.422        | 90 | 14 | 0.107             | 0.097             | 0.078        |
| 89 | 50 | 0.488             | 0.469             | 0.433        | 90 | 15 | 0.117             | 0.106             | 0.086        |
| 89 | 51 | 0.499             | 0.480             | 0.444        | 90 | 16 | 0.127             | 0.115             | 0.095        |
| 89 | 52 | 0.511             | 0.491             | 0.455        | 90 | 17 | 0.136             | 0.124             | 0.103        |
| 89 | 53 | 0.522             | 0.503             | 0.467        | 90 | 18 | 0.146             | 0.133             | 0.112        |
| 89 | 54 | 0.533             | 0.514             | 0.478        | 90 | 19 | 0.156             | 0.143             | 0.120        |
| 89 | 55 | 0.545             | 0.525             | 0.489        | 90 | 20 | 0.166             | 0.152             | 0.129        |
| 89 | 56 | 0.556             | 0.537             | 0.501        | 90 | 21 | 0.176             | 0.162             | 0.138        |
| 89 | 57 | 0.568             | 0.548             | 0.512        | 90 | 22 | 0.186             | 0.172             | 0.147        |
| 89 | 58 | 0.579             | 0.560             | 0.524        | 90 | 23 | 0.196             | 0.181             | 0.156        |
| 89 | 59 | 0.591             | 0.571             | 0.535        | 90 | 24 | 0.206             | 0.191             | 0.165        |
| 89 | 60 | 0.602             | 0.583             | 0.547        | 90 | 25 | 0.216             | 0.201             | 0.174        |
| 89 | 61 | 0.614             | 0.595             | 0.559        | 90 | 26 | 0.226             | 0.211             | 0.184        |
| 89 | 62 | 0.626             | 0.607             | 0.571        | 90 | 27 | 0.236             | 0.221             | 0.193        |
| 89 | 63 | 0.637             | 0.618             | 0.582        | 90 | 28 | 0.247             | 0.231             | 0.203        |
| 89 | 64 | 0.649             | 0.630             | 0.594        | 90 | 29 | 0.257             | 0.241             | 0.212        |
| 89 | 65 | 0.661             | 0.642             | 0.607        | 90 | 30 | 0.267             | 0.251             | 0.222        |
| 89 | 66 | 0.673             | 0.654             | 0.619        | 90 | 31 | 0.278             | 0.261             | 0.231        |
| 89 | 67 | 0.685             | 0.666             | 0.631        | 90 | 32 | 0.288             | 0.271             | 0.241        |
| 89 | 68 | 0.696             | 0.678             | 0.643        | 90 | 33 | 0.299             | 0.282             | 0.251        |
| 89 | 69 | 0.708             | 0.690             | 0.656        | 90 | 34 | 0.309             | 0.292             | 0.261        |
| 89 | 70 | 0.720             | 0.703             | 0.668        | 90 | 35 | 0.320             | 0.302             | 0.271        |
| 89 | 71 | 0.733             | 0.715             | 0.681        | 90 | 36 | 0.330             | 0.313             | 0.281        |
| 89 | 72 | 0.745             | 0.727             | 0.693        | 90 | 37 | 0.341             | 0.323             | 0.291        |
| 89 | 73 | 0.757             | 0.740             | 0.706        | 90 | 38 | 0.352             | 0.334             | 0.301        |
| 89 | 74 | 0.769             | 0.752             | 0.719        | 90 | 39 | 0.362             | 0.344             | 0.312        |
| 89 | 75 | 0.782             | 0.765             | 0.732        | 90 | 40 | 0.373             | 0.355             | 0.322        |
| 89 | 76 | 0.794             | 0.778             | 0.746        | 90 | 41 | 0.384             | 0.366             | 0.332        |
| 89 | 77 | 0.807             | 0.791             | 0.759        | 90 | 42 | 0.395             | 0.376             | 0.343        |
| 89 | 78 | 0.819             | 0.804             | 0.773        | 90 | 43 | 0.406             | 0.387             | 0.353        |
| 89 | 79 | 0.832             | 0.817             | 0.786        | 90 | 44 | 0.416             | 0.398             | 0.364        |
| 89 | 80 | 0.845             | 0.830             | 0.800        | 90 | 45 | 0.427             | 0.409             | 0.374        |
| 89 | 81 | 0.858             | 0.844             | 0.815        | 90 | 46 | 0.438             | 0.419             | 0.385        |
| 89 | 82 | 0.871             | 0.857             | 0.829        | 90 | 47 | 0.449             | 0.430             | 0.395        |
| 89 | 83 | 0.885             | 0.871             | 0.844        | 90 | 48 | 0.460             | 0.441             | 0.406        |
| 89 | 84 | 0.898             | 0.885             | 0.859        | 90 | 49 | 0.471             | 0.452             | 0.417        |
| 89 | 85 | 0.912             | 0.900             | 0.875        | 90 | 50 | 0.482             | 0.463             | 0.428        |
| 89 | 86 | 0.926             | 0.915             | 0.892        | 90 | 51 | 0.493             | 0.474             | 0.439        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 90 | 52 | 0.505            | 0.485 | 0.450 | 91 | 18 | 0.144            | 0.132 | 0.110 |
| 90 | 53 | 0.516            | 0.497 | 0.461 | 91 | 19 | 0.154            | 0.141 | 0.119 |
| 90 | 54 | 0.527            | 0.508 | 0.472 | 91 | 20 | 0.164            | 0.151 | 0.128 |
| 90 | 55 | 0.538            | 0.519 | 0.483 | 91 | 21 | 0.174            | 0.160 | 0.136 |
| 90 | 56 | 0.549            | 0.530 | 0.494 | 91 | 22 | 0.183            | 0.170 | 0.145 |
| 90 | 57 | 0.561            | 0.542 | 0.506 | 91 | 23 | 0.193            | 0.179 | 0.154 |
| 90 | 58 | 0.572            | 0.553 | 0.517 | 91 | 24 | 0.203            | 0.189 | 0.163 |
| 90 | 59 | 0.584            | 0.564 | 0.528 | 91 | 25 | 0.213            | 0.199 | 0.172 |
| 90 | 60 | 0.595            | 0.576 | 0.540 | 91 | 26 | 0.224            | 0.208 | 0.182 |
| 90 | 61 | 0.606            | 0.587 | 0.551 | 91 | 27 | 0.234            | 0.218 | 0.191 |
| 90 | 62 | 0.618            | 0.599 | 0.563 | 91 | 28 | 0.244            | 0.228 | 0.200 |
| 90 | 63 | 0.630            | 0.611 | 0.575 | 91 | 29 | 0.254            | 0.238 | 0.210 |
| 90 | 64 | 0.641            | 0.622 | 0.587 | 91 | 30 | 0.264            | 0.248 | 0.219 |
| 90 | 65 | 0.653            | 0.634 | 0.599 | 91 | 31 | 0.275            | 0.258 | 0.229 |
| 90 | 66 | 0.664            | 0.646 | 0.611 | 91 | 32 | 0.285            | 0.268 | 0.238 |
| 90 | 67 | 0.676            | 0.658 | 0.623 | 91 | 33 | 0.295            | 0.278 | 0.248 |
| 90 | 68 | 0.688            | 0.670 | 0.635 | 91 | 34 | 0.306            | 0.289 | 0.258 |
| 90 | 69 | 0.700            | 0.682 | 0.647 | 91 | 35 | 0.316            | 0.299 | 0.268 |
| 90 | 70 | 0.712            | 0.694 | 0.659 | 91 | 36 | 0.327            | 0.309 | 0.278 |
| 90 | 71 | 0.723            | 0.706 | 0.671 | 91 | 37 | 0.337            | 0.320 | 0.288 |
| 90 | 72 | 0.735            | 0.718 | 0.684 | 91 | 38 | 0.348            | 0.330 | 0.298 |
| 90 | 73 | 0.747            | 0.730 | 0.697 | 91 | 39 | 0.358            | 0.340 | 0.308 |
| 90 | 74 | 0.760            | 0.743 | 0.709 | 91 | 40 | 0.369            | 0.351 | 0.318 |
| 90 | 75 | 0.772            | 0.755 | 0.722 | 91 | 41 | 0.379            | 0.361 | 0.328 |
| 90 | 76 | 0.784            | 0.768 | 0.735 | 91 | 42 | 0.390            | 0.372 | 0.338 |
| 90 | 77 | 0.796            | 0.780 | 0.748 | 91 | 43 | 0.401            | 0.382 | 0.349 |
| 90 | 78 | 0.809            | 0.793 | 0.762 | 91 | 44 | 0.412            | 0.393 | 0.359 |
| 90 | 79 | 0.821            | 0.806 | 0.775 | 91 | 45 | 0.422            | 0.404 | 0.370 |
| 90 | 80 | 0.834            | 0.819 | 0.789 | 91 | 46 | 0.433            | 0.415 | 0.380 |
| 90 | 81 | 0.847            | 0.832 | 0.802 | 91 | 47 | 0.444            | 0.425 | 0.391 |
| 90 | 82 | 0.860            | 0.845 | 0.817 | 91 | 48 | 0.455            | 0.436 | 0.401 |
| 90 | 83 | 0.873            | 0.859 | 0.831 | 91 | 49 | 0.466            | 0.447 | 0.412 |
| 90 | 84 | 0.886            | 0.873 | 0.846 | 91 | 50 | 0.477            | 0.458 | 0.423 |
| 90 | 85 | 0.899            | 0.887 | 0.861 | 91 | 51 | 0.488            | 0.469 | 0.433 |
| 90 | 86 | 0.913            | 0.901 | 0.876 | 91 | 52 | 0.499            | 0.480 | 0.444 |
| 90 | 87 | 0.927            | 0.916 | 0.893 | 91 | 53 | 0.510            | 0.491 | 0.455 |
| 90 | 88 | 0.942            | 0.932 | 0.910 | 91 | 54 | 0.521            | 0.502 | 0.466 |
| 90 | 89 | 0.958            | 0.948 | 0.929 | 91 | 55 | 0.532            | 0.513 | 0.477 |
| 90 | 90 | 0.975            | 0.967 | 0.950 | 91 | 56 | 0.543            | 0.524 | 0.488 |
| 91 | 0  | 0.000            | 0.000 | 0.000 | 91 | 57 | 0.554            | 0.535 | 0.499 |
| 91 | 1  | 0.001            | 0.001 | 0.000 | 91 | 58 | 0.565            | 0.546 | 0.510 |
| 91 | 2  | 0.006            | 0.004 | 0.002 | 91 | 59 | 0.577            | 0.558 | 0.522 |
| 91 | 3  | 0.012            | 0.009 | 0.005 | 91 | 60 | 0.588            | 0.569 | 0.533 |
| 91 | 4  | 0.019            | 0.015 | 0.009 | 91 | 61 | 0.599            | 0.580 | 0.544 |
| 91 | 5  | 0.027            | 0.022 | 0.014 | 91 | 62 | 0.611            | 0.592 | 0.556 |
| 91 | 6  | 0.035            | 0.029 | 0.020 | 91 | 63 | 0.622            | 0.603 | 0.567 |
| 91 | 7  | 0.043            | 0.037 | 0.026 | 91 | 64 | 0.633            | 0.615 | 0.579 |
| 91 | 8  | 0.052            | 0.044 | 0.033 | 91 | 65 | 0.645            | 0.626 | 0.591 |
| 91 | 9  | 0.061            | 0.053 | 0.039 | 91 | 66 | 0.656            | 0.638 | 0.603 |
| 91 | 10 | 0.069            | 0.061 | 0.047 | 91 | 67 | 0.668            | 0.650 | 0.614 |
| 91 | 11 | 0.078            | 0.069 | 0.054 | 91 | 68 | 0.679            | 0.661 | 0.626 |
| 91 | 12 | 0.088            | 0.078 | 0.062 | 91 | 69 | 0.691            | 0.673 | 0.638 |
| 91 | 13 | 0.097            | 0.087 | 0.069 | 91 | 70 | 0.703            | 0.685 | 0.650 |
| 91 | 14 | 0.106            | 0.095 | 0.077 | 91 | 71 | 0.715            | 0.697 | 0.663 |
| 91 | 15 | 0.116            | 0.104 | 0.085 | 91 | 72 | 0.726            | 0.709 | 0.675 |
| 91 | 16 | 0.125            | 0.113 | 0.093 | 91 | 73 | 0.738            | 0.721 | 0.687 |
| 91 | 17 | 0.135            | 0.123 | 0.102 | 91 | 74 | 0.750            | 0.733 | 0.700 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 91 | 75 | 0.762            | 0.745 | 0.712 | 92 | 40 | 0.365            | 0.347 | 0.314 |
| 91 | 76 | 0.774            | 0.758 | 0.725 | 92 | 41 | 0.375            | 0.357 | 0.324 |
| 91 | 77 | 0.786            | 0.770 | 0.738 | 92 | 42 | 0.386            | 0.368 | 0.334 |
| 91 | 78 | 0.799            | 0.782 | 0.751 | 92 | 43 | 0.396            | 0.378 | 0.345 |
| 91 | 79 | 0.811            | 0.795 | 0.764 | 92 | 44 | 0.407            | 0.389 | 0.355 |
| 91 | 80 | 0.823            | 0.808 | 0.777 | 92 | 45 | 0.418            | 0.399 | 0.365 |
| 91 | 81 | 0.836            | 0.821 | 0.791 | 92 | 46 | 0.428            | 0.410 | 0.375 |
| 91 | 82 | 0.848            | 0.834 | 0.804 | 92 | 47 | 0.439            | 0.420 | 0.386 |
| 91 | 83 | 0.861            | 0.847 | 0.818 | 92 | 48 | 0.450            | 0.431 | 0.396 |
| 91 | 84 | 0.874            | 0.860 | 0.833 | 92 | 49 | 0.460            | 0.442 | 0.407 |
| 91 | 85 | 0.887            | 0.874 | 0.847 | 92 | 50 | 0.471            | 0.452 | 0.417 |
| 91 | 86 | 0.900            | 0.888 | 0.862 | 92 | 51 | 0.482            | 0.463 | 0.428 |
| 91 | 87 | 0.914            | 0.902 | 0.878 | 92 | 52 | 0.493            | 0.474 | 0.439 |
| 91 | 88 | 0.928            | 0.917 | 0.894 | 92 | 53 | 0.504            | 0.485 | 0.450 |
| 91 | 89 | 0.943            | 0.932 | 0.911 | 92 | 54 | 0.515            | 0.496 | 0.460 |
| 91 | 90 | 0.958            | 0.949 | 0.929 | 92 | 55 | 0.526            | 0.507 | 0.471 |
| 91 | 91 | 0.975            | 0.968 | 0.951 | 92 | 56 | 0.537            | 0.518 | 0.482 |
| 92 | 0  | 0.000            | 0.000 | 0.000 | 92 | 57 | 0.548            | 0.529 | 0.493 |
| 92 | 1  | 0.001            | 0.001 | 0.000 | 92 | 58 | 0.559            | 0.540 | 0.504 |
| 92 | 2  | 0.006            | 0.004 | 0.002 | 92 | 59 | 0.570            | 0.551 | 0.515 |
| 92 | 3  | 0.012            | 0.009 | 0.005 | 92 | 60 | 0.581            | 0.562 | 0.526 |
| 92 | 4  | 0.019            | 0.015 | 0.009 | 92 | 61 | 0.592            | 0.573 | 0.538 |
| 92 | 5  | 0.027            | 0.022 | 0.014 | 92 | 62 | 0.603            | 0.584 | 0.549 |
| 92 | 6  | 0.034            | 0.029 | 0.020 | 92 | 63 | 0.615            | 0.596 | 0.560 |
| 92 | 7  | 0.043            | 0.036 | 0.026 | 92 | 64 | 0.626            | 0.607 | 0.572 |
| 92 | 8  | 0.051            | 0.044 | 0.032 | 92 | 65 | 0.637            | 0.619 | 0.583 |
| 92 | 9  | 0.060            | 0.052 | 0.039 | 92 | 66 | 0.649            | 0.630 | 0.595 |
| 92 | 10 | 0.069            | 0.060 | 0.046 | 92 | 67 | 0.660            | 0.642 | 0.607 |
| 92 | 11 | 0.078            | 0.068 | 0.053 | 92 | 68 | 0.671            | 0.653 | 0.618 |
| 92 | 12 | 0.087            | 0.077 | 0.061 | 92 | 69 | 0.683            | 0.665 | 0.630 |
| 92 | 13 | 0.096            | 0.086 | 0.069 | 92 | 70 | 0.694            | 0.676 | 0.642 |
| 92 | 14 | 0.105            | 0.094 | 0.076 | 92 | 71 | 0.706            | 0.688 | 0.654 |
| 92 | 15 | 0.114            | 0.103 | 0.084 | 92 | 72 | 0.718            | 0.700 | 0.666 |
| 92 | 16 | 0.124            | 0.112 | 0.092 | 92 | 73 | 0.729            | 0.712 | 0.678 |
| 92 | 17 | 0.133            | 0.121 | 0.101 | 92 | 74 | 0.741            | 0.724 | 0.690 |
| 92 | 18 | 0.143            | 0.130 | 0.109 | 92 | 75 | 0.753            | 0.736 | 0.703 |
| 92 | 19 | 0.152            | 0.140 | 0.118 | 92 | 76 | 0.765            | 0.748 | 0.715 |
| 92 | 20 | 0.162            | 0.149 | 0.126 | 92 | 77 | 0.777            | 0.760 | 0.728 |
| 92 | 21 | 0.172            | 0.158 | 0.135 | 92 | 78 | 0.789            | 0.772 | 0.740 |
| 92 | 22 | 0.181            | 0.168 | 0.143 | 92 | 79 | 0.801            | 0.785 | 0.753 |
| 92 | 23 | 0.191            | 0.177 | 0.152 | 92 | 80 | 0.813            | 0.797 | 0.766 |
| 92 | 24 | 0.201            | 0.187 | 0.161 | 92 | 81 | 0.825            | 0.810 | 0.780 |
| 92 | 25 | 0.211            | 0.196 | 0.170 | 92 | 82 | 0.837            | 0.823 | 0.793 |
| 92 | 26 | 0.221            | 0.206 | 0.179 | 92 | 83 | 0.850            | 0.835 | 0.807 |
| 92 | 27 | 0.231            | 0.216 | 0.189 | 92 | 84 | 0.863            | 0.849 | 0.820 |
| 92 | 28 | 0.241            | 0.226 | 0.198 | 92 | 85 | 0.875            | 0.862 | 0.834 |
| 92 | 29 | 0.251            | 0.235 | 0.207 | 92 | 86 | 0.888            | 0.875 | 0.849 |
| 92 | 30 | 0.261            | 0.245 | 0.217 | 92 | 87 | 0.901            | 0.889 | 0.864 |
| 92 | 31 | 0.271            | 0.255 | 0.226 | 92 | 88 | 0.915            | 0.903 | 0.879 |
| 92 | 32 | 0.282            | 0.265 | 0.236 | 92 | 89 | 0.929            | 0.918 | 0.895 |
| 92 | 33 | 0.292            | 0.275 | 0.245 | 92 | 90 | 0.943            | 0.933 | 0.912 |
| 92 | 34 | 0.302            | 0.285 | 0.255 | 92 | 91 | 0.958            | 0.950 | 0.930 |
| 92 | 35 | 0.313            | 0.295 | 0.265 | 92 | 92 | 0.975            | 0.968 | 0.951 |
| 92 | 36 | 0.323            | 0.306 | 0.274 | 93 | 0  | 0.000            | 0.000 | 0.000 |
| 92 | 37 | 0.333            | 0.316 | 0.284 | 93 | 1  | 0.001            | 0.001 | 0.000 |
| 92 | 38 | 0.344            | 0.326 | 0.294 | 93 | 2  | 0.006            | 0.004 | 0.002 |
| 92 | 39 | 0.354            | 0.336 | 0.304 | 93 | 3  | 0.012            | 0.009 | 0.005 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 93 | 4  | 0.019            | 0.015 | 0.009 | 93 | 61 | 0.585            | 0.566 | 0.531 |
| 93 | 5  | 0.026            | 0.021 | 0.014 | 93 | 62 | 0.596            | 0.578 | 0.542 |
| 93 | 6  | 0.034            | 0.028 | 0.019 | 93 | 63 | 0.607            | 0.589 | 0.553 |
| 93 | 7  | 0.042            | 0.036 | 0.025 | 93 | 64 | 0.619            | 0.600 | 0.565 |
| 93 | 8  | 0.051            | 0.043 | 0.032 | 93 | 65 | 0.630            | 0.611 | 0.576 |
| 93 | 9  | 0.059            | 0.051 | 0.039 | 93 | 66 | 0.641            | 0.622 | 0.587 |
| 93 | 10 | 0.068            | 0.059 | 0.046 | 93 | 67 | 0.652            | 0.634 | 0.599 |
| 93 | 11 | 0.077            | 0.068 | 0.053 | 93 | 68 | 0.663            | 0.645 | 0.610 |
| 93 | 12 | 0.086            | 0.076 | 0.060 | 93 | 69 | 0.675            | 0.657 | 0.622 |
| 93 | 13 | 0.095            | 0.085 | 0.068 | 93 | 70 | 0.686            | 0.668 | 0.634 |
| 93 | 14 | 0.104            | 0.093 | 0.075 | 93 | 71 | 0.697            | 0.680 | 0.645 |
| 93 | 15 | 0.113            | 0.102 | 0.083 | 93 | 72 | 0.709            | 0.691 | 0.657 |
| 93 | 16 | 0.122            | 0.111 | 0.091 | 93 | 73 | 0.720            | 0.703 | 0.669 |
| 93 | 17 | 0.132            | 0.120 | 0.100 | 93 | 74 | 0.732            | 0.715 | 0.681 |
| 93 | 18 | 0.141            | 0.129 | 0.108 | 93 | 75 | 0.744            | 0.727 | 0.693 |
| 93 | 19 | 0.151            | 0.138 | 0.116 | 93 | 76 | 0.755            | 0.738 | 0.706 |
| 93 | 20 | 0.160            | 0.147 | 0.125 | 93 | 77 | 0.767            | 0.750 | 0.718 |
| 93 | 21 | 0.170            | 0.156 | 0.133 | 93 | 78 | 0.779            | 0.763 | 0.730 |
| 93 | 22 | 0.179            | 0.166 | 0.142 | 93 | 79 | 0.791            | 0.775 | 0.743 |
| 93 | 23 | 0.189            | 0.175 | 0.151 | 93 | 80 | 0.803            | 0.787 | 0.756 |
| 93 | 24 | 0.199            | 0.185 | 0.159 | 93 | 81 | 0.815            | 0.799 | 0.769 |
| 93 | 25 | 0.209            | 0.194 | 0.168 | 93 | 82 | 0.827            | 0.812 | 0.782 |
| 93 | 26 | 0.219            | 0.204 | 0.177 | 93 | 83 | 0.839            | 0.824 | 0.795 |
| 93 | 27 | 0.228            | 0.213 | 0.186 | 93 | 84 | 0.851            | 0.837 | 0.808 |
| 93 | 28 | 0.238            | 0.223 | 0.196 | 93 | 85 | 0.864            | 0.850 | 0.822 |
| 93 | 29 | 0.248            | 0.233 | 0.205 | 93 | 86 | 0.877            | 0.863 | 0.836 |
| 93 | 30 | 0.258            | 0.243 | 0.214 | 93 | 87 | 0.889            | 0.877 | 0.850 |
| 93 | 31 | 0.268            | 0.252 | 0.223 | 93 | 88 | 0.902            | 0.890 | 0.865 |
| 93 | 32 | 0.279            | 0.262 | 0.233 | 93 | 89 | 0.916            | 0.904 | 0.880 |
| 93 | 33 | 0.289            | 0.272 | 0.242 | 93 | 90 | 0.930            | 0.919 | 0.896 |
| 93 | 34 | 0.299            | 0.282 | 0.252 | 93 | 91 | 0.944            | 0.934 | 0.913 |
| 93 | 35 | 0.309            | 0.292 | 0.262 | 93 | 92 | 0.959            | 0.950 | 0.931 |
| 93 | 36 | 0.319            | 0.302 | 0.271 | 93 | 93 | 0.976            | 0.968 | 0.952 |
| 93 | 37 | 0.330            | 0.312 | 0.281 | 94 | 0  | 0.000            | 0.000 | 0.000 |
| 93 | 38 | 0.340            | 0.322 | 0.291 | 94 | 1  | 0.001            | 0.001 | 0.000 |
| 93 | 39 | 0.350            | 0.333 | 0.301 | 94 | 2  | 0.006            | 0.004 | 0.002 |
| 93 | 40 | 0.360            | 0.343 | 0.310 | 94 | 3  | 0.012            | 0.009 | 0.005 |
| 93 | 41 | 0.371            | 0.353 | 0.320 | 94 | 4  | 0.019            | 0.015 | 0.009 |
| 93 | 42 | 0.381            | 0.363 | 0.330 | 94 | 5  | 0.026            | 0.021 | 0.014 |
| 93 | 43 | 0.392            | 0.374 | 0.340 | 94 | 6  | 0.034            | 0.028 | 0.019 |
| 93 | 44 | 0.402            | 0.384 | 0.351 | 94 | 7  | 0.042            | 0.035 | 0.025 |
| 93 | 45 | 0.413            | 0.394 | 0.361 | 94 | 8  | 0.050            | 0.043 | 0.031 |
| 93 | 46 | 0.423            | 0.405 | 0.371 | 94 | 9  | 0.059            | 0.051 | 0.038 |
| 93 | 47 | 0.434            | 0.415 | 0.381 | 94 | 10 | 0.067            | 0.059 | 0.045 |
| 93 | 48 | 0.444            | 0.426 | 0.392 | 94 | 11 | 0.076            | 0.067 | 0.052 |
| 93 | 49 | 0.455            | 0.437 | 0.402 | 94 | 12 | 0.085            | 0.075 | 0.060 |
| 93 | 50 | 0.466            | 0.447 | 0.412 | 94 | 13 | 0.094            | 0.084 | 0.067 |
| 93 | 51 | 0.476            | 0.458 | 0.423 | 94 | 14 | 0.103            | 0.092 | 0.075 |
| 93 | 52 | 0.487            | 0.468 | 0.433 | 94 | 15 | 0.112            | 0.101 | 0.082 |
| 93 | 53 | 0.498            | 0.479 | 0.444 | 94 | 16 | 0.121            | 0.110 | 0.090 |
| 93 | 54 | 0.509            | 0.490 | 0.455 | 94 | 17 | 0.130            | 0.119 | 0.098 |
| 93 | 55 | 0.520            | 0.501 | 0.465 | 94 | 18 | 0.140            | 0.128 | 0.107 |
| 93 | 56 | 0.530            | 0.512 | 0.476 | 94 | 19 | 0.149            | 0.136 | 0.115 |
| 93 | 57 | 0.541            | 0.522 | 0.487 | 94 | 20 | 0.158            | 0.146 | 0.123 |
| 93 | 58 | 0.552            | 0.533 | 0.498 | 94 | 21 | 0.168            | 0.155 | 0.132 |
| 93 | 59 | 0.563            | 0.544 | 0.509 | 94 | 22 | 0.177            | 0.164 | 0.140 |
| 93 | 60 | 0.574            | 0.555 | 0.520 | 94 | 23 | 0.187            | 0.173 | 0.149 |
|    |    |                  |       |       | 94 | 24 | 0.197            | 0.183 | 0.158 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 94 | 25 | 0.206            | 0.192 | 0.166 | 94 | 81 | 0.805            | 0.789 | 0.758 |
| 94 | 26 | 0.216            | 0.201 | 0.175 | 94 | 82 | 0.817            | 0.801 | 0.771 |
| 94 | 27 | 0.226            | 0.211 | 0.184 | 94 | 83 | 0.829            | 0.814 | 0.784 |
| 94 | 28 | 0.236            | 0.221 | 0.193 | 94 | 84 | 0.841            | 0.826 | 0.797 |
| 94 | 29 | 0.246            | 0.230 | 0.202 |    |    |                  |       |       |
|    |    |                  |       |       | 94 | 85 | 0.853            | 0.839 | 0.810 |
| 94 | 30 | 0.256            | 0.240 | 0.212 | 94 | 86 | 0.865            | 0.852 | 0.824 |
| 94 | 31 | 0.265            | 0.250 | 0.221 | 94 | 87 | 0.878            | 0.865 | 0.838 |
| 94 | 32 | 0.275            | 0.259 | 0.230 | 94 | 88 | 0.891            | 0.878 | 0.852 |
| 94 | 33 | 0.285            | 0.269 | 0.240 | 94 | 89 | 0.904            | 0.891 | 0.866 |
| 94 | 34 | 0.296            | 0.279 | 0.249 |    |    |                  |       |       |
|    |    |                  |       |       | 94 | 90 | 0.917            | 0.905 | 0.881 |
| 94 | 35 | 0.306            | 0.289 | 0.259 | 94 | 91 | 0.930            | 0.920 | 0.897 |
| 94 | 36 | 0.316            | 0.299 | 0.268 | 94 | 92 | 0.944            | 0.935 | 0.914 |
| 94 | 37 | 0.326            | 0.309 | 0.278 | 94 | 93 | 0.959            | 0.951 | 0.931 |
| 94 | 38 | 0.336            | 0.319 | 0.287 | 94 | 94 | 0.976            | 0.969 | 0.952 |
| 94 | 39 | 0.346            | 0.329 | 0.297 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 0  | 0.000            | 0.000 | 0.000 |
| 94 | 40 | 0.356            | 0.339 | 0.307 | 95 | 1  | 0.001            | 0.001 | 0.000 |
| 94 | 41 | 0.367            | 0.349 | 0.317 | 95 | 2  | 0.006            | 0.004 | 0.002 |
| 94 | 42 | 0.377            | 0.359 | 0.327 | 95 | 3  | 0.012            | 0.009 | 0.005 |
| 94 | 43 | 0.387            | 0.369 | 0.337 | 95 | 4  | 0.019            | 0.015 | 0.009 |
| 94 | 44 | 0.398            | 0.380 | 0.347 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 5  | 0.026            | 0.021 | 0.014 |
| 94 | 45 | 0.408            | 0.390 | 0.357 | 95 | 6  | 0.033            | 0.028 | 0.019 |
| 94 | 46 | 0.419            | 0.400 | 0.367 | 95 | 7  | 0.041            | 0.035 | 0.025 |
| 94 | 47 | 0.429            | 0.411 | 0.377 | 95 | 8  | 0.050            | 0.043 | 0.031 |
| 94 | 48 | 0.439            | 0.421 | 0.387 | 95 | 9  | 0.058            | 0.050 | 0.038 |
| 94 | 49 | 0.450            | 0.431 | 0.397 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 10 | 0.066            | 0.058 | 0.045 |
| 94 | 50 | 0.461            | 0.442 | 0.408 | 95 | 11 | 0.075            | 0.066 | 0.052 |
| 94 | 51 | 0.471            | 0.452 | 0.418 | 95 | 12 | 0.084            | 0.074 | 0.059 |
| 94 | 52 | 0.482            | 0.463 | 0.428 | 95 | 13 | 0.093            | 0.083 | 0.066 |
| 94 | 53 | 0.492            | 0.474 | 0.439 | 95 | 14 | 0.102            | 0.091 | 0.074 |
| 94 | 54 | 0.503            | 0.484 | 0.449 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 15 | 0.111            | 0.100 | 0.082 |
| 94 | 55 | 0.514            | 0.495 | 0.460 | 95 | 16 | 0.120            | 0.109 | 0.089 |
| 94 | 56 | 0.524            | 0.506 | 0.471 | 95 | 17 | 0.129            | 0.117 | 0.097 |
| 94 | 57 | 0.535            | 0.516 | 0.481 | 95 | 18 | 0.138            | 0.126 | 0.105 |
| 94 | 58 | 0.546            | 0.527 | 0.492 | 95 | 19 | 0.147            | 0.135 | 0.114 |
| 94 | 59 | 0.557            | 0.538 | 0.503 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 20 | 0.157            | 0.144 | 0.122 |
| 94 | 60 | 0.568            | 0.549 | 0.514 | 95 | 21 | 0.166            | 0.153 | 0.130 |
| 94 | 61 | 0.578            | 0.560 | 0.525 | 95 | 22 | 0.176            | 0.162 | 0.139 |
| 94 | 62 | 0.589            | 0.571 | 0.535 | 95 | 23 | 0.185            | 0.171 | 0.147 |
| 94 | 63 | 0.600            | 0.582 | 0.547 | 95 | 24 | 0.195            | 0.181 | 0.156 |
| 94 | 64 | 0.611            | 0.593 | 0.558 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 25 | 0.204            | 0.190 | 0.165 |
| 94 | 65 | 0.622            | 0.604 | 0.569 | 95 | 26 | 0.214            | 0.199 | 0.173 |
| 94 | 66 | 0.633            | 0.615 | 0.580 | 95 | 27 | 0.223            | 0.209 | 0.182 |
| 94 | 67 | 0.645            | 0.626 | 0.591 | 95 | 28 | 0.233            | 0.218 | 0.191 |
| 94 | 68 | 0.656            | 0.637 | 0.603 | 95 | 29 | 0.243            | 0.228 | 0.200 |
| 94 | 69 | 0.667            | 0.649 | 0.614 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 30 | 0.253            | 0.237 | 0.209 |
| 94 | 70 | 0.678            | 0.660 | 0.626 | 95 | 31 | 0.263            | 0.247 | 0.218 |
| 94 | 71 | 0.689            | 0.671 | 0.637 | 95 | 32 | 0.272            | 0.256 | 0.228 |
| 94 | 72 | 0.701            | 0.683 | 0.649 | 95 | 33 | 0.282            | 0.266 | 0.237 |
| 94 | 73 | 0.712            | 0.694 | 0.661 | 95 | 34 | 0.292            | 0.276 | 0.246 |
| 94 | 74 | 0.723            | 0.706 | 0.673 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 35 | 0.302            | 0.286 | 0.256 |
| 94 | 75 | 0.735            | 0.718 | 0.684 | 95 | 36 | 0.312            | 0.295 | 0.265 |
| 94 | 76 | 0.746            | 0.729 | 0.696 | 95 | 37 | 0.322            | 0.305 | 0.275 |
| 94 | 77 | 0.758            | 0.741 | 0.709 | 95 | 38 | 0.332            | 0.315 | 0.284 |
| 94 | 78 | 0.769            | 0.753 | 0.721 | 95 | 39 | 0.342            | 0.325 | 0.294 |
| 94 | 79 | 0.781            | 0.765 | 0.733 |    |    |                  |       |       |
|    |    |                  |       |       | 95 | 40 | 0.353            | 0.335 | 0.303 |
| 94 | 80 | 0.793            | 0.777 | 0.746 | 95 | 41 | 0.363            | 0.345 | 0.313 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 95 | 42 | 0.373      | 0.355 | 0.323 | 96 | 4  | 0.018      | 0.014 | 0.009 |
| 95 | 43 | 0.383      | 0.365 | 0.333 | 96 | 5  | 0.025      | 0.021 | 0.013 |
| 95 | 44 | 0.393      | 0.375 | 0.343 | 96 | 6  | 0.033      | 0.027 | 0.019 |
| 95 | 45 | 0.404      | 0.386 | 0.352 | 96 | 7  | 0.041      | 0.035 | 0.025 |
| 95 | 46 | 0.414      | 0.396 | 0.362 | 96 | 8  | 0.049      | 0.042 | 0.031 |
| 95 | 47 | 0.424      | 0.406 | 0.372 | 96 | 9  | 0.057      | 0.050 | 0.037 |
| 95 | 48 | 0.435      | 0.416 | 0.382 | 96 | 10 | 0.066      | 0.058 | 0.044 |
| 95 | 49 | 0.445      | 0.427 | 0.393 | 96 | 11 | 0.074      | 0.066 | 0.051 |
| 95 | 50 | 0.455      | 0.437 | 0.403 | 96 | 12 | 0.083      | 0.074 | 0.058 |
| 95 | 51 | 0.466      | 0.447 | 0.413 | 96 | 13 | 0.092      | 0.082 | 0.066 |
| 95 | 52 | 0.476      | 0.458 | 0.423 | 96 | 14 | 0.101      | 0.090 | 0.073 |
| 95 | 53 | 0.487      | 0.468 | 0.434 | 96 | 15 | 0.109      | 0.099 | 0.081 |
| 95 | 54 | 0.497      | 0.479 | 0.444 | 96 | 16 | 0.118      | 0.107 | 0.088 |
| 95 | 55 | 0.508      | 0.489 | 0.454 | 96 | 17 | 0.127      | 0.116 | 0.096 |
| 95 | 56 | 0.518      | 0.500 | 0.465 | 96 | 18 | 0.137      | 0.125 | 0.104 |
| 95 | 57 | 0.529      | 0.510 | 0.475 | 96 | 19 | 0.146      | 0.134 | 0.112 |
| 95 | 58 | 0.540      | 0.521 | 0.486 | 96 | 20 | 0.155      | 0.142 | 0.121 |
| 95 | 59 | 0.550      | 0.532 | 0.497 | 96 | 21 | 0.164      | 0.151 | 0.129 |
| 95 | 60 | 0.561      | 0.542 | 0.507 | 96 | 22 | 0.174      | 0.160 | 0.137 |
| 95 | 61 | 0.572      | 0.553 | 0.518 | 96 | 23 | 0.183      | 0.169 | 0.146 |
| 95 | 62 | 0.583      | 0.564 | 0.529 | 96 | 24 | 0.192      | 0.179 | 0.154 |
| 95 | 63 | 0.593      | 0.575 | 0.540 | 96 | 25 | 0.202      | 0.188 | 0.163 |
| 95 | 64 | 0.604      | 0.586 | 0.551 | 96 | 26 | 0.211      | 0.197 | 0.171 |
| 95 | 65 | 0.615      | 0.597 | 0.562 | 96 | 27 | 0.221      | 0.206 | 0.180 |
| 95 | 66 | 0.626      | 0.608 | 0.573 | 96 | 28 | 0.231      | 0.216 | 0.189 |
| 95 | 67 | 0.637      | 0.619 | 0.584 | 96 | 29 | 0.240      | 0.225 | 0.198 |
| 95 | 68 | 0.648      | 0.630 | 0.595 | 96 | 30 | 0.250      | 0.235 | 0.207 |
| 95 | 69 | 0.659      | 0.641 | 0.607 | 96 | 31 | 0.260      | 0.244 | 0.216 |
| 95 | 70 | 0.670      | 0.652 | 0.618 | 96 | 32 | 0.269      | 0.254 | 0.225 |
| 95 | 71 | 0.681      | 0.663 | 0.629 | 96 | 33 | 0.279      | 0.263 | 0.234 |
| 95 | 72 | 0.692      | 0.675 | 0.641 | 96 | 34 | 0.289      | 0.273 | 0.243 |
| 95 | 73 | 0.704      | 0.686 | 0.652 | 96 | 35 | 0.299      | 0.283 | 0.253 |
| 95 | 74 | 0.715      | 0.697 | 0.664 | 96 | 36 | 0.309      | 0.292 | 0.262 |
| 95 | 75 | 0.726      | 0.709 | 0.676 | 96 | 37 | 0.319      | 0.302 | 0.271 |
| 95 | 76 | 0.737      | 0.720 | 0.688 | 96 | 38 | 0.329      | 0.312 | 0.281 |
| 95 | 77 | 0.749      | 0.732 | 0.699 | 96 | 39 | 0.339      | 0.322 | 0.290 |
| 95 | 78 | 0.760      | 0.744 | 0.711 | 96 | 40 | 0.349      | 0.331 | 0.300 |
| 95 | 79 | 0.772      | 0.755 | 0.724 | 96 | 41 | 0.359      | 0.341 | 0.310 |
| 95 | 80 | 0.783      | 0.767 | 0.736 | 96 | 42 | 0.369      | 0.351 | 0.319 |
| 95 | 81 | 0.795      | 0.779 | 0.748 | 96 | 43 | 0.379      | 0.361 | 0.329 |
| 95 | 82 | 0.807      | 0.791 | 0.761 | 96 | 44 | 0.389      | 0.371 | 0.339 |
| 95 | 83 | 0.819      | 0.803 | 0.773 | 96 | 45 | 0.399      | 0.381 | 0.348 |
| 95 | 84 | 0.830      | 0.816 | 0.786 | 96 | 46 | 0.409      | 0.391 | 0.358 |
| 95 | 85 | 0.842      | 0.828 | 0.799 | 96 | 47 | 0.420      | 0.401 | 0.368 |
| 95 | 86 | 0.855      | 0.840 | 0.812 | 96 | 48 | 0.430      | 0.412 | 0.378 |
| 95 | 87 | 0.867      | 0.853 | 0.826 | 96 | 49 | 0.440      | 0.422 | 0.388 |
| 95 | 88 | 0.879      | 0.866 | 0.839 | 96 | 50 | 0.450      | 0.432 | 0.398 |
| 95 | 89 | 0.892      | 0.879 | 0.853 | 96 | 51 | 0.461      | 0.442 | 0.408 |
| 95 | 90 | 0.904      | 0.892 | 0.868 | 96 | 52 | 0.471      | 0.453 | 0.418 |
| 95 | 91 | 0.918      | 0.906 | 0.883 | 96 | 53 | 0.481      | 0.463 | 0.429 |
| 95 | 92 | 0.931      | 0.920 | 0.898 | 96 | 54 | 0.492      | 0.473 | 0.439 |
| 95 | 93 | 0.945      | 0.935 | 0.914 | 96 | 55 | 0.502      | 0.484 | 0.449 |
| 95 | 94 | 0.960      | 0.951 | 0.932 | 96 | 56 | 0.513      | 0.494 | 0.459 |
| 95 | 95 | 0.976      | 0.969 | 0.953 | 96 | 57 | 0.523      | 0.505 | 0.470 |
| 96 | 0  | 0.000      | 0.000 | 0.000 | 96 | 58 | 0.534      | 0.515 | 0.480 |
| 96 | 1  | 0.001      | 0.001 | 0.000 | 96 | 59 | 0.544      | 0.526 | 0.491 |
| 96 | 2  | 0.006      | 0.004 | 0.002 | 96 | 60 | 0.555      | 0.536 | 0.501 |
| 96 | 3  | 0.012      | 0.009 | 0.005 | 96 | 61 | 0.565      | 0.547 | 0.512 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 96 | 62 | 0.576            | 0.558 | 0.523 | 97 | 23 | 0.181            | 0.168 | 0.144 |
| 96 | 63 | 0.587            | 0.568 | 0.533 | 97 | 24 | 0.190            | 0.177 | 0.152 |
| 96 | 64 | 0.598            | 0.579 | 0.544 | 97 | 25 | 0.200            | 0.186 | 0.161 |
| 96 | 65 | 0.608            | 0.590 | 0.555 | 97 | 26 | 0.209            | 0.195 | 0.170 |
| 96 | 66 | 0.619            | 0.601 | 0.566 | 97 | 27 | 0.219            | 0.204 | 0.178 |
| 96 | 67 | 0.630            | 0.612 | 0.577 | 97 | 28 | 0.228            | 0.213 | 0.187 |
| 96 | 68 | 0.641            | 0.623 | 0.588 | 97 | 29 | 0.238            | 0.223 | 0.196 |
| 96 | 69 | 0.652            | 0.634 | 0.599 | 97 | 30 | 0.247            | 0.232 | 0.205 |
| 96 | 70 | 0.662            | 0.645 | 0.610 | 97 | 31 | 0.257            | 0.241 | 0.214 |
| 96 | 71 | 0.673            | 0.656 | 0.622 | 97 | 32 | 0.267            | 0.251 | 0.223 |
| 96 | 72 | 0.684            | 0.667 | 0.633 | 97 | 33 | 0.276            | 0.260 | 0.232 |
| 96 | 73 | 0.695            | 0.678 | 0.644 | 97 | 34 | 0.286            | 0.270 | 0.241 |
| 96 | 74 | 0.707            | 0.689 | 0.656 | 97 | 35 | 0.296            | 0.279 | 0.250 |
| 96 | 75 | 0.718            | 0.700 | 0.667 | 97 | 36 | 0.306            | 0.289 | 0.259 |
| 96 | 76 | 0.729            | 0.712 | 0.679 | 97 | 37 | 0.315            | 0.299 | 0.268 |
| 96 | 77 | 0.740            | 0.723 | 0.691 | 97 | 38 | 0.325            | 0.308 | 0.278 |
| 96 | 78 | 0.751            | 0.735 | 0.702 | 97 | 39 | 0.335            | 0.318 | 0.287 |
| 96 | 79 | 0.763            | 0.746 | 0.714 | 97 | 40 | 0.345            | 0.328 | 0.297 |
| 96 | 80 | 0.774            | 0.758 | 0.726 | 97 | 41 | 0.355            | 0.338 | 0.306 |
| 96 | 81 | 0.786            | 0.770 | 0.738 | 97 | 42 | 0.365            | 0.347 | 0.316 |
| 96 | 82 | 0.797            | 0.781 | 0.751 | 97 | 43 | 0.375            | 0.357 | 0.325 |
| 96 | 83 | 0.809            | 0.793 | 0.763 | 97 | 44 | 0.385            | 0.367 | 0.335 |
| 96 | 84 | 0.820            | 0.805 | 0.776 | 97 | 45 | 0.395            | 0.377 | 0.344 |
| 96 | 85 | 0.832            | 0.817 | 0.788 | 97 | 46 | 0.405            | 0.387 | 0.354 |
| 96 | 86 | 0.844            | 0.830 | 0.801 | 97 | 47 | 0.415            | 0.397 | 0.364 |
| 96 | 87 | 0.856            | 0.842 | 0.814 | 97 | 48 | 0.425            | 0.407 | 0.374 |
| 96 | 88 | 0.868            | 0.855 | 0.827 | 97 | 49 | 0.435            | 0.417 | 0.384 |
| 96 | 89 | 0.880            | 0.867 | 0.841 | 97 | 50 | 0.445            | 0.427 | 0.394 |
| 96 | 90 | 0.893            | 0.880 | 0.855 | 97 | 51 | 0.456            | 0.437 | 0.404 |
| 96 | 91 | 0.905            | 0.894 | 0.869 | 97 | 52 | 0.466            | 0.448 | 0.414 |
| 96 | 92 | 0.918            | 0.907 | 0.884 | 97 | 53 | 0.476            | 0.458 | 0.424 |
| 96 | 93 | 0.932            | 0.921 | 0.899 | 97 | 54 | 0.486            | 0.468 | 0.434 |
| 96 | 94 | 0.946            | 0.936 | 0.915 | 97 | 55 | 0.497            | 0.478 | 0.444 |
| 96 | 95 | 0.960            | 0.952 | 0.933 | 97 | 56 | 0.507            | 0.489 | 0.454 |
| 96 | 96 | 0.976            | 0.969 | 0.953 | 97 | 57 | 0.517            | 0.499 | 0.464 |
| 97 | 0  | 0.000            | 0.000 | 0.000 | 97 | 58 | 0.528            | 0.509 | 0.475 |
| 97 | 1  | 0.001            | 0.001 | 0.000 | 97 | 59 | 0.538            | 0.520 | 0.485 |
| 97 | 2  | 0.005            | 0.004 | 0.002 | 97 | 60 | 0.549            | 0.530 | 0.496 |
| 97 | 3  | 0.011            | 0.008 | 0.005 | 97 | 61 | 0.559            | 0.541 | 0.506 |
| 97 | 4  | 0.018            | 0.014 | 0.009 | 97 | 62 | 0.570            | 0.551 | 0.517 |
| 97 | 5  | 0.025            | 0.020 | 0.013 | 97 | 63 | 0.580            | 0.562 | 0.527 |
| 97 | 6  | 0.033            | 0.027 | 0.019 | 97 | 64 | 0.591            | 0.572 | 0.538 |
| 97 | 7  | 0.041            | 0.034 | 0.024 | 97 | 65 | 0.601            | 0.583 | 0.548 |
| 97 | 8  | 0.049            | 0.042 | 0.030 | 97 | 66 | 0.612            | 0.594 | 0.559 |
| 97 | 9  | 0.057            | 0.049 | 0.037 | 97 | 67 | 0.623            | 0.605 | 0.570 |
| 97 | 10 | 0.065            | 0.057 | 0.044 | 97 | 68 | 0.633            | 0.615 | 0.581 |
| 97 | 11 | 0.073            | 0.065 | 0.051 | 97 | 69 | 0.644            | 0.626 | 0.592 |
| 97 | 12 | 0.082            | 0.073 | 0.058 | 97 | 70 | 0.655            | 0.637 | 0.603 |
| 97 | 13 | 0.091            | 0.081 | 0.065 | 97 | 71 | 0.666            | 0.648 | 0.614 |
| 97 | 14 | 0.099            | 0.089 | 0.072 | 97 | 72 | 0.677            | 0.659 | 0.625 |
| 97 | 15 | 0.108            | 0.098 | 0.080 | 97 | 73 | 0.688            | 0.670 | 0.636 |
| 97 | 16 | 0.117            | 0.106 | 0.087 | 97 | 74 | 0.698            | 0.681 | 0.648 |
| 97 | 17 | 0.126            | 0.115 | 0.095 | 97 | 75 | 0.709            | 0.692 | 0.659 |
| 97 | 18 | 0.135            | 0.123 | 0.103 | 97 | 76 | 0.720            | 0.703 | 0.670 |
| 97 | 19 | 0.144            | 0.132 | 0.111 | 97 | 77 | 0.732            | 0.715 | 0.682 |
| 97 | 20 | 0.153            | 0.141 | 0.119 | 97 | 78 | 0.743            | 0.726 | 0.693 |
| 97 | 21 | 0.163            | 0.150 | 0.127 | 97 | 79 | 0.754            | 0.737 | 0.705 |
| 97 | 22 | 0.172            | 0.159 | 0.136 | 97 | 80 | 0.765            | 0.749 | 0.717 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 97 | 81 | 0.776            | 0.760 | 0.729 | 98 | 40 | 0.341            | 0.324 | 0.293 |
| 97 | 82 | 0.788            | 0.772 | 0.741 | 98 | 41 | 0.351            | 0.334 | 0.303 |
| 97 | 83 | 0.799            | 0.784 | 0.753 | 98 | 42 | 0.361            | 0.344 | 0.312 |
| 97 | 84 | 0.811            | 0.795 | 0.765 | 98 | 43 | 0.371            | 0.353 | 0.322 |
|    |    |                  |       |       | 98 | 44 | 0.381            | 0.363 | 0.331 |
| 97 | 85 | 0.822            | 0.807 | 0.778 |    |    |                  |       |       |
| 97 | 86 | 0.834            | 0.819 | 0.790 | 98 | 45 | 0.391            | 0.373 | 0.341 |
| 97 | 87 | 0.846            | 0.831 | 0.803 | 98 | 46 | 0.401            | 0.383 | 0.350 |
| 97 | 88 | 0.857            | 0.844 | 0.816 | 98 | 47 | 0.411            | 0.393 | 0.360 |
| 97 | 89 | 0.869            | 0.856 | 0.829 | 98 | 48 | 0.421            | 0.403 | 0.370 |
|    |    |                  |       |       | 98 | 49 | 0.431            | 0.413 | 0.379 |
| 97 | 90 | 0.882            | 0.869 | 0.843 |    |    |                  |       |       |
| 97 | 91 | 0.894            | 0.882 | 0.856 | 98 | 50 | 0.441            | 0.423 | 0.389 |
| 97 | 92 | 0.906            | 0.895 | 0.870 | 98 | 51 | 0.451            | 0.433 | 0.399 |
| 97 | 93 | 0.919            | 0.908 | 0.885 | 98 | 52 | 0.461            | 0.443 | 0.409 |
| 97 | 94 | 0.932            | 0.922 | 0.900 | 98 | 53 | 0.471            | 0.453 | 0.419 |
|    |    |                  |       |       | 98 | 54 | 0.481            | 0.463 | 0.429 |
| 97 | 95 | 0.946            | 0.937 | 0.916 |    |    |                  |       |       |
| 97 | 96 | 0.961            | 0.952 | 0.934 | 98 | 55 | 0.491            | 0.473 | 0.439 |
| 97 | 97 | 0.977            | 0.970 | 0.954 | 98 | 56 | 0.501            | 0.483 | 0.449 |
|    |    |                  |       |       | 98 | 57 | 0.512            | 0.493 | 0.459 |
| 98 | 0  | 0.000            | 0.000 | 0.000 | 98 | 58 | 0.522            | 0.504 | 0.469 |
| 98 | 1  | 0.001            | 0.001 | 0.000 | 98 | 59 | 0.532            | 0.514 | 0.480 |
| 98 | 2  | 0.005            | 0.004 | 0.002 |    |    |                  |       |       |
| 98 | 3  | 0.011            | 0.008 | 0.004 | 98 | 60 | 0.543            | 0.524 | 0.490 |
| 98 | 4  | 0.018            | 0.014 | 0.008 | 98 | 61 | 0.553            | 0.535 | 0.500 |
|    |    |                  |       |       | 98 | 62 | 0.563            | 0.545 | 0.511 |
| 98 | 5  | 0.025            | 0.020 | 0.013 | 98 | 63 | 0.574            | 0.555 | 0.521 |
| 98 | 6  | 0.032            | 0.027 | 0.018 | 98 | 64 | 0.584            | 0.566 | 0.531 |
| 98 | 7  | 0.040            | 0.034 | 0.024 |    |    |                  |       |       |
| 98 | 8  | 0.048            | 0.041 | 0.030 | 98 | 65 | 0.595            | 0.576 | 0.542 |
| 98 | 9  | 0.056            | 0.049 | 0.037 | 98 | 66 | 0.605            | 0.587 | 0.553 |
|    |    |                  |       |       | 98 | 67 | 0.616            | 0.598 | 0.563 |
| 98 | 10 | 0.064            | 0.056 | 0.043 | 98 | 68 | 0.626            | 0.608 | 0.574 |
| 98 | 11 | 0.073            | 0.064 | 0.050 | 98 | 69 | 0.637            | 0.619 | 0.585 |
| 98 | 12 | 0.081            | 0.072 | 0.057 |    |    |                  |       |       |
| 98 | 13 | 0.090            | 0.080 | 0.064 | 98 | 70 | 0.648            | 0.630 | 0.596 |
| 98 | 14 | 0.098            | 0.088 | 0.071 | 98 | 71 | 0.658            | 0.641 | 0.607 |
|    |    |                  |       |       | 98 | 72 | 0.669            | 0.651 | 0.618 |
| 98 | 15 | 0.107            | 0.097 | 0.079 | 98 | 73 | 0.680            | 0.662 | 0.629 |
| 98 | 16 | 0.116            | 0.105 | 0.087 | 98 | 74 | 0.691            | 0.673 | 0.640 |
| 98 | 17 | 0.125            | 0.114 | 0.094 |    |    |                  |       |       |
| 98 | 18 | 0.134            | 0.122 | 0.102 | 98 | 75 | 0.701            | 0.684 | 0.651 |
| 98 | 19 | 0.143            | 0.131 | 0.110 | 98 | 76 | 0.712            | 0.695 | 0.662 |
|    |    |                  |       |       | 98 | 77 | 0.723            | 0.706 | 0.673 |
| 98 | 20 | 0.152            | 0.139 | 0.118 | 98 | 78 | 0.734            | 0.717 | 0.685 |
| 98 | 21 | 0.161            | 0.148 | 0.126 | 98 | 79 | 0.745            | 0.729 | 0.696 |
| 98 | 22 | 0.170            | 0.157 | 0.134 |    |    |                  |       |       |
| 98 | 23 | 0.179            | 0.166 | 0.142 | 98 | 80 | 0.756            | 0.740 | 0.708 |
| 98 | 24 | 0.188            | 0.175 | 0.151 | 98 | 81 | 0.767            | 0.751 | 0.720 |
|    |    |                  |       |       | 98 | 82 | 0.779            | 0.763 | 0.731 |
| 98 | 25 | 0.198            | 0.184 | 0.159 | 98 | 83 | 0.790            | 0.774 | 0.743 |
| 98 | 26 | 0.207            | 0.193 | 0.168 | 98 | 84 | 0.801            | 0.786 | 0.755 |
| 98 | 27 | 0.216            | 0.202 | 0.176 |    |    |                  |       |       |
| 98 | 28 | 0.226            | 0.211 | 0.185 | 98 | 85 | 0.812            | 0.797 | 0.768 |
| 98 | 29 | 0.235            | 0.220 | 0.194 | 98 | 86 | 0.824            | 0.809 | 0.780 |
|    |    |                  |       |       | 98 | 87 | 0.835            | 0.821 | 0.792 |
| 98 | 30 | 0.245            | 0.230 | 0.202 | 98 | 88 | 0.847            | 0.833 | 0.805 |
| 98 | 31 | 0.254            | 0.239 | 0.211 | 98 | 89 | 0.859            | 0.845 | 0.818 |
| 98 | 32 | 0.264            | 0.248 | 0.220 |    |    |                  |       |       |
| 98 | 33 | 0.273            | 0.258 | 0.229 | 98 | 90 | 0.871            | 0.857 | 0.831 |
| 98 | 34 | 0.283            | 0.267 | 0.238 | 98 | 91 | 0.883            | 0.870 | 0.844 |
|    |    |                  |       |       | 98 | 92 | 0.895            | 0.883 | 0.858 |
| 98 | 35 | 0.293            | 0.276 | 0.247 | 98 | 93 | 0.907            | 0.896 | 0.872 |
| 98 | 36 | 0.302            | 0.286 | 0.256 | 98 | 94 | 0.920            | 0.909 | 0.886 |
| 98 | 37 | 0.312            | 0.295 | 0.265 |    |    |                  |       |       |
| 98 | 38 | 0.322            | 0.305 | 0.275 | 98 | 95 | 0.933            | 0.923 | 0.901 |
| 98 | 39 | 0.331            | 0.315 | 0.284 | 98 | 96 | 0.947            | 0.937 | 0.917 |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N   | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|-----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |     |    | 90%        | 95%   |       |
| 98 | 97 | 0.961      | 0.953 | 0.934 | 99  | 55 | 0.486      | 0.468 | 0.434 |
| 98 | 98 | 0.977      | 0.970 | 0.954 | 99  | 56 | 0.496      | 0.478 | 0.444 |
| 99 | 0  | 0.000      | 0.000 | 0.000 | 99  | 57 | 0.506      | 0.488 | 0.454 |
| 99 | 1  | 0.001      | 0.001 | 0.000 | 99  | 58 | 0.516      | 0.498 | 0.464 |
| 99 | 2  | 0.005      | 0.004 | 0.002 | 99  | 59 | 0.527      | 0.508 | 0.474 |
| 99 | 3  | 0.011      | 0.008 | 0.004 | 99  | 60 | 0.537      | 0.518 | 0.484 |
| 99 | 4  | 0.018      | 0.014 | 0.008 | 99  | 61 | 0.547      | 0.529 | 0.494 |
| 99 | 5  | 0.025      | 0.020 | 0.013 | 99  | 62 | 0.557      | 0.539 | 0.505 |
| 99 | 6  | 0.032      | 0.027 | 0.018 | 99  | 63 | 0.568      | 0.549 | 0.515 |
| 99 | 7  | 0.040      | 0.034 | 0.024 | 99  | 64 | 0.578      | 0.560 | 0.525 |
| 99 | 8  | 0.048      | 0.041 | 0.030 | 99  | 65 | 0.588      | 0.570 | 0.536 |
| 99 | 9  | 0.056      | 0.048 | 0.036 | 99  | 66 | 0.599      | 0.580 | 0.546 |
| 99 | 10 | 0.064      | 0.056 | 0.043 | 99  | 67 | 0.609      | 0.591 | 0.557 |
| 99 | 11 | 0.072      | 0.064 | 0.049 | 99  | 68 | 0.620      | 0.602 | 0.567 |
| 99 | 12 | 0.080      | 0.071 | 0.056 | 99  | 69 | 0.630      | 0.612 | 0.578 |
| 99 | 13 | 0.089      | 0.079 | 0.064 | 99  | 70 | 0.641      | 0.623 | 0.589 |
| 99 | 14 | 0.097      | 0.088 | 0.071 | 99  | 71 | 0.651      | 0.633 | 0.599 |
| 99 | 15 | 0.106      | 0.096 | 0.078 | 99  | 72 | 0.662      | 0.644 | 0.610 |
| 99 | 16 | 0.115      | 0.104 | 0.086 | 99  | 73 | 0.672      | 0.655 | 0.621 |
| 99 | 17 | 0.124      | 0.112 | 0.093 | 99  | 74 | 0.683      | 0.665 | 0.632 |
| 99 | 18 | 0.132      | 0.121 | 0.101 | 99  | 75 | 0.694      | 0.676 | 0.643 |
| 99 | 19 | 0.141      | 0.129 | 0.109 | 99  | 76 | 0.704      | 0.687 | 0.654 |
| 99 | 20 | 0.150      | 0.138 | 0.117 | 99  | 77 | 0.715      | 0.698 | 0.665 |
| 99 | 21 | 0.159      | 0.147 | 0.125 | 99  | 78 | 0.726      | 0.709 | 0.677 |
| 99 | 22 | 0.168      | 0.155 | 0.133 | 99  | 79 | 0.737      | 0.720 | 0.688 |
| 99 | 23 | 0.177      | 0.164 | 0.141 | 99  | 80 | 0.748      | 0.731 | 0.699 |
| 99 | 24 | 0.186      | 0.173 | 0.149 | 99  | 81 | 0.759      | 0.742 | 0.711 |
| 99 | 25 | 0.196      | 0.182 | 0.158 | 99  | 82 | 0.770      | 0.754 | 0.722 |
| 99 | 26 | 0.205      | 0.191 | 0.166 | 99  | 83 | 0.781      | 0.765 | 0.734 |
| 99 | 27 | 0.214      | 0.200 | 0.174 | 99  | 84 | 0.792      | 0.776 | 0.746 |
| 99 | 28 | 0.223      | 0.209 | 0.183 | 99  | 85 | 0.803      | 0.788 | 0.758 |
| 99 | 29 | 0.233      | 0.218 | 0.192 | 99  | 86 | 0.814      | 0.799 | 0.770 |
| 99 | 30 | 0.242      | 0.227 | 0.200 | 99  | 87 | 0.826      | 0.811 | 0.782 |
| 99 | 31 | 0.252      | 0.236 | 0.209 | 99  | 88 | 0.837      | 0.823 | 0.794 |
| 99 | 32 | 0.261      | 0.246 | 0.218 | 99  | 89 | 0.849      | 0.835 | 0.807 |
| 99 | 33 | 0.270      | 0.255 | 0.227 | 99  | 90 | 0.860      | 0.847 | 0.819 |
| 99 | 34 | 0.280      | 0.264 | 0.236 | 99  | 91 | 0.872      | 0.859 | 0.832 |
| 99 | 35 | 0.290      | 0.273 | 0.245 | 99  | 92 | 0.884      | 0.871 | 0.846 |
| 99 | 36 | 0.299      | 0.283 | 0.254 | 99  | 93 | 0.896      | 0.884 | 0.859 |
| 99 | 37 | 0.309      | 0.292 | 0.263 | 99  | 94 | 0.908      | 0.897 | 0.873 |
| 99 | 38 | 0.318      | 0.302 | 0.272 | 99  | 95 | 0.921      | 0.910 | 0.887 |
| 99 | 39 | 0.328      | 0.311 | 0.281 | 99  | 96 | 0.934      | 0.924 | 0.902 |
| 99 | 40 | 0.338      | 0.321 | 0.290 | 99  | 97 | 0.947      | 0.938 | 0.918 |
| 99 | 41 | 0.347      | 0.330 | 0.299 | 99  | 98 | 0.961      | 0.953 | 0.935 |
| 99 | 42 | 0.357      | 0.340 | 0.309 | 99  | 99 | 0.977      | 0.970 | 0.955 |
| 99 | 43 | 0.367      | 0.350 | 0.318 | 100 | 0  | 0.000      | 0.000 | 0.000 |
| 99 | 44 | 0.377      | 0.359 | 0.327 | 100 | 1  | 0.001      | 0.001 | 0.000 |
| 99 | 45 | 0.386      | 0.369 | 0.337 | 100 | 2  | 0.005      | 0.004 | 0.002 |
| 99 | 46 | 0.396      | 0.379 | 0.346 | 100 | 3  | 0.011      | 0.008 | 0.004 |
| 99 | 47 | 0.406      | 0.388 | 0.356 | 100 | 4  | 0.018      | 0.014 | 0.008 |
| 99 | 48 | 0.416      | 0.398 | 0.365 | 100 | 5  | 0.024      | 0.020 | 0.013 |
| 99 | 49 | 0.426      | 0.408 | 0.375 | 100 | 6  | 0.032      | 0.026 | 0.018 |
| 99 | 50 | 0.436      | 0.418 | 0.385 | 100 | 7  | 0.039      | 0.033 | 0.024 |
| 99 | 51 | 0.446      | 0.428 | 0.395 | 100 | 8  | 0.047      | 0.040 | 0.030 |
| 99 | 52 | 0.456      | 0.438 | 0.404 | 100 | 9  | 0.055      | 0.048 | 0.036 |
| 99 | 53 | 0.466      | 0.448 | 0.414 | 100 | 10 | 0.063      | 0.055 | 0.042 |
| 99 | 54 | 0.476      | 0.458 | 0.424 | 100 | 11 | 0.071      | 0.063 | 0.049 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 100 | 12 | 0.080            | 0.071 | 0.056 | 100 | 68  | 0.613            | 0.595 | 0.561 |
| 100 | 13 | 0.088            | 0.079 | 0.063 | 100 | 69  | 0.623            | 0.605 | 0.571 |
| 100 | 14 | 0.096            | 0.087 | 0.070 | 100 | 70  | 0.634            | 0.616 | 0.582 |
| 100 | 15 | 0.105            | 0.095 | 0.077 | 100 | 71  | 0.644            | 0.626 | 0.593 |
| 100 | 16 | 0.114            | 0.103 | 0.085 | 100 | 72  | 0.654            | 0.637 | 0.603 |
| 100 | 17 | 0.122            | 0.111 | 0.092 | 100 | 73  | 0.665            | 0.647 | 0.614 |
| 100 | 18 | 0.131            | 0.120 | 0.100 | 100 | 74  | 0.675            | 0.658 | 0.625 |
| 100 | 19 | 0.140            | 0.128 | 0.108 | 100 | 75  | 0.686            | 0.669 | 0.635 |
| 100 | 20 | 0.149            | 0.137 | 0.116 | 100 | 76  | 0.697            | 0.679 | 0.646 |
| 100 | 21 | 0.158            | 0.145 | 0.124 | 100 | 77  | 0.707            | 0.690 | 0.657 |
| 100 | 22 | 0.167            | 0.154 | 0.132 | 100 | 78  | 0.718            | 0.701 | 0.668 |
| 100 | 23 | 0.176            | 0.163 | 0.140 | 100 | 79  | 0.729            | 0.712 | 0.680 |
| 100 | 24 | 0.185            | 0.171 | 0.148 | 100 | 80  | 0.739            | 0.723 | 0.691 |
| 100 | 25 | 0.194            | 0.180 | 0.156 | 100 | 81  | 0.750            | 0.734 | 0.702 |
| 100 | 26 | 0.203            | 0.189 | 0.164 | 100 | 82  | 0.761            | 0.745 | 0.713 |
| 100 | 27 | 0.212            | 0.198 | 0.173 | 100 | 83  | 0.772            | 0.756 | 0.725 |
| 100 | 28 | 0.221            | 0.207 | 0.181 | 100 | 84  | 0.783            | 0.767 | 0.737 |
| 100 | 29 | 0.231            | 0.216 | 0.190 | 100 | 85  | 0.794            | 0.778 | 0.748 |
| 100 | 30 | 0.240            | 0.225 | 0.198 | 100 | 86  | 0.805            | 0.790 | 0.760 |
| 100 | 31 | 0.249            | 0.234 | 0.207 | 100 | 87  | 0.816            | 0.801 | 0.772 |
| 100 | 32 | 0.258            | 0.243 | 0.216 | 100 | 88  | 0.827            | 0.813 | 0.784 |
| 100 | 33 | 0.268            | 0.252 | 0.224 | 100 | 89  | 0.839            | 0.825 | 0.796 |
| 100 | 34 | 0.277            | 0.262 | 0.233 | 100 | 90  | 0.850            | 0.836 | 0.809 |
| 100 | 35 | 0.287            | 0.271 | 0.242 | 100 | 91  | 0.862            | 0.848 | 0.821 |
| 100 | 36 | 0.296            | 0.280 | 0.251 | 100 | 92  | 0.873            | 0.860 | 0.834 |
| 100 | 37 | 0.306            | 0.289 | 0.260 | 100 | 93  | 0.885            | 0.873 | 0.847 |
| 100 | 38 | 0.315            | 0.299 | 0.269 | 100 | 94  | 0.897            | 0.885 | 0.860 |
| 100 | 39 | 0.325            | 0.308 | 0.278 | 100 | 95  | 0.909            | 0.898 | 0.874 |
| 100 | 40 | 0.334            | 0.318 | 0.287 | 100 | 96  | 0.922            | 0.911 | 0.888 |
| 100 | 41 | 0.344            | 0.327 | 0.296 | 100 | 97  | 0.934            | 0.924 | 0.903 |
| 100 | 42 | 0.353            | 0.336 | 0.305 | 100 | 98  | 0.948            | 0.938 | 0.919 |
| 100 | 43 | 0.363            | 0.346 | 0.315 | 100 | 99  | 0.962            | 0.953 | 0.935 |
| 100 | 44 | 0.373            | 0.356 | 0.324 | 100 | 100 | 0.977            | 0.970 | 0.955 |
| 100 | 45 | 0.382            | 0.365 | 0.333 | 105 | 0   | 0.000            | 0.000 | 0.000 |
| 100 | 46 | 0.392            | 0.375 | 0.343 | 105 | 1   | 0.001            | 0.000 | 0.000 |
| 100 | 47 | 0.402            | 0.384 | 0.352 | 105 | 2   | 0.005            | 0.003 | 0.001 |
| 100 | 48 | 0.412            | 0.394 | 0.362 | 105 | 3   | 0.011            | 0.008 | 0.004 |
| 100 | 49 | 0.422            | 0.404 | 0.371 | 105 | 4   | 0.017            | 0.013 | 0.008 |
| 100 | 50 | 0.431            | 0.414 | 0.381 | 105 | 5   | 0.023            | 0.019 | 0.012 |
| 100 | 51 | 0.441            | 0.423 | 0.390 | 105 | 6   | 0.030            | 0.025 | 0.017 |
| 100 | 52 | 0.451            | 0.433 | 0.400 | 105 | 7   | 0.037            | 0.032 | 0.023 |
| 100 | 53 | 0.461            | 0.443 | 0.410 | 105 | 8   | 0.045            | 0.038 | 0.028 |
| 100 | 54 | 0.471            | 0.453 | 0.419 | 105 | 9   | 0.052            | 0.045 | 0.034 |
| 100 | 55 | 0.481            | 0.463 | 0.429 | 105 | 10  | 0.060            | 0.053 | 0.040 |
| 100 | 56 | 0.491            | 0.473 | 0.439 | 105 | 11  | 0.068            | 0.060 | 0.047 |
| 100 | 57 | 0.501            | 0.483 | 0.449 | 105 | 12  | 0.076            | 0.067 | 0.053 |
| 100 | 58 | 0.511            | 0.493 | 0.459 | 105 | 13  | 0.084            | 0.075 | 0.060 |
| 100 | 59 | 0.521            | 0.503 | 0.469 | 105 | 14  | 0.092            | 0.082 | 0.067 |
| 100 | 60 | 0.531            | 0.513 | 0.479 | 105 | 15  | 0.100            | 0.090 | 0.074 |
| 100 | 61 | 0.541            | 0.523 | 0.489 | 105 | 16  | 0.108            | 0.098 | 0.081 |
| 100 | 62 | 0.551            | 0.533 | 0.499 | 105 | 17  | 0.116            | 0.106 | 0.088 |
| 100 | 63 | 0.562            | 0.543 | 0.509 | 105 | 18  | 0.125            | 0.114 | 0.095 |
| 100 | 64 | 0.572            | 0.554 | 0.519 | 105 | 19  | 0.133            | 0.122 | 0.102 |
| 100 | 65 | 0.582            | 0.564 | 0.530 | 105 | 20  | 0.142            | 0.130 | 0.110 |
| 100 | 66 | 0.592            | 0.574 | 0.540 | 105 | 21  | 0.150            | 0.138 | 0.117 |
| 100 | 67 | 0.603            | 0.585 | 0.550 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 105 | 22 | 0.158            | 0.146 | 0.125 | 105 | 78  | 0.680            | 0.663 | 0.631 |
| 105 | 23 | 0.167            | 0.155 | 0.133 | 105 | 79  | 0.690            | 0.673 | 0.641 |
| 105 | 24 | 0.176            | 0.163 | 0.140 | 105 | 80  | 0.700            | 0.684 | 0.652 |
| 105 | 25 | 0.184            | 0.171 | 0.146 | 105 | 81  | 0.710            | 0.694 | 0.662 |
| 105 | 26 | 0.193            | 0.180 | 0.156 | 105 | 82  | 0.721            | 0.704 | 0.673 |
| 105 | 27 | 0.202            | 0.188 | 0.164 | 105 | 83  | 0.731            | 0.715 | 0.683 |
| 105 | 28 | 0.210            | 0.197 | 0.172 | 105 | 84  | 0.741            | 0.725 | 0.694 |
| 105 | 29 | 0.219            | 0.205 | 0.180 | 105 | 85  | 0.751            | 0.735 | 0.705 |
| 105 | 30 | 0.228            | 0.214 | 0.188 | 105 | 86  | 0.762            | 0.746 | 0.715 |
| 105 | 31 | 0.237            | 0.222 | 0.196 | 105 | 87  | 0.772            | 0.756 | 0.726 |
| 105 | 32 | 0.246            | 0.231 | 0.205 | 105 | 88  | 0.782            | 0.767 | 0.737 |
| 105 | 33 | 0.255            | 0.240 | 0.213 | 105 | 89  | 0.793            | 0.778 | 0.748 |
| 105 | 34 | 0.264            | 0.248 | 0.221 | 105 | 90  | 0.803            | 0.789 | 0.760 |
| 105 | 35 | 0.272            | 0.257 | 0.230 | 105 | 91  | 0.814            | 0.799 | 0.771 |
| 105 | 36 | 0.281            | 0.266 | 0.238 | 105 | 92  | 0.825            | 0.810 | 0.782 |
| 105 | 37 | 0.290            | 0.275 | 0.247 | 105 | 93  | 0.835            | 0.821 | 0.794 |
| 105 | 38 | 0.299            | 0.284 | 0.255 | 105 | 94  | 0.846            | 0.833 | 0.805 |
| 105 | 39 | 0.309            | 0.293 | 0.264 | 105 | 95  | 0.857            | 0.844 | 0.817 |
| 105 | 40 | 0.318            | 0.302 | 0.272 | 105 | 96  | 0.868            | 0.855 | 0.829 |
| 105 | 41 | 0.327            | 0.311 | 0.281 | 105 | 97  | 0.879            | 0.867 | 0.842 |
| 105 | 42 | 0.336            | 0.320 | 0.290 | 105 | 98  | 0.890            | 0.878 | 0.854 |
| 105 | 43 | 0.345            | 0.329 | 0.298 | 105 | 99  | 0.902            | 0.890 | 0.867 |
| 105 | 44 | 0.354            | 0.338 | 0.307 | 105 | 100 | 0.913            | 0.902 | 0.880 |
| 105 | 45 | 0.363            | 0.347 | 0.316 | 105 | 101 | 0.925            | 0.915 | 0.893 |
| 105 | 46 | 0.373            | 0.356 | 0.325 | 105 | 102 | 0.937            | 0.928 | 0.907 |
| 105 | 47 | 0.382            | 0.365 | 0.334 | 105 | 103 | 0.950            | 0.941 | 0.922 |
| 105 | 48 | 0.391            | 0.374 | 0.343 | 105 | 104 | 0.963            | 0.956 | 0.938 |
| 105 | 49 | 0.400            | 0.383 | 0.352 | 105 | 105 | 0.978            | 0.972 | 0.957 |
| 105 | 50 | 0.410            | 0.393 | 0.361 | 110 | 0   | 0.000            | 0.000 | 0.000 |
| 105 | 51 | 0.419            | 0.402 | 0.370 | 110 | 1   | 0.001            | 0.000 | 0.000 |
| 105 | 52 | 0.428            | 0.411 | 0.379 | 110 | 2   | 0.005            | 0.003 | 0.001 |
| 105 | 53 | 0.438            | 0.420 | 0.388 | 110 | 3   | 0.010            | 0.007 | 0.004 |
| 105 | 54 | 0.447            | 0.430 | 0.397 | 110 | 4   | 0.016            | 0.013 | 0.008 |
| 105 | 55 | 0.457            | 0.439 | 0.407 | 110 | 5   | 0.022            | 0.018 | 0.012 |
| 105 | 56 | 0.466            | 0.449 | 0.416 | 110 | 6   | 0.029            | 0.024 | 0.016 |
| 105 | 57 | 0.476            | 0.458 | 0.425 | 110 | 7   | 0.036            | 0.030 | 0.022 |
| 105 | 58 | 0.485            | 0.467 | 0.437 | 110 | 8   | 0.043            | 0.037 | 0.027 |
| 105 | 59 | 0.495            | 0.477 | 0.444 | 110 | 9   | 0.050            | 0.043 | 0.033 |
| 105 | 60 | 0.504            | 0.486 | 0.453 | 110 | 10  | 0.057            | 0.050 | 0.038 |
| 105 | 61 | 0.514            | 0.496 | 0.463 | 110 | 11  | 0.065            | 0.057 | 0.044 |
| 105 | 62 | 0.523            | 0.506 | 0.472 | 110 | 12  | 0.072            | 0.064 | 0.051 |
| 105 | 63 | 0.533            | 0.515 | 0.482 | 110 | 13  | 0.080            | 0.071 | 0.057 |
| 105 | 64 | 0.543            | 0.525 | 0.492 | 110 | 14  | 0.088            | 0.079 | 0.063 |
| 105 | 65 | 0.552            | 0.535 | 0.501 | 110 | 15  | 0.095            | 0.086 | 0.070 |
| 105 | 66 | 0.562            | 0.544 | 0.511 | 110 | 16  | 0.103            | 0.093 | 0.077 |
| 105 | 67 | 0.572            | 0.554 | 0.521 | 110 | 17  | 0.111            | 0.101 | 0.084 |
| 105 | 68 | 0.581            | 0.564 | 0.530 | 110 | 18  | 0.119            | 0.109 | 0.091 |
| 105 | 69 | 0.591            | 0.574 | 0.540 | 110 | 19  | 0.127            | 0.116 | 0.098 |
| 105 | 70 | 0.601            | 0.583 | 0.550 | 110 | 20  | 0.135            | 0.124 | 0.105 |
| 105 | 71 | 0.611            | 0.593 | 0.560 | 110 | 21  | 0.143            | 0.132 | 0.112 |
| 105 | 72 | 0.621            | 0.603 | 0.570 | 110 | 22  | 0.151            | 0.139 | 0.119 |
| 105 | 73 | 0.630            | 0.613 | 0.580 | 110 | 23  | 0.159            | 0.147 | 0.126 |
| 105 | 74 | 0.640            | 0.623 | 0.590 | 110 | 24  | 0.167            | 0.155 | 0.134 |
| 105 | 75 | 0.650            | 0.633 | 0.600 | 110 | 25  | 0.176            | 0.163 | 0.141 |
| 105 | 76 | 0.660            | 0.643 | 0.610 | 110 | 26  | 0.184            | 0.171 | 0.149 |
| 105 | 77 | 0.670            | 0.653 | 0.621 |     |     |                  |       |       |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 110 | 27 | 0.192            | 0.179 | 0.156 | 110 | 83  | 0.694            | 0.678 | 0.646 |
| 110 | 28 | 0.201            | 0.187 | 0.164 | 110 | 84  | 0.704            | 0.687 | 0.656 |
| 110 | 29 | 0.209            | 0.195 | 0.172 | 110 | 85  | 0.713            | 0.697 | 0.666 |
| 110 | 30 | 0.217            | 0.204 | 0.179 | 110 | 86  | 0.723            | 0.707 | 0.676 |
| 110 | 31 | 0.226            | 0.212 | 0.187 | 110 | 87  | 0.733            | 0.717 | 0.686 |
| 110 | 32 | 0.234            | 0.220 | 0.195 | 110 | 88  | 0.743            | 0.727 | 0.697 |
| 110 | 33 | 0.243            | 0.228 | 0.203 | 110 | 89  | 0.752            | 0.737 | 0.707 |
| 110 | 34 | 0.251            | 0.237 | 0.211 | 110 | 90  | 0.762            | 0.747 | 0.717 |
| 110 | 35 | 0.260            | 0.245 | 0.219 | 110 | 91  | 0.772            | 0.757 | 0.727 |
| 110 | 36 | 0.268            | 0.253 | 0.227 | 110 | 92  | 0.782            | 0.767 | 0.738 |
| 110 | 37 | 0.277            | 0.262 | 0.235 | 110 | 93  | 0.792            | 0.777 | 0.748 |
| 110 | 38 | 0.285            | 0.270 | 0.243 | 110 | 94  | 0.802            | 0.787 | 0.759 |
| 110 | 39 | 0.294            | 0.279 | 0.251 | 110 | 95  | 0.812            | 0.798 | 0.770 |
| 110 | 40 | 0.303            | 0.287 | 0.259 | 110 | 96  | 0.822            | 0.808 | 0.781 |
| 110 | 41 | 0.311            | 0.296 | 0.267 | 110 | 97  | 0.832            | 0.819 | 0.792 |
| 110 | 42 | 0.320            | 0.304 | 0.276 | 110 | 98  | 0.843            | 0.829 | 0.803 |
| 110 | 43 | 0.329            | 0.313 | 0.284 | 110 | 99  | 0.853            | 0.840 | 0.814 |
| 110 | 44 | 0.337            | 0.321 | 0.292 | 110 | 100 | 0.863            | 0.851 | 0.825 |
| 110 | 45 | 0.346            | 0.330 | 0.301 | 110 | 101 | 0.874            | 0.862 | 0.837 |
| 110 | 46 | 0.355            | 0.339 | 0.309 | 110 | 102 | 0.885            | 0.873 | 0.848 |
| 110 | 47 | 0.364            | 0.347 | 0.317 | 110 | 103 | 0.895            | 0.884 | 0.860 |
| 110 | 48 | 0.373            | 0.356 | 0.326 | 110 | 104 | 0.906            | 0.895 | 0.873 |
| 110 | 49 | 0.381            | 0.365 | 0.334 | 110 | 105 | 0.917            | 0.907 | 0.885 |
| 110 | 50 | 0.390            | 0.374 | 0.343 | 110 | 106 | 0.929            | 0.919 | 0.898 |
| 110 | 51 | 0.399            | 0.382 | 0.352 | 110 | 107 | 0.940            | 0.931 | 0.912 |
| 110 | 52 | 0.408            | 0.391 | 0.360 | 110 | 108 | 0.952            | 0.944 | 0.926 |
| 110 | 53 | 0.417            | 0.400 | 0.369 | 110 | 109 | 0.965            | 0.958 | 0.941 |
| 110 | 54 | 0.426            | 0.409 | 0.378 | 110 | 110 | 0.979            | 0.973 | 0.959 |
| 110 | 55 | 0.435            | 0.418 | 0.386 | 115 | 0   | 0.000            | 0.000 | 0.000 |
| 110 | 56 | 0.444            | 0.427 | 0.395 | 115 | 1   | 0.001            | 0.000 | 0.000 |
| 110 | 57 | 0.453            | 0.436 | 0.404 | 115 | 2   | 0.005            | 0.003 | 0.001 |
| 110 | 58 | 0.462            | 0.445 | 0.413 | 115 | 3   | 0.010            | 0.007 | 0.004 |
| 110 | 59 | 0.471            | 0.454 | 0.422 | 115 | 4   | 0.015            | 0.012 | 0.007 |
| 110 | 60 | 0.480            | 0.463 | 0.431 | 115 | 5   | 0.021            | 0.017 | 0.011 |
| 110 | 61 | 0.489            | 0.472 | 0.439 | 115 | 6   | 0.028            | 0.023 | 0.016 |
| 110 | 62 | 0.498            | 0.481 | 0.448 | 115 | 7   | 0.034            | 0.029 | 0.021 |
| 110 | 63 | 0.507            | 0.490 | 0.457 | 115 | 8   | 0.041            | 0.035 | 0.026 |
| 110 | 64 | 0.516            | 0.499 | 0.467 | 115 | 9   | 0.048            | 0.041 | 0.031 |
| 110 | 65 | 0.525            | 0.508 | 0.476 | 115 | 10  | 0.055            | 0.048 | 0.037 |
| 110 | 66 | 0.535            | 0.517 | 0.485 | 115 | 11  | 0.062            | 0.055 | 0.042 |
| 110 | 67 | 0.544            | 0.526 | 0.494 | 115 | 12  | 0.069            | 0.061 | 0.048 |
| 110 | 68 | 0.553            | 0.536 | 0.503 | 115 | 13  | 0.076            | 0.068 | 0.054 |
| 110 | 69 | 0.562            | 0.545 | 0.512 | 115 | 14  | 0.084            | 0.075 | 0.061 |
| 110 | 70 | 0.572            | 0.554 | 0.522 | 115 | 15  | 0.091            | 0.082 | 0.067 |
| 110 | 71 | 0.581            | 0.564 | 0.531 | 115 | 16  | 0.099            | 0.089 | 0.073 |
| 110 | 72 | 0.590            | 0.573 | 0.540 | 115 | 17  | 0.106            | 0.096 | 0.080 |
| 110 | 73 | 0.599            | 0.582 | 0.550 | 115 | 18  | 0.114            | 0.104 | 0.086 |
| 110 | 74 | 0.609            | 0.592 | 0.559 | 115 | 19  | 0.121            | 0.111 | 0.093 |
| 110 | 75 | 0.618            | 0.601 | 0.569 | 115 | 20  | 0.129            | 0.118 | 0.100 |
| 110 | 76 | 0.628            | 0.611 | 0.578 | 115 | 21  | 0.137            | 0.126 | 0.107 |
| 110 | 77 | 0.637            | 0.620 | 0.588 | 115 | 22  | 0.144            | 0.133 | 0.114 |
| 110 | 78 | 0.646            | 0.630 | 0.597 | 115 | 23  | 0.152            | 0.141 | 0.121 |
| 110 | 79 | 0.656            | 0.639 | 0.607 | 115 | 24  | 0.160            | 0.148 | 0.128 |
| 110 | 80 | 0.665            | 0.649 | 0.617 | 115 | 25  | 0.168            | 0.156 | 0.135 |
| 110 | 81 | 0.675            | 0.658 | 0.627 | 115 | 26  | 0.176            | 0.164 | 0.142 |
| 110 | 82 | 0.685            | 0.668 | 0.636 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 115 | 27 | 0.184            | 0.171 | 0.149 | 115 | 83  | 0.661            | 0.645 | 0.614 |
| 115 | 28 | 0.192            | 0.179 | 0.156 | 115 | 84  | 0.670            | 0.654 | 0.623 |
| 115 | 29 | 0.200            | 0.187 | 0.164 | 115 | 85  | 0.679            | 0.663 | 0.632 |
| 115 | 30 | 0.208            | 0.194 | 0.171 | 115 | 86  | 0.689            | 0.672 | 0.642 |
| 115 | 31 | 0.216            | 0.202 | 0.178 | 115 | 87  | 0.698            | 0.682 | 0.651 |
| 115 | 32 | 0.224            | 0.210 | 0.186 | 115 | 88  | 0.707            | 0.691 | 0.661 |
| 115 | 33 | 0.232            | 0.218 | 0.193 | 115 | 89  | 0.716            | 0.700 | 0.670 |
| 115 | 34 | 0.240            | 0.226 | 0.201 | 115 | 90  | 0.725            | 0.710 | 0.680 |
| 115 | 35 | 0.248            | 0.234 | 0.209 | 115 | 91  | 0.735            | 0.719 | 0.689 |
| 115 | 36 | 0.256            | 0.242 | 0.216 | 115 | 92  | 0.744            | 0.729 | 0.699 |
| 115 | 37 | 0.264            | 0.250 | 0.224 | 115 | 93  | 0.753            | 0.738 | 0.709 |
| 115 | 38 | 0.272            | 0.258 | 0.232 | 115 | 94  | 0.763            | 0.748 | 0.719 |
| 115 | 39 | 0.281            | 0.266 | 0.239 | 115 | 95  | 0.772            | 0.757 | 0.729 |
| 115 | 40 | 0.289            | 0.274 | 0.247 | 115 | 96  | 0.782            | 0.767 | 0.739 |
| 115 | 41 | 0.297            | 0.282 | 0.255 | 115 | 97  | 0.791            | 0.777 | 0.749 |
| 115 | 42 | 0.306            | 0.290 | 0.263 | 115 | 98  | 0.801            | 0.787 | 0.759 |
| 115 | 43 | 0.314            | 0.299 | 0.271 | 115 | 99  | 0.810            | 0.796 | 0.769 |
| 115 | 44 | 0.322            | 0.307 | 0.279 | 115 | 100 | 0.820            | 0.806 | 0.779 |
| 115 | 45 | 0.330            | 0.315 | 0.287 | 115 | 101 | 0.830            | 0.816 | 0.790 |
| 115 | 46 | 0.339            | 0.323 | 0.295 | 115 | 102 | 0.839            | 0.826 | 0.800 |
| 115 | 47 | 0.347            | 0.331 | 0.303 | 115 | 103 | 0.849            | 0.836 | 0.811 |
| 115 | 48 | 0.356            | 0.340 | 0.311 | 115 | 104 | 0.859            | 0.847 | 0.822 |
| 115 | 49 | 0.364            | 0.348 | 0.319 | 115 | 105 | 0.869            | 0.857 | 0.832 |
| 115 | 50 | 0.372            | 0.356 | 0.327 | 115 | 106 | 0.879            | 0.867 | 0.844 |
| 115 | 51 | 0.381            | 0.365 | 0.335 | 115 | 107 | 0.889            | 0.878 | 0.855 |
| 115 | 52 | 0.389            | 0.373 | 0.343 | 115 | 108 | 0.900            | 0.889 | 0.866 |
| 115 | 53 | 0.398            | 0.382 | 0.351 | 115 | 109 | 0.910            | 0.900 | 0.878 |
| 115 | 54 | 0.406            | 0.390 | 0.360 | 115 | 110 | 0.921            | 0.911 | 0.890 |
| 115 | 55 | 0.415            | 0.398 | 0.368 | 115 | 111 | 0.932            | 0.922 | 0.902 |
| 115 | 56 | 0.423            | 0.407 | 0.376 | 115 | 112 | 0.943            | 0.934 | 0.915 |
| 115 | 57 | 0.432            | 0.415 | 0.385 | 115 | 113 | 0.954            | 0.946 | 0.929 |
| 115 | 58 | 0.441            | 0.424 | 0.393 | 115 | 114 | 0.967            | 0.959 | 0.944 |
| 115 | 59 | 0.449            | 0.432 | 0.401 | 115 | 115 | 0.980            | 0.974 | 0.961 |
| 115 | 60 | 0.458            | 0.441 | 0.410 | 120 | 0   | 0.000            | 0.000 | 0.000 |
| 115 | 61 | 0.466            | 0.450 | 0.418 | 120 | 1   | 0.001            | 0.000 | 0.000 |
| 115 | 62 | 0.475            | 0.458 | 0.427 | 120 | 2   | 0.004            | 0.003 | 0.001 |
| 115 | 63 | 0.484            | 0.467 | 0.435 | 120 | 3   | 0.009            | 0.007 | 0.004 |
| 115 | 64 | 0.492            | 0.476 | 0.444 | 120 | 4   | 0.015            | 0.011 | 0.007 |
| 115 | 65 | 0.501            | 0.484 | 0.453 | 120 | 5   | 0.020            | 0.017 | 0.011 |
| 115 | 66 | 0.510            | 0.493 | 0.461 | 120 | 6   | 0.026            | 0.022 | 0.015 |
| 115 | 67 | 0.519            | 0.502 | 0.470 | 120 | 7   | 0.033            | 0.028 | 0.020 |
| 115 | 68 | 0.527            | 0.510 | 0.479 | 120 | 8   | 0.039            | 0.034 | 0.025 |
| 115 | 69 | 0.536            | 0.519 | 0.487 | 120 | 9   | 0.046            | 0.040 | 0.030 |
| 115 | 70 | 0.545            | 0.528 | 0.496 | 120 | 10  | 0.052            | 0.046 | 0.035 |
| 115 | 71 | 0.554            | 0.537 | 0.505 | 120 | 11  | 0.059            | 0.052 | 0.041 |
| 115 | 72 | 0.563            | 0.546 | 0.514 | 120 | 12  | 0.066            | 0.059 | 0.046 |
| 115 | 73 | 0.571            | 0.555 | 0.523 | 120 | 13  | 0.073            | 0.065 | 0.052 |
| 115 | 74 | 0.580            | 0.563 | 0.532 | 120 | 14  | 0.080            | 0.072 | 0.058 |
| 115 | 75 | 0.589            | 0.572 | 0.541 | 120 | 15  | 0.087            | 0.079 | 0.064 |
| 115 | 76 | 0.598            | 0.581 | 0.550 | 120 | 16  | 0.094            | 0.085 | 0.070 |
| 115 | 77 | 0.607            | 0.590 | 0.559 | 120 | 17  | 0.102            | 0.092 | 0.076 |
| 115 | 78 | 0.616            | 0.599 | 0.568 | 120 | 18  | 0.109            | 0.099 | 0.083 |
| 115 | 79 | 0.625            | 0.608 | 0.577 | 120 | 19  | 0.116            | 0.106 | 0.089 |
| 115 | 80 | 0.634            | 0.617 | 0.586 | 120 | 20  | 0.123            | 0.113 | 0.096 |
| 115 | 81 | 0.643            | 0.627 | 0.595 | 120 | 21  | 0.131            | 0.120 | 0.102 |
| 115 | 82 | 0.652            | 0.636 | 0.604 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 120 | 22 | 0.138            | 0.127 | 0.109 | 120 | 79  | 0.597            | 0.581 | 0.549 |
| 120 | 23 | 0.146            | 0.135 | 0.115 | 120 | 80  | 0.606            | 0.589 | 0.558 |
| 120 | 24 | 0.153            | 0.142 | 0.122 | 120 | 81  | 0.614            | 0.598 | 0.567 |
| 120 | 25 | 0.161            | 0.149 | 0.129 | 120 | 82  | 0.623            | 0.606 | 0.575 |
| 120 | 26 | 0.168            | 0.156 | 0.136 | 120 | 83  | 0.631            | 0.615 | 0.584 |
| 120 | 27 | 0.176            | 0.164 | 0.143 | 120 | 84  | 0.640            | 0.624 | 0.593 |
| 120 | 28 | 0.183            | 0.171 | 0.150 | 120 | 85  | 0.649            | 0.632 | 0.602 |
| 120 | 29 | 0.191            | 0.179 | 0.157 | 120 | 86  | 0.657            | 0.641 | 0.611 |
| 120 | 30 | 0.199            | 0.186 | 0.164 | 120 | 87  | 0.666            | 0.650 | 0.620 |
| 120 | 31 | 0.206            | 0.194 | 0.171 | 120 | 88  | 0.675            | 0.659 | 0.628 |
| 120 | 32 | 0.214            | 0.201 | 0.178 | 120 | 89  | 0.683            | 0.668 | 0.637 |
| 120 | 33 | 0.222            | 0.209 | 0.185 | 120 | 90  | 0.692            | 0.677 | 0.646 |
| 120 | 34 | 0.230            | 0.216 | 0.192 | 120 | 91  | 0.701            | 0.685 | 0.656 |
| 120 | 35 | 0.237            | 0.224 | 0.199 | 120 | 92  | 0.710            | 0.694 | 0.665 |
| 120 | 36 | 0.245            | 0.231 | 0.207 | 120 | 93  | 0.719            | 0.703 | 0.674 |
| 120 | 37 | 0.253            | 0.239 | 0.214 | 120 | 94  | 0.728            | 0.712 | 0.683 |
| 120 | 38 | 0.261            | 0.247 | 0.221 | 120 | 95  | 0.736            | 0.721 | 0.692 |
| 120 | 39 | 0.269            | 0.254 | 0.229 | 120 | 96  | 0.745            | 0.730 | 0.702 |
| 120 | 40 | 0.276            | 0.262 | 0.236 | 120 | 97  | 0.754            | 0.740 | 0.711 |
| 120 | 41 | 0.284            | 0.270 | 0.244 | 120 | 98  | 0.763            | 0.749 | 0.720 |
| 120 | 42 | 0.292            | 0.278 | 0.251 | 120 | 99  | 0.772            | 0.758 | 0.730 |
| 120 | 43 | 0.300            | 0.285 | 0.259 | 120 | 100 | 0.781            | 0.767 | 0.739 |
| 120 | 44 | 0.308            | 0.293 | 0.266 | 120 | 101 | 0.790            | 0.776 | 0.749 |
| 120 | 45 | 0.316            | 0.301 | 0.274 | 120 | 102 | 0.800            | 0.786 | 0.759 |
| 120 | 46 | 0.324            | 0.309 | 0.281 | 120 | 103 | 0.809            | 0.795 | 0.768 |
| 120 | 47 | 0.332            | 0.317 | 0.289 | 120 | 104 | 0.818            | 0.805 | 0.778 |
| 120 | 48 | 0.340            | 0.325 | 0.297 | 120 | 105 | 0.827            | 0.814 | 0.788 |
| 120 | 49 | 0.348            | 0.333 | 0.304 | 120 | 106 | 0.837            | 0.824 | 0.798 |
| 120 | 50 | 0.356            | 0.341 | 0.312 | 120 | 107 | 0.846            | 0.833 | 0.808 |
| 120 | 51 | 0.364            | 0.349 | 0.320 | 120 | 108 | 0.855            | 0.843 | 0.818 |
| 120 | 52 | 0.372            | 0.357 | 0.328 | 120 | 109 | 0.865            | 0.853 | 0.829 |
| 120 | 53 | 0.381            | 0.365 | 0.336 | 120 | 110 | 0.875            | 0.863 | 0.839 |
| 120 | 54 | 0.389            | 0.373 | 0.343 | 120 | 111 | 0.884            | 0.873 | 0.850 |
| 120 | 55 | 0.397            | 0.381 | 0.351 | 120 | 112 | 0.894            | 0.883 | 0.861 |
| 120 | 56 | 0.405            | 0.389 | 0.359 | 120 | 113 | 0.904            | 0.893 | 0.872 |
| 120 | 57 | 0.413            | 0.397 | 0.367 | 120 | 114 | 0.914            | 0.904 | 0.883 |
| 120 | 58 | 0.421            | 0.405 | 0.375 | 120 | 115 | 0.924            | 0.914 | 0.894 |
| 120 | 59 | 0.429            | 0.413 | 0.383 | 120 | 116 | 0.934            | 0.925 | 0.906 |
| 120 | 60 | 0.438            | 0.421 | 0.391 | 120 | 117 | 0.945            | 0.937 | 0.919 |
| 120 | 61 | 0.446            | 0.430 | 0.399 | 120 | 118 | 0.956            | 0.948 | 0.932 |
| 120 | 62 | 0.454            | 0.438 | 0.407 | 120 | 119 | 0.968            | 0.961 | 0.946 |
| 120 | 63 | 0.462            | 0.446 | 0.415 | 120 | 120 | 0.981            | 0.975 | 0.962 |
| 120 | 64 | 0.471            | 0.454 | 0.424 | 125 | 0   | 0.000            | 0.000 | 0.000 |
| 120 | 65 | 0.479            | 0.463 | 0.432 | 125 | 1   | 0.001            | 0.000 | 0.000 |
| 120 | 66 | 0.487            | 0.471 | 0.440 | 125 | 2   | 0.004            | 0.003 | 0.001 |
| 120 | 67 | 0.496            | 0.479 | 0.448 | 125 | 3   | 0.009            | 0.007 | 0.004 |
| 120 | 68 | 0.504            | 0.487 | 0.457 | 125 | 4   | 0.014            | 0.011 | 0.007 |
| 120 | 69 | 0.512            | 0.496 | 0.465 | 125 | 5   | 0.020            | 0.016 | 0.010 |
| 120 | 70 | 0.521            | 0.504 | 0.473 | 125 | 6   | 0.025            | 0.021 | 0.014 |
| 120 | 71 | 0.529            | 0.513 | 0.481 | 125 | 7   | 0.031            | 0.027 | 0.019 |
| 120 | 72 | 0.538            | 0.521 | 0.490 | 125 | 8   | 0.038            | 0.032 | 0.024 |
| 120 | 73 | 0.546            | 0.529 | 0.498 | 125 | 9   | 0.044            | 0.038 | 0.029 |
| 120 | 74 | 0.554            | 0.538 | 0.507 | 125 | 10  | 0.050            | 0.044 | 0.034 |
| 120 | 75 | 0.563            | 0.546 | 0.515 | 125 | 11  | 0.057            | 0.050 | 0.039 |
| 120 | 76 | 0.571            | 0.555 | 0.524 | 125 | 12  | 0.063            | 0.056 | 0.044 |
| 120 | 77 | 0.580            | 0.563 | 0.532 | 125 | 13  | 0.070            | 0.063 | 0.050 |
| 120 | 78 | 0.588            | 0.572 | 0.541 |     |     |                  |       |       |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 125 | 14 | 0.077      | 0.069 | 0.056 | 125 | 72  | 0.515      | 0.499 | 0.468 |
| 125 | 15 | 0.084      | 0.075 | 0.061 | 125 | 73  | 0.523      | 0.507 | 0.476 |
| 125 | 16 | 0.091      | 0.082 | 0.067 | 125 | 74  | 0.531      | 0.515 | 0.484 |
| 125 | 17 | 0.097      | 0.089 | 0.073 | 125 | 75  | 0.539      | 0.523 | 0.492 |
| 125 | 18 | 0.104      | 0.095 | 0.079 | 125 | 76  | 0.547      | 0.531 | 0.500 |
| 125 | 19 | 0.111      | 0.102 | 0.085 | 125 | 77  | 0.555      | 0.539 | 0.508 |
| 125 | 20 | 0.118      | 0.109 | 0.092 | 125 | 78  | 0.563      | 0.547 | 0.517 |
| 125 | 21 | 0.125      | 0.115 | 0.098 | 125 | 79  | 0.571      | 0.555 | 0.525 |
| 125 | 22 | 0.133      | 0.122 | 0.104 | 125 | 80  | 0.580      | 0.563 | 0.533 |
| 125 | 23 | 0.140      | 0.129 | 0.111 | 125 | 81  | 0.588      | 0.572 | 0.541 |
| 125 | 24 | 0.147      | 0.136 | 0.117 | 125 | 82  | 0.596      | 0.580 | 0.549 |
| 125 | 25 | 0.154      | 0.143 | 0.124 | 125 | 83  | 0.604      | 0.588 | 0.558 |
| 125 | 26 | 0.161      | 0.150 | 0.130 | 125 | 84  | 0.612      | 0.596 | 0.566 |
| 125 | 27 | 0.169      | 0.157 | 0.137 | 125 | 85  | 0.621      | 0.605 | 0.574 |
| 125 | 28 | 0.176      | 0.164 | 0.143 | 125 | 86  | 0.629      | 0.613 | 0.583 |
| 125 | 29 | 0.183      | 0.171 | 0.150 | 125 | 87  | 0.637      | 0.621 | 0.591 |
| 125 | 30 | 0.191      | 0.178 | 0.157 | 125 | 88  | 0.645      | 0.630 | 0.600 |
| 125 | 31 | 0.198      | 0.186 | 0.163 | 125 | 89  | 0.654      | 0.638 | 0.608 |
| 125 | 32 | 0.205      | 0.193 | 0.170 | 125 | 90  | 0.662      | 0.646 | 0.617 |
| 125 | 33 | 0.213      | 0.200 | 0.177 | 125 | 91  | 0.670      | 0.655 | 0.625 |
| 125 | 34 | 0.220      | 0.207 | 0.184 | 125 | 92  | 0.679      | 0.663 | 0.634 |
| 125 | 35 | 0.228      | 0.214 | 0.191 | 125 | 93  | 0.687      | 0.672 | 0.642 |
| 125 | 36 | 0.235      | 0.222 | 0.198 | 125 | 94  | 0.696      | 0.680 | 0.651 |
| 125 | 37 | 0.242      | 0.229 | 0.205 | 125 | 95  | 0.704      | 0.689 | 0.660 |
| 125 | 38 | 0.250      | 0.236 | 0.212 | 125 | 96  | 0.713      | 0.697 | 0.668 |
| 125 | 39 | 0.258      | 0.244 | 0.219 | 125 | 97  | 0.721      | 0.706 | 0.677 |
| 125 | 40 | 0.265      | 0.251 | 0.226 | 125 | 98  | 0.730      | 0.715 | 0.686 |
| 125 | 41 | 0.273      | 0.259 | 0.233 | 125 | 99  | 0.738      | 0.723 | 0.695 |
| 125 | 42 | 0.280      | 0.266 | 0.240 | 125 | 100 | 0.747      | 0.732 | 0.704 |
| 125 | 43 | 0.288      | 0.273 | 0.248 | 125 | 101 | 0.755      | 0.741 | 0.713 |
| 125 | 44 | 0.295      | 0.281 | 0.255 | 125 | 102 | 0.764      | 0.750 | 0.722 |
| 125 | 45 | 0.303      | 0.288 | 0.262 | 125 | 103 | 0.772      | 0.758 | 0.731 |
| 125 | 46 | 0.311      | 0.296 | 0.269 | 125 | 104 | 0.781      | 0.767 | 0.740 |
| 125 | 47 | 0.318      | 0.304 | 0.277 | 125 | 105 | 0.790      | 0.776 | 0.749 |
| 125 | 48 | 0.326      | 0.311 | 0.284 | 125 | 106 | 0.799      | 0.785 | 0.758 |
| 125 | 49 | 0.334      | 0.319 | 0.291 | 125 | 107 | 0.807      | 0.794 | 0.768 |
| 125 | 50 | 0.341      | 0.326 | 0.299 | 125 | 108 | 0.816      | 0.803 | 0.777 |
| 125 | 51 | 0.349      | 0.334 | 0.306 | 125 | 109 | 0.825      | 0.812 | 0.787 |
| 125 | 52 | 0.357      | 0.342 | 0.314 | 125 | 110 | 0.834      | 0.821 | 0.796 |
| 125 | 53 | 0.365      | 0.349 | 0.321 | 125 | 111 | 0.843      | 0.830 | 0.806 |
| 125 | 54 | 0.372      | 0.357 | 0.329 | 125 | 112 | 0.852      | 0.840 | 0.815 |
| 125 | 55 | 0.380      | 0.365 | 0.336 | 125 | 113 | 0.861      | 0.849 | 0.825 |
| 125 | 56 | 0.388      | 0.372 | 0.344 | 125 | 114 | 0.870      | 0.859 | 0.835 |
| 125 | 57 | 0.396      | 0.380 | 0.351 | 125 | 115 | 0.879      | 0.868 | 0.845 |
| 125 | 58 | 0.404      | 0.388 | 0.359 | 125 | 116 | 0.889      | 0.878 | 0.856 |
| 125 | 59 | 0.411      | 0.396 | 0.366 | 125 | 117 | 0.898      | 0.887 | 0.866 |
| 125 | 60 | 0.419      | 0.403 | 0.374 | 125 | 118 | 0.908      | 0.897 | 0.877 |
| 125 | 61 | 0.427      | 0.411 | 0.382 | 125 | 119 | 0.917      | 0.907 | 0.887 |
| 125 | 62 | 0.435      | 0.419 | 0.390 | 125 | 120 | 0.927      | 0.918 | 0.898 |
| 125 | 63 | 0.443      | 0.427 | 0.397 | 125 | 121 | 0.937      | 0.928 | 0.910 |
| 125 | 64 | 0.451      | 0.435 | 0.405 | 125 | 122 | 0.947      | 0.939 | 0.922 |
| 125 | 65 | 0.459      | 0.443 | 0.413 | 125 | 123 | 0.958      | 0.950 | 0.934 |
| 125 | 66 | 0.467      | 0.451 | 0.421 | 125 | 124 | 0.969      | 0.963 | 0.948 |
| 125 | 67 | 0.475      | 0.459 | 0.428 | 125 | 125 | 0.982      | 0.976 | 0.964 |
| 125 | 68 | 0.483      | 0.467 | 0.436 | 130 | 0   | 0.000      | 0.000 | 0.000 |
| 125 | 69 | 0.491      | 0.475 | 0.444 | 130 | 1   | 0.001      | 0.000 | 0.000 |
| 125 | 70 | 0.499      | 0.482 | 0.452 | 130 | 2   | 0.004      | 0.003 | 0.001 |
| 125 | 71 | 0.507      | 0.490 | 0.460 | 130 | 3   | 0.009      | 0.006 | 0.003 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 130 | 4  | 0.013            | 0.011 | 0.006 | 130 | 62  | 0.418            | 0.402 | 0.373 |
|     |    |                  |       |       | 130 | 63  | 0.425            | 0.410 | 0.381 |
| 130 | 5  | 0.019            | 0.015 | 0.010 | 130 | 64  | 0.433            | 0.417 | 0.388 |
| 130 | 6  | 0.024            | 0.020 | 0.014 |     |     |                  |       |       |
| 130 | 7  | 0.030            | 0.026 | 0.018 | 130 | 65  | 0.440            | 0.425 | 0.396 |
| 130 | 8  | 0.036            | 0.031 | 0.023 | 130 | 66  | 0.448            | 0.432 | 0.403 |
| 130 | 9  | 0.042            | 0.037 | 0.027 | 130 | 67  | 0.456            | 0.440 | 0.410 |
|     |    |                  |       |       | 130 | 68  | 0.463            | 0.447 | 0.418 |
| 130 | 10 | 0.048            | 0.042 | 0.032 | 130 | 69  | 0.471            | 0.455 | 0.425 |
| 130 | 11 | 0.055            | 0.048 | 0.037 |     |     |                  |       |       |
| 130 | 12 | 0.061            | 0.054 | 0.043 | 130 | 70  | 0.478            | 0.463 | 0.433 |
| 130 | 13 | 0.067            | 0.060 | 0.048 | 130 | 71  | 0.486            | 0.470 | 0.441 |
| 130 | 14 | 0.074            | 0.066 | 0.053 | 130 | 72  | 0.494            | 0.478 | 0.448 |
|     |    |                  |       |       | 130 | 73  | 0.502            | 0.486 | 0.456 |
| 130 | 15 | 0.080            | 0.072 | 0.059 | 130 | 74  | 0.509            | 0.493 | 0.464 |
| 130 | 16 | 0.087            | 0.079 | 0.065 |     |     |                  |       |       |
| 130 | 17 | 0.094            | 0.085 | 0.070 | 130 | 75  | 0.517            | 0.501 | 0.471 |
| 130 | 18 | 0.100            | 0.091 | 0.076 | 130 | 76  | 0.525            | 0.509 | 0.479 |
| 130 | 19 | 0.107            | 0.098 | 0.082 | 130 | 77  | 0.532            | 0.517 | 0.487 |
|     |    |                  |       |       | 130 | 78  | 0.540            | 0.524 | 0.494 |
| 130 | 20 | 0.114            | 0.104 | 0.088 | 130 | 79  | 0.548            | 0.532 | 0.502 |
| 130 | 21 | 0.121            | 0.111 | 0.094 |     |     |                  |       |       |
| 130 | 22 | 0.127            | 0.117 | 0.100 | 130 | 80  | 0.556            | 0.540 | 0.510 |
| 130 | 23 | 0.134            | 0.124 | 0.106 | 130 | 81  | 0.564            | 0.548 | 0.518 |
| 130 | 24 | 0.141            | 0.131 | 0.112 | 130 | 82  | 0.571            | 0.556 | 0.526 |
|     |    |                  |       |       | 130 | 83  | 0.579            | 0.563 | 0.534 |
| 130 | 25 | 0.148            | 0.137 | 0.119 | 130 | 84  | 0.587            | 0.571 | 0.541 |
| 130 | 26 | 0.155            | 0.144 | 0.125 |     |     |                  |       |       |
| 130 | 27 | 0.162            | 0.151 | 0.131 | 130 | 85  | 0.595            | 0.579 | 0.549 |
| 130 | 28 | 0.169            | 0.158 | 0.138 | 130 | 86  | 0.603            | 0.587 | 0.557 |
| 130 | 29 | 0.176            | 0.164 | 0.144 | 130 | 87  | 0.611            | 0.595 | 0.565 |
|     |    |                  |       |       | 130 | 88  | 0.619            | 0.603 | 0.573 |
| 130 | 30 | 0.183            | 0.171 | 0.150 | 130 | 89  | 0.627            | 0.611 | 0.581 |
| 130 | 31 | 0.190            | 0.178 | 0.157 |     |     |                  |       |       |
| 130 | 32 | 0.197            | 0.185 | 0.163 | 130 | 90  | 0.635            | 0.619 | 0.589 |
| 130 | 33 | 0.204            | 0.192 | 0.170 | 130 | 91  | 0.643            | 0.627 | 0.597 |
| 130 | 34 | 0.211            | 0.199 | 0.177 | 130 | 92  | 0.651            | 0.635 | 0.606 |
|     |    |                  |       |       | 130 | 93  | 0.659            | 0.643 | 0.614 |
| 130 | 35 | 0.219            | 0.206 | 0.183 | 130 | 94  | 0.667            | 0.651 | 0.622 |
| 130 | 36 | 0.226            | 0.213 | 0.190 |     |     |                  |       |       |
| 130 | 37 | 0.233            | 0.220 | 0.197 | 130 | 95  | 0.675            | 0.659 | 0.630 |
| 130 | 38 | 0.240            | 0.227 | 0.203 | 130 | 96  | 0.683            | 0.667 | 0.638 |
| 130 | 39 | 0.247            | 0.234 | 0.210 | 130 | 97  | 0.691            | 0.676 | 0.647 |
|     |    |                  |       |       | 130 | 98  | 0.699            | 0.684 | 0.655 |
| 130 | 40 | 0.255            | 0.241 | 0.217 | 130 | 99  | 0.707            | 0.692 | 0.663 |
| 130 | 41 | 0.262            | 0.248 | 0.224 |     |     |                  |       |       |
| 130 | 42 | 0.269            | 0.255 | 0.231 | 130 | 100 | 0.715            | 0.700 | 0.672 |
| 130 | 43 | 0.276            | 0.263 | 0.237 | 130 | 101 | 0.723            | 0.709 | 0.680 |
| 130 | 44 | 0.284            | 0.270 | 0.244 | 130 | 102 | 0.731            | 0.717 | 0.689 |
|     |    |                  |       |       | 130 | 103 | 0.740            | 0.725 | 0.697 |
| 130 | 45 | 0.291            | 0.277 | 0.251 | 130 | 104 | 0.748            | 0.733 | 0.706 |
| 130 | 46 | 0.298            | 0.284 | 0.258 |     |     |                  |       |       |
| 130 | 47 | 0.306            | 0.291 | 0.265 | 130 | 105 | 0.756            | 0.742 | 0.714 |
| 130 | 48 | 0.313            | 0.299 | 0.272 | 130 | 106 | 0.764            | 0.750 | 0.723 |
| 130 | 49 | 0.320            | 0.306 | 0.279 | 130 | 107 | 0.773            | 0.759 | 0.732 |
|     |    |                  |       |       | 130 | 108 | 0.781            | 0.767 | 0.741 |
| 130 | 50 | 0.328            | 0.313 | 0.286 | 130 | 109 | 0.789            | 0.776 | 0.749 |
| 130 | 51 | 0.335            | 0.320 | 0.294 |     |     |                  |       |       |
| 130 | 52 | 0.343            | 0.328 | 0.301 | 130 | 110 | 0.798            | 0.784 | 0.758 |
| 130 | 53 | 0.350            | 0.335 | 0.308 | 130 | 111 | 0.806            | 0.793 | 0.767 |
| 130 | 54 | 0.357            | 0.342 | 0.315 | 130 | 112 | 0.815            | 0.802 | 0.776 |
|     |    |                  |       |       | 130 | 113 | 0.823            | 0.810 | 0.785 |
| 130 | 55 | 0.365            | 0.350 | 0.322 | 130 | 114 | 0.832            | 0.819 | 0.794 |
| 130 | 56 | 0.372            | 0.357 | 0.329 |     |     |                  |       |       |
| 130 | 57 | 0.380            | 0.365 | 0.337 | 130 | 115 | 0.840            | 0.828 | 0.804 |
| 130 | 58 | 0.387            | 0.372 | 0.344 | 130 | 116 | 0.849            | 0.837 | 0.813 |
| 130 | 59 | 0.395            | 0.380 | 0.351 | 130 | 117 | 0.858            | 0.846 | 0.822 |
|     |    |                  |       |       | 130 | 118 | 0.866            | 0.855 | 0.832 |
| 130 | 60 | 0.402            | 0.387 | 0.359 | 130 | 119 | 0.875            | 0.864 | 0.841 |
| 130 | 61 | 0.410            | 0.394 | 0.366 |     |     |                  |       |       |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 130 | 120 | 0.884            | 0.873 | 0.851 | 135 | 47  | 0.294            | 0.280 | 0.255 |
| 130 | 121 | 0.893            | 0.882 | 0.861 | 135 | 48  | 0.301            | 0.287 | 0.262 |
| 130 | 122 | 0.902            | 0.892 | 0.871 | 135 | 49  | 0.308            | 0.294 | 0.268 |
| 130 | 123 | 0.911            | 0.901 | 0.881 |     |     |                  |       |       |
| 130 | 124 | 0.920            | 0.911 | 0.892 | 135 | 50  | 0.315            | 0.301 | 0.275 |
|     |     |                  |       |       | 135 | 51  | 0.322            | 0.308 | 0.282 |
| 130 | 125 | 0.930            | 0.921 | 0.902 | 135 | 52  | 0.329            | 0.315 | 0.289 |
| 130 | 126 | 0.939            | 0.931 | 0.913 | 135 | 53  | 0.337            | 0.322 | 0.296 |
| 130 | 127 | 0.949            | 0.941 | 0.925 | 135 | 54  | 0.344            | 0.329 | 0.302 |
| 130 | 128 | 0.960            | 0.952 | 0.937 |     |     |                  |       |       |
| 130 | 129 | 0.970            | 0.964 | 0.950 | 135 | 55  | 0.351            | 0.336 | 0.309 |
|     |     |                  |       |       | 135 | 56  | 0.358            | 0.343 | 0.316 |
| 130 | 130 | 0.982            | 0.977 | 0.965 | 135 | 57  | 0.365            | 0.350 | 0.323 |
|     |     |                  |       |       | 135 | 58  | 0.372            | 0.358 | 0.330 |
| 135 | 0   | 0.000            | 0.000 | 0.000 | 135 | 59  | 0.380            | 0.365 | 0.337 |
| 135 | 1   | 0.001            | 0.000 | 0.000 |     |     |                  |       |       |
| 135 | 2   | 0.004            | 0.003 | 0.001 | 135 | 60  | 0.387            | 0.372 | 0.344 |
| 135 | 3   | 0.008            | 0.006 | 0.003 | 135 | 61  | 0.394            | 0.379 | 0.351 |
| 135 | 4   | 0.013            | 0.010 | 0.006 | 135 | 62  | 0.401            | 0.386 | 0.358 |
|     |     |                  |       |       | 135 | 63  | 0.409            | 0.393 | 0.365 |
| 135 | 5   | 0.018            | 0.015 | 0.010 | 135 | 64  | 0.416            | 0.401 | 0.372 |
| 135 | 6   | 0.024            | 0.020 | 0.013 |     |     |                  |       |       |
| 135 | 7   | 0.029            | 0.025 | 0.018 | 135 | 65  | 0.423            | 0.408 | 0.380 |
| 135 | 8   | 0.035            | 0.030 | 0.022 | 135 | 66  | 0.430            | 0.415 | 0.387 |
| 135 | 9   | 0.041            | 0.035 | 0.026 | 135 | 67  | 0.438            | 0.422 | 0.394 |
|     |     |                  |       |       | 135 | 68  | 0.445            | 0.430 | 0.401 |
| 135 | 10  | 0.047            | 0.041 | 0.031 | 135 | 69  | 0.452            | 0.437 | 0.408 |
| 135 | 11  | 0.053            | 0.046 | 0.036 |     |     |                  |       |       |
| 135 | 12  | 0.059            | 0.052 | 0.041 | 135 | 70  | 0.460            | 0.444 | 0.416 |
| 135 | 13  | 0.065            | 0.058 | 0.046 | 135 | 71  | 0.467            | 0.452 | 0.423 |
| 135 | 14  | 0.071            | 0.064 | 0.051 | 135 | 72  | 0.475            | 0.459 | 0.430 |
|     |     |                  |       |       | 135 | 73  | 0.482            | 0.466 | 0.437 |
| 135 | 15  | 0.077            | 0.070 | 0.057 | 135 | 74  | 0.489            | 0.474 | 0.445 |
| 135 | 16  | 0.084            | 0.076 | 0.062 |     |     |                  |       |       |
| 135 | 17  | 0.090            | 0.082 | 0.068 | 135 | 75  | 0.497            | 0.481 | 0.452 |
| 135 | 18  | 0.097            | 0.088 | 0.073 | 135 | 76  | 0.504            | 0.489 | 0.459 |
| 135 | 19  | 0.103            | 0.094 | 0.079 | 135 | 77  | 0.512            | 0.496 | 0.467 |
|     |     |                  |       |       | 135 | 78  | 0.519            | 0.503 | 0.474 |
| 135 | 20  | 0.109            | 0.100 | 0.085 | 135 | 79  | 0.526            | 0.511 | 0.482 |
| 135 | 21  | 0.116            | 0.107 | 0.090 |     |     |                  |       |       |
| 135 | 22  | 0.123            | 0.113 | 0.096 | 135 | 80  | 0.534            | 0.518 | 0.489 |
| 135 | 23  | 0.129            | 0.119 | 0.102 | 135 | 81  | 0.541            | 0.526 | 0.496 |
| 135 | 24  | 0.136            | 0.126 | 0.108 | 135 | 82  | 0.549            | 0.533 | 0.504 |
|     |     |                  |       |       | 135 | 83  | 0.556            | 0.541 | 0.511 |
| 135 | 25  | 0.142            | 0.132 | 0.114 | 135 | 84  | 0.564            | 0.548 | 0.519 |
| 135 | 26  | 0.149            | 0.139 | 0.120 |     |     |                  |       |       |
| 135 | 27  | 0.156            | 0.145 | 0.126 | 135 | 85  | 0.571            | 0.556 | 0.527 |
| 135 | 28  | 0.163            | 0.152 | 0.132 | 135 | 86  | 0.579            | 0.563 | 0.534 |
| 135 | 29  | 0.169            | 0.158 | 0.138 | 135 | 87  | 0.587            | 0.571 | 0.542 |
|     |     |                  |       |       | 135 | 88  | 0.594            | 0.579 | 0.549 |
| 135 | 30  | 0.176            | 0.165 | 0.145 | 135 | 89  | 0.602            | 0.586 | 0.557 |
| 135 | 31  | 0.183            | 0.171 | 0.151 |     |     |                  |       |       |
| 135 | 32  | 0.190            | 0.178 | 0.157 | 135 | 90  | 0.609            | 0.594 | 0.565 |
| 135 | 33  | 0.196            | 0.185 | 0.163 | 135 | 91  | 0.617            | 0.602 | 0.572 |
| 135 | 34  | 0.203            | 0.191 | 0.170 | 135 | 92  | 0.625            | 0.609 | 0.580 |
|     |     |                  |       |       | 135 | 93  | 0.632            | 0.617 | 0.588 |
| 135 | 35  | 0.210            | 0.198 | 0.176 | 135 | 94  | 0.640            | 0.625 | 0.596 |
| 135 | 36  | 0.217            | 0.205 | 0.183 |     |     |                  |       |       |
| 135 | 37  | 0.224            | 0.211 | 0.189 | 135 | 95  | 0.648            | 0.632 | 0.603 |
| 135 | 38  | 0.231            | 0.218 | 0.195 | 135 | 96  | 0.655            | 0.640 | 0.611 |
| 135 | 39  | 0.238            | 0.225 | 0.202 | 135 | 97  | 0.663            | 0.648 | 0.619 |
|     |     |                  |       |       | 135 | 98  | 0.671            | 0.656 | 0.627 |
| 135 | 40  | 0.245            | 0.232 | 0.208 | 135 | 99  | 0.678            | 0.664 | 0.635 |
| 135 | 41  | 0.252            | 0.239 | 0.215 |     |     |                  |       |       |
| 135 | 42  | 0.259            | 0.246 | 0.222 | 135 | 100 | 0.686            | 0.671 | 0.643 |
| 135 | 43  | 0.266            | 0.252 | 0.228 | 135 | 101 | 0.694            | 0.679 | 0.651 |
| 135 | 44  | 0.273            | 0.259 | 0.235 | 135 | 102 | 0.702            | 0.687 | 0.659 |
|     |     |                  |       |       | 135 | 103 | 0.710            | 0.695 | 0.667 |
| 135 | 45  | 0.280            | 0.266 | 0.241 | 135 | 104 | 0.717            | 0.703 | 0.675 |
| 135 | 46  | 0.287            | 0.273 | 0.248 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 135 | 105 | 0.725            | 0.711 | 0.683 | 140 | 28 | 0.157            | 0.146 | 0.127 |
| 135 | 106 | 0.733            | 0.719 | 0.691 | 140 | 29 | 0.163            | 0.152 | 0.133 |
| 135 | 107 | 0.741            | 0.727 | 0.700 |     |    |                  |       |       |
| 135 | 108 | 0.749            | 0.735 | 0.708 | 140 | 30 | 0.170            | 0.159 | 0.139 |
| 135 | 109 | 0.757            | 0.743 | 0.716 | 140 | 31 | 0.176            | 0.165 | 0.145 |
|     |     |                  |       |       | 140 | 32 | 0.183            | 0.171 | 0.151 |
| 135 | 110 | 0.765            | 0.751 | 0.724 | 140 | 33 | 0.189            | 0.178 | 0.157 |
| 135 | 111 | 0.773            | 0.759 | 0.733 | 140 | 34 | 0.196            | 0.184 | 0.163 |
| 135 | 112 | 0.781            | 0.767 | 0.741 |     |    |                  |       |       |
| 135 | 113 | 0.789            | 0.776 | 0.750 | 140 | 35 | 0.202            | 0.191 | 0.170 |
| 135 | 114 | 0.797            | 0.784 | 0.758 | 140 | 36 | 0.209            | 0.197 | 0.176 |
|     |     |                  |       |       | 140 | 37 | 0.216            | 0.204 | 0.182 |
| 135 | 115 | 0.805            | 0.792 | 0.767 | 140 | 38 | 0.222            | 0.210 | 0.188 |
| 135 | 116 | 0.813            | 0.800 | 0.775 | 140 | 39 | 0.229            | 0.217 | 0.194 |
| 135 | 117 | 0.821            | 0.809 | 0.784 |     |    |                  |       |       |
| 135 | 118 | 0.829            | 0.817 | 0.793 | 140 | 40 | 0.236            | 0.223 | 0.201 |
| 135 | 119 | 0.838            | 0.826 | 0.802 | 140 | 41 | 0.243            | 0.230 | 0.207 |
|     |     |                  |       |       | 140 | 42 | 0.249            | 0.236 | 0.213 |
| 135 | 120 | 0.846            | 0.834 | 0.810 | 140 | 43 | 0.256            | 0.243 | 0.220 |
| 135 | 121 | 0.854            | 0.843 | 0.819 | 140 | 44 | 0.263            | 0.250 | 0.226 |
| 135 | 122 | 0.863            | 0.851 | 0.829 |     |    |                  |       |       |
| 135 | 123 | 0.871            | 0.860 | 0.838 | 140 | 45 | 0.269            | 0.256 | 0.232 |
| 135 | 124 | 0.880            | 0.869 | 0.847 | 140 | 46 | 0.276            | 0.263 | 0.239 |
|     |     |                  |       |       | 140 | 47 | 0.283            | 0.270 | 0.245 |
| 135 | 125 | 0.888            | 0.878 | 0.856 | 140 | 48 | 0.290            | 0.276 | 0.252 |
| 135 | 126 | 0.897            | 0.887 | 0.866 | 140 | 49 | 0.297            | 0.283 | 0.258 |
| 135 | 127 | 0.906            | 0.896 | 0.876 |     |    |                  |       |       |
| 135 | 128 | 0.914            | 0.905 | 0.885 | 140 | 50 | 0.304            | 0.290 | 0.265 |
| 135 | 129 | 0.923            | 0.914 | 0.895 | 140 | 51 | 0.310            | 0.296 | 0.271 |
|     |     |                  |       |       | 140 | 52 | 0.317            | 0.303 | 0.278 |
| 135 | 130 | 0.932            | 0.924 | 0.906 | 140 | 53 | 0.324            | 0.310 | 0.284 |
| 135 | 131 | 0.942            | 0.933 | 0.916 | 140 | 54 | 0.331            | 0.317 | 0.291 |
| 135 | 132 | 0.951            | 0.944 | 0.928 |     |    |                  |       |       |
| 135 | 133 | 0.961            | 0.954 | 0.939 | 140 | 55 | 0.338            | 0.324 | 0.298 |
| 135 | 134 | 0.971            | 0.965 | 0.952 | 140 | 56 | 0.345            | 0.330 | 0.304 |
|     |     |                  |       |       | 140 | 57 | 0.352            | 0.337 | 0.311 |
| 135 | 135 | 0.983            | 0.978 | 0.966 | 140 | 58 | 0.359            | 0.344 | 0.318 |
|     |     |                  |       |       | 140 | 59 | 0.366            | 0.351 | 0.324 |
| 140 | 0   | 0.000            | 0.000 | 0.000 |     |    |                  |       |       |
| 140 | 1   | 0.001            | 0.000 | 0.000 | 140 | 60 | 0.372            | 0.358 | 0.331 |
| 140 | 2   | 0.004            | 0.003 | 0.001 | 140 | 61 | 0.379            | 0.365 | 0.338 |
| 140 | 3   | 0.008            | 0.006 | 0.003 | 140 | 62 | 0.386            | 0.372 | 0.344 |
| 140 | 4   | 0.013            | 0.010 | 0.006 | 140 | 63 | 0.393            | 0.379 | 0.351 |
|     |     |                  |       |       | 140 | 64 | 0.400            | 0.386 | 0.358 |
| 140 | 5   | 0.017            | 0.014 | 0.009 |     |    |                  |       |       |
| 140 | 6   | 0.023            | 0.019 | 0.013 | 140 | 65 | 0.407            | 0.392 | 0.365 |
| 140 | 7   | 0.028            | 0.024 | 0.017 | 140 | 66 | 0.414            | 0.399 | 0.372 |
| 140 | 8   | 0.034            | 0.029 | 0.021 | 140 | 67 | 0.421            | 0.406 | 0.379 |
| 140 | 9   | 0.039            | 0.034 | 0.025 | 140 | 68 | 0.428            | 0.413 | 0.386 |
|     |     |                  |       |       | 140 | 69 | 0.436            | 0.420 | 0.392 |
| 140 | 10  | 0.045            | 0.039 | 0.030 |     |    |                  |       |       |
| 140 | 11  | 0.051            | 0.045 | 0.035 | 140 | 70 | 0.443            | 0.427 | 0.399 |
| 140 | 12  | 0.057            | 0.050 | 0.040 | 140 | 71 | 0.450            | 0.434 | 0.406 |
| 140 | 13  | 0.063            | 0.056 | 0.045 | 140 | 72 | 0.457            | 0.442 | 0.413 |
| 140 | 14  | 0.069            | 0.061 | 0.050 | 140 | 73 | 0.464            | 0.449 | 0.420 |
|     |     |                  |       |       | 140 | 74 | 0.471            | 0.456 | 0.427 |
| 140 | 15  | 0.075            | 0.067 | 0.055 |     |    |                  |       |       |
| 140 | 16  | 0.081            | 0.073 | 0.060 | 140 | 75 | 0.478            | 0.463 | 0.434 |
| 140 | 17  | 0.087            | 0.079 | 0.065 | 140 | 76 | 0.485            | 0.470 | 0.441 |
| 140 | 18  | 0.093            | 0.085 | 0.071 | 140 | 77 | 0.492            | 0.477 | 0.448 |
| 140 | 19  | 0.099            | 0.091 | 0.076 | 140 | 78 | 0.499            | 0.484 | 0.455 |
|     |     |                  |       |       | 140 | 79 | 0.507            | 0.491 | 0.463 |
| 140 | 20  | 0.105            | 0.097 | 0.082 |     |    |                  |       |       |
| 140 | 21  | 0.112            | 0.103 | 0.087 | 140 | 80 | 0.514            | 0.498 | 0.470 |
| 140 | 22  | 0.118            | 0.109 | 0.093 | 140 | 81 | 0.521            | 0.506 | 0.477 |
| 140 | 23  | 0.124            | 0.115 | 0.098 | 140 | 82 | 0.528            | 0.513 | 0.484 |
| 140 | 24  | 0.131            | 0.121 | 0.104 | 140 | 83 | 0.535            | 0.520 | 0.491 |
|     |     |                  |       |       | 140 | 84 | 0.543            | 0.527 | 0.498 |
| 140 | 25  | 0.137            | 0.127 | 0.110 |     |    |                  |       |       |
| 140 | 26  | 0.144            | 0.134 | 0.116 | 140 | 85 | 0.550            | 0.534 | 0.506 |
| 140 | 27  | 0.150            | 0.140 | 0.121 | 140 | 86 | 0.557            | 0.542 | 0.513 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 140 | 87  | 0.564            | 0.549 | 0.520 | 145 | 6  | 0.022            | 0.018 | 0.012 |
| 140 | 88  | 0.572            | 0.556 | 0.527 | 145 | 7  | 0.027            | 0.023 | 0.016 |
| 140 | 89  | 0.579            | 0.564 | 0.535 | 145 | 8  | 0.032            | 0.028 | 0.020 |
|     |     |                  |       |       | 145 | 9  | 0.038            | 0.033 | 0.025 |
| 140 | 90  | 0.586            | 0.571 | 0.542 |     |    |                  |       |       |
| 140 | 91  | 0.593            | 0.578 | 0.549 | 145 | 10 | 0.043            | 0.038 | 0.029 |
| 140 | 92  | 0.601            | 0.586 | 0.557 | 145 | 11 | 0.049            | 0.043 | 0.034 |
| 140 | 93  | 0.608            | 0.593 | 0.564 | 145 | 12 | 0.055            | 0.048 | 0.038 |
| 140 | 94  | 0.615            | 0.600 | 0.572 | 145 | 13 | 0.060            | 0.054 | 0.043 |
|     |     |                  |       |       | 145 | 14 | 0.066            | 0.059 | 0.048 |
| 140 | 95  | 0.623            | 0.608 | 0.579 |     |    |                  |       |       |
| 140 | 96  | 0.630            | 0.615 | 0.586 | 145 | 15 | 0.072            | 0.065 | 0.053 |
| 140 | 97  | 0.637            | 0.622 | 0.594 | 145 | 16 | 0.078            | 0.070 | 0.058 |
| 140 | 98  | 0.645            | 0.630 | 0.602 | 145 | 17 | 0.084            | 0.076 | 0.063 |
| 140 | 99  | 0.652            | 0.637 | 0.609 | 145 | 18 | 0.090            | 0.082 | 0.068 |
|     |     |                  |       |       | 145 | 19 | 0.096            | 0.088 | 0.073 |
| 140 | 100 | 0.660            | 0.645 | 0.617 |     |    |                  |       |       |
| 140 | 101 | 0.667            | 0.652 | 0.624 | 145 | 20 | 0.102            | 0.093 | 0.079 |
| 140 | 102 | 0.675            | 0.660 | 0.632 | 145 | 21 | 0.108            | 0.099 | 0.084 |
| 140 | 103 | 0.682            | 0.667 | 0.639 | 145 | 22 | 0.114            | 0.105 | 0.089 |
| 140 | 104 | 0.689            | 0.675 | 0.647 | 145 | 23 | 0.120            | 0.111 | 0.095 |
|     |     |                  |       |       | 145 | 24 | 0.126            | 0.117 | 0.100 |
| 140 | 105 | 0.697            | 0.683 | 0.655 |     |    |                  |       |       |
| 140 | 106 | 0.705            | 0.690 | 0.663 | 145 | 25 | 0.132            | 0.123 | 0.106 |
| 140 | 107 | 0.712            | 0.698 | 0.670 | 145 | 26 | 0.139            | 0.129 | 0.111 |
| 140 | 108 | 0.720            | 0.705 | 0.678 | 145 | 27 | 0.145            | 0.135 | 0.117 |
| 140 | 109 | 0.727            | 0.713 | 0.686 | 145 | 28 | 0.151            | 0.141 | 0.123 |
|     |     |                  |       |       | 145 | 29 | 0.157            | 0.147 | 0.128 |
| 140 | 110 | 0.735            | 0.721 | 0.694 |     |    |                  |       |       |
| 140 | 111 | 0.742            | 0.728 | 0.702 | 145 | 30 | 0.164            | 0.153 | 0.134 |
| 140 | 112 | 0.750            | 0.736 | 0.710 | 145 | 31 | 0.170            | 0.159 | 0.140 |
| 140 | 113 | 0.758            | 0.744 | 0.718 | 145 | 32 | 0.176            | 0.165 | 0.146 |
| 140 | 114 | 0.765            | 0.752 | 0.726 | 145 | 33 | 0.183            | 0.171 | 0.152 |
|     |     |                  |       |       | 145 | 34 | 0.189            | 0.178 | 0.158 |
| 140 | 115 | 0.773            | 0.760 | 0.734 |     |    |                  |       |       |
| 140 | 116 | 0.781            | 0.767 | 0.742 | 145 | 35 | 0.195            | 0.184 | 0.163 |
| 140 | 117 | 0.788            | 0.775 | 0.750 | 145 | 36 | 0.202            | 0.190 | 0.169 |
| 140 | 118 | 0.796            | 0.783 | 0.758 | 145 | 37 | 0.208            | 0.196 | 0.175 |
| 140 | 119 | 0.804            | 0.791 | 0.766 | 145 | 38 | 0.215            | 0.203 | 0.181 |
|     |     |                  |       |       | 145 | 39 | 0.221            | 0.209 | 0.187 |
| 140 | 120 | 0.812            | 0.799 | 0.775 |     |    |                  |       |       |
| 140 | 121 | 0.820            | 0.807 | 0.783 | 145 | 40 | 0.227            | 0.215 | 0.193 |
| 140 | 122 | 0.827            | 0.815 | 0.791 | 145 | 41 | 0.234            | 0.222 | 0.199 |
| 140 | 123 | 0.835            | 0.823 | 0.800 | 145 | 42 | 0.240            | 0.228 | 0.205 |
| 140 | 124 | 0.843            | 0.832 | 0.808 | 145 | 43 | 0.247            | 0.234 | 0.212 |
|     |     |                  |       |       | 145 | 44 | 0.253            | 0.241 | 0.218 |
| 140 | 125 | 0.851            | 0.840 | 0.817 |     |    |                  |       |       |
| 140 | 126 | 0.859            | 0.848 | 0.826 | 145 | 45 | 0.260            | 0.247 | 0.224 |
| 140 | 127 | 0.867            | 0.856 | 0.834 | 145 | 46 | 0.266            | 0.253 | 0.230 |
| 140 | 128 | 0.876            | 0.865 | 0.843 | 145 | 47 | 0.273            | 0.260 | 0.236 |
| 140 | 129 | 0.884            | 0.873 | 0.852 | 145 | 48 | 0.280            | 0.266 | 0.242 |
|     |     |                  |       |       | 145 | 49 | 0.286            | 0.273 | 0.249 |
| 140 | 130 | 0.892            | 0.882 | 0.861 |     |    |                  |       |       |
| 140 | 131 | 0.900            | 0.891 | 0.870 | 145 | 50 | 0.293            | 0.279 | 0.255 |
| 140 | 132 | 0.909            | 0.899 | 0.880 | 145 | 51 | 0.299            | 0.286 | 0.261 |
| 140 | 133 | 0.917            | 0.908 | 0.889 | 145 | 52 | 0.306            | 0.292 | 0.268 |
| 140 | 134 | 0.926            | 0.917 | 0.899 | 145 | 53 | 0.312            | 0.299 | 0.274 |
|     |     |                  |       |       | 145 | 54 | 0.319            | 0.305 | 0.280 |
| 140 | 135 | 0.935            | 0.926 | 0.909 |     |    |                  |       |       |
| 140 | 136 | 0.944            | 0.936 | 0.919 | 145 | 55 | 0.326            | 0.312 | 0.287 |
| 140 | 137 | 0.953            | 0.946 | 0.930 | 145 | 56 | 0.332            | 0.318 | 0.293 |
| 140 | 138 | 0.962            | 0.956 | 0.941 | 145 | 57 | 0.339            | 0.325 | 0.299 |
| 140 | 139 | 0.973            | 0.967 | 0.954 | 145 | 58 | 0.346            | 0.332 | 0.306 |
|     |     |                  |       |       | 145 | 59 | 0.352            | 0.338 | 0.312 |
| 140 | 140 | 0.984            | 0.979 | 0.968 |     |    |                  |       |       |
| 145 | 0   | 0.000            | 0.000 | 0.000 | 145 | 60 | 0.359            | 0.345 | 0.319 |
| 145 | 1   | 0.001            | 0.000 | 0.000 | 145 | 61 | 0.366            | 0.352 | 0.325 |
| 145 | 2   | 0.004            | 0.002 | 0.001 | 145 | 62 | 0.373            | 0.358 | 0.332 |
| 145 | 3   | 0.008            | 0.006 | 0.003 | 145 | 63 | 0.379            | 0.365 | 0.338 |
| 145 | 4   | 0.012            | 0.009 | 0.006 | 145 | 64 | 0.386            | 0.371 | 0.345 |
|     |     |                  |       |       |     |    |                  |       |       |
| 145 | 5   | 0.017            | 0.014 | 0.009 | 145 | 65 | 0.393            | 0.378 | 0.351 |
|     |     |                  |       |       | 145 | 66 | 0.399            | 0.385 | 0.358 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 145 | 67  | 0.406            | 0.392 | 0.365 | 145 | 123 | 0.803            | 0.790 | 0.766 |
| 145 | 68  | 0.413            | 0.398 | 0.371 | 145 | 124 | 0.811            | 0.798 | 0.774 |
| 145 | 69  | 0.420            | 0.405 | 0.378 |     |     |                  |       |       |
| 145 | 70  | 0.427            | 0.412 | 0.384 | 145 | 125 | 0.818            | 0.806 | 0.782 |
| 145 | 71  | 0.433            | 0.419 | 0.391 | 145 | 126 | 0.826            | 0.814 | 0.790 |
| 145 | 72  | 0.440            | 0.425 | 0.398 | 145 | 127 | 0.833            | 0.821 | 0.798 |
| 145 | 73  | 0.447            | 0.432 | 0.404 | 145 | 128 | 0.841            | 0.829 | 0.806 |
| 145 | 74  | 0.454            | 0.439 | 0.411 | 145 | 129 | 0.849            | 0.837 | 0.815 |
|     |     |                  |       |       | 145 | 130 | 0.856            | 0.845 | 0.823 |
| 145 | 75  | 0.461            | 0.446 | 0.418 | 145 | 131 | 0.864            | 0.853 | 0.831 |
| 145 | 76  | 0.468            | 0.453 | 0.425 | 145 | 132 | 0.872            | 0.861 | 0.840 |
| 145 | 77  | 0.474            | 0.459 | 0.431 | 145 | 133 | 0.880            | 0.869 | 0.848 |
| 145 | 78  | 0.481            | 0.466 | 0.438 | 145 | 134 | 0.888            | 0.878 | 0.857 |
| 145 | 79  | 0.488            | 0.473 | 0.445 |     |     |                  |       |       |
| 145 | 80  | 0.495            | 0.480 | 0.452 | 145 | 135 | 0.896            | 0.886 | 0.866 |
| 145 | 81  | 0.502            | 0.487 | 0.459 | 145 | 136 | 0.904            | 0.894 | 0.875 |
| 145 | 82  | 0.509            | 0.494 | 0.466 | 145 | 137 | 0.912            | 0.903 | 0.884 |
| 145 | 83  | 0.516            | 0.501 | 0.472 | 145 | 138 | 0.920            | 0.911 | 0.893 |
| 145 | 84  | 0.523            | 0.508 | 0.479 | 145 | 139 | 0.928            | 0.920 | 0.902 |
| 145 | 85  | 0.530            | 0.515 | 0.486 | 145 | 140 | 0.937            | 0.929 | 0.912 |
| 145 | 86  | 0.537            | 0.522 | 0.493 | 145 | 141 | 0.946            | 0.938 | 0.922 |
| 145 | 87  | 0.544            | 0.529 | 0.500 | 145 | 142 | 0.955            | 0.947 | 0.932 |
| 145 | 88  | 0.551            | 0.536 | 0.507 | 145 | 143 | 0.964            | 0.957 | 0.943 |
| 145 | 89  | 0.558            | 0.543 | 0.514 | 145 | 144 | 0.973            | 0.968 | 0.955 |
| 145 | 90  | 0.565            | 0.550 | 0.521 | 145 | 145 | 0.984            | 0.980 | 0.969 |
| 145 | 91  | 0.572            | 0.557 | 0.528 | 150 | 0   | 0.000            | 0.000 | 0.000 |
| 145 | 92  | 0.579            | 0.564 | 0.535 | 150 | 1   | 0.001            | 0.000 | 0.000 |
| 145 | 93  | 0.586            | 0.571 | 0.542 | 150 | 2   | 0.004            | 0.002 | 0.001 |
| 145 | 94  | 0.593            | 0.578 | 0.549 | 150 | 3   | 0.007            | 0.005 | 0.003 |
|     |     |                  |       |       | 150 | 4   | 0.012            | 0.009 | 0.006 |
| 145 | 95  | 0.600            | 0.585 | 0.557 | 150 | 5   | 0.016            | 0.013 | 0.009 |
| 145 | 96  | 0.607            | 0.592 | 0.564 | 150 | 6   | 0.021            | 0.018 | 0.012 |
| 145 | 97  | 0.614            | 0.599 | 0.571 | 150 | 7   | 0.026            | 0.022 | 0.016 |
| 145 | 98  | 0.621            | 0.606 | 0.578 | 150 | 8   | 0.031            | 0.027 | 0.020 |
| 145 | 99  | 0.628            | 0.613 | 0.585 | 150 | 9   | 0.037            | 0.032 | 0.024 |
| 145 | 100 | 0.635            | 0.620 | 0.592 | 150 | 10  | 0.042            | 0.037 | 0.028 |
| 145 | 101 | 0.642            | 0.628 | 0.600 | 150 | 11  | 0.047            | 0.042 | 0.032 |
| 145 | 102 | 0.649            | 0.635 | 0.607 | 150 | 12  | 0.053            | 0.047 | 0.037 |
| 145 | 103 | 0.657            | 0.642 | 0.614 | 150 | 13  | 0.058            | 0.052 | 0.041 |
| 145 | 104 | 0.664            | 0.649 | 0.622 | 150 | 14  | 0.064            | 0.057 | 0.046 |
| 145 | 105 | 0.671            | 0.657 | 0.629 | 150 | 15  | 0.070            | 0.063 | 0.051 |
| 145 | 106 | 0.678            | 0.664 | 0.636 | 150 | 16  | 0.075            | 0.068 | 0.056 |
| 145 | 107 | 0.685            | 0.671 | 0.644 | 150 | 17  | 0.081            | 0.074 | 0.061 |
| 145 | 108 | 0.693            | 0.678 | 0.651 | 150 | 18  | 0.087            | 0.079 | 0.066 |
| 145 | 109 | 0.700            | 0.686 | 0.659 | 150 | 19  | 0.093            | 0.085 | 0.071 |
| 145 | 110 | 0.707            | 0.693 | 0.666 | 150 | 20  | 0.098            | 0.090 | 0.076 |
| 145 | 111 | 0.714            | 0.700 | 0.674 | 150 | 21  | 0.104            | 0.096 | 0.081 |
| 145 | 112 | 0.722            | 0.708 | 0.681 | 150 | 22  | 0.110            | 0.101 | 0.086 |
| 145 | 113 | 0.729            | 0.715 | 0.689 | 150 | 23  | 0.116            | 0.107 | 0.092 |
| 145 | 114 | 0.736            | 0.723 | 0.696 | 150 | 24  | 0.122            | 0.113 | 0.097 |
| 145 | 115 | 0.744            | 0.730 | 0.704 | 150 | 25  | 0.128            | 0.119 | 0.102 |
| 145 | 116 | 0.751            | 0.737 | 0.711 | 150 | 26  | 0.134            | 0.124 | 0.108 |
| 145 | 117 | 0.758            | 0.745 | 0.719 | 150 | 27  | 0.140            | 0.130 | 0.113 |
| 145 | 118 | 0.766            | 0.752 | 0.727 | 150 | 28  | 0.146            | 0.136 | 0.119 |
| 145 | 119 | 0.773            | 0.760 | 0.735 | 150 | 29  | 0.152            | 0.142 | 0.124 |
| 145 | 120 | 0.781            | 0.768 | 0.742 |     |     |                  |       |       |
| 145 | 121 | 0.788            | 0.775 | 0.750 | 150 | 30  | 0.158            | 0.148 | 0.130 |
| 145 | 122 | 0.795            | 0.783 | 0.758 | 150 | 31  | 0.164            | 0.154 | 0.135 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 150 | 32 | 0.170      | 0.160 | 0.141 | 150 | 89  | 0.538      | 0.523 | 0.495 |
| 150 | 33 | 0.176      | 0.166 | 0.146 | 150 | 90  | 0.545      | 0.530 | 0.502 |
| 150 | 34 | 0.183      | 0.172 | 0.152 | 150 | 91  | 0.551      | 0.537 | 0.509 |
| 150 | 35 | 0.189      | 0.178 | 0.158 | 150 | 92  | 0.558      | 0.543 | 0.515 |
| 150 | 36 | 0.195      | 0.184 | 0.163 | 150 | 93  | 0.565      | 0.550 | 0.522 |
| 150 | 37 | 0.201      | 0.190 | 0.169 | 150 | 94  | 0.572      | 0.557 | 0.529 |
| 150 | 38 | 0.207      | 0.196 | 0.175 | 150 | 95  | 0.578      | 0.564 | 0.536 |
| 150 | 39 | 0.213      | 0.202 | 0.181 | 150 | 96  | 0.585      | 0.571 | 0.543 |
| 150 | 40 | 0.220      | 0.208 | 0.187 | 150 | 97  | 0.592      | 0.577 | 0.550 |
| 150 | 41 | 0.226      | 0.214 | 0.192 | 150 | 98  | 0.599      | 0.584 | 0.556 |
| 150 | 42 | 0.232      | 0.220 | 0.198 | 150 | 99  | 0.606      | 0.591 | 0.563 |
| 150 | 43 | 0.238      | 0.226 | 0.204 | 150 | 100 | 0.613      | 0.598 | 0.570 |
| 150 | 44 | 0.245      | 0.232 | 0.210 | 150 | 101 | 0.619      | 0.605 | 0.577 |
| 150 | 45 | 0.251      | 0.239 | 0.216 | 150 | 102 | 0.626      | 0.612 | 0.584 |
| 150 | 46 | 0.257      | 0.245 | 0.222 | 150 | 103 | 0.633      | 0.619 | 0.591 |
| 150 | 47 | 0.264      | 0.251 | 0.228 | 150 | 104 | 0.640      | 0.626 | 0.598 |
| 150 | 48 | 0.270      | 0.257 | 0.234 | 150 | 105 | 0.647      | 0.632 | 0.605 |
| 150 | 49 | 0.276      | 0.263 | 0.240 | 150 | 106 | 0.654      | 0.639 | 0.612 |
| 150 | 50 | 0.283      | 0.270 | 0.246 | 150 | 107 | 0.66       | 0.646 | 0.619 |
| 150 | 51 | 0.289      | 0.276 | 0.252 | 150 | 108 | 0.668      | 0.653 | 0.626 |
| 150 | 52 | 0.295      | 0.282 | 0.258 | 150 | 109 | 0.675      | 0.660 | 0.633 |
| 150 | 53 | 0.302      | 0.288 | 0.264 | 150 | 110 | 0.682      | 0.667 | 0.640 |
| 150 | 54 | 0.308      | 0.295 | 0.270 | 150 | 111 | 0.688      | 0.674 | 0.648 |
| 150 | 55 | 0.315      | 0.301 | 0.276 | 150 | 112 | 0.695      | 0.682 | 0.655 |
| 150 | 56 | 0.321      | 0.307 | 0.283 | 150 | 113 | 0.702      | 0.689 | 0.662 |
| 150 | 57 | 0.327      | 0.314 | 0.289 | 150 | 114 | 0.709      | 0.696 | 0.669 |
| 150 | 58 | 0.334      | 0.320 | 0.295 | 150 | 115 | 0.717      | 0.703 | 0.676 |
| 150 | 59 | 0.340      | 0.326 | 0.301 | 150 | 116 | 0.724      | 0.710 | 0.684 |
| 150 | 60 | 0.347      | 0.333 | 0.307 | 150 | 117 | 0.731      | 0.717 | 0.691 |
| 150 | 61 | 0.353      | 0.339 | 0.314 | 150 | 118 | 0.738      | 0.724 | 0.698 |
| 150 | 62 | 0.360      | 0.346 | 0.320 | 150 | 119 | 0.745      | 0.731 | 0.706 |
| 150 | 63 | 0.366      | 0.352 | 0.326 | 150 | 120 | 0.752      | 0.739 | 0.713 |
| 150 | 64 | 0.373      | 0.358 | 0.332 | 150 | 121 | 0.759      | 0.746 | 0.721 |
| 150 | 65 | 0.379      | 0.365 | 0.339 | 150 | 122 | 0.766      | 0.753 | 0.728 |
| 150 | 66 | 0.386      | 0.371 | 0.345 | 150 | 123 | 0.773      | 0.760 | 0.735 |
| 150 | 67 | 0.392      | 0.378 | 0.351 | 150 | 124 | 0.780      | 0.768 | 0.743 |
| 150 | 68 | 0.399      | 0.384 | 0.358 | 150 | 125 | 0.788      | 0.775 | 0.751 |
| 150 | 69 | 0.405      | 0.391 | 0.364 | 150 | 126 | 0.795      | 0.782 | 0.758 |
| 150 | 70 | 0.412      | 0.397 | 0.371 | 150 | 127 | 0.802      | 0.790 | 0.766 |
| 150 | 71 | 0.418      | 0.404 | 0.377 | 150 | 128 | 0.809      | 0.797 | 0.773 |
| 150 | 72 | 0.425      | 0.410 | 0.383 | 150 | 129 | 0.817      | 0.805 | 0.781 |
| 150 | 73 | 0.431      | 0.417 | 0.390 | 150 | 130 | 0.824      | 0.812 | 0.789 |
| 150 | 74 | 0.438      | 0.423 | 0.396 | 150 | 131 | 0.831      | 0.820 | 0.797 |
| 150 | 75 | 0.445      | 0.430 | 0.403 | 150 | 132 | 0.839      | 0.827 | 0.805 |
| 150 | 76 | 0.451      | 0.437 | 0.409 | 150 | 133 | 0.846      | 0.835 | 0.813 |
| 150 | 77 | 0.458      | 0.443 | 0.416 | 150 | 134 | 0.854      | 0.843 | 0.821 |
| 150 | 78 | 0.464      | 0.450 | 0.422 | 150 | 135 | 0.861      | 0.850 | 0.829 |
| 150 | 79 | 0.471      | 0.456 | 0.429 | 150 | 136 | 0.869      | 0.858 | 0.837 |
| 150 | 80 | 0.478      | 0.463 | 0.435 | 150 | 137 | 0.876      | 0.866 | 0.845 |
| 150 | 81 | 0.484      | 0.470 | 0.442 | 150 | 138 | 0.884      | 0.874 | 0.853 |
| 150 | 82 | 0.491      | 0.476 | 0.449 | 150 | 139 | 0.891      | 0.882 | 0.862 |
| 150 | 83 | 0.498      | 0.483 | 0.455 | 150 | 140 | 0.899      | 0.890 | 0.870 |
| 150 | 84 | 0.504      | 0.490 | 0.462 | 150 | 141 | 0.907      | 0.898 | 0.879 |
| 150 | 85 | 0.511      | 0.496 | 0.468 | 150 | 142 | 0.915      | 0.906 | 0.888 |
| 150 | 86 | 0.518      | 0.503 | 0.475 | 150 | 143 | 0.923      | 0.914 | 0.897 |
| 150 | 87 | 0.524      | 0.510 | 0.482 | 150 | 144 | 0.931      | 0.923 | 0.906 |
| 150 | 88 | 0.531      | 0.516 | 0.489 |     |     |            |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 150 | 145 | 0.939      | 0.931 | 0.915 | 155 | 53  | 0.292      | 0.279 | 0.255 |
| 150 | 146 | 0.947      | 0.940 | 0.925 | 155 | 54  | 0.298      | 0.285 | 0.261 |
| 150 | 147 | 0.956      | 0.949 | 0.935 | 155 | 55  | 0.304      | 0.291 | 0.267 |
| 150 | 148 | 0.965      | 0.959 | 0.945 | 155 | 56  | 0.310      | 0.297 | 0.273 |
| 150 | 149 | 0.974      | 0.969 | 0.957 | 155 | 57  | 0.316      | 0.303 | 0.279 |
| 150 | 150 | 0.985      | 0.980 | 0.970 | 155 | 58  | 0.323      | 0.309 | 0.285 |
| 155 | 0   | 0.000      | 0.000 | 0.000 | 155 | 59  | 0.329      | 0.315 | 0.291 |
| 155 | 1   | 0.001      | 0.000 | 0.000 | 155 | 60  | 0.335      | 0.322 | 0.297 |
| 155 | 2   | 0.003      | 0.002 | 0.001 | 155 | 61  | 0.341      | 0.328 | 0.303 |
| 155 | 3   | 0.007      | 0.005 | 0.003 | 155 | 62  | 0.348      | 0.334 | 0.309 |
| 155 | 4   | 0.011      | 0.009 | 0.005 | 155 | 63  | 0.354      | 0.340 | 0.315 |
| 155 | 5   | 0.016      | 0.013 | 0.008 | 155 | 64  | 0.360      | 0.346 | 0.321 |
| 155 | 6   | 0.020      | 0.017 | 0.012 | 155 | 65  | 0.366      | 0.353 | 0.327 |
| 155 | 7   | 0.025      | 0.021 | 0.015 | 155 | 66  | 0.373      | 0.359 | 0.333 |
| 155 | 8   | 0.030      | 0.026 | 0.019 | 155 | 67  | 0.379      | 0.365 | 0.339 |
| 155 | 9   | 0.035      | 0.031 | 0.023 | 155 | 68  | 0.385      | 0.371 | 0.345 |
| 155 | 10  | 0.041      | 0.035 | 0.027 | 155 | 69  | 0.392      | 0.378 | 0.352 |
| 155 | 11  | 0.046      | 0.040 | 0.031 | 155 | 70  | 0.398      | 0.384 | 0.358 |
| 155 | 12  | 0.051      | 0.045 | 0.036 | 155 | 71  | 0.404      | 0.390 | 0.364 |
| 155 | 13  | 0.056      | 0.050 | 0.040 | 155 | 72  | 0.411      | 0.396 | 0.370 |
| 155 | 14  | 0.062      | 0.055 | 0.045 | 155 | 73  | 0.417      | 0.403 | 0.376 |
| 155 | 15  | 0.067      | 0.061 | 0.049 | 155 | 74  | 0.423      | 0.409 | 0.382 |
| 155 | 16  | 0.073      | 0.066 | 0.054 | 155 | 75  | 0.430      | 0.415 | 0.389 |
| 155 | 17  | 0.078      | 0.071 | 0.059 | 155 | 76  | 0.436      | 0.422 | 0.395 |
| 155 | 18  | 0.084      | 0.076 | 0.064 | 155 | 77  | 0.442      | 0.428 | 0.401 |
| 155 | 19  | 0.089      | 0.082 | 0.068 | 155 | 78  | 0.449      | 0.434 | 0.408 |
| 155 | 20  | 0.095      | 0.087 | 0.073 | 155 | 79  | 0.455      | 0.441 | 0.414 |
| 155 | 21  | 0.101      | 0.093 | 0.078 | 155 | 80  | 0.462      | 0.447 | 0.420 |
| 155 | 22  | 0.106      | 0.098 | 0.083 | 155 | 81  | 0.468      | 0.453 | 0.426 |
| 155 | 23  | 0.112      | 0.104 | 0.089 | 155 | 82  | 0.474      | 0.460 | 0.433 |
| 155 | 24  | 0.118      | 0.109 | 0.094 | 155 | 83  | 0.481      | 0.466 | 0.439 |
| 155 | 25  | 0.124      | 0.115 | 0.099 | 155 | 84  | 0.487      | 0.473 | 0.446 |
| 155 | 26  | 0.130      | 0.120 | 0.104 | 155 | 85  | 0.494      | 0.479 | 0.452 |
| 155 | 27  | 0.135      | 0.126 | 0.109 | 155 | 86  | 0.500      | 0.486 | 0.458 |
| 155 | 28  | 0.141      | 0.132 | 0.115 | 155 | 87  | 0.507      | 0.492 | 0.465 |
| 155 | 29  | 0.147      | 0.137 | 0.120 | 155 | 88  | 0.513      | 0.499 | 0.471 |
| 155 | 30  | 0.153      | 0.143 | 0.125 | 155 | 89  | 0.520      | 0.505 | 0.478 |
| 155 | 31  | 0.159      | 0.149 | 0.131 | 155 | 90  | 0.526      | 0.511 | 0.484 |
| 155 | 32  | 0.165      | 0.154 | 0.136 | 155 | 91  | 0.533      | 0.518 | 0.491 |
| 155 | 33  | 0.171      | 0.160 | 0.141 | 155 | 92  | 0.539      | 0.524 | 0.497 |
| 155 | 34  | 0.176      | 0.166 | 0.147 | 155 | 93  | 0.546      | 0.531 | 0.504 |
| 155 | 35  | 0.182      | 0.172 | 0.152 | 155 | 94  | 0.552      | 0.538 | 0.510 |
| 155 | 36  | 0.188      | 0.177 | 0.158 | 155 | 95  | 0.559      | 0.544 | 0.517 |
| 155 | 37  | 0.194      | 0.183 | 0.163 | 155 | 96  | 0.565      | 0.551 | 0.523 |
| 155 | 38  | 0.200      | 0.189 | 0.169 | 155 | 97  | 0.572      | 0.557 | 0.530 |
| 155 | 39  | 0.206      | 0.195 | 0.175 | 155 | 98  | 0.578      | 0.564 | 0.536 |
| 155 | 40  | 0.212      | 0.201 | 0.180 | 155 | 99  | 0.585      | 0.570 | 0.543 |
| 155 | 41  | 0.218      | 0.207 | 0.186 | 155 | 100 | 0.591      | 0.577 | 0.550 |
| 155 | 42  | 0.224      | 0.213 | 0.192 | 155 | 101 | 0.598      | 0.584 | 0.556 |
| 155 | 43  | 0.231      | 0.219 | 0.197 | 155 | 102 | 0.605      | 0.590 | 0.563 |
| 155 | 44  | 0.237      | 0.225 | 0.203 | 155 | 103 | 0.611      | 0.597 | 0.570 |
| 155 | 45  | 0.243      | 0.231 | 0.209 | 155 | 104 | 0.618      | 0.604 | 0.576 |
| 155 | 46  | 0.249      | 0.237 | 0.214 | 155 | 105 | 0.625      | 0.610 | 0.583 |
| 155 | 47  | 0.255      | 0.243 | 0.220 | 155 | 106 | 0.631      | 0.617 | 0.590 |
| 155 | 48  | 0.261      | 0.249 | 0.226 | 155 | 107 | 0.638      | 0.624 | 0.597 |
| 155 | 49  | 0.267      | 0.255 | 0.232 | 155 | 108 | 0.644      | 0.630 | 0.603 |
| 155 | 50  | 0.273      | 0.261 | 0.238 | 155 | 109 | 0.651      | 0.637 | 0.610 |
| 155 | 51  | 0.279      | 0.267 | 0.243 | 155 | 110 | 0.658      | 0.644 | 0.617 |
| 155 | 52  | 0.285      | 0.273 | 0.249 | 155 | 111 | 0.665      | 0.651 | 0.624 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 155 | 112 | 0.671            | 0.657 | 0.631 | 160 | 16 | 0.070            | 0.064 | 0.052 |
| 155 | 113 | 0.678            | 0.664 | 0.638 | 160 | 17 | 0.076            | 0.069 | 0.057 |
| 155 | 114 | 0.685            | 0.671 | 0.644 | 160 | 18 | 0.081            | 0.074 | 0.062 |
|     |     |                  |       |       | 160 | 19 | 0.087            | 0.079 | 0.066 |
| 155 | 115 | 0.691            | 0.678 | 0.651 |     |    |                  |       |       |
| 155 | 116 | 0.698            | 0.685 | 0.658 | 160 | 20 | 0.092            | 0.084 | 0.071 |
| 155 | 117 | 0.705            | 0.691 | 0.665 | 160 | 21 | 0.098            | 0.090 | 0.076 |
| 155 | 118 | 0.712            | 0.698 | 0.672 | 160 | 22 | 0.103            | 0.095 | 0.081 |
| 155 | 119 | 0.719            | 0.705 | 0.679 | 160 | 23 | 0.109            | 0.100 | 0.086 |
|     |     |                  |       |       | 160 | 24 | 0.114            | 0.106 | 0.091 |
| 155 | 120 | 0.725            | 0.712 | 0.686 |     |    |                  |       |       |
| 155 | 121 | 0.732            | 0.719 | 0.693 | 160 | 25 | 0.120            | 0.111 | 0.096 |
| 155 | 122 | 0.739            | 0.726 | 0.700 | 160 | 26 | 0.125            | 0.116 | 0.101 |
| 155 | 123 | 0.746            | 0.733 | 0.708 | 160 | 27 | 0.131            | 0.122 | 0.106 |
| 155 | 124 | 0.753            | 0.740 | 0.715 | 160 | 28 | 0.137            | 0.127 | 0.111 |
|     |     |                  |       |       | 160 | 29 | 0.142            | 0.133 | 0.116 |
| 155 | 125 | 0.760            | 0.747 | 0.722 |     |    |                  |       |       |
| 155 | 126 | 0.767            | 0.754 | 0.729 | 160 | 30 | 0.148            | 0.138 | 0.121 |
| 155 | 127 | 0.773            | 0.761 | 0.736 | 160 | 31 | 0.154            | 0.144 | 0.126 |
| 155 | 128 | 0.780            | 0.768 | 0.744 | 160 | 32 | 0.159            | 0.149 | 0.132 |
| 155 | 129 | 0.787            | 0.775 | 0.751 | 160 | 33 | 0.165            | 0.155 | 0.137 |
|     |     |                  |       |       | 160 | 34 | 0.171            | 0.161 | 0.142 |
| 155 | 130 | 0.794            | 0.782 | 0.758 |     |    |                  |       |       |
| 155 | 131 | 0.801            | 0.789 | 0.766 | 160 | 35 | 0.177            | 0.166 | 0.147 |
| 155 | 132 | 0.808            | 0.796 | 0.773 | 160 | 36 | 0.182            | 0.172 | 0.153 |
| 155 | 133 | 0.815            | 0.804 | 0.780 | 160 | 37 | 0.188            | 0.177 | 0.158 |
| 155 | 134 | 0.822            | 0.811 | 0.788 | 160 | 38 | 0.194            | 0.183 | 0.164 |
|     |     |                  |       |       | 160 | 39 | 0.200            | 0.189 | 0.169 |
| 155 | 135 | 0.830            | 0.818 | 0.795 |     |    |                  |       |       |
| 155 | 136 | 0.837            | 0.825 | 0.803 | 160 | 40 | 0.206            | 0.194 | 0.174 |
| 155 | 137 | 0.844            | 0.833 | 0.811 | 160 | 41 | 0.211            | 0.200 | 0.180 |
| 155 | 138 | 0.851            | 0.840 | 0.818 | 160 | 42 | 0.217            | 0.206 | 0.185 |
| 155 | 139 | 0.858            | 0.847 | 0.826 | 160 | 43 | 0.223            | 0.212 | 0.191 |
|     |     |                  |       |       | 160 | 44 | 0.229            | 0.217 | 0.196 |
| 155 | 140 | 0.865            | 0.855 | 0.834 |     |    |                  |       |       |
| 155 | 141 | 0.873            | 0.862 | 0.842 | 160 | 45 | 0.235            | 0.223 | 0.202 |
| 155 | 142 | 0.880            | 0.870 | 0.850 | 160 | 46 | 0.241            | 0.229 | 0.207 |
| 155 | 143 | 0.887            | 0.878 | 0.858 | 160 | 47 | 0.247            | 0.235 | 0.213 |
| 155 | 144 | 0.895            | 0.885 | 0.866 | 160 | 48 | 0.253            | 0.240 | 0.219 |
|     |     |                  |       |       | 160 | 49 | 0.258            | 0.246 | 0.224 |
| 155 | 145 | 0.902            | 0.893 | 0.874 |     |    |                  |       |       |
| 155 | 146 | 0.910            | 0.901 | 0.883 | 160 | 50 | 0.264            | 0.252 | 0.230 |
| 155 | 147 | 0.918            | 0.909 | 0.891 | 160 | 51 | 0.270            | 0.258 | 0.235 |
| 155 | 148 | 0.925            | 0.917 | 0.900 | 160 | 52 | 0.276            | 0.264 | 0.241 |
| 155 | 149 | 0.933            | 0.925 | 0.909 | 160 | 53 | 0.282            | 0.270 | 0.247 |
|     |     |                  |       |       | 160 | 54 | 0.288            | 0.276 | 0.252 |
| 155 | 150 | 0.941            | 0.933 | 0.918 |     |    |                  |       |       |
| 155 | 151 | 0.949            | 0.942 | 0.927 | 160 | 55 | 0.294            | 0.281 | 0.258 |
| 155 | 152 | 0.957            | 0.951 | 0.937 | 160 | 56 | 0.300            | 0.287 | 0.264 |
| 155 | 153 | 0.966            | 0.960 | 0.947 | 160 | 57 | 0.306            | 0.293 | 0.270 |
| 155 | 154 | 0.975            | 0.970 | 0.958 | 160 | 58 | 0.312            | 0.299 | 0.275 |
|     |     |                  |       |       | 160 | 59 | 0.318            | 0.305 | 0.281 |
| 155 | 155 | 0.985            | 0.981 | 0.971 |     |    |                  |       |       |
| 160 | 0   | 0.000            | 0.000 | 0.000 | 160 | 60 | 0.324            | 0.311 | 0.287 |
| 160 | 1   | 0.001            | 0.000 | 0.000 | 160 | 61 | 0.330            | 0.317 | 0.293 |
| 160 | 2   | 0.003            | 0.002 | 0.001 | 160 | 62 | 0.336            | 0.323 | 0.299 |
| 160 | 3   | 0.007            | 0.005 | 0.003 | 160 | 63 | 0.342            | 0.329 | 0.304 |
| 160 | 4   | 0.011            | 0.009 | 0.005 | 160 | 64 | 0.348            | 0.335 | 0.310 |
|     |     |                  |       |       |     |    |                  |       |       |
| 160 | 5   | 0.015            | 0.012 | 0.008 | 160 | 65 | 0.354            | 0.341 | 0.316 |
| 160 | 6   | 0.020            | 0.016 | 0.011 | 160 | 66 | 0.361            | 0.347 | 0.322 |
| 160 | 7   | 0.025            | 0.021 | 0.015 | 160 | 67 | 0.367            | 0.353 | 0.328 |
| 160 | 8   | 0.029            | 0.025 | 0.018 | 160 | 68 | 0.373            | 0.359 | 0.334 |
| 160 | 9   | 0.034            | 0.030 | 0.022 | 160 | 69 | 0.379            | 0.365 | 0.340 |
|     |     |                  |       |       |     |    |                  |       |       |
| 160 | 10  | 0.039            | 0.034 | 0.026 | 160 | 70 | 0.385            | 0.371 | 0.346 |
| 160 | 11  | 0.044            | 0.039 | 0.030 | 160 | 71 | 0.391            | 0.377 | 0.352 |
| 160 | 12  | 0.049            | 0.044 | 0.035 | 160 | 72 | 0.397            | 0.383 | 0.358 |
| 160 | 13  | 0.055            | 0.049 | 0.039 | 160 | 73 | 0.403            | 0.389 | 0.364 |
| 160 | 14  | 0.060            | 0.054 | 0.043 | 160 | 74 | 0.409            | 0.395 | 0.370 |
|     |     |                  |       |       |     |    |                  |       |       |
| 160 | 15  | 0.065            | 0.059 | 0.048 | 160 | 75 | 0.416            | 0.402 | 0.376 |
|     |     |                  |       |       | 160 | 76 | 0.422            | 0.408 | 0.382 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 160 | 77  | 0.428            | 0.414 | 0.388 | 160 | 133 | 0.787            | 0.775 | 0.751 |
| 160 | 78  | 0.434            | 0.420 | 0.394 | 160 | 134 | 0.794            | 0.782 | 0.758 |
| 160 | 79  | 0.440            | 0.426 | 0.400 | 160 | 135 | 0.801            | 0.789 | 0.765 |
| 160 | 80  | 0.446            | 0.432 | 0.406 | 160 | 136 | 0.807            | 0.796 | 0.773 |
| 160 | 81  | 0.453            | 0.438 | 0.412 | 160 | 137 | 0.814            | 0.803 | 0.780 |
| 160 | 82  | 0.459            | 0.445 | 0.418 | 160 | 138 | 0.821            | 0.810 | 0.787 |
| 160 | 83  | 0.465            | 0.451 | 0.424 | 160 | 139 | 0.828            | 0.817 | 0.794 |
| 160 | 84  | 0.471            | 0.457 | 0.430 | 160 | 140 | 0.835            | 0.824 | 0.802 |
| 160 | 85  | 0.478            | 0.463 | 0.437 | 160 | 141 | 0.842            | 0.831 | 0.809 |
| 160 | 86  | 0.484            | 0.469 | 0.443 | 160 | 142 | 0.849            | 0.838 | 0.816 |
| 160 | 87  | 0.490            | 0.476 | 0.449 | 160 | 143 | 0.856            | 0.845 | 0.824 |
| 160 | 88  | 0.496            | 0.482 | 0.455 | 160 | 144 | 0.863            | 0.852 | 0.831 |
| 160 | 89  | 0.502            | 0.488 | 0.461 | 160 | 145 | 0.870            | 0.859 | 0.839 |
| 160 | 90  | 0.509            | 0.494 | 0.468 | 160 | 146 | 0.877            | 0.867 | 0.847 |
| 160 | 91  | 0.515            | 0.501 | 0.474 | 160 | 147 | 0.884            | 0.874 | 0.854 |
| 160 | 92  | 0.521            | 0.507 | 0.480 | 160 | 148 | 0.891            | 0.881 | 0.862 |
| 160 | 93  | 0.528            | 0.513 | 0.486 | 160 | 149 | 0.898            | 0.889 | 0.870 |
| 160 | 94  | 0.534            | 0.520 | 0.493 | 160 | 150 | 0.905            | 0.896 | 0.878 |
| 160 | 95  | 0.540            | 0.526 | 0.499 | 160 | 151 | 0.913            | 0.904 | 0.886 |
| 160 | 96  | 0.547            | 0.532 | 0.505 | 160 | 152 | 0.920            | 0.912 | 0.894 |
| 160 | 97  | 0.553            | 0.538 | 0.512 | 160 | 153 | 0.928            | 0.919 | 0.903 |
| 160 | 98  | 0.559            | 0.545 | 0.518 | 160 | 154 | 0.935            | 0.927 | 0.911 |
| 160 | 99  | 0.566            | 0.551 | 0.524 | 160 | 155 | 0.943            | 0.935 | 0.920 |
| 160 | 100 | 0.572            | 0.558 | 0.531 | 160 | 156 | 0.951            | 0.944 | 0.929 |
| 160 | 101 | 0.578            | 0.564 | 0.537 | 160 | 157 | 0.959            | 0.952 | 0.939 |
| 160 | 102 | 0.585            | 0.570 | 0.543 | 160 | 158 | 0.967            | 0.961 | 0.949 |
| 160 | 103 | 0.591            | 0.577 | 0.550 | 160 | 159 | 0.976            | 0.971 | 0.959 |
| 160 | 104 | 0.597            | 0.583 | 0.556 | 160 | 160 | 0.986            | 0.981 | 0.972 |
| 160 | 105 | 0.604            | 0.590 | 0.563 | 165 | 0   | 0.000            | 0.000 | 0.000 |
| 160 | 106 | 0.610            | 0.596 | 0.569 | 165 | 1   | 0.001            | 0.000 | 0.000 |
| 160 | 107 | 0.617            | 0.602 | 0.576 | 165 | 2   | 0.003            | 0.002 | 0.001 |
| 160 | 108 | 0.623            | 0.609 | 0.582 | 165 | 3   | 0.007            | 0.005 | 0.003 |
| 160 | 109 | 0.629            | 0.615 | 0.589 | 165 | 4   | 0.011            | 0.008 | 0.005 |
| 160 | 110 | 0.636            | 0.622 | 0.595 | 165 | 5   | 0.015            | 0.012 | 0.008 |
| 160 | 111 | 0.642            | 0.628 | 0.602 | 165 | 6   | 0.019            | 0.016 | 0.011 |
| 160 | 112 | 0.649            | 0.635 | 0.608 | 165 | 7   | 0.024            | 0.020 | 0.014 |
| 160 | 113 | 0.655            | 0.641 | 0.615 | 165 | 8   | 0.028            | 0.024 | 0.018 |
| 160 | 114 | 0.662            | 0.648 | 0.622 | 165 | 9   | 0.033            | 0.029 | 0.022 |
| 160 | 115 | 0.668            | 0.654 | 0.628 | 165 | 10  | 0.038            | 0.033 | 0.025 |
| 160 | 116 | 0.675            | 0.661 | 0.635 | 165 | 11  | 0.043            | 0.038 | 0.029 |
| 160 | 117 | 0.681            | 0.668 | 0.641 | 165 | 12  | 0.048            | 0.042 | 0.033 |
| 160 | 118 | 0.688            | 0.674 | 0.648 | 165 | 13  | 0.053            | 0.047 | 0.038 |
| 160 | 119 | 0.694            | 0.681 | 0.655 | 165 | 14  | 0.058            | 0.052 | 0.042 |
| 160 | 120 | 0.701            | 0.687 | 0.662 | 165 | 15  | 0.063            | 0.057 | 0.046 |
| 160 | 121 | 0.707            | 0.694 | 0.668 | 165 | 16  | 0.068            | 0.062 | 0.051 |
| 160 | 122 | 0.714            | 0.701 | 0.675 | 165 | 17  | 0.073            | 0.067 | 0.055 |
| 160 | 123 | 0.720            | 0.707 | 0.682 | 165 | 18  | 0.079            | 0.072 | 0.060 |
| 160 | 124 | 0.727            | 0.714 | 0.689 | 165 | 19  | 0.084            | 0.077 | 0.064 |
| 160 | 125 | 0.734            | 0.721 | 0.696 | 165 | 20  | 0.089            | 0.082 | 0.069 |
| 160 | 126 | 0.740            | 0.727 | 0.702 | 165 | 21  | 0.095            | 0.087 | 0.074 |
| 160 | 127 | 0.747            | 0.734 | 0.709 | 165 | 22  | 0.100            | 0.092 | 0.078 |
| 160 | 128 | 0.754            | 0.741 | 0.716 | 165 | 23  | 0.105            | 0.097 | 0.083 |
| 160 | 129 | 0.760            | 0.748 | 0.723 | 165 | 24  | 0.111            | 0.102 | 0.088 |
| 160 | 130 | 0.767            | 0.754 | 0.730 | 165 | 25  | 0.116            | 0.108 | 0.093 |
| 160 | 131 | 0.774            | 0.761 | 0.737 | 165 | 26  | 0.122            | 0.113 | 0.098 |
| 160 | 132 | 0.780            | 0.768 | 0.744 |     |     |                  |       |       |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 165 | 27 | 0.127      | 0.118 | 0.102 | 165 | 85  | 0.462      | 0.448 | 0.422 |
| 165 | 28 | 0.132      | 0.123 | 0.107 | 165 | 86  | 0.468      | 0.454 | 0.428 |
| 165 | 29 | 0.138      | 0.129 | 0.112 | 165 | 87  | 0.474      | 0.460 | 0.434 |
|     |    |            |       |       | 165 | 88  | 0.480      | 0.466 | 0.440 |
| 165 | 30 | 0.143      | 0.134 | 0.117 | 165 | 89  | 0.487      | 0.472 | 0.446 |
| 165 | 31 | 0.149      | 0.139 | 0.122 |     |     |            |       |       |
| 165 | 32 | 0.154      | 0.145 | 0.127 | 165 | 90  | 0.493      | 0.478 | 0.452 |
| 165 | 33 | 0.160      | 0.150 | 0.133 | 165 | 91  | 0.499      | 0.484 | 0.458 |
| 165 | 34 | 0.166      | 0.156 | 0.138 | 165 | 92  | 0.505      | 0.491 | 0.464 |
|     |    |            |       |       | 165 | 93  | 0.511      | 0.497 | 0.470 |
| 165 | 35 | 0.171      | 0.161 | 0.143 | 165 | 94  | 0.517      | 0.503 | 0.476 |
| 165 | 36 | 0.177      | 0.166 | 0.148 |     |     |            |       |       |
| 165 | 37 | 0.182      | 0.172 | 0.153 | 165 | 95  | 0.523      | 0.509 | 0.482 |
| 165 | 38 | 0.188      | 0.177 | 0.158 | 165 | 96  | 0.529      | 0.515 | 0.488 |
| 165 | 39 | 0.194      | 0.183 | 0.164 | 165 | 97  | 0.535      | 0.521 | 0.494 |
|     |    |            |       |       | 165 | 98  | 0.541      | 0.527 | 0.501 |
| 165 | 40 | 0.199      | 0.188 | 0.169 | 165 | 99  | 0.547      | 0.533 | 0.507 |
| 165 | 41 | 0.205      | 0.194 | 0.174 |     |     |            |       |       |
| 165 | 42 | 0.211      | 0.199 | 0.179 | 165 | 100 | 0.554      | 0.539 | 0.513 |
| 165 | 43 | 0.216      | 0.205 | 0.185 | 165 | 101 | 0.560      | 0.546 | 0.519 |
| 165 | 44 | 0.222      | 0.211 | 0.190 | 165 | 102 | 0.566      | 0.552 | 0.525 |
|     |    |            |       |       | 165 | 103 | 0.572      | 0.558 | 0.531 |
| 165 | 45 | 0.228      | 0.216 | 0.195 | 165 | 104 | 0.578      | 0.564 | 0.538 |
| 165 | 46 | 0.233      | 0.222 | 0.201 |     |     |            |       |       |
| 165 | 47 | 0.239      | 0.227 | 0.206 | 165 | 105 | 0.584      | 0.570 | 0.544 |
| 165 | 48 | 0.245      | 0.233 | 0.212 | 165 | 106 | 0.590      | 0.576 | 0.550 |
| 165 | 49 | 0.250      | 0.239 | 0.217 | 165 | 107 | 0.597      | 0.583 | 0.556 |
|     |    |            |       |       | 165 | 108 | 0.603      | 0.589 | 0.562 |
| 165 | 50 | 0.256      | 0.244 | 0.222 | 165 | 109 | 0.609      | 0.595 | 0.569 |
| 165 | 51 | 0.262      | 0.250 | 0.228 |     |     |            |       |       |
| 165 | 52 | 0.268      | 0.256 | 0.233 | 165 | 110 | 0.615      | 0.601 | 0.575 |
| 165 | 53 | 0.273      | 0.261 | 0.239 | 165 | 111 | 0.621      | 0.608 | 0.581 |
| 165 | 54 | 0.279      | 0.267 | 0.244 | 165 | 112 | 0.628      | 0.614 | 0.588 |
|     |    |            |       |       | 165 | 113 | 0.634      | 0.620 | 0.594 |
| 165 | 55 | 0.285      | 0.273 | 0.250 | 165 | 114 | 0.640      | 0.626 | 0.600 |
| 165 | 56 | 0.291      | 0.278 | 0.255 |     |     |            |       |       |
| 165 | 57 | 0.297      | 0.284 | 0.261 | 165 | 115 | 0.646      | 0.633 | 0.607 |
| 165 | 58 | 0.302      | 0.290 | 0.267 | 165 | 116 | 0.653      | 0.639 | 0.613 |
| 165 | 59 | 0.308      | 0.295 | 0.272 | 165 | 117 | 0.659      | 0.645 | 0.619 |
|     |    |            |       |       | 165 | 118 | 0.665      | 0.652 | 0.626 |
| 165 | 60 | 0.314      | 0.301 | 0.278 | 165 | 119 | 0.672      | 0.658 | 0.632 |
| 165 | 61 | 0.320      | 0.307 | 0.283 |     |     |            |       |       |
| 165 | 62 | 0.326      | 0.313 | 0.289 | 165 | 120 | 0.678      | 0.664 | 0.639 |
| 165 | 63 | 0.332      | 0.319 | 0.295 | 165 | 121 | 0.684      | 0.671 | 0.645 |
| 165 | 64 | 0.337      | 0.324 | 0.300 | 165 | 122 | 0.691      | 0.677 | 0.652 |
|     |    |            |       |       | 165 | 123 | 0.697      | 0.684 | 0.658 |
| 165 | 65 | 0.343      | 0.330 | 0.306 | 165 | 124 | 0.703      | 0.690 | 0.665 |
| 165 | 66 | 0.349      | 0.336 | 0.312 |     |     |            |       |       |
| 165 | 67 | 0.355      | 0.342 | 0.317 | 165 | 125 | 0.710      | 0.696 | 0.671 |
| 165 | 68 | 0.361      | 0.348 | 0.323 | 165 | 126 | 0.716      | 0.703 | 0.678 |
| 165 | 69 | 0.367      | 0.353 | 0.329 | 165 | 127 | 0.722      | 0.709 | 0.684 |
|     |    |            |       |       | 165 | 128 | 0.729      | 0.716 | 0.691 |
| 165 | 70 | 0.373      | 0.359 | 0.335 | 165 | 129 | 0.735      | 0.722 | 0.698 |
| 165 | 71 | 0.379      | 0.365 | 0.340 |     |     |            |       |       |
| 165 | 72 | 0.385      | 0.371 | 0.346 | 165 | 130 | 0.742      | 0.729 | 0.704 |
| 165 | 73 | 0.391      | 0.377 | 0.352 | 165 | 131 | 0.748      | 0.735 | 0.711 |
| 165 | 74 | 0.397      | 0.383 | 0.358 | 165 | 132 | 0.754      | 0.742 | 0.718 |
|     |    |            |       |       | 165 | 133 | 0.761      | 0.748 | 0.724 |
| 165 | 75 | 0.402      | 0.389 | 0.363 | 165 | 134 | 0.767      | 0.755 | 0.731 |
| 165 | 76 | 0.408      | 0.395 | 0.369 |     |     |            |       |       |
| 165 | 77 | 0.414      | 0.401 | 0.375 | 165 | 135 | 0.774      | 0.762 | 0.738 |
| 165 | 78 | 0.420      | 0.407 | 0.381 | 165 | 136 | 0.780      | 0.768 | 0.745 |
| 165 | 79 | 0.426      | 0.412 | 0.387 | 165 | 137 | 0.787      | 0.775 | 0.752 |
|     |    |            |       |       | 165 | 138 | 0.793      | 0.781 | 0.758 |
| 165 | 80 | 0.432      | 0.418 | 0.393 | 165 | 139 | 0.800      | 0.788 | 0.765 |
| 165 | 81 | 0.438      | 0.424 | 0.399 |     |     |            |       |       |
| 165 | 82 | 0.444      | 0.430 | 0.404 | 165 | 140 | 0.806      | 0.795 | 0.772 |
| 165 | 83 | 0.450      | 0.436 | 0.410 | 165 | 141 | 0.813      | 0.802 | 0.779 |
| 165 | 84 | 0.456      | 0.442 | 0.416 | 165 | 142 | 0.820      | 0.808 | 0.786 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 165 | 143 | 0.826            | 0.815 | 0.793 | 170 | 37 | 0.177            | 0.167 | 0.148 |
| 165 | 144 | 0.833            | 0.822 | 0.800 | 170 | 38 | 0.182            | 0.172 | 0.154 |
|     |     |                  |       |       | 170 | 39 | 0.188            | 0.177 | 0.159 |
| 165 | 145 | 0.840            | 0.829 | 0.807 | 170 | 40 | 0.193            | 0.183 | 0.164 |
| 165 | 146 | 0.846            | 0.836 | 0.815 | 170 | 41 | 0.199            | 0.188 | 0.169 |
| 165 | 147 | 0.853            | 0.843 | 0.822 | 170 | 42 | 0.204            | 0.193 | 0.174 |
| 165 | 148 | 0.860            | 0.849 | 0.829 | 170 | 43 | 0.210            | 0.199 | 0.179 |
| 165 | 149 | 0.867            | 0.856 | 0.836 | 170 | 44 | 0.215            | 0.204 | 0.184 |
|     |     |                  |       |       | 170 | 45 | 0.221            | 0.210 | 0.189 |
| 165 | 150 | 0.873            | 0.863 | 0.844 | 170 | 46 | 0.226            | 0.215 | 0.195 |
| 165 | 151 | 0.880            | 0.871 | 0.851 | 170 | 47 | 0.232            | 0.220 | 0.200 |
| 165 | 152 | 0.887            | 0.878 | 0.859 | 170 | 48 | 0.237            | 0.226 | 0.205 |
| 165 | 153 | 0.894            | 0.885 | 0.866 | 170 | 49 | 0.243            | 0.231 | 0.210 |
| 165 | 154 | 0.901            | 0.892 | 0.874 |     |    |                  |       |       |
|     |     |                  |       |       | 170 | 50 | 0.248            | 0.237 | 0.216 |
| 165 | 155 | 0.908            | 0.899 | 0.882 | 170 | 51 | 0.254            | 0.242 | 0.221 |
| 165 | 156 | 0.915            | 0.907 | 0.890 | 170 | 52 | 0.260            | 0.248 | 0.226 |
| 165 | 157 | 0.922            | 0.914 | 0.898 | 170 | 53 | 0.265            | 0.253 | 0.231 |
| 165 | 158 | 0.930            | 0.922 | 0.906 | 170 | 54 | 0.271            | 0.259 | 0.237 |
| 165 | 159 | 0.937            | 0.929 | 0.914 |     |    |                  |       |       |
|     |     |                  |       |       | 170 | 55 | 0.276            | 0.264 | 0.242 |
| 165 | 160 | 0.945            | 0.937 | 0.922 | 170 | 56 | 0.282            | 0.270 | 0.248 |
| 165 | 161 | 0.952            | 0.945 | 0.931 | 170 | 57 | 0.288            | 0.275 | 0.253 |
| 165 | 162 | 0.960            | 0.954 | 0.940 | 170 | 58 | 0.293            | 0.281 | 0.258 |
| 165 | 163 | 0.968            | 0.962 | 0.950 | 170 | 59 | 0.299            | 0.286 | 0.264 |
| 165 | 164 | 0.977            | 0.972 | 0.960 |     |    |                  |       |       |
|     |     |                  |       |       | 170 | 60 | 0.305            | 0.292 | 0.269 |
| 165 | 165 | 0.986            | 0.982 | 0.972 | 170 | 61 | 0.310            | 0.298 | 0.274 |
|     |     |                  |       |       | 170 | 62 | 0.316            | 0.303 | 0.280 |
| 170 | 0   | 0.000            | 0.000 | 0.000 | 170 | 63 | 0.322            | 0.309 | 0.285 |
| 170 | 1   | 0.001            | 0.000 | 0.000 | 170 | 64 | 0.327            | 0.314 | 0.291 |
| 170 | 2   | 0.003            | 0.002 | 0.001 |     |    |                  |       |       |
| 170 | 3   | 0.007            | 0.005 | 0.003 | 170 | 65 | 0.333            | 0.320 | 0.296 |
| 170 | 4   | 0.010            | 0.008 | 0.005 | 170 | 66 | 0.339            | 0.326 | 0.302 |
|     |     |                  |       |       | 170 | 67 | 0.344            | 0.331 | 0.307 |
| 170 | 5   | 0.014            | 0.012 | 0.008 | 170 | 68 | 0.350            | 0.337 | 0.313 |
| 170 | 6   | 0.019            | 0.015 | 0.011 | 170 | 69 | 0.356            | 0.343 | 0.318 |
| 170 | 7   | 0.023            | 0.019 | 0.014 |     |    |                  |       |       |
| 170 | 8   | 0.028            | 0.024 | 0.017 | 170 | 70 | 0.361            | 0.348 | 0.324 |
| 170 | 9   | 0.032            | 0.028 | 0.021 | 170 | 71 | 0.367            | 0.354 | 0.330 |
|     |     |                  |       |       | 170 | 72 | 0.373            | 0.360 | 0.335 |
| 170 | 10  | 0.037            | 0.032 | 0.025 | 170 | 73 | 0.379            | 0.365 | 0.341 |
| 170 | 11  | 0.042            | 0.037 | 0.029 | 170 | 74 | 0.384            | 0.371 | 0.346 |
| 170 | 12  | 0.046            | 0.041 | 0.032 |     |    |                  |       |       |
| 170 | 13  | 0.051            | 0.046 | 0.037 | 170 | 75 | 0.390            | 0.377 | 0.352 |
| 170 | 14  | 0.056            | 0.050 | 0.041 | 170 | 76 | 0.396            | 0.382 | 0.358 |
|     |     |                  |       |       | 170 | 77 | 0.402            | 0.388 | 0.363 |
| 170 | 15  | 0.061            | 0.055 | 0.045 | 170 | 78 | 0.407            | 0.394 | 0.369 |
| 170 | 16  | 0.066            | 0.060 | 0.049 | 170 | 79 | 0.413            | 0.400 | 0.375 |
| 170 | 17  | 0.071            | 0.065 | 0.053 |     |    |                  |       |       |
| 170 | 18  | 0.076            | 0.070 | 0.058 | 170 | 80 | 0.419            | 0.405 | 0.380 |
| 170 | 19  | 0.081            | 0.074 | 0.062 | 170 | 81 | 0.425            | 0.411 | 0.386 |
|     |     |                  |       |       | 170 | 82 | 0.431            | 0.417 | 0.392 |
| 170 | 20  | 0.087            | 0.079 | 0.067 | 170 | 83 | 0.436            | 0.423 | 0.397 |
| 170 | 21  | 0.092            | 0.084 | 0.071 | 170 | 84 | 0.442            | 0.429 | 0.403 |
| 170 | 22  | 0.097            | 0.089 | 0.076 |     |    |                  |       |       |
| 170 | 23  | 0.102            | 0.094 | 0.081 | 170 | 85 | 0.448            | 0.434 | 0.409 |
| 170 | 24  | 0.107            | 0.099 | 0.085 | 170 | 86 | 0.454            | 0.440 | 0.414 |
|     |     |                  |       |       | 170 | 87 | 0.460            | 0.446 | 0.420 |
| 170 | 25  | 0.113            | 0.104 | 0.090 | 170 | 88 | 0.466            | 0.452 | 0.426 |
| 170 | 26  | 0.118            | 0.109 | 0.095 | 170 | 89 | 0.472            | 0.458 | 0.432 |
| 170 | 27  | 0.123            | 0.115 | 0.099 |     |    |                  |       |       |
| 170 | 28  | 0.128            | 0.120 | 0.104 | 170 | 90 | 0.477            | 0.463 | 0.438 |
| 170 | 29  | 0.134            | 0.125 | 0.109 | 170 | 91 | 0.483            | 0.469 | 0.443 |
|     |     |                  |       |       | 170 | 92 | 0.489            | 0.475 | 0.449 |
| 170 | 30  | 0.139            | 0.130 | 0.114 | 170 | 93 | 0.495            | 0.481 | 0.455 |
| 170 | 31  | 0.144            | 0.135 | 0.119 | 170 | 94 | 0.501            | 0.487 | 0.461 |
| 170 | 32  | 0.150            | 0.140 | 0.124 |     |    |                  |       |       |
| 170 | 33  | 0.155            | 0.146 | 0.129 | 170 | 95 | 0.507            | 0.493 | 0.467 |
| 170 | 34  | 0.161            | 0.151 | 0.133 | 170 | 96 | 0.513            | 0.499 | 0.473 |
|     |     |                  |       |       | 170 | 97 | 0.519            | 0.505 | 0.479 |
| 170 | 35  | 0.166            | 0.156 | 0.138 |     |    |                  |       |       |
| 170 | 36  | 0.171            | 0.161 | 0.143 |     |    |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 170 | 98  | 0.524      | 0.511 | 0.484 | 170 | 153 | 0.864      | 0.854 | 0.834 |
| 170 | 99  | 0.530      | 0.516 | 0.490 | 170 | 154 | 0.870      | 0.861 | 0.841 |
| 170 | 100 | 0.536      | 0.522 | 0.496 | 170 | 155 | 0.877      | 0.867 | 0.848 |
| 170 | 101 | 0.542      | 0.528 | 0.502 | 170 | 156 | 0.884      | 0.874 | 0.855 |
| 170 | 102 | 0.548      | 0.534 | 0.508 | 170 | 157 | 0.890      | 0.881 | 0.863 |
| 170 | 103 | 0.554      | 0.540 | 0.514 | 170 | 158 | 0.897      | 0.888 | 0.870 |
| 170 | 104 | 0.560      | 0.546 | 0.520 | 170 | 159 | 0.904      | 0.895 | 0.877 |
| 170 | 105 | 0.566      | 0.552 | 0.526 | 170 | 160 | 0.911      | 0.902 | 0.885 |
| 170 | 106 | 0.572      | 0.558 | 0.532 | 170 | 161 | 0.918      | 0.909 | 0.893 |
| 170 | 107 | 0.578      | 0.564 | 0.538 | 170 | 162 | 0.925      | 0.917 | 0.900 |
| 170 | 108 | 0.584      | 0.570 | 0.544 | 170 | 163 | 0.932      | 0.924 | 0.908 |
| 170 | 109 | 0.590      | 0.576 | 0.550 | 170 | 164 | 0.939      | 0.932 | 0.916 |
| 170 | 110 | 0.596      | 0.582 | 0.556 | 170 | 165 | 0.946      | 0.939 | 0.925 |
| 170 | 111 | 0.602      | 0.588 | 0.562 | 170 | 166 | 0.954      | 0.947 | 0.933 |
| 170 | 112 | 0.608      | 0.594 | 0.568 | 170 | 167 | 0.961      | 0.955 | 0.942 |
| 170 | 113 | 0.614      | 0.600 | 0.574 | 170 | 168 | 0.969      | 0.963 | 0.951 |
| 170 | 114 | 0.620      | 0.606 | 0.580 | 170 | 169 | 0.977      | 0.972 | 0.962 |
| 170 | 115 | 0.626      | 0.613 | 0.587 | 170 | 170 | 0.987      | 0.983 | 0.973 |
| 170 | 116 | 0.632      | 0.619 | 0.593 | 175 | 0   | 0.000      | 0.000 | 0.000 |
| 170 | 117 | 0.638      | 0.625 | 0.599 | 175 | 1   | 0.001      | 0.000 | 0.000 |
| 170 | 118 | 0.644      | 0.631 | 0.605 | 175 | 2   | 0.003      | 0.002 | 0.001 |
| 170 | 119 | 0.650      | 0.637 | 0.611 | 175 | 3   | 0.006      | 0.005 | 0.003 |
| 170 | 120 | 0.656      | 0.643 | 0.617 | 175 | 4   | 0.010      | 0.008 | 0.005 |
| 170 | 121 | 0.663      | 0.649 | 0.624 | 175 | 5   | 0.014      | 0.011 | 0.007 |
| 170 | 122 | 0.669      | 0.655 | 0.630 | 175 | 6   | 0.018      | 0.015 | 0.010 |
| 170 | 123 | 0.675      | 0.661 | 0.636 | 175 | 7   | 0.022      | 0.019 | 0.013 |
| 170 | 124 | 0.681      | 0.668 | 0.642 | 175 | 8   | 0.027      | 0.023 | 0.017 |
| 170 | 125 | 0.687      | 0.674 | 0.649 | 175 | 9   | 0.031      | 0.027 | 0.020 |
| 170 | 126 | 0.693      | 0.680 | 0.655 | 175 | 10  | 0.036      | 0.031 | 0.024 |
| 170 | 127 | 0.699      | 0.686 | 0.661 | 175 | 11  | 0.040      | 0.036 | 0.028 |
| 170 | 128 | 0.705      | 0.692 | 0.668 | 175 | 12  | 0.045      | 0.040 | 0.032 |
| 170 | 129 | 0.712      | 0.699 | 0.674 | 175 | 13  | 0.050      | 0.044 | 0.035 |
| 170 | 130 | 0.718      | 0.705 | 0.680 | 175 | 14  | 0.055      | 0.049 | 0.039 |
| 170 | 131 | 0.724      | 0.711 | 0.687 | 175 | 15  | 0.059      | 0.054 | 0.044 |
| 170 | 132 | 0.730      | 0.718 | 0.693 | 175 | 16  | 0.064      | 0.058 | 0.048 |
| 170 | 133 | 0.736      | 0.724 | 0.700 | 175 | 17  | 0.069      | 0.063 | 0.052 |
| 170 | 134 | 0.743      | 0.730 | 0.706 | 175 | 18  | 0.074      | 0.068 | 0.056 |
| 170 | 135 | 0.749      | 0.736 | 0.712 | 175 | 19  | 0.079      | 0.072 | 0.060 |
| 170 | 136 | 0.755      | 0.743 | 0.719 | 175 | 20  | 0.084      | 0.077 | 0.065 |
| 170 | 137 | 0.761      | 0.749 | 0.726 | 175 | 21  | 0.089      | 0.082 | 0.069 |
| 170 | 138 | 0.768      | 0.756 | 0.732 | 175 | 22  | 0.094      | 0.087 | 0.074 |
| 170 | 139 | 0.774      | 0.762 | 0.739 | 175 | 23  | 0.099      | 0.092 | 0.078 |
| 170 | 140 | 0.780      | 0.768 | 0.745 | 175 | 24  | 0.104      | 0.096 | 0.083 |
| 170 | 141 | 0.787      | 0.775 | 0.752 | 175 | 25  | 0.109      | 0.101 | 0.087 |
| 170 | 142 | 0.793      | 0.781 | 0.758 | 175 | 26  | 0.114      | 0.106 | 0.092 |
| 170 | 143 | 0.799      | 0.786 | 0.765 | 175 | 27  | 0.120      | 0.111 | 0.096 |
| 170 | 144 | 0.806      | 0.794 | 0.772 | 175 | 28  | 0.125      | 0.116 | 0.101 |
| 170 | 145 | 0.812      | 0.801 | 0.779 | 175 | 29  | 0.130      | 0.121 | 0.106 |
| 170 | 146 | 0.818      | 0.807 | 0.785 | 175 | 30  | 0.135      | 0.126 | 0.110 |
| 170 | 147 | 0.825      | 0.814 | 0.792 | 175 | 31  | 0.140      | 0.131 | 0.115 |
| 170 | 148 | 0.831      | 0.820 | 0.799 | 175 | 32  | 0.145      | 0.136 | 0.120 |
| 170 | 149 | 0.838      | 0.827 | 0.806 | 175 | 33  | 0.151      | 0.141 | 0.125 |
| 170 | 150 | 0.844      | 0.834 | 0.813 | 175 | 34  | 0.156      | 0.146 | 0.130 |
| 170 | 151 | 0.851      | 0.840 | 0.820 | 175 | 35  | 0.161      | 0.152 | 0.134 |
| 170 | 152 | 0.857      | 0.847 | 0.827 |     |     |            |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 175 | 36 | 0.166            | 0.157 | 0.139 | 175 | 94  | 0.486            | 0.472 | 0.447 |
| 175 | 37 | 0.172            | 0.162 | 0.144 | 175 | 95  | 0.492            | 0.478 | 0.452 |
| 175 | 38 | 0.177            | 0.167 | 0.149 | 175 | 96  | 0.497            | 0.484 | 0.458 |
| 175 | 39 | 0.182            | 0.172 | 0.154 | 175 | 97  | 0.503            | 0.489 | 0.464 |
| 175 | 40 | 0.188            | 0.177 | 0.159 | 175 | 98  | 0.509            | 0.495 | 0.469 |
| 175 | 41 | 0.193            | 0.182 | 0.164 | 175 | 99  | 0.514            | 0.501 | 0.475 |
| 175 | 42 | 0.198            | 0.188 | 0.169 | 175 | 100 | 0.520            | 0.506 | 0.481 |
| 175 | 43 | 0.204            | 0.193 | 0.174 | 175 | 101 | 0.526            | 0.512 | 0.486 |
| 175 | 44 | 0.209            | 0.198 | 0.179 | 175 | 102 | 0.532            | 0.518 | 0.492 |
| 175 | 45 | 0.214            | 0.203 | 0.184 | 175 | 103 | 0.537            | 0.524 | 0.498 |
| 175 | 46 | 0.220            | 0.209 | 0.189 | 175 | 104 | 0.543            | 0.530 | 0.504 |
| 175 | 47 | 0.225            | 0.214 | 0.194 | 175 | 105 | 0.549            | 0.535 | 0.509 |
| 175 | 48 | 0.230            | 0.219 | 0.199 | 175 | 106 | 0.555            | 0.541 | 0.515 |
| 175 | 49 | 0.236            | 0.224 | 0.204 | 175 | 107 | 0.561            | 0.547 | 0.521 |
| 175 | 50 | 0.241            | 0.230 | 0.209 | 175 | 108 | 0.566            | 0.553 | 0.527 |
| 175 | 51 | 0.247            | 0.235 | 0.214 | 175 | 109 | 0.572            | 0.558 | 0.533 |
| 175 | 52 | 0.252            | 0.240 | 0.219 | 175 | 110 | 0.578            | 0.564 | 0.539 |
| 175 | 53 | 0.257            | 0.246 | 0.225 | 175 | 111 | 0.584            | 0.570 | 0.544 |
| 175 | 54 | 0.263            | 0.251 | 0.230 | 175 | 112 | 0.590            | 0.576 | 0.550 |
| 175 | 55 | 0.268            | 0.256 | 0.235 | 175 | 113 | 0.595            | 0.582 | 0.556 |
| 175 | 56 | 0.274            | 0.262 | 0.240 | 175 | 114 | 0.601            | 0.588 | 0.562 |
| 175 | 57 | 0.279            | 0.267 | 0.245 | 175 | 115 | 0.607            | 0.594 | 0.568 |
| 175 | 58 | 0.285            | 0.273 | 0.250 | 175 | 116 | 0.613            | 0.599 | 0.574 |
| 175 | 59 | 0.290            | 0.278 | 0.256 | 175 | 117 | 0.619            | 0.605 | 0.580 |
| 175 | 60 | 0.296            | 0.283 | 0.261 | 175 | 118 | 0.625            | 0.611 | 0.586 |
| 175 | 61 | 0.301            | 0.289 | 0.266 | 175 | 119 | 0.631            | 0.617 | 0.592 |
| 175 | 62 | 0.307            | 0.294 | 0.271 | 175 | 120 | 0.636            | 0.623 | 0.598 |
| 175 | 63 | 0.312            | 0.300 | 0.277 | 175 | 121 | 0.642            | 0.629 | 0.604 |
| 175 | 64 | 0.318            | 0.305 | 0.282 | 175 | 122 | 0.648            | 0.635 | 0.610 |
| 175 | 65 | 0.323            | 0.310 | 0.287 | 175 | 123 | 0.654            | 0.641 | 0.616 |
| 175 | 66 | 0.329            | 0.316 | 0.293 | 175 | 124 | 0.660            | 0.647 | 0.622 |
| 175 | 67 | 0.334            | 0.321 | 0.298 | 175 | 125 | 0.666            | 0.653 | 0.628 |
| 175 | 68 | 0.340            | 0.327 | 0.303 | 175 | 126 | 0.672            | 0.659 | 0.634 |
| 175 | 69 | 0.345            | 0.332 | 0.309 | 175 | 127 | 0.678            | 0.665 | 0.640 |
| 175 | 70 | 0.351            | 0.338 | 0.314 | 175 | 128 | 0.684            | 0.671 | 0.646 |
| 175 | 71 | 0.356            | 0.343 | 0.320 | 175 | 129 | 0.690            | 0.677 | 0.652 |
| 175 | 72 | 0.362            | 0.349 | 0.325 | 175 | 130 | 0.696            | 0.683 | 0.658 |
| 175 | 73 | 0.367            | 0.354 | 0.330 | 175 | 131 | 0.702            | 0.689 | 0.664 |
| 175 | 74 | 0.373            | 0.360 | 0.336 | 175 | 132 | 0.708            | 0.695 | 0.670 |
| 175 | 75 | 0.379            | 0.365 | 0.341 | 175 | 133 | 0.714            | 0.701 | 0.677 |
| 175 | 76 | 0.384            | 0.371 | 0.347 | 175 | 134 | 0.720            | 0.707 | 0.683 |
| 175 | 77 | 0.390            | 0.377 | 0.352 | 175 | 135 | 0.726            | 0.713 | 0.689 |
| 175 | 78 | 0.395            | 0.382 | 0.358 | 175 | 136 | 0.732            | 0.719 | 0.695 |
| 175 | 79 | 0.401            | 0.388 | 0.363 | 175 | 137 | 0.738            | 0.725 | 0.701 |
| 175 | 80 | 0.407            | 0.393 | 0.369 | 175 | 138 | 0.744            | 0.731 | 0.708 |
| 175 | 81 | 0.412            | 0.399 | 0.374 | 175 | 139 | 0.750            | 0.738 | 0.714 |
| 175 | 82 | 0.418            | 0.404 | 0.380 | 175 | 140 | 0.756            | 0.744 | 0.720 |
| 175 | 83 | 0.423            | 0.410 | 0.385 | 175 | 141 | 0.762            | 0.750 | 0.727 |
| 175 | 84 | 0.429            | 0.416 | 0.391 | 175 | 142 | 0.768            | 0.756 | 0.733 |
| 175 | 85 | 0.435            | 0.421 | 0.396 | 175 | 143 | 0.774            | 0.762 | 0.739 |
| 175 | 86 | 0.440            | 0.427 | 0.402 | 175 | 144 | 0.780            | 0.769 | 0.746 |
| 175 | 87 | 0.446            | 0.433 | 0.407 | 175 | 145 | 0.786            | 0.775 | 0.752 |
| 175 | 88 | 0.452            | 0.438 | 0.413 | 175 | 146 | 0.793            | 0.781 | 0.759 |
| 175 | 89 | 0.457            | 0.444 | 0.418 | 175 | 147 | 0.799            | 0.787 | 0.765 |
| 175 | 90 | 0.463            | 0.449 | 0.424 | 175 | 148 | 0.805            | 0.794 | 0.772 |
| 175 | 91 | 0.469            | 0.455 | 0.430 | 175 | 149 | 0.811            | 0.800 | 0.778 |
| 175 | 92 | 0.474            | 0.461 | 0.435 | 175 | 150 | 0.817            | 0.806 | 0.785 |
| 175 | 93 | 0.480            | 0.466 | 0.441 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 175 | 151 | 0.824            | 0.813 | 0.791 | 180 | 35 | 0.157            | 0.147 | 0.131 |
| 175 | 152 | 0.830            | 0.819 | 0.798 | 180 | 36 | 0.162            | 0.152 | 0.135 |
| 175 | 153 | 0.836            | 0.825 | 0.805 | 180 | 37 | 0.167            | 0.157 | 0.140 |
| 175 | 154 | 0.842            | 0.832 | 0.811 | 180 | 38 | 0.172            | 0.162 | 0.145 |
|     |     |                  |       |       | 180 | 39 | 0.177            | 0.167 | 0.149 |
| 175 | 155 | 0.849            | 0.838 | 0.818 |     |    |                  |       |       |
| 175 | 156 | 0.855            | 0.845 | 0.825 | 180 | 40 | 0.182            | 0.172 | 0.154 |
| 175 | 157 | 0.861            | 0.851 | 0.832 | 180 | 41 | 0.187            | 0.177 | 0.159 |
| 175 | 158 | 0.868            | 0.858 | 0.838 | 180 | 42 | 0.193            | 0.182 | 0.164 |
| 175 | 159 | 0.874            | 0.864 | 0.845 | 180 | 43 | 0.198            | 0.187 | 0.169 |
|     |     |                  |       |       | 180 | 44 | 0.203            | 0.192 | 0.174 |
| 175 | 160 | 0.881            | 0.871 | 0.852 |     |    |                  |       |       |
| 175 | 161 | 0.887            | 0.878 | 0.859 | 180 | 45 | 0.208            | 0.198 | 0.178 |
| 175 | 162 | 0.894            | 0.884 | 0.866 | 180 | 46 | 0.213            | 0.203 | 0.183 |
| 175 | 163 | 0.900            | 0.891 | 0.874 | 180 | 47 | 0.219            | 0.208 | 0.188 |
| 175 | 164 | 0.907            | 0.898 | 0.881 | 180 | 48 | 0.224            | 0.213 | 0.193 |
|     |     |                  |       |       | 180 | 49 | 0.229            | 0.218 | 0.198 |
| 175 | 165 | 0.913            | 0.905 | 0.888 |     |    |                  |       |       |
| 175 | 166 | 0.920            | 0.912 | 0.896 | 180 | 50 | 0.234            | 0.223 | 0.203 |
| 175 | 167 | 0.927            | 0.919 | 0.903 | 180 | 51 | 0.240            | 0.228 | 0.208 |
| 175 | 168 | 0.934            | 0.926 | 0.911 | 180 | 52 | 0.245            | 0.233 | 0.213 |
| 175 | 169 | 0.941            | 0.933 | 0.919 | 180 | 53 | 0.250            | 0.239 | 0.218 |
|     |     |                  |       |       | 180 | 54 | 0.255            | 0.244 | 0.223 |
| 175 | 170 | 0.948            | 0.941 | 0.927 |     |    |                  |       |       |
| 175 | 171 | 0.955            | 0.948 | 0.935 | 180 | 55 | 0.261            | 0.249 | 0.228 |
| 175 | 172 | 0.962            | 0.956 | 0.944 | 180 | 56 | 0.266            | 0.254 | 0.233 |
| 175 | 173 | 0.970            | 0.964 | 0.953 | 180 | 57 | 0.271            | 0.259 | 0.238 |
| 175 | 174 | 0.978            | 0.973 | 0.963 | 180 | 58 | 0.276            | 0.265 | 0.243 |
|     |     |                  |       |       | 180 | 59 | 0.282            | 0.270 | 0.248 |
| 175 | 175 | 0.987            | 0.983 | 0.974 |     |    |                  |       |       |
| 180 | 0   | 0.000            | 0.000 | 0.000 | 180 | 60 | 0.287            | 0.275 | 0.253 |
| 180 | 1   | 0.001            | 0.000 | 0.000 | 180 | 61 | 0.292            | 0.280 | 0.258 |
| 180 | 2   | 0.003            | 0.002 | 0.001 | 180 | 62 | 0.298            | 0.286 | 0.264 |
| 180 | 3   | 0.006            | 0.005 | 0.002 | 180 | 63 | 0.303            | 0.291 | 0.269 |
| 180 | 4   | 0.010            | 0.008 | 0.005 | 180 | 64 | 0.308            | 0.296 | 0.274 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 5   | 0.014            | 0.011 | 0.007 | 180 | 65 | 0.314            | 0.302 | 0.279 |
| 180 | 6   | 0.018            | 0.015 | 0.010 | 180 | 66 | 0.319            | 0.307 | 0.284 |
| 180 | 7   | 0.022            | 0.018 | 0.013 | 180 | 67 | 0.325            | 0.312 | 0.289 |
| 180 | 8   | 0.026            | 0.022 | 0.016 | 180 | 68 | 0.330            | 0.317 | 0.294 |
| 180 | 9   | 0.030            | 0.026 | 0.020 | 180 | 69 | 0.335            | 0.323 | 0.300 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 10  | 0.035            | 0.030 | 0.023 | 180 | 70 | 0.341            | 0.328 | 0.305 |
| 180 | 11  | 0.039            | 0.035 | 0.027 | 180 | 71 | 0.346            | 0.333 | 0.310 |
| 180 | 12  | 0.044            | 0.039 | 0.031 | 180 | 72 | 0.351            | 0.339 | 0.315 |
| 180 | 13  | 0.048            | 0.043 | 0.034 | 180 | 73 | 0.357            | 0.344 | 0.321 |
| 180 | 14  | 0.053            | 0.048 | 0.038 | 180 | 74 | 0.362            | 0.349 | 0.326 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 15  | 0.058            | 0.052 | 0.042 | 180 | 75 | 0.368            | 0.355 | 0.331 |
| 180 | 16  | 0.063            | 0.057 | 0.046 | 180 | 76 | 0.373            | 0.360 | 0.336 |
| 180 | 17  | 0.067            | 0.061 | 0.050 | 180 | 77 | 0.379            | 0.366 | 0.342 |
| 180 | 18  | 0.072            | 0.066 | 0.055 | 180 | 78 | 0.384            | 0.371 | 0.347 |
| 180 | 19  | 0.077            | 0.070 | 0.059 | 180 | 79 | 0.389            | 0.376 | 0.352 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 20  | 0.082            | 0.075 | 0.063 | 180 | 80 | 0.395            | 0.382 | 0.358 |
| 180 | 21  | 0.087            | 0.080 | 0.067 | 180 | 81 | 0.400            | 0.387 | 0.363 |
| 180 | 22  | 0.091            | 0.084 | 0.072 | 180 | 82 | 0.406            | 0.393 | 0.368 |
| 180 | 23  | 0.096            | 0.089 | 0.076 | 180 | 83 | 0.411            | 0.398 | 0.374 |
| 180 | 24  | 0.101            | 0.094 | 0.080 | 180 | 84 | 0.417            | 0.403 | 0.379 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 25  | 0.106            | 0.098 | 0.085 | 180 | 85 | 0.422            | 0.409 | 0.384 |
| 180 | 26  | 0.111            | 0.103 | 0.089 | 180 | 86 | 0.428            | 0.414 | 0.390 |
| 180 | 27  | 0.116            | 0.108 | 0.094 | 180 | 87 | 0.433            | 0.420 | 0.395 |
| 180 | 28  | 0.121            | 0.113 | 0.098 | 180 | 88 | 0.439            | 0.425 | 0.401 |
| 180 | 29  | 0.126            | 0.118 | 0.103 | 180 | 89 | 0.444            | 0.431 | 0.406 |
|     |     |                  |       |       |     |    |                  |       |       |
| 180 | 30  | 0.131            | 0.123 | 0.107 | 180 | 90 | 0.450            | 0.436 | 0.411 |
| 180 | 31  | 0.136            | 0.127 | 0.112 | 180 | 91 | 0.455            | 0.442 | 0.417 |
| 180 | 32  | 0.141            | 0.132 | 0.117 | 180 | 92 | 0.461            | 0.447 | 0.422 |
| 180 | 33  | 0.146            | 0.137 | 0.121 | 180 | 93 | 0.466            | 0.453 | 0.428 |
| 180 | 34  | 0.151            | 0.142 | 0.126 | 180 | 94 | 0.472            | 0.458 | 0.433 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 180 | 95  | 0.477      | 0.464 | 0.449 | 180 | 151 | 0.798      | 0.787 | 0.765 |
| 180 | 96  | 0.483      | 0.469 | 0.444 | 180 | 152 | 0.804      | 0.793 | 0.771 |
| 180 | 97  | 0.488      | 0.475 | 0.450 | 180 | 153 | 0.810      | 0.799 | 0.778 |
| 180 | 98  | 0.494      | 0.480 | 0.455 | 180 | 154 | 0.816      | 0.805 | 0.784 |
| 180 | 99  | 0.499      | 0.486 | 0.461 | 180 | 155 | 0.822      | 0.811 | 0.790 |
| 180 | 100 | 0.505      | 0.492 | 0.466 | 180 | 156 | 0.828      | 0.818 | 0.797 |
| 180 | 101 | 0.511      | 0.497 | 0.472 | 180 | 157 | 0.834      | 0.824 | 0.803 |
| 180 | 102 | 0.516      | 0.503 | 0.477 | 180 | 158 | 0.840      | 0.830 | 0.810 |
| 180 | 103 | 0.522      | 0.508 | 0.483 | 180 | 159 | 0.847      | 0.836 | 0.816 |
| 180 | 104 | 0.527      | 0.514 | 0.488 | 180 | 160 | 0.853      | 0.843 | 0.823 |
| 180 | 105 | 0.533      | 0.519 | 0.494 | 180 | 161 | 0.859      | 0.849 | 0.829 |
| 180 | 106 | 0.539      | 0.525 | 0.500 | 180 | 162 | 0.865      | 0.855 | 0.836 |
| 180 | 107 | 0.544      | 0.531 | 0.505 | 180 | 163 | 0.871      | 0.862 | 0.843 |
| 180 | 108 | 0.550      | 0.536 | 0.511 | 180 | 164 | 0.878      | 0.868 | 0.849 |
| 180 | 109 | 0.555      | 0.542 | 0.516 | 180 | 165 | 0.884      | 0.875 | 0.856 |
| 180 | 110 | 0.561      | 0.548 | 0.522 | 180 | 166 | 0.890      | 0.881 | 0.863 |
| 180 | 111 | 0.567      | 0.553 | 0.528 | 180 | 167 | 0.896      | 0.888 | 0.870 |
| 180 | 112 | 0.572      | 0.559 | 0.533 | 180 | 168 | 0.903      | 0.894 | 0.877 |
| 180 | 113 | 0.578      | 0.564 | 0.539 | 180 | 169 | 0.909      | 0.901 | 0.884 |
| 180 | 114 | 0.584      | 0.570 | 0.545 | 180 | 170 | 0.916      | 0.908 | 0.891 |
| 180 | 115 | 0.589      | 0.576 | 0.550 | 180 | 171 | 0.922      | 0.914 | 0.896 |
| 180 | 116 | 0.595      | 0.581 | 0.556 | 180 | 172 | 0.929      | 0.921 | 0.906 |
| 180 | 117 | 0.601      | 0.587 | 0.562 | 180 | 173 | 0.935      | 0.928 | 0.913 |
| 180 | 118 | 0.606      | 0.593 | 0.568 | 180 | 174 | 0.942      | 0.935 | 0.921 |
| 180 | 119 | 0.612      | 0.599 | 0.573 | 180 | 175 | 0.949      | 0.942 | 0.929 |
| 180 | 120 | 0.618      | 0.604 | 0.579 | 180 | 176 | 0.956      | 0.950 | 0.937 |
| 180 | 121 | 0.623      | 0.610 | 0.585 | 180 | 177 | 0.963      | 0.957 | 0.945 |
| 180 | 122 | 0.629      | 0.616 | 0.591 | 180 | 178 | 0.971      | 0.965 | 0.954 |
| 180 | 123 | 0.635      | 0.622 | 0.596 | 180 | 179 | 0.979      | 0.974 | 0.964 |
| 180 | 124 | 0.640      | 0.627 | 0.602 | 180 | 180 | 0.987      | 0.983 | 0.975 |
| 180 | 125 | 0.646      | 0.633 | 0.608 | 185 | 0   | 0.000      | 0.000 | 0.000 |
| 180 | 126 | 0.652      | 0.639 | 0.614 | 185 | 1   | 0.001      | 0.000 | 0.000 |
| 180 | 127 | 0.658      | 0.645 | 0.620 | 185 | 2   | 0.003      | 0.002 | 0.001 |
| 180 | 128 | 0.663      | 0.650 | 0.626 | 185 | 3   | 0.006      | 0.004 | 0.002 |
| 180 | 129 | 0.669      | 0.656 | 0.632 | 185 | 4   | 0.009      | 0.007 | 0.004 |
| 180 | 130 | 0.675      | 0.662 | 0.637 | 185 | 5   | 0.013      | 0.011 | 0.007 |
| 180 | 131 | 0.681      | 0.668 | 0.643 | 185 | 6   | 0.017      | 0.014 | 0.010 |
| 180 | 132 | 0.686      | 0.674 | 0.649 | 185 | 7   | 0.021      | 0.018 | 0.013 |
| 180 | 133 | 0.692      | 0.680 | 0.655 | 185 | 8   | 0.025      | 0.022 | 0.016 |
| 180 | 134 | 0.698      | 0.685 | 0.661 | 185 | 9   | 0.030      | 0.026 | 0.019 |
| 180 | 135 | 0.704      | 0.691 | 0.667 | 185 | 10  | 0.034      | 0.030 | 0.023 |
| 180 | 136 | 0.710      | 0.697 | 0.673 | 185 | 11  | 0.038      | 0.034 | 0.026 |
| 180 | 137 | 0.716      | 0.703 | 0.679 | 185 | 12  | 0.043      | 0.038 | 0.030 |
| 180 | 138 | 0.721      | 0.709 | 0.685 | 185 | 13  | 0.047      | 0.042 | 0.034 |
| 180 | 139 | 0.727      | 0.715 | 0.691 | 185 | 14  | 0.052      | 0.046 | 0.037 |
| 180 | 140 | 0.733      | 0.721 | 0.697 | 185 | 15  | 0.056      | 0.051 | 0.041 |
| 180 | 141 | 0.739      | 0.727 | 0.703 | 185 | 16  | 0.061      | 0.055 | 0.045 |
| 180 | 142 | 0.745      | 0.733 | 0.709 | 185 | 17  | 0.065      | 0.059 | 0.049 |
| 180 | 143 | 0.751      | 0.739 | 0.715 | 185 | 18  | 0.070      | 0.064 | 0.053 |
| 180 | 144 | 0.757      | 0.745 | 0.722 | 185 | 19  | 0.075      | 0.068 | 0.057 |
| 180 | 145 | 0.762      | 0.751 | 0.728 | 185 | 20  | 0.080      | 0.073 | 0.061 |
| 180 | 146 | 0.768      | 0.757 | 0.734 | 185 | 21  | 0.084      | 0.077 | 0.065 |
| 180 | 147 | 0.774      | 0.763 | 0.740 | 185 | 22  | 0.089      | 0.082 | 0.070 |
| 180 | 148 | 0.780      | 0.769 | 0.746 | 185 | 23  | 0.094      | 0.086 | 0.074 |
| 180 | 149 | 0.786      | 0.775 | 0.752 | 185 | 24  | 0.099      | 0.091 | 0.078 |
| 180 | 150 | 0.792      | 0.781 | 0.759 |     |     |            |       |       |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 185 | 25 | 0.103            | 0.096 | 0.082 | 185 | 84  | 0.405            | 0.392 | 0.368 |
| 185 | 26 | 0.108            | 0.100 | 0.087 | 185 | 85  | 0.410            | 0.397 | 0.373 |
| 185 | 27 | 0.113            | 0.105 | 0.091 | 185 | 86  | 0.416            | 0.403 | 0.378 |
| 185 | 28 | 0.118            | 0.110 | 0.095 | 185 | 87  | 0.421            | 0.408 | 0.384 |
| 185 | 29 | 0.123            | 0.114 | 0.100 | 185 | 88  | 0.426            | 0.413 | 0.389 |
| 185 | 30 | 0.128            | 0.119 | 0.104 | 185 | 89  | 0.432            | 0.419 | 0.394 |
| 185 | 31 | 0.133            | 0.124 | 0.109 | 185 | 90  | 0.437            | 0.424 | 0.399 |
| 185 | 32 | 0.137            | 0.129 | 0.113 | 185 | 91  | 0.442            | 0.429 | 0.405 |
| 185 | 33 | 0.142            | 0.134 | 0.116 | 185 | 92  | 0.448            | 0.435 | 0.410 |
| 185 | 34 | 0.147            | 0.138 | 0.122 | 185 | 93  | 0.453            | 0.440 | 0.415 |
| 185 | 35 | 0.152            | 0.143 | 0.127 | 185 | 94  | 0.458            | 0.445 | 0.421 |
| 185 | 36 | 0.157            | 0.148 | 0.131 | 185 | 95  | 0.464            | 0.451 | 0.426 |
| 185 | 37 | 0.162            | 0.153 | 0.136 | 185 | 96  | 0.469            | 0.456 | 0.431 |
| 185 | 38 | 0.167            | 0.158 | 0.141 | 185 | 97  | 0.475            | 0.461 | 0.436 |
| 185 | 39 | 0.172            | 0.163 | 0.145 | 185 | 98  | 0.480            | 0.467 | 0.442 |
| 185 | 40 | 0.177            | 0.167 | 0.150 | 185 | 99  | 0.485            | 0.472 | 0.447 |
| 185 | 41 | 0.182            | 0.172 | 0.155 | 185 | 100 | 0.491            | 0.477 | 0.452 |
| 185 | 42 | 0.187            | 0.177 | 0.159 | 185 | 101 | 0.496            | 0.483 | 0.458 |
| 185 | 43 | 0.192            | 0.182 | 0.164 | 185 | 102 | 0.502            | 0.488 | 0.463 |
| 185 | 44 | 0.197            | 0.187 | 0.169 | 185 | 103 | 0.507            | 0.494 | 0.469 |
| 185 | 45 | 0.202            | 0.192 | 0.173 | 185 | 104 | 0.512            | 0.499 | 0.474 |
| 185 | 46 | 0.207            | 0.197 | 0.178 | 185 | 105 | 0.518            | 0.504 | 0.479 |
| 185 | 47 | 0.213            | 0.202 | 0.183 | 185 | 106 | 0.523            | 0.510 | 0.485 |
| 185 | 48 | 0.218            | 0.207 | 0.188 | 185 | 107 | 0.529            | 0.515 | 0.490 |
| 185 | 49 | 0.223            | 0.212 | 0.192 | 185 | 108 | 0.534            | 0.521 | 0.496 |
| 185 | 50 | 0.228            | 0.217 | 0.197 | 185 | 109 | 0.540            | 0.526 | 0.501 |
| 185 | 51 | 0.233            | 0.222 | 0.202 | 185 | 110 | 0.545            | 0.532 | 0.507 |
| 185 | 52 | 0.238            | 0.227 | 0.207 | 185 | 111 | 0.550            | 0.537 | 0.512 |
| 185 | 53 | 0.243            | 0.232 | 0.212 | 185 | 112 | 0.556            | 0.543 | 0.518 |
| 185 | 54 | 0.248            | 0.237 | 0.217 | 185 | 113 | 0.561            | 0.548 | 0.523 |
| 185 | 55 | 0.253            | 0.242 | 0.222 | 185 | 114 | 0.567            | 0.554 | 0.529 |
| 185 | 56 | 0.258            | 0.247 | 0.226 | 185 | 115 | 0.572            | 0.559 | 0.534 |
| 185 | 57 | 0.264            | 0.252 | 0.231 | 185 | 116 | 0.578            | 0.565 | 0.540 |
| 185 | 58 | 0.269            | 0.257 | 0.236 | 185 | 117 | 0.583            | 0.570 | 0.545 |
| 185 | 59 | 0.274            | 0.262 | 0.241 | 185 | 118 | 0.589            | 0.576 | 0.551 |
| 185 | 60 | 0.279            | 0.267 | 0.246 | 185 | 119 | 0.594            | 0.581 | 0.556 |
| 185 | 61 | 0.284            | 0.273 | 0.251 | 185 | 120 | 0.600            | 0.587 | 0.562 |
| 185 | 62 | 0.289            | 0.278 | 0.256 | 185 | 121 | 0.605            | 0.592 | 0.567 |
| 185 | 63 | 0.295            | 0.283 | 0.261 | 185 | 122 | 0.611            | 0.598 | 0.573 |
| 185 | 64 | 0.300            | 0.288 | 0.266 | 185 | 123 | 0.616            | 0.603 | 0.578 |
| 185 | 65 | 0.305            | 0.293 | 0.271 | 185 | 124 | 0.622            | 0.609 | 0.584 |
| 185 | 66 | 0.310            | 0.298 | 0.276 | 185 | 125 | 0.628            | 0.615 | 0.590 |
| 185 | 67 | 0.315            | 0.303 | 0.281 | 185 | 126 | 0.633            | 0.620 | 0.595 |
| 185 | 68 | 0.321            | 0.308 | 0.286 | 185 | 127 | 0.639            | 0.626 | 0.601 |
| 185 | 69 | 0.326            | 0.314 | 0.291 | 185 | 128 | 0.644            | 0.631 | 0.607 |
| 185 | 70 | 0.331            | 0.319 | 0.296 | 185 | 129 | 0.650            | 0.637 | 0.612 |
| 185 | 71 | 0.336            | 0.324 | 0.301 | 185 | 130 | 0.655            | 0.643 | 0.618 |
| 185 | 72 | 0.342            | 0.329 | 0.306 | 185 | 131 | 0.661            | 0.648 | 0.624 |
| 185 | 73 | 0.347            | 0.334 | 0.311 | 185 | 132 | 0.667            | 0.654 | 0.629 |
| 185 | 74 | 0.352            | 0.340 | 0.316 | 185 | 133 | 0.672            | 0.659 | 0.635 |
| 185 | 75 | 0.357            | 0.345 | 0.322 | 185 | 134 | 0.678            | 0.665 | 0.641 |
| 185 | 76 | 0.363            | 0.350 | 0.327 | 185 | 135 | 0.683            | 0.671 | 0.647 |
| 185 | 77 | 0.368            | 0.355 | 0.332 | 185 | 136 | 0.689            | 0.676 | 0.652 |
| 185 | 78 | 0.373            | 0.360 | 0.337 | 185 | 137 | 0.695            | 0.682 | 0.658 |
| 185 | 79 | 0.379            | 0.366 | 0.342 | 185 | 138 | 0.700            | 0.688 | 0.664 |
| 185 | 80 | 0.384            | 0.371 | 0.347 | 185 | 139 | 0.706            | 0.694 | 0.670 |
| 185 | 81 | 0.389            | 0.376 | 0.352 | 185 | 140 | 0.712            | 0.699 | 0.676 |
| 185 | 82 | 0.394            | 0.381 | 0.358 | 185 | 141 | 0.717            | 0.705 | 0.681 |
| 185 | 83 | 0.400            | 0.387 | 0.363 |     |     |                  |       |       |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K  | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |    | 90%        | 95%   |       |
| 185 | 142 | 0.723      | 0.711 | 0.687 | 190 | 17 | 0.064      | 0.058 | 0.048 |
| 185 | 143 | 0.729      | 0.716 | 0.693 | 190 | 18 | 0.068      | 0.062 | 0.052 |
| 185 | 144 | 0.734      | 0.722 | 0.699 | 190 | 19 | 0.073      | 0.066 | 0.056 |
| 185 | 145 | 0.740      | 0.728 | 0.705 | 190 | 20 | 0.077      | 0.071 | 0.060 |
| 185 | 146 | 0.746      | 0.734 | 0.711 | 190 | 21 | 0.082      | 0.075 | 0.064 |
| 185 | 147 | 0.751      | 0.740 | 0.717 | 190 | 22 | 0.087      | 0.080 | 0.068 |
| 185 | 148 | 0.757      | 0.745 | 0.723 | 190 | 23 | 0.091      | 0.084 | 0.072 |
| 185 | 149 | 0.763      | 0.751 | 0.729 | 190 | 24 | 0.096      | 0.089 | 0.076 |
| 185 | 150 | 0.769      | 0.757 | 0.735 | 190 | 25 | 0.101      | 0.093 | 0.080 |
| 185 | 151 | 0.774      | 0.763 | 0.741 | 190 | 26 | 0.105      | 0.098 | 0.084 |
| 185 | 152 | 0.780      | 0.769 | 0.747 | 190 | 27 | 0.110      | 0.102 | 0.089 |
| 185 | 153 | 0.786      | 0.775 | 0.753 | 190 | 28 | 0.115      | 0.107 | 0.093 |
| 185 | 154 | 0.792      | 0.781 | 0.759 | 190 | 29 | 0.119      | 0.111 | 0.097 |
| 185 | 155 | 0.798      | 0.787 | 0.765 | 190 | 30 | 0.124      | 0.116 | 0.101 |
| 185 | 156 | 0.803      | 0.792 | 0.771 | 190 | 31 | 0.129      | 0.121 | 0.106 |
| 185 | 157 | 0.809      | 0.798 | 0.777 | 190 | 32 | 0.134      | 0.125 | 0.110 |
| 185 | 158 | 0.815      | 0.804 | 0.783 | 190 | 33 | 0.139      | 0.130 | 0.115 |
| 185 | 159 | 0.821      | 0.810 | 0.790 | 190 | 34 | 0.143      | 0.135 | 0.119 |
| 185 | 160 | 0.827      | 0.816 | 0.796 | 190 | 35 | 0.148      | 0.139 | 0.123 |
| 185 | 161 | 0.833      | 0.822 | 0.802 | 190 | 36 | 0.153      | 0.144 | 0.128 |
| 185 | 162 | 0.839      | 0.828 | 0.808 | 190 | 37 | 0.158      | 0.149 | 0.132 |
| 185 | 163 | 0.845      | 0.835 | 0.815 | 190 | 38 | 0.163      | 0.153 | 0.137 |
| 185 | 164 | 0.851      | 0.841 | 0.821 | 190 | 39 | 0.168      | 0.158 | 0.141 |
| 185 | 165 | 0.857      | 0.847 | 0.827 | 190 | 40 | 0.172      | 0.163 | 0.146 |
| 185 | 166 | 0.863      | 0.853 | 0.834 | 190 | 41 | 0.177      | 0.168 | 0.150 |
| 185 | 167 | 0.869      | 0.859 | 0.840 | 190 | 42 | 0.182      | 0.172 | 0.155 |
| 185 | 168 | 0.875      | 0.865 | 0.847 | 190 | 43 | 0.187      | 0.177 | 0.159 |
| 185 | 169 | 0.881      | 0.872 | 0.853 | 190 | 44 | 0.192      | 0.182 | 0.164 |
| 185 | 170 | 0.887      | 0.878 | 0.860 | 190 | 45 | 0.197      | 0.187 | 0.169 |
| 185 | 171 | 0.893      | 0.884 | 0.867 | 190 | 46 | 0.202      | 0.192 | 0.173 |
| 185 | 172 | 0.899      | 0.891 | 0.873 | 190 | 47 | 0.207      | 0.196 | 0.178 |
| 185 | 173 | 0.905      | 0.897 | 0.880 | 190 | 48 | 0.212      | 0.201 | 0.183 |
| 185 | 174 | 0.912      | 0.904 | 0.887 | 190 | 49 | 0.217      | 0.206 | 0.187 |
| 185 | 175 | 0.918      | 0.910 | 0.894 | 190 | 50 | 0.222      | 0.211 | 0.192 |
| 185 | 176 | 0.924      | 0.917 | 0.901 | 190 | 51 | 0.227      | 0.216 | 0.197 |
| 185 | 177 | 0.931      | 0.923 | 0.908 | 190 | 52 | 0.232      | 0.221 | 0.201 |
| 185 | 178 | 0.937      | 0.930 | 0.916 | 190 | 53 | 0.237      | 0.226 | 0.206 |
| 185 | 179 | 0.944      | 0.937 | 0.923 | 190 | 54 | 0.242      | 0.231 | 0.211 |
| 185 | 180 | 0.950      | 0.944 | 0.931 | 190 | 55 | 0.247      | 0.235 | 0.215 |
| 185 | 181 | 0.957      | 0.951 | 0.939 | 190 | 56 | 0.252      | 0.240 | 0.220 |
| 185 | 182 | 0.964      | 0.959 | 0.947 | 190 | 57 | 0.257      | 0.245 | 0.225 |
| 185 | 183 | 0.971      | 0.966 | 0.955 | 190 | 58 | 0.262      | 0.250 | 0.230 |
| 185 | 184 | 0.979      | 0.975 | 0.965 | 190 | 59 | 0.267      | 0.255 | 0.235 |
| 185 | 185 | 0.988      | 0.984 | 0.975 | 190 | 60 | 0.272      | 0.260 | 0.239 |
| 190 | 0   | 0.000      | 0.000 | 0.000 | 190 | 61 | 0.277      | 0.265 | 0.244 |
| 190 | 1   | 0.001      | 0.000 | 0.000 | 190 | 62 | 0.282      | 0.270 | 0.249 |
| 190 | 2   | 0.003      | 0.002 | 0.001 | 190 | 63 | 0.287      | 0.275 | 0.254 |
| 190 | 3   | 0.006      | 0.004 | 0.002 | 190 | 64 | 0.292      | 0.280 | 0.259 |
| 190 | 4   | 0.009      | 0.007 | 0.004 | 190 | 65 | 0.297      | 0.285 | 0.263 |
| 190 | 5   | 0.013      | 0.010 | 0.007 | 190 | 66 | 0.302      | 0.290 | 0.268 |
| 190 | 6   | 0.017      | 0.014 | 0.009 | 190 | 67 | 0.307      | 0.295 | 0.273 |
| 190 | 7   | 0.021      | 0.017 | 0.012 | 190 | 68 | 0.312      | 0.300 | 0.278 |
| 190 | 8   | 0.025      | 0.021 | 0.015 | 190 | 69 | 0.317      | 0.305 | 0.283 |
| 190 | 9   | 0.029      | 0.025 | 0.019 | 190 | 70 | 0.322      | 0.310 | 0.288 |
| 190 | 10  | 0.033      | 0.029 | 0.022 | 190 | 71 | 0.327      | 0.315 | 0.293 |
| 190 | 11  | 0.037      | 0.033 | 0.025 | 190 | 72 | 0.332      | 0.320 | 0.298 |
| 190 | 12  | 0.042      | 0.037 | 0.029 | 190 | 73 | 0.337      | 0.325 | 0.303 |
| 190 | 13  | 0.046      | 0.041 | 0.033 | 190 | 74 | 0.343      | 0.330 | 0.308 |
| 190 | 14  | 0.050      | 0.045 | 0.036 | 190 | 75 | 0.348      | 0.335 | 0.313 |
| 190 | 15  | 0.055      | 0.049 | 0.040 | 190 | 76 | 0.353      | 0.340 | 0.318 |
| 190 | 16  | 0.059      | 0.054 | 0.044 | 190 | 77 | 0.358      | 0.345 | 0.323 |
| 190 |     |            |       |       | 190 | 78 | 0.363      | 0.351 | 0.328 |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 190 | 74  | 0.368            | 0.356 | 0.332 | 190 | 137 | 0.675            | 0.663 | 0.639 |
| 190 | 80  | 0.373            | 0.361 | 0.338 | 190 | 138 | 0.681            | 0.668 | 0.644 |
| 190 | 81  | 0.378            | 0.366 | 0.343 | 190 | 139 | 0.686            | 0.674 | 0.650 |
| 190 | 82  | 0.384            | 0.371 | 0.348 | 190 | 140 | 0.692            | 0.679 | 0.655 |
| 190 | 83  | 0.389            | 0.376 | 0.353 | 190 | 141 | 0.697            | 0.685 | 0.661 |
| 190 | 84  | 0.394            | 0.381 | 0.358 | 190 | 142 | 0.702            | 0.690 | 0.667 |
| 190 | 85  | 0.399            | 0.386 | 0.363 | 190 | 143 | 0.708            | 0.696 | 0.672 |
| 190 | 86  | 0.404            | 0.391 | 0.368 | 190 | 144 | 0.713            | 0.701 | 0.676 |
| 190 | 87  | 0.409            | 0.397 | 0.373 | 190 | 145 | 0.719            | 0.707 | 0.684 |
| 190 | 88  | 0.415            | 0.402 | 0.378 | 190 | 146 | 0.725            | 0.712 | 0.689 |
| 190 | 89  | 0.420            | 0.407 | 0.383 | 190 | 147 | 0.730            | 0.718 | 0.695 |
| 190 | 90  | 0.425            | 0.412 | 0.388 | 190 | 148 | 0.736            | 0.724 | 0.701 |
| 190 | 91  | 0.430            | 0.417 | 0.393 | 190 | 149 | 0.741            | 0.729 | 0.707 |
| 190 | 92  | 0.435            | 0.422 | 0.398 | 190 | 150 | 0.747            | 0.735 | 0.712 |
| 190 | 93  | 0.441            | 0.428 | 0.403 | 190 | 151 | 0.752            | 0.741 | 0.718 |
| 190 | 94  | 0.446            | 0.433 | 0.409 | 190 | 152 | 0.758            | 0.746 | 0.724 |
| 190 | 95  | 0.451            | 0.438 | 0.414 | 190 | 153 | 0.763            | 0.752 | 0.730 |
| 190 | 96  | 0.456            | 0.443 | 0.419 | 190 | 154 | 0.769            | 0.758 | 0.735 |
| 190 | 97  | 0.462            | 0.448 | 0.424 | 190 | 155 | 0.775            | 0.763 | 0.741 |
| 190 | 98  | 0.467            | 0.454 | 0.429 | 190 | 156 | 0.780            | 0.769 | 0.747 |
| 190 | 99  | 0.472            | 0.459 | 0.434 | 190 | 157 | 0.786            | 0.775 | 0.753 |
| 190 | 100 | 0.477            | 0.464 | 0.440 | 190 | 158 | 0.792            | 0.780 | 0.759 |
| 190 | 101 | 0.482            | 0.469 | 0.445 | 190 | 159 | 0.797            | 0.786 | 0.765 |
| 190 | 102 | 0.488            | 0.475 | 0.450 | 190 | 160 | 0.803            | 0.792 | 0.771 |
| 190 | 103 | 0.493            | 0.480 | 0.455 | 190 | 161 | 0.809            | 0.798 | 0.777 |
| 190 | 104 | 0.498            | 0.485 | 0.460 | 190 | 162 | 0.814            | 0.804 | 0.783 |
| 190 | 105 | 0.504            | 0.490 | 0.466 | 190 | 163 | 0.820            | 0.809 | 0.789 |
| 190 | 106 | 0.509            | 0.496 | 0.471 | 190 | 164 | 0.826            | 0.815 | 0.795 |
| 190 | 107 | 0.514            | 0.501 | 0.476 | 190 | 165 | 0.831            | 0.821 | 0.801 |
| 190 | 108 | 0.519            | 0.506 | 0.481 | 190 | 166 | 0.837            | 0.827 | 0.807 |
| 190 | 109 | 0.525            | 0.511 | 0.487 | 190 | 167 | 0.843            | 0.833 | 0.813 |
| 190 | 110 | 0.530            | 0.517 | 0.492 | 190 | 168 | 0.849            | 0.839 | 0.819 |
| 190 | 111 | 0.535            | 0.522 | 0.497 | 190 | 169 | 0.854            | 0.845 | 0.826 |
| 190 | 112 | 0.541            | 0.527 | 0.503 | 190 | 170 | 0.860            | 0.851 | 0.832 |
| 190 | 113 | 0.546            | 0.533 | 0.508 | 190 | 171 | 0.866            | 0.857 | 0.838 |
| 190 | 114 | 0.551            | 0.538 | 0.513 | 190 | 172 | 0.872            | 0.863 | 0.844 |
| 190 | 115 | 0.557            | 0.543 | 0.519 | 190 | 173 | 0.878            | 0.869 | 0.851 |
| 190 | 116 | 0.562            | 0.549 | 0.524 | 190 | 174 | 0.884            | 0.875 | 0.857 |
| 190 | 117 | 0.567            | 0.554 | 0.529 | 190 | 175 | 0.890            | 0.881 | 0.864 |
| 190 | 118 | 0.573            | 0.559 | 0.535 | 190 | 176 | 0.896            | 0.887 | 0.870 |
| 190 | 119 | 0.578            | 0.565 | 0.540 | 190 | 177 | 0.902            | 0.893 | 0.877 |
| 190 | 120 | 0.583            | 0.570 | 0.545 | 190 | 178 | 0.908            | 0.900 | 0.883 |
| 190 | 121 | 0.589            | 0.576 | 0.551 | 190 | 179 | 0.914            | 0.906 | 0.890 |
| 190 | 122 | 0.594            | 0.581 | 0.556 | 190 | 180 | 0.920            | 0.912 | 0.897 |
| 190 | 123 | 0.599            | 0.586 | 0.562 | 190 | 181 | 0.926            | 0.919 | 0.904 |
| 190 | 124 | 0.605            | 0.592 | 0.567 | 190 | 182 | 0.933            | 0.925 | 0.911 |
| 190 | 125 | 0.610            | 0.597 | 0.573 | 190 | 183 | 0.939            | 0.932 | 0.918 |
| 190 | 126 | 0.615            | 0.602 | 0.578 | 190 | 184 | 0.945            | 0.939 | 0.925 |
| 190 | 127 | 0.621            | 0.608 | 0.583 | 190 | 185 | 0.952            | 0.945 | 0.932 |
| 190 | 128 | 0.626            | 0.613 | 0.589 | 190 | 186 | 0.958            | 0.952 | 0.940 |
| 190 | 129 | 0.632            | 0.619 | 0.594 | 190 | 187 | 0.965            | 0.960 | 0.948 |
| 190 | 130 | 0.637            | 0.624 | 0.600 | 190 | 188 | 0.972            | 0.967 | 0.956 |
| 190 | 131 | 0.642            | 0.630 | 0.605 | 190 | 189 | 0.980            | 0.975 | 0.966 |
| 190 | 132 | 0.648            | 0.635 | 0.611 | 190 | 190 | 0.988            | 0.984 | 0.976 |
| 190 | 133 | 0.653            | 0.641 | 0.616 | 195 | 0   | 0.000            | 0.000 | 0.000 |
| 190 | 134 | 0.659            | 0.646 | 0.622 | 195 | 1   | 0.001            | 0.000 | 0.000 |
| 190 | 135 | 0.664            | 0.652 | 0.627 | 195 | 2   | 0.003            | 0.002 | 0.001 |
| 190 | 136 | 0.670            | 0.657 | 0.633 | 195 | 3   | 0.006            | 0.004 | 0.002 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 195 | 4  | 0.009      | 0.007 | 0.004 | 195 | 65  | 0.289      | 0.277 | 0.256 |
| 195 | 5  | 0.013      | 0.010 | 0.007 | 195 | 66  | 0.294      | 0.282 | 0.261 |
| 195 | 6  | 0.016      | 0.013 | 0.009 | 195 | 67  | 0.299      | 0.287 | 0.266 |
| 195 | 7  | 0.020      | 0.017 | 0.012 | 195 | 68  | 0.304      | 0.292 | 0.271 |
| 195 | 8  | 0.024      | 0.021 | 0.015 | 195 | 69  | 0.309      | 0.297 | 0.275 |
| 195 | 9  | 0.028      | 0.024 | 0.018 | 195 | 70  | 0.314      | 0.302 | 0.280 |
| 195 | 10 | 0.032      | 0.028 | 0.021 | 195 | 71  | 0.319      | 0.307 | 0.285 |
| 195 | 11 | 0.036      | 0.032 | 0.025 | 195 | 72  | 0.324      | 0.312 | 0.290 |
| 195 | 12 | 0.040      | 0.036 | 0.028 | 195 | 73  | 0.329      | 0.317 | 0.294 |
| 195 | 13 | 0.045      | 0.040 | 0.032 | 195 | 74  | 0.333      | 0.321 | 0.299 |
| 195 | 14 | 0.049      | 0.044 | 0.035 | 195 | 75  | 0.338      | 0.326 | 0.304 |
| 195 | 15 | 0.053      | 0.048 | 0.039 | 195 | 76  | 0.343      | 0.331 | 0.309 |
| 195 | 16 | 0.058      | 0.052 | 0.043 | 195 | 77  | 0.348      | 0.336 | 0.314 |
| 195 | 17 | 0.062      | 0.056 | 0.046 | 195 | 78  | 0.353      | 0.341 | 0.319 |
| 195 | 18 | 0.066      | 0.061 | 0.050 | 195 | 79  | 0.358      | 0.346 | 0.323 |
| 195 | 19 | 0.071      | 0.065 | 0.054 | 195 | 80  | 0.363      | 0.351 | 0.328 |
| 195 | 20 | 0.075      | 0.069 | 0.058 | 195 | 81  | 0.368      | 0.356 | 0.333 |
| 195 | 21 | 0.080      | 0.073 | 0.062 | 195 | 82  | 0.373      | 0.361 | 0.338 |
| 195 | 22 | 0.084      | 0.078 | 0.066 | 195 | 83  | 0.376      | 0.366 | 0.343 |
| 195 | 23 | 0.089      | 0.082 | 0.070 | 195 | 84  | 0.383      | 0.371 | 0.346 |
| 195 | 24 | 0.093      | 0.086 | 0.074 | 195 | 85  | 0.388      | 0.376 | 0.353 |
| 195 | 25 | 0.098      | 0.091 | 0.078 | 195 | 86  | 0.394      | 0.381 | 0.358 |
| 195 | 26 | 0.103      | 0.095 | 0.082 | 195 | 87  | 0.399      | 0.386 | 0.363 |
| 195 | 27 | 0.107      | 0.100 | 0.086 | 195 | 88  | 0.404      | 0.391 | 0.368 |
| 195 | 28 | 0.112      | 0.104 | 0.090 | 195 | 89  | 0.409      | 0.396 | 0.373 |
| 195 | 29 | 0.116      | 0.108 | 0.095 | 195 | 90  | 0.414      | 0.401 | 0.377 |
| 195 | 30 | 0.121      | 0.113 | 0.099 | 195 | 91  | 0.419      | 0.406 | 0.382 |
| 195 | 31 | 0.126      | 0.117 | 0.103 | 195 | 92  | 0.424      | 0.411 | 0.387 |
| 195 | 32 | 0.130      | 0.122 | 0.107 | 195 | 93  | 0.429      | 0.416 | 0.392 |
| 195 | 33 | 0.135      | 0.127 | 0.112 | 195 | 94  | 0.434      | 0.421 | 0.397 |
| 195 | 34 | 0.140      | 0.131 | 0.116 | 195 | 95  | 0.439      | 0.426 | 0.402 |
| 195 | 35 | 0.144      | 0.136 | 0.120 | 195 | 96  | 0.444      | 0.431 | 0.407 |
| 195 | 36 | 0.149      | 0.140 | 0.124 | 195 | 97  | 0.449      | 0.436 | 0.412 |
| 195 | 37 | 0.154      | 0.145 | 0.129 | 195 | 98  | 0.454      | 0.441 | 0.417 |
| 195 | 38 | 0.158      | 0.149 | 0.133 | 195 | 99  | 0.459      | 0.446 | 0.422 |
| 195 | 39 | 0.163      | 0.154 | 0.138 | 195 | 100 | 0.464      | 0.452 | 0.427 |
| 195 | 40 | 0.168      | 0.159 | 0.142 | 195 | 101 | 0.470      | 0.457 | 0.433 |
| 195 | 41 | 0.173      | 0.163 | 0.146 | 195 | 102 | 0.475      | 0.462 | 0.438 |
| 195 | 42 | 0.177      | 0.168 | 0.151 | 195 | 103 | 0.480      | 0.467 | 0.443 |
| 195 | 43 | 0.182      | 0.173 | 0.155 | 195 | 104 | 0.485      | 0.472 | 0.448 |
| 195 | 44 | 0.187      | 0.177 | 0.160 | 195 | 105 | 0.490      | 0.477 | 0.453 |
| 195 | 45 | 0.192      | 0.182 | 0.164 | 195 | 106 | 0.495      | 0.482 | 0.458 |
| 195 | 46 | 0.197      | 0.187 | 0.169 | 195 | 107 | 0.500      | 0.487 | 0.463 |
| 195 | 47 | 0.201      | 0.191 | 0.173 | 195 | 108 | 0.505      | 0.492 | 0.468 |
| 195 | 48 | 0.206      | 0.196 | 0.178 | 195 | 109 | 0.511      | 0.498 | 0.473 |
| 195 | 49 | 0.211      | 0.201 | 0.182 | 195 | 110 | 0.516      | 0.503 | 0.478 |
| 195 | 50 | 0.216      | 0.205 | 0.187 | 195 | 111 | 0.521      | 0.508 | 0.483 |
| 195 | 51 | 0.221      | 0.210 | 0.191 | 195 | 112 | 0.526      | 0.513 | 0.489 |
| 195 | 52 | 0.225      | 0.215 | 0.196 | 195 | 113 | 0.531      | 0.518 | 0.494 |
| 195 | 53 | 0.230      | 0.220 | 0.200 | 195 | 114 | 0.536      | 0.523 | 0.499 |
| 195 | 54 | 0.235      | 0.224 | 0.205 | 195 | 115 | 0.542      | 0.529 | 0.504 |
| 195 | 55 | 0.240      | 0.229 | 0.210 | 195 | 116 | 0.547      | 0.534 | 0.509 |
| 195 | 56 | 0.245      | 0.234 | 0.214 | 195 | 117 | 0.552      | 0.539 | 0.514 |
| 195 | 57 | 0.250      | 0.239 | 0.219 | 195 | 118 | 0.557      | 0.544 | 0.520 |
| 195 | 58 | 0.255      | 0.244 | 0.224 | 195 | 119 | 0.562      | 0.549 | 0.525 |
| 195 | 59 | 0.260      | 0.248 | 0.228 | 195 | 120 | 0.567      | 0.554 | 0.530 |
| 195 | 60 | 0.264      | 0.253 | 0.233 | 195 | 121 | 0.573      | 0.560 | 0.535 |
| 195 | 61 | 0.269      | 0.258 | 0.238 | 195 | 122 | 0.578      | 0.565 | 0.541 |
| 195 | 62 | 0.274      | 0.263 | 0.242 | 195 | 123 | 0.583      | 0.570 | 0.546 |
| 195 | 63 | 0.279      | 0.268 | 0.247 | 195 | 124 | 0.588      | 0.575 | 0.551 |
| 195 | 64 | 0.284      | 0.273 | 0.252 | 195 | 125 | 0.593      | 0.581 | 0.556 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 195 | 126 | 0.599            | 0.586 | 0.562 | 195 | 182 | 0.904            | 0.896 | 0.880 |
| 195 | 127 | 0.604            | 0.591 | 0.567 | 195 | 183 | 0.910            | 0.902 | 0.886 |
| 195 | 128 | 0.609            | 0.596 | 0.572 | 195 | 184 | 0.916            | 0.908 | 0.893 |
| 195 | 129 | 0.614            | 0.602 | 0.577 |     |     |                  |       |       |
| 195 | 130 | 0.620            | 0.607 | 0.583 | 195 | 185 | 0.922            | 0.915 | 0.899 |
| 195 | 131 | 0.625            | 0.612 | 0.588 | 195 | 186 | 0.928            | 0.921 | 0.906 |
| 195 | 132 | 0.630            | 0.618 | 0.593 | 195 | 187 | 0.934            | 0.927 | 0.913 |
| 195 | 133 | 0.635            | 0.623 | 0.599 | 195 | 188 | 0.940            | 0.934 | 0.920 |
| 195 | 134 | 0.641            | 0.628 | 0.604 | 195 | 189 | 0.947            | 0.940 | 0.927 |
| 195 | 135 | 0.646            | 0.633 | 0.609 | 195 | 190 | 0.953            | 0.947 | 0.934 |
| 195 | 136 | 0.651            | 0.639 | 0.615 | 195 | 191 | 0.959            | 0.954 | 0.942 |
| 195 | 137 | 0.657            | 0.644 | 0.620 | 195 | 192 | 0.966            | 0.961 | 0.949 |
| 195 | 138 | 0.662            | 0.649 | 0.626 | 195 | 193 | 0.973            | 0.968 | 0.958 |
| 195 | 139 | 0.667            | 0.655 | 0.631 | 195 | 194 | 0.980            | 0.976 | 0.966 |
| 195 | 140 | 0.673            | 0.660 | 0.636 | 195 | 195 | 0.988            | 0.985 | 0.977 |
| 195 | 141 | 0.678            | 0.665 | 0.642 |     |     |                  |       |       |
| 195 | 142 | 0.683            | 0.671 | 0.647 |     |     |                  |       |       |
| 195 | 143 | 0.688            | 0.676 | 0.653 |     |     |                  |       |       |
| 195 | 144 | 0.694            | 0.682 | 0.658 |     |     |                  |       |       |
| 195 | 145 | 0.699            | 0.687 | 0.664 |     |     |                  |       |       |
| 195 | 146 | 0.705            | 0.692 | 0.669 |     |     |                  |       |       |
| 195 | 147 | 0.710            | 0.698 | 0.675 |     |     |                  |       |       |
| 195 | 148 | 0.715            | 0.703 | 0.680 |     |     |                  |       |       |
| 195 | 149 | 0.721            | 0.709 | 0.686 |     |     |                  |       |       |
| 195 | 150 | 0.726            | 0.714 | 0.691 |     |     |                  |       |       |
| 195 | 151 | 0.731            | 0.720 | 0.697 |     |     |                  |       |       |
| 195 | 152 | 0.737            | 0.725 | 0.702 |     |     |                  |       |       |
| 195 | 153 | 0.742            | 0.731 | 0.708 |     |     |                  |       |       |
| 195 | 154 | 0.748            | 0.736 | 0.714 |     |     |                  |       |       |
| 195 | 155 | 0.753            | 0.742 | 0.719 |     |     |                  |       |       |
| 195 | 156 | 0.758            | 0.747 | 0.725 |     |     |                  |       |       |
| 195 | 157 | 0.764            | 0.753 | 0.731 |     |     |                  |       |       |
| 195 | 158 | 0.769            | 0.758 | 0.736 |     |     |                  |       |       |
| 195 | 159 | 0.775            | 0.764 | 0.742 |     |     |                  |       |       |
| 195 | 160 | 0.780            | 0.769 | 0.748 |     |     |                  |       |       |
| 195 | 161 | 0.786            | 0.775 | 0.753 |     |     |                  |       |       |
| 195 | 162 | 0.791            | 0.780 | 0.759 |     |     |                  |       |       |
| 195 | 163 | 0.797            | 0.786 | 0.765 |     |     |                  |       |       |
| 195 | 164 | 0.802            | 0.792 | 0.771 |     |     |                  |       |       |
| 195 | 165 | 0.808            | 0.797 | 0.776 |     |     |                  |       |       |
| 195 | 166 | 0.813            | 0.803 | 0.782 |     |     |                  |       |       |
| 195 | 167 | 0.819            | 0.808 | 0.788 |     |     |                  |       |       |
| 195 | 168 | 0.824            | 0.814 | 0.794 |     |     |                  |       |       |
| 195 | 169 | 0.830            | 0.820 | 0.800 |     |     |                  |       |       |
| 195 | 170 | 0.836            | 0.826 | 0.806 |     |     |                  |       |       |
| 195 | 171 | 0.841            | 0.831 | 0.812 |     |     |                  |       |       |
| 195 | 172 | 0.847            | 0.837 | 0.818 |     |     |                  |       |       |
| 195 | 173 | 0.853            | 0.843 | 0.824 |     |     |                  |       |       |
| 195 | 174 | 0.858            | 0.849 | 0.830 |     |     |                  |       |       |
| 195 | 175 | 0.864            | 0.854 | 0.836 |     |     |                  |       |       |
| 195 | 176 | 0.870            | 0.860 | 0.842 |     |     |                  |       |       |
| 195 | 177 | 0.875            | 0.866 | 0.848 |     |     |                  |       |       |
| 195 | 178 | 0.881            | 0.872 | 0.854 |     |     |                  |       |       |
| 195 | 179 | 0.887            | 0.878 | 0.861 |     |     |                  |       |       |
| 195 | 180 | 0.893            | 0.884 | 0.867 |     |     |                  |       |       |
| 195 | 181 | 0.898            | 0.890 | 0.873 |     |     |                  |       |       |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |    | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 200 | 0  | 0.0000           | 0.0000 | 0.0000 | 200 | 60  | 0.2576           | 0.2467 | 0.2268 |
| 200 | 1  | 0.0005           | 0.0003 | 0.0001 | 200 | 61  | 0.2624           | 0.2514 | 0.2313 |
| 200 | 2  | 0.0027           | 0.0018 | 0.0007 | 200 | 62  | 0.2672           | 0.2561 | 0.2359 |
| 200 | 3  | 0.0055           | 0.0041 | 0.0022 | 200 | 63  | 0.2719           | 0.2608 | 0.2405 |
| 200 | 4  | 0.0088           | 0.0069 | 0.0041 | 200 | 64  | 0.2767           | 0.2655 | 0.2450 |
| 200 | 5  | 0.0122           | 0.0099 | 0.0064 | 200 | 65  | 0.2815           | 0.2703 | 0.2496 |
| 200 | 6  | 0.0158           | 0.0131 | 0.0090 | 200 | 66  | 0.2863           | 0.2750 | 0.2542 |
| 200 | 7  | 0.0196           | 0.0165 | 0.0118 | 200 | 67  | 0.2911           | 0.2797 | 0.2589 |
| 200 | 8  | 0.0234           | 0.0201 | 0.0147 | 200 | 68  | 0.2959           | 0.2845 | 0.2635 |
| 200 | 9  | 0.0273           | 0.0237 | 0.0177 | 200 | 69  | 0.3007           | 0.2892 | 0.2681 |
| 200 | 10 | 0.0313           | 0.0274 | 0.0209 | 200 | 70  | 0.3056           | 0.2940 | 0.2727 |
| 200 | 11 | 0.0354           | 0.0311 | 0.0242 | 200 | 71  | 0.3104           | 0.2987 | 0.2774 |
| 200 | 12 | 0.0395           | 0.0350 | 0.0275 | 200 | 72  | 0.3152           | 0.3035 | 0.2820 |
| 200 | 13 | 0.0436           | 0.0389 | 0.0310 | 200 | 73  | 0.3200           | 0.3083 | 0.2867 |
| 200 | 14 | 0.0478           | 0.0428 | 0.0345 | 200 | 74  | 0.3249           | 0.3131 | 0.2914 |
| 200 | 15 | 0.0520           | 0.0468 | 0.0380 | 200 | 75  | 0.3297           | 0.3179 | 0.2961 |
| 200 | 16 | 0.0562           | 0.0508 | 0.0416 | 200 | 76  | 0.3346           | 0.3227 | 0.3008 |
| 200 | 17 | 0.0605           | 0.0549 | 0.0453 | 200 | 77  | 0.3394           | 0.3275 | 0.3055 |
| 200 | 18 | 0.0648           | 0.0590 | 0.0490 | 200 | 78  | 0.3443           | 0.3323 | 0.3102 |
| 200 | 19 | 0.0691           | 0.0631 | 0.0528 | 200 | 79  | 0.3492           | 0.3371 | 0.3149 |
| 200 | 20 | 0.0735           | 0.0673 | 0.0566 | 200 | 80  | 0.3540           | 0.3419 | 0.3196 |
| 200 | 21 | 0.0778           | 0.0714 | 0.0604 | 200 | 81  | 0.3589           | 0.3467 | 0.3243 |
| 200 | 22 | 0.0822           | 0.0756 | 0.0642 | 200 | 82  | 0.3638           | 0.3516 | 0.3291 |
| 200 | 23 | 0.0866           | 0.0799 | 0.0682 | 200 | 83  | 0.3687           | 0.3564 | 0.3339 |
| 200 | 24 | 0.0911           | 0.0841 | 0.0721 | 200 | 84  | 0.3735           | 0.3613 | 0.3386 |
| 200 | 25 | 0.0955           | 0.0884 | 0.0761 | 200 | 85  | 0.3784           | 0.3661 | 0.3434 |
| 200 | 26 | 0.1000           | 0.0927 | 0.0800 | 200 | 86  | 0.3833           | 0.3710 | 0.3482 |
| 200 | 27 | 0.1044           | 0.0970 | 0.0841 | 200 | 87  | 0.3882           | 0.3759 | 0.3530 |
| 200 | 28 | 0.1089           | 0.1014 | 0.0881 | 200 | 88  | 0.3931           | 0.3807 | 0.3576 |
| 200 | 29 | 0.1134           | 0.1057 | 0.0922 | 200 | 89  | 0.3980           | 0.3856 | 0.3626 |
| 200 | 30 | 0.1179           | 0.1101 | 0.0963 | 200 | 90  | 0.4030           | 0.3905 | 0.3674 |
| 200 | 31 | 0.1224           | 0.1145 | 0.1004 | 200 | 91  | 0.4079           | 0.3954 | 0.3722 |
| 200 | 32 | 0.1270           | 0.1189 | 0.1045 | 200 | 92  | 0.4128           | 0.4003 | 0.3770 |
| 200 | 33 | 0.1315           | 0.1233 | 0.1087 | 200 | 93  | 0.4177           | 0.4052 | 0.3819 |
| 200 | 34 | 0.1361           | 0.1277 | 0.1128 | 200 | 94  | 0.4227           | 0.4101 | 0.3867 |
| 200 | 35 | 0.1406           | 0.1321 | 0.1170 | 200 | 95  | 0.4276           | 0.4150 | 0.3916 |
| 200 | 36 | 0.1452           | 0.1366 | 0.1212 | 200 | 96  | 0.4325           | 0.4199 | 0.3964 |
| 200 | 37 | 0.1498           | 0.1411 | 0.1255 | 200 | 97  | 0.4375           | 0.4248 | 0.4013 |
| 200 | 38 | 0.1544           | 0.1456 | 0.1297 | 200 | 98  | 0.4424           | 0.4298 | 0.4062 |
| 200 | 39 | 0.1590           | 0.1500 | 0.1340 | 200 | 99  | 0.4474           | 0.4347 | 0.4111 |
| 200 | 40 | 0.1637           | 0.1545 | 0.1383 | 200 | 100 | 0.4524           | 0.4396 | 0.4159 |
| 200 | 41 | 0.1683           | 0.1591 | 0.1426 | 200 | 101 | 0.4573           | 0.4446 | 0.4209 |
| 200 | 42 | 0.1729           | 0.1636 | 0.1469 | 200 | 102 | 0.4623           | 0.4495 | 0.4258 |
| 200 | 43 | 0.1776           | 0.1681 | 0.1512 | 200 | 103 | 0.4673           | 0.4545 | 0.4307 |
| 200 | 44 | 0.1822           | 0.1727 | 0.1556 | 200 | 104 | 0.4722           | 0.4595 | 0.4356 |
| 200 | 45 | 0.1869           | 0.1772 | 0.1599 | 200 | 105 | 0.4772           | 0.4644 | 0.4405 |
| 200 | 46 | 0.1915           | 0.1818 | 0.1643 | 200 | 106 | 0.4822           | 0.4694 | 0.4455 |
| 200 | 47 | 0.1962           | 0.1864 | 0.1687 | 200 | 107 | 0.4872           | 0.4744 | 0.4504 |
| 200 | 48 | 0.2009           | 0.1910 | 0.1731 | 200 | 108 | 0.4922           | 0.4794 | 0.4554 |
| 200 | 49 | 0.2056           | 0.1956 | 0.1775 | 200 | 109 | 0.4972           | 0.4844 | 0.4604 |
| 200 | 50 | 0.2103           | 0.2002 | 0.1819 | 200 | 110 | 0.5022           | 0.4894 | 0.4653 |
| 200 | 51 | 0.2150           | 0.2048 | 0.1863 | 200 | 111 | 0.5072           | 0.4944 | 0.4703 |
| 200 | 52 | 0.2197           | 0.2094 | 0.1908 | 200 | 112 | 0.5122           | 0.4994 | 0.4753 |
| 200 | 53 | 0.2244           | 0.2140 | 0.1952 | 200 | 113 | 0.5173           | 0.5044 | 0.4803 |
| 200 | 54 | 0.2291           | 0.2187 | 0.1997 | 200 | 114 | 0.5223           | 0.5094 | 0.4853 |
| 200 | 55 | 0.2339           | 0.2233 | 0.2042 | 200 | 115 | 0.5273           | 0.5145 | 0.4903 |
| 200 | 56 | 0.2386           | 0.2280 | 0.2087 | 200 | 116 | 0.5323           | 0.5195 | 0.4954 |
| 200 | 57 | 0.2434           | 0.2327 | 0.2132 | 200 | 117 | 0.5374           | 0.5245 | 0.5004 |
| 200 | 58 | 0.2481           | 0.2373 | 0.2177 | 200 | 118 | 0.5424           | 0.5296 | 0.5054 |
| 200 | 59 | 0.2529           | 0.2420 | 0.2222 | 200 | 119 | 0.5475           | 0.5346 | 0.5105 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 200 | 120 | 0.5525           | 0.5397 | 0.5156 | 200 | 175 | 0.8397           | 0.8298 | 0.8105 |
| 200 | 121 | 0.5576           | 0.5447 | 0.5206 | 200 | 176 | 0.8451           | 0.8354 | 0.8164 |
| 200 | 122 | 0.5626           | 0.5498 | 0.5257 | 200 | 177 | 0.8506           | 0.8410 | 0.8222 |
| 200 | 123 | 0.5677           | 0.5549 | 0.5308 | 200 | 178 | 0.8561           | 0.8467 | 0.8281 |
| 200 | 124 | 0.5728           | 0.5600 | 0.5359 | 200 | 179 | 0.8616           | 0.8523 | 0.8340 |
| 200 | 125 | 0.5778           | 0.5651 | 0.5410 | 200 | 180 | 0.8672           | 0.8580 | 0.8399 |
| 200 | 126 | 0.5829           | 0.5702 | 0.5461 | 200 | 181 | 0.8727           | 0.8637 | 0.8459 |
| 200 | 127 | 0.5880           | 0.5753 | 0.5512 | 200 | 182 | 0.8783           | 0.8695 | 0.8519 |
| 200 | 128 | 0.5931           | 0.5804 | 0.5563 | 200 | 183 | 0.8839           | 0.8752 | 0.8580 |
| 200 | 129 | 0.5982           | 0.5855 | 0.5615 | 200 | 184 | 0.8896           | 0.8810 | 0.8641 |
| 200 | 130 | 0.6033           | 0.5906 | 0.5666 | 200 | 185 | 0.8952           | 0.8869 | 0.8702 |
| 200 | 131 | 0.6084           | 0.5957 | 0.5718 | 200 | 186 | 0.9009           | 0.8927 | 0.8764 |
| 200 | 132 | 0.6135           | 0.6009 | 0.5770 | 200 | 187 | 0.9066           | 0.8986 | 0.8827 |
| 200 | 133 | 0.6186           | 0.6060 | 0.5821 | 200 | 188 | 0.9124           | 0.9046 | 0.8890 |
| 200 | 134 | 0.6237           | 0.6112 | 0.5873 | 200 | 189 | 0.9182           | 0.9106 | 0.8954 |
| 200 | 135 | 0.6289           | 0.6163 | 0.5925 | 200 | 190 | 0.9240           | 0.9167 | 0.9018 |
| 200 | 136 | 0.6340           | 0.6215 | 0.5977 | 200 | 191 | 0.9299           | 0.9228 | 0.9084 |
| 200 | 137 | 0.6391           | 0.6267 | 0.6029 | 200 | 192 | 0.9358           | 0.9290 | 0.9150 |
| 200 | 138 | 0.6443           | 0.6318 | 0.6081 | 200 | 193 | 0.9418           | 0.9353 | 0.9218 |
| 200 | 139 | 0.6494           | 0.6370 | 0.6134 | 200 | 194 | 0.9479           | 0.9417 | 0.9287 |
| 200 | 140 | 0.6546           | 0.6422 | 0.6186 | 200 | 195 | 0.9541           | 0.9482 | 0.9358 |
| 200 | 141 | 0.6598           | 0.6474 | 0.6239 | 200 | 196 | 0.9604           | 0.9548 | 0.9431 |
| 200 | 142 | 0.6649           | 0.6526 | 0.6292 | 200 | 197 | 0.9669           | 0.9617 | 0.9507 |
| 200 | 143 | 0.6701           | 0.6578 | 0.6344 | 200 | 198 | 0.9736           | 0.9689 | 0.9586 |
| 200 | 144 | 0.6753           | 0.6630 | 0.6397 | 200 | 199 | 0.9807           | 0.9765 | 0.9673 |
| 200 | 145 | 0.6805           | 0.6683 | 0.6450 | 200 | 200 | 0.9886           | 0.9851 | 0.9772 |
| 200 | 146 | 0.6856           | 0.6735 | 0.6503 |     |     |                  |        |        |
| 200 | 147 | 0.6908           | 0.6787 | 0.6556 |     |     |                  |        |        |
| 200 | 148 | 0.6961           | 0.6840 | 0.6610 |     |     |                  |        |        |
| 200 | 149 | 0.7013           | 0.6893 | 0.6663 |     |     |                  |        |        |
| 200 | 150 | 0.7065           | 0.6945 | 0.6717 |     |     |                  |        |        |
| 200 | 151 | 0.7117           | 0.6998 | 0.6771 |     |     |                  |        |        |
| 200 | 152 | 0.7169           | 0.7051 | 0.6824 |     |     |                  |        |        |
| 200 | 153 | 0.7222           | 0.7104 | 0.6878 |     |     |                  |        |        |
| 200 | 154 | 0.7274           | 0.7157 | 0.6932 |     |     |                  |        |        |
| 200 | 155 | 0.7327           | 0.7210 | 0.6987 |     |     |                  |        |        |
| 200 | 156 | 0.7379           | 0.7263 | 0.7041 |     |     |                  |        |        |
| 200 | 157 | 0.7432           | 0.7317 | 0.7095 |     |     |                  |        |        |
| 200 | 158 | 0.7485           | 0.7370 | 0.7150 |     |     |                  |        |        |
| 200 | 159 | 0.7538           | 0.7424 | 0.7205 |     |     |                  |        |        |
| 200 | 160 | 0.7590           | 0.7477 | 0.7260 |     |     |                  |        |        |
| 200 | 161 | 0.7644           | 0.7531 | 0.7315 |     |     |                  |        |        |
| 200 | 162 | 0.7697           | 0.7585 | 0.7370 |     |     |                  |        |        |
| 200 | 163 | 0.7750           | 0.7639 | 0.7425 |     |     |                  |        |        |
| 200 | 164 | 0.7803           | 0.7693 | 0.7481 |     |     |                  |        |        |
| 200 | 165 | 0.7857           | 0.7748 | 0.7537 |     |     |                  |        |        |
| 200 | 166 | 0.7910           | 0.7802 | 0.7593 |     |     |                  |        |        |
| 200 | 167 | 0.7963           | 0.7857 | 0.7649 |     |     |                  |        |        |
| 200 | 168 | 0.8017           | 0.7911 | 0.7705 |     |     |                  |        |        |
| 200 | 169 | 0.8071           | 0.7966 | 0.7762 |     |     |                  |        |        |
| 200 | 170 | 0.8125           | 0.8021 | 0.7818 |     |     |                  |        |        |
| 200 | 171 | 0.8179           | 0.8076 | 0.7875 |     |     |                  |        |        |
| 200 | 172 | 0.8233           | 0.8131 | 0.7933 |     |     |                  |        |        |
| 200 | 173 | 0.8287           | 0.8187 | 0.7990 |     |     |                  |        |        |
| 200 | 174 | 0.8342           | 0.8242 | 0.8048 |     |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |    | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 0  | 0.0000           | 0.0000 | 0.0000 | 500 | 54  | 0.0904           | 0.0859 | 0.0779 |
| 500 | 1  | 0.0002           | 0.0001 | 0.0000 | 500 | 55  | 0.0923           | 0.0877 | 0.0797 |
| 500 | 2  | 0.0011           | 0.0007 | 0.0003 | 500 | 56  | 0.0941           | 0.0896 | 0.0814 |
| 500 | 3  | 0.0022           | 0.0016 | 0.0009 | 500 | 57  | 0.0960           | 0.0914 | 0.0831 |
| 500 | 4  | 0.0035           | 0.0027 | 0.0017 | 500 | 58  | 0.0978           | 0.0932 | 0.0849 |
| 500 | 5  | 0.0049           | 0.0039 | 0.0026 | 500 | 59  | 0.0997           | 0.0950 | 0.0866 |
| 500 | 6  | 0.0063           | 0.0052 | 0.0036 | 500 | 60  | 0.1015           | 0.0968 | 0.0883 |
| 500 | 7  | 0.0078           | 0.0066 | 0.0047 | 500 | 61  | 0.1034           | 0.0986 | 0.0901 |
| 500 | 8  | 0.0093           | 0.0080 | 0.0058 | 500 | 62  | 0.1053           | 0.1005 | 0.0918 |
| 500 | 9  | 0.0109           | 0.0094 | 0.0070 | 500 | 63  | 0.1071           | 0.1023 | 0.0936 |
| 500 | 10 | 0.0125           | 0.0109 | 0.0083 | 500 | 64  | 0.1090           | 0.1041 | 0.0953 |
| 500 | 11 | 0.0141           | 0.0124 | 0.0096 | 500 | 65  | 0.1108           | 0.1059 | 0.0971 |
| 500 | 12 | 0.0157           | 0.0139 | 0.0109 | 500 | 66  | 0.1127           | 0.1078 | 0.0988 |
| 500 | 13 | 0.0174           | 0.0154 | 0.0123 | 500 | 67  | 0.1146           | 0.1096 | 0.1006 |
| 500 | 14 | 0.0190           | 0.0170 | 0.0137 | 500 | 68  | 0.1165           | 0.1114 | 0.1024 |
| 500 | 15 | 0.0207           | 0.0186 | 0.0151 | 500 | 69  | 0.1183           | 0.1133 | 0.1041 |
| 500 | 16 | 0.0224           | 0.0202 | 0.0165 | 500 | 70  | 0.1202           | 0.1151 | 0.1059 |
| 500 | 17 | 0.0241           | 0.0218 | 0.0179 | 500 | 71  | 0.1221           | 0.1170 | 0.1077 |
| 500 | 18 | 0.0258           | 0.0234 | 0.0194 | 500 | 72  | 0.1240           | 0.1188 | 0.1094 |
| 500 | 19 | 0.0275           | 0.0250 | 0.0209 | 500 | 73  | 0.1258           | 0.1206 | 0.1112 |
| 500 | 20 | 0.0292           | 0.0267 | 0.0223 | 500 | 74  | 0.1277           | 0.1225 | 0.1130 |
| 500 | 21 | 0.0309           | 0.0283 | 0.0238 | 500 | 75  | 0.1296           | 0.1243 | 0.1148 |
| 500 | 22 | 0.0326           | 0.0300 | 0.0254 | 500 | 76  | 0.1315           | 0.1262 | 0.1166 |
| 500 | 23 | 0.0344           | 0.0316 | 0.0269 | 500 | 77  | 0.1334           | 0.1280 | 0.1183 |
| 500 | 24 | 0.0361           | 0.0333 | 0.0284 | 500 | 78  | 0.1353           | 0.1299 | 0.1201 |
| 500 | 25 | 0.0379           | 0.0350 | 0.0300 | 500 | 79  | 0.1371           | 0.1317 | 0.1219 |
| 500 | 26 | 0.0396           | 0.0367 | 0.0315 | 500 | 80  | 0.1390           | 0.1336 | 0.1237 |
| 500 | 27 | 0.0414           | 0.0384 | 0.0331 | 500 | 81  | 0.1409           | 0.1354 | 0.1255 |
| 500 | 28 | 0.0432           | 0.0401 | 0.0347 | 500 | 82  | 0.1428           | 0.1373 | 0.1273 |
| 500 | 29 | 0.0450           | 0.0418 | 0.0363 | 500 | 83  | 0.1447           | 0.1392 | 0.1291 |
| 500 | 30 | 0.0467           | 0.0435 | 0.0379 | 500 | 84  | 0.1466           | 0.1410 | 0.1309 |
| 500 | 31 | 0.0485           | 0.0452 | 0.0395 | 500 | 85  | 0.1485           | 0.1429 | 0.1327 |
| 500 | 32 | 0.0503           | 0.0470 | 0.0411 | 500 | 86  | 0.1504           | 0.1447 | 0.1345 |
| 500 | 33 | 0.0521           | 0.0487 | 0.0427 | 500 | 87  | 0.1523           | 0.1466 | 0.1363 |
| 500 | 34 | 0.0539           | 0.0504 | 0.0443 | 500 | 88  | 0.1542           | 0.1485 | 0.1381 |
| 500 | 35 | 0.0557           | 0.0522 | 0.0460 | 500 | 89  | 0.1561           | 0.1503 | 0.1399 |
| 500 | 36 | 0.0575           | 0.0539 | 0.0476 | 500 | 90  | 0.1580           | 0.1522 | 0.1417 |
| 500 | 37 | 0.0593           | 0.0557 | 0.0492 | 500 | 91  | 0.1599           | 0.1541 | 0.1435 |
| 500 | 38 | 0.0611           | 0.0574 | 0.0509 | 500 | 92  | 0.1618           | 0.1559 | 0.1453 |
| 500 | 39 | 0.0629           | 0.0592 | 0.0526 | 500 | 93  | 0.1637           | 0.1578 | 0.1472 |
| 500 | 40 | 0.0647           | 0.0609 | 0.0542 | 500 | 94  | 0.1656           | 0.1597 | 0.1490 |
| 500 | 41 | 0.0665           | 0.0627 | 0.0559 | 500 | 95  | 0.1675           | 0.1616 | 0.1508 |
| 500 | 42 | 0.0684           | 0.0645 | 0.0576 | 500 | 96  | 0.1694           | 0.1634 | 0.1526 |
| 500 | 43 | 0.0702           | 0.0662 | 0.0592 | 500 | 97  | 0.1713           | 0.1653 | 0.1544 |
| 500 | 44 | 0.0720           | 0.0680 | 0.0609 | 500 | 98  | 0.1732           | 0.1672 | 0.1563 |
| 500 | 45 | 0.0738           | 0.0698 | 0.0626 | 500 | 99  | 0.1751           | 0.1691 | 0.1581 |
| 500 | 46 | 0.0757           | 0.0716 | 0.0643 | 500 | 100 | 0.1770           | 0.1710 | 0.1599 |
| 500 | 47 | 0.0775           | 0.0734 | 0.0660 | 500 | 101 | 0.1789           | 0.1728 | 0.1618 |
| 500 | 48 | 0.0793           | 0.0752 | 0.0677 | 500 | 102 | 0.1808           | 0.1747 | 0.1636 |
| 500 | 49 | 0.0812           | 0.0769 | 0.0694 | 500 | 103 | 0.1827           | 0.1766 | 0.1654 |
| 500 | 50 | 0.0830           | 0.0787 | 0.0711 | 500 | 104 | 0.1846           | 0.1785 | 0.1672 |
| 500 | 51 | 0.0849           | 0.0805 | 0.0728 | 500 | 105 | 0.1865           | 0.1804 | 0.1691 |
| 500 | 52 | 0.0867           | 0.0823 | 0.0745 | 500 | 106 | 0.1885           | 0.1823 | 0.1709 |
| 500 | 53 | 0.0886           | 0.0841 | 0.0762 |     |     |                  |        |        |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 107 | 0.1904           | 0.1842 | 0.1728 | 500 | 161 | 0.2948           | 0.2875 | 0.2740 |
| 500 | 108 | 0.1923           | 0.1860 | 0.1746 | 500 | 162 | 0.2967           | 0.2894 | 0.2759 |
| 500 | 109 | 0.1942           | 0.1879 | 0.1764 | 500 | 163 | 0.2987           | 0.2914 | 0.2778 |
| 500 | 110 | 0.1961           | 0.1898 | 0.1783 | 500 | 164 | 0.3006           | 0.2933 | 0.2797 |
| 500 | 111 | 0.1980           | 0.1917 | 0.1801 | 500 | 165 | 0.3026           | 0.2952 | 0.2816 |
| 500 | 112 | 0.2000           | 0.1936 | 0.1820 | 500 | 166 | 0.3045           | 0.2972 | 0.2835 |
| 500 | 113 | 0.2019           | 0.1955 | 0.1838 | 500 | 167 | 0.3065           | 0.2991 | 0.2854 |
| 500 | 114 | 0.2038           | 0.1974 | 0.1857 | 500 | 168 | 0.3084           | 0.3010 | 0.2873 |
| 500 | 115 | 0.2057           | 0.1993 | 0.1875 | 500 | 169 | 0.3104           | 0.3030 | 0.2893 |
| 500 | 116 | 0.2076           | 0.2012 | 0.1894 | 500 | 170 | 0.3124           | 0.3049 | 0.2912 |
| 500 | 117 | 0.2096           | 0.2031 | 0.1912 | 500 | 171 | 0.3143           | 0.3069 | 0.2931 |
| 500 | 118 | 0.2115           | 0.2050 | 0.1931 | 500 | 172 | 0.3163           | 0.3088 | 0.2950 |
| 500 | 119 | 0.2134           | 0.2069 | 0.1949 | 500 | 173 | 0.3182           | 0.3108 | 0.2969 |
| 500 | 120 | 0.2153           | 0.2088 | 0.1968 | 500 | 174 | 0.3202           | 0.3127 | 0.2988 |
| 500 | 121 | 0.2172           | 0.2107 | 0.1986 | 500 | 175 | 0.3222           | 0.3146 | 0.3007 |
| 500 | 122 | 0.2191           | 0.2126 | 0.2005 | 500 | 176 | 0.3241           | 0.3166 | 0.3027 |
| 500 | 123 | 0.2212           | 0.2145 | 0.2024 | 500 | 177 | 0.3261           | 0.3185 | 0.3046 |
| 500 | 124 | 0.2230           | 0.2164 | 0.2042 | 500 | 178 | 0.3280           | 0.3205 | 0.3065 |
| 500 | 125 | 0.2250           | 0.2183 | 0.2061 | 500 | 179 | 0.3300           | 0.3224 | 0.3084 |
| 500 | 126 | 0.2269           | 0.2202 | 0.2080 | 500 | 180 | 0.3319           | 0.3244 | 0.3104 |
| 500 | 127 | 0.2288           | 0.2221 | 0.2098 | 500 | 181 | 0.3339           | 0.3263 | 0.3123 |
| 500 | 128 | 0.2307           | 0.2240 | 0.2117 | 500 | 182 | 0.3359           | 0.3283 | 0.3142 |
| 500 | 129 | 0.2327           | 0.2259 | 0.2136 | 500 | 183 | 0.3378           | 0.3302 | 0.3161 |
| 500 | 130 | 0.2346           | 0.2279 | 0.2154 | 500 | 184 | 0.3398           | 0.3322 | 0.3181 |
| 500 | 131 | 0.2365           | 0.2298 | 0.2173 | 500 | 185 | 0.3418           | 0.3341 | 0.3200 |
| 500 | 132 | 0.2385           | 0.2317 | 0.2192 | 500 | 186 | 0.3437           | 0.3361 | 0.3219 |
| 500 | 133 | 0.2404           | 0.2336 | 0.2210 | 500 | 187 | 0.3457           | 0.3380 | 0.3238 |
| 500 | 134 | 0.2423           | 0.2355 | 0.2229 | 500 | 188 | 0.3476           | 0.3400 | 0.3258 |
| 500 | 135 | 0.2443           | 0.2374 | 0.2248 | 500 | 189 | 0.3496           | 0.3419 | 0.3277 |
| 500 | 136 | 0.2462           | 0.2393 | 0.2267 | 500 | 190 | 0.3516           | 0.3439 | 0.3296 |
| 500 | 137 | 0.2481           | 0.2412 | 0.2286 | 500 | 191 | 0.3535           | 0.3458 | 0.3316 |
| 500 | 138 | 0.2501           | 0.2432 | 0.2304 | 500 | 192 | 0.3555           | 0.3478 | 0.3335 |
| 500 | 139 | 0.2520           | 0.2451 | 0.2323 | 500 | 193 | 0.3575           | 0.3496 | 0.3354 |
| 500 | 140 | 0.2540           | 0.2470 | 0.2342 | 500 | 194 | 0.3594           | 0.3517 | 0.3374 |
| 500 | 141 | 0.2559           | 0.2489 | 0.2361 | 500 | 195 | 0.3614           | 0.3537 | 0.3393 |
| 500 | 142 | 0.2578           | 0.2508 | 0.2380 | 500 | 196 | 0.3634           | 0.3556 | 0.3412 |
| 500 | 143 | 0.2598           | 0.2528 | 0.2398 | 500 | 197 | 0.3653           | 0.3576 | 0.3432 |
| 500 | 144 | 0.2617           | 0.2547 | 0.2418 | 500 | 198 | 0.3673           | 0.3596 | 0.3451 |
| 500 | 145 | 0.2636           | 0.2566 | 0.2436 | 500 | 199 | 0.3693           | 0.3615 | 0.3471 |
| 500 | 146 | 0.2656           | 0.2585 | 0.2455 | 500 | 200 | 0.3713           | 0.3635 | 0.3490 |
| 500 | 147 | 0.2675           | 0.2605 | 0.2474 | 500 | 201 | 0.3732           | 0.3654 | 0.3509 |
| 500 | 148 | 0.2695           | 0.2624 | 0.2493 | 500 | 202 | 0.3752           | 0.3674 | 0.3529 |
| 500 | 149 | 0.2714           | 0.2643 | 0.2512 | 500 | 203 | 0.3772           | 0.3694 | 0.3548 |
| 500 | 150 | 0.2734           | 0.2662 | 0.2531 | 500 | 204 | 0.3791           | 0.3713 | 0.3568 |
| 500 | 151 | 0.2753           | 0.2682 | 0.2550 | 500 | 205 | 0.3811           | 0.3733 | 0.3587 |
| 500 | 152 | 0.2773           | 0.2701 | 0.2569 | 500 | 206 | 0.3831           | 0.3753 | 0.3607 |
| 500 | 153 | 0.2792           | 0.2720 | 0.2588 | 500 | 207 | 0.3851           | 0.3772 | 0.3626 |
| 500 | 154 | 0.2812           | 0.2739 | 0.2607 | 500 | 208 | 0.3870           | 0.3792 | 0.3645 |
| 500 | 155 | 0.2831           | 0.2759 | 0.2626 | 500 | 209 | 0.3890           | 0.3811 | 0.3665 |
| 500 | 156 | 0.2850           | 0.2778 | 0.2645 | 500 | 210 | 0.3910           | 0.3831 | 0.3684 |
| 500 | 157 | 0.2870           | 0.2797 | 0.2664 | 500 | 211 | 0.3930           | 0.3851 | 0.3704 |
| 500 | 158 | 0.2889           | 0.2817 | 0.2683 | 500 | 212 | 0.3949           | 0.3870 | 0.3724 |
| 500 | 159 | 0.2909           | 0.2836 | 0.2702 | 500 | 213 | 0.3969           | 0.3890 | 0.3743 |
| 500 | 160 | 0.2928           | 0.2855 | 0.2721 | 500 | 214 | 0.3989           | 0.3910 | 0.3763 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 215 | 0.4009           | 0.3930 | 0.3782 | 500 | 269 | 0.5084           | 0.5002 | 0.4850 |
| 500 | 216 | 0.4029           | 0.3949 | 0.3802 | 500 | 270 | 0.5104           | 0.5022 | 0.4870 |
| 500 | 217 | 0.4048           | 0.3969 | 0.3821 | 500 | 271 | 0.5124           | 0.5042 | 0.4890 |
| 500 | 218 | 0.4068           | 0.3989 | 0.3841 | 500 | 272 | 0.5144           | 0.5062 | 0.4910 |
| 500 | 219 | 0.4088           | 0.4009 | 0.3861 | 500 | 273 | 0.5164           | 0.5082 | 0.4930 |
| 500 | 220 | 0.4108           | 0.4028 | 0.3880 | 500 | 274 | 0.5184           | 0.5102 | 0.4950 |
| 500 | 221 | 0.4127           | 0.4048 | 0.3900 | 500 | 275 | 0.5204           | 0.5123 | 0.4970 |
| 500 | 222 | 0.4147           | 0.4068 | 0.3919 | 500 | 276 | 0.5224           | 0.5143 | 0.4990 |
| 500 | 223 | 0.4167           | 0.4087 | 0.3939 | 500 | 277 | 0.5244           | 0.5163 | 0.5010 |
| 500 | 224 | 0.4187           | 0.4107 | 0.3959 | 500 | 278 | 0.5264           | 0.5183 | 0.5030 |
| 500 | 225 | 0.4207           | 0.4127 | 0.3979 | 500 | 279 | 0.5284           | 0.5203 | 0.5050 |
| 500 | 226 | 0.4227           | 0.4147 | 0.3998 | 500 | 280 | 0.5304           | 0.5223 | 0.5070 |
| 500 | 227 | 0.4246           | 0.4166 | 0.4017 | 500 | 281 | 0.5324           | 0.5243 | 0.5091 |
| 500 | 228 | 0.4266           | 0.4186 | 0.4037 | 500 | 282 | 0.5344           | 0.5263 | 0.5111 |
| 500 | 229 | 0.4286           | 0.4206 | 0.4057 | 500 | 283 | 0.5364           | 0.5283 | 0.5131 |
| 500 | 230 | 0.4306           | 0.4226 | 0.4076 | 500 | 284 | 0.5384           | 0.5303 | 0.5151 |
| 500 | 231 | 0.4326           | 0.4246 | 0.4096 | 500 | 285 | 0.5405           | 0.5323 | 0.5171 |
| 500 | 232 | 0.4346           | 0.4266 | 0.4116 | 500 | 286 | 0.5425           | 0.5344 | 0.5191 |
| 500 | 233 | 0.4365           | 0.4285 | 0.4135 | 500 | 287 | 0.5445           | 0.5364 | 0.5211 |
| 500 | 234 | 0.4385           | 0.4305 | 0.4155 | 500 | 288 | 0.5465           | 0.5384 | 0.5231 |
| 500 | 235 | 0.4405           | 0.4325 | 0.4175 | 500 | 289 | 0.5485           | 0.5404 | 0.5252 |
| 500 | 236 | 0.4425           | 0.4345 | 0.4195 | 500 | 290 | 0.5505           | 0.5424 | 0.5272 |
| 500 | 237 | 0.4445           | 0.4365 | 0.4214 | 500 | 291 | 0.5525           | 0.5444 | 0.5292 |
| 500 | 238 | 0.4465           | 0.4384 | 0.4234 | 500 | 292 | 0.5545           | 0.5464 | 0.5312 |
| 500 | 239 | 0.4485           | 0.4404 | 0.4254 | 500 | 293 | 0.5566           | 0.5485 | 0.5332 |
| 500 | 240 | 0.4505           | 0.4424 | 0.4273 | 500 | 294 | 0.5586           | 0.5505 | 0.5353 |
| 500 | 241 | 0.4525           | 0.4444 | 0.4293 | 500 | 295 | 0.5606           | 0.5525 | 0.5373 |
| 500 | 242 | 0.4544           | 0.4464 | 0.4313 | 500 | 296 | 0.5626           | 0.5545 | 0.5393 |
| 500 | 243 | 0.4564           | 0.4484 | 0.4333 | 500 | 297 | 0.5646           | 0.5565 | 0.5413 |
| 500 | 244 | 0.4584           | 0.4504 | 0.4352 | 500 | 298 | 0.5666           | 0.5586 | 0.5433 |
| 500 | 245 | 0.4604           | 0.4523 | 0.4372 | 500 | 299 | 0.5686           | 0.5606 | 0.5454 |
| 500 | 246 | 0.4624           | 0.4543 | 0.4392 | 500 | 300 | 0.5707           | 0.5626 | 0.5474 |
| 500 | 247 | 0.4644           | 0.4563 | 0.4412 | 500 | 301 | 0.5727           | 0.5646 | 0.5494 |
| 500 | 248 | 0.4664           | 0.4583 | 0.4432 | 500 | 302 | 0.5747           | 0.5666 | 0.5514 |
| 500 | 249 | 0.4684           | 0.4603 | 0.4452 | 500 | 303 | 0.5767           | 0.5687 | 0.5535 |
| 500 | 250 | 0.4704           | 0.4623 | 0.4471 | 500 | 304 | 0.5787           | 0.5707 | 0.5555 |
| 500 | 251 | 0.4724           | 0.4643 | 0.4491 | 500 | 305 | 0.5808           | 0.5727 | 0.5575 |
| 500 | 252 | 0.4744           | 0.4663 | 0.4511 | 500 | 306 | 0.5828           | 0.5747 | 0.5596 |
| 500 | 253 | 0.4764           | 0.4683 | 0.4531 | 500 | 307 | 0.5848           | 0.5768 | 0.5616 |
| 500 | 254 | 0.4784           | 0.4703 | 0.4551 | 500 | 308 | 0.5868           | 0.5788 | 0.5636 |
| 500 | 255 | 0.4804           | 0.4723 | 0.4571 | 500 | 309 | 0.5888           | 0.5808 | 0.5657 |
| 500 | 256 | 0.4824           | 0.4743 | 0.4591 | 500 | 310 | 0.5909           | 0.5828 | 0.5677 |
| 500 | 257 | 0.4844           | 0.4762 | 0.4611 | 500 | 311 | 0.5929           | 0.5849 | 0.5697 |
| 500 | 258 | 0.4864           | 0.4782 | 0.4631 | 500 | 312 | 0.5949           | 0.5869 | 0.5718 |
| 500 | 259 | 0.4883           | 0.4802 | 0.4650 | 500 | 313 | 0.5969           | 0.5889 | 0.5738 |
| 500 | 260 | 0.4903           | 0.4822 | 0.4670 | 500 | 314 | 0.5990           | 0.5910 | 0.5758 |
| 500 | 261 | 0.4923           | 0.4842 | 0.4690 | 500 | 315 | 0.6010           | 0.5930 | 0.5779 |
| 500 | 262 | 0.4943           | 0.4862 | 0.4710 | 500 | 316 | 0.6030           | 0.5950 | 0.5799 |
| 500 | 263 | 0.4963           | 0.4882 | 0.4730 | 500 | 317 | 0.6050           | 0.5970 | 0.5820 |
| 500 | 264 | 0.4983           | 0.4902 | 0.4750 | 500 | 318 | 0.6071           | 0.5991 | 0.5840 |
| 500 | 265 | 0.5003           | 0.4922 | 0.4770 | 500 | 319 | 0.6091           | 0.6011 | 0.5861 |
| 500 | 266 | 0.5023           | 0.4942 | 0.4790 | 500 | 320 | 0.6111           | 0.6031 | 0.5881 |
| 500 | 267 | 0.5043           | 0.4962 | 0.4810 | 500 | 321 | 0.6131           | 0.6052 | 0.5901 |
| 500 | 268 | 0.5064           | 0.4982 | 0.4830 |     |     |                  |        |        |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 322 | 0.6152           | 0.6072 | 0.5922 | 500 | 376 | 0.7255           | 0.7182 | 0.7042 |
| 500 | 323 | 0.6172           | 0.6092 | 0.5942 | 500 | 377 | 0.7276           | 0.7202 | 0.7065 |
| 500 | 324 | 0.6192           | 0.6113 | 0.5963 | 500 | 378 | 0.7297           | 0.7223 | 0.7084 |
|     |     |                  |        |        | 500 | 379 | 0.7317           | 0.7244 | 0.7105 |
| 500 | 325 | 0.6213           | 0.6133 | 0.5983 |     |     |                  |        |        |
| 500 | 326 | 0.6233           | 0.6153 | 0.6004 | 500 | 380 | 0.7338           | 0.7265 | 0.7126 |
| 500 | 327 | 0.6253           | 0.6174 | 0.6024 | 500 | 381 | 0.7358           | 0.7286 | 0.7147 |
| 500 | 328 | 0.6273           | 0.6194 | 0.6045 | 500 | 382 | 0.7379           | 0.7306 | 0.7168 |
| 500 | 329 | 0.6294           | 0.6215 | 0.6065 | 500 | 383 | 0.7400           | 0.7327 | 0.7189 |
|     |     |                  |        |        | 500 | 384 | 0.7420           | 0.7348 | 0.7210 |
| 500 | 330 | 0.6314           | 0.6235 | 0.6086 |     |     |                  |        |        |
| 500 | 331 | 0.6334           | 0.6256 | 0.6106 | 500 | 385 | 0.7441           | 0.7369 | 0.7232 |
| 500 | 332 | 0.6355           | 0.6276 | 0.6127 | 500 | 386 | 0.7462           | 0.7390 | 0.7253 |
| 500 | 333 | 0.6375           | 0.6296 | 0.6148 | 500 | 387 | 0.7482           | 0.7411 | 0.7274 |
| 500 | 334 | 0.6395           | 0.6317 | 0.6168 | 500 | 388 | 0.7503           | 0.7432 | 0.7295 |
|     |     |                  |        |        | 500 | 389 | 0.7524           | 0.7452 | 0.7316 |
| 500 | 335 | 0.6416           | 0.6337 | 0.6189 |     |     |                  |        |        |
| 500 | 336 | 0.6436           | 0.6358 | 0.6209 | 500 | 390 | 0.7544           | 0.7473 | 0.7337 |
| 500 | 337 | 0.6457           | 0.6378 | 0.6230 | 500 | 391 | 0.7565           | 0.7494 | 0.7359 |
| 500 | 338 | 0.6477           | 0.6399 | 0.6250 | 500 | 392 | 0.7586           | 0.7515 | 0.7380 |
| 500 | 339 | 0.6497           | 0.6419 | 0.6271 | 500 | 393 | 0.7607           | 0.7536 | 0.7401 |
|     |     |                  |        |        | 500 | 394 | 0.7627           | 0.7557 | 0.7423 |
| 500 | 340 | 0.6518           | 0.6440 | 0.6292 |     |     |                  |        |        |
| 500 | 341 | 0.6538           | 0.6460 | 0.6312 | 500 | 395 | 0.7648           | 0.7578 | 0.7444 |
| 500 | 342 | 0.6558           | 0.6480 | 0.6333 | 500 | 396 | 0.7669           | 0.7599 | 0.7465 |
| 500 | 343 | 0.6579           | 0.6501 | 0.6354 | 500 | 397 | 0.7690           | 0.7620 | 0.7486 |
| 500 | 344 | 0.6599           | 0.6522 | 0.6374 | 500 | 398 | 0.7710           | 0.7641 | 0.7508 |
|     |     |                  |        |        | 500 | 399 | 0.7731           | 0.7662 | 0.7529 |
| 500 | 345 | 0.6620           | 0.6542 | 0.6395 |     |     |                  |        |        |
| 500 | 346 | 0.6640           | 0.6563 | 0.6416 | 500 | 400 | 0.7752           | 0.7683 | 0.7551 |
| 500 | 347 | 0.6660           | 0.6583 | 0.6436 | 500 | 401 | 0.7773           | 0.7704 | 0.7572 |
| 500 | 348 | 0.6681           | 0.6604 | 0.6457 | 500 | 402 | 0.7794           | 0.7725 | 0.7593 |
| 500 | 349 | 0.6701           | 0.6624 | 0.6478 | 500 | 403 | 0.7814           | 0.7746 | 0.7615 |
|     |     |                  |        |        | 500 | 404 | 0.7835           | 0.7767 | 0.7636 |
| 500 | 350 | 0.6722           | 0.6645 | 0.6498 |     |     |                  |        |        |
| 500 | 351 | 0.6742           | 0.6665 | 0.6519 | 500 | 405 | 0.7856           | 0.7788 | 0.7658 |
| 500 | 352 | 0.6763           | 0.6686 | 0.6540 | 500 | 406 | 0.7877           | 0.7809 | 0.7679 |
| 500 | 353 | 0.6783           | 0.6705 | 0.6561 | 500 | 407 | 0.7898           | 0.7830 | 0.7701 |
| 500 | 354 | 0.6804           | 0.6727 | 0.6582 | 500 | 408 | 0.7919           | 0.7851 | 0.7722 |
|     |     |                  |        |        | 500 | 409 | 0.7940           | 0.7872 | 0.7744 |
| 500 | 355 | 0.6824           | 0.6748 | 0.6602 |     |     |                  |        |        |
| 500 | 356 | 0.6845           | 0.6768 | 0.6623 | 500 | 410 | 0.7960           | 0.7893 | 0.7765 |
| 500 | 357 | 0.6865           | 0.6789 | 0.6644 | 500 | 411 | 0.7981           | 0.7915 | 0.7787 |
| 500 | 358 | 0.6885           | 0.6809 | 0.6665 | 500 | 412 | 0.8002           | 0.7936 | 0.7808 |
| 500 | 359 | 0.6906           | 0.6830 | 0.6686 | 500 | 413 | 0.8023           | 0.7957 | 0.7830 |
|     |     |                  |        |        | 500 | 414 | 0.8044           | 0.7978 | 0.7852 |
| 500 | 360 | 0.6926           | 0.6851 | 0.6706 |     |     |                  |        |        |
| 500 | 361 | 0.6947           | 0.6871 | 0.6727 | 500 | 415 | 0.8065           | 0.7999 | 0.7873 |
| 500 | 362 | 0.6967           | 0.6892 | 0.6748 | 500 | 416 | 0.8086           | 0.8021 | 0.7895 |
| 500 | 363 | 0.6988           | 0.6912 | 0.6769 | 500 | 417 | 0.8107           | 0.8042 | 0.7917 |
| 500 | 364 | 0.7008           | 0.6933 | 0.6790 | 500 | 418 | 0.8128           | 0.8063 | 0.7938 |
|     |     |                  |        |        | 500 | 419 | 0.8149           | 0.8084 | 0.7960 |
| 500 | 365 | 0.7029           | 0.6954 | 0.6811 |     |     |                  |        |        |
| 500 | 366 | 0.7049           | 0.6974 | 0.6832 | 500 | 420 | 0.8170           | 0.8105 | 0.7982 |
| 500 | 367 | 0.7070           | 0.6995 | 0.6853 | 500 | 421 | 0.8191           | 0.8127 | 0.8003 |
| 500 | 368 | 0.7091           | 0.7016 | 0.6874 | 500 | 422 | 0.8212           | 0.8148 | 0.8025 |
| 500 | 369 | 0.7111           | 0.7037 | 0.6895 | 500 | 423 | 0.8233           | 0.8169 | 0.8047 |
|     |     |                  |        |        | 500 | 424 | 0.8254           | 0.8191 | 0.8069 |
| 500 | 370 | 0.7132           | 0.7057 | 0.6916 |     |     |                  |        |        |
| 500 | 371 | 0.7152           | 0.7078 | 0.6937 | 500 | 425 | 0.8275           | 0.8212 | 0.8091 |
| 500 | 372 | 0.7173           | 0.7099 | 0.6957 | 500 | 426 | 0.8296           | 0.8233 | 0.8113 |
| 500 | 373 | 0.7194           | 0.7119 | 0.6979 | 500 | 427 | 0.8317           | 0.8255 | 0.8134 |
| 500 | 374 | 0.7214           | 0.7140 | 0.7000 | 500 | 428 | 0.8338           | 0.8276 | 0.8156 |
|     |     |                  |        |        | 500 | 429 | 0.8359           | 0.8298 | 0.8178 |
| 500 | 375 | 0.7235           | 0.7161 | 0.7020 |     |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 430 | 0.8380           | 0.8319 | 0.8200 | 500 | 484 | 0.9554           | 0.9518 | 0.9446 |
| 500 | 431 | 0.8402           | 0.8340 | 0.8222 | 500 | 485 | 0.9577           | 0.9542 | 0.9471 |
| 500 | 432 | 0.8423           | 0.8362 | 0.8244 | 500 | 486 | 0.9600           | 0.9566 | 0.9497 |
| 500 | 433 | 0.8444           | 0.8383 | 0.8266 | 500 | 487 | 0.9623           | 0.9590 | 0.9523 |
| 500 | 434 | 0.8465           | 0.8405 | 0.8288 | 500 | 488 | 0.9646           | 0.9614 | 0.9549 |
| 500 | 435 | 0.8486           | 0.8426 | 0.8310 | 500 | 489 | 0.9670           | 0.9638 | 0.9575 |
| 500 | 436 | 0.8507           | 0.8448 | 0.8333 | 500 | 490 | 0.9694           | 0.9663 | 0.9601 |
| 500 | 437 | 0.8529           | 0.8469 | 0.8355 | 500 | 491 | 0.9717           | 0.9686 | 0.9626 |
| 500 | 438 | 0.8550           | 0.8491 | 0.8377 | 500 | 492 | 0.9741           | 0.9713 | 0.9655 |
| 500 | 439 | 0.8571           | 0.8512 | 0.8399 | 500 | 493 | 0.9766           | 0.9739 | 0.9683 |
| 500 | 440 | 0.8592           | 0.8534 | 0.8421 | 500 | 494 | 0.9790           | 0.9765 | 0.9711 |
| 500 | 441 | 0.8614           | 0.8556 | 0.8444 | 500 | 495 | 0.9815           | 0.9791 | 0.9740 |
| 500 | 442 | 0.8635           | 0.8577 | 0.8466 | 500 | 496 | 0.9841           | 0.9818 | 0.9770 |
| 500 | 443 | 0.8656           | 0.8599 | 0.8488 | 500 | 497 | 0.9867           | 0.9846 | 0.9801 |
| 500 | 444 | 0.8678           | 0.8621 | 0.8511 | 500 | 498 | 0.9894           | 0.9875 | 0.9833 |
| 500 | 445 | 0.8699           | 0.8642 | 0.8533 | 500 | 499 | 0.9922           | 0.9905 | 0.9868 |
| 500 | 446 | 0.8720           | 0.8664 | 0.8555 | 500 | 500 | 0.9954           | 0.9940 | 0.9906 |
| 500 | 447 | 0.8742           | 0.8686 | 0.8578 |     |     |                  |        |        |
| 500 | 448 | 0.8763           | 0.8708 | 0.8600 |     |     |                  |        |        |
| 500 | 449 | 0.8784           | 0.8729 | 0.8623 |     |     |                  |        |        |
| 500 | 450 | 0.8806           | 0.8751 | 0.8645 |     |     |                  |        |        |
| 500 | 451 | 0.8827           | 0.8773 | 0.8668 |     |     |                  |        |        |
| 500 | 452 | 0.8849           | 0.8795 | 0.8690 |     |     |                  |        |        |
| 500 | 453 | 0.8870           | 0.8817 | 0.8713 |     |     |                  |        |        |
| 500 | 454 | 0.8892           | 0.8839 | 0.8736 |     |     |                  |        |        |
| 500 | 455 | 0.8913           | 0.8861 | 0.8759 |     |     |                  |        |        |
| 500 | 456 | 0.8935           | 0.8883 | 0.8781 |     |     |                  |        |        |
| 500 | 457 | 0.8957           | 0.8905 | 0.8804 |     |     |                  |        |        |
| 500 | 458 | 0.8978           | 0.8927 | 0.8827 |     |     |                  |        |        |
| 500 | 459 | 0.9000           | 0.8949 | 0.8850 |     |     |                  |        |        |
| 500 | 460 | 0.9022           | 0.8971 | 0.8873 |     |     |                  |        |        |
| 500 | 461 | 0.9043           | 0.8994 | 0.8896 |     |     |                  |        |        |
| 500 | 462 | 0.9065           | 0.9016 | 0.8919 |     |     |                  |        |        |
| 500 | 463 | 0.9087           | 0.9038 | 0.8942 |     |     |                  |        |        |
| 500 | 464 | 0.9109           | 0.9060 | 0.8966 |     |     |                  |        |        |
| 500 | 465 | 0.9130           | 0.9083 | 0.8989 |     |     |                  |        |        |
| 500 | 466 | 0.9152           | 0.9105 | 0.9012 |     |     |                  |        |        |
| 500 | 467 | 0.9174           | 0.9127 | 0.9036 |     |     |                  |        |        |
| 500 | 468 | 0.9196           | 0.9150 | 0.9059 |     |     |                  |        |        |
| 500 | 469 | 0.9218           | 0.9172 | 0.9082 |     |     |                  |        |        |
| 500 | 470 | 0.9240           | 0.9195 | 0.9106 |     |     |                  |        |        |
| 500 | 471 | 0.9262           | 0.9218 | 0.9130 |     |     |                  |        |        |
| 500 | 472 | 0.9284           | 0.9240 | 0.9153 |     |     |                  |        |        |
| 500 | 473 | 0.9306           | 0.9263 | 0.9177 |     |     |                  |        |        |
| 500 | 474 | 0.9329           | 0.9286 | 0.9201 |     |     |                  |        |        |
| 500 | 475 | 0.9351           | 0.9309 | 0.9225 |     |     |                  |        |        |
| 500 | 476 | 0.9373           | 0.9332 | 0.9249 |     |     |                  |        |        |
| 500 | 477 | 0.9396           | 0.9355 | 0.9273 |     |     |                  |        |        |
| 500 | 478 | 0.9418           | 0.9378 | 0.9298 |     |     |                  |        |        |
| 500 | 479 | 0.9440           | 0.9401 | 0.9322 |     |     |                  |        |        |
| 500 | 480 | 0.9463           | 0.9424 | 0.9347 |     |     |                  |        |        |
| 500 | 481 | 0.9486           | 0.9447 | 0.9371 |     |     |                  |        |        |
| 500 | 482 | 0.9508           | 0.9471 | 0.9396 |     |     |                  |        |        |
| 500 | 483 | 0.9531           | 0.9494 | 0.9421 |     |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K  | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |    | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 0  | 0.0000           | 0.0000 | 0.0000 | 1000 | 54  | 0.0450           | 0.0427 | 0.0387 |
| 1000 | 1  | 0.0001           | 0.0001 | 0.0000 | 1000 | 55  | 0.0459           | 0.0436 | 0.0395 |
| 1000 | 2  | 0.0005           | 0.0004 | 0.0001 | 1000 | 56  | 0.0468           | 0.0445 | 0.0404 |
| 1000 | 3  | 0.0011           | 0.0008 | 0.0004 | 1000 | 57  | 0.0478           | 0.0454 | 0.0412 |
| 1000 | 4  | 0.0017           | 0.0014 | 0.0008 | 1000 | 58  | 0.0487           | 0.0463 | 0.0421 |
| 1000 | 5  | 0.0024           | 0.0020 | 0.0013 | 1000 | 59  | 0.0496           | 0.0472 | 0.0429 |
| 1000 | 6  | 0.0032           | 0.0026 | 0.0018 | 1000 | 60  | 0.0505           | 0.0481 | 0.0438 |
| 1000 | 7  | 0.0039           | 0.0033 | 0.0023 | 1000 | 61  | 0.0515           | 0.0490 | 0.0447 |
| 1000 | 8  | 0.0047           | 0.0040 | 0.0029 | 1000 | 62  | 0.0524           | 0.0499 | 0.0455 |
| 1000 | 9  | 0.0054           | 0.0047 | 0.0035 | 1000 | 63  | 0.0532           | 0.0508 | 0.0464 |
| 1000 | 10 | 0.0062           | 0.0054 | 0.0041 | 1000 | 64  | 0.0542           | 0.0517 | 0.0473 |
| 1000 | 11 | 0.0070           | 0.0062 | 0.0048 | 1000 | 65  | 0.0552           | 0.0526 | 0.0481 |
| 1000 | 12 | 0.0078           | 0.0069 | 0.0054 | 1000 | 66  | 0.0561           | 0.0536 | 0.0490 |
| 1000 | 13 | 0.0087           | 0.0077 | 0.0061 | 1000 | 67  | 0.0570           | 0.0545 | 0.0499 |
| 1000 | 14 | 0.0095           | 0.0085 | 0.0068 | 1000 | 68  | 0.0579           | 0.0554 | 0.0507 |
| 1000 | 15 | 0.0103           | 0.0093 | 0.0075 | 1000 | 69  | 0.0589           | 0.0563 | 0.0516 |
| 1000 | 16 | 0.0112           | 0.0101 | 0.0082 | 1000 | 70  | 0.0598           | 0.0572 | 0.0525 |
| 1000 | 17 | 0.0120           | 0.0109 | 0.0089 | 1000 | 71  | 0.0607           | 0.0581 | 0.0533 |
| 1000 | 18 | 0.0128           | 0.0117 | 0.0097 | 1000 | 72  | 0.0617           | 0.0590 | 0.0542 |
| 1000 | 19 | 0.0137           | 0.0125 | 0.0104 | 1000 | 73  | 0.0626           | 0.0599 | 0.0551 |
| 1000 | 20 | 0.0146           | 0.0133 | 0.0111 | 1000 | 74  | 0.0635           | 0.0608 | 0.0560 |
| 1000 | 21 | 0.0154           | 0.0141 | 0.0119 | 1000 | 75  | 0.0645           | 0.0617 | 0.0568 |
| 1000 | 22 | 0.0163           | 0.0149 | 0.0126 | 1000 | 76  | 0.0654           | 0.0627 | 0.0577 |
| 1000 | 23 | 0.0171           | 0.0158 | 0.0134 | 1000 | 77  | 0.0663           | 0.0636 | 0.0586 |
| 1000 | 24 | 0.0180           | 0.0166 | 0.0142 | 1000 | 78  | 0.0673           | 0.0645 | 0.0595 |
| 1000 | 25 | 0.0189           | 0.0174 | 0.0149 | 1000 | 79  | 0.0682           | 0.0654 | 0.0604 |
| 1000 | 26 | 0.0198           | 0.0183 | 0.0157 | 1000 | 80  | 0.0691           | 0.0663 | 0.0612 |
| 1000 | 27 | 0.0206           | 0.0191 | 0.0165 | 1000 | 81  | 0.0701           | 0.0672 | 0.0621 |
| 1000 | 28 | 0.0215           | 0.0200 | 0.0173 | 1000 | 82  | 0.0710           | 0.0682 | 0.0630 |
| 1000 | 29 | 0.0224           | 0.0208 | 0.0180 | 1000 | 83  | 0.0719           | 0.0691 | 0.0639 |
| 1000 | 30 | 0.0233           | 0.0217 | 0.0188 | 1000 | 84  | 0.0729           | 0.0700 | 0.0648 |
| 1000 | 31 | 0.0242           | 0.0225 | 0.0196 | 1000 | 85  | 0.0738           | 0.0709 | 0.0657 |
| 1000 | 32 | 0.0251           | 0.0234 | 0.0204 | 1000 | 86  | 0.0748           | 0.0718 | 0.0666 |
| 1000 | 33 | 0.0260           | 0.0242 | 0.0212 | 1000 | 87  | 0.0757           | 0.0728 | 0.0674 |
| 1000 | 34 | 0.0269           | 0.0251 | 0.0220 | 1000 | 88  | 0.0766           | 0.0737 | 0.0683 |
| 1000 | 35 | 0.0278           | 0.0260 | 0.0229 | 1000 | 89  | 0.0776           | 0.0746 | 0.0692 |
| 1000 | 36 | 0.0287           | 0.0268 | 0.0237 | 1000 | 90  | 0.0785           | 0.0755 | 0.0701 |
| 1000 | 37 | 0.0295           | 0.0277 | 0.0245 | 1000 | 91  | 0.0795           | 0.0764 | 0.0710 |
| 1000 | 38 | 0.0304           | 0.0286 | 0.0253 | 1000 | 92  | 0.0804           | 0.0774 | 0.0719 |
| 1000 | 39 | 0.0313           | 0.0295 | 0.0261 | 1000 | 93  | 0.0813           | 0.0783 | 0.0728 |
| 1000 | 40 | 0.0323           | 0.0303 | 0.0269 | 1000 | 94  | 0.0823           | 0.0792 | 0.0737 |
| 1000 | 41 | 0.0332           | 0.0312 | 0.0278 | 1000 | 95  | 0.0832           | 0.0801 | 0.0746 |
| 1000 | 42 | 0.0341           | 0.0321 | 0.0286 | 1000 | 96  | 0.0842           | 0.0811 | 0.0755 |
| 1000 | 43 | 0.0350           | 0.0330 | 0.0294 | 1000 | 97  | 0.0851           | 0.0820 | 0.0764 |
| 1000 | 44 | 0.0359           | 0.0338 | 0.0302 | 1000 | 98  | 0.0861           | 0.0829 | 0.0773 |
| 1000 | 45 | 0.0368           | 0.0347 | 0.0311 | 1000 | 99  | 0.0870           | 0.0839 | 0.0782 |
| 1000 | 46 | 0.0377           | 0.0356 | 0.0319 | 1000 | 100 | 0.0879           | 0.0848 | 0.0791 |
| 1000 | 47 | 0.0386           | 0.0365 | 0.0328 | 1000 | 101 | 0.0889           | 0.0857 | 0.0799 |
| 1000 | 48 | 0.0395           | 0.0374 | 0.0336 | 1000 | 102 | 0.0898           | 0.0866 | 0.0808 |
| 1000 | 49 | 0.0404           | 0.0383 | 0.0344 | 1000 | 103 | 0.0908           | 0.0876 | 0.0817 |
| 1000 | 50 | 0.0413           | 0.0392 | 0.0353 | 1000 | 104 | 0.0917           | 0.0885 | 0.0826 |
| 1000 | 51 | 0.0423           | 0.0401 | 0.0361 | 1000 | 105 | 0.0927           | 0.0894 | 0.0835 |
| 1000 | 52 | 0.0432           | 0.0409 | 0.0370 | 1000 | 106 | 0.0936           | 0.0904 | 0.0844 |
| 1000 | 53 | 0.0441           | 0.0418 | 0.0378 |      |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 107 | 0.0946           | 0.0913 | 0.0854 | 1000 | 161 | 0.1461           | 0.1421 | 0.1348 |
| 1000 | 108 | 0.0955           | 0.0922 | 0.0863 | 1000 | 162 | 0.1471           | 0.1431 | 0.1358 |
| 1000 | 109 | 0.0965           | 0.0932 | 0.0872 | 1000 | 163 | 0.1480           | 0.1440 | 0.1367 |
| 1000 | 110 | 0.0974           | 0.0941 | 0.0881 | 1000 | 164 | 0.1490           | 0.1450 | 0.1376 |
| 1000 | 111 | 0.0984           | 0.0950 | 0.0890 | 1000 | 165 | 0.1500           | 0.1459 | 0.1386 |
| 1000 | 112 | 0.0993           | 0.0960 | 0.0899 | 1000 | 166 | 0.1509           | 0.1469 | 0.1395 |
| 1000 | 113 | 0.1002           | 0.0969 | 0.0908 | 1000 | 167 | 0.1519           | 0.1479 | 0.1404 |
| 1000 | 114 | 0.1012           | 0.0978 | 0.0917 | 1000 | 168 | 0.1528           | 0.1488 | 0.1414 |
| 1000 | 115 | 0.1021           | 0.0988 | 0.0926 | 1000 | 169 | 0.1538           | 0.1497 | 0.1423 |
| 1000 | 116 | 0.1031           | 0.0997 | 0.0935 | 1000 | 170 | 0.1548           | 0.1507 | 0.1432 |
| 1000 | 117 | 0.1040           | 0.1006 | 0.0944 | 1000 | 171 | 0.1557           | 0.1516 | 0.1442 |
| 1000 | 118 | 0.1050           | 0.1016 | 0.0953 | 1000 | 172 | 0.1567           | 0.1526 | 0.1451 |
| 1000 | 119 | 0.1059           | 0.1025 | 0.0962 | 1000 | 173 | 0.1577           | 0.1536 | 0.1460 |
| 1000 | 120 | 0.1069           | 0.1034 | 0.0971 | 1000 | 174 | 0.1586           | 0.1545 | 0.1469 |
| 1000 | 121 | 0.1079           | 0.1044 | 0.0981 | 1000 | 175 | 0.1596           | 0.1555 | 0.1479 |
| 1000 | 122 | 0.1088           | 0.1053 | 0.0990 | 1000 | 176 | 0.1605           | 0.1564 | 0.1488 |
| 1000 | 123 | 0.1097           | 0.1063 | 0.0999 | 1000 | 177 | 0.1615           | 0.1574 | 0.1498 |
| 1000 | 124 | 0.1107           | 0.1072 | 0.1008 | 1000 | 178 | 0.1625           | 0.1583 | 0.1507 |
| 1000 | 125 | 0.1117           | 0.1081 | 0.1017 | 1000 | 179 | 0.1634           | 0.1593 | 0.1516 |
| 1000 | 126 | 0.1126           | 0.1091 | 0.1026 | 1000 | 180 | 0.1644           | 0.1602 | 0.1525 |
| 1000 | 127 | 0.1136           | 0.1100 | 0.1035 | 1000 | 181 | 0.1654           | 0.1612 | 0.1535 |
| 1000 | 128 | 0.1145           | 0.1110 | 0.1044 | 1000 | 182 | 0.1663           | 0.1621 | 0.1544 |
| 1000 | 129 | 0.1155           | 0.1119 | 0.1054 | 1000 | 183 | 0.1673           | 0.1631 | 0.1554 |
| 1000 | 130 | 0.1164           | 0.1128 | 0.1063 | 1000 | 184 | 0.1683           | 0.1641 | 0.1563 |
| 1000 | 131 | 0.1174           | 0.1138 | 0.1072 | 1000 | 185 | 0.1692           | 0.1650 | 0.1572 |
| 1000 | 132 | 0.1183           | 0.1147 | 0.1081 | 1000 | 186 | 0.1702           | 0.1660 | 0.1582 |
| 1000 | 133 | 0.1193           | 0.1157 | 0.1090 | 1000 | 187 | 0.1712           | 0.1669 | 0.1591 |
| 1000 | 134 | 0.1202           | 0.1166 | 0.1099 | 1000 | 188 | 0.1721           | 0.1679 | 0.1600 |
| 1000 | 135 | 0.1212           | 0.1175 | 0.1108 | 1000 | 189 | 0.1731           | 0.1688 | 0.1610 |
| 1000 | 136 | 0.1222           | 0.1185 | 0.1118 | 1000 | 190 | 0.1741           | 0.1698 | 0.1619 |
| 1000 | 137 | 0.1231           | 0.1194 | 0.1127 | 1000 | 191 | 0.1750           | 0.1708 | 0.1629 |
| 1000 | 138 | 0.1241           | 0.1204 | 0.1136 | 1000 | 192 | 0.1760           | 0.1717 | 0.1638 |
| 1000 | 139 | 0.1250           | 0.1213 | 0.1145 | 1000 | 193 | 0.1770           | 0.1727 | 0.1647 |
| 1000 | 140 | 0.1260           | 0.1223 | 0.1154 | 1000 | 194 | 0.1779           | 0.1736 | 0.1657 |
| 1000 | 141 | 0.1269           | 0.1232 | 0.1164 | 1000 | 195 | 0.1789           | 0.1746 | 0.1666 |
| 1000 | 142 | 0.1279           | 0.1241 | 0.1173 | 1000 | 196 | 0.1799           | 0.1755 | 0.1675 |
| 1000 | 143 | 0.1289           | 0.1251 | 0.1182 | 1000 | 197 | 0.1808           | 0.1765 | 0.1685 |
| 1000 | 144 | 0.1298           | 0.1260 | 0.1191 | 1000 | 198 | 0.1818           | 0.1775 | 0.1694 |
| 1000 | 145 | 0.1308           | 0.1270 | 0.1200 | 1000 | 199 | 0.1828           | 0.1784 | 0.1704 |
| 1000 | 146 | 0.1317           | 0.1279 | 0.1210 | 1000 | 200 | 0.1837           | 0.1794 | 0.1713 |
| 1000 | 147 | 0.1327           | 0.1289 | 0.1219 | 1000 | 201 | 0.1847           | 0.1803 | 0.1723 |
| 1000 | 148 | 0.1336           | 0.1298 | 0.1228 | 1000 | 202 | 0.1857           | 0.1813 | 0.1732 |
| 1000 | 149 | 0.1346           | 0.1308 | 0.1237 | 1000 | 203 | 0.1866           | 0.1822 | 0.1741 |
| 1000 | 150 | 0.1356           | 0.1317 | 0.1247 | 1000 | 204 | 0.1876           | 0.1832 | 0.1751 |
| 1000 | 151 | 0.1365           | 0.1327 | 0.1256 | 1000 | 205 | 0.1886           | 0.1842 | 0.1760 |
| 1000 | 152 | 0.1375           | 0.1336 | 0.1265 | 1000 | 206 | 0.1896           | 0.1851 | 0.1770 |
| 1000 | 153 | 0.1384           | 0.1345 | 0.1274 | 1000 | 207 | 0.1905           | 0.1861 | 0.1779 |
| 1000 | 154 | 0.1394           | 0.1355 | 0.1284 | 1000 | 208 | 0.1915           | 0.1870 | 0.1789 |
| 1000 | 155 | 0.1403           | 0.1365 | 0.1293 | 1000 | 209 | 0.1925           | 0.1880 | 0.1798 |
| 1000 | 156 | 0.1413           | 0.1374 | 0.1302 | 1000 | 210 | 0.1934           | 0.1890 | 0.1807 |
| 1000 | 157 | 0.1423           | 0.1383 | 0.1311 | 1000 | 211 | 0.1944           | 0.1899 | 0.1817 |
| 1000 | 158 | 0.1432           | 0.1393 | 0.1321 | 1000 | 212 | 0.1954           | 0.1909 | 0.1826 |
| 1000 | 159 | 0.1442           | 0.1402 | 0.1330 | 1000 | 213 | 0.1963           | 0.1919 | 0.1836 |
| 1000 | 160 | 0.1451           | 0.1412 | 0.1339 | 1000 | 214 | 0.1973           | 0.1928 | 0.1845 |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 215 | 0.1983           | 0.1938 | 0.1855 | 1000 | 269 | 0.2509           | 0.2460 | 0.2369 |
| 1000 | 216 | 0.1993           | 0.1947 | 0.1864 | 1000 | 270 | 0.2519           | 0.2469 | 0.2378 |
| 1000 | 217 | 0.2002           | 0.1957 | 0.1874 | 1000 | 271 | 0.2528           | 0.2479 | 0.2388 |
| 1000 | 218 | 0.2012           | 0.1967 | 0.1883 | 1000 | 272 | 0.2538           | 0.2489 | 0.2397 |
| 1000 | 219 | 0.2022           | 0.1976 | 0.1892 | 1000 | 273 | 0.2548           | 0.2498 | 0.2407 |
| 1000 | 220 | 0.2031           | 0.1986 | 0.1902 | 1000 | 274 | 0.2558           | 0.2508 | 0.2416 |
| 1000 | 221 | 0.2041           | 0.1995 | 0.1911 | 1000 | 275 | 0.2568           | 0.2518 | 0.2426 |
| 1000 | 222 | 0.2051           | 0.2005 | 0.1921 | 1000 | 276 | 0.2577           | 0.2526 | 0.2435 |
| 1000 | 223 | 0.2060           | 0.2015 | 0.1930 | 1000 | 277 | 0.2587           | 0.2537 | 0.2445 |
| 1000 | 224 | 0.2070           | 0.2024 | 0.1940 | 1000 | 278 | 0.2597           | 0.2547 | 0.2455 |
| 1000 | 225 | 0.2080           | 0.2034 | 0.1949 | 1000 | 279 | 0.2607           | 0.2557 | 0.2465 |
| 1000 | 226 | 0.2090           | 0.2044 | 0.1959 | 1000 | 280 | 0.2616           | 0.2566 | 0.2474 |
| 1000 | 227 | 0.2099           | 0.2053 | 0.1968 | 1000 | 281 | 0.2626           | 0.2576 | 0.2484 |
| 1000 | 228 | 0.2109           | 0.2063 | 0.1978 | 1000 | 282 | 0.2636           | 0.2586 | 0.2493 |
| 1000 | 229 | 0.2119           | 0.2073 | 0.1987 | 1000 | 283 | 0.2646           | 0.2596 | 0.2503 |
| 1000 | 230 | 0.2129           | 0.2082 | 0.1997 | 1000 | 284 | 0.2656           | 0.2605 | 0.2512 |
| 1000 | 231 | 0.2138           | 0.2092 | 0.2006 | 1000 | 285 | 0.2665           | 0.2615 | 0.2522 |
| 1000 | 232 | 0.2148           | 0.2102 | 0.2016 | 1000 | 286 | 0.2675           | 0.2625 | 0.2531 |
| 1000 | 233 | 0.2158           | 0.2111 | 0.2025 | 1000 | 287 | 0.2685           | 0.2635 | 0.2541 |
| 1000 | 234 | 0.2167           | 0.2121 | 0.2034 | 1000 | 288 | 0.2695           | 0.2644 | 0.2551 |
| 1000 | 235 | 0.2177           | 0.2131 | 0.2044 | 1000 | 289 | 0.2705           | 0.2654 | 0.2561 |
| 1000 | 236 | 0.2187           | 0.2140 | 0.2054 | 1000 | 290 | 0.2714           | 0.2664 | 0.2570 |
| 1000 | 237 | 0.2197           | 0.2150 | 0.2063 | 1000 | 291 | 0.2724           | 0.2674 | 0.2580 |
| 1000 | 238 | 0.2206           | 0.2159 | 0.2073 | 1000 | 292 | 0.2734           | 0.2683 | 0.2589 |
| 1000 | 239 | 0.2216           | 0.2169 | 0.2082 | 1000 | 293 | 0.2744           | 0.2693 | 0.2599 |
| 1000 | 240 | 0.2226           | 0.2179 | 0.2092 | 1000 | 294 | 0.2754           | 0.2703 | 0.2609 |
| 1000 | 241 | 0.2236           | 0.2188 | 0.2101 | 1000 | 295 | 0.2763           | 0.2712 | 0.2618 |
| 1000 | 242 | 0.2245           | 0.2198 | 0.2111 | 1000 | 296 | 0.2773           | 0.2722 | 0.2628 |
| 1000 | 243 | 0.2255           | 0.2208 | 0.2120 | 1000 | 297 | 0.2783           | 0.2732 | 0.2637 |
| 1000 | 244 | 0.2265           | 0.2217 | 0.2130 | 1000 | 298 | 0.2793           | 0.2742 | 0.2647 |
| 1000 | 245 | 0.2275           | 0.2227 | 0.2139 | 1000 | 299 | 0.2803           | 0.2752 | 0.2657 |
| 1000 | 246 | 0.2284           | 0.2237 | 0.2149 | 1000 | 300 | 0.2812           | 0.2761 | 0.2666 |
| 1000 | 247 | 0.2294           | 0.2246 | 0.2158 | 1000 | 301 | 0.2822           | 0.2771 | 0.2676 |
| 1000 | 248 | 0.2304           | 0.2256 | 0.2168 | 1000 | 302 | 0.2832           | 0.2781 | 0.2686 |
| 1000 | 249 | 0.2314           | 0.2266 | 0.2178 | 1000 | 303 | 0.2842           | 0.2790 | 0.2695 |
| 1000 | 250 | 0.2323           | 0.2275 | 0.2187 | 1000 | 304 | 0.2852           | 0.2800 | 0.2705 |
| 1000 | 251 | 0.2333           | 0.2285 | 0.2197 | 1000 | 305 | 0.2861           | 0.2810 | 0.2715 |
| 1000 | 252 | 0.2343           | 0.2295 | 0.2206 | 1000 | 306 | 0.2871           | 0.2820 | 0.2724 |
| 1000 | 253 | 0.2353           | 0.2304 | 0.2215 | 1000 | 307 | 0.2881           | 0.2830 | 0.2734 |
| 1000 | 254 | 0.2362           | 0.2314 | 0.2225 | 1000 | 308 | 0.2891           | 0.2839 | 0.2743 |
| 1000 | 255 | 0.2372           | 0.2324 | 0.2235 | 1000 | 309 | 0.2901           | 0.2849 | 0.2754 |
| 1000 | 256 | 0.2382           | 0.2333 | 0.2244 | 1000 | 310 | 0.2911           | 0.2859 | 0.2763 |
| 1000 | 257 | 0.2392           | 0.2343 | 0.2254 | 1000 | 311 | 0.2920           | 0.2869 | 0.2773 |
| 1000 | 258 | 0.2401           | 0.2353 | 0.2263 | 1000 | 312 | 0.2930           | 0.2878 | 0.2782 |
| 1000 | 259 | 0.2411           | 0.2363 | 0.2273 | 1000 | 313 | 0.2940           | 0.2888 | 0.2792 |
| 1000 | 260 | 0.2421           | 0.2372 | 0.2282 | 1000 | 314 | 0.2950           | 0.2898 | 0.2802 |
| 1000 | 261 | 0.2431           | 0.2382 | 0.2292 | 1000 | 315 | 0.2960           | 0.2908 | 0.2811 |
| 1000 | 262 | 0.2440           | 0.2392 | 0.2302 | 1000 | 316 | 0.2969           | 0.2917 | 0.2821 |
| 1000 | 263 | 0.2450           | 0.2401 | 0.2311 | 1000 | 317 | 0.2979           | 0.2927 | 0.2831 |
| 1000 | 264 | 0.2460           | 0.2411 | 0.2321 | 1000 | 318 | 0.2989           | 0.2937 | 0.2840 |
| 1000 | 265 | 0.2470           | 0.2421 | 0.2330 | 1000 | 319 | 0.2999           | 0.2947 | 0.2850 |
| 1000 | 266 | 0.2479           | 0.2430 | 0.2340 | 1000 | 320 | 0.3009           | 0.2956 | 0.2860 |
| 1000 | 267 | 0.2489           | 0.2440 | 0.2349 | 1000 | 321 | 0.3019           | 0.2966 | 0.2869 |
| 1000 | 268 | 0.2499           | 0.2450 | 0.2359 |      |     |                  |        |        |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 322 | 0.3028           | 0.2976 | 0.2879 | 1000 | 376 | 0.3561           | 0.3506 | 0.3404 |
| 1000 | 323 | 0.3038           | 0.2986 | 0.2888 | 1000 | 377 | 0.3570           | 0.3516 | 0.3414 |
| 1000 | 324 | 0.3048           | 0.2996 | 0.2898 | 1000 | 378 | 0.3580           | 0.3526 | 0.3424 |
|      |     |                  |        |        | 1000 | 379 | 0.3590           | 0.3536 | 0.3434 |
| 1000 | 325 | 0.3058           | 0.3005 | 0.2908 |      |     |                  |        |        |
| 1000 | 326 | 0.3068           | 0.3015 | 0.2918 | 1000 | 380 | 0.3600           | 0.3545 | 0.3443 |
| 1000 | 327 | 0.3077           | 0.3025 | 0.2927 | 1000 | 381 | 0.3610           | 0.3555 | 0.3453 |
| 1000 | 328 | 0.3087           | 0.3035 | 0.2937 | 1000 | 382 | 0.3620           | 0.3565 | 0.3463 |
| 1000 | 329 | 0.3097           | 0.3045 | 0.2947 | 1000 | 383 | 0.3630           | 0.3575 | 0.3473 |
|      |     |                  |        |        | 1000 | 384 | 0.3640           | 0.3585 | 0.3482 |
| 1000 | 330 | 0.3107           | 0.3054 | 0.2956 |      |     |                  |        |        |
| 1000 | 331 | 0.3117           | 0.3064 | 0.2966 | 1000 | 385 | 0.3650           | 0.3595 | 0.3492 |
| 1000 | 332 | 0.3127           | 0.3074 | 0.2976 | 1000 | 386 | 0.3659           | 0.3605 | 0.3502 |
| 1000 | 333 | 0.3137           | 0.3084 | 0.2985 | 1000 | 387 | 0.3670           | 0.3614 | 0.3512 |
| 1000 | 334 | 0.3146           | 0.3093 | 0.2995 | 1000 | 388 | 0.3679           | 0.3624 | 0.3521 |
|      |     |                  |        |        | 1000 | 389 | 0.3689           | 0.3634 | 0.3532 |
| 1000 | 335 | 0.3156           | 0.3103 | 0.3005 |      |     |                  |        |        |
| 1000 | 336 | 0.3166           | 0.3113 | 0.3015 | 1000 | 390 | 0.3699           | 0.3644 | 0.3541 |
| 1000 | 337 | 0.3176           | 0.3123 | 0.3025 | 1000 | 391 | 0.3709           | 0.3654 | 0.3551 |
| 1000 | 338 | 0.3186           | 0.3133 | 0.3034 | 1000 | 392 | 0.3719           | 0.3664 | 0.3561 |
| 1000 | 339 | 0.3196           | 0.3142 | 0.3044 | 1000 | 393 | 0.3729           | 0.3673 | 0.3570 |
|      |     |                  |        |        | 1000 | 394 | 0.3739           | 0.3683 | 0.3580 |
| 1000 | 340 | 0.3205           | 0.3152 | 0.3054 |      |     |                  |        |        |
| 1000 | 341 | 0.3215           | 0.3162 | 0.3063 | 1000 | 395 | 0.3749           | 0.3693 | 0.3590 |
| 1000 | 342 | 0.3225           | 0.3172 | 0.3073 | 1000 | 396 | 0.3758           | 0.3703 | 0.3600 |
| 1000 | 343 | 0.3235           | 0.3182 | 0.3083 | 1000 | 397 | 0.3768           | 0.3713 | 0.3610 |
| 1000 | 344 | 0.3245           | 0.3192 | 0.3092 | 1000 | 398 | 0.3778           | 0.3723 | 0.3619 |
|      |     |                  |        |        | 1000 | 399 | 0.3788           | 0.3733 | 0.3629 |
| 1000 | 345 | 0.3255           | 0.3201 | 0.3102 |      |     |                  |        |        |
| 1000 | 346 | 0.3265           | 0.3211 | 0.3112 | 1000 | 400 | 0.3798           | 0.3743 | 0.3639 |
| 1000 | 347 | 0.3274           | 0.3221 | 0.3122 | 1000 | 401 | 0.3808           | 0.3753 | 0.3649 |
| 1000 | 348 | 0.3284           | 0.3231 | 0.3131 | 1000 | 402 | 0.3818           | 0.3762 | 0.3659 |
| 1000 | 349 | 0.3294           | 0.3241 | 0.3141 | 1000 | 403 | 0.3828           | 0.3772 | 0.3668 |
|      |     |                  |        |        | 1000 | 404 | 0.3838           | 0.3782 | 0.3679 |
| 1000 | 350 | 0.3304           | 0.3251 | 0.3151 |      |     |                  |        |        |
| 1000 | 351 | 0.3314           | 0.3260 | 0.3160 | 1000 | 405 | 0.3848           | 0.3792 | 0.3688 |
| 1000 | 352 | 0.3324           | 0.3270 | 0.3170 | 1000 | 406 | 0.3857           | 0.3802 | 0.3698 |
| 1000 | 353 | 0.3334           | 0.3280 | 0.3180 | 1000 | 407 | 0.3867           | 0.3812 | 0.3708 |
| 1000 | 354 | 0.3343           | 0.3290 | 0.3189 | 1000 | 408 | 0.3877           | 0.3822 | 0.3718 |
|      |     |                  |        |        | 1000 | 409 | 0.3887           | 0.3832 | 0.3727 |
| 1000 | 355 | 0.3353           | 0.3300 | 0.3200 |      |     |                  |        |        |
| 1000 | 356 | 0.3363           | 0.3309 | 0.3209 | 1000 | 410 | 0.3897           | 0.3841 | 0.3738 |
| 1000 | 357 | 0.3373           | 0.3319 | 0.3219 | 1000 | 411 | 0.3907           | 0.3851 | 0.3747 |
| 1000 | 358 | 0.3383           | 0.3329 | 0.3229 | 1000 | 412 | 0.3917           | 0.3861 | 0.3757 |
| 1000 | 359 | 0.3393           | 0.3339 | 0.3238 | 1000 | 413 | 0.3927           | 0.3871 | 0.3767 |
|      |     |                  |        |        | 1000 | 414 | 0.3937           | 0.3881 | 0.3777 |
| 1000 | 360 | 0.3403           | 0.3349 | 0.3248 |      |     |                  |        |        |
| 1000 | 361 | 0.3413           | 0.3359 | 0.3258 | 1000 | 415 | 0.3947           | 0.3891 | 0.3787 |
| 1000 | 362 | 0.3422           | 0.3368 | 0.3268 | 1000 | 416 | 0.3957           | 0.3901 | 0.3796 |
| 1000 | 363 | 0.3432           | 0.3378 | 0.3277 | 1000 | 417 | 0.3967           | 0.3911 | 0.3806 |
| 1000 | 364 | 0.3442           | 0.3388 | 0.3287 | 1000 | 418 | 0.3976           | 0.3920 | 0.3816 |
|      |     |                  |        |        | 1000 | 419 | 0.3985           | 0.3930 | 0.3826 |
| 1000 | 365 | 0.3452           | 0.3398 | 0.3297 |      |     |                  |        |        |
| 1000 | 366 | 0.3462           | 0.3408 | 0.3307 | 1000 | 420 | 0.3996           | 0.3940 | 0.3836 |
| 1000 | 367 | 0.3472           | 0.3417 | 0.3316 | 1000 | 421 | 0.4006           | 0.3950 | 0.3846 |
| 1000 | 368 | 0.3482           | 0.3427 | 0.3326 | 1000 | 422 | 0.4016           | 0.3960 | 0.3855 |
| 1000 | 369 | 0.3491           | 0.3437 | 0.3336 | 1000 | 423 | 0.4026           | 0.3970 | 0.3865 |
|      |     |                  |        |        | 1000 | 424 | 0.4036           | 0.3980 | 0.3875 |
| 1000 | 370 | 0.3501           | 0.3447 | 0.3346 |      |     |                  |        |        |
| 1000 | 371 | 0.3511           | 0.3457 | 0.3355 | 1000 | 425 | 0.4046           | 0.3990 | 0.3885 |
| 1000 | 372 | 0.3521           | 0.3467 | 0.3365 | 1000 | 426 | 0.4056           | 0.4000 | 0.3895 |
| 1000 | 373 | 0.3531           | 0.3476 | 0.3375 | 1000 | 427 | 0.4066           | 0.4010 | 0.3904 |
| 1000 | 374 | 0.3541           | 0.3486 | 0.3385 | 1000 | 428 | 0.4076           | 0.4019 | 0.3915 |
|      |     |                  |        |        | 1000 | 429 | 0.4086           | 0.4029 | 0.3924 |
| 1000 | 375 | 0.3551           | 0.3496 | 0.3395 |      |     |                  |        |        |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 430 | 0.4096           | 0.4039 | 0.3934 | 1000 | 484 | 0.4633           | 0.4576 | 0.4468 |
| 1000 | 431 | 0.4105           | 0.4049 | 0.3944 | 1000 | 485 | 0.4643           | 0.4585 | 0.4478 |
| 1000 | 432 | 0.4115           | 0.4059 | 0.3954 | 1000 | 486 | 0.4653           | 0.4596 | 0.4488 |
| 1000 | 433 | 0.4125           | 0.4069 | 0.3964 | 1000 | 487 | 0.4663           | 0.4606 | 0.4499 |
| 1000 | 434 | 0.4135           | 0.4079 | 0.3973 | 1000 | 488 | 0.4673           | 0.4615 | 0.4508 |
| 1000 | 435 | 0.4145           | 0.4089 | 0.3983 | 1000 | 489 | 0.4683           | 0.4625 | 0.4519 |
| 1000 | 436 | 0.4155           | 0.4099 | 0.3993 | 1000 | 490 | 0.4693           | 0.4635 | 0.4528 |
| 1000 | 437 | 0.4165           | 0.4109 | 0.4003 | 1000 | 491 | 0.4703           | 0.4645 | 0.4538 |
| 1000 | 438 | 0.4175           | 0.4119 | 0.4013 | 1000 | 492 | 0.4713           | 0.4655 | 0.4548 |
| 1000 | 439 | 0.4185           | 0.4128 | 0.4023 | 1000 | 493 | 0.4723           | 0.4665 | 0.4558 |
| 1000 | 440 | 0.4195           | 0.4138 | 0.4033 | 1000 | 494 | 0.4733           | 0.4675 | 0.4568 |
| 1000 | 441 | 0.4205           | 0.4148 | 0.4043 | 1000 | 495 | 0.4743           | 0.4685 | 0.4578 |
| 1000 | 442 | 0.4215           | 0.4158 | 0.4053 | 1000 | 496 | 0.4753           | 0.4695 | 0.4588 |
| 1000 | 443 | 0.4225           | 0.4168 | 0.4063 | 1000 | 497 | 0.4762           | 0.4705 | 0.4598 |
| 1000 | 444 | 0.4235           | 0.4178 | 0.4072 | 1000 | 498 | 0.4773           | 0.4715 | 0.4607 |
| 1000 | 445 | 0.4244           | 0.4188 | 0.4082 | 1000 | 499 | 0.4782           | 0.4725 | 0.4618 |
| 1000 | 446 | 0.4255           | 0.4198 | 0.4092 | 1000 | 500 | 0.4793           | 0.4735 | 0.4628 |
| 1000 | 447 | 0.4264           | 0.4208 | 0.4102 | 1000 | 501 | 0.4802           | 0.4745 | 0.4638 |
| 1000 | 448 | 0.4274           | 0.4218 | 0.4112 | 1000 | 502 | 0.4813           | 0.4755 | 0.4648 |
| 1000 | 449 | 0.4284           | 0.4228 | 0.4121 | 1000 | 503 | 0.4822           | 0.4765 | 0.4658 |
| 1000 | 450 | 0.4294           | 0.4238 | 0.4132 | 1000 | 504 | 0.4833           | 0.4775 | 0.4668 |
| 1000 | 451 | 0.4304           | 0.4248 | 0.4142 | 1000 | 505 | 0.4842           | 0.4785 | 0.4678 |
| 1000 | 452 | 0.4314           | 0.4257 | 0.4151 | 1000 | 506 | 0.4852           | 0.4795 | 0.4688 |
| 1000 | 453 | 0.4324           | 0.4267 | 0.4161 | 1000 | 507 | 0.4862           | 0.4805 | 0.4697 |
| 1000 | 454 | 0.4334           | 0.4277 | 0.4171 | 1000 | 508 | 0.4872           | 0.4815 | 0.4708 |
| 1000 | 455 | 0.4344           | 0.4287 | 0.4181 | 1000 | 509 | 0.4882           | 0.4825 | 0.4717 |
| 1000 | 456 | 0.4354           | 0.4297 | 0.4191 | 1000 | 510 | 0.4892           | 0.4835 | 0.4727 |
| 1000 | 457 | 0.4364           | 0.4307 | 0.4201 | 1000 | 511 | 0.4902           | 0.4845 | 0.4737 |
| 1000 | 458 | 0.4374           | 0.4317 | 0.4211 | 1000 | 512 | 0.4912           | 0.4855 | 0.4747 |
| 1000 | 459 | 0.4384           | 0.4327 | 0.4221 | 1000 | 513 | 0.4922           | 0.4865 | 0.4757 |
| 1000 | 460 | 0.4394           | 0.4337 | 0.4231 | 1000 | 514 | 0.4932           | 0.4875 | 0.4767 |
| 1000 | 461 | 0.4404           | 0.4347 | 0.4240 | 1000 | 515 | 0.4942           | 0.4885 | 0.4777 |
| 1000 | 462 | 0.4414           | 0.4357 | 0.4251 | 1000 | 516 | 0.4952           | 0.4895 | 0.4787 |
| 1000 | 463 | 0.4424           | 0.4367 | 0.4260 | 1000 | 517 | 0.4962           | 0.4905 | 0.4797 |
| 1000 | 464 | 0.4434           | 0.4377 | 0.4270 | 1000 | 518 | 0.4972           | 0.4915 | 0.4807 |
| 1000 | 465 | 0.4444           | 0.4387 | 0.4280 | 1000 | 519 | 0.4982           | 0.4925 | 0.4817 |
| 1000 | 466 | 0.4453           | 0.4397 | 0.4290 | 1000 | 520 | 0.4992           | 0.4935 | 0.4827 |
| 1000 | 467 | 0.4463           | 0.4406 | 0.4300 | 1000 | 521 | 0.5002           | 0.4945 | 0.4837 |
| 1000 | 468 | 0.4473           | 0.4416 | 0.4310 | 1000 | 522 | 0.5012           | 0.4955 | 0.4847 |
| 1000 | 469 | 0.4483           | 0.4426 | 0.4320 | 1000 | 523 | 0.5022           | 0.4965 | 0.4857 |
| 1000 | 470 | 0.4493           | 0.4436 | 0.4330 | 1000 | 524 | 0.5032           | 0.4975 | 0.4867 |
| 1000 | 471 | 0.4503           | 0.4446 | 0.4340 | 1000 | 525 | 0.5042           | 0.4985 | 0.4877 |
| 1000 | 472 | 0.4513           | 0.4456 | 0.4349 | 1000 | 526 | 0.5052           | 0.4995 | 0.4887 |
| 1000 | 473 | 0.4523           | 0.4466 | 0.4359 | 1000 | 527 | 0.5062           | 0.5005 | 0.4897 |
| 1000 | 474 | 0.4533           | 0.4476 | 0.4369 | 1000 | 528 | 0.5072           | 0.5015 | 0.4907 |
| 1000 | 475 | 0.4543           | 0.4486 | 0.4379 | 1000 | 529 | 0.5082           | 0.5025 | 0.4917 |
| 1000 | 476 | 0.4553           | 0.4496 | 0.4389 | 1000 | 530 | 0.5092           | 0.5035 | 0.4927 |
| 1000 | 477 | 0.4563           | 0.4505 | 0.4399 | 1000 | 531 | 0.5102           | 0.5045 | 0.4937 |
| 1000 | 478 | 0.4573           | 0.4516 | 0.4409 | 1000 | 532 | 0.5113           | 0.5055 | 0.4947 |
| 1000 | 479 | 0.4583           | 0.4526 | 0.4419 | 1000 | 533 | 0.5122           | 0.5065 | 0.4957 |
| 1000 | 480 | 0.4593           | 0.4536 | 0.4429 | 1000 | 534 | 0.5133           | 0.5075 | 0.4967 |
| 1000 | 481 | 0.4603           | 0.4546 | 0.4439 | 1000 | 535 | 0.5142           | 0.5085 | 0.4977 |
| 1000 | 482 | 0.4613           | 0.4556 | 0.4448 | 1000 | 536 | 0.5153           | 0.5095 | 0.4987 |
| 1000 | 483 | 0.4623           | 0.4566 | 0.4459 |      |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 537 | 0.5163           | 0.5105 | 0.4997 | 1000 | 591 | 0.5705           | 0.5648 | 0.5540 |
| 1000 | 538 | 0.5173           | 0.5115 | 0.5007 | 1000 | 592 | 0.5715           | 0.5658 | 0.5550 |
| 1000 | 539 | 0.5183           | 0.5125 | 0.5017 | 1000 | 593 | 0.5725           | 0.5668 | 0.5560 |
|      |     |                  |        |        | 1000 | 594 | 0.5735           | 0.5678 | 0.5571 |
| 1000 | 540 | 0.5193           | 0.5135 | 0.5027 |      |     |                  |        |        |
| 1000 | 541 | 0.5203           | 0.5145 | 0.5037 | 1000 | 595 | 0.5745           | 0.5688 | 0.5581 |
| 1000 | 542 | 0.5213           | 0.5155 | 0.5047 | 1000 | 596 | 0.5755           | 0.5698 | 0.5591 |
| 1000 | 543 | 0.5223           | 0.5165 | 0.5057 | 1000 | 597 | 0.5765           | 0.5708 | 0.5601 |
| 1000 | 544 | 0.5233           | 0.5175 | 0.5067 | 1000 | 598 | 0.5775           | 0.5718 | 0.5611 |
|      |     |                  |        |        | 1000 | 599 | 0.5785           | 0.5728 | 0.5621 |
| 1000 | 545 | 0.5243           | 0.5185 | 0.5077 |      |     |                  |        |        |
| 1000 | 546 | 0.5253           | 0.5195 | 0.5088 | 1000 | 600 | 0.5795           | 0.5738 | 0.5631 |
| 1000 | 547 | 0.5263           | 0.5205 | 0.5098 | 1000 | 601 | 0.5805           | 0.5748 | 0.5641 |
| 1000 | 548 | 0.5273           | 0.5215 | 0.5107 | 1000 | 602 | 0.5815           | 0.5758 | 0.5651 |
| 1000 | 549 | 0.5283           | 0.5225 | 0.5118 | 1000 | 603 | 0.5825           | 0.5769 | 0.5662 |
|      |     |                  |        |        | 1000 | 604 | 0.5835           | 0.5779 | 0.5672 |
| 1000 | 550 | 0.5293           | 0.5235 | 0.5128 |      |     |                  |        |        |
| 1000 | 551 | 0.5303           | 0.5245 | 0.5138 | 1000 | 605 | 0.5845           | 0.5789 | 0.5682 |
| 1000 | 552 | 0.5313           | 0.5256 | 0.5148 | 1000 | 606 | 0.5855           | 0.5799 | 0.5692 |
| 1000 | 553 | 0.5323           | 0.5265 | 0.5158 | 1000 | 607 | 0.5866           | 0.5809 | 0.5702 |
| 1000 | 554 | 0.5333           | 0.5275 | 0.5168 | 1000 | 608 | 0.5876           | 0.5819 | 0.5712 |
|      |     |                  |        |        | 1000 | 609 | 0.5886           | 0.5829 | 0.5722 |
| 1000 | 555 | 0.5343           | 0.5286 | 0.5178 |      |     |                  |        |        |
| 1000 | 556 | 0.5353           | 0.5296 | 0.5188 | 1000 | 610 | 0.5896           | 0.5839 | 0.5732 |
| 1000 | 557 | 0.5363           | 0.5306 | 0.5198 | 1000 | 611 | 0.5906           | 0.5849 | 0.5742 |
| 1000 | 558 | 0.5373           | 0.5316 | 0.5208 | 1000 | 612 | 0.5916           | 0.5859 | 0.5752 |
| 1000 | 559 | 0.5383           | 0.5326 | 0.5218 | 1000 | 613 | 0.5926           | 0.5869 | 0.5763 |
|      |     |                  |        |        | 1000 | 614 | 0.5936           | 0.5880 | 0.5773 |
| 1000 | 560 | 0.5393           | 0.5336 | 0.5228 |      |     |                  |        |        |
| 1000 | 561 | 0.5403           | 0.5346 | 0.5238 | 1000 | 615 | 0.5946           | 0.5890 | 0.5783 |
| 1000 | 562 | 0.5413           | 0.5356 | 0.5248 | 1000 | 616 | 0.5956           | 0.5900 | 0.5793 |
| 1000 | 563 | 0.5423           | 0.5366 | 0.5258 | 1000 | 617 | 0.5966           | 0.5910 | 0.5803 |
| 1000 | 564 | 0.5433           | 0.5376 | 0.5268 | 1000 | 618 | 0.5976           | 0.5920 | 0.5813 |
|      |     |                  |        |        | 1000 | 619 | 0.5987           | 0.5930 | 0.5824 |
| 1000 | 565 | 0.5443           | 0.5386 | 0.5278 |      |     |                  |        |        |
| 1000 | 566 | 0.5453           | 0.5396 | 0.5288 | 1000 | 620 | 0.5997           | 0.5940 | 0.5834 |
| 1000 | 567 | 0.5463           | 0.5406 | 0.5298 | 1000 | 621 | 0.6007           | 0.5950 | 0.5844 |
| 1000 | 568 | 0.5473           | 0.5416 | 0.5308 | 1000 | 622 | 0.6017           | 0.5960 | 0.5854 |
| 1000 | 569 | 0.5483           | 0.5426 | 0.5319 | 1000 | 623 | 0.6027           | 0.5971 | 0.5864 |
|      |     |                  |        |        | 1000 | 624 | 0.6037           | 0.5981 | 0.5874 |
| 1000 | 570 | 0.5494           | 0.5436 | 0.5329 |      |     |                  |        |        |
| 1000 | 571 | 0.5503           | 0.5446 | 0.5339 | 1000 | 625 | 0.6047           | 0.5991 | 0.5884 |
| 1000 | 572 | 0.5514           | 0.5456 | 0.5349 | 1000 | 626 | 0.6057           | 0.6001 | 0.5895 |
| 1000 | 573 | 0.5524           | 0.5466 | 0.5359 | 1000 | 627 | 0.6067           | 0.6011 | 0.5905 |
| 1000 | 574 | 0.5534           | 0.5476 | 0.5369 | 1000 | 628 | 0.6077           | 0.6021 | 0.5915 |
|      |     |                  |        |        | 1000 | 629 | 0.6087           | 0.6031 | 0.5925 |
| 1000 | 575 | 0.5544           | 0.5487 | 0.5379 |      |     |                  |        |        |
| 1000 | 576 | 0.5554           | 0.5497 | 0.5389 | 1000 | 630 | 0.6097           | 0.6041 | 0.5935 |
| 1000 | 577 | 0.5564           | 0.5507 | 0.5399 | 1000 | 631 | 0.6108           | 0.6051 | 0.5945 |
| 1000 | 578 | 0.5574           | 0.5517 | 0.5409 | 1000 | 632 | 0.6118           | 0.6061 | 0.5955 |
| 1000 | 579 | 0.5584           | 0.5527 | 0.5419 | 1000 | 633 | 0.6128           | 0.6072 | 0.5966 |
|      |     |                  |        |        | 1000 | 634 | 0.6138           | 0.6082 | 0.5976 |
| 1000 | 580 | 0.5594           | 0.5537 | 0.5429 |      |     |                  |        |        |
| 1000 | 581 | 0.5604           | 0.5547 | 0.5439 | 1000 | 635 | 0.6148           | 0.6092 | 0.5986 |
| 1000 | 582 | 0.5614           | 0.5557 | 0.5449 | 1000 | 636 | 0.6158           | 0.6102 | 0.5996 |
| 1000 | 583 | 0.5624           | 0.5567 | 0.5460 | 1000 | 637 | 0.6168           | 0.6112 | 0.6006 |
| 1000 | 584 | 0.5634           | 0.5577 | 0.5470 | 1000 | 638 | 0.6178           | 0.6122 | 0.6016 |
|      |     |                  |        |        | 1000 | 639 | 0.6188           | 0.6132 | 0.6027 |
| 1000 | 585 | 0.5644           | 0.5587 | 0.5480 |      |     |                  |        |        |
| 1000 | 586 | 0.5654           | 0.5597 | 0.5490 | 1000 | 640 | 0.6199           | 0.6143 | 0.6037 |
| 1000 | 587 | 0.5664           | 0.5607 | 0.5500 | 1000 | 641 | 0.6209           | 0.6153 | 0.6047 |
| 1000 | 588 | 0.5674           | 0.5617 | 0.5510 | 1000 | 642 | 0.6219           | 0.6163 | 0.6057 |
| 1000 | 589 | 0.5684           | 0.5627 | 0.5520 | 1000 | 643 | 0.6229           | 0.6173 | 0.6067 |
|      |     |                  |        |        | 1000 | 644 | 0.6239           | 0.6183 | 0.6077 |
| 1000 | 590 | 0.5695           | 0.5637 | 0.5530 |      |     |                  |        |        |



# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 645 | 0.6249           | 0.6193 | 0.6088 | 1000 | 699 | 0.6796           | 0.6742 | 0.6640 |
| 1000 | 646 | 0.6259           | 0.6203 | 0.6098 |      |     |                  |        |        |
| 1000 | 647 | 0.6269           | 0.6213 | 0.6108 | 1000 | 700 | 0.6806           | 0.6752 | 0.6650 |
| 1000 | 648 | 0.6279           | 0.6224 | 0.6118 | 1000 | 701 | 0.6817           | 0.6763 | 0.6661 |
| 1000 | 649 | 0.6289           | 0.6234 | 0.6128 | 1000 | 702 | 0.6827           | 0.6773 | 0.6671 |
|      |     |                  |        |        | 1000 | 703 | 0.6837           | 0.6783 | 0.6681 |
| 1000 | 650 | 0.6300           | 0.6244 | 0.6139 | 1000 | 704 | 0.6847           | 0.6793 | 0.6692 |
| 1000 | 651 | 0.6310           | 0.6254 | 0.6149 |      |     |                  |        |        |
| 1000 | 652 | 0.6320           | 0.6264 | 0.6159 | 1000 | 705 | 0.6857           | 0.6804 | 0.6702 |
| 1000 | 653 | 0.6330           | 0.6274 | 0.6169 | 1000 | 706 | 0.6867           | 0.6814 | 0.6712 |
| 1000 | 654 | 0.6340           | 0.6284 | 0.6179 | 1000 | 707 | 0.6878           | 0.6824 | 0.6722 |
|      |     |                  |        |        | 1000 | 708 | 0.6888           | 0.6834 | 0.6733 |
| 1000 | 655 | 0.6350           | 0.6295 | 0.6190 | 1000 | 709 | 0.6898           | 0.6844 | 0.6743 |
| 1000 | 656 | 0.6360           | 0.6305 | 0.6200 |      |     |                  |        |        |
| 1000 | 657 | 0.6370           | 0.6315 | 0.6210 | 1000 | 710 | 0.6908           | 0.6855 | 0.6753 |
| 1000 | 658 | 0.6381           | 0.6325 | 0.6220 | 1000 | 711 | 0.6918           | 0.6865 | 0.6764 |
| 1000 | 659 | 0.6391           | 0.6335 | 0.6230 | 1000 | 712 | 0.6928           | 0.6875 | 0.6774 |
|      |     |                  |        |        | 1000 | 713 | 0.6939           | 0.6885 | 0.6784 |
| 1000 | 660 | 0.6401           | 0.6345 | 0.6241 | 1000 | 714 | 0.6949           | 0.6896 | 0.6795 |
| 1000 | 661 | 0.6411           | 0.6356 | 0.6251 |      |     |                  |        |        |
| 1000 | 662 | 0.6421           | 0.6366 | 0.6261 | 1000 | 715 | 0.6959           | 0.6906 | 0.6805 |
| 1000 | 663 | 0.6431           | 0.6376 | 0.6271 | 1000 | 716 | 0.6969           | 0.6916 | 0.6815 |
| 1000 | 664 | 0.6441           | 0.6386 | 0.6282 | 1000 | 717 | 0.6979           | 0.6926 | 0.6825 |
|      |     |                  |        |        | 1000 | 718 | 0.6990           | 0.6936 | 0.6836 |
| 1000 | 665 | 0.6451           | 0.6396 | 0.6292 | 1000 | 719 | 0.7000           | 0.6947 | 0.6846 |
| 1000 | 666 | 0.6462           | 0.6406 | 0.6302 |      |     |                  |        |        |
| 1000 | 667 | 0.6472           | 0.6416 | 0.6312 | 1000 | 720 | 0.7010           | 0.6957 | 0.6856 |
| 1000 | 668 | 0.6482           | 0.6427 | 0.6322 | 1000 | 721 | 0.7020           | 0.6967 | 0.6867 |
| 1000 | 669 | 0.6492           | 0.6437 | 0.6333 | 1000 | 722 | 0.7030           | 0.6977 | 0.6877 |
|      |     |                  |        |        | 1000 | 723 | 0.7040           | 0.6988 | 0.6887 |
| 1000 | 670 | 0.6502           | 0.6447 | 0.6343 | 1000 | 724 | 0.7051           | 0.6998 | 0.6898 |
| 1000 | 671 | 0.6512           | 0.6457 | 0.6353 |      |     |                  |        |        |
| 1000 | 672 | 0.6522           | 0.6467 | 0.6363 | 1000 | 725 | 0.7061           | 0.7008 | 0.6908 |
| 1000 | 673 | 0.6533           | 0.6477 | 0.6374 | 1000 | 726 | 0.7071           | 0.7018 | 0.6918 |
| 1000 | 674 | 0.6543           | 0.6488 | 0.6384 | 1000 | 727 | 0.7081           | 0.7028 | 0.6929 |
|      |     |                  |        |        | 1000 | 728 | 0.7091           | 0.7039 | 0.6939 |
| 1000 | 675 | 0.6553           | 0.6498 | 0.6394 | 1000 | 729 | 0.7102           | 0.7049 | 0.6949 |
| 1000 | 676 | 0.6563           | 0.6508 | 0.6404 |      |     |                  |        |        |
| 1000 | 677 | 0.6573           | 0.6518 | 0.6414 | 1000 | 730 | 0.7112           | 0.7059 | 0.6960 |
| 1000 | 678 | 0.6583           | 0.6528 | 0.6425 | 1000 | 731 | 0.7122           | 0.7069 | 0.6970 |
| 1000 | 679 | 0.6593           | 0.6538 | 0.6435 | 1000 | 732 | 0.7132           | 0.7080 | 0.6980 |
|      |     |                  |        |        | 1000 | 733 | 0.7142           | 0.7090 | 0.6991 |
| 1000 | 680 | 0.6603           | 0.6549 | 0.6445 | 1000 | 734 | 0.7153           | 0.7100 | 0.7001 |
| 1000 | 681 | 0.6614           | 0.6559 | 0.6455 |      |     |                  |        |        |
| 1000 | 682 | 0.6624           | 0.6569 | 0.6466 | 1000 | 735 | 0.7163           | 0.7111 | 0.7011 |
| 1000 | 683 | 0.6634           | 0.6579 | 0.6476 | 1000 | 736 | 0.7173           | 0.7121 | 0.7022 |
| 1000 | 684 | 0.6644           | 0.6589 | 0.6486 | 1000 | 737 | 0.7183           | 0.7131 | 0.7032 |
|      |     |                  |        |        | 1000 | 738 | 0.7193           | 0.7141 | 0.7042 |
| 1000 | 685 | 0.6654           | 0.6600 | 0.6496 | 1000 | 739 | 0.7204           | 0.7152 | 0.7053 |
| 1000 | 686 | 0.6664           | 0.6610 | 0.6507 |      |     |                  |        |        |
| 1000 | 687 | 0.6674           | 0.6620 | 0.6517 | 1000 | 740 | 0.7214           | 0.7162 | 0.7063 |
| 1000 | 688 | 0.6685           | 0.6630 | 0.6527 | 1000 | 741 | 0.7224           | 0.7172 | 0.7073 |
| 1000 | 689 | 0.6695           | 0.6640 | 0.6537 | 1000 | 742 | 0.7234           | 0.7182 | 0.7084 |
|      |     |                  |        |        | 1000 | 743 | 0.7244           | 0.7193 | 0.7094 |
| 1000 | 690 | 0.6705           | 0.6650 | 0.6548 | 1000 | 744 | 0.7255           | 0.7203 | 0.7105 |
| 1000 | 691 | 0.6715           | 0.6661 | 0.6558 |      |     |                  |        |        |
| 1000 | 692 | 0.6725           | 0.6671 | 0.6568 | 1000 | 745 | 0.7265           | 0.7213 | 0.7115 |
| 1000 | 693 | 0.6735           | 0.6681 | 0.6578 | 1000 | 746 | 0.7275           | 0.7223 | 0.7125 |
| 1000 | 694 | 0.6746           | 0.6691 | 0.6589 | 1000 | 747 | 0.7285           | 0.7234 | 0.7136 |
|      |     |                  |        |        | 1000 | 748 | 0.7295           | 0.7244 | 0.7146 |
| 1000 | 695 | 0.6756           | 0.6701 | 0.6599 | 1000 | 749 | 0.7306           | 0.7254 | 0.7156 |
| 1000 | 696 | 0.6766           | 0.6712 | 0.6609 |      |     |                  |        |        |
| 1000 | 697 | 0.6776           | 0.6722 | 0.6619 | 1000 | 750 | 0.7316           | 0.7264 | 0.7167 |
| 1000 | 698 | 0.6786           | 0.6732 | 0.6630 | 1000 | 751 | 0.7326           | 0.7275 | 0.7177 |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 752 | 0.7336           | 0.7285 | 0.7188 | 1000 | 806 | 0.7890           | 0.7843 | 0.7752 |
| 1000 | 753 | 0.7347           | 0.7295 | 0.7198 | 1000 | 807 | 0.7901           | 0.7853 | 0.7763 |
| 1000 | 754 | 0.7357           | 0.7306 | 0.7208 | 1000 | 808 | 0.7911           | 0.7864 | 0.7773 |
|      |     |                  |        |        | 1000 | 809 | 0.7921           | 0.7874 | 0.7784 |
| 1000 | 755 | 0.7367           | 0.7316 | 0.7219 |      |     |                  |        |        |
| 1000 | 756 | 0.7377           | 0.7326 | 0.7229 | 1000 | 810 | 0.7931           | 0.7884 | 0.7794 |
| 1000 | 757 | 0.7387           | 0.7337 | 0.7240 | 1000 | 811 | 0.7942           | 0.7895 | 0.7805 |
| 1000 | 758 | 0.7398           | 0.7347 | 0.7250 | 1000 | 812 | 0.7952           | 0.7905 | 0.7815 |
| 1000 | 759 | 0.7408           | 0.7357 | 0.7260 | 1000 | 813 | 0.7962           | 0.7915 | 0.7826 |
|      |     |                  |        |        | 1000 | 814 | 0.7973           | 0.7926 | 0.7836 |
| 1000 | 760 | 0.7418           | 0.7367 | 0.7271 |      |     |                  |        |        |
| 1000 | 761 | 0.7428           | 0.7378 | 0.7281 | 1000 | 815 | 0.7983           | 0.7936 | 0.7847 |
| 1000 | 762 | 0.7438           | 0.7388 | 0.7292 | 1000 | 816 | 0.7993           | 0.7947 | 0.7858 |
| 1000 | 763 | 0.7449           | 0.7398 | 0.7302 | 1000 | 817 | 0.8004           | 0.7957 | 0.7868 |
| 1000 | 764 | 0.7459           | 0.7409 | 0.7312 | 1000 | 818 | 0.8014           | 0.7967 | 0.7879 |
|      |     |                  |        |        | 1000 | 819 | 0.8024           | 0.7978 | 0.7889 |
| 1000 | 765 | 0.7469           | 0.7419 | 0.7323 |      |     |                  |        |        |
| 1000 | 766 | 0.7480           | 0.7429 | 0.7333 | 1000 | 820 | 0.8035           | 0.7988 | 0.7900 |
| 1000 | 767 | 0.7490           | 0.7439 | 0.7344 | 1000 | 821 | 0.8045           | 0.7999 | 0.7910 |
| 1000 | 768 | 0.7500           | 0.7450 | 0.7354 | 1000 | 822 | 0.8055           | 0.8009 | 0.7921 |
| 1000 | 769 | 0.7510           | 0.7460 | 0.7365 | 1000 | 823 | 0.8066           | 0.8019 | 0.7931 |
|      |     |                  |        |        | 1000 | 824 | 0.8076           | 0.8030 | 0.7942 |
| 1000 | 770 | 0.7521           | 0.7470 | 0.7375 |      |     |                  |        |        |
| 1000 | 771 | 0.7531           | 0.7481 | 0.7385 | 1000 | 825 | 0.8086           | 0.8040 | 0.7953 |
| 1000 | 772 | 0.7541           | 0.7491 | 0.7396 | 1000 | 826 | 0.8097           | 0.8051 | 0.7963 |
| 1000 | 773 | 0.7551           | 0.7501 | 0.7406 | 1000 | 827 | 0.8107           | 0.8061 | 0.7974 |
| 1000 | 774 | 0.7562           | 0.7512 | 0.7417 | 1000 | 828 | 0.8117           | 0.8072 | 0.7984 |
|      |     |                  |        |        | 1000 | 829 | 0.8128           | 0.8082 | 0.7995 |
| 1000 | 775 | 0.7572           | 0.7522 | 0.7427 |      |     |                  |        |        |
| 1000 | 776 | 0.7582           | 0.7532 | 0.7438 | 1000 | 830 | 0.8138           | 0.8092 | 0.8006 |
| 1000 | 777 | 0.7592           | 0.7542 | 0.7448 | 1000 | 831 | 0.8148           | 0.8103 | 0.8016 |
| 1000 | 778 | 0.7603           | 0.7553 | 0.7458 | 1000 | 832 | 0.8159           | 0.8113 | 0.8027 |
| 1000 | 779 | 0.7613           | 0.7563 | 0.7469 | 1000 | 833 | 0.8169           | 0.8124 | 0.8037 |
|      |     |                  |        |        | 1000 | 834 | 0.8179           | 0.8134 | 0.8048 |
| 1000 | 780 | 0.7623           | 0.7573 | 0.7479 |      |     |                  |        |        |
| 1000 | 781 | 0.7633           | 0.7584 | 0.7490 | 1000 | 835 | 0.8190           | 0.8145 | 0.8059 |
| 1000 | 782 | 0.7644           | 0.7594 | 0.7500 | 1000 | 836 | 0.8200           | 0.8155 | 0.8069 |
| 1000 | 783 | 0.7654           | 0.7605 | 0.7511 | 1000 | 837 | 0.8210           | 0.8166 | 0.8080 |
| 1000 | 784 | 0.7664           | 0.7615 | 0.7521 | 1000 | 838 | 0.8221           | 0.8176 | 0.8090 |
|      |     |                  |        |        | 1000 | 839 | 0.8231           | 0.8186 | 0.8101 |
| 1000 | 785 | 0.7674           | 0.7625 | 0.7532 |      |     |                  |        |        |
| 1000 | 786 | 0.7685           | 0.7636 | 0.7542 | 1000 | 840 | 0.8242           | 0.8197 | 0.8112 |
| 1000 | 787 | 0.7695           | 0.7646 | 0.7553 | 1000 | 841 | 0.8252           | 0.8207 | 0.8122 |
| 1000 | 788 | 0.7705           | 0.7656 | 0.7563 | 1000 | 842 | 0.8262           | 0.8218 | 0.8133 |
| 1000 | 789 | 0.7716           | 0.7667 | 0.7574 | 1000 | 843 | 0.8272           | 0.8228 | 0.8144 |
|      |     |                  |        |        | 1000 | 844 | 0.8283           | 0.8239 | 0.8155 |
| 1000 | 790 | 0.7726           | 0.7677 | 0.7584 |      |     |                  |        |        |
| 1000 | 791 | 0.7736           | 0.7687 | 0.7595 | 1000 | 845 | 0.8293           | 0.8249 | 0.8165 |
| 1000 | 792 | 0.7746           | 0.7698 | 0.7605 | 1000 | 846 | 0.8304           | 0.8260 | 0.8176 |
| 1000 | 793 | 0.7757           | 0.7708 | 0.7616 | 1000 | 847 | 0.8314           | 0.8270 | 0.8186 |
| 1000 | 794 | 0.7767           | 0.7718 | 0.7626 | 1000 | 848 | 0.8324           | 0.8281 | 0.8197 |
|      |     |                  |        |        | 1000 | 849 | 0.8335           | 0.8291 | 0.8207 |
| 1000 | 795 | 0.7777           | 0.7729 | 0.7636 |      |     |                  |        |        |
| 1000 | 796 | 0.7787           | 0.7739 | 0.7647 | 1000 | 850 | 0.8345           | 0.8302 | 0.8219 |
| 1000 | 797 | 0.7798           | 0.7749 | 0.7658 | 1000 | 851 | 0.8356           | 0.8312 | 0.8229 |
| 1000 | 798 | 0.7808           | 0.7760 | 0.7668 | 1000 | 852 | 0.8366           | 0.8323 | 0.8240 |
| 1000 | 799 | 0.7818           | 0.7770 | 0.7678 | 1000 | 853 | 0.8376           | 0.8333 | 0.8250 |
|      |     |                  |        |        | 1000 | 854 | 0.8387           | 0.8344 | 0.8261 |
| 1000 | 800 | 0.7829           | 0.7781 | 0.7689 |      |     |                  |        |        |
| 1000 | 801 | 0.7839           | 0.7791 | 0.7700 | 1000 | 855 | 0.8397           | 0.8354 | 0.8272 |
| 1000 | 802 | 0.7849           | 0.7801 | 0.7710 | 1000 | 856 | 0.8408           | 0.8365 | 0.8283 |
| 1000 | 803 | 0.7859           | 0.7812 | 0.7721 | 1000 | 857 | 0.8418           | 0.8375 | 0.8293 |
| 1000 | 804 | 0.7870           | 0.7822 | 0.7731 | 1000 | 858 | 0.8428           | 0.8386 | 0.8304 |
|      |     |                  |        |        | 1000 | 859 | 0.8439           | 0.8396 | 0.8315 |
| 1000 | 805 | 0.7880           | 0.7832 | 0.7742 |      |     |                  |        |        |

# LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 860 | 0.8449           | 0.8407 | 0.8325 | 1000 | 914 | 0.9015           | 0.8980 | 0.8912 |
| 1000 | 861 | 0.8460           | 0.8417 | 0.8336 | 1000 | 915 | 0.9026           | 0.8991 | 0.8923 |
| 1000 | 862 | 0.8470           | 0.8428 | 0.8347 | 1000 | 916 | 0.9036           | 0.9001 | 0.8934 |
| 1000 | 863 | 0.8480           | 0.8438 | 0.8357 | 1000 | 917 | 0.9047           | 0.9012 | 0.8945 |
| 1000 | 864 | 0.8491           | 0.8449 | 0.8368 | 1000 | 918 | 0.9058           | 0.9023 | 0.8956 |
| 1000 | 865 | 0.8501           | 0.8459 | 0.8379 | 1000 | 919 | 0.9068           | 0.9034 | 0.8967 |
| 1000 | 866 | 0.8512           | 0.8470 | 0.8390 | 1000 | 920 | 0.9079           | 0.9045 | 0.8978 |
| 1000 | 867 | 0.8522           | 0.8480 | 0.8400 | 1000 | 921 | 0.9089           | 0.9055 | 0.8989 |
| 1000 | 868 | 0.8532           | 0.8491 | 0.8411 | 1000 | 922 | 0.9100           | 0.9066 | 0.9000 |
| 1000 | 869 | 0.8543           | 0.8501 | 0.8422 | 1000 | 923 | 0.9111           | 0.9077 | 0.9012 |
| 1000 | 870 | 0.8553           | 0.8512 | 0.8433 | 1000 | 924 | 0.9121           | 0.9088 | 0.9023 |
| 1000 | 871 | 0.8564           | 0.8523 | 0.8444 | 1000 | 925 | 0.9132           | 0.9098 | 0.9034 |
| 1000 | 872 | 0.8574           | 0.8533 | 0.8454 | 1000 | 926 | 0.9142           | 0.9109 | 0.9045 |
| 1000 | 873 | 0.8585           | 0.8544 | 0.8465 | 1000 | 927 | 0.9153           | 0.9120 | 0.9056 |
| 1000 | 874 | 0.8595           | 0.8554 | 0.8476 | 1000 | 928 | 0.9164           | 0.9131 | 0.9067 |
| 1000 | 875 | 0.8605           | 0.8565 | 0.8487 | 1000 | 929 | 0.9174           | 0.9142 | 0.9078 |
| 1000 | 876 | 0.8616           | 0.8575 | 0.8498 | 1000 | 930 | 0.9185           | 0.9153 | 0.9090 |
| 1000 | 877 | 0.8626           | 0.8586 | 0.8508 | 1000 | 931 | 0.9195           | 0.9163 | 0.9101 |
| 1000 | 878 | 0.8637           | 0.8596 | 0.8519 | 1000 | 932 | 0.9206           | 0.9174 | 0.9112 |
| 1000 | 879 | 0.8647           | 0.8607 | 0.8530 | 1000 | 933 | 0.9217           | 0.9185 | 0.9123 |
| 1000 | 880 | 0.8658           | 0.8618 | 0.8541 | 1000 | 934 | 0.9228           | 0.9196 | 0.9135 |
| 1000 | 881 | 0.8668           | 0.8628 | 0.8552 | 1000 | 935 | 0.9238           | 0.9207 | 0.9146 |
| 1000 | 882 | 0.8679           | 0.8639 | 0.8562 | 1000 | 936 | 0.9249           | 0.9218 | 0.9157 |
| 1000 | 883 | 0.8689           | 0.8649 | 0.8573 | 1000 | 937 | 0.9260           | 0.9229 | 0.9168 |
| 1000 | 884 | 0.8700           | 0.8660 | 0.8584 | 1000 | 938 | 0.9271           | 0.9240 | 0.9180 |
| 1000 | 885 | 0.8710           | 0.8671 | 0.8595 | 1000 | 939 | 0.9281           | 0.9251 | 0.9191 |
| 1000 | 886 | 0.8720           | 0.8681 | 0.8606 | 1000 | 940 | 0.9292           | 0.9262 | 0.9202 |
| 1000 | 887 | 0.8731           | 0.8692 | 0.8616 | 1000 | 941 | 0.9303           | 0.9272 | 0.9213 |
| 1000 | 888 | 0.8741           | 0.8702 | 0.8627 | 1000 | 942 | 0.9314           | 0.9283 | 0.9225 |
| 1000 | 889 | 0.8752           | 0.8713 | 0.8638 | 1000 | 943 | 0.9324           | 0.9294 | 0.9236 |
| 1000 | 890 | 0.8762           | 0.8724 | 0.8649 | 1000 | 944 | 0.9335           | 0.9305 | 0.9247 |
| 1000 | 891 | 0.8773           | 0.8734 | 0.8660 | 1000 | 945 | 0.9346           | 0.9316 | 0.9259 |
| 1000 | 892 | 0.8783           | 0.8745 | 0.8671 | 1000 | 946 | 0.9357           | 0.9327 | 0.9270 |
| 1000 | 893 | 0.8794           | 0.8756 | 0.8682 | 1000 | 947 | 0.9367           | 0.9338 | 0.9282 |
| 1000 | 894 | 0.8804           | 0.8766 | 0.8693 | 1000 | 948 | 0.9378           | 0.9349 | 0.9293 |
| 1000 | 895 | 0.8815           | 0.8777 | 0.8703 | 1000 | 949 | 0.9389           | 0.9360 | 0.9305 |
| 1000 | 896 | 0.8825           | 0.8787 | 0.8715 | 1000 | 950 | 0.9400           | 0.9371 | 0.9316 |
| 1000 | 897 | 0.8836           | 0.8798 | 0.8725 | 1000 | 951 | 0.9411           | 0.9382 | 0.9327 |
| 1000 | 898 | 0.8846           | 0.8809 | 0.8736 | 1000 | 952 | 0.9421           | 0.9393 | 0.9339 |
| 1000 | 899 | 0.8857           | 0.8820 | 0.8747 | 1000 | 953 | 0.9432           | 0.9405 | 0.9350 |
| 1000 | 900 | 0.8867           | 0.8830 | 0.8758 | 1000 | 954 | 0.9443           | 0.9416 | 0.9362 |
| 1000 | 901 | 0.8878           | 0.8841 | 0.8769 | 1000 | 955 | 0.9454           | 0.9427 | 0.9373 |
| 1000 | 902 | 0.8888           | 0.8851 | 0.8780 | 1000 | 956 | 0.9465           | 0.9438 | 0.9385 |
| 1000 | 903 | 0.8899           | 0.8862 | 0.8791 | 1000 | 957 | 0.9476           | 0.9449 | 0.9397 |
| 1000 | 904 | 0.8910           | 0.8873 | 0.8802 | 1000 | 958 | 0.9487           | 0.9460 | 0.9408 |
| 1000 | 905 | 0.8920           | 0.8883 | 0.8813 | 1000 | 959 | 0.9498           | 0.9471 | 0.9420 |
| 1000 | 906 | 0.8931           | 0.8894 | 0.8824 | 1000 | 960 | 0.9508           | 0.9482 | 0.9432 |
| 1000 | 907 | 0.8941           | 0.8905 | 0.8835 | 1000 | 961 | 0.9519           | 0.9494 | 0.9443 |
| 1000 | 908 | 0.8952           | 0.8916 | 0.8846 | 1000 | 962 | 0.9530           | 0.9505 | 0.9455 |
| 1000 | 909 | 0.8962           | 0.8926 | 0.8857 | 1000 | 963 | 0.9541           | 0.9516 | 0.9467 |
| 1000 | 910 | 0.8973           | 0.8937 | 0.8868 | 1000 | 964 | 0.9552           | 0.9527 | 0.9478 |
| 1000 | 911 | 0.8983           | 0.8948 | 0.8879 | 1000 | 965 | 0.9563           | 0.9539 | 0.9490 |
| 1000 | 912 | 0.8994           | 0.8958 | 0.8890 | 1000 | 966 | 0.9574           | 0.9550 | 0.9502 |
| 1000 | 913 | 0.9005           | 0.8969 | 0.8901 |      |     |                  |        |        |

LOWER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K    | CONFIDENCE LEVEL |        |        |
|------|------|------------------|--------|--------|
|      |      | 90%              | 95%    | 99%    |
| 1000 | 967  | 0.9585           | 0.9561 | 0.9514 |
| 1000 | 968  | 0.9596           | 0.9573 | 0.9526 |
| 1000 | 969  | 0.9607           | 0.9584 | 0.9538 |
| 1000 | 970  | 0.9618           | 0.9595 | 0.9549 |
| 1000 | 971  | 0.9630           | 0.9607 | 0.9561 |
| 1000 | 972  | 0.9641           | 0.9618 | 0.9573 |
| 1000 | 973  | 0.9652           | 0.9630 | 0.9586 |
| 1000 | 974  | 0.9663           | 0.9641 | 0.9598 |
| 1000 | 975  | 0.9674           | 0.9653 | 0.9610 |
| 1000 | 976  | 0.9685           | 0.9664 | 0.9622 |
| 1000 | 977  | 0.9697           | 0.9676 | 0.9634 |
| 1000 | 978  | 0.9708           | 0.9687 | 0.9646 |
| 1000 | 979  | 0.9719           | 0.9699 | 0.9659 |
| 1000 | 980  | 0.9731           | 0.9711 | 0.9671 |
| 1000 | 981  | 0.9742           | 0.9722 | 0.9684 |
| 1000 | 982  | 0.9753           | 0.9734 | 0.9696 |
| 1000 | 983  | 0.9765           | 0.9746 | 0.9709 |
| 1000 | 984  | 0.9776           | 0.9758 | 0.9721 |
| 1000 | 985  | 0.9788           | 0.9770 | 0.9734 |
| 1000 | 986  | 0.9799           | 0.9782 | 0.9747 |
| 1000 | 987  | 0.9811           | 0.9794 | 0.9760 |
| 1000 | 988  | 0.9823           | 0.9806 | 0.9773 |
| 1000 | 989  | 0.9834           | 0.9819 | 0.9786 |
| 1000 | 990  | 0.9846           | 0.9831 | 0.9800 |
| 1000 | 991  | 0.9858           | 0.9843 | 0.9813 |
| 1000 | 992  | 0.9870           | 0.9856 | 0.9827 |
| 1000 | 993  | 0.9883           | 0.9869 | 0.9841 |
| 1000 | 994  | 0.9895           | 0.9882 | 0.9855 |
| 1000 | 995  | 0.9907           | 0.9895 | 0.9869 |
| 1000 | 996  | 0.9920           | 0.9909 | 0.9884 |
| 1000 | 997  | 0.9933           | 0.9923 | 0.9900 |
| 1000 | 998  | 0.9947           | 0.9937 | 0.9916 |
| 1000 | 999  | 0.9961           | 0.9953 | 0.9934 |
| 1000 | 1000 | 0.9977           | 0.9970 | 0.9954 |

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TABLE 3.  
(Pages 283 through 370)

One-sided  
UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N | K | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|---|---|------------------|-------|-------|----|----|------------------|-------|-------|
|   |   | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 1 | 0 | 0.900            | 0.950 | 0.990 | 9  | 8  | 0.988            | 0.994 | 0.999 |
| 1 | 1 | 1.000            | 1.000 | 1.000 | 9  | 9  | 1.000            | 1.000 | 1.000 |
| 2 | 0 | 0.684            | 0.776 | 0.900 | 10 | 0  | 0.206            | 0.259 | 0.369 |
| 2 | 1 | 0.949            | 0.975 | 0.995 | 10 | 1  | 0.337            | 0.394 | 0.504 |
| 2 | 2 | 1.000            | 1.000 | 1.000 | 10 | 2  | 0.450            | 0.507 | 0.612 |
| 3 | 0 | 0.536            | 0.632 | 0.784 | 10 | 3  | 0.552            | 0.607 | 0.703 |
| 3 | 1 | 0.804            | 0.865 | 0.941 | 10 | 4  | 0.646            | 0.696 | 0.782 |
| 3 | 2 | 0.965            | 0.983 | 0.997 | 10 | 5  | 0.733            | 0.778 | 0.850 |
| 3 | 3 | 1.000            | 1.000 | 1.000 | 10 | 6  | 0.812            | 0.850 | 0.907 |
| 4 | 0 | 0.438            | 0.527 | 0.684 | 10 | 7  | 0.884            | 0.913 | 0.952 |
| 4 | 1 | 0.679            | 0.751 | 0.859 | 10 | 8  | 0.945            | 0.963 | 0.984 |
| 4 | 2 | 0.857            | 0.902 | 0.958 | 10 | 9  | 0.989            | 0.995 | 0.999 |
| 4 | 3 | 0.974            | 0.987 | 0.997 | 10 | 10 | 1.000            | 1.000 | 1.000 |
| 4 | 4 | 1.000            | 1.000 | 1.000 | 11 | 0  | 0.189            | 0.238 | 0.342 |
| 5 | 0 | 0.369            | 0.451 | 0.602 | 11 | 1  | 0.310            | 0.364 | 0.470 |
| 5 | 1 | 0.584            | 0.657 | 0.778 | 11 | 2  | 0.415            | 0.470 | 0.572 |
| 5 | 2 | 0.753            | 0.811 | 0.894 | 11 | 3  | 0.511            | 0.564 | 0.660 |
| 5 | 3 | 0.888            | 0.923 | 0.967 | 11 | 4  | 0.599            | 0.650 | 0.738 |
| 5 | 4 | 0.979            | 0.990 | 0.998 | 11 | 5  | 0.682            | 0.729 | 0.806 |
| 5 | 5 | 1.000            | 1.000 | 1.000 | 11 | 6  | 0.760            | 0.800 | 0.866 |
| 6 | 0 | 0.319            | 0.393 | 0.536 | 11 | 7  | 0.831            | 0.865 | 0.916 |
| 6 | 1 | 0.510            | 0.582 | 0.706 | 11 | 8  | 0.895            | 0.921 | 0.957 |
| 6 | 2 | 0.667            | 0.729 | 0.827 | 11 | 9  | 0.950            | 0.967 | 0.986 |
| 6 | 3 | 0.799            | 0.847 | 0.915 | 11 | 10 | 0.990            | 0.995 | 0.999 |
| 6 | 4 | 0.907            | 0.937 | 0.973 | 11 | 11 | 1.000            | 1.000 | 1.000 |
| 6 | 5 | 0.982            | 0.991 | 0.998 | 12 | 0  | 0.175            | 0.221 | 0.319 |
| 6 | 6 | 1.000            | 1.000 | 1.000 | 12 | 1  | 0.287            | 0.339 | 0.440 |
| 7 | 0 | 0.280            | 0.348 | 0.462 | 12 | 2  | 0.385            | 0.438 | 0.537 |
| 7 | 1 | 0.453            | 0.521 | 0.643 | 12 | 3  | 0.475            | 0.527 | 0.622 |
| 7 | 2 | 0.596            | 0.659 | 0.764 | 12 | 4  | 0.559            | 0.609 | 0.698 |
| 7 | 3 | 0.721            | 0.775 | 0.858 | 12 | 5  | 0.638            | 0.685 | 0.765 |
| 7 | 4 | 0.830            | 0.871 | 0.929 | 12 | 6  | 0.712            | 0.755 | 0.825 |
| 7 | 5 | 0.921            | 0.947 | 0.977 | 12 | 7  | 0.781            | 0.819 | 0.879 |
| 7 | 6 | 0.985            | 0.993 | 0.998 | 12 | 8  | 0.846            | 0.877 | 0.924 |
| 7 | 7 | 1.000            | 1.000 | 1.000 | 12 | 9  | 0.904            | 0.928 | 0.961 |
| 8 | 0 | 0.250            | 0.312 | 0.438 | 12 | 10 | 0.955            | 0.969 | 0.987 |
| 8 | 1 | 0.406            | 0.471 | 0.590 | 12 | 11 | 0.991            | 0.996 | 0.999 |
| 8 | 2 | 0.538            | 0.600 | 0.707 | 12 | 12 | 1.000            | 1.000 | 1.000 |
| 8 | 3 | 0.655            | 0.711 | 0.802 | 13 | 0  | 0.162            | 0.206 | 0.298 |
| 8 | 4 | 0.760            | 0.807 | 0.879 | 13 | 1  | 0.268            | 0.316 | 0.413 |
| 8 | 5 | 0.853            | 0.889 | 0.939 | 13 | 2  | 0.360            | 0.410 | 0.506 |
| 8 | 6 | 0.931            | 0.954 | 0.980 | 13 | 3  | 0.444            | 0.495 | 0.588 |
| 8 | 7 | 0.987            | 0.993 | 0.999 | 13 | 4  | 0.523            | 0.573 | 0.661 |
| 8 | 8 | 1.000            | 1.000 | 1.000 | 13 | 5  | 0.598            | 0.645 | 0.727 |
| 9 | 0 | 0.226            | 0.283 | 0.401 | 13 | 6  | 0.669            | 0.713 | 0.787 |
| 9 | 1 | 0.368            | 0.429 | 0.544 | 13 | 7  | 0.736            | 0.776 | 0.841 |
| 9 | 2 | 0.490            | 0.550 | 0.656 | 13 | 8  | 0.800            | 0.834 | 0.889 |
| 9 | 3 | 0.599            | 0.655 | 0.750 | 13 | 9  | 0.858            | 0.887 | 0.930 |
| 9 | 4 | 0.699            | 0.749 | 0.822 | 13 | 10 | 0.912            | 0.934 | 0.964 |
| 9 | 5 | 0.790            | 0.831 | 0.895 | 13 | 11 | 0.958            | 0.972 | 0.988 |
| 9 | 6 | 0.870            | 0.902 | 0.947 | 13 | 12 | 0.992            | 0.996 | 0.999 |
| 9 | 7 | 0.939            | 0.959 | 0.983 | 13 | 13 | 1.000            | 1.000 | 1.000 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 14 | 0  | 0.152            | 0.193 | 0.280 | 17 | 6  | 0.537            | 0.580 | 0.658 |
| 14 | 1  | 0.251            | 0.297 | 0.389 | 17 | 7  | 0.595            | 0.636 | 0.709 |
| 14 | 2  | 0.337            | 0.385 | 0.478 | 17 | 8  | 0.650            | 0.689 | 0.758 |
| 14 | 3  | 0.417            | 0.466 | 0.557 | 17 | 9  | 0.703            | 0.740 | 0.803 |
| 14 | 4  | 0.492            | 0.540 | 0.627 | 17 | 10 | 0.754            | 0.788 | 0.845 |
| 14 | 5  | 0.563            | 0.610 | 0.692 | 17 | 11 | 0.803            | 0.834 | 0.883 |
| 14 | 6  | 0.631            | 0.675 | 0.751 | 17 | 12 | 0.849            | 0.876 | 0.916 |
| 14 | 7  | 0.696            | 0.736 | 0.805 | 17 | 13 | 0.893            | 0.915 | 0.948 |
| 14 | 8  | 0.757            | 0.794 | 0.854 | 17 | 14 | 0.933            | 0.950 | 0.973 |
| 14 | 9  | 0.815            | 0.847 | 0.898 | 17 | 15 | 0.968            | 0.979 | 0.991 |
| 14 | 10 | 0.869            | 0.896 | 0.936 | 17 | 16 | 0.994            | 0.997 | 0.999 |
| 14 | 11 | 0.918            | 0.939 | 0.967 | 17 | 17 | 1.000            | 1.000 | 1.000 |
| 14 | 12 | 0.961            | 0.974 | 0.989 | 18 | 0  | 0.120            | 0.153 | 0.226 |
| 14 | 13 | 0.992            | 0.996 | 0.999 | 18 | 1  | 0.199            | 0.238 | 0.316 |
| 14 | 14 | 1.000            | 1.000 | 1.000 | 18 | 2  | 0.269            | 0.310 | 0.391 |
| 15 | 0  | 0.142            | 0.181 | 0.264 | 18 | 3  | 0.334            | 0.377 | 0.458 |
| 15 | 1  | 0.235            | 0.279 | 0.368 | 18 | 4  | 0.396            | 0.439 | 0.520 |
| 15 | 2  | 0.317            | 0.363 | 0.453 | 18 | 5  | 0.455            | 0.498 | 0.577 |
| 15 | 3  | 0.393            | 0.440 | 0.528 | 18 | 6  | 0.512            | 0.554 | 0.631 |
| 15 | 4  | 0.464            | 0.511 | 0.597 | 18 | 7  | 0.567            | 0.608 | 0.681 |
| 15 | 5  | 0.532            | 0.578 | 0.660 | 18 | 8  | 0.620            | 0.659 | 0.729 |
| 15 | 6  | 0.597            | 0.640 | 0.718 | 18 | 9  | 0.671            | 0.709 | 0.774 |
| 15 | 7  | 0.659            | 0.700 | 0.771 | 18 | 10 | 0.721            | 0.756 | 0.816 |
| 15 | 8  | 0.718            | 0.756 | 0.821 | 18 | 11 | 0.769            | 0.801 | 0.855 |
| 15 | 9  | 0.774            | 0.809 | 0.865 | 18 | 12 | 0.815            | 0.844 | 0.890 |
| 15 | 10 | 0.828            | 0.858 | 0.906 | 18 | 13 | 0.858            | 0.884 | 0.923 |
| 15 | 11 | 0.878            | 0.903 | 0.941 | 18 | 14 | 0.899            | 0.920 | 0.951 |
| 15 | 12 | 0.924            | 0.943 | 0.969 | 18 | 15 | 0.937            | 0.953 | 0.975 |
| 15 | 13 | 0.964            | 0.976 | 0.990 | 18 | 16 | 0.970            | 0.980 | 0.991 |
| 15 | 14 | 0.993            | 0.996 | 0.999 | 18 | 17 | 0.994            | 0.997 | 0.999 |
| 15 | 15 | 1.000            | 1.000 | 1.000 | 18 | 18 | 1.000            | 1.000 | 1.000 |
| 16 | 0  | 0.134            | 0.171 | 0.250 | 19 | 0  | 0.114            | 0.146 | 0.215 |
| 16 | 1  | 0.222            | 0.264 | 0.349 | 19 | 1  | 0.190            | 0.226 | 0.302 |
| 16 | 2  | 0.299            | 0.344 | 0.430 | 19 | 2  | 0.256            | 0.296 | 0.374 |
| 16 | 3  | 0.371            | 0.417 | 0.503 | 19 | 3  | 0.318            | 0.359 | 0.439 |
| 16 | 4  | 0.439            | 0.484 | 0.569 | 19 | 4  | 0.377            | 0.419 | 0.498 |
| 16 | 5  | 0.504            | 0.548 | 0.630 | 19 | 5  | 0.434            | 0.476 | 0.554 |
| 16 | 6  | 0.566            | 0.609 | 0.687 | 19 | 6  | 0.489            | 0.530 | 0.606 |
| 16 | 7  | 0.625            | 0.667 | 0.739 | 19 | 7  | 0.541            | 0.582 | 0.655 |
| 16 | 8  | 0.682            | 0.721 | 0.788 | 19 | 8  | 0.593            | 0.632 | 0.702 |
| 16 | 9  | 0.737            | 0.773 | 0.834 | 19 | 9  | 0.642            | 0.680 | 0.746 |
| 16 | 10 | 0.790            | 0.822 | 0.875 | 19 | 10 | 0.690            | 0.726 | 0.788 |
| 16 | 11 | 0.839            | 0.868 | 0.912 | 19 | 11 | 0.737            | 0.770 | 0.827 |
| 16 | 12 | 0.886            | 0.910 | 0.945 | 19 | 12 | 0.782            | 0.813 | 0.863 |
| 16 | 13 | 0.929            | 0.947 | 0.971 | 19 | 13 | 0.825            | 0.853 | 0.897 |
| 16 | 14 | 0.966            | 0.977 | 0.990 | 19 | 14 | 0.866            | 0.890 | 0.927 |
| 16 | 15 | 0.993            | 0.997 | 0.999 | 19 | 15 | 0.905            | 0.925 | 0.954 |
| 16 | 16 | 1.000            | 1.000 | 1.000 | 19 | 16 | 0.940            | 0.955 | 0.976 |
| 17 | 0  | 0.127            | 0.161 | 0.237 | 19 | 17 | 0.972            | 0.981 | 0.992 |
| 17 | 1  | 0.210            | 0.250 | 0.332 | 19 | 18 | 0.994            | 0.997 | 0.999 |
| 17 | 2  | 0.284            | 0.326 | 0.410 | 19 | 19 | 1.000            | 1.000 | 1.000 |
| 17 | 3  | 0.352            | 0.396 | 0.480 | 20 | 0  | 0.109            | 0.139 | 0.206 |
| 17 | 4  | 0.416            | 0.461 | 0.543 | 20 | 1  | 0.181            | 0.216 | 0.289 |
| 17 | 5  | 0.478            | 0.522 | 0.603 | 20 | 2  | 0.245            | 0.283 | 0.358 |
|    |    |                  |       |       | 20 | 3  | 0.304            | 0.344 | 0.421 |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 20 | 4  | 0.361            | 0.401 | 0.478 | 22 | 15 | 0.813            | 0.840 | 0.884 |
|    |    |                  |       |       | 22 | 16 | 0.850            | 0.874 | 0.912 |
| 20 | 5  | 0.415            | 0.456 | 0.532 | 22 | 17 | 0.885            | 0.906 | 0.938 |
| 20 | 6  | 0.467            | 0.508 | 0.583 | 22 | 18 | 0.918            | 0.935 | 0.960 |
| 20 | 7  | 0.518            | 0.558 | 0.631 | 22 | 19 | 0.949            | 0.962 | 0.979 |
| 20 | 8  | 0.567            | 0.606 | 0.677 |    |    |                  |       |       |
| 20 | 9  | 0.615            | 0.653 | 0.720 | 22 | 20 | 0.975            | 0.984 | 0.993 |
|    |    |                  |       |       | 22 | 21 | 0.995            | 0.998 | 0.999 |
| 20 | 10 | 0.662            | 0.698 | 0.761 | 22 | 22 | 1.000            | 1.000 | 1.000 |
| 20 | 11 | 0.707            | 0.741 | 0.800 |    |    |                  |       |       |
| 20 | 12 | 0.751            | 0.783 | 0.837 | 23 | 0  | 0.095            | 0.122 | 0.181 |
| 20 | 13 | 0.793            | 0.823 | 0.871 | 23 | 1  | 0.159            | 0.190 | 0.256 |
| 20 | 14 | 0.834            | 0.860 | 0.903 | 23 | 2  | 0.215            | 0.249 | 0.318 |
|    |    |                  |       |       | 23 | 3  | 0.268            | 0.304 | 0.374 |
| 20 | 15 | 0.873            | 0.896 | 0.931 | 23 | 4  | 0.318            | 0.355 | 0.427 |
| 20 | 16 | 0.910            | 0.929 | 0.956 |    |    |                  |       |       |
| 20 | 17 | 0.943            | 0.958 | 0.977 | 23 | 5  | 0.366            | 0.404 | 0.476 |
| 20 | 18 | 0.973            | 0.982 | 0.992 | 23 | 6  | 0.413            | 0.451 | 0.522 |
| 20 | 19 | 0.995            | 0.997 | 0.999 | 23 | 7  | 0.459            | 0.497 | 0.567 |
|    |    |                  |       |       | 23 | 8  | 0.503            | 0.541 | 0.609 |
| 20 | 20 | 1.000            | 1.000 | 1.000 | 23 | 9  | 0.546            | 0.583 | 0.650 |
|    |    |                  |       |       |    |    |                  |       |       |
| 21 | 0  | 0.104            | 0.133 | 0.197 | 23 | 10 | 0.589            | 0.625 | 0.689 |
| 21 | 1  | 0.173            | 0.207 | 0.277 | 23 | 11 | 0.630            | 0.665 | 0.727 |
| 21 | 2  | 0.234            | 0.270 | 0.344 | 23 | 12 | 0.670            | 0.704 | 0.763 |
| 21 | 3  | 0.291            | 0.329 | 0.404 | 23 | 13 | 0.710            | 0.742 | 0.797 |
| 21 | 4  | 0.345            | 0.384 | 0.460 | 23 | 14 | 0.748            | 0.778 | 0.830 |
|    |    |                  |       |       |    |    |                  |       |       |
| 21 | 5  | 0.397            | 0.437 | 0.512 | 23 | 15 | 0.786            | 0.814 | 0.860 |
| 21 | 6  | 0.448            | 0.487 | 0.561 | 23 | 16 | 0.822            | 0.848 | 0.889 |
| 21 | 7  | 0.497            | 0.536 | 0.608 | 23 | 17 | 0.857            | 0.880 | 0.916 |
| 21 | 8  | 0.544            | 0.583 | 0.653 | 23 | 18 | 0.890            | 0.910 | 0.941 |
| 21 | 9  | 0.591            | 0.628 | 0.695 | 23 | 19 | 0.922            | 0.938 | 0.962 |
|    |    |                  |       |       |    |    |                  |       |       |
| 21 | 10 | 0.636            | 0.672 | 0.736 | 23 | 20 | 0.951            | 0.963 | 0.980 |
| 21 | 11 | 0.680            | 0.714 | 0.774 | 23 | 21 | 0.977            | 0.984 | 0.993 |
| 21 | 12 | 0.722            | 0.755 | 0.811 | 23 | 22 | 0.995            | 0.998 | 0.999 |
| 21 | 13 | 0.764            | 0.794 | 0.845 | 23 | 23 | 1.000            | 1.000 | 1.000 |
| 21 | 14 | 0.804            | 0.832 | 0.878 |    |    |                  |       |       |
|    |    |                  |       |       | 24 | 0  | 0.091            | 0.117 | 0.175 |
| 21 | 15 | 0.843            | 0.868 | 0.908 | 24 | 1  | 0.153            | 0.183 | 0.246 |
| 21 | 16 | 0.879            | 0.901 | 0.935 | 24 | 2  | 0.207            | 0.240 | 0.307 |
| 21 | 17 | 0.914            | 0.932 | 0.958 | 24 | 3  | 0.257            | 0.292 | 0.361 |
| 21 | 18 | 0.946            | 0.960 | 0.978 | 24 | 4  | 0.306            | 0.342 | 0.412 |
| 21 | 19 | 0.974            | 0.983 | 0.993 |    |    |                  |       |       |
|    |    |                  |       |       | 24 | 5  | 0.353            | 0.389 | 0.460 |
| 21 | 20 | 0.995            | 0.997 | 0.999 | 24 | 6  | 0.398            | 0.435 | 0.505 |
| 21 | 21 | 1.000            | 1.000 | 1.000 | 24 | 7  | 0.442            | 0.479 | 0.548 |
|    |    |                  |       |       | 24 | 8  | 0.485            | 0.521 | 0.590 |
| 22 | 0  | 0.099            | 0.127 | 0.189 | 24 | 9  | 0.526            | 0.563 | 0.630 |
| 22 | 1  | 0.166            | 0.198 | 0.266 |    |    |                  |       |       |
| 22 | 2  | 0.224            | 0.259 | 0.330 | 24 | 10 | 0.567            | 0.603 | 0.668 |
| 22 | 3  | 0.279            | 0.316 | 0.389 | 24 | 11 | 0.608            | 0.642 | 0.705 |
| 22 | 4  | 0.331            | 0.369 | 0.443 | 24 | 12 | 0.647            | 0.681 | 0.740 |
|    |    |                  |       |       | 24 | 13 | 0.685            | 0.718 | 0.774 |
| 22 | 5  | 0.381            | 0.420 | 0.493 | 24 | 14 | 0.723            | 0.754 | 0.807 |
| 22 | 6  | 0.430            | 0.469 | 0.541 |    |    |                  |       |       |
| 22 | 7  | 0.477            | 0.516 | 0.587 | 24 | 15 | 0.759            | 0.788 | 0.838 |
| 22 | 8  | 0.523            | 0.561 | 0.630 | 24 | 16 | 0.795            | 0.822 | 0.867 |
| 22 | 9  | 0.568            | 0.605 | 0.672 | 24 | 17 | 0.830            | 0.854 | 0.894 |
|    |    |                  |       |       | 24 | 18 | 0.863            | 0.885 | 0.920 |
| 22 | 10 | 0.611            | 0.648 | 0.712 | 24 | 19 | 0.895            | 0.914 | 0.943 |
| 22 | 11 | 0.654            | 0.689 | 0.750 |    |    |                  |       |       |
| 22 | 12 | 0.695            | 0.729 | 0.786 | 24 | 20 | 0.925            | 0.941 | 0.964 |
| 22 | 13 | 0.736            | 0.767 | 0.821 | 24 | 21 | 0.953            | 0.965 | 0.981 |
| 22 | 14 | 0.775            | 0.804 | 0.853 | 24 | 22 | 0.978            | 0.985 | 0.994 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 24 | 23 | 0.996      | 0.998 | 0.999 | 27 | 0  | 0.082      | 0.105 | 0.157 |
| 24 | 24 | 1.000      | 1.000 | 1.000 | 27 | 1  | 0.136      | 0.164 | 0.222 |
| 25 | 0  | 0.088      | 0.113 | 0.168 | 27 | 2  | 0.185      | 0.215 | 0.277 |
| 25 | 1  | 0.147      | 0.176 | 0.237 | 27 | 3  | 0.231      | 0.263 | 0.326 |
| 25 | 2  | 0.199      | 0.231 | 0.296 | 27 | 4  | 0.274      | 0.308 | 0.373 |
| 25 | 3  | 0.248      | 0.282 | 0.349 | 27 | 5  | 0.317      | 0.351 | 0.417 |
| 25 | 4  | 0.295      | 0.330 | 0.398 | 27 | 6  | 0.358      | 0.392 | 0.456 |
| 25 | 5  | 0.340      | 0.375 | 0.444 | 27 | 7  | 0.397      | 0.432 | 0.499 |
| 25 | 6  | 0.383      | 0.420 | 0.488 | 27 | 8  | 0.436      | 0.471 | 0.537 |
| 25 | 7  | 0.426      | 0.462 | 0.531 | 27 | 9  | 0.475      | 0.510 | 0.574 |
| 25 | 8  | 0.467      | 0.504 | 0.571 | 27 | 10 | 0.512      | 0.547 | 0.610 |
| 25 | 9  | 0.508      | 0.544 | 0.610 | 27 | 11 | 0.549      | 0.583 | 0.645 |
| 25 | 10 | 0.548      | 0.583 | 0.648 | 27 | 12 | 0.585      | 0.618 | 0.679 |
| 25 | 11 | 0.587      | 0.621 | 0.684 | 27 | 13 | 0.620      | 0.653 | 0.711 |
| 25 | 12 | 0.625      | 0.659 | 0.719 | 27 | 14 | 0.655      | 0.687 | 0.743 |
| 25 | 13 | 0.662      | 0.695 | 0.752 | 27 | 15 | 0.689      | 0.720 | 0.773 |
| 25 | 14 | 0.699      | 0.730 | 0.784 | 27 | 16 | 0.723      | 0.752 | 0.802 |
| 25 | 15 | 0.735      | 0.764 | 0.815 | 27 | 17 | 0.756      | 0.783 | 0.831 |
| 25 | 16 | 0.770      | 0.798 | 0.845 | 27 | 18 | 0.788      | 0.814 | 0.857 |
| 25 | 17 | 0.804      | 0.830 | 0.873 | 27 | 19 | 0.819      | 0.843 | 0.883 |
| 25 | 18 | 0.837      | 0.861 | 0.899 | 27 | 20 | 0.850      | 0.872 | 0.907 |
| 25 | 19 | 0.869      | 0.890 | 0.924 | 27 | 21 | 0.879      | 0.899 | 0.930 |
| 25 | 20 | 0.899      | 0.918 | 0.946 | 27 | 22 | 0.907      | 0.924 | 0.950 |
| 25 | 21 | 0.928      | 0.943 | 0.965 | 27 | 23 | 0.934      | 0.948 | 0.968 |
| 25 | 22 | 0.955      | 0.966 | 0.982 | 27 | 24 | 0.956      | 0.969 | 0.983 |
| 25 | 23 | 0.978      | 0.985 | 0.994 | 27 | 25 | 0.980      | 0.987 | 0.994 |
| 25 | 24 | 0.996      | 0.998 | 0.999 | 27 | 26 | 0.996      | 0.998 | 1.000 |
| 25 | 25 | 1.000      | 1.000 | 1.000 | 27 | 27 | 1.000      | 1.000 | 1.000 |
| 26 | 0  | 0.085      | 0.109 | 0.162 | 28 | 0  | 0.079      | 0.101 | 0.152 |
| 26 | 1  | 0.141      | 0.170 | 0.229 | 28 | 1  | 0.132      | 0.158 | 0.214 |
| 26 | 2  | 0.192      | 0.223 | 0.286 | 28 | 2  | 0.179      | 0.208 | 0.268 |
| 26 | 3  | 0.239      | 0.272 | 0.337 | 28 | 3  | 0.223      | 0.254 | 0.316 |
| 26 | 4  | 0.284      | 0.318 | 0.385 | 28 | 4  | 0.265      | 0.298 | 0.361 |
| 26 | 5  | 0.328      | 0.363 | 0.430 | 28 | 5  | 0.306      | 0.339 | 0.404 |
| 26 | 6  | 0.370      | 0.405 | 0.473 | 28 | 6  | 0.346      | 0.380 | 0.445 |
| 26 | 7  | 0.411      | 0.447 | 0.514 | 28 | 7  | 0.385      | 0.419 | 0.484 |
| 26 | 8  | 0.451      | 0.487 | 0.554 | 28 | 8  | 0.422      | 0.457 | 0.521 |
| 26 | 9  | 0.491      | 0.526 | 0.592 | 28 | 9  | 0.460      | 0.494 | 0.558 |
| 26 | 10 | 0.529      | 0.564 | 0.628 | 28 | 10 | 0.496      | 0.530 | 0.593 |
| 26 | 11 | 0.567      | 0.602 | 0.664 | 28 | 11 | 0.532      | 0.565 | 0.627 |
| 26 | 12 | 0.604      | 0.638 | 0.698 | 28 | 12 | 0.567      | 0.600 | 0.660 |
| 26 | 13 | 0.641      | 0.673 | 0.731 | 28 | 13 | 0.601      | 0.634 | 0.692 |
| 26 | 14 | 0.676      | 0.708 | 0.763 | 28 | 14 | 0.635      | 0.667 | 0.723 |
| 26 | 15 | 0.711      | 0.742 | 0.794 | 28 | 15 | 0.669      | 0.699 | 0.753 |
| 26 | 16 | 0.746      | 0.774 | 0.823 | 28 | 16 | 0.701      | 0.731 | 0.782 |
| 26 | 17 | 0.779      | 0.806 | 0.851 | 28 | 17 | 0.734      | 0.762 | 0.810 |
| 26 | 18 | 0.812      | 0.837 | 0.878 | 28 | 18 | 0.765      | 0.792 | 0.837 |
| 26 | 19 | 0.843      | 0.866 | 0.903 | 28 | 19 | 0.796      | 0.821 | 0.863 |
| 26 | 20 | 0.874      | 0.894 | 0.927 | 28 | 20 | 0.826      | 0.849 | 0.888 |
| 26 | 21 | 0.903      | 0.921 | 0.948 | 28 | 21 | 0.855      | 0.876 | 0.911 |
| 26 | 22 | 0.931      | 0.946 | 0.967 | 28 | 22 | 0.883      | 0.902 | 0.932 |
| 26 | 23 | 0.957      | 0.968 | 0.983 | 28 | 23 | 0.911      | 0.927 | 0.952 |
| 26 | 24 | 0.979      | 0.986 | 0.994 | 28 | 24 | 0.936      | 0.950 | 0.969 |
| 26 | 25 | 0.996      | 0.998 | 0.999 | 28 | 25 | 0.960      | 0.970 | 0.984 |
| 26 | 26 | 1.000      | 1.000 | 1.000 | 28 | 26 | 0.981      | 0.987 | 0.995 |
|    |    |            |       |       | 28 | 27 | 0.996      | 0.998 | 1.000 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 28 | 28 | 1.000            | 1.000 | 1.000 | 30 | 24 | 0.891            | 0.909 | 0.937 |
| 29 | 0  | 0.076            | 0.098 | 0.147 | 30 | 25 | 0.917            | 0.932 | 0.955 |
| 29 | 1  | 0.128            | 0.153 | 0.208 | 30 | 26 | 0.940            | 0.953 | 0.971 |
| 29 | 2  | 0.173            | 0.201 | 0.260 | 30 | 27 | 0.963            | 0.972 | 0.985 |
| 29 | 3  | 0.216            | 0.246 | 0.307 | 30 | 28 | 0.982            | 0.988 | 0.995 |
| 29 | 4  | 0.257            | 0.288 | 0.350 | 30 | 29 | 0.996            | 0.998 | 1.000 |
| 29 | 5  | 0.297            | 0.329 | 0.392 | 30 | 30 | 1.000            | 1.000 | 1.000 |
| 29 | 6  | 0.335            | 0.368 | 0.432 | 31 | 0  | 0.071            | 0.092 | 0.138 |
| 29 | 7  | 0.373            | 0.406 | 0.470 | 31 | 1  | 0.120            | 0.144 | 0.196 |
| 29 | 8  | 0.409            | 0.443 | 0.507 | 31 | 2  | 0.163            | 0.189 | 0.245 |
| 29 | 9  | 0.445            | 0.479 | 0.542 | 31 | 3  | 0.203            | 0.231 | 0.289 |
| 29 | 10 | 0.481            | 0.514 | 0.577 | 31 | 4  | 0.241            | 0.271 | 0.331 |
| 29 | 11 | 0.515            | 0.549 | 0.610 | 31 | 5  | 0.279            | 0.310 | 0.370 |
| 29 | 12 | 0.550            | 0.583 | 0.643 | 31 | 6  | 0.315            | 0.347 | 0.408 |
| 29 | 13 | 0.583            | 0.616 | 0.674 | 31 | 7  | 0.351            | 0.383 | 0.444 |
| 29 | 14 | 0.616            | 0.648 | 0.705 | 31 | 8  | 0.385            | 0.418 | 0.479 |
| 29 | 15 | 0.649            | 0.680 | 0.734 | 31 | 9  | 0.419            | 0.452 | 0.513 |
| 29 | 16 | 0.681            | 0.711 | 0.763 | 31 | 10 | 0.453            | 0.485 | 0.547 |
| 29 | 17 | 0.712            | 0.741 | 0.791 | 31 | 11 | 0.486            | 0.518 | 0.579 |
| 29 | 18 | 0.743            | 0.771 | 0.818 | 31 | 12 | 0.518            | 0.551 | 0.610 |
| 29 | 19 | 0.774            | 0.800 | 0.844 | 31 | 13 | 0.550            | 0.582 | 0.640 |
| 29 | 20 | 0.803            | 0.828 | 0.868 | 31 | 14 | 0.582            | 0.613 | 0.670 |
| 29 | 21 | 0.832            | 0.855 | 0.892 | 31 | 15 | 0.613            | 0.643 | 0.699 |
| 29 | 22 | 0.860            | 0.881 | 0.914 | 31 | 16 | 0.643            | 0.673 | 0.727 |
| 29 | 23 | 0.888            | 0.906 | 0.935 | 31 | 17 | 0.673            | 0.703 | 0.754 |
| 29 | 24 | 0.914            | 0.930 | 0.954 | 31 | 18 | 0.703            | 0.731 | 0.780 |
| 29 | 25 | 0.938            | 0.951 | 0.970 | 31 | 19 | 0.732            | 0.759 | 0.806 |
| 29 | 26 | 0.961            | 0.971 | 0.984 | 31 | 20 | 0.761            | 0.787 | 0.831 |
| 29 | 27 | 0.981            | 0.988 | 0.995 | 31 | 21 | 0.789            | 0.813 | 0.855 |
| 29 | 28 | 0.996            | 0.998 | 1.000 | 31 | 22 | 0.817            | 0.839 | 0.878 |
| 29 | 29 | 1.000            | 1.000 | 1.000 | 31 | 23 | 0.844            | 0.865 | 0.899 |
| 30 | 0  | 0.074            | 0.095 | 0.142 | 31 | 24 | 0.870            | 0.889 | 0.920 |
| 30 | 1  | 0.123            | 0.149 | 0.202 | 31 | 25 | 0.895            | 0.912 | 0.939 |
| 30 | 2  | 0.168            | 0.195 | 0.252 | 31 | 26 | 0.919            | 0.934 | 0.957 |
| 30 | 3  | 0.209            | 0.239 | 0.298 | 31 | 27 | 0.942            | 0.955 | 0.972 |
| 30 | 4  | 0.249            | 0.280 | 0.340 | 31 | 28 | 0.964            | 0.973 | 0.985 |
| 30 | 5  | 0.287            | 0.319 | 0.381 | 31 | 29 | 0.983            | 0.988 | 0.995 |
| 30 | 6  | 0.325            | 0.357 | 0.420 | 31 | 30 | 0.996            | 0.998 | 1.000 |
| 30 | 7  | 0.361            | 0.394 | 0.457 | 31 | 31 | 1.000            | 1.000 | 1.000 |
| 30 | 8  | 0.397            | 0.430 | 0.493 | 32 | 0  | 0.069            | 0.089 | 0.134 |
| 30 | 9  | 0.432            | 0.465 | 0.528 | 32 | 1  | 0.116            | 0.140 | 0.190 |
| 30 | 10 | 0.466            | 0.500 | 0.561 | 32 | 2  | 0.158            | 0.184 | 0.238 |
| 30 | 11 | 0.500            | 0.533 | 0.594 | 32 | 3  | 0.197            | 0.225 | 0.281 |
| 30 | 12 | 0.534            | 0.566 | 0.626 | 32 | 4  | 0.234            | 0.264 | 0.322 |
| 30 | 13 | 0.566            | 0.598 | 0.657 | 32 | 5  | 0.271            | 0.301 | 0.360 |
| 30 | 14 | 0.599            | 0.630 | 0.687 | 32 | 6  | 0.306            | 0.337 | 0.397 |
| 30 | 15 | 0.630            | 0.661 | 0.716 | 32 | 7  | 0.340            | 0.372 | 0.433 |
| 30 | 16 | 0.662            | 0.692 | 0.745 | 32 | 8  | 0.374            | 0.406 | 0.467 |
| 30 | 17 | 0.692            | 0.721 | 0.772 | 32 | 9  | 0.407            | 0.440 | 0.500 |
| 30 | 18 | 0.723            | 0.751 | 0.799 | 32 | 10 | 0.440            | 0.472 | 0.533 |
| 30 | 19 | 0.752            | 0.779 | 0.825 | 32 | 11 | 0.472            | 0.504 | 0.564 |
| 30 | 20 | 0.782            | 0.807 | 0.849 | 32 | 12 | 0.504            | 0.536 | 0.595 |
| 30 | 21 | 0.810            | 0.834 | 0.873 | 32 | 13 | 0.535            | 0.567 | 0.624 |
| 30 | 22 | 0.838            | 0.860 | 0.896 | 32 | 14 | 0.566            | 0.597 | 0.654 |
| 30 | 23 | 0.865            | 0.885 | 0.917 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 32 | 15 | 0.596            | 0.627 | 0.682 | 34 | 4  | 0.221            | 0.249 | 0.305 |
| 32 | 16 | 0.626            | 0.656 | 0.710 | 34 | 5  | 0.256            | 0.285 | 0.342 |
| 32 | 17 | 0.655            | 0.685 | 0.737 | 34 | 6  | 0.289            | 0.319 | 0.377 |
| 32 | 18 | 0.684            | 0.713 | 0.763 | 34 | 7  | 0.322            | 0.352 | 0.411 |
| 32 | 19 | 0.713            | 0.740 | 0.788 | 34 | 8  | 0.354            | 0.385 | 0.444 |
| 32 | 20 | 0.741            | 0.767 | 0.813 | 34 | 9  | 0.386            | 0.417 | 0.475 |
| 32 | 21 | 0.769            | 0.794 | 0.837 | 34 | 10 | 0.417            | 0.446 | 0.506 |
| 32 | 22 | 0.796            | 0.820 | 0.860 | 34 | 11 | 0.447            | 0.478 | 0.537 |
| 32 | 23 | 0.823            | 0.845 | 0.882 | 34 | 12 | 0.477            | 0.508 | 0.566 |
| 32 | 24 | 0.849            | 0.869 | 0.903 | 34 | 13 | 0.507            | 0.538 | 0.595 |
| 32 | 25 | 0.874            | 0.893 | 0.923 | 34 | 14 | 0.536            | 0.567 | 0.623 |
| 32 | 26 | 0.898            | 0.915 | 0.941 | 34 | 15 | 0.565            | 0.595 | 0.651 |
| 32 | 27 | 0.922            | 0.936 | 0.958 | 34 | 16 | 0.594            | 0.623 | 0.677 |
| 32 | 28 | 0.944            | 0.956 | 0.973 | 34 | 17 | 0.622            | 0.651 | 0.704 |
| 32 | 29 | 0.965            | 0.974 | 0.986 | 34 | 18 | 0.650            | 0.678 | 0.729 |
| 32 | 30 | 0.983            | 0.989 | 0.995 | 34 | 19 | 0.677            | 0.705 | 0.754 |
| 32 | 31 | 0.997            | 0.998 | 1.000 | 34 | 20 | 0.704            | 0.731 | 0.778 |
| 32 | 32 | 1.000            | 1.000 | 1.000 | 34 | 21 | 0.731            | 0.757 | 0.802 |
| 33 | 0  | 0.067            | 0.087 | 0.130 | 34 | 22 | 0.757            | 0.782 | 0.825 |
| 33 | 1  | 0.113            | 0.136 | 0.185 | 34 | 23 | 0.783            | 0.807 | 0.847 |
| 33 | 2  | 0.153            | 0.179 | 0.231 | 34 | 24 | 0.809            | 0.831 | 0.869 |
| 33 | 3  | 0.191            | 0.218 | 0.273 | 34 | 25 | 0.834            | 0.854 | 0.889 |
| 33 | 4  | 0.228            | 0.256 | 0.313 | 34 | 26 | 0.858            | 0.877 | 0.909 |
| 33 | 5  | 0.263            | 0.293 | 0.351 | 34 | 27 | 0.882            | 0.899 | 0.927 |
| 33 | 6  | 0.297            | 0.328 | 0.387 | 34 | 28 | 0.905            | 0.920 | 0.945 |
| 33 | 7  | 0.331            | 0.362 | 0.421 | 34 | 29 | 0.927            | 0.940 | 0.961 |
| 33 | 8  | 0.364            | 0.395 | 0.455 | 34 | 30 | 0.948            | 0.959 | 0.975 |
| 33 | 9  | 0.396            | 0.428 | 0.488 | 34 | 31 | 0.967            | 0.975 | 0.987 |
| 33 | 10 | 0.428            | 0.460 | 0.519 | 34 | 32 | 0.984            | 0.989 | 0.995 |
| 33 | 11 | 0.459            | 0.491 | 0.550 | 34 | 33 | 0.997            | 0.998 | 1.000 |
| 33 | 12 | 0.490            | 0.522 | 0.580 | 34 | 34 | 1.000            | 1.000 | 1.000 |
| 33 | 13 | 0.521            | 0.552 | 0.609 | 35 | 0  | 0.064            | 0.082 | 0.123 |
| 33 | 14 | 0.551            | 0.582 | 0.638 | 35 | 1  | 0.107            | 0.128 | 0.175 |
| 33 | 15 | 0.580            | 0.611 | 0.666 | 35 | 2  | 0.145            | 0.169 | 0.219 |
| 33 | 16 | 0.609            | 0.639 | 0.693 | 35 | 3  | 0.181            | 0.207 | 0.259 |
| 33 | 17 | 0.638            | 0.667 | 0.720 | 35 | 4  | 0.215            | 0.243 | 0.297 |
| 33 | 18 | 0.667            | 0.695 | 0.746 | 35 | 5  | 0.249            | 0.277 | 0.333 |
| 33 | 19 | 0.695            | 0.722 | 0.771 | 35 | 6  | 0.282            | 0.311 | 0.367 |
| 33 | 20 | 0.722            | 0.749 | 0.795 | 35 | 7  | 0.313            | 0.343 | 0.401 |
| 33 | 21 | 0.750            | 0.775 | 0.819 | 35 | 8  | 0.345            | 0.375 | 0.433 |
| 33 | 22 | 0.776            | 0.801 | 0.842 | 35 | 9  | 0.375            | 0.406 | 0.464 |
| 33 | 23 | 0.803            | 0.826 | 0.864 | 35 | 10 | 0.406            | 0.436 | 0.494 |
| 33 | 24 | 0.828            | 0.850 | 0.886 | 35 | 11 | 0.435            | 0.466 | 0.524 |
| 33 | 25 | 0.853            | 0.873 | 0.906 | 35 | 12 | 0.465            | 0.496 | 0.553 |
| 33 | 26 | 0.878            | 0.896 | 0.925 | 35 | 13 | 0.494            | 0.524 | 0.581 |
| 33 | 27 | 0.902            | 0.918 | 0.943 | 35 | 14 | 0.523            | 0.553 | 0.609 |
| 33 | 28 | 0.924            | 0.938 | 0.960 | 35 | 15 | 0.551            | 0.581 | 0.636 |
| 33 | 29 | 0.946            | 0.957 | 0.974 | 35 | 16 | 0.579            | 0.608 | 0.662 |
| 33 | 30 | 0.966            | 0.975 | 0.986 | 35 | 17 | 0.606            | 0.635 | 0.688 |
| 33 | 31 | 0.984            | 0.989 | 0.995 | 35 | 18 | 0.634            | 0.662 | 0.713 |
| 33 | 32 | 0.997            | 0.998 | 1.000 | 35 | 19 | 0.661            | 0.688 | 0.738 |
| 33 | 33 | 1.000            | 1.000 | 1.000 | 35 | 20 | 0.687            | 0.714 | 0.762 |
| 34 | 0  | 0.065            | 0.084 | 0.127 | 35 | 21 | 0.713            | 0.740 | 0.785 |
| 34 | 1  | 0.110            | 0.132 | 0.180 | 35 | 22 | 0.739            | 0.764 | 0.808 |
| 34 | 2  | 0.149            | 0.174 | 0.225 | 35 | 23 | 0.765            | 0.789 | 0.830 |
| 34 | 3  | 0.186            | 0.212 | 0.266 | 35 | 24 | 0.790            | 0.813 | 0.852 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 35 | 25 | 0.814            | 0.836 | 0.873 | 37 | 7  | 0.298            | 0.326 | 0.382 |
| 35 | 26 | 0.839            | 0.859 | 0.893 | 37 | 8  | 0.327            | 0.357 | 0.413 |
| 35 | 27 | 0.862            | 0.881 | 0.912 | 37 | 9  | 0.357            | 0.386 | 0.442 |
| 35 | 28 | 0.885            | 0.902 | 0.930 | 37 | 10 | 0.386            | 0.415 | 0.472 |
| 35 | 29 | 0.907            | 0.923 | 0.947 | 37 | 11 | 0.414            | 0.444 | 0.500 |
| 35 | 30 | 0.929            | 0.942 | 0.962 | 37 | 12 | 0.442            | 0.472 | 0.528 |
| 35 | 31 | 0.949            | 0.960 | 0.976 | 37 | 13 | 0.470            | 0.500 | 0.555 |
| 35 | 32 | 0.968            | 0.976 | 0.987 | 37 | 14 | 0.497            | 0.527 | 0.582 |
| 35 | 33 | 0.985            | 0.990 | 0.996 | 37 | 15 | 0.524            | 0.554 | 0.608 |
| 35 | 34 | 0.997            | 0.998 | 1.000 | 37 | 16 | 0.551            | 0.580 | 0.634 |
| 35 | 35 | 1.000            | 1.000 | 1.000 | 37 | 17 | 0.577            | 0.606 | 0.659 |
| 36 | 0  | 0.062            | 0.080 | 0.120 | 37 | 18 | 0.604            | 0.632 | 0.683 |
| 36 | 1  | 0.104            | 0.125 | 0.171 | 37 | 19 | 0.629            | 0.657 | 0.707 |
| 36 | 2  | 0.141            | 0.165 | 0.214 | 37 | 20 | 0.655            | 0.682 | 0.731 |
| 36 | 3  | 0.176            | 0.201 | 0.253 | 37 | 21 | 0.680            | 0.707 | 0.754 |
| 36 | 4  | 0.210            | 0.236 | 0.290 | 37 | 22 | 0.705            | 0.731 | 0.776 |
| 36 | 5  | 0.243            | 0.270 | 0.325 | 37 | 23 | 0.730            | 0.755 | 0.798 |
| 36 | 6  | 0.274            | 0.303 | 0.359 | 37 | 24 | 0.754            | 0.778 | 0.820 |
| 36 | 7  | 0.305            | 0.334 | 0.391 | 37 | 25 | 0.778            | 0.801 | 0.841 |
| 36 | 8  | 0.336            | 0.365 | 0.422 | 37 | 26 | 0.802            | 0.824 | 0.861 |
| 36 | 9  | 0.366            | 0.396 | 0.453 | 37 | 27 | 0.825            | 0.845 | 0.880 |
| 36 | 10 | 0.395            | 0.426 | 0.483 | 37 | 28 | 0.848            | 0.867 | 0.899 |
| 36 | 11 | 0.424            | 0.455 | 0.512 | 37 | 29 | 0.870            | 0.888 | 0.917 |
| 36 | 12 | 0.453            | 0.483 | 0.540 | 37 | 30 | 0.892            | 0.908 | 0.934 |
| 36 | 13 | 0.482            | 0.512 | 0.568 | 37 | 31 | 0.913            | 0.927 | 0.950 |
| 36 | 14 | 0.510            | 0.540 | 0.595 | 37 | 32 | 0.933            | 0.945 | 0.964 |
| 36 | 15 | 0.537            | 0.567 | 0.622 | 37 | 33 | 0.952            | 0.962 | 0.977 |
| 36 | 16 | 0.565            | 0.594 | 0.648 | 37 | 34 | 0.970            | 0.977 | 0.988 |
| 36 | 17 | 0.592            | 0.621 | 0.673 | 37 | 35 | 0.985            | 0.990 | 0.996 |
| 36 | 18 | 0.618            | 0.647 | 0.698 | 37 | 36 | 0.997            | 0.998 | 1.000 |
| 36 | 19 | 0.645            | 0.673 | 0.722 | 37 | 37 | 1.000            | 1.000 | 1.000 |
| 36 | 20 | 0.671            | 0.698 | 0.746 | 38 | 0  | 0.059            | 0.076 | 0.114 |
| 36 | 21 | 0.696            | 0.723 | 0.769 | 38 | 1  | 0.098            | 0.119 | 0.162 |
| 36 | 22 | 0.722            | 0.747 | 0.792 | 38 | 2  | 0.134            | 0.156 | 0.203 |
| 36 | 23 | 0.747            | 0.772 | 0.814 | 38 | 3  | 0.167            | 0.192 | 0.241 |
| 36 | 24 | 0.772            | 0.795 | 0.836 | 38 | 4  | 0.199            | 0.225 | 0.276 |
| 36 | 25 | 0.796            | 0.818 | 0.856 | 38 | 5  | 0.231            | 0.257 | 0.310 |
| 36 | 26 | 0.820            | 0.841 | 0.877 | 38 | 6  | 0.261            | 0.288 | 0.342 |
| 36 | 27 | 0.843            | 0.863 | 0.896 | 38 | 7  | 0.290            | 0.318 | 0.373 |
| 36 | 28 | 0.866            | 0.884 | 0.914 | 38 | 8  | 0.319            | 0.348 | 0.403 |
| 36 | 29 | 0.888            | 0.905 | 0.932 | 38 | 9  | 0.348            | 0.377 | 0.432 |
| 36 | 30 | 0.910            | 0.925 | 0.948 | 38 | 10 | 0.376            | 0.405 | 0.461 |
| 36 | 31 | 0.931            | 0.944 | 0.963 | 38 | 11 | 0.404            | 0.433 | 0.489 |
| 36 | 32 | 0.951            | 0.961 | 0.976 | 38 | 12 | 0.431            | 0.461 | 0.516 |
| 36 | 33 | 0.969            | 0.977 | 0.988 | 38 | 13 | 0.459            | 0.488 | 0.543 |
| 36 | 34 | 0.985            | 0.990 | 0.996 | 38 | 14 | 0.485            | 0.515 | 0.569 |
| 36 | 35 | 0.997            | 0.998 | 1.000 | 38 | 15 | 0.512            | 0.541 | 0.595 |
| 36 | 36 | 1.000            | 1.000 | 1.000 | 38 | 16 | 0.538            | 0.567 | 0.620 |
| 37 | 0  | 0.060            | 0.078 | 0.117 | 38 | 17 | 0.564            | 0.593 | 0.645 |
| 37 | 1  | 0.101            | 0.122 | 0.166 | 38 | 18 | 0.590            | 0.618 | 0.669 |
| 37 | 2  | 0.137            | 0.160 | 0.208 | 38 | 19 | 0.615            | 0.643 | 0.693 |
| 37 | 3  | 0.172            | 0.196 | 0.247 | 38 | 20 | 0.640            | 0.667 | 0.716 |
| 37 | 4  | 0.204            | 0.230 | 0.283 | 38 | 21 | 0.665            | 0.691 | 0.739 |
| 37 | 5  | 0.236            | 0.263 | 0.317 | 38 | 22 | 0.689            | 0.715 | 0.761 |
| 37 | 6  | 0.267            | 0.295 | 0.350 | 38 | 23 | 0.713            | 0.739 | 0.783 |
|    |    |                  |       |       | 38 | 24 | 0.737            | 0.762 | 0.804 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 38 | 25 | 0.761            | 0.784 | 0.825 | 40 | 3  | 0.159            | 0.183 | 0.230 |
| 38 | 26 | 0.784            | 0.807 | 0.845 | 40 | 4  | 0.190            | 0.214 | 0.264 |
| 38 | 27 | 0.807            | 0.828 | 0.865 |    |    |                  |       |       |
| 38 | 28 | 0.830            | 0.850 | 0.884 | 40 | 5  | 0.220            | 0.245 | 0.296 |
| 38 | 29 | 0.852            | 0.871 | 0.902 | 40 | 6  | 0.249            | 0.275 | 0.327 |
|    |    |                  |       |       | 40 | 7  | 0.277            | 0.304 | 0.357 |
| 38 | 30 | 0.873            | 0.891 | 0.919 | 40 | 8  | 0.305            | 0.332 | 0.386 |
| 38 | 31 | 0.894            | 0.910 | 0.936 | 40 | 9  | 0.332            | 0.360 | 0.414 |
| 38 | 32 | 0.915            | 0.929 | 0.951 |    |    |                  |       |       |
| 38 | 33 | 0.935            | 0.947 | 0.965 | 40 | 10 | 0.359            | 0.387 | 0.441 |
| 38 | 34 | 0.953            | 0.963 | 0.978 | 40 | 11 | 0.385            | 0.414 | 0.468 |
|    |    |                  |       |       | 40 | 12 | 0.412            | 0.440 | 0.495 |
| 38 | 35 | 0.971            | 0.978 | 0.988 | 40 | 13 | 0.438            | 0.466 | 0.520 |
| 38 | 36 | 0.986            | 0.990 | 0.996 | 40 | 14 | 0.463            | 0.492 | 0.546 |
| 38 | 37 | 0.997            | 0.999 | 1.000 |    |    |                  |       |       |
| 38 | 38 | 1.000            | 1.000 | 1.000 | 40 | 15 | 0.489            | 0.517 | 0.571 |
|    |    |                  |       |       | 40 | 16 | 0.514            | 0.542 | 0.595 |
| 39 | 0  | 0.057            | 0.074 | 0.111 | 40 | 17 | 0.539            | 0.567 | 0.619 |
| 39 | 1  | 0.096            | 0.116 | 0.158 | 40 | 18 | 0.563            | 0.591 | 0.642 |
| 39 | 2  | 0.131            | 0.153 | 0.198 | 40 | 19 | 0.588            | 0.615 | 0.665 |
| 39 | 3  | 0.163            | 0.187 | 0.235 |    |    |                  |       |       |
| 39 | 4  | 0.195            | 0.219 | 0.270 | 40 | 20 | 0.612            | 0.639 | 0.688 |
|    |    |                  |       |       | 40 | 21 | 0.636            | 0.662 | 0.710 |
| 39 | 5  | 0.225            | 0.251 | 0.303 | 40 | 22 | 0.659            | 0.685 | 0.732 |
| 39 | 6  | 0.255            | 0.281 | 0.334 | 40 | 23 | 0.683            | 0.708 | 0.754 |
| 39 | 7  | 0.283            | 0.311 | 0.365 | 40 | 24 | 0.706            | 0.731 | 0.775 |
| 39 | 8  | 0.312            | 0.340 | 0.394 |    |    |                  |       |       |
| 39 | 9  | 0.340            | 0.368 | 0.423 | 40 | 25 | 0.729            | 0.753 | 0.795 |
|    |    |                  |       |       | 40 | 26 | 0.751            | 0.775 | 0.815 |
| 39 | 10 | 0.367            | 0.396 | 0.451 | 40 | 27 | 0.774            | 0.796 | 0.835 |
| 39 | 11 | 0.394            | 0.423 | 0.478 | 40 | 28 | 0.796            | 0.817 | 0.854 |
| 39 | 12 | 0.421            | 0.450 | 0.505 | 40 | 29 | 0.817            | 0.838 | 0.872 |
| 39 | 13 | 0.448            | 0.477 | 0.532 |    |    |                  |       |       |
| 39 | 14 | 0.474            | 0.503 | 0.557 | 40 | 30 | 0.839            | 0.858 | 0.890 |
|    |    |                  |       |       | 40 | 31 | 0.859            | 0.877 | 0.907 |
| 39 | 15 | 0.500            | 0.529 | 0.583 | 40 | 32 | 0.880            | 0.896 | 0.923 |
| 39 | 16 | 0.526            | 0.554 | 0.607 | 40 | 33 | 0.900            | 0.915 | 0.939 |
| 39 | 17 | 0.551            | 0.579 | 0.632 | 40 | 34 | 0.919            | 0.933 | 0.953 |
| 39 | 18 | 0.576            | 0.604 | 0.656 |    |    |                  |       |       |
| 39 | 19 | 0.601            | 0.629 | 0.679 | 40 | 35 | 0.938            | 0.949 | 0.967 |
|    |    |                  |       |       | 40 | 36 | 0.956            | 0.965 | 0.979 |
| 39 | 20 | 0.626            | 0.653 | 0.702 | 40 | 37 | 0.972            | 0.979 | 0.989 |
| 39 | 21 | 0.650            | 0.677 | 0.724 | 40 | 38 | 0.987            | 0.991 | 0.996 |
| 39 | 22 | 0.674            | 0.700 | 0.746 | 40 | 39 | 0.997            | 0.999 | 1.000 |
| 39 | 23 | 0.698            | 0.723 | 0.768 |    |    |                  |       |       |
| 39 | 24 | 0.721            | 0.746 | 0.789 | 40 | 40 | 1.000            | 1.000 | 1.000 |
|    |    |                  |       |       |    |    |                  |       |       |
| 39 | 25 | 0.745            | 0.768 | 0.810 | 41 | 0  | 0.055            | 0.070 | 0.106 |
| 39 | 26 | 0.767            | 0.790 | 0.830 | 41 | 1  | 0.091            | 0.110 | 0.151 |
| 39 | 27 | 0.790            | 0.812 | 0.849 | 41 | 2  | 0.125            | 0.146 | 0.190 |
| 39 | 28 | 0.812            | 0.833 | 0.868 | 41 | 3  | 0.156            | 0.178 | 0.225 |
| 39 | 29 | 0.834            | 0.854 | 0.887 | 41 | 4  | 0.185            | 0.209 | 0.258 |
|    |    |                  |       |       |    |    |                  |       |       |
| 39 | 30 | 0.856            | 0.874 | 0.904 | 41 | 5  | 0.215            | 0.240 | 0.289 |
| 39 | 31 | 0.877            | 0.894 | 0.921 | 41 | 6  | 0.243            | 0.269 | 0.320 |
| 39 | 32 | 0.897            | 0.913 | 0.937 | 41 | 7  | 0.270            | 0.297 | 0.349 |
| 39 | 33 | 0.917            | 0.931 | 0.952 | 41 | 8  | 0.298            | 0.325 | 0.377 |
| 39 | 34 | 0.936            | 0.948 | 0.966 | 41 | 9  | 0.324            | 0.352 | 0.405 |
|    |    |                  |       |       |    |    |                  |       |       |
| 39 | 35 | 0.954            | 0.964 | 0.978 | 41 | 10 | 0.351            | 0.379 | 0.432 |
| 39 | 36 | 0.971            | 0.979 | 0.988 | 41 | 11 | 0.377            | 0.405 | 0.458 |
| 39 | 37 | 0.986            | 0.991 | 0.996 | 41 | 12 | 0.402            | 0.431 | 0.484 |
| 39 | 38 | 0.997            | 0.999 | 1.000 | 41 | 13 | 0.428            | 0.456 | 0.510 |
| 39 | 39 | 1.000            | 1.000 | 1.000 | 41 | 14 | 0.453            | 0.481 | 0.535 |
|    |    |                  |       |       |    |    |                  |       |       |
| 40 | 0  | 0.056            | 0.072 | 0.109 | 41 | 15 | 0.478            | 0.506 | 0.559 |
| 40 | 1  | 0.094            | 0.113 | 0.155 | 41 | 16 | 0.502            | 0.531 | 0.583 |
| 40 | 2  | 0.128            | 0.149 | 0.194 | 41 | 17 | 0.527            | 0.555 | 0.607 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 41 | 18 | 0.551            | 0.579 | 0.630 | 42 | 31 | 0.826            | 0.846 | 0.878 |
| 41 | 19 | 0.575            | 0.602 | 0.653 | 42 | 32 | 0.847            | 0.865 | 0.895 |
| 41 | 20 | 0.599            | 0.626 | 0.675 | 42 | 33 | 0.866            | 0.883 | 0.912 |
| 41 | 21 | 0.622            | 0.649 | 0.697 | 42 | 34 | 0.886            | 0.902 | 0.927 |
| 41 | 22 | 0.645            | 0.671 | 0.718 | 42 | 35 | 0.905            | 0.919 | 0.942 |
| 41 | 23 | 0.668            | 0.694 | 0.740 | 42 | 36 | 0.923            | 0.936 | 0.956 |
| 41 | 24 | 0.691            | 0.716 | 0.760 | 42 | 37 | 0.941            | 0.952 | 0.969 |
| 41 | 25 | 0.713            | 0.738 | 0.781 | 42 | 38 | 0.958            | 0.967 | 0.980 |
| 41 | 26 | 0.736            | 0.759 | 0.801 | 42 | 39 | 0.973            | 0.980 | 0.989 |
| 41 | 27 | 0.758            | 0.780 | 0.820 | 42 | 40 | 0.987            | 0.991 | 0.996 |
| 41 | 28 | 0.779            | 0.801 | 0.839 | 42 | 41 | 0.997            | 0.999 | 1.000 |
| 41 | 29 | 0.801            | 0.822 | 0.857 | 42 | 42 | 1.000            | 1.000 | 1.000 |
| 41 | 30 | 0.822            | 0.842 | 0.875 | 43 | 0  | 0.052            | 0.067 | 0.101 |
| 41 | 31 | 0.843            | 0.861 | 0.893 | 43 | 1  | 0.087            | 0.106 | 0.145 |
| 41 | 32 | 0.863            | 0.880 | 0.909 | 43 | 2  | 0.119            | 0.139 | 0.181 |
| 41 | 33 | 0.883            | 0.899 | 0.925 | 43 | 3  | 0.149            | 0.170 | 0.215 |
| 41 | 34 | 0.902            | 0.917 | 0.940 | 43 | 4  | 0.177            | 0.200 | 0.247 |
| 41 | 35 | 0.921            | 0.934 | 0.955 | 43 | 5  | 0.205            | 0.229 | 0.277 |
| 41 | 36 | 0.940            | 0.951 | 0.968 | 43 | 6  | 0.232            | 0.257 | 0.306 |
| 41 | 37 | 0.957            | 0.966 | 0.979 | 43 | 7  | 0.259            | 0.284 | 0.334 |
| 41 | 38 | 0.973            | 0.980 | 0.989 | 43 | 8  | 0.285            | 0.311 | 0.362 |
| 41 | 39 | 0.987            | 0.991 | 0.996 | 43 | 9  | 0.310            | 0.337 | 0.388 |
| 41 | 40 | 0.997            | 0.999 | 1.000 | 43 | 10 | 0.336            | 0.363 | 0.414 |
| 41 | 41 | 1.000            | 1.000 | 1.000 | 43 | 11 | 0.360            | 0.388 | 0.440 |
| 42 | 0  | 0.053            | 0.069 | 0.104 | 43 | 12 | 0.385            | 0.413 | 0.465 |
| 42 | 1  | 0.089            | 0.108 | 0.148 | 43 | 13 | 0.410            | 0.437 | 0.489 |
| 42 | 2  | 0.122            | 0.142 | 0.185 | 43 | 14 | 0.434            | 0.461 | 0.514 |
| 42 | 3  | 0.152            | 0.174 | 0.220 | 43 | 15 | 0.458            | 0.485 | 0.537 |
| 42 | 4  | 0.181            | 0.205 | 0.252 | 43 | 16 | 0.481            | 0.509 | 0.560 |
| 42 | 5  | 0.210            | 0.234 | 0.283 | 43 | 17 | 0.505            | 0.532 | 0.583 |
| 42 | 6  | 0.237            | 0.263 | 0.313 | 43 | 18 | 0.528            | 0.555 | 0.606 |
| 42 | 7  | 0.264            | 0.290 | 0.341 | 43 | 19 | 0.551            | 0.578 | 0.628 |
| 42 | 8  | 0.291            | 0.318 | 0.369 | 43 | 20 | 0.574            | 0.601 | 0.650 |
| 42 | 9  | 0.317            | 0.344 | 0.397 | 43 | 21 | 0.596            | 0.623 | 0.671 |
| 42 | 10 | 0.343            | 0.370 | 0.423 | 43 | 22 | 0.619            | 0.645 | 0.692 |
| 42 | 11 | 0.368            | 0.396 | 0.449 | 43 | 23 | 0.641            | 0.667 | 0.713 |
| 42 | 12 | 0.394            | 0.422 | 0.474 | 43 | 24 | 0.663            | 0.688 | 0.733 |
| 42 | 13 | 0.419            | 0.447 | 0.499 | 43 | 25 | 0.685            | 0.709 | 0.753 |
| 42 | 14 | 0.443            | 0.471 | 0.524 | 43 | 26 | 0.706            | 0.730 | 0.773 |
| 42 | 15 | 0.467            | 0.496 | 0.548 | 43 | 27 | 0.728            | 0.751 | 0.792 |
| 42 | 16 | 0.492            | 0.520 | 0.572 | 43 | 28 | 0.749            | 0.771 | 0.811 |
| 42 | 17 | 0.516            | 0.543 | 0.595 | 43 | 29 | 0.770            | 0.791 | 0.829 |
| 42 | 18 | 0.539            | 0.567 | 0.618 | 43 | 30 | 0.790            | 0.811 | 0.847 |
| 42 | 19 | 0.563            | 0.590 | 0.640 | 43 | 31 | 0.810            | 0.830 | 0.865 |
| 42 | 20 | 0.586            | 0.613 | 0.662 | 43 | 32 | 0.831            | 0.849 | 0.882 |
| 42 | 21 | 0.609            | 0.636 | 0.684 | 43 | 33 | 0.850            | 0.868 | 0.898 |
| 42 | 22 | 0.632            | 0.658 | 0.705 | 43 | 34 | 0.870            | 0.886 | 0.914 |
| 42 | 23 | 0.654            | 0.680 | 0.726 | 43 | 35 | 0.889            | 0.904 | 0.929 |
| 42 | 24 | 0.677            | 0.702 | 0.747 | 43 | 36 | 0.907            | 0.921 | 0.943 |
| 42 | 25 | 0.699            | 0.723 | 0.767 | 43 | 37 | 0.925            | 0.937 | 0.957 |
| 42 | 26 | 0.721            | 0.744 | 0.786 | 43 | 38 | 0.942            | 0.953 | 0.969 |
| 42 | 27 | 0.742            | 0.765 | 0.806 | 43 | 39 | 0.959            | 0.968 | 0.980 |
| 42 | 28 | 0.764            | 0.786 | 0.825 | 43 | 40 | 0.974            | 0.981 | 0.990 |
| 42 | 29 | 0.785            | 0.806 | 0.843 | 43 | 41 | 0.987            | 0.992 | 0.996 |
| 42 | 30 | 0.806            | 0.826 | 0.861 | 43 | 42 | 0.997            | 0.999 | 1.000 |
|    |    |                  |       |       | 43 | 43 | 1.000            | 1.000 | 1.000 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 44 | 0  | 0.051            | 0.066 | 0.099 | 45 | 12 | 0.369            | 0.396 | 0.447 |
| 44 | 1  | 0.085            | 0.103 | 0.141 | 45 | 13 | 0.393            | 0.420 | 0.471 |
| 44 | 2  | 0.116            | 0.136 | 0.178 | 45 | 14 | 0.416            | 0.443 | 0.494 |
| 44 | 3  | 0.145            | 0.167 | 0.211 | 45 | 15 | 0.439            | 0.466 | 0.517 |
| 44 | 4  | 0.173            | 0.196 | 0.242 | 45 | 16 | 0.462            | 0.489 | 0.539 |
| 44 | 5  | 0.201            | 0.224 | 0.271 | 45 | 17 | 0.484            | 0.511 | 0.562 |
| 44 | 6  | 0.227            | 0.252 | 0.300 | 45 | 18 | 0.507            | 0.534 | 0.583 |
| 44 | 7  | 0.253            | 0.278 | 0.328 | 45 | 19 | 0.529            | 0.556 | 0.605 |
| 44 | 8  | 0.279            | 0.304 | 0.354 | 45 | 20 | 0.551            | 0.577 | 0.626 |
| 44 | 9  | 0.304            | 0.330 | 0.381 | 45 | 21 | 0.573            | 0.599 | 0.647 |
| 44 | 10 | 0.328            | 0.355 | 0.406 | 45 | 22 | 0.594            | 0.620 | 0.667 |
| 44 | 11 | 0.353            | 0.380 | 0.431 | 45 | 23 | 0.616            | 0.641 | 0.688 |
| 44 | 12 | 0.377            | 0.404 | 0.456 | 45 | 24 | 0.637            | 0.662 | 0.708 |
| 44 | 13 | 0.401            | 0.428 | 0.480 | 45 | 25 | 0.658            | 0.683 | 0.727 |
| 44 | 14 | 0.425            | 0.452 | 0.504 | 45 | 26 | 0.679            | 0.703 | 0.746 |
| 44 | 15 | 0.448            | 0.475 | 0.527 | 45 | 27 | 0.700            | 0.723 | 0.765 |
| 44 | 16 | 0.471            | 0.499 | 0.550 | 45 | 28 | 0.720            | 0.743 | 0.784 |
| 44 | 17 | 0.494            | 0.522 | 0.572 | 45 | 29 | 0.740            | 0.763 | 0.802 |
| 44 | 18 | 0.517            | 0.544 | 0.594 | 45 | 30 | 0.760            | 0.782 | 0.820 |
| 44 | 19 | 0.540            | 0.567 | 0.616 | 45 | 31 | 0.780            | 0.801 | 0.837 |
| 44 | 20 | 0.562            | 0.589 | 0.638 | 45 | 32 | 0.800            | 0.820 | 0.854 |
| 44 | 21 | 0.584            | 0.611 | 0.659 | 45 | 33 | 0.819            | 0.838 | 0.871 |
| 44 | 22 | 0.606            | 0.632 | 0.680 | 45 | 34 | 0.838            | 0.857 | 0.887 |
| 44 | 23 | 0.628            | 0.654 | 0.700 | 45 | 35 | 0.857            | 0.874 | 0.903 |
| 44 | 24 | 0.650            | 0.675 | 0.720 | 45 | 36 | 0.876            | 0.892 | 0.918 |
| 44 | 25 | 0.671            | 0.696 | 0.740 | 45 | 37 | 0.894            | 0.908 | 0.932 |
| 44 | 26 | 0.692            | 0.716 | 0.759 | 45 | 38 | 0.911            | 0.925 | 0.946 |
| 44 | 27 | 0.713            | 0.737 | 0.778 | 45 | 39 | 0.928            | 0.940 | 0.959 |
| 44 | 28 | 0.734            | 0.757 | 0.797 | 45 | 40 | 0.945            | 0.955 | 0.971 |
| 44 | 29 | 0.755            | 0.777 | 0.815 | 45 | 41 | 0.961            | 0.969 | 0.981 |
| 44 | 30 | 0.775            | 0.796 | 0.833 | 45 | 42 | 0.975            | 0.981 | 0.990 |
| 44 | 31 | 0.795            | 0.816 | 0.851 | 45 | 43 | 0.988            | 0.992 | 0.997 |
| 44 | 32 | 0.815            | 0.835 | 0.868 | 45 | 44 | 0.998            | 0.999 | 1.000 |
| 44 | 33 | 0.835            | 0.853 | 0.884 | 45 | 45 | 1.000            | 1.000 | 1.000 |
| 44 | 34 | 0.854            | 0.871 | 0.900 | 46 | 0  | 0.049            | 0.063 | 0.095 |
| 44 | 35 | 0.873            | 0.889 | 0.916 | 46 | 1  | 0.082            | 0.099 | 0.136 |
| 44 | 36 | 0.891            | 0.906 | 0.931 | 46 | 2  | 0.111            | 0.131 | 0.170 |
| 44 | 37 | 0.909            | 0.923 | 0.945 | 46 | 3  | 0.139            | 0.160 | 0.202 |
| 44 | 38 | 0.927            | 0.939 | 0.958 | 46 | 4  | 0.166            | 0.188 | 0.232 |
| 44 | 39 | 0.944            | 0.954 | 0.970 | 46 | 5  | 0.192            | 0.215 | 0.261 |
| 44 | 40 | 0.960            | 0.968 | 0.981 | 46 | 6  | 0.218            | 0.241 | 0.288 |
| 44 | 41 | 0.975            | 0.981 | 0.990 | 46 | 7  | 0.243            | 0.267 | 0.315 |
| 44 | 42 | 0.988            | 0.992 | 0.996 | 46 | 8  | 0.267            | 0.292 | 0.341 |
| 44 | 43 | 0.997            | 0.999 | 1.000 | 46 | 9  | 0.291            | 0.317 | 0.366 |
| 44 | 44 | 1.000            | 1.000 | 1.000 | 46 | 10 | 0.315            | 0.341 | 0.391 |
| 45 | 0  | 0.050            | 0.064 | 0.097 | 46 | 11 | 0.339            | 0.365 | 0.415 |
| 45 | 1  | 0.084            | 0.101 | 0.139 | 46 | 12 | 0.362            | 0.388 | 0.439 |
| 45 | 2  | 0.114            | 0.133 | 0.174 | 46 | 13 | 0.385            | 0.411 | 0.462 |
| 45 | 3  | 0.142            | 0.163 | 0.206 | 46 | 14 | 0.408            | 0.434 | 0.485 |
| 45 | 4  | 0.170            | 0.192 | 0.237 | 46 | 15 | 0.430            | 0.457 | 0.507 |
| 45 | 5  | 0.196            | 0.220 | 0.266 | 46 | 16 | 0.452            | 0.479 | 0.530 |
| 45 | 6  | 0.222            | 0.246 | 0.294 | 46 | 17 | 0.475            | 0.501 | 0.551 |
| 45 | 7  | 0.248            | 0.272 | 0.321 | 46 | 18 | 0.497            | 0.523 | 0.573 |
| 45 | 8  | 0.273            | 0.298 | 0.347 | 46 | 19 | 0.518            | 0.545 | 0.594 |
| 45 | 9  | 0.297            | 0.323 | 0.373 | 46 | 20 | 0.540            | 0.566 | 0.615 |
| 45 | 10 | 0.322            | 0.348 | 0.398 | 46 | 21 | 0.561            | 0.588 | 0.636 |
| 45 | 11 | 0.346            | 0.372 | 0.423 |    |    |                  |       |       |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 46 | 22 | 0.583      | 0.609 | 0.656 | 47 | 30 | 0.733      | 0.755 | 0.794 |
| 46 | 23 | 0.604      | 0.629 | 0.676 | 47 | 31 | 0.752      | 0.774 | 0.811 |
| 46 | 24 | 0.625      | 0.650 | 0.695 | 47 | 32 | 0.771      | 0.792 | 0.828 |
|    |    |            |       |       | 47 | 33 | 0.790      | 0.810 | 0.845 |
| 46 | 25 | 0.645      | 0.670 | 0.715 | 47 | 34 | 0.809      | 0.828 | 0.861 |
| 46 | 26 | 0.666      | 0.690 | 0.734 |    |    |            |       |       |
| 46 | 27 | 0.686      | 0.710 | 0.753 | 47 | 35 | 0.827      | 0.845 | 0.877 |
| 46 | 28 | 0.706      | 0.730 | 0.771 | 47 | 36 | 0.845      | 0.863 | 0.892 |
| 46 | 29 | 0.726      | 0.749 | 0.789 | 47 | 37 | 0.863      | 0.881 | 0.907 |
|    |    |            |       |       | 47 | 38 | 0.881      | 0.896 | 0.922 |
| 46 | 30 | 0.746      | 0.768 | 0.807 | 47 | 39 | 0.898      | 0.912 | 0.935 |
| 46 | 31 | 0.766      | 0.787 | 0.824 |    |    |            |       |       |
| 46 | 32 | 0.785      | 0.806 | 0.841 | 47 | 40 | 0.915      | 0.928 | 0.948 |
| 46 | 33 | 0.804      | 0.824 | 0.858 | 47 | 41 | 0.932      | 0.943 | 0.961 |
| 46 | 34 | 0.823      | 0.842 | 0.874 | 47 | 42 | 0.947      | 0.957 | 0.972 |
|    |    |            |       |       | 47 | 43 | 0.962      | 0.970 | 0.982 |
| 46 | 35 | 0.842      | 0.860 | 0.890 | 47 | 44 | 0.976      | 0.982 | 0.990 |
| 46 | 36 | 0.860      | 0.877 | 0.905 |    |    |            |       |       |
| 46 | 37 | 0.878      | 0.894 | 0.920 | 47 | 45 | 0.989      | 0.992 | 0.997 |
| 46 | 38 | 0.896      | 0.910 | 0.934 | 47 | 46 | 0.993      | 0.999 | 1.000 |
| 46 | 39 | 0.913      | 0.926 | 0.947 | 47 | 47 | 1.000      | 1.000 | 1.000 |
|    |    |            |       |       |    |    |            |       |       |
| 46 | 40 | 0.930      | 0.942 | 0.960 | 48 | 0  | 0.047      | 0.060 | 0.091 |
| 46 | 41 | 0.946      | 0.956 | 0.971 | 48 | 1  | 0.079      | 0.095 | 0.130 |
| 46 | 42 | 0.961      | 0.970 | 0.982 | 48 | 2  | 0.107      | 0.125 | 0.164 |
| 46 | 43 | 0.976      | 0.982 | 0.990 | 48 | 3  | 0.134      | 0.154 | 0.194 |
| 46 | 44 | 0.988      | 0.992 | 0.997 | 48 | 4  | 0.160      | 0.181 | 0.223 |
|    |    |            |       |       |    |    |            |       |       |
| 46 | 45 | 0.998      | 0.999 | 1.000 | 48 | 5  | 0.185      | 0.207 | 0.251 |
| 46 | 46 | 1.000      | 1.000 | 1.000 | 48 | 6  | 0.209      | 0.232 | 0.277 |
|    |    |            |       |       | 48 | 7  | 0.233      | 0.257 | 0.303 |
| 47 | 0  | 0.048      | 0.062 | 0.093 | 48 | 8  | 0.257      | 0.281 | 0.328 |
| 47 | 1  | 0.080      | 0.097 | 0.133 | 48 | 9  | 0.280      | 0.304 | 0.352 |
| 47 | 2  | 0.109      | 0.128 | 0.167 |    |    |            |       |       |
| 47 | 3  | 0.137      | 0.157 | 0.198 | 48 | 10 | 0.303      | 0.328 | 0.376 |
| 47 | 4  | 0.163      | 0.184 | 0.228 | 48 | 11 | 0.325      | 0.351 | 0.400 |
|    |    |            |       |       | 48 | 12 | 0.348      | 0.373 | 0.423 |
| 47 | 5  | 0.188      | 0.211 | 0.256 | 48 | 13 | 0.370      | 0.396 | 0.445 |
| 47 | 6  | 0.213      | 0.237 | 0.283 | 48 | 14 | 0.392      | 0.418 | 0.467 |
| 47 | 7  | 0.238      | 0.262 | 0.309 |    |    |            |       |       |
| 47 | 8  | 0.262      | 0.286 | 0.334 | 48 | 15 | 0.414      | 0.440 | 0.489 |
| 47 | 9  | 0.285      | 0.310 | 0.359 | 48 | 16 | 0.435      | 0.461 | 0.511 |
|    |    |            |       |       | 48 | 17 | 0.456      | 0.483 | 0.532 |
| 47 | 10 | 0.309      | 0.334 | 0.383 | 48 | 18 | 0.478      | 0.504 | 0.553 |
| 47 | 11 | 0.332      | 0.358 | 0.407 | 48 | 19 | 0.499      | 0.525 | 0.573 |
| 47 | 12 | 0.355      | 0.381 | 0.430 |    |    |            |       |       |
| 47 | 13 | 0.377      | 0.403 | 0.453 | 48 | 20 | 0.520      | 0.546 | 0.594 |
| 47 | 14 | 0.400      | 0.426 | 0.476 | 48 | 21 | 0.540      | 0.566 | 0.614 |
|    |    |            |       |       | 48 | 22 | 0.561      | 0.586 | 0.633 |
| 47 | 15 | 0.422      | 0.448 | 0.498 | 48 | 23 | 0.581      | 0.607 | 0.653 |
| 47 | 16 | 0.444      | 0.470 | 0.520 | 48 | 24 | 0.601      | 0.626 | 0.672 |
| 47 | 17 | 0.465      | 0.492 | 0.541 |    |    |            |       |       |
| 47 | 18 | 0.487      | 0.513 | 0.563 | 48 | 25 | 0.621      | 0.646 | 0.691 |
| 47 | 19 | 0.508      | 0.535 | 0.584 | 48 | 26 | 0.641      | 0.666 | 0.710 |
|    |    |            |       |       | 48 | 27 | 0.661      | 0.685 | 0.728 |
| 47 | 20 | 0.530      | 0.556 | 0.604 | 48 | 28 | 0.681      | 0.704 | 0.746 |
| 47 | 21 | 0.551      | 0.577 | 0.624 | 48 | 29 | 0.700      | 0.723 | 0.764 |
| 47 | 22 | 0.572      | 0.597 | 0.644 |    |    |            |       |       |
| 47 | 23 | 0.592      | 0.618 | 0.664 | 48 | 30 | 0.719      | 0.742 | 0.781 |
| 47 | 24 | 0.613      | 0.638 | 0.684 | 48 | 31 | 0.738      | 0.760 | 0.799 |
|    |    |            |       |       | 48 | 32 | 0.757      | 0.779 | 0.816 |
| 47 | 25 | 0.633      | 0.658 | 0.703 | 48 | 33 | 0.776      | 0.797 | 0.832 |
| 47 | 26 | 0.653      | 0.678 | 0.722 | 48 | 34 | 0.795      | 0.814 | 0.848 |
| 47 | 27 | 0.673      | 0.697 | 0.740 |    |    |            |       |       |
| 47 | 28 | 0.693      | 0.717 | 0.758 | 48 | 35 | 0.813      | 0.832 | 0.864 |
| 47 | 29 | 0.713      | 0.736 | 0.776 | 48 | 36 | 0.831      | 0.849 | 0.880 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 48 | 37 | 0.849            | 0.866 | 0.895 | 49 | 43 | 0.934            | 0.945 | 0.962 |
| 48 | 38 | 0.866            | 0.882 | 0.909 | 49 | 44 | 0.950            | 0.959 | 0.973 |
| 48 | 39 | 0.884            | 0.899 | 0.923 | 49 | 45 | 0.964            | 0.972 | 0.983 |
| 48 | 40 | 0.901            | 0.914 | 0.937 | 49 | 46 | 0.977            | 0.983 | 0.991 |
| 48 | 41 | 0.917            | 0.930 | 0.950 | 49 | 47 | 0.989            | 0.993 | 0.997 |
| 48 | 42 | 0.933            | 0.944 | 0.962 | 49 | 48 | 0.998            | 0.999 | 1.000 |
| 48 | 43 | 0.949            | 0.958 | 0.973 | 49 | 49 | 1.000            | 1.000 | 1.000 |
| 48 | 44 | 0.963            | 0.971 | 0.982 | 50 | 0  | 0.045            | 0.058 | 0.086 |
| 48 | 45 | 0.977            | 0.983 | 0.991 | 50 | 1  | 0.075            | 0.091 | 0.125 |
| 48 | 46 | 0.989            | 0.992 | 0.997 | 50 | 2  | 0.103            | 0.121 | 0.158 |
| 48 | 47 | 0.998            | 0.999 | 1.000 | 50 | 3  | 0.129            | 0.148 | 0.187 |
| 48 | 48 | 1.000            | 1.000 | 1.000 | 50 | 4  | 0.153            | 0.174 | 0.215 |
| 49 | 0  | 0.046            | 0.059 | 0.090 | 50 | 5  | 0.178            | 0.199 | 0.242 |
| 49 | 1  | 0.077            | 0.093 | 0.128 | 50 | 6  | 0.201            | 0.223 | 0.267 |
| 49 | 2  | 0.105            | 0.123 | 0.161 | 50 | 7  | 0.224            | 0.247 | 0.292 |
| 49 | 3  | 0.131            | 0.151 | 0.191 | 50 | 8  | 0.247            | 0.270 | 0.316 |
| 49 | 4  | 0.156            | 0.177 | 0.219 | 50 | 9  | 0.269            | 0.293 | 0.340 |
| 49 | 5  | 0.181            | 0.203 | 0.246 | 50 | 10 | 0.291            | 0.316 | 0.363 |
| 49 | 6  | 0.205            | 0.228 | 0.272 | 50 | 11 | 0.313            | 0.338 | 0.385 |
| 49 | 7  | 0.229            | 0.252 | 0.297 | 50 | 12 | 0.335            | 0.360 | 0.408 |
| 49 | 8  | 0.252            | 0.275 | 0.322 | 50 | 13 | 0.356            | 0.381 | 0.430 |
| 49 | 9  | 0.274            | 0.299 | 0.346 | 50 | 14 | 0.377            | 0.403 | 0.451 |
| 49 | 10 | 0.297            | 0.322 | 0.369 | 50 | 15 | 0.398            | 0.424 | 0.472 |
| 49 | 11 | 0.319            | 0.344 | 0.392 | 50 | 16 | 0.419            | 0.445 | 0.493 |
| 49 | 12 | 0.341            | 0.366 | 0.415 | 50 | 17 | 0.440            | 0.465 | 0.514 |
| 49 | 13 | 0.363            | 0.388 | 0.437 | 50 | 18 | 0.460            | 0.486 | 0.534 |
| 49 | 14 | 0.384            | 0.410 | 0.459 | 50 | 19 | 0.480            | 0.506 | 0.554 |
| 49 | 15 | 0.406            | 0.432 | 0.481 | 50 | 20 | 0.501            | 0.526 | 0.574 |
| 49 | 16 | 0.427            | 0.453 | 0.502 | 50 | 21 | 0.521            | 0.546 | 0.593 |
| 49 | 17 | 0.448            | 0.474 | 0.523 | 50 | 22 | 0.540            | 0.566 | 0.612 |
| 49 | 18 | 0.469            | 0.495 | 0.543 | 50 | 23 | 0.560            | 0.585 | 0.631 |
| 49 | 19 | 0.489            | 0.515 | 0.564 | 50 | 24 | 0.580            | 0.605 | 0.650 |
| 49 | 20 | 0.510            | 0.536 | 0.584 | 50 | 25 | 0.599            | 0.624 | 0.669 |
| 49 | 21 | 0.530            | 0.556 | 0.603 | 50 | 26 | 0.619            | 0.643 | 0.687 |
| 49 | 22 | 0.550            | 0.576 | 0.623 | 50 | 27 | 0.638            | 0.662 | 0.705 |
| 49 | 23 | 0.570            | 0.596 | 0.642 | 50 | 28 | 0.657            | 0.680 | 0.723 |
| 49 | 24 | 0.590            | 0.615 | 0.661 | 50 | 29 | 0.676            | 0.699 | 0.740 |
| 49 | 25 | 0.610            | 0.635 | 0.680 | 50 | 30 | 0.694            | 0.717 | 0.757 |
| 49 | 26 | 0.630            | 0.654 | 0.698 | 50 | 31 | 0.713            | 0.735 | 0.774 |
| 49 | 27 | 0.649            | 0.673 | 0.716 | 50 | 32 | 0.731            | 0.753 | 0.791 |
| 49 | 28 | 0.668            | 0.692 | 0.734 | 50 | 33 | 0.749            | 0.771 | 0.807 |
| 49 | 29 | 0.688            | 0.711 | 0.752 | 50 | 34 | 0.768            | 0.788 | 0.824 |
| 49 | 30 | 0.707            | 0.729 | 0.769 | 50 | 35 | 0.785            | 0.805 | 0.839 |
| 49 | 31 | 0.725            | 0.747 | 0.786 | 50 | 36 | 0.803            | 0.822 | 0.855 |
| 49 | 32 | 0.744            | 0.766 | 0.803 | 50 | 37 | 0.821            | 0.839 | 0.870 |
| 49 | 33 | 0.763            | 0.783 | 0.820 | 50 | 38 | 0.838            | 0.855 | 0.885 |
| 49 | 34 | 0.781            | 0.801 | 0.836 | 50 | 39 | 0.855            | 0.871 | 0.899 |
| 49 | 35 | 0.799            | 0.818 | 0.852 | 50 | 40 | 0.872            | 0.887 | 0.913 |
| 49 | 36 | 0.817            | 0.835 | 0.867 | 50 | 41 | 0.888            | 0.903 | 0.926 |
| 49 | 37 | 0.835            | 0.852 | 0.882 | 50 | 42 | 0.905            | 0.918 | 0.939 |
| 49 | 38 | 0.852            | 0.869 | 0.897 | 50 | 43 | 0.920            | 0.932 | 0.952 |
| 49 | 39 | 0.869            | 0.885 | 0.911 | 50 | 44 | 0.936            | 0.946 | 0.963 |
| 49 | 40 | 0.886            | 0.901 | 0.925 | 50 | 45 | 0.951            | 0.960 | 0.974 |
| 49 | 41 | 0.903            | 0.916 | 0.938 | 50 | 46 | 0.965            | 0.972 | 0.983 |
| 49 | 42 | 0.919            | 0.931 | 0.951 | 50 | 47 | 0.976            | 0.983 | 0.991 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 50 | 48 | 0.989            | 0.993 | 0.997 | 52 | 0  | 0.043            | 0.056 | 0.085 |
| 50 | 49 | 0.998            | 0.999 | 1.000 | 52 | 1  | 0.073            | 0.088 | 0.121 |
| 50 | 50 | 1.000            | 1.000 | 1.000 | 52 | 2  | 0.099            | 0.116 | 0.152 |
| 51 | 0  | 0.044            | 0.057 | 0.086 | 52 | 3  | 0.124            | 0.142 | 0.180 |
| 51 | 1  | 0.074            | 0.090 | 0.123 | 52 | 4  | 0.148            | 0.167 | 0.207 |
| 51 | 2  | 0.101            | 0.116 | 0.155 | 52 | 5  | 0.171            | 0.192 | 0.233 |
| 51 | 3  | 0.126            | 0.145 | 0.184 | 52 | 6  | 0.194            | 0.215 | 0.258 |
| 51 | 4  | 0.151            | 0.170 | 0.211 | 52 | 7  | 0.216            | 0.238 | 0.282 |
| 51 | 5  | 0.174            | 0.195 | 0.237 | 52 | 8  | 0.238            | 0.261 | 0.305 |
| 51 | 6  | 0.197            | 0.219 | 0.262 | 52 | 9  | 0.259            | 0.283 | 0.328 |
| 51 | 7  | 0.220            | 0.242 | 0.287 | 52 | 10 | 0.281            | 0.304 | 0.350 |
| 51 | 8  | 0.242            | 0.265 | 0.311 | 52 | 11 | 0.302            | 0.326 | 0.372 |
| 51 | 9  | 0.264            | 0.288 | 0.334 | 52 | 12 | 0.323            | 0.347 | 0.394 |
| 51 | 10 | 0.286            | 0.310 | 0.357 | 52 | 13 | 0.343            | 0.368 | 0.415 |
| 51 | 11 | 0.307            | 0.332 | 0.379 | 52 | 14 | 0.364            | 0.389 | 0.436 |
| 51 | 12 | 0.329            | 0.353 | 0.401 | 52 | 15 | 0.384            | 0.409 | 0.456 |
| 51 | 13 | 0.350            | 0.374 | 0.422 | 52 | 16 | 0.404            | 0.429 | 0.477 |
| 51 | 14 | 0.370            | 0.395 | 0.443 | 52 | 17 | 0.424            | 0.449 | 0.497 |
| 51 | 15 | 0.391            | 0.416 | 0.464 | 52 | 18 | 0.444            | 0.469 | 0.516 |
| 51 | 16 | 0.411            | 0.437 | 0.485 | 52 | 19 | 0.463            | 0.489 | 0.536 |
| 51 | 17 | 0.432            | 0.457 | 0.505 | 52 | 20 | 0.483            | 0.508 | 0.555 |
| 51 | 18 | 0.452            | 0.477 | 0.525 | 52 | 21 | 0.502            | 0.527 | 0.574 |
| 51 | 19 | 0.472            | 0.497 | 0.545 | 52 | 22 | 0.522            | 0.547 | 0.593 |
| 51 | 20 | 0.492            | 0.517 | 0.564 | 52 | 23 | 0.541            | 0.565 | 0.611 |
| 51 | 21 | 0.511            | 0.537 | 0.583 | 52 | 24 | 0.560            | 0.584 | 0.630 |
| 51 | 22 | 0.531            | 0.556 | 0.602 | 52 | 25 | 0.578            | 0.603 | 0.648 |
| 51 | 23 | 0.550            | 0.575 | 0.621 | 52 | 26 | 0.597            | 0.621 | 0.665 |
| 51 | 24 | 0.570            | 0.594 | 0.640 | 52 | 27 | 0.616            | 0.640 | 0.683 |
| 51 | 25 | 0.589            | 0.613 | 0.658 | 52 | 28 | 0.634            | 0.658 | 0.700 |
| 51 | 26 | 0.608            | 0.632 | 0.676 | 52 | 29 | 0.653            | 0.676 | 0.718 |
| 51 | 27 | 0.627            | 0.650 | 0.694 | 52 | 30 | 0.671            | 0.694 | 0.734 |
| 51 | 28 | 0.645            | 0.669 | 0.711 | 52 | 31 | 0.689            | 0.711 | 0.751 |
| 51 | 29 | 0.664            | 0.687 | 0.729 | 52 | 32 | 0.707            | 0.729 | 0.768 |
| 51 | 30 | 0.682            | 0.705 | 0.746 | 52 | 33 | 0.724            | 0.746 | 0.784 |
| 51 | 31 | 0.701            | 0.723 | 0.763 | 52 | 34 | 0.742            | 0.763 | 0.800 |
| 51 | 32 | 0.719            | 0.741 | 0.779 | 52 | 35 | 0.760            | 0.780 | 0.815 |
| 51 | 33 | 0.737            | 0.758 | 0.795 | 52 | 36 | 0.777            | 0.797 | 0.831 |
| 51 | 34 | 0.755            | 0.775 | 0.812 | 52 | 37 | 0.794            | 0.813 | 0.846 |
| 51 | 35 | 0.772            | 0.792 | 0.827 | 52 | 38 | 0.811            | 0.829 | 0.861 |
| 51 | 36 | 0.790            | 0.809 | 0.843 | 52 | 39 | 0.828            | 0.845 | 0.875 |
| 51 | 37 | 0.807            | 0.826 | 0.858 | 52 | 40 | 0.844            | 0.861 | 0.889 |
| 51 | 38 | 0.824            | 0.842 | 0.873 | 52 | 41 | 0.861            | 0.877 | 0.903 |
| 51 | 39 | 0.841            | 0.858 | 0.887 | 52 | 42 | 0.877            | 0.892 | 0.917 |
| 51 | 40 | 0.858            | 0.874 | 0.901 | 52 | 43 | 0.893            | 0.907 | 0.929 |
| 51 | 41 | 0.874            | 0.890 | 0.915 | 52 | 44 | 0.908            | 0.921 | 0.942 |
| 51 | 42 | 0.891            | 0.905 | 0.928 | 52 | 45 | 0.924            | 0.935 | 0.954 |
| 51 | 43 | 0.907            | 0.920 | 0.941 | 52 | 46 | 0.938            | 0.949 | 0.965 |
| 51 | 44 | 0.922            | 0.934 | 0.953 | 52 | 47 | 0.953            | 0.961 | 0.975 |
| 51 | 45 | 0.937            | 0.948 | 0.964 | 52 | 48 | 0.966            | 0.973 | 0.984 |
| 51 | 46 | 0.952            | 0.961 | 0.974 | 52 | 49 | 0.979            | 0.984 | 0.991 |
| 51 | 47 | 0.965            | 0.973 | 0.983 | 52 | 50 | 0.990            | 0.993 | 0.997 |
| 51 | 48 | 0.978            | 0.984 | 0.991 | 52 | 51 | 0.998            | 0.999 | 1.000 |
| 51 | 49 | 0.989            | 0.993 | 0.997 | 52 | 52 | 1.000            | 1.000 | 1.000 |
| 51 | 50 | 0.998            | 0.999 | 1.000 | 53 | 0  | 0.042            | 0.055 | 0.083 |
| 51 | 51 | 1.000            | 1.000 | 1.000 | 53 | 1  | 0.071            | 0.086 | 0.119 |
|    |    |                  |       |       | 53 | 2  | 0.097            | 0.114 | 0.149 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 53 | 3  | 0.122      | 0.140 | 0.177 | 54 | 5  | 0.165      | 0.185 | 0.225 |
| 53 | 4  | 0.145      | 0.164 | 0.204 | 54 | 6  | 0.187      | 0.208 | 0.249 |
| 53 | 5  | 0.168      | 0.188 | 0.229 | 54 | 7  | 0.208      | 0.230 | 0.272 |
| 53 | 6  | 0.190      | 0.211 | 0.253 | 54 | 8  | 0.230      | 0.252 | 0.295 |
| 53 | 7  | 0.212      | 0.234 | 0.277 | 54 | 9  | 0.250      | 0.273 | 0.317 |
| 53 | 8  | 0.234      | 0.256 | 0.300 | 54 | 10 | 0.271      | 0.294 | 0.339 |
| 53 | 9  | 0.255      | 0.278 | 0.322 | 54 | 11 | 0.291      | 0.315 | 0.360 |
| 53 | 10 | 0.276      | 0.299 | 0.344 | 54 | 12 | 0.311      | 0.335 | 0.381 |
| 53 | 11 | 0.296      | 0.320 | 0.366 | 54 | 13 | 0.331      | 0.355 | 0.401 |
| 53 | 12 | 0.317      | 0.341 | 0.387 | 54 | 14 | 0.351      | 0.375 | 0.422 |
| 53 | 13 | 0.337      | 0.361 | 0.408 | 54 | 15 | 0.371      | 0.395 | 0.442 |
| 53 | 14 | 0.357      | 0.382 | 0.429 | 54 | 16 | 0.390      | 0.415 | 0.461 |
| 53 | 15 | 0.377      | 0.402 | 0.449 | 54 | 17 | 0.409      | 0.434 | 0.481 |
| 53 | 16 | 0.397      | 0.422 | 0.469 | 54 | 18 | 0.429      | 0.453 | 0.500 |
| 53 | 17 | 0.417      | 0.442 | 0.489 | 54 | 19 | 0.448      | 0.472 | 0.519 |
| 53 | 18 | 0.436      | 0.461 | 0.508 | 54 | 20 | 0.466      | 0.491 | 0.537 |
| 53 | 19 | 0.455      | 0.480 | 0.527 | 54 | 21 | 0.485      | 0.510 | 0.556 |
| 53 | 20 | 0.475      | 0.500 | 0.546 | 54 | 22 | 0.504      | 0.528 | 0.574 |
| 53 | 21 | 0.494      | 0.519 | 0.565 | 54 | 23 | 0.522      | 0.547 | 0.592 |
| 53 | 22 | 0.513      | 0.537 | 0.583 | 54 | 24 | 0.541      | 0.565 | 0.610 |
| 53 | 23 | 0.531      | 0.556 | 0.602 | 54 | 25 | 0.559      | 0.583 | 0.628 |
| 53 | 24 | 0.550      | 0.575 | 0.620 | 54 | 26 | 0.577      | 0.601 | 0.645 |
| 53 | 25 | 0.569      | 0.593 | 0.638 | 54 | 27 | 0.595      | 0.619 | 0.662 |
| 53 | 26 | 0.587      | 0.611 | 0.655 | 54 | 28 | 0.613      | 0.637 | 0.679 |
| 53 | 27 | 0.605      | 0.629 | 0.673 | 54 | 29 | 0.631      | 0.654 | 0.696 |
| 53 | 28 | 0.623      | 0.647 | 0.690 | 54 | 30 | 0.649      | 0.671 | 0.713 |
| 53 | 29 | 0.642      | 0.665 | 0.707 | 54 | 31 | 0.666      | 0.689 | 0.729 |
| 53 | 30 | 0.659      | 0.682 | 0.723 | 54 | 32 | 0.684      | 0.706 | 0.745 |
| 53 | 31 | 0.677      | 0.700 | 0.740 | 54 | 33 | 0.701      | 0.723 | 0.761 |
| 53 | 32 | 0.695      | 0.717 | 0.756 | 54 | 34 | 0.718      | 0.739 | 0.777 |
| 53 | 33 | 0.713      | 0.734 | 0.772 | 54 | 35 | 0.735      | 0.756 | 0.793 |
| 53 | 34 | 0.730      | 0.751 | 0.788 | 54 | 36 | 0.752      | 0.772 | 0.808 |
| 53 | 35 | 0.747      | 0.768 | 0.804 | 54 | 37 | 0.769      | 0.789 | 0.823 |
| 53 | 36 | 0.764      | 0.784 | 0.819 | 54 | 38 | 0.786      | 0.805 | 0.838 |
| 53 | 37 | 0.781      | 0.801 | 0.834 | 54 | 39 | 0.802      | 0.820 | 0.852 |
| 53 | 38 | 0.798      | 0.817 | 0.849 | 54 | 40 | 0.818      | 0.836 | 0.866 |
| 53 | 39 | 0.815      | 0.833 | 0.864 | 54 | 41 | 0.834      | 0.851 | 0.880 |
| 53 | 40 | 0.831      | 0.848 | 0.878 | 54 | 42 | 0.850      | 0.867 | 0.894 |
| 53 | 41 | 0.847      | 0.864 | 0.892 | 54 | 43 | 0.866      | 0.881 | 0.907 |
| 53 | 42 | 0.864      | 0.879 | 0.905 | 54 | 44 | 0.882      | 0.896 | 0.920 |
| 53 | 43 | 0.879      | 0.894 | 0.918 | 54 | 45 | 0.897      | 0.910 | 0.932 |
| 53 | 44 | 0.895      | 0.908 | 0.931 | 54 | 46 | 0.912      | 0.924 | 0.944 |
| 53 | 45 | 0.910      | 0.923 | 0.943 | 54 | 47 | 0.926      | 0.938 | 0.955 |
| 53 | 46 | 0.925      | 0.936 | 0.954 | 54 | 48 | 0.941      | 0.951 | 0.966 |
| 53 | 47 | 0.939      | 0.950 | 0.965 | 54 | 49 | 0.954      | 0.963 | 0.976 |
| 53 | 48 | 0.953      | 0.962 | 0.975 | 54 | 50 | 0.967      | 0.974 | 0.984 |
| 53 | 49 | 0.967      | 0.974 | 0.984 | 54 | 51 | 0.979      | 0.985 | 0.992 |
| 53 | 50 | 0.979      | 0.984 | 0.992 | 54 | 52 | 0.990      | 0.993 | 0.997 |
| 53 | 51 | 0.990      | 0.993 | 0.997 | 54 | 53 | 0.998      | 0.999 | 1.000 |
| 53 | 52 | 0.998      | 0.999 | 1.000 | 54 | 54 | 1.000      | 1.000 | 1.000 |
| 53 | 53 | 1.000      | 1.000 | 1.000 | 55 | 0  | 0.041      | 0.053 | 0.080 |
| 54 | 0  | 0.042      | 0.054 | 0.082 | 55 | 1  | 0.069      | 0.083 | 0.115 |
| 54 | 1  | 0.070      | 0.085 | 0.117 | 55 | 2  | 0.094      | 0.110 | 0.144 |
| 54 | 2  | 0.095      | 0.112 | 0.147 | 55 | 3  | 0.117      | 0.135 | 0.171 |
| 54 | 3  | 0.119      | 0.137 | 0.174 | 55 | 4  | 0.140      | 0.159 | 0.197 |
| 54 | 4  | 0.143      | 0.161 | 0.200 | 55 | 5  | 0.162      | 0.182 | 0.221 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 55 | 6  | 0.184      | 0.204 | 0.245 | 56 | 7  | 0.201      | 0.222 | 0.263 |
| 55 | 7  | 0.205      | 0.226 | 0.268 | 56 | 8  | 0.222      | 0.243 | 0.285 |
| 55 | 8  | 0.226      | 0.247 | 0.290 | 56 | 9  | 0.242      | 0.264 | 0.307 |
| 55 | 9  | 0.246      | 0.268 | 0.312 | 56 | 10 | 0.262      | 0.284 | 0.328 |
| 55 | 10 | 0.266      | 0.289 | 0.333 | 56 | 11 | 0.281      | 0.304 | 0.348 |
| 55 | 11 | 0.286      | 0.309 | 0.354 | 56 | 12 | 0.301      | 0.324 | 0.369 |
| 55 | 12 | 0.306      | 0.329 | 0.375 | 56 | 13 | 0.320      | 0.344 | 0.389 |
| 55 | 13 | 0.326      | 0.349 | 0.395 | 56 | 14 | 0.339      | 0.363 | 0.408 |
| 55 | 14 | 0.345      | 0.369 | 0.415 | 56 | 15 | 0.358      | 0.382 | 0.428 |
| 55 | 15 | 0.364      | 0.389 | 0.435 | 56 | 16 | 0.377      | 0.401 | 0.447 |
| 55 | 16 | 0.384      | 0.408 | 0.454 | 56 | 17 | 0.396      | 0.420 | 0.466 |
| 55 | 17 | 0.403      | 0.427 | 0.473 | 56 | 18 | 0.414      | 0.439 | 0.484 |
| 55 | 18 | 0.421      | 0.446 | 0.492 | 56 | 19 | 0.433      | 0.457 | 0.503 |
| 55 | 19 | 0.440      | 0.465 | 0.511 | 56 | 20 | 0.451      | 0.475 | 0.521 |
| 55 | 20 | 0.459      | 0.483 | 0.529 | 56 | 21 | 0.469      | 0.494 | 0.539 |
| 55 | 21 | 0.477      | 0.502 | 0.547 | 56 | 22 | 0.487      | 0.512 | 0.557 |
| 55 | 22 | 0.495      | 0.520 | 0.565 | 56 | 23 | 0.505      | 0.529 | 0.574 |
| 55 | 23 | 0.514      | 0.538 | 0.583 | 56 | 24 | 0.523      | 0.547 | 0.592 |
| 55 | 24 | 0.532      | 0.556 | 0.601 | 56 | 25 | 0.541      | 0.565 | 0.609 |
| 55 | 25 | 0.550      | 0.574 | 0.618 | 56 | 26 | 0.558      | 0.582 | 0.626 |
| 55 | 26 | 0.568      | 0.592 | 0.635 | 56 | 27 | 0.576      | 0.600 | 0.643 |
| 55 | 27 | 0.585      | 0.609 | 0.652 | 56 | 28 | 0.593      | 0.617 | 0.659 |
| 55 | 28 | 0.603      | 0.627 | 0.669 | 56 | 29 | 0.611      | 0.634 | 0.676 |
| 55 | 29 | 0.621      | 0.644 | 0.686 | 56 | 30 | 0.628      | 0.651 | 0.692 |
| 55 | 30 | 0.638      | 0.661 | 0.702 | 56 | 31 | 0.645      | 0.668 | 0.708 |
| 55 | 31 | 0.655      | 0.678 | 0.719 | 56 | 32 | 0.662      | 0.684 | 0.724 |
| 55 | 32 | 0.673      | 0.695 | 0.735 | 56 | 33 | 0.679      | 0.701 | 0.740 |
| 55 | 33 | 0.690      | 0.711 | 0.750 | 56 | 34 | 0.696      | 0.717 | 0.755 |
| 55 | 34 | 0.707      | 0.728 | 0.766 | 56 | 35 | 0.712      | 0.733 | 0.771 |
| 55 | 35 | 0.724      | 0.744 | 0.781 | 56 | 36 | 0.729      | 0.749 | 0.786 |
| 55 | 36 | 0.740      | 0.761 | 0.797 | 56 | 37 | 0.745      | 0.765 | 0.801 |
| 55 | 37 | 0.757      | 0.777 | 0.812 | 56 | 38 | 0.761      | 0.781 | 0.815 |
| 55 | 38 | 0.773      | 0.793 | 0.826 | 56 | 39 | 0.778      | 0.797 | 0.830 |
| 55 | 39 | 0.790      | 0.808 | 0.841 | 56 | 40 | 0.794      | 0.812 | 0.844 |
| 55 | 40 | 0.806      | 0.824 | 0.855 | 56 | 41 | 0.809      | 0.827 | 0.858 |
| 55 | 41 | 0.822      | 0.839 | 0.869 | 56 | 42 | 0.825      | 0.842 | 0.871 |
| 55 | 42 | 0.838      | 0.854 | 0.883 | 56 | 43 | 0.841      | 0.857 | 0.885 |
| 55 | 43 | 0.853      | 0.869 | 0.896 | 56 | 44 | 0.856      | 0.871 | 0.898 |
| 55 | 44 | 0.869      | 0.884 | 0.909 | 56 | 45 | 0.871      | 0.886 | 0.911 |
| 55 | 45 | 0.884      | 0.898 | 0.921 | 56 | 46 | 0.886      | 0.900 | 0.923 |
| 55 | 46 | 0.899      | 0.912 | 0.933 | 56 | 47 | 0.901      | 0.914 | 0.935 |
| 55 | 47 | 0.913      | 0.926 | 0.945 | 56 | 48 | 0.915      | 0.927 | 0.946 |
| 55 | 48 | 0.928      | 0.939 | 0.956 | 56 | 49 | 0.929      | 0.940 | 0.957 |
| 55 | 49 | 0.942      | 0.951 | 0.967 | 56 | 50 | 0.943      | 0.952 | 0.967 |
| 55 | 50 | 0.955      | 0.964 | 0.976 | 56 | 51 | 0.956      | 0.964 | 0.977 |
| 55 | 51 | 0.968      | 0.975 | 0.985 | 56 | 52 | 0.968      | 0.975 | 0.985 |
| 55 | 52 | 0.980      | 0.985 | 0.992 | 56 | 53 | 0.980      | 0.985 | 0.992 |
| 55 | 53 | 0.990      | 0.993 | 0.997 | 56 | 54 | 0.990      | 0.994 | 0.997 |
| 55 | 54 | 0.998      | 0.999 | 1.000 | 56 | 55 | 0.998      | 0.999 | 1.000 |
| 55 | 55 | 1.000      | 1.000 | 1.000 | 56 | 56 | 1.000      | 1.000 | 1.000 |
| 56 | 0  | 0.040      | 0.052 | 0.079 | 57 | 0  | 0.040      | 0.051 | 0.078 |
| 56 | 1  | 0.068      | 0.082 | 0.113 | 57 | 1  | 0.066      | 0.080 | 0.111 |
| 56 | 2  | 0.092      | 0.108 | 0.142 | 57 | 2  | 0.091      | 0.106 | 0.139 |
| 56 | 3  | 0.115      | 0.133 | 0.168 | 57 | 3  | 0.113      | 0.130 | 0.166 |
| 56 | 4  | 0.138      | 0.156 | 0.193 | 57 | 4  | 0.135      | 0.153 | 0.190 |
| 56 | 5  | 0.159      | 0.179 | 0.218 | 57 | 5  | 0.157      | 0.176 | 0.214 |
| 56 | 6  | 0.181      | 0.201 | 0.241 | 57 | 6  | 0.178      | 0.197 | 0.237 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 57 | 7  | 0.198      | 0.218 | 0.259 | 58 | 6  | 0.175      | 0.194 | 0.233 |
| 57 | 8  | 0.218      | 0.239 | 0.281 | 58 | 7  | 0.195      | 0.215 | 0.255 |
| 57 | 9  | 0.238      | 0.259 | 0.302 | 58 | 8  | 0.214      | 0.235 | 0.276 |
|    |    |            |       |       | 58 | 9  | 0.234      | 0.255 | 0.297 |
| 57 | 10 | 0.257      | 0.279 | 0.323 | 58 | 10 | 0.253      | 0.275 | 0.316 |
| 57 | 11 | 0.277      | 0.299 | 0.343 | 58 | 11 | 0.272      | 0.294 | 0.338 |
| 57 | 12 | 0.296      | 0.319 | 0.363 | 58 | 12 | 0.291      | 0.314 | 0.357 |
| 57 | 13 | 0.315      | 0.338 | 0.383 | 58 | 13 | 0.310      | 0.333 | 0.377 |
| 57 | 14 | 0.334      | 0.357 | 0.402 | 58 | 14 | 0.328      | 0.351 | 0.396 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 15 | 0.352      | 0.376 | 0.421 | 58 | 15 | 0.347      | 0.370 | 0.415 |
| 57 | 16 | 0.371      | 0.395 | 0.440 | 58 | 16 | 0.365      | 0.388 | 0.433 |
| 57 | 17 | 0.389      | 0.413 | 0.459 | 58 | 17 | 0.383      | 0.407 | 0.452 |
| 57 | 18 | 0.408      | 0.432 | 0.477 | 58 | 18 | 0.401      | 0.425 | 0.470 |
| 57 | 19 | 0.426      | 0.450 | 0.495 | 58 | 19 | 0.419      | 0.443 | 0.486 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 20 | 0.444      | 0.468 | 0.513 | 58 | 20 | 0.437      | 0.461 | 0.505 |
| 57 | 21 | 0.462      | 0.486 | 0.531 | 58 | 21 | 0.454      | 0.478 | 0.523 |
| 57 | 22 | 0.479      | 0.504 | 0.548 | 58 | 22 | 0.472      | 0.496 | 0.540 |
| 57 | 23 | 0.497      | 0.521 | 0.566 | 58 | 23 | 0.489      | 0.513 | 0.557 |
| 57 | 24 | 0.515      | 0.539 | 0.583 | 58 | 24 | 0.507      | 0.530 | 0.574 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 25 | 0.532      | 0.556 | 0.600 | 58 | 25 | 0.524      | 0.547 | 0.591 |
| 57 | 26 | 0.550      | 0.573 | 0.617 | 58 | 26 | 0.541      | 0.564 | 0.608 |
| 57 | 27 | 0.567      | 0.590 | 0.633 | 58 | 27 | 0.558      | 0.581 | 0.624 |
| 57 | 28 | 0.584      | 0.607 | 0.650 | 58 | 28 | 0.575      | 0.596 | 0.641 |
| 57 | 29 | 0.601      | 0.624 | 0.666 | 58 | 29 | 0.592      | 0.615 | 0.657 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 30 | 0.618      | 0.641 | 0.682 | 58 | 30 | 0.608      | 0.631 | 0.673 |
| 57 | 31 | 0.635      | 0.657 | 0.698 | 58 | 31 | 0.625      | 0.648 | 0.688 |
| 57 | 32 | 0.652      | 0.674 | 0.714 | 58 | 32 | 0.642      | 0.664 | 0.704 |
| 57 | 33 | 0.668      | 0.690 | 0.730 | 58 | 33 | 0.658      | 0.680 | 0.719 |
| 57 | 34 | 0.685      | 0.706 | 0.745 | 58 | 34 | 0.674      | 0.696 | 0.735 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 35 | 0.701      | 0.722 | 0.760 | 58 | 35 | 0.691      | 0.712 | 0.750 |
| 57 | 36 | 0.718      | 0.738 | 0.775 | 58 | 36 | 0.707      | 0.727 | 0.765 |
| 57 | 37 | 0.734      | 0.754 | 0.790 | 58 | 37 | 0.723      | 0.743 | 0.779 |
| 57 | 38 | 0.750      | 0.770 | 0.804 | 58 | 38 | 0.739      | 0.758 | 0.794 |
| 57 | 39 | 0.766      | 0.785 | 0.819 | 58 | 39 | 0.754      | 0.774 | 0.808 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 40 | 0.782      | 0.800 | 0.833 | 58 | 40 | 0.770      | 0.789 | 0.822 |
| 57 | 41 | 0.797      | 0.815 | 0.847 | 58 | 41 | 0.786      | 0.804 | 0.836 |
| 57 | 42 | 0.813      | 0.830 | 0.860 | 58 | 42 | 0.801      | 0.819 | 0.850 |
| 57 | 43 | 0.828      | 0.845 | 0.874 | 58 | 43 | 0.816      | 0.833 | 0.863 |
| 57 | 44 | 0.843      | 0.860 | 0.887 | 58 | 44 | 0.831      | 0.848 | 0.876 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 45 | 0.859      | 0.874 | 0.900 | 58 | 45 | 0.846      | 0.862 | 0.889 |
| 57 | 46 | 0.873      | 0.888 | 0.912 | 58 | 46 | 0.861      | 0.876 | 0.902 |
| 57 | 47 | 0.888      | 0.902 | 0.924 | 58 | 47 | 0.876      | 0.890 | 0.914 |
| 57 | 48 | 0.902      | 0.915 | 0.936 | 58 | 48 | 0.890      | 0.903 | 0.926 |
| 57 | 49 | 0.917      | 0.928 | 0.947 | 58 | 49 | 0.904      | 0.917 | 0.937 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 50 | 0.930      | 0.941 | 0.958 | 58 | 50 | 0.918      | 0.930 | 0.948 |
| 57 | 51 | 0.944      | 0.953 | 0.968 | 58 | 51 | 0.932      | 0.942 | 0.959 |
| 57 | 52 | 0.957      | 0.965 | 0.977 | 58 | 52 | 0.945      | 0.954 | 0.968 |
| 57 | 53 | 0.969      | 0.976 | 0.985 | 58 | 53 | 0.958      | 0.965 | 0.977 |
| 57 | 54 | 0.980      | 0.985 | 0.992 | 58 | 54 | 0.969      | 0.976 | 0.985 |
|    |    |            |       |       |    |    |            |       |       |
| 57 | 55 | 0.991      | 0.994 | 0.997 | 58 | 55 | 0.981      | 0.986 | 0.992 |
| 57 | 56 | 0.998      | 0.999 | 1.000 | 58 | 56 | 0.991      | 0.994 | 0.997 |
| 57 | 57 | 1.000      | 1.000 | 1.000 | 58 | 57 | 0.996      | 0.999 | 1.000 |
|    |    |            |       |       | 58 | 58 | 1.000      | 1.000 | 1.000 |
|    |    |            |       |       |    |    |            |       |       |
| 58 | 0  | 0.039      | 0.050 | 0.076 | 59 | 0  | 0.038      | 0.049 | 0.075 |
| 58 | 1  | 0.065      | 0.079 | 0.109 | 59 | 1  | 0.064      | 0.078 | 0.107 |
| 58 | 2  | 0.089      | 0.105 | 0.137 | 59 | 2  | 0.088      | 0.103 | 0.135 |
| 58 | 3  | 0.111      | 0.128 | 0.163 | 59 | 3  | 0.110      | 0.126 | 0.160 |
| 58 | 4  | 0.133      | 0.151 | 0.187 | 59 | 4  | 0.131      | 0.148 | 0.184 |
|    |    |            |       |       |    |    |            |       |       |
| 58 | 5  | 0.154      | 0.173 | 0.211 |    |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 59 | 5  | 0.152            | 0.170 | 0.207 | 60 | 3  | 0.108            | 0.124 | 0.158 |
| 59 | 6  | 0.172            | 0.191 | 0.230 | 60 | 4  | 0.129            | 0.146 | 0.181 |
| 59 | 7  | 0.192            | 0.211 | 0.251 |    |    |                  |       |       |
| 59 | 8  | 0.211            | 0.231 | 0.272 | 60 | 5  | 0.149            | 0.167 | 0.204 |
| 59 | 9  | 0.230            | 0.251 | 0.293 | 60 | 6  | 0.169            | 0.188 | 0.226 |
|    |    |                  |       |       | 60 | 7  | 0.188            | 0.208 | 0.247 |
| 59 | 10 | 0.249            | 0.271 | 0.313 | 60 | 8  | 0.208            | 0.228 | 0.268 |
| 59 | 11 | 0.268            | 0.290 | 0.332 | 60 | 9  | 0.227            | 0.247 | 0.288 |
| 59 | 12 | 0.286            | 0.309 | 0.352 |    |    |                  |       |       |
| 59 | 13 | 0.305            | 0.327 | 0.371 | 60 | 10 | 0.245            | 0.266 | 0.308 |
| 59 | 14 | 0.323            | 0.346 | 0.390 | 60 | 11 | 0.264            | 0.285 | 0.327 |
|    |    |                  |       |       | 60 | 12 | 0.282            | 0.304 | 0.346 |
| 59 | 15 | 0.341            | 0.364 | 0.408 | 60 | 13 | 0.300            | 0.322 | 0.365 |
| 59 | 16 | 0.359            | 0.382 | 0.427 | 60 | 14 | 0.318            | 0.341 | 0.384 |
| 59 | 17 | 0.377            | 0.400 | 0.445 |    |    |                  |       |       |
| 59 | 18 | 0.395            | 0.418 | 0.463 | 60 | 15 | 0.336            | 0.359 | 0.402 |
| 59 | 19 | 0.412            | 0.436 | 0.480 | 60 | 16 | 0.354            | 0.376 | 0.420 |
|    |    |                  |       |       | 60 | 17 | 0.371            | 0.394 | 0.438 |
| 59 | 20 | 0.430            | 0.453 | 0.498 | 60 | 18 | 0.389            | 0.412 | 0.456 |
| 59 | 21 | 0.447            | 0.471 | 0.515 | 60 | 19 | 0.406            | 0.429 | 0.473 |
| 59 | 22 | 0.464            | 0.488 | 0.532 |    |    |                  |       |       |
| 59 | 23 | 0.482            | 0.505 | 0.549 | 60 | 20 | 0.423            | 0.447 | 0.491 |
| 59 | 24 | 0.499            | 0.522 | 0.566 | 60 | 21 | 0.440            | 0.464 | 0.508 |
|    |    |                  |       |       | 60 | 22 | 0.457            | 0.481 | 0.525 |
| 59 | 25 | 0.516            | 0.539 | 0.583 | 60 | 23 | 0.474            | 0.498 | 0.541 |
| 59 | 26 | 0.533            | 0.556 | 0.599 | 60 | 24 | 0.491            | 0.514 | 0.558 |
| 59 | 27 | 0.549            | 0.573 | 0.615 |    |    |                  |       |       |
| 59 | 28 | 0.566            | 0.589 | 0.632 | 60 | 25 | 0.508            | 0.531 | 0.574 |
| 59 | 29 | 0.583            | 0.605 | 0.647 | 60 | 26 | 0.524            | 0.548 | 0.591 |
|    |    |                  |       |       | 60 | 27 | 0.541            | 0.564 | 0.607 |
| 59 | 30 | 0.599            | 0.622 | 0.663 | 60 | 28 | 0.557            | 0.580 | 0.623 |
| 59 | 31 | 0.615            | 0.638 | 0.679 | 60 | 29 | 0.574            | 0.597 | 0.638 |
| 59 | 32 | 0.632            | 0.654 | 0.694 |    |    |                  |       |       |
| 59 | 33 | 0.648            | 0.670 | 0.710 | 60 | 30 | 0.590            | 0.613 | 0.654 |
| 59 | 34 | 0.664            | 0.686 | 0.725 | 60 | 31 | 0.606            | 0.629 | 0.670 |
|    |    |                  |       |       | 60 | 32 | 0.622            | 0.644 | 0.685 |
| 59 | 35 | 0.680            | 0.701 | 0.740 | 60 | 33 | 0.638            | 0.660 | 0.700 |
| 59 | 36 | 0.696            | 0.717 | 0.754 | 60 | 34 | 0.654            | 0.676 | 0.715 |
| 59 | 37 | 0.712            | 0.732 | 0.769 |    |    |                  |       |       |
| 59 | 38 | 0.728            | 0.748 | 0.783 | 60 | 35 | 0.670            | 0.691 | 0.730 |
| 59 | 39 | 0.743            | 0.763 | 0.798 | 60 | 36 | 0.686            | 0.707 | 0.744 |
|    |    |                  |       |       | 60 | 37 | 0.701            | 0.722 | 0.759 |
| 59 | 40 | 0.759            | 0.778 | 0.812 | 60 | 38 | 0.717            | 0.737 | 0.773 |
| 59 | 41 | 0.774            | 0.793 | 0.825 | 60 | 39 | 0.732            | 0.752 | 0.787 |
| 59 | 42 | 0.789            | 0.807 | 0.839 |    |    |                  |       |       |
| 59 | 43 | 0.804            | 0.822 | 0.852 | 60 | 40 | 0.748            | 0.767 | 0.801 |
| 59 | 44 | 0.819            | 0.836 | 0.865 | 60 | 41 | 0.763            | 0.782 | 0.815 |
|    |    |                  |       |       | 60 | 42 | 0.778            | 0.796 | 0.829 |
| 59 | 45 | 0.834            | 0.851 | 0.878 | 60 | 43 | 0.793            | 0.811 | 0.842 |
| 59 | 46 | 0.849            | 0.865 | 0.891 | 60 | 44 | 0.808            | 0.825 | 0.855 |
| 59 | 47 | 0.863            | 0.878 | 0.903 |    |    |                  |       |       |
| 59 | 48 | 0.878            | 0.892 | 0.915 | 60 | 45 | 0.823            | 0.839 | 0.868 |
| 59 | 49 | 0.892            | 0.905 | 0.927 | 60 | 46 | 0.837            | 0.853 | 0.881 |
|    |    |                  |       |       | 60 | 47 | 0.852            | 0.867 | 0.893 |
| 59 | 50 | 0.906            | 0.918 | 0.938 | 60 | 48 | 0.866            | 0.880 | 0.905 |
| 59 | 51 | 0.919            | 0.931 | 0.949 | 60 | 49 | 0.880            | 0.894 | 0.917 |
| 59 | 52 | 0.933            | 0.943 | 0.959 |    |    |                  |       |       |
| 59 | 53 | 0.946            | 0.955 | 0.969 | 60 | 50 | 0.894            | 0.907 | 0.928 |
| 59 | 54 | 0.958            | 0.966 | 0.978 | 60 | 51 | 0.907            | 0.920 | 0.939 |
|    |    |                  |       |       | 60 | 52 | 0.921            | 0.932 | 0.950 |
| 59 | 55 | 0.970            | 0.976 | 0.986 | 60 | 53 | 0.934            | 0.944 | 0.960 |
| 59 | 56 | 0.981            | 0.986 | 0.992 | 60 | 54 | 0.947            | 0.956 | 0.969 |
| 59 | 57 | 0.991            | 0.994 | 0.997 |    |    |                  |       |       |
| 59 | 58 | 0.998            | 0.999 | 1.000 | 60 | 55 | 0.959            | 0.967 | 0.978 |
| 59 | 59 | 1.000            | 1.000 | 1.000 | 60 | 56 | 0.971            | 0.977 | 0.986 |
|    |    |                  |       |       | 60 | 57 | 0.981            | 0.986 | 0.993 |
| 60 | 0  | 0.038            | 0.049 | 0.074 | 60 | 58 | 0.991            | 0.994 | 0.997 |
| 60 | 1  | 0.063            | 0.077 | 0.105 | 60 | 59 | 0.998            | 0.999 | 1.000 |
| 60 | 2  | 0.086            | 0.101 | 0.133 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 60 | 60 | 1.000      | 1.000 | 1.000 | 61 | 54 | 0.935      | 0.945 | 0.961 |
| 61 | 0  | 0.037      | 0.048 | 0.073 | 61 | 55 | 0.948      | 0.956 | 0.970 |
| 61 | 1  | 0.062      | 0.075 | 0.104 | 61 | 56 | 0.960      | 0.967 | 0.979 |
| 61 | 2  | 0.085      | 0.100 | 0.131 | 61 | 57 | 0.971      | 0.977 | 0.986 |
| 61 | 3  | 0.106      | 0.122 | 0.155 | 61 | 58 | 0.982      | 0.986 | 0.993 |
| 61 | 4  | 0.127      | 0.144 | 0.179 | 61 | 59 | 0.991      | 0.994 | 0.997 |
| 61 | 5  | 0.147      | 0.165 | 0.201 | 61 | 60 | 0.998      | 0.999 | 1.000 |
| 61 | 6  | 0.166      | 0.185 | 0.223 | 61 | 61 | 1.000      | 1.000 | 1.000 |
| 61 | 7  | 0.185      | 0.205 | 0.243 | 62 | 0  | 0.036      | 0.047 | 0.071 |
| 61 | 8  | 0.204      | 0.224 | 0.264 | 62 | 1  | 0.061      | 0.074 | 0.102 |
| 61 | 9  | 0.223      | 0.243 | 0.284 | 62 | 2  | 0.083      | 0.098 | 0.129 |
| 61 | 10 | 0.241      | 0.262 | 0.303 | 62 | 3  | 0.104      | 0.120 | 0.153 |
| 61 | 11 | 0.260      | 0.281 | 0.322 | 62 | 4  | 0.125      | 0.141 | 0.176 |
| 61 | 12 | 0.278      | 0.299 | 0.341 | 62 | 5  | 0.145      | 0.162 | 0.198 |
| 61 | 13 | 0.295      | 0.317 | 0.360 | 62 | 6  | 0.164      | 0.182 | 0.219 |
| 61 | 14 | 0.313      | 0.335 | 0.378 | 62 | 7  | 0.183      | 0.202 | 0.240 |
| 61 | 15 | 0.331      | 0.353 | 0.396 | 62 | 8  | 0.201      | 0.221 | 0.260 |
| 61 | 16 | 0.348      | 0.371 | 0.414 | 62 | 9  | 0.220      | 0.240 | 0.280 |
| 61 | 17 | 0.365      | 0.388 | 0.432 | 62 | 10 | 0.238      | 0.258 | 0.299 |
| 61 | 18 | 0.383      | 0.406 | 0.449 | 62 | 11 | 0.256      | 0.277 | 0.316 |
| 61 | 19 | 0.400      | 0.423 | 0.467 | 62 | 12 | 0.273      | 0.295 | 0.336 |
| 61 | 20 | 0.417      | 0.440 | 0.484 | 62 | 13 | 0.291      | 0.313 | 0.355 |
| 61 | 21 | 0.434      | 0.457 | 0.501 | 62 | 14 | 0.308      | 0.330 | 0.373 |
| 61 | 22 | 0.450      | 0.474 | 0.517 | 62 | 15 | 0.326      | 0.348 | 0.391 |
| 61 | 23 | 0.467      | 0.490 | 0.534 | 62 | 16 | 0.343      | 0.365 | 0.408 |
| 61 | 24 | 0.484      | 0.507 | 0.550 | 62 | 17 | 0.360      | 0.383 | 0.426 |
| 61 | 25 | 0.500      | 0.523 | 0.566 | 62 | 18 | 0.377      | 0.400 | 0.443 |
| 61 | 26 | 0.516      | 0.540 | 0.582 | 62 | 19 | 0.394      | 0.417 | 0.460 |
| 61 | 27 | 0.533      | 0.556 | 0.598 | 62 | 20 | 0.410      | 0.433 | 0.477 |
| 61 | 28 | 0.549      | 0.572 | 0.614 | 62 | 21 | 0.427      | 0.450 | 0.494 |
| 61 | 29 | 0.565      | 0.588 | 0.630 | 62 | 22 | 0.444      | 0.467 | 0.510 |
| 61 | 30 | 0.581      | 0.604 | 0.645 | 62 | 23 | 0.460      | 0.483 | 0.526 |
| 61 | 31 | 0.597      | 0.620 | 0.660 | 62 | 24 | 0.476      | 0.499 | 0.543 |
| 61 | 32 | 0.613      | 0.635 | 0.676 | 62 | 25 | 0.493      | 0.516 | 0.559 |
| 61 | 33 | 0.629      | 0.651 | 0.691 | 62 | 26 | 0.509      | 0.532 | 0.574 |
| 61 | 34 | 0.645      | 0.666 | 0.705 | 62 | 27 | 0.525      | 0.548 | 0.590 |
| 61 | 35 | 0.660      | 0.682 | 0.720 | 62 | 28 | 0.541      | 0.564 | 0.606 |
| 61 | 36 | 0.676      | 0.697 | 0.735 | 62 | 29 | 0.557      | 0.579 | 0.621 |
| 61 | 37 | 0.691      | 0.712 | 0.749 | 62 | 30 | 0.573      | 0.595 | 0.636 |
| 61 | 38 | 0.707      | 0.727 | 0.763 | 62 | 31 | 0.588      | 0.611 | 0.652 |
| 61 | 39 | 0.722      | 0.742 | 0.777 | 62 | 32 | 0.604      | 0.626 | 0.667 |
| 61 | 40 | 0.737      | 0.756 | 0.791 | 62 | 33 | 0.620      | 0.642 | 0.681 |
| 61 | 41 | 0.752      | 0.771 | 0.805 | 62 | 34 | 0.635      | 0.657 | 0.696 |
| 61 | 42 | 0.767      | 0.786 | 0.818 | 62 | 35 | 0.651      | 0.672 | 0.711 |
| 61 | 43 | 0.782      | 0.800 | 0.832 | 62 | 36 | 0.666      | 0.687 | 0.725 |
| 61 | 44 | 0.797      | 0.814 | 0.845 | 62 | 37 | 0.681      | 0.702 | 0.739 |
| 61 | 45 | 0.811      | 0.828 | 0.858 | 62 | 38 | 0.696      | 0.717 | 0.753 |
| 61 | 46 | 0.826      | 0.842 | 0.870 | 62 | 39 | 0.712      | 0.732 | 0.767 |
| 61 | 47 | 0.840      | 0.856 | 0.883 | 62 | 40 | 0.727      | 0.746 | 0.781 |
| 61 | 48 | 0.854      | 0.869 | 0.895 | 62 | 41 | 0.741      | 0.761 | 0.795 |
| 61 | 49 | 0.868      | 0.882 | 0.907 | 62 | 42 | 0.756      | 0.775 | 0.808 |
| 61 | 50 | 0.882      | 0.896 | 0.918 | 62 | 43 | 0.771      | 0.789 | 0.821 |
| 61 | 51 | 0.896      | 0.908 | 0.929 | 62 | 44 | 0.785      | 0.803 | 0.834 |
| 61 | 52 | 0.909      | 0.921 | 0.940 | 62 | 45 | 0.800      | 0.817 | 0.847 |
| 61 | 53 | 0.922      | 0.933 | 0.951 |    |    |            |       |       |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 62 | 46 | 0.814            | 0.831 | 0.860 | 63 | 39 | 0.702            | 0.722 | 0.758 |
| 62 | 47 | 0.828            | 0.845 | 0.872 | 63 | 40 | 0.716            | 0.736 | 0.771 |
| 62 | 48 | 0.843            | 0.858 | 0.885 | 63 | 41 | 0.731            | 0.750 | 0.785 |
| 62 | 49 | 0.857            | 0.871 | 0.897 | 63 | 42 | 0.746            | 0.765 | 0.798 |
| 62 | 50 | 0.870            | 0.884 | 0.908 | 63 | 43 | 0.760            | 0.779 | 0.811 |
| 62 | 51 | 0.884            | 0.897 | 0.920 | 63 | 44 | 0.775            | 0.793 | 0.824 |
| 62 | 52 | 0.897            | 0.910 | 0.931 | 63 | 45 | 0.789            | 0.807 | 0.837 |
| 62 | 53 | 0.911            | 0.922 | 0.941 | 63 | 46 | 0.803            | 0.820 | 0.850 |
| 62 | 54 | 0.923            | 0.934 | 0.952 | 63 | 47 | 0.817            | 0.834 | 0.862 |
| 62 | 55 | 0.936            | 0.946 | 0.961 | 63 | 48 | 0.831            | 0.847 | 0.875 |
| 62 | 56 | 0.948            | 0.957 | 0.970 | 63 | 49 | 0.845            | 0.860 | 0.887 |
| 62 | 57 | 0.960            | 0.968 | 0.979 | 63 | 50 | 0.859            | 0.873 | 0.898 |
| 62 | 58 | 0.971            | 0.978 | 0.986 | 63 | 51 | 0.872            | 0.886 | 0.910 |
| 62 | 59 | 0.982            | 0.987 | 0.993 | 63 | 52 | 0.886            | 0.899 | 0.921 |
| 62 | 60 | 0.991            | 0.994 | 0.997 | 63 | 53 | 0.899            | 0.911 | 0.932 |
| 62 | 61 | 0.998            | 0.999 | 1.000 | 63 | 54 | 0.912            | 0.923 | 0.942 |
| 62 | 62 | 1.000            | 1.000 | 1.000 | 63 | 55 | 0.925            | 0.935 | 0.952 |
| 63 | 0  | 0.036            | 0.046 | 0.070 | 63 | 56 | 0.937            | 0.947 | 0.962 |
| 63 | 1  | 0.060            | 0.073 | 0.101 | 63 | 57 | 0.949            | 0.958 | 0.971 |
| 63 | 2  | 0.082            | 0.096 | 0.127 | 63 | 58 | 0.961            | 0.968 | 0.979 |
| 63 | 3  | 0.103            | 0.118 | 0.151 | 63 | 59 | 0.972            | 0.978 | 0.987 |
| 63 | 4  | 0.123            | 0.139 | 0.173 | 63 | 60 | 0.982            | 0.987 | 0.993 |
| 63 | 5  | 0.142            | 0.160 | 0.195 | 63 | 61 | 0.991            | 0.994 | 0.998 |
| 63 | 6  | 0.161            | 0.179 | 0.216 | 63 | 62 | 0.998            | 0.999 | 1.000 |
| 63 | 7  | 0.180            | 0.199 | 0.236 | 63 | 63 | 1.000            | 1.000 | 1.000 |
| 63 | 8  | 0.198            | 0.218 | 0.256 | 64 | 0  | 0.035            | 0.046 | 0.069 |
| 63 | 9  | 0.216            | 0.236 | 0.275 | 64 | 1  | 0.059            | 0.072 | 0.099 |
| 63 | 10 | 0.234            | 0.254 | 0.294 | 64 | 2  | 0.081            | 0.095 | 0.125 |
| 63 | 11 | 0.252            | 0.272 | 0.313 | 64 | 3  | 0.101            | 0.117 | 0.148 |
| 63 | 12 | 0.269            | 0.290 | 0.332 | 64 | 4  | 0.121            | 0.137 | 0.171 |
| 63 | 13 | 0.287            | 0.308 | 0.350 | 64 | 5  | 0.140            | 0.157 | 0.192 |
| 63 | 14 | 0.304            | 0.325 | 0.367 | 64 | 6  | 0.159            | 0.177 | 0.213 |
| 63 | 15 | 0.321            | 0.343 | 0.385 | 64 | 7  | 0.177            | 0.196 | 0.233 |
| 63 | 16 | 0.338            | 0.360 | 0.403 | 64 | 8  | 0.195            | 0.214 | 0.252 |
| 63 | 17 | 0.354            | 0.377 | 0.420 | 64 | 9  | 0.213            | 0.233 | 0.272 |
| 63 | 18 | 0.371            | 0.394 | 0.437 | 64 | 10 | 0.231            | 0.251 | 0.290 |
| 63 | 19 | 0.388            | 0.410 | 0.454 | 64 | 11 | 0.248            | 0.268 | 0.309 |
| 63 | 20 | 0.404            | 0.427 | 0.470 | 64 | 12 | 0.265            | 0.286 | 0.327 |
| 63 | 21 | 0.421            | 0.444 | 0.487 | 64 | 13 | 0.282            | 0.303 | 0.345 |
| 63 | 22 | 0.437            | 0.460 | 0.503 | 64 | 14 | 0.299            | 0.321 | 0.362 |
| 63 | 23 | 0.453            | 0.476 | 0.519 | 64 | 15 | 0.316            | 0.338 | 0.380 |
| 63 | 24 | 0.469            | 0.492 | 0.535 | 64 | 16 | 0.333            | 0.355 | 0.397 |
| 63 | 25 | 0.485            | 0.508 | 0.551 | 64 | 17 | 0.349            | 0.371 | 0.414 |
| 63 | 26 | 0.501            | 0.524 | 0.567 | 64 | 18 | 0.366            | 0.388 | 0.431 |
| 63 | 27 | 0.517            | 0.540 | 0.582 | 64 | 19 | 0.382            | 0.405 | 0.447 |
| 63 | 28 | 0.533            | 0.556 | 0.598 | 64 | 20 | 0.398            | 0.421 | 0.464 |
| 63 | 29 | 0.549            | 0.571 | 0.613 | 64 | 21 | 0.415            | 0.437 | 0.480 |
| 63 | 30 | 0.564            | 0.587 | 0.628 | 64 | 22 | 0.431            | 0.453 | 0.496 |
| 63 | 31 | 0.580            | 0.602 | 0.643 | 64 | 23 | 0.447            | 0.469 | 0.512 |
| 63 | 32 | 0.595            | 0.617 | 0.658 | 64 | 24 | 0.463            | 0.485 | 0.528 |
| 63 | 33 | 0.611            | 0.633 | 0.673 | 64 | 25 | 0.478            | 0.501 | 0.544 |
| 63 | 34 | 0.626            | 0.648 | 0.687 | 64 | 26 | 0.494            | 0.517 | 0.559 |
| 63 | 35 | 0.641            | 0.663 | 0.701 | 64 | 27 | 0.510            | 0.532 | 0.574 |
| 63 | 36 | 0.657            | 0.678 | 0.716 | 64 | 28 | 0.525            | 0.548 | 0.590 |
| 63 | 37 | 0.672            | 0.692 | 0.730 | 64 | 29 | 0.541            | 0.563 | 0.605 |
| 63 | 38 | 0.687            | 0.707 | 0.744 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 64 | 30 | 0.556      | 0.579 | 0.620 | 65 | 22 | 0.424      | 0.447 | 0.489 |
| 64 | 31 | 0.572      | 0.594 | 0.635 | 65 | 23 | 0.440      | 0.463 | 0.505 |
| 64 | 32 | 0.587      | 0.609 | 0.649 | 65 | 24 | 0.456      | 0.478 | 0.521 |
| 64 | 33 | 0.602      | 0.624 | 0.664 | 65 | 25 | 0.472      | 0.494 | 0.536 |
| 64 | 34 | 0.617      | 0.639 | 0.678 | 65 | 26 | 0.487      | 0.510 | 0.552 |
| 64 | 35 | 0.632      | 0.654 | 0.693 | 65 | 27 | 0.503      | 0.525 | 0.567 |
| 64 | 36 | 0.647      | 0.668 | 0.707 | 65 | 28 | 0.518      | 0.540 | 0.582 |
| 64 | 37 | 0.662      | 0.683 | 0.721 | 65 | 29 | 0.533      | 0.556 | 0.597 |
| 64 | 38 | 0.677      | 0.698 | 0.735 | 65 | 30 | 0.548      | 0.571 | 0.612 |
| 64 | 39 | 0.692      | 0.712 | 0.748 | 65 | 31 | 0.564      | 0.586 | 0.626 |
| 64 | 40 | 0.706      | 0.726 | 0.762 | 65 | 32 | 0.579      | 0.601 | 0.641 |
| 64 | 41 | 0.721      | 0.740 | 0.775 | 65 | 33 | 0.594      | 0.615 | 0.655 |
| 64 | 42 | 0.735      | 0.755 | 0.789 | 65 | 34 | 0.609      | 0.630 | 0.670 |
| 64 | 43 | 0.750      | 0.769 | 0.802 | 65 | 35 | 0.624      | 0.645 | 0.684 |
| 64 | 44 | 0.764      | 0.782 | 0.815 | 65 | 36 | 0.638      | 0.659 | 0.698 |
| 64 | 45 | 0.778      | 0.796 | 0.827 | 65 | 37 | 0.653      | 0.674 | 0.712 |
| 64 | 46 | 0.792      | 0.810 | 0.840 | 65 | 38 | 0.668      | 0.688 | 0.725 |
| 64 | 47 | 0.806      | 0.823 | 0.852 | 65 | 39 | 0.682      | 0.703 | 0.739 |
| 64 | 48 | 0.820      | 0.837 | 0.865 | 65 | 40 | 0.697      | 0.717 | 0.752 |
| 64 | 49 | 0.834      | 0.850 | 0.877 | 65 | 41 | 0.711      | 0.731 | 0.766 |
| 64 | 50 | 0.848      | 0.863 | 0.888 | 65 | 42 | 0.725      | 0.745 | 0.779 |
| 64 | 51 | 0.861      | 0.876 | 0.900 | 65 | 43 | 0.740      | 0.759 | 0.792 |
| 64 | 52 | 0.874      | 0.888 | 0.911 | 65 | 44 | 0.754      | 0.772 | 0.805 |
| 64 | 53 | 0.888      | 0.901 | 0.922 | 65 | 45 | 0.768      | 0.786 | 0.818 |
| 64 | 54 | 0.901      | 0.913 | 0.933 | 65 | 46 | 0.782      | 0.799 | 0.830 |
| 64 | 55 | 0.913      | 0.925 | 0.943 | 65 | 47 | 0.796      | 0.813 | 0.843 |
| 64 | 56 | 0.926      | 0.936 | 0.953 | 65 | 48 | 0.809      | 0.826 | 0.855 |
| 64 | 57 | 0.938      | 0.948 | 0.963 | 65 | 49 | 0.823      | 0.839 | 0.867 |
| 64 | 58 | 0.950      | 0.958 | 0.971 | 65 | 50 | 0.837      | 0.852 | 0.879 |
| 64 | 59 | 0.962      | 0.969 | 0.980 | 65 | 51 | 0.850      | 0.865 | 0.890 |
| 64 | 60 | 0.972      | 0.978 | 0.987 | 65 | 52 | 0.863      | 0.877 | 0.902 |
| 64 | 61 | 0.983      | 0.987 | 0.993 | 65 | 53 | 0.876      | 0.890 | 0.913 |
| 64 | 62 | 0.992      | 0.994 | 0.998 | 65 | 54 | 0.889      | 0.902 | 0.923 |
| 64 | 63 | 0.998      | 0.999 | 1.000 | 65 | 55 | 0.902      | 0.914 | 0.934 |
| 64 | 64 | 1.000      | 1.000 | 1.000 | 65 | 56 | 0.915      | 0.926 | 0.944 |
| 65 | 0  | 0.035      | 0.045 | 0.068 | 65 | 57 | 0.927      | 0.937 | 0.954 |
| 65 | 1  | 0.058      | 0.071 | 0.098 | 65 | 58 | 0.939      | 0.948 | 0.963 |
| 65 | 2  | 0.080      | 0.094 | 0.123 | 65 | 59 | 0.951      | 0.959 | 0.972 |
| 65 | 3  | 0.100      | 0.115 | 0.146 | 65 | 60 | 0.962      | 0.969 | 0.980 |
| 65 | 4  | 0.119      | 0.135 | 0.168 | 65 | 61 | 0.973      | 0.979 | 0.987 |
| 65 | 5  | 0.138      | 0.155 | 0.189 | 65 | 62 | 0.983      | 0.987 | 0.993 |
| 65 | 6  | 0.156      | 0.174 | 0.210 | 65 | 63 | 0.992      | 0.994 | 0.998 |
| 65 | 7  | 0.175      | 0.193 | 0.230 | 65 | 64 | 0.998      | 0.999 | 1.000 |
| 65 | 8  | 0.192      | 0.211 | 0.249 | 65 | 65 | 1.000      | 1.000 | 1.000 |
| 65 | 9  | 0.210      | 0.229 | 0.268 | 66 | 0  | 0.034      | 0.044 | 0.067 |
| 65 | 10 | 0.227      | 0.247 | 0.286 | 66 | 1  | 0.058      | 0.070 | 0.096 |
| 65 | 11 | 0.244      | 0.265 | 0.304 | 66 | 2  | 0.079      | 0.092 | 0.121 |
| 65 | 12 | 0.261      | 0.282 | 0.322 | 66 | 3  | 0.098      | 0.113 | 0.144 |
| 65 | 13 | 0.278      | 0.299 | 0.340 | 66 | 4  | 0.117      | 0.133 | 0.166 |
| 65 | 14 | 0.295      | 0.316 | 0.357 | 66 | 5  | 0.136      | 0.153 | 0.187 |
| 65 | 15 | 0.311      | 0.333 | 0.374 | 66 | 6  | 0.154      | 0.172 | 0.207 |
| 65 | 16 | 0.328      | 0.350 | 0.391 | 66 | 7  | 0.172      | 0.190 | 0.226 |
| 65 | 17 | 0.344      | 0.366 | 0.408 | 66 | 8  | 0.189      | 0.208 | 0.245 |
| 65 | 18 | 0.360      | 0.383 | 0.425 | 66 | 9  | 0.207      | 0.226 | 0.264 |
| 65 | 19 | 0.377      | 0.399 | 0.441 | 66 | 10 | 0.224      | 0.244 | 0.282 |
| 65 | 20 | 0.393      | 0.415 | 0.457 | 66 | 11 | 0.241      | 0.261 | 0.300 |
| 65 | 21 | 0.409      | 0.431 | 0.473 |    |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 66 | 12 | 0.258      | 0.278 | 0.318 | 67 | 0  | 0.034      | 0.044 | 0.066 |
| 66 | 13 | 0.274      | 0.295 | 0.335 | 67 | 1  | 0.057      | 0.069 | 0.095 |
| 66 | 14 | 0.291      | 0.312 | 0.352 | 67 | 2  | 0.077      | 0.091 | 0.120 |
|    |    |            |       |       | 67 | 3  | 0.097      | 0.112 | 0.142 |
| 66 | 15 | 0.307      | 0.328 | 0.369 | 67 | 4  | 0.116      | 0.131 | 0.164 |
| 66 | 16 | 0.323      | 0.345 | 0.386 |    |    |            |       |       |
| 66 | 17 | 0.339      | 0.361 | 0.403 | 67 | 5  | 0.134      | 0.151 | 0.184 |
| 66 | 18 | 0.355      | 0.377 | 0.419 | 67 | 6  | 0.152      | 0.169 | 0.204 |
| 66 | 19 | 0.371      | 0.393 | 0.435 | 67 | 7  | 0.170      | 0.187 | 0.223 |
|    |    |            |       |       | 67 | 8  | 0.187      | 0.205 | 0.242 |
| 66 | 20 | 0.387      | 0.409 | 0.451 | 67 | 9  | 0.204      | 0.223 | 0.260 |
| 66 | 21 | 0.403      | 0.425 | 0.467 |    |    |            |       |       |
| 66 | 22 | 0.418      | 0.441 | 0.483 | 67 | 10 | 0.221      | 0.240 | 0.278 |
| 66 | 23 | 0.434      | 0.456 | 0.498 | 67 | 11 | 0.237      | 0.257 | 0.296 |
| 66 | 24 | 0.450      | 0.472 | 0.514 | 67 | 12 | 0.254      | 0.274 | 0.313 |
|    |    |            |       |       | 67 | 13 | 0.270      | 0.291 | 0.331 |
| 66 | 25 | 0.465      | 0.487 | 0.529 | 67 | 14 | 0.286      | 0.307 | 0.348 |
| 66 | 26 | 0.480      | 0.503 | 0.544 |    |    |            |       |       |
| 66 | 27 | 0.496      | 0.518 | 0.559 | 67 | 15 | 0.303      | 0.324 | 0.364 |
| 66 | 28 | 0.511      | 0.533 | 0.574 | 67 | 16 | 0.319      | 0.340 | 0.381 |
| 66 | 29 | 0.526      | 0.548 | 0.589 | 67 | 17 | 0.335      | 0.356 | 0.397 |
|    |    |            |       |       | 67 | 18 | 0.350      | 0.372 | 0.413 |
| 66 | 30 | 0.541      | 0.563 | 0.604 | 67 | 19 | 0.366      | 0.388 | 0.429 |
| 66 | 31 | 0.556      | 0.578 | 0.618 |    |    |            |       |       |
| 66 | 32 | 0.571      | 0.593 | 0.633 | 67 | 20 | 0.382      | 0.404 | 0.445 |
| 66 | 33 | 0.586      | 0.607 | 0.647 | 67 | 21 | 0.397      | 0.419 | 0.461 |
| 66 | 34 | 0.600      | 0.622 | 0.661 | 67 | 22 | 0.413      | 0.435 | 0.477 |
|    |    |            |       |       | 67 | 23 | 0.428      | 0.450 | 0.492 |
| 66 | 35 | 0.615      | 0.636 | 0.675 | 67 | 24 | 0.443      | 0.465 | 0.507 |
| 66 | 36 | 0.630      | 0.651 | 0.689 |    |    |            |       |       |
| 66 | 37 | 0.644      | 0.665 | 0.703 | 67 | 25 | 0.458      | 0.481 | 0.522 |
| 66 | 38 | 0.659      | 0.679 | 0.716 | 67 | 26 | 0.474      | 0.496 | 0.537 |
| 66 | 39 | 0.673      | 0.693 | 0.730 | 67 | 27 | 0.489      | 0.511 | 0.552 |
|    |    |            |       |       | 67 | 28 | 0.504      | 0.526 | 0.567 |
| 66 | 40 | 0.687      | 0.707 | 0.743 | 67 | 29 | 0.519      | 0.541 | 0.582 |
| 66 | 41 | 0.702      | 0.721 | 0.757 |    |    |            |       |       |
| 66 | 42 | 0.716      | 0.735 | 0.770 | 67 | 30 | 0.533      | 0.555 | 0.596 |
| 66 | 43 | 0.730      | 0.749 | 0.783 | 67 | 31 | 0.548      | 0.570 | 0.610 |
| 66 | 44 | 0.744      | 0.762 | 0.795 | 67 | 32 | 0.563      | 0.585 | 0.625 |
|    |    |            |       |       | 67 | 33 | 0.578      | 0.599 | 0.639 |
| 66 | 45 | 0.758      | 0.776 | 0.808 | 67 | 34 | 0.592      | 0.614 | 0.653 |
| 66 | 46 | 0.772      | 0.789 | 0.821 |    |    |            |       |       |
| 66 | 47 | 0.785      | 0.803 | 0.833 | 67 | 35 | 0.607      | 0.628 | 0.667 |
| 66 | 48 | 0.799      | 0.816 | 0.845 | 67 | 36 | 0.621      | 0.642 | 0.681 |
| 66 | 49 | 0.812      | 0.829 | 0.857 | 67 | 37 | 0.635      | 0.656 | 0.694 |
|    |    |            |       |       | 67 | 38 | 0.650      | 0.670 | 0.708 |
| 66 | 50 | 0.826      | 0.842 | 0.869 | 67 | 39 | 0.664      | 0.684 | 0.721 |
| 66 | 51 | 0.839      | 0.854 | 0.881 |    |    |            |       |       |
| 66 | 52 | 0.852      | 0.867 | 0.892 | 67 | 40 | 0.678      | 0.698 | 0.734 |
| 66 | 53 | 0.865      | 0.879 | 0.903 | 67 | 41 | 0.692      | 0.712 | 0.748 |
| 66 | 54 | 0.878      | 0.892 | 0.914 | 67 | 42 | 0.706      | 0.726 | 0.761 |
|    |    |            |       |       | 67 | 43 | 0.720      | 0.739 | 0.773 |
| 66 | 55 | 0.891      | 0.904 | 0.925 | 67 | 44 | 0.734      | 0.753 | 0.786 |
| 66 | 56 | 0.904      | 0.915 | 0.935 |    |    |            |       |       |
| 66 | 57 | 0.916      | 0.927 | 0.945 | 67 | 45 | 0.748      | 0.766 | 0.799 |
| 66 | 58 | 0.928      | 0.938 | 0.955 | 67 | 46 | 0.762      | 0.779 | 0.811 |
| 66 | 59 | 0.940      | 0.949 | 0.964 | 67 | 47 | 0.775      | 0.793 | 0.824 |
|    |    |            |       |       | 67 | 48 | 0.789      | 0.806 | 0.836 |
| 66 | 60 | 0.952      | 0.960 | 0.972 | 67 | 49 | 0.802      | 0.819 | 0.848 |
| 66 | 61 | 0.963      | 0.970 | 0.980 |    |    |            |       |       |
| 66 | 62 | 0.973      | 0.979 | 0.987 | 67 | 50 | 0.815      | 0.831 | 0.859 |
| 66 | 63 | 0.983      | 0.987 | 0.993 | 67 | 51 | 0.829      | 0.844 | 0.871 |
| 66 | 64 | 0.992      | 0.994 | 0.998 | 67 | 52 | 0.842      | 0.857 | 0.882 |
|    |    |            |       |       | 67 | 53 | 0.855      | 0.869 | 0.894 |
| 66 | 65 | 0.998      | 0.999 | 1.000 | 67 | 54 | 0.868      | 0.881 | 0.905 |
| 66 | 66 | 1.000      | 1.000 | 1.000 |    |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 67 | 55 | 0.880            | 0.893 | 0.915 | 68 | 43 | 0.711            | 0.730 | 0.764 |
| 67 | 56 | 0.893            | 0.905 | 0.926 | 68 | 44 | 0.725            | 0.743 | 0.777 |
| 67 | 57 | 0.905            | 0.917 | 0.936 |    |    |                  |       |       |
| 67 | 58 | 0.917            | 0.928 | 0.946 | 68 | 45 | 0.738            | 0.757 | 0.790 |
| 67 | 59 | 0.929            | 0.939 | 0.955 | 68 | 46 | 0.752            | 0.770 | 0.802 |
|    |    |                  |       |       | 68 | 47 | 0.765            | 0.783 | 0.814 |
| 67 | 60 | 0.941            | 0.950 | 0.964 | 68 | 48 | 0.779            | 0.796 | 0.826 |
| 67 | 61 | 0.952            | 0.960 | 0.973 | 68 | 49 | 0.792            | 0.809 | 0.838 |
| 67 | 62 | 0.963            | 0.970 | 0.981 |    |    |                  |       |       |
| 67 | 63 | 0.974            | 0.979 | 0.987 | 68 | 50 | 0.805            | 0.821 | 0.850 |
| 67 | 64 | 0.983            | 0.988 | 0.993 | 68 | 51 | 0.818            | 0.834 | 0.862 |
|    |    |                  |       |       | 68 | 52 | 0.831            | 0.847 | 0.873 |
| 67 | 65 | 0.992            | 0.995 | 0.998 | 68 | 53 | 0.844            | 0.859 | 0.884 |
| 67 | 66 | 0.998            | 0.999 | 1.000 | 68 | 54 | 0.857            | 0.871 | 0.895 |
| 67 | 67 | 1.000            | 1.000 | 1.000 |    |    |                  |       |       |
|    |    |                  |       |       | 68 | 55 | 0.870            | 0.883 | 0.906 |
| 68 | 0  | 0.033            | 0.043 | 0.065 | 68 | 56 | 0.882            | 0.895 | 0.917 |
| 68 | 1  | 0.056            | 0.068 | 0.094 | 68 | 57 | 0.894            | 0.907 | 0.927 |
| 68 | 2  | 0.076            | 0.090 | 0.118 | 68 | 58 | 0.907            | 0.918 | 0.937 |
| 68 | 3  | 0.096            | 0.110 | 0.140 | 68 | 59 | 0.919            | 0.929 | 0.947 |
| 68 | 4  | 0.114            | 0.129 | 0.161 |    |    |                  |       |       |
|    |    |                  |       |       | 68 | 60 | 0.930            | 0.940 | 0.956 |
| 68 | 5  | 0.132            | 0.148 | 0.182 | 68 | 61 | 0.942            | 0.951 | 0.965 |
| 68 | 6  | 0.150            | 0.167 | 0.201 | 68 | 62 | 0.953            | 0.961 | 0.973 |
| 68 | 7  | 0.167            | 0.185 | 0.220 | 68 | 63 | 0.964            | 0.971 | 0.981 |
| 68 | 8  | 0.184            | 0.202 | 0.239 | 68 | 64 | 0.974            | 0.980 | 0.988 |
| 68 | 9  | 0.201            | 0.220 | 0.257 |    |    |                  |       |       |
|    |    |                  |       |       | 68 | 65 | 0.984            | 0.988 | 0.993 |
| 68 | 10 | 0.218            | 0.237 | 0.275 | 68 | 66 | 0.992            | 0.995 | 0.998 |
| 68 | 11 | 0.234            | 0.254 | 0.292 | 68 | 67 | 0.998            | 0.999 | 1.000 |
| 68 | 12 | 0.250            | 0.270 | 0.309 | 68 | 68 | 1.000            | 1.000 | 1.000 |
| 68 | 13 | 0.266            | 0.287 | 0.326 |    |    |                  |       |       |
| 68 | 14 | 0.282            | 0.303 | 0.343 | 69 | 0  | 0.033            | 0.042 | 0.064 |
|    |    |                  |       |       | 69 | 1  | 0.055            | 0.067 | 0.092 |
| 68 | 15 | 0.298            | 0.319 | 0.359 | 69 | 2  | 0.075            | 0.088 | 0.116 |
| 68 | 16 | 0.314            | 0.335 | 0.376 | 69 | 3  | 0.094            | 0.108 | 0.138 |
| 68 | 17 | 0.330            | 0.351 | 0.392 | 69 | 4  | 0.112            | 0.128 | 0.159 |
| 68 | 18 | 0.345            | 0.367 | 0.408 |    |    |                  |       |       |
| 68 | 19 | 0.361            | 0.383 | 0.424 | 69 | 5  | 0.130            | 0.146 | 0.179 |
|    |    |                  |       |       | 69 | 6  | 0.148            | 0.164 | 0.198 |
| 68 | 20 | 0.376            | 0.398 | 0.439 | 69 | 7  | 0.165            | 0.182 | 0.217 |
| 68 | 21 | 0.392            | 0.414 | 0.455 | 69 | 8  | 0.182            | 0.200 | 0.235 |
| 68 | 22 | 0.407            | 0.429 | 0.470 | 69 | 9  | 0.198            | 0.217 | 0.253 |
| 68 | 23 | 0.422            | 0.444 | 0.486 |    |    |                  |       |       |
| 68 | 24 | 0.437            | 0.459 | 0.501 | 69 | 10 | 0.215            | 0.233 | 0.271 |
|    |    |                  |       |       | 69 | 11 | 0.231            | 0.250 | 0.288 |
| 68 | 25 | 0.452            | 0.474 | 0.516 | 69 | 12 | 0.247            | 0.267 | 0.305 |
| 68 | 26 | 0.467            | 0.489 | 0.530 | 69 | 13 | 0.263            | 0.283 | 0.322 |
| 68 | 27 | 0.482            | 0.504 | 0.545 | 69 | 14 | 0.279            | 0.299 | 0.338 |
| 68 | 28 | 0.497            | 0.519 | 0.560 |    |    |                  |       |       |
| 68 | 29 | 0.512            | 0.533 | 0.574 | 69 | 15 | 0.294            | 0.315 | 0.355 |
|    |    |                  |       |       | 69 | 16 | 0.310            | 0.331 | 0.371 |
| 68 | 30 | 0.526            | 0.548 | 0.589 | 69 | 17 | 0.325            | 0.346 | 0.387 |
| 68 | 31 | 0.541            | 0.563 | 0.603 | 69 | 18 | 0.341            | 0.362 | 0.403 |
| 68 | 32 | 0.555            | 0.577 | 0.617 | 69 | 19 | 0.356            | 0.377 | 0.418 |
| 68 | 33 | 0.570            | 0.591 | 0.631 |    |    |                  |       |       |
| 68 | 34 | 0.584            | 0.606 | 0.645 | 69 | 20 | 0.371            | 0.393 | 0.434 |
|    |    |                  |       |       | 69 | 21 | 0.386            | 0.408 | 0.449 |
| 68 | 35 | 0.599            | 0.620 | 0.659 | 69 | 22 | 0.401            | 0.423 | 0.464 |
| 68 | 36 | 0.613            | 0.634 | 0.672 | 69 | 23 | 0.416            | 0.438 | 0.479 |
| 68 | 37 | 0.627            | 0.648 | 0.686 | 69 | 24 | 0.431            | 0.453 | 0.494 |
| 68 | 38 | 0.641            | 0.662 | 0.699 |    |    |                  |       |       |
| 68 | 39 | 0.655            | 0.676 | 0.712 | 69 | 25 | 0.446            | 0.468 | 0.509 |
|    |    |                  |       |       | 69 | 26 | 0.461            | 0.483 | 0.524 |
| 68 | 40 | 0.669            | 0.689 | 0.726 | 69 | 27 | 0.476            | 0.497 | 0.538 |
| 68 | 41 | 0.683            | 0.703 | 0.739 | 69 | 28 | 0.490            | 0.512 | 0.553 |
| 68 | 42 | 0.697            | 0.717 | 0.752 | 69 | 29 | 0.505            | 0.526 | 0.567 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 69 | 30 | 0.519            | 0.541 | 0.581 | 70 | 17 | 0.321            | 0.342 | 0.382 |
| 69 | 31 | 0.534            | 0.555 | 0.595 | 70 | 18 | 0.336            | 0.357 | 0.397 |
| 69 | 32 | 0.548            | 0.569 | 0.609 | 70 | 19 | 0.351            | 0.372 | 0.413 |
| 69 | 33 | 0.562            | 0.584 | 0.623 | 70 | 20 | 0.366            | 0.388 | 0.428 |
| 69 | 34 | 0.576            | 0.598 | 0.637 | 70 | 21 | 0.381            | 0.403 | 0.443 |
| 69 | 35 | 0.591            | 0.612 | 0.651 | 70 | 22 | 0.396            | 0.418 | 0.458 |
| 69 | 36 | 0.605            | 0.626 | 0.664 | 70 | 23 | 0.411            | 0.432 | 0.473 |
| 69 | 37 | 0.619            | 0.640 | 0.677 | 70 | 24 | 0.426            | 0.447 | 0.488 |
| 69 | 38 | 0.633            | 0.653 | 0.691 | 70 | 25 | 0.440            | 0.462 | 0.503 |
| 69 | 39 | 0.647            | 0.667 | 0.704 | 70 | 26 | 0.455            | 0.476 | 0.517 |
| 69 | 40 | 0.661            | 0.681 | 0.717 | 70 | 27 | 0.469            | 0.491 | 0.532 |
| 69 | 41 | 0.674            | 0.694 | 0.730 | 70 | 28 | 0.484            | 0.505 | 0.546 |
| 69 | 42 | 0.688            | 0.708 | 0.743 | 70 | 29 | 0.498            | 0.520 | 0.560 |
| 69 | 43 | 0.702            | 0.721 | 0.755 | 70 | 30 | 0.512            | 0.534 | 0.574 |
| 69 | 44 | 0.715            | 0.734 | 0.768 | 70 | 31 | 0.527            | 0.548 | 0.588 |
| 69 | 45 | 0.729            | 0.747 | 0.781 | 70 | 32 | 0.541            | 0.562 | 0.602 |
| 69 | 46 | 0.742            | 0.760 | 0.793 | 70 | 33 | 0.555            | 0.576 | 0.616 |
| 69 | 47 | 0.755            | 0.773 | 0.805 | 70 | 34 | 0.569            | 0.590 | 0.629 |
| 69 | 48 | 0.769            | 0.786 | 0.817 | 70 | 35 | 0.583            | 0.604 | 0.643 |
| 69 | 49 | 0.782            | 0.799 | 0.829 | 70 | 36 | 0.597            | 0.618 | 0.656 |
| 69 | 50 | 0.795            | 0.812 | 0.841 | 70 | 37 | 0.611            | 0.631 | 0.669 |
| 69 | 51 | 0.808            | 0.824 | 0.852 | 70 | 38 | 0.625            | 0.645 | 0.683 |
| 69 | 52 | 0.821            | 0.837 | 0.864 | 70 | 39 | 0.638            | 0.659 | 0.696 |
| 69 | 53 | 0.834            | 0.849 | 0.875 | 70 | 40 | 0.652            | 0.672 | 0.709 |
| 69 | 54 | 0.846            | 0.861 | 0.886 | 70 | 41 | 0.666            | 0.685 | 0.721 |
| 69 | 55 | 0.859            | 0.873 | 0.897 | 70 | 42 | 0.679            | 0.699 | 0.734 |
| 69 | 56 | 0.871            | 0.885 | 0.908 | 70 | 43 | 0.693            | 0.712 | 0.747 |
| 69 | 57 | 0.884            | 0.897 | 0.918 | 70 | 44 | 0.706            | 0.725 | 0.759 |
| 69 | 58 | 0.896            | 0.908 | 0.928 | 70 | 45 | 0.719            | 0.738 | 0.772 |
| 69 | 59 | 0.908            | 0.919 | 0.938 | 70 | 46 | 0.733            | 0.751 | 0.784 |
| 69 | 60 | 0.920            | 0.930 | 0.947 | 70 | 47 | 0.746            | 0.764 | 0.796 |
| 69 | 61 | 0.931            | 0.941 | 0.957 | 70 | 48 | 0.759            | 0.777 | 0.808 |
| 69 | 62 | 0.943            | 0.951 | 0.965 | 70 | 49 | 0.772            | 0.789 | 0.820 |
| 69 | 63 | 0.954            | 0.961 | 0.974 | 70 | 50 | 0.785            | 0.802 | 0.832 |
| 69 | 64 | 0.964            | 0.971 | 0.981 | 70 | 51 | 0.798            | 0.814 | 0.843 |
| 69 | 65 | 0.974            | 0.980 | 0.988 | 70 | 52 | 0.811            | 0.827 | 0.855 |
| 69 | 66 | 0.984            | 0.988 | 0.994 | 70 | 53 | 0.824            | 0.839 | 0.866 |
| 69 | 67 | 0.992            | 0.995 | 0.998 | 70 | 54 | 0.836            | 0.851 | 0.877 |
| 69 | 68 | 0.998            | 0.999 | 1.000 | 70 | 55 | 0.849            | 0.863 | 0.888 |
| 69 | 69 | 1.000            | 1.000 | 1.000 | 70 | 56 | 0.861            | 0.875 | 0.898 |
| 70 | 0  | 0.032            | 0.042 | 0.064 | 70 | 57 | 0.873            | 0.887 | 0.909 |
| 70 | 1  | 0.054            | 0.066 | 0.091 | 70 | 58 | 0.885            | 0.898 | 0.919 |
| 70 | 2  | 0.074            | 0.087 | 0.115 | 70 | 59 | 0.897            | 0.909 | 0.929 |
| 70 | 3  | 0.093            | 0.107 | 0.136 | 70 | 60 | 0.909            | 0.920 | 0.939 |
| 70 | 4  | 0.111            | 0.126 | 0.157 | 70 | 61 | 0.921            | 0.931 | 0.948 |
| 70 | 5  | 0.129            | 0.144 | 0.177 | 70 | 62 | 0.932            | 0.942 | 0.957 |
| 70 | 6  | 0.146            | 0.162 | 0.196 | 70 | 63 | 0.944            | 0.952 | 0.966 |
| 70 | 7  | 0.162            | 0.180 | 0.214 | 70 | 64 | 0.954            | 0.962 | 0.974 |
| 70 | 8  | 0.179            | 0.197 | 0.232 | 70 | 65 | 0.965            | 0.971 | 0.981 |
| 70 | 9  | 0.195            | 0.214 | 0.250 | 70 | 66 | 0.975            | 0.980 | 0.988 |
| 70 | 10 | 0.212            | 0.230 | 0.267 | 70 | 67 | 0.984            | 0.988 | 0.994 |
| 70 | 11 | 0.228            | 0.247 | 0.284 | 70 | 68 | 0.992            | 0.995 | 0.998 |
| 70 | 12 | 0.243            | 0.263 | 0.301 | 70 | 69 | 0.998            | 0.999 | 1.000 |
| 70 | 13 | 0.259            | 0.279 | 0.318 | 70 | 70 | 1.000            | 1.000 | 1.000 |
| 70 | 14 | 0.275            | 0.295 | 0.334 | 71 | 0  | 0.032            | 0.041 | 0.063 |
| 70 | 15 | 0.290            | 0.311 | 0.350 | 71 | 1  | 0.054            | 0.065 | 0.090 |
| 70 | 16 | 0.306            | 0.326 | 0.366 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 71 | 2  | 0.073            | 0.086 | 0.113 | 71 | 58 | 0.875            | 0.888 | 0.910 |
| 71 | 3  | 0.092            | 0.106 | 0.135 | 71 | 59 | 0.887            | 0.900 | 0.920 |
| 71 | 4  | 0.109            | 0.124 | 0.155 | 71 | 60 | 0.899            | 0.911 | 0.930 |
| 71 | 5  | 0.127            | 0.142 | 0.174 | 71 | 61 | 0.911            | 0.922 | 0.940 |
| 71 | 6  | 0.144            | 0.160 | 0.193 | 71 | 62 | 0.922            | 0.932 | 0.949 |
| 71 | 7  | 0.160            | 0.177 | 0.211 | 71 | 63 | 0.933            | 0.943 | 0.958 |
| 71 | 8  | 0.177            | 0.194 | 0.229 | 71 | 64 | 0.944            | 0.953 | 0.966 |
| 71 | 9  | 0.193            | 0.211 | 0.247 | 71 | 65 | 0.955            | 0.963 | 0.974 |
| 71 | 10 | 0.209            | 0.227 | 0.264 | 71 | 66 | 0.965            | 0.972 | 0.982 |
| 71 | 11 | 0.225            | 0.243 | 0.281 | 71 | 67 | 0.975            | 0.980 | 0.988 |
| 71 | 12 | 0.240            | 0.259 | 0.297 | 71 | 68 | 0.984            | 0.988 | 0.994 |
| 71 | 13 | 0.256            | 0.275 | 0.314 | 71 | 69 | 0.992            | 0.995 | 0.998 |
| 71 | 14 | 0.271            | 0.291 | 0.330 | 71 | 70 | 0.998            | 0.999 | 1.000 |
| 71 | 15 | 0.286            | 0.307 | 0.346 | 71 | 71 | 1.000            | 1.000 | 1.000 |
| 71 | 16 | 0.302            | 0.322 | 0.361 | 72 | 0  | 0.031            | 0.041 | 0.062 |
| 71 | 17 | 0.317            | 0.337 | 0.377 | 72 | 1  | 0.053            | 0.064 | 0.089 |
| 71 | 18 | 0.332            | 0.352 | 0.392 | 72 | 2  | 0.072            | 0.085 | 0.112 |
| 71 | 19 | 0.347            | 0.368 | 0.408 | 72 | 3  | 0.090            | 0.104 | 0.133 |
| 71 | 20 | 0.361            | 0.383 | 0.423 | 72 | 4  | 0.108            | 0.123 | 0.153 |
| 71 | 21 | 0.376            | 0.397 | 0.438 | 72 | 5  | 0.125            | 0.141 | 0.172 |
| 71 | 22 | 0.391            | 0.412 | 0.453 | 72 | 6  | 0.142            | 0.158 | 0.191 |
| 71 | 23 | 0.405            | 0.427 | 0.467 | 72 | 7  | 0.158            | 0.175 | 0.209 |
| 71 | 24 | 0.420            | 0.441 | 0.482 | 72 | 8  | 0.174            | 0.192 | 0.226 |
| 71 | 25 | 0.434            | 0.456 | 0.496 | 72 | 9  | 0.190            | 0.208 | 0.243 |
| 71 | 26 | 0.449            | 0.470 | 0.511 | 72 | 10 | 0.206            | 0.224 | 0.260 |
| 71 | 27 | 0.463            | 0.485 | 0.525 | 72 | 11 | 0.222            | 0.240 | 0.277 |
| 71 | 28 | 0.477            | 0.499 | 0.539 | 72 | 12 | 0.237            | 0.256 | 0.293 |
| 71 | 29 | 0.492            | 0.513 | 0.553 | 72 | 13 | 0.252            | 0.272 | 0.310 |
| 71 | 30 | 0.506            | 0.527 | 0.567 | 72 | 14 | 0.268            | 0.287 | 0.326 |
| 71 | 31 | 0.520            | 0.541 | 0.581 | 72 | 15 | 0.283            | 0.303 | 0.341 |
| 71 | 32 | 0.534            | 0.555 | 0.595 | 72 | 16 | 0.298            | 0.318 | 0.357 |
| 71 | 33 | 0.548            | 0.569 | 0.608 | 72 | 17 | 0.312            | 0.333 | 0.372 |
| 71 | 34 | 0.562            | 0.583 | 0.622 | 72 | 18 | 0.327            | 0.348 | 0.388 |
| 71 | 35 | 0.575            | 0.596 | 0.635 | 72 | 19 | 0.342            | 0.363 | 0.403 |
| 71 | 36 | 0.589            | 0.610 | 0.648 | 72 | 20 | 0.357            | 0.378 | 0.418 |
| 71 | 37 | 0.603            | 0.624 | 0.661 | 72 | 21 | 0.371            | 0.392 | 0.432 |
| 71 | 38 | 0.617            | 0.637 | 0.675 | 72 | 22 | 0.386            | 0.407 | 0.447 |
| 71 | 39 | 0.630            | 0.650 | 0.688 | 72 | 23 | 0.400            | 0.421 | 0.462 |
| 71 | 40 | 0.644            | 0.664 | 0.700 | 72 | 24 | 0.414            | 0.436 | 0.476 |
| 71 | 41 | 0.657            | 0.677 | 0.713 | 72 | 25 | 0.429            | 0.450 | 0.490 |
| 71 | 42 | 0.671            | 0.690 | 0.726 | 72 | 26 | 0.443            | 0.464 | 0.505 |
| 71 | 43 | 0.684            | 0.703 | 0.738 | 72 | 27 | 0.457            | 0.478 | 0.519 |
| 71 | 44 | 0.697            | 0.716 | 0.751 | 72 | 28 | 0.471            | 0.493 | 0.533 |
| 71 | 45 | 0.710            | 0.729 | 0.763 | 72 | 29 | 0.485            | 0.507 | 0.547 |
| 71 | 46 | 0.724            | 0.742 | 0.775 | 72 | 30 | 0.499            | 0.520 | 0.560 |
| 71 | 47 | 0.737            | 0.755 | 0.787 | 72 | 31 | 0.513            | 0.534 | 0.574 |
| 71 | 48 | 0.750            | 0.767 | 0.799 | 72 | 32 | 0.527            | 0.548 | 0.588 |
| 71 | 49 | 0.763            | 0.780 | 0.811 | 72 | 33 | 0.541            | 0.562 | 0.601 |
| 71 | 50 | 0.776            | 0.793 | 0.823 | 72 | 34 | 0.554            | 0.575 | 0.614 |
| 71 | 51 | 0.788            | 0.805 | 0.834 | 72 | 35 | 0.568            | 0.589 | 0.628 |
| 71 | 52 | 0.801            | 0.817 | 0.846 | 72 | 36 | 0.582            | 0.602 | 0.641 |
| 71 | 53 | 0.814            | 0.829 | 0.857 | 72 | 37 | 0.595            | 0.616 | 0.654 |
| 71 | 54 | 0.826            | 0.841 | 0.868 | 72 | 38 | 0.609            | 0.629 | 0.667 |
| 71 | 55 | 0.839            | 0.853 | 0.879 | 72 | 39 | 0.622            | 0.643 | 0.680 |
| 71 | 56 | 0.851            | 0.865 | 0.889 | 72 | 40 | 0.636            | 0.656 | 0.692 |
| 71 | 57 | 0.863            | 0.877 | 0.900 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 72 | 41 | 0.649            | 0.669 | 0.705 | 73 | 25 | 0.423            | 0.444 | 0.484 |
| 72 | 42 | 0.662            | 0.682 | 0.717 | 73 | 26 | 0.437            | 0.458 | 0.498 |
| 72 | 43 | 0.675            | 0.695 | 0.730 | 73 | 27 | 0.451            | 0.472 | 0.512 |
| 72 | 44 | 0.689            | 0.708 | 0.742 | 73 | 28 | 0.465            | 0.486 | 0.526 |
|    |    |                  |       |       | 73 | 29 | 0.479            | 0.500 | 0.540 |
| 72 | 45 | 0.702            | 0.721 | 0.754 |    |    |                  |       |       |
| 72 | 46 | 0.715            | 0.733 | 0.767 | 73 | 30 | 0.493            | 0.514 | 0.554 |
| 72 | 47 | 0.728            | 0.746 | 0.779 | 73 | 31 | 0.507            | 0.528 | 0.567 |
| 72 | 48 | 0.740            | 0.756 | 0.790 | 73 | 32 | 0.520            | 0.541 | 0.581 |
| 72 | 49 | 0.753            | 0.771 | 0.802 | 73 | 33 | 0.534            | 0.555 | 0.594 |
|    |    |                  |       |       | 73 | 34 | 0.547            | 0.568 | 0.607 |
| 72 | 50 | 0.766            | 0.783 | 0.814 |    |    |                  |       |       |
| 72 | 51 | 0.779            | 0.796 | 0.825 | 73 | 35 | 0.561            | 0.582 | 0.620 |
| 72 | 52 | 0.791            | 0.808 | 0.837 | 73 | 36 | 0.574            | 0.595 | 0.633 |
| 72 | 53 | 0.804            | 0.820 | 0.848 | 73 | 37 | 0.588            | 0.608 | 0.646 |
| 72 | 54 | 0.816            | 0.832 | 0.859 | 73 | 38 | 0.601            | 0.622 | 0.659 |
|    |    |                  |       |       | 73 | 39 | 0.614            | 0.635 | 0.672 |
| 72 | 55 | 0.829            | 0.844 | 0.870 |    |    |                  |       |       |
| 72 | 56 | 0.841            | 0.855 | 0.881 | 73 | 40 | 0.628            | 0.648 | 0.684 |
| 72 | 57 | 0.853            | 0.867 | 0.891 | 73 | 41 | 0.641            | 0.661 | 0.697 |
| 72 | 58 | 0.865            | 0.878 | 0.901 | 73 | 42 | 0.654            | 0.674 | 0.709 |
| 72 | 59 | 0.877            | 0.890 | 0.912 | 73 | 43 | 0.667            | 0.687 | 0.722 |
|    |    |                  |       |       | 73 | 44 | 0.680            | 0.699 | 0.734 |
| 72 | 60 | 0.889            | 0.901 | 0.922 |    |    |                  |       |       |
| 72 | 61 | 0.900            | 0.912 | 0.931 | 73 | 45 | 0.693            | 0.712 | 0.746 |
| 72 | 62 | 0.912            | 0.923 | 0.941 | 73 | 46 | 0.706            | 0.725 | 0.758 |
| 72 | 63 | 0.923            | 0.933 | 0.950 | 73 | 47 | 0.719            | 0.737 | 0.770 |
| 72 | 64 | 0.934            | 0.944 | 0.958 | 73 | 48 | 0.732            | 0.750 | 0.782 |
|    |    |                  |       |       | 73 | 49 | 0.744            | 0.762 | 0.793 |
| 72 | 65 | 0.945            | 0.954 | 0.967 |    |    |                  |       |       |
| 72 | 66 | 0.956            | 0.963 | 0.975 | 73 | 50 | 0.757            | 0.774 | 0.805 |
| 72 | 67 | 0.966            | 0.972 | 0.982 | 73 | 51 | 0.769            | 0.786 | 0.816 |
| 72 | 68 | 0.975            | 0.981 | 0.988 | 73 | 52 | 0.782            | 0.799 | 0.828 |
| 72 | 69 | 0.984            | 0.988 | 0.994 | 73 | 53 | 0.794            | 0.811 | 0.839 |
|    |    |                  |       |       | 73 | 54 | 0.807            | 0.822 | 0.850 |
| 72 | 70 | 0.992            | 0.995 | 0.998 |    |    |                  |       |       |
| 72 | 71 | 0.998            | 0.999 | 1.000 | 73 | 55 | 0.819            | 0.834 | 0.861 |
| 72 | 72 | 1.000            | 1.000 | 1.000 | 73 | 56 | 0.831            | 0.846 | 0.872 |
|    |    |                  |       |       | 73 | 57 | 0.843            | 0.857 | 0.882 |
| 73 | 0  | 0.031            | 0.040 | 0.061 | 73 | 58 | 0.855            | 0.869 | 0.893 |
| 73 | 1  | 0.052            | 0.063 | 0.087 | 73 | 59 | 0.867            | 0.880 | 0.903 |
| 73 | 2  | 0.071            | 0.084 | 0.110 |    |    |                  |       |       |
| 73 | 3  | 0.089            | 0.103 | 0.131 | 73 | 60 | 0.879            | 0.891 | 0.913 |
| 73 | 4  | 0.106            | 0.121 | 0.151 | 73 | 61 | 0.890            | 0.902 | 0.923 |
|    |    |                  |       |       | 73 | 62 | 0.902            | 0.913 | 0.932 |
| 73 | 5  | 0.123            | 0.139 | 0.170 | 73 | 63 | 0.913            | 0.924 | 0.941 |
| 73 | 6  | 0.140            | 0.156 | 0.188 | 73 | 64 | 0.924            | 0.934 | 0.950 |
| 73 | 7  | 0.156            | 0.173 | 0.206 |    |    |                  |       |       |
| 73 | 8  | 0.172            | 0.189 | 0.223 | 73 | 65 | 0.935            | 0.944 | 0.959 |
| 73 | 9  | 0.188            | 0.205 | 0.240 | 73 | 66 | 0.946            | 0.954 | 0.967 |
|    |    |                  |       |       | 73 | 67 | 0.956            | 0.964 | 0.975 |
| 73 | 10 | 0.203            | 0.221 | 0.257 | 73 | 68 | 0.966            | 0.973 | 0.982 |
| 73 | 11 | 0.219            | 0.237 | 0.274 | 73 | 69 | 0.976            | 0.981 | 0.988 |
| 73 | 12 | 0.234            | 0.253 | 0.290 |    |    |                  |       |       |
| 73 | 13 | 0.249            | 0.268 | 0.306 | 73 | 70 | 0.985            | 0.989 | 0.994 |
| 73 | 14 | 0.264            | 0.284 | 0.321 | 73 | 71 | 0.993            | 0.995 | 0.998 |
|    |    |                  |       |       | 73 | 72 | 0.998            | 0.999 | 1.000 |
| 73 | 15 | 0.279            | 0.299 | 0.337 | 73 | 73 | 1.000            | 1.000 | 1.000 |
| 73 | 16 | 0.294            | 0.314 | 0.352 |    |    |                  |       |       |
| 73 | 17 | 0.308            | 0.329 | 0.368 | 74 | 0  | 0.031            | 0.040 | 0.060 |
| 73 | 18 | 0.323            | 0.343 | 0.383 | 74 | 1  | 0.051            | 0.062 | 0.086 |
| 73 | 19 | 0.338            | 0.358 | 0.398 | 74 | 2  | 0.070            | 0.083 | 0.109 |
|    |    |                  |       |       | 74 | 3  | 0.088            | 0.101 | 0.129 |
| 73 | 20 | 0.352            | 0.373 | 0.412 | 74 | 4  | 0.105            | 0.119 | 0.149 |
| 73 | 21 | 0.366            | 0.387 | 0.427 |    |    |                  |       |       |
| 73 | 22 | 0.381            | 0.402 | 0.442 | 74 | 5  | 0.122            | 0.137 | 0.168 |
| 73 | 23 | 0.395            | 0.416 | 0.456 | 74 | 6  | 0.138            | 0.154 | 0.186 |
| 73 | 24 | 0.409            | 0.430 | 0.470 | 74 | 7  | 0.154            | 0.170 | 0.203 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 74 | 8  | 0.170            | 0.187 | 0.221 | 74 | 63 | 0.903            | 0.914 | 0.933 |
| 74 | 9  | 0.185            | 0.203 | 0.237 | 74 | 64 | 0.914            | 0.925 | 0.942 |
| 74 | 10 | 0.201            | 0.219 | 0.254 | 74 | 65 | 0.925            | 0.935 | 0.951 |
| 74 | 11 | 0.216            | 0.234 | 0.270 | 74 | 66 | 0.936            | 0.945 | 0.960 |
| 74 | 12 | 0.231            | 0.250 | 0.286 | 74 | 67 | 0.947            | 0.955 | 0.968 |
| 74 | 13 | 0.246            | 0.265 | 0.302 | 74 | 68 | 0.957            | 0.964 | 0.975 |
| 74 | 14 | 0.261            | 0.280 | 0.317 | 74 | 69 | 0.967            | 0.973 | 0.982 |
| 74 | 15 | 0.275            | 0.295 | 0.333 | 74 | 70 | 0.976            | 0.981 | 0.989 |
| 74 | 16 | 0.290            | 0.310 | 0.348 | 74 | 71 | 0.985            | 0.989 | 0.994 |
| 74 | 17 | 0.304            | 0.324 | 0.363 | 74 | 72 | 0.993            | 0.995 | 0.998 |
| 74 | 18 | 0.319            | 0.339 | 0.378 | 74 | 73 | 0.998            | 0.999 | 1.000 |
| 74 | 19 | 0.333            | 0.354 | 0.393 | 74 | 74 | 1.000            | 1.000 | 1.000 |
| 74 | 20 | 0.348            | 0.368 | 0.407 | 75 | 0  | 0.030            | 0.039 | 0.059 |
| 74 | 21 | 0.362            | 0.382 | 0.422 | 75 | 1  | 0.051            | 0.062 | 0.085 |
| 74 | 22 | 0.376            | 0.397 | 0.436 | 75 | 2  | 0.069            | 0.081 | 0.107 |
| 74 | 23 | 0.390            | 0.411 | 0.451 | 75 | 3  | 0.087            | 0.100 | 0.128 |
| 74 | 24 | 0.404            | 0.425 | 0.465 | 75 | 4  | 0.104            | 0.118 | 0.147 |
| 74 | 25 | 0.418            | 0.439 | 0.479 | 75 | 5  | 0.120            | 0.135 | 0.166 |
| 74 | 26 | 0.432            | 0.453 | 0.493 | 75 | 6  | 0.136            | 0.152 | 0.183 |
| 74 | 27 | 0.446            | 0.467 | 0.506 | 75 | 7  | 0.152            | 0.168 | 0.201 |
| 74 | 28 | 0.459            | 0.480 | 0.520 | 75 | 8  | 0.168            | 0.184 | 0.218 |
| 74 | 29 | 0.473            | 0.494 | 0.534 | 75 | 9  | 0.183            | 0.200 | 0.234 |
| 74 | 30 | 0.487            | 0.508 | 0.547 | 75 | 10 | 0.198            | 0.216 | 0.251 |
| 74 | 31 | 0.500            | 0.521 | 0.560 | 75 | 11 | 0.213            | 0.231 | 0.267 |
| 74 | 32 | 0.514            | 0.535 | 0.574 | 75 | 12 | 0.228            | 0.246 | 0.283 |
| 74 | 33 | 0.527            | 0.548 | 0.587 | 75 | 13 | 0.243            | 0.261 | 0.298 |
| 74 | 34 | 0.541            | 0.561 | 0.600 | 75 | 14 | 0.257            | 0.276 | 0.314 |
| 74 | 35 | 0.554            | 0.575 | 0.613 | 75 | 15 | 0.272            | 0.291 | 0.329 |
| 74 | 36 | 0.567            | 0.588 | 0.626 | 75 | 16 | 0.286            | 0.306 | 0.344 |
| 74 | 37 | 0.581            | 0.601 | 0.639 | 75 | 17 | 0.301            | 0.320 | 0.359 |
| 74 | 38 | 0.594            | 0.614 | 0.652 | 75 | 18 | 0.315            | 0.335 | 0.373 |
| 74 | 39 | 0.607            | 0.627 | 0.664 | 75 | 19 | 0.329            | 0.349 | 0.388 |
| 74 | 40 | 0.620            | 0.640 | 0.677 | 75 | 20 | 0.343            | 0.364 | 0.403 |
| 74 | 41 | 0.633            | 0.653 | 0.689 | 75 | 21 | 0.357            | 0.378 | 0.417 |
| 74 | 42 | 0.646            | 0.666 | 0.701 | 75 | 22 | 0.371            | 0.392 | 0.431 |
| 74 | 43 | 0.659            | 0.678 | 0.714 | 75 | 23 | 0.385            | 0.406 | 0.445 |
| 74 | 44 | 0.672            | 0.691 | 0.726 | 75 | 24 | 0.399            | 0.420 | 0.459 |
| 74 | 45 | 0.685            | 0.704 | 0.738 | 75 | 25 | 0.413            | 0.433 | 0.473 |
| 74 | 46 | 0.697            | 0.716 | 0.750 | 75 | 26 | 0.426            | 0.447 | 0.487 |
| 74 | 47 | 0.710            | 0.729 | 0.762 | 75 | 27 | 0.440            | 0.461 | 0.500 |
| 74 | 48 | 0.723            | 0.741 | 0.773 | 75 | 28 | 0.454            | 0.475 | 0.514 |
| 74 | 49 | 0.735            | 0.753 | 0.785 | 75 | 29 | 0.467            | 0.488 | 0.527 |
| 74 | 50 | 0.748            | 0.765 | 0.796 | 75 | 30 | 0.481            | 0.502 | 0.541 |
| 74 | 51 | 0.760            | 0.777 | 0.808 | 75 | 31 | 0.494            | 0.515 | 0.554 |
| 74 | 52 | 0.773            | 0.789 | 0.819 | 75 | 32 | 0.507            | 0.528 | 0.567 |
| 74 | 53 | 0.785            | 0.801 | 0.830 | 75 | 33 | 0.521            | 0.542 | 0.580 |
| 74 | 54 | 0.797            | 0.813 | 0.841 | 75 | 34 | 0.534            | 0.555 | 0.593 |
| 74 | 55 | 0.809            | 0.825 | 0.852 | 75 | 35 | 0.547            | 0.568 | 0.606 |
| 74 | 56 | 0.821            | 0.837 | 0.863 | 75 | 36 | 0.560            | 0.581 | 0.619 |
| 74 | 57 | 0.833            | 0.848 | 0.873 | 75 | 37 | 0.573            | 0.594 | 0.632 |
| 74 | 58 | 0.845            | 0.859 | 0.884 | 75 | 38 | 0.586            | 0.607 | 0.644 |
| 74 | 59 | 0.857            | 0.871 | 0.894 | 75 | 39 | 0.599            | 0.620 | 0.657 |
| 74 | 60 | 0.869            | 0.882 | 0.904 | 75 | 40 | 0.612            | 0.632 | 0.669 |
| 74 | 61 | 0.880            | 0.893 | 0.914 | 75 | 41 | 0.625            | 0.645 | 0.681 |
| 74 | 62 | 0.892            | 0.904 | 0.924 | 75 | 42 | 0.638            | 0.658 | 0.694 |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 75 | 43 | 0.651            | 0.670 | 0.706 | 76 | 23 | 0.380            | 0.401 | 0.440 |
| 75 | 44 | 0.664            | 0.683 | 0.718 | 76 | 24 | 0.394            | 0.415 | 0.454 |
| 75 | 45 | 0.676            | 0.695 | 0.730 | 76 | 25 | 0.408            | 0.428 | 0.467 |
| 75 | 46 | 0.689            | 0.708 | 0.742 | 76 | 26 | 0.421            | 0.442 | 0.481 |
| 75 | 47 | 0.702            | 0.720 | 0.753 | 76 | 27 | 0.435            | 0.455 | 0.495 |
| 75 | 48 | 0.714            | 0.732 | 0.765 | 76 | 28 | 0.448            | 0.469 | 0.508 |
| 75 | 49 | 0.727            | 0.745 | 0.777 | 76 | 29 | 0.461            | 0.482 | 0.521 |
| 75 | 50 | 0.739            | 0.757 | 0.788 | 76 | 30 | 0.475            | 0.496 | 0.535 |
| 75 | 51 | 0.751            | 0.769 | 0.799 | 76 | 31 | 0.488            | 0.509 | 0.548 |
| 75 | 52 | 0.764            | 0.781 | 0.811 | 76 | 32 | 0.501            | 0.522 | 0.561 |
| 75 | 53 | 0.776            | 0.792 | 0.822 | 76 | 33 | 0.514            | 0.535 | 0.574 |
| 75 | 54 | 0.788            | 0.804 | 0.833 | 76 | 34 | 0.527            | 0.548 | 0.586 |
| 75 | 55 | 0.800            | 0.816 | 0.844 | 76 | 35 | 0.540            | 0.561 | 0.599 |
| 75 | 56 | 0.812            | 0.827 | 0.854 | 76 | 36 | 0.554            | 0.574 | 0.612 |
| 75 | 57 | 0.824            | 0.839 | 0.865 | 76 | 37 | 0.566            | 0.587 | 0.624 |
| 75 | 58 | 0.836            | 0.850 | 0.875 | 76 | 38 | 0.579            | 0.600 | 0.637 |
| 75 | 59 | 0.847            | 0.861 | 0.886 | 76 | 39 | 0.592            | 0.612 | 0.649 |
| 75 | 60 | 0.859            | 0.873 | 0.896 | 76 | 40 | 0.605            | 0.625 | 0.662 |
| 75 | 61 | 0.871            | 0.884 | 0.906 | 76 | 41 | 0.618            | 0.636 | 0.674 |
| 75 | 62 | 0.882            | 0.894 | 0.915 | 76 | 42 | 0.631            | 0.650 | 0.686 |
| 75 | 63 | 0.893            | 0.905 | 0.925 | 76 | 43 | 0.643            | 0.663 | 0.698 |
| 75 | 64 | 0.904            | 0.916 | 0.934 | 76 | 44 | 0.656            | 0.675 | 0.710 |
| 75 | 65 | 0.915            | 0.926 | 0.943 | 76 | 45 | 0.668            | 0.687 | 0.722 |
| 75 | 66 | 0.926            | 0.936 | 0.952 | 76 | 46 | 0.681            | 0.700 | 0.734 |
| 75 | 67 | 0.937            | 0.946 | 0.960 | 76 | 47 | 0.693            | 0.712 | 0.745 |
| 75 | 68 | 0.947            | 0.955 | 0.968 | 76 | 48 | 0.706            | 0.724 | 0.757 |
| 75 | 69 | 0.957            | 0.965 | 0.976 | 76 | 49 | 0.718            | 0.736 | 0.768 |
| 75 | 70 | 0.967            | 0.973 | 0.983 | 76 | 50 | 0.730            | 0.748 | 0.780 |
| 75 | 71 | 0.976            | 0.981 | 0.989 | 76 | 51 | 0.743            | 0.760 | 0.791 |
| 75 | 72 | 0.985            | 0.989 | 0.994 | 76 | 52 | 0.755            | 0.772 | 0.802 |
| 75 | 73 | 0.993            | 0.995 | 0.998 | 76 | 53 | 0.767            | 0.784 | 0.813 |
| 75 | 74 | 0.998            | 0.999 | 1.000 | 76 | 54 | 0.779            | 0.795 | 0.824 |
| 75 | 75 | 1.000            | 1.000 | 1.000 | 76 | 55 | 0.791            | 0.807 | 0.835 |
| 76 | 0  | 0.030            | 0.039 | 0.059 | 76 | 56 | 0.803            | 0.818 | 0.846 |
| 76 | 1  | 0.050            | 0.061 | 0.084 | 76 | 57 | 0.815            | 0.830 | 0.856 |
| 76 | 2  | 0.068            | 0.080 | 0.106 | 76 | 58 | 0.826            | 0.841 | 0.867 |
| 76 | 3  | 0.086            | 0.099 | 0.126 | 76 | 59 | 0.838            | 0.852 | 0.877 |
| 76 | 4  | 0.102            | 0.116 | 0.145 | 76 | 60 | 0.849            | 0.863 | 0.887 |
| 76 | 5  | 0.119            | 0.133 | 0.164 | 76 | 61 | 0.861            | 0.874 | 0.897 |
| 76 | 6  | 0.135            | 0.150 | 0.181 | 76 | 62 | 0.872            | 0.885 | 0.907 |
| 76 | 7  | 0.150            | 0.166 | 0.198 | 76 | 63 | 0.884            | 0.896 | 0.916 |
| 76 | 8  | 0.165            | 0.182 | 0.215 | 76 | 64 | 0.895            | 0.906 | 0.926 |
| 76 | 9  | 0.181            | 0.198 | 0.232 | 76 | 65 | 0.906            | 0.917 | 0.935 |
| 76 | 10 | 0.196            | 0.213 | 0.248 | 76 | 66 | 0.917            | 0.927 | 0.944 |
| 76 | 11 | 0.210            | 0.228 | 0.264 | 76 | 67 | 0.927            | 0.937 | 0.952 |
| 76 | 12 | 0.225            | 0.243 | 0.279 | 76 | 68 | 0.938            | 0.947 | 0.961 |
| 76 | 13 | 0.240            | 0.258 | 0.295 | 76 | 69 | 0.948            | 0.956 | 0.969 |
| 76 | 14 | 0.254            | 0.273 | 0.310 | 76 | 70 | 0.958            | 0.965 | 0.976 |
| 76 | 15 | 0.268            | 0.288 | 0.325 | 76 | 71 | 0.968            | 0.974 | 0.983 |
| 76 | 16 | 0.283            | 0.302 | 0.340 | 76 | 72 | 0.977            | 0.982 | 0.989 |
| 76 | 17 | 0.297            | 0.316 | 0.354 | 76 | 73 | 0.985            | 0.989 | 0.994 |
| 76 | 18 | 0.311            | 0.331 | 0.369 | 76 | 74 | 0.993            | 0.995 | 0.998 |
| 76 | 19 | 0.325            | 0.345 | 0.383 | 76 | 75 | 0.998            | 0.999 | 1.000 |
| 76 | 20 | 0.339            | 0.359 | 0.398 | 76 | 76 | 1.000            | 1.000 | 1.000 |
| 76 | 21 | 0.353            | 0.373 | 0.412 | 77 | 0  | 0.029            | 0.038 | 0.058 |
| 76 | 22 | 0.367            | 0.387 | 0.426 | 77 | 1  | 0.049            | 0.060 | 0.083 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 77 | 2  | 0.068            | 0.079 | 0.105 | 77 | 58 | 0.817            | 0.832 | 0.858 |
| 77 | 3  | 0.085            | 0.098 | 0.125 | 77 | 59 | 0.829            | 0.843 | 0.869 |
| 77 | 4  | 0.101            | 0.115 | 0.143 | 77 | 60 | 0.840            | 0.854 | 0.879 |
| 77 | 5  | 0.117            | 0.132 | 0.162 | 77 | 61 | 0.852            | 0.865 | 0.889 |
| 77 | 6  | 0.133            | 0.148 | 0.179 | 77 | 62 | 0.863            | 0.876 | 0.898 |
| 77 | 7  | 0.148            | 0.164 | 0.196 | 77 | 63 | 0.874            | 0.887 | 0.908 |
| 77 | 8  | 0.163            | 0.180 | 0.212 | 77 | 64 | 0.885            | 0.897 | 0.918 |
| 77 | 9  | 0.178            | 0.195 | 0.229 | 77 | 65 | 0.896            | 0.908 | 0.927 |
| 77 | 10 | 0.193            | 0.210 | 0.245 | 77 | 66 | 0.907            | 0.918 | 0.936 |
| 77 | 11 | 0.208            | 0.225 | 0.260 | 77 | 67 | 0.918            | 0.928 | 0.945 |
| 77 | 12 | 0.222            | 0.240 | 0.276 | 77 | 68 | 0.928            | 0.938 | 0.953 |
| 77 | 13 | 0.237            | 0.255 | 0.291 | 77 | 69 | 0.939            | 0.947 | 0.961 |
| 77 | 14 | 0.251            | 0.270 | 0.306 | 77 | 70 | 0.949            | 0.957 | 0.969 |
| 77 | 15 | 0.265            | 0.284 | 0.321 | 77 | 71 | 0.959            | 0.966 | 0.976 |
| 77 | 16 | 0.279            | 0.298 | 0.336 | 77 | 72 | 0.968            | 0.974 | 0.983 |
| 77 | 17 | 0.293            | 0.313 | 0.350 | 77 | 73 | 0.977            | 0.982 | 0.989 |
| 77 | 18 | 0.307            | 0.327 | 0.365 | 77 | 74 | 0.986            | 0.989 | 0.994 |
| 77 | 19 | 0.321            | 0.341 | 0.379 | 77 | 75 | 0.993            | 0.995 | 0.998 |
| 77 | 20 | 0.335            | 0.355 | 0.393 | 77 | 76 | 0.999            | 0.999 | 1.000 |
| 77 | 21 | 0.348            | 0.369 | 0.407 | 77 | 77 | 1.000            | 1.000 | 1.000 |
| 77 | 22 | 0.362            | 0.382 | 0.421 | 78 | 0  | 0.029            | 0.038 | 0.057 |
| 77 | 23 | 0.376            | 0.396 | 0.435 | 78 | 1  | 0.049            | 0.059 | 0.082 |
| 77 | 24 | 0.389            | 0.410 | 0.448 | 78 | 2  | 0.067            | 0.078 | 0.103 |
| 77 | 25 | 0.403            | 0.423 | 0.462 | 78 | 3  | 0.084            | 0.096 | 0.123 |
| 77 | 26 | 0.416            | 0.437 | 0.476 | 78 | 4  | 0.100            | 0.113 | 0.142 |
| 77 | 27 | 0.429            | 0.450 | 0.489 | 78 | 5  | 0.116            | 0.130 | 0.160 |
| 77 | 28 | 0.443            | 0.463 | 0.502 | 78 | 6  | 0.131            | 0.146 | 0.177 |
| 77 | 29 | 0.456            | 0.476 | 0.515 | 78 | 7  | 0.146            | 0.162 | 0.194 |
| 77 | 30 | 0.469            | 0.490 | 0.528 | 78 | 8  | 0.161            | 0.178 | 0.210 |
| 77 | 31 | 0.482            | 0.503 | 0.541 | 78 | 9  | 0.176            | 0.193 | 0.226 |
| 77 | 32 | 0.495            | 0.516 | 0.554 | 78 | 10 | 0.191            | 0.208 | 0.242 |
| 77 | 33 | 0.508            | 0.529 | 0.567 | 78 | 11 | 0.205            | 0.223 | 0.257 |
| 77 | 34 | 0.521            | 0.542 | 0.580 | 78 | 12 | 0.219            | 0.237 | 0.273 |
| 77 | 35 | 0.534            | 0.555 | 0.593 | 78 | 13 | 0.234            | 0.252 | 0.288 |
| 77 | 36 | 0.547            | 0.567 | 0.605 | 78 | 14 | 0.248            | 0.266 | 0.302 |
| 77 | 37 | 0.560            | 0.580 | 0.618 | 78 | 15 | 0.262            | 0.281 | 0.317 |
| 77 | 38 | 0.572            | 0.593 | 0.630 | 78 | 16 | 0.276            | 0.295 | 0.332 |
| 77 | 39 | 0.585            | 0.605 | 0.642 | 78 | 17 | 0.290            | 0.309 | 0.346 |
| 77 | 40 | 0.598            | 0.618 | 0.654 | 78 | 18 | 0.303            | 0.323 | 0.360 |
| 77 | 41 | 0.610            | 0.630 | 0.667 | 78 | 19 | 0.317            | 0.337 | 0.375 |
| 77 | 42 | 0.623            | 0.643 | 0.679 | 78 | 20 | 0.331            | 0.350 | 0.388 |
| 77 | 43 | 0.636            | 0.655 | 0.691 | 78 | 21 | 0.344            | 0.364 | 0.402 |
| 77 | 44 | 0.648            | 0.667 | 0.702 | 78 | 22 | 0.358            | 0.378 | 0.416 |
| 77 | 45 | 0.661            | 0.680 | 0.714 | 78 | 23 | 0.371            | 0.391 | 0.430 |
| 77 | 46 | 0.673            | 0.692 | 0.726 | 78 | 24 | 0.384            | 0.405 | 0.443 |
| 77 | 47 | 0.685            | 0.704 | 0.737 | 78 | 25 | 0.398            | 0.418 | 0.457 |
| 77 | 48 | 0.697            | 0.716 | 0.749 | 78 | 26 | 0.411            | 0.431 | 0.470 |
| 77 | 49 | 0.710            | 0.728 | 0.760 | 78 | 27 | 0.424            | 0.445 | 0.483 |
| 77 | 50 | 0.722            | 0.740 | 0.772 | 78 | 28 | 0.437            | 0.458 | 0.496 |
| 77 | 51 | 0.734            | 0.752 | 0.783 | 78 | 29 | 0.450            | 0.471 | 0.510 |
| 77 | 52 | 0.746            | 0.763 | 0.794 | 78 | 30 | 0.463            | 0.484 | 0.522 |
| 77 | 53 | 0.758            | 0.775 | 0.805 | 78 | 31 | 0.476            | 0.497 | 0.535 |
| 77 | 54 | 0.770            | 0.787 | 0.816 | 78 | 32 | 0.489            | 0.510 | 0.548 |
| 77 | 55 | 0.782            | 0.798 | 0.827 | 78 | 33 | 0.502            | 0.523 | 0.561 |
| 77 | 56 | 0.794            | 0.809 | 0.837 | 78 | 34 | 0.515            | 0.535 | 0.573 |
| 77 | 57 | 0.805            | 0.821 | 0.848 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 78 | 35 | 0.528            | 0.548 | 0.586 | 79 | 14 | 0.245            | 0.263 | 0.299 |
| 78 | 36 | 0.540            | 0.561 | 0.598 | 79 | 15 | 0.259            | 0.277 | 0.313 |
| 78 | 37 | 0.553            | 0.573 | 0.611 | 79 | 16 | 0.272            | 0.291 | 0.328 |
| 78 | 38 | 0.566            | 0.586 | 0.623 | 79 | 17 | 0.286            | 0.305 | 0.342 |
| 78 | 39 | 0.578            | 0.598 | 0.635 | 79 | 18 | 0.300            | 0.319 | 0.356 |
| 78 | 40 | 0.591            | 0.611 | 0.647 | 79 | 19 | 0.313            | 0.333 | 0.370 |
| 78 | 41 | 0.603            | 0.623 | 0.659 | 79 | 20 | 0.327            | 0.346 | 0.384 |
| 78 | 42 | 0.616            | 0.635 | 0.671 | 79 | 21 | 0.340            | 0.360 | 0.398 |
| 78 | 43 | 0.628            | 0.648 | 0.683 | 79 | 22 | 0.353            | 0.373 | 0.411 |
| 78 | 44 | 0.641            | 0.660 | 0.695 | 79 | 23 | 0.367            | 0.387 | 0.425 |
| 78 | 45 | 0.653            | 0.672 | 0.707 | 79 | 24 | 0.380            | 0.400 | 0.438 |
| 78 | 46 | 0.665            | 0.684 | 0.718 | 79 | 25 | 0.393            | 0.413 | 0.452 |
| 78 | 47 | 0.677            | 0.696 | 0.730 | 79 | 26 | 0.406            | 0.426 | 0.465 |
| 78 | 48 | 0.689            | 0.708 | 0.741 | 79 | 27 | 0.419            | 0.439 | 0.478 |
| 78 | 49 | 0.702            | 0.720 | 0.752 | 79 | 28 | 0.432            | 0.452 | 0.491 |
| 78 | 50 | 0.714            | 0.732 | 0.764 | 79 | 29 | 0.445            | 0.465 | 0.504 |
| 78 | 51 | 0.726            | 0.743 | 0.775 | 79 | 30 | 0.458            | 0.478 | 0.517 |
| 78 | 52 | 0.738            | 0.755 | 0.786 | 79 | 31 | 0.471            | 0.491 | 0.529 |
| 78 | 53 | 0.749            | 0.766 | 0.797 | 79 | 32 | 0.483            | 0.504 | 0.542 |
| 78 | 54 | 0.761            | 0.778 | 0.808 | 79 | 33 | 0.496            | 0.517 | 0.555 |
| 78 | 55 | 0.773            | 0.789 | 0.818 | 79 | 34 | 0.509            | 0.529 | 0.567 |
| 78 | 56 | 0.785            | 0.801 | 0.829 | 79 | 35 | 0.521            | 0.542 | 0.580 |
| 78 | 57 | 0.796            | 0.812 | 0.840 | 79 | 36 | 0.534            | 0.554 | 0.592 |
| 78 | 58 | 0.808            | 0.823 | 0.850 | 79 | 37 | 0.547            | 0.567 | 0.604 |
| 78 | 59 | 0.819            | 0.834 | 0.860 | 79 | 38 | 0.559            | 0.579 | 0.616 |
| 78 | 60 | 0.831            | 0.845 | 0.870 | 79 | 39 | 0.572            | 0.592 | 0.628 |
| 78 | 61 | 0.842            | 0.856 | 0.880 | 79 | 40 | 0.584            | 0.604 | 0.640 |
| 78 | 62 | 0.853            | 0.867 | 0.890 | 79 | 41 | 0.596            | 0.616 | 0.652 |
| 78 | 63 | 0.865            | 0.878 | 0.900 | 79 | 42 | 0.609            | 0.628 | 0.664 |
| 78 | 64 | 0.876            | 0.888 | 0.909 | 79 | 43 | 0.621            | 0.640 | 0.676 |
| 78 | 65 | 0.887            | 0.899 | 0.919 | 79 | 44 | 0.633            | 0.652 | 0.688 |
| 78 | 66 | 0.898            | 0.909 | 0.928 | 79 | 45 | 0.645            | 0.664 | 0.699 |
| 78 | 67 | 0.908            | 0.919 | 0.937 | 79 | 46 | 0.657            | 0.676 | 0.711 |
| 78 | 68 | 0.919            | 0.929 | 0.945 | 79 | 47 | 0.670            | 0.688 | 0.722 |
| 78 | 69 | 0.929            | 0.939 | 0.954 | 79 | 48 | 0.682            | 0.700 | 0.733 |
| 78 | 70 | 0.939            | 0.948 | 0.962 | 79 | 49 | 0.694            | 0.712 | 0.745 |
| 78 | 71 | 0.949            | 0.957 | 0.969 | 79 | 50 | 0.706            | 0.723 | 0.756 |
| 78 | 72 | 0.959            | 0.966 | 0.977 | 79 | 51 | 0.717            | 0.735 | 0.767 |
| 78 | 73 | 0.969            | 0.974 | 0.983 | 79 | 52 | 0.729            | 0.747 | 0.778 |
| 78 | 74 | 0.977            | 0.982 | 0.989 | 79 | 53 | 0.741            | 0.758 | 0.789 |
| 78 | 75 | 0.986            | 0.989 | 0.994 | 79 | 54 | 0.753            | 0.770 | 0.800 |
| 78 | 76 | 0.993            | 0.995 | 0.998 | 79 | 55 | 0.764            | 0.781 | 0.810 |
| 78 | 77 | 0.999            | 0.999 | 1.000 | 79 | 56 | 0.776            | 0.792 | 0.821 |
| 78 | 78 | 1.000            | 1.000 | 1.000 | 79 | 57 | 0.788            | 0.803 | 0.831 |
| 79 | 0  | 0.029            | 0.037 | 0.057 | 79 | 58 | 0.799            | 0.815 | 0.842 |
| 79 | 1  | 0.048            | 0.059 | 0.081 | 79 | 59 | 0.810            | 0.826 | 0.852 |
| 79 | 2  | 0.066            | 0.077 | 0.102 | 79 | 60 | 0.822            | 0.836 | 0.862 |
| 79 | 3  | 0.083            | 0.095 | 0.122 | 79 | 61 | 0.833            | 0.847 | 0.872 |
| 79 | 4  | 0.099            | 0.112 | 0.140 | 79 | 62 | 0.844            | 0.858 | 0.882 |
| 79 | 5  | 0.114            | 0.129 | 0.158 | 79 | 63 | 0.855            | 0.869 | 0.892 |
| 79 | 6  | 0.130            | 0.144 | 0.175 | 79 | 64 | 0.866            | 0.879 | 0.901 |
| 79 | 7  | 0.145            | 0.160 | 0.191 | 79 | 65 | 0.877            | 0.890 | 0.911 |
| 79 | 8  | 0.159            | 0.175 | 0.207 | 79 | 66 | 0.888            | 0.900 | 0.920 |
| 79 | 9  | 0.174            | 0.190 | 0.223 | 79 | 67 | 0.899            | 0.910 | 0.929 |
| 79 | 10 | 0.188            | 0.205 | 0.239 | 79 | 68 | 0.909            | 0.920 | 0.938 |
| 79 | 11 | 0.203            | 0.220 | 0.254 | 79 | 69 | 0.920            | 0.930 | 0.946 |
| 79 | 12 | 0.217            | 0.235 | 0.269 | 79 | 70 | 0.930            | 0.939 | 0.954 |
| 79 | 13 | 0.231            | 0.249 | 0.284 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 79 | 71 | 0.940            | 0.949 | 0.962 | 80 | 47 | 0.662            | 0.681 | 0.715 |
| 79 | 72 | 0.950            | 0.958 | 0.970 | 80 | 48 | 0.674            | 0.692 | 0.726 |
| 79 | 73 | 0.960            | 0.966 | 0.977 | 80 | 49 | 0.686            | 0.704 | 0.737 |
| 79 | 74 | 0.969            | 0.975 | 0.984 | 80 | 50 | 0.698            | 0.716 | 0.748 |
| 79 | 75 | 0.978            | 0.982 | 0.989 | 80 | 51 | 0.709            | 0.727 | 0.759 |
| 79 | 76 | 0.986            | 0.989 | 0.994 | 80 | 52 | 0.721            | 0.739 | 0.770 |
| 79 | 77 | 0.993            | 0.995 | 0.998 | 80 | 53 | 0.733            | 0.750 | 0.781 |
| 79 | 78 | 0.999            | 0.999 | 1.000 | 80 | 54 | 0.744            | 0.761 | 0.792 |
| 79 | 79 | 1.000            | 1.000 | 1.000 | 80 | 55 | 0.756            | 0.773 | 0.802 |
| 80 | 0  | 0.028            | 0.037 | 0.056 | 80 | 56 | 0.767            | 0.784 | 0.813 |
| 80 | 1  | 0.048            | 0.058 | 0.080 | 80 | 57 | 0.779            | 0.795 | 0.823 |
| 80 | 2  | 0.065            | 0.077 | 0.101 | 80 | 58 | 0.790            | 0.806 | 0.834 |
| 80 | 3  | 0.082            | 0.094 | 0.120 | 80 | 59 | 0.802            | 0.817 | 0.844 |
| 80 | 4  | 0.097            | 0.111 | 0.138 | 80 | 60 | 0.813            | 0.828 | 0.854 |
| 80 | 5  | 0.113            | 0.127 | 0.156 | 80 | 61 | 0.824            | 0.839 | 0.864 |
| 80 | 6  | 0.128            | 0.143 | 0.173 | 80 | 62 | 0.835            | 0.849 | 0.874 |
| 80 | 7  | 0.143            | 0.158 | 0.189 | 80 | 63 | 0.846            | 0.860 | 0.883 |
| 80 | 8  | 0.157            | 0.173 | 0.205 | 80 | 64 | 0.857            | 0.870 | 0.893 |
| 80 | 9  | 0.172            | 0.188 | 0.221 | 80 | 65 | 0.868            | 0.881 | 0.902 |
| 80 | 10 | 0.186            | 0.203 | 0.236 | 80 | 66 | 0.879            | 0.891 | 0.912 |
| 80 | 11 | 0.200            | 0.217 | 0.251 | 80 | 67 | 0.890            | 0.901 | 0.921 |
| 80 | 12 | 0.214            | 0.232 | 0.266 | 80 | 68 | 0.900            | 0.911 | 0.930 |
| 80 | 13 | 0.228            | 0.246 | 0.281 | 80 | 69 | 0.911            | 0.921 | 0.938 |
| 80 | 14 | 0.242            | 0.260 | 0.295 | 80 | 70 | 0.921            | 0.931 | 0.947 |
| 80 | 15 | 0.256            | 0.274 | 0.310 | 80 | 71 | 0.931            | 0.940 | 0.955 |
| 80 | 16 | 0.269            | 0.288 | 0.324 | 80 | 72 | 0.941            | 0.949 | 0.963 |
| 80 | 17 | 0.283            | 0.302 | 0.338 | 80 | 73 | 0.951            | 0.958 | 0.970 |
| 80 | 18 | 0.296            | 0.315 | 0.352 | 80 | 74 | 0.960            | 0.967 | 0.977 |
| 80 | 19 | 0.309            | 0.329 | 0.366 | 80 | 75 | 0.969            | 0.975 | 0.984 |
| 80 | 20 | 0.323            | 0.342 | 0.380 | 80 | 76 | 0.978            | 0.983 | 0.989 |
| 80 | 21 | 0.336            | 0.356 | 0.393 | 80 | 77 | 0.986            | 0.990 | 0.994 |
| 80 | 22 | 0.349            | 0.369 | 0.407 | 80 | 78 | 0.993            | 0.995 | 0.998 |
| 80 | 23 | 0.362            | 0.382 | 0.420 | 80 | 79 | 0.999            | 0.999 | 1.000 |
| 80 | 24 | 0.375            | 0.395 | 0.433 | 80 | 80 | 1.000            | 1.000 | 1.000 |
| 80 | 25 | 0.388            | 0.408 | 0.447 | 81 | 0  | 0.028            | 0.036 | 0.055 |
| 80 | 26 | 0.401            | 0.421 | 0.460 | 81 | 1  | 0.047            | 0.057 | 0.079 |
| 80 | 27 | 0.414            | 0.434 | 0.473 | 81 | 2  | 0.064            | 0.076 | 0.100 |
| 80 | 28 | 0.427            | 0.447 | 0.485 | 81 | 3  | 0.081            | 0.093 | 0.119 |
| 80 | 29 | 0.440            | 0.460 | 0.498 | 81 | 4  | 0.096            | 0.109 | 0.137 |
| 80 | 30 | 0.452            | 0.473 | 0.511 | 81 | 5  | 0.112            | 0.125 | 0.154 |
| 80 | 31 | 0.465            | 0.485 | 0.524 | 81 | 6  | 0.126            | 0.141 | 0.171 |
| 80 | 32 | 0.478            | 0.498 | 0.536 | 81 | 7  | 0.141            | 0.156 | 0.187 |
| 80 | 33 | 0.490            | 0.511 | 0.549 | 81 | 8  | 0.156            | 0.171 | 0.203 |
| 80 | 34 | 0.503            | 0.523 | 0.561 | 81 | 9  | 0.170            | 0.186 | 0.216 |
| 80 | 35 | 0.515            | 0.536 | 0.573 | 81 | 10 | 0.184            | 0.200 | 0.233 |
| 80 | 36 | 0.528            | 0.548 | 0.585 | 81 | 11 | 0.198            | 0.215 | 0.248 |
| 80 | 37 | 0.540            | 0.560 | 0.598 | 81 | 12 | 0.212            | 0.229 | 0.263 |
| 80 | 38 | 0.553            | 0.573 | 0.610 | 81 | 13 | 0.225            | 0.243 | 0.278 |
| 80 | 39 | 0.565            | 0.585 | 0.622 | 81 | 14 | 0.239            | 0.257 | 0.292 |
| 80 | 40 | 0.577            | 0.597 | 0.633 | 81 | 15 | 0.253            | 0.271 | 0.306 |
| 80 | 41 | 0.589            | 0.609 | 0.645 | 81 | 16 | 0.266            | 0.284 | 0.320 |
| 80 | 42 | 0.602            | 0.621 | 0.657 | 81 | 17 | 0.279            | 0.298 | 0.334 |
| 80 | 43 | 0.614            | 0.633 | 0.669 | 81 | 18 | 0.293            | 0.312 | 0.348 |
| 80 | 44 | 0.626            | 0.645 | 0.680 | 81 | 19 | 0.306            | 0.325 | 0.362 |
| 80 | 45 | 0.638            | 0.657 | 0.692 | 81 | 20 | 0.319            | 0.338 | 0.375 |
| 80 | 46 | 0.650            | 0.669 | 0.703 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 81 | 21 | 0.332            | 0.352 | 0.389 | 81 | 76 | 0.970            | 0.975 | 0.984 |
| 81 | 22 | 0.345            | 0.365 | 0.402 | 81 | 77 | 0.978            | 0.983 | 0.990 |
| 81 | 23 | 0.358            | 0.378 | 0.415 | 81 | 78 | 0.986            | 0.990 | 0.994 |
| 81 | 24 | 0.371            | 0.391 | 0.429 | 81 | 79 | 0.993            | 0.995 | 0.998 |
| 81 | 25 | 0.384            | 0.404 | 0.442 | 81 | 80 | 0.999            | 0.999 | 1.000 |
| 81 | 26 | 0.397            | 0.417 | 0.455 | 81 | 81 | 1.000            | 1.000 | 1.000 |
| 81 | 27 | 0.409            | 0.429 | 0.467 | 82 | 0  | 0.028            | 0.036 | 0.055 |
| 81 | 28 | 0.422            | 0.442 | 0.480 | 82 | 1  | 0.047            | 0.056 | 0.078 |
| 81 | 29 | 0.435            | 0.455 | 0.493 | 82 | 2  | 0.064            | 0.075 | 0.098 |
| 81 | 30 | 0.447            | 0.467 | 0.505 | 82 | 3  | 0.080            | 0.092 | 0.117 |
| 81 | 31 | 0.460            | 0.480 | 0.518 | 82 | 4  | 0.095            | 0.108 | 0.135 |
| 81 | 32 | 0.472            | 0.492 | 0.530 | 82 | 5  | 0.110            | 0.124 | 0.152 |
| 81 | 33 | 0.485            | 0.505 | 0.543 | 82 | 6  | 0.125            | 0.139 | 0.169 |
| 81 | 34 | 0.497            | 0.517 | 0.555 | 82 | 7  | 0.139            | 0.154 | 0.185 |
| 81 | 35 | 0.510            | 0.530 | 0.567 | 82 | 8  | 0.154            | 0.169 | 0.200 |
| 81 | 36 | 0.522            | 0.542 | 0.579 | 82 | 9  | 0.168            | 0.184 | 0.216 |
| 81 | 37 | 0.534            | 0.554 | 0.591 | 82 | 10 | 0.182            | 0.198 | 0.231 |
| 81 | 38 | 0.546            | 0.566 | 0.603 | 82 | 11 | 0.196            | 0.212 | 0.246 |
| 81 | 39 | 0.559            | 0.578 | 0.615 | 82 | 12 | 0.209            | 0.226 | 0.260 |
| 81 | 40 | 0.571            | 0.590 | 0.627 | 82 | 13 | 0.223            | 0.240 | 0.275 |
| 81 | 41 | 0.583            | 0.602 | 0.639 | 82 | 14 | 0.236            | 0.254 | 0.289 |
| 81 | 42 | 0.595            | 0.614 | 0.650 | 82 | 15 | 0.250            | 0.268 | 0.303 |
| 81 | 43 | 0.607            | 0.626 | 0.662 | 82 | 16 | 0.263            | 0.281 | 0.317 |
| 81 | 44 | 0.619            | 0.638 | 0.673 | 82 | 17 | 0.276            | 0.295 | 0.331 |
| 81 | 45 | 0.631            | 0.650 | 0.685 | 82 | 18 | 0.289            | 0.308 | 0.344 |
| 81 | 46 | 0.643            | 0.662 | 0.696 | 82 | 19 | 0.302            | 0.321 | 0.358 |
| 81 | 47 | 0.655            | 0.673 | 0.707 | 82 | 20 | 0.315            | 0.334 | 0.371 |
| 81 | 48 | 0.666            | 0.685 | 0.718 | 82 | 21 | 0.328            | 0.348 | 0.385 |
| 81 | 49 | 0.678            | 0.696 | 0.730 | 82 | 22 | 0.341            | 0.361 | 0.398 |
| 81 | 50 | 0.690            | 0.708 | 0.741 | 82 | 23 | 0.354            | 0.373 | 0.411 |
| 81 | 51 | 0.701            | 0.719 | 0.751 | 82 | 24 | 0.367            | 0.386 | 0.424 |
| 81 | 52 | 0.713            | 0.731 | 0.762 | 82 | 25 | 0.379            | 0.399 | 0.437 |
| 81 | 53 | 0.725            | 0.742 | 0.773 | 82 | 26 | 0.392            | 0.412 | 0.450 |
| 81 | 54 | 0.736            | 0.753 | 0.784 | 82 | 27 | 0.405            | 0.425 | 0.462 |
| 81 | 55 | 0.748            | 0.764 | 0.794 | 82 | 28 | 0.417            | 0.437 | 0.475 |
| 81 | 56 | 0.759            | 0.776 | 0.805 | 82 | 29 | 0.430            | 0.450 | 0.487 |
| 81 | 57 | 0.770            | 0.787 | 0.815 | 82 | 30 | 0.442            | 0.462 | 0.500 |
| 81 | 58 | 0.782            | 0.798 | 0.826 | 82 | 31 | 0.455            | 0.475 | 0.512 |
| 81 | 59 | 0.793            | 0.808 | 0.836 | 82 | 32 | 0.467            | 0.487 | 0.525 |
| 81 | 60 | 0.804            | 0.819 | 0.846 | 82 | 33 | 0.479            | 0.499 | 0.537 |
| 81 | 61 | 0.815            | 0.830 | 0.856 | 82 | 34 | 0.491            | 0.512 | 0.549 |
| 81 | 62 | 0.826            | 0.841 | 0.866 | 82 | 35 | 0.504            | 0.524 | 0.561 |
| 81 | 63 | 0.837            | 0.851 | 0.875 | 82 | 36 | 0.516            | 0.536 | 0.573 |
| 81 | 64 | 0.848            | 0.862 | 0.885 | 82 | 37 | 0.528            | 0.548 | 0.585 |
| 81 | 65 | 0.859            | 0.872 | 0.894 | 82 | 38 | 0.540            | 0.560 | 0.597 |
| 81 | 66 | 0.870            | 0.882 | 0.904 | 82 | 39 | 0.552            | 0.572 | 0.609 |
| 81 | 67 | 0.880            | 0.892 | 0.913 | 82 | 40 | 0.564            | 0.584 | 0.620 |
| 81 | 68 | 0.891            | 0.902 | 0.922 | 82 | 41 | 0.576            | 0.596 | 0.632 |
| 81 | 69 | 0.901            | 0.912 | 0.931 | 82 | 42 | 0.588            | 0.608 | 0.643 |
| 81 | 70 | 0.912            | 0.922 | 0.939 | 82 | 43 | 0.600            | 0.619 | 0.655 |
| 81 | 71 | 0.922            | 0.932 | 0.947 | 82 | 44 | 0.612            | 0.631 | 0.666 |
| 81 | 72 | 0.932            | 0.941 | 0.955 | 82 | 45 | 0.624            | 0.643 | 0.678 |
| 81 | 73 | 0.942            | 0.950 | 0.963 | 82 | 46 | 0.636            | 0.654 | 0.689 |
| 81 | 74 | 0.951            | 0.959 | 0.971 | 82 | 47 | 0.647            | 0.666 | 0.700 |
| 81 | 75 | 0.961            | 0.967 | 0.978 | 82 | 48 | 0.659            | 0.677 | 0.711 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 82 | 49 | 0.671            | 0.689 | 0.722 | 83 | 23 | 0.350            | 0.369 | 0.406 |
| 82 | 50 | 0.682            | 0.700 | 0.733 | 83 | 24 | 0.362            | 0.382 | 0.419 |
| 82 | 51 | 0.694            | 0.712 | 0.744 | 83 | 25 | 0.375            | 0.395 | 0.432 |
| 82 | 52 | 0.705            | 0.723 | 0.755 | 83 | 26 | 0.388            | 0.407 | 0.445 |
| 82 | 53 | 0.717            | 0.734 | 0.765 | 83 | 27 | 0.400            | 0.420 | 0.457 |
| 82 | 54 | 0.728            | 0.745 | 0.776 | 83 | 28 | 0.412            | 0.432 | 0.470 |
| 82 | 55 | 0.740            | 0.756 | 0.787 | 83 | 29 | 0.425            | 0.445 | 0.482 |
| 82 | 56 | 0.751            | 0.767 | 0.797 | 83 | 30 | 0.437            | 0.457 | 0.495 |
| 82 | 57 | 0.762            | 0.778 | 0.807 | 83 | 31 | 0.449            | 0.469 | 0.507 |
| 82 | 58 | 0.773            | 0.789 | 0.818 | 83 | 32 | 0.462            | 0.482 | 0.519 |
| 82 | 59 | 0.785            | 0.800 | 0.828 | 83 | 33 | 0.474            | 0.494 | 0.531 |
| 82 | 60 | 0.796            | 0.811 | 0.838 | 83 | 34 | 0.486            | 0.506 | 0.543 |
| 82 | 61 | 0.807            | 0.822 | 0.848 | 83 | 35 | 0.498            | 0.518 | 0.555 |
| 82 | 62 | 0.818            | 0.832 | 0.858 | 83 | 36 | 0.510            | 0.530 | 0.567 |
| 82 | 63 | 0.829            | 0.843 | 0.867 | 83 | 37 | 0.522            | 0.542 | 0.579 |
| 82 | 64 | 0.839            | 0.853 | 0.877 | 83 | 38 | 0.534            | 0.554 | 0.591 |
| 82 | 65 | 0.850            | 0.863 | 0.886 | 83 | 39 | 0.546            | 0.566 | 0.602 |
| 82 | 66 | 0.861            | 0.874 | 0.896 | 83 | 40 | 0.558            | 0.578 | 0.614 |
| 82 | 67 | 0.871            | 0.884 | 0.905 | 83 | 41 | 0.570            | 0.589 | 0.625 |
| 82 | 68 | 0.882            | 0.894 | 0.914 | 83 | 42 | 0.582            | 0.601 | 0.637 |
| 82 | 69 | 0.892            | 0.904 | 0.923 | 83 | 43 | 0.593            | 0.613 | 0.648 |
| 82 | 70 | 0.903            | 0.913 | 0.931 | 83 | 44 | 0.605            | 0.624 | 0.659 |
| 82 | 71 | 0.913            | 0.923 | 0.940 | 83 | 45 | 0.617            | 0.636 | 0.671 |
| 82 | 72 | 0.923            | 0.932 | 0.948 | 83 | 46 | 0.629            | 0.647 | 0.682 |
| 82 | 73 | 0.933            | 0.942 | 0.956 | 83 | 47 | 0.640            | 0.659 | 0.693 |
| 82 | 74 | 0.942            | 0.951 | 0.964 | 83 | 48 | 0.652            | 0.670 | 0.704 |
| 82 | 75 | 0.952            | 0.959 | 0.971 | 83 | 49 | 0.663            | 0.682 | 0.715 |
| 82 | 76 | 0.961            | 0.968 | 0.978 | 83 | 50 | 0.675            | 0.693 | 0.726 |
| 82 | 77 | 0.970            | 0.976 | 0.984 | 83 | 51 | 0.686            | 0.704 | 0.737 |
| 82 | 78 | 0.978            | 0.983 | 0.990 | 83 | 52 | 0.698            | 0.715 | 0.747 |
| 82 | 79 | 0.986            | 0.990 | 0.995 | 83 | 53 | 0.709            | 0.726 | 0.758 |
| 82 | 80 | 0.993            | 0.996 | 0.998 | 83 | 54 | 0.720            | 0.738 | 0.769 |
| 82 | 81 | 0.999            | 0.999 | 1.000 | 83 | 55 | 0.732            | 0.749 | 0.779 |
| 82 | 82 | 1.000            | 1.000 | 1.000 | 83 | 56 | 0.743            | 0.760 | 0.789 |
| 83 | 0  | 0.027            | 0.035 | 0.054 | 83 | 57 | 0.754            | 0.770 | 0.800 |
| 83 | 1  | 0.046            | 0.056 | 0.077 | 83 | 58 | 0.765            | 0.781 | 0.810 |
| 83 | 2  | 0.063            | 0.074 | 0.097 | 83 | 59 | 0.776            | 0.792 | 0.820 |
| 83 | 3  | 0.079            | 0.091 | 0.116 | 83 | 60 | 0.787            | 0.803 | 0.830 |
| 83 | 4  | 0.094            | 0.107 | 0.133 | 83 | 61 | 0.798            | 0.813 | 0.840 |
| 83 | 5  | 0.109            | 0.123 | 0.150 | 83 | 62 | 0.809            | 0.824 | 0.850 |
| 83 | 6  | 0.124            | 0.138 | 0.167 | 83 | 63 | 0.820            | 0.834 | 0.859 |
| 83 | 7  | 0.138            | 0.153 | 0.183 | 83 | 64 | 0.831            | 0.845 | 0.869 |
| 83 | 8  | 0.152            | 0.167 | 0.198 | 83 | 65 | 0.841            | 0.855 | 0.879 |
| 83 | 9  | 0.166            | 0.182 | 0.213 | 83 | 66 | 0.852            | 0.865 | 0.888 |
| 83 | 10 | 0.180            | 0.196 | 0.228 | 83 | 67 | 0.863            | 0.875 | 0.897 |
| 83 | 11 | 0.193            | 0.210 | 0.243 | 83 | 68 | 0.873            | 0.885 | 0.906 |
| 83 | 12 | 0.207            | 0.224 | 0.257 | 83 | 69 | 0.883            | 0.895 | 0.915 |
| 83 | 13 | 0.220            | 0.238 | 0.272 | 83 | 70 | 0.894            | 0.905 | 0.924 |
| 83 | 14 | 0.233            | 0.251 | 0.286 | 83 | 71 | 0.904            | 0.914 | 0.932 |
| 83 | 15 | 0.247            | 0.265 | 0.300 | 83 | 72 | 0.914            | 0.924 | 0.941 |
| 83 | 16 | 0.260            | 0.278 | 0.313 | 83 | 73 | 0.924            | 0.933 | 0.949 |
| 83 | 17 | 0.273            | 0.291 | 0.327 | 83 | 74 | 0.934            | 0.942 | 0.957 |
| 83 | 18 | 0.286            | 0.305 | 0.340 | 83 | 75 | 0.943            | 0.951 | 0.964 |
| 83 | 19 | 0.299            | 0.318 | 0.354 | 83 | 76 | 0.953            | 0.960 | 0.971 |
| 83 | 20 | 0.312            | 0.331 | 0.367 | 83 | 77 | 0.962            | 0.968 | 0.978 |
| 83 | 21 | 0.324            | 0.344 | 0.380 | 83 | 78 | 0.970            | 0.976 | 0.984 |
| 83 | 22 | 0.337            | 0.356 | 0.393 | 83 | 79 | 0.979            | 0.983 | 0.990 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 83 | 80 | 0.987            | 0.990 | 0.995 | 84 | 52 | 0.690            | 0.708 | 0.740 |
| 83 | 81 | 0.993            | 0.996 | 0.998 | 84 | 53 | 0.701            | 0.719 | 0.751 |
| 83 | 82 | 0.999            | 0.999 | 1.000 | 84 | 54 | 0.713            | 0.730 | 0.761 |
| 83 | 83 | 1.000            | 1.000 | 1.000 | 84 | 55 | 0.724            | 0.741 | 0.771 |
| 84 | 0  | 0.027            | 0.035 | 0.053 | 84 | 56 | 0.735            | 0.752 | 0.782 |
| 84 | 1  | 0.045            | 0.055 | 0.076 | 84 | 57 | 0.746            | 0.763 | 0.792 |
| 84 | 2  | 0.062            | 0.073 | 0.096 | 84 | 58 | 0.757            | 0.773 | 0.802 |
| 84 | 3  | 0.078            | 0.090 | 0.115 | 84 | 59 | 0.766            | 0.784 | 0.812 |
| 84 | 4  | 0.093            | 0.106 | 0.132 | 84 | 60 | 0.779            | 0.795 | 0.822 |
| 84 | 5  | 0.108            | 0.121 | 0.149 | 84 | 61 | 0.790            | 0.805 | 0.832 |
| 84 | 6  | 0.122            | 0.136 | 0.165 | 84 | 62 | 0.801            | 0.816 | 0.842 |
| 84 | 7  | 0.136            | 0.151 | 0.181 | 84 | 63 | 0.811            | 0.826 | 0.852 |
| 84 | 8  | 0.150            | 0.165 | 0.196 | 84 | 64 | 0.822            | 0.836 | 0.861 |
| 84 | 9  | 0.164            | 0.180 | 0.211 | 84 | 65 | 0.833            | 0.847 | 0.871 |
| 84 | 10 | 0.178            | 0.194 | 0.226 | 84 | 66 | 0.843            | 0.857 | 0.880 |
| 84 | 11 | 0.191            | 0.208 | 0.240 | 84 | 67 | 0.854            | 0.867 | 0.889 |
| 84 | 12 | 0.204            | 0.221 | 0.254 | 84 | 68 | 0.864            | 0.877 | 0.898 |
| 84 | 13 | 0.218            | 0.235 | 0.269 | 84 | 69 | 0.875            | 0.887 | 0.907 |
| 84 | 14 | 0.231            | 0.248 | 0.282 | 84 | 70 | 0.885            | 0.896 | 0.916 |
| 84 | 15 | 0.244            | 0.262 | 0.296 | 84 | 71 | 0.895            | 0.906 | 0.925 |
| 84 | 16 | 0.257            | 0.275 | 0.310 | 84 | 72 | 0.905            | 0.916 | 0.933 |
| 84 | 17 | 0.270            | 0.288 | 0.323 | 84 | 73 | 0.915            | 0.925 | 0.941 |
| 84 | 18 | 0.283            | 0.301 | 0.337 | 84 | 74 | 0.925            | 0.934 | 0.949 |
| 84 | 19 | 0.295            | 0.314 | 0.350 | 84 | 75 | 0.934            | 0.943 | 0.957 |
| 84 | 20 | 0.308            | 0.327 | 0.363 | 84 | 76 | 0.944            | 0.952 | 0.965 |
| 84 | 21 | 0.321            | 0.340 | 0.376 | 84 | 77 | 0.953            | 0.960 | 0.972 |
| 84 | 22 | 0.333            | 0.352 | 0.389 | 84 | 78 | 0.962            | 0.968 | 0.978 |
| 84 | 23 | 0.346            | 0.365 | 0.402 | 84 | 79 | 0.971            | 0.976 | 0.985 |
| 84 | 24 | 0.358            | 0.378 | 0.415 | 84 | 80 | 0.979            | 0.983 | 0.990 |
| 84 | 25 | 0.371            | 0.390 | 0.427 | 84 | 81 | 0.987            | 0.990 | 0.995 |
| 84 | 26 | 0.383            | 0.403 | 0.440 | 84 | 82 | 0.994            | 0.996 | 0.998 |
| 84 | 27 | 0.396            | 0.415 | 0.452 | 84 | 83 | 0.999            | 0.999 | 1.000 |
| 84 | 28 | 0.408            | 0.427 | 0.465 | 84 | 84 | 1.000            | 1.000 | 1.000 |
| 84 | 29 | 0.420            | 0.440 | 0.477 | 85 | 0  | 0.027            | 0.035 | 0.053 |
| 84 | 30 | 0.432            | 0.452 | 0.489 | 85 | 1  | 0.045            | 0.055 | 0.075 |
| 84 | 31 | 0.444            | 0.464 | 0.501 | 85 | 2  | 0.061            | 0.072 | 0.095 |
| 84 | 32 | 0.456            | 0.476 | 0.514 | 85 | 3  | 0.077            | 0.089 | 0.113 |
| 84 | 33 | 0.469            | 0.488 | 0.526 | 85 | 4  | 0.092            | 0.104 | 0.130 |
| 84 | 34 | 0.481            | 0.500 | 0.537 | 85 | 5  | 0.106            | 0.120 | 0.147 |
| 84 | 35 | 0.493            | 0.512 | 0.549 | 85 | 6  | 0.121            | 0.135 | 0.163 |
| 84 | 36 | 0.504            | 0.524 | 0.561 | 85 | 7  | 0.135            | 0.149 | 0.178 |
| 84 | 37 | 0.516            | 0.536 | 0.573 | 85 | 8  | 0.148            | 0.163 | 0.194 |
| 84 | 38 | 0.528            | 0.548 | 0.584 | 85 | 9  | 0.162            | 0.178 | 0.208 |
| 84 | 39 | 0.540            | 0.560 | 0.596 | 85 | 10 | 0.176            | 0.191 | 0.223 |
| 84 | 40 | 0.552            | 0.571 | 0.607 | 85 | 11 | 0.189            | 0.205 | 0.237 |
| 84 | 41 | 0.564            | 0.583 | 0.619 | 85 | 12 | 0.202            | 0.219 | 0.252 |
| 84 | 42 | 0.575            | 0.595 | 0.630 | 85 | 13 | 0.215            | 0.232 | 0.266 |
| 84 | 43 | 0.587            | 0.606 | 0.642 | 85 | 14 | 0.228            | 0.246 | 0.279 |
| 84 | 44 | 0.599            | 0.618 | 0.653 | 85 | 15 | 0.241            | 0.259 | 0.293 |
| 84 | 45 | 0.610            | 0.629 | 0.664 | 85 | 16 | 0.254            | 0.272 | 0.307 |
| 84 | 46 | 0.622            | 0.641 | 0.675 | 85 | 17 | 0.267            | 0.285 | 0.320 |
| 84 | 47 | 0.633            | 0.652 | 0.686 | 85 | 18 | 0.279            | 0.298 | 0.333 |
| 84 | 48 | 0.645            | 0.663 | 0.697 | 85 | 19 | 0.292            | 0.311 | 0.346 |
| 84 | 49 | 0.656            | 0.674 | 0.708 | 85 | 20 | 0.305            | 0.323 | 0.359 |
| 84 | 50 | 0.667            | 0.686 | 0.719 | 85 | 21 | 0.317            | 0.336 | 0.372 |
| 84 | 51 | 0.679            | 0.697 | 0.729 | 85 | 22 | 0.330            | 0.349 | 0.385 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 85 | 23 | 0.342            | 0.361 | 0.398 | 85 | 78 | 0.954            | 0.961 | 0.972 |
| 85 | 24 | 0.354            | 0.374 | 0.410 | 85 | 79 | 0.963            | 0.969 | 0.979 |
| 85 | 25 | 0.367            | 0.386 | 0.423 | 85 | 80 | 0.974            | 0.977 | 0.985 |
| 85 | 26 | 0.379            | 0.398 | 0.435 | 85 | 81 | 0.979            | 0.984 | 0.990 |
| 85 | 27 | 0.391            | 0.411 | 0.448 | 85 | 82 | 0.987            | 0.990 | 0.995 |
| 85 | 28 | 0.403            | 0.423 | 0.460 | 85 | 83 | 0.994            | 0.996 | 0.998 |
| 85 | 29 | 0.415            | 0.435 | 0.472 | 85 | 84 | 0.999            | 0.999 | 1.000 |
| 85 | 30 | 0.427            | 0.447 | 0.484 | 85 | 85 | 1.000            | 1.000 | 1.000 |
| 85 | 31 | 0.439            | 0.459 | 0.496 | 86 | 0  | 0.026            | 0.034 | 0.052 |
| 85 | 32 | 0.451            | 0.471 | 0.508 | 86 | 1  | 0.044            | 0.054 | 0.075 |
| 85 | 33 | 0.463            | 0.483 | 0.520 | 86 | 2  | 0.061            | 0.071 | 0.094 |
| 85 | 34 | 0.475            | 0.495 | 0.532 | 86 | 3  | 0.076            | 0.088 | 0.112 |
| 85 | 35 | 0.487            | 0.507 | 0.544 | 86 | 4  | 0.091            | 0.103 | 0.129 |
| 85 | 36 | 0.499            | 0.519 | 0.555 | 86 | 5  | 0.105            | 0.118 | 0.145 |
| 85 | 37 | 0.511            | 0.530 | 0.567 | 86 | 6  | 0.119            | 0.133 | 0.161 |
| 85 | 38 | 0.522            | 0.542 | 0.578 | 86 | 7  | 0.133            | 0.148 | 0.177 |
| 85 | 39 | 0.534            | 0.554 | 0.590 | 86 | 8  | 0.147            | 0.162 | 0.192 |
| 85 | 40 | 0.546            | 0.565 | 0.601 | 86 | 9  | 0.160            | 0.176 | 0.206 |
| 85 | 41 | 0.557            | 0.577 | 0.613 | 86 | 10 | 0.174            | 0.189 | 0.221 |
| 85 | 42 | 0.569            | 0.588 | 0.624 | 86 | 11 | 0.187            | 0.203 | 0.235 |
| 85 | 43 | 0.581            | 0.600 | 0.635 | 86 | 12 | 0.200            | 0.216 | 0.249 |
| 85 | 44 | 0.592            | 0.611 | 0.646 | 86 | 13 | 0.213            | 0.230 | 0.263 |
| 85 | 45 | 0.604            | 0.623 | 0.657 | 86 | 14 | 0.226            | 0.243 | 0.276 |
| 85 | 46 | 0.615            | 0.634 | 0.668 | 86 | 15 | 0.238            | 0.256 | 0.290 |
| 85 | 47 | 0.626            | 0.645 | 0.679 | 86 | 16 | 0.251            | 0.269 | 0.303 |
| 85 | 48 | 0.638            | 0.656 | 0.690 | 86 | 17 | 0.264            | 0.282 | 0.316 |
| 85 | 49 | 0.649            | 0.667 | 0.701 | 86 | 18 | 0.276            | 0.294 | 0.330 |
| 85 | 50 | 0.660            | 0.679 | 0.712 | 86 | 19 | 0.289            | 0.307 | 0.343 |
| 85 | 51 | 0.672            | 0.690 | 0.722 | 86 | 20 | 0.301            | 0.320 | 0.355 |
| 85 | 52 | 0.683            | 0.701 | 0.733 | 86 | 21 | 0.314            | 0.332 | 0.368 |
| 85 | 53 | 0.694            | 0.712 | 0.743 | 86 | 22 | 0.326            | 0.345 | 0.381 |
| 85 | 54 | 0.705            | 0.722 | 0.754 | 86 | 23 | 0.338            | 0.357 | 0.393 |
| 85 | 55 | 0.716            | 0.733 | 0.764 | 86 | 24 | 0.350            | 0.370 | 0.406 |
| 85 | 56 | 0.727            | 0.744 | 0.774 | 86 | 25 | 0.363            | 0.382 | 0.418 |
| 85 | 57 | 0.738            | 0.755 | 0.785 | 86 | 26 | 0.375            | 0.394 | 0.431 |
| 85 | 58 | 0.749            | 0.765 | 0.795 | 86 | 27 | 0.387            | 0.406 | 0.443 |
| 85 | 59 | 0.760            | 0.776 | 0.805 | 86 | 28 | 0.399            | 0.418 | 0.455 |
| 85 | 60 | 0.771            | 0.787 | 0.815 | 86 | 29 | 0.411            | 0.430 | 0.467 |
| 85 | 61 | 0.782            | 0.797 | 0.825 | 86 | 30 | 0.423            | 0.442 | 0.479 |
| 85 | 62 | 0.792            | 0.808 | 0.834 | 86 | 31 | 0.435            | 0.454 | 0.491 |
| 85 | 63 | 0.803            | 0.818 | 0.844 | 86 | 32 | 0.446            | 0.466 | 0.503 |
| 85 | 64 | 0.814            | 0.828 | 0.854 | 86 | 33 | 0.458            | 0.478 | 0.515 |
| 85 | 65 | 0.824            | 0.838 | 0.863 | 86 | 34 | 0.470            | 0.490 | 0.526 |
| 85 | 66 | 0.835            | 0.848 | 0.872 | 86 | 35 | 0.482            | 0.501 | 0.538 |
| 85 | 67 | 0.845            | 0.858 | 0.882 | 86 | 36 | 0.494            | 0.513 | 0.550 |
| 85 | 68 | 0.856            | 0.868 | 0.891 | 86 | 37 | 0.505            | 0.525 | 0.561 |
| 85 | 69 | 0.866            | 0.878 | 0.900 | 86 | 38 | 0.517            | 0.536 | 0.573 |
| 85 | 70 | 0.876            | 0.888 | 0.908 | 86 | 39 | 0.528            | 0.548 | 0.584 |
| 85 | 71 | 0.886            | 0.898 | 0.917 | 86 | 40 | 0.540            | 0.559 | 0.595 |
| 85 | 72 | 0.896            | 0.907 | 0.926 | 86 | 41 | 0.551            | 0.571 | 0.606 |
| 85 | 73 | 0.906            | 0.917 | 0.934 | 86 | 42 | 0.563            | 0.582 | 0.618 |
| 85 | 74 | 0.916            | 0.926 | 0.942 | 86 | 43 | 0.574            | 0.593 | 0.629 |
| 85 | 75 | 0.926            | 0.935 | 0.950 | 86 | 44 | 0.586            | 0.605 | 0.640 |
| 85 | 76 | 0.935            | 0.944 | 0.958 | 86 | 45 | 0.597            | 0.616 | 0.651 |
| 85 | 77 | 0.944            | 0.952 | 0.965 |    |    |                  |       |       |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 86 | 46 | 0.608            | 0.627 | 0.662 | 87 | 17 | 0.261            | 0.279 | 0.313 |
| 86 | 47 | 0.620            | 0.638 | 0.673 | 87 | 18 | 0.273            | 0.291 | 0.326 |
| 86 | 48 | 0.631            | 0.649 | 0.683 | 87 | 19 | 0.286            | 0.304 | 0.339 |
| 86 | 49 | 0.642            | 0.661 | 0.694 | 87 | 20 | 0.298            | 0.316 | 0.352 |
| 86 | 50 | 0.653            | 0.672 | 0.705 | 87 | 21 | 0.310            | 0.329 | 0.364 |
| 86 | 51 | 0.665            | 0.683 | 0.715 | 87 | 22 | 0.322            | 0.341 | 0.377 |
| 86 | 52 | 0.676            | 0.693 | 0.726 | 87 | 23 | 0.335            | 0.353 | 0.389 |
| 86 | 53 | 0.687            | 0.704 | 0.736 | 87 | 24 | 0.347            | 0.366 | 0.402 |
| 86 | 54 | 0.698            | 0.715 | 0.747 | 87 | 25 | 0.359            | 0.378 | 0.414 |
| 86 | 55 | 0.709            | 0.726 | 0.757 | 87 | 26 | 0.371            | 0.390 | 0.426 |
| 86 | 56 | 0.720            | 0.737 | 0.767 | 87 | 27 | 0.383            | 0.402 | 0.438 |
| 86 | 57 | 0.730            | 0.747 | 0.777 | 87 | 28 | 0.394            | 0.414 | 0.450 |
| 86 | 58 | 0.741            | 0.758 | 0.787 | 87 | 29 | 0.406            | 0.426 | 0.462 |
| 86 | 59 | 0.752            | 0.768 | 0.797 | 87 | 30 | 0.418            | 0.438 | 0.474 |
| 86 | 60 | 0.763            | 0.779 | 0.807 | 87 | 31 | 0.430            | 0.449 | 0.486 |
| 86 | 61 | 0.774            | 0.789 | 0.817 | 87 | 32 | 0.442            | 0.461 | 0.498 |
| 86 | 62 | 0.784            | 0.800 | 0.827 | 87 | 33 | 0.453            | 0.473 | 0.509 |
| 86 | 63 | 0.795            | 0.810 | 0.836 | 87 | 34 | 0.465            | 0.485 | 0.521 |
| 86 | 64 | 0.805            | 0.820 | 0.846 | 87 | 35 | 0.477            | 0.496 | 0.533 |
| 86 | 65 | 0.816            | 0.830 | 0.855 | 87 | 36 | 0.488            | 0.508 | 0.544 |
| 86 | 66 | 0.826            | 0.840 | 0.865 | 87 | 37 | 0.500            | 0.519 | 0.555 |
| 86 | 67 | 0.837            | 0.850 | 0.874 | 87 | 38 | 0.511            | 0.531 | 0.567 |
| 86 | 68 | 0.847            | 0.860 | 0.883 | 87 | 39 | 0.523            | 0.542 | 0.578 |
| 86 | 69 | 0.857            | 0.870 | 0.892 | 87 | 40 | 0.534            | 0.553 | 0.589 |
| 86 | 70 | 0.867            | 0.880 | 0.901 | 87 | 41 | 0.546            | 0.565 | 0.600 |
| 86 | 71 | 0.878            | 0.889 | 0.910 | 87 | 42 | 0.557            | 0.576 | 0.611 |
| 86 | 72 | 0.888            | 0.899 | 0.918 | 87 | 43 | 0.568            | 0.587 | 0.623 |
| 86 | 73 | 0.897            | 0.908 | 0.927 | 87 | 44 | 0.580            | 0.599 | 0.633 |
| 86 | 74 | 0.907            | 0.918 | 0.935 | 87 | 45 | 0.591            | 0.610 | 0.644 |
| 86 | 75 | 0.917            | 0.927 | 0.943 | 87 | 46 | 0.602            | 0.621 | 0.655 |
| 86 | 76 | 0.926            | 0.936 | 0.951 | 87 | 47 | 0.613            | 0.632 | 0.666 |
| 86 | 77 | 0.936            | 0.944 | 0.958 | 87 | 48 | 0.624            | 0.643 | 0.677 |
| 86 | 78 | 0.945            | 0.953 | 0.965 | 87 | 49 | 0.635            | 0.654 | 0.687 |
| 86 | 79 | 0.954            | 0.961 | 0.972 | 87 | 50 | 0.647            | 0.665 | 0.698 |
| 86 | 80 | 0.963            | 0.969 | 0.979 | 87 | 51 | 0.658            | 0.676 | 0.708 |
| 86 | 81 | 0.971            | 0.977 | 0.985 | 87 | 52 | 0.669            | 0.686 | 0.719 |
| 86 | 82 | 0.979            | 0.984 | 0.990 | 87 | 53 | 0.680            | 0.697 | 0.729 |
| 86 | 83 | 0.987            | 0.990 | 0.995 | 87 | 54 | 0.690            | 0.708 | 0.739 |
| 86 | 84 | 0.994            | 0.996 | 0.998 | 87 | 55 | 0.701            | 0.719 | 0.750 |
| 86 | 85 | 0.999            | 0.999 | 1.000 | 87 | 56 | 0.712            | 0.729 | 0.760 |
| 86 | 86 | 1.000            | 1.000 | 1.000 | 87 | 57 | 0.723            | 0.740 | 0.770 |
| 87 | 0  | 0.026            | 0.034 | 0.051 | 87 | 58 | 0.734            | 0.750 | 0.780 |
| 87 | 1  | 0.044            | 0.053 | 0.074 | 87 | 59 | 0.744            | 0.761 | 0.790 |
| 87 | 2  | 0.060            | 0.071 | 0.093 | 87 | 60 | 0.755            | 0.771 | 0.800 |
| 87 | 3  | 0.075            | 0.087 | 0.111 | 87 | 61 | 0.766            | 0.781 | 0.809 |
| 87 | 4  | 0.090            | 0.102 | 0.128 | 87 | 62 | 0.776            | 0.792 | 0.819 |
| 87 | 5  | 0.104            | 0.117 | 0.144 | 87 | 63 | 0.787            | 0.802 | 0.829 |
| 87 | 6  | 0.118            | 0.132 | 0.159 | 87 | 64 | 0.797            | 0.812 | 0.838 |
| 87 | 7  | 0.132            | 0.146 | 0.175 | 87 | 65 | 0.808            | 0.822 | 0.848 |
| 87 | 8  | 0.145            | 0.160 | 0.189 | 87 | 66 | 0.818            | 0.832 | 0.857 |
| 87 | 9  | 0.158            | 0.174 | 0.204 | 87 | 67 | 0.828            | 0.842 | 0.866 |
| 87 | 10 | 0.172            | 0.187 | 0.218 | 87 | 68 | 0.839            | 0.852 | 0.875 |
| 87 | 11 | 0.185            | 0.201 | 0.232 | 87 | 69 | 0.849            | 0.862 | 0.884 |
| 87 | 12 | 0.198            | 0.214 | 0.246 | 87 | 70 | 0.859            | 0.872 | 0.893 |
| 87 | 13 | 0.210            | 0.227 | 0.260 | 87 | 71 | 0.869            | 0.881 | 0.902 |
| 87 | 14 | 0.223            | 0.240 | 0.273 | 87 | 72 | 0.879            | 0.891 | 0.911 |
| 87 | 15 | 0.236            | 0.253 | 0.287 | 87 | 73 | 0.889            | 0.900 | 0.919 |
| 87 | 16 | 0.248            | 0.266 | 0.300 | 87 | 74 | 0.899            | 0.909 | 0.927 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 87 | 75 | 0.908            | 0.918 | 0.936 | 88 | 44 | 0.573            | 0.592 | 0.627 |
| 87 | 76 | 0.918            | 0.927 | 0.943 | 88 | 45 | 0.585            | 0.603 | 0.638 |
| 87 | 77 | 0.927            | 0.936 | 0.951 | 88 | 46 | 0.596            | 0.614 | 0.649 |
| 87 | 78 | 0.937            | 0.945 | 0.959 | 88 | 47 | 0.607            | 0.625 | 0.659 |
| 87 | 79 | 0.946            | 0.953 | 0.966 | 88 | 48 | 0.618            | 0.636 | 0.670 |
| 87 | 80 | 0.955            | 0.962 | 0.973 | 88 | 49 | 0.629            | 0.647 | 0.681 |
| 87 | 81 | 0.963            | 0.970 | 0.979 | 88 | 50 | 0.640            | 0.658 | 0.691 |
| 87 | 82 | 0.972            | 0.977 | 0.985 | 88 | 51 | 0.651            | 0.669 | 0.702 |
| 87 | 83 | 0.980            | 0.984 | 0.990 | 88 | 52 | 0.662            | 0.679 | 0.712 |
| 87 | 84 | 0.987            | 0.990 | 0.995 | 88 | 53 | 0.672            | 0.690 | 0.722 |
| 87 | 85 | 0.994            | 0.996 | 0.998 | 88 | 54 | 0.683            | 0.701 | 0.732 |
| 87 | 86 | 0.999            | 0.999 | 1.000 | 88 | 55 | 0.694            | 0.711 | 0.743 |
| 87 | 87 | 1.000            | 1.000 | 1.000 | 88 | 56 | 0.705            | 0.722 | 0.753 |
| 88 | 0  | 0.026            | 0.033 | 0.051 | 88 | 57 | 0.716            | 0.732 | 0.763 |
| 88 | 1  | 0.043            | 0.053 | 0.073 | 88 | 58 | 0.726            | 0.743 | 0.773 |
| 88 | 2  | 0.059            | 0.070 | 0.092 | 88 | 59 | 0.737            | 0.753 | 0.783 |
| 88 | 3  | 0.074            | 0.086 | 0.110 | 88 | 60 | 0.747            | 0.764 | 0.792 |
| 88 | 4  | 0.089            | 0.101 | 0.126 | 88 | 61 | 0.758            | 0.774 | 0.802 |
| 88 | 5  | 0.103            | 0.116 | 0.142 | 88 | 62 | 0.768            | 0.784 | 0.812 |
| 88 | 6  | 0.117            | 0.130 | 0.158 | 88 | 63 | 0.779            | 0.794 | 0.821 |
| 88 | 7  | 0.130            | 0.144 | 0.173 | 88 | 64 | 0.789            | 0.804 | 0.831 |
| 88 | 8  | 0.144            | 0.158 | 0.187 | 88 | 65 | 0.800            | 0.814 | 0.840 |
| 88 | 9  | 0.157            | 0.172 | 0.202 | 88 | 66 | 0.810            | 0.824 | 0.850 |
| 88 | 10 | 0.170            | 0.185 | 0.216 | 88 | 67 | 0.820            | 0.834 | 0.859 |
| 88 | 11 | 0.183            | 0.198 | 0.230 | 88 | 68 | 0.830            | 0.844 | 0.868 |
| 88 | 12 | 0.195            | 0.212 | 0.244 | 88 | 69 | 0.841            | 0.854 | 0.877 |
| 88 | 13 | 0.208            | 0.225 | 0.257 | 88 | 70 | 0.851            | 0.863 | 0.886 |
| 88 | 14 | 0.221            | 0.238 | 0.271 | 88 | 71 | 0.861            | 0.873 | 0.895 |
| 88 | 15 | 0.233            | 0.250 | 0.284 | 88 | 72 | 0.871            | 0.883 | 0.903 |
| 88 | 16 | 0.246            | 0.263 | 0.297 | 88 | 73 | 0.880            | 0.892 | 0.912 |
| 88 | 17 | 0.258            | 0.276 | 0.310 | 88 | 74 | 0.890            | 0.901 | 0.920 |
| 88 | 18 | 0.270            | 0.288 | 0.323 | 88 | 75 | 0.900            | 0.910 | 0.928 |
| 88 | 19 | 0.283            | 0.301 | 0.335 | 88 | 76 | 0.909            | 0.919 | 0.936 |
| 88 | 20 | 0.295            | 0.313 | 0.348 | 88 | 77 | 0.919            | 0.928 | 0.944 |
| 88 | 21 | 0.307            | 0.325 | 0.361 | 88 | 78 | 0.928            | 0.937 | 0.952 |
| 88 | 22 | 0.319            | 0.337 | 0.373 | 88 | 79 | 0.937            | 0.946 | 0.959 |
| 88 | 23 | 0.331            | 0.350 | 0.385 | 88 | 80 | 0.946            | 0.954 | 0.966 |
| 88 | 24 | 0.343            | 0.362 | 0.398 | 88 | 81 | 0.955            | 0.962 | 0.973 |
| 88 | 25 | 0.355            | 0.374 | 0.410 | 88 | 82 | 0.964            | 0.970 | 0.979 |
| 88 | 26 | 0.367            | 0.386 | 0.422 | 88 | 83 | 0.972            | 0.977 | 0.985 |
| 88 | 27 | 0.378            | 0.398 | 0.434 | 88 | 84 | 0.980            | 0.984 | 0.990 |
| 88 | 28 | 0.390            | 0.409 | 0.446 | 88 | 85 | 0.987            | 0.991 | 0.995 |
| 88 | 29 | 0.402            | 0.421 | 0.458 | 88 | 86 | 0.994            | 0.996 | 0.998 |
| 88 | 30 | 0.414            | 0.433 | 0.469 | 88 | 87 | 0.999            | 0.999 | 1.000 |
| 88 | 31 | 0.425            | 0.445 | 0.481 | 88 | 88 | 1.000            | 1.000 | 1.000 |
| 88 | 32 | 0.437            | 0.456 | 0.493 | 89 | 0  | 0.025            | 0.033 | 0.050 |
| 88 | 33 | 0.449            | 0.468 | 0.504 | 89 | 1  | 0.043            | 0.052 | 0.072 |
| 88 | 34 | 0.460            | 0.479 | 0.516 | 89 | 2  | 0.059            | 0.069 | 0.091 |
| 88 | 35 | 0.472            | 0.491 | 0.527 | 89 | 3  | 0.073            | 0.085 | 0.108 |
| 88 | 36 | 0.483            | 0.502 | 0.539 | 89 | 4  | 0.088            | 0.100 | 0.125 |
| 88 | 37 | 0.494            | 0.514 | 0.550 | 89 | 5  | 0.102            | 0.115 | 0.141 |
| 88 | 38 | 0.506            | 0.525 | 0.561 | 89 | 6  | 0.115            | 0.129 | 0.156 |
| 88 | 39 | 0.517            | 0.536 | 0.572 | 89 | 7  | 0.129            | 0.143 | 0.171 |
| 88 | 40 | 0.529            | 0.548 | 0.583 | 89 | 8  | 0.142            | 0.156 | 0.185 |
| 88 | 41 | 0.540            | 0.559 | 0.594 | 89 | 9  | 0.155            | 0.170 | 0.200 |
| 88 | 42 | 0.551            | 0.570 | 0.605 | 89 | 10 | 0.168            | 0.183 | 0.214 |
| 88 | 43 | 0.562            | 0.581 | 0.616 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 89 | 11 | 0.181            | 0.196 | 0.227 | 89 | 67 | 0.812            | 0.826 | 0.851 |
| 89 | 12 | 0.193            | 0.209 | 0.241 | 89 | 68 | 0.822            | 0.836 | 0.860 |
| 89 | 13 | 0.206            | 0.222 | 0.254 | 89 | 69 | 0.832            | 0.846 | 0.869 |
| 89 | 14 | 0.218            | 0.235 | 0.268 | 89 | 70 | 0.842            | 0.856 | 0.878 |
| 89 | 15 | 0.231            | 0.248 | 0.281 | 89 | 71 | 0.852            | 0.865 | 0.887 |
| 89 | 16 | 0.243            | 0.260 | 0.294 | 89 | 72 | 0.862            | 0.875 | 0.896 |
| 89 | 17 | 0.255            | 0.273 | 0.307 | 89 | 73 | 0.872            | 0.884 | 0.904 |
| 89 | 18 | 0.267            | 0.285 | 0.319 | 89 | 74 | 0.882            | 0.893 | 0.913 |
| 89 | 19 | 0.280            | 0.297 | 0.332 | 89 | 75 | 0.891            | 0.902 | 0.921 |
| 89 | 20 | 0.292            | 0.310 | 0.344 | 89 | 76 | 0.901            | 0.911 | 0.929 |
| 89 | 21 | 0.304            | 0.322 | 0.357 | 89 | 77 | 0.910            | 0.920 | 0.937 |
| 89 | 22 | 0.315            | 0.334 | 0.369 | 89 | 78 | 0.920            | 0.929 | 0.945 |
| 89 | 23 | 0.327            | 0.346 | 0.381 | 89 | 79 | 0.929            | 0.938 | 0.952 |
| 89 | 24 | 0.339            | 0.358 | 0.394 | 89 | 80 | 0.938            | 0.946 | 0.960 |
| 89 | 25 | 0.351            | 0.370 | 0.406 | 89 | 81 | 0.947            | 0.955 | 0.967 |
| 89 | 26 | 0.363            | 0.382 | 0.418 | 89 | 82 | 0.956            | 0.963 | 0.973 |
| 89 | 27 | 0.374            | 0.393 | 0.429 | 89 | 83 | 0.964            | 0.970 | 0.980 |
| 89 | 28 | 0.386            | 0.405 | 0.441 | 89 | 84 | 0.972            | 0.978 | 0.985 |
| 89 | 29 | 0.398            | 0.417 | 0.453 | 89 | 85 | 0.980            | 0.984 | 0.991 |
| 89 | 30 | 0.409            | 0.428 | 0.465 | 89 | 86 | 0.987            | 0.991 | 0.995 |
| 89 | 31 | 0.421            | 0.440 | 0.476 | 89 | 87 | 0.994            | 0.996 | 0.998 |
| 89 | 32 | 0.432            | 0.452 | 0.488 | 89 | 88 | 0.999            | 0.999 | 1.000 |
| 89 | 33 | 0.444            | 0.463 | 0.499 | 89 | 89 | 1.000            | 1.000 | 1.000 |
| 89 | 34 | 0.455            | 0.474 | 0.511 | 90 | 0  | 0.025            | 0.033 | 0.050 |
| 89 | 35 | 0.467            | 0.486 | 0.522 | 90 | 1  | 0.042            | 0.052 | 0.071 |
| 89 | 36 | 0.478            | 0.497 | 0.533 | 90 | 2  | 0.058            | 0.068 | 0.090 |
| 89 | 37 | 0.489            | 0.508 | 0.544 | 90 | 3  | 0.073            | 0.084 | 0.107 |
| 89 | 38 | 0.501            | 0.520 | 0.556 | 90 | 4  | 0.087            | 0.099 | 0.123 |
| 89 | 39 | 0.512            | 0.531 | 0.567 | 90 | 5  | 0.101            | 0.113 | 0.139 |
| 89 | 40 | 0.523            | 0.542 | 0.578 | 90 | 6  | 0.114            | 0.127 | 0.154 |
| 89 | 41 | 0.534            | 0.553 | 0.589 | 90 | 7  | 0.127            | 0.141 | 0.169 |
| 89 | 42 | 0.545            | 0.564 | 0.600 | 90 | 8  | 0.140            | 0.155 | 0.183 |
| 89 | 43 | 0.556            | 0.575 | 0.610 | 90 | 9  | 0.153            | 0.168 | 0.198 |
| 89 | 44 | 0.567            | 0.586 | 0.621 | 90 | 10 | 0.166            | 0.181 | 0.211 |
| 89 | 45 | 0.579            | 0.597 | 0.632 | 90 | 11 | 0.179            | 0.194 | 0.225 |
| 89 | 46 | 0.590            | 0.608 | 0.643 | 90 | 12 | 0.191            | 0.207 | 0.239 |
| 89 | 47 | 0.601            | 0.619 | 0.653 | 90 | 13 | 0.204            | 0.220 | 0.252 |
| 89 | 48 | 0.611            | 0.630 | 0.664 | 90 | 14 | 0.216            | 0.233 | 0.265 |
| 89 | 49 | 0.622            | 0.641 | 0.674 | 90 | 15 | 0.228            | 0.245 | 0.278 |
| 89 | 50 | 0.633            | 0.651 | 0.685 | 90 | 16 | 0.240            | 0.257 | 0.291 |
| 89 | 51 | 0.644            | 0.662 | 0.695 | 90 | 17 | 0.253            | 0.270 | 0.303 |
| 89 | 52 | 0.655            | 0.673 | 0.705 | 90 | 18 | 0.265            | 0.282 | 0.316 |
| 89 | 53 | 0.666            | 0.683 | 0.715 | 90 | 19 | 0.277            | 0.294 | 0.329 |
| 89 | 54 | 0.676            | 0.694 | 0.726 | 90 | 20 | 0.288            | 0.306 | 0.341 |
| 89 | 55 | 0.687            | 0.704 | 0.736 | 90 | 21 | 0.300            | 0.318 | 0.353 |
| 89 | 56 | 0.698            | 0.715 | 0.746 | 90 | 22 | 0.312            | 0.330 | 0.365 |
| 89 | 57 | 0.708            | 0.725 | 0.756 | 90 | 23 | 0.324            | 0.342 | 0.378 |
| 89 | 58 | 0.719            | 0.736 | 0.766 | 90 | 24 | 0.336            | 0.354 | 0.390 |
| 89 | 59 | 0.729            | 0.746 | 0.775 | 90 | 25 | 0.347            | 0.366 | 0.401 |
| 89 | 60 | 0.740            | 0.756 | 0.785 | 90 | 26 | 0.359            | 0.378 | 0.413 |
| 89 | 61 | 0.750            | 0.766 | 0.795 | 90 | 27 | 0.371            | 0.389 | 0.425 |
| 89 | 62 | 0.761            | 0.777 | 0.805 | 90 | 28 | 0.382            | 0.401 | 0.437 |
| 89 | 63 | 0.771            | 0.787 | 0.814 | 90 | 29 | 0.394            | 0.413 | 0.448 |
| 89 | 64 | 0.782            | 0.797 | 0.824 | 90 | 30 | 0.405            | 0.424 | 0.460 |
| 89 | 65 | 0.792            | 0.807 | 0.833 | 90 | 31 | 0.416            | 0.435 | 0.472 |
| 89 | 66 | 0.802            | 0.817 | 0.842 | 90 | 32 | 0.428            | 0.447 | 0.483 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 90 | 33 | 0.439      | 0.458 | 0.494 | 90 | 88 | 0.994      | 0.996 | 0.998 |
| 90 | 34 | 0.450      | 0.470 | 0.506 | 90 | 89 | 0.999      | 0.999 | 1.000 |
| 90 | 35 | 0.462      | 0.481 | 0.517 | 90 | 90 | 1.000      | 1.000 | 1.000 |
| 90 | 36 | 0.473      | 0.492 | 0.528 | 91 | 0  | 0.025      | 0.032 | 0.049 |
| 90 | 37 | 0.484      | 0.503 | 0.539 | 91 | 1  | 0.042      | 0.051 | 0.071 |
| 90 | 38 | 0.495      | 0.514 | 0.550 | 91 | 2  | 0.057      | 0.067 | 0.089 |
| 90 | 39 | 0.506      | 0.526 | 0.561 | 91 | 3  | 0.072      | 0.083 | 0.106 |
| 90 | 40 | 0.518      | 0.537 | 0.572 | 91 | 4  | 0.086      | 0.098 | 0.122 |
| 90 | 41 | 0.529      | 0.548 | 0.583 | 91 | 5  | 0.100      | 0.112 | 0.138 |
| 90 | 42 | 0.540      | 0.559 | 0.594 | 91 | 6  | 0.113      | 0.126 | 0.153 |
| 90 | 43 | 0.551      | 0.570 | 0.605 | 91 | 7  | 0.126      | 0.140 | 0.167 |
| 90 | 44 | 0.562      | 0.580 | 0.615 | 91 | 8  | 0.139      | 0.153 | 0.182 |
| 90 | 45 | 0.573      | 0.591 | 0.626 | 91 | 9  | 0.152      | 0.166 | 0.196 |
| 90 | 46 | 0.583      | 0.602 | 0.636 | 91 | 10 | 0.164      | 0.179 | 0.209 |
| 90 | 47 | 0.594      | 0.613 | 0.647 | 91 | 11 | 0.177      | 0.192 | 0.223 |
| 90 | 48 | 0.605      | 0.624 | 0.657 | 91 | 12 | 0.189      | 0.205 | 0.236 |
| 90 | 49 | 0.616      | 0.634 | 0.668 | 91 | 13 | 0.201      | 0.218 | 0.249 |
| 90 | 50 | 0.627      | 0.645 | 0.678 | 91 | 14 | 0.214      | 0.230 | 0.262 |
| 90 | 51 | 0.638      | 0.656 | 0.688 | 91 | 15 | 0.226      | 0.242 | 0.275 |
| 90 | 52 | 0.648      | 0.666 | 0.699 | 91 | 16 | 0.238      | 0.255 | 0.288 |
| 90 | 53 | 0.659      | 0.677 | 0.709 | 91 | 17 | 0.250      | 0.267 | 0.300 |
| 90 | 54 | 0.670      | 0.687 | 0.719 | 91 | 18 | 0.262      | 0.279 | 0.313 |
| 90 | 55 | 0.680      | 0.697 | 0.729 | 91 | 19 | 0.274      | 0.291 | 0.325 |
| 90 | 56 | 0.691      | 0.708 | 0.739 | 91 | 20 | 0.285      | 0.303 | 0.337 |
| 90 | 57 | 0.701      | 0.718 | 0.749 | 91 | 21 | 0.297      | 0.315 | 0.350 |
| 90 | 58 | 0.712      | 0.728 | 0.759 | 91 | 22 | 0.309      | 0.327 | 0.362 |
| 90 | 59 | 0.722      | 0.739 | 0.768 | 91 | 23 | 0.321      | 0.339 | 0.374 |
| 90 | 60 | 0.733      | 0.749 | 0.778 | 91 | 24 | 0.332      | 0.350 | 0.386 |
| 90 | 61 | 0.743      | 0.759 | 0.788 | 91 | 25 | 0.344      | 0.362 | 0.397 |
| 90 | 62 | 0.753      | 0.769 | 0.797 | 91 | 26 | 0.355      | 0.374 | 0.409 |
| 90 | 63 | 0.764      | 0.779 | 0.807 | 91 | 27 | 0.367      | 0.385 | 0.421 |
| 90 | 64 | 0.774      | 0.789 | 0.816 | 91 | 28 | 0.378      | 0.397 | 0.432 |
| 90 | 65 | 0.784      | 0.799 | 0.826 | 91 | 29 | 0.389      | 0.408 | 0.444 |
| 90 | 66 | 0.794      | 0.809 | 0.835 | 91 | 30 | 0.401      | 0.420 | 0.455 |
| 90 | 67 | 0.804      | 0.819 | 0.844 | 91 | 31 | 0.412      | 0.431 | 0.467 |
| 90 | 68 | 0.814      | 0.828 | 0.853 | 91 | 32 | 0.423      | 0.442 | 0.478 |
| 90 | 69 | 0.824      | 0.838 | 0.862 | 91 | 33 | 0.435      | 0.454 | 0.489 |
| 90 | 70 | 0.834      | 0.848 | 0.871 | 91 | 34 | 0.446      | 0.465 | 0.501 |
| 90 | 71 | 0.844      | 0.857 | 0.880 | 91 | 35 | 0.457      | 0.476 | 0.512 |
| 90 | 72 | 0.854      | 0.867 | 0.888 | 91 | 36 | 0.468      | 0.487 | 0.523 |
| 90 | 73 | 0.864      | 0.876 | 0.897 | 91 | 37 | 0.479      | 0.498 | 0.534 |
| 90 | 74 | 0.873      | 0.885 | 0.905 | 91 | 38 | 0.490      | 0.509 | 0.545 |
| 90 | 75 | 0.883      | 0.894 | 0.914 | 91 | 39 | 0.501      | 0.520 | 0.556 |
| 90 | 76 | 0.893      | 0.903 | 0.922 | 91 | 40 | 0.512      | 0.531 | 0.567 |
| 90 | 77 | 0.902      | 0.912 | 0.930 | 91 | 41 | 0.523      | 0.542 | 0.577 |
| 90 | 78 | 0.911      | 0.921 | 0.938 | 91 | 42 | 0.534      | 0.553 | 0.588 |
| 90 | 79 | 0.921      | 0.930 | 0.945 | 91 | 43 | 0.545      | 0.564 | 0.599 |
| 90 | 80 | 0.930      | 0.939 | 0.953 | 91 | 44 | 0.556      | 0.575 | 0.609 |
| 90 | 81 | 0.939      | 0.947 | 0.960 | 91 | 45 | 0.567      | 0.585 | 0.620 |
| 90 | 82 | 0.948      | 0.955 | 0.967 | 91 | 46 | 0.578      | 0.596 | 0.630 |
| 90 | 83 | 0.956      | 0.963 | 0.974 | 91 | 47 | 0.588      | 0.607 | 0.641 |
| 90 | 84 | 0.965      | 0.971 | 0.980 | 91 | 48 | 0.599      | 0.617 | 0.651 |
| 90 | 85 | 0.973      | 0.978 | 0.986 | 91 | 49 | 0.610      | 0.628 | 0.662 |
| 90 | 86 | 0.980      | 0.985 | 0.991 | 91 | 50 | 0.620      | 0.639 | 0.672 |
| 90 | 87 | 0.988      | 0.991 | 0.995 |    |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 91 | 51 | 0.631            | 0.649 | 0.682 | 92 | 17 | 0.247            | 0.264 | 0.297 |
| 91 | 52 | 0.642            | 0.660 | 0.692 | 92 | 18 | 0.259            | 0.276 | 0.310 |
| 91 | 53 | 0.652            | 0.670 | 0.702 | 92 | 19 | 0.271            | 0.288 | 0.322 |
| 91 | 54 | 0.663            | 0.680 | 0.712 | 92 | 20 | 0.282            | 0.300 | 0.334 |
| 91 | 55 | 0.673            | 0.691 | 0.722 | 92 | 21 | 0.294            | 0.312 | 0.346 |
| 91 | 56 | 0.684            | 0.701 | 0.732 | 92 | 22 | 0.306            | 0.324 | 0.358 |
| 91 | 57 | 0.694            | 0.711 | 0.742 | 92 | 23 | 0.317            | 0.335 | 0.370 |
| 91 | 58 | 0.705            | 0.721 | 0.752 | 92 | 24 | 0.329            | 0.347 | 0.382 |
| 91 | 59 | 0.715            | 0.732 | 0.762 | 92 | 25 | 0.340            | 0.358 | 0.394 |
| 91 | 60 | 0.725            | 0.742 | 0.771 | 92 | 26 | 0.352            | 0.370 | 0.405 |
| 91 | 61 | 0.736            | 0.752 | 0.781 | 92 | 27 | 0.363            | 0.381 | 0.417 |
| 91 | 62 | 0.746            | 0.762 | 0.790 | 92 | 28 | 0.374            | 0.393 | 0.428 |
| 91 | 63 | 0.756            | 0.772 | 0.800 | 92 | 29 | 0.385            | 0.404 | 0.440 |
| 91 | 64 | 0.766            | 0.782 | 0.809 | 92 | 30 | 0.397            | 0.415 | 0.451 |
| 91 | 65 | 0.776            | 0.792 | 0.818 | 92 | 31 | 0.408            | 0.427 | 0.462 |
| 91 | 66 | 0.786            | 0.801 | 0.828 | 92 | 32 | 0.419            | 0.438 | 0.474 |
| 91 | 67 | 0.797            | 0.811 | 0.837 | 92 | 33 | 0.430            | 0.449 | 0.485 |
| 91 | 68 | 0.807            | 0.821 | 0.846 | 92 | 34 | 0.441            | 0.460 | 0.496 |
| 91 | 69 | 0.816            | 0.830 | 0.855 | 92 | 35 | 0.452            | 0.471 | 0.507 |
| 91 | 70 | 0.826            | 0.840 | 0.864 | 92 | 36 | 0.463            | 0.482 | 0.518 |
| 91 | 71 | 0.836            | 0.849 | 0.872 | 92 | 37 | 0.474            | 0.493 | 0.529 |
| 91 | 72 | 0.846            | 0.859 | 0.881 | 92 | 38 | 0.485            | 0.504 | 0.540 |
| 91 | 73 | 0.856            | 0.868 | 0.890 | 92 | 39 | 0.496            | 0.515 | 0.550 |
| 91 | 74 | 0.865            | 0.877 | 0.898 | 92 | 40 | 0.507            | 0.526 | 0.561 |
| 91 | 75 | 0.875            | 0.887 | 0.907 | 92 | 41 | 0.518            | 0.537 | 0.572 |
| 91 | 76 | 0.884            | 0.896 | 0.915 | 92 | 42 | 0.529            | 0.548 | 0.582 |
| 91 | 77 | 0.894            | 0.905 | 0.923 | 92 | 43 | 0.540            | 0.558 | 0.593 |
| 91 | 78 | 0.903            | 0.913 | 0.931 | 92 | 44 | 0.550            | 0.569 | 0.604 |
| 91 | 79 | 0.912            | 0.922 | 0.938 | 92 | 45 | 0.561            | 0.580 | 0.614 |
| 91 | 80 | 0.922            | 0.931 | 0.946 | 92 | 46 | 0.572            | 0.590 | 0.624 |
| 91 | 81 | 0.931            | 0.939 | 0.953 | 92 | 47 | 0.582            | 0.601 | 0.635 |
| 91 | 82 | 0.939            | 0.947 | 0.961 | 92 | 48 | 0.593            | 0.611 | 0.645 |
| 91 | 83 | 0.948            | 0.956 | 0.967 | 92 | 49 | 0.604            | 0.622 | 0.655 |
| 91 | 84 | 0.957            | 0.963 | 0.974 | 92 | 50 | 0.614            | 0.632 | 0.666 |
| 91 | 85 | 0.965            | 0.971 | 0.980 | 92 | 51 | 0.625            | 0.643 | 0.676 |
| 91 | 86 | 0.973            | 0.978 | 0.986 | 92 | 52 | 0.635            | 0.653 | 0.686 |
| 91 | 87 | 0.981            | 0.985 | 0.991 | 92 | 53 | 0.646            | 0.663 | 0.696 |
| 91 | 88 | 0.988            | 0.991 | 0.995 | 92 | 54 | 0.656            | 0.674 | 0.706 |
| 91 | 89 | 0.994            | 0.996 | 0.998 | 92 | 55 | 0.667            | 0.684 | 0.716 |
| 91 | 90 | 0.999            | 0.999 | 1.000 | 92 | 56 | 0.677            | 0.694 | 0.726 |
| 91 | 91 | 1.000            | 1.000 | 1.000 | 92 | 57 | 0.687            | 0.704 | 0.735 |
| 92 | 0  | 0.025            | 0.032 | 0.049 | 92 | 58 | 0.698            | 0.715 | 0.745 |
| 92 | 1  | 0.042            | 0.050 | 0.070 | 92 | 59 | 0.708            | 0.725 | 0.755 |
| 92 | 2  | 0.057            | 0.067 | 0.088 | 92 | 60 | 0.718            | 0.735 | 0.764 |
| 92 | 3  | 0.071            | 0.082 | 0.105 | 92 | 61 | 0.728            | 0.745 | 0.774 |
| 92 | 4  | 0.085            | 0.097 | 0.121 | 92 | 62 | 0.739            | 0.755 | 0.783 |
| 92 | 5  | 0.099            | 0.111 | 0.136 | 92 | 63 | 0.749            | 0.764 | 0.793 |
| 92 | 6  | 0.112            | 0.125 | 0.151 | 92 | 64 | 0.759            | 0.774 | 0.802 |
| 92 | 7  | 0.125            | 0.138 | 0.166 | 92 | 65 | 0.769            | 0.784 | 0.811 |
| 92 | 8  | 0.137            | 0.151 | 0.180 | 92 | 66 | 0.779            | 0.794 | 0.820 |
| 92 | 9  | 0.150            | 0.165 | 0.194 | 92 | 67 | 0.789            | 0.804 | 0.830 |
| 92 | 10 | 0.163            | 0.177 | 0.207 | 92 | 68 | 0.799            | 0.813 | 0.839 |
| 92 | 11 | 0.175            | 0.190 | 0.220 | 92 | 69 | 0.809            | 0.823 | 0.848 |
| 92 | 12 | 0.187            | 0.203 | 0.234 | 92 | 70 | 0.819            | 0.832 | 0.856 |
| 92 | 13 | 0.199            | 0.215 | 0.247 | 92 | 71 | 0.828            | 0.842 | 0.865 |
| 92 | 14 | 0.211            | 0.228 | 0.260 | 92 | 72 | 0.838            | 0.851 | 0.874 |
| 92 | 15 | 0.223            | 0.240 | 0.272 | 92 | 73 | 0.848            | 0.860 | 0.882 |
| 92 | 16 | 0.235            | 0.252 | 0.285 | 92 | 74 | 0.857            | 0.870 | 0.891 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 92 | 75 | 0.867            | 0.879 | 0.899 | 93 | 39 | 0.491            | 0.510 | 0.545 |
| 92 | 76 | 0.876            | 0.888 | 0.908 | 93 | 40 | 0.502            | 0.521 | 0.556 |
| 92 | 77 | 0.886            | 0.897 | 0.916 | 93 | 41 | 0.513            | 0.531 | 0.566 |
| 92 | 78 | 0.895            | 0.906 | 0.924 | 93 | 42 | 0.523            | 0.542 | 0.577 |
| 92 | 79 | 0.904            | 0.914 | 0.931 | 93 | 43 | 0.534            | 0.553 | 0.587 |
| 92 | 80 | 0.913            | 0.923 | 0.939 | 93 | 44 | 0.545            | 0.563 | 0.598 |
| 92 | 81 | 0.922            | 0.932 | 0.947 | 93 | 45 | 0.555            | 0.574 | 0.608 |
| 92 | 82 | 0.931            | 0.940 | 0.954 | 93 | 46 | 0.566            | 0.585 | 0.619 |
| 92 | 83 | 0.940            | 0.948 | 0.961 | 93 | 47 | 0.577            | 0.595 | 0.629 |
| 92 | 84 | 0.949            | 0.956 | 0.968 | 93 | 48 | 0.587            | 0.605 | 0.639 |
| 92 | 85 | 0.957            | 0.964 | 0.974 | 93 | 49 | 0.598            | 0.616 | 0.649 |
| 92 | 86 | 0.965            | 0.971 | 0.980 | 93 | 50 | 0.608            | 0.626 | 0.659 |
| 92 | 87 | 0.973            | 0.978 | 0.986 | 93 | 51 | 0.619            | 0.637 | 0.669 |
| 92 | 88 | 0.981            | 0.985 | 0.991 | 93 | 52 | 0.629            | 0.647 | 0.680 |
| 92 | 89 | 0.988            | 0.991 | 0.995 | 93 | 53 | 0.639            | 0.657 | 0.689 |
| 92 | 90 | 0.994            | 0.996 | 0.998 | 93 | 54 | 0.650            | 0.667 | 0.699 |
| 92 | 91 | 0.999            | 0.999 | 1.000 | 93 | 55 | 0.660            | 0.678 | 0.709 |
| 92 | 92 | 1.000            | 1.000 | 1.000 | 93 | 56 | 0.670            | 0.688 | 0.719 |
| 93 | 0  | 0.024            | 0.032 | 0.048 | 93 | 57 | 0.681            | 0.698 | 0.729 |
| 93 | 1  | 0.041            | 0.050 | 0.069 | 93 | 58 | 0.691            | 0.708 | 0.738 |
| 93 | 2  | 0.056            | 0.066 | 0.087 | 93 | 59 | 0.701            | 0.718 | 0.748 |
| 93 | 3  | 0.070            | 0.081 | 0.104 | 93 | 60 | 0.711            | 0.728 | 0.758 |
| 93 | 4  | 0.084            | 0.096 | 0.120 | 93 | 61 | 0.721            | 0.738 | 0.767 |
| 93 | 5  | 0.098            | 0.110 | 0.135 | 93 | 62 | 0.731            | 0.748 | 0.776 |
| 93 | 6  | 0.111            | 0.123 | 0.150 | 93 | 63 | 0.742            | 0.757 | 0.786 |
| 93 | 7  | 0.123            | 0.137 | 0.164 | 93 | 64 | 0.752            | 0.767 | 0.795 |
| 93 | 8  | 0.136            | 0.150 | 0.178 | 93 | 65 | 0.762            | 0.777 | 0.804 |
| 93 | 9  | 0.149            | 0.163 | 0.192 | 93 | 66 | 0.771            | 0.787 | 0.813 |
| 93 | 10 | 0.161            | 0.176 | 0.205 | 93 | 67 | 0.781            | 0.796 | 0.823 |
| 93 | 11 | 0.173            | 0.188 | 0.218 | 93 | 68 | 0.791            | 0.806 | 0.832 |
| 93 | 12 | 0.185            | 0.201 | 0.231 | 93 | 69 | 0.801            | 0.815 | 0.840 |
| 93 | 13 | 0.197            | 0.213 | 0.244 | 93 | 70 | 0.811            | 0.825 | 0.849 |
| 93 | 14 | 0.209            | 0.225 | 0.257 | 93 | 71 | 0.821            | 0.834 | 0.858 |
| 93 | 15 | 0.221            | 0.238 | 0.270 | 93 | 72 | 0.830            | 0.843 | 0.867 |
| 93 | 16 | 0.233            | 0.250 | 0.282 | 93 | 73 | 0.840            | 0.853 | 0.875 |
| 93 | 17 | 0.245            | 0.262 | 0.294 | 93 | 74 | 0.849            | 0.862 | 0.884 |
| 93 | 18 | 0.256            | 0.273 | 0.307 | 93 | 75 | 0.859            | 0.871 | 0.892 |
| 93 | 19 | 0.268            | 0.285 | 0.319 | 93 | 76 | 0.868            | 0.880 | 0.900 |
| 93 | 20 | 0.280            | 0.297 | 0.331 | 93 | 77 | 0.878            | 0.889 | 0.909 |
| 93 | 21 | 0.291            | 0.309 | 0.343 | 93 | 78 | 0.887            | 0.898 | 0.917 |
| 93 | 22 | 0.303            | 0.320 | 0.355 | 93 | 79 | 0.896            | 0.907 | 0.925 |
| 93 | 23 | 0.314            | 0.332 | 0.366 | 93 | 80 | 0.905            | 0.915 | 0.932 |
| 93 | 24 | 0.325            | 0.343 | 0.378 | 93 | 81 | 0                | 0     | 0     |
| 93 | 26 | 0.348            | 0.366 | 0.401 | 93 | 83 | 0.932            | 0.941 | 0.954 |
| 93 | 27 | 0.359            | 0.378 | 0.413 | 93 | 84 | 0.941            | 0.949 | 0.961 |
| 93 | 28 | 0.370            | 0.389 | 0.424 | 93 | 85 | 0.949            | 0.957 | 0.968 |
| 93 | 29 | 0.382            | 0.400 | 0.435 | 93 | 86 | 0.958            | 0.964 | 0.974 |
| 93 | 30 | 0.393            | 0.411 | 0.447 | 93 | 87 | 0.966            | 0.972 | 0.981 |
| 93 | 31 | 0.404            | 0.422 | 0.458 | 93 | 88 | 0.974            | 0.979 | 0.986 |
| 93 | 32 | 0.415            | 0.434 | 0.469 | 93 | 89 | 0.981            | 0.985 | 0.991 |
| 93 | 33 | 0.426            | 0.445 | 0.480 | 93 | 90 | 0.988            | 0.991 | 0.995 |
| 93 | 34 | 0.437            | 0.456 | 0.491 | 93 | 91 | 0.994            | 0.996 | 0.998 |
| 93 | 35 | 0.448            | 0.467 | 0.502 | 93 | 92 | 0.999            | 0.999 | 1.000 |
| 93 | 36 | 0.459            | 0.477 | 0.513 | 93 | 93 | 1.000            | 1.000 | 1.000 |
| 93 | 37 | 0.470            | 0.488 | 0.524 | 94 | 0  | 0.024            | 0.031 | 0.048 |
| 93 | 38 | 0.480            | 0.499 | 0.534 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 94 | 1  | 0.041            | 0.049 | 0.068 | 94 | 58 | 0.684            | 0.701 | 0.732 |
| 94 | 2  | 0.056            | 0.065 | 0.086 | 94 | 59 | 0.694            | 0.711 | 0.741 |
| 94 | 3  | 0.070            | 0.080 | 0.103 | 94 | 60 | 0.704            | 0.721 | 0.751 |
| 94 | 4  | 0.083            | 0.095 | 0.118 | 94 | 61 | 0.714            | 0.731 | 0.760 |
| 94 | 5  | 0.096            | 0.109 | 0.134 | 94 | 62 | 0.724            | 0.741 | 0.770 |
| 94 | 6  | 0.109            | 0.122 | 0.148 | 94 | 63 | 0.734            | 0.750 | 0.779 |
| 94 | 7  | 0.122            | 0.135 | 0.162 | 94 | 64 | 0.744            | 0.760 | 0.788 |
| 94 | 8  | 0.135            | 0.148 | 0.176 | 94 | 65 | 0.754            | 0.770 | 0.797 |
| 94 | 9  | 0.147            | 0.161 | 0.190 | 94 | 66 | 0.764            | 0.779 | 0.807 |
| 94 | 10 | 0.159            | 0.174 | 0.203 | 94 | 67 | 0.774            | 0.789 | 0.816 |
| 94 | 11 | 0.171            | 0.186 | 0.216 | 94 | 68 | 0.784            | 0.798 | 0.825 |
| 94 | 12 | 0.183            | 0.199 | 0.229 | 94 | 69 | 0.794            | 0.808 | 0.833 |
| 94 | 13 | 0.195            | 0.211 | 0.242 | 94 | 70 | 0.803            | 0.817 | 0.842 |
| 94 | 14 | 0.207            | 0.223 | 0.254 | 94 | 71 | 0.813            | 0.827 | 0.851 |
| 94 | 15 | 0.219            | 0.235 | 0.267 | 94 | 72 | 0.822            | 0.836 | 0.860 |
| 94 | 16 | 0.231            | 0.247 | 0.279 | 94 | 73 | 0.832            | 0.845 | 0.868 |
| 94 | 17 | 0.242            | 0.259 | 0.291 | 94 | 74 | 0.842            | 0.854 | 0.877 |
| 94 | 18 | 0.254            | 0.271 | 0.304 | 94 | 75 | 0.851            | 0.863 | 0.885 |
| 94 | 19 | 0.265            | 0.282 | 0.316 | 94 | 76 | 0.860            | 0.872 | 0.893 |
| 94 | 20 | 0.277            | 0.294 | 0.328 | 94 | 77 | 0.870            | 0.881 | 0.902 |
| 94 | 21 | 0.288            | 0.306 | 0.339 | 94 | 78 | 0.879            | 0.890 | 0.910 |
| 94 | 22 | 0.299            | 0.317 | 0.351 | 94 | 79 | 0.888            | 0.899 | 0.918 |
| 94 | 23 | 0.311            | 0.329 | 0.363 | 94 | 80 | 0.897            | 0.908 | 0.925 |
| 94 | 24 | 0.322            | 0.340 | 0.374 | 94 | 81 | 0.906            | 0.916 | 0.933 |
| 94 | 25 | 0.333            | 0.351 | 0.386 | 94 | 82 | 0.915            | 0.925 | 0.940 |
| 94 | 26 | 0.344            | 0.363 | 0.397 | 94 | 83 | 0.924            | 0.933 | 0.948 |
| 94 | 27 | 0.356            | 0.374 | 0.409 | 94 | 84 | 0.933            | 0.941 | 0.955 |
| 94 | 28 | 0.367            | 0.385 | 0.420 | 94 | 85 | 0.941            | 0.949 | 0.962 |
| 94 | 29 | 0.378            | 0.396 | 0.431 | 94 | 86 | 0.950            | 0.957 | 0.968 |
| 94 | 30 | 0.389            | 0.407 | 0.442 | 94 | 87 | 0.958            | 0.965 | 0.975 |
| 94 | 31 | 0.400            | 0.418 | 0.453 | 94 | 88 | 0.966            | 0.972 | 0.981 |
| 94 | 32 | 0.411            | 0.429 | 0.464 | 94 | 89 | 0.974            | 0.979 | 0.986 |
| 94 | 33 | 0.422            | 0.440 | 0.475 | 94 | 90 | 0.981            | 0.985 | 0.991 |
| 94 | 34 | 0.432            | 0.451 | 0.486 | 94 | 91 | 0.988            | 0.991 | 0.995 |
| 94 | 35 | 0.443            | 0.462 | 0.497 | 94 | 92 | 0.994            | 0.996 | 0.998 |
| 94 | 36 | 0.454            | 0.473 | 0.508 | 94 | 93 | 0.999            | 0.999 | 1.000 |
| 94 | 37 | 0.465            | 0.484 | 0.519 | 94 | 94 | 1.000            | 1.000 | 1.000 |
| 94 | 38 | 0.476            | 0.494 | 0.529 | 95 | 0  | 0.024            | 0.031 | 0.047 |
| 94 | 39 | 0.486            | 0.505 | 0.540 | 95 | 1  | 0.040            | 0.049 | 0.068 |
| 94 | 40 | 0.497            | 0.516 | 0.551 | 95 | 2  | 0.055            | 0.065 | 0.085 |
| 94 | 41 | 0.508            | 0.526 | 0.561 | 95 | 3  | 0.069            | 0.080 | 0.102 |
| 94 | 42 | 0.518            | 0.537 | 0.572 | 95 | 4  | 0.082            | 0.094 | 0.117 |
| 94 | 43 | 0.529            | 0.547 | 0.582 | 95 | 5  | 0.096            | 0.108 | 0.132 |
| 94 | 44 | 0.539            | 0.558 | 0.592 | 95 | 6  | 0.108            | 0.121 | 0.147 |
| 94 | 45 | 0.550            | 0.568 | 0.603 | 95 | 7  | 0.121            | 0.134 | 0.161 |
| 94 | 46 | 0.560            | 0.579 | 0.613 | 95 | 8  | 0.133            | 0.147 | 0.174 |
| 94 | 47 | 0.571            | 0.589 | 0.623 | 95 | 9  | 0.145            | 0.160 | 0.188 |
| 94 | 48 | 0.581            | 0.600 | 0.633 | 95 | 10 | 0.158            | 0.172 | 0.201 |
| 94 | 49 | 0.592            | 0.610 | 0.643 | 95 | 11 | 0.170            | 0.184 | 0.214 |
| 94 | 50 | 0.602            | 0.620 | 0.653 | 95 | 12 | 0.181            | 0.197 | 0.227 |
| 94 | 51 | 0.613            | 0.630 | 0.663 | 95 | 13 | 0.193            | 0.209 | 0.239 |
| 94 | 52 | 0.623            | 0.641 | 0.673 | 95 | 14 | 0.205            | 0.221 | 0.252 |
| 94 | 53 | 0.633            | 0.651 | 0.683 | 95 | 15 | 0.217            | 0.233 | 0.264 |
| 94 | 54 | 0.643            | 0.661 | 0.693 | 95 | 16 | 0.228            | 0.245 | 0.276 |
| 94 | 55 | 0.654            | 0.671 | 0.703 | 95 | 17 | 0.240            | 0.256 | 0.289 |
| 94 | 56 | 0.664            | 0.681 | 0.713 | 95 | 18 | 0.251            | 0.268 | 0.301 |
| 94 | 57 | 0.674            | 0.691 | 0.722 | 95 | 19 | 0.263            | 0.280 | 0.313 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL<br>99% | N  | K  | CONFIDENCE |       | LEVEL<br>99% |
|----|----|------------|-------|--------------|----|----|------------|-------|--------------|
|    |    | 90%        | 95%   |              |    |    | 90%        | 95%   |              |
| 95 | 20 | 0.274      | 0.291 | 0.324        | 95 | 76 | 0.853      | 0.865 | 0.886        |
| 95 | 21 | 0.285      | 0.303 | 0.336        | 95 | 77 | 0.862      | 0.874 | 0.895        |
| 95 | 22 | 0.296      | 0.314 | 0.348        | 95 | 78 | 0.871      | 0.883 | 0.903        |
| 95 | 23 | 0.308      | 0.325 | 0.359        | 95 | 79 | 0.880      | 0.891 | 0.911        |
| 95 | 24 | 0.319      | 0.337 | 0.371        |    |    |            |       |              |
| 95 | 25 | 0.330      | 0.348 | 0.382        | 95 | 80 | 0.889      | 0.900 | 0.918        |
| 95 | 26 | 0.341      | 0.359 | 0.393        | 95 | 81 | 0.898      | 0.909 | 0.926        |
| 95 | 27 | 0.352      | 0.370 | 0.405        | 95 | 82 | 0.907      | 0.917 | 0.934        |
| 95 | 28 | 0.363      | 0.381 | 0.416        | 95 | 83 | 0.916      | 0.926 | 0.941        |
| 95 | 29 | 0.374      | 0.392 | 0.427        | 95 | 84 | 0.925      | 0.934 | 0.948        |
| 95 | 30 | 0.385      | 0.403 | 0.438        | 95 | 85 | 0.934      | 0.942 | 0.955        |
| 95 | 31 | 0.396      | 0.414 | 0.449        | 95 | 86 | 0.942      | 0.950 | 0.962        |
| 95 | 32 | 0.407      | 0.425 | 0.460        | 95 | 87 | 0.950      | 0.957 | 0.969        |
| 95 | 33 | 0.417      | 0.436 | 0.471        | 95 | 88 | 0.959      | 0.965 | 0.975        |
| 95 | 34 | 0.428      | 0.447 | 0.482        | 95 | 89 | 0.967      | 0.972 | 0.981        |
| 95 | 35 | 0.439      | 0.457 | 0.492        | 95 | 90 | 0.974      | 0.979 | 0.986        |
| 95 | 36 | 0.450      | 0.468 | 0.503        | 95 | 91 | 0.981      | 0.985 | 0.991        |
| 95 | 37 | 0.460      | 0.479 | 0.514        | 95 | 92 | 0.988      | 0.991 | 0.995        |
| 95 | 38 | 0.471      | 0.490 | 0.524        | 95 | 93 | 0.994      | 0.996 | 0.998        |
| 95 | 39 | 0.481      | 0.500 | 0.535        | 95 | 94 | 0.999      | 0.999 | 1.000        |
| 95 | 40 | 0.492      | 0.511 | 0.545        | 95 | 95 | 1.000      | 1.000 | 1.000        |
| 95 | 41 | 0.503      | 0.521 | 0.556        | 96 | 0  | 0.024      | 0.031 | 0.047        |
| 95 | 42 | 0.513      | 0.532 | 0.566        | 96 | 1  | 0.040      | 0.048 | 0.067        |
| 95 | 43 | 0.524      | 0.542 | 0.577        | 96 | 2  | 0.054      | 0.064 | 0.085        |
| 95 | 44 | 0.534      | 0.553 | 0.587        | 96 | 3  | 0.068      | 0.079 | 0.101        |
| 95 | 45 | 0.545      | 0.563 | 0.597        | 96 | 4  | 0.081      | 0.093 | 0.116        |
| 95 | 46 | 0.555      | 0.573 | 0.607        | 96 | 5  | 0.095      | 0.106 | 0.131        |
| 95 | 47 | 0.565      | 0.584 | 0.617        | 96 | 6  | 0.107      | 0.120 | 0.145        |
| 95 | 48 | 0.576      | 0.594 | 0.627        | 96 | 7  | 0.120      | 0.133 | 0.159        |
| 95 | 49 | 0.586      | 0.604 | 0.638        | 96 | 8  | 0.132      | 0.145 | 0.173        |
| 95 | 50 | 0.596      | 0.614 | 0.647        | 96 | 9  | 0.144      | 0.158 | 0.186        |
| 95 | 51 | 0.607      | 0.625 | 0.657        | 96 | 10 | 0.156      | 0.170 | 0.199        |
| 95 | 52 | 0.617      | 0.635 | 0.667        | 96 | 11 | 0.168      | 0.183 | 0.212        |
| 95 | 53 | 0.627      | 0.645 | 0.677        | 96 | 12 | 0.180      | 0.195 | 0.224        |
| 95 | 54 | 0.637      | 0.655 | 0.687        | 96 | 13 | 0.191      | 0.207 | 0.237        |
| 95 | 55 | 0.647      | 0.665 | 0.697        | 96 | 14 | 0.203      | 0.219 | 0.249        |
| 95 | 56 | 0.658      | 0.675 | 0.706        | 96 | 15 | 0.214      | 0.230 | 0.262        |
| 95 | 57 | 0.668      | 0.685 | 0.716        | 96 | 16 | 0.226      | 0.242 | 0.274        |
| 95 | 58 | 0.678      | 0.695 | 0.725        | 96 | 17 | 0.237      | 0.254 | 0.286        |
| 95 | 59 | 0.688      | 0.704 | 0.735        | 96 | 18 | 0.249      | 0.265 | 0.298        |
| 95 | 60 | 0.698      | 0.714 | 0.744        | 96 | 19 | 0.260      | 0.277 | 0.309        |
| 95 | 61 | 0.708      | 0.724 | 0.754        | 96 | 20 | 0.271      | 0.288 | 0.321        |
| 95 | 62 | 0.718      | 0.734 | 0.763        | 96 | 21 | 0.282      | 0.300 | 0.333        |
| 95 | 63 | 0.727      | 0.743 | 0.772        | 96 | 22 | 0.293      | 0.311 | 0.344        |
| 95 | 64 | 0.737      | 0.753 | 0.781        | 96 | 23 | 0.305      | 0.322 | 0.356        |
| 95 | 65 | 0.747      | 0.763 | 0.791        | 96 | 24 | 0.316      | 0.333 | 0.367        |
| 95 | 66 | 0.757      | 0.772 | 0.800        | 96 | 25 | 0.327      | 0.344 | 0.378        |
| 95 | 67 | 0.767      | 0.782 | 0.809        | 96 | 26 | 0.338      | 0.355 | 0.390        |
| 95 | 68 | 0.776      | 0.791 | 0.818        | 96 | 27 | 0.348      | 0.366 | 0.401        |
| 95 | 69 | 0.786      | 0.801 | 0.827        | 96 | 28 | 0.359      | 0.377 | 0.412        |
| 95 | 70 | 0.796      | 0.810 | 0.835        | 96 | 29 | 0.370      | 0.388 | 0.423        |
| 95 | 71 | 0.805      | 0.819 | 0.844        | 96 | 30 | 0.381      | 0.399 | 0.434        |
| 95 | 72 | 0.815      | 0.829 | 0.853        | 96 | 31 | 0.392      | 0.410 | 0.445        |
| 95 | 73 | 0.824      | 0.838 | 0.861        | 96 | 32 | 0.402      | 0.421 | 0.456        |
| 95 | 74 | 0.834      | 0.847 | 0.870        | 96 | 33 | 0.413      | 0.432 | 0.466        |
| 95 | 75 | 0.843      | 0.856 | 0.878        | 96 | 34 | 0.424      | 0.442 | 0.477        |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 96 | 35 | 0.435      | 0.453 | 0.488 | 96 | 90 | 0.967      | 0.972 | 0.981 |
| 96 | 36 | 0.445      | 0.464 | 0.499 | 96 | 91 | 0.974      | 0.979 | 0.987 |
| 96 | 37 | 0.456      | 0.474 | 0.509 | 96 | 92 | 0.982      | 0.986 | 0.991 |
| 96 | 38 | 0.466      | 0.485 | 0.520 | 96 | 93 | 0.988      | 0.991 | 0.995 |
| 96 | 39 | 0.477      | 0.495 | 0.530 | 96 | 94 | 0.994      | 0.996 | 0.998 |
| 96 | 40 | 0.487      | 0.506 | 0.540 | 96 | 95 | 0.999      | 0.999 | 1.000 |
| 96 | 41 | 0.498      | 0.516 | 0.551 | 96 | 96 | 1.000      | 1.000 | 1.000 |
| 96 | 42 | 0.508      | 0.527 | 0.561 | 97 | 0  | 0.023      | 0.030 | 0.046 |
| 96 | 43 | 0.519      | 0.537 | 0.571 | 97 | 1  | 0.039      | 0.048 | 0.066 |
| 96 | 44 | 0.529      | 0.547 | 0.582 | 97 | 2  | 0.054      | 0.063 | 0.084 |
| 96 | 45 | 0.539      | 0.558 | 0.592 | 97 | 3  | 0.067      | 0.078 | 0.100 |
| 96 | 46 | 0.550      | 0.568 | 0.602 | 97 | 4  | 0.081      | 0.092 | 0.115 |
| 96 | 47 | 0.560      | 0.578 | 0.612 | 97 | 5  | 0.094      | 0.105 | 0.130 |
| 96 | 48 | 0.570      | 0.588 | 0.622 | 97 | 6  | 0.106      | 0.118 | 0.144 |
| 96 | 49 | 0.580      | 0.598 | 0.632 | 97 | 7  | 0.118      | 0.131 | 0.157 |
| 96 | 50 | 0.591      | 0.609 | 0.642 | 97 | 8  | 0.131      | 0.144 | 0.171 |
| 96 | 51 | 0.601      | 0.619 | 0.652 | 97 | 9  | 0.143      | 0.156 | 0.184 |
| 96 | 52 | 0.611      | 0.629 | 0.661 | 97 | 10 | 0.154      | 0.169 | 0.197 |
| 96 | 53 | 0.621      | 0.639 | 0.671 | 97 | 11 | 0.166      | 0.181 | 0.210 |
| 96 | 54 | 0.631      | 0.649 | 0.681 | 97 | 12 | 0.178      | 0.193 | 0.222 |
| 96 | 55 | 0.641      | 0.659 | 0.690 | 97 | 13 | 0.189      | 0.205 | 0.235 |
| 96 | 56 | 0.651      | 0.668 | 0.700 | 97 | 14 | 0.201      | 0.216 | 0.247 |
| 96 | 57 | 0.661      | 0.678 | 0.710 | 97 | 15 | 0.212      | 0.228 | 0.259 |
| 96 | 58 | 0.671      | 0.688 | 0.719 | 97 | 16 | 0.224      | 0.240 | 0.271 |
| 96 | 59 | 0.681      | 0.698 | 0.728 | 97 | 17 | 0.235      | 0.251 | 0.283 |
| 96 | 60 | 0.691      | 0.708 | 0.738 | 97 | 18 | 0.246      | 0.263 | 0.295 |
| 96 | 61 | 0.701      | 0.717 | 0.747 | 97 | 19 | 0.257      | 0.274 | 0.307 |
| 96 | 62 | 0.711      | 0.727 | 0.756 | 97 | 20 | 0.268      | 0.285 | 0.318 |
| 96 | 63 | 0.721      | 0.737 | 0.766 | 97 | 21 | 0.280      | 0.297 | 0.330 |
| 96 | 64 | 0.730      | 0.746 | 0.775 | 97 | 22 | 0.291      | 0.308 | 0.341 |
| 96 | 65 | 0.740      | 0.756 | 0.784 | 97 | 23 | 0.302      | 0.319 | 0.352 |
| 96 | 66 | 0.750      | 0.765 | 0.793 | 97 | 24 | 0.312      | 0.330 | 0.364 |
| 96 | 67 | 0.760      | 0.775 | 0.802 | 97 | 25 | 0.323      | 0.341 | 0.375 |
| 96 | 68 | 0.769      | 0.784 | 0.811 | 97 | 26 | 0.334      | 0.352 | 0.386 |
| 96 | 69 | 0.779      | 0.794 | 0.820 | 97 | 27 | 0.345      | 0.363 | 0.397 |
| 96 | 70 | 0.788      | 0.803 | 0.828 | 97 | 28 | 0.356      | 0.374 | 0.408 |
| 96 | 71 | 0.798      | 0.812 | 0.837 | 97 | 29 | 0.367      | 0.385 | 0.419 |
| 96 | 72 | 0.807      | 0.821 | 0.846 | 97 | 30 | 0.377      | 0.395 | 0.430 |
| 96 | 73 | 0.817      | 0.830 | 0.854 | 97 | 31 | 0.388      | 0.406 | 0.441 |
| 96 | 74 | 0.826      | 0.840 | 0.863 | 97 | 32 | 0.399      | 0.417 | 0.451 |
| 96 | 75 | 0.836      | 0.849 | 0.871 | 97 | 33 | 0.409      | 0.427 | 0.462 |
| 96 | 76 | 0.845      | 0.858 | 0.879 | 97 | 34 | 0.420      | 0.438 | 0.473 |
| 96 | 77 | 0.854      | 0.866 | 0.888 | 97 | 35 | 0.430      | 0.449 | 0.483 |
| 96 | 78 | 0.863      | 0.875 | 0.896 | 97 | 36 | 0.441      | 0.459 | 0.494 |
| 96 | 79 | 0.873      | 0.884 | 0.904 | 97 | 37 | 0.451      | 0.470 | 0.504 |
| 96 | 80 | 0.882      | 0.893 | 0.912 | 97 | 38 | 0.462      | 0.480 | 0.515 |
| 96 | 81 | 0.891      | 0.901 | 0.919 | 97 | 39 | 0.472      | 0.491 | 0.525 |
| 96 | 82 | 0.899      | 0.910 | 0.927 | 97 | 40 | 0.483      | 0.501 | 0.535 |
| 96 | 83 | 0.908      | 0.918 | 0.934 | 97 | 41 | 0.493      | 0.511 | 0.546 |
| 96 | 84 | 0.917      | 0.926 | 0.942 | 97 | 42 | 0.503      | 0.522 | 0.556 |
| 96 | 85 | 0.926      | 0.934 | 0.949 | 97 | 43 | 0.514      | 0.532 | 0.566 |
| 96 | 86 | 0.934      | 0.942 | 0.956 | 97 | 44 | 0.524      | 0.542 | 0.576 |
| 96 | 87 | 0.943      | 0.950 | 0.963 | 97 | 45 | 0.534      | 0.552 | 0.586 |
| 96 | 88 | 0.951      | 0.958 | 0.969 | 97 | 46 | 0.544      | 0.563 | 0.596 |
| 96 | 89 | 0.959      | 0.965 | 0.975 |    |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE |       | LEVEL | N  | K  | CONFIDENCE |       | LEVEL |
|----|----|------------|-------|-------|----|----|------------|-------|-------|
|    |    | 90%        | 95%   |       |    |    | 90%        | 95%   |       |
| 97 | 47 | 0.555      | 0.573 | 0.606 | 98 | 7  | 0.117      | 0.130 | 0.156 |
| 97 | 48 | 0.565      | 0.583 | 0.616 | 98 | 8  | 0.129      | 0.143 | 0.169 |
| 97 | 49 | 0.575      | 0.593 | 0.626 | 98 | 9  | 0.141      | 0.155 | 0.182 |
| 97 | 50 | 0.585      | 0.603 | 0.636 | 98 | 10 | 0.153      | 0.167 | 0.195 |
| 97 | 51 | 0.595      | 0.613 | 0.646 | 98 | 11 | 0.165      | 0.179 | 0.208 |
| 97 | 52 | 0.605      | 0.623 | 0.655 | 98 | 12 | 0.176      | 0.191 | 0.220 |
| 97 | 53 | 0.615      | 0.633 | 0.665 | 98 | 13 | 0.188      | 0.203 | 0.232 |
| 97 | 54 | 0.625      | 0.643 | 0.675 | 98 | 14 | 0.199      | 0.214 | 0.245 |
| 97 | 55 | 0.635      | 0.653 | 0.684 | 98 | 15 | 0.210      | 0.226 | 0.257 |
| 97 | 56 | 0.645      | 0.662 | 0.694 | 98 | 16 | 0.221      | 0.237 | 0.269 |
| 97 | 57 | 0.655      | 0.672 | 0.703 | 98 | 17 | 0.233      | 0.249 | 0.280 |
| 97 | 58 | 0.665      | 0.682 | 0.713 | 98 | 18 | 0.244      | 0.260 | 0.292 |
| 97 | 59 | 0.675      | 0.692 | 0.722 | 98 | 19 | 0.255      | 0.271 | 0.304 |
| 97 | 60 | 0.685      | 0.701 | 0.731 | 98 | 20 | 0.266      | 0.283 | 0.315 |
| 97 | 61 | 0.694      | 0.711 | 0.741 | 98 | 21 | 0.277      | 0.294 | 0.327 |
| 97 | 62 | 0.704      | 0.720 | 0.750 | 98 | 22 | 0.288      | 0.305 | 0.338 |
| 97 | 63 | 0.714      | 0.730 | 0.759 | 98 | 23 | 0.299      | 0.316 | 0.349 |
| 97 | 64 | 0.724      | 0.740 | 0.768 | 98 | 24 | 0.309      | 0.327 | 0.360 |
| 97 | 65 | 0.733      | 0.749 | 0.777 | 98 | 25 | 0.320      | 0.338 | 0.371 |
| 97 | 66 | 0.743      | 0.758 | 0.786 | 98 | 26 | 0.331      | 0.349 | 0.382 |
| 97 | 67 | 0.753      | 0.768 | 0.795 | 98 | 27 | 0.342      | 0.359 | 0.393 |
| 97 | 68 | 0.762      | 0.777 | 0.804 | 98 | 28 | 0.352      | 0.370 | 0.404 |
| 97 | 69 | 0.772      | 0.786 | 0.813 | 98 | 29 | 0.363      | 0.381 | 0.415 |
| 97 | 70 | 0.781      | 0.796 | 0.822 | 98 | 30 | 0.374      | 0.392 | 0.426 |
| 97 | 71 | 0.791      | 0.805 | 0.830 | 98 | 31 | 0.384      | 0.402 | 0.437 |
| 97 | 72 | 0.800      | 0.814 | 0.839 | 98 | 32 | 0.395      | 0.413 | 0.447 |
| 97 | 73 | 0.809      | 0.823 | 0.847 | 98 | 33 | 0.405      | 0.423 | 0.458 |
| 97 | 74 | 0.819      | 0.832 | 0.856 | 98 | 34 | 0.416      | 0.434 | 0.468 |
| 97 | 75 | 0.828      | 0.841 | 0.864 | 98 | 35 | 0.426      | 0.444 | 0.479 |
| 97 | 76 | 0.837      | 0.850 | 0.873 | 98 | 36 | 0.437      | 0.455 | 0.489 |
| 97 | 77 | 0.847      | 0.859 | 0.881 | 98 | 37 | 0.447      | 0.465 | 0.500 |
| 97 | 78 | 0.856      | 0.868 | 0.889 | 98 | 38 | 0.457      | 0.476 | 0.510 |
| 97 | 79 | 0.865      | 0.877 | 0.897 | 98 | 39 | 0.468      | 0.486 | 0.520 |
| 97 | 80 | 0.874      | 0.885 | 0.905 | 98 | 40 | 0.478      | 0.496 | 0.531 |
| 97 | 81 | 0.883      | 0.894 | 0.913 | 98 | 41 | 0.488      | 0.507 | 0.541 |
| 97 | 82 | 0.892      | 0.902 | 0.920 | 98 | 42 | 0.498      | 0.517 | 0.551 |
| 97 | 83 | 0.901      | 0.911 | 0.928 | 98 | 43 | 0.509      | 0.527 | 0.561 |
| 97 | 84 | 0.909      | 0.919 | 0.935 | 98 | 44 | 0.519      | 0.537 | 0.571 |
| 97 | 85 | 0.918      | 0.927 | 0.942 | 98 | 45 | 0.529      | 0.547 | 0.581 |
| 97 | 86 | 0.927      | 0.935 | 0.949 | 98 | 46 | 0.539      | 0.557 | 0.591 |
| 97 | 87 | 0.935      | 0.943 | 0.956 | 98 | 47 | 0.549      | 0.567 | 0.601 |
| 97 | 88 | 0.943      | 0.951 | 0.963 | 98 | 48 | 0.559      | 0.577 | 0.611 |
| 97 | 89 | 0.951      | 0.958 | 0.969 | 98 | 49 | 0.569      | 0.587 | 0.621 |
| 97 | 90 | 0.959      | 0.966 | 0.976 | 98 | 50 | 0.579      | 0.597 | 0.630 |
| 97 | 91 | 0.967      | 0.973 | 0.981 | 98 | 51 | 0.589      | 0.607 | 0.640 |
| 97 | 92 | 0.975      | 0.980 | 0.987 | 98 | 52 | 0.599      | 0.617 | 0.650 |
| 97 | 93 | 0.982      | 0.986 | 0.991 | 98 | 53 | 0.609      | 0.627 | 0.659 |
| 97 | 94 | 0.988      | 0.991 | 0.995 | 98 | 54 | 0.619      | 0.637 | 0.669 |
| 97 | 95 | 0.994      | 0.996 | 0.998 | 98 | 55 | 0.629      | 0.647 | 0.678 |
| 97 | 96 | 0.999      | 0.999 | 1.000 | 98 | 56 | 0.639      | 0.656 | 0.688 |
| 97 | 97 | 1.000      | 1.000 | 1.000 | 98 | 57 | 0.649      | 0.666 | 0.697 |
| 98 | 0  | 0.023      | 0.030 | 0.046 | 98 | 58 | 0.659      | 0.676 | 0.707 |
| 98 | 1  | 0.039      | 0.047 | 0.066 | 98 | 59 | 0.668      | 0.685 | 0.716 |
| 98 | 2  | 0.053      | 0.063 | 0.083 | 98 | 60 | 0.678      | 0.695 | 0.725 |
| 98 | 3  | 0.067      | 0.077 | 0.099 | 98 | 61 | 0.688      | 0.704 | 0.734 |
| 98 | 4  | 0.080      | 0.091 | 0.114 | 98 | 62 | 0.698      | 0.714 | 0.744 |
| 98 | 5  | 0.093      | 0.104 | 0.128 | 98 | 63 | 0.707      | 0.723 | 0.753 |
| 98 | 6  | 0.105      | 0.117 | 0.142 | 98 | 64 | 0.717      | 0.733 | 0.762 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N  | K  | CONFIDENCE LEVEL |       |       | N  | K  | CONFIDENCE LEVEL |       |       |
|----|----|------------------|-------|-------|----|----|------------------|-------|-------|
|    |    | 90%              | 95%   | 99%   |    |    | 90%              | 95%   | 99%   |
| 98 | 65 | 0.727            | 0.742 | 0.771 | 99 | 24 | 0.306            | 0.324 | 0.357 |
| 98 | 66 | 0.736            | 0.752 | 0.780 | 99 | 25 | 0.317            | 0.335 | 0.368 |
| 98 | 67 | 0.746            | 0.761 | 0.789 | 99 | 26 | 0.328            | 0.345 | 0.379 |
| 98 | 68 | 0.755            | 0.770 | 0.797 | 99 | 27 | 0.338            | 0.356 | 0.390 |
| 98 | 69 | 0.765            | 0.780 | 0.806 | 99 | 28 | 0.349            | 0.367 | 0.401 |
| 98 | 70 | 0.774            | 0.789 | 0.815 | 99 | 29 | 0.360            | 0.377 | 0.411 |
| 98 | 71 | 0.784            | 0.798 | 0.824 | 99 | 30 | 0.370            | 0.388 | 0.422 |
| 98 | 72 | 0.793            | 0.807 | 0.832 | 99 | 31 | 0.380            | 0.398 | 0.433 |
| 98 | 73 | 0.802            | 0.816 | 0.841 | 99 | 32 | 0.391            | 0.409 | 0.443 |
| 98 | 74 | 0.811            | 0.825 | 0.849 | 99 | 33 | 0.401            | 0.419 | 0.454 |
| 98 | 75 | 0.821            | 0.834 | 0.857 | 99 | 34 | 0.412            | 0.430 | 0.464 |
| 98 | 76 | 0.830            | 0.843 | 0.866 | 99 | 35 | 0.422            | 0.440 | 0.475 |
| 98 | 77 | 0.839            | 0.852 | 0.874 | 99 | 36 | 0.432            | 0.451 | 0.485 |
| 98 | 78 | 0.848            | 0.861 | 0.882 | 99 | 37 | 0.443            | 0.461 | 0.495 |
| 98 | 79 | 0.857            | 0.869 | 0.890 | 99 | 38 | 0.453            | 0.471 | 0.505 |
| 98 | 80 | 0.866            | 0.878 | 0.898 | 99 | 39 | 0.463            | 0.481 | 0.516 |
| 98 | 81 | 0.875            | 0.886 | 0.906 | 99 | 40 | 0.473            | 0.492 | 0.526 |
| 98 | 82 | 0.884            | 0.895 | 0.913 | 99 | 41 | 0.484            | 0.502 | 0.536 |
| 98 | 83 | 0.893            | 0.903 | 0.921 | 99 | 42 | 0.494            | 0.512 | 0.546 |
| 98 | 84 | 0.902            | 0.912 | 0.929 | 99 | 43 | 0.504            | 0.522 | 0.556 |
| 98 | 85 | 0.910            | 0.920 | 0.936 | 99 | 44 | 0.514            | 0.532 | 0.566 |
| 98 | 86 | 0.919            | 0.928 | 0.943 | 99 | 45 | 0.524            | 0.542 | 0.576 |
| 98 | 87 | 0.927            | 0.936 | 0.950 | 99 | 46 | 0.534            | 0.552 | 0.586 |
| 98 | 88 | 0.936            | 0.944 | 0.957 | 99 | 47 | 0.544            | 0.562 | 0.596 |
| 98 | 89 | 0.944            | 0.951 | 0.963 | 99 | 48 | 0.554            | 0.572 | 0.605 |
| 98 | 90 | 0.952            | 0.959 | 0.970 | 99 | 49 | 0.564            | 0.582 | 0.615 |
| 98 | 91 | 0.960            | 0.966 | 0.976 | 99 | 50 | 0.574            | 0.592 | 0.625 |
| 98 | 92 | 0.968            | 0.973 | 0.982 | 99 | 51 | 0.584            | 0.602 | 0.634 |
| 98 | 93 | 0.975            | 0.980 | 0.987 | 99 | 52 | 0.594            | 0.611 | 0.644 |
| 98 | 94 | 0.982            | 0.986 | 0.991 | 99 | 53 | 0.604            | 0.621 | 0.654 |
| 98 | 95 | 0.989            | 0.992 | 0.995 | 99 | 54 | 0.613            | 0.631 | 0.663 |
| 98 | 96 | 0.994            | 0.996 | 0.998 | 99 | 55 | 0.623            | 0.641 | 0.673 |
| 98 | 97 | 0.999            | 0.999 | 1.000 | 99 | 56 | 0.633            | 0.650 | 0.682 |
| 98 | 98 | 1.000            | 1.000 | 1.000 | 99 | 57 | 0.643            | 0.660 | 0.691 |
| 99 | 0  | 0.023            | 0.030 | 0.045 | 99 | 58 | 0.653            | 0.670 | 0.701 |
| 99 | 1  | 0.039            | 0.047 | 0.065 | 99 | 59 | 0.662            | 0.679 | 0.710 |
| 99 | 2  | 0.053            | 0.062 | 0.082 | 99 | 60 | 0.672            | 0.689 | 0.719 |
| 99 | 3  | 0.066            | 0.076 | 0.098 | 99 | 61 | 0.682            | 0.698 | 0.728 |
| 99 | 4  | 0.079            | 0.090 | 0.113 | 99 | 62 | 0.691            | 0.708 | 0.737 |
| 99 | 5  | 0.092            | 0.103 | 0.127 | 99 | 63 | 0.701            | 0.717 | 0.746 |
| 99 | 6  | 0.104            | 0.116 | 0.141 | 99 | 64 | 0.710            | 0.726 | 0.755 |
| 99 | 7  | 0.116            | 0.129 | 0.154 | 99 | 65 | 0.720            | 0.736 | 0.764 |
| 99 | 8  | 0.128            | 0.141 | 0.168 | 99 | 66 | 0.729            | 0.745 | 0.773 |
| 99 | 9  | 0.140            | 0.153 | 0.181 | 99 | 67 | 0.739            | 0.754 | 0.782 |
| 99 | 10 | 0.151            | 0.165 | 0.193 | 99 | 68 | 0.748            | 0.764 | 0.791 |
| 99 | 11 | 0.163            | 0.177 | 0.206 | 99 | 69 | 0.758            | 0.773 | 0.800 |
| 99 | 12 | 0.174            | 0.189 | 0.218 | 99 | 70 | 0.767            | 0.782 | 0.808 |
| 99 | 13 | 0.186            | 0.201 | 0.230 | 99 | 71 | 0.776            | 0.791 | 0.817 |
| 99 | 14 | 0.197            | 0.212 | 0.242 | 99 | 72 | 0.786            | 0.800 | 0.825 |
| 99 | 15 | 0.208            | 0.224 | 0.254 | 99 | 73 | 0.795            | 0.809 | 0.834 |
| 99 | 16 | 0.219            | 0.235 | 0.266 | 99 | 74 | 0.804            | 0.818 | 0.842 |
| 99 | 17 | 0.230            | 0.246 | 0.278 | 99 | 75 | 0.813            | 0.827 | 0.851 |
| 99 | 18 | 0.241            | 0.258 | 0.289 | 99 | 76 | 0.823            | 0.836 | 0.859 |
| 99 | 19 | 0.252            | 0.269 | 0.301 | 99 | 77 | 0.832            | 0.845 | 0.867 |
| 99 | 20 | 0.263            | 0.280 | 0.312 | 99 | 78 | 0.841            | 0.853 | 0.875 |
| 99 | 21 | 0.274            | 0.291 | 0.323 | 99 | 79 | 0.850            | 0.862 | 0.883 |
| 99 | 22 | 0.285            | 0.302 | 0.335 | 99 | 80 | 0.859            | 0.871 | 0.891 |
| 99 | 23 | 0.296            | 0.313 | 0.346 |    |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K  | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |    | 90%        | 95%   |       |
| 99  | 81 | 0.868      | 0.879 | 0.899 | 100 | 39 | 0.459      | 0.477 | 0.511 |
| 99  | 82 | 0.876      | 0.888 | 0.907 |     |    |            |       |       |
| 99  | 83 | 0.885      | 0.896 | 0.914 | 100 | 40 | 0.469      | 0.487 | 0.521 |
| 99  | 84 | 0.894      | 0.904 | 0.922 | 100 | 41 | 0.479      | 0.497 | 0.531 |
|     |    |            |       |       | 100 | 42 | 0.489      | 0.507 | 0.541 |
| 99  | 85 | 0.903      | 0.912 | 0.929 | 100 | 43 | 0.499      | 0.517 | 0.551 |
| 99  | 86 | 0.911      | 0.921 | 0.936 | 100 | 44 | 0.509      | 0.527 | 0.561 |
| 99  | 87 | 0.920      | 0.929 | 0.944 |     |    |            |       |       |
| 99  | 88 | 0.928      | 0.936 | 0.951 | 100 | 45 | 0.519      | 0.537 | 0.571 |
| 99  | 89 | 0.936      | 0.944 | 0.957 | 100 | 46 | 0.529      | 0.547 | 0.581 |
|     |    |            |       |       | 100 | 47 | 0.539      | 0.557 | 0.590 |
| 99  | 90 | 0.944      | 0.952 | 0.964 | 100 | 48 | 0.549      | 0.567 | 0.600 |
| 99  | 91 | 0.952      | 0.959 | 0.970 | 100 | 49 | 0.559      | 0.577 | 0.610 |
| 99  | 92 | 0.960      | 0.966 | 0.976 |     |    |            |       |       |
| 99  | 93 | 0.968      | 0.973 | 0.982 | 100 | 50 | 0.569      | 0.586 | 0.619 |
| 99  | 94 | 0.975      | 0.980 | 0.987 | 100 | 51 | 0.576      | 0.596 | 0.629 |
|     |    |            |       |       | 100 | 52 | 0.588      | 0.606 | 0.638 |
| 99  | 95 | 0.982      | 0.986 | 0.991 | 100 | 53 | 0.598      | 0.616 | 0.648 |
| 99  | 96 | 0.989      | 0.992 | 0.995 | 100 | 54 | 0.608      | 0.625 | 0.657 |
| 99  | 97 | 0.995      | 0.996 | 0.998 |     |    |            |       |       |
| 99  | 98 | 0.999      | 0.999 | 1.000 | 100 | 55 | 0.618      | 0.635 | 0.667 |
| 99  | 99 | 1.000      | 1.000 | 1.000 | 100 | 56 | 0.627      | 0.644 | 0.676 |
|     |    |            |       |       | 100 | 57 | 0.637      | 0.654 | 0.685 |
| 100 | 0  | 0.023      | 0.029 | 0.045 | 100 | 58 | 0.647      | 0.664 | 0.695 |
| 100 | 1  | 0.038      | 0.046 | 0.064 | 100 | 59 | 0.656      | 0.673 | 0.704 |
| 100 | 2  | 0.052      | 0.062 | 0.081 |     |    |            |       |       |
| 100 | 3  | 0.065      | 0.076 | 0.097 | 100 | 60 | 0.666      | 0.683 | 0.713 |
| 100 | 4  | 0.078      | 0.089 | 0.112 | 100 | 61 | 0.675      | 0.692 | 0.722 |
|     |    |            |       |       | 100 | 62 | 0.685      | 0.701 | 0.731 |
| 100 | 5  | 0.091      | 0.102 | 0.126 | 100 | 63 | 0.694      | 0.711 | 0.740 |
| 100 | 6  | 0.103      | 0.115 | 0.140 | 100 | 64 | 0.704      | 0.720 | 0.749 |
| 100 | 7  | 0.115      | 0.128 | 0.153 |     |    |            |       |       |
| 100 | 8  | 0.127      | 0.140 | 0.166 | 100 | 65 | 0.713      | 0.729 | 0.758 |
| 100 | 9  | 0.138      | 0.152 | 0.179 | 100 | 66 | 0.723      | 0.739 | 0.767 |
|     |    |            |       |       | 100 | 67 | 0.732      | 0.748 | 0.776 |
| 100 | 10 | 0.150      | 0.164 | 0.191 | 100 | 68 | 0.742      | 0.757 | 0.784 |
| 100 | 11 | 0.161      | 0.176 | 0.204 | 100 | 69 | 0.751      | 0.766 | 0.793 |
| 100 | 12 | 0.173      | 0.187 | 0.216 |     |    |            |       |       |
| 100 | 13 | 0.184      | 0.199 | 0.228 | 100 | 70 | 0.760      | 0.775 | 0.802 |
| 100 | 14 | 0.195      | 0.210 | 0.240 | 100 | 71 | 0.770      | 0.784 | 0.810 |
|     |    |            |       |       | 100 | 72 | 0.779      | 0.793 | 0.819 |
| 100 | 15 | 0.206      | 0.222 | 0.252 | 100 | 73 | 0.788      | 0.802 | 0.827 |
| 100 | 16 | 0.217      | 0.233 | 0.264 | 100 | 74 | 0.797      | 0.811 | 0.836 |
| 100 | 17 | 0.228      | 0.244 | 0.275 |     |    |            |       |       |
| 100 | 18 | 0.239      | 0.255 | 0.287 | 100 | 75 | 0.806      | 0.820 | 0.844 |
| 100 | 19 | 0.250      | 0.266 | 0.298 | 100 | 76 | 0.815      | 0.829 | 0.852 |
|     |    |            |       |       | 100 | 77 | 0.824      | 0.837 | 0.860 |
| 100 | 20 | 0.261      | 0.277 | 0.309 | 100 | 78 | 0.833      | 0.846 | 0.869 |
| 100 | 21 | 0.272      | 0.288 | 0.320 | 100 | 79 | 0.842      | 0.855 | 0.877 |
| 100 | 22 | 0.282      | 0.299 | 0.332 |     |    |            |       |       |
| 100 | 23 | 0.293      | 0.310 | 0.343 | 100 | 80 | 0.851      | 0.863 | 0.884 |
| 100 | 24 | 0.304      | 0.321 | 0.354 | 100 | 81 | 0.860      | 0.872 | 0.892 |
|     |    |            |       |       | 100 | 82 | 0.869      | 0.880 | 0.900 |
| 100 | 25 | 0.314      | 0.331 | 0.365 | 100 | 83 | 0.878      | 0.889 | 0.908 |
| 100 | 26 | 0.325      | 0.342 | 0.375 | 100 | 84 | 0.886      | 0.897 | 0.915 |
| 100 | 27 | 0.335      | 0.353 | 0.386 |     |    |            |       |       |
| 100 | 28 | 0.346      | 0.363 | 0.397 | 100 | 85 | 0.895      | 0.905 | 0.923 |
| 100 | 29 | 0.356      | 0.374 | 0.408 | 100 | 86 | 0.904      | 0.913 | 0.930 |
|     |    |            |       |       | 100 | 87 | 0.912      | 0.921 | 0.937 |
| 100 | 30 | 0.366      | 0.384 | 0.418 | 100 | 88 | 0.920      | 0.929 | 0.944 |
| 100 | 31 | 0.377      | 0.395 | 0.429 | 100 | 89 | 0.929      | 0.937 | 0.951 |
| 100 | 32 | 0.387      | 0.405 | 0.439 |     |    |            |       |       |
| 100 | 33 | 0.398      | 0.416 | 0.450 | 100 | 90 | 0.937      | 0.945 | 0.958 |
| 100 | 34 | 0.408      | 0.426 | 0.460 | 100 | 91 | 0.945      | 0.952 | 0.964 |
|     |    |            |       |       | 100 | 92 | 0.953      | 0.960 | 0.970 |
| 100 | 35 | 0.418      | 0.436 | 0.470 | 100 | 93 | 0.961      | 0.967 | 0.976 |
| 100 | 36 | 0.428      | 0.446 | 0.481 | 100 | 94 | 0.968      | 0.974 | 0.982 |
| 100 | 37 | 0.438      | 0.457 | 0.491 |     |    |            |       |       |
| 100 | 38 | 0.449      | 0.467 | 0.501 | 100 | 95 | 0.976      | 0.980 | 0.987 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 100 | 96  | 0.982            | 0.986 | 0.992 | 105 | 52  | 0.562            | 0.580 | 0.612 |
| 100 | 97  | 0.989            | 0.992 | 0.996 | 105 | 53  | 0.572            | 0.589 | 0.621 |
| 100 | 98  | 0.995            | 0.996 | 0.999 | 105 | 54  | 0.581            | 0.598 | 0.630 |
| 100 | 99  | 0.999            | 0.999 | 1.000 | 105 | 55  | 0.590            | 0.607 | 0.639 |
| 100 | 100 | 1.000            | 1.000 | 1.000 | 105 | 56  | 0.600            | 0.617 | 0.648 |
| 105 | 0   | 0.022            | 0.028 | 0.043 | 105 | 57  | 0.609            | 0.626 | 0.657 |
| 105 | 1   | 0.037            | 0.044 | 0.062 | 105 | 58  | 0.618            | 0.635 | 0.666 |
| 105 | 2   | 0.050            | 0.059 | 0.078 | 105 | 59  | 0.627            | 0.644 | 0.675 |
| 105 | 3   | 0.063            | 0.072 | 0.093 | 105 | 60  | 0.637            | 0.653 | 0.684 |
| 105 | 4   | 0.075            | 0.085 | 0.107 | 105 | 61  | 0.646            | 0.662 | 0.693 |
| 105 | 5   | 0.087            | 0.098 | 0.120 | 105 | 62  | 0.655            | 0.671 | 0.702 |
| 105 | 6   | 0.098            | 0.110 | 0.133 | 105 | 63  | 0.664            | 0.680 | 0.710 |
| 105 | 7   | 0.110            | 0.122 | 0.146 | 105 | 64  | 0.673            | 0.689 | 0.719 |
| 105 | 8   | 0.121            | 0.133 | 0.158 | 105 | 65  | 0.682            | 0.698 | 0.728 |
| 105 | 9   | 0.132            | 0.145 | 0.171 | 105 | 66  | 0.691            | 0.707 | 0.736 |
| 105 | 10  | 0.143            | 0.156 | 0.183 | 105 | 67  | 0.701            | 0.716 | 0.745 |
| 105 | 11  | 0.154            | 0.167 | 0.195 | 105 | 68  | 0.710            | 0.725 | 0.753 |
| 105 | 12  | 0.165            | 0.179 | 0.206 | 105 | 69  | 0.719            | 0.734 | 0.762 |
| 105 | 13  | 0.175            | 0.190 | 0.218 | 105 | 70  | 0.728            | 0.743 | 0.770 |
| 105 | 14  | 0.186            | 0.201 | 0.229 | 105 | 71  | 0.736            | 0.752 | 0.779 |
| 105 | 15  | 0.197            | 0.211 | 0.240 | 105 | 72  | 0.745            | 0.760 | 0.787 |
| 105 | 16  | 0.207            | 0.222 | 0.252 | 105 | 73  | 0.754            | 0.769 | 0.795 |
| 105 | 17  | 0.218            | 0.233 | 0.263 | 105 | 74  | 0.763            | 0.778 | 0.804 |
| 105 | 18  | 0.228            | 0.244 | 0.274 | 105 | 75  | 0.772            | 0.786 | 0.812 |
| 105 | 19  | 0.238            | 0.254 | 0.285 | 105 | 76  | 0.781            | 0.795 | 0.820 |
| 105 | 20  | 0.249            | 0.265 | 0.295 | 105 | 77  | 0.790            | 0.803 | 0.828 |
| 105 | 21  | 0.259            | 0.275 | 0.306 | 105 | 78  | 0.798            | 0.812 | 0.836 |
| 105 | 22  | 0.269            | 0.285 | 0.317 | 105 | 79  | 0.807            | 0.820 | 0.844 |
| 105 | 23  | 0.279            | 0.296 | 0.327 | 105 | 80  | 0.816            | 0.829 | 0.852 |
| 105 | 24  | 0.290            | 0.306 | 0.338 | 105 | 81  | 0.824            | 0.837 | 0.860 |
| 105 | 25  | 0.300            | 0.316 | 0.348 | 105 | 82  | 0.833            | 0.845 | 0.867 |
| 105 | 26  | 0.310            | 0.327 | 0.359 | 105 | 83  | 0.842            | 0.854 | 0.875 |
| 105 | 27  | 0.320            | 0.337 | 0.369 | 105 | 84  | 0.850            | 0.862 | 0.883 |
| 105 | 28  | 0.330            | 0.347 | 0.379 | 105 | 85  | 0.858            | 0.870 | 0.890 |
| 105 | 29  | 0.340            | 0.357 | 0.390 | 105 | 86  | 0.867            | 0.878 | 0.898 |
| 105 | 30  | 0.350            | 0.367 | 0.400 | 105 | 87  | 0.875            | 0.886 | 0.905 |
| 105 | 31  | 0.360            | 0.377 | 0.410 | 105 | 88  | 0.884            | 0.894 | 0.912 |
| 105 | 32  | 0.370            | 0.387 | 0.420 | 105 | 89  | 0.892            | 0.902 | 0.919 |
| 105 | 33  | 0.379            | 0.397 | 0.430 | 105 | 90  | 0.900            | 0.910 | 0.926 |
| 105 | 34  | 0.389            | 0.407 | 0.440 | 105 | 91  | 0.908            | 0.918 | 0.933 |
| 105 | 35  | 0.399            | 0.417 | 0.450 | 105 | 92  | 0.916            | 0.925 | 0.940 |
| 105 | 36  | 0.409            | 0.426 | 0.460 | 105 | 93  | 0.924            | 0.933 | 0.947 |
| 105 | 37  | 0.419            | 0.436 | 0.470 | 105 | 94  | 0.932            | 0.940 | 0.953 |
| 105 | 38  | 0.428            | 0.446 | 0.479 | 105 | 95  | 0.940            | 0.947 | 0.960 |
| 105 | 39  | 0.438            | 0.456 | 0.489 | 105 | 96  | 0.948            | 0.955 | 0.966 |
| 105 | 40  | 0.448            | 0.465 | 0.499 | 105 | 97  | 0.955            | 0.962 | 0.972 |
| 105 | 41  | 0.457            | 0.475 | 0.508 | 105 | 98  | 0.963            | 0.968 | 0.977 |
| 105 | 42  | 0.467            | 0.485 | 0.518 | 105 | 99  | 0.970            | 0.975 | 0.983 |
| 105 | 43  | 0.477            | 0.494 | 0.528 | 105 | 100 | 0.977            | 0.981 | 0.988 |
| 105 | 44  | 0.486            | 0.504 | 0.537 | 105 | 101 | 0.983            | 0.987 | 0.992 |
| 105 | 45  | 0.496            | 0.514 | 0.547 | 105 | 102 | 0.989            | 0.992 | 0.996 |
| 105 | 46  | 0.505            | 0.523 | 0.556 | 105 | 103 | 0.995            | 0.997 | 0.999 |
| 105 | 47  | 0.515            | 0.533 | 0.565 | 105 | 104 | 0.999            | 1.000 | 1.000 |
| 105 | 48  | 0.524            | 0.542 | 0.575 | 105 | 105 | 1.000            | 1.000 | 1.000 |
| 105 | 49  | 0.534            | 0.551 | 0.584 | 110 | 0   | 0.021            | 0.027 | 0.041 |
| 105 | 50  | 0.543            | 0.561 | 0.593 | 110 | 1   | 0.035            | 0.042 | 0.059 |
| 105 | 51  | 0.553            | 0.570 | 0.603 | 110 | 2   | 0.048            | 0.056 | 0.074 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 110 | 3  | 0.060      | 0.069 | 0.088 | 110 | 60  | 0.610      | 0.626 | 0.657 |
| 110 | 4  | 0.071      | 0.081 | 0.102 | 110 | 61  | 0.619      | 0.635 | 0.666 |
| 110 | 5  | 0.083      | 0.093 | 0.115 | 110 | 62  | 0.627      | 0.644 | 0.674 |
| 110 | 6  | 0.094      | 0.105 | 0.127 | 110 | 63  | 0.636      | 0.653 | 0.683 |
| 110 | 7  | 0.105      | 0.116 | 0.140 | 110 | 64  | 0.645      | 0.661 | 0.691 |
| 110 | 8  | 0.115      | 0.127 | 0.152 | 110 | 65  | 0.654      | 0.670 | 0.699 |
| 110 | 9  | 0.126      | 0.138 | 0.163 | 110 | 66  | 0.663      | 0.679 | 0.708 |
| 110 | 10 | 0.137      | 0.149 | 0.175 | 110 | 67  | 0.671      | 0.687 | 0.716 |
| 110 | 11 | 0.147      | 0.160 | 0.186 | 110 | 68  | 0.680      | 0.696 | 0.724 |
| 110 | 12 | 0.157      | 0.171 | 0.197 | 110 | 69  | 0.689      | 0.704 | 0.733 |
| 110 | 13 | 0.168      | 0.181 | 0.208 | 110 | 70  | 0.697      | 0.713 | 0.741 |
| 110 | 14 | 0.178      | 0.192 | 0.219 | 110 | 71  | 0.706      | 0.721 | 0.749 |
| 110 | 15 | 0.188      | 0.202 | 0.230 | 110 | 72  | 0.715      | 0.730 | 0.757 |
| 110 | 16 | 0.198      | 0.213 | 0.241 | 110 | 73  | 0.723      | 0.738 | 0.765 |
| 110 | 17 | 0.208      | 0.223 | 0.252 | 110 | 74  | 0.732      | 0.747 | 0.773 |
| 110 | 18 | 0.218      | 0.233 | 0.262 | 110 | 75  | 0.740      | 0.755 | 0.781 |
| 110 | 19 | 0.228      | 0.243 | 0.273 | 110 | 76  | 0.749      | 0.763 | 0.789 |
| 110 | 20 | 0.238      | 0.253 | 0.283 | 110 | 77  | 0.757      | 0.772 | 0.797 |
| 110 | 21 | 0.248      | 0.263 | 0.293 | 110 | 78  | 0.766      | 0.780 | 0.805 |
| 110 | 22 | 0.257      | 0.273 | 0.303 | 110 | 79  | 0.774      | 0.788 | 0.813 |
| 110 | 23 | 0.267      | 0.283 | 0.314 | 110 | 80  | 0.783      | 0.796 | 0.821 |
| 110 | 24 | 0.277      | 0.293 | 0.324 | 110 | 81  | 0.791      | 0.805 | 0.828 |
| 110 | 25 | 0.287      | 0.303 | 0.334 | 110 | 82  | 0.799      | 0.813 | 0.836 |
| 110 | 26 | 0.296      | 0.313 | 0.344 | 110 | 83  | 0.808      | 0.821 | 0.844 |
| 110 | 27 | 0.306      | 0.322 | 0.354 | 110 | 84  | 0.816      | 0.829 | 0.851 |
| 110 | 28 | 0.315      | 0.332 | 0.364 | 110 | 85  | 0.824      | 0.837 | 0.859 |
| 110 | 29 | 0.325      | 0.342 | 0.373 | 110 | 86  | 0.833      | 0.845 | 0.866 |
| 110 | 30 | 0.335      | 0.351 | 0.383 | 110 | 87  | 0.841      | 0.853 | 0.874 |
| 110 | 31 | 0.344      | 0.361 | 0.393 | 110 | 88  | 0.849      | 0.861 | 0.881 |
| 110 | 32 | 0.354      | 0.370 | 0.403 | 110 | 89  | 0.857      | 0.868 | 0.888 |
| 110 | 33 | 0.363      | 0.380 | 0.412 | 110 | 90  | 0.865      | 0.876 | 0.895 |
| 110 | 34 | 0.372      | 0.389 | 0.422 | 110 | 91  | 0.873      | 0.884 | 0.902 |
| 110 | 35 | 0.382      | 0.399 | 0.431 | 110 | 92  | 0.881      | 0.891 | 0.909 |
| 110 | 36 | 0.391      | 0.408 | 0.441 | 110 | 93  | 0.889      | 0.899 | 0.916 |
| 110 | 37 | 0.401      | 0.418 | 0.450 | 110 | 94  | 0.897      | 0.907 | 0.923 |
| 110 | 38 | 0.410      | 0.427 | 0.460 | 110 | 95  | 0.905      | 0.914 | 0.930 |
| 110 | 39 | 0.419      | 0.436 | 0.469 | 110 | 96  | 0.912      | 0.921 | 0.937 |
| 110 | 40 | 0.428      | 0.446 | 0.478 | 110 | 97  | 0.920      | 0.929 | 0.943 |
| 110 | 41 | 0.438      | 0.455 | 0.488 | 110 | 98  | 0.928      | 0.936 | 0.949 |
| 110 | 42 | 0.447      | 0.464 | 0.497 | 110 | 99  | 0.935      | 0.943 | 0.956 |
| 110 | 43 | 0.456      | 0.474 | 0.506 | 110 | 100 | 0.943      | 0.950 | 0.962 |
| 110 | 44 | 0.465      | 0.483 | 0.515 | 110 | 101 | 0.950      | 0.957 | 0.967 |
| 110 | 45 | 0.475      | 0.492 | 0.524 | 110 | 102 | 0.957      | 0.963 | 0.973 |
| 110 | 46 | 0.484      | 0.501 | 0.533 | 110 | 103 | 0.964      | 0.970 | 0.978 |
| 110 | 47 | 0.493      | 0.510 | 0.543 | 110 | 104 | 0.971      | 0.976 | 0.984 |
| 110 | 48 | 0.502      | 0.519 | 0.552 | 110 | 105 | 0.978      | 0.982 | 0.988 |
| 110 | 49 | 0.511      | 0.528 | 0.561 | 110 | 106 | 0.984      | 0.987 | 0.992 |
| 110 | 50 | 0.520      | 0.537 | 0.569 | 110 | 107 | 0.990      | 0.993 | 0.996 |
| 110 | 51 | 0.529      | 0.546 | 0.578 | 110 | 108 | 0.995      | 0.997 | 0.999 |
| 110 | 52 | 0.538      | 0.555 | 0.587 | 110 | 109 | 0.999      | 1.000 | 1.000 |
| 110 | 53 | 0.547      | 0.564 | 0.596 | 110 | 110 | 1.000      | 1.000 | 1.000 |
| 110 | 54 | 0.556      | 0.573 | 0.605 | 115 | 0   | 0.020      | 0.026 | 0.039 |
| 110 | 55 | 0.565      | 0.582 | 0.614 | 115 | 1   | 0.033      | 0.041 | 0.056 |
| 110 | 56 | 0.574      | 0.591 | 0.622 | 115 | 2   | 0.046      | 0.054 | 0.071 |
| 110 | 57 | 0.583      | 0.600 | 0.631 | 115 | 3   | 0.057      | 0.066 | 0.085 |
| 110 | 58 | 0.592      | 0.609 | 0.640 | 115 | 4   | 0.068      | 0.078 | 0.098 |
| 110 | 59 | 0.601      | 0.618 | 0.648 |     |     |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |    | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 115 | 5  | 0.079      | 0.089 | 0.110 | 115 | 62  | 0.602      | 0.618 | 0.649 |
| 115 | 6  | 0.090      | 0.100 | 0.122 | 115 | 63  | 0.611      | 0.627 | 0.657 |
| 115 | 7  | 0.100      | 0.111 | 0.134 | 115 | 64  | 0.619      | 0.635 | 0.665 |
| 115 | 8  | 0.111      | 0.122 | 0.145 | 115 | 65  | 0.628      | 0.644 | 0.673 |
| 115 | 9  | 0.121      | 0.133 | 0.156 | 115 | 66  | 0.636      | 0.652 | 0.681 |
| 115 | 10 | 0.131      | 0.143 | 0.168 | 115 | 67  | 0.644      | 0.660 | 0.689 |
| 115 | 11 | 0.141      | 0.153 | 0.178 | 115 | 68  | 0.653      | 0.669 | 0.697 |
| 115 | 12 | 0.151      | 0.164 | 0.189 | 115 | 69  | 0.661      | 0.677 | 0.705 |
| 115 | 13 | 0.161      | 0.174 | 0.200 | 115 | 70  | 0.670      | 0.685 | 0.713 |
| 115 | 14 | 0.170      | 0.184 | 0.210 | 115 | 71  | 0.678      | 0.693 | 0.721 |
| 115 | 15 | 0.180      | 0.194 | 0.221 | 115 | 72  | 0.686      | 0.701 | 0.729 |
| 115 | 16 | 0.190      | 0.204 | 0.231 | 115 | 73  | 0.694      | 0.710 | 0.737 |
| 115 | 17 | 0.199      | 0.213 | 0.241 | 115 | 74  | 0.703      | 0.718 | 0.745 |
| 115 | 18 | 0.209      | 0.223 | 0.251 | 115 | 75  | 0.711      | 0.726 | 0.753 |
| 115 | 19 | 0.218      | 0.233 | 0.261 | 115 | 76  | 0.719      | 0.734 | 0.761 |
| 115 | 20 | 0.228      | 0.243 | 0.271 | 115 | 77  | 0.728      | 0.742 | 0.768 |
| 115 | 21 | 0.237      | 0.252 | 0.281 | 115 | 78  | 0.736      | 0.750 | 0.776 |
| 115 | 22 | 0.247      | 0.262 | 0.291 | 115 | 79  | 0.744      | 0.758 | 0.784 |
| 115 | 23 | 0.256      | 0.271 | 0.301 | 115 | 80  | 0.752      | 0.766 | 0.791 |
| 115 | 24 | 0.265      | 0.281 | 0.311 | 115 | 81  | 0.760      | 0.774 | 0.799 |
| 115 | 25 | 0.275      | 0.290 | 0.320 | 115 | 82  | 0.768      | 0.782 | 0.807 |
| 115 | 26 | 0.284      | 0.300 | 0.330 | 115 | 83  | 0.776      | 0.790 | 0.814 |
| 115 | 27 | 0.293      | 0.309 | 0.339 | 115 | 84  | 0.784      | 0.798 | 0.822 |
| 115 | 28 | 0.302      | 0.318 | 0.349 | 115 | 85  | 0.792      | 0.806 | 0.829 |
| 115 | 29 | 0.311      | 0.328 | 0.358 | 115 | 86  | 0.800      | 0.813 | 0.836 |
| 115 | 30 | 0.321      | 0.337 | 0.368 | 115 | 87  | 0.808      | 0.821 | 0.844 |
| 115 | 31 | 0.330      | 0.346 | 0.377 | 115 | 88  | 0.816      | 0.829 | 0.851 |
| 115 | 32 | 0.339      | 0.355 | 0.386 | 115 | 89  | 0.824      | 0.836 | 0.858 |
| 115 | 33 | 0.348      | 0.364 | 0.396 | 115 | 90  | 0.832      | 0.844 | 0.865 |
| 115 | 34 | 0.357      | 0.373 | 0.405 | 115 | 91  | 0.840      | 0.852 | 0.872 |
| 115 | 35 | 0.366      | 0.383 | 0.414 | 115 | 92  | 0.848      | 0.859 | 0.879 |
| 115 | 36 | 0.375      | 0.392 | 0.423 | 115 | 93  | 0.856      | 0.867 | 0.886 |
| 115 | 37 | 0.384      | 0.401 | 0.432 | 115 | 94  | 0.863      | 0.874 | 0.893 |
| 115 | 38 | 0.393      | 0.410 | 0.441 | 115 | 95  | 0.871      | 0.882 | 0.900 |
| 115 | 39 | 0.402      | 0.419 | 0.450 | 115 | 96  | 0.879      | 0.889 | 0.907 |
| 115 | 40 | 0.411      | 0.428 | 0.459 | 115 | 97  | 0.886      | 0.896 | 0.914 |
| 115 | 41 | 0.420      | 0.437 | 0.468 | 115 | 98  | 0.894      | 0.904 | 0.920 |
| 115 | 42 | 0.429      | 0.445 | 0.477 | 115 | 99  | 0.901      | 0.911 | 0.927 |
| 115 | 43 | 0.437      | 0.454 | 0.486 | 115 | 100 | 0.909      | 0.918 | 0.933 |
| 115 | 44 | 0.446      | 0.463 | 0.495 | 115 | 101 | 0.916      | 0.925 | 0.939 |
| 115 | 45 | 0.455      | 0.472 | 0.504 | 115 | 102 | 0.924      | 0.932 | 0.946 |
| 115 | 46 | 0.464      | 0.481 | 0.513 | 115 | 103 | 0.931      | 0.939 | 0.952 |
| 115 | 47 | 0.473      | 0.490 | 0.521 | 115 | 104 | 0.938      | 0.945 | 0.958 |
| 115 | 48 | 0.481      | 0.498 | 0.530 | 115 | 105 | 0.945      | 0.952 | 0.963 |
| 115 | 49 | 0.490      | 0.507 | 0.539 | 115 | 106 | 0.952      | 0.959 | 0.969 |
| 115 | 50 | 0.499      | 0.516 | 0.547 | 115 | 107 | 0.959      | 0.965 | 0.974 |
| 115 | 51 | 0.508      | 0.524 | 0.556 | 115 | 108 | 0.966      | 0.971 | 0.979 |
| 115 | 52 | 0.516      | 0.533 | 0.565 | 115 | 109 | 0.972      | 0.977 | 0.984 |
| 115 | 53 | 0.525      | 0.542 | 0.573 | 115 | 110 | 0.979      | 0.983 | 0.989 |
| 115 | 54 | 0.534      | 0.550 | 0.582 | 115 | 111 | 0.985      | 0.988 | 0.993 |
| 115 | 55 | 0.542      | 0.559 | 0.590 | 115 | 112 | 0.990      | 0.993 | 0.996 |
| 115 | 56 | 0.551      | 0.568 | 0.599 | 115 | 113 | 0.995      | 0.997 | 0.999 |
| 115 | 57 | 0.559      | 0.576 | 0.607 | 115 | 114 | 0.999      | 1.000 | 1.000 |
| 115 | 58 | 0.568      | 0.585 | 0.615 | 115 | 115 | 1.000      | 1.000 | 1.000 |
| 115 | 59 | 0.577      | 0.593 | 0.624 | 120 | 0   | 0.019      | 0.025 | 0.038 |
| 115 | 60 | 0.585      | 0.602 | 0.632 | 120 | 1   | 0.032      | 0.039 | 0.054 |
| 115 | 61 | 0.594      | 0.610 | 0.640 |     |     |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 120 | 2  | 0.044            | 0.052 | 0.068 | 120 | 59  | 0.554            | 0.570 | 0.601 |
| 120 | 3  | 0.055            | 0.063 | 0.081 | 120 | 60  | 0.562            | 0.579 | 0.609 |
| 120 | 4  | 0.066            | 0.075 | 0.094 | 120 | 61  | 0.571            | 0.587 | 0.617 |
| 120 | 5  | 0.076            | 0.086 | 0.106 | 120 | 62  | 0.579            | 0.595 | 0.625 |
| 120 | 6  | 0.086            | 0.096 | 0.117 | 120 | 63  | 0.587            | 0.603 | 0.633 |
| 120 | 7  | 0.096            | 0.107 | 0.128 | 120 | 64  | 0.595            | 0.611 | 0.641 |
| 120 | 8  | 0.106            | 0.117 | 0.139 | 120 | 65  | 0.603            | 0.619 | 0.649 |
| 120 | 9  | 0.116            | 0.127 | 0.150 | 120 | 66  | 0.611            | 0.627 | 0.657 |
| 120 | 10 | 0.125            | 0.137 | 0.161 | 120 | 67  | 0.619            | 0.635 | 0.664 |
| 120 | 11 | 0.135            | 0.147 | 0.171 | 120 | 68  | 0.628            | 0.643 | 0.672 |
| 120 | 12 | 0.145            | 0.157 | 0.182 | 120 | 69  | 0.636            | 0.651 | 0.680 |
| 120 | 13 | 0.154            | 0.167 | 0.192 | 120 | 70  | 0.644            | 0.659 | 0.688 |
| 120 | 14 | 0.163            | 0.176 | 0.202 | 120 | 71  | 0.652            | 0.667 | 0.696 |
| 120 | 15 | 0.173            | 0.186 | 0.212 | 120 | 72  | 0.660            | 0.675 | 0.703 |
| 120 | 16 | 0.182            | 0.195 | 0.222 | 120 | 73  | 0.668            | 0.683 | 0.711 |
| 120 | 17 | 0.191            | 0.205 | 0.232 | 120 | 74  | 0.676            | 0.691 | 0.719 |
| 120 | 18 | 0.200            | 0.214 | 0.241 | 120 | 75  | 0.684            | 0.699 | 0.726 |
| 120 | 19 | 0.210            | 0.224 | 0.251 | 120 | 76  | 0.692            | 0.707 | 0.734 |
| 120 | 20 | 0.219            | 0.233 | 0.261 | 120 | 77  | 0.700            | 0.715 | 0.741 |
| 120 | 21 | 0.228            | 0.242 | 0.270 | 120 | 78  | 0.708            | 0.722 | 0.749 |
| 120 | 22 | 0.237            | 0.251 | 0.280 | 120 | 79  | 0.716            | 0.730 | 0.756 |
| 120 | 23 | 0.246            | 0.260 | 0.289 | 120 | 80  | 0.724            | 0.738 | 0.764 |
| 120 | 24 | 0.255            | 0.270 | 0.298 | 120 | 81  | 0.731            | 0.746 | 0.771 |
| 120 | 25 | 0.264            | 0.279 | 0.308 | 120 | 82  | 0.739            | 0.753 | 0.779 |
| 120 | 26 | 0.272            | 0.288 | 0.317 | 120 | 83  | 0.747            | 0.761 | 0.786 |
| 120 | 27 | 0.281            | 0.297 | 0.326 | 120 | 84  | 0.755            | 0.769 | 0.793 |
| 120 | 28 | 0.290            | 0.306 | 0.335 | 120 | 85  | 0.763            | 0.776 | 0.801 |
| 120 | 29 | 0.299            | 0.315 | 0.344 | 120 | 86  | 0.770            | 0.784 | 0.808 |
| 120 | 30 | 0.308            | 0.323 | 0.354 | 120 | 87  | 0.778            | 0.791 | 0.815 |
| 120 | 31 | 0.317            | 0.332 | 0.363 | 120 | 88  | 0.786            | 0.799 | 0.822 |
| 120 | 32 | 0.325            | 0.341 | 0.372 | 120 | 89  | 0.794            | 0.806 | 0.829 |
| 120 | 33 | 0.334            | 0.350 | 0.380 | 120 | 90  | 0.801            | 0.814 | 0.836 |
| 120 | 34 | 0.343            | 0.359 | 0.389 | 120 | 91  | 0.809            | 0.821 | 0.843 |
| 120 | 35 | 0.351            | 0.368 | 0.398 | 120 | 92  | 0.817            | 0.829 | 0.850 |
| 120 | 36 | 0.360            | 0.376 | 0.407 | 120 | 93  | 0.824            | 0.836 | 0.857 |
| 120 | 37 | 0.369            | 0.385 | 0.416 | 120 | 94  | 0.832            | 0.844 | 0.864 |
| 120 | 38 | 0.377            | 0.394 | 0.425 | 120 | 95  | 0.839            | 0.851 | 0.871 |
| 120 | 39 | 0.386            | 0.402 | 0.433 | 120 | 96  | 0.847            | 0.858 | 0.878 |
| 120 | 40 | 0.394            | 0.411 | 0.442 | 120 | 97  | 0.854            | 0.865 | 0.885 |
| 120 | 41 | 0.403            | 0.419 | 0.451 | 120 | 98  | 0.862            | 0.873 | 0.891 |
| 120 | 42 | 0.412            | 0.428 | 0.459 | 120 | 99  | 0.869            | 0.880 | 0.898 |
| 120 | 43 | 0.420            | 0.437 | 0.468 | 120 | 100 | 0.877            | 0.887 | 0.904 |
| 120 | 44 | 0.429            | 0.445 | 0.476 | 120 | 101 | 0.884            | 0.894 | 0.911 |
| 120 | 45 | 0.437            | 0.454 | 0.485 | 120 | 102 | 0.891            | 0.901 | 0.917 |
| 120 | 46 | 0.446            | 0.462 | 0.493 | 120 | 103 | 0.898            | 0.908 | 0.924 |
| 120 | 47 | 0.454            | 0.471 | 0.502 | 120 | 104 | 0.906            | 0.915 | 0.930 |
| 120 | 48 | 0.462            | 0.479 | 0.510 | 120 | 105 | 0.913            | 0.921 | 0.936 |
| 120 | 49 | 0.471            | 0.487 | 0.519 | 120 | 106 | 0.920            | 0.928 | 0.942 |
| 120 | 50 | 0.479            | 0.496 | 0.527 | 120 | 107 | 0.927            | 0.935 | 0.948 |
| 120 | 51 | 0.488            | 0.504 | 0.535 | 120 | 108 | 0.934            | 0.941 | 0.954 |
| 120 | 52 | 0.496            | 0.513 | 0.543 | 120 | 109 | 0.941            | 0.948 | 0.959 |
| 120 | 53 | 0.504            | 0.521 | 0.552 | 120 | 110 | 0.948            | 0.954 | 0.965 |
| 120 | 54 | 0.513            | 0.529 | 0.560 | 120 | 111 | 0.954            | 0.960 | 0.970 |
| 120 | 55 | 0.521            | 0.537 | 0.568 | 120 | 112 | 0.961            | 0.966 | 0.975 |
| 120 | 56 | 0.529            | 0.546 | 0.576 | 120 | 113 | 0.967            | 0.972 | 0.980 |
| 120 | 57 | 0.538            | 0.554 | 0.585 | 120 | 114 | 0.974            | 0.978 | 0.985 |
| 120 | 58 | 0.546            | 0.562 | 0.593 |     |     |                  |       |       |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 120 | 115 | 0.980            | 0.983 | 0.989 | 125 | 52  | 0.477            | 0.493 | 0.524 |
| 120 | 116 | 0.985            | 0.989 | 0.993 | 125 | 53  | 0.485            | 0.501 | 0.532 |
| 120 | 117 | 0.991            | 0.993 | 0.996 | 125 | 54  | 0.493            | 0.510 | 0.540 |
| 120 | 118 | 0.996            | 0.997 | 0.999 | 125 | 55  | 0.501            | 0.518 | 0.548 |
| 120 | 119 | 0.999            | 1.000 | 1.000 | 125 | 56  | 0.509            | 0.525 | 0.556 |
| 120 | 120 | 1.000            | 1.000 | 1.000 | 125 | 57  | 0.517            | 0.533 | 0.564 |
| 125 | 0   | 0.018            | 0.024 | 0.036 | 125 | 58  | 0.525            | 0.541 | 0.572 |
| 125 | 1   | 0.031            | 0.037 | 0.052 | 125 | 59  | 0.533            | 0.549 | 0.579 |
| 125 | 2   | 0.042            | 0.050 | 0.066 | 125 | 60  | 0.541            | 0.557 | 0.587 |
| 125 | 3   | 0.053            | 0.061 | 0.078 | 125 | 61  | 0.549            | 0.565 | 0.595 |
| 125 | 4   | 0.063            | 0.072 | 0.090 | 125 | 62  | 0.557            | 0.573 | 0.603 |
| 125 | 5   | 0.073            | 0.082 | 0.102 | 125 | 63  | 0.565            | 0.581 | 0.610 |
| 125 | 6   | 0.083            | 0.093 | 0.113 | 125 | 64  | 0.573            | 0.589 | 0.618 |
| 125 | 7   | 0.092            | 0.103 | 0.123 | 125 | 65  | 0.581            | 0.597 | 0.626 |
| 125 | 8   | 0.102            | 0.113 | 0.134 | 125 | 66  | 0.589            | 0.604 | 0.634 |
| 125 | 9   | 0.111            | 0.122 | 0.144 | 125 | 67  | 0.596            | 0.612 | 0.641 |
| 125 | 10  | 0.121            | 0.132 | 0.155 | 125 | 68  | 0.604            | 0.620 | 0.649 |
| 125 | 11  | 0.130            | 0.141 | 0.165 | 125 | 69  | 0.612            | 0.628 | 0.656 |
| 125 | 12  | 0.139            | 0.151 | 0.175 | 125 | 70  | 0.620            | 0.635 | 0.664 |
| 125 | 13  | 0.148            | 0.160 | 0.185 | 125 | 71  | 0.628            | 0.643 | 0.671 |
| 125 | 14  | 0.157            | 0.170 | 0.194 | 125 | 72  | 0.635            | 0.651 | 0.679 |
| 125 | 15  | 0.166            | 0.179 | 0.204 | 125 | 73  | 0.643            | 0.658 | 0.686 |
| 125 | 16  | 0.175            | 0.188 | 0.213 | 125 | 74  | 0.651            | 0.666 | 0.694 |
| 125 | 17  | 0.184            | 0.197 | 0.223 | 125 | 75  | 0.659            | 0.674 | 0.701 |
| 125 | 18  | 0.193            | 0.206 | 0.232 | 125 | 76  | 0.666            | 0.681 | 0.709 |
| 125 | 19  | 0.201            | 0.215 | 0.242 | 125 | 77  | 0.674            | 0.689 | 0.716 |
| 125 | 20  | 0.210            | 0.224 | 0.251 | 125 | 78  | 0.682            | 0.696 | 0.723 |
| 125 | 21  | 0.219            | 0.233 | 0.260 | 125 | 79  | 0.689            | 0.704 | 0.731 |
| 125 | 22  | 0.228            | 0.242 | 0.269 | 125 | 80  | 0.697            | 0.712 | 0.738 |
| 125 | 23  | 0.236            | 0.250 | 0.278 | 125 | 81  | 0.705            | 0.719 | 0.745 |
| 125 | 24  | 0.245            | 0.259 | 0.287 | 125 | 82  | 0.712            | 0.727 | 0.752 |
| 125 | 25  | 0.253            | 0.268 | 0.296 | 125 | 83  | 0.720            | 0.734 | 0.760 |
| 125 | 26  | 0.262            | 0.277 | 0.305 | 125 | 84  | 0.727            | 0.741 | 0.767 |
| 125 | 27  | 0.270            | 0.285 | 0.314 | 125 | 85  | 0.735            | 0.749 | 0.774 |
| 125 | 28  | 0.279            | 0.294 | 0.323 | 125 | 86  | 0.742            | 0.756 | 0.781 |
| 125 | 29  | 0.287            | 0.303 | 0.332 | 125 | 87  | 0.750            | 0.764 | 0.788 |
| 125 | 30  | 0.296            | 0.311 | 0.340 | 125 | 88  | 0.758            | 0.771 | 0.795 |
| 125 | 31  | 0.304            | 0.320 | 0.349 | 125 | 89  | 0.765            | 0.778 | 0.802 |
| 125 | 32  | 0.313            | 0.328 | 0.358 | 125 | 90  | 0.772            | 0.786 | 0.809 |
| 125 | 33  | 0.321            | 0.337 | 0.366 | 125 | 91  | 0.780            | 0.793 | 0.816 |
| 125 | 34  | 0.330            | 0.345 | 0.375 | 125 | 92  | 0.787            | 0.800 | 0.823 |
| 125 | 35  | 0.338            | 0.354 | 0.383 | 125 | 93  | 0.795            | 0.807 | 0.830 |
| 125 | 36  | 0.346            | 0.362 | 0.392 | 125 | 94  | 0.802            | 0.814 | 0.837 |
| 125 | 37  | 0.355            | 0.370 | 0.400 | 125 | 95  | 0.809            | 0.822 | 0.843 |
| 125 | 38  | 0.363            | 0.379 | 0.409 | 125 | 96  | 0.817            | 0.829 | 0.850 |
| 125 | 39  | 0.371            | 0.387 | 0.417 | 125 | 97  | 0.824            | 0.836 | 0.857 |
| 125 | 40  | 0.379            | 0.395 | 0.426 | 125 | 98  | 0.831            | 0.843 | 0.863 |
| 125 | 41  | 0.388            | 0.404 | 0.434 | 125 | 99  | 0.839            | 0.850 | 0.870 |
| 125 | 42  | 0.396            | 0.412 | 0.442 | 125 | 100 | 0.846            | 0.857 | 0.876 |
| 125 | 43  | 0.404            | 0.420 | 0.451 | 125 | 101 | 0.853            | 0.864 | 0.883 |
| 125 | 44  | 0.412            | 0.428 | 0.459 | 125 | 102 | 0.860            | 0.871 | 0.889 |
| 125 | 45  | 0.420            | 0.437 | 0.467 | 125 | 103 | 0.867            | 0.878 | 0.896 |
| 125 | 46  | 0.429            | 0.445 | 0.475 | 125 | 104 | 0.875            | 0.885 | 0.902 |
| 125 | 47  | 0.437            | 0.453 | 0.483 | 125 | 105 | 0.882            | 0.891 | 0.908 |
| 125 | 48  | 0.445            | 0.461 | 0.492 | 125 | 106 | 0.889            | 0.898 | 0.915 |
| 125 | 49  | 0.453            | 0.469 | 0.500 | 125 | 107 | 0.896            | 0.905 | 0.921 |
| 125 | 50  | 0.461            | 0.477 | 0.508 | 125 | 108 | 0.903            | 0.911 | 0.927 |
| 125 | 51  | 0.469            | 0.485 | 0.516 | 125 | 109 | 0.909            | 0.918 | 0.933 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K  | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |    | 90%        | 95%   |       |
| 125 | 110 | 0.916      | 0.925 | 0.939 | 130 | 42 | 0.361      | 0.397 | 0.427 |
| 125 | 111 | 0.923      | 0.931 | 0.944 | 130 | 43 | 0.389      | 0.405 | 0.435 |
| 125 | 112 | 0.930      | 0.937 | 0.950 | 130 | 44 | 0.397      | 0.413 | 0.443 |
| 125 | 113 | 0.937      | 0.944 | 0.956 |     |    |            |       |       |
| 125 | 114 | 0.943      | 0.950 | 0.961 | 130 | 45 | 0.405      | 0.421 | 0.451 |
|     |     |            |       |       | 130 | 46 | 0.413      | 0.429 | 0.459 |
| 125 | 115 | 0.950      | 0.956 | 0.966 | 130 | 47 | 0.421      | 0.437 | 0.466 |
| 125 | 116 | 0.956      | 0.962 | 0.971 | 130 | 48 | 0.429      | 0.444 | 0.474 |
| 125 | 117 | 0.962      | 0.968 | 0.976 | 130 | 49 | 0.436      | 0.452 | 0.482 |
| 125 | 118 | 0.969      | 0.973 | 0.981 |     |    |            |       |       |
| 125 | 119 | 0.975      | 0.979 | 0.986 | 130 | 50 | 0.444      | 0.460 | 0.490 |
|     |     |            |       |       | 130 | 51 | 0.452      | 0.468 | 0.498 |
| 125 | 120 | 0.980      | 0.984 | 0.990 | 130 | 52 | 0.460      | 0.476 | 0.506 |
| 125 | 121 | 0.986      | 0.989 | 0.993 | 130 | 53 | 0.468      | 0.483 | 0.513 |
| 125 | 122 | 0.991      | 0.993 | 0.996 | 130 | 54 | 0.475      | 0.491 | 0.521 |
| 125 | 123 | 0.996      | 0.997 | 0.999 |     |    |            |       |       |
| 125 | 124 | 0.999      | 1.000 | 1.000 | 130 | 55 | 0.483      | 0.499 | 0.529 |
|     |     |            |       |       | 130 | 56 | 0.491      | 0.507 | 0.536 |
| 125 | 125 | 1.000      | 1.000 | 1.000 | 130 | 57 | 0.498      | 0.514 | 0.544 |
|     |     |            |       |       | 130 | 58 | 0.506      | 0.522 | 0.552 |
|     |     |            |       |       | 130 | 59 | 0.514      | 0.530 | 0.559 |
| 130 | 0   | 0.018      | 0.023 | 0.035 |     |    |            |       |       |
| 130 | 1   | 0.030      | 0.036 | 0.050 | 130 | 60 | 0.522      | 0.537 | 0.567 |
| 130 | 2   | 0.040      | 0.048 | 0.063 | 130 | 61 | 0.529      | 0.545 | 0.575 |
| 130 | 3   | 0.051      | 0.059 | 0.075 | 130 | 62 | 0.537      | 0.553 | 0.582 |
| 130 | 4   | 0.061      | 0.069 | 0.087 | 130 | 63 | 0.544      | 0.560 | 0.590 |
|     |     |            |       |       | 130 | 64 | 0.552      | 0.568 | 0.597 |
| 130 | 5   | 0.070      | 0.079 | 0.098 |     |    |            |       |       |
| 130 | 6   | 0.080      | 0.089 | 0.108 | 130 | 65 | 0.560      | 0.575 | 0.604 |
| 130 | 7   | 0.089      | 0.099 | 0.119 | 130 | 66 | 0.567      | 0.583 | 0.612 |
| 130 | 8   | 0.098      | 0.108 | 0.129 | 130 | 67 | 0.575      | 0.590 | 0.619 |
| 130 | 9   | 0.107      | 0.118 | 0.139 | 130 | 68 | 0.582      | 0.598 | 0.627 |
|     |     |            |       |       | 130 | 69 | 0.590      | 0.606 | 0.634 |
| 130 | 10  | 0.116      | 0.127 | 0.149 |     |    |            |       |       |
| 130 | 11  | 0.125      | 0.136 | 0.159 | 130 | 70 | 0.598      | 0.613 | 0.641 |
| 130 | 12  | 0.134      | 0.145 | 0.168 | 130 | 71 | 0.605      | 0.620 | 0.649 |
| 130 | 13  | 0.142      | 0.154 | 0.178 | 130 | 72 | 0.613      | 0.628 | 0.656 |
| 130 | 14  | 0.151      | 0.163 | 0.187 | 130 | 73 | 0.620      | 0.635 | 0.663 |
|     |     |            |       |       | 130 | 74 | 0.628      | 0.643 | 0.671 |
| 130 | 15  | 0.160      | 0.172 | 0.196 |     |    |            |       |       |
| 130 | 16  | 0.168      | 0.181 | 0.206 | 130 | 75 | 0.635      | 0.650 | 0.678 |
| 130 | 17  | 0.177      | 0.190 | 0.215 | 130 | 76 | 0.643      | 0.658 | 0.685 |
| 130 | 18  | 0.185      | 0.198 | 0.224 | 130 | 77 | 0.650      | 0.665 | 0.692 |
| 130 | 19  | 0.194      | 0.207 | 0.233 | 130 | 78 | 0.657      | 0.672 | 0.699 |
|     |     |            |       |       | 130 | 79 | 0.665      | 0.680 | 0.706 |
| 130 | 20  | 0.202      | 0.216 | 0.242 |     |    |            |       |       |
| 130 | 21  | 0.211      | 0.224 | 0.251 | 130 | 80 | 0.672      | 0.687 | 0.714 |
| 130 | 22  | 0.219      | 0.233 | 0.259 | 130 | 81 | 0.680      | 0.694 | 0.721 |
| 130 | 23  | 0.227      | 0.241 | 0.268 | 130 | 82 | 0.687      | 0.701 | 0.728 |
| 130 | 24  | 0.236      | 0.250 | 0.277 | 130 | 83 | 0.694      | 0.709 | 0.735 |
|     |     |            |       |       | 130 | 84 | 0.702      | 0.716 | 0.742 |
| 130 | 25  | 0.244      | 0.258 | 0.286 |     |    |            |       |       |
| 130 | 26  | 0.252      | 0.267 | 0.294 | 130 | 85 | 0.709      | 0.723 | 0.749 |
| 130 | 27  | 0.260      | 0.275 | 0.303 | 130 | 86 | 0.716      | 0.730 | 0.756 |
| 130 | 28  | 0.269      | 0.283 | 0.311 | 130 | 87 | 0.724      | 0.737 | 0.763 |
| 130 | 29  | 0.277      | 0.291 | 0.320 | 130 | 88 | 0.731      | 0.745 | 0.769 |
|     |     |            |       |       | 130 | 89 | 0.738      | 0.752 | 0.776 |
| 130 | 30  | 0.285      | 0.300 | 0.328 |     |    |            |       |       |
| 130 | 31  | 0.293      | 0.308 | 0.337 | 130 | 90 | 0.745      | 0.759 | 0.783 |
| 130 | 32  | 0.301      | 0.316 | 0.345 | 130 | 91 | 0.753      | 0.766 | 0.790 |
| 130 | 33  | 0.309      | 0.324 | 0.353 | 130 | 92 | 0.760      | 0.773 | 0.797 |
| 130 | 34  | 0.317      | 0.333 | 0.362 | 130 | 93 | 0.767      | 0.780 | 0.803 |
|     |     |            |       |       | 130 | 94 | 0.774      | 0.787 | 0.810 |
| 130 | 35  | 0.325      | 0.341 | 0.370 |     |    |            |       |       |
| 130 | 36  | 0.333      | 0.349 | 0.378 | 130 | 95 | 0.781      | 0.794 | 0.817 |
| 130 | 37  | 0.341      | 0.357 | 0.386 | 130 | 96 | 0.789      | 0.801 | 0.823 |
| 130 | 38  | 0.349      | 0.365 | 0.394 | 130 | 97 | 0.796      | 0.808 | 0.830 |
| 130 | 39  | 0.357      | 0.373 | 0.403 | 130 | 98 | 0.803      | 0.815 | 0.837 |
|     |     |            |       |       | 130 | 99 | 0.810      | 0.822 | 0.843 |
| 130 | 40  | 0.365      | 0.381 | 0.411 |     |    |            |       |       |
| 130 | 41  | 0.373      | 0.389 | 0.419 |     |    |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 130 | 100 | 0.817            | 0.829 | 0.850 | 135 | 28 | 0.259            | 0.273 | 0.300 |
| 130 | 101 | 0.824            | 0.836 | 0.856 | 135 | 29 | 0.267            | 0.281 | 0.309 |
| 130 | 102 | 0.831            | 0.842 | 0.862 |     |    |                  |       |       |
| 130 | 103 | 0.838            | 0.849 | 0.869 | 135 | 30 | 0.275            | 0.289 | 0.317 |
| 130 | 104 | 0.845            | 0.856 | 0.875 | 135 | 31 | 0.283            | 0.297 | 0.325 |
|     |     |                  |       |       | 135 | 32 | 0.290            | 0.305 | 0.333 |
| 130 | 105 | 0.852            | 0.863 | 0.881 | 135 | 33 | 0.298            | 0.313 | 0.341 |
| 130 | 106 | 0.859            | 0.869 | 0.888 | 135 | 34 | 0.306            | 0.321 | 0.349 |
| 130 | 107 | 0.866            | 0.876 | 0.894 |     |    |                  |       |       |
| 130 | 108 | 0.873            | 0.883 | 0.900 | 135 | 35 | 0.314            | 0.329 | 0.357 |
| 130 | 109 | 0.879            | 0.889 | 0.906 | 135 | 36 | 0.322            | 0.336 | 0.365 |
|     |     |                  |       |       | 135 | 37 | 0.329            | 0.344 | 0.373 |
| 130 | 110 | 0.886            | 0.896 | 0.912 | 135 | 38 | 0.337            | 0.352 | 0.381 |
| 130 | 111 | 0.893            | 0.902 | 0.918 | 135 | 39 | 0.345            | 0.360 | 0.389 |
| 130 | 112 | 0.900            | 0.909 | 0.924 |     |    |                  |       |       |
| 130 | 113 | 0.903            | 0.915 | 0.930 | 135 | 40 | 0.352            | 0.368 | 0.397 |
| 130 | 114 | 0.913            | 0.921 | 0.935 | 135 | 41 | 0.360            | 0.375 | 0.404 |
|     |     |                  |       |       | 135 | 42 | 0.368            | 0.383 | 0.412 |
| 130 | 115 | 0.920            | 0.928 | 0.941 | 135 | 43 | 0.375            | 0.391 | 0.420 |
| 130 | 116 | 0.926            | 0.934 | 0.947 | 135 | 44 | 0.383            | 0.398 | 0.428 |
| 130 | 117 | 0.933            | 0.940 | 0.952 |     |    |                  |       |       |
| 130 | 118 | 0.939            | 0.946 | 0.957 | 135 | 45 | 0.391            | 0.406 | 0.435 |
| 130 | 119 | 0.945            | 0.952 | 0.963 | 135 | 46 | 0.398            | 0.414 | 0.443 |
|     |     |                  |       |       | 135 | 47 | 0.406            | 0.421 | 0.451 |
| 130 | 120 | 0.952            | 0.958 | 0.968 | 135 | 48 | 0.413            | 0.429 | 0.458 |
| 130 | 121 | 0.958            | 0.963 | 0.973 | 135 | 49 | 0.421            | 0.437 | 0.466 |
| 130 | 122 | 0.964            | 0.969 | 0.977 |     |    |                  |       |       |
| 130 | 123 | 0.970            | 0.974 | 0.982 | 135 | 50 | 0.429            | 0.444 | 0.473 |
| 130 | 124 | 0.976            | 0.980 | 0.986 | 135 | 51 | 0.436            | 0.452 | 0.481 |
|     |     |                  |       |       | 135 | 52 | 0.444            | 0.459 | 0.489 |
| 130 | 125 | 0.981            | 0.985 | 0.990 | 135 | 53 | 0.451            | 0.467 | 0.496 |
| 130 | 126 | 0.987            | 0.989 | 0.994 | 135 | 54 | 0.459            | 0.474 | 0.504 |
| 130 | 127 | 0.991            | 0.994 | 0.997 |     |    |                  |       |       |
| 130 | 128 | 0.996            | 0.997 | 0.999 | 135 | 55 | 0.466            | 0.482 | 0.511 |
| 130 | 129 | 0.999            | 1.000 | 1.000 | 135 | 56 | 0.474            | 0.489 | 0.518 |
|     |     |                  |       |       | 135 | 57 | 0.481            | 0.497 | 0.526 |
| 130 | 130 | 1.000            | 1.000 | 1.000 | 135 | 58 | 0.488            | 0.504 | 0.533 |
|     |     |                  |       |       | 135 | 59 | 0.496            | 0.511 | 0.541 |
| 135 | 0   | 0.017            | 0.022 | 0.034 |     |    |                  |       |       |
| 135 | 1   | 0.029            | 0.035 | 0.048 | 135 | 60 | 0.503            | 0.519 | 0.548 |
| 135 | 2   | 0.039            | 0.046 | 0.061 | 135 | 61 | 0.511            | 0.526 | 0.555 |
| 135 | 3   | 0.049            | 0.056 | 0.072 | 135 | 62 | 0.518            | 0.534 | 0.563 |
| 135 | 4   | 0.058            | 0.067 | 0.084 | 135 | 63 | 0.525            | 0.541 | 0.570 |
|     |     |                  |       |       | 135 | 64 | 0.533            | 0.548 | 0.577 |
| 135 | 5   | 0.068            | 0.076 | 0.094 |     |    |                  |       |       |
| 135 | 6   | 0.077            | 0.086 | 0.105 | 135 | 65 | 0.540            | 0.556 | 0.584 |
| 135 | 7   | 0.086            | 0.095 | 0.115 | 135 | 66 | 0.548            | 0.563 | 0.592 |
| 135 | 8   | 0.094            | 0.104 | 0.124 | 135 | 67 | 0.555            | 0.570 | 0.599 |
| 135 | 9   | 0.103            | 0.113 | 0.134 | 135 | 68 | 0.562            | 0.578 | 0.606 |
|     |     |                  |       |       | 135 | 69 | 0.570            | 0.585 | 0.613 |
| 135 | 10  | 0.112            | 0.122 | 0.144 |     |    |                  |       |       |
| 135 | 11  | 0.120            | 0.131 | 0.153 | 135 | 70 | 0.577            | 0.592 | 0.620 |
| 135 | 12  | 0.129            | 0.140 | 0.162 | 135 | 71 | 0.584            | 0.599 | 0.628 |
| 135 | 13  | 0.137            | 0.149 | 0.171 | 135 | 72 | 0.591            | 0.607 | 0.635 |
| 135 | 14  | 0.146            | 0.157 | 0.181 | 135 | 73 | 0.599            | 0.614 | 0.642 |
|     |     |                  |       |       | 135 | 74 | 0.606            | 0.621 | 0.649 |
| 135 | 15  | 0.154            | 0.166 | 0.190 |     |    |                  |       |       |
| 135 | 16  | 0.162            | 0.174 | 0.198 | 135 | 75 | 0.613            | 0.628 | 0.656 |
| 135 | 17  | 0.171            | 0.183 | 0.207 | 135 | 76 | 0.620            | 0.635 | 0.663 |
| 135 | 18  | 0.179            | 0.191 | 0.216 | 135 | 77 | 0.628            | 0.642 | 0.670 |
| 135 | 19  | 0.187            | 0.200 | 0.225 | 135 | 78 | 0.635            | 0.650 | 0.677 |
|     |     |                  |       |       | 135 | 79 | 0.642            | 0.657 | 0.684 |
| 135 | 20  | 0.195            | 0.208 | 0.233 |     |    |                  |       |       |
| 135 | 21  | 0.203            | 0.216 | 0.242 | 135 | 80 | 0.649            | 0.664 | 0.691 |
| 135 | 22  | 0.211            | 0.224 | 0.250 | 135 | 81 | 0.656            | 0.671 | 0.698 |
| 135 | 23  | 0.219            | 0.233 | 0.259 | 135 | 82 | 0.663            | 0.678 | 0.704 |
| 135 | 24  | 0.227            | 0.241 | 0.267 | 135 | 83 | 0.671            | 0.685 | 0.711 |
|     |     |                  |       |       | 135 | 84 | 0.678            | 0.692 | 0.718 |
| 135 | 25  | 0.235            | 0.249 | 0.276 |     |    |                  |       |       |
| 135 | 26  | 0.243            | 0.257 | 0.284 | 135 | 85 | 0.685            | 0.699 | 0.725 |
| 135 | 27  | 0.251            | 0.265 | 0.292 | 135 | 86 | 0.692            | 0.706 | 0.732 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 135 | 87  | 0.699            | 0.713 | 0.738 | 140 | 11 | 0.116            | 0.127 | 0.148 |
| 135 | 88  | 0.706            | 0.720 | 0.745 | 140 | 12 | 0.124            | 0.135 | 0.157 |
| 135 | 89  | 0.713            | 0.727 | 0.752 | 140 | 13 | 0.133            | 0.144 | 0.166 |
|     |     |                  |       |       | 140 | 14 | 0.141            | 0.152 | 0.174 |
| 135 | 90  | 0.720            | 0.734 | 0.759 | 140 | 15 | 0.149            | 0.160 | 0.183 |
| 135 | 91  | 0.727            | 0.741 | 0.765 | 140 | 16 | 0.157            | 0.168 | 0.192 |
| 135 | 92  | 0.734            | 0.748 | 0.772 | 140 | 17 | 0.165            | 0.177 | 0.200 |
| 135 | 93  | 0.741            | 0.754 | 0.778 | 140 | 18 | 0.173            | 0.185 | 0.209 |
| 135 | 94  | 0.748            | 0.761 | 0.785 | 140 | 19 | 0.180            | 0.193 | 0.217 |
| 135 | 95  | 0.755            | 0.768 | 0.792 | 140 | 20 | 0.188            | 0.201 | 0.225 |
| 135 | 96  | 0.762            | 0.775 | 0.798 | 140 | 21 | 0.196            | 0.209 | 0.234 |
| 135 | 97  | 0.769            | 0.782 | 0.805 | 140 | 22 | 0.204            | 0.217 | 0.242 |
| 135 | 98  | 0.776            | 0.789 | 0.811 | 140 | 23 | 0.212            | 0.225 | 0.250 |
| 135 | 99  | 0.783            | 0.795 | 0.817 | 140 | 24 | 0.219            | 0.233 | 0.256 |
| 135 | 100 | 0.790            | 0.802 | 0.824 | 140 | 25 | 0.227            | 0.240 | 0.266 |
| 135 | 101 | 0.797            | 0.809 | 0.830 | 140 | 26 | 0.235            | 0.248 | 0.274 |
| 135 | 102 | 0.804            | 0.815 | 0.837 | 140 | 27 | 0.242            | 0.256 | 0.282 |
| 135 | 103 | 0.810            | 0.822 | 0.843 | 140 | 28 | 0.250            | 0.264 | 0.290 |
| 135 | 104 | 0.817            | 0.829 | 0.849 | 140 | 29 | 0.258            | 0.272 | 0.298 |
| 135 | 105 | 0.824            | 0.835 | 0.855 | 140 | 30 | 0.265            | 0.279 | 0.306 |
| 135 | 106 | 0.831            | 0.842 | 0.862 | 140 | 31 | 0.273            | 0.287 | 0.314 |
| 135 | 107 | 0.837            | 0.848 | 0.868 | 140 | 32 | 0.280            | 0.295 | 0.322 |
| 135 | 108 | 0.844            | 0.855 | 0.874 | 140 | 33 | 0.288            | 0.302 | 0.330 |
| 135 | 109 | 0.851            | 0.861 | 0.880 | 140 | 34 | 0.295            | 0.310 | 0.337 |
| 135 | 110 | 0.858            | 0.868 | 0.886 | 140 | 35 | 0.303            | 0.317 | 0.345 |
| 135 | 111 | 0.864            | 0.874 | 0.892 | 140 | 36 | 0.311            | 0.325 | 0.353 |
| 135 | 112 | 0.871            | 0.881 | 0.898 | 140 | 37 | 0.318            | 0.333 | 0.361 |
| 135 | 113 | 0.877            | 0.887 | 0.904 | 140 | 38 | 0.325            | 0.340 | 0.368 |
| 135 | 114 | 0.884            | 0.893 | 0.910 | 140 | 39 | 0.333            | 0.348 | 0.376 |
| 135 | 115 | 0.891            | 0.900 | 0.915 | 140 | 40 | 0.340            | 0.355 | 0.383 |
| 135 | 116 | 0.897            | 0.906 | 0.921 | 140 | 41 | 0.348            | 0.363 | 0.391 |
| 135 | 117 | 0.903            | 0.912 | 0.927 | 140 | 42 | 0.355            | 0.370 | 0.398 |
| 135 | 118 | 0.910            | 0.918 | 0.932 | 140 | 43 | 0.363            | 0.378 | 0.406 |
| 135 | 119 | 0.916            | 0.924 | 0.938 | 140 | 44 | 0.370            | 0.385 | 0.414 |
| 135 | 120 | 0.923            | 0.930 | 0.943 | 140 | 45 | 0.377            | 0.392 | 0.421 |
| 135 | 121 | 0.929            | 0.936 | 0.949 | 140 | 46 | 0.385            | 0.400 | 0.428 |
| 135 | 122 | 0.935            | 0.942 | 0.954 | 140 | 47 | 0.392            | 0.407 | 0.436 |
| 135 | 123 | 0.941            | 0.948 | 0.959 | 140 | 48 | 0.399            | 0.414 | 0.443 |
| 135 | 124 | 0.947            | 0.954 | 0.964 | 140 | 49 | 0.407            | 0.422 | 0.451 |
| 135 | 125 | 0.953            | 0.959 | 0.969 | 140 | 50 | 0.414            | 0.429 | 0.458 |
| 135 | 126 | 0.959            | 0.965 | 0.974 | 140 | 51 | 0.421            | 0.436 | 0.465 |
| 135 | 127 | 0.965            | 0.970 | 0.978 | 140 | 52 | 0.428            | 0.444 | 0.473 |
| 135 | 128 | 0.971            | 0.975 | 0.982 | 140 | 53 | 0.436            | 0.451 | 0.480 |
| 135 | 129 | 0.976            | 0.980 | 0.987 | 140 | 54 | 0.443            | 0.458 | 0.487 |
| 135 | 130 | 0.982            | 0.985 | 0.990 | 140 | 55 | 0.450            | 0.466 | 0.494 |
| 135 | 131 | 0.987            | 0.990 | 0.994 | 140 | 56 | 0.457            | 0.473 | 0.502 |
| 135 | 132 | 0.992            | 0.994 | 0.997 | 140 | 57 | 0.465            | 0.480 | 0.509 |
| 135 | 133 | 0.996            | 0.997 | 0.999 | 140 | 58 | 0.472            | 0.487 | 0.516 |
| 135 | 134 | 0.999            | 1.000 | 1.000 | 140 | 59 | 0.479            | 0.494 | 0.523 |
| 135 | 135 | 1.000            | 1.000 | 1.000 | 140 | 60 | 0.486            | 0.502 | 0.530 |
| 140 | 0   | 0.016            | 0.021 | 0.032 | 140 | 61 | 0.493            | 0.509 | 0.537 |
| 140 | 1   | 0.027            | 0.033 | 0.046 | 140 | 62 | 0.501            | 0.516 | 0.545 |
| 140 | 2   | 0.038            | 0.044 | 0.059 | 140 | 63 | 0.508            | 0.523 | 0.552 |
| 140 | 3   | 0.047            | 0.054 | 0.070 | 140 | 64 | 0.515            | 0.530 | 0.559 |
| 140 | 4   | 0.056            | 0.064 | 0.081 | 140 | 65 | 0.522            | 0.537 | 0.566 |
| 140 | 5   | 0.065            | 0.074 | 0.091 | 140 | 66 | 0.529            | 0.544 | 0.573 |
| 140 | 6   | 0.074            | 0.083 | 0.101 | 140 | 67 | 0.536            | 0.551 | 0.580 |
| 140 | 7   | 0.083            | 0.092 | 0.111 | 140 | 68 | 0.543            | 0.558 | 0.587 |
| 140 | 8   | 0.091            | 0.101 | 0.120 | 140 | 69 | 0.550            | 0.566 | 0.594 |
| 140 | 9   | 0.100            | 0.109 | 0.130 | 140 | 70 | 0.557            | 0.573 | 0.601 |
| 140 | 10  | 0.108            | 0.118 | 0.139 | 140 | 71 | 0.564            | 0.580 | 0.608 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 140 | 72  | 0.572      | 0.587 | 0.614 | 140 | 127 | 0.937      | 0.944 | 0.955 |
| 140 | 73  | 0.579      | 0.594 | 0.621 | 140 | 128 | 0.943      | 0.950 | 0.960 |
| 140 | 74  | 0.586      | 0.601 | 0.628 | 140 | 129 | 0.949      | 0.955 | 0.965 |
| 140 | 75  | 0.593      | 0.608 | 0.635 | 140 | 130 | 0.955      | 0.961 | 0.970 |
| 140 | 76  | 0.600      | 0.614 | 0.642 | 140 | 131 | 0.961      | 0.966 | 0.975 |
| 140 | 77  | 0.607      | 0.621 | 0.649 | 140 | 132 | 0.966      | 0.971 | 0.979 |
| 140 | 78  | 0.614      | 0.628 | 0.656 | 140 | 133 | 0.972      | 0.976 | 0.983 |
| 140 | 79  | 0.621      | 0.635 | 0.662 | 140 | 134 | 0.977      | 0.981 | 0.987 |
| 140 | 80  | 0.628      | 0.642 | 0.669 | 140 | 135 | 0.983      | 0.986 | 0.991 |
| 140 | 81  | 0.634      | 0.649 | 0.676 | 140 | 136 | 0.987      | 0.990 | 0.994 |
| 140 | 82  | 0.641      | 0.656 | 0.682 | 140 | 137 | 0.992      | 0.994 | 0.997 |
| 140 | 83  | 0.648      | 0.663 | 0.689 | 140 | 138 | 0.996      | 0.997 | 0.999 |
| 140 | 84  | 0.655      | 0.670 | 0.696 | 140 | 139 | 0.999      | 1.000 | 1.000 |
| 140 | 85  | 0.662      | 0.676 | 0.702 | 140 | 140 | 1.000      | 1.000 | 1.000 |
| 140 | 86  | 0.669      | 0.683 | 0.709 | 145 | 0   | 0.016      | 0.020 | 0.031 |
| 140 | 87  | 0.676      | 0.690 | 0.716 | 145 | 1   | 0.027      | 0.032 | 0.045 |
| 140 | 88  | 0.683      | 0.697 | 0.722 | 145 | 2   | 0.036      | 0.043 | 0.057 |
| 140 | 89  | 0.690      | 0.704 | 0.729 | 145 | 3   | 0.045      | 0.053 | 0.068 |
| 140 | 90  | 0.696      | 0.710 | 0.735 | 145 | 4   | 0.054      | 0.062 | 0.078 |
| 140 | 91  | 0.703      | 0.717 | 0.742 | 145 | 5   | 0.063      | 0.071 | 0.088 |
| 140 | 92  | 0.710      | 0.724 | 0.748 | 145 | 6   | 0.072      | 0.080 | 0.098 |
| 140 | 93  | 0.717      | 0.730 | 0.755 | 145 | 7   | 0.080      | 0.089 | 0.107 |
| 140 | 94  | 0.724      | 0.737 | 0.761 | 145 | 8   | 0.088      | 0.097 | 0.116 |
| 140 | 95  | 0.731      | 0.744 | 0.768 | 145 | 9   | 0.096      | 0.106 | 0.125 |
| 140 | 96  | 0.737      | 0.750 | 0.774 | 145 | 10  | 0.104      | 0.114 | 0.134 |
| 140 | 97  | 0.744      | 0.757 | 0.780 | 145 | 11  | 0.112      | 0.122 | 0.143 |
| 140 | 98  | 0.751      | 0.764 | 0.787 | 145 | 12  | 0.120      | 0.131 | 0.152 |
| 140 | 99  | 0.757      | 0.770 | 0.793 | 145 | 13  | 0.128      | 0.139 | 0.160 |
| 140 | 100 | 0.764      | 0.777 | 0.799 | 145 | 14  | 0.136      | 0.147 | 0.169 |
| 140 | 101 | 0.771      | 0.783 | 0.806 | 145 | 15  | 0.144      | 0.155 | 0.177 |
| 140 | 102 | 0.778      | 0.790 | 0.812 | 145 | 16  | 0.151      | 0.163 | 0.185 |
| 140 | 103 | 0.784      | 0.796 | 0.818 | 145 | 17  | 0.159      | 0.171 | 0.194 |
| 140 | 104 | 0.791      | 0.803 | 0.824 | 145 | 18  | 0.167      | 0.179 | 0.202 |
| 140 | 105 | 0.798      | 0.809 | 0.830 | 145 | 19  | 0.174      | 0.186 | 0.210 |
| 140 | 106 | 0.804      | 0.816 | 0.837 | 145 | 20  | 0.182      | 0.194 | 0.218 |
| 140 | 107 | 0.811      | 0.822 | 0.843 | 145 | 21  | 0.189      | 0.202 | 0.226 |
| 140 | 108 | 0.817      | 0.829 | 0.849 | 145 | 22  | 0.197      | 0.210 | 0.234 |
| 140 | 109 | 0.824      | 0.835 | 0.855 | 145 | 23  | 0.205      | 0.217 | 0.242 |
| 140 | 110 | 0.830      | 0.841 | 0.861 | 145 | 24  | 0.212      | 0.225 | 0.250 |
| 140 | 111 | 0.837      | 0.848 | 0.867 | 145 | 25  | 0.219      | 0.232 | 0.258 |
| 140 | 112 | 0.843      | 0.854 | 0.873 | 145 | 26  | 0.227      | 0.240 | 0.265 |
| 140 | 113 | 0.850      | 0.860 | 0.879 | 145 | 27  | 0.234      | 0.248 | 0.273 |
| 140 | 114 | 0.856      | 0.866 | 0.884 | 145 | 28  | 0.242      | 0.255 | 0.281 |
| 140 | 115 | 0.863      | 0.873 | 0.890 | 145 | 29  | 0.249      | 0.263 | 0.289 |
| 140 | 116 | 0.869      | 0.879 | 0.896 | 145 | 30  | 0.256      | 0.270 | 0.296 |
| 140 | 117 | 0.876      | 0.885 | 0.902 | 145 | 31  | 0.264      | 0.277 | 0.304 |
| 140 | 118 | 0.882      | 0.891 | 0.907 | 145 | 32  | 0.271      | 0.285 | 0.311 |
| 140 | 119 | 0.888      | 0.897 | 0.913 | 145 | 33  | 0.278      | 0.292 | 0.319 |
| 140 | 120 | 0.895      | 0.903 | 0.918 | 145 | 34  | 0.286      | 0.300 | 0.326 |
| 140 | 121 | 0.901      | 0.909 | 0.924 | 145 | 35  | 0.293      | 0.307 | 0.334 |
| 140 | 122 | 0.907      | 0.915 | 0.929 | 145 | 36  | 0.300      | 0.314 | 0.341 |
| 140 | 123 | 0.913      | 0.921 | 0.935 | 145 | 37  | 0.307      | 0.322 | 0.349 |
| 140 | 124 | 0.919      | 0.927 | 0.940 | 145 | 38  | 0.315      | 0.329 | 0.356 |
| 140 | 125 | 0.925      | 0.933 | 0.945 | 145 | 39  | 0.322      | 0.336 | 0.364 |
| 140 | 126 | 0.931      | 0.939 | 0.950 |     |     |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE |       |       | LEVEL | N   | K   | CONFIDENCE |       |       | LEVEL |
|-----|----|------------|-------|-------|-------|-----|-----|------------|-------|-------|-------|
|     |    | 90%        | 95%   | 99%   |       |     |     | 90%        | 95%   | 99%   |       |
| 145 | 40 | 0.329      | 0.343 | 0.371 |       | 145 | 97  | 0.720      | 0.734 | 0.758 |       |
| 145 | 41 | 0.336      | 0.351 | 0.378 |       | 145 | 98  | 0.727      | 0.740 | 0.764 |       |
| 145 | 42 | 0.343      | 0.358 | 0.386 |       | 145 | 99  | 0.734      | 0.747 | 0.770 |       |
| 145 | 43 | 0.351      | 0.365 | 0.393 |       |     |     |            |       |       |       |
| 145 | 44 | 0.358      | 0.372 | 0.400 |       | 145 | 100 | 0.740      | 0.753 | 0.776 |       |
|     |    |            |       |       |       | 145 | 101 | 0.747      | 0.759 | 0.782 |       |
| 145 | 45 | 0.365      | 0.380 | 0.408 |       | 145 | 102 | 0.753      | 0.766 | 0.788 |       |
| 145 | 46 | 0.372      | 0.387 | 0.415 |       | 145 | 103 | 0.760      | 0.772 | 0.795 |       |
| 145 | 47 | 0.379      | 0.394 | 0.422 |       | 145 | 104 | 0.766      | 0.778 | 0.801 |       |
| 145 | 48 | 0.386      | 0.401 | 0.429 |       |     |     |            |       |       |       |
| 145 | 49 | 0.393      | 0.408 | 0.436 |       | 145 | 105 | 0.773      | 0.785 | 0.807 |       |
|     |    |            |       |       |       | 145 | 106 | 0.779      | 0.791 | 0.813 |       |
| 145 | 50 | 0.400      | 0.415 | 0.443 |       | 145 | 107 | 0.785      | 0.797 | 0.819 |       |
| 145 | 51 | 0.407      | 0.422 | 0.451 |       | 145 | 108 | 0.792      | 0.804 | 0.825 |       |
| 145 | 52 | 0.414      | 0.429 | 0.458 |       | 145 | 109 | 0.798      | 0.810 | 0.831 |       |
| 145 | 53 | 0.421      | 0.436 | 0.465 |       |     |     |            |       |       |       |
| 145 | 54 | 0.428      | 0.443 | 0.472 |       | 145 | 110 | 0.805      | 0.816 | 0.837 |       |
|     |    |            |       |       |       | 145 | 111 | 0.811      | 0.822 | 0.842 |       |
| 145 | 55 | 0.435      | 0.450 | 0.479 |       | 145 | 112 | 0.817      | 0.829 | 0.848 |       |
| 145 | 56 | 0.442      | 0.457 | 0.486 |       | 145 | 113 | 0.824      | 0.835 | 0.854 |       |
| 145 | 57 | 0.449      | 0.464 | 0.493 |       | 145 | 114 | 0.830      | 0.841 | 0.860 |       |
| 145 | 58 | 0.456      | 0.471 | 0.500 |       |     |     |            |       |       |       |
| 145 | 59 | 0.463      | 0.478 | 0.507 |       | 145 | 115 | 0.836      | 0.847 | 0.866 |       |
|     |    |            |       |       |       | 145 | 116 | 0.843      | 0.853 | 0.872 |       |
| 145 | 60 | 0.470      | 0.485 | 0.514 |       | 145 | 117 | 0.849      | 0.859 | 0.877 |       |
| 145 | 61 | 0.477      | 0.492 | 0.521 |       | 145 | 118 | 0.855      | 0.865 | 0.883 |       |
| 145 | 62 | 0.484      | 0.499 | 0.528 |       | 145 | 119 | 0.861      | 0.871 | 0.889 |       |
| 145 | 63 | 0.491      | 0.506 | 0.534 |       |     |     |            |       |       |       |
| 145 | 64 | 0.498      | 0.513 | 0.541 |       | 145 | 120 | 0.868      | 0.877 | 0.894 |       |
|     |    |            |       |       |       | 145 | 121 | 0.874      | 0.883 | 0.900 |       |
| 145 | 65 | 0.505      | 0.520 | 0.548 |       | 145 | 122 | 0.880      | 0.889 | 0.905 |       |
| 145 | 66 | 0.512      | 0.527 | 0.555 |       | 145 | 123 | 0.886      | 0.895 | 0.911 |       |
| 145 | 67 | 0.519      | 0.534 | 0.562 |       | 145 | 124 | 0.892      | 0.901 | 0.916 |       |
| 145 | 68 | 0.526      | 0.541 | 0.569 |       |     |     |            |       |       |       |
| 145 | 69 | 0.532      | 0.547 | 0.575 |       | 145 | 125 | 0.898      | 0.907 | 0.921 |       |
|     |    |            |       |       |       | 145 | 126 | 0.904      | 0.912 | 0.927 |       |
| 145 | 70 | 0.539      | 0.554 | 0.582 |       | 145 | 127 | 0.910      | 0.918 | 0.932 |       |
| 145 | 71 | 0.546      | 0.561 | 0.589 |       | 145 | 128 | 0.916      | 0.924 | 0.937 |       |
| 145 | 72 | 0.553      | 0.568 | 0.596 |       | 145 | 129 | 0.922      | 0.930 | 0.942 |       |
| 145 | 73 | 0.560      | 0.575 | 0.602 |       |     |     |            |       |       |       |
| 145 | 74 | 0.567      | 0.581 | 0.609 |       | 145 | 130 | 0.928      | 0.935 | 0.947 |       |
|     |    |            |       |       |       | 145 | 131 | 0.934      | 0.941 | 0.952 |       |
| 145 | 75 | 0.573      | 0.588 | 0.616 |       | 145 | 132 | 0.940      | 0.946 | 0.957 |       |
| 145 | 76 | 0.580      | 0.595 | 0.622 |       | 145 | 133 | 0.945      | 0.952 | 0.962 |       |
| 145 | 77 | 0.587      | 0.602 | 0.629 |       | 145 | 134 | 0.951      | 0.957 | 0.966 |       |
| 145 | 78 | 0.594      | 0.608 | 0.635 |       |     |     |            |       |       |       |
| 145 | 79 | 0.601      | 0.615 | 0.642 |       | 145 | 135 | 0.957      | 0.962 | 0.971 |       |
|     |    |            |       |       |       | 145 | 136 | 0.962      | 0.967 | 0.975 |       |
| 145 | 80 | 0.607      | 0.622 | 0.649 |       | 145 | 137 | 0.968      | 0.972 | 0.980 |       |
| 145 | 81 | 0.614      | 0.629 | 0.655 |       | 145 | 138 | 0.973      | 0.977 | 0.984 |       |
| 145 | 82 | 0.621      | 0.635 | 0.662 |       | 145 | 139 | 0.978      | 0.982 | 0.988 |       |
| 145 | 83 | 0.627      | 0.642 | 0.668 |       |     |     |            |       |       |       |
| 145 | 84 | 0.634      | 0.648 | 0.675 |       | 145 | 140 | 0.983      | 0.986 | 0.991 |       |
|     |    |            |       |       |       | 145 | 141 | 0.988      | 0.991 | 0.994 |       |
| 145 | 85 | 0.641      | 0.655 | 0.681 |       | 145 | 142 | 0.992      | 0.994 | 0.997 |       |
| 145 | 86 | 0.648      | 0.662 | 0.688 |       | 145 | 143 | 0.996      | 0.998 | 0.999 |       |
| 145 | 87 | 0.654      | 0.668 | 0.694 |       | 145 | 144 | 0.999      | 1.000 | 1.000 |       |
| 145 | 88 | 0.661      | 0.675 | 0.701 |       |     |     |            |       |       |       |
| 145 | 89 | 0.668      | 0.682 | 0.707 |       | 145 | 145 | 1.000      | 1.000 | 1.000 |       |
|     |    |            |       |       |       |     |     |            |       |       |       |
| 145 | 90 | 0.674      | 0.688 | 0.713 |       | 150 | 0   | 0.015      | 0.020 | 0.030 |       |
| 145 | 91 | 0.681      | 0.695 | 0.720 |       | 150 | 1   | 0.026      | 0.031 | 0.043 |       |
| 145 | 92 | 0.688      | 0.701 | 0.726 |       | 150 | 2   | 0.035      | 0.041 | 0.055 |       |
| 145 | 93 | 0.694      | 0.708 | 0.732 |       | 150 | 3   | 0.044      | 0.051 | 0.065 |       |
| 145 | 94 | 0.701      | 0.714 | 0.739 |       | 150 | 4   | 0.053      | 0.060 | 0.075 |       |
|     |    |            |       |       |       |     |     |            |       |       |       |
| 145 | 95 | 0.707      | 0.721 | 0.745 |       | 150 | 5   | 0.061      | 0.069 | 0.085 |       |
| 145 | 96 | 0.714      | 0.727 | 0.751 |       | 150 | 6   | 0.069      | 0.077 | 0.094 |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 150 | 7  | 0.077            | 0.086 | 0.103 | 150 | 65  | 0.489            | 0.504 | 0.532 |
| 150 | 8  | 0.085            | 0.094 | 0.112 | 150 | 66  | 0.496            | 0.510 | 0.538 |
| 150 | 9  | 0.093            | 0.102 | 0.121 | 150 | 67  | 0.502            | 0.517 | 0.545 |
|     |    |                  |       |       | 150 | 68  | 0.509            | 0.524 | 0.551 |
| 150 | 10 | 0.101            | 0.110 | 0.130 | 150 | 69  | 0.516            | 0.530 | 0.558 |
| 150 | 11 | 0.109            | 0.118 | 0.138 |     |     |                  |       |       |
| 150 | 12 | 0.116            | 0.126 | 0.147 | 150 | 70  | 0.522            | 0.537 | 0.565 |
| 150 | 13 | 0.124            | 0.134 | 0.155 | 150 | 71  | 0.529            | 0.544 | 0.571 |
| 150 | 14 | 0.131            | 0.142 | 0.163 | 150 | 72  | 0.536            | 0.550 | 0.578 |
|     |    |                  |       |       | 150 | 73  | 0.542            | 0.557 | 0.584 |
| 150 | 15 | 0.139            | 0.150 | 0.171 | 150 | 74  | 0.549            | 0.563 | 0.591 |
| 150 | 16 | 0.146            | 0.157 | 0.179 |     |     |                  |       |       |
| 150 | 17 | 0.154            | 0.165 | 0.187 | 150 | 75  | 0.555            | 0.570 | 0.597 |
| 150 | 18 | 0.161            | 0.173 | 0.195 | 150 | 76  | 0.562            | 0.577 | 0.604 |
| 150 | 19 | 0.169            | 0.180 | 0.203 | 150 | 77  | 0.569            | 0.583 | 0.610 |
|     |    |                  |       |       | 150 | 78  | 0.575            | 0.590 | 0.617 |
| 150 | 20 | 0.176            | 0.188 | 0.211 | 150 | 79  | 0.582            | 0.596 | 0.623 |
| 150 | 21 | 0.183            | 0.195 | 0.219 |     |     |                  |       |       |
| 150 | 22 | 0.191            | 0.203 | 0.227 | 150 | 80  | 0.588            | 0.603 | 0.629 |
| 150 | 23 | 0.198            | 0.210 | 0.234 | 150 | 81  | 0.595            | 0.609 | 0.636 |
| 150 | 24 | 0.205            | 0.218 | 0.242 | 150 | 82  | 0.601            | 0.616 | 0.642 |
|     |    |                  |       |       | 150 | 83  | 0.608            | 0.622 | 0.649 |
| 150 | 25 | 0.212            | 0.225 | 0.249 | 150 | 84  | 0.614            | 0.629 | 0.655 |
| 150 | 26 | 0.220            | 0.232 | 0.257 |     |     |                  |       |       |
| 150 | 27 | 0.227            | 0.240 | 0.265 | 150 | 85  | 0.621            | 0.635 | 0.661 |
| 150 | 28 | 0.234            | 0.247 | 0.272 | 150 | 86  | 0.627            | 0.642 | 0.668 |
| 150 | 29 | 0.241            | 0.254 | 0.279 | 150 | 87  | 0.634            | 0.648 | 0.674 |
|     |    |                  |       |       | 150 | 88  | 0.640            | 0.654 | 0.680 |
| 150 | 30 | 0.248            | 0.261 | 0.287 | 150 | 89  | 0.647            | 0.661 | 0.686 |
| 150 | 31 | 0.255            | 0.269 | 0.294 |     |     |                  |       |       |
| 150 | 32 | 0.262            | 0.276 | 0.302 | 150 | 90  | 0.653            | 0.667 | 0.693 |
| 150 | 33 | 0.269            | 0.283 | 0.309 | 150 | 91  | 0.660            | 0.674 | 0.699 |
| 150 | 34 | 0.276            | 0.290 | 0.316 | 150 | 92  | 0.666            | 0.680 | 0.705 |
|     |    |                  |       |       | 150 | 93  | 0.673            | 0.686 | 0.711 |
| 150 | 35 | 0.283            | 0.297 | 0.324 | 150 | 94  | 0.679            | 0.693 | 0.717 |
| 150 | 36 | 0.291            | 0.304 | 0.331 |     |     |                  |       |       |
| 150 | 37 | 0.298            | 0.311 | 0.338 | 150 | 95  | 0.685            | 0.699 | 0.724 |
| 150 | 38 | 0.305            | 0.318 | 0.345 | 150 | 96  | 0.692            | 0.705 | 0.730 |
| 150 | 39 | 0.312            | 0.326 | 0.352 | 150 | 97  | 0.698            | 0.712 | 0.736 |
|     |    |                  |       |       | 150 | 98  | 0.705            | 0.718 | 0.742 |
| 150 | 40 | 0.318            | 0.333 | 0.360 | 150 | 99  | 0.711            | 0.724 | 0.748 |
| 150 | 41 | 0.325            | 0.340 | 0.367 |     |     |                  |       |       |
| 150 | 42 | 0.332            | 0.347 | 0.374 | 150 | 100 | 0.717            | 0.730 | 0.754 |
| 150 | 43 | 0.339            | 0.354 | 0.381 | 150 | 101 | 0.724            | 0.737 | 0.760 |
| 150 | 44 | 0.346            | 0.361 | 0.388 | 150 | 102 | 0.730            | 0.743 | 0.766 |
|     |    |                  |       |       | 150 | 103 | 0.736            | 0.749 | 0.772 |
| 150 | 45 | 0.353            | 0.368 | 0.395 | 150 | 104 | 0.743            | 0.755 | 0.778 |
| 150 | 46 | 0.360            | 0.374 | 0.402 |     |     |                  |       |       |
| 150 | 47 | 0.367            | 0.381 | 0.409 | 150 | 105 | 0.749            | 0.761 | 0.784 |
| 150 | 48 | 0.374            | 0.388 | 0.416 | 150 | 106 | 0.755            | 0.768 | 0.790 |
| 150 | 49 | 0.381            | 0.395 | 0.423 | 150 | 107 | 0.762            | 0.774 | 0.796 |
|     |    |                  |       |       | 150 | 108 | 0.768            | 0.780 | 0.802 |
| 150 | 50 | 0.387            | 0.402 | 0.430 | 150 | 109 | 0.774            | 0.786 | 0.808 |
| 150 | 51 | 0.394            | 0.409 | 0.437 |     |     |                  |       |       |
| 150 | 52 | 0.401            | 0.416 | 0.444 | 150 | 110 | 0.780            | 0.792 | 0.813 |
| 150 | 53 | 0.408            | 0.423 | 0.450 | 150 | 111 | 0.787            | 0.798 | 0.819 |
| 150 | 54 | 0.415            | 0.429 | 0.457 | 150 | 112 | 0.793            | 0.804 | 0.825 |
|     |    |                  |       |       | 150 | 113 | 0.799            | 0.810 | 0.831 |
| 150 | 55 | 0.422            | 0.436 | 0.464 | 150 | 114 | 0.805            | 0.816 | 0.837 |
| 150 | 56 | 0.428            | 0.443 | 0.471 |     |     |                  |       |       |
| 150 | 57 | 0.435            | 0.450 | 0.478 | 150 | 115 | 0.811            | 0.822 | 0.842 |
| 150 | 58 | 0.442            | 0.457 | 0.485 | 150 | 116 | 0.817            | 0.828 | 0.848 |
| 150 | 59 | 0.449            | 0.463 | 0.491 | 150 | 117 | 0.824            | 0.834 | 0.854 |
|     |    |                  |       |       | 150 | 118 | 0.830            | 0.840 | 0.859 |
| 150 | 60 | 0.455            | 0.470 | 0.498 | 150 | 119 | 0.836            | 0.846 | 0.865 |
| 150 | 61 | 0.462            | 0.477 | 0.505 |     |     |                  |       |       |
| 150 | 62 | 0.469            | 0.484 | 0.511 | 150 | 120 | 0.842            | 0.852 | 0.870 |
| 150 | 63 | 0.476            | 0.490 | 0.518 | 150 | 121 | 0.848            | 0.858 | 0.876 |
| 150 | 64 | 0.482            | 0.497 | 0.525 | 150 | 122 | 0.854            | 0.864 | 0.881 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 150 | 123 | 0.860            | 0.870 | 0.887 | 155 | 31 | 0.247            | 0.260 | 0.285 |
| 150 | 124 | 0.866            | 0.876 | 0.892 | 155 | 32 | 0.254            | 0.267 | 0.292 |
|     |     |                  |       |       | 155 | 33 | 0.261            | 0.274 | 0.300 |
| 150 | 125 | 0.872            | 0.881 | 0.898 | 155 | 34 | 0.268            | 0.281 | 0.307 |
| 150 | 126 | 0.878            | 0.887 | 0.903 |     |    |                  |       |       |
| 150 | 127 | 0.884            | 0.893 | 0.908 | 155 | 35 | 0.275            | 0.288 | 0.314 |
| 150 | 128 | 0.890            | 0.899 | 0.914 | 155 | 36 | 0.281            | 0.295 | 0.321 |
| 150 | 129 | 0.896            | 0.904 | 0.919 | 155 | 37 | 0.288            | 0.302 | 0.328 |
|     |     |                  |       |       | 155 | 38 | 0.295            | 0.309 | 0.335 |
| 150 | 130 | 0.902            | 0.910 | 0.924 | 155 | 39 | 0.302            | 0.315 | 0.342 |
| 150 | 131 | 0.907            | 0.915 | 0.929 |     |    |                  |       |       |
| 150 | 132 | 0.913            | 0.921 | 0.934 | 155 | 40 | 0.309            | 0.322 | 0.349 |
| 150 | 133 | 0.919            | 0.926 | 0.939 | 155 | 41 | 0.315            | 0.329 | 0.356 |
| 150 | 134 | 0.925            | 0.932 | 0.944 | 155 | 42 | 0.322            | 0.336 | 0.362 |
|     |     |                  |       |       | 155 | 43 | 0.329            | 0.343 | 0.369 |
| 150 | 135 | 0.930            | 0.937 | 0.949 | 155 | 44 | 0.335            | 0.349 | 0.376 |
| 150 | 136 | 0.936            | 0.943 | 0.954 |     |    |                  |       |       |
| 150 | 137 | 0.942            | 0.948 | 0.959 | 155 | 45 | 0.342            | 0.356 | 0.383 |
| 150 | 138 | 0.947            | 0.953 | 0.963 | 155 | 46 | 0.349            | 0.363 | 0.390 |
| 150 | 139 | 0.953            | 0.958 | 0.968 | 155 | 47 | 0.356            | 0.370 | 0.397 |
|     |     |                  |       |       | 155 | 48 | 0.362            | 0.376 | 0.403 |
| 150 | 140 | 0.958            | 0.963 | 0.972 | 155 | 49 | 0.369            | 0.383 | 0.410 |
| 150 | 141 | 0.963            | 0.968 | 0.976 |     |    |                  |       |       |
| 150 | 142 | 0.969            | 0.973 | 0.980 | 155 | 50 | 0.375            | 0.390 | 0.417 |
| 150 | 143 | 0.974            | 0.978 | 0.984 | 155 | 51 | 0.382            | 0.396 | 0.424 |
| 150 | 144 | 0.979            | 0.982 | 0.988 | 155 | 52 | 0.389            | 0.403 | 0.430 |
|     |     |                  |       |       | 155 | 53 | 0.395            | 0.410 | 0.437 |
| 150 | 145 | 0.984            | 0.987 | 0.991 | 155 | 54 | 0.402            | 0.416 | 0.444 |
| 150 | 146 | 0.988            | 0.991 | 0.994 |     |    |                  |       |       |
| 150 | 147 | 0.993            | 0.995 | 0.997 | 155 | 55 | 0.409            | 0.423 | 0.450 |
| 150 | 148 | 0.996            | 0.998 | 0.999 | 155 | 56 | 0.415            | 0.430 | 0.457 |
| 150 | 149 | 0.999            | 1.000 | 1.000 | 155 | 57 | 0.422            | 0.436 | 0.464 |
|     |     |                  |       |       | 155 | 58 | 0.428            | 0.443 | 0.470 |
| 150 | 150 | 1.000            | 1.000 | 1.000 | 155 | 59 | 0.435            | 0.449 | 0.477 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 0   | 0.015            | 0.019 | 0.029 | 155 | 60 | 0.441            | 0.456 | 0.483 |
| 155 | 1   | 0.025            | 0.030 | 0.042 | 155 | 61 | 0.448            | 0.462 | 0.490 |
| 155 | 2   | 0.034            | 0.040 | 0.053 | 155 | 62 | 0.454            | 0.469 | 0.496 |
| 155 | 3   | 0.043            | 0.049 | 0.063 | 155 | 63 | 0.461            | 0.476 | 0.503 |
| 155 | 4   | 0.051            | 0.058 | 0.073 | 155 | 64 | 0.467            | 0.482 | 0.509 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 5   | 0.059            | 0.067 | 0.082 | 155 | 65 | 0.474            | 0.489 | 0.516 |
| 155 | 6   | 0.067            | 0.075 | 0.091 | 155 | 66 | 0.480            | 0.495 | 0.522 |
| 155 | 7   | 0.075            | 0.083 | 0.100 | 155 | 67 | 0.487            | 0.501 | 0.529 |
| 155 | 8   | 0.082            | 0.091 | 0.109 | 155 | 68 | 0.493            | 0.508 | 0.535 |
| 155 | 9   | 0.090            | 0.099 | 0.117 | 155 | 69 | 0.500            | 0.514 | 0.542 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 10  | 0.098            | 0.107 | 0.126 | 155 | 70 | 0.506            | 0.521 | 0.548 |
| 155 | 11  | 0.105            | 0.115 | 0.134 | 155 | 71 | 0.513            | 0.527 | 0.554 |
| 155 | 12  | 0.113            | 0.122 | 0.142 | 155 | 72 | 0.519            | 0.534 | 0.561 |
| 155 | 13  | 0.120            | 0.130 | 0.150 | 155 | 73 | 0.526            | 0.540 | 0.567 |
| 155 | 14  | 0.127            | 0.138 | 0.158 | 155 | 74 | 0.532            | 0.547 | 0.574 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 15  | 0.135            | 0.145 | 0.166 | 155 | 75 | 0.538            | 0.553 | 0.580 |
| 155 | 16  | 0.142            | 0.153 | 0.174 | 155 | 76 | 0.545            | 0.559 | 0.586 |
| 155 | 17  | 0.149            | 0.160 | 0.182 | 155 | 77 | 0.551            | 0.566 | 0.592 |
| 155 | 18  | 0.156            | 0.167 | 0.189 | 155 | 78 | 0.558            | 0.572 | 0.599 |
| 155 | 19  | 0.163            | 0.175 | 0.197 | 155 | 79 | 0.564            | 0.578 | 0.605 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 20  | 0.170            | 0.182 | 0.205 | 155 | 80 | 0.570            | 0.585 | 0.611 |
| 155 | 21  | 0.178            | 0.189 | 0.212 | 155 | 81 | 0.577            | 0.591 | 0.618 |
| 155 | 22  | 0.185            | 0.196 | 0.220 | 155 | 82 | 0.583            | 0.597 | 0.624 |
| 155 | 23  | 0.192            | 0.204 | 0.227 | 155 | 83 | 0.589            | 0.604 | 0.630 |
| 155 | 24  | 0.199            | 0.211 | 0.234 | 155 | 84 | 0.596            | 0.610 | 0.636 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 25  | 0.206            | 0.218 | 0.242 | 155 | 85 | 0.602            | 0.616 | 0.642 |
| 155 | 26  | 0.213            | 0.225 | 0.249 | 155 | 86 | 0.608            | 0.622 | 0.648 |
| 155 | 27  | 0.220            | 0.232 | 0.256 | 155 | 87 | 0.615            | 0.629 | 0.655 |
| 155 | 28  | 0.227            | 0.239 | 0.264 | 155 | 88 | 0.621            | 0.635 | 0.661 |
| 155 | 29  | 0.233            | 0.246 | 0.271 | 155 | 89 | 0.627            | 0.641 | 0.667 |
|     |     |                  |       |       |     |    |                  |       |       |
| 155 | 30  | 0.240            | 0.253 | 0.278 | 155 | 90 | 0.634            | 0.647 | 0.673 |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 155 | 91  | 0.640            | 0.654 | 0.679 | 155 | 146 | 0.965            | 0.969 | 0.977 |
| 155 | 92  | 0.646            | 0.660 | 0.685 | 155 | 147 | 0.970            | 0.974 | 0.981 |
| 155 | 93  | 0.652            | 0.666 | 0.691 | 155 | 148 | 0.975            | 0.979 | 0.985 |
| 155 | 94  | 0.659            | 0.672 | 0.697 | 155 | 149 | 0.980            | 0.983 | 0.988 |
| 155 | 95  | 0.665            | 0.678 | 0.703 | 155 | 150 | 0.984            | 0.987 | 0.992 |
| 155 | 96  | 0.671            | 0.685 | 0.709 | 155 | 151 | 0.989            | 0.991 | 0.995 |
| 155 | 97  | 0.677            | 0.691 | 0.715 | 155 | 152 | 0.993            | 0.995 | 0.997 |
| 155 | 98  | 0.684            | 0.697 | 0.721 | 155 | 153 | 0.997            | 0.998 | 0.999 |
| 155 | 99  | 0.690            | 0.703 | 0.727 | 155 | 154 | 0.999            | 1.000 | 1.000 |
| 155 | 100 | 0.696            | 0.709 | 0.733 | 155 | 155 | 1.000            | 1.000 | 1.000 |
| 155 | 101 | 0.702            | 0.715 | 0.739 | 160 | 0   | 0.014            | 0.019 | 0.028 |
| 155 | 102 | 0.708            | 0.721 | 0.745 | 160 | 1   | 0.024            | 0.029 | 0.041 |
| 155 | 103 | 0.715            | 0.727 | 0.751 | 160 | 2   | 0.033            | 0.039 | 0.051 |
| 155 | 104 | 0.721            | 0.733 | 0.757 | 160 | 3   | 0.041            | 0.048 | 0.061 |
| 155 | 105 | 0.727            | 0.739 | 0.762 | 160 | 4   | 0.049            | 0.056 | 0.071 |
| 155 | 106 | 0.733            | 0.745 | 0.768 | 160 | 5   | 0.057            | 0.065 | 0.080 |
| 155 | 107 | 0.739            | 0.751 | 0.774 | 160 | 6   | 0.065            | 0.073 | 0.089 |
| 155 | 108 | 0.745            | 0.757 | 0.780 | 160 | 7   | 0.072            | 0.081 | 0.097 |
| 155 | 109 | 0.751            | 0.763 | 0.786 | 160 | 8   | 0.080            | 0.088 | 0.106 |
| 155 | 110 | 0.757            | 0.769 | 0.791 | 160 | 9   | 0.087            | 0.096 | 0.114 |
| 155 | 111 | 0.763            | 0.775 | 0.797 | 160 | 10  | 0.095            | 0.104 | 0.122 |
| 155 | 112 | 0.769            | 0.781 | 0.803 | 160 | 11  | 0.102            | 0.111 | 0.130 |
| 155 | 113 | 0.776            | 0.787 | 0.808 | 160 | 12  | 0.109            | 0.119 | 0.138 |
| 155 | 114 | 0.782            | 0.793 | 0.814 | 160 | 13  | 0.116            | 0.126 | 0.146 |
| 155 | 115 | 0.788            | 0.799 | 0.820 | 160 | 14  | 0.123            | 0.133 | 0.153 |
| 155 | 116 | 0.794            | 0.805 | 0.825 | 160 | 15  | 0.130            | 0.141 | 0.161 |
| 155 | 117 | 0.800            | 0.811 | 0.831 | 160 | 16  | 0.137            | 0.148 | 0.169 |
| 155 | 118 | 0.806            | 0.817 | 0.837 | 160 | 17  | 0.144            | 0.155 | 0.176 |
| 155 | 119 | 0.812            | 0.823 | 0.842 | 160 | 18  | 0.151            | 0.162 | 0.184 |
| 155 | 120 | 0.818            | 0.828 | 0.848 | 160 | 19  | 0.158            | 0.169 | 0.191 |
| 155 | 121 | 0.824            | 0.834 | 0.853 | 160 | 20  | 0.165            | 0.176 | 0.198 |
| 155 | 122 | 0.829            | 0.840 | 0.859 | 160 | 21  | 0.172            | 0.183 | 0.206 |
| 155 | 123 | 0.835            | 0.846 | 0.864 | 160 | 22  | 0.179            | 0.190 | 0.213 |
| 155 | 124 | 0.841            | 0.851 | 0.869 | 160 | 23  | 0.186            | 0.197 | 0.220 |
| 155 | 125 | 0.847            | 0.857 | 0.875 | 160 | 24  | 0.193            | 0.204 | 0.227 |
| 155 | 126 | 0.853            | 0.863 | 0.880 | 160 | 25  | 0.199            | 0.211 | 0.235 |
| 155 | 127 | 0.859            | 0.868 | 0.885 | 160 | 26  | 0.206            | 0.218 | 0.242 |
| 155 | 128 | 0.865            | 0.874 | 0.891 | 160 | 27  | 0.213            | 0.225 | 0.249 |
| 155 | 129 | 0.870            | 0.880 | 0.896 | 160 | 28  | 0.220            | 0.232 | 0.256 |
| 155 | 130 | 0.876            | 0.885 | 0.901 | 160 | 29  | 0.226            | 0.239 | 0.263 |
| 155 | 131 | 0.882            | 0.891 | 0.906 | 160 | 30  | 0.233            | 0.246 | 0.270 |
| 155 | 132 | 0.888            | 0.896 | 0.911 | 160 | 31  | 0.240            | 0.252 | 0.277 |
| 155 | 133 | 0.894            | 0.902 | 0.917 | 160 | 32  | 0.246            | 0.259 | 0.284 |
| 155 | 134 | 0.899            | 0.907 | 0.922 | 160 | 33  | 0.253            | 0.266 | 0.291 |
| 155 | 135 | 0.905            | 0.913 | 0.927 | 160 | 34  | 0.260            | 0.273 | 0.298 |
| 155 | 136 | 0.911            | 0.918 | 0.932 | 160 | 35  | 0.266            | 0.279 | 0.304 |
| 155 | 137 | 0.916            | 0.924 | 0.936 | 160 | 36  | 0.273            | 0.286 | 0.311 |
| 155 | 138 | 0.922            | 0.929 | 0.941 | 160 | 37  | 0.280            | 0.293 | 0.318 |
| 155 | 139 | 0.927            | 0.934 | 0.946 | 160 | 38  | 0.286            | 0.299 | 0.325 |
| 155 | 140 | 0.933            | 0.939 | 0.951 | 160 | 39  | 0.293            | 0.306 | 0.332 |
| 155 | 141 | 0.938            | 0.945 | 0.955 | 160 | 40  | 0.299            | 0.313 | 0.338 |
| 155 | 142 | 0.944            | 0.950 | 0.960 | 160 | 41  | 0.306            | 0.319 | 0.345 |
| 155 | 143 | 0.949            | 0.955 | 0.964 | 160 | 42  | 0.312            | 0.326 | 0.352 |
| 155 | 144 | 0.954            | 0.960 | 0.969 | 160 | 43  | 0.319            | 0.332 | 0.359 |
| 155 | 145 | 0.959            | 0.965 | 0.973 | 160 | 44  | 0.325            | 0.339 | 0.365 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 160 | 45  | 0.332      | 0.346 | 0.372 | 160 | 103 | 0.694      | 0.707 | 0.730 |
| 160 | 46  | 0.338      | 0.352 | 0.378 | 160 | 104 | 0.700      | 0.713 | 0.736 |
| 160 | 47  | 0.345      | 0.359 | 0.385 | 160 | 105 | 0.706      | 0.719 | 0.742 |
| 160 | 48  | 0.351      | 0.365 | 0.392 | 160 | 106 | 0.712      | 0.724 | 0.748 |
| 160 | 49  | 0.358      | 0.372 | 0.398 | 160 | 107 | 0.718      | 0.730 | 0.753 |
| 160 | 50  | 0.364      | 0.378 | 0.405 | 160 | 108 | 0.724      | 0.736 | 0.759 |
| 160 | 51  | 0.371      | 0.385 | 0.411 | 160 | 109 | 0.730      | 0.742 | 0.765 |
| 160 | 52  | 0.377      | 0.391 | 0.418 | 160 | 110 | 0.736      | 0.748 | 0.770 |
| 160 | 53  | 0.383      | 0.398 | 0.424 | 160 | 111 | 0.742      | 0.754 | 0.776 |
| 160 | 54  | 0.390      | 0.404 | 0.431 | 160 | 112 | 0.747      | 0.760 | 0.781 |
| 160 | 55  | 0.396      | 0.410 | 0.437 | 160 | 113 | 0.753      | 0.765 | 0.787 |
| 160 | 56  | 0.403      | 0.417 | 0.444 | 160 | 114 | 0.759      | 0.771 | 0.793 |
| 160 | 57  | 0.409      | 0.423 | 0.450 | 160 | 115 | 0.765      | 0.777 | 0.798 |
| 160 | 58  | 0.415      | 0.430 | 0.457 | 160 | 116 | 0.771      | 0.783 | 0.804 |
| 160 | 59  | 0.422      | 0.436 | 0.463 | 160 | 117 | 0.777      | 0.788 | 0.809 |
| 160 | 60  | 0.428      | 0.442 | 0.469 | 160 | 118 | 0.783      | 0.794 | 0.815 |
| 160 | 61  | 0.434      | 0.449 | 0.476 | 160 | 119 | 0.789      | 0.800 | 0.820 |
| 160 | 62  | 0.441      | 0.455 | 0.482 | 160 | 120 | 0.794      | 0.806 | 0.826 |
| 160 | 63  | 0.447      | 0.462 | 0.488 | 160 | 121 | 0.800      | 0.811 | 0.831 |
| 160 | 64  | 0.453      | 0.468 | 0.495 | 160 | 122 | 0.806      | 0.817 | 0.836 |
| 160 | 65  | 0.460      | 0.474 | 0.501 | 160 | 123 | 0.812      | 0.823 | 0.842 |
| 160 | 66  | 0.466      | 0.480 | 0.507 | 160 | 124 | 0.818      | 0.828 | 0.847 |
| 160 | 67  | 0.472      | 0.487 | 0.514 | 160 | 125 | 0.823      | 0.834 | 0.853 |
| 160 | 68  | 0.479      | 0.493 | 0.520 | 160 | 126 | 0.829      | 0.839 | 0.858 |
| 160 | 69  | 0.485      | 0.499 | 0.526 | 160 | 127 | 0.835      | 0.845 | 0.863 |
| 160 | 70  | 0.491      | 0.506 | 0.532 | 160 | 128 | 0.841      | 0.851 | 0.868 |
| 160 | 71  | 0.498      | 0.512 | 0.539 | 160 | 129 | 0.846      | 0.856 | 0.874 |
| 160 | 72  | 0.504      | 0.518 | 0.545 | 160 | 130 | 0.852      | 0.862 | 0.879 |
| 160 | 73  | 0.510      | 0.524 | 0.551 | 160 | 131 | 0.858      | 0.867 | 0.884 |
| 160 | 74  | 0.516      | 0.531 | 0.557 | 160 | 132 | 0.863      | 0.873 | 0.889 |
| 160 | 75  | 0.522      | 0.537 | 0.563 | 160 | 133 | 0.869      | 0.878 | 0.894 |
| 160 | 76  | 0.529      | 0.543 | 0.570 | 160 | 134 | 0.875      | 0.884 | 0.899 |
| 160 | 77  | 0.535      | 0.549 | 0.576 | 160 | 135 | 0.880      | 0.889 | 0.904 |
| 160 | 78  | 0.541      | 0.555 | 0.582 | 160 | 136 | 0.886      | 0.894 | 0.909 |
| 160 | 79  | 0.547      | 0.562 | 0.588 | 160 | 137 | 0.891      | 0.900 | 0.914 |
| 160 | 80  | 0.554      | 0.568 | 0.594 | 160 | 138 | 0.897      | 0.905 | 0.919 |
| 160 | 81  | 0.560      | 0.574 | 0.600 | 160 | 139 | 0.902      | 0.910 | 0.924 |
| 160 | 82  | 0.566      | 0.580 | 0.606 | 160 | 140 | 0.908      | 0.916 | 0.929 |
| 160 | 83  | 0.572      | 0.586 | 0.612 | 160 | 141 | 0.913      | 0.921 | 0.934 |
| 160 | 84  | 0.578      | 0.592 | 0.618 | 160 | 142 | 0.919      | 0.926 | 0.938 |
| 160 | 85  | 0.584      | 0.598 | 0.624 | 160 | 143 | 0.924      | 0.931 | 0.943 |
| 160 | 86  | 0.591      | 0.605 | 0.630 | 160 | 144 | 0.930      | 0.936 | 0.948 |
| 160 | 87  | 0.597      | 0.611 | 0.636 | 160 | 145 | 0.935      | 0.941 | 0.952 |
| 160 | 88  | 0.603      | 0.617 | 0.642 | 160 | 146 | 0.940      | 0.946 | 0.957 |
| 160 | 89  | 0.609      | 0.623 | 0.648 | 160 | 147 | 0.945      | 0.951 | 0.961 |
| 160 | 90  | 0.615      | 0.629 | 0.654 | 160 | 148 | 0.951      | 0.956 | 0.965 |
| 160 | 91  | 0.621      | 0.635 | 0.660 | 160 | 149 | 0.956      | 0.961 | 0.970 |
| 160 | 92  | 0.627      | 0.641 | 0.666 | 160 | 150 | 0.961      | 0.966 | 0.974 |
| 160 | 93  | 0.633      | 0.647 | 0.672 | 160 | 151 | 0.966      | 0.970 | 0.978 |
| 160 | 94  | 0.639      | 0.653 | 0.678 | 160 | 152 | 0.971      | 0.975 | 0.982 |
| 160 | 95  | 0.646      | 0.659 | 0.684 | 160 | 153 | 0.975      | 0.979 | 0.985 |
| 160 | 96  | 0.652      | 0.665 | 0.690 | 160 | 154 | 0.980      | 0.984 | 0.989 |
| 160 | 97  | 0.658      | 0.671 | 0.696 | 160 | 155 | 0.985      | 0.988 | 0.992 |
| 160 | 98  | 0.664      | 0.677 | 0.701 | 160 | 156 | 0.989      | 0.991 | 0.995 |
| 160 | 99  | 0.670      | 0.683 | 0.707 | 160 | 157 | 0.993      | 0.995 | 0.997 |
| 160 | 100 | 0.676      | 0.689 | 0.713 | 160 | 158 | 0.997      | 0.998 | 0.999 |
| 160 | 101 | 0.682      | 0.695 | 0.719 | 160 | 159 | 0.999      | 1.000 | 1.000 |
| 160 | 102 | 0.688      | 0.701 | 0.725 |     |     |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE |       | LEVEL | N   | K   | CONFIDENCE |       | LEVEL |
|-----|-----|------------|-------|-------|-----|-----|------------|-------|-------|
|     |     | 90%        | 95%   |       |     |     | 90%        | 95%   |       |
| 160 | 160 | 1.000      | 1.000 | 1.000 | 165 | 58  | 0.403      | 0.417 | 0.444 |
|     |     |            |       |       | 165 | 59  | 0.410      | 0.424 | 0.450 |
| 165 | 0   | 0.014      | 0.018 | 0.028 | 165 | 60  | 0.416      | 0.430 | 0.456 |
| 165 | 1   | 0.023      | 0.028 | 0.040 | 165 | 61  | 0.422      | 0.436 | 0.462 |
| 165 | 2   | 0.032      | 0.038 | 0.050 | 165 | 62  | 0.428      | 0.442 | 0.469 |
| 165 | 3   | 0.040      | 0.046 | 0.060 | 165 | 63  | 0.434      | 0.448 | 0.475 |
| 165 | 4   | 0.048      | 0.055 | 0.069 | 165 | 64  | 0.440      | 0.454 | 0.481 |
| 165 | 5   | 0.055      | 0.063 | 0.078 | 165 | 65  | 0.446      | 0.461 | 0.487 |
| 165 | 6   | 0.063      | 0.071 | 0.086 | 165 | 66  | 0.453      | 0.467 | 0.493 |
| 165 | 7   | 0.070      | 0.078 | 0.094 | 165 | 67  | 0.459      | 0.473 | 0.499 |
| 165 | 8   | 0.078      | 0.086 | 0.102 | 165 | 68  | 0.465      | 0.479 | 0.506 |
| 165 | 9   | 0.085      | 0.093 | 0.110 | 165 | 69  | 0.471      | 0.485 | 0.512 |
| 165 | 10  | 0.092      | 0.101 | 0.118 | 165 | 70  | 0.477      | 0.491 | 0.518 |
| 165 | 11  | 0.099      | 0.108 | 0.126 | 165 | 71  | 0.483      | 0.497 | 0.524 |
| 165 | 12  | 0.106      | 0.115 | 0.134 | 165 | 72  | 0.489      | 0.503 | 0.530 |
| 165 | 13  | 0.113      | 0.122 | 0.141 | 165 | 73  | 0.495      | 0.509 | 0.536 |
| 165 | 14  | 0.120      | 0.129 | 0.149 | 165 | 74  | 0.501      | 0.516 | 0.542 |
| 165 | 15  | 0.127      | 0.137 | 0.156 | 165 | 75  | 0.507      | 0.522 | 0.548 |
| 165 | 16  | 0.133      | 0.144 | 0.164 | 165 | 76  | 0.513      | 0.528 | 0.554 |
| 165 | 17  | 0.140      | 0.151 | 0.171 | 165 | 77  | 0.520      | 0.534 | 0.560 |
| 165 | 18  | 0.147      | 0.157 | 0.178 | 165 | 78  | 0.526      | 0.540 | 0.566 |
| 165 | 19  | 0.154      | 0.164 | 0.185 | 165 | 79  | 0.532      | 0.546 | 0.572 |
| 165 | 20  | 0.160      | 0.171 | 0.193 | 165 | 80  | 0.538      | 0.552 | 0.578 |
| 165 | 21  | 0.167      | 0.178 | 0.200 | 165 | 81  | 0.544      | 0.558 | 0.584 |
| 165 | 22  | 0.174      | 0.185 | 0.207 | 165 | 82  | 0.550      | 0.564 | 0.590 |
| 165 | 23  | 0.180      | 0.192 | 0.214 | 165 | 83  | 0.556      | 0.570 | 0.596 |
| 165 | 24  | 0.187      | 0.198 | 0.221 | 165 | 84  | 0.562      | 0.576 | 0.601 |
| 165 | 25  | 0.194      | 0.205 | 0.226 | 165 | 85  | 0.568      | 0.582 | 0.607 |
| 165 | 26  | 0.200      | 0.212 | 0.235 | 165 | 86  | 0.574      | 0.588 | 0.613 |
| 165 | 27  | 0.207      | 0.219 | 0.242 | 165 | 87  | 0.580      | 0.593 | 0.619 |
| 165 | 28  | 0.213      | 0.225 | 0.248 | 165 | 88  | 0.586      | 0.599 | 0.625 |
| 165 | 29  | 0.220      | 0.232 | 0.255 | 165 | 89  | 0.592      | 0.605 | 0.631 |
| 165 | 30  | 0.226      | 0.238 | 0.262 | 165 | 90  | 0.598      | 0.611 | 0.637 |
| 165 | 31  | 0.233      | 0.245 | 0.269 | 165 | 91  | 0.603      | 0.617 | 0.642 |
| 165 | 32  | 0.239      | 0.252 | 0.276 | 165 | 92  | 0.609      | 0.623 | 0.648 |
| 165 | 33  | 0.246      | 0.258 | 0.282 | 165 | 93  | 0.615      | 0.629 | 0.654 |
| 165 | 34  | 0.252      | 0.265 | 0.289 | 165 | 94  | 0.621      | 0.635 | 0.660 |
| 165 | 35  | 0.258      | 0.271 | 0.296 | 165 | 95  | 0.627      | 0.641 | 0.665 |
| 165 | 36  | 0.265      | 0.278 | 0.302 | 165 | 96  | 0.633      | 0.647 | 0.671 |
| 165 | 37  | 0.271      | 0.284 | 0.309 | 165 | 97  | 0.639      | 0.652 | 0.677 |
| 165 | 38  | 0.278      | 0.291 | 0.316 | 165 | 98  | 0.645      | 0.658 | 0.683 |
| 165 | 39  | 0.284      | 0.297 | 0.322 | 165 | 99  | 0.651      | 0.664 | 0.688 |
| 165 | 40  | 0.290      | 0.304 | 0.329 | 165 | 100 | 0.657      | 0.670 | 0.694 |
| 165 | 41  | 0.297      | 0.310 | 0.335 | 165 | 101 | 0.663      | 0.676 | 0.700 |
| 165 | 42  | 0.303      | 0.316 | 0.342 | 165 | 102 | 0.668      | 0.681 | 0.705 |
| 165 | 43  | 0.309      | 0.323 | 0.348 | 165 | 103 | 0.674      | 0.687 | 0.711 |
| 165 | 44  | 0.316      | 0.329 | 0.355 | 165 | 104 | 0.680      | 0.693 | 0.717 |
| 165 | 45  | 0.322      | 0.336 | 0.361 | 165 | 105 | 0.686      | 0.699 | 0.722 |
| 165 | 46  | 0.328      | 0.342 | 0.368 | 165 | 106 | 0.692      | 0.705 | 0.728 |
| 165 | 47  | 0.335      | 0.348 | 0.374 | 165 | 107 | 0.698      | 0.710 | 0.733 |
| 165 | 48  | 0.341      | 0.355 | 0.381 | 165 | 108 | 0.703      | 0.716 | 0.739 |
| 165 | 49  | 0.347      | 0.361 | 0.387 | 165 | 109 | 0.709      | 0.722 | 0.745 |
| 165 | 50  | 0.354      | 0.367 | 0.393 | 165 | 110 | 0.715      | 0.727 | 0.750 |
| 165 | 51  | 0.360      | 0.374 | 0.400 | 165 | 111 | 0.721      | 0.733 | 0.756 |
| 165 | 52  | 0.366      | 0.380 | 0.406 | 165 | 112 | 0.727      | 0.739 | 0.761 |
| 165 | 53  | 0.372      | 0.386 | 0.412 | 165 | 113 | 0.732      | 0.744 | 0.767 |
| 165 | 54  | 0.379      | 0.392 | 0.419 | 165 | 114 | 0.738      | 0.750 | 0.772 |
| 165 | 55  | 0.385      | 0.399 | 0.425 | 165 | 115 | 0.744      | 0.756 | 0.778 |
| 165 | 56  | 0.391      | 0.405 | 0.431 | 165 | 116 | 0.750      | 0.761 | 0.783 |
| 165 | 57  | 0.397      | 0.411 | 0.438 |     |     |            |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 165 | 117 | 0.755            | 0.767 | 0.788 | 170 | 12 | 0.103            | 0.112 | 0.130 |
| 165 | 118 | 0.761            | 0.773 | 0.794 | 170 | 13 | 0.110            | 0.119 | 0.137 |
| 165 | 119 | 0.767            | 0.778 | 0.799 | 170 | 14 | 0.116            | 0.126 | 0.145 |
| 165 | 120 | 0.772            | 0.784 | 0.805 | 170 | 15 | 0.123            | 0.133 | 0.152 |
| 165 | 121 | 0.778            | 0.789 | 0.810 | 170 | 16 | 0.130            | 0.139 | 0.159 |
| 165 | 122 | 0.784            | 0.795 | 0.815 | 170 | 17 | 0.136            | 0.146 | 0.166 |
| 165 | 123 | 0.789            | 0.801 | 0.821 | 170 | 18 | 0.143            | 0.153 | 0.173 |
| 165 | 124 | 0.795            | 0.806 | 0.826 | 170 | 19 | 0.149            | 0.160 | 0.180 |
| 165 | 125 | 0.801            | 0.812 | 0.831 | 170 | 20 | 0.156            | 0.166 | 0.187 |
| 165 | 126 | 0.806            | 0.817 | 0.836 | 170 | 21 | 0.162            | 0.173 | 0.194 |
| 165 | 127 | 0.812            | 0.823 | 0.842 | 170 | 22 | 0.169            | 0.180 | 0.201 |
| 165 | 128 | 0.818            | 0.828 | 0.847 | 170 | 23 | 0.175            | 0.186 | 0.208 |
| 165 | 129 | 0.823            | 0.834 | 0.852 | 170 | 24 | 0.182            | 0.193 | 0.215 |
| 165 | 130 | 0.829            | 0.839 | 0.857 | 170 | 25 | 0.188            | 0.199 | 0.221 |
| 165 | 131 | 0.834            | 0.844 | 0.862 | 170 | 26 | 0.194            | 0.206 | 0.228 |
| 165 | 132 | 0.840            | 0.850 | 0.867 | 170 | 27 | 0.201            | 0.212 | 0.235 |
| 165 | 133 | 0.846            | 0.855 | 0.873 | 170 | 28 | 0.207            | 0.219 | 0.242 |
| 165 | 134 | 0.851            | 0.861 | 0.878 | 170 | 29 | 0.213            | 0.225 | 0.248 |
| 165 | 135 | 0.857            | 0.866 | 0.883 | 170 | 30 | 0.220            | 0.232 | 0.255 |
| 165 | 136 | 0.862            | 0.871 | 0.888 | 170 | 31 | 0.226            | 0.238 | 0.261 |
| 165 | 137 | 0.868            | 0.877 | 0.893 | 170 | 32 | 0.232            | 0.244 | 0.268 |
| 165 | 138 | 0.873            | 0.882 | 0.898 | 170 | 33 | 0.239            | 0.251 | 0.274 |
| 165 | 139 | 0.878            | 0.887 | 0.902 | 170 | 34 | 0.245            | 0.257 | 0.281 |
| 165 | 140 | 0.884            | 0.892 | 0.907 | 170 | 35 | 0.251            | 0.264 | 0.288 |
| 165 | 141 | 0.889            | 0.898 | 0.912 | 170 | 36 | 0.257            | 0.270 | 0.294 |
| 165 | 142 | 0.895            | 0.903 | 0.917 | 170 | 37 | 0.264            | 0.276 | 0.300 |
| 165 | 143 | 0.900            | 0.908 | 0.922 | 170 | 38 | 0.270            | 0.282 | 0.307 |
| 165 | 144 | 0.905            | 0.913 | 0.926 | 170 | 39 | 0.276            | 0.289 | 0.313 |
| 165 | 145 | 0.911            | 0.918 | 0.931 | 170 | 40 | 0.282            | 0.295 | 0.320 |
| 165 | 146 | 0.916            | 0.923 | 0.936 | 170 | 41 | 0.288            | 0.301 | 0.326 |
| 165 | 147 | 0.921            | 0.928 | 0.940 | 170 | 42 | 0.295            | 0.308 | 0.332 |
| 165 | 148 | 0.927            | 0.933 | 0.945 | 170 | 43 | 0.301            | 0.314 | 0.339 |
| 165 | 149 | 0.932            | 0.938 | 0.949 | 170 | 44 | 0.307            | 0.320 | 0.345 |
| 165 | 150 | 0.937            | 0.943 | 0.954 | 170 | 45 | 0.313            | 0.326 | 0.351 |
| 165 | 151 | 0.942            | 0.948 | 0.958 | 170 | 46 | 0.319            | 0.332 | 0.358 |
| 165 | 152 | 0.947            | 0.953 | 0.962 | 170 | 47 | 0.325            | 0.339 | 0.364 |
| 165 | 153 | 0.952            | 0.958 | 0.967 | 170 | 48 | 0.331            | 0.345 | 0.370 |
| 165 | 154 | 0.957            | 0.962 | 0.971 | 170 | 49 | 0.337            | 0.351 | 0.376 |
| 165 | 155 | 0.962            | 0.967 | 0.975 | 170 | 50 | 0.344            | 0.357 | 0.383 |
| 165 | 156 | 0.967            | 0.971 | 0.978 | 170 | 51 | 0.350            | 0.363 | 0.389 |
| 165 | 157 | 0.972            | 0.976 | 0.982 | 170 | 52 | 0.356            | 0.369 | 0.395 |
| 165 | 158 | 0.976            | 0.980 | 0.986 | 170 | 53 | 0.362            | 0.375 | 0.401 |
| 165 | 159 | 0.981            | 0.984 | 0.989 | 170 | 54 | 0.368            | 0.381 | 0.407 |
| 165 | 160 | 0.985            | 0.988 | 0.992 | 170 | 55 | 0.374            | 0.387 | 0.413 |
| 165 | 161 | 0.989            | 0.992 | 0.995 | 170 | 56 | 0.380            | 0.394 | 0.420 |
| 165 | 162 | 0.993            | 0.995 | 0.997 | 170 | 57 | 0.386            | 0.400 | 0.426 |
| 165 | 163 | 0.997            | 0.998 | 0.999 | 170 | 58 | 0.392            | 0.406 | 0.432 |
| 165 | 164 | 0.999            | 1.000 | 1.000 | 170 | 59 | 0.398            | 0.412 | 0.438 |
| 165 | 165 | 1.000            | 1.000 | 1.000 | 170 | 60 | 0.404            | 0.418 | 0.444 |
| 170 | 0   | 0.013            | 0.017 | 0.027 | 170 | 61 | 0.410            | 0.424 | 0.450 |
| 170 | 1   | 0.023            | 0.028 | 0.038 | 170 | 62 | 0.416            | 0.430 | 0.456 |
| 170 | 2   | 0.031            | 0.037 | 0.049 | 170 | 63 | 0.422            | 0.436 | 0.462 |
| 170 | 3   | 0.039            | 0.045 | 0.058 | 170 | 64 | 0.428            | 0.442 | 0.468 |
| 170 | 4   | 0.046            | 0.053 | 0.067 | 170 | 65 | 0.434            | 0.448 | 0.474 |
| 170 | 5   | 0.054            | 0.061 | 0.075 | 170 | 66 | 0.440            | 0.454 | 0.480 |
| 170 | 6   | 0.061            | 0.068 | 0.084 | 170 | 67 | 0.446            | 0.460 | 0.486 |
| 170 | 7   | 0.068            | 0.076 | 0.092 | 170 | 68 | 0.452            | 0.466 | 0.492 |
| 170 | 8   | 0.075            | 0.083 | 0.100 | 170 | 69 | 0.458            | 0.472 | 0.498 |
| 170 | 9   | 0.082            | 0.091 | 0.107 | 170 | 70 | 0.464            | 0.478 | 0.504 |
| 170 | 10  | 0.089            | 0.098 | 0.115 | 170 | 71 | 0.470            | 0.484 | 0.510 |
| 170 | 11  | 0.096            | 0.105 | 0.123 | 170 | 72 | 0.476            | 0.489 | 0.516 |
| 170 |     |                  |       |       | 170 | 73 | 0.481            | 0.495 | 0.521 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 170 | 74  | 0.487            | 0.501 | 0.527 | 170 | 131 | 0.812            | 0.823 | 0.841 |
| 170 | 75  | 0.493            | 0.507 | 0.533 | 170 | 132 | 0.818            | 0.828 | 0.846 |
| 170 | 76  | 0.499            | 0.513 | 0.539 | 170 | 133 | 0.823            | 0.833 | 0.852 |
| 170 | 77  | 0.505            | 0.519 | 0.545 | 170 | 134 | 0.829            | 0.839 | 0.857 |
| 170 | 78  | 0.511            | 0.525 | 0.551 | 170 | 135 | 0.834            | 0.844 | 0.862 |
| 170 | 79  | 0.517            | 0.531 | 0.557 | 170 | 136 | 0.839            | 0.849 | 0.867 |
| 170 | 80  | 0.523            | 0.537 | 0.562 | 170 | 137 | 0.845            | 0.854 | 0.871 |
| 170 | 81  | 0.528            | 0.542 | 0.568 | 170 | 138 | 0.850            | 0.860 | 0.876 |
| 170 | 82  | 0.534            | 0.548 | 0.574 | 170 | 139 | 0.856            | 0.865 | 0.881 |
| 170 | 83  | 0.540            | 0.554 | 0.580 | 170 | 140 | 0.861            | 0.870 | 0.886 |
| 170 | 84  | 0.546            | 0.560 | 0.586 | 170 | 141 | 0.866            | 0.875 | 0.891 |
| 170 | 85  | 0.552            | 0.566 | 0.591 | 170 | 142 | 0.872            | 0.880 | 0.896 |
| 170 | 86  | 0.558            | 0.571 | 0.597 | 170 | 143 | 0.877            | 0.885 | 0.901 |
| 170 | 87  | 0.564            | 0.577 | 0.603 | 170 | 144 | 0.882            | 0.891 | 0.905 |
| 170 | 88  | 0.569            | 0.583 | 0.608 | 170 | 145 | 0.887            | 0.896 | 0.910 |
| 170 | 89  | 0.575            | 0.589 | 0.614 | 170 | 146 | 0.893            | 0.901 | 0.915 |
| 170 | 90  | 0.581            | 0.595 | 0.620 | 170 | 147 | 0.898            | 0.906 | 0.919 |
| 170 | 91  | 0.587            | 0.600 | 0.625 | 170 | 148 | 0.903            | 0.911 | 0.924 |
| 170 | 92  | 0.593            | 0.606 | 0.631 | 170 | 149 | 0.908            | 0.916 | 0.929 |
| 170 | 93  | 0.598            | 0.612 | 0.637 | 170 | 150 | 0.913            | 0.921 | 0.933 |
| 170 | 94  | 0.604            | 0.618 | 0.642 | 170 | 151 | 0.919            | 0.926 | 0.938 |
| 170 | 95  | 0.610            | 0.623 | 0.648 | 170 | 152 | 0.924            | 0.930 | 0.942 |
| 170 | 96  | 0.616            | 0.629 | 0.654 | 170 | 153 | 0.929            | 0.935 | 0.947 |
| 170 | 97  | 0.621            | 0.635 | 0.659 | 170 | 154 | 0.934            | 0.940 | 0.951 |
| 170 | 98  | 0.627            | 0.640 | 0.665 | 170 | 155 | 0.939            | 0.945 | 0.955 |
| 170 | 99  | 0.633            | 0.646 | 0.670 | 170 | 156 | 0.944            | 0.950 | 0.959 |
| 170 | 100 | 0.639            | 0.652 | 0.676 | 170 | 157 | 0.949            | 0.954 | 0.963 |
| 170 | 101 | 0.644            | 0.657 | 0.682 | 170 | 158 | 0.954            | 0.959 | 0.968 |
| 170 | 102 | 0.650            | 0.663 | 0.687 | 170 | 159 | 0.958            | 0.963 | 0.971 |
| 170 | 103 | 0.656            | 0.669 | 0.693 | 170 | 160 | 0.963            | 0.968 | 0.975 |
| 170 | 104 | 0.661            | 0.674 | 0.698 | 170 | 161 | 0.968            | 0.972 | 0.979 |
| 170 | 105 | 0.667            | 0.680 | 0.704 | 170 | 162 | 0.972            | 0.976 | 0.983 |
| 170 | 106 | 0.673            | 0.686 | 0.709 | 170 | 163 | 0.977            | 0.981 | 0.986 |
| 170 | 107 | 0.678            | 0.691 | 0.715 | 170 | 164 | 0.981            | 0.985 | 0.989 |
| 170 | 108 | 0.684            | 0.697 | 0.720 | 170 | 165 | 0.986            | 0.988 | 0.992 |
| 170 | 109 | 0.690            | 0.702 | 0.726 | 170 | 166 | 0.990            | 0.992 | 0.995 |
| 170 | 110 | 0.695            | 0.708 | 0.731 | 170 | 167 | 0.993            | 0.995 | 0.997 |
| 170 | 111 | 0.701            | 0.714 | 0.736 | 170 | 168 | 0.997            | 0.998 | 0.999 |
| 170 | 112 | 0.707            | 0.719 | 0.742 | 170 | 169 | 0.999            | 1.000 | 1.000 |
| 170 | 113 | 0.712            | 0.725 | 0.747 | 170 | 170 | 1.000            | 1.000 | 1.000 |
| 170 | 114 | 0.718            | 0.730 | 0.752 | 175 | 0   | 0.013            | 0.017 | 0.026 |
| 170 | 115 | 0.724            | 0.736 | 0.758 | 175 | 1   | 0.022            | 0.027 | 0.037 |
| 170 | 116 | 0.729            | 0.741 | 0.763 | 175 | 2   | 0.030            | 0.036 | 0.047 |
| 170 | 117 | 0.735            | 0.747 | 0.769 | 175 | 3   | 0.038            | 0.044 | 0.056 |
| 170 | 118 | 0.740            | 0.752 | 0.774 | 175 | 4   | 0.045            | 0.052 | 0.065 |
| 170 | 119 | 0.746            | 0.758 | 0.779 | 175 | 5   | 0.052            | 0.059 | 0.073 |
| 170 | 120 | 0.752            | 0.763 | 0.784 | 175 | 6   | 0.059            | 0.067 | 0.081 |
| 170 | 121 | 0.757            | 0.769 | 0.790 | 175 | 7   | 0.066            | 0.074 | 0.089 |
| 170 | 122 | 0.763            | 0.774 | 0.795 | 175 | 8   | 0.073            | 0.081 | 0.097 |
| 170 | 123 | 0.768            | 0.780 | 0.800 | 175 | 9   | 0.080            | 0.088 | 0.104 |
| 170 | 124 | 0.774            | 0.785 | 0.805 | 175 | 10  | 0.087            | 0.095 | 0.112 |
| 170 | 125 | 0.779            | 0.790 | 0.811 | 175 | 11  | 0.093            | 0.102 | 0.119 |
| 170 | 126 | 0.785            | 0.796 | 0.816 | 175 | 12  | 0.100            | 0.109 | 0.126 |
| 170 | 127 | 0.790            | 0.801 | 0.821 | 175 | 13  | 0.106            | 0.116 | 0.134 |
| 170 | 128 | 0.796            | 0.807 | 0.826 | 175 | 14  | 0.113            | 0.122 | 0.141 |
| 170 | 129 | 0.801            | 0.812 | 0.831 | 175 | 15  | 0.119            | 0.129 | 0.148 |
| 170 | 130 | 0.807            | 0.817 | 0.836 | 175 | 16  | 0.126            | 0.136 | 0.155 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 175 | 17 | 0.132            | 0.142 | 0.162 | 175 | 76  | 0.486            | 0.499 | 0.525 |
| 175 | 18 | 0.139            | 0.149 | 0.168 | 175 | 77  | 0.491            | 0.505 | 0.531 |
| 175 | 19 | 0.145            | 0.155 | 0.175 | 175 | 78  | 0.497            | 0.511 | 0.536 |
|     |    |                  |       |       | 175 | 79  | 0.503            | 0.516 | 0.542 |
| 175 | 20 | 0.151            | 0.162 | 0.182 |     |     |                  |       |       |
| 175 | 21 | 0.158            | 0.168 | 0.189 | 175 | 80  | 0.508            | 0.522 | 0.548 |
| 175 | 22 | 0.164            | 0.175 | 0.195 | 175 | 81  | 0.514            | 0.528 | 0.553 |
| 175 | 23 | 0.170            | 0.181 | 0.202 | 175 | 82  | 0.520            | 0.534 | 0.559 |
| 175 | 24 | 0.176            | 0.187 | 0.209 | 175 | 83  | 0.526            | 0.539 | 0.565 |
|     |    |                  |       |       | 175 | 84  | 0.531            | 0.545 | 0.570 |
| 175 | 25 | 0.183            | 0.194 | 0.215 |     |     |                  |       |       |
| 175 | 26 | 0.189            | 0.200 | 0.222 | 175 | 85  | 0.537            | 0.551 | 0.576 |
| 175 | 27 | 0.195            | 0.206 | 0.228 | 175 | 86  | 0.543            | 0.556 | 0.582 |
| 175 | 28 | 0.201            | 0.213 | 0.235 | 175 | 87  | 0.548            | 0.562 | 0.587 |
| 175 | 29 | 0.207            | 0.219 | 0.241 | 175 | 88  | 0.554            | 0.567 | 0.593 |
|     |    |                  |       |       | 175 | 89  | 0.560            | 0.573 | 0.598 |
| 175 | 30 | 0.214            | 0.225 | 0.248 |     |     |                  |       |       |
| 175 | 31 | 0.220            | 0.231 | 0.254 | 175 | 90  | 0.565            | 0.579 | 0.604 |
| 175 | 32 | 0.226            | 0.238 | 0.261 | 175 | 91  | 0.571            | 0.584 | 0.609 |
| 175 | 33 | 0.232            | 0.244 | 0.267 | 175 | 92  | 0.577            | 0.590 | 0.615 |
| 175 | 34 | 0.238            | 0.250 | 0.273 | 175 | 93  | 0.582            | 0.596 | 0.620 |
|     |    |                  |       |       | 175 | 94  | 0.588            | 0.601 | 0.626 |
| 175 | 35 | 0.244            | 0.256 | 0.280 |     |     |                  |       |       |
| 175 | 36 | 0.250            | 0.262 | 0.286 | 175 | 95  | 0.593            | 0.607 | 0.631 |
| 175 | 37 | 0.256            | 0.269 | 0.292 | 175 | 96  | 0.599            | 0.612 | 0.637 |
| 175 | 38 | 0.262            | 0.275 | 0.299 | 175 | 97  | 0.605            | 0.618 | 0.642 |
| 175 | 39 | 0.268            | 0.281 | 0.305 | 175 | 98  | 0.610            | 0.623 | 0.648 |
|     |    |                  |       |       | 175 | 99  | 0.616            | 0.629 | 0.653 |
| 175 | 40 | 0.274            | 0.287 | 0.311 |     |     |                  |       |       |
| 175 | 41 | 0.280            | 0.293 | 0.317 | 175 | 100 | 0.621            | 0.635 | 0.659 |
| 175 | 42 | 0.286            | 0.299 | 0.323 | 175 | 101 | 0.627            | 0.640 | 0.664 |
| 175 | 43 | 0.292            | 0.305 | 0.330 | 175 | 102 | 0.633            | 0.646 | 0.670 |
| 175 | 44 | 0.298            | 0.311 | 0.336 | 175 | 103 | 0.638            | 0.651 | 0.675 |
|     |    |                  |       |       | 175 | 104 | 0.644            | 0.657 | 0.680 |
| 175 | 45 | 0.304            | 0.317 | 0.342 |     |     |                  |       |       |
| 175 | 46 | 0.310            | 0.323 | 0.348 | 175 | 105 | 0.649            | 0.662 | 0.686 |
| 175 | 47 | 0.316            | 0.329 | 0.354 | 175 | 106 | 0.655            | 0.668 | 0.691 |
| 175 | 48 | 0.322            | 0.335 | 0.360 | 175 | 107 | 0.660            | 0.673 | 0.697 |
| 175 | 49 | 0.328            | 0.341 | 0.366 | 175 | 108 | 0.666            | 0.679 | 0.702 |
|     |    |                  |       |       | 175 | 109 | 0.671            | 0.684 | 0.707 |
| 175 | 50 | 0.334            | 0.347 | 0.372 |     |     |                  |       |       |
| 175 | 51 | 0.340            | 0.353 | 0.378 | 175 | 110 | 0.677            | 0.690 | 0.713 |
| 175 | 52 | 0.346            | 0.359 | 0.384 | 175 | 111 | 0.682            | 0.695 | 0.718 |
| 175 | 53 | 0.352            | 0.365 | 0.390 | 175 | 112 | 0.688            | 0.700 | 0.723 |
| 175 | 54 | 0.358            | 0.371 | 0.396 | 175 | 113 | 0.693            | 0.706 | 0.729 |
|     |    |                  |       |       | 175 | 114 | 0.699            | 0.711 | 0.734 |
| 175 | 55 | 0.364            | 0.377 | 0.402 |     |     |                  |       |       |
| 175 | 56 | 0.369            | 0.383 | 0.408 | 175 | 115 | 0.704            | 0.717 | 0.739 |
| 175 | 57 | 0.375            | 0.389 | 0.414 | 175 | 116 | 0.710            | 0.722 | 0.744 |
| 175 | 58 | 0.381            | 0.395 | 0.420 | 175 | 117 | 0.715            | 0.727 | 0.750 |
| 175 | 59 | 0.387            | 0.401 | 0.426 | 175 | 118 | 0.721            | 0.733 | 0.755 |
|     |    |                  |       |       | 175 | 119 | 0.726            | 0.738 | 0.760 |
| 175 | 60 | 0.393            | 0.406 | 0.432 |     |     |                  |       |       |
| 175 | 61 | 0.399            | 0.412 | 0.438 | 175 | 120 | 0.732            | 0.744 | 0.765 |
| 175 | 62 | 0.405            | 0.418 | 0.444 | 175 | 121 | 0.737            | 0.749 | 0.770 |
| 175 | 63 | 0.410            | 0.424 | 0.450 | 175 | 122 | 0.743            | 0.754 | 0.775 |
| 175 | 64 | 0.416            | 0.430 | 0.456 | 175 | 123 | 0.748            | 0.760 | 0.781 |
|     |    |                  |       |       | 175 | 124 | 0.753            | 0.765 | 0.786 |
| 175 | 65 | 0.422            | 0.436 | 0.461 |     |     |                  |       |       |
| 175 | 66 | 0.428            | 0.442 | 0.467 | 175 | 125 | 0.759            | 0.770 | 0.791 |
| 175 | 67 | 0.434            | 0.447 | 0.473 | 175 | 126 | 0.764            | 0.776 | 0.796 |
| 175 | 68 | 0.439            | 0.453 | 0.479 | 175 | 127 | 0.770            | 0.781 | 0.801 |
| 175 | 69 | 0.445            | 0.459 | 0.485 | 175 | 128 | 0.775            | 0.786 | 0.806 |
|     |    |                  |       |       | 175 | 129 | 0.780            | 0.791 | 0.811 |
| 175 | 70 | 0.451            | 0.465 | 0.491 |     |     |                  |       |       |
| 175 | 71 | 0.457            | 0.470 | 0.496 | 175 | 130 | 0.786            | 0.797 | 0.816 |
| 175 | 72 | 0.463            | 0.476 | 0.502 | 175 | 131 | 0.791            | 0.802 | 0.821 |
| 175 | 73 | 0.468            | 0.482 | 0.508 | 175 | 132 | 0.796            | 0.807 | 0.826 |
| 175 | 74 | 0.474            | 0.488 | 0.514 | 175 | 133 | 0.802            | 0.812 | 0.831 |
|     |    |                  |       |       | 175 | 134 | 0.807            | 0.818 | 0.836 |
| 175 | 75 | 0.480            | 0.494 | 0.519 |     |     |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 175 | 135 | 0.812            | 0.823 | 0.841 | 180 | 20 | 0.147            | 0.157 | 0.177 |
| 175 | 136 | 0.818            | 0.828 | 0.846 | 180 | 21 | 0.153            | 0.164 | 0.184 |
| 175 | 137 | 0.823            | 0.833 | 0.851 | 180 | 22 | 0.160            | 0.170 | 0.190 |
| 175 | 138 | 0.828            | 0.838 | 0.856 | 180 | 23 | 0.166            | 0.176 | 0.197 |
| 175 | 139 | 0.834            | 0.843 | 0.861 | 180 | 24 | 0.172            | 0.182 | 0.203 |
| 175 | 140 | 0.839            | 0.848 | 0.866 | 180 | 25 | 0.178            | 0.189 | 0.210 |
| 175 | 141 | 0.844            | 0.854 | 0.870 | 180 | 26 | 0.184            | 0.195 | 0.216 |
| 175 | 142 | 0.849            | 0.859 | 0.875 | 180 | 27 | 0.190            | 0.201 | 0.222 |
| 175 | 143 | 0.855            | 0.864 | 0.880 | 180 | 28 | 0.196            | 0.207 | 0.229 |
| 175 | 144 | 0.860            | 0.869 | 0.885 | 180 | 29 | 0.202            | 0.213 | 0.235 |
| 175 | 145 | 0.865            | 0.874 | 0.890 | 180 | 30 | 0.208            | 0.219 | 0.241 |
| 175 | 146 | 0.870            | 0.879 | 0.894 | 180 | 31 | 0.214            | 0.225 | 0.248 |
| 175 | 147 | 0.875            | 0.884 | 0.899 | 180 | 32 | 0.220            | 0.231 | 0.254 |
| 175 | 148 | 0.880            | 0.889 | 0.904 | 180 | 33 | 0.226            | 0.237 | 0.260 |
| 175 | 149 | 0.886            | 0.894 | 0.908 | 180 | 34 | 0.232            | 0.243 | 0.266 |
| 175 | 150 | 0.891            | 0.899 | 0.913 | 180 | 35 | 0.238            | 0.249 | 0.272 |
| 175 | 151 | 0.896            | 0.904 | 0.917 | 180 | 36 | 0.243            | 0.255 | 0.278 |
| 175 | 152 | 0.901            | 0.908 | 0.922 | 180 | 37 | 0.249            | 0.261 | 0.285 |
| 175 | 153 | 0.906            | 0.913 | 0.926 | 180 | 38 | 0.255            | 0.267 | 0.291 |
| 175 | 154 | 0.911            | 0.918 | 0.931 | 180 | 39 | 0.261            | 0.273 | 0.297 |
| 175 | 155 | 0.916            | 0.923 | 0.935 | 180 | 40 | 0.267            | 0.279 | 0.303 |
| 175 | 156 | 0.921            | 0.928 | 0.940 | 180 | 41 | 0.273            | 0.285 | 0.309 |
| 175 | 157 | 0.926            | 0.932 | 0.944 | 180 | 42 | 0.279            | 0.291 | 0.315 |
| 175 | 158 | 0.931            | 0.937 | 0.948 | 180 | 43 | 0.284            | 0.297 | 0.321 |
| 175 | 159 | 0.936            | 0.942 | 0.952 | 180 | 44 | 0.290            | 0.303 | 0.327 |
| 175 | 160 | 0.941            | 0.946 | 0.956 | 180 | 45 | 0.296            | 0.309 | 0.333 |
| 175 | 161 | 0.945            | 0.951 | 0.961 | 180 | 46 | 0.302            | 0.315 | 0.339 |
| 175 | 162 | 0.950            | 0.956 | 0.965 | 180 | 47 | 0.308            | 0.320 | 0.345 |
| 175 | 163 | 0.955            | 0.960 | 0.968 | 180 | 48 | 0.314            | 0.326 | 0.351 |
| 175 | 164 | 0.960            | 0.964 | 0.972 | 180 | 49 | 0.319            | 0.332 | 0.357 |
| 175 | 165 | 0.964            | 0.969 | 0.976 | 180 | 50 | 0.325            | 0.338 | 0.363 |
| 175 | 166 | 0.969            | 0.973 | 0.980 | 180 | 51 | 0.331            | 0.344 | 0.368 |
| 175 | 167 | 0.973            | 0.977 | 0.983 | 180 | 52 | 0.337            | 0.350 | 0.374 |
| 175 | 168 | 0.978            | 0.981 | 0.987 | 180 | 53 | 0.342            | 0.355 | 0.380 |
| 175 | 169 | 0.982            | 0.985 | 0.990 | 180 | 54 | 0.348            | 0.361 | 0.386 |
| 175 | 170 | 0.986            | 0.989 | 0.993 | 180 | 55 | 0.354            | 0.367 | 0.392 |
| 175 | 171 | 0.990            | 0.992 | 0.995 | 180 | 56 | 0.360            | 0.373 | 0.398 |
| 175 | 172 | 0.994            | 0.995 | 0.997 | 180 | 57 | 0.365            | 0.378 | 0.404 |
| 175 | 173 | 0.997            | 0.998 | 0.999 | 180 | 58 | 0.371            | 0.384 | 0.409 |
| 175 | 174 | 0.999            | 1.000 | 1.000 | 180 | 59 | 0.377            | 0.390 | 0.415 |
| 175 | 175 | 1.000            | 1.000 | 1.000 | 180 | 60 | 0.382            | 0.396 | 0.421 |
| 180 | 0   | 0.013            | 0.017 | 0.025 | 180 | 61 | 0.388            | 0.401 | 0.427 |
| 180 | 1   | 0.021            | 0.026 | 0.036 | 180 | 62 | 0.394            | 0.407 | 0.432 |
| 180 | 2   | 0.029            | 0.035 | 0.046 | 180 | 63 | 0.399            | 0.413 | 0.438 |
| 180 | 3   | 0.037            | 0.043 | 0.055 | 180 | 64 | 0.405            | 0.419 | 0.444 |
| 180 | 4   | 0.044            | 0.050 | 0.063 | 180 | 65 | 0.411            | 0.424 | 0.450 |
| 180 | 5   | 0.051            | 0.058 | 0.071 | 180 | 66 | 0.416            | 0.430 | 0.455 |
| 180 | 6   | 0.058            | 0.065 | 0.079 | 180 | 67 | 0.422            | 0.436 | 0.461 |
| 180 | 7   | 0.065            | 0.072 | 0.087 | 180 | 68 | 0.428            | 0.441 | 0.467 |
| 180 | 8   | 0.071            | 0.079 | 0.094 | 180 | 69 | 0.433            | 0.447 | 0.472 |
| 180 | 9   | 0.078            | 0.086 | 0.102 | 180 | 70 | 0.439            | 0.452 | 0.478 |
| 180 | 10  | 0.084            | 0.092 | 0.109 | 180 | 71 | 0.445            | 0.458 | 0.484 |
| 180 | 11  | 0.091            | 0.099 | 0.116 | 180 | 72 | 0.450            | 0.464 | 0.489 |
| 180 | 12  | 0.097            | 0.106 | 0.123 | 180 | 73 | 0.456            | 0.469 | 0.495 |
| 180 | 13  | 0.104            | 0.112 | 0.130 | 180 | 74 | 0.461            | 0.475 | 0.500 |
| 180 | 14  | 0.110            | 0.119 | 0.137 | 180 | 75 | 0.467            | 0.481 | 0.506 |
| 180 | 15  | 0.116            | 0.125 | 0.144 | 180 | 76 | 0.473            | 0.486 | 0.512 |
| 180 | 16  | 0.122            | 0.132 | 0.151 | 180 | 77 | 0.478            | 0.492 | 0.517 |
| 180 | 17  | 0.129            | 0.138 | 0.157 | 180 | 78 | 0.484            | 0.497 | 0.523 |
| 180 | 18  | 0.135            | 0.145 | 0.164 | 180 | 79 | 0.489            | 0.503 | 0.528 |
| 180 | 19  | 0.141            | 0.151 | 0.171 | 180 | 80 | 0.495            | 0.508 | 0.534 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 180 | 81  | 0.501            | 0.514 | 0.539 | 180 | 138 | 0.807            | 0.818 | 0.836 |
| 180 | 82  | 0.506            | 0.520 | 0.545 | 180 | 139 | 0.813            | 0.823 | 0.841 |
| 180 | 83  | 0.512            | 0.525 | 0.550 | 180 | 140 | 0.818            | 0.828 | 0.846 |
| 180 | 84  | 0.517            | 0.531 | 0.556 | 180 | 141 | 0.823            | 0.833 | 0.851 |
| 180 | 85  | 0.523            | 0.536 | 0.561 | 180 | 142 | 0.828            | 0.838 | 0.855 |
| 180 | 86  | 0.528            | 0.542 | 0.567 | 180 | 143 | 0.833            | 0.843 | 0.860 |
| 180 | 87  | 0.534            | 0.547 | 0.572 | 180 | 144 | 0.838            | 0.848 | 0.865 |
| 180 | 88  | 0.539            | 0.553 | 0.578 | 180 | 145 | 0.843            | 0.853 | 0.869 |
| 180 | 89  | 0.545            | 0.558 | 0.583 | 180 | 146 | 0.849            | 0.858 | 0.874 |
| 180 | 90  | 0.550            | 0.564 | 0.589 | 180 | 147 | 0.854            | 0.863 | 0.879 |
| 180 | 91  | 0.556            | 0.569 | 0.594 | 180 | 148 | 0.859            | 0.868 | 0.883 |
| 180 | 92  | 0.561            | 0.575 | 0.599 | 180 | 149 | 0.864            | 0.873 | 0.888 |
| 180 | 93  | 0.567            | 0.580 | 0.605 | 180 | 150 | 0.869            | 0.877 | 0.893 |
| 180 | 94  | 0.572            | 0.586 | 0.610 | 180 | 151 | 0.874            | 0.882 | 0.897 |
| 180 | 95  | 0.578            | 0.591 | 0.616 | 180 | 152 | 0.879            | 0.887 | 0.902 |
| 180 | 96  | 0.583            | 0.597 | 0.621 | 180 | 153 | 0.884            | 0.892 | 0.906 |
| 180 | 97  | 0.589            | 0.602 | 0.626 | 180 | 154 | 0.889            | 0.897 | 0.911 |
| 180 | 98  | 0.594            | 0.607 | 0.632 | 180 | 155 | 0.894            | 0.902 | 0.915 |
| 180 | 99  | 0.600            | 0.613 | 0.637 | 180 | 156 | 0.899            | 0.906 | 0.920 |
| 180 | 100 | 0.605            | 0.618 | 0.642 | 180 | 157 | 0.904            | 0.911 | 0.924 |
| 180 | 101 | 0.611            | 0.624 | 0.648 | 180 | 158 | 0.909            | 0.916 | 0.928 |
| 180 | 102 | 0.616            | 0.629 | 0.653 | 180 | 159 | 0.913            | 0.920 | 0.932 |
| 180 | 103 | 0.621            | 0.634 | 0.658 | 180 | 160 | 0.918            | 0.925 | 0.937 |
| 180 | 104 | 0.627            | 0.640 | 0.664 | 180 | 161 | 0.923            | 0.930 | 0.941 |
| 180 | 105 | 0.632            | 0.645 | 0.669 | 180 | 162 | 0.928            | 0.934 | 0.945 |
| 180 | 106 | 0.638            | 0.651 | 0.674 | 180 | 163 | 0.933            | 0.939 | 0.950 |
| 180 | 107 | 0.643            | 0.656 | 0.679 | 180 | 164 | 0.937            | 0.943 | 0.954 |
| 180 | 108 | 0.649            | 0.661 | 0.685 | 180 | 165 | 0.942            | 0.948 | 0.958 |
| 180 | 109 | 0.654            | 0.667 | 0.690 | 180 | 166 | 0.947            | 0.952 | 0.962 |
| 180 | 110 | 0.659            | 0.672 | 0.695 | 180 | 167 | 0.952            | 0.957 | 0.966 |
| 180 | 111 | 0.665            | 0.677 | 0.700 | 180 | 168 | 0.956            | 0.961 | 0.969 |
| 180 | 112 | 0.670            | 0.683 | 0.706 | 180 | 169 | 0.961            | 0.965 | 0.973 |
| 180 | 113 | 0.675            | 0.688 | 0.711 | 180 | 170 | 0.965            | 0.970 | 0.977 |
| 180 | 114 | 0.681            | 0.693 | 0.716 | 180 | 171 | 0.970            | 0.974 | 0.980 |
| 180 | 115 | 0.686            | 0.698 | 0.721 | 180 | 172 | 0.974            | 0.978 | 0.984 |
| 180 | 116 | 0.692            | 0.704 | 0.726 | 180 | 173 | 0.978            | 0.982 | 0.987 |
| 180 | 117 | 0.697            | 0.709 | 0.731 | 180 | 174 | 0.982            | 0.985 | 0.990 |
| 180 | 118 | 0.702            | 0.714 | 0.736 | 180 | 175 | 0.986            | 0.989 | 0.993 |
| 180 | 119 | 0.708            | 0.720 | 0.742 | 180 | 176 | 0.990            | 0.992 | 0.995 |
| 180 | 120 | 0.713            | 0.725 | 0.747 | 180 | 177 | 0.994            | 0.995 | 0.998 |
| 180 | 121 | 0.718            | 0.730 | 0.752 | 180 | 178 | 0.997            | 0.998 | 0.999 |
| 180 | 122 | 0.724            | 0.735 | 0.757 | 180 | 179 | 0.999            | 1.000 | 1.000 |
| 180 | 123 | 0.729            | 0.741 | 0.762 | 180 | 180 | 1.000            | 1.000 | 1.000 |
| 180 | 124 | 0.734            | 0.746 | 0.767 | 185 | 0   | 0.012            | 0.016 | 0.025 |
| 180 | 125 | 0.739            | 0.751 | 0.772 | 185 | 1   | 0.021            | 0.025 | 0.035 |
| 180 | 126 | 0.745            | 0.756 | 0.777 | 185 | 2   | 0.029            | 0.034 | 0.045 |
| 180 | 127 | 0.750            | 0.761 | 0.782 | 185 | 3   | 0.036            | 0.041 | 0.053 |
| 180 | 128 | 0.755            | 0.767 | 0.787 | 185 | 4   | 0.043            | 0.049 | 0.061 |
| 180 | 129 | 0.760            | 0.772 | 0.792 | 185 | 5   | 0.050            | 0.056 | 0.069 |
| 180 | 130 | 0.766            | 0.777 | 0.797 | 185 | 6   | 0.056            | 0.063 | 0.077 |
| 180 | 131 | 0.771            | 0.782 | 0.802 | 185 | 7   | 0.063            | 0.070 | 0.084 |
| 180 | 132 | 0.776            | 0.787 | 0.807 | 185 | 8   | 0.069            | 0.077 | 0.092 |
| 180 | 133 | 0.781            | 0.792 | 0.812 | 185 | 9   | 0.076            | 0.083 | 0.099 |
| 180 | 134 | 0.787            | 0.797 | 0.817 | 185 | 10  | 0.082            | 0.090 | 0.106 |
| 180 | 135 | 0.792            | 0.802 | 0.822 | 185 | 11  | 0.088            | 0.096 | 0.113 |
| 180 | 136 | 0.797            | 0.808 | 0.826 | 185 | 12  | 0.095            | 0.103 | 0.120 |
| 180 | 137 | 0.802            | 0.813 | 0.831 |     |     |                  |       |       |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |    | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 185 | 13 | 0.101            | 0.109 | 0.127 | 185 | 72  | 0.439            | 0.452 | 0.477 |
| 185 | 14 | 0.107            | 0.116 | 0.133 | 185 | 73  | 0.444            | 0.457 | 0.482 |
|     |    |                  |       |       | 185 | 74  | 0.450            | 0.463 | 0.488 |
| 185 | 15 | 0.113            | 0.122 | 0.140 | 185 | 75  | 0.455            | 0.468 | 0.493 |
| 185 | 16 | 0.119            | 0.128 | 0.147 | 185 | 76  | 0.460            | 0.474 | 0.499 |
| 185 | 17 | 0.125            | 0.135 | 0.153 | 185 | 77  | 0.466            | 0.479 | 0.504 |
| 185 | 18 | 0.131            | 0.141 | 0.160 | 185 | 78  | 0.471            | 0.485 | 0.510 |
| 185 | 19 | 0.137            | 0.147 | 0.166 | 185 | 79  | 0.477            | 0.490 | 0.515 |
| 185 | 20 | 0.143            | 0.153 | 0.173 | 185 | 80  | 0.482            | 0.496 | 0.521 |
| 185 | 21 | 0.149            | 0.159 | 0.179 | 185 | 81  | 0.488            | 0.501 | 0.526 |
| 185 | 22 | 0.155            | 0.165 | 0.185 | 185 | 82  | 0.493            | 0.506 | 0.531 |
| 185 | 23 | 0.161            | 0.172 | 0.192 | 185 | 83  | 0.498            | 0.512 | 0.537 |
| 185 | 24 | 0.167            | 0.178 | 0.198 | 185 | 84  | 0.504            | 0.517 | 0.542 |
| 185 | 25 | 0.173            | 0.184 | 0.204 | 185 | 85  | 0.509            | 0.523 | 0.548 |
| 185 | 26 | 0.179            | 0.190 | 0.210 | 185 | 86  | 0.515            | 0.528 | 0.553 |
| 185 | 27 | 0.185            | 0.196 | 0.217 | 185 | 87  | 0.520            | 0.533 | 0.558 |
| 185 | 28 | 0.191            | 0.202 | 0.223 | 185 | 88  | 0.525            | 0.539 | 0.564 |
| 185 | 29 | 0.197            | 0.208 | 0.229 | 185 | 89  | 0.531            | 0.544 | 0.569 |
| 185 | 30 | 0.202            | 0.213 | 0.235 | 185 | 90  | 0.536            | 0.549 | 0.574 |
| 185 | 31 | 0.208            | 0.219 | 0.241 | 185 | 91  | 0.542            | 0.555 | 0.579 |
| 185 | 32 | 0.214            | 0.225 | 0.247 | 185 | 92  | 0.547            | 0.560 | 0.585 |
| 185 | 33 | 0.220            | 0.231 | 0.253 | 185 | 93  | 0.552            | 0.565 | 0.590 |
| 185 | 34 | 0.226            | 0.237 | 0.259 | 185 | 94  | 0.558            | 0.571 | 0.595 |
| 185 | 35 | 0.231            | 0.243 | 0.265 | 185 | 95  | 0.563            | 0.576 | 0.601 |
| 185 | 36 | 0.237            | 0.249 | 0.271 | 185 | 96  | 0.568            | 0.581 | 0.606 |
| 185 | 37 | 0.243            | 0.255 | 0.277 | 185 | 97  | 0.574            | 0.587 | 0.611 |
| 185 | 38 | 0.249            | 0.260 | 0.283 | 185 | 98  | 0.579            | 0.592 | 0.616 |
| 185 | 39 | 0.254            | 0.266 | 0.289 | 185 | 99  | 0.584            | 0.597 | 0.622 |
| 185 | 40 | 0.260            | 0.272 | 0.295 | 185 | 100 | 0.590            | 0.603 | 0.627 |
| 185 | 41 | 0.266            | 0.278 | 0.301 | 185 | 101 | 0.595            | 0.608 | 0.632 |
| 185 | 42 | 0.271            | 0.284 | 0.307 | 185 | 102 | 0.600            | 0.613 | 0.637 |
| 185 | 43 | 0.277            | 0.289 | 0.313 | 185 | 103 | 0.606            | 0.619 | 0.642 |
| 185 | 44 | 0.283            | 0.295 | 0.319 | 185 | 104 | 0.611            | 0.624 | 0.648 |
| 185 | 45 | 0.288            | 0.301 | 0.324 | 185 | 105 | 0.616            | 0.629 | 0.653 |
| 185 | 46 | 0.294            | 0.306 | 0.330 | 185 | 106 | 0.621            | 0.634 | 0.658 |
| 185 | 47 | 0.300            | 0.312 | 0.336 | 185 | 107 | 0.627            | 0.640 | 0.663 |
| 185 | 48 | 0.305            | 0.318 | 0.342 | 185 | 108 | 0.632            | 0.645 | 0.668 |
| 185 | 49 | 0.311            | 0.324 | 0.348 | 185 | 109 | 0.637            | 0.650 | 0.673 |
| 185 | 50 | 0.317            | 0.329 | 0.353 | 185 | 110 | 0.643            | 0.655 | 0.678 |
| 185 | 51 | 0.322            | 0.335 | 0.359 | 185 | 111 | 0.648            | 0.660 | 0.684 |
| 185 | 52 | 0.328            | 0.341 | 0.365 | 185 | 112 | 0.653            | 0.666 | 0.689 |
| 185 | 53 | 0.333            | 0.346 | 0.371 | 185 | 113 | 0.658            | 0.671 | 0.694 |
| 185 | 54 | 0.339            | 0.352 | 0.376 | 185 | 114 | 0.664            | 0.676 | 0.699 |
| 185 | 55 | 0.345            | 0.357 | 0.382 | 185 | 115 | 0.669            | 0.681 | 0.704 |
| 185 | 56 | 0.350            | 0.363 | 0.388 | 185 | 116 | 0.674            | 0.686 | 0.709 |
| 185 | 57 | 0.356            | 0.369 | 0.393 | 185 | 117 | 0.679            | 0.692 | 0.714 |
| 185 | 58 | 0.361            | 0.374 | 0.399 | 185 | 118 | 0.685            | 0.697 | 0.719 |
| 185 | 59 | 0.367            | 0.380 | 0.405 | 185 | 119 | 0.690            | 0.702 | 0.724 |
| 185 | 60 | 0.372            | 0.385 | 0.410 | 185 | 120 | 0.695            | 0.707 | 0.729 |
| 185 | 61 | 0.378            | 0.391 | 0.416 | 185 | 121 | 0.700            | 0.712 | 0.734 |
| 185 | 62 | 0.384            | 0.397 | 0.422 | 185 | 122 | 0.705            | 0.717 | 0.739 |
| 185 | 63 | 0.389            | 0.402 | 0.427 | 185 | 123 | 0.711            | 0.722 | 0.744 |
| 185 | 64 | 0.395            | 0.408 | 0.433 | 185 | 124 | 0.716            | 0.727 | 0.749 |
| 185 | 65 | 0.400            | 0.413 | 0.438 | 185 | 125 | 0.721            | 0.733 | 0.754 |
| 185 | 66 | 0.406            | 0.419 | 0.444 | 185 | 126 | 0.726            | 0.738 | 0.759 |
| 185 | 67 | 0.411            | 0.424 | 0.449 | 185 | 127 | 0.731            | 0.743 | 0.764 |
| 185 | 68 | 0.417            | 0.430 | 0.455 | 185 | 128 | 0.736            | 0.748 | 0.769 |
| 185 | 69 | 0.422            | 0.435 | 0.460 | 185 | 129 | 0.742            | 0.753 | 0.774 |
| 185 | 70 | 0.428            | 0.441 | 0.466 | 185 | 130 | 0.747            | 0.758 | 0.778 |
| 185 | 71 | 0.433            | 0.446 | 0.471 |     |     |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 185 | 131 | 0.752            | 0.763 | 0.783 | 190 | 0  | 0.012            | 0.016 | 0.024 |
| 185 | 132 | 0.757            | 0.768 | 0.788 | 190 | 1  | 0.020            | 0.025 | 0.034 |
| 185 | 133 | 0.762            | 0.773 | 0.793 | 190 | 2  | 0.028            | 0.033 | 0.044 |
| 185 | 134 | 0.767            | 0.778 | 0.798 | 190 | 3  | 0.035            | 0.040 | 0.052 |
|     |     |                  |       |       | 190 | 4  | 0.042            | 0.048 | 0.060 |
| 185 | 135 | 0.772            | 0.783 | 0.803 |     |    |                  |       |       |
| 185 | 136 | 0.777            | 0.788 | 0.808 | 190 | 5  | 0.048            | 0.055 | 0.068 |
| 185 | 137 | 0.782            | 0.793 | 0.812 | 190 | 6  | 0.055            | 0.061 | 0.075 |
| 185 | 138 | 0.787            | 0.798 | 0.817 | 190 | 7  | 0.061            | 0.068 | 0.082 |
| 185 | 139 | 0.793            | 0.803 | 0.822 | 190 | 8  | 0.067            | 0.075 | 0.089 |
|     |     |                  |       |       | 190 | 9  | 0.074            | 0.081 | 0.096 |
| 185 | 140 | 0.798            | 0.808 | 0.827 |     |    |                  |       |       |
| 185 | 141 | 0.803            | 0.813 | 0.831 | 190 | 10 | 0.080            | 0.088 | 0.103 |
| 185 | 142 | 0.808            | 0.818 | 0.836 | 190 | 11 | 0.086            | 0.094 | 0.110 |
| 185 | 143 | 0.813            | 0.823 | 0.841 | 190 | 12 | 0.092            | 0.100 | 0.117 |
| 185 | 144 | 0.818            | 0.828 | 0.845 | 190 | 13 | 0.098            | 0.107 | 0.123 |
|     |     |                  |       |       | 190 | 14 | 0.104            | 0.113 | 0.130 |
| 185 | 145 | 0.823            | 0.833 | 0.850 |     |    |                  |       |       |
| 185 | 146 | 0.828            | 0.837 | 0.855 | 190 | 15 | 0.110            | 0.119 | 0.136 |
| 185 | 147 | 0.833            | 0.842 | 0.859 | 190 | 16 | 0.116            | 0.125 | 0.143 |
| 185 | 148 | 0.838            | 0.847 | 0.864 | 190 | 17 | 0.122            | 0.131 | 0.149 |
| 185 | 149 | 0.843            | 0.852 | 0.869 | 190 | 18 | 0.128            | 0.137 | 0.156 |
|     |     |                  |       |       | 190 | 19 | 0.134            | 0.143 | 0.162 |
| 185 | 150 | 0.848            | 0.857 | 0.873 |     |    |                  |       |       |
| 185 | 151 | 0.853            | 0.862 | 0.878 | 190 | 20 | 0.140            | 0.149 | 0.168 |
| 185 | 152 | 0.858            | 0.866 | 0.882 | 190 | 21 | 0.146            | 0.155 | 0.174 |
| 185 | 153 | 0.863            | 0.871 | 0.887 | 190 | 22 | 0.151            | 0.161 | 0.181 |
| 185 | 154 | 0.867            | 0.876 | 0.891 | 190 | 23 | 0.157            | 0.167 | 0.187 |
|     |     |                  |       |       | 190 | 24 | 0.163            | 0.173 | 0.193 |
| 185 | 155 | 0.872            | 0.881 | 0.896 |     |    |                  |       |       |
| 185 | 156 | 0.877            | 0.886 | 0.900 | 190 | 25 | 0.169            | 0.179 | 0.199 |
| 185 | 157 | 0.882            | 0.890 | 0.905 | 190 | 26 | 0.174            | 0.185 | 0.205 |
| 185 | 158 | 0.887            | 0.895 | 0.909 | 190 | 27 | 0.180            | 0.191 | 0.211 |
| 185 | 159 | 0.892            | 0.900 | 0.913 | 190 | 28 | 0.186            | 0.196 | 0.217 |
|     |     |                  |       |       | 190 | 29 | 0.191            | 0.202 | 0.223 |
| 185 | 160 | 0.897            | 0.904 | 0.918 |     |    |                  |       |       |
| 185 | 161 | 0.901            | 0.909 | 0.922 | 190 | 30 | 0.197            | 0.208 | 0.229 |
| 185 | 162 | 0.906            | 0.914 | 0.926 | 190 | 31 | 0.203            | 0.214 | 0.235 |
| 185 | 163 | 0.911            | 0.918 | 0.930 | 190 | 32 | 0.208            | 0.220 | 0.241 |
| 185 | 164 | 0.916            | 0.923 | 0.935 | 190 | 33 | 0.214            | 0.225 | 0.247 |
|     |     |                  |       |       | 190 | 34 | 0.220            | 0.231 | 0.253 |
| 185 | 165 | 0.920            | 0.927 | 0.939 |     |    |                  |       |       |
| 185 | 166 | 0.925            | 0.932 | 0.943 | 190 | 35 | 0.225            | 0.237 | 0.259 |
| 185 | 167 | 0.930            | 0.936 | 0.947 | 190 | 36 | 0.231            | 0.242 | 0.265 |
| 185 | 168 | 0.935            | 0.941 | 0.951 | 190 | 37 | 0.237            | 0.248 | 0.270 |
| 185 | 169 | 0.939            | 0.945 | 0.955 | 190 | 38 | 0.242            | 0.254 | 0.276 |
|     |     |                  |       |       | 190 | 39 | 0.248            | 0.259 | 0.282 |
| 185 | 170 | 0.944            | 0.949 | 0.959 |     |    |                  |       |       |
| 185 | 171 | 0.948            | 0.954 | 0.963 | 190 | 40 | 0.253            | 0.265 | 0.288 |
| 185 | 172 | 0.953            | 0.958 | 0.966 | 190 | 41 | 0.259            | 0.271 | 0.293 |
| 185 | 173 | 0.957            | 0.962 | 0.970 | 190 | 42 | 0.264            | 0.276 | 0.299 |
| 185 | 174 | 0.962            | 0.966 | 0.974 | 190 | 43 | 0.270            | 0.282 | 0.305 |
|     |     |                  |       |       | 190 | 44 | 0.275            | 0.288 | 0.311 |
| 185 | 175 | 0.966            | 0.970 | 0.977 |     |    |                  |       |       |
| 185 | 176 | 0.970            | 0.974 | 0.981 | 190 | 45 | 0.281            | 0.293 | 0.316 |
| 185 | 177 | 0.975            | 0.978 | 0.984 | 190 | 46 | 0.287            | 0.299 | 0.322 |
| 185 | 178 | 0.979            | 0.982 | 0.987 | 190 | 47 | 0.292            | 0.304 | 0.328 |
| 185 | 179 | 0.983            | 0.986 | 0.990 | 190 | 48 | 0.298            | 0.310 | 0.333 |
|     |     |                  |       |       | 190 | 49 | 0.303            | 0.315 | 0.339 |
| 185 | 180 | 0.987            | 0.989 | 0.993 |     |    |                  |       |       |
| 185 | 181 | 0.991            | 0.993 | 0.996 | 190 | 50 | 0.308            | 0.321 | 0.345 |
| 185 | 182 | 0.994            | 0.996 | 0.998 | 190 | 51 | 0.314            | 0.326 | 0.350 |
| 185 | 183 | 0.997            | 0.998 | 0.999 | 190 | 52 | 0.319            | 0.332 | 0.356 |
| 185 | 184 | 0.999            | 1.000 | 1.000 | 190 | 53 | 0.325            | 0.337 | 0.361 |
|     |     |                  |       |       | 190 | 54 | 0.330            | 0.343 | 0.367 |
| 185 | 185 | 1.000            | 1.000 | 1.000 |     |    |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 190 | 55  | 0.336            | 0.348 | 0.373 | 190 | 113 | 0.642            | 0.655 | 0.677 |
| 190 | 56  | 0.341            | 0.354 | 0.378 | 190 | 114 | 0.647            | 0.660 | 0.682 |
| 190 | 57  | 0.347            | 0.359 | 0.384 | 190 | 115 | 0.652            | 0.665 | 0.687 |
| 190 | 58  | 0.352            | 0.365 | 0.389 | 190 | 116 | 0.657            | 0.670 | 0.692 |
| 190 | 59  | 0.358            | 0.370 | 0.395 | 190 | 117 | 0.663            | 0.675 | 0.697 |
| 190 | 60  | 0.363            | 0.376 | 0.400 | 190 | 118 | 0.668            | 0.680 | 0.702 |
| 190 | 61  | 0.368            | 0.381 | 0.406 | 190 | 119 | 0.673            | 0.685 | 0.707 |
| 190 | 62  | 0.374            | 0.387 | 0.411 | 190 | 120 | 0.678            | 0.690 | 0.712 |
| 190 | 63  | 0.379            | 0.392 | 0.417 | 190 | 121 | 0.683            | 0.695 | 0.717 |
| 190 | 64  | 0.385            | 0.398 | 0.422 | 190 | 122 | 0.688            | 0.700 | 0.722 |
| 190 | 65  | 0.390            | 0.403 | 0.427 | 190 | 123 | 0.693            | 0.705 | 0.727 |
| 190 | 66  | 0.395            | 0.408 | 0.433 | 190 | 124 | 0.698            | 0.710 | 0.732 |
| 190 | 67  | 0.401            | 0.414 | 0.438 | 190 | 125 | 0.703            | 0.715 | 0.737 |
| 190 | 68  | 0.406            | 0.419 | 0.444 | 190 | 126 | 0.708            | 0.720 | 0.741 |
| 190 | 69  | 0.411            | 0.424 | 0.449 | 190 | 127 | 0.713            | 0.725 | 0.746 |
| 190 | 70  | 0.417            | 0.430 | 0.455 | 190 | 128 | 0.718            | 0.730 | 0.751 |
| 190 | 71  | 0.422            | 0.435 | 0.460 | 190 | 129 | 0.723            | 0.735 | 0.756 |
| 190 | 72  | 0.427            | 0.441 | 0.465 | 190 | 130 | 0.728            | 0.740 | 0.761 |
| 190 | 73  | 0.433            | 0.446 | 0.471 | 190 | 131 | 0.733            | 0.745 | 0.765 |
| 190 | 74  | 0.438            | 0.451 | 0.476 | 190 | 132 | 0.738            | 0.750 | 0.770 |
| 190 | 75  | 0.443            | 0.457 | 0.481 | 190 | 133 | 0.743            | 0.755 | 0.775 |
| 190 | 76  | 0.449            | 0.462 | 0.487 | 190 | 134 | 0.748            | 0.760 | 0.780 |
| 190 | 77  | 0.454            | 0.467 | 0.492 | 190 | 135 | 0.753            | 0.765 | 0.785 |
| 190 | 78  | 0.459            | 0.473 | 0.497 | 190 | 136 | 0.758            | 0.769 | 0.789 |
| 190 | 79  | 0.465            | 0.478 | 0.503 | 190 | 137 | 0.763            | 0.774 | 0.794 |
| 190 | 80  | 0.470            | 0.483 | 0.508 | 190 | 138 | 0.768            | 0.779 | 0.799 |
| 190 | 81  | 0.475            | 0.489 | 0.513 | 190 | 139 | 0.773            | 0.784 | 0.803 |
| 190 | 82  | 0.481            | 0.494 | 0.519 | 190 | 140 | 0.778            | 0.789 | 0.808 |
| 190 | 83  | 0.486            | 0.499 | 0.524 | 190 | 141 | 0.783            | 0.794 | 0.813 |
| 190 | 84  | 0.491            | 0.504 | 0.529 | 190 | 142 | 0.788            | 0.799 | 0.817 |
| 190 | 85  | 0.496            | 0.510 | 0.534 | 190 | 143 | 0.793            | 0.804 | 0.822 |
| 190 | 86  | 0.502            | 0.515 | 0.540 | 190 | 144 | 0.798            | 0.808 | 0.827 |
| 190 | 87  | 0.507            | 0.520 | 0.545 | 190 | 145 | 0.803            | 0.813 | 0.831 |
| 190 | 88  | 0.512            | 0.525 | 0.550 | 190 | 146 | 0.808            | 0.818 | 0.836 |
| 190 | 89  | 0.518            | 0.531 | 0.555 | 190 | 147 | 0.813            | 0.823 | 0.841 |
| 190 | 90  | 0.523            | 0.536 | 0.560 | 190 | 148 | 0.818            | 0.828 | 0.845 |
| 190 | 91  | 0.528            | 0.541 | 0.566 | 190 | 149 | 0.823            | 0.832 | 0.850 |
| 190 | 92  | 0.533            | 0.546 | 0.571 | 190 | 150 | 0.828            | 0.837 | 0.854 |
| 190 | 93  | 0.538            | 0.552 | 0.576 | 190 | 151 | 0.832            | 0.842 | 0.859 |
| 190 | 94  | 0.544            | 0.557 | 0.581 | 190 | 152 | 0.837            | 0.847 | 0.863 |
| 190 | 95  | 0.549            | 0.562 | 0.586 | 190 | 153 | 0.842            | 0.851 | 0.868 |
| 190 | 96  | 0.554            | 0.567 | 0.591 | 190 | 154 | 0.847            | 0.856 | 0.872 |
| 190 | 97  | 0.559            | 0.572 | 0.597 | 190 | 155 | 0.852            | 0.861 | 0.877 |
| 190 | 98  | 0.565            | 0.578 | 0.602 | 190 | 156 | 0.857            | 0.865 | 0.881 |
| 190 | 99  | 0.570            | 0.583 | 0.607 | 190 | 157 | 0.861            | 0.870 | 0.885 |
| 190 | 100 | 0.575            | 0.588 | 0.612 | 190 | 158 | 0.866            | 0.875 | 0.890 |
| 190 | 101 | 0.580            | 0.593 | 0.617 | 190 | 159 | 0.871            | 0.879 | 0.894 |
| 190 | 102 | 0.585            | 0.598 | 0.622 | 190 | 160 | 0.876            | 0.884 | 0.899 |
| 190 | 103 | 0.591            | 0.603 | 0.627 | 190 | 161 | 0.881            | 0.889 | 0.903 |
| 190 | 104 | 0.596            | 0.609 | 0.632 | 190 | 162 | 0.885            | 0.893 | 0.907 |
| 190 | 105 | 0.601            | 0.614 | 0.637 | 190 | 163 | 0.890            | 0.898 | 0.911 |
| 190 | 106 | 0.606            | 0.619 | 0.642 | 190 | 164 | 0.895            | 0.902 | 0.916 |
| 190 | 107 | 0.611            | 0.624 | 0.647 | 190 | 165 | 0.899            | 0.907 | 0.920 |
| 190 | 108 | 0.616            | 0.629 | 0.652 | 190 | 166 | 0.904            | 0.911 | 0.924 |
| 190 | 109 | 0.622            | 0.634 | 0.657 | 190 | 167 | 0.909            | 0.916 | 0.928 |
| 190 | 110 | 0.627            | 0.639 | 0.662 | 190 | 168 | 0.913            | 0.920 | 0.932 |
| 190 | 111 | 0.632            | 0.644 | 0.668 | 190 | 169 | 0.918            | 0.925 | 0.936 |
| 190 | 112 | 0.637            | 0.649 | 0.672 |     |     |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K  | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |    | 90%              | 95%   | 99%   |
| 190 | 170 | 0.923            | 0.929 | 0.940 | 195 | 39 | 0.242            | 0.253 | 0.275 |
| 190 | 171 | 0.927            | 0.934 | 0.944 | 195 | 40 | 0.247            | 0.258 | 0.281 |
| 190 | 172 | 0.932            | 0.938 | 0.948 | 195 | 41 | 0.252            | 0.264 | 0.286 |
| 190 | 173 | 0.936            | 0.942 | 0.952 | 195 | 42 | 0.258            | 0.269 | 0.292 |
| 190 | 174 | 0.941            | 0.946 | 0.956 | 195 | 43 | 0.263            | 0.275 | 0.298 |
| 190 | 175 | 0.945            | 0.951 | 0.960 | 195 | 44 | 0.269            | 0.280 | 0.303 |
| 190 | 176 | 0.950            | 0.955 | 0.964 | 195 | 45 | 0.274            | 0.286 | 0.309 |
| 190 | 177 | 0.954            | 0.959 | 0.967 | 195 | 46 | 0.279            | 0.291 | 0.314 |
| 190 | 178 | 0.958            | 0.963 | 0.971 | 195 | 47 | 0.285            | 0.297 | 0.320 |
| 190 | 179 | 0.963            | 0.967 | 0.975 | 195 | 48 | 0.290            | 0.302 | 0.325 |
| 190 | 180 | 0.967            | 0.971 | 0.978 | 195 | 49 | 0.295            | 0.308 | 0.331 |
| 190 | 181 | 0.971            | 0.975 | 0.981 | 195 | 50 | 0.301            | 0.313 | 0.336 |
| 190 | 182 | 0.975            | 0.979 | 0.985 | 195 | 51 | 0.306            | 0.318 | 0.342 |
| 190 | 183 | 0.979            | 0.983 | 0.988 | 195 | 52 | 0.312            | 0.324 | 0.347 |
| 190 | 184 | 0.983            | 0.986 | 0.991 | 195 | 53 | 0.317            | 0.329 | 0.353 |
| 190 | 185 | 0.987            | 0.990 | 0.993 | 195 | 54 | 0.322            | 0.335 | 0.358 |
| 190 | 186 | 0.991            | 0.993 | 0.996 | 195 | 55 | 0.327            | 0.340 | 0.364 |
| 190 | 187 | 0.994            | 0.996 | 0.998 | 195 | 56 | 0.333            | 0.345 | 0.369 |
| 190 | 188 | 0.997            | 0.998 | 0.999 | 195 | 57 | 0.338            | 0.351 | 0.374 |
| 190 | 189 | 0.999            | 1.000 | 1.000 | 195 | 58 | 0.343            | 0.356 | 0.380 |
| 190 | 190 | 1.000            | 1.000 | 1.000 | 195 | 59 | 0.349            | 0.361 | 0.385 |
| 195 | 0   | 0.012            | 0.015 | 0.023 | 195 | 60 | 0.354            | 0.367 | 0.391 |
| 195 | 1   | 0.020            | 0.024 | 0.034 | 195 | 61 | 0.359            | 0.372 | 0.396 |
| 195 | 2   | 0.027            | 0.032 | 0.042 | 195 | 62 | 0.365            | 0.377 | 0.401 |
| 195 | 3   | 0.034            | 0.039 | 0.051 | 195 | 63 | 0.370            | 0.382 | 0.407 |
| 195 | 4   | 0.041            | 0.046 | 0.058 | 195 | 64 | 0.375            | 0.388 | 0.412 |
| 195 | 5   | 0.047            | 0.053 | 0.066 | 195 | 65 | 0.380            | 0.393 | 0.417 |
| 195 | 6   | 0.053            | 0.060 | 0.073 | 195 | 66 | 0.386            | 0.398 | 0.423 |
| 195 | 7   | 0.060            | 0.066 | 0.080 | 195 | 67 | 0.391            | 0.404 | 0.428 |
| 195 | 8   | 0.066            | 0.073 | 0.087 | 195 | 68 | 0.396            | 0.409 | 0.433 |
| 195 | 9   | 0.072            | 0.079 | 0.094 | 195 | 69 | 0.401            | 0.414 | 0.438 |
| 195 | 10  | 0.078            | 0.085 | 0.101 | 195 | 70 | 0.407            | 0.419 | 0.444 |
| 195 | 11  | 0.084            | 0.092 | 0.107 | 195 | 71 | 0.412            | 0.425 | 0.449 |
| 195 | 12  | 0.090            | 0.098 | 0.114 | 195 | 72 | 0.417            | 0.430 | 0.454 |
| 195 | 13  | 0.096            | 0.104 | 0.120 | 195 | 73 | 0.422            | 0.435 | 0.459 |
| 195 | 14  | 0.102            | 0.110 | 0.127 | 195 | 74 | 0.427            | 0.440 | 0.465 |
| 195 | 15  | 0.107            | 0.116 | 0.133 | 195 | 75 | 0.433            | 0.446 | 0.470 |
| 195 | 16  | 0.113            | 0.122 | 0.139 | 195 | 76 | 0.438            | 0.451 | 0.475 |
| 195 | 17  | 0.119            | 0.128 | 0.146 | 195 | 77 | 0.443            | 0.456 | 0.480 |
| 195 | 18  | 0.125            | 0.134 | 0.152 | 195 | 78 | 0.448            | 0.461 | 0.486 |
| 195 | 19  | 0.130            | 0.140 | 0.158 | 195 | 79 | 0.453            | 0.466 | 0.491 |
| 195 | 20  | 0.136            | 0.146 | 0.164 | 195 | 80 | 0.458            | 0.471 | 0.496 |
| 195 | 21  | 0.142            | 0.151 | 0.170 | 195 | 81 | 0.464            | 0.477 | 0.501 |
| 195 | 22  | 0.147            | 0.157 | 0.176 | 195 | 82 | 0.469            | 0.482 | 0.506 |
| 195 | 23  | 0.153            | 0.163 | 0.182 | 195 | 83 | 0.474            | 0.487 | 0.511 |
| 195 | 24  | 0.159            | 0.169 | 0.188 | 195 | 84 | 0.479            | 0.492 | 0.517 |
| 195 | 25  | 0.164            | 0.174 | 0.194 | 195 | 85 | 0.484            | 0.497 | 0.522 |
| 195 | 26  | 0.170            | 0.180 | 0.200 | 195 | 86 | 0.489            | 0.502 | 0.527 |
| 195 | 27  | 0.176            | 0.186 | 0.206 | 195 | 87 | 0.495            | 0.508 | 0.532 |
| 195 | 28  | 0.181            | 0.192 | 0.212 | 195 | 88 | 0.500            | 0.513 | 0.537 |
| 195 | 29  | 0.187            | 0.197 | 0.218 | 195 | 89 | 0.505            | 0.518 | 0.542 |
| 195 | 30  | 0.192            | 0.203 | 0.224 | 195 | 90 | 0.510            | 0.523 | 0.547 |
| 195 | 31  | 0.198            | 0.208 | 0.229 | 195 | 91 | 0.515            | 0.528 | 0.552 |
| 195 | 32  | 0.203            | 0.214 | 0.235 | 195 | 92 | 0.520            | 0.533 | 0.557 |
| 195 | 33  | 0.209            | 0.220 | 0.241 | 195 | 93 | 0.525            | 0.538 | 0.562 |
| 195 | 34  | 0.214            | 0.225 | 0.247 | 195 | 94 | 0.530            | 0.543 | 0.567 |
| 195 | 35  | 0.220            | 0.231 | 0.252 | 195 | 95 | 0.536            | 0.548 | 0.573 |
| 195 | 36  | 0.225            | 0.236 | 0.258 | 195 | 96 | 0.541            | 0.554 | 0.578 |
| 195 | 37  | 0.231            | 0.242 | 0.264 | 195 | 97 | 0.546            | 0.559 | 0.583 |
| 195 | 38  | 0.236            | 0.247 | 0.269 | 195 | 98 | 0.551            | 0.564 | 0.588 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |       |       | N   | K   | CONFIDENCE LEVEL |       |       |
|-----|-----|------------------|-------|-------|-----|-----|------------------|-------|-------|
|     |     | 90%              | 95%   | 99%   |     |     | 90%              | 95%   | 99%   |
| 195 | 99  | 0.556            | 0.569 | 0.593 | 195 | 155 | 0.832            | 0.841 | 0.858 |
| 195 | 100 | 0.561            | 0.574 | 0.598 | 195 | 156 | 0.837            | 0.846 | 0.862 |
| 195 | 101 | 0.566            | 0.579 | 0.603 | 195 | 157 | 0.842            | 0.851 | 0.867 |
| 195 | 102 | 0.571            | 0.584 | 0.608 | 195 | 158 | 0.846            | 0.855 | 0.871 |
| 195 | 103 | 0.576            | 0.589 | 0.613 | 195 | 159 | 0.851            | 0.860 | 0.876 |
| 195 | 104 | 0.581            | 0.594 | 0.618 | 195 | 160 | 0.856            | 0.864 | 0.880 |
| 195 | 105 | 0.586            | 0.599 | 0.623 | 195 | 161 | 0.860            | 0.869 | 0.884 |
| 195 | 106 | 0.591            | 0.604 | 0.627 | 195 | 162 | 0.865            | 0.873 | 0.888 |
| 195 | 107 | 0.596            | 0.609 | 0.632 | 195 | 163 | 0.870            | 0.878 | 0.893 |
| 195 | 108 | 0.601            | 0.614 | 0.637 | 195 | 164 | 0.874            | 0.883 | 0.897 |
| 195 | 109 | 0.606            | 0.619 | 0.642 | 195 | 165 | 0.879            | 0.887 | 0.901 |
| 195 | 110 | 0.612            | 0.624 | 0.647 | 195 | 166 | 0.884            | 0.892 | 0.905 |
| 195 | 111 | 0.617            | 0.629 | 0.652 | 195 | 167 | 0.888            | 0.896 | 0.910 |
| 195 | 112 | 0.622            | 0.634 | 0.657 | 195 | 168 | 0.893            | 0.900 | 0.914 |
| 195 | 113 | 0.627            | 0.639 | 0.662 | 195 | 169 | 0.897            | 0.905 | 0.918 |
| 195 | 114 | 0.632            | 0.644 | 0.667 | 195 | 170 | 0.902            | 0.909 | 0.922 |
| 195 | 115 | 0.637            | 0.649 | 0.672 | 195 | 171 | 0.907            | 0.914 | 0.926 |
| 195 | 116 | 0.642            | 0.654 | 0.677 | 195 | 172 | 0.911            | 0.918 | 0.930 |
| 195 | 117 | 0.647            | 0.659 | 0.681 | 195 | 173 | 0.916            | 0.922 | 0.934 |
| 195 | 118 | 0.652            | 0.664 | 0.686 | 195 | 174 | 0.920            | 0.927 | 0.938 |
| 195 | 119 | 0.657            | 0.669 | 0.691 | 195 | 175 | 0.925            | 0.931 | 0.942 |
| 195 | 120 | 0.662            | 0.674 | 0.696 | 195 | 176 | 0.929            | 0.935 | 0.946 |
| 195 | 121 | 0.667            | 0.679 | 0.701 | 195 | 177 | 0.934            | 0.939 | 0.950 |
| 195 | 122 | 0.671            | 0.683 | 0.706 | 195 | 178 | 0.938            | 0.944 | 0.954 |
| 195 | 123 | 0.676            | 0.688 | 0.710 | 195 | 179 | 0.942            | 0.948 | 0.957 |
| 195 | 124 | 0.681            | 0.693 | 0.715 | 195 | 180 | 0.947            | 0.952 | 0.961 |
| 195 | 125 | 0.686            | 0.698 | 0.720 | 195 | 181 | 0.951            | 0.956 | 0.965 |
| 195 | 126 | 0.691            | 0.703 | 0.725 | 195 | 182 | 0.955            | 0.960 | 0.968 |
| 195 | 127 | 0.696            | 0.708 | 0.729 | 195 | 183 | 0.960            | 0.964 | 0.972 |
| 195 | 128 | 0.701            | 0.713 | 0.734 | 195 | 184 | 0.964            | 0.968 | 0.975 |
| 195 | 129 | 0.706            | 0.718 | 0.739 | 195 | 185 | 0.968            | 0.972 | 0.979 |
| 195 | 130 | 0.711            | 0.723 | 0.744 | 195 | 186 | 0.972            | 0.976 | 0.982 |
| 195 | 131 | 0.716            | 0.727 | 0.748 | 195 | 187 | 0.976            | 0.979 | 0.985 |
| 195 | 132 | 0.721            | 0.732 | 0.753 | 195 | 188 | 0.980            | 0.983 | 0.988 |
| 195 | 133 | 0.726            | 0.737 | 0.758 | 195 | 189 | 0.984            | 0.987 | 0.991 |
| 195 | 134 | 0.731            | 0.742 | 0.762 | 195 | 190 | 0.987            | 0.990 | 0.993 |
| 195 | 135 | 0.736            | 0.747 | 0.767 | 195 | 191 | 0.991            | 0.993 | 0.996 |
| 195 | 136 | 0.740            | 0.752 | 0.772 | 195 | 192 | 0.994            | 0.996 | 0.998 |
| 195 | 137 | 0.745            | 0.756 | 0.776 | 195 | 193 | 0.997            | 0.998 | 0.999 |
| 195 | 138 | 0.750            | 0.761 | 0.781 | 195 | 194 | 0.999            | 1.000 | 1.000 |
| 195 | 139 | 0.755            | 0.766 | 0.786 | 195 | 195 | 1.000            | 1.000 | 1.000 |
| 195 | 140 | 0.760            | 0.771 | 0.790 |     |     |                  |       |       |
| 195 | 141 | 0.765            | 0.776 | 0.795 |     |     |                  |       |       |
| 195 | 142 | 0.770            | 0.780 | 0.800 |     |     |                  |       |       |
| 195 | 143 | 0.775            | 0.785 | 0.804 |     |     |                  |       |       |
| 195 | 144 | 0.779            | 0.790 | 0.809 |     |     |                  |       |       |
| 195 | 145 | 0.784            | 0.795 | 0.813 |     |     |                  |       |       |
| 195 | 146 | 0.789            | 0.799 | 0.818 |     |     |                  |       |       |
| 195 | 147 | 0.794            | 0.804 | 0.822 |     |     |                  |       |       |
| 195 | 148 | 0.799            | 0.809 | 0.827 |     |     |                  |       |       |
| 195 | 149 | 0.803            | 0.813 | 0.831 |     |     |                  |       |       |
| 195 | 150 | 0.808            | 0.818 | 0.836 |     |     |                  |       |       |
| 195 | 151 | 0.813            | 0.823 | 0.840 |     |     |                  |       |       |
| 195 | 152 | 0.818            | 0.827 | 0.845 |     |     |                  |       |       |
| 195 | 153 | 0.823            | 0.832 | 0.849 |     |     |                  |       |       |
| 195 | 154 | 0.827            | 0.837 | 0.854 |     |     |                  |       |       |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |    | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 200 | 0  | 0.0114           | 0.0149 | 0.0228 | 200 | 60  | 0.3454           | 0.3578 | 0.3814 |
| 200 | 1  | 0.0193           | 0.0235 | 0.0327 | 200 | 61  | 0.3506           | 0.3630 | 0.3866 |
| 200 | 2  | 0.0264           | 0.0311 | 0.0414 | 200 | 62  | 0.3557           | 0.3682 | 0.3919 |
| 200 | 3  | 0.0331           | 0.0383 | 0.0493 | 200 | 63  | 0.3609           | 0.3733 | 0.3971 |
| 200 | 4  | 0.0396           | 0.0452 | 0.0569 | 200 | 64  | 0.3660           | 0.3785 | 0.4023 |
| 200 | 5  | 0.0459           | 0.0518 | 0.0642 | 200 | 65  | 0.3711           | 0.3837 | 0.4075 |
| 200 | 6  | 0.0521           | 0.0583 | 0.0713 | 200 | 66  | 0.3763           | 0.3888 | 0.4127 |
| 200 | 7  | 0.0582           | 0.0647 | 0.0782 | 200 | 67  | 0.3814           | 0.3940 | 0.4179 |
| 200 | 8  | 0.0642           | 0.0710 | 0.0850 | 200 | 68  | 0.3865           | 0.3991 | 0.4230 |
| 200 | 9  | 0.0701           | 0.0772 | 0.0916 | 200 | 69  | 0.3916           | 0.4043 | 0.4282 |
| 200 | 10 | 0.0760           | 0.0833 | 0.0982 | 200 | 70  | 0.3967           | 0.4094 | 0.4334 |
| 200 | 11 | 0.0818           | 0.0894 | 0.1046 | 200 | 71  | 0.4018           | 0.4145 | 0.4385 |
| 200 | 12 | 0.0876           | 0.0954 | 0.1110 | 200 | 72  | 0.4069           | 0.4196 | 0.4437 |
| 200 | 13 | 0.0934           | 0.1014 | 0.1173 | 200 | 73  | 0.4120           | 0.4247 | 0.4488 |
| 200 | 14 | 0.0991           | 0.1073 | 0.1236 | 200 | 74  | 0.4171           | 0.4298 | 0.4539 |
| 200 | 15 | 0.1048           | 0.1131 | 0.1298 | 200 | 75  | 0.4222           | 0.4349 | 0.4590 |
| 200 | 16 | 0.1104           | 0.1190 | 0.1359 | 200 | 76  | 0.4272           | 0.4400 | 0.4641 |
| 200 | 17 | 0.1161           | 0.1248 | 0.1420 | 200 | 77  | 0.4323           | 0.4451 | 0.4692 |
| 200 | 18 | 0.1217           | 0.1305 | 0.1481 | 200 | 78  | 0.4374           | 0.4502 | 0.4743 |
| 200 | 19 | 0.1273           | 0.1363 | 0.1541 | 200 | 79  | 0.4424           | 0.4553 | 0.4794 |
| 200 | 20 | 0.1328           | 0.1420 | 0.1601 | 200 | 80  | 0.4475           | 0.4603 | 0.4844 |
| 200 | 21 | 0.1384           | 0.1477 | 0.1660 | 200 | 81  | 0.4525           | 0.4654 | 0.4895 |
| 200 | 22 | 0.1439           | 0.1533 | 0.1719 | 200 | 82  | 0.4576           | 0.4704 | 0.4945 |
| 200 | 23 | 0.1494           | 0.1590 | 0.1778 | 200 | 83  | 0.4626           | 0.4755 | 0.4996 |
| 200 | 24 | 0.1549           | 0.1646 | 0.1836 | 200 | 84  | 0.4677           | 0.4805 | 0.5046 |
| 200 | 25 | 0.1603           | 0.1702 | 0.1895 | 200 | 85  | 0.4727           | 0.4855 | 0.5097 |
| 200 | 26 | 0.1658           | 0.1758 | 0.1952 | 200 | 86  | 0.4777           | 0.4906 | 0.5147 |
| 200 | 27 | 0.1713           | 0.1813 | 0.2010 | 200 | 87  | 0.4827           | 0.4956 | 0.5197 |
| 200 | 28 | 0.1767           | 0.1869 | 0.2067 | 200 | 88  | 0.4878           | 0.5006 | 0.5247 |
| 200 | 29 | 0.1821           | 0.1924 | 0.2125 | 200 | 89  | 0.4928           | 0.5056 | 0.5297 |
| 200 | 30 | 0.1875           | 0.1979 | 0.2182 | 200 | 90  | 0.4978           | 0.5106 | 0.5347 |
| 200 | 31 | 0.1929           | 0.2034 | 0.2238 | 200 | 91  | 0.5028           | 0.5156 | 0.5396 |
| 200 | 32 | 0.1983           | 0.2089 | 0.2295 | 200 | 92  | 0.5078           | 0.5206 | 0.5446 |
| 200 | 33 | 0.2037           | 0.2143 | 0.2351 | 200 | 93  | 0.5128           | 0.5256 | 0.5496 |
| 200 | 34 | 0.2090           | 0.2198 | 0.2407 | 200 | 94  | 0.5178           | 0.5306 | 0.5545 |
| 200 | 35 | 0.2143           | 0.2252 | 0.2463 | 200 | 95  | 0.5228           | 0.5356 | 0.5595 |
| 200 | 36 | 0.2197           | 0.2307 | 0.2519 | 200 | 96  | 0.5278           | 0.5405 | 0.5644 |
| 200 | 37 | 0.2250           | 0.2361 | 0.2575 | 200 | 97  | 0.5327           | 0.5455 | 0.5693 |
| 200 | 38 | 0.2303           | 0.2415 | 0.2630 | 200 | 98  | 0.5377           | 0.5505 | 0.5742 |
| 200 | 39 | 0.2356           | 0.2469 | 0.2685 | 200 | 99  | 0.5427           | 0.5554 | 0.5791 |
| 200 | 40 | 0.2410           | 0.2523 | 0.2740 | 200 | 100 | 0.5476           | 0.5604 | 0.5841 |
| 200 | 41 | 0.2462           | 0.2576 | 0.2795 | 200 | 101 | 0.5526           | 0.5653 | 0.5889 |
| 200 | 42 | 0.2515           | 0.2630 | 0.2850 | 200 | 102 | 0.5576           | 0.5702 | 0.5938 |
| 200 | 43 | 0.2568           | 0.2683 | 0.2905 | 200 | 103 | 0.5625           | 0.5752 | 0.5987 |
| 200 | 44 | 0.2621           | 0.2737 | 0.2959 | 200 | 104 | 0.5675           | 0.5801 | 0.6036 |
| 200 | 45 | 0.2673           | 0.2790 | 0.3013 | 200 | 105 | 0.5724           | 0.5850 | 0.6084 |
| 200 | 46 | 0.2726           | 0.2843 | 0.3068 | 200 | 106 | 0.5773           | 0.5899 | 0.6133 |
| 200 | 47 | 0.2778           | 0.2896 | 0.3122 | 200 | 107 | 0.5823           | 0.5948 | 0.6181 |
| 200 | 48 | 0.2831           | 0.2949 | 0.3176 | 200 | 108 | 0.5872           | 0.5997 | 0.6230 |
| 200 | 49 | 0.2883           | 0.3002 | 0.3229 | 200 | 109 | 0.5921           | 0.6046 | 0.6278 |
| 200 | 50 | 0.2935           | 0.3055 | 0.3283 | 200 | 110 | 0.5970           | 0.6095 | 0.6326 |
| 200 | 51 | 0.2987           | 0.3107 | 0.3337 | 200 | 111 | 0.6020           | 0.6144 | 0.6374 |
| 200 | 52 | 0.3039           | 0.3160 | 0.3390 | 200 | 112 | 0.6069           | 0.6193 | 0.6422 |
| 200 | 53 | 0.3092           | 0.3213 | 0.3444 | 200 | 113 | 0.6118           | 0.6241 | 0.6470 |
| 200 | 54 | 0.3144           | 0.3265 | 0.3497 | 200 | 114 | 0.6167           | 0.6290 | 0.6518 |
| 200 | 55 | 0.3195           | 0.3317 | 0.3550 | 200 | 115 | 0.6216           | 0.6339 | 0.6566 |
| 200 | 56 | 0.3247           | 0.3370 | 0.3603 | 200 | 116 | 0.6265           | 0.6387 | 0.6614 |
| 200 | 57 | 0.3299           | 0.3422 | 0.3656 | 200 | 117 | 0.6313           | 0.6436 | 0.6661 |
| 200 | 58 | 0.3351           | 0.3474 | 0.3708 | 200 | 118 | 0.6362           | 0.6484 | 0.6709 |
| 200 | 59 | 0.3402           | 0.3526 | 0.3761 | 200 | 119 | 0.6411           | 0.6533 | 0.6757 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 200 | 120 | 0.6460           | 0.6581 | 0.6804 | 200 | 175 | 0.9045           | 0.9116 | 0.9239 |
| 200 | 121 | 0.6508           | 0.6629 | 0.6851 | 200 | 176 | 0.9089           | 0.9159 | 0.9279 |
| 200 | 122 | 0.6557           | 0.6677 | 0.6898 | 200 | 177 | 0.9134           | 0.9201 | 0.9318 |
| 200 | 123 | 0.6606           | 0.6725 | 0.6945 | 200 | 178 | 0.9178           | 0.9244 | 0.9358 |
| 200 | 124 | 0.6654           | 0.6773 | 0.6992 | 200 | 179 | 0.9222           | 0.9286 | 0.9396 |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 125 | 0.6703           | 0.6821 | 0.7039 | 200 | 180 | 0.9265           | 0.9327 | 0.9434 |
| 200 | 126 | 0.6751           | 0.6869 | 0.7086 | 200 | 181 | 0.9309           | 0.9369 | 0.9472 |
| 200 | 127 | 0.6800           | 0.6917 | 0.7133 | 200 | 182 | 0.9352           | 0.9410 | 0.9510 |
| 200 | 128 | 0.6848           | 0.6965 | 0.7180 | 200 | 183 | 0.9395           | 0.9451 | 0.9547 |
| 200 | 129 | 0.6896           | 0.7013 | 0.7226 | 200 | 184 | 0.9438           | 0.9492 | 0.9584 |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 130 | 0.6944           | 0.7060 | 0.7273 | 200 | 185 | 0.9480           | 0.9532 | 0.9620 |
| 200 | 131 | 0.6993           | 0.7108 | 0.7319 | 200 | 186 | 0.9522           | 0.9572 | 0.9655 |
| 200 | 132 | 0.7041           | 0.7155 | 0.7365 | 200 | 187 | 0.9564           | 0.9611 | 0.9690 |
| 200 | 133 | 0.7089           | 0.7203 | 0.7411 | 200 | 188 | 0.9605           | 0.9650 | 0.9725 |
| 200 | 134 | 0.7137           | 0.7250 | 0.7458 | 200 | 189 | 0.9646           | 0.9689 | 0.9758 |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 135 | 0.7185           | 0.7297 | 0.7504 | 200 | 190 | 0.9687           | 0.9726 | 0.9791 |
| 200 | 136 | 0.7233           | 0.7345 | 0.7550 | 200 | 191 | 0.9727           | 0.9763 | 0.9823 |
| 200 | 137 | 0.7281           | 0.7392 | 0.7595 | 200 | 192 | 0.9766           | 0.9799 | 0.9853 |
| 200 | 138 | 0.7328           | 0.7439 | 0.7641 | 200 | 193 | 0.9804           | 0.9835 | 0.9882 |
| 200 | 139 | 0.7376           | 0.7486 | 0.7687 | 200 | 194 | 0.9842           | 0.9869 | 0.9910 |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 140 | 0.7424           | 0.7533 | 0.7732 | 200 | 195 | 0.9878           | 0.9901 | 0.9936 |
| 200 | 141 | 0.7471           | 0.7580 | 0.7778 | 200 | 196 | 0.9912           | 0.9931 | 0.9959 |
| 200 | 142 | 0.7519           | 0.7627 | 0.7823 | 200 | 197 | 0.9945           | 0.9959 | 0.9978 |
| 200 | 143 | 0.7566           | 0.7673 | 0.7868 | 200 | 198 | 0.9973           | 0.9982 | 0.9993 |
| 200 | 144 | 0.7614           | 0.7720 | 0.7913 | 200 | 199 | 0.9995           | 0.9997 | 0.9999 |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 145 | 0.7661           | 0.7767 | 0.7958 | 200 | 200 | 1.0000           | 1.0000 | 1.0000 |
| 200 | 146 | 0.7709           | 0.7813 | 0.8003 |     |     |                  |        |        |
| 200 | 147 | 0.7756           | 0.7860 | 0.8048 |     |     |                  |        |        |
| 200 | 148 | 0.7803           | 0.7906 | 0.8092 |     |     |                  |        |        |
| 200 | 149 | 0.7850           | 0.7952 | 0.8137 |     |     |                  |        |        |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 150 | 0.7897           | 0.7998 | 0.8181 |     |     |                  |        |        |
| 200 | 151 | 0.7944           | 0.8044 | 0.8225 |     |     |                  |        |        |
| 200 | 152 | 0.7991           | 0.8090 | 0.8269 |     |     |                  |        |        |
| 200 | 153 | 0.8038           | 0.8136 | 0.8313 |     |     |                  |        |        |
| 200 | 154 | 0.8085           | 0.8182 | 0.8357 |     |     |                  |        |        |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 155 | 0.8131           | 0.8228 | 0.8401 |     |     |                  |        |        |
| 200 | 156 | 0.8178           | 0.8273 | 0.8444 |     |     |                  |        |        |
| 200 | 157 | 0.8224           | 0.8319 | 0.8488 |     |     |                  |        |        |
| 200 | 158 | 0.8271           | 0.8364 | 0.8531 |     |     |                  |        |        |
| 200 | 159 | 0.8317           | 0.8409 | 0.8574 |     |     |                  |        |        |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 160 | 0.8363           | 0.8455 | 0.8617 |     |     |                  |        |        |
| 200 | 161 | 0.8410           | 0.8500 | 0.8660 |     |     |                  |        |        |
| 200 | 162 | 0.8456           | 0.8544 | 0.8703 |     |     |                  |        |        |
| 200 | 163 | 0.8502           | 0.8589 | 0.8745 |     |     |                  |        |        |
| 200 | 164 | 0.8548           | 0.8634 | 0.8788 |     |     |                  |        |        |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 165 | 0.8594           | 0.8679 | 0.8830 |     |     |                  |        |        |
| 200 | 166 | 0.8639           | 0.8723 | 0.8872 |     |     |                  |        |        |
| 200 | 167 | 0.8685           | 0.8767 | 0.8913 |     |     |                  |        |        |
| 200 | 168 | 0.8730           | 0.8811 | 0.8955 |     |     |                  |        |        |
| 200 | 169 | 0.8776           | 0.8855 | 0.8996 |     |     |                  |        |        |
|     |     |                  |        |        |     |     |                  |        |        |
| 200 | 170 | 0.8821           | 0.8899 | 0.9037 |     |     |                  |        |        |
| 200 | 171 | 0.8866           | 0.8943 | 0.9078 |     |     |                  |        |        |
| 200 | 172 | 0.8911           | 0.8986 | 0.9119 |     |     |                  |        |        |
| 200 | 173 | 0.8956           | 0.9030 | 0.9159 |     |     |                  |        |        |
| 200 | 174 | 0.9000           | 0.9073 | 0.9200 |     |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K  | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |    | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 0  | 0.0046           | 0.0060 | 0.0092 | 500 | 54  | 0.1280           | 0.1336 | 0.1445 |
| 500 | 1  | 0.0078           | 0.0095 | 0.0132 | 500 | 55  | 0.1301           | 0.1358 | 0.1467 |
| 500 | 2  | 0.0106           | 0.0125 | 0.0167 | 500 | 56  | 0.1322           | 0.1379 | 0.1489 |
| 500 | 3  | 0.0133           | 0.0154 | 0.0199 | 500 | 57  | 0.1344           | 0.1401 | 0.1512 |
| 500 | 4  | 0.0159           | 0.0182 | 0.0230 | 500 | 58  | 0.1365           | 0.1423 | 0.1534 |
| 500 | 5  | 0.0185           | 0.0209 | 0.0260 | 500 | 59  | 0.1386           | 0.1444 | 0.1556 |
| 500 | 6  | 0.0210           | 0.0235 | 0.0289 | 500 | 60  | 0.1408           | 0.1466 | 0.1579 |
| 500 | 7  | 0.0234           | 0.0261 | 0.0317 | 500 | 61  | 0.1429           | 0.1488 | 0.1601 |
| 500 | 8  | 0.0259           | 0.0287 | 0.0345 | 500 | 62  | 0.1450           | 0.1509 | 0.1623 |
| 500 | 9  | 0.0283           | 0.0312 | 0.0372 | 500 | 63  | 0.1471           | 0.1531 | 0.1645 |
| 500 | 10 | 0.0306           | 0.0337 | 0.0399 | 500 | 64  | 0.1493           | 0.1552 | 0.1667 |
| 500 | 11 | 0.0330           | 0.0362 | 0.0425 | 500 | 65  | 0.1514           | 0.1574 | 0.1690 |
| 500 | 12 | 0.0354           | 0.0386 | 0.0451 | 500 | 66  | 0.1535           | 0.1595 | 0.1712 |
| 500 | 13 | 0.0377           | 0.0410 | 0.0477 | 500 | 67  | 0.1556           | 0.1617 | 0.1734 |
| 500 | 14 | 0.0400           | 0.0434 | 0.0503 | 500 | 68  | 0.1577           | 0.1638 | 0.1756 |
| 500 | 15 | 0.0423           | 0.0458 | 0.0529 | 500 | 69  | 0.1598           | 0.1660 | 0.1778 |
| 500 | 16 | 0.0446           | 0.0482 | 0.0554 | 500 | 70  | 0.1620           | 0.1681 | 0.1800 |
| 500 | 17 | 0.0469           | 0.0506 | 0.0579 | 500 | 71  | 0.1641           | 0.1702 | 0.1822 |
| 500 | 18 | 0.0492           | 0.0529 | 0.0604 | 500 | 72  | 0.1662           | 0.1724 | 0.1844 |
| 500 | 19 | 0.0514           | 0.0553 | 0.0629 | 500 | 73  | 0.1683           | 0.1745 | 0.1866 |
| 500 | 20 | 0.0537           | 0.0576 | 0.0653 | 500 | 74  | 0.1704           | 0.1767 | 0.1887 |
| 500 | 21 | 0.0560           | 0.0599 | 0.0678 | 500 | 75  | 0.1725           | 0.1788 | 0.1909 |
| 500 | 22 | 0.0582           | 0.0622 | 0.0702 | 500 | 76  | 0.1746           | 0.1809 | 0.1931 |
| 500 | 23 | 0.0604           | 0.0645 | 0.0727 | 500 | 77  | 0.1767           | 0.1831 | 0.1953 |
| 500 | 24 | 0.0627           | 0.0668 | 0.0751 | 500 | 78  | 0.1788           | 0.1852 | 0.1975 |
| 500 | 25 | 0.0649           | 0.0691 | 0.0775 | 500 | 79  | 0.1809           | 0.1873 | 0.1997 |
| 500 | 26 | 0.0671           | 0.0714 | 0.0799 | 500 | 80  | 0.1830           | 0.1895 | 0.2018 |
| 500 | 27 | 0.0694           | 0.0737 | 0.0823 | 500 | 81  | 0.1851           | 0.1916 | 0.2040 |
| 500 | 28 | 0.0716           | 0.0760 | 0.0847 | 500 | 82  | 0.1872           | 0.1937 | 0.2062 |
| 500 | 29 | 0.0738           | 0.0782 | 0.0870 | 500 | 83  | 0.1893           | 0.1958 | 0.2083 |
| 500 | 30 | 0.0760           | 0.0805 | 0.0894 | 500 | 84  | 0.1914           | 0.1979 | 0.2105 |
| 500 | 31 | 0.0782           | 0.0828 | 0.0918 | 500 | 85  | 0.1935           | 0.2001 | 0.2127 |
| 500 | 32 | 0.0804           | 0.0850 | 0.0941 | 500 | 86  | 0.1956           | 0.2022 | 0.2148 |
| 500 | 33 | 0.0826           | 0.0873 | 0.0964 | 500 | 87  | 0.1977           | 0.2043 | 0.2170 |
| 500 | 34 | 0.0848           | 0.0895 | 0.0988 | 500 | 88  | 0.1998           | 0.2064 | 0.2192 |
| 500 | 35 | 0.0870           | 0.0917 | 0.1011 | 500 | 89  | 0.2019           | 0.2085 | 0.2213 |
| 500 | 36 | 0.0891           | 0.0940 | 0.1034 | 500 | 90  | 0.2040           | 0.2107 | 0.2235 |
| 500 | 37 | 0.0913           | 0.0962 | 0.1058 | 500 | 91  | 0.2060           | 0.2128 | 0.2256 |
| 500 | 38 | 0.0935           | 0.0984 | 0.1081 | 500 | 92  | 0.2081           | 0.2149 | 0.2278 |
| 500 | 39 | 0.0957           | 0.1006 | 0.1104 | 500 | 93  | 0.2102           | 0.2170 | 0.2299 |
| 500 | 40 | 0.0978           | 0.1029 | 0.1127 | 500 | 94  | 0.2123           | 0.2191 | 0.2321 |
| 500 | 41 | 0.1000           | 0.1051 | 0.1150 | 500 | 95  | 0.2144           | 0.2212 | 0.2342 |
| 500 | 42 | 0.1022           | 0.1073 | 0.1173 | 500 | 96  | 0.2165           | 0.2233 | 0.2364 |
| 500 | 43 | 0.1043           | 0.1095 | 0.1196 | 500 | 97  | 0.2186           | 0.2254 | 0.2385 |
| 500 | 44 | 0.1065           | 0.1117 | 0.1219 | 500 | 98  | 0.2206           | 0.2275 | 0.2407 |
| 500 | 45 | 0.1087           | 0.1139 | 0.1241 | 500 | 99  | 0.2227           | 0.2296 | 0.2428 |
| 500 | 46 | 0.1108           | 0.1161 | 0.1264 | 500 | 100 | 0.2248           | 0.2317 | 0.2449 |
| 500 | 47 | 0.1130           | 0.1183 | 0.1287 | 500 | 101 | 0.2269           | 0.2338 | 0.2471 |
| 500 | 48 | 0.1151           | 0.1205 | 0.1310 | 500 | 102 | 0.2290           | 0.2359 | 0.2492 |
| 500 | 49 | 0.1173           | 0.1227 | 0.1332 | 500 | 103 | 0.2310           | 0.2380 | 0.2514 |
| 500 | 50 | 0.1194           | 0.1249 | 0.1355 | 500 | 104 | 0.2331           | 0.2401 | 0.2535 |
| 500 | 51 | 0.1216           | 0.1271 | 0.1377 | 500 | 105 | 0.2352           | 0.2422 | 0.2556 |
| 500 | 52 | 0.1237           | 0.1292 | 0.1400 | 500 | 106 | 0.2373           | 0.2443 | 0.2577 |
| 500 | 53 | 0.1258           | 0.1314 | 0.1422 |     |     |                  |        |        |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 107 | 0.2393           | 0.2464 | 0.2599 | 500 | 161 | 0.3503           | 0.3581 | 0.3729 |
| 500 | 108 | 0.2414           | 0.2485 | 0.2620 | 500 | 162 | 0.3523           | 0.3601 | 0.3750 |
| 500 | 109 | 0.2435           | 0.2506 | 0.2641 | 500 | 163 | 0.3543           | 0.3622 | 0.3770 |
|     |     |                  |        |        | 500 | 164 | 0.3564           | 0.3642 | 0.3791 |
| 500 | 110 | 0.2456           | 0.2527 | 0.2663 |     |     |                  |        |        |
| 500 | 111 | 0.2476           | 0.2548 | 0.2684 | 500 | 165 | 0.3584           | 0.3663 | 0.3811 |
| 500 | 112 | 0.2497           | 0.2568 | 0.2705 | 500 | 166 | 0.3605           | 0.3683 | 0.3832 |
| 500 | 113 | 0.2518           | 0.2589 | 0.2726 | 500 | 167 | 0.3625           | 0.3704 | 0.3852 |
| 500 | 114 | 0.2538           | 0.2610 | 0.2747 | 500 | 168 | 0.3645           | 0.3724 | 0.3873 |
|     |     |                  |        |        | 500 | 169 | 0.3666           | 0.3744 | 0.3894 |
| 500 | 115 | 0.2559           | 0.2631 | 0.2768 |     |     |                  |        |        |
| 500 | 116 | 0.2580           | 0.2652 | 0.2790 | 500 | 170 | 0.3686           | 0.3765 | 0.3914 |
| 500 | 117 | 0.2600           | 0.2673 | 0.2811 | 500 | 171 | 0.3706           | 0.3785 | 0.3935 |
| 500 | 118 | 0.2621           | 0.2694 | 0.2832 | 500 | 172 | 0.3727           | 0.3806 | 0.3955 |
| 500 | 119 | 0.2642           | 0.2714 | 0.2853 | 500 | 173 | 0.3747           | 0.3826 | 0.3976 |
|     |     |                  |        |        | 500 | 174 | 0.3767           | 0.3847 | 0.3996 |
| 500 | 120 | 0.2662           | 0.2735 | 0.2874 |     |     |                  |        |        |
| 500 | 121 | 0.2683           | 0.2756 | 0.2895 | 500 | 175 | 0.3787           | 0.3867 | 0.4017 |
| 500 | 122 | 0.2703           | 0.2777 | 0.2916 | 500 | 176 | 0.3808           | 0.3887 | 0.4037 |
| 500 | 123 | 0.2724           | 0.2798 | 0.2937 | 500 | 177 | 0.3828           | 0.3908 | 0.4058 |
| 500 | 124 | 0.2745           | 0.2818 | 0.2958 | 500 | 178 | 0.3848           | 0.3928 | 0.4078 |
|     |     |                  |        |        | 500 | 179 | 0.3869           | 0.3948 | 0.4099 |
| 500 | 125 | 0.2765           | 0.2839 | 0.2980 |     |     |                  |        |        |
| 500 | 126 | 0.2786           | 0.2860 | 0.3000 | 500 | 180 | 0.3889           | 0.3969 | 0.4119 |
| 500 | 127 | 0.2806           | 0.2881 | 0.3021 | 500 | 181 | 0.3909           | 0.3989 | 0.4139 |
| 500 | 128 | 0.2827           | 0.2901 | 0.3043 | 500 | 182 | 0.3929           | 0.4009 | 0.4160 |
| 500 | 129 | 0.2848           | 0.2922 | 0.3063 | 500 | 183 | 0.3950           | 0.4030 | 0.4180 |
|     |     |                  |        |        | 500 | 184 | 0.3970           | 0.4050 | 0.4201 |
| 500 | 130 | 0.2868           | 0.2943 | 0.3084 |     |     |                  |        |        |
| 500 | 131 | 0.2889           | 0.2963 | 0.3105 | 500 | 185 | 0.3990           | 0.4070 | 0.4221 |
| 500 | 132 | 0.2909           | 0.2984 | 0.3126 | 500 | 186 | 0.4010           | 0.4090 | 0.4242 |
| 500 | 133 | 0.2930           | 0.3005 | 0.3147 | 500 | 187 | 0.4031           | 0.4111 | 0.4262 |
| 500 | 134 | 0.2951           | 0.3026 | 0.3168 | 500 | 188 | 0.4051           | 0.4131 | 0.4282 |
|     |     |                  |        |        | 500 | 189 | 0.4071           | 0.4151 | 0.4303 |
| 500 | 135 | 0.2971           | 0.3046 | 0.3189 |     |     |                  |        |        |
| 500 | 136 | 0.2992           | 0.3067 | 0.3210 | 500 | 190 | 0.4091           | 0.4172 | 0.4323 |
| 500 | 137 | 0.3012           | 0.3088 | 0.3231 | 500 | 191 | 0.4112           | 0.4192 | 0.4343 |
| 500 | 138 | 0.3033           | 0.3108 | 0.3252 | 500 | 192 | 0.4132           | 0.4212 | 0.4364 |
| 500 | 139 | 0.3053           | 0.3129 | 0.3273 | 500 | 193 | 0.4152           | 0.4232 | 0.4384 |
|     |     |                  |        |        | 500 | 194 | 0.4172           | 0.4253 | 0.4404 |
| 500 | 140 | 0.3074           | 0.3149 | 0.3294 |     |     |                  |        |        |
| 500 | 141 | 0.3094           | 0.3170 | 0.3314 | 500 | 195 | 0.4192           | 0.4273 | 0.4425 |
| 500 | 142 | 0.3115           | 0.3191 | 0.3335 | 500 | 196 | 0.4213           | 0.4293 | 0.4445 |
| 500 | 143 | 0.3135           | 0.3211 | 0.3356 | 500 | 197 | 0.4233           | 0.4313 | 0.4465 |
| 500 | 144 | 0.3155           | 0.3232 | 0.3377 | 500 | 198 | 0.4253           | 0.4334 | 0.4486 |
|     |     |                  |        |        | 500 | 199 | 0.4273           | 0.4354 | 0.4506 |
| 500 | 145 | 0.3176           | 0.3252 | 0.3398 |     |     |                  |        |        |
| 500 | 146 | 0.3196           | 0.3273 | 0.3418 | 500 | 200 | 0.4293           | 0.4374 | 0.4526 |
| 500 | 147 | 0.3217           | 0.3294 | 0.3439 | 500 | 201 | 0.4314           | 0.4394 | 0.4546 |
| 500 | 148 | 0.3237           | 0.3314 | 0.3460 | 500 | 202 | 0.4334           | 0.4414 | 0.4567 |
| 500 | 149 | 0.3258           | 0.3335 | 0.3481 | 500 | 203 | 0.4354           | 0.4435 | 0.4587 |
|     |     |                  |        |        | 500 | 204 | 0.4374           | 0.4455 | 0.4607 |
| 500 | 150 | 0.3278           | 0.3355 | 0.3502 |     |     |                  |        |        |
| 500 | 151 | 0.3299           | 0.3376 | 0.3522 | 500 | 205 | 0.4394           | 0.4475 | 0.4627 |
| 500 | 152 | 0.3319           | 0.3396 | 0.3543 | 500 | 206 | 0.4414           | 0.4495 | 0.4647 |
| 500 | 153 | 0.3340           | 0.3417 | 0.3564 | 500 | 207 | 0.4434           | 0.4515 | 0.4668 |
| 500 | 154 | 0.3360           | 0.3437 | 0.3584 | 500 | 208 | 0.4455           | 0.4536 | 0.4688 |
|     |     |                  |        |        | 500 | 209 | 0.4475           | 0.4556 | 0.4708 |
| 500 | 155 | 0.3380           | 0.3458 | 0.3605 |     |     |                  |        |        |
| 500 | 156 | 0.3401           | 0.3478 | 0.3626 | 500 | 210 | 0.4495           | 0.4576 | 0.4728 |
| 500 | 157 | 0.3421           | 0.3499 | 0.3646 | 500 | 211 | 0.4515           | 0.4596 | 0.4748 |
| 500 | 158 | 0.3442           | 0.3520 | 0.3667 | 500 | 212 | 0.4535           | 0.4616 | 0.4769 |
| 500 | 159 | 0.3462           | 0.3540 | 0.3688 | 500 | 213 | 0.4555           | 0.4636 | 0.4789 |
|     |     |                  |        |        | 500 | 214 | 0.4575           | 0.4656 | 0.4809 |
| 500 | 160 | 0.3482           | 0.3560 | 0.3708 |     |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 215 | 0.4595           | 0.4677 | 0.4829 | 500 | 269 | 0.5674           | 0.5754 | 0.5904 |
| 500 | 216 | 0.4616           | 0.4697 | 0.4849 | 500 | 270 | 0.5694           | 0.5774 | 0.5924 |
| 500 | 217 | 0.4636           | 0.4717 | 0.4869 | 500 | 271 | 0.5714           | 0.5794 | 0.5943 |
| 500 | 218 | 0.4656           | 0.4737 | 0.4889 | 500 | 272 | 0.5734           | 0.5814 | 0.5963 |
| 500 | 219 | 0.4676           | 0.4757 | 0.4909 | 500 | 273 | 0.5754           | 0.5834 | 0.5983 |
| 500 | 220 | 0.4696           | 0.4777 | 0.4930 | 500 | 274 | 0.5773           | 0.5853 | 0.6002 |
| 500 | 221 | 0.4716           | 0.4797 | 0.4950 | 500 | 275 | 0.5793           | 0.5873 | 0.6021 |
| 500 | 222 | 0.4736           | 0.4817 | 0.4970 | 500 | 276 | 0.5813           | 0.5893 | 0.6041 |
| 500 | 223 | 0.4756           | 0.4837 | 0.4990 | 500 | 277 | 0.5833           | 0.5913 | 0.6061 |
| 500 | 224 | 0.4776           | 0.4857 | 0.5010 | 500 | 278 | 0.5853           | 0.5932 | 0.6081 |
| 500 | 225 | 0.4796           | 0.4877 | 0.5030 | 500 | 279 | 0.5873           | 0.5952 | 0.6100 |
| 500 | 226 | 0.4816           | 0.4898 | 0.5050 | 500 | 280 | 0.5892           | 0.5972 | 0.6120 |
| 500 | 227 | 0.4836           | 0.4918 | 0.5070 | 500 | 281 | 0.5912           | 0.5991 | 0.6139 |
| 500 | 228 | 0.4856           | 0.4938 | 0.5090 | 500 | 282 | 0.5932           | 0.6011 | 0.6159 |
| 500 | 229 | 0.4876           | 0.4958 | 0.5110 | 500 | 283 | 0.5952           | 0.6031 | 0.6179 |
| 500 | 230 | 0.4896           | 0.4978 | 0.5130 | 500 | 284 | 0.5971           | 0.6051 | 0.6198 |
| 500 | 231 | 0.4916           | 0.4998 | 0.5150 | 500 | 285 | 0.5991           | 0.6070 | 0.6218 |
| 500 | 232 | 0.4936           | 0.5018 | 0.5170 | 500 | 286 | 0.6011           | 0.6090 | 0.6237 |
| 500 | 233 | 0.4956           | 0.5038 | 0.5190 | 500 | 287 | 0.6031           | 0.6110 | 0.6257 |
| 500 | 234 | 0.4977           | 0.5058 | 0.5210 | 500 | 288 | 0.6051           | 0.6130 | 0.6276 |
| 500 | 235 | 0.4997           | 0.5078 | 0.5230 | 500 | 289 | 0.6070           | 0.6149 | 0.6296 |
| 500 | 236 | 0.5017           | 0.5098 | 0.5250 | 500 | 290 | 0.6090           | 0.6169 | 0.6316 |
| 500 | 237 | 0.5037           | 0.5118 | 0.5270 | 500 | 291 | 0.6110           | 0.6189 | 0.6335 |
| 500 | 238 | 0.5057           | 0.5138 | 0.5290 | 500 | 292 | 0.6130           | 0.6208 | 0.6355 |
| 500 | 239 | 0.5077           | 0.5158 | 0.5310 | 500 | 293 | 0.6149           | 0.6228 | 0.6374 |
| 500 | 240 | 0.5097           | 0.5178 | 0.5330 | 500 | 294 | 0.6169           | 0.6247 | 0.6393 |
| 500 | 241 | 0.5117           | 0.5198 | 0.5350 | 500 | 295 | 0.6189           | 0.6267 | 0.6413 |
| 500 | 242 | 0.5136           | 0.5218 | 0.5369 | 500 | 296 | 0.6209           | 0.6287 | 0.6432 |
| 500 | 243 | 0.5156           | 0.5238 | 0.5389 | 500 | 297 | 0.6228           | 0.6306 | 0.6452 |
| 500 | 244 | 0.5176           | 0.5257 | 0.5409 | 500 | 298 | 0.6248           | 0.6326 | 0.6471 |
| 500 | 245 | 0.5196           | 0.5277 | 0.5429 | 500 | 299 | 0.6268           | 0.6346 | 0.6491 |
| 500 | 246 | 0.5216           | 0.5297 | 0.5449 | 500 | 300 | 0.6287           | 0.6365 | 0.6510 |
| 500 | 247 | 0.5236           | 0.5317 | 0.5469 | 500 | 301 | 0.6307           | 0.6385 | 0.6529 |
| 500 | 248 | 0.5256           | 0.5337 | 0.5489 | 500 | 302 | 0.6327           | 0.6404 | 0.6549 |
| 500 | 249 | 0.5276           | 0.5357 | 0.5509 | 500 | 303 | 0.6347           | 0.6424 | 0.6568 |
| 500 | 250 | 0.5296           | 0.5377 | 0.5529 | 500 | 304 | 0.6366           | 0.6444 | 0.6588 |
| 500 | 251 | 0.5316           | 0.5397 | 0.5548 | 500 | 305 | 0.6386           | 0.6463 | 0.6607 |
| 500 | 252 | 0.5336           | 0.5417 | 0.5568 | 500 | 306 | 0.6406           | 0.6483 | 0.6626 |
| 500 | 253 | 0.5356           | 0.5437 | 0.5588 | 500 | 307 | 0.6425           | 0.6502 | 0.6646 |
| 500 | 254 | 0.5376           | 0.5457 | 0.5608 | 500 | 308 | 0.6445           | 0.6522 | 0.6665 |
| 500 | 255 | 0.5396           | 0.5477 | 0.5628 | 500 | 309 | 0.6465           | 0.6542 | 0.6684 |
| 500 | 256 | 0.5416           | 0.5496 | 0.5648 | 500 | 310 | 0.6484           | 0.6561 | 0.6704 |
| 500 | 257 | 0.5436           | 0.5516 | 0.5667 | 500 | 311 | 0.6504           | 0.6581 | 0.6723 |
| 500 | 258 | 0.5456           | 0.5536 | 0.5687 | 500 | 312 | 0.6524           | 0.6600 | 0.6742 |
| 500 | 259 | 0.5475           | 0.5556 | 0.5707 | 500 | 313 | 0.6543           | 0.6620 | 0.6762 |
| 500 | 260 | 0.5495           | 0.5576 | 0.5727 | 500 | 314 | 0.6563           | 0.6639 | 0.6781 |
| 500 | 261 | 0.5515           | 0.5596 | 0.5746 | 500 | 315 | 0.6582           | 0.6659 | 0.6800 |
| 500 | 262 | 0.5535           | 0.5616 | 0.5766 | 500 | 316 | 0.6602           | 0.6678 | 0.6819 |
| 500 | 263 | 0.5555           | 0.5635 | 0.5786 | 500 | 317 | 0.6622           | 0.6698 | 0.6839 |
| 500 | 264 | 0.5575           | 0.5655 | 0.5805 | 500 | 318 | 0.6641           | 0.6717 | 0.6858 |
| 500 | 265 | 0.5595           | 0.5675 | 0.5825 | 500 | 319 | 0.6661           | 0.6737 | 0.6877 |
| 500 | 266 | 0.5615           | 0.5695 | 0.5845 | 500 | 320 | 0.6681           | 0.6756 | 0.6896 |
| 500 | 267 | 0.5635           | 0.5715 | 0.5865 | 500 | 321 | 0.6700           | 0.6776 | 0.6916 |
| 500 | 268 | 0.5654           | 0.5734 | 0.5884 |     |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 322 | 0.6720           | 0.6795 | 0.6935 | 500 | 376 | 0.7770           | 0.7836 | 0.7958 |
| 500 | 323 | 0.6739           | 0.6815 | 0.6954 | 500 | 377 | 0.7789           | 0.7855 | 0.7976 |
| 500 | 324 | 0.6759           | 0.6834 | 0.6973 | 500 | 378 | 0.7808           | 0.7874 | 0.7995 |
| 500 | 325 | 0.6778           | 0.6854 | 0.6993 | 500 | 379 | 0.7828           | 0.7893 | 0.8014 |
| 500 | 326 | 0.6798           | 0.6873 | 0.7012 | 500 | 380 | 0.7847           | 0.7912 | 0.8032 |
| 500 | 327 | 0.6818           | 0.6892 | 0.7031 | 500 | 381 | 0.7866           | 0.7931 | 0.8051 |
| 500 | 328 | 0.6837           | 0.6912 | 0.7050 | 500 | 382 | 0.7885           | 0.7950 | 0.8069 |
| 500 | 329 | 0.6857           | 0.6931 | 0.7069 | 500 | 383 | 0.7904           | 0.7969 | 0.8088 |
| 500 | 330 | 0.6876           | 0.6951 | 0.7088 | 500 | 384 | 0.7924           | 0.7988 | 0.8106 |
| 500 | 331 | 0.6896           | 0.6970 | 0.7107 | 500 | 385 | 0.7943           | 0.8007 | 0.8125 |
| 500 | 332 | 0.6916           | 0.6990 | 0.7127 | 500 | 386 | 0.7962           | 0.8026 | 0.8143 |
| 500 | 333 | 0.6935           | 0.7009 | 0.7146 | 500 | 387 | 0.7981           | 0.8045 | 0.8162 |
| 500 | 334 | 0.6955           | 0.7028 | 0.7165 | 500 | 388 | 0.8000           | 0.8064 | 0.8180 |
| 500 | 335 | 0.6974           | 0.7048 | 0.7184 | 500 | 389 | 0.8020           | 0.8083 | 0.8199 |
| 500 | 336 | 0.6994           | 0.7067 | 0.7203 | 500 | 390 | 0.8039           | 0.8102 | 0.8217 |
| 500 | 337 | 0.7013           | 0.7086 | 0.7222 | 500 | 391 | 0.8058           | 0.8121 | 0.8236 |
| 500 | 338 | 0.7033           | 0.7106 | 0.7241 | 500 | 392 | 0.8077           | 0.8140 | 0.8254 |
| 500 | 339 | 0.7052           | 0.7125 | 0.7260 | 500 | 393 | 0.8096           | 0.8158 | 0.8272 |
| 500 | 340 | 0.7072           | 0.7145 | 0.7279 | 500 | 394 | 0.8115           | 0.8177 | 0.8291 |
| 500 | 341 | 0.7091           | 0.7164 | 0.7298 | 500 | 395 | 0.8135           | 0.8196 | 0.8309 |
| 500 | 342 | 0.7111           | 0.7183 | 0.7317 | 500 | 396 | 0.8154           | 0.8215 | 0.8328 |
| 500 | 343 | 0.7130           | 0.7203 | 0.7336 | 500 | 397 | 0.8173           | 0.8234 | 0.8346 |
| 500 | 344 | 0.7150           | 0.7222 | 0.7355 | 500 | 398 | 0.8192           | 0.8253 | 0.8364 |
| 500 | 345 | 0.7169           | 0.7241 | 0.7374 | 500 | 399 | 0.8211           | 0.8272 | 0.8382 |
| 500 | 346 | 0.7188           | 0.7261 | 0.7393 | 500 | 400 | 0.8230           | 0.8290 | 0.8401 |
| 500 | 347 | 0.7208           | 0.7280 | 0.7412 | 500 | 401 | 0.8249           | 0.8309 | 0.8419 |
| 500 | 348 | 0.7227           | 0.7299 | 0.7431 | 500 | 402 | 0.8268           | 0.8328 | 0.8437 |
| 500 | 349 | 0.7247           | 0.7318 | 0.7450 | 500 | 403 | 0.8287           | 0.8347 | 0.8456 |
| 500 | 350 | 0.7266           | 0.7338 | 0.7469 | 500 | 404 | 0.8306           | 0.8366 | 0.8474 |
| 500 | 351 | 0.7286           | 0.7357 | 0.7488 | 500 | 405 | 0.8325           | 0.8384 | 0.8492 |
| 500 | 352 | 0.7305           | 0.7376 | 0.7507 | 500 | 406 | 0.8344           | 0.8403 | 0.8510 |
| 500 | 353 | 0.7325           | 0.7395 | 0.7526 | 500 | 407 | 0.8363           | 0.8422 | 0.8528 |
| 500 | 354 | 0.7344           | 0.7415 | 0.7545 | 500 | 408 | 0.8382           | 0.8441 | 0.8547 |
| 500 | 355 | 0.7364           | 0.7434 | 0.7564 | 500 | 409 | 0.8401           | 0.8459 | 0.8565 |
| 500 | 356 | 0.7383           | 0.7453 | 0.7582 | 500 | 410 | 0.8420           | 0.8478 | 0.8583 |
| 500 | 357 | 0.7402           | 0.7472 | 0.7602 | 500 | 411 | 0.8439           | 0.8497 | 0.8601 |
| 500 | 358 | 0.7422           | 0.7492 | 0.7620 | 500 | 412 | 0.8458           | 0.8515 | 0.8619 |
| 500 | 359 | 0.7441           | 0.7511 | 0.7639 | 500 | 413 | 0.8477           | 0.8534 | 0.8637 |
| 500 | 360 | 0.7460           | 0.7530 | 0.7658 | 500 | 414 | 0.8496           | 0.8553 | 0.8655 |
| 500 | 361 | 0.7480           | 0.7549 | 0.7677 | 500 | 415 | 0.8515           | 0.8571 | 0.8673 |
| 500 | 362 | 0.7499           | 0.7568 | 0.7696 | 500 | 416 | 0.8534           | 0.8590 | 0.8691 |
| 500 | 363 | 0.7519           | 0.7588 | 0.7714 | 500 | 417 | 0.8553           | 0.8608 | 0.8709 |
| 500 | 364 | 0.7538           | 0.7607 | 0.7733 | 500 | 418 | 0.8572           | 0.8627 | 0.8727 |
| 500 | 365 | 0.7557           | 0.7626 | 0.7752 | 500 | 419 | 0.8591           | 0.8646 | 0.8745 |
| 500 | 366 | 0.7577           | 0.7645 | 0.7771 | 500 | 420 | 0.8610           | 0.8664 | 0.8763 |
| 500 | 367 | 0.7596           | 0.7664 | 0.7790 | 500 | 421 | 0.8629           | 0.8683 | 0.8781 |
| 500 | 368 | 0.7615           | 0.7683 | 0.7808 | 500 | 422 | 0.8647           | 0.8701 | 0.8799 |
| 500 | 369 | 0.7635           | 0.7702 | 0.7827 | 500 | 423 | 0.8666           | 0.8720 | 0.8817 |
| 500 | 370 | 0.7654           | 0.7721 | 0.7846 | 500 | 424 | 0.8685           | 0.8738 | 0.8834 |
| 500 | 371 | 0.7673           | 0.7741 | 0.7864 | 500 | 425 | 0.8704           | 0.8757 | 0.8852 |
| 500 | 372 | 0.7693           | 0.7760 | 0.7883 | 500 | 426 | 0.8723           | 0.8775 | 0.8870 |
| 500 | 373 | 0.7712           | 0.7779 | 0.7902 | 500 | 427 | 0.8742           | 0.8794 | 0.8888 |
| 500 | 374 | 0.7731           | 0.7798 | 0.7920 | 500 | 428 | 0.8760           | 0.8812 | 0.8906 |
| 500 | 375 | 0.7750           | 0.7817 | 0.7939 | 500 | 429 | 0.8779           | 0.8830 | 0.8923 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N   | K   | CONFIDENCE LEVEL |        |        | N   | K   | CONFIDENCE LEVEL |        |        |
|-----|-----|------------------|--------|--------|-----|-----|------------------|--------|--------|
|     |     | 90%              | 95%    | 99%    |     |     | 90%              | 95%    | 99%    |
| 500 | 430 | 0.8798           | 0.8849 | 0.8941 | 500 | 484 | 0.9776           | 0.9798 | 0.9835 |
| 500 | 431 | 0.8817           | 0.8867 | 0.8959 | 500 | 485 | 0.9793           | 0.9814 | 0.9849 |
| 500 | 432 | 0.8835           | 0.8886 | 0.8976 | 500 | 486 | 0.9810           | 0.9830 | 0.9863 |
| 500 | 433 | 0.8854           | 0.8904 | 0.8994 | 500 | 487 | 0.9826           | 0.9846 | 0.9877 |
| 500 | 434 | 0.8873           | 0.8922 | 0.9012 | 500 | 488 | 0.9843           | 0.9861 | 0.9891 |
| 500 | 435 | 0.8892           | 0.8941 | 0.9029 | 500 | 489 | 0.9859           | 0.9876 | 0.9904 |
| 500 | 436 | 0.8910           | 0.8959 | 0.9047 | 500 | 490 | 0.9875           | 0.9891 | 0.9917 |
| 500 | 437 | 0.8929           | 0.8977 | 0.9064 | 500 | 491 | 0.9891           | 0.9906 | 0.9930 |
| 500 | 438 | 0.8947           | 0.8995 | 0.9082 | 500 | 492 | 0.9907           | 0.9920 | 0.9942 |
| 500 | 439 | 0.8966           | 0.9014 | 0.9099 | 500 | 493 | 0.9922           | 0.9934 | 0.9953 |
| 500 | 440 | 0.8985           | 0.9032 | 0.9117 | 500 | 494 | 0.9937           | 0.9948 | 0.9964 |
| 500 | 441 | 0.9003           | 0.9050 | 0.9134 | 500 | 495 | 0.9951           | 0.9961 | 0.9974 |
| 500 | 442 | 0.9022           | 0.9068 | 0.9151 | 500 | 496 | 0.9965           | 0.9973 | 0.9983 |
| 500 | 443 | 0.9040           | 0.9086 | 0.9169 | 500 | 497 | 0.9978           | 0.9984 | 0.9991 |
| 500 | 444 | 0.9059           | 0.9104 | 0.9186 | 500 | 498 | 0.9989           | 0.9993 | 0.9997 |
| 500 | 445 | 0.9077           | 0.9123 | 0.9203 | 500 | 499 | 0.9998           | 0.9999 | 1.0000 |
| 500 | 446 | 0.9096           | 0.9141 | 0.9221 | 500 | 500 | 1.0000           | 1.0000 | 1.0000 |
| 500 | 447 | 0.9114           | 0.9159 | 0.9238 |     |     |                  |        |        |
| 500 | 448 | 0.9133           | 0.9177 | 0.9255 |     |     |                  |        |        |
| 500 | 449 | 0.9151           | 0.9195 | 0.9272 |     |     |                  |        |        |
| 500 | 450 | 0.9170           | 0.9213 | 0.9289 |     |     |                  |        |        |
| 500 | 451 | 0.9188           | 0.9231 | 0.9306 |     |     |                  |        |        |
| 500 | 452 | 0.9207           | 0.9248 | 0.9323 |     |     |                  |        |        |
| 500 | 453 | 0.9225           | 0.9266 | 0.9340 |     |     |                  |        |        |
| 500 | 454 | 0.9243           | 0.9284 | 0.9357 |     |     |                  |        |        |
| 500 | 455 | 0.9262           | 0.9302 | 0.9374 |     |     |                  |        |        |
| 500 | 456 | 0.9280           | 0.9320 | 0.9391 |     |     |                  |        |        |
| 500 | 457 | 0.9298           | 0.9338 | 0.9408 |     |     |                  |        |        |
| 500 | 458 | 0.9316           | 0.9355 | 0.9424 |     |     |                  |        |        |
| 500 | 459 | 0.9335           | 0.9373 | 0.9441 |     |     |                  |        |        |
| 500 | 460 | 0.9353           | 0.9391 | 0.9458 |     |     |                  |        |        |
| 500 | 461 | 0.9371           | 0.9408 | 0.9474 |     |     |                  |        |        |
| 500 | 462 | 0.9389           | 0.9426 | 0.9491 |     |     |                  |        |        |
| 500 | 463 | 0.9407           | 0.9443 | 0.9508 |     |     |                  |        |        |
| 500 | 464 | 0.9425           | 0.9461 | 0.9524 |     |     |                  |        |        |
| 500 | 465 | 0.9443           | 0.9478 | 0.9540 |     |     |                  |        |        |
| 500 | 466 | 0.9461           | 0.9496 | 0.9557 |     |     |                  |        |        |
| 500 | 467 | 0.9479           | 0.9513 | 0.9573 |     |     |                  |        |        |
| 500 | 468 | 0.9497           | 0.9530 | 0.9589 |     |     |                  |        |        |
| 500 | 469 | 0.9515           | 0.9548 | 0.9605 |     |     |                  |        |        |
| 500 | 470 | 0.9533           | 0.9565 | 0.9621 |     |     |                  |        |        |
| 500 | 471 | 0.9550           | 0.9582 | 0.9637 |     |     |                  |        |        |
| 500 | 472 | 0.9568           | 0.9599 | 0.9653 |     |     |                  |        |        |
| 500 | 473 | 0.9586           | 0.9616 | 0.9669 |     |     |                  |        |        |
| 500 | 474 | 0.9604           | 0.9633 | 0.9685 |     |     |                  |        |        |
| 500 | 475 | 0.9621           | 0.9650 | 0.9700 |     |     |                  |        |        |
| 500 | 476 | 0.9639           | 0.9667 | 0.9716 |     |     |                  |        |        |
| 500 | 477 | 0.9656           | 0.9684 | 0.9731 |     |     |                  |        |        |
| 500 | 478 | 0.9674           | 0.9700 | 0.9746 |     |     |                  |        |        |
| 500 | 479 | 0.9691           | 0.9717 | 0.9762 |     |     |                  |        |        |
| 500 | 480 | 0.9708           | 0.9733 | 0.9777 |     |     |                  |        |        |
| 500 | 481 | 0.9725           | 0.9750 | 0.9791 |     |     |                  |        |        |
| 500 | 482 | 0.9742           | 0.9766 | 0.9806 |     |     |                  |        |        |
| 500 | 483 | 0.9759           | 0.9782 | 0.9821 |     |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K  | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |    | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 0  | 0.0023           | 0.0030 | 0.0046 | 1000 | 54  | 0.0643           | 0.0673 | 0.0730 |
| 1000 | 1  | 0.0039           | 0.0047 | 0.0066 | 1000 | 55  | 0.0654           | 0.0684 | 0.0741 |
| 1000 | 2  | 0.0053           | 0.0063 | 0.0084 | 1000 | 56  | 0.0665           | 0.0695 | 0.0753 |
| 1000 | 3  | 0.0067           | 0.0077 | 0.0100 | 1000 | 57  | 0.0676           | 0.0706 | 0.0764 |
| 1000 | 4  | 0.0080           | 0.0091 | 0.0116 | 1000 | 58  | 0.0686           | 0.0717 | 0.0775 |
| 1000 | 5  | 0.0093           | 0.0105 | 0.0131 | 1000 | 59  | 0.0697           | 0.0728 | 0.0787 |
| 1000 | 6  | 0.0105           | 0.0118 | 0.0145 | 1000 | 60  | 0.0708           | 0.0738 | 0.0798 |
| 1000 | 7  | 0.0117           | 0.0131 | 0.0159 | 1000 | 61  | 0.0719           | 0.0749 | 0.0809 |
| 1000 | 8  | 0.0130           | 0.0144 | 0.0173 | 1000 | 62  | 0.0729           | 0.0760 | 0.0820 |
| 1000 | 9  | 0.0142           | 0.0157 | 0.0187 | 1000 | 63  | 0.0740           | 0.0771 | 0.0832 |
| 1000 | 10 | 0.0154           | 0.0169 | 0.0200 | 1000 | 64  | 0.0751           | 0.0782 | 0.0843 |
| 1000 | 11 | 0.0166           | 0.0181 | 0.0214 | 1000 | 65  | 0.0762           | 0.0793 | 0.0854 |
| 1000 | 12 | 0.0177           | 0.0194 | 0.0227 | 1000 | 66  | 0.0772           | 0.0804 | 0.0865 |
| 1000 | 13 | 0.0189           | 0.0206 | 0.0240 | 1000 | 67  | 0.0783           | 0.0815 | 0.0877 |
| 1000 | 14 | 0.0201           | 0.0218 | 0.0253 | 1000 | 68  | 0.0794           | 0.0826 | 0.0888 |
| 1000 | 15 | 0.0212           | 0.0230 | 0.0266 | 1000 | 69  | 0.0804           | 0.0837 | 0.0899 |
| 1000 | 16 | 0.0224           | 0.0242 | 0.0279 | 1000 | 70  | 0.0815           | 0.0847 | 0.0910 |
| 1000 | 17 | 0.0235           | 0.0254 | 0.0291 | 1000 | 71  | 0.0826           | 0.0858 | 0.0922 |
| 1000 | 18 | 0.0247           | 0.0266 | 0.0304 | 1000 | 72  | 0.0836           | 0.0869 | 0.0933 |
| 1000 | 19 | 0.0256           | 0.0278 | 0.0316 | 1000 | 73  | 0.0847           | 0.0880 | 0.0944 |
| 1000 | 20 | 0.0269           | 0.0289 | 0.0329 | 1000 | 74  | 0.0858           | 0.0891 | 0.0955 |
| 1000 | 21 | 0.0281           | 0.0301 | 0.0341 | 1000 | 75  | 0.0868           | 0.0902 | 0.0966 |
| 1000 | 22 | 0.0292           | 0.0313 | 0.0354 | 1000 | 76  | 0.0879           | 0.0912 | 0.0977 |
| 1000 | 23 | 0.0303           | 0.0324 | 0.0366 | 1000 | 77  | 0.0889           | 0.0923 | 0.0988 |
| 1000 | 24 | 0.0315           | 0.0336 | 0.0378 | 1000 | 78  | 0.0900           | 0.0934 | 0.0999 |
| 1000 | 25 | 0.0326           | 0.0347 | 0.0390 | 1000 | 79  | 0.0911           | 0.0945 | 0.1011 |
| 1000 | 26 | 0.0337           | 0.0359 | 0.0402 | 1000 | 80  | 0.0921           | 0.0955 | 0.1022 |
| 1000 | 27 | 0.0348           | 0.0370 | 0.0414 | 1000 | 81  | 0.0932           | 0.0966 | 0.1033 |
| 1000 | 28 | 0.0359           | 0.0382 | 0.0427 | 1000 | 82  | 0.0942           | 0.0977 | 0.1044 |
| 1000 | 29 | 0.0370           | 0.0393 | 0.0439 | 1000 | 83  | 0.0953           | 0.0988 | 0.1055 |
| 1000 | 30 | 0.0382           | 0.0405 | 0.0451 | 1000 | 84  | 0.0964           | 0.0999 | 0.1066 |
| 1000 | 31 | 0.0393           | 0.0416 | 0.0462 | 1000 | 85  | 0.0974           | 0.1009 | 0.1077 |
| 1000 | 32 | 0.0404           | 0.0427 | 0.0474 | 1000 | 86  | 0.0985           | 0.1020 | 0.1088 |
| 1000 | 33 | 0.0415           | 0.0439 | 0.0486 | 1000 | 87  | 0.0995           | 0.1031 | 0.1099 |
| 1000 | 34 | 0.0426           | 0.0450 | 0.0498 | 1000 | 88  | 0.1006           | 0.1042 | 0.1110 |
| 1000 | 35 | 0.0437           | 0.0461 | 0.0510 | 1000 | 89  | 0.1017           | 0.1052 | 0.1121 |
| 1000 | 36 | 0.0448           | 0.0473 | 0.0522 | 1000 | 90  | 0.1027           | 0.1063 | 0.1132 |
| 1000 | 37 | 0.0459           | 0.0484 | 0.0533 | 1000 | 91  | 0.1038           | 0.1074 | 0.1143 |
| 1000 | 38 | 0.0470           | 0.0495 | 0.0545 | 1000 | 92  | 0.1048           | 0.1084 | 0.1154 |
| 1000 | 39 | 0.0481           | 0.0506 | 0.0557 | 1000 | 93  | 0.1059           | 0.1095 | 0.1165 |
| 1000 | 40 | 0.0492           | 0.0518 | 0.0568 | 1000 | 94  | 0.1069           | 0.1106 | 0.1176 |
| 1000 | 41 | 0.0502           | 0.0529 | 0.0580 | 1000 | 95  | 0.1080           | 0.1117 | 0.1187 |
| 1000 | 42 | 0.0513           | 0.0540 | 0.0592 | 1000 | 96  | 0.1090           | 0.1127 | 0.1198 |
| 1000 | 43 | 0.0524           | 0.0551 | 0.0603 | 1000 | 97  | 0.1101           | 0.1138 | 0.1209 |
| 1000 | 44 | 0.0535           | 0.0562 | 0.0615 | 1000 | 98  | 0.1112           | 0.1149 | 0.1220 |
| 1000 | 45 | 0.0546           | 0.0573 | 0.0627 | 1000 | 99  | 0.1122           | 0.1159 | 0.1231 |
| 1000 | 46 | 0.0557           | 0.0584 | 0.0638 | 1000 | 100 | 0.1133           | 0.1170 | 0.1242 |
| 1000 | 47 | 0.0568           | 0.0595 | 0.0650 | 1000 | 101 | 0.1143           | 0.1180 | 0.1253 |
| 1000 | 48 | 0.0579           | 0.0607 | 0.0661 | 1000 | 102 | 0.1154           | 0.1191 | 0.1264 |
| 1000 | 49 | 0.0589           | 0.0618 | 0.0673 | 1000 | 103 | 0.1164           | 0.1202 | 0.1275 |
| 1000 | 50 | 0.0600           | 0.0629 | 0.0684 | 1000 | 104 | 0.1175           | 0.1213 | 0.1285 |
| 1000 | 51 | 0.0611           | 0.0640 | 0.0695 | 1000 | 105 | 0.1185           | 0.1223 | 0.1297 |
| 1000 | 52 | 0.0622           | 0.0651 | 0.0707 | 1000 | 106 | 0.1196           | 0.1234 | 0.1307 |
| 1000 | 53 | 0.0633           | 0.0662 | 0.0718 |      |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 107 | 0.1206           | 0.1244 | 0.1318 | 1000 | 161 | 0.1769           | 0.1814 | 0.1899 |
| 1000 | 108 | 0.1217           | 0.1255 | 0.1329 | 1000 | 162 | 0.1779           | 0.1824 | 0.1910 |
| 1000 | 109 | 0.1227           | 0.1266 | 0.1340 | 1000 | 163 | 0.1790           | 0.1834 | 0.1920 |
| 1000 | 110 | 0.1238           | 0.1276 | 0.1351 | 1000 | 164 | 0.1800           | 0.1845 | 0.1931 |
| 1000 | 111 | 0.1248           | 0.1287 | 0.1362 | 1000 | 165 | 0.1810           | 0.1855 | 0.1941 |
| 1000 | 112 | 0.1259           | 0.1298 | 0.1373 | 1000 | 166 | 0.1821           | 0.1866 | 0.1952 |
| 1000 | 113 | 0.1269           | 0.1308 | 0.1384 | 1000 | 167 | 0.1831           | 0.1876 | 0.1963 |
| 1000 | 114 | 0.1280           | 0.1319 | 0.1394 | 1000 | 168 | 0.1841           | 0.1887 | 0.1973 |
| 1000 | 115 | 0.1290           | 0.1329 | 0.1405 | 1000 | 169 | 0.1852           | 0.1897 | 0.1984 |
| 1000 | 116 | 0.1300           | 0.1340 | 0.1416 | 1000 | 170 | 0.1862           | 0.1908 | 0.1994 |
| 1000 | 117 | 0.1311           | 0.1351 | 0.1427 | 1000 | 171 | 0.1872           | 0.1918 | 0.2005 |
| 1000 | 118 | 0.1321           | 0.1361 | 0.1438 | 1000 | 172 | 0.1883           | 0.1928 | 0.2016 |
| 1000 | 119 | 0.1332           | 0.1372 | 0.1448 | 1000 | 173 | 0.1893           | 0.1939 | 0.2026 |
| 1000 | 120 | 0.1342           | 0.1382 | 0.1459 | 1000 | 174 | 0.1903           | 0.1949 | 0.2037 |
| 1000 | 121 | 0.1353           | 0.1393 | 0.1470 | 1000 | 175 | 0.1914           | 0.1960 | 0.2047 |
| 1000 | 122 | 0.1363           | 0.1404 | 0.1481 | 1000 | 176 | 0.1924           | 0.1970 | 0.2058 |
| 1000 | 123 | 0.1374           | 0.1414 | 0.1492 | 1000 | 177 | 0.1934           | 0.1981 | 0.2069 |
| 1000 | 124 | 0.1384           | 0.1425 | 0.1502 | 1000 | 178 | 0.1945           | 0.1991 | 0.2079 |
| 1000 | 125 | 0.1395           | 0.1435 | 0.1513 | 1000 | 179 | 0.1955           | 0.2001 | 0.2090 |
| 1000 | 126 | 0.1405           | 0.1446 | 0.1524 | 1000 | 180 | 0.1965           | 0.2012 | 0.2100 |
| 1000 | 127 | 0.1415           | 0.1456 | 0.1535 | 1000 | 181 | 0.1976           | 0.2022 | 0.2111 |
| 1000 | 128 | 0.1426           | 0.1467 | 0.1546 | 1000 | 182 | 0.1986           | 0.2033 | 0.2121 |
| 1000 | 129 | 0.1436           | 0.1477 | 0.1556 | 1000 | 183 | 0.1996           | 0.2043 | 0.2132 |
| 1000 | 130 | 0.1447           | 0.1488 | 0.1567 | 1000 | 184 | 0.2007           | 0.2053 | 0.2142 |
| 1000 | 131 | 0.1457           | 0.1499 | 0.1578 | 1000 | 185 | 0.2017           | 0.2064 | 0.2153 |
| 1000 | 132 | 0.1468           | 0.1509 | 0.1589 | 1000 | 186 | 0.2027           | 0.2074 | 0.2164 |
| 1000 | 133 | 0.1478           | 0.1520 | 0.1600 | 1000 | 187 | 0.2038           | 0.2085 | 0.2174 |
| 1000 | 134 | 0.1488           | 0.1530 | 0.1610 | 1000 | 188 | 0.2048           | 0.2095 | 0.2185 |
| 1000 | 135 | 0.1499           | 0.1541 | 0.1621 | 1000 | 189 | 0.2058           | 0.2105 | 0.2195 |
| 1000 | 136 | 0.1509           | 0.1551 | 0.1632 | 1000 | 190 | 0.2069           | 0.2116 | 0.2206 |
| 1000 | 137 | 0.1520           | 0.1562 | 0.1643 | 1000 | 191 | 0.2079           | 0.2126 | 0.2216 |
| 1000 | 138 | 0.1530           | 0.1572 | 0.1653 | 1000 | 192 | 0.2089           | 0.2136 | 0.2227 |
| 1000 | 139 | 0.1540           | 0.1583 | 0.1664 | 1000 | 193 | 0.2099           | 0.2147 | 0.2237 |
| 1000 | 140 | 0.1551           | 0.1593 | 0.1675 | 1000 | 194 | 0.2110           | 0.2157 | 0.2248 |
| 1000 | 141 | 0.1561           | 0.1604 | 0.1685 | 1000 | 195 | 0.2120           | 0.2168 | 0.2258 |
| 1000 | 142 | 0.1572           | 0.1614 | 0.1696 | 1000 | 196 | 0.2130           | 0.2178 | 0.2269 |
| 1000 | 143 | 0.1582           | 0.1625 | 0.1707 | 1000 | 197 | 0.2141           | 0.2188 | 0.2279 |
| 1000 | 144 | 0.1592           | 0.1635 | 0.1717 | 1000 | 198 | 0.2151           | 0.2199 | 0.2290 |
| 1000 | 145 | 0.1603           | 0.1646 | 0.1728 | 1000 | 199 | 0.2161           | 0.2209 | 0.2300 |
| 1000 | 146 | 0.1613           | 0.1656 | 0.1739 | 1000 | 200 | 0.2171           | 0.2219 | 0.2311 |
| 1000 | 147 | 0.1624           | 0.1667 | 0.1750 | 1000 | 201 | 0.2182           | 0.2230 | 0.2322 |
| 1000 | 148 | 0.1634           | 0.1677 | 0.1760 | 1000 | 202 | 0.2192           | 0.2240 | 0.2332 |
| 1000 | 149 | 0.1644           | 0.1688 | 0.1771 | 1000 | 203 | 0.2202           | 0.2251 | 0.2342 |
| 1000 | 150 | 0.1655           | 0.1698 | 0.1781 | 1000 | 204 | 0.2213           | 0.2261 | 0.2353 |
| 1000 | 151 | 0.1665           | 0.1709 | 0.1793 | 1000 | 205 | 0.2223           | 0.2271 | 0.2364 |
| 1000 | 152 | 0.1676           | 0.1719 | 0.1803 | 1000 | 206 | 0.2233           | 0.2282 | 0.2374 |
| 1000 | 153 | 0.1686           | 0.1730 | 0.1814 | 1000 | 207 | 0.2243           | 0.2292 | 0.2384 |
| 1000 | 154 | 0.1696           | 0.1740 | 0.1824 | 1000 | 208 | 0.2254           | 0.2302 | 0.2395 |
| 1000 | 155 | 0.1707           | 0.1751 | 0.1835 | 1000 | 209 | 0.2264           | 0.2313 | 0.2405 |
| 1000 | 156 | 0.1717           | 0.1761 | 0.1845 | 1000 | 210 | 0.2274           | 0.2323 | 0.2416 |
| 1000 | 157 | 0.1728           | 0.1772 | 0.1856 | 1000 | 211 | 0.2284           | 0.2333 | 0.2426 |
| 1000 | 158 | 0.1738           | 0.1782 | 0.1867 | 1000 | 212 | 0.2295           | 0.2344 | 0.2437 |
| 1000 | 159 | 0.1748           | 0.1793 | 0.1878 | 1000 | 213 | 0.2305           | 0.2354 | 0.2447 |
| 1000 | 160 | 0.1758           | 0.1803 | 0.1888 | 1000 | 214 | 0.2315           | 0.2364 | 0.2458 |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 215 | 0.2326           | 0.2375 | 0.2468 | 1000 | 269 | 0.2876           | 0.2931 | 0.3030 |
| 1000 | 216 | 0.2336           | 0.2385 | 0.2479 | 1000 | 270 | 0.2888           | 0.2941 | 0.3040 |
| 1000 | 217 | 0.2346           | 0.2395 | 0.2489 | 1000 | 271 | 0.2898           | 0.2951 | 0.3051 |
| 1000 | 218 | 0.2356           | 0.2406 | 0.2500 | 1000 | 272 | 0.2909           | 0.2961 | 0.3061 |
| 1000 | 219 | 0.2367           | 0.2416 | 0.2510 | 1000 | 273 | 0.2919           | 0.2972 | 0.3071 |
| 1000 | 220 | 0.2377           | 0.2427 | 0.2521 | 1000 | 274 | 0.2929           | 0.2982 | 0.3082 |
| 1000 | 221 | 0.2387           | 0.2437 | 0.2531 | 1000 | 275 | 0.2933           | 0.2992 | 0.3092 |
| 1000 | 222 | 0.2397           | 0.2447 | 0.2542 | 1000 | 276 | 0.2949           | 0.3002 | 0.3102 |
| 1000 | 223 | 0.2408           | 0.2458 | 0.2552 | 1000 | 277 | 0.2960           | 0.3012 | 0.3113 |
| 1000 | 224 | 0.2418           | 0.2468 | 0.2562 | 1000 | 278 | 0.2970           | 0.3023 | 0.3123 |
| 1000 | 225 | 0.2428           | 0.2478 | 0.2573 | 1000 | 279 | 0.2980           | 0.3033 | 0.3133 |
| 1000 | 226 | 0.2438           | 0.2488 | 0.2583 | 1000 | 280 | 0.2990           | 0.3043 | 0.3144 |
| 1000 | 227 | 0.2449           | 0.2499 | 0.2594 | 1000 | 281 | 0.3000           | 0.3053 | 0.3154 |
| 1000 | 228 | 0.2459           | 0.2509 | 0.2604 | 1000 | 282 | 0.3010           | 0.3064 | 0.3164 |
| 1000 | 229 | 0.2469           | 0.2519 | 0.2615 | 1000 | 283 | 0.3021           | 0.3074 | 0.3175 |
| 1000 | 230 | 0.2479           | 0.2530 | 0.2625 | 1000 | 284 | 0.3031           | 0.3084 | 0.3185 |
| 1000 | 231 | 0.2490           | 0.2540 | 0.2635 | 1000 | 285 | 0.3041           | 0.3094 | 0.3195 |
| 1000 | 232 | 0.2500           | 0.2550 | 0.2646 | 1000 | 286 | 0.3051           | 0.3104 | 0.3205 |
| 1000 | 233 | 0.2510           | 0.2561 | 0.2656 | 1000 | 287 | 0.3061           | 0.3115 | 0.3216 |
| 1000 | 234 | 0.2520           | 0.2571 | 0.2667 | 1000 | 288 | 0.3072           | 0.3125 | 0.3226 |
| 1000 | 235 | 0.2531           | 0.2581 | 0.2677 | 1000 | 289 | 0.3082           | 0.3135 | 0.3236 |
| 1000 | 236 | 0.2541           | 0.2591 | 0.2688 | 1000 | 290 | 0.3092           | 0.3145 | 0.3247 |
| 1000 | 237 | 0.2551           | 0.2602 | 0.2698 | 1000 | 291 | 0.3102           | 0.3156 | 0.3257 |
| 1000 | 238 | 0.2561           | 0.2612 | 0.2708 | 1000 | 292 | 0.3112           | 0.3166 | 0.3267 |
| 1000 | 239 | 0.2572           | 0.2622 | 0.2719 | 1000 | 293 | 0.3122           | 0.3176 | 0.3278 |
| 1000 | 240 | 0.2582           | 0.2633 | 0.2729 | 1000 | 294 | 0.3133           | 0.3186 | 0.3288 |
| 1000 | 241 | 0.2592           | 0.2643 | 0.2740 | 1000 | 295 | 0.3143           | 0.3196 | 0.3298 |
| 1000 | 242 | 0.2602           | 0.2653 | 0.2750 | 1000 | 296 | 0.3153           | 0.3207 | 0.3308 |
| 1000 | 243 | 0.2613           | 0.2663 | 0.2760 | 1000 | 297 | 0.3163           | 0.3217 | 0.3319 |
| 1000 | 244 | 0.2623           | 0.2674 | 0.2771 | 1000 | 298 | 0.3173           | 0.3227 | 0.3329 |
| 1000 | 245 | 0.2633           | 0.2684 | 0.2781 | 1000 | 299 | 0.3183           | 0.3237 | 0.3339 |
| 1000 | 246 | 0.2643           | 0.2694 | 0.2792 | 1000 | 300 | 0.3194           | 0.3248 | 0.3350 |
| 1000 | 247 | 0.2653           | 0.2705 | 0.2802 | 1000 | 301 | 0.3204           | 0.3258 | 0.3360 |
| 1000 | 248 | 0.2664           | 0.2715 | 0.2812 | 1000 | 302 | 0.3214           | 0.3268 | 0.3370 |
| 1000 | 249 | 0.2674           | 0.2725 | 0.2823 | 1000 | 303 | 0.3224           | 0.3278 | 0.3381 |
| 1000 | 250 | 0.2684           | 0.2736 | 0.2833 | 1000 | 304 | 0.3234           | 0.3288 | 0.3391 |
| 1000 | 251 | 0.2694           | 0.2746 | 0.2844 | 1000 | 305 | 0.3244           | 0.3299 | 0.3401 |
| 1000 | 252 | 0.2705           | 0.2756 | 0.2854 | 1000 | 306 | 0.3254           | 0.3309 | 0.3411 |
| 1000 | 253 | 0.2715           | 0.2766 | 0.2864 | 1000 | 307 | 0.3265           | 0.3319 | 0.3422 |
| 1000 | 254 | 0.2725           | 0.2777 | 0.2875 | 1000 | 308 | 0.3275           | 0.3329 | 0.3432 |
| 1000 | 255 | 0.2735           | 0.2787 | 0.2885 | 1000 | 309 | 0.3285           | 0.3339 | 0.3442 |
| 1000 | 256 | 0.2745           | 0.2797 | 0.2895 | 1000 | 310 | 0.3295           | 0.3350 | 0.3452 |
| 1000 | 257 | 0.2756           | 0.2807 | 0.2906 | 1000 | 311 | 0.3305           | 0.3360 | 0.3463 |
| 1000 | 258 | 0.2766           | 0.2818 | 0.2916 | 1000 | 312 | 0.3315           | 0.3370 | 0.3473 |
| 1000 | 259 | 0.2776           | 0.2828 | 0.2927 | 1000 | 313 | 0.3326           | 0.3380 | 0.3483 |
| 1000 | 260 | 0.2786           | 0.2838 | 0.2937 | 1000 | 314 | 0.3336           | 0.3390 | 0.3493 |
| 1000 | 261 | 0.2796           | 0.2848 | 0.2947 | 1000 | 315 | 0.3346           | 0.3400 | 0.3504 |
| 1000 | 262 | 0.2807           | 0.2859 | 0.2958 | 1000 | 316 | 0.3356           | 0.3411 | 0.3514 |
| 1000 | 263 | 0.2817           | 0.2869 | 0.2968 | 1000 | 317 | 0.3366           | 0.3421 | 0.3524 |
| 1000 | 264 | 0.2827           | 0.2879 | 0.2978 | 1000 | 318 | 0.3376           | 0.3431 | 0.3534 |
| 1000 | 265 | 0.2837           | 0.2889 | 0.2989 | 1000 | 319 | 0.3386           | 0.3441 | 0.3545 |
| 1000 | 266 | 0.2847           | 0.2900 | 0.2999 | 1000 | 320 | 0.3397           | 0.3451 | 0.3555 |
| 1000 | 267 | 0.2858           | 0.2910 | 0.3009 | 1000 | 321 | 0.3407           | 0.3462 | 0.3565 |
| 1000 | 268 | 0.2868           | 0.2920 | 0.3020 |      |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 322 | 0.3417           | 0.3472 | 0.3575 | 1000 | 376 | 0.3963           | 0.4019 | 0.4126 |
| 1000 | 323 | 0.3427           | 0.3482 | 0.3586 | 1000 | 377 | 0.3973           | 0.4029 | 0.4136 |
| 1000 | 324 | 0.3437           | 0.3492 | 0.3596 | 1000 | 378 | 0.3983           | 0.4040 | 0.4146 |
|      |     |                  |        |        | 1000 | 379 | 0.3993           | 0.4050 | 0.4156 |
| 1000 | 325 | 0.3447           | 0.3502 | 0.3606 | 1000 | 380 | 0.4003           | 0.4060 | 0.4166 |
| 1000 | 326 | 0.3457           | 0.3512 | 0.3616 | 1000 | 381 | 0.4013           | 0.4070 | 0.4176 |
| 1000 | 327 | 0.3467           | 0.3523 | 0.3626 | 1000 | 382 | 0.4024           | 0.4080 | 0.4187 |
| 1000 | 328 | 0.3478           | 0.3533 | 0.3637 | 1000 | 383 | 0.4034           | 0.4090 | 0.4197 |
| 1000 | 329 | 0.3488           | 0.3543 | 0.3647 | 1000 | 384 | 0.4044           | 0.4100 | 0.4207 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 330 | 0.3498           | 0.3553 | 0.3657 | 1000 | 385 | 0.4054           | 0.4110 | 0.4217 |
| 1000 | 331 | 0.3508           | 0.3563 | 0.3667 | 1000 | 386 | 0.4064           | 0.4120 | 0.4227 |
| 1000 | 332 | 0.3518           | 0.3573 | 0.3678 | 1000 | 387 | 0.4074           | 0.4131 | 0.4237 |
| 1000 | 333 | 0.3528           | 0.3584 | 0.3688 | 1000 | 388 | 0.4084           | 0.4141 | 0.4247 |
| 1000 | 334 | 0.3538           | 0.3594 | 0.3698 | 1000 | 389 | 0.4094           | 0.4151 | 0.4258 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 335 | 0.3549           | 0.3604 | 0.3708 | 1000 | 390 | 0.4104           | 0.4161 | 0.4268 |
| 1000 | 336 | 0.3559           | 0.3614 | 0.3718 | 1000 | 391 | 0.4114           | 0.4171 | 0.4278 |
| 1000 | 337 | 0.3569           | 0.3624 | 0.3729 | 1000 | 392 | 0.4124           | 0.4181 | 0.4288 |
| 1000 | 338 | 0.3579           | 0.3634 | 0.3739 | 1000 | 393 | 0.4134           | 0.4191 | 0.4298 |
| 1000 | 339 | 0.3589           | 0.3644 | 0.3749 | 1000 | 394 | 0.4145           | 0.4201 | 0.4308 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 340 | 0.3599           | 0.3655 | 0.3759 | 1000 | 395 | 0.4155           | 0.4211 | 0.4318 |
| 1000 | 341 | 0.3609           | 0.3665 | 0.3770 | 1000 | 396 | 0.4165           | 0.4221 | 0.4328 |
| 1000 | 342 | 0.3619           | 0.3675 | 0.3780 | 1000 | 397 | 0.4175           | 0.4231 | 0.4338 |
| 1000 | 343 | 0.3630           | 0.3685 | 0.3790 | 1000 | 398 | 0.4185           | 0.4242 | 0.4349 |
| 1000 | 344 | 0.3640           | 0.3695 | 0.3800 | 1000 | 399 | 0.4195           | 0.4252 | 0.4359 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 345 | 0.3650           | 0.3705 | 0.3810 | 1000 | 400 | 0.4205           | 0.4262 | 0.4369 |
| 1000 | 346 | 0.3660           | 0.3716 | 0.3821 | 1000 | 401 | 0.4215           | 0.4272 | 0.4379 |
| 1000 | 347 | 0.3670           | 0.3726 | 0.3831 | 1000 | 402 | 0.4225           | 0.4282 | 0.4389 |
| 1000 | 348 | 0.3680           | 0.3736 | 0.3841 | 1000 | 403 | 0.4235           | 0.4292 | 0.4399 |
| 1000 | 349 | 0.3690           | 0.3746 | 0.3851 | 1000 | 404 | 0.4245           | 0.4302 | 0.4409 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 350 | 0.3700           | 0.3756 | 0.3861 | 1000 | 405 | 0.4255           | 0.4312 | 0.4419 |
| 1000 | 351 | 0.3711           | 0.3766 | 0.3872 | 1000 | 406 | 0.4265           | 0.4322 | 0.4429 |
| 1000 | 352 | 0.3721           | 0.3776 | 0.3882 | 1000 | 407 | 0.4275           | 0.4332 | 0.4440 |
| 1000 | 353 | 0.3731           | 0.3787 | 0.3892 | 1000 | 408 | 0.4285           | 0.4342 | 0.4450 |
| 1000 | 354 | 0.3741           | 0.3797 | 0.3902 | 1000 | 409 | 0.4295           | 0.4352 | 0.4460 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 355 | 0.3751           | 0.3807 | 0.3912 | 1000 | 410 | 0.4305           | 0.4363 | 0.4470 |
| 1000 | 356 | 0.3761           | 0.3817 | 0.3923 | 1000 | 411 | 0.4316           | 0.4373 | 0.4480 |
| 1000 | 357 | 0.3771           | 0.3827 | 0.3933 | 1000 | 412 | 0.4326           | 0.4383 | 0.4490 |
| 1000 | 358 | 0.3781           | 0.3837 | 0.3943 | 1000 | 413 | 0.4336           | 0.4393 | 0.4500 |
| 1000 | 359 | 0.3791           | 0.3847 | 0.3953 | 1000 | 414 | 0.4346           | 0.4403 | 0.4510 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 360 | 0.3801           | 0.3857 | 0.3963 | 1000 | 415 | 0.4356           | 0.4413 | 0.4520 |
| 1000 | 361 | 0.3812           | 0.3868 | 0.3973 | 1000 | 416 | 0.4366           | 0.4423 | 0.4530 |
| 1000 | 362 | 0.3822           | 0.3878 | 0.3984 | 1000 | 417 | 0.4376           | 0.4433 | 0.4540 |
| 1000 | 363 | 0.3832           | 0.3888 | 0.3994 | 1000 | 418 | 0.4386           | 0.4443 | 0.4551 |
| 1000 | 364 | 0.3842           | 0.3898 | 0.4004 | 1000 | 419 | 0.4396           | 0.4453 | 0.4561 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 365 | 0.3852           | 0.3908 | 0.4014 | 1000 | 420 | 0.4406           | 0.4463 | 0.4571 |
| 1000 | 366 | 0.3862           | 0.3918 | 0.4024 | 1000 | 421 | 0.4416           | 0.4473 | 0.4581 |
| 1000 | 367 | 0.3872           | 0.3928 | 0.4034 | 1000 | 422 | 0.4426           | 0.4483 | 0.4591 |
| 1000 | 368 | 0.3882           | 0.3939 | 0.4045 | 1000 | 423 | 0.4436           | 0.4493 | 0.4601 |
| 1000 | 369 | 0.3892           | 0.3949 | 0.4055 | 1000 | 424 | 0.4446           | 0.4503 | 0.4611 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 370 | 0.3903           | 0.3959 | 0.4065 | 1000 | 425 | 0.4456           | 0.4513 | 0.4621 |
| 1000 | 371 | 0.3913           | 0.3969 | 0.4075 | 1000 | 426 | 0.4466           | 0.4524 | 0.4631 |
| 1000 | 372 | 0.3923           | 0.3979 | 0.4085 | 1000 | 427 | 0.4476           | 0.4534 | 0.4641 |
| 1000 | 373 | 0.3933           | 0.3989 | 0.4095 | 1000 | 428 | 0.4486           | 0.4544 | 0.4651 |
| 1000 | 374 | 0.3943           | 0.3999 | 0.4105 | 1000 | 429 | 0.4497           | 0.4554 | 0.4661 |
|      |     |                  |        |        |      |     |                  |        |        |
| 1000 | 375 | 0.3953           | 0.4009 | 0.4116 |      |     |                  |        |        |



# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 430 | 0.4506           | 0.4564 | 0.4671 | 1000 | 484 | 0.5048           | 0.5105 | 0.5213 |
| 1000 | 431 | 0.4517           | 0.4574 | 0.4681 | 1000 | 485 | 0.5058           | 0.5115 | 0.5223 |
| 1000 | 432 | 0.4527           | 0.4584 | 0.4692 | 1000 | 486 | 0.5068           | 0.5125 | 0.5233 |
| 1000 | 433 | 0.4537           | 0.4594 | 0.4702 | 1000 | 487 | 0.5078           | 0.5135 | 0.5243 |
| 1000 | 434 | 0.4547           | 0.4604 | 0.4712 | 1000 | 488 | 0.5088           | 0.5145 | 0.5253 |
| 1000 | 435 | 0.4557           | 0.4614 | 0.4722 | 1000 | 489 | 0.5098           | 0.5155 | 0.5263 |
| 1000 | 436 | 0.4567           | 0.4624 | 0.4732 | 1000 | 490 | 0.5108           | 0.5165 | 0.5273 |
| 1000 | 437 | 0.4577           | 0.4634 | 0.4742 | 1000 | 491 | 0.5118           | 0.5175 | 0.5283 |
| 1000 | 438 | 0.4587           | 0.4644 | 0.4752 | 1000 | 492 | 0.5128           | 0.5185 | 0.5292 |
| 1000 | 439 | 0.4597           | 0.4654 | 0.4762 | 1000 | 493 | 0.5138           | 0.5195 | 0.5303 |
| 1000 | 440 | 0.4607           | 0.4664 | 0.4772 | 1000 | 494 | 0.5148           | 0.5205 | 0.5312 |
| 1000 | 441 | 0.4617           | 0.4674 | 0.4782 | 1000 | 495 | 0.5158           | 0.5215 | 0.5322 |
| 1000 | 442 | 0.4627           | 0.4684 | 0.4792 | 1000 | 496 | 0.5167           | 0.5225 | 0.5332 |
| 1000 | 443 | 0.4637           | 0.4694 | 0.4802 | 1000 | 497 | 0.5178           | 0.5235 | 0.5342 |
| 1000 | 444 | 0.4647           | 0.4704 | 0.4812 | 1000 | 498 | 0.5187           | 0.5245 | 0.5352 |
| 1000 | 445 | 0.4657           | 0.4714 | 0.4822 | 1000 | 499 | 0.5198           | 0.5255 | 0.5362 |
| 1000 | 446 | 0.4667           | 0.4725 | 0.4832 | 1000 | 500 | 0.5207           | 0.5265 | 0.5372 |
| 1000 | 447 | 0.4677           | 0.4735 | 0.4842 | 1000 | 501 | 0.5218           | 0.5275 | 0.5382 |
| 1000 | 448 | 0.4687           | 0.4744 | 0.4852 | 1000 | 502 | 0.5227           | 0.5285 | 0.5393 |
| 1000 | 449 | 0.4697           | 0.4755 | 0.4862 | 1000 | 503 | 0.5238           | 0.5295 | 0.5402 |
| 1000 | 450 | 0.4707           | 0.4765 | 0.4872 | 1000 | 504 | 0.5247           | 0.5305 | 0.5412 |
| 1000 | 451 | 0.4717           | 0.4775 | 0.4882 | 1000 | 505 | 0.5257           | 0.5315 | 0.5422 |
| 1000 | 452 | 0.4727           | 0.4785 | 0.4893 | 1000 | 506 | 0.5267           | 0.5325 | 0.5432 |
| 1000 | 453 | 0.4737           | 0.4795 | 0.4902 | 1000 | 507 | 0.5277           | 0.5335 | 0.5442 |
| 1000 | 454 | 0.4747           | 0.4805 | 0.4912 | 1000 | 508 | 0.5287           | 0.5345 | 0.5452 |
| 1000 | 455 | 0.4757           | 0.4815 | 0.4923 | 1000 | 509 | 0.5297           | 0.5355 | 0.5462 |
| 1000 | 456 | 0.4767           | 0.4825 | 0.4933 | 1000 | 510 | 0.5307           | 0.5365 | 0.5472 |
| 1000 | 457 | 0.4777           | 0.4835 | 0.4943 | 1000 | 511 | 0.5317           | 0.5375 | 0.5481 |
| 1000 | 458 | 0.4787           | 0.4845 | 0.4953 | 1000 | 512 | 0.5327           | 0.5385 | 0.5492 |
| 1000 | 459 | 0.4797           | 0.4855 | 0.4963 | 1000 | 513 | 0.5337           | 0.5394 | 0.5501 |
| 1000 | 460 | 0.4807           | 0.4865 | 0.4973 | 1000 | 514 | 0.5347           | 0.5404 | 0.5512 |
| 1000 | 461 | 0.4817           | 0.4875 | 0.4983 | 1000 | 515 | 0.5357           | 0.5415 | 0.5522 |
| 1000 | 462 | 0.4827           | 0.4885 | 0.4993 | 1000 | 516 | 0.5367           | 0.5424 | 0.5532 |
| 1000 | 463 | 0.4837           | 0.4895 | 0.5003 | 1000 | 517 | 0.5377           | 0.5434 | 0.5541 |
| 1000 | 464 | 0.4847           | 0.4905 | 0.5013 | 1000 | 518 | 0.5387           | 0.5444 | 0.5552 |
| 1000 | 465 | 0.4858           | 0.4915 | 0.5023 | 1000 | 519 | 0.5397           | 0.5454 | 0.5561 |
| 1000 | 466 | 0.4867           | 0.4925 | 0.5033 | 1000 | 520 | 0.5407           | 0.5464 | 0.5571 |
| 1000 | 467 | 0.4878           | 0.4935 | 0.5043 | 1000 | 521 | 0.5417           | 0.5474 | 0.5581 |
| 1000 | 468 | 0.4887           | 0.4945 | 0.5053 | 1000 | 522 | 0.5427           | 0.5484 | 0.5591 |
| 1000 | 469 | 0.4898           | 0.4955 | 0.5063 | 1000 | 523 | 0.5437           | 0.5494 | 0.5601 |
| 1000 | 470 | 0.4908           | 0.4965 | 0.5073 | 1000 | 524 | 0.5447           | 0.5504 | 0.5611 |
| 1000 | 471 | 0.4918           | 0.4975 | 0.5083 | 1000 | 525 | 0.5457           | 0.5514 | 0.5621 |
| 1000 | 472 | 0.4928           | 0.4985 | 0.5093 | 1000 | 526 | 0.5467           | 0.5524 | 0.5631 |
| 1000 | 473 | 0.4938           | 0.4995 | 0.5103 | 1000 | 527 | 0.5477           | 0.5534 | 0.5641 |
| 1000 | 474 | 0.4948           | 0.5005 | 0.5113 | 1000 | 528 | 0.5487           | 0.5544 | 0.5651 |
| 1000 | 475 | 0.4958           | 0.5015 | 0.5123 | 1000 | 529 | 0.5497           | 0.5554 | 0.5660 |
| 1000 | 476 | 0.4968           | 0.5025 | 0.5133 | 1000 | 530 | 0.5507           | 0.5564 | 0.5670 |
| 1000 | 477 | 0.4978           | 0.5035 | 0.5143 | 1000 | 531 | 0.5517           | 0.5574 | 0.5680 |
| 1000 | 478 | 0.4988           | 0.5045 | 0.5153 | 1000 | 532 | 0.5527           | 0.5584 | 0.5690 |
| 1000 | 479 | 0.4998           | 0.5055 | 0.5163 | 1000 | 533 | 0.5537           | 0.5594 | 0.5700 |
| 1000 | 480 | 0.5008           | 0.5065 | 0.5173 | 1000 | 534 | 0.5547           | 0.5603 | 0.5710 |
| 1000 | 481 | 0.5018           | 0.5075 | 0.5183 | 1000 | 535 | 0.5556           | 0.5613 | 0.5720 |
| 1000 | 482 | 0.5028           | 0.5085 | 0.5193 | 1000 | 536 | 0.5566           | 0.5623 | 0.5730 |
| 1000 | 483 | 0.5038           | 0.5095 | 0.5203 |      |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE |        | LEVEL  | N    | K   | CONFIDENCE |        | LEVEL  |
|------|-----|------------|--------|--------|------|-----|------------|--------|--------|
|      |     | 90%        | 95%    |        |      |     | 90%        | 95%    |        |
| 1000 | 537 | 0.5576     | 0.5633 | 0.5740 | 1000 | 591 | 0.6113     | 0.6168 | 0.6273 |
| 1000 | 538 | 0.5586     | 0.5643 | 0.5749 | 1000 | 592 | 0.6123     | 0.6178 | 0.6282 |
| 1000 | 539 | 0.5596     | 0.5653 | 0.5760 | 1000 | 593 | 0.6133     | 0.6188 | 0.6292 |
|      |     |            |        |        | 1000 | 594 | 0.6143     | 0.6198 | 0.6302 |
| 1000 | 540 | 0.5606     | 0.5663 | 0.5769 |      |     |            |        |        |
| 1000 | 541 | 0.5616     | 0.5673 | 0.5779 | 1000 | 595 | 0.6152     | 0.6208 | 0.6312 |
| 1000 | 542 | 0.5626     | 0.5683 | 0.5789 | 1000 | 596 | 0.6162     | 0.6218 | 0.6321 |
| 1000 | 543 | 0.5636     | 0.5693 | 0.5799 | 1000 | 597 | 0.6172     | 0.6228 | 0.6332 |
| 1000 | 544 | 0.5646     | 0.5703 | 0.5809 | 1000 | 598 | 0.6182     | 0.6238 | 0.6341 |
|      |     |            |        |        | 1000 | 599 | 0.6192     | 0.6247 | 0.6351 |
| 1000 | 545 | 0.5656     | 0.5713 | 0.5819 |      |     |            |        |        |
| 1000 | 546 | 0.5666     | 0.5723 | 0.5829 | 1000 | 600 | 0.6202     | 0.6257 | 0.6361 |
| 1000 | 547 | 0.5676     | 0.5733 | 0.5839 | 1000 | 601 | 0.6212     | 0.6267 | 0.6371 |
| 1000 | 548 | 0.5686     | 0.5743 | 0.5849 | 1000 | 602 | 0.6222     | 0.6277 | 0.6381 |
| 1000 | 549 | 0.5696     | 0.5752 | 0.5858 | 1000 | 603 | 0.6232     | 0.6287 | 0.6390 |
|      |     |            |        |        | 1000 | 604 | 0.6242     | 0.6297 | 0.6400 |
| 1000 | 550 | 0.5706     | 0.5762 | 0.5868 |      |     |            |        |        |
| 1000 | 551 | 0.5716     | 0.5772 | 0.5879 | 1000 | 605 | 0.6251     | 0.6307 | 0.6410 |
| 1000 | 552 | 0.5726     | 0.5782 | 0.5888 | 1000 | 606 | 0.6261     | 0.6317 | 0.6420 |
| 1000 | 553 | 0.5736     | 0.5792 | 0.5898 | 1000 | 607 | 0.6271     | 0.6327 | 0.6430 |
| 1000 | 554 | 0.5745     | 0.5802 | 0.5908 | 1000 | 608 | 0.6281     | 0.6336 | 0.6439 |
|      |     |            |        |        | 1000 | 609 | 0.6291     | 0.6346 | 0.6449 |
| 1000 | 555 | 0.5756     | 0.5812 | 0.5918 |      |     |            |        |        |
| 1000 | 556 | 0.5765     | 0.5822 | 0.5928 | 1000 | 610 | 0.6301     | 0.6356 | 0.6459 |
| 1000 | 557 | 0.5775     | 0.5832 | 0.5937 | 1000 | 611 | 0.6311     | 0.6366 | 0.6468 |
| 1000 | 558 | 0.5785     | 0.5842 | 0.5947 | 1000 | 612 | 0.6321     | 0.6376 | 0.6479 |
| 1000 | 559 | 0.5795     | 0.5852 | 0.5957 | 1000 | 613 | 0.6330     | 0.6386 | 0.6488 |
|      |     |            |        |        | 1000 | 614 | 0.6341     | 0.6395 | 0.6498 |
| 1000 | 560 | 0.5805     | 0.5862 | 0.5967 |      |     |            |        |        |
| 1000 | 561 | 0.5815     | 0.5872 | 0.5977 | 1000 | 615 | 0.6350     | 0.6405 | 0.6508 |
| 1000 | 562 | 0.5825     | 0.5881 | 0.5987 | 1000 | 616 | 0.6360     | 0.6415 | 0.6518 |
| 1000 | 563 | 0.5835     | 0.5891 | 0.5997 | 1000 | 617 | 0.6370     | 0.6425 | 0.6527 |
| 1000 | 564 | 0.5845     | 0.5901 | 0.6007 | 1000 | 618 | 0.6380     | 0.6435 | 0.6537 |
|      |     |            |        |        | 1000 | 619 | 0.6390     | 0.6445 | 0.6547 |
| 1000 | 565 | 0.5855     | 0.5911 | 0.6017 |      |     |            |        |        |
| 1000 | 566 | 0.5865     | 0.5921 | 0.6027 | 1000 | 620 | 0.6400     | 0.6455 | 0.6557 |
| 1000 | 567 | 0.5875     | 0.5931 | 0.6036 | 1000 | 621 | 0.6410     | 0.6464 | 0.6566 |
| 1000 | 568 | 0.5885     | 0.5941 | 0.6046 | 1000 | 622 | 0.6420     | 0.6474 | 0.6576 |
| 1000 | 569 | 0.5895     | 0.5951 | 0.6056 | 1000 | 623 | 0.6430     | 0.6484 | 0.6586 |
|      |     |            |        |        | 1000 | 624 | 0.6439     | 0.6494 | 0.6596 |
| 1000 | 570 | 0.5904     | 0.5961 | 0.6066 |      |     |            |        |        |
| 1000 | 571 | 0.5914     | 0.5971 | 0.6076 | 1000 | 625 | 0.6449     | 0.6504 | 0.6605 |
| 1000 | 572 | 0.5924     | 0.5981 | 0.6085 | 1000 | 626 | 0.6459     | 0.6514 | 0.6615 |
| 1000 | 573 | 0.5934     | 0.5990 | 0.6096 | 1000 | 627 | 0.6469     | 0.6524 | 0.6625 |
| 1000 | 574 | 0.5944     | 0.6000 | 0.6105 | 1000 | 628 | 0.6479     | 0.6533 | 0.6635 |
|      |     |            |        |        | 1000 | 629 | 0.6489     | 0.6543 | 0.6645 |
| 1000 | 575 | 0.5954     | 0.6010 | 0.6115 |      |     |            |        |        |
| 1000 | 576 | 0.5964     | 0.6020 | 0.6125 | 1000 | 630 | 0.6499     | 0.6553 | 0.6654 |
| 1000 | 577 | 0.5974     | 0.6030 | 0.6135 | 1000 | 631 | 0.6509     | 0.6563 | 0.6664 |
| 1000 | 578 | 0.5984     | 0.6040 | 0.6145 | 1000 | 632 | 0.6518     | 0.6573 | 0.6674 |
| 1000 | 579 | 0.5994     | 0.6050 | 0.6154 | 1000 | 633 | 0.6528     | 0.6583 | 0.6684 |
|      |     |            |        |        | 1000 | 634 | 0.6538     | 0.6592 | 0.6693 |
| 1000 | 580 | 0.6004     | 0.6060 | 0.6164 |      |     |            |        |        |
| 1000 | 581 | 0.6014     | 0.6070 | 0.6174 | 1000 | 635 | 0.6548     | 0.6602 | 0.6703 |
| 1000 | 582 | 0.6024     | 0.6080 | 0.6184 | 1000 | 636 | 0.6558     | 0.6612 | 0.6713 |
| 1000 | 583 | 0.6033     | 0.6089 | 0.6194 | 1000 | 637 | 0.6568     | 0.6622 | 0.6723 |
| 1000 | 584 | 0.6043     | 0.6099 | 0.6204 | 1000 | 638 | 0.6578     | 0.6632 | 0.6732 |
|      |     |            |        |        | 1000 | 639 | 0.6587     | 0.6641 | 0.6742 |
| 1000 | 585 | 0.6053     | 0.6109 | 0.6213 |      |     |            |        |        |
| 1000 | 586 | 0.6063     | 0.6119 | 0.6223 | 1000 | 640 | 0.6597     | 0.6651 | 0.6752 |
| 1000 | 587 | 0.6073     | 0.6129 | 0.6233 | 1000 | 641 | 0.6607     | 0.6661 | 0.6762 |
| 1000 | 588 | 0.6083     | 0.6139 | 0.6243 | 1000 | 642 | 0.6617     | 0.6671 | 0.6771 |
| 1000 | 589 | 0.6093     | 0.6149 | 0.6253 | 1000 | 643 | 0.6627     | 0.6681 | 0.6781 |
|      |     |            |        |        | 1000 | 644 | 0.6637     | 0.6691 | 0.6791 |
| 1000 | 590 | 0.6103     | 0.6159 | 0.6262 |      |     |            |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 645 | 0.6647           | 0.6700 | 0.6800 | 1000 | 699 | 0.7178           | 0.7229 | 0.7324 |
| 1000 | 646 | 0.6657           | 0.6710 | 0.6811 | 1000 | 700 | 0.7188           | 0.7239 | 0.7334 |
| 1000 | 647 | 0.6666           | 0.6720 | 0.6820 | 1000 | 701 | 0.7197           | 0.7248 | 0.7343 |
| 1000 | 648 | 0.6676           | 0.6730 | 0.6830 | 1000 | 702 | 0.7207           | 0.7258 | 0.7353 |
| 1000 | 649 | 0.6686           | 0.6740 | 0.6840 | 1000 | 703 | 0.7217           | 0.7268 | 0.7363 |
| 1000 | 650 | 0.6696           | 0.6749 | 0.6849 | 1000 | 704 | 0.7227           | 0.7278 | 0.7372 |
| 1000 | 651 | 0.6706           | 0.6759 | 0.6859 | 1000 | 705 | 0.7237           | 0.7288 | 0.7382 |
| 1000 | 652 | 0.6716           | 0.6769 | 0.6869 | 1000 | 706 | 0.7246           | 0.7297 | 0.7391 |
| 1000 | 653 | 0.6726           | 0.6779 | 0.6878 | 1000 | 707 | 0.7256           | 0.7307 | 0.7401 |
| 1000 | 654 | 0.6735           | 0.6789 | 0.6888 | 1000 | 708 | 0.7266           | 0.7317 | 0.7411 |
| 1000 | 655 | 0.6745           | 0.6799 | 0.6898 | 1000 | 709 | 0.7276           | 0.7326 | 0.7420 |
| 1000 | 656 | 0.6755           | 0.6808 | 0.6908 | 1000 | 710 | 0.7286           | 0.7336 | 0.7430 |
| 1000 | 657 | 0.6765           | 0.6818 | 0.6917 | 1000 | 711 | 0.7295           | 0.7346 | 0.7439 |
| 1000 | 658 | 0.6775           | 0.6828 | 0.6927 | 1000 | 712 | 0.7305           | 0.7356 | 0.7449 |
| 1000 | 659 | 0.6785           | 0.6838 | 0.6937 | 1000 | 713 | 0.7315           | 0.7365 | 0.7459 |
| 1000 | 660 | 0.6795           | 0.6848 | 0.6946 | 1000 | 714 | 0.7325           | 0.7375 | 0.7469 |
| 1000 | 661 | 0.6804           | 0.6858 | 0.6956 | 1000 | 715 | 0.7335           | 0.7385 | 0.7478 |
| 1000 | 662 | 0.6814           | 0.6867 | 0.6966 | 1000 | 716 | 0.7344           | 0.7395 | 0.7488 |
| 1000 | 663 | 0.6824           | 0.6877 | 0.6975 | 1000 | 717 | 0.7354           | 0.7404 | 0.7497 |
| 1000 | 664 | 0.6834           | 0.6887 | 0.6985 | 1000 | 718 | 0.7364           | 0.7414 | 0.7507 |
| 1000 | 665 | 0.6844           | 0.6897 | 0.6995 | 1000 | 719 | 0.7374           | 0.7424 | 0.7516 |
| 1000 | 666 | 0.6854           | 0.6907 | 0.7005 | 1000 | 720 | 0.7384           | 0.7434 | 0.7526 |
| 1000 | 667 | 0.6863           | 0.6916 | 0.7015 | 1000 | 721 | 0.7393           | 0.7443 | 0.7535 |
| 1000 | 668 | 0.6873           | 0.6926 | 0.7024 | 1000 | 722 | 0.7403           | 0.7453 | 0.7545 |
| 1000 | 669 | 0.6883           | 0.6936 | 0.7034 | 1000 | 723 | 0.7413           | 0.7463 | 0.7555 |
| 1000 | 670 | 0.6893           | 0.6946 | 0.7044 | 1000 | 724 | 0.7423           | 0.7472 | 0.7565 |
| 1000 | 671 | 0.6903           | 0.6955 | 0.7053 | 1000 | 725 | 0.7432           | 0.7482 | 0.7574 |
| 1000 | 672 | 0.6913           | 0.6965 | 0.7063 | 1000 | 726 | 0.7442           | 0.7492 | 0.7584 |
| 1000 | 673 | 0.6923           | 0.6975 | 0.7073 | 1000 | 727 | 0.7452           | 0.7502 | 0.7593 |
| 1000 | 674 | 0.6932           | 0.6985 | 0.7082 | 1000 | 728 | 0.7462           | 0.7511 | 0.7603 |
| 1000 | 675 | 0.6942           | 0.6995 | 0.7092 | 1000 | 729 | 0.7472           | 0.7521 | 0.7612 |
| 1000 | 676 | 0.6952           | 0.7004 | 0.7102 | 1000 | 730 | 0.7481           | 0.7531 | 0.7622 |
| 1000 | 677 | 0.6962           | 0.7014 | 0.7112 | 1000 | 731 | 0.7491           | 0.7540 | 0.7631 |
| 1000 | 678 | 0.6972           | 0.7024 | 0.7121 | 1000 | 732 | 0.7501           | 0.7550 | 0.7641 |
| 1000 | 679 | 0.6981           | 0.7034 | 0.7131 | 1000 | 733 | 0.7511           | 0.7560 | 0.7651 |
| 1000 | 680 | 0.6991           | 0.7044 | 0.7140 | 1000 | 734 | 0.7521           | 0.7570 | 0.7660 |
| 1000 | 681 | 0.7001           | 0.7053 | 0.7150 | 1000 | 735 | 0.7530           | 0.7579 | 0.7670 |
| 1000 | 682 | 0.7011           | 0.7063 | 0.7160 | 1000 | 736 | 0.7540           | 0.7589 | 0.7679 |
| 1000 | 683 | 0.7021           | 0.7073 | 0.7169 | 1000 | 737 | 0.7550           | 0.7599 | 0.7689 |
| 1000 | 684 | 0.7031           | 0.7083 | 0.7179 | 1000 | 738 | 0.7560           | 0.7608 | 0.7698 |
| 1000 | 685 | 0.7040           | 0.7092 | 0.7189 | 1000 | 739 | 0.7569           | 0.7618 | 0.7708 |
| 1000 | 686 | 0.7050           | 0.7102 | 0.7198 | 1000 | 740 | 0.7579           | 0.7628 | 0.7718 |
| 1000 | 687 | 0.7060           | 0.7112 | 0.7208 | 1000 | 741 | 0.7589           | 0.7637 | 0.7727 |
| 1000 | 688 | 0.7070           | 0.7122 | 0.7218 | 1000 | 742 | 0.7599           | 0.7647 | 0.7737 |
| 1000 | 689 | 0.7080           | 0.7131 | 0.7227 | 1000 | 743 | 0.7608           | 0.7657 | 0.7746 |
| 1000 | 690 | 0.7089           | 0.7141 | 0.7237 | 1000 | 744 | 0.7618           | 0.7667 | 0.7756 |
| 1000 | 691 | 0.7099           | 0.7151 | 0.7246 | 1000 | 745 | 0.7628           | 0.7676 | 0.7765 |
| 1000 | 692 | 0.7109           | 0.7161 | 0.7257 | 1000 | 746 | 0.7638           | 0.7686 | 0.7775 |
| 1000 | 693 | 0.7119           | 0.7170 | 0.7266 | 1000 | 747 | 0.7647           | 0.7696 | 0.7785 |
| 1000 | 694 | 0.7129           | 0.7180 | 0.7276 | 1000 | 748 | 0.7657           | 0.7705 | 0.7794 |
| 1000 | 695 | 0.7139           | 0.7190 | 0.7285 | 1000 | 749 | 0.7667           | 0.7715 | 0.7803 |
| 1000 | 696 | 0.7148           | 0.7200 | 0.7295 | 1000 | 750 | 0.7677           | 0.7725 | 0.7813 |
| 1000 | 697 | 0.7158           | 0.7210 | 0.7305 | 1000 | 751 | 0.7686           | 0.7734 | 0.7822 |
| 1000 | 698 | 0.7168           | 0.7219 | 0.7314 |      |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE |        | LEVEL  |  | N    | K   | CONFIDENCE |        | LEVEL  |  |
|------|-----|------------|--------|--------|--|------|-----|------------|--------|--------|--|
|      |     | 90%        | 95%    |        |  |      |     | 90%        | 95%    |        |  |
| 1000 | 752 | 0.7696     | 0.7744 | 0.7832 |  | 1000 | 806 | 0.8221     | 0.8264 | 0.8343 |  |
| 1000 | 753 | 0.7706     | 0.7754 | 0.7842 |  | 1000 | 807 | 0.8230     | 0.8273 | 0.8353 |  |
| 1000 | 754 | 0.7716     | 0.7763 | 0.7851 |  | 1000 | 808 | 0.8240     | 0.8283 | 0.8362 |  |
|      |     |            |        |        |  | 1000 | 809 | 0.8250     | 0.8292 | 0.8371 |  |
| 1000 | 755 | 0.7725     | 0.7773 | 0.7861 |  |      |     |            |        |        |  |
| 1000 | 756 | 0.7735     | 0.7783 | 0.7870 |  | 1000 | 810 | 0.8259     | 0.8302 | 0.8381 |  |
| 1000 | 757 | 0.7745     | 0.7792 | 0.7880 |  | 1000 | 811 | 0.8269     | 0.8312 | 0.8390 |  |
| 1000 | 758 | 0.7755     | 0.7802 | 0.7889 |  | 1000 | 812 | 0.8279     | 0.8321 | 0.8400 |  |
| 1000 | 759 | 0.7764     | 0.7812 | 0.7899 |  | 1000 | 813 | 0.8288     | 0.8331 | 0.8409 |  |
|      |     |            |        |        |  | 1000 | 814 | 0.8298     | 0.8340 | 0.8418 |  |
| 1000 | 760 | 0.7774     | 0.7821 | 0.7908 |  |      |     |            |        |        |  |
| 1000 | 761 | 0.7784     | 0.7831 | 0.7918 |  | 1000 | 815 | 0.8308     | 0.8350 | 0.8428 |  |
| 1000 | 762 | 0.7794     | 0.7841 | 0.7927 |  | 1000 | 816 | 0.8317     | 0.8359 | 0.8437 |  |
| 1000 | 763 | 0.7803     | 0.7850 | 0.7937 |  | 1000 | 817 | 0.8327     | 0.8369 | 0.8446 |  |
| 1000 | 764 | 0.7813     | 0.7860 | 0.7946 |  | 1000 | 818 | 0.8337     | 0.8379 | 0.8456 |  |
|      |     |            |        |        |  | 1000 | 819 | 0.8346     | 0.8388 | 0.8465 |  |
| 1000 | 765 | 0.7823     | 0.7869 | 0.7956 |  |      |     |            |        |        |  |
| 1000 | 766 | 0.7833     | 0.7879 | 0.7966 |  | 1000 | 820 | 0.8356     | 0.8398 | 0.8475 |  |
| 1000 | 767 | 0.7842     | 0.7889 | 0.7975 |  | 1000 | 821 | 0.8366     | 0.8407 | 0.8484 |  |
| 1000 | 768 | 0.7852     | 0.7898 | 0.7984 |  | 1000 | 822 | 0.8375     | 0.8417 | 0.8493 |  |
| 1000 | 769 | 0.7862     | 0.7908 | 0.7994 |  | 1000 | 823 | 0.8385     | 0.8426 | 0.8502 |  |
|      |     |            |        |        |  | 1000 | 824 | 0.8395     | 0.8436 | 0.8512 |  |
| 1000 | 770 | 0.7871     | 0.7918 | 0.8003 |  |      |     |            |        |        |  |
| 1000 | 771 | 0.7881     | 0.7927 | 0.8013 |  | 1000 | 825 | 0.8404     | 0.8445 | 0.8521 |  |
| 1000 | 772 | 0.7891     | 0.7937 | 0.8022 |  | 1000 | 826 | 0.8414     | 0.8455 | 0.8531 |  |
| 1000 | 773 | 0.7901     | 0.7947 | 0.8032 |  | 1000 | 827 | 0.8423     | 0.8464 | 0.8540 |  |
| 1000 | 774 | 0.7910     | 0.7956 | 0.8041 |  | 1000 | 828 | 0.8433     | 0.8474 | 0.8549 |  |
|      |     |            |        |        |  | 1000 | 829 | 0.8443     | 0.8484 | 0.8558 |  |
| 1000 | 775 | 0.7920     | 0.7966 | 0.8051 |  |      |     |            |        |        |  |
| 1000 | 776 | 0.7930     | 0.7976 | 0.8060 |  | 1000 | 830 | 0.8452     | 0.8493 | 0.8568 |  |
| 1000 | 777 | 0.7940     | 0.7985 | 0.8070 |  | 1000 | 831 | 0.8462     | 0.8503 | 0.8577 |  |
| 1000 | 778 | 0.7949     | 0.7995 | 0.8079 |  | 1000 | 832 | 0.8472     | 0.8512 | 0.8586 |  |
| 1000 | 779 | 0.7959     | 0.8005 | 0.8089 |  | 1000 | 833 | 0.8481     | 0.8521 | 0.8596 |  |
|      |     |            |        |        |  | 1000 | 834 | 0.8491     | 0.8531 | 0.8605 |  |
| 1000 | 780 | 0.7969     | 0.8014 | 0.8098 |  |      |     |            |        |        |  |
| 1000 | 781 | 0.7978     | 0.8024 | 0.8108 |  | 1000 | 835 | 0.8500     | 0.8541 | 0.8614 |  |
| 1000 | 782 | 0.7988     | 0.8033 | 0.8117 |  | 1000 | 836 | 0.8510     | 0.8550 | 0.8624 |  |
| 1000 | 783 | 0.7998     | 0.8043 | 0.8126 |  | 1000 | 837 | 0.8520     | 0.8560 | 0.8633 |  |
| 1000 | 784 | 0.8007     | 0.8053 | 0.8136 |  | 1000 | 838 | 0.8529     | 0.8569 | 0.8642 |  |
|      |     |            |        |        |  | 1000 | 839 | 0.8539     | 0.8579 | 0.8652 |  |
| 1000 | 785 | 0.8017     | 0.8062 | 0.8145 |  |      |     |            |        |        |  |
| 1000 | 786 | 0.8027     | 0.8072 | 0.8155 |  | 1000 | 840 | 0.8549     | 0.8588 | 0.8661 |  |
| 1000 | 787 | 0.8037     | 0.8081 | 0.8164 |  | 1000 | 841 | 0.8558     | 0.8598 | 0.8670 |  |
| 1000 | 788 | 0.8046     | 0.8091 | 0.8174 |  | 1000 | 842 | 0.8568     | 0.8607 | 0.8679 |  |
| 1000 | 789 | 0.8056     | 0.8101 | 0.8183 |  | 1000 | 843 | 0.8577     | 0.8617 | 0.8689 |  |
|      |     |            |        |        |  | 1000 | 844 | 0.8587     | 0.8626 | 0.8698 |  |
| 1000 | 790 | 0.8066     | 0.8110 | 0.8193 |  |      |     |            |        |        |  |
| 1000 | 791 | 0.8075     | 0.8120 | 0.8202 |  | 1000 | 845 | 0.8597     | 0.8635 | 0.8707 |  |
| 1000 | 792 | 0.8085     | 0.8130 | 0.8211 |  | 1000 | 846 | 0.8606     | 0.8645 | 0.8716 |  |
| 1000 | 793 | 0.8095     | 0.8139 | 0.8221 |  | 1000 | 847 | 0.8616     | 0.8655 | 0.8726 |  |
| 1000 | 794 | 0.8104     | 0.8149 | 0.8230 |  | 1000 | 848 | 0.8625     | 0.8664 | 0.8735 |  |
|      |     |            |        |        |  | 1000 | 849 | 0.8635     | 0.8673 | 0.8744 |  |
| 1000 | 795 | 0.8114     | 0.8158 | 0.8240 |  |      |     |            |        |        |  |
| 1000 | 796 | 0.8124     | 0.8168 | 0.8249 |  | 1000 | 850 | 0.8644     | 0.8683 | 0.8753 |  |
| 1000 | 797 | 0.8134     | 0.8178 | 0.8259 |  | 1000 | 851 | 0.8654     | 0.8692 | 0.8763 |  |
| 1000 | 798 | 0.8143     | 0.8187 | 0.8268 |  | 1000 | 852 | 0.8664     | 0.8702 | 0.8772 |  |
| 1000 | 799 | 0.8153     | 0.8197 | 0.8277 |  | 1000 | 853 | 0.8673     | 0.8711 | 0.8781 |  |
|      |     |            |        |        |  | 1000 | 854 | 0.8683     | 0.8721 | 0.8790 |  |
| 1000 | 800 | 0.8163     | 0.8206 | 0.8287 |  |      |     |            |        |        |  |
| 1000 | 801 | 0.8172     | 0.8216 | 0.8296 |  | 1000 | 855 | 0.8692     | 0.8730 | 0.8800 |  |
| 1000 | 802 | 0.8182     | 0.8225 | 0.8306 |  | 1000 | 856 | 0.8702     | 0.8740 | 0.8809 |  |
| 1000 | 803 | 0.8192     | 0.8235 | 0.8315 |  | 1000 | 857 | 0.8711     | 0.8749 | 0.8818 |  |
| 1000 | 804 | 0.8201     | 0.8245 | 0.8325 |  | 1000 | 858 | 0.8721     | 0.8759 | 0.8827 |  |
|      |     |            |        |        |  | 1000 | 859 | 0.8731     | 0.8768 | 0.8836 |  |
| 1000 | 805 | 0.8211     | 0.8254 | 0.8334 |  |      |     |            |        |        |  |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K   | CONFIDENCE LEVEL |        |        | N    | K   | CONFIDENCE LEVEL |        |        |
|------|-----|------------------|--------|--------|------|-----|------------------|--------|--------|
|      |     | 90%              | 95%    | 99%    |      |     | 90%              | 95%    | 99%    |
| 1000 | 860 | 0.8740           | 0.8777 | 0.8846 | 1000 | 914 | 0.9252           | 0.9282 | 0.9334 |
| 1000 | 861 | 0.8750           | 0.8787 | 0.8855 | 1000 | 915 | 0.9262           | 0.9291 | 0.9343 |
| 1000 | 862 | 0.8759           | 0.8796 | 0.8864 | 1000 | 916 | 0.9271           | 0.9300 | 0.9352 |
| 1000 | 863 | 0.8769           | 0.8806 | 0.8873 | 1000 | 917 | 0.9281           | 0.9309 | 0.9361 |
| 1000 | 864 | 0.8778           | 0.8815 | 0.8882 | 1000 | 918 | 0.9290           | 0.9318 | 0.9370 |
| 1000 | 865 | 0.8788           | 0.8825 | 0.8892 | 1000 | 919 | 0.9299           | 0.9328 | 0.9379 |
| 1000 | 866 | 0.8798           | 0.8834 | 0.8901 | 1000 | 920 | 0.9309           | 0.9337 | 0.9388 |
| 1000 | 867 | 0.8807           | 0.8843 | 0.8910 | 1000 | 921 | 0.9318           | 0.9346 | 0.9396 |
| 1000 | 868 | 0.8817           | 0.8853 | 0.8919 | 1000 | 922 | 0.9327           | 0.9355 | 0.9405 |
| 1000 | 869 | 0.8826           | 0.8862 | 0.8928 | 1000 | 923 | 0.9337           | 0.9364 | 0.9414 |
| 1000 | 870 | 0.8836           | 0.8872 | 0.8937 | 1000 | 924 | 0.9346           | 0.9373 | 0.9423 |
| 1000 | 871 | 0.8845           | 0.8881 | 0.8946 | 1000 | 925 | 0.9355           | 0.9383 | 0.9432 |
| 1000 | 872 | 0.8855           | 0.8890 | 0.8956 | 1000 | 926 | 0.9365           | 0.9392 | 0.9440 |
| 1000 | 873 | 0.8864           | 0.8900 | 0.8965 | 1000 | 927 | 0.9374           | 0.9401 | 0.9449 |
| 1000 | 874 | 0.8874           | 0.8909 | 0.8974 | 1000 | 928 | 0.9383           | 0.9410 | 0.9458 |
| 1000 | 875 | 0.8883           | 0.8919 | 0.8983 | 1000 | 929 | 0.9393           | 0.9419 | 0.9467 |
| 1000 | 876 | 0.8893           | 0.8928 | 0.8992 | 1000 | 930 | 0.9402           | 0.9428 | 0.9475 |
| 1000 | 877 | 0.8903           | 0.8937 | 0.9001 | 1000 | 931 | 0.9411           | 0.9437 | 0.9484 |
| 1000 | 878 | 0.8912           | 0.8947 | 0.9010 | 1000 | 932 | 0.9421           | 0.9446 | 0.9493 |
| 1000 | 879 | 0.8921           | 0.8956 | 0.9019 | 1000 | 933 | 0.9430           | 0.9455 | 0.9501 |
| 1000 | 880 | 0.8931           | 0.8966 | 0.9029 | 1000 | 934 | 0.9439           | 0.9464 | 0.9510 |
| 1000 | 881 | 0.8941           | 0.8975 | 0.9038 | 1000 | 935 | 0.9448           | 0.9474 | 0.9519 |
| 1000 | 882 | 0.8950           | 0.8984 | 0.9047 | 1000 | 936 | 0.9458           | 0.9483 | 0.9527 |
| 1000 | 883 | 0.8960           | 0.8994 | 0.9056 | 1000 | 937 | 0.9467           | 0.9492 | 0.9536 |
| 1000 | 884 | 0.8969           | 0.9003 | 0.9065 | 1000 | 938 | 0.9476           | 0.9501 | 0.9545 |
| 1000 | 885 | 0.8979           | 0.9012 | 0.9074 | 1000 | 939 | 0.9485           | 0.9510 | 0.9553 |
| 1000 | 886 | 0.8988           | 0.9022 | 0.9083 | 1000 | 940 | 0.9495           | 0.9519 | 0.9562 |
| 1000 | 887 | 0.8998           | 0.9031 | 0.9092 | 1000 | 941 | 0.9504           | 0.9528 | 0.9571 |
| 1000 | 888 | 0.9007           | 0.9040 | 0.9101 | 1000 | 942 | 0.9513           | 0.9537 | 0.9579 |
| 1000 | 889 | 0.9016           | 0.9050 | 0.9110 | 1000 | 943 | 0.9522           | 0.9546 | 0.9588 |
| 1000 | 890 | 0.9026           | 0.9059 | 0.9119 | 1000 | 944 | 0.9532           | 0.9555 | 0.9596 |
| 1000 | 891 | 0.9035           | 0.9068 | 0.9128 | 1000 | 945 | 0.9541           | 0.9564 | 0.9605 |
| 1000 | 892 | 0.9045           | 0.9078 | 0.9137 | 1000 | 946 | 0.9550           | 0.9573 | 0.9613 |
| 1000 | 893 | 0.9054           | 0.9087 | 0.9146 | 1000 | 947 | 0.9559           | 0.9582 | 0.9622 |
| 1000 | 894 | 0.9064           | 0.9096 | 0.9156 | 1000 | 948 | 0.9568           | 0.9591 | 0.9630 |
| 1000 | 895 | 0.9073           | 0.9106 | 0.9165 | 1000 | 949 | 0.9577           | 0.9599 | 0.9639 |
| 1000 | 896 | 0.9083           | 0.9115 | 0.9174 | 1000 | 950 | 0.9587           | 0.9608 | 0.9647 |
| 1000 | 897 | 0.9092           | 0.9124 | 0.9183 | 1000 | 951 | 0.9596           | 0.9617 | 0.9656 |
| 1000 | 898 | 0.9102           | 0.9134 | 0.9192 | 1000 | 952 | 0.9605           | 0.9626 | 0.9664 |
| 1000 | 899 | 0.9111           | 0.9143 | 0.9201 | 1000 | 953 | 0.9614           | 0.9635 | 0.9672 |
| 1000 | 900 | 0.9121           | 0.9152 | 0.9209 | 1000 | 954 | 0.9623           | 0.9644 | 0.9681 |
| 1000 | 901 | 0.9130           | 0.9161 | 0.9218 | 1000 | 955 | 0.9632           | 0.9653 | 0.9689 |
| 1000 | 902 | 0.9139           | 0.9171 | 0.9227 | 1000 | 956 | 0.9641           | 0.9662 | 0.9698 |
| 1000 | 903 | 0.9149           | 0.9180 | 0.9236 | 1000 | 957 | 0.9650           | 0.9670 | 0.9706 |
| 1000 | 904 | 0.9158           | 0.9189 | 0.9245 | 1000 | 958 | 0.9659           | 0.9679 | 0.9714 |
| 1000 | 905 | 0.9168           | 0.9199 | 0.9254 | 1000 | 959 | 0.9668           | 0.9688 | 0.9722 |
| 1000 | 906 | 0.9177           | 0.9208 | 0.9263 | 1000 | 960 | 0.9677           | 0.9697 | 0.9731 |
| 1000 | 907 | 0.9187           | 0.9217 | 0.9272 | 1000 | 961 | 0.9687           | 0.9705 | 0.9739 |
| 1000 | 908 | 0.9196           | 0.9226 | 0.9281 | 1000 | 962 | 0.9696           | 0.9714 | 0.9747 |
| 1000 | 909 | 0.9205           | 0.9236 | 0.9290 | 1000 | 963 | 0.9705           | 0.9723 | 0.9755 |
| 1000 | 910 | 0.9215           | 0.9245 | 0.9299 | 1000 | 964 | 0.9713           | 0.9732 | 0.9763 |
| 1000 | 911 | 0.9224           | 0.9254 | 0.9308 | 1000 | 965 | 0.9722           | 0.9740 | 0.9771 |
| 1000 | 912 | 0.9234           | 0.9263 | 0.9317 | 1000 | 966 | 0.9731           | 0.9749 | 0.9780 |
| 1000 | 913 | 0.9243           | 0.9272 | 0.9326 |      |     |                  |        |        |

# UPPER CONFIDENCE LIMIT FOR PROPORTIONS

| N    | K    | CONFIDENCE LEVEL |        |        |
|------|------|------------------|--------|--------|
|      |      | 90%              | 95%    | 99%    |
| 1000 | 967  | 0.9740           | 0.9758 | 0.9788 |
| 1000 | 968  | 0.9749           | 0.9766 | 0.9796 |
| 1000 | 969  | 0.9758           | 0.9775 | 0.9804 |
| 1000 | 970  | 0.9767           | 0.9783 | 0.9812 |
| 1000 | 971  | 0.9776           | 0.9792 | 0.9820 |
| 1000 | 972  | 0.9785           | 0.9800 | 0.9827 |
| 1000 | 973  | 0.9794           | 0.9809 | 0.9835 |
| 1000 | 974  | 0.9802           | 0.9817 | 0.9843 |
| 1000 | 975  | 0.9811           | 0.9826 | 0.9851 |
| 1000 | 976  | 0.9820           | 0.9834 | 0.9858 |
| 1000 | 977  | 0.9829           | 0.9842 | 0.9866 |
| 1000 | 978  | 0.9837           | 0.9851 | 0.9874 |
| 1000 | 979  | 0.9846           | 0.9859 | 0.9881 |
| 1000 | 980  | 0.9854           | 0.9867 | 0.9889 |
| 1000 | 981  | 0.9863           | 0.9875 | 0.9896 |
| 1000 | 982  | 0.9872           | 0.9883 | 0.9903 |
| 1000 | 983  | 0.9880           | 0.9891 | 0.9911 |
| 1000 | 984  | 0.9888           | 0.9899 | 0.9918 |
| 1000 | 985  | 0.9897           | 0.9907 | 0.9925 |
| 1000 | 986  | 0.9905           | 0.9915 | 0.9932 |
| 1000 | 987  | 0.9913           | 0.9923 | 0.9939 |
| 1000 | 988  | 0.9922           | 0.9931 | 0.9946 |
| 1000 | 989  | 0.9930           | 0.9938 | 0.9952 |
| 1000 | 990  | 0.9938           | 0.9946 | 0.9959 |
| 1000 | 991  | 0.9946           | 0.9953 | 0.9965 |
| 1000 | 992  | 0.9953           | 0.9960 | 0.9971 |
| 1000 | 993  | 0.9961           | 0.9967 | 0.9977 |
| 1000 | 994  | 0.9968           | 0.9974 | 0.9982 |
| 1000 | 995  | 0.9976           | 0.9980 | 0.9987 |
| 1000 | 996  | 0.9983           | 0.9986 | 0.9992 |
| 1000 | 997  | 0.9989           | 0.9992 | 0.9996 |
| 1000 | 998  | 0.9995           | 0.9996 | 0.9999 |
| 1000 | 999  | 0.9999           | 0.9999 | 1.0000 |
| 1000 | 1000 | 1.0000           | 1.0000 | 1.0000 |

## REFERENCES

R. V. Hogg and A. T. Craig, Introduction to Mathematical Statistics, 3rd edition, The Macmillan Company, Collier-Macmillan Limited, London, 1970.

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## APPENDIX A

### Interpolation Correction Factors for Two-sided Confidence Limits

This appendix provides interpolation correction factors for use with the worksheets (Figures 2 and 3) when computing two-sided confidence limits for untabled sample sizes.

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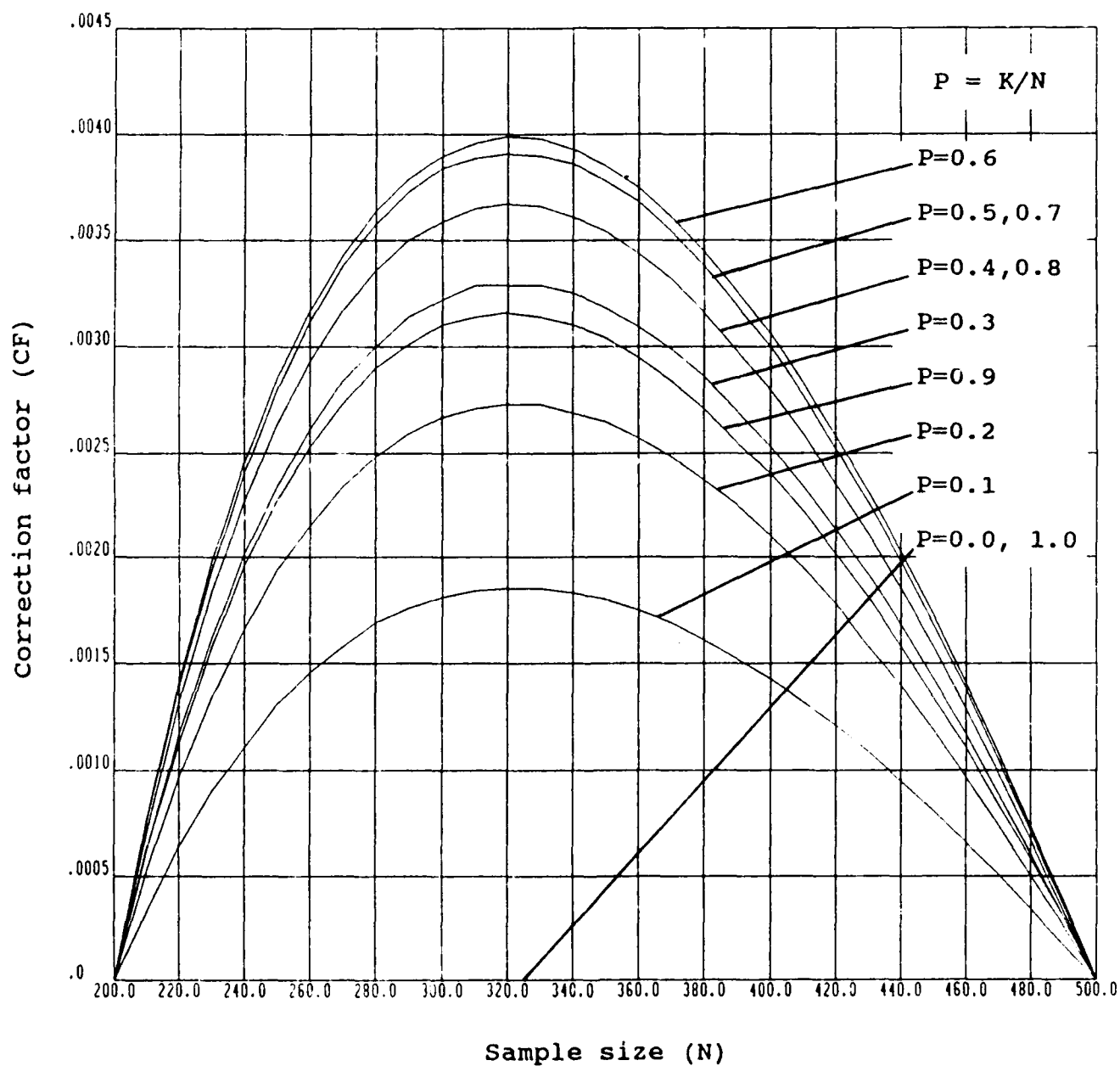


Figure A-1. Interpolation correction factors for two-sided 90 percent lower confidence limits ( $200 < N < 500$ )

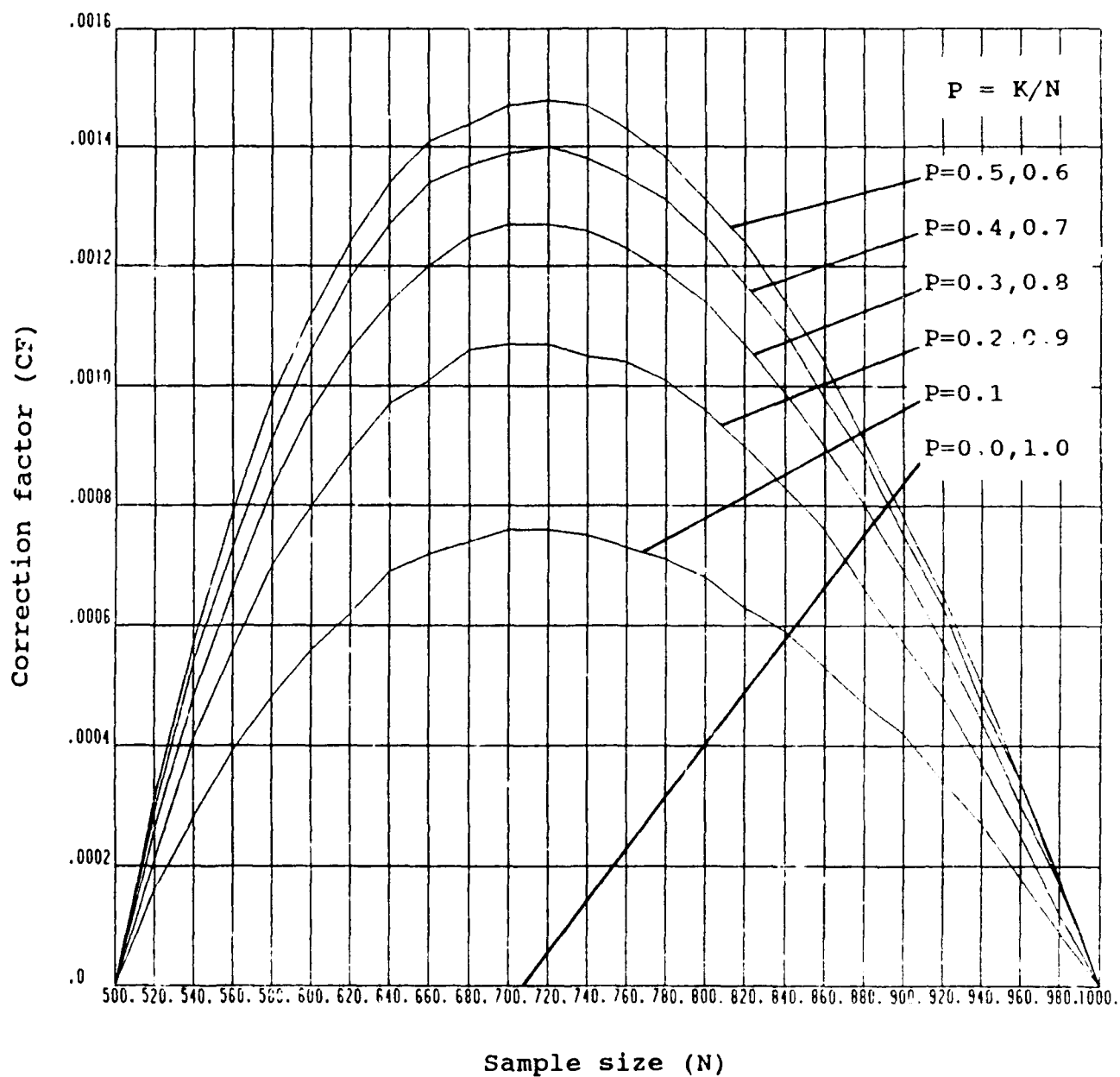


Figure A-2. Interpolation correction factors for two-sided 90 percent lower confidence limits ( $500 < N < 1000$ )

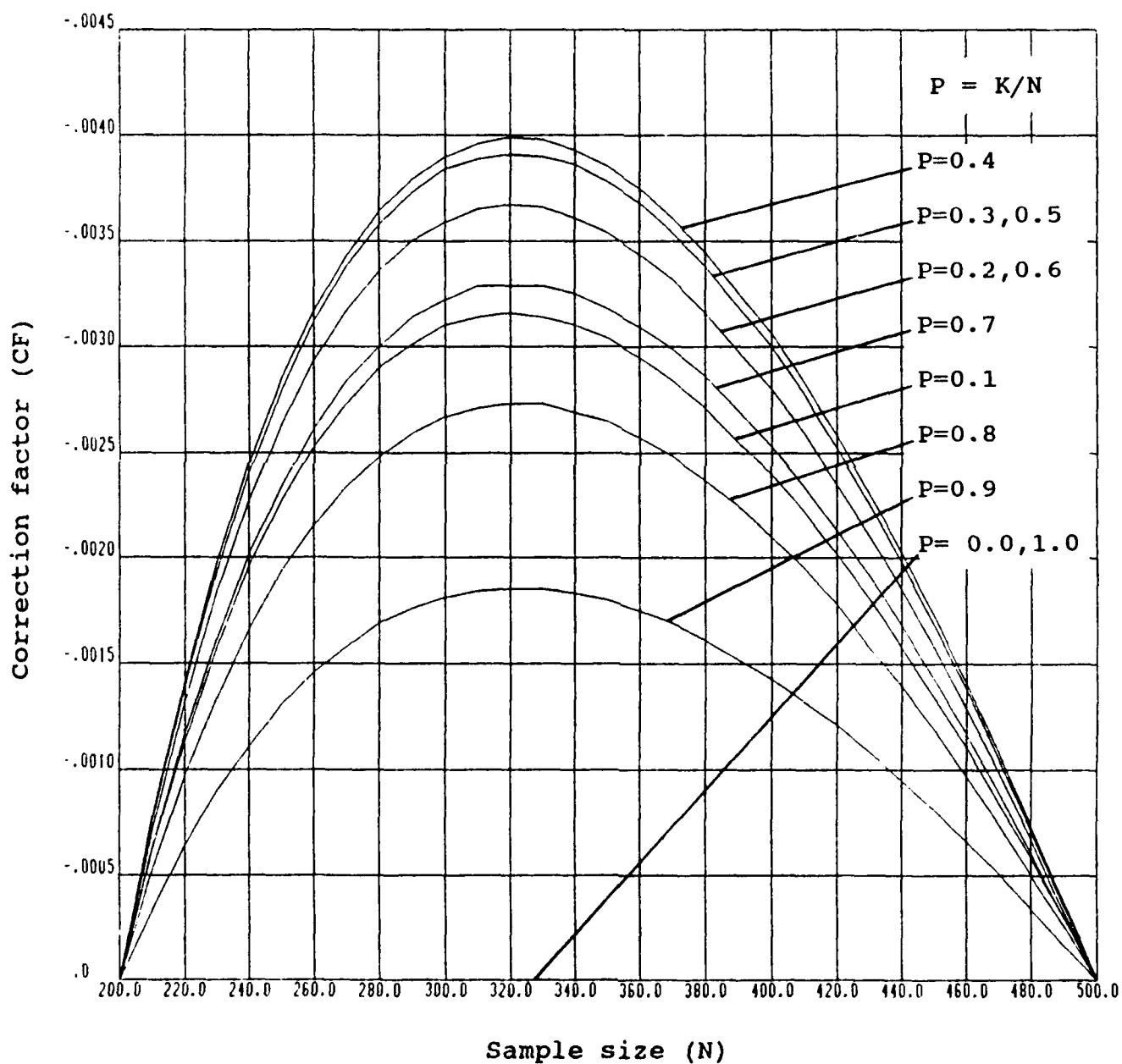


Figure A-3. Interpolation correction factors for two-sided 90 percent upper confidence limits ( $200 < N < 500$ )

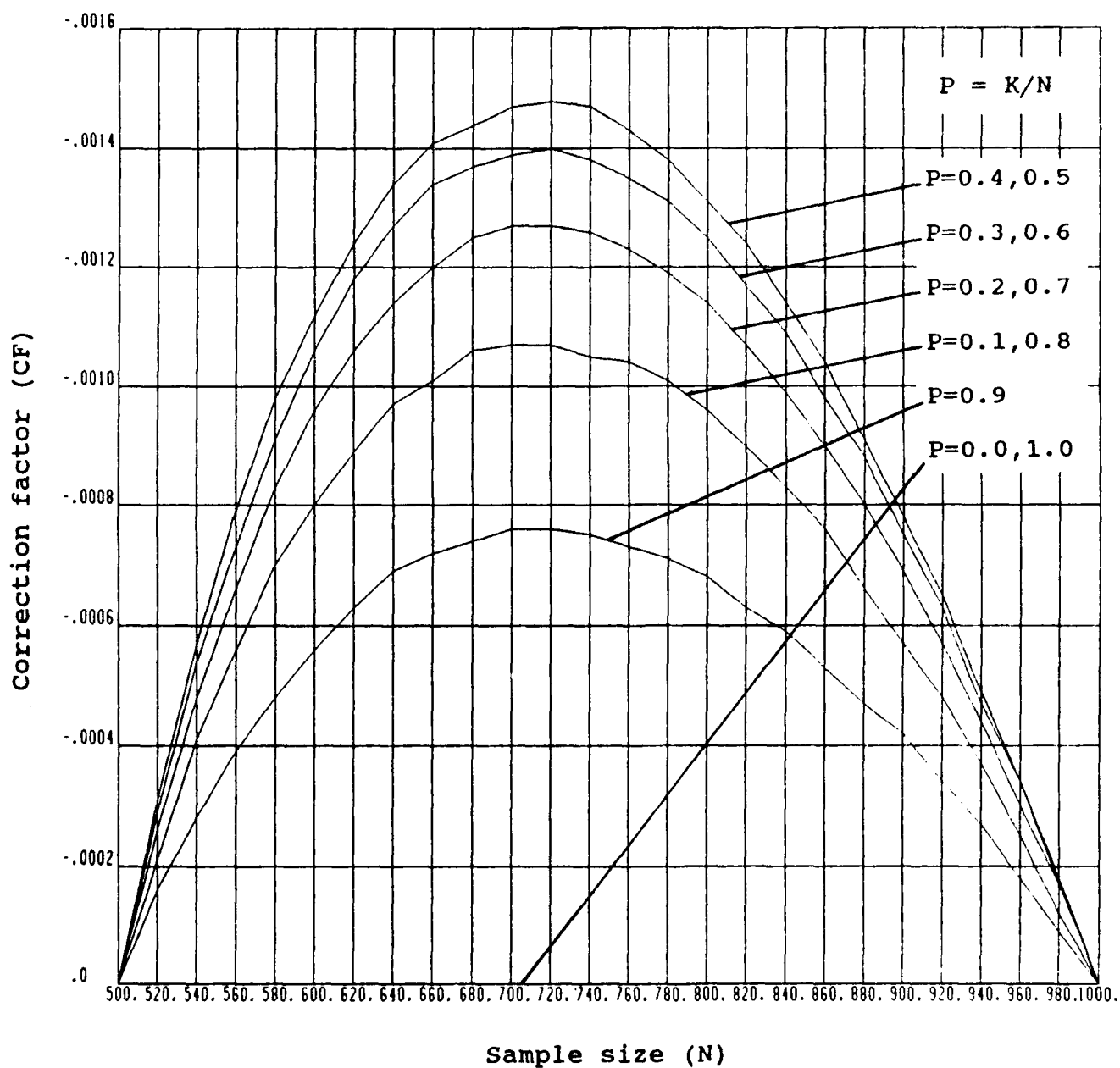


Figure A-4. Interpolation correction factors for two-sided 90 percent upper confidence limits ( $500 < N < 1000$ )

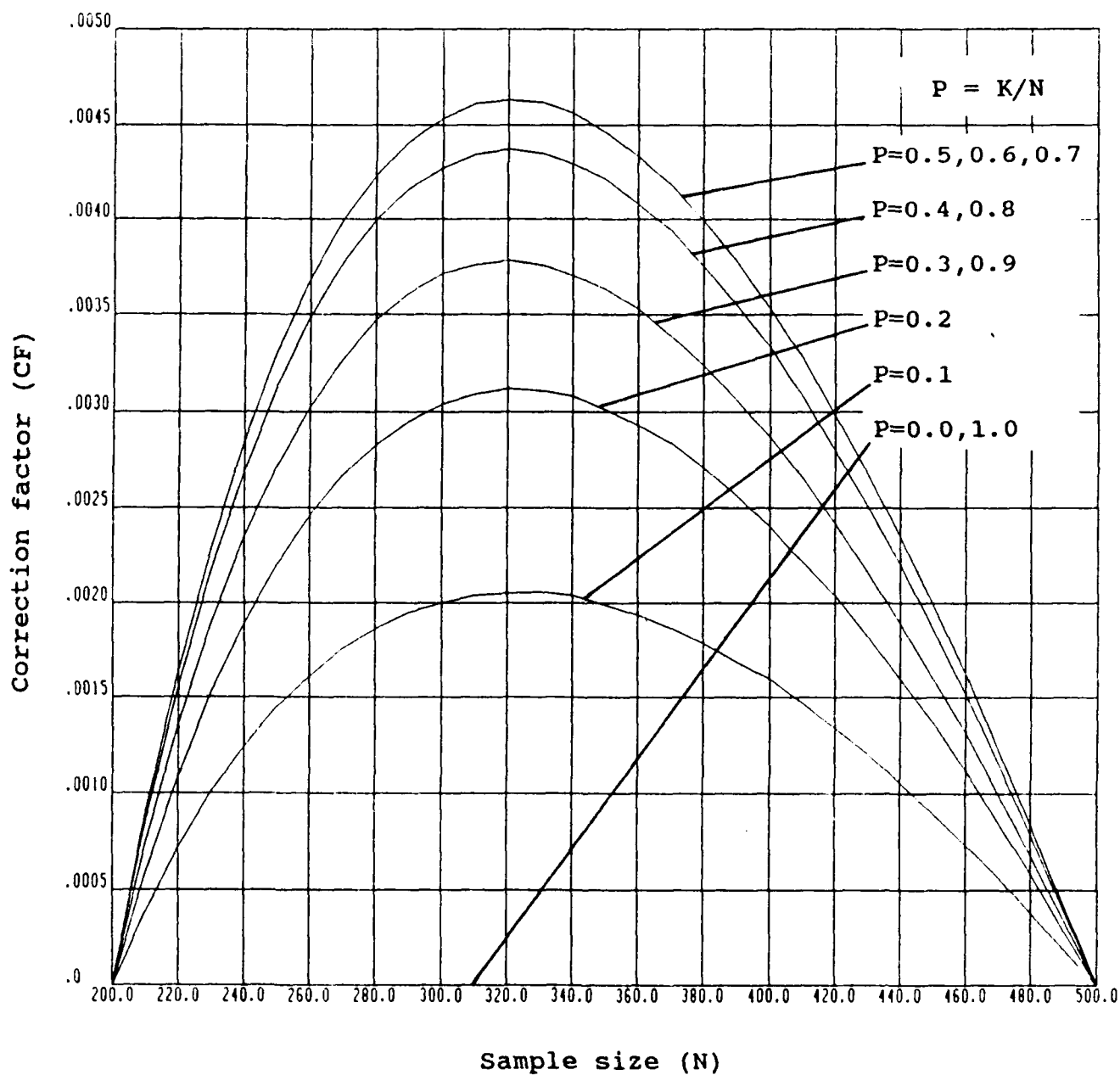


Figure A-5. Interpolation correction factors for two-sided 95 percent lower confidence limits ( $200 < N < 500$ )

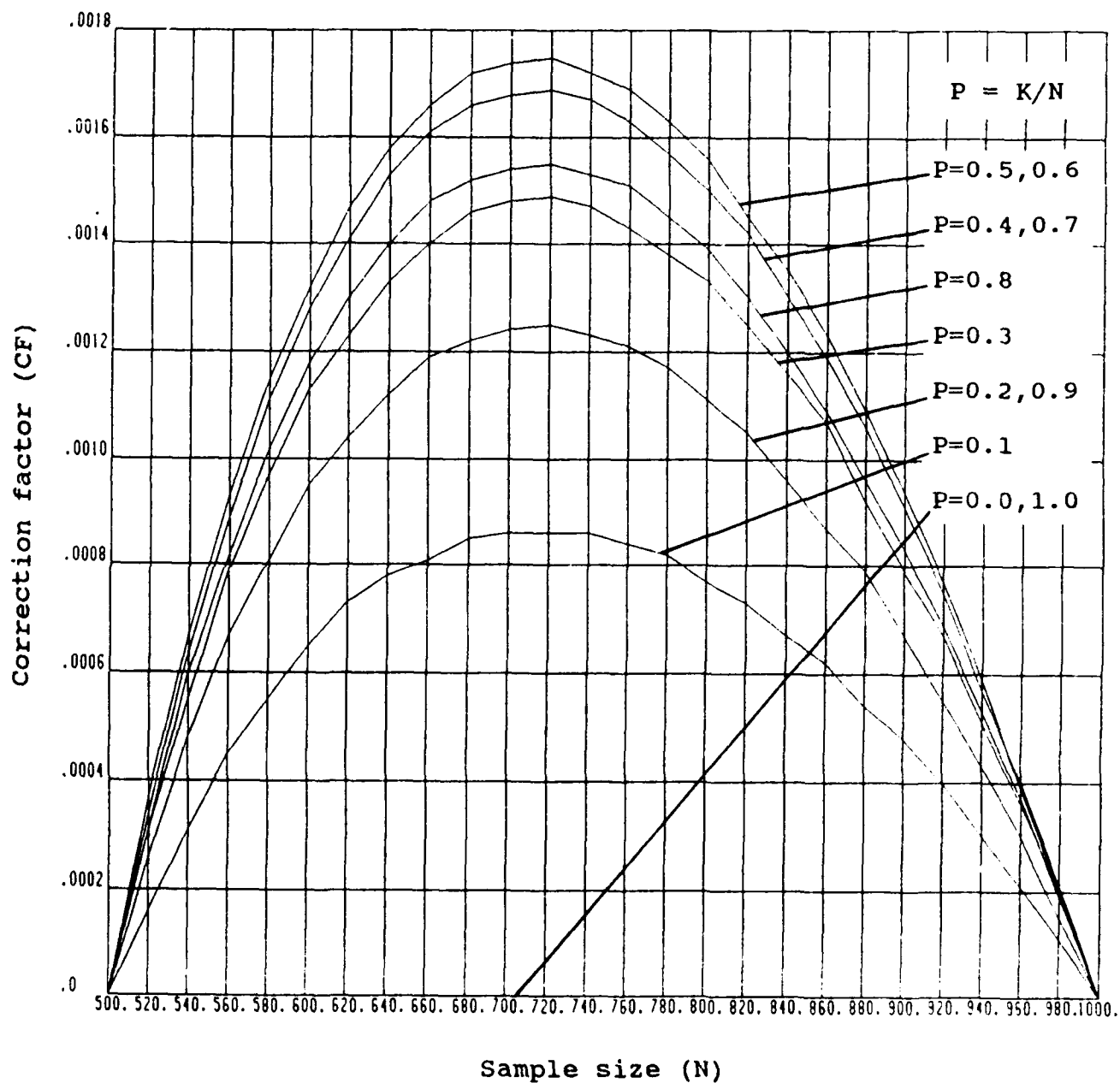


Figure A-6. Interpolation correction factors for two-sided 95 percent lower confidence limits ( $500 < N < 1000$ )



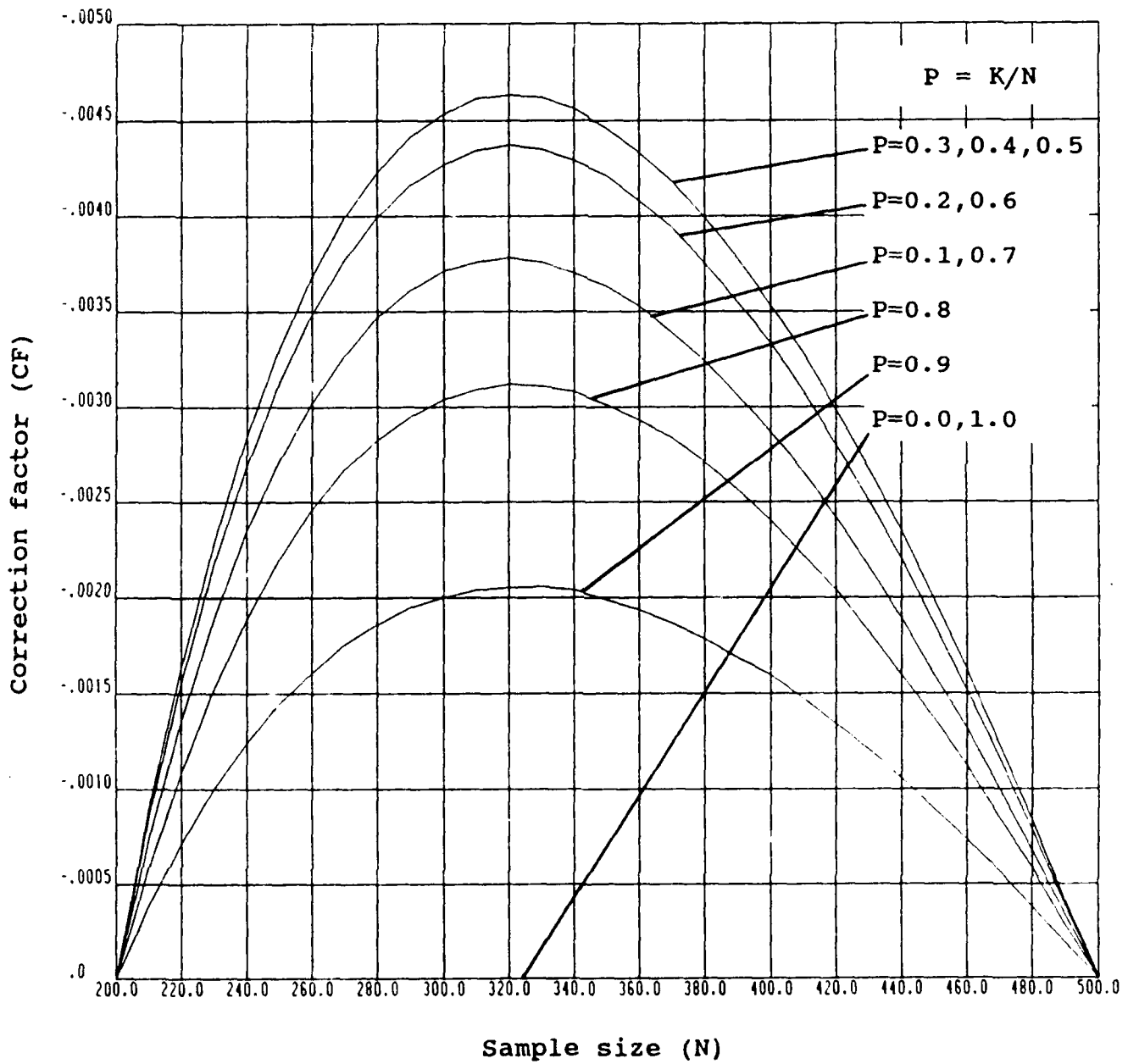


Figure A-7. Interpolation correction factors for two-sided 95 percent upper confidence limits ( $200 < N < 500$ )

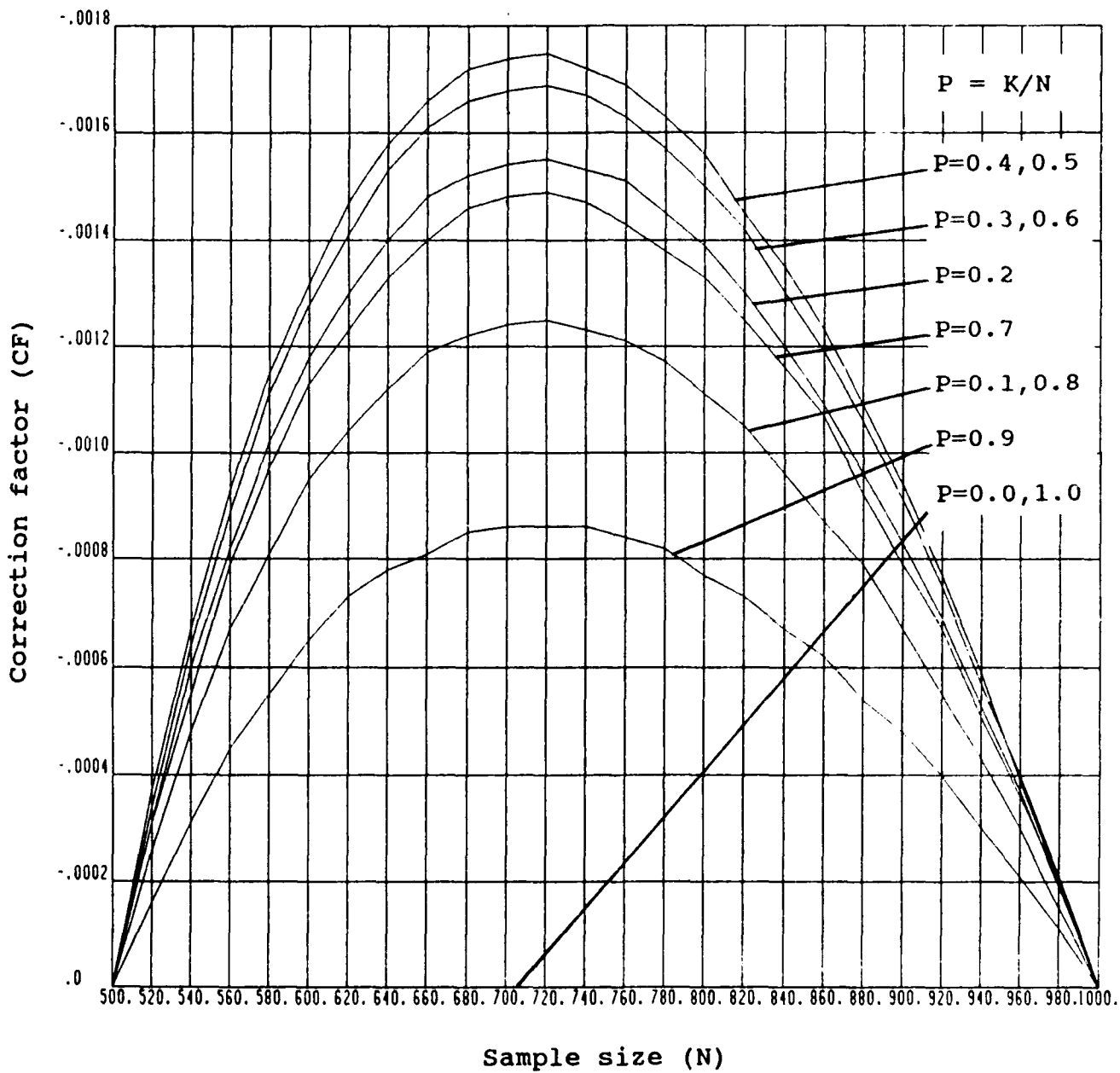


Figure A-8. Interpolation correction factors for two-sided 95 percent upper confidence limits ( $500 < N < 1000$ )

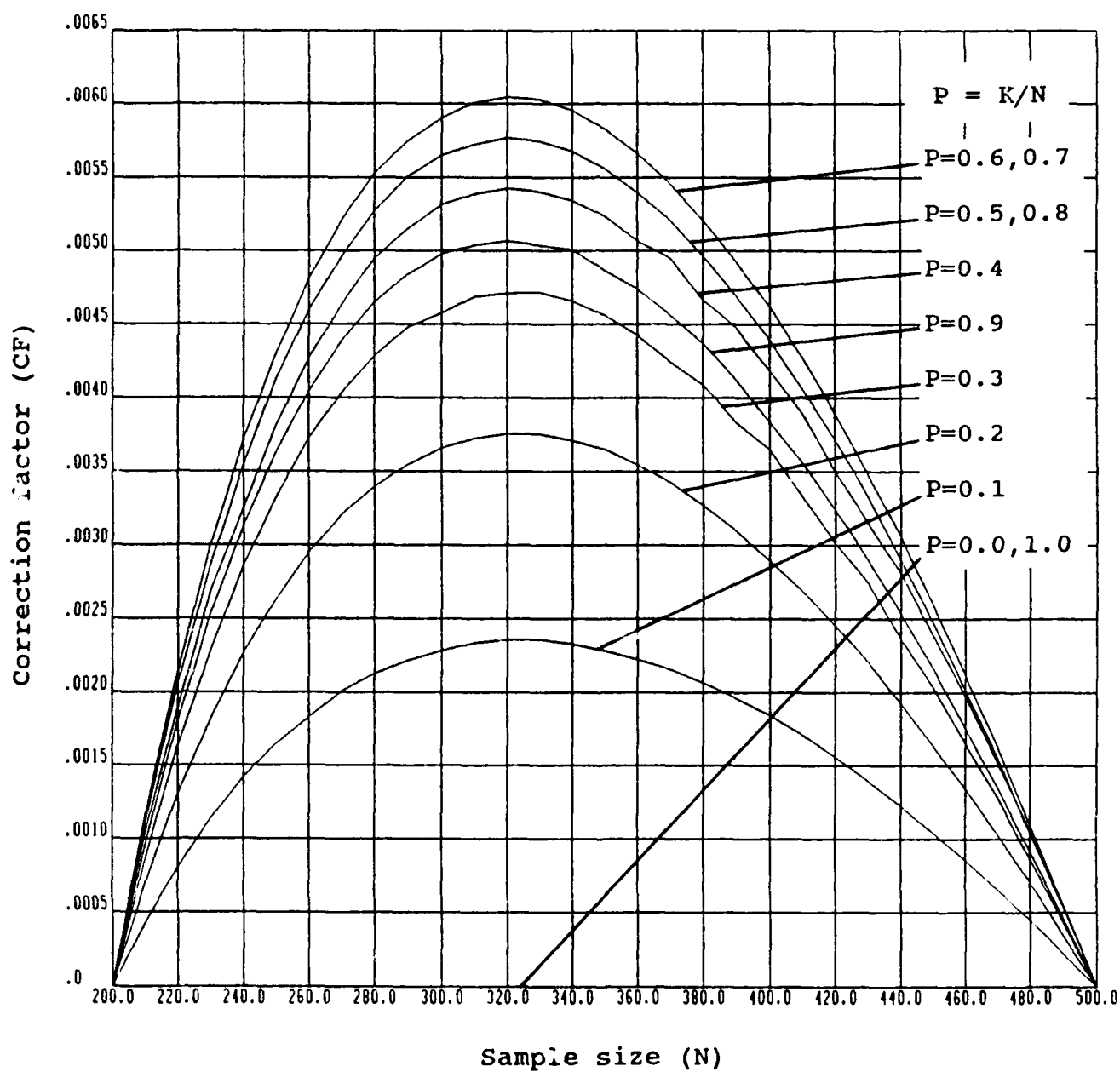


Figure A-9. Interpolation correction factors for two-sided 99 percent lower confidence limits ( $200 < N < 500$ )

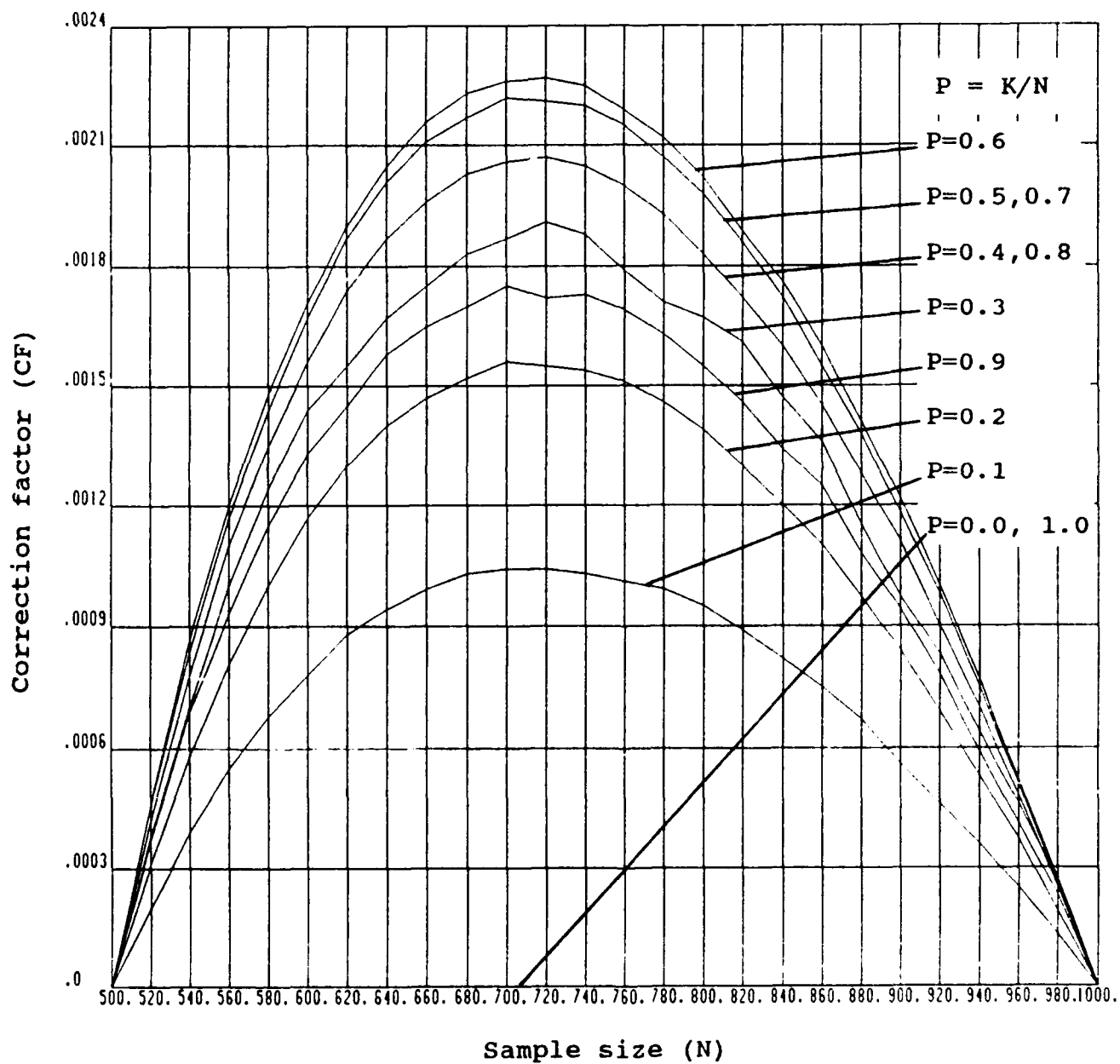


Figure A-10. Interpolation correction factors for two-sided 99 percent lower confidence limits ( $500 < N < 1000$ )

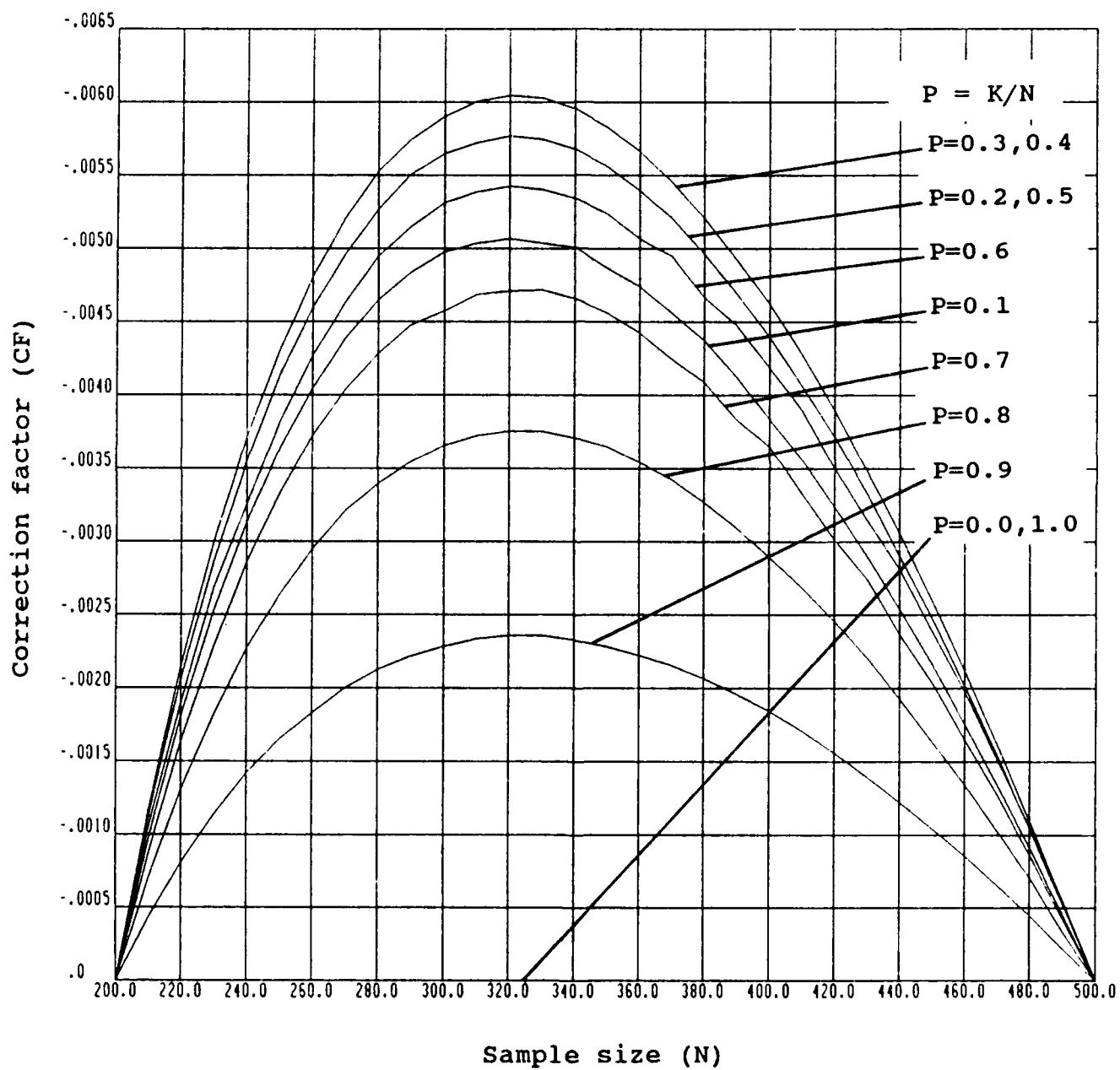


Figure A-11. Interpolation correction factors for two-sided 99 percent upper confidence limits ( $200 < N < 500$ )

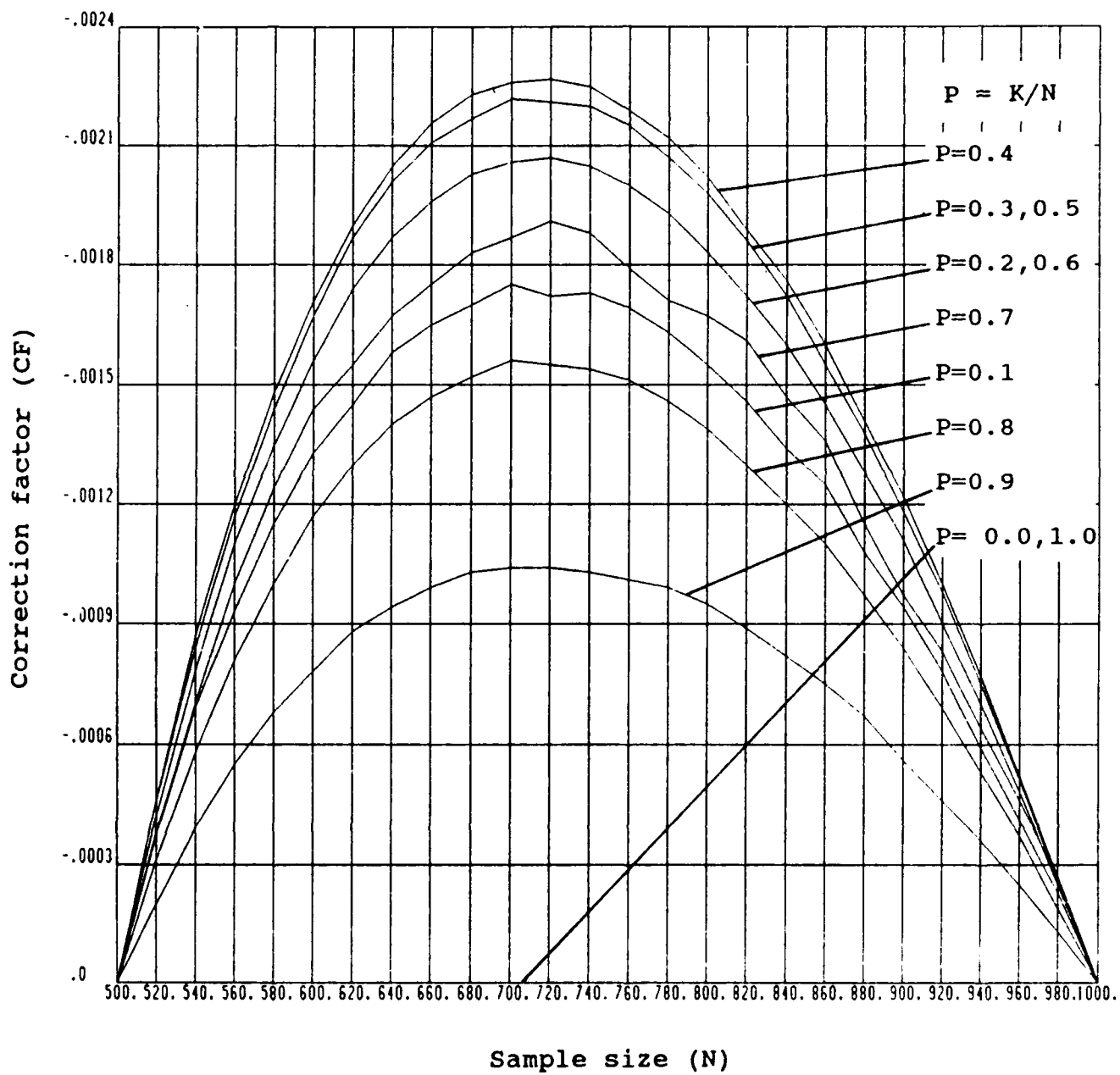


Figure A-12. Interpolation correction factors for two-sided 99 percent upper confidence limits ( $500 < N < 1000$ )

## APPENDIX B

### Interpolation Correction Factors for One-sided Lower Confidence Limits

This appendix provides interpolation correction factors for use with the worksheets (Figures 2 and 3) when computing one-sided lower confidence limits for untabled sample sizes.

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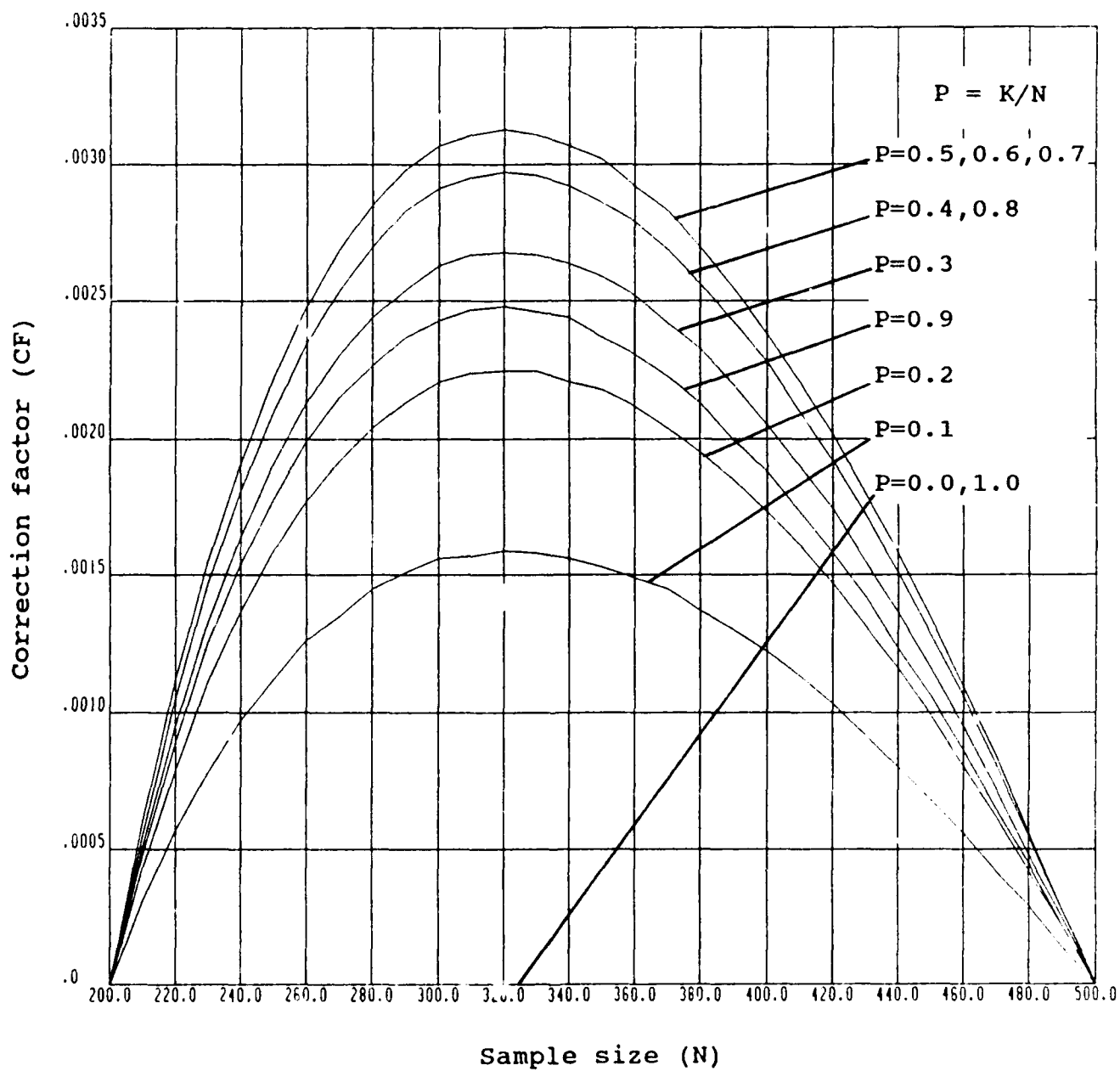


Figure B-1. Interpolation correction factors for one-sided 90 percent lower confidence limits ( $200 < N < 500$ )

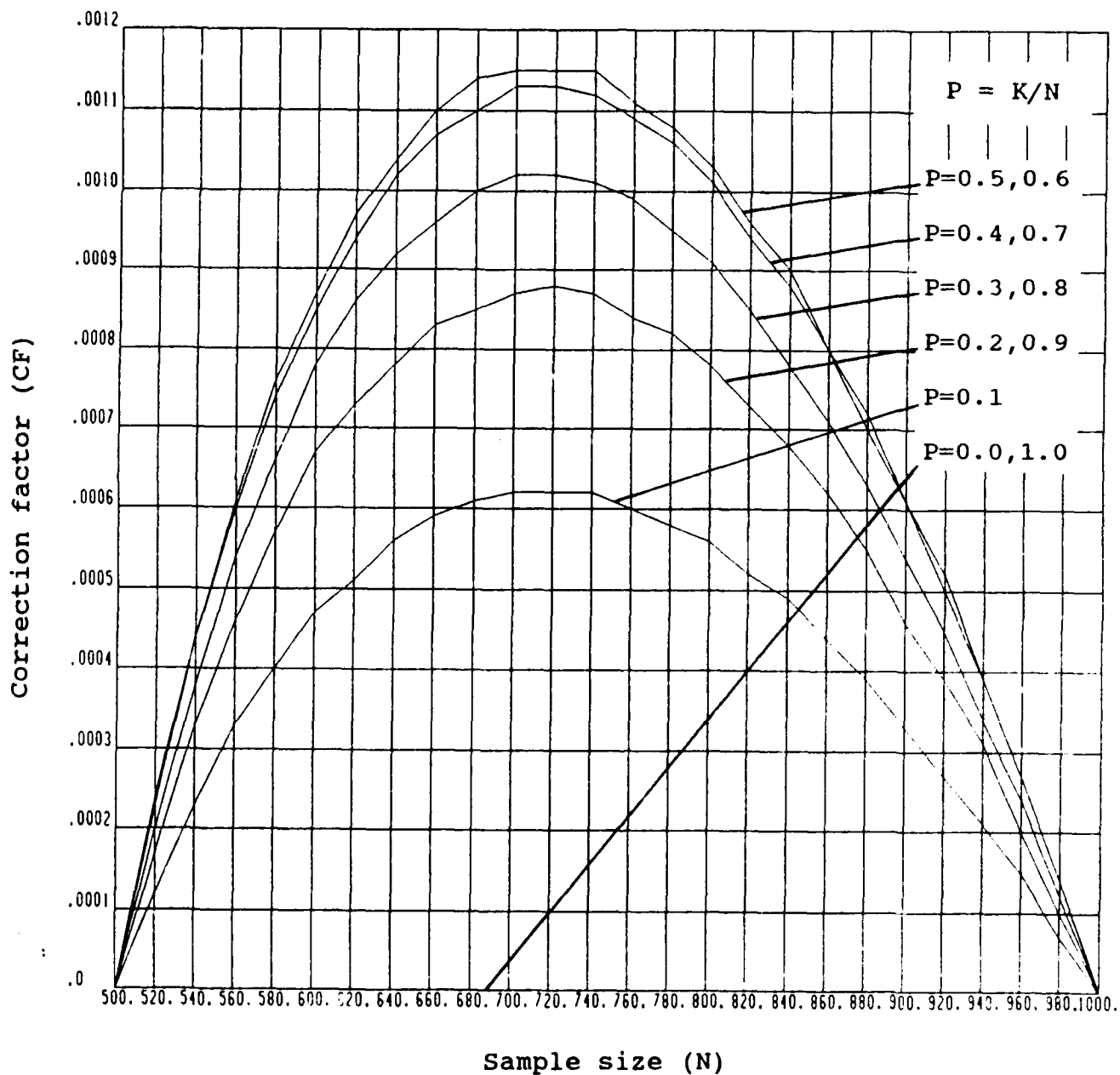


Figure B-2. Interpolation correction factors for one-sided 90 percent lower confidence limits ( $500 < N < 1000$ )

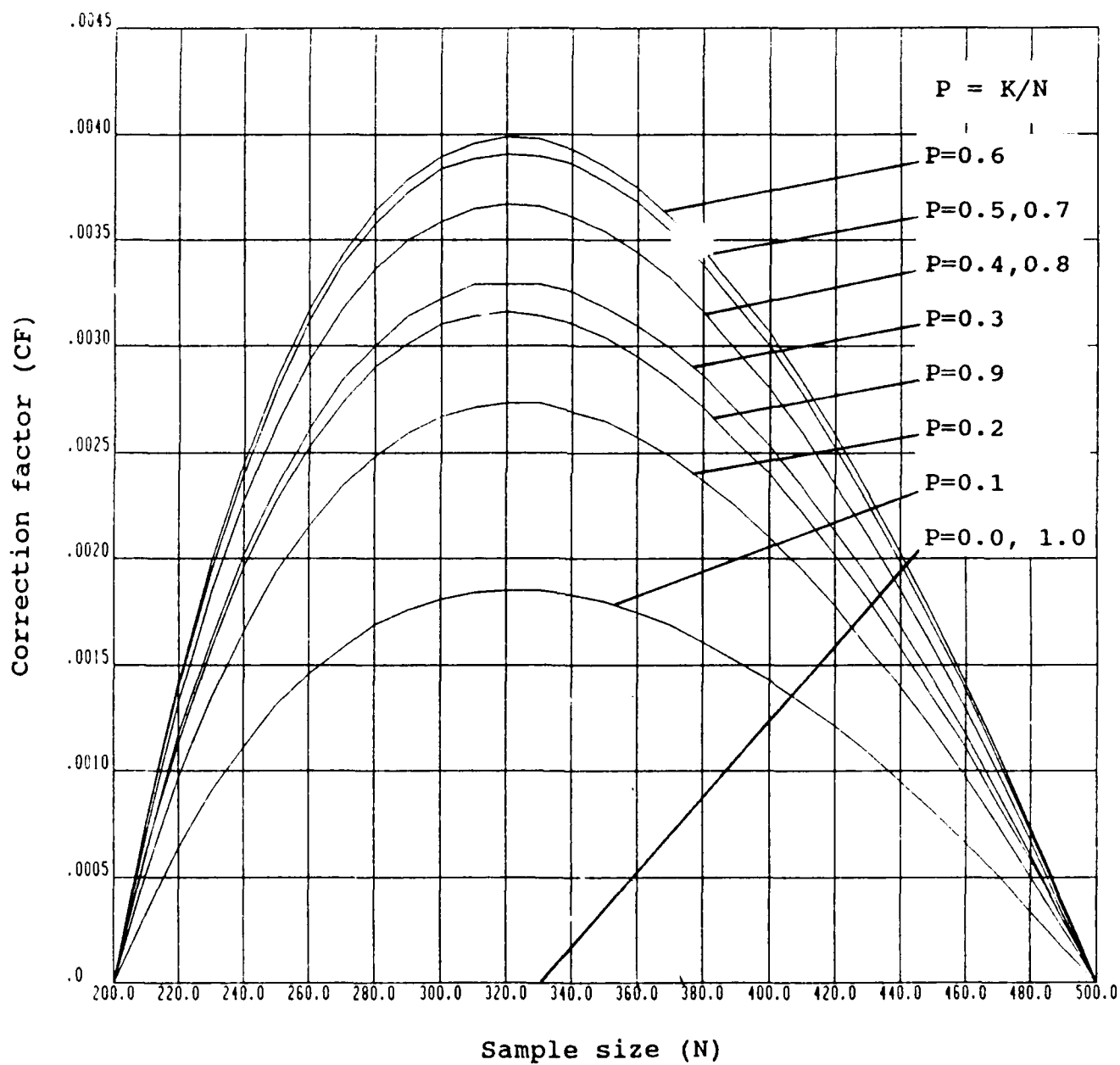


Figure B-3. Interpolation correction factors for one-sided 95 percent lower confidence limits ( $200 < N < 500$ )

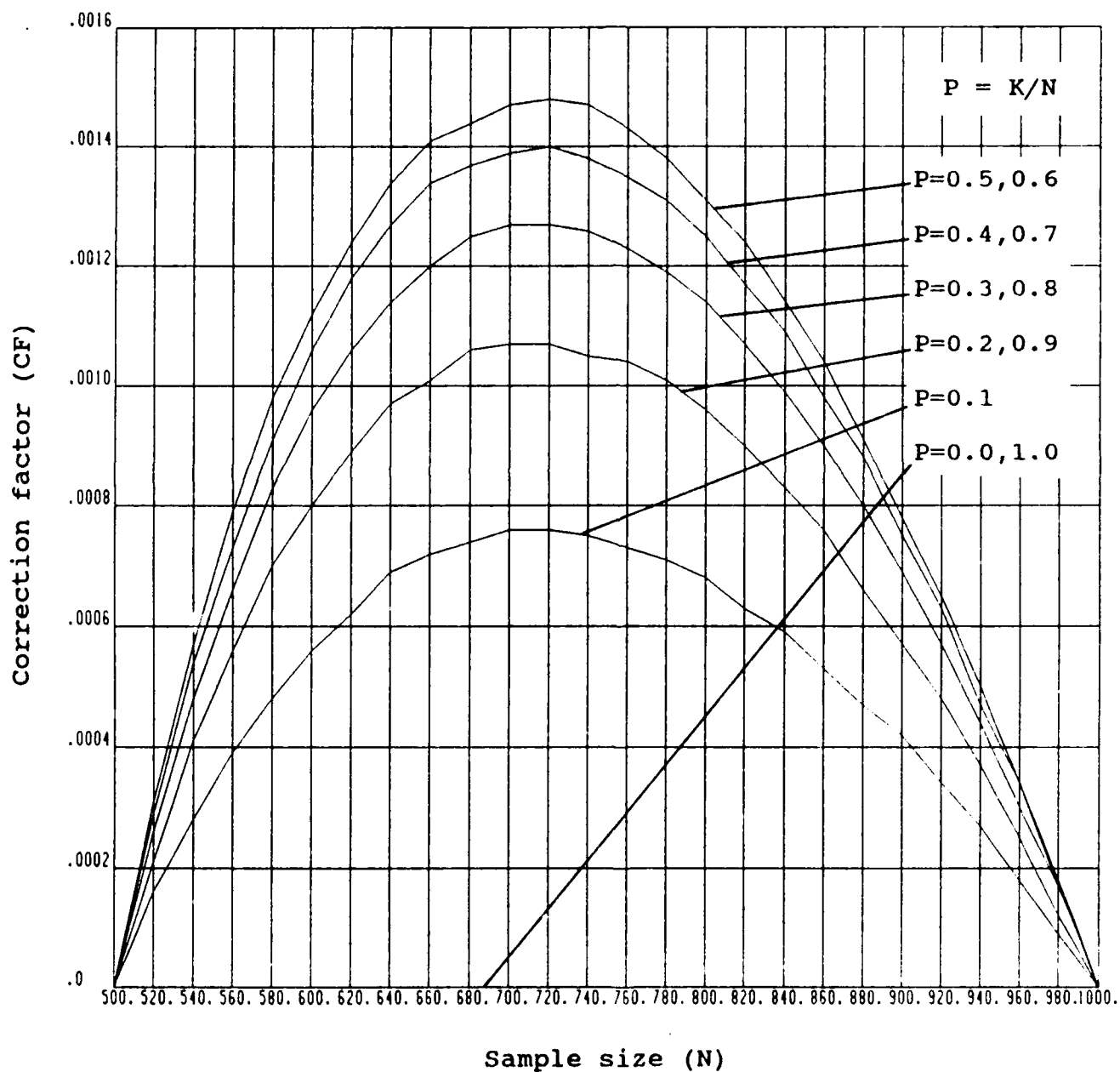


Figure B-4. Interpolation correction factors for one-sided 95 percent lower confidence limits ( $500 < N < 1000$ )

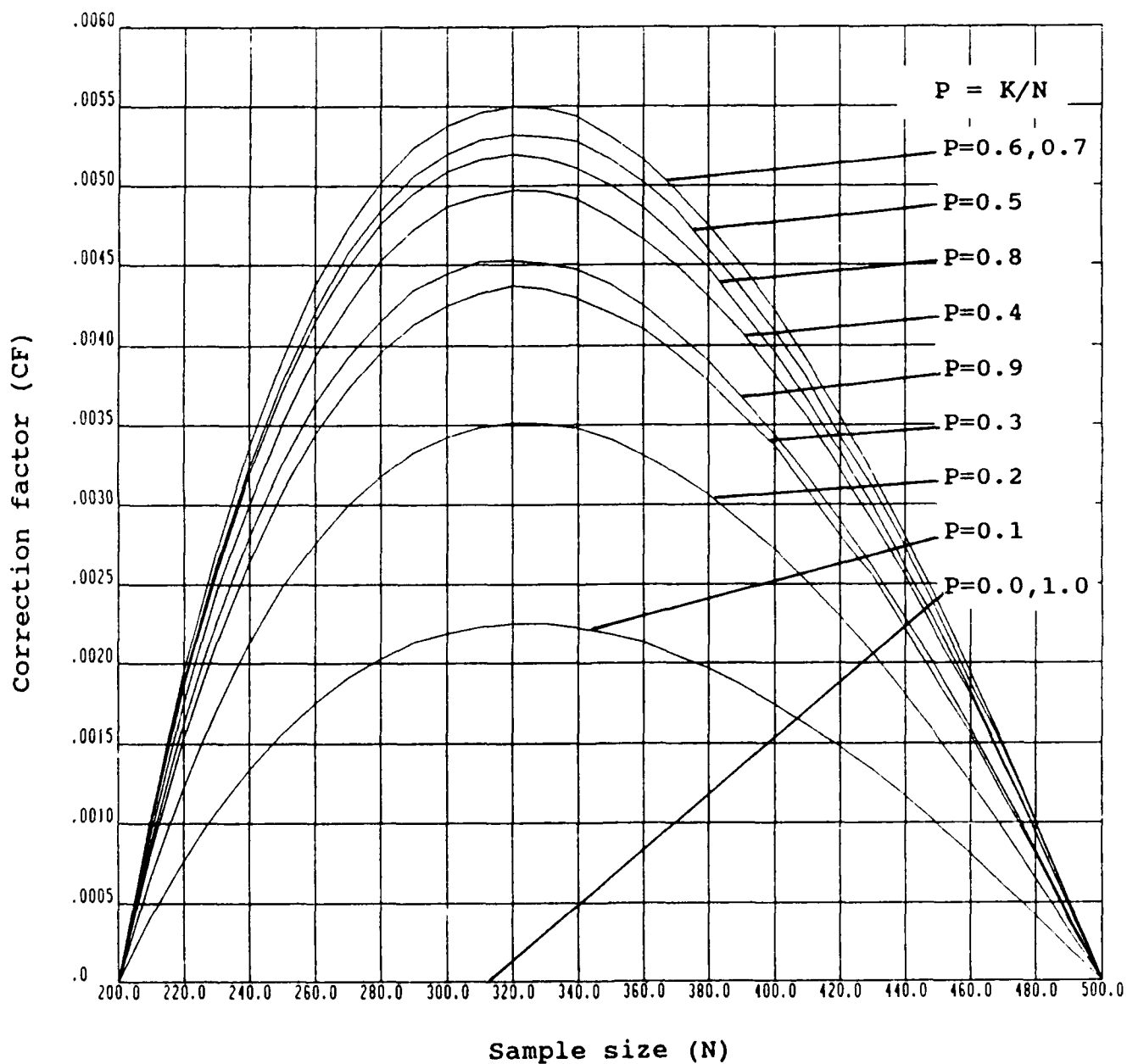


Figure B-5. Interpolation correction factors for one-sided 99 percent lower confidence limits ( $200 < N < 500$ )

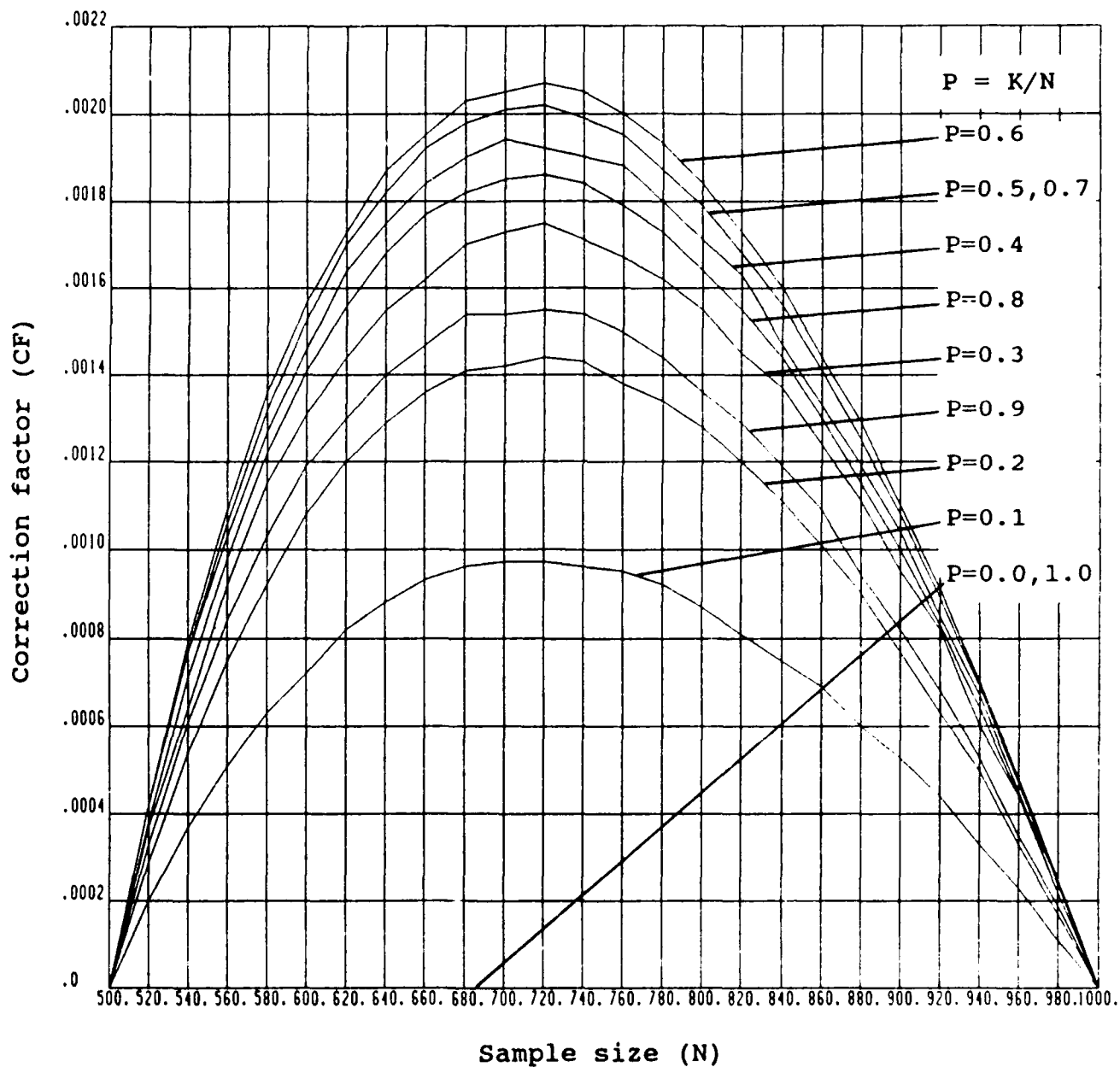


Figure B-6. Interpolation correction factors for one-sided 99 percent lower confidence limits ( $500 < N < 1000$ )

## APPENDIX C

### Interpolation Correction Factors for One-sided Upper Confidence Limits

This appendix provides interpolation correction factors for use with the worksheets (Figures 2 and 3) when computing one-sided upper confidence limits for untabled sample sizes.

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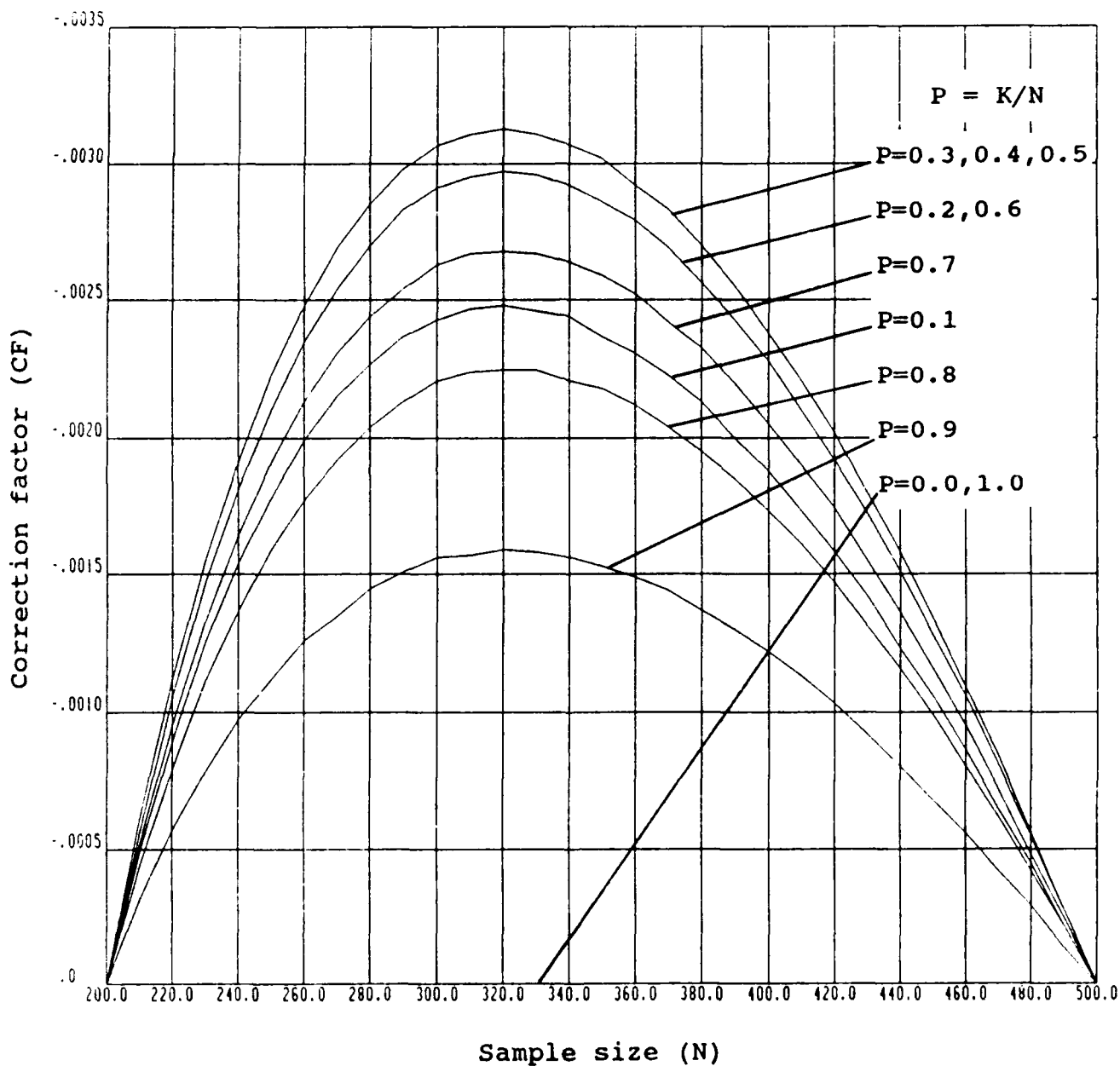


Figure C-1. Interpolation correction factors for one-sided 90 percent upper confidence limits ( $200 < N < 500$ )

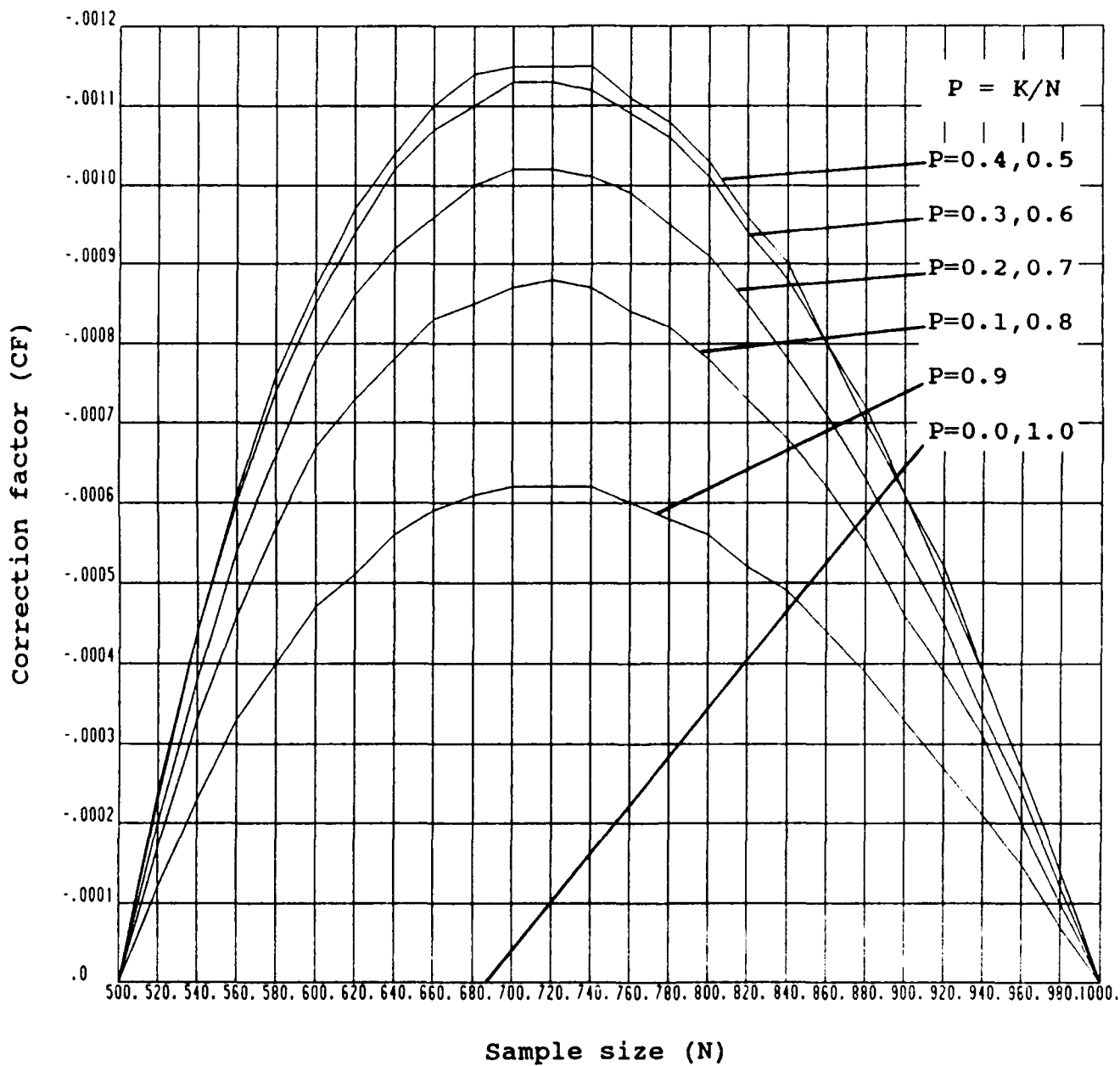


Figure C-2. Interpolation correction factors for one-sided 90 percent upper confidence limits ( $500 < N < 1000$ )

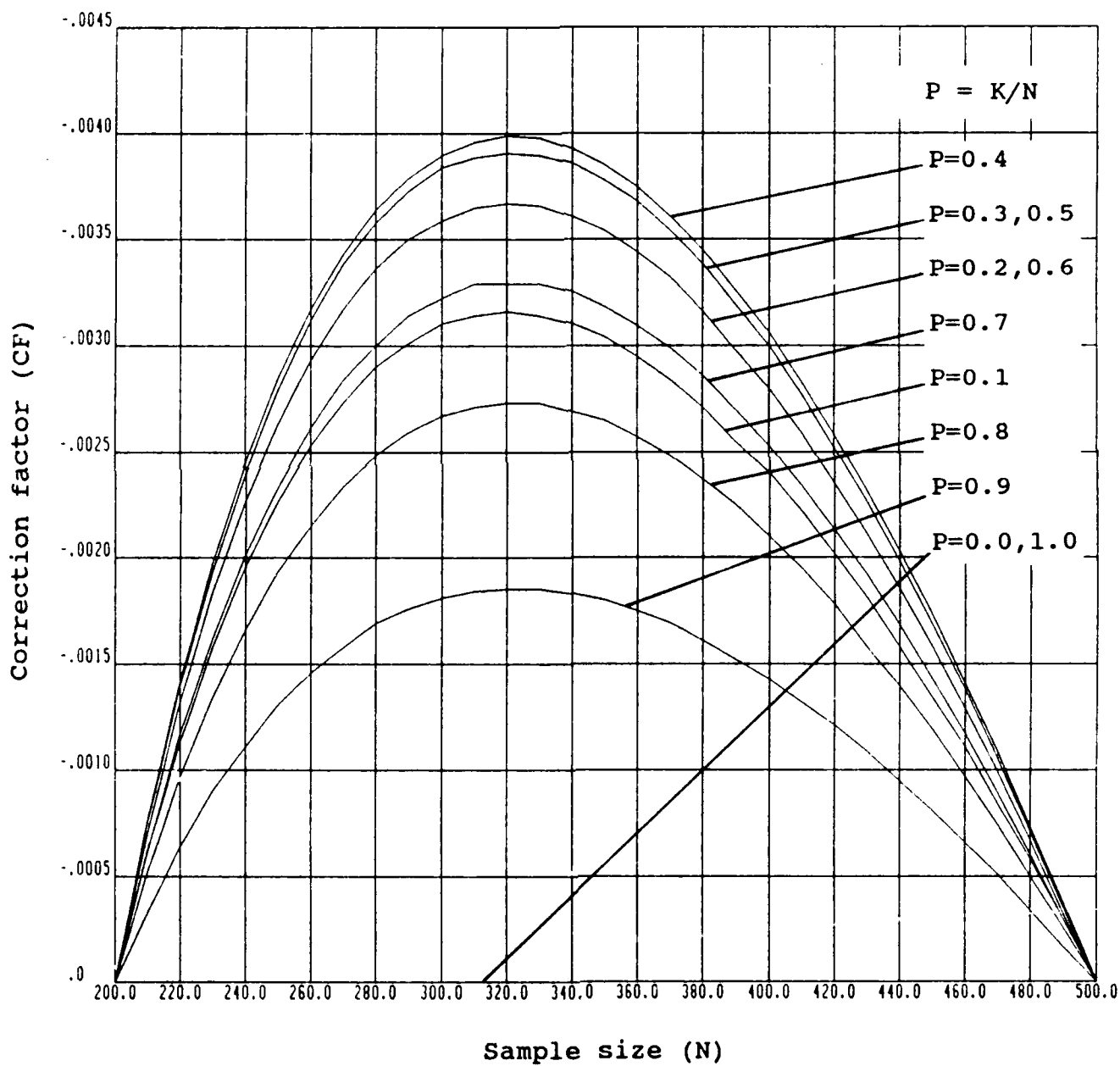


Figure C-3. Interpolation correction factors for one-sided 95 percent upper confidence limits ( $200 < N < 500$ )

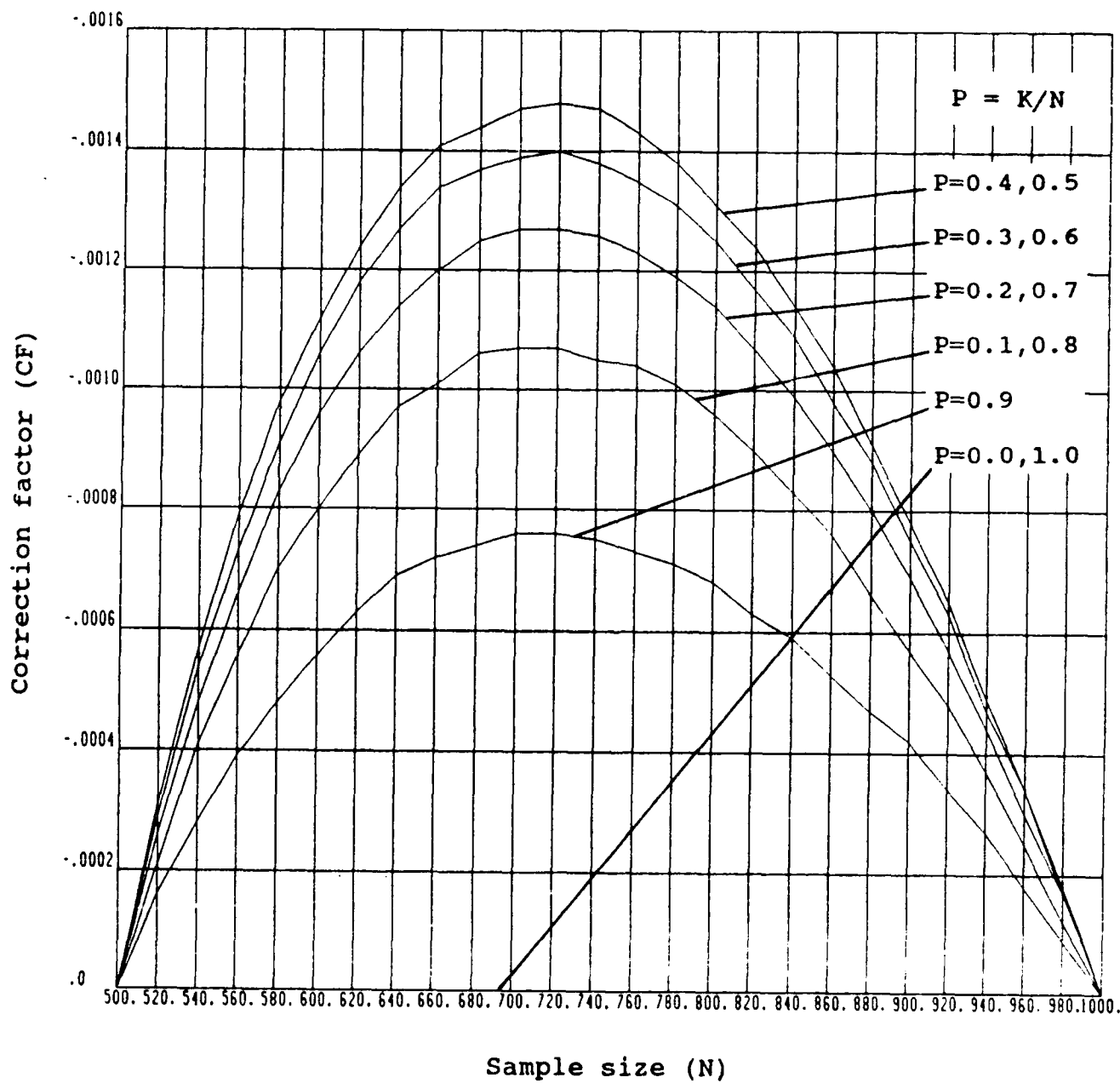


Figure C-4. Interpolation correction factors for one-sided 95 percent upper confidence limits ( $500 < N < 1000$ )

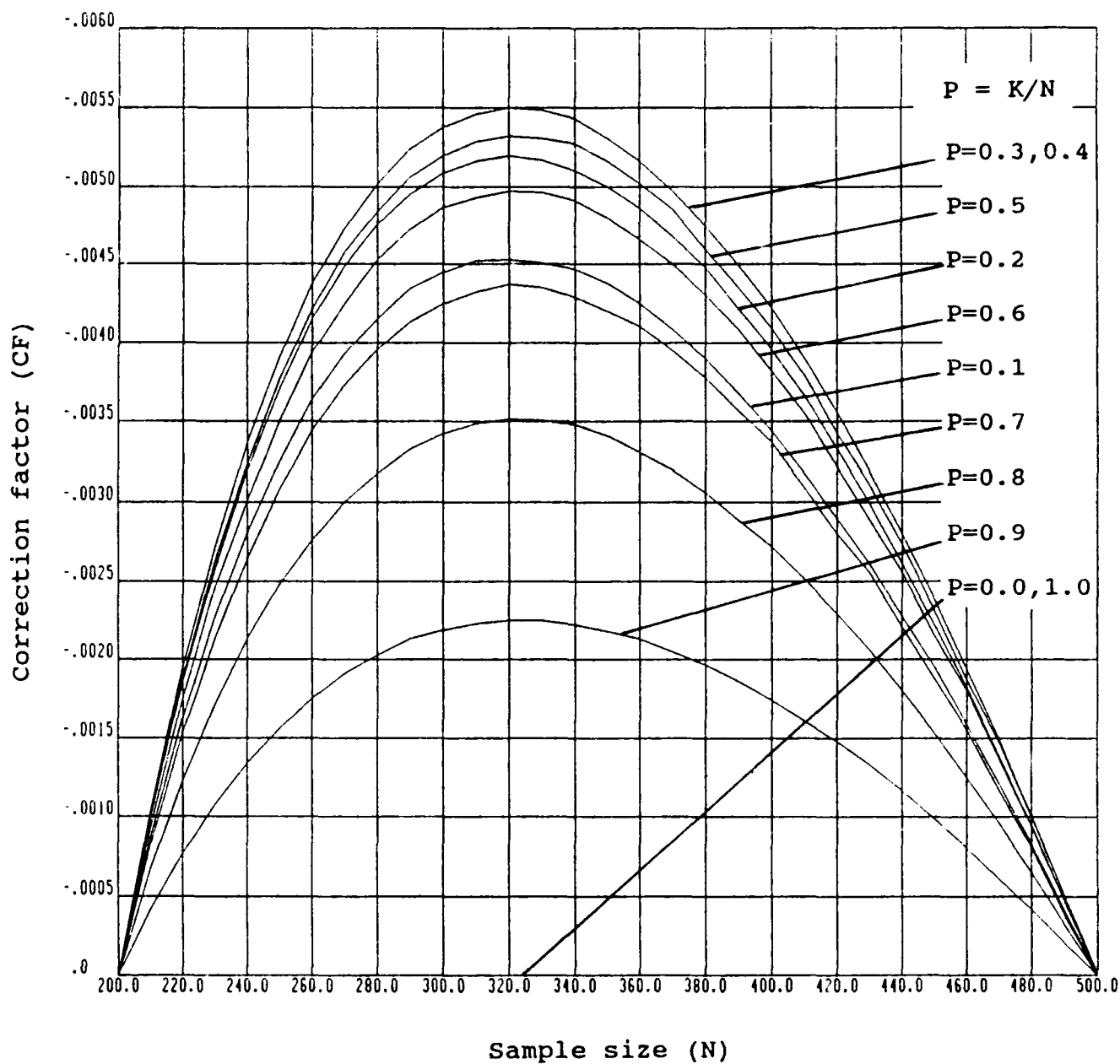


Figure C-5. Interpolation correction factors for one-sided 99 percent upper confidence limits ( $200 < N < 500$ )

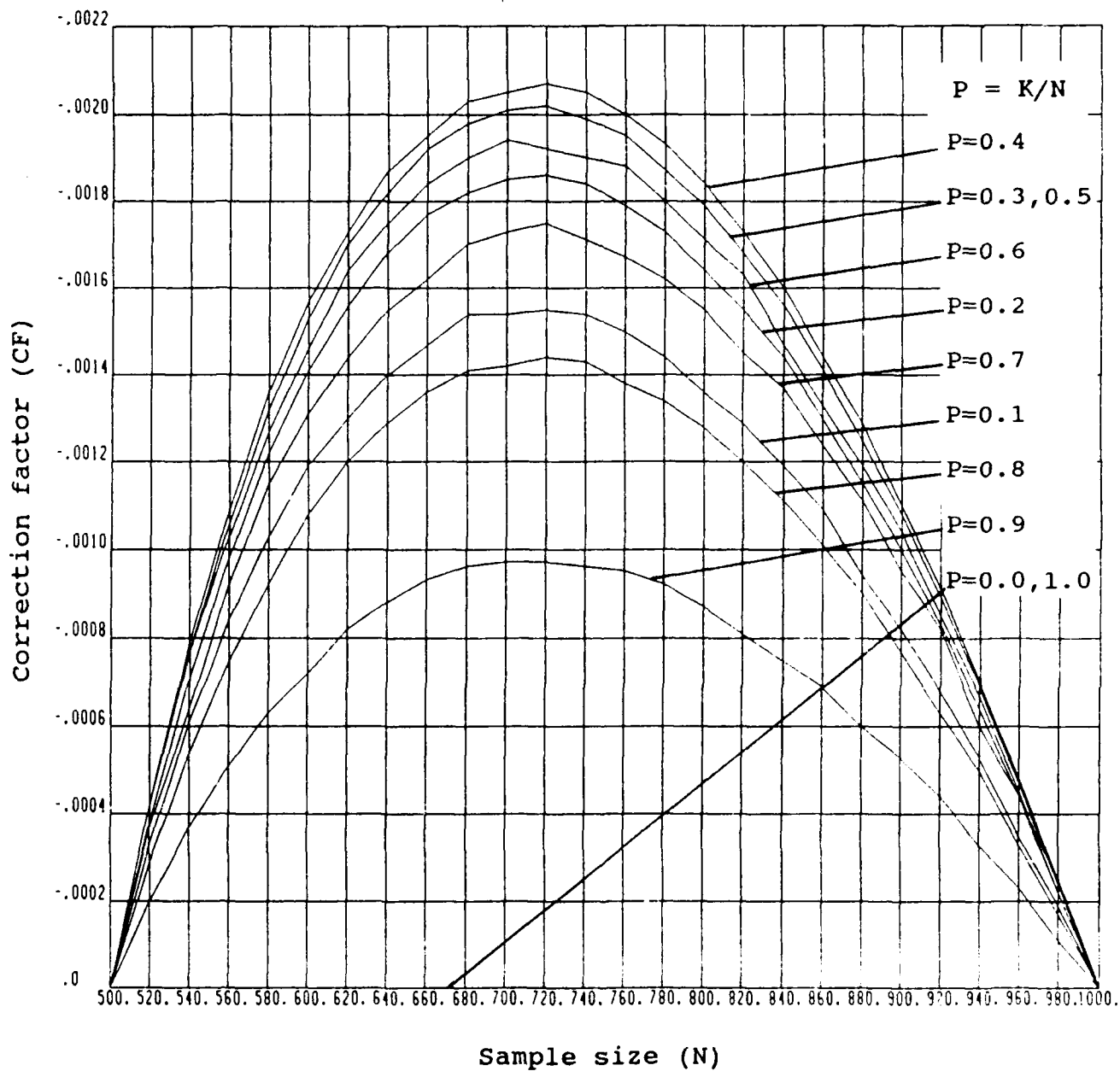


Figure C-6. Interpolation correction factors for one-sided 99 percent upper confidence limits ( $500 < N < 1000$ )

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