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NONPARAMETRIC LIFE TEST SAMPLING PLANS

by

Richard E. Barlow
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NONPARAMETRIC LIFE TEST SAMPLING PLANS

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NONPARAMETRIC LIFE TEST SAMPLING PLANS

1. Introduction

Sampling plans for truncated life tests based on several parametric families of distribution functions have been proposed by Sobel and Tischendorf (1959), Gupta and Groll (1961) and Gupta (1962a). Thus, we have the problem of which family to choose; i.e., exponential, normal, lognormal, gamma, etc. In many cases it is assumed that certain nuisance parameters are known. Unless considerable prior information is available, the choice will necessarily be somewhat arbitrary. We can circumvent this problem by considering a class of distributions restricted only by certain intuitive considerations. If the items in question wear out with age, then it is reasonable to assume that the failure rate function is nondecreasing. For other items such as solid state electronic devices, it seems reasonable to assume that the failure rate function is nonincreasing. By using sharp bounds on such distributions, we can obtain sampling plans which, although more conservative than the parametric plans, offer greater protection since they are valid for a much larger family of distributions.

It has been suggested by Zelen and Dannemiller (1959) that sampling plans should be written in terms of percentiles. Such plans were presented by Gupta and Groll (1961) and Gupta (1962a) for the gamma, normal and log-normal distributions. We present plans based on percentiles under the increasing (decreasing) failure rate assumption as well as plans based on the mean life. A partial discussion of these plans was also presented by Gupta (1962b).

2. Properties of Increasing (Decreasing) Failure Rate Distributions.

Let X be a random variable with distribution F such that $F(x) = 0$ for $x < 0$. If F has density f then $r(t) = f(t)/[1 - F(t)]$ is known as the failure rate function. Note that $r(t) = -\frac{d}{dt} \log [1 - F(t)]$ when a density exists. For this reason, we say that F is IFR (DFR) for increasing (decreasing) failure rate if $\log [1 - F(t)]$ is concave where finite (convex on $[0, \infty)$). These distributions have been studied by Barlow, Marshall, and Proschan (1963) and Barlow and Marshall (1964). For convenience we summarize some of the fundamental properties of these distributions.

An IFR (DFR) distribution may have at most one point of discontinuity; namely, at the end of its right (left) hand interval of support. The continuous part of an IFR (DFR) distribution is absolutely continuous. Sums of independent IFR random variables themselves have IFR distributions. This is not true for DFR random variables. If F is a mixture of DFR distributions, then it follows that F is DFR. Many of the properties of the IFR (DFR) family follow from comparison with the exponential distribution. This is not surprising since it is the boundary distribution between the two classes. If $U_1 \leq U_2 \leq \dots \leq U_n$ are the order statistics from an IFR (DFR) distribution F with mean μ_1 then, $E[U_1] \geq \frac{\mu_1}{n}$ while $E[U_n] \leq \mu_1 \sum_{k=1}^n \frac{1}{k}$.

To obtain sampling plans based on percentiles we use the fact that $[1 - F(t)]^{1/t}$ is decreasing (increasing) in t when F is IFR (DFR). Let μ_r denote the r^{th} moment of F . To obtain sampling plans based on bounds on moments we use the inequalities for IFR distributions. Now we describe the relevant inequalities.

$$(2.1) \quad 1 - F(t) \geq \begin{cases} \exp [- t/\lambda_r^{1/r}] , & t \leq \mu_r^{1/r} \\ 0 & , t > \mu_r^{1/r} \end{cases} \quad (r \geq 1)$$

$$(2.2) \quad 1 - F(t) \leq \begin{cases} 1 & , t \leq \mu_r^{1/r} \\ \exp [-wt] & , t > \mu_r^{1/r} \end{cases} \quad (r > 0)$$

where w uniquely satisfies

$$\mu_r = r \int_0^t x^r - 1 e^{-wx} dx$$

and

$$\lambda_r = \mu_r / \Gamma(r + 1) .$$

If F is DFR, with r^{th} moment μ_r , then

$$(2.3) \quad 1 - F(t) \leq \begin{cases} \exp [- t/\lambda_r^{1/r}] , & t \leq r\lambda_r^{1/r} \\ \frac{r^r e^{-r} \mu_r}{\Gamma(r + 1)t^r} & , t \geq r\lambda_r^{1/r} \end{cases}$$

From these bounds we can obtain the following bound on the q^{th} quantile ζ_q in terms of μ_1 assuming F is IFR. If $q \leq 1 - e^{-1}$, then

$$[-\log(1-q)]\mu_1 \leq \zeta_q \leq \left[-\frac{\log(1-q)}{q} \right] \mu_1 ;$$

if $q \geq 1 - e^{-1}$

$$\mu_1 \leq \zeta_q \leq \left[-\frac{\log(1-q)}{q} \right] \mu_1 .$$

From the fact that $\lambda_r^{1/r}$ is decreasing (increasing) in r when F is IFR (DFR) we see that the coefficient of variation $\sigma/\mu_1 \leq 1$.
 The density and the failure rate are bounded at the origin from above in terms of moments as follows:

$$f(0) \leq \frac{\lambda_{1-1} \lambda_{j-1}}{\lambda_{1+j-1}} \quad j = 1, 2, \dots$$

when F is IFR.

Bounds on densities and failure rates were obtained by Barlow and Marshall [1964]. If F is IFR and $r \geq 1$ then

$$f(t^+) \leq r(t^+) \leq \frac{[\Gamma(r+1)]^{1/r}}{\mu_r^{1/r} - t} \quad , \quad 0 \leq t < \mu_r^{1/r}$$

and

$$r(t^-) \geq \begin{cases} 0 & , \quad t \leq \mu_r^{1/r} \\ a & , \quad t > \mu_r^{1/r} \end{cases}$$

when a satisfies $\mu_r = r \int_0^t x^{r-1} e^{-ax} dx$.

If F is DFR with density f , then

$$f(t^-) \leq \begin{cases} (te)^{-1} & , \quad t \leq (\lambda_r)^{1/r} \\ \lambda_r^{-1/r} e^{-t/\lambda_r^{1/r}} & , \quad \lambda_r^{1/r} \leq t \leq (r+1)\lambda_r^{1/r} \\ \lambda_r \left(\frac{r+1}{t}\right)^{r+1} e^{-(r+1)} & , \quad t \geq (r+1)\lambda_r^{1/r} \end{cases}$$

Finally, we mention that maximum likelihood estimates of IFR (DFR) distributions have been obtained by Grenander (1956) and Marshall and Proschan (1964).

3. Nonparametric Sampling Plans

Let θ denote a parameter defined by a life distribution F . For example, θ might denote the mean life or the 90th percentile. We would like to establish that, say $\theta \geq \theta_0$ where θ_0 is some specified value. A common practice in life testing is to truncate the experiment at a preassigned time, say t , and note the number of failures (assuming that a failure is well-defined). One object of these experiments is to set a confidence (lower) limit on the mean (quantile) life of the units. If it is desired to establish a mean (quantile) life, with a given probability of at least P^* and if the number of failures in the fixed time does not exceed a given number c , then the experimenter would like to know the minimum sample size necessary to achieve his objective. In following these sampling plans and the associated decision rule the probability of rejecting a lot having a parameter $\theta \leq \theta_0$ is at least equal to P^* . Alternatively, the consumer's risk in adopting the sampling plan (n, c, t, θ_0) does not exceed $1 - P^*$ whatever θ may be. Mathematically, given a number P^* ($0 \leq P^* \leq 1$), a time t and a value θ_0 of θ and an acceptance number c , we want to find the smallest positive integer n so that if the observed number of failures in time t does not exceed c we can assert with confidence probability P^* that $\theta \geq \theta_0$.

It should be pointed out that these life tests can be terminated prior to the time t with rejection as the result. In fact, the termination of the experiment can take place at the smaller of the two times $t, t_{(c+1)}$ where $t_{(c+1)}$ is the time to the $(c + 1)^{st}$ failure. Also, the associated decision rule leads to an acceptance only at the

end of time t and only if $t_{(c+1)} > t$. Hence,

$$\begin{aligned}
 L(p) &= P\{\text{Acceptance}\} = P\{t_{(c+1)} > t\} \\
 (3.1) \quad &= \frac{n!}{(c-1)!(n-c)!} \int_t^\infty F^c(t; \theta) [1 - F(t; \theta)]^{n-c-1} dF(t; \theta) \\
 &= \sum_{i=0}^c \binom{n}{i} p^i (1-p)^{n-i}
 \end{aligned}$$

where $p = F(t; \theta)$.

If p is a decreasing function of θ which is true, for instance, if the density $f(t; \theta)$ is \mathbb{TP}_2 (Totally positive of order 2) in t and θ , then $F(t; \theta) \leq F(t; \theta_0) \iff \theta \geq \theta_0$. If $p_0 = F(t; \theta_0)$, then it is clear from the theory of confidence intervals that the smallest n to satisfy

$$(3.2) \quad \sum_{i=0}^c \binom{n}{i} p_0^i (1-p_0)^{n-i} \leq 1 - P^*$$

is such that in adopting the above sampling plans with the associated decision rule, we can assert with probability P^* that $\theta \geq \theta_0$ provided $t_{(c+1)} > t$.

It should be noted that the above discussion assumes a knowledge of $F(t; \theta)$. Now, we consider the case where $F(t; \theta)$ is not explicitly assumed; it is only assumed that we have bounds on $F(t; \theta)$.

Suppose that $p = F(t; \theta) \geq b(t; \theta)$ for $t \geq 0$ where $b(t; \theta)$ is a known function. Suppose further that $b(t; \theta)$ is decreasing in θ . Since $L(p)$ is a decreasing function of p , we have

$$(3.3) \quad L(F(t;\theta)) \leq L(b(t;\theta)) \leq L(b(t;\theta_0))$$

for $\theta \leq \theta_0$. Hence the sampling plans of the above type are obtained by choosing the smallest positive integer n satisfying

$$(3.4) \quad L(b(t;\theta_0)) \leq 1 - P^*$$

where c , θ_0 and t are fixed.

From (3.3) and (3.4) it follows that if the number of failures during time t is less than or equal to c , then we can make the confidence statement that $\theta \geq \theta_0$ with confidence probability P^* .

Note that if $b(t;\theta)$ is a sharp bound on $F(t;\theta)$, then it is nondecreasing in t since $F(t;\theta)$ is nondecreasing in t . If θ is the mean, then $b(t;\theta) = b(t/\theta;1)$ since the mean is a scale parameter for positive random variables and $b(t;\theta)$ is decreasing in θ .

Now we give a few examples where the bound $b(t;\theta)$ is known.

Example 1. (Markov's inequality). Let θ denote the mean. Then

$$F(t;\theta) \geq b(t;\theta) = \begin{cases} 0 & , t < \theta \\ 1 - \theta/t & , t \geq \theta \end{cases}$$

is true for nonnegative random variables. Clearly, $b(t;\theta)$ is decreasing in θ . A sampling plan based on Markov's inequality would afford protection over the class of all distributions on the positive axis. However, the bound is quite wide.

Example 2. (Unimodal density)

If the density f is unimodal with unknown mode and first moment θ and if $F(0; \theta) = 0$, then from Barlow and Marshall (1963), we have

$$F(t; \theta) \geq b(t; \theta) = \begin{cases} 0 & , \quad 0 \leq t \leq \theta \\ 2 - \frac{2\theta}{t} & , \quad \theta \leq t \leq \frac{3\theta}{2} \\ 1 - \frac{\theta}{2t} & , \quad t \geq \frac{3\theta}{2} \end{cases}$$

Clearly, $b(t; \theta)$ is decreasing in θ and the bound is a slight improvement over Example 1.

Example 3. (PF_2 density).

If $\log f(t; \theta)$ is concave where $f(t; \theta) > 0$, then f is called a PF_2 (Pólya Frequency of Order 2) density. Most of the commonly used densities have this property. If f has mean θ , then

$$F(t; \theta) \geq b(t; \theta) = \begin{cases} 0 & , \quad t \leq \theta \\ 1 - \sup_{m \geq t} (1 - e^{-bt}) / (1 - e^{-bm}) & , \quad t \geq \theta \end{cases}$$

where b is determined by $\theta = \int_0^m x b e^{-bx} dx / (1 - e^{-bm})$.

The above bound is tabulated in a paper by Barlow and Marshall (1963). A sampling plan based on this bound would afford less protection than the IFR sampling plans since $f \in PF_2$ implies that F is IFR but not conversely.

Sampling Plans for the IFR and DFR Distributions

Now we discuss the derivation of sampling plans for the IFR and DFR distributions for the following two cases:

IFR Distributions

Case (i) $\theta = \mu_r$

In this case, from (2.2), we have

$$(3.5) \quad b(t; \mu_r) = \begin{cases} 0 & , \quad t \leq \mu_r^{1/r} \\ 1 - e^{-wt} & , \quad t > \mu_r^{1/r} \end{cases}$$

where w uniquely satisfies

$$(3.6) \quad \mu_r = r \int_0^t x^{r-1} e^{-wx} dx .$$

Clearly $b(t; \mu_r)$ is a decreasing function of μ_r . Hence the required n to insure $\mu_r > \mu_r^0$ is given by the smallest positive integer which satisfies

$$(3.7) \quad \sum_{j=0}^c \binom{n}{j} b(t; \mu_r^0)^j [1 - b(t; \mu_r^0)]^{n-j} \leq 1 - P^* .$$

It should be noted that the solution of (3.7) depends on the fact that $t^r > \mu_r^0$. Of special importance is the case where $r = 1$. In this case (3.6) reduces to

$$(3.8) \quad \mu_1 w = 1 - e^{-wt} .$$

Hence, using (3.8) to solve for w and then using (3.7) with $b(t; \mu_1^0) = b(t/\mu_1^0; 1) = 1 - e^{-wt}$, sampling plans to insure a specified mean life have been computed and are given in Table 1. This table also gives the actual confidence level attained.

Case (11) $\theta = \zeta_q$, the q^{th} percentile.

In this case

$$(3.9) \quad b(t; \zeta_q) = \begin{cases} 0 & , \quad t < \zeta_q \\ 1 - (1 - q)^{t/\zeta_q} & , \quad t \geq \zeta_q \end{cases} ,$$

which is again decreasing in ζ_q and clearly depends only on q and the ratio t/ζ_q . Hence, to insure a specified quantile life ζ_q^0 , we substitute from (3.9) the value of $b(t; \zeta_q^0)$ in the general equation (3.4) and solve for the smallest n . Table II at the end of this paper gives minimum sample sizes for the life testing situation where $t > \zeta_q^0$.

DFR Distributions

Case (1) $\theta = \mu_r$.

In this case, letting $\lambda_r = \mu_r/\Gamma(r + 1)$, we have

$$(3.10) \quad b(t; \mu_r) = \begin{cases} 1 - e^{-t/\lambda_r^{1/r}} & , \quad t \leq r\lambda_r^{1/r} \\ 1 - r^r \lambda_r (et)^{-r} & , \quad t \geq r\lambda_r^{1/r} \end{cases} ,$$

and one can construct sampling plans for the cases where $t \leq r(\lambda_r^0)^{1/r}$ and $t \geq r(\lambda_r^0)^{1/r}$. For the special case $r = 1$, and $t < \mu_1^0$, it is

easy to check that the sampling plans based on the bounds in (3.10) reduce to the sampling plans for the negative exponential with $\lambda_1^0 = \mu_1^0 = \theta_0$. These tables have already been given by Sobel and Tischendorf (1959) for $t < \lambda_1^0 = \mu_1^0$.

Case (ii) $\theta = \zeta_q$.

In this case the bound is

$$(3.11) \quad b(t; \zeta_q) = \begin{cases} 1 - (1 - q)^{t/\zeta_q} & , \quad t \leq \zeta_q \\ q & , \quad t > \zeta_q \end{cases} .$$

To use the ~~non-trivial~~ bound, we require $t \leq \zeta_q^0$. The sampling plans are obtained as in case (ii) of IFR distributions discussed above.

Table III at the end of this paper gives these sampling plans for $\lambda = t/\zeta_q^0 \leq 1$.

OC Function and the Producer's Risk

The OC function represents the probability of acceptance as a function of θ . The sampling plans and the decision rule guarantee that this probability is less than or equal to $1 - P^*$ for all $\theta \leq \theta_0$.

Suppose there exists a function $B(t; \theta)$ such that $F(t; \theta) \leq B(t; \theta)$ for all t and all θ , then we have

$$(3.12) \quad P\{\text{Acceptance}\} \geq L(B(t; \theta)) .$$

In order to insure that the producer's risk will not exceed a number α ($0 < \alpha < 1$), whenever $\theta \geq \theta_1$, one needs to satisfy the

inequality

$$(3.13) \quad L(B(t;\theta)) \geq L(B(t;\theta_1)) \geq 1 - \alpha$$

which will be satisfied if $B(t;\theta)$ is decreasing in θ . One may use the inequality (3.13) to determine c such that for fixed θ_1 , θ_0 and P^* , the sampling plan and the acceptance rule will insure that the producer's risk will not exceed α . Alternatively for fixed n , t , θ_0 , c and P^* , one may want to know the minimum value θ_1 of θ such that for all $\theta > \theta_1$, the probability of acceptance $\geq 1 - \alpha$.

Now we describe the evaluation of the OC function for the IFR and DFR distributions.

IFR Distributions

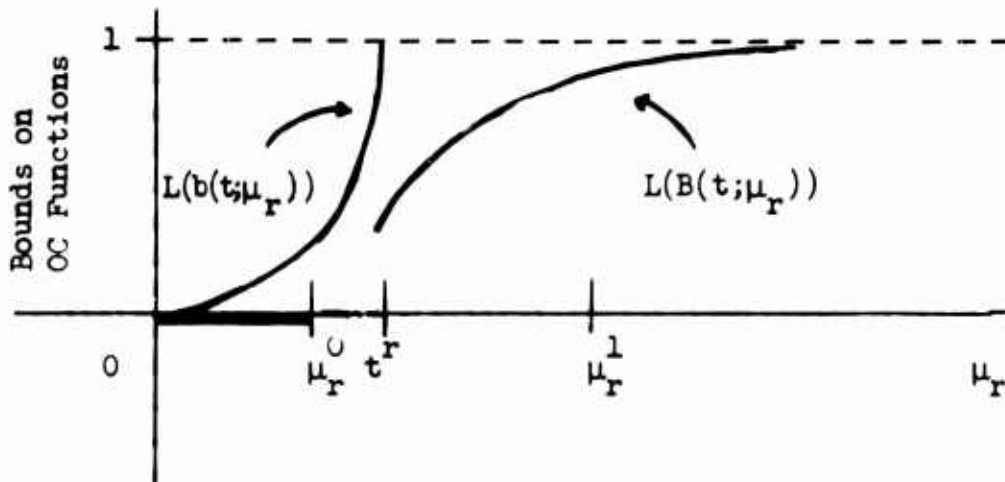
Case (1) $\theta = \mu_r$

$$(3.14) \quad B(t;\mu_r) = \begin{cases} 1 - e^{-t/(\lambda_r)^{1/r}} & , \quad t \leq \mu_r^{1/r} \\ 1 & , \quad t > \mu_r^{1/r} \end{cases}$$

Thus, for $\mu_r > \mu_r^{1/r} \geq t^r$, we have

$$(3.15) \quad L(F(t;\mu_r)) \geq L(B(t;\mu_r)) \geq L(B(t;\mu_r^{1/r}))$$

which gives a lower bound on the OC function. This bound is graphed below.



Case (ii) $\theta = \zeta$

In this case

$$(3.16) \quad B(t; \zeta_q) = \begin{cases} 1 - (1 - q)^{t/\zeta_q} & , \quad t \leq \zeta_q \\ 1 & , \quad t \geq \zeta_q \end{cases}$$

and the lower and upper bounds can be obtained similarly by using $b(t; \zeta_q)$ and $B(t; \zeta_q)$ in the appropriate intervals.

Finally, it should be noted that sampling plans which protect the producer can be constructed for test time less than the goal using the bound $B(t; \theta)$ in the IFR case.

It is clear from the bounds on OC functions for the IFR case that we have to test beyond the mean (quantile) life goal to protect the consumer whereas we can protect the producer by testing for a time less than the mean (quantile) life goal.

DFR Distributions

Case (i) $\theta = \mu_r$

In this case there is no nontrivial lower bound for the OC

function L since there is no nontrivial upper bound on F . However, there exists a nontrivial upper bound on the L function both for $\mu_r^0 < t$ and $\mu_r^0 \geq t$. This lower bound is obtained by using (3.10) in place of F in the L function.

Case (ii) $\theta = \zeta_q$

Using the upper bound

$$(3.17) \quad B(t; \zeta_q) = \begin{cases} q & , \quad t \leq \zeta_q \\ 1 - (1 - q)^{t/\zeta_q} & , \quad t \geq \zeta_q \end{cases} ,$$

one can construct a lower bound on L for all t .

Description of the Tables and Some Illustrative Examples

Table I. This table gives the sample sizes necessary to establish that the true unknown mean μ of an IFR distribution is at least μ^0 at a nominal confidence level P^* . The actual level attained is also tabulated.

Illustration 1. Suppose an experimenter wants to choose the sample size corresponding to $c = 2$, $P^* = .75$, $\lambda = t/\mu^0 = 1.6$, then this required n from Table 1 is equal to 5. For this sampling plan the actual probability level is equal to .7523.

Table II. This table gives the sample sizes necessary to establish that the true unknown q^{th} quantile of an IFR distribution is at least ζ_q^0 at a nominal confidence level P^* . The actual level attained is also tabulated.

Illustration 2. Assuming an IFR distribution and given $c = 2$,

$P^* = .75$, $\lambda = t/\zeta_{.2}^0 = 1.6$, $q = .2$, we find from Table II that the required minimum sample size is 13. For this sampling plan the actual probability attained if the decision rule accepts is equal to .7981.

Application to Drug Screening

Suppose a drug which is known to be non-toxic is administered to patients suffering from a specified cancer to determine its effectiveness. The drug will be considered effective if, say 20% of the patients respond to treatment after T weeks ($T = 6$, say). The treatment will continue t weeks ($t = 12$, say) unless more than c patients respond before this time--in which case the drug will be declared effective at the end of the t_{c+1} weeks. Let $F(t)$ denote the probability of a response by time t and $F(T) = p$. Since we do not want to discard a potentially useful drug, we set

$$P[\text{rejecting drug} \mid p \geq .20] = \sum_{j=0}^c \binom{n}{j} [F(t)]^j [1 - F(t)]^{n-j} \leq \alpha .$$

Now $F(T) \geq .20$ if and only if $\zeta_{.20} \leq T$ where $\zeta_{.20}$ is the 20th percentile. If we assume an IFR distribution time; i.e., $\frac{f(t)}{1 - F(t)}$ increasing in t , then this problem is identical with case (ii) considered under IFR sampling plans.

Illustration. we want to determine the number of patients to put on trial to establish with 90 per cent confidence that, $F(T) \geq .20$; i.e., the response rate after T weeks is at least 20 per cent. If $\frac{t}{T} = 2$, $c = 3$, $Q = .20$ and $P^* = .90$, we find from Table II that $n = 17$ and the true confidence level is .91.

Table III. This table gives the sample sizes necessary to establish that the true unknown q^{th} quantile of a DFR distribution is at least ζ_q^0 at a nominal confidence level P^* . Here $\lambda = t/\zeta_q^0 \leq 1$. Also, the actual confidence attained is tabulated.

Approximations for Sample Sizes

The sample sizes necessary to establish a quantile for the IFR and DFR distributions can be approximated as follows. If $1 - (1 - q)^\lambda$ is small, then

$$(3.18) \quad n \approx \left[\frac{y_{c+1, P^*}}{1 - (1 - q)^\lambda} \right] + 1$$

where y_{c+1, P^*} is the P^* percentage point at a standardized gamma variable with shape parameter $r = c + 1$ or one-half times the P^* percentage point of a χ^2 with $(2c + 2)$ degrees of freedom. This approximation was discussed by Gupta (1962a) where tables of y_{c+1, P^*} are also given.

If $p = 1 - q$ is close to .5, then another approximation for n is

$$(3.19) \quad n \approx \left[\frac{(2c + 1 + pz_p^{2*}) \left(1 + \sqrt{1 - (2c + 1)^2 / (2c + 1 + pz_p^{2*})^2} \right)}{2(1 - p)} \right] + 1$$

where z_p^* is the P^* percentage point of the $N(0, 1)$ random variable. For example, if $q = .1$, $\lambda = 1$, $c = 1$, $P^* = .75$, then $y_{c+1, P^*} = 2.6926$ and from (3.18), $n \approx 27$. The exact answer from Table II is 27. As an example of the second approximation, let $\lambda = 1$, $p = 1 - q = .5$,

$P^* = .75$, $c = 2$, then the approximate answer from (3.19) is 7 which coincides with the exact value.

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BIBLIOGRAPHY

- [1] Sobel, M. and J. A. Tischendorf, (1959). "Acceptance sampling with new life test objectives," Proc. of fifth national symposium on reliability and quality control, Philadelphia, Pennsylvania.
- [2] Gupta, S. S., and P. A. Groll, (1961). "Gamma distribution in acceptance sampling based on life tests," J. Amer. Statist. Assoc., 56, 942-970.
- [3] Gupta, S. S. (1962a). "Life test sampling plans for the normal and lognormal distributions," Technometrics, 4, 151-175.
- [4] Gupta, S. S. (1962b). "Nonparametric life testing sampling plans," Ann. Math. Statist. (Abstract). p. 303.
- [5] Zelen, M., and M. C. Dannemiller (1961). "The robustness of life testing procedures derived from the exponential distribution," Technometrics, pp. 29-49.
- [6] Barlow, R. E., A. W. Marshall, and F. Proschan (1963). "Properties of distributions with monotone hazard rate," Annals of Math. Stat., 34, 375-389.
- [7] Barlow, R. E., and A. W. Marshall (1964). "Bounds for distributions with monotone hazard rate," Annals of Math. Stat., (to appear).
- [8] Barlow, R. E., and A. W. Marshall (1964). "Bounds on densities and hazard rates," Operations Research Center Technical Report ORC 64-9(RR), University of California, Berkeley.
- [9] Grenander, U. (1956). "On the theory of mortality measurement," Skandinavisk Aktuarietidskrift, pp. 135-146.

- [10] Marshall, A., and F. Proschan (1964). "Maximum Likelihood Estimation for Distributions with Monotone Failure Rate," Boeing Scientific Res. Labs. DL-82-0329.
- [11] Barlow, R. E., and A. W. Marshall (1963). "Tables of bounds for distributions with monotone hazard rate," Boeing Scientific Res. Labs. Report DL-82-0249.

Table I. Sampling Plans for the Mean of IFR Distributions

λ	$P^* = .75$										
	$c = 0$	1	2	3	4	5	6	7	8	9	10
1.1	8 .78715	15 .86996	22 .77091	28 .75209	35 .76278	41 .75329	48 .76458	54 .75769	60 .75218	67 .76473	73 .76056
1.2	4 .77815	8 .77081	12 .77863	16 .78959	19 .75950	23 .77566	26 .75327	30 .77035	33 .75220	37 .76905	40 .75363
1.3	3 .80787	6 .80074	9 .80893	11 .75535	14 .77655	17 .79506	19 .75977	22 .78030	24 .75016	27 .77105	30 .78952
1.4	2 .76089	5 .82596	7 .79110	9 .76729	12 .82574	14 .81144	16 .78976	18 .78808	20 .77895	22 .77107	24 .76419
1.5	2 .82595	4 .80044	6 .79620	8 .79859	10 .80359	12 .80971	14 .81627	16 .82294	17 .75736	19 .76932	21 .78037
1.6	2 .87182	4 .86573	5 .75225	7 .78673	9 .81446	11 .83741	12 .76930	14 .79861	16 .82315	17 .76595	19 .79370
1.7	2 .90467	3 .77280	5 .82507	7 .86225	8 .78960	10 .83420	11 .76989	13 .81591	14 .75777	16 .80328	18 .83950
1.8	2 .92841	3 .92353	5 .87709	6 .80182	8 .86045	9 .79995	11 .85519	12 .80402	14 .85486	15 .81030	16 .76134
1.9	1 .76724	3 .86269	4 .76702	6 .85688	7 .79133	9 .86397	10 .81468	11 .75956	13 .83525	14 .79026	16 .85318
2.0	1 .79681	3 .89292	4 .81428	6 .89716	7 .84644	8 .78986	10 .87344	11 .83173	12 .78603	14 .86321	15 .82745
2.2	1 .84374	3 .93438	4 .88223	5 .82356	6 .76169	8 .88404	9 .84550	10 .80369	11 .75959	13 .86759	14 .83641
2.4	1 .87860	2 .77193	4 .92523	5 .88524	6 .84133	7 .79503	9 .91436	10 .88833	11 .85973	12 .82903	13 .79666
2.6	1 .90489	2 .81882	4 .95236	5 .92555	6 .89522	7 .86230	8 .82753	9 .79158	10 .75498	12 .90132	13 .88042
2.8	1 .92497	2 .85558	3 .79139	5 .95169	6 .93109	7 .90822	8 .88355	9 .85746	10 .83031	11 .80241	12 .77403
3.0	1 .94048	2 .88450	3 .83186	4 .78234	6 .95475	7 .93911	8 .92195	9 .90350	10 .88399	11 .86360	12 .84250
3.5	1 .96598	2 .93313	3 .90139	4 .87073	5 .84111	6 .81250	7 .78486	8 .75816	10 .95658	11 .94811	12 .93910
4.0	1 .98017	2 .96074	3 .94169	4 .92302	5 .90472	6 .88678	7 .86920	8 .85196	9 .83507	10 .81851	11 .80228
4.5	1 .98829	2 .97672	3 .96528	4 .95398	5 .94280	6 .93176	7 .92085	8 .91007	9 .89941	10 .88888	11 .87847

Table I. Sampling Plans for the Mean of IFR Distributions

P* = .90

c = 0	1	2	3	4	5	6	7	8	9	10	
λ											
1.1	12 .90221	21 .90613	29 .90652	37 .91120	44 .90739	51 .90367	58 .90332	65 .90581	72 .90703	78 .90042	85 .90279
1.2	7 .92829	11 .90410	16 .91913	20 .91471	24 .91336	28 .91377	32 .9124	35 .90068	39 .90439	43 .90820	47 .91203
1.3	5 .93603	8 .91563	11 .90881	14 .90766	17 .90921	20 .91213	23 .91573	26 .91963	28 .90112	31 .90708	34 .91273
1.4	4 .94283	6 .90061	9 .92053	11 .90030	14 .92295	16 .91021	19 .93033	21 .92137	23 .91304	25 .90520	28 .92546
1.5	3 .92739	6 .95054	8 .93868	10 .93133	12 .92685	14 .92426	16 .92297	18 .92229	20 .92283	22 .92357	24 .92462
1.6	3 .95411	5 .94138	7 .93887	9 .94035	11 .94350	12 .90552	14 .91490	16 .92338	18 .93101	20 .93786	21 .91065
1.7	2 .90463	4 .90948	6 .92231	8 .93490	10 .94585	11 .91138	13 .92808	15 .94133	16 .91360	18 .92957	19 .90176
1.8	2 .92841	4 .93875	6 .95236	7 .91208	9 .93608	11 .95301	12 .92684	14 .94613	15 .92171	17 .94180	18 .91910
1.9	2 .94582	4 .95837	5 .91383	7 .94427	8 .90867	10 .94041	11 .91115	13 .94083	14 .91626	16 .94319	17 .92224
2.0	2 .91871	4 .97156	5 .93960	7 .96480	8 .94075	9 .91009	11 .94644	12 .92313	14 .95299	15 .93475	16 .91295
2.2	2 .97558	3 .93438	5 .97023	6 .94731	7 .91831	9 .96113	10 .94306	11 .92128	13 .95997	14 .94554	15 .92849
2.4	2 .98526	3 .95936	4 .92523	6 .97307	7 .95708	8 .93740	9 .91436	11 .96457	12 .95184	13 .93693	14 .91990
2.6	1 .90489	3 .97458	4 .95236	5 .92555	7 .97755	8 .96659	9 .95336	10 .95197	11 .92057	12 .90132	14 .96238
2.8	1 .92497	3 .98396	4 .96951	5 .95169	6 .93109	7 .90822	9 .97485	10 .96604	11 .95586	12 .94435	13 .93157
3.0	1 .94048	3 .98979	4 .98039	5 .96861	6 .95475	7 .93911	8 .92195	9 .90350	11 .97576	12 .96908	13 .96155
3.5	1 .96598	2 .93313	3 .90139	5 .98920	6 .98416	7 .97832	8 .97174	9 .96448	10 .95658	11 .94811	12 .93910
4.0	1 .98017	2 .96074	3 .94169	4 .92302	5 .90472	7 .99227	8 .98983	9 .98710	10 .98409	11 .98080	12 .97726
4.5	1 .98829	2 .97672	3 .96528	4 .95398	5 .94280	6 .93176	7 .92085	8 .91007	10 .99420	11 .99297	12 .99163

Table I. Sampling Plans for the Mean of IFR Distributions

		$P^* = .95$									
$c = 0$	1	2	3	4	5	6	7	8	9	10	
λ											
1.1	16 .95493	25 .95002	34 .95329	42 .95278	50 .95406	57 .95096	65 .95409	72 .95270	79 .95186	86 .95147	93 .95141
1.2	8 .95078	14 .96195	18 .95300	23 .95944	27 .95637	31 .95464	35 .95385	39 .95372	43 .95405	47 .95472	51 .95563
1.3	6 .96309	10 .96591	13 .95877	16 .95502	19 .95334	22 .95298	25 .95344	28 .95445	31 .95579	34 .95735	37 .95903
1.4	5 .91204	8 .96940	10 .95264	13 .96105	15 .95021	18 .96053	20 .95289	23 .96286	25 .95717	27 .95163	30 .96179
1.5	4 .96971	6 .95054	9 .96791	11 .96179	13 .95739	15 .95430	17 .95218	19 .95081	21 .95001	24 .96752	26 .96701
1.6	3 .95411	6 .97524	8 .97156	10 .97040	12 .97064	14 .97165	15 .95133	17 .95528	19 .95905	21 .96260	23 .96589
1.7	3 .97055	5 .96576	7 .96736	9 .97080	11 .97459	12 .95507	14 .96272	16 .96905	17 .95193	19 .96048	21 .96741
1.8	3 .98084	5 .97986	6 .95236	8 .96371	10 .97251	11 .95301	13 .96518	15 .97404	16 .96004	18 .97018	19 .95651
1.9	3 .98739	4 .95837	6 .97078	8 .97987	9 .96329	11 .97553	12 .96054	14 .97360	15 .96025	17 .97311	18 .96127
2.0	2 .91871	4 .97156	6 .98204	7 .96480	9 .97907	10 .96505	12 .97907	13 .96771	14 .95299	16 .97108	17 .95927
2.2	2 .97558	4 .98653	5 .97023	7 .98598	8 .97541	9 .96113	11 .98118	12 .97182	13 .95997	15 .97964	16 .97165
2.4	2 .98526	3 .95936	5 .98521	6 .97307	7 .95708	9 .98350	10 .97510	11 .96457	12 .95184	14 .97970	15 .97227
2.6	2 .99095	3 .97458	4 .95236	6 .98620	7 .97755	8 .96659	9 .95336	11 .98439	12 .97832	13 .97099	14 .96238
2.8	2 .97437	3 .98396	4 .96951	5 .95169	7 .98826	8 .98225	9 .97485	10 .96604	11 .95586	13 .98694	14 .98279
3.0	2 .99646	3 .98979	4 .98039	5 .96861	6 .95475	8 .99059	9 .98650	10 .98156	11 .97576	12 .96908	13 .96155
3.5	1 .96598	3 .99661	4 .99337	5 .98920	6 .98416	7 .97832	8 .97174	9 .96448	10 .95658	12 .99313	13 .99129
4.0	1 .98017	2 .96074	4 .99770	5 .99622	6 .99441	7 .99227	8 .98983	9 .98710	10 .98409	11 .98080	12 .97726
4.5	1 .98829	2 .97672	3 .96528	4 .95398	6 .99801	7 .99723	8 .99634	9 .99533	10 .99420	11 .99297	12 .99163

Table I. Sampling Plans for the Mean of INR Distributions

$P^* = .99$

$c = 0$	1	2	3	4	5	6	7	8	9	10	
λ											
1.1	24 .99044	35 .99037	45 .99086	54 .99084	62 .99007	71 .99094	79 .99084	87 .99092	94 .99009	102 .99046	110 .99090
1.2	13 .99251	19 .99242	24 .99170	29 .99187	33 .99020	38 .99129	42 .99034	47 .99171	51 .99118	55 .99077	59 .99047
1.3	9 .99291	13 .99172	17 .99246	20 .99051	24 .99251	27 .99161	30 .99095	33 .99049	36 .99020	39 .99004	43 .99260
1.4	7 .99332	10 .99105	13 .99088	16 .99158	19 .99258	22 .99364	24 .99149	27 .99298	29 .99118	32 .99284	34 .99135
1.5	6 .99473	9 .99480	11 .99176	14 .99424	16 .99266	18 .99124	21 .99427	23 .99349	25 .99280	27 .99219	29 .99167
1.6	5 .99412	8 .99586	10 .99434	12 .99353	14 .99274	16 .99246	18 .99241	20 .99251	22 .99273	24 .99301	26 .99335
1.7	4 .99091	7 .99554	9 .99485	11 .99476	13 .99499	15 .99538	16 .99107	18 .99226	20 .99334	22 .99429	23 .99056
1.8	4 .99487	6 .99361	8 .99389	10 .99468	12 .99558	13 .99119	15 .99315	17 .99470	18 .99091	20 .99309	22 .99473
1.9	4 .99707	6 .99670	7 .99066	9 .99312	11 .99506	12 .99051	14 .99347	16 .99550	17 .99241	19 .99481	20 .99176
2.0	3 .99161	5 .99286	7 .99498	9 .99666	10 .99309	12 .99571	13 .99233	15 .99530	16 .99226	18 .99525	19 .99258
2.2	3 .99618	5 .99739	6 .99315	8 .99656	9 .99324	11 .99671	12 .99428	13 .99077	15 .99543	16 .99296	18 .99646
2.4	3 .99821	4 .99349	6 .99734	7 .99440	9 .99783	10 .99609	11 .99354	12 .99002	14 .99598	15 .99398	16 .99134
2.6	2 .99095	4 .99680	5 .99258	7 .99774	8 .99582	9 .99304	11 .99780	12 .99653	13 .99479	14 .99253	16 .99745
2.8	2 .99437	4 .99841	5 .99624	6 .99290	8 .99827	9 .99707	10 .99540	11 .99320	12 .99040	14 .99733	15 .99624
3.0	2 .99646	4 .99919	5 .99808	6 .99632	7 .99385	8 .99059	10 .99803	11 .99705	12 .99578	13 .99419	14 .99221
3.5	2 .99884	3 .99661	4 .99337	6 .99927	7 .99876	8 .99806	9 .99717	10 .99606	11 .99471	12 .99313	13 .99129
4.0	2 .99961	3 .99884	4 .99770	5 .99622	6 .99441	7 .99227	9 .99940	10 .99916	11 .99886	12 .99850	13 .99808
4.5	2 .99986	3 .99959	4 .99919	5 .99866	6 .99801	7 .99723	8 .99634	9 .99533	10 .99420	11 .99297	12 .99163

Table II. Sampling Plans for the Quantiles of IFR Distributions

q	P* = .75 c = 0								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	14 .77123	7 .79028	4 .75990	3 .78400	2 .75000	2 .84000	2 .91000	1 .80000	1 .90000
1.1	12 .75111	6 .77071	4 .79182	3 .81469	2 .78236	2 .86679	2 .92926	1 .82973	1 .92057
1.2	11 .75111	6 .79944	4 .81902	3 .84102	2 .81054	2 .88910	1 .76420	1 .85504	1 .93690
1.3	11 .77835	5 .76553	3 .75118	3 .86361	2 .83506	2 .90767	1 .79095	1 .87569	1 .94988
1.4	10 .77123	5 .79028	3 .77643	2 .76077	2 .85641	2 .92313	1 .81466	1 .89494	1 .96019
1.5	9 .75886	5 .81243	3 .79912	2 .78400	2 .87500	2 .93600	1 .83568	1 .91056	1 .96838
1.6	9 .78067	4 .76024	3 .81950	2 .80490	2 .89118	1 .76917	1 .85432	1 .92385	1 .97488
1.7	8 .76138	4 .78071	3 .83782	2 .82392	2 .90527	1 .78938	1 .87085	1 .93517	1 .98005
1.8	8 78067	4 .79944	3 .85428	2 .84102	2 .91753	1 .80782	1 .88550	1 .94481	1 .98415
1.9	7 .75372	4 .81656	3 .86906	2 .85646	2 .92821	1 .82465	1 .89849	1 .95302	1 .98741
2.0	7 .77123	4 .83223	2 .75990	2 .87040	1 .75000	1 .84000	1 .91000	1 .96000	1 .99000
2.2	6 .75111	3 .77071	2 .79182	2 .89345	1 .78236	1 .86679	1 .92926	1 .97101	1 .99369
2.4	6 .78067	3 .79944	2 .81950	2 .91388	1 .81054	1 .88910	1 .94434	1 .97899	1 .99602
2.6	6 .80672	3 .82457	2 .84350	2 .92979	1 .83506	1 .90767	1 .95630	1 .98477	1 .99749
2.8	5 .77123	3 .84655	2 .86431	1 .76077	1 .85461	1 .92313	1 .96565	1 .98896	1 .99842
3.0	5 .79411	3 .86578	2 .88235	1 .78400	1 .87500	1 .93600	1 .97300	1 .99200	1 .99900
3.5	4 .77123	2 .79028	2 .91765	1 .83269	1 .91161	1 .95952	1 .98521	1 .99642	1 .99968
4.0	4 .81470	2 .83223	1 .75990	1 .87040	1 .93570	1 .97400	1 .99190	1 .99840	1 .99990
4.5	3 .75886	2 .86578	1 .79912	1 .89961	1 .95581	1 .98391	1 .99556	1 .99928	1 .99997
5.0	3 .79411	2 .89263	1 .83193	1 .92224	1 .96875	1 .98976	1 .99757	1 .99968	1 .99999

Table II. Sampling Plans for the Quantiles of IFR Distributions

q	P* = .75 c = 1								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	27 .76740	13 .76635	9 .80400	6 .76672	5 .81230	4 .82080	3 .78400	3 .89600	2 .81000
1.1	24 .75537	12 .77190	8 .79009	6 .81030	5 .85156	4 .85876	3 .82541	3 .92290	2 .84744
1.2	22 .75439	11 .76895	7 .76317	5 .75600	4 .77781	4 .88917	3 .85942	3 .94306	2 .87779
1.3	21 .76998	10 .76001	7 .80026	5 .79352	4 .81367	3 .77911	3 .88716	2 .76842	2 .90227
1.4	19 .75619	10 .79474	6 .75579	5 .82581	4 .84421	3 .81201	3 .90968	2 .80092	2 .92196
1.5	18 .76264	9 .77490	6 .78835	5 .85346	4 .87010	3 .84038	3 .92787	2 .82911	2 .93775
1.6	17 .76533	9 .80444	6 .81701	4 .76960	4 .89154	3 .86475	3 .94252	2 .85351	2 .95039
1.7	16 .76437	8 .77444	5 .75071	4 .79746	3 .77413	3 .88560	2 .75837	2 .87455	2 .96049
1.8	15 .75970	8 .80077	5 .77799	4 .82227	3 .79996	3 .90340	2 .78410	2 .89267	2 .96855
1.9	14 .75115	7 .75854	5 .80261	4 .84428	3 .82309	3 .91854	2 .80728	2 .90824	2 .97498
2.0	14 .7580	7 .78285	5 .82475	4 .86376	3 .84375	3 .93139	2 .82810	2 .92160	2 .98010
2.2	13 .78427	7 .82505	4 .75008	3 .75173	3 .87852	2 .75132	2 .86352	2 .94286	2 .98742
2.4	12 .78581	6 .78881	4 .79100	3 .79218	3 .90591	2 .79049	2 .89189	2 .95842	2 .99205
2.6	11 .78057	6 .82402	4 .82583	3 .82685	3 .92736	2 .82386	2 .91450	2 .96977	2 .99498
2.8	10 .76808	5 .76517	4 .85530	3 .85569	3 .94407	2 .85217	2 .93248	2 .97805	2 .99683
3.0	10 .80002	5 .79714	4 .88011	3 .88019	2 .76563	2 .87610	2 .94673	2 .98406	2 .99800
3.5	8 .76096	5 .86066	3 .80020	3 .92539	2 .83104	2 .92068	2 .97064	2 .99286	2 .99937
4.0	7 .75564	4 .80956	3 .85474	2 .75760	2 .87891	2 .94946	2 .98387	2 .99680	2 .99980
4.5	7 .81012	4 .85736	3 .89515	2 .80930	2 .91356	2 .96788	2 .99115	2 .99857	2 .99994
5.0	6 .78122	4 .89385	3 .92475	2 .85053	2 .93848	2 .97963	2 .99515	2 .99936	2 .99998

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .75 c = 2								
q		.1	.2	.3	.4	.5	.6	.7	.8	.9
λ										
1.0		39 .76217	19 .76311	13 .79752	9 .76821	7 .77344	6 .82080	5 .83692	4 .81920	4 .94770
1.1		35 .75271	18 .78481	12 .80152	9 .82021	7 .82463	6 .86563	5 .87893	4 .86302	3 .78013
1.2		33 .76816	16 .76258	11 .79636	8 .79376	6 .76854	5 .79059	4 .76200	4 .89697	3 .82240
1.3		30 .75731	15 .76874	10 .78143	8 .83525	6 .81222	5 .83177	4 .80514	4 .92296	3 .85705
1.4		28 .75880	14 .76843	9 .75495	7 .79090	6 .84864	5 .86568	4 .84129	4 .94268	3 .88526
1.5		26 .75400	13 .76160	9 .79422	7 .82711	5 .75929	5 .89331	4 .87131	3 .75496	3 .90810
1.6		25 .76786	13 .79806	8 .75304	6 .75843	5 .79522	4 .77018	4 .89605	3 .78851	3 .92652
1.7		23 .75223	12 .78297	8 .78776	6 .79258	5 .82647	4 .80268	4 .91632	3 .81786	3 .94133
1.8		22 .75845	11 .76039	8 .81831	6 .82256	5 .85347	4 .83109	4 .93283	3 .84340	3 .95320
1.9		21 .76146	11 .79116	7 .76045	6 .84871	5 .87666	4 .85581	4 .94622	3 .86556	3 .96271
2.0		20 .76135	11 .75946	7 .78951	6 .87141	5 .89648	4 .87720	3 .75357	3 .88474	3 .97030
2.2		18 .75168	10 .81247	7 .83878	5 .80226	4 .79154	4 .91150	3 .80244	3 .91552	3 .98119
2.4		17 .76702	9 .79476	6 .78470	5 .84545	4 .83516	4 .93666	3 .84230	3 .93828	3 .98810
2.6		16 .77573	8 .76271	6 .82683	5 .88007	4 .87045	4 .95493	3 .87454	3 .95500	3 .99248
2.8		15 .77839	8 .80407	6 .86161	4 .75631	4 .89870	3 .78666	3 .90045	3 .96725	3 .99525
3.0		14 .77156	7 .75328	5 .77560	4 .79416	4 .92114	3 .82003	3 .92117	3 .97619	3 .99700
3.5		12 .76682	7 .83651	5 .83372	4 .86716	3 .75758	3 .88342	3 .95629	3 .98931	3 .99905
4.0		11 .78785	6 .80727	4 .75487	4 .91579	3 .82397	3 .92515	3 .97590	3 .99521	3 .99970
4.5		10 .79381	6 .86400	4 .81784	4 .94732	3 .87319	3 .95221	3 .98675	3 .99786	3 .99991
5.0		9 .78568	5 .79843	4 .86610	3 .78493	3 .90915	3 .96959	3 .99273	3 .99904	3 .99997

Table II. Sampling Plans for the Quantiles of IFR Distributions

q	P* = .75 c = 3								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	51 .76356	25 .76601	16 .75414	12 .77466	10 .82813	8 .82633	7 .81356	6 .90112	5 .91854
1.1	46 .75594	23 .76993	15 .76949	11 .80743	9 .80743	7 .77475	6 .80452	5 .79678	4 .94634
1.2	42 .75096	21 .76245	14 .77531	10 .75118	8 .76702	7 .82718	6 .85238	5 .84443	4 .77051
1.3	39 .75298	20 .78026	13 .77212	10 .80286	8 .81670	7 .86890	6 .88968	5 .88193	4 .81410
1.4	37 .76593	18 .75283	12 .75962	9 .76705	8 .85722	6 .78521	5 .76700	5 .91104	4 .85002
1.5	34 .75277	17 .75679	12 .80390	9 .81039	7 .79426	6 .82582	5 .80828	5 .93337	4 .87938
1.6	32 .75336	16 .75482	11 .77988	8 .75541	7 .83197	6 .85969	5 .84312	5 .95035	4 .90325
1.7	31 .77161	16 .79443	11 .81729	8 .79448	7 .86365	6 .88764	5 .87225	4 .76484	4 .92255
1.8	29 .76278	15 .78476	10 .78172	8 .82830	6 .76769	5 .75321	5 .89642	4 .79686	4 .93810
1.9	28 .77399	14 .76908	10 .81504	8 .85730	6 .80119	5 .78683	5 .91632	4 .82490	4 .95059
2.0	26 .75563	14 .80183	9 .76538	7 .78335	6 .83057	5 .81651	5 .93262	4 .84935	4 .96060
2.2	24 .76222	13 .80815	9 .82431	7 .83921	6 .87827	5 .86527	5 .95667	4 .88898	4 .97500
2.4	22 .75777	12 .80451	8 .78550	6 .75631	5 .75870	5 .90208	4 .79546	4 .91856	4 .98417
2.6	21 .77750	11 .79040	8 .83307	6 .80620	5 .80708	5 .92943	4 .83632	4 .94046	4 .98999
2.8	19 .75424	10 .76399	7 .76882	6 .84722	5 .84690	5 .94948	4 .86952	4 .95657	4 .99368
3.0	18 .76075	10 .80773	7 .81153	6 .88049	5 .87927	4 .76754	4 .89630	4 .96838	4 .99601
3.5	16 .77634	9 .82161	6 .76805	5 .80251	5 .93479	4 .84766	4 .94215	4 .98577	4 .99874
4.0	14 .76511	8 .81111	6 .84591	5 .87149	4 .77248	4 .90147	4 .96799	4 .99362	4 .99960
4.5	13 .78653	7 .77234	6 .90003	5 .91797	4 .83460	4 .93679	4 .98237	4 .99714	4 .99987
5.0	12 .79434	7 .83528	5 .80104	5 .94840	4 .88079	4 .95967	4 .99032	4 .99872	4 .99996

Table II. Sampling Plans for the Quantiles of IFR Distributions

		p* = .75 n = 4								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	62 .75526	31 .77127	20 .76249	15 .78272	12 .80615	10 .83376	8 .80990	7 .85191	6 .88574	
1.1	57 .76142	28 .76053	19 .78955	14 .79191	11 .79577	9 .80202	8 .86291	7 .89909	6 .92369	
1.2	52 .75507	26 .76533	17 .76037	13 .78990	10 .76885	9 .82563	7 .78530	6 .78827	6 .94964	
1.3	48 .75243	24 .75962	16 .76752	12 .77638	10 .82333	8 .79883	7 .83605	6 .83967	5 .77330	
1.4	45 .75737	23 .77958	15 .76625	12 .82651	9 .77585	8 .84509	7 .87624	6 .87564	5 .81618	
1.5	42 .75472	21 .75589	14 .75641	11 .79914	9 .82223	7 .75019	7 .90750	6 .90588	5 .81158	
1.6	40 .76455	20 .76323	14 .80257	10 .75599	9 .86041	7 .79512	6 .78659	6 .92923	5 .88056	
1.7	38 .76928	19 .76522	13 .78221	10 .79910	8 .79153	7 .83322	6 .82428	6 .94709	5 .90414	
1.8	36 .76919	18 .76195	12 .75151	10 .83589	8 .82852	7 .86515	6 .85611	5 .75288	5 .92323	
1.9	34 .76411	17 .75325	12 .79073	9 .77597	8 .85988	7 .89163	6 .88274	5 .78614	5 .93862	
2.0	32 .75396	17 .79064	12 .82491	9 .81096	7 .75641	6 .75278	6 .90485	5 .81537	5 .95099	
2.2	30 .77329	15 .75356	11 .81500	8 .75813	7 .82034	6 .81519	6 .93801	5 .86321	5 .96885	
2.4	27 .75320	14 .75716	10 .78924	8 .81758	7 .86960	6 .86366	5 .75123	5 .89926	5 .98025	
2.6	25 .75021	14 .81361	10 .84103	8 .86444	7 .90664	6 .90049	5 .79977	5 .92614	5 .98750	
2.8	24 .77208	13 .80303	9 .79582	7 .77843	6 .79145	6 .92802	5 .83965	5 .94602	5 .99210	
3.0	22 .75179	12 .78212	9 .83981	7 .82338	6 .83348	6 .94832	5 .87210	5 .96064	5 .99501	
3.5	20 .78671	11 .81192	8 .82886	7 .90331	6 .90781	5 .81335	5 .92821	5 .98224	5 .99842	
4.0	18 .79650	10 .81726	7 .77668	6 .82329	6 .95051	5 .87839	5 .96015	5 .99203	5 .99950	
4.5	16 .78365	9 .79950	7 .85045	6 .88497	5 .79772	5 .92163	5 .97801	5 .99643	5 .99984	
5.0	15 .80412	8 .75283	7 .90224	6 .92653	5 .85322	5 .94984	5 .98791	5 .99840	5 .99995	

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .75				c = 5				
q		.1	.2	.3	.4	.5	.6	.7	.8	.9
λ										
1.0		73 .75008	36 .75363	24 .77119	18 .79124	14 .78802	11 .75350	10 .84973	8 .79692	7 .8.031
1.1		67 .75526	33 .75440	22 .76817	16 .75404	13 .78756	11 .82478	9 .80320	8 .85833	7 .89866
1.2		62 .76034	31 .76962	21 .79426	15 .75988	12 .77233	10 .78751	9 .85978	8 .90309	7 .93240
1.3		57 .75385	29 .77495	19 .76557	14 .75417	12 .83075	10 .84303	8 .77666	7 .78967	7 .95543
1.4		53 .75196	27 .77089	18 .77359	14 .81118	11 .79788	9 .77983	8 .82826	7 .83762	6 .78368
1.5		50 .75822	25 .75703	17 .77393	13 .79131	11 .84524	9 .82866	8 .86953	7 .87583	6 .82465
1.6		47 .75749	24 .77198	16 .76659	12 .75839	10 .79390	9 .86821	8 .90192	7 .90582	6 .85844
1.7		45 .76926	23 .78170	15 .75099	12 .80490	10 .83606	8 .77308	7 .77416	7 .92906	6 .88610
1.8		42 .75600	22 .78664	15 .79598	11 .75631	9 .75843	8 .81388	7 .81328	7 .94687	6 .90860
1.9		40 .75756	21 .78703	14 .77049	11 .79800	9 .79919	8 .84845	7 .84654	7 .96041	6 .92680
2.0		38 .75446	20 .78288	14 .80935	11 .83386	9 .83427	8 .87740	7 .87452	6 .78276	6 .94148
2.2		35 .75984	18 .75994	13 .80886	10 .80354	8 .76688	7 .76310	7 .91721	6 .89818	6 .96274
2.4		32 .75123	17 .77472	12 .79432	10 .86071	8 .81964	7 .82266	7 .94615	6 .88037	6 .97631
2.6		30 .75890	16 .77963	11 .76312	9 .80522	8 .86838	7 .86898	6 .76481	6 .91203	6 .98502
2.8		28 .75722	15 .77512	11 .81844	9 .85380	8 .90528	7 .90425	6 .81080	6 .93557	6 .99053
3.0		27 .78016	14 .76069	10 .76665	8 .76070	7 .78539	7 .93066	6 .84855	6 .95295	6 .99402
3.5		23 .75911	13 .80545	9 .75887	8 .86394	7 .87830	6 .78043	6 .91449	6 .97872	6 .99810
4.0		21 .78239	12 .82430	9 .85228	7 .77294	7 .93353	6 .85590	6 .95237	6 .99044	6 .99940
4.5		19 .78318	11 .82221	8 .79497	7 .84934	6 .76246	6 .90670	6 .97367	6 .99571	6 .99981
5.0		17 .76157	10 .79830	8 .86251	7 .90233	6 .82655	6 .94011	6 .98551	6 .99808	6 .99994

Table II. Sampling Plans for the Quantiles of IFR Distributions

q	$P^* = .90 \quad c = 0$								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
1.0	22 .90152	11 .91410	7 .91765	5 .92224	4 .93750	3 .93600	2 .91000	2 .96000	1 .90000
1.1	20 .90152	10 .91410	6 .90502	5 .93977	4 .95263	3 .95138	2 .92926	2 .97101	1 .92057
1.2	19 .90948	9 .91018	6 .92332	4 .91386	3 .91753	3 .96307	2 .94440	2 .97899	1 .93690
1.3	17 .90256	8 .90179	5 .90157	4 .92979	3 .93301	2 .90767	2 .95630	2 .98477	1 .94988
1.4	16 .90559	8 .91785	5 .91765	4 .94277	3 .94559	2 .92313	2 .96565	2 .98896	1 .96019
1.5	15 .90658	7 .90396	5 .93110	4 .95334	3 .95581	2 .93600	2 .97300	1 .91056	1 .96838
1.6	14 .90559	7 .91785	5 .94235	3 .91388	3 .96410	2 .94672	2 .97878	1 .92385	1 .97488
1.7	13 .90256	7 .92973	4 .91136	3 .92611	2 .90527	2 .95564	2 .98332	1 .93517	1 .98005
1.8	13 .91503	6 .91018	4 .92332	3 .93661	2 .91753	2 .96307	2 .98689	1 .94481	1 .98415
1.9	12 .90948	6 .92144	4 .93351	3 .94562	2 .92821	2 .96925	2 .98969	1 .95302	1 .98741
2.0	11 .90152	6 .93128	4 .94235	3 .95334	2 .93750	2 .97440	1 .91000	1 .96000	1 .99000
2.2	10 .90152	5 .91410	3 .90502	3 .96566	2 .95263	2 .98226	1 .92926	1 .97101	1 .99369
2.4	10 .92023	5 .93128	3 .92332	2 .91388	2 .96410	2 .98770	1 .94440	1 .97899	1 .99602
2.6	9 .91503	4 .90179	3 .93809	2 .92979	2 .97280	1 .90767	1 .95630	1 .98477	1 .99749
2.8	8 .90559	4 .91785	3 .95002	2 .94277	2 .97938	1 .92313	1 .96565	1 .98896	1 .99842
3.0	8 .92023	4 .93128	3 .95965	2 .95334	2 .98438	1 .93600	1 .97300	1 .99200	1 .99900
3.5	7 .92433	3 .90396	2 .91765	2 .97201	1 .91161	1 .95952	1 .98521	1 .99642	1 .99968
4.0	6 .92023	3 .93128	2 .94235	2 .98320	1 .93750	1 .97440	1 .99190	1 .99840	1 .99990
4.5	5 .90658	3 .95083	2 .95965	2 .98992	1 .95581	1 .98381	1 .99556	1 .99928	1 .99997
5.0	5 .92821	3 .96482	2 .97175	1 .92224	1 .96875	1 .98976	1 .99757	1 .99680	1 .99999

Table II. Sampling Plans for the Quantiles of IFR Distributions

		$P^* = .90 \quad c = 1$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	38 .90470	18 .90092	12 .91497	9 .92946	7 .93750	5 .91296	4 .91300	4 .97280	3 .97200	
1.1	35 .90823	17 .91171	11 .91606	8 .92151	6 .91896	5 .93718	4 .93975	3 .92290	3 .98207	
1.2	32 .90705	16 .91851	10 .91222	7 .90523	6 .94026	5 .95489	4 .95683	3 .94306	3 .98856	
1.3	29 .90099	14 .90160	9 .90281	7 .92724	5 .90817	4 .91335	4 .96918	3 .95807	2 .90227	
1.4	27 .90139	13 .90064	9 .92369	6 .90050	5 .92816	4 .93247	3 .90968	3 .96921	2 .92196	
1.5	26 .91047	13 .92049	8 .90782	6 .92029	5 .94397	4 .94752	3 .92787	3 .97743	2 .93775	
1.6	24 .90541	12 .91525	8 .92554	6 .93631	5 .95642	4 .95932	3 .94252	3 .98349	2 .95039	
1.7	23 .91043	11 .90639	7 .90194	6 .94924	5 .91029	4 .96853	3 .95427	3 .98784	2 .96049	
1.8	22 .91375	11 .92240	7 .91840	5 .91394	4 .92567	3 .90340	3 .96367	3 .99120	2 .96855	
1.9	20 .90087	10 .90949	7 .93222	5 .92821	4 .93852	3 .91854	3 .97118	2 .90824	2 .97498	
2.0	19 .90042	10 .92362	7 .94380	5 .94021	4 .94922	3 .93139	3 .97716	2 .92160	2 .98010	
2.2	18 .91219	9 .91918	6 .92647	5 .93870	4 .96550	3 .95149	3 .98570	2 .94286	2 .98742	
2.4	16 .90197	8 .90811	6 .94635	4 .92115	3 .90591	3 .96583	3 .99107	2 .95842	2 .99205	
2.6	15 .90594	8 .92969	5 .91630	4 .94038	3 .92736	3 .97600	2 .91450	2 .96977	2 .99498	
2.8	14 .90667	7 .91081	5 .93507	4 .95506	3 .94407	3 .98318	2 .93248	2 .97805	2 .99683	
3.0	13 .90421	7 .92924	5 .94978	4 .96622	3 .95703	3 .98824	2 .94673	2 .98406	2 .99800	
3.5	12 .92396	6 .92527	4 .92581	3 .92339	3 .97794	2 .92068	2 .97064	2 .99286	2 .99937	
4.0	10 .90774	5 .90538	4 .95460	3 .95397	3 .98877	2 .94946	2 .98387	2 .99680	2 .99980	
4.5	9 .90942	5 .93633	4 .97246	3 .97179	2 .91356	2 .96788	2 .99115	2 .99857	2 .99994	
5.0	8 .90321	5 .95747	3 .92475	3 .98280	2 .93848	2 .97963	2 .99515	2 .99936	2 .99998	

Table II. Sampling Plans for the Quantiles of IFR Distributions

q	P* = .90 c = 2								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	52 .90337	25 .90177	16 .90064	12 .91656	9 .91016	7 .90374	6 .92953	5 .94208	4 .94770
1.1	47 .90048	23 .90470	15 .90979	11 .91610	9 .93891	7 .93379	6 .95334	5 .96239	4 .96603
1.2	44 .90748	21 .90156	14 .91394	10 .90931	8 .92461	6 .90017	5 .91089	5 .97578	4 .97808
1.3	40 .90117	20 .91160	13 .91366	10 .93415	8 .94629	6 .92642	5 .93489	4 .92296	4 .98592
1.4	38 .90877	19 .91815	12 .90892	9 .92041	7 .92272	6 .94614	5 .95272	4 .94268	4 .99099
1.5	35 .90323	17 .90116	12 .93075	9 .94020	7 .94199	6 .96081	5 .96585	4 .95753	3 .90810
1.6	33 .90460	16 .90100	11 .92106	8 .91916	6 .90324	5 .91566	5 .97545	4 .96864	3 .92652
1.7	31 .90316	16 .92517	10 .90551	8 .93691	6 .92318	5 .93360	4 .91632	4 .97691	3 .94133
1.8	30 .91129	15 .91762	10 .92431	7 .90497	6 .93925	5 .94791	4 .93283	4 .98304	3 .95320
1.9	28 .90519	14 .91074	9 .90224	7 .92278	6 .95213	5 .95927	4 .94622	4 .98757	3 .96271
2.0	27 .90990	13 .90029	9 .91961	7 .93745	6 .96240	5 .96824	4 .95704	4 .99090	3 .97030
2.2	24 .90008	12 .90292	8 .90553	6 .90785	5 .92674	4 .91150	4 .97273	3 .91552	3 .98119
2.4	23 .91490	12 .93104	8 .93298	6 .93459	5 .94985	4 .93666	4 .98280	3 .93828	3 .98810
2.6	21 .90962	11 .92613	7 .90794	6 .95395	5 .96550	4 .95493	4 .98920	3 .95500	3 .99248
2.8	20 .91719	10 .91572	7 .93121	5 .90751	5 .97641	4 .96807	3 .90045	3 .96725	3 .99525
3.0	18 .90250	10 .93636	7 .94892	5 .92905	4 .92114	4 .97747	3 .92117	3 .97619	3 .99700
3.5	16 .91236	8 .90387	6 .93939	5 .96413	4 .95847	4 .99069	3 .95629	3 .98931	3 .99905
4.0	14 .90868	8 .94398	5 .90665	4 .91579	4 .97847	3 .92515	3 .97590	3 .99521	3 .99970
4.5	13 .92089	7 .92374	5 .94140	4 .94732	4 .98896	3 .95221	3 .98675	3 .99786	3 .99991
5.0	12 .92621	6 .90535	5 .96369	4 .96737	3 .90915	3 .96959	3 .99257	3 .99904	3 .99997

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .90 c = 3								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	65 .90045	32 .90691	21 .91439	15 .90910	12 .92700	9 .90065	8 .94203	6 .90112	5 .91894	
1.1	60 .90585	29 .90345	19 .90909	14 .91593	11 .92438	9 .93472	7 .91376	6 .93419	5 .94634	
1.2	55 .90487	27 .90793	18 .91943	13 .91661	10 .91412	8 .91238	7 .94181	6 .95674	5 .90498	
1.3	51 .90578	25 .90712	17 .92532	12 .91166	10 .94054	8 .93897	7 .96120	6 .97185	5 .97731	
1.4	47 .90161	23 .90090	15 .90038	11 .90013	9 .92231	7 .90152	6 .91830	5 .91104	5 .98538	
1.5	44 .90189	22 .90936	15 .92531	11 .92600	9 .94378	7 .92666	6 .93996	5 .93337	4 .99062	
1.6	42 .90843	21 .91477	14 .92153	10 .90742	8 .91555	7 .94579	6 .95617	5 .95035	4 .90325	
1.7	39 .90179	20 .91756	13 .91255	10 .92918	8 .93576	7 .96020	6 .96819	5 .96316	4 .92244	
1.8	37 .90271	19 .91795	13 .93246	9 .90206	8 .95144	6 .91049	6 .97702	5 .97277	4 .93810	
1.9	35 .90103	18 .91597	12 .91917	9 .92237	7 .91169	6 .92903	5 .91632	5 .97993	4 .95058	
2.0	34 .90944	17 .91146	12 .93620	9 .93879	7 .92944	6 .94396	5 .93262	5 .98524	4 .96060	
2.2	31 .90872	16 .92166	11 .93373	8 .92029	7 .95552	6 .96544	5 .95667	5 .99207	4 .97500	
2.4	28 .90039	15 .92664	10 .92438	8 .94696	6 .91364	5 .90208	5 .97238	4 .91856	4 .98417	
2.6	26 .90089	14 .92720	9 .90547	7 .91480	6 .93937	5 .92943	5 .98252	4 .94046	4 .98999	
2.8	25 .91364	13 .92343	9 .93185	7 .93895	6 .95781	5 .94948	5 .98899	4 .95657	4 .99368	
3.0	23 .90567	12 .91469	8 .90179	7 .93664	6 .97086	5 .96404	5 .99310	4 .96838	4 .99601	
3.5	20 .90676	11 .93225	8 .95158	6 .93709	5 .93479	5 .98490	4 .94215	4 .98577	4 .99874	
4.0	18 .91373	10 .93776	7 .92922	6 .96789	5 .96560	4 .90147	4 .96799	4 .99362	4 .99960	
4.5	16 .90872	9 .93356	6 .90003	5 .91797	5 .98214	4 .93679	4 .98237	4 .99714	4 .99987	
5.0	15 .92095	8 .91772	6 .93635	5 .94840	5 .99083	4 .95967	4 .99032	4 .99872	4 .99996	

Table II. Sampling Plans for the Quantiles of IFR Distributions

		$P^* = .90 \quad c = 4$								
q	λ	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0		78 .90061	38 .90143	25 .90953	18 .90583	14 .91088	11 .90065	9 .90119	8 .94372	7 .97431
1.1		72 .90643	35 .90500	23 .91099	17 .91818	13 .91834	11 .93754	9 .93756	8 .96704	6 .92369
1.2		66 .90524	32 .90107	21 .90481	16 .92454	12 .90700	10 .92376	8 .90490	7 .93232	6 .94964
1.3		61 .90462	30 .90584	20 .91554	15 .92601	12 .93737	10 .94975	8 .93503	7 .95521	6 .96708
1.4		57 .90630	28 .90563	19 .92192	14 .92281	11 .92426	9 .92666	8 .95619	7 .97068	6 .97864
1.5		53 .90335	26 .90040	18 .92470	13 .91438	10 .90081	9 .94871	7 .90750	6 .90588	6 .98622
1.6		50 .90505	25 .90995	17 .92420	13 .93809	10 .92692	8 .91101	7 .93147	6 .92923	6 .99115
1.7		47 .90324	24 .91652	16 .92036	12 .92437	10 .94668	8 .93345	7 .94960	6 .94709	5 .90414
1.8		45 .90835	23 .92057	15 .91270	11 .90220	9 .91614	8 .95061	7 .96318	6 .96063	5 .92323
1.9		42 .90012	21 .90055	14 .90032	11 .92432	9 .93573	8 .96360	7 .97325	6 .97882	5 .93862
2.0		40 .90005	21 .92215	14 .92184	11 .94185	9 .95107	7 .91337	6 .90485	6 .97845	5 .95099
2.2		37 .90580	19 .91514	13 .92374	10 .93162	8 .92610	7 .94543	6 .93801	6 .98834	5 .96885
2.4		34 .90448	18 .92508	12 .91885	9 .90899	8 .95288	7 .96616	6 .96008	6 .99374	5 .98025
2.6		32 .91108	16 .90178	11 .90595	9 .93847	7 .90664	6 .90049	6 .97453	5 .92614	5 .98750
2.8		30 .91307	15 .90090	11 .93449	8 .90055	7 .93392	6 .92802	6 .98386	5 .94602	5 .99210
3.0		28 .91071	15 .92895	10 .91310	8 .92785	7 .95369	6 .94832	6 .98983	5 .96064	5 .99501
3.5		24 .90449	13 .92195	9 .91636	7 .90331	6 .90781	6 .97796	5 .92821	5 .98224	5 .99842
4.0		22 .92007	12 .93419	9 .95838	7 .94915	6 .95051	6 .99082	5 .96015	5 .99203	5 .99950
4.5		19 .90007	11 .93631	8 .94291	7 .97404	6 .97399	5 .92163	5 .97801	5 .99643	5 .99984
5.0		18 .91871	10 .92908	7 .90224	6 .92653	6 .98653	5 .94984	5 .98791	5 .99840	5 .99995

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .90 c = 5								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	91 .90242	45 .90980	29 .90682	21 .90426	17 .92827	13 .90233	11 .92178	9 .91436	8 .96191	
1.1	83 .90266	41 .90795	27 .91418	20 .92158	15 .90243	13 .94119	10 .90182	9 .94853	8 .97930	
1.2	76 .90066	38 .91050	25 .91453	18 .90476	14 .90217	12 .93386	10 .93737	8 .90309	7 .93240	
1.3	71 .90528	35 .90639	23 .90792	17 .91003	14 .93585	11 .91732	9 .90192	8 .93478	7 .95543	
1.4	66 .90442	33 .91113	22 .91836	16 .91005	13 .92736	11 .94480	9 .93248	8 .95670	7 .97088	
1.5	62 .90624	31 .91142	21 .92479	15 .90480	12 .91110	10 .91834	9 .95415	8 .97158	7 .98111	
1.6	58 .90375	29 .90729	19 .90124	15 .93223	12 .93695	10 .94428	8 .90192	7 .90582	7 .98782	
1.7	55 .90611	28 .91717	19 .92802	14 .92152	11 .91263	10 .95967	8 .92694	7 .92906	7 .99218	
1.8	52 .90523	26 .90553	18 .92516	13 .90399	11 .93542	9 .92434	8 .94602	7 .94867	6 .90860	
1.9	49 .90103	25 .91023	17 .91902	13 .92743	11 .95271	9 .94341	8 .96039	7 .96041	6 .92680	
2.0	47 .90454	24 .91259	16 .90888	12 .90298	10 .92187	9 .95798	8 .97111	7 .97062	6 .94148	
2.2	43 .90490	22 .91078	15 .91566	12 .94150	10 .95410	8 .92114	7 .91721	7 .98398	6 .96274	
2.4	40 .90949	21 .92519	14 .91539	11 .92899	9 .92764	8 .95024	7 .94615	7 .99136	6 .97635	
2.6	37 .90772	19 .90910	13 .90799	10 .90316	9 .95358	8 .96909	7 .96536	6 .91203	6 .98502	
2.8	35 .91416	18 .91359	13 .93803	10 .93382	8 .90528	7 .90425	7 .97792	6 .93557	6 .99053	
3.0	32 .90071	17 .91367	12 .92337	10 .95544	8 .93265	7 .93066	7 .98601	6 .95295	6 .99402	
3.5	28 .90418	15 .91358	11 .93562	9 .95137	8 .97246	7 .96996	6 .91449	6 .97872	6 .99810	
4.0	25 .90744	14 .93236	10 .93290	8 .92631	7 .93353	7 .98737	6 .95237	6 .99044	6 .99940	
4.5	23 .91796	13 .93992	9 .91319	8 .96152	7 .96464	6 .90670	6 .97367	6 .99571	6 .99981	
5.0	21 .91830	12 .93905	9 .95065	7 .90233	7 .98153	6 .94011	6 .98551	6 .99808	6 .99994	

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .95 c = 0								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	29 .95290	14 .95602	9 .95965	6 .95334	5 .96875	4 .97440	3 .97300	2 .96000	2 .99000	
1.1	26 .95087	13 .95887	8 .95666	6 .96566	4 .95263	3 .95138	3 .98119	2 .97101	2 .99369	
1.2	24 .95190	12 .95977	7 .95002	5 .95334	4 .96401	3 .96307	3 .98689	2 .97899	2 .99602	
1.3	22 .95087	11 .95887	7 .96106	5 .96386	4 .97280	3 .97194	2 .95630	2 .98477	2 .99749	
1.4	21 .95484	10 .95602	6 .95002	5 .97201	4 .97938	3 .97869	2 .96565	2 .98856	1 .96015	
1.5	19 .95035	9 .95083	6 .95965	4 .95334	3 .95581	3 .98381	2 .97300	2 .99200	1 .96838	
1.6	18 .95190	9 .95977	6 .96742	4 .96197	3 .96410	3 .98770	2 .97878	2 .99420	1 .97488	
1.7	17 .95240	8 .95191	5 .95177	4 .96900	3 .97084	2 .95564	2 .98332	2 .99580	1 .98005	
1.8	16 .95190	8 .95977	5 .95565	4 .97473	3 .97632	2 .96307	2 .98689	2 .99695	1 .98115	
1.9	15 .95035	8 .96635	5 .96624	4 .97940	3 .98076	2 .96925	2 .98969	1 .95302	1 .98742	
2.0	15 .95761	7 .95602	5 .97175	3 .95334	3 .98437	2 .97440	2 .99190	1 .96000	1 .99000	
2.2	13 .95087	7 .96782	4 .95666	3 .96566	2 .95263	2 .98226	2 .99500	1 .97101	1 .99369	
2.4	12 .95190	6 .95977	4 .96742	3 .97473	2 .96410	2 .98770	2 .95691	1 .97899	1 .99602	
2.6	11 .95087	6 .96922	4 .97551	3 .98140	2 .97280	2 .99147	1 .95630	1 .98477	1 .99749	
2.8	11 .96104	5 .95602	3 .95002	3 .98631	2 .97938	2 .99409	1 .96565	1 .98856	1 .99842	
3.0	10 .95761	5 .96482	3 .95965	2 .95334	2 .98438	2 .99591	1 .97300	1 .99200	1 .99900	
3.5	9 .96381	4 .95602	3 .97637	2 .97201	2 .99215	1 .95952	1 .98521	1 .99642	1 .99568	
4.0	8 .96566	4 .97185	3 .98616	2 .98320	2 .99609	1 .97440	1 .95190	1 .99840	1 .99990	
4.5	7 .96381	3 .95083	2 .95965	2 .98992	1 .95581	1 .98381	1 .99556	1 .99928	1 .99997	
5.0	6 .95761	3 .96482	2 .97175	2 .99395	1 .96875	1 .98976	1 .99757	1 .99968	1 .99999	

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .95 \quad c = 1$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
1.0	46 .95200	22 .95204	14 .95252	10 .95364	8 .96484	6 .95904	5 .96922	4 .97280	3 .97200
1.1	42 .95261	20 .95157	13 .95584	9 .95045	7 .95669	6 .97296	5 .98030	4 .98278	3 .98207
1.2	39 .95483	19 .95782	12 .95643	9 .96539	7 .97015	5 .95489	4 .95683	4 .98914	3 .98856
1.3	36 .95462	17 .95150	11 .95436	8 .95790	6 .95614	5 .96774	4 .96918	3 .95807	3 .99272
1.4	33 .95197	16 .95366	11 .96656	8 .96935	6 .96793	5 .97701	4 .97807	3 .96921	3 .99537
1.5	31 .95299	15 .95405	10 .96166	7 .95756	6 .97662	5 .98366	4 .98444	3 .97743	3 .99706
1.6	29 .95237	14 .95271	9 .95340	7 .96774	5 .95642	4 .95932	4 .98898	3 .98349	2 .95039
1.7	27 .95002	14 .96317	9 .96373	7 .97553	5 .96618	4 .96853	3 .95427	3 .98794	2 .96049
1.8	26 .95358	13 .95991	8 .95177	6 .95962	5 .97381	4 .97570	3 .96367	3 .99120	2 .96855
1.9	25 .95613	12 .95472	8 .96130	6 .96795	5 .97975	4 .98127	3 .97118	3 .99358	2 .97498
2.0	24 .95782	12 .96340	8 .96901	6 .97460	5 .98437	4 .98558	3 .97716	3 .99633	2 .98010
2.2	21 .95017	11 .96400	7 .96155	5 .95870	4 .96550	3 .95149	3 .98570	3 .99753	2 .98742
2.4	20 .95702	10 .96183	7 .97383	5 .97162	4 .97666	3 .96583	3 .99107	2 .95842	2 .99205
2.6	18 .95182	9 .95639	6 .96103	5 .98058	4 .98427	3 .97600	3 .99444	2 .96977	2 .99498
2.8	17 .95465	9 .96817	6 .97180	4 .95506	4 .98943	3 .98318	3 .99654	2 .97805	2 .99683
3.0	16 .95579	8 .95927	6 .97966	4 .96622	3 .95703	3 .98824	3 .99785	2 .98406	2 .99800
3.5	14 .95852	7 .96078	5 .97387	4 .98362	3 .97794	3 .99522	2 .97064	2 .99286	2 .99931
4.0	12 .95362	6 .95444	4 .95460	3 .95397	3 .98877	3 .99807	2 .98387	2 .99680	2 .99980
4.5	11 .95832	6 .97249	4 .97246	3 .97179	3 .99431	2 .96788	2 .99115	2 .99857	2 .99994
5.0	10 .95910	5 .95747	4 .98340	3 .98280	3 .99713	2 .97963	2 .99511	2 .99936	2 .99998

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .95$ $c = 2$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
1.0	61 .95088	30 .95582	19 .95378	14 .96021	11 .96729	8 .95019	7 .97120	6 .98304	5 .99144
1.1	56 .95273	27 .95277	18 .96147	13 .96292	10 .96519	8 .96861	6 .95334	5 .96239	4 .96603
1.2	51 .95086	25 .95425	16 .95352	12 .96270	9 .95890	7 .95491	6 .96940	5 .97578	4 .97808
1.3	47 .95008	23 .95266	15 .95576	11 .95950	9 .97261	7 .96956	6 .98010	5 .98451	4 .98592
1.4	44 .95158	22 .95844	14 .95561	10 .95256	8 .96203	7 .97960	5 .95272	5 .99015	4 .99099
1.5	41 .95081	20 .95175	13 .95304	10 .96605	8 .97333	6 .96081	5 .96585	4 .95753	4 .99425
1.6	39 .95375	19 .95399	13 .96570	9 .95532	7 .95669	6 .97163	5 .97545	4 .96864	4 .99634
1.7	37 .95514	18 .95467	12 .96065	9 .96680	7 .96783	6 .97956	5 .98241	4 .97691	4 .99767
1.8	35 .95512	17 .95384	11 .95245	8 .95098	7 .97620	6 .98533	5 .98745	4 .98304	3 .95320
1.9	33 .95369	16 .95142	11 .96334	8 .96206	6 .95213	5 .95927	5 .99107	4 .98757	3 .96271
2.0	31 .95072	16 .96199	10 .95200	8 .97074	6 .96240	5 .96824	4 .95704	4 .99090	3 .97030
2.2	29 .95642	14 .95192	10 .96996	7 .95934	6 .97700	5 .98083	4 .97273	4 .99515	3 .98119
2.4	26 .95062	13 .95326	9 .96430	7 .97383	6 .98607	5 .98053	4 .98280	4 .99742	3 .98810
2.6	25 .95897	12 .95146	8 .95286	6 .95395	5 .96550	4 .95493	4 .98920	3 .95500	3 .99248
2.8	23 .95628	12 .96611	8 .96710	6 .96780	5 .97641	4 .96807	4 .99324	3 .96725	3 .99525
3.0	21 .95045	11 .96105	8 .97719	6 .97762	5 .98395	4 .97747	4 .95578	3 .97619	3 .99700
3.5	19 .95006	10 .97119	7 .96738	5 .98224	4 .97847	4 .99620	3 .97590	3 .99521	3 .99570
4.0	15 .95006	8 .97119	6 .96738	5 .98224	4 .97847	3 .99620	3 .97590	3 .99521	3 .99970
4.5	15 .96026	8 .96800	6 .98277	5 .99135	4 .98096	3 .95221	3 .98675	3 .99786	3 .99991
5.0	14 .96587	7 .95791	5 .96369	4 .96737	4 .99438	3 .96959	3 .99273	3 .99904	3 .99997

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .99$ $c = 3$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
1.0	76 .95303	37 .95501	24 .95760	17 .95358	13 .95386	11 .97072	9 .97471	7 .96666	6 .98415
1.1	60 .95218	34 .95661	22 .95796	16 .95997	12 .95430	10 .96700	8 .96460	7 .98098	6 .99166
1.2	63 .95062	21 .95420	20 .95403	15 .96300	11 .95025	9 .95777	8 .97871	6 .95674	5 .96438
1.3	59 .95380	29 .95647	19 .95961	14 .96332	11 .96775	9 .97304	7 .96120	6 .97185	5 .97731
1.4	55 .95427	27 .95606	18 .96273	13 .96098	10 .95931	8 .95795	7 .97438	6 .98184	5 .98338
1.5	51 .95210	25 .95290	17 .96388	12 .95548	10 .97243	8 .97130	7 .98323	6 .98837	5 .99062
1.6	48 .95298	24 .95783	16 .96324	12 .96884	9 .95966	8 .98057	6 .95617	5 .95035	5 .99400
1.7	45 .95103	23 .96111	15 .96071	11 .96037	9 .97127	7 .96020	6 .96819	5 .96316	5 .99617
1.8	43 .95353	21 .95150	14 .95592	11 .97131	8 .95144	7 .97095	6 .97702	5 .97277	5 .99157
1.9	41 .95464	20 .95174	14 .96729	10 .95935	8 .96350	7 .97890	6 .98348	5 .97993	4 .99059
2.0	39 .95445	19 .95052	13 .96043	10 .96946	8 .97210	7 .98475	6 .98817	5 .98524	4 .99010
2.2	35 .95001	18 .95907	12 .96082	9 .96246	7 .95552	6 .96544	5 .95667	5 .99207	4 .97500
2.4	33 .95623	17 .96408	11 .95718	9 .97734	7 .97234	6 .97984	5 .97238	5 .99577	4 .98417
2.6	30 .95126	15 .95033	11 .97272	8 .96516	7 .98301	6 .98729	5 .98252	5 .99775	4 .98999
2.8	28 .95152	15 .96678	10 .96525	8 .97736	6 .95781	6 .99239	5 .98899	4 .95657	4 .99368
3.0	27 .95875	14 .96493	9 .95133	7 .95664	6 .97086	5 .96404	5 .99310	4 .96838	4 .99600
3.5	23 .95469	12 .95980	8 .95158	7 .98212	6 .98875	5 .98450	5 .99788	4 .98577	4 .99874
4.0	20 .95022	11 .96596	8 .97700	6 .96789	5 .96560	5 .99378	4 .96799	4 .99362	4 .99900
4.5	18 .95077	10 .96630	7 .96615	6 .98398	5 .98214	5 .97746	4 .98237	4 .99714	4 .99987
5.0	17 .96065	9 .96095	7 .98184	6 .99214	5 .99083	4 .95967	4 .99032	4 .99872	4 .99996

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .95$ $c = 4$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	89 .95030	44 .95599	28 .95257	21 .96304	16 .96159	13 .96792	10 .95265	9 .98042	7 .97431
1.1	82 .95343	40 .95466	26 .95642	19 .95889	15 .96580	12 .96694	10 .97329	8 .96704	7 .98626
1.2	75 .95218	37 .95582	24 .95620	18 .96469	14 .96667	11 .96157	9 .96131	8 .98104	7 .99275
1.3	69 .95056	34 .95319	22 .95186	16 .95070	13 .96443	11 .97678	9 .97642	7 .95521	6 .96708
1.4	65 .95398	32 .95563	21 .95765	15 .95011	12 .95847	10 .96737	8 .95619	7 .97068	6 .97864
1.5	60 .95018	30 .95519	20 .96106	15 .96683	12 .97284	10 .97909	8 .97079	7 .98099	6 .98622
1.6	57 .95331	28 .95284	19 .96253	14 .96289	11 .96349	9 .96451	8 .98071	7 .98777	6 .99115
1.7	54 .95450	27 .95830	18 .96226	13 .95571	11 .97505	9 .97567	8 .98737	7 .99218	6 .99434
1.8	51 .95386	25 .95123	17 .96021	13 .96861	10 .96143	8 .95061	7 .96318	6 .96063	6 .99639
1.9	48 .95134	24 .95373	16 .95611	12 .95851	10 .97232	8 .96360	7 .97325	6 .97082	6 .99770
2.0	46 .95319	23 .95485	16 .96781	12 .96962	9 .95107	8 .97333	7 .98067	6 .97845	5 .95099
2.2	42 .95311	21 .95324	14 .95286	11 .96631	9 .97213	8 .98591	7 .99002	6 .98834	5 .96885
2.4	39 .95544	20 .96129	13 .95192	10 .95728	8 .95288	7 .96616	6 .96009	6 .99374	5 .98025
2.6	36 .95416	18 .95113	13 .97025	10 .97378	8 .97041	7 .97988	6 .97453	6 .99666	5 .98730
2.8	34 .95757	17 .95336	12 .96502	9 .95898	8 .98166	7 .98744	6 .98386	6 .99823	5 .99210
3.0	32 .95859	16 .95290	11 .95496	9 .97299	7 .95369	7 .99246	6 .98983	5 .96064	5 .99301
3.5	27 .95086	14 .95159	10 .96156	8 .96894	7 .98159	6 .97796	6 .99685	5 .98224	5 .99842
4.0	24 .95211	13 .96232	9 .95838	8 .98721	6 .95051	6 .99882	5 .96015	5 .99803	5 .99930
4.5	22 .95769	12 .96617	9 .98005	7 .97404	6 .97399	6 .99623	5 .97801	5 .99643	5 .99984
5.0	20 .95731	11 .96479	8 .96846	7 .98704	6 .98653	6 .99847	5 .98791	5 .99840	5 .99995

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .95$ $c = 5$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	103 .95205	50 .95197	33 .95861	24 .96003	18 .95187	15 .96617	12 .96140	10 .96121	8 .96111
1.1	94 .95247	46 .95402	30 .95613	22 .95896	17 .95917	14 .96776	11 .96428	10 .98308	8 .96930
1.2	86 .95111	42 .95113	28 .95902	20 .95242	16 .96237	13 .96954	11 .97396	9 .96974	8 .98834
1.3	80 .95271	39 .95132	26 .95831	19 .95792	15 .96225	12 .95871	10 .96089	9 .98273	7 .96543
1.4	74 .95075	37 .95633	24 .95385	18 .96044	14 .95876	12 .97471	10 .97999	8 .96670	7 .97088
1.5	70 .95409	35 .95873	23 .95946	17 .96044	13 .95101	11 .96372	9 .95415	8 .97178	7 .98111
1.6	65 .95038	33 .95887	22 .96288	16 .95791	13 .96744	11 .97648	9 .96923	8 .98173	7 .98782
1.7	62 .95374	31 .95678	21 .96451	15 .95239	12 .95584	10 .96967	9 .97996	8 .98899	7 .99218
1.8	58 .95000	29 .95214	20 .96458	15 .96694	12 .96941	10 .97210	9 .98654	8 .99237	7 .99900
1.9	56 .95508	28 .95647	19 .96307	14 .95880	11 .95271	10 .98087	8 .96039	7 .96041	7 .99981
2.0	53 .95319	27 .95936	18 .95979	14 .97058	11 .96567	9 .97758	8 .97111	7 .97062	7 .99727
2.2	48 .95043	25 .96166	17 .96614	13 .97021	10 .95410	9 .97728	8 .98487	7 .98558	6 .96274
2.4	45 .95983	23 .95972	16 .96890	12 .96565	10 .97367	8 .95024	8 .99221	7 .99136	6 .97639
2.6	41 .95022	21 .95299	15 .96878	11 .95907	9 .95398	8 .96909	7 .96936	7 .99997	6 .96902
2.8	39 .95617	20 .95776	14 .96973	11 .97210	9 .97069	8 .98109	7 .97792	7 .99793	6 .99099
3.0	36 .95118	19 .96001	13 .95895	10 .95544	9 .98174	8 .98890	7 .98601	6 .99295	6 .99402
3.5	32 .95853	17 .96907	12 .96953	9 .95137	8 .97246	7 .96596	7 .95363	6 .97872	6 .99810
4.0	28 .95480	15 .95988	11 .97162	9 .97932	8 .98923	7 .98797	6 .99237	6 .99044	6 .99940
4.5	25 .95220	14 .96695	10 .96662	8 .96152	7 .96463	7 .99478	6 .97367	6 .99971	6 .99981
5.0	23 .95529	13 .96872	9 .95065	8 .98045	7 .98153	7 .99787	6 .98951	6 .99808	6 .99994

Table II. Sampling Plans for the Quantiles of IFR Distributions

 $P^* = .99 \quad c = 0$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	44 .99030	21 .99078	13 .99031	10 .99395	7 .99219	6 .99590	5 .99190	3 .99200	2 .99000
1.1	40 .99030	19 .99057	12 .99098	9 .99364	7 .99519	5 .99352	4 .99500	3 .99506	2 .99365
1.2	37 .99070	18 .99193	11 .99098	8 .99258	6 .99320	5 .99590	4 .99691	3 .99695	2 .99602
1.3	34 .99050	16 .99036	10 .99031	7 .99042	6 .99551	4 .99147	3 .99086	3 .99812	2 .99749
1.4	32 .99109	15 .99078	10 .99322	7 .99330	5 .99219	4 .99405	3 .99363	3 .99884	2 .99842
1.5	30 .99127	14 .99078	9 .99189	7 .99532	5 .99448	4 .99590	3 .99556	2 .99200	2 .99900
1.6	28 .99109	13 .99036	9 .99412	6 .99258	5 .99609	4 .99716	3 .99691	2 .99420	2 .99931
1.7	26 .99050	13 .99278	8 .99218	6 .99454	4 .99103	3 .99066	3 .99785	2 .99580	2 .99560
1.8	25 .99127	12 .99193	8 .99412	6 .99558	4 .99320	3 .99290	3 .99850	2 .99695	2 .99977
1.9	24 .99181	11 .99057	7 .99129	5 .99219	4 .99485	3 .99461	3 .99895	2 .99779	2 .99984
2.0	22 .99030	11 .99262	7 .99322	5 .99395	4 .99609	3 .99590	2 .99190	2 .99840	1 .99000
2.2	20 .99030	10 .99262	6 .99098	5 .99637	4 .99776	3 .99764	2 .99500	2 .99916	1 .99369
2.4	19 .99181	9 .99193	6 .99412	4 .99258	3 .99320	3 .99864	2 .99691	2 .99956	1 .99602
2.6	17 .99050	8 .99036	5 .99031	4 .99507	3 .99551	2 .99147	2 .99809	2 .99977	1 .99749
2.8	16 .99109	8 .99325	5 .99322	4 .99672	3 .99704	2 .99409	2 .99882	2 .99988	1 .99842
3.0	15 .99127	7 .99078	5 .99525	4 .99782	3 .99805	2 .99590	2 .99927	1 .99200	1 .99900
3.5	13 .99172	6 .99078	4 .99322	3 .99532	2 .99219	2 .99836	2 .99978	1 .99642	1 .99968
4.0	11 .99030	6 .99528	4 .99668	3 .99782	2 .99609	2 .99934	1 .99190	1 .99840	1 .99990
4.5	10 .99127	5 .99340	4 .99189	4 .99899	2 .99805	2 .99974	1 .99556	1 .99928	1 .99997
5.0	9 .99128	5 .99622	3 .99525	2 .99395	2 .99902	2 .99990	1 .99757	1 .99968	1 .99999

Table II. Sampling Plans for the Quantiles of IFR Distributions

$P^* = .99 \quad c = 1$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	64 .99044	31 .99133	20 .99236	14 .99190	11 .99414	8 .99148	7 .99621	5 .99328	4 .99630
1.1	58 .99021	28 .99090	18 .99173	13 .99274	10 .99393	8 .99530	6 .99378	5 .99637	4 .99811
1.2	54 .99103	26 .99149	17 .99302	12 .99288	9 .99289	7 .99518	6 .99649	5 .99805	4 .99904
1.3	49 .99003	24 .99140	15 .99061	11 .99236	8 .99060	7 .99592	5 .99205	4 .99318	3 .99272
1.4	46 .99061	22 .99061	14 .99074	10 .99103	8 .99400	6 .99244	5 .99497	4 .99373	3 .99537
1.5	43 .99065	21 .99172	13 .99027	10 .99411	7 .99047	6 .99509	5 .99683	4 .99133	3 .99706
1.6	40 .99016	20 .99241	13 .99340	9 .99209	7 .99353	6 .99682	5 .99801	4 .99833	3 .99814
1.7	38 .99064	19 .99276	12 .99239	9 .99458	7 .99562	5 .99182	4 .99222	4 .99896	3 .99882
1.8	36 .99077	18 .99283	11 .99066	8 .99165	6 .99109	5 .99423	4 .99451	3 .99120	3 .99925
1.9	34 .99055	17 .99261	11 .99325	8 .99401	6 .99356	5 .99594	4 .99613	3 .99358	3 .99973
2.0	33 .99165	16 .99208	10 .99090	8 .99571	6 .99536	5 .99714	4 .99728	3 .99533	3 .99970
2.2	30 .99157	15 .99334	10 .99495	7 .99405	5 .99074	4 .99149	4 .99866	3 .99753	3 .99988
2.4	27 .99050	13 .99033	9 .99405	6 .99013	5 .99453	4 .99500	3 .99107	3 .99869	2 .99205
2.6	25 .99058	12 .99012	8 .99201	6 .99389	5 .99679	4 .99707	3 .99444	3 .99931	2 .99498
2.8	24 .99223	12 .99367	8 .99501	6 .99624	5 .99812	4 .99829	3 .99654	3 .99364	2 .99683
3.0	22 .99123	11 .99272	7 .99195	5 .99100	4 .99292	4 .99900	3 .99785	3 .99980	2 .99800
3.5	19 .99142	10 .99479	6 .99111	5 .99661	4 .99742	3 .99522	3 .99935	2 .99286	2 .99937
4.0	17 .99233	8 .99007	6 .99617	4 .99214	4 .99907	3 .99307	3 .99980	2 .99680	2 .99980
4.5	15 .99176	8 .99519	5 .99317	4 .99626	3 .99431	3 .99922	2 .99115	2 .99857	2 .99994
5.0	14 .99329	7 .99377	5 .99655	4 .99823	3 .99713	3 .99969	2 .99515	2 .99936	2 .99998

Table II. Sampling Plans for the Quantiles of IFR Distributions

P* = .99 c = 2

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	81 .99017	39 .99052	25 .99104	18 .99177	14 .99353	11 .99408	9 .99571	7 .99533	5 .99144
1.1	74 .99041	36 .99131	23 .99151	17 .99353	13 .99416	10 .99351	8 .99408	6 .99058	5 .99557
1.2	68 .99049	33 .99115	21 .99099	15 .99098	12 .99409	9 .99177	7 .99010	6 .99482	5 .99772
1.3	63 .99064	31 .99203	20 .99259	14 .99128	11 .99332	9 .99535	7 .99427	6 .99717	5 .99883
1.4	59 .99110	28 .99013	18 .99041	13 .99086	10 .99156	8 .99259	7 .99671	5 .99015	4 .99099
1.5	55 .99094	27 .99201	17 .99090	13 .99436	10 .99482	8 .99549	6 .99174	5 .99377	4 .99425
1.6	51 .99015	25 .99110	16 .99087	12 .99330	9 .99224	7 .99101	6 .99472	5 .99607	4 .99634
1.7	48 .99007	24 .99213	15 .99030	11 .99138	9 .99496	7 .99408	6 .99664	5 .99753	4 .99161
1.8	46 .99093	22 .99007	15 .99345	11 .99422	8 .99106	7 .99611	6 .99787	5 .99846	4 .99852
1.9	44 .99145	21 .99040	14 .99242	10 .99157	8 .99384	7 .99746	5 .99107	5 .99903	4 .99906
2.0	41 .99014	20 .99038	13 .99070	10 .99411	8 .99577	6 .99252	5 .99366	4 .99090	4 .99941
2.2	38 .99122	19 .99273	12 .99113	9 .99292	7 .99312	6 .99623	5 .99683	4 .99515	4 .99976
2.4	35 .99135	17 .99096	11 .99050	9 .99626	7 .99636	6 .99811	5 .99842	4 .99742	4 .99991
2.6	32 .99059	16 .99183	11 .99457	8 .99420	6 .99163	5 .99318	5 .99922	4 .99864	3 .99248
2.8	30 .99104	15 .99208	10 .99308	8 .99668	6 .99500	5 .99597	4 .99324	4 .99928	3 .99525
3.0	28 .99088	14 .99175	9 .99012	7 .99335	6 .99703	5 .99762	4 .99578	4 .99962	3 .99700
3.5	24 .99045	12 .99084	8 .99109	6 .99117	5 .99398	4 .99069	4 .99871	4 .99992	3 .99905
4.0	21 .99001	11 .99286	8 .99661	6 .99660	5 .99778	4 .99680	4 .99961	3 .99521	3 .99970
4.5	19 .99077	10 .99334	7 .99523	5 .99135	5 .99919	4 .99846	4 .99988	3 .99786	3 .99991
5.0	18 .99337	9 .99255	6 .99102	5 .99583	4 .99438	4 .99938	3 .99273	3 .99904	3 .99997

Table II. Sampling Plans for the Quantiles of IFR Distributions

		P* = .99 c = 3								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
1.0	97 .99011	47 .99070	30 .99068	22 .99244	17 .99364	13 .99221	11 .99571	9 .99693	7 .99727	
1.1	89 .99066	43 .99091	28 .99212	20 .99133	15 .99098	12 .99229	10 .99487	8 .99492	6 .99166	
1.2	81 .99002	40 .99169	26 .99259	19 .99365	14 .99152	11 .99123	9 .99264	8 .99750	6 .99565	
1.3	75 .99014	37 .99160	24 .99226	17 .99115	13 .99116	11 .99531	9 .99611	7 .99405	6 .99775	
1.4	70 .99039	34 .99064	22 .99101	16 .99156	13 .99505	10 .99340	8 .99257	7 .99672	6 .99885	
1.5	66 .99100	32 .99100	21 .99219	15 .99131	12 .99394	10 .99623	8 .99568	7 .99821	5 .99062	
1.6	62 .99103	30 .99075	20 .99284	14 .99034	11 .99178	9 .99342	8 .99750	6 .99259	5 .99400	
1.7	58 .99049	29 .99233	19 .99308	14 .99392	11 .99488	9 .99595	7 .99297	6 .99531	5 .99618	
1.8	55 .99067	27 .99116	18 .99295	13 .99241	10 .99184	8 .99128	7 .99548	6 .99704	5 .99757	
1.9	52 .99041	26 .99203	17 .99241	13 .99505	10 .99464	8 .99421	7 .99711	6 .99814	5 .99845	
2.0	50 .99115	25 .99259	16 .99140	12 .99305	9 .99001	8 .99617	7 .99816	6 .99883	5 .99902	
2.2	45 .99020	23 .99291	15 .99275	11 .99256	9 .99518	7 .99213	6 .99398	5 .99207	5 .99961	
2.4	42 .99127	21 .99225	14 .99320	10 .99071	8 .99181	7 .99599	6 .99697	5 .99577	5 .99984	
2.6	39 .99145	19 .99033	13 .99289	10 .99499	8 .99560	7 .99798	6 .99849	5 .99775	5 .99994	
2.8	36 .99082	18 .99132	12 .99173	9 .99206	8 .99766	6 .99239	6 .99925	5 .99881	4 .99368	
3.0	34 .99142	17 .99167	12 .99519	9 .99537	7 .99376	6 .99547	5 .99310	5 .99937	4 .99601	
3.5	29 .99050	15 .99248	10 .99188	8 .99531	7 .99828	6 .99879	5 .99788	5 .99987	4 .99874	
4.0	26 .99166	13 .99052	9 .99190	7 .99288	6 .99577	5 .99378	5 .99935	4 .99362	4 .99960	
4.5	23 .99075	12 .99206	9 .99686	7 .99723	6 .99844	5 .99746	5 .99980	4 .99714	4 .99987	
5.0	21 .99121	11 .99214	8 .99521	6 .99214	5 .99083	5 .99897	4 .99032	4 .99872	4 .99996	

Table II. Sampling Plans for the quantiles of IFR Distributions

P* = .99 c = 4

λ	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	113 .99059	75 .99133	52 .99088	25 .99055	19 .99039	15 .99055	12 .99011	10 .99055	8 .99038
1.1	103 .99065	70 .99106	52 .99084	25 .99077	18 .99269	14 .99112	12 .99115	9 .99018	8 .99078
1.2	94 .99016	46 .99104	50 .99207	22 .99324	17 .99387	15 .99124	11 .99406	9 .99111	7 .99271
1.3	87 .99022	43 .99169	28 .99241	20 .99152	16 .99433	15 .99556	10 .99199	9 .99755	7 .99022
1.4	81 .99029	40 .99154	26 .99197	19 .99256	15 .99420	12 .99438	10 .99172	8 .99198	7 .99604
1.5	76 .99056	37 .99055	24 .99063	18 .99298	14 .99345	11 .99189	9 .99119	8 .99667	7 .99899
1.6	71 .99014	35 .99095	23 .99187	17 .99289	13 .99185	11 .99550	9 .99106	8 .99817	6 .99111
1.7	67 .99020	33 .99079	22 .99259	16 .99224	13 .99511	10 .99168	9 .99712	7 .99218	6 .99434
1.8	64 .99095	31 .99002	21 .99289	15 .99091	12 .99289	10 .99482	8 .99179	7 .99105	6 .99039
1.9	61 .99127	30 .99142	20 .99285	15 .99421	12 .99554	10 .99680	8 .99469	7 .99085	6 .99170
2.0	58 .99120	29 .99240	19 .99240	14 .99241	11 .99244	9 .99252	8 .99659	7 .99802	6 .99854
2.2	53 .99131	26 .99077	17 .99008	13 .99267	10 .99016	9 .99669	7 .99002	7 .99922	6 .99941
2.4	48 .99008	24 .99010	16 .99127	12 .99179	10 .99520	8 .99268	7 .99492	6 .99374	6 .99916
2.6	54 .99102	23 .99291	15 .99151	12 .99186	9 .99145	8 .99625	7 .99744	6 .99666	6 .99991
2.8	42 .99113	21 .99110	14 .99087	11 .99418	9 .99537	8 .99810	7 .99872	6 .99825	5 .99210
3.0	39 .99044	20 .99206	14 .99489	10 .99053	9 .99752	7 .99246	7 .99937	6 .99906	5 .9901
3.5	34 .99106	18 .99404	12 .99292	9 .99090	8 .99681	7 .99795	6 .99687	6 .99981	5 .99842
4.0	30 .99099	16 .99384	11 .99405	9 .99708	7 .99294	6 .99082	6 .99904	5 .99205	5 .99910
4.5	27 .99124	14 .99126	10 .99348	8 .99490	7 .99736	6 .99623	6 .99971	5 .99645	5 .99984
5.0	25 .99265	13 .99222	9 .99072	8 .99802	7 .99905	6 .99847	6 .99991	5 .99840	5 .99995

Table II. Sampling Plans for the Quantiles of IFR Distributions

P* = .99 c = 5

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
1.0	127 .99004	62 .99095	40 .99138	29 .99204	22 .99135	18 .99425	14 .99171	12 .99610	9 .99167
1.1	116 .99027	56 .99003	37 .99221	27 .99309	20 .99032	16 .99111	13 .99153	11 .99483	9 .99038
1.2	107 .99063	52 .99078	34 .99187	25 .99312	19 .99231	15 .99156	13 .99617	10 .99148	9 .99846
1.3	99 .99065	48 .99041	31 .99024	23 .99214	18 .99330	14 .99091	12 .99492	10 .99579	8 .99411
1.4	92 .99055	45 .99086	29 .99029	22 .99361	17 .99358	14 .99333	11 .99205	9 .99007	8 .99096
1.5	86 .99051	42 .99049	28 .99254	20 .99073	16 .99324	13 .99389	11 .99372	9 .99442	8 .99843
1.6	81 .99073	40 .99146	26 .99123	19 .99103	15 .99217	12 .99095	10 .99130	9 .99690	8 .99919
1.7	76 .99030	38 .99186	25 .99241	18 .99072	15 .99004	12 .99470	10 .99485	9 .99829	7 .99218
1.8	72 .99039	36 .99177	24 .99312	18 .99443	14 .99396	11 .99046	10 .99699	8 .99237	7 .99100
1.9	72 .99118	34 .99117	23 .99345	17 .99359	13 .99111	11 .99401	9 .99121	8 .99314	7 .99681
2.0	65 .99031	33 .99252	22 .99346	16 .99210	13 .99435	11 .99627	9 .99430	8 .99692	7 .99191
2.2	60 .99125	30 .99187	20 .99247	15 .99303	12 .99357	10 .99410	9 .99764	8 .99878	7 .99918
2.4	55 .99092	28 .99260	19 .99407	14 .99293	11 .99112	10 .99739	8 .99221	7 .99136	7 .99967
2.6	51 .99096	26 .99241	17 .99043	13 .99173	11 .99363	9 .99374	8 .99604	7 .99131	7 .99987
2.8	48 .99172	24 .99124	16 .99038	13 .99373	10 .99182	9 .99619	8 .99801	7 .99733	6 .99033
3.0	45 .99173	23 .99268	16 .99480	12 .99385	10 .99355	9 .99837	8 .99900	7 .99869	6 .99402
3.5	39 .99183	20 .99215	14 .99399	11 .99330	9 .99466	8 .99681	7 .99363	7 .99973	6 .99810
4.0	34 .99070	18 .99270	13 .99368	10 .99477	9 .99851	8 .99915	7 .99866	6 .99044	6 .99940
4.5	31 .99197	16 .99082	12 .99399	9 .99155	8 .99591	7 .99478	7 .99959	6 .99371	6 .99981
5.0	28 .99144	15 .99257	11 .99319	9 .99665	8 .99848	7 .99787	7 .99988	6 .99808	6 .99994

Table III. Sampling Plans for the Quantiles of DFR Distributions

		P* = .75 c = 0								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
.01	1316 .75005	622 .75042	389 .75029	272 .75079	200 .75000	152 .75161	116 .75256	87 .75345	61 .75453	
.02	658 .75007	311 .75041	195 .75119	136 .75079	100 .75000	76 .75161	58 .75257	44 .75739	31 .76012	
.03	439 .75033	208 .75152	130 .75119	91 .75206	67 .75173	51 .75388	39 .75553	29 .75345	21 .76558	
.04	329 .75007	155 .75152	98 .75295	68 .75079	50 .75000	38 .75161	29 .75256	22 .75739	16 .77091	
.05	264 .75112	125 .75208	78 .75118	55 .75458	40 .75000	31 .75835	24 .76420	18 .76508	13 .77613	
.06	220 .75111	104 .75153	65 .75118	46 .75583	34 .75684	26 .76055	20 .76420	15 .76508	11 .78123	
.07	188 .75007	89 .75097	56 .75295	39 .75206	29 .75612	22 .76134	17 .76134	13 .76883	9 .76558	
.08	165 .75111	78 .75153	49 .75295	34 .75079	25 .75000	19 .75161	15 .76420	11 .75739	8 .77091	
.09	147 .75190	70 .75483	44 .75645	31 .75954	23 .76184	17 .75388	13 .75553	10 .76508	7 .76558	
.10	132 .75111	63 .75483	39 .75118	28 .76077	21 .76674	16 .76917	12 .76420	9 .76508	7 .80047	
.15	88 .75111	42 .75483	26 .75118	19 .76680	14 .76674	11 .77951	8 .76420	6 .76508	5 .82217	
.20	66 .75111	32 .76024	20 .75990	14 .76077	11 .78236	8 .76917	6 .76420	5 .80000	4 .84151	
.25	53 .75242	25 .75208	16 .75990	11 .75458	9 .78978	7 .79881	5 .77798	4 .80000	3 .82217	
.30	44 .75111	21 .75483	13 .75118	10 .78400	7 .76674	6 .80782	4 .76420	3 .76508	3 .87411	
.35	38 .75372	18 .75483	12 .77643	8 .76077	6 .76674	5 .79881	4 .81466	3 .81546	2 .80047	
.40	33 .75111	16 .76024	10 .75900	7 .76077	5 .75000	4 .76917	3 .76420	3 .85504	2 .84151	
.45	30 .75886	14 .75483	9 .76414	7 .79993	5 .78978	4 .80782	3 .80316	2 .76508	2 .87411	
.50	27 .75886	13 .76553	8 .75990	6 .78400	5 .82322	4 .81000	3 .83568	2 .80000	2 .90000	
.60	22 .75111	11 .77071	7 .77643	5 .78400	4 .81051	3 .80782	2 .76420	2 .85504	2 .93690	
.70	19 .75372	9 .75483	6 .77643	4 .76077	3 .76674	3 .85401	2 .81466	2 .89494	1 .80047	
.80	17 .76138	8 .76024	5 .75990	4 .80498	3 .81054	2 .76917	2 .85432	2 .92385	1 .84151	
.90	15 .75886	7 .75483	5 .79912	4 .84102	3 .84611	2 .80782	2 .88550	1 .76508	1 .87411	

Table III. Sampling Plans for the Quantiles of DFR Distributions

		$P^* = .75 \quad c = 1$								
λ	q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01		2557 .75015	1208 .75035	756 .75037	528 .75037	389 .75004	295 .75106	225 .75187	186 .75037	118 .75233
.02		1279 .75026	604 .75013	378 .75005	265 .75175	195 .75067	148 .75189	113 .75295	85 .75492	59 .75022
.03		853 .75037	403 .75033	253 .75167	177 .75221	130 .75004	99 .75271	76 .75618	57 .75634	40 .75040
.04		640 .75046	303 .75134	190 .75199	133 .75267	98 .75192	74 .75021	57 .75508	43 .75774	20 .75428
.05		512 .75036	242 .75033	152 .75166	106 .75035	79 .75304	60 .75598	46 .75828	34 .75047	24 .75213
.06		427 .75065	202 .75094	127 .75263	89 .75358	66 .75565	50 .75515	38 .75287	29 .76050	21 .77407
.07		366 .75055	173 .75033	109 .75295	76 .75127	56 .75001	43 .75595	33 .75823	25 .76186	18 .77204
.08		320 .75007	152 .75215	95 .75068	67 .75449	50 .75932	38 .75999	29 .75926	22 .76321	16 .77768
.09		285 .75093	135 .75154	85 .75359	60 .75767	44 .75375	34 .76238	26 .76239	20 .77277	14 .76789
.10		257 .75179	122 .75336	76 .75003	54 .75721	40 .75807	30 .75176	23 .75275	18 .77134	13 .78118
.15		171 .75036	81 .75032	51 .75162	36 .75488	27 .76103	21 .77163	16 .76832	12 .76398	9 .79849
.20		129 .75274	61 .75131	39 .75956	27 .75251	20 .75163	16 .77525	12 .76273	9 .75620	7 .79179
.25		103 .75130	49 .75231	31 .75476	22 .75926	17 .77840	13 .77877	10 .77758	8 .80149	6 .82071
.30		86 .75178	41 .75329	26 .75630	19 .77449	14 .76952	11 .78218	8 .75089	7 .81800	5 .81101
.35		74 .75320	35 .75023	23 .77019	16 .76350	12 .76633	9 .75440	7 .75558	6 .81138	4 .76293
.40		65 .75461	31 .75524	20 .76555	14 .76112	11 .78616	8 .75801	7 .81689	5 .77927	4 .82297
.45		58 .75602	28 .76211	18 .77004	13 .78040	10 .79404	8 .81228	6 .79409	5 .83105	4 .86887
.50		52 .75365	25 .75716	16 .76228	12 .79042	9 .79105	7 .79486	6 .83923	4 .76223	3 .76325
.60		44 .76019	21 .75906	14 .78303	10 .78601	8 .81600	6 .80067	5 .82999	4 .84228	3 .84241
.70		38 .76294	18 .75698	12 .77991	9 .80512	7 .82009	5 .77755	4 .78389	3 .75292	3 .89645
.80		33 .75829	16 .76276	10 .75199	8 .80837	6 .80448	5 .83598	4 .84126	3 .81359	3 .93261
.90		29 .75165	14 .75273	9 .75487	7 .79644	5 .76443	4 .77381	4 .88435	3 .86036	2 .76406

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $p^* = .75$ $c = 2$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	3723 .75015	1758 .75005	1101 .75046	769 .75043	567 .75043	429 .75020	327 .75069	245 .75100	172 .75257
.02	1862 .75107	880 .75037	551 .75047	385 .75042	284 .75042	215 .75019	164 .75068	123 .75098	87 .75599
.03	1242 .75035	587 .75037	368 .75101	257 .75041	190 .75148	144 .75158	110 .75249	83 .75580	58 .75246
.04	932 .75050	441 .75105	276 .75046	193 .75041	143 .75251	108 .75017	83 .75427	62 .75090	44 .75583
.05	746 .75065	353 .75105	221 .75045	155 .75195	115 .75459	87 .75293	67 .75784	50 .75328	36 .76587
.06	622 .75081	294 .75037	185 .75261	129 .75039	96 .75458	73 .75566	56 .75780	42 .75563	30 .76238
.07	533 .75050	252 .75003	159 .75369	111 .75194	82 .75142	63 .75836	48 .75596	36 .75312	26 .76557
.08	467 .75113	221 .75105	139 .75260	97 .75037	72 .75245	55 .75560	42 .75410	32 .76023	23 .76869
.09	415 .75081	197 .75240	124 .75422	87 .75499	64 .75138	49 .75556	38 .76296	29 .76946	20 .75149
.10	374 .75145	177 .75104	111 .75043	78 .75190	58 .75450	44 .75277	34 .75757	26 .76471	19 .78115
.15	250 .75225	119 .75440	75 .75577	53 .75946	39 .75435	30 .75935	23 .75712	18 .77542	13 .77966
.20	188 .75304	89 .75100	56 .75033	40 .75935	30 .76439	23 .76570	18 .77394	14 .78545	10 .77757
.25	150 .75063	72 .75602	45 .75026	32 .75540	24 .75904	19 .77822	15 .78965	11 .76141	8 .75814
.30	126 .75460	60 .75431	38 .75555	27 .75903	20 .75353	16 .77770	12 .75467	10 .80367	7 .77148
.35	108 .75381	52 .75926	33 .76075	23 .75115	18 .77821	14 .78338	11 .78778	9 .82148	6 .75019
.40	95 .75617	45 .75085	29 .76063	21 .77335	16 .78256	12 .76327	10 .80229	8 .81971	6 .82341
.45	84 .75219	41 .76407	26 .76311	19 .78020	14 .76753	11 .77554	9 .80105	7 .79778	5 .75731
.50	76 .75456	37 .76402	24 .77570	17 .77280	13 .78160	10 .77463	8 .78375	7 .85067	5 .81480
.60	64 .75924	31 .76388	20 .77035	14 .75728	11 .78042	9 .80885	7 .79639	6 .84636	5 .89523
.70	55 .75921	27 .77016	17 .75960	13 .79890	10 .80629	8 .81782	6 .77599	5 .80357	4 .81993
.80	48 .75603	23 .75024	15 .75193	11 .77042	9 .81336	7 .80424	6 .83515	5 .86725	4 .87924
.90	43 .75912	21 .76334	14 .78391	10 .77661	8 .80324	6 .76361	5 .78259	4 .76345	4 .92011

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $P^* = .75$ $c = 3$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	4852 .75012	2292 .75025	1435 .75047	1002 .75020	739 .75034	560 .75108	426 .75019	319 .75006	224 .75183
.02	2427 .75022	1147 .75037	718 .75024	502 .75053	371 .75173	281 .75168	214 .75098	161 .75326	113 .75331
.03	1618 .75002	765 .75022	480 .75143	335 .75018	248 .75218	188 .75228	143 .75015	108 .75429	76 .75476
.04	1214 .75008	574 .75007	360 .75070	252 .75120	186 .75078	141 .75042	108 .75253	81 .75101	57 .75003
.05	972 .75043	460 .75082	289 .75237	202 .75153	149 .75030	114 .75388	87 .75489	66 .76049	46 .75141
.06	810 .75022	384 .75156	241 .75213	169 .75322	125 .75352	95 .75403	73 .75721	55 .75725	39 .75883
.07	695 .75072	329 .75082	207 .75283	145 .75287	107 .75119	82 .75702	63 .75952	47 .75181	34 .76605
.08	608 .75036	288 .75066	181 .75164	127 .75252	94 .75256	72 .75758	55 .75550	42 .76329	30 .76727
.09	541 .75085	256 .75021	161 .75139	113 .75217	84 .75483	64 .75573	49 .75462	37 .75368	27 .77135
.10	487 .75078	231 .75155	145 .75115	102 .75317	76 .75708	58 .75868	44 .75052	34 .76506	24 .75774
.15	325 .75042	155 .75376	98 .75701	69 .75812	51 .75460	39 .75533	30 .75394	23 .75883	17 .77763
.20	244 .75006	116 .75001	74 .75810	52 .75630	39 .76114	30 .76382	23 .75709	18 .77285	13 .76762
.25	196 .75182	94 .75664	59 .75212	42 .75778	32 .77185	24 .75424	19 .76773	15 .78587	11 .78543
.30	164 .75356	78 .75142	50 .76023	35 .75248	27 .77361	21 .77975	16 .76273	13 .79798	10 .82617
.35	141 .75460	67 .75062	43 .75893	31 .77041	23 .76213	18 .77042	14 .76503	11 .77142	9 .83926
.40	123 .75143	59 .75280	38 .76225	27 .76196	20 .75012	16 .77234	13 .79638	10 .78347	8 .82925
.45	110 .75457	53 .75788	34 .76323	24 .75660	18 .75177	14 .75038	12 .81151	9 .77530	7 .79214
.50	99 .75350	48 .75999	31 .76873	22 .76451	17 .77985	13 .76419	11 .81302	9 .83846	7 .85196
.60	83 .75555	40 .75543	26 .76604	19 .77962	14 .75621	11 .75524	9 .77362	8 .85471	6 .82868
.70	71 .75201	35 .76537	23 .78107	16 .75586	13 .80101	10 .78110	8 .77556	7 .84055	6 .90170
.80	63 .75960	31 .76939	20 .76946	15 .79569	11 .76102	9 .78304	8 .85339	6 .78749	5 .81937
.90	56 .75747	27 .74023	18 .77105	13 .76650	10 .76295	8 .76136	7 .81886	6 .85368	5 .87777

Table III. Sampling Plans for the Quantiles of DFR Distributions

		$P^* = .75 \quad c = 4$								
q	λ	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01		5958 .75007	2814 .75007	1762 .75037	1231 .75045	908 .75067	687 .75026	524 .75124	392 .75028	270 .75139
.02		2980 .75011	1408 .75004	882 .75038	617 .75106	455 .75066	345 .75136	263 .75123	197 .75025	139 .75411
.03		1988 .75038	940 .75058	589 .75081	412 .75105	304 .75065	231 .75246	176 .75120	132 .75020	93 .75122
.04		1491 .75011	705 .75004	442 .75036	310 .75228	229 .75232	174 .75354	133 .75407	100 .75402	71 .75935
.05		1194 .75062	565 .75086	354 .75036	248 .75104	184 .75397	139 .75018	107 .75546	80 .75003	57 .75643
.06		995 .75036	471 .75058	296 .75208	207 .75102	153 .75060	117 .75567	89 .75105	68 .76147	48 .75894
.07		853 .75024	404 .75058	254 .75208	178 .75225	132 .75392	100 .75121	77 .75533	58 .75368	41 .75038
.08		747 .75061	354 .75112	222 .75034	156 .75223	116 .75556	88 .75338	68 .75954	51 .75353	37 .76912
.09		664 .75035	315 .75138	198 .75206	139 .75283	103 .75303	79 .75879	60 .75079	46 .76102	33 .76613
.10		598 .75061	284 .75219	178 .75032	125 .75096	93 .75383	71 .75546	55 .76217	42 .76823	30 .76841
.15		400 .75189	190 .75217	120 .75457	84 .75083	63 .75774	48 .75505	37 .75433	29 .77628	21 .77903
.20		300 .75060	143 .75213	90 .75017	64 .75679	48 .76151	37 .76530	29 .77440	22 .76544	16 .76247
.25		241 .75250	115 .75343	73 .75650	52 .76260	39 .76515	30 .76459	23 .75206	18 .76325	14 .80841
.30		201 .75185	96 .75203	61 .75423	43 .75013	33 .76866	25 .75284	20 .77178	16 .79641	12 .80385
.35		173 .75375	83 .75599	53 .76044	38 .76795	28 .75171	22 .76270	18 .79642	14 .79364	11 .83196
.40		151 .75055	73 .75725	47 .76650	33 .75558	25 .75931	20 .78236	16 .79463	12 .75357	10 .83691
.45		135 .75371	65 .75584	42 .76630	30 .76717	23 .77846	18 .78111	14 .76576	11 .75904	9 .82005
.50		122 .75559	59 .75973	38 .76608	27 .76075	21 .78149	16 .75862	13 .77705	11 .83105	8 .77545
.60		102 .75554	49 .75150	32 .76555	23 .76564	18 .78722	14 .77643	11 .75712	9 .77236	7 .75394
.70		88 .75800	43 .76450	28 .77312	20 .76437	16 .79978	12 .75079	10 .77829	8 .75993	7 .85278
.80		77 .75542	38 .76681	25 .78042	18 .77466	14 .78259	11 .76790	9 .77051	8 .84722	6 .75639
.90		69 .75911	34 .76650	22 .76340	16 .76122	13 .80198	10 .76259	9 .84728	7 .78705	6 .83151

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $P^* = .75$ $c = 5$

λ	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	7048 .75002	3329 .75004	2084 .75017	1456 .75025	1074 .75049	813 .75043	620 .75132	464 .75053	385 .75038
.02	3526 .75024	1666 .75014	1044 .75078	730 .75110	538 .75009	408 .75093	311 .75063	234 .75319	164 .75154
.03	2351 .75008	1112 .75051	697 .75097	487 .75023	360 .75125	273 .75142	209 .75395	157 .75403	110 .75014
.04	1764 .75012	835 .75089	523 .75036	366 .75051	271 .75239	206 .75395	157 .75189	118 .75126	84 .75889
.05	1412 .75029	668 .75027	419 .75055	294 .75250	217 .75121	165 .75238	126 .75116	95 .75205	68 .76244
.06	1177 .75023	557 .75014	350 .75155	245 .75106	181 .75002	138 .75285	106 .75577	80 .75638	57 .76094
.07	1009 .75006	478 .75051	300 .75054	211 .75360	156 .75271	119 .75534	91 .75369	69 .75712	49 .75686
.08	884 .75082	419 .75133	263 .75113	185 .75387	137 .75383	104 .75173	80 .75426	61 .76134	43 .75268
.09	786 .75076	373 .75200	234 .75092	164 .75015	122 .75341	93 .75421	72 .76141	54 .75319	39 .76364
.10	708 .75117	336 .75212	211 .75151	148 .75098	110 .75298	84 .75465	65 .76063	49 .75565	35 .75438
.15	473 .75146	225 .75271	142 .75441	100 .75510	74 .75078	57 .75671	44 .75654	34 .76733	25 .78215
.20	355 .75057	169 .75080	107 .75332	76 .75910	57 .76373	44 .76845	34 .76525	26 .76104	19 .76004
.25	285 .75203	136 .75262	86 .75220	61 .75463	46 .76139	35 .75011	28 .77344	22 .78798	16 .77348
.30	238 .75231	114 .75442	72 .75105	51 .75003	39 .76641	30 .76173	24 .78113	19 .79707	14 .78540
.35	204 .75082	98 .75373	63 .76359	45 .76781	34 .77126	26 .75803	21 .78230	16 .75607	13 .82759
.40	179 .75169	86 .75302	55 .75659	39 .75207	30 .76867	23 .75410	19 .79514	15 .79803	11 .75766
.45	160 .75488	77 .75602	49 .75339	35 .75299	27 .76964	21 .76507	17 .78377	14 .82014	11 .84306
.50	144 .75340	70 .76141	45 .76577	32 .75949	25 .78481	19 .75582	16 .80748	13 .82658	10 .82052
.60	120 .75040	58 .75008	38 .76707	27 .75541	21 .77195	17 .79495	14 .81833	11 .79425	9 .83205
.70	104 .75677	51 .76570	33 .76827	24 .77320	18 .75034	15 .79527	12 .78253	10 .80532	8 .79796
.80	91 .75379	45 .76657	29 .76170	21 .75781	17 .80137	13 .75660	11 .79234	9 .78260	8 .88011
.90	81 .75195	40 .76019	26 .75881	19 .75867	15 .77389	12 .76555	10 .77641	9 .86129	7 .78299

Table III. Sampling Plans for the Quantiles of DFR Distributions

		$P^* = .90 \quad c = 0$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
.01	2186 .90005	1032 .90003	646 .90015	451 .90013	333 .90056	252 .90065	192 .90090	144 .90148	101 .90228	
.02	1093 .90006	516 .90002	323 .90016	226 .90063	167 .90125	126 .90064	96 .90090	72 .90149	50 .90000	
.03	729 .90017	344 .90002	216 .90087	151 .90114	111 .90056	84 .90065	64 .90090	48 .90149	34 .90450	
.04	547 .90027	258 .90003	162 .90086	113 .90063	84 .90260	63 .90064	48 .90090	36 .90149	26 .90820	
.05	438 .90048	207 .90069	130 .90157	91 .90214	67 .90193	51 .90334	39 .90442	29 .90306	21 .91087	
.06	365 .90048	172 .90003	108 .90086	76 .90264	56 .90260	42 .90064	32 .90090	24 .90149	17 .90450	
.07	313 .90059	148 .90091	93 .90192	65 .90214	48 .90260	36 .90064	28 .90356	21 .90613	15 .91087	
.08	274 .90069	129 .90003	81 .90086	57 .90264	42 .90260	32 .90422	24 .90090	18 .90149	13 .90880	
.09	243 .90016	115 .90069	72 .90386	51 .90412	37 .90056	28 .90064	22 .90781	16 .90149	12 .91682	
.10	219 .90048	104 .90179	65 .90157	46 .90461	34 .90527	26 .90767	20 .91000	15 .91056	11 .92057	
.15	146 .90048	69 .90069	44 .90502	31 .90702	23 .90849	17 .90334	13 .90442	10 .91056	7 .91087	
.20	110 .90152	52 .90179	33 .90502	23 .90461	17 .90527	13 .90767	10 .91000	8 .92385	6 .93690	
.25	88 .90152	42 .90396	26 .90157	19 .91165	14 .91161	11 .91952	8 .91000	6 .91056	5 .94377	
.30	73 .90048	35 .90396	22 .90502	16 .91388	12 .91753	9 .91575	7 .92021	5 .91056	4 .93690	
.35	63 .90204	30 .90396	19 .90670	13 .90214	10 .91161	8 .92313	6 .92021	5 .94019	3 .91087	
.40	55 .90152	26 .90179	17 .91156	12 .91388	9 .91753	7 .92313	5 .91000	4 .92385	3 .93690	
.45	49 .90204	23 .90069	15 .90996	11 .92023	8 .91753	6 .91575	5 .93339	4 .94481	3 .95533	
.50	44 .90152	21 .90396	13 .90157	10 .92224	7 .91161	6 .93600	4 .91000	3 .91056	2 .92000	
.60	37 .90358	18 .91018	11 .90502	8 .91388	6 .91753	5 .93600	4 .94440	3 .94481	2 .93690	
.70	32 .90559	15 .90396	10 .91765	7 .91816	5 .91161	4 .92313	3 .92021	3 .96595	2 .96019	
.80	28 .90559	13 .90179	9 .92332	6 .91388	5 .93750	4 .94672	3 .94440	2 .92385	2 .97488	
.90	25 .90658	12 .91018	8 .92332	6 .93661	4 .91753	3 .91575	3 .96125	2 .94481	2 .98415	

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $P^* = .90$ $c = 1$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	3693 .90004	1744 .90007	1092 .90027	762 .90002	562 .90018	426 .90072	324 .90041	243 .90104	170 .90104
.02	1847 .90010	873 .90033	546 .90013	382 .90062	282 .90100	213 .90036	163 .90183	122 .90167	85 .90012
.03	1232 .90023	582 .90024	365 .90084	255 .90082	188 .90073	143 .90216	109 .90229	82 .90353	57 .90104
.04	924 .90019	437 .90050	274 .90097	191 .90022	141 .90045	107 .90108	82 .90275	61 .90038	43 .90190
.05	739 .90006	350 .90077	219 .90055	153 .90042	113 .90073	86 .90215	66 .90414	49 .90100	35 .90627
.06	616 .90010	292 .90103	183 .90125	128 .90142	95 .90316	72 .90321	55 .90367	41 .90162	29 .90362
.07	528 .90006	250 .90059	157 .90139	110 .90202	81 .90126	62 .90426	47 .90226	36 .90831	25 .90446
.08	462 .90001	219 .90086	137 .90041	96 .90102	71 .90153	54 .90249	41 .90083	31 .90283	22 .90529
.09	411 .90022	195 .90130	122 .90083	86 .90321	63 .90071	48 .90212	37 .90501	28 .90708	20 .91116
.10	370 .90026	175 .90033	110 .90125	77 .90142	57 .90206	43 .90031	33 .90175	25 .90402	18 .91028
.15	247 .90047	117 .90076	74 .90332	52 .90436	38 .90067	29 .90205	23 .91279	17 .90688	12 .90569
.20	186 .90151	88 .90120	56 .90535	39 .90336	29 .90465	22 .90374	17 .90611	13 .90959	9 .90072
.25	149 .90172	71 .90336	45 .90601	31 .90033	23 .90056	18 .90878	14 .91250	11 .92285	8 .92774
.30	124 .90109	59 .90206	37 .90119	26 .90129	20 .91214	15 .90697	12 .91844	9 .91461	7 .93672
.35	106 .90005	51 .90420	32 .90325	23 .90991	17 .90832	13 .90852	10 .90771	8 .92216	6 .93302
.40	93 .90067	45 .90630	28 .90253	20 .90705	15 .90949	12 .92236	9 .91389	7 .91914	5 .91441
.45	83 .90171	40 .90587	25 .90319	18 .90980	13 .90016	10 .90118	8 .91147	6 .90433	5 .94325
.50	75 .90273	36 .90544	23 .90917	16 .90500	12 .90671	10 .93025	8 .93839	6 .93267	4 .90351
.60	63 .90474	30 .90456	19 .90512	14 .91756	10 .90379	8 .91559	6 .90356	5 .92694	4 .94855
.70	54 .90434	26 .90704	17 .91650	12 .91568	9 .91598	7 .91814	6 .94310	5 .95912	4 .97298
.80	47 .90230	23 .90946	15 .91760	11 .92686	8 .91795	6 .90790	5 .92629	4 .93335	3 .93261
.90	42 .90351	20 .90185	13 .90879	9 .90020	7 .91037	6 .93834	5 .95219	4 .95728	3 .95644

Table III. Sampling Plans for the Quantiles of DFR Distributions

$P^* = .90 \quad c = 2$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	5053 .90002	2387 .90014	1494 .90020	1043 .90004	769 .90007	582 .90009	444 .90077	332 .90034	233 .90135
.02	2527 .90004	1194 .90013	748 .90045	522 .90003	385 .90007	292 .90072	223 .90160	167 .90143	117 .90133
.03	1685 .90004	797 .90044	499 .90044	349 .90073	257 .90007	195 .90072	149 .90159	112 .90251	79 .90441
.04	1264 .90004	598 .90044	375 .90093	262 .90073	193 .90007	147 .90196	112 .90158	84 .90140	59 .90127
.05	1012 .90025	479 .90075	300 .90068	210 .90108	155 .90101	118 .90257	90 .90238	68 .90463	48 .90584
.06	843 .90003	399 .90044	250 .90044	175 .90073	129 .90006	98 .90069	75 .90155	57 .90566	40 .90427
.07	723 .90018	342 .90028	215 .90141	150 .90037	111 .90100	84 .90005	65 .90477	49 .90563	35 .91015
.08	633 .90032	300 .90105	188 .90092	132 .90212	97 .90004	74 .90192	57 .90474	43 .90059	30 .90101
.09	563 .90047	267 .90135	167 .90043	117 .90072	87 .90287	66 .90253	51 .90630	38 .90233	27 .90404
.10	507 .90061	240 .90074	151 .90189	106 .90280	78 .90098	60 .90556	46 .90628	35 .90965	25 .91277
.15	338 .90025	161 .90226	101 .90188	71 .90277	53 .90557	40 .90241	31 .90610	24 .91432	17 .91218
.20	254 .90061	121 .90225	76 .90186	54 .90611	40 .90549	31 .91118	24 .9136	18 .90894	13 .91136
.25	204 .90169	97 .90224	61 .90183	43 .90266	32 .90308	25 .91102	19 .90555	15 .91819	11 .92375
.30	170 .90133	81 .90222	51 .90179	36 .90259	27 .90526	21 .91081	16 .90518	13 .92649	9 .90898
.35	146 .90168	70 .90445	44 .90296	31 .90251	23 .90044	18 .90766	14 .90864	11 .91691	8 .91462
.40	128 .90204	61 .90219	39 .90645	28 .91230	21 .91371	16 .91028	13 .92571	10 .92515	7 .90556
.45	114 .90239	55 .90661	35 .90870	25 .91220	19 .91765	14 .90091	11 .90361	9 .92432	7 .94112
.50	103 .90345	49 .90214	31 .90159	22 .90218	17 .91334	13 .90960	10 .90294	8 .91413	6 .91589
.60	86 .90344	41 .90209	26 .90145	19 .91183	14 .90402	11 .90876	9 .92354	7 .92121	6 .96177
.70	74 .90413	36 .90934	23 .91062	16 .90156	13 .92795	10 .92402	8 .92852	6 .90870	5 .94244
.80	65 .90481	31 .90195	20 .90588	15 .92310	11 .91169	9 .92794	7 .92041	6 .94701	5 .96905
.90	58 .90549	28 .90633	18 .90799	13 .91079	10 .91521	8 .92197	7 .95176	5 .91174	4 .92011

Table III. Sampling Plans for the Quantiles of DFR Distributions

	$P^* = .50 \quad c = 3$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	6343 .90002	2396 .90009	1875 .90010	1510 .90022	966 .90029	751 .90022	557 .90046	417 .90040	292 .90090
.02	5172 .90001	1499 .90015	959 .90043	666 .90057	484 .90050	371 .90107	279 .90007	210 .90188	147 .90120
.03	2116 .90018	1000 .90021	626 .90010	458 .90002	323 .90028	24 .90008	187 .90118	140 .90003	99 .9032
.04	1587 .90008	750 .90001	470 .90020	329 .90068	243 .90092	184 .90049	141 .90228	10 .90282	5 .9050
.05	1270 .90011	601 .90049	371 .90098	264 .90147	195 .90156	148 .90189	113 .90189	85 .90250	60 .9051
.06	1059 .90027	501 .90042	314 .90042	220 .90099	163 .90219	124 .90328	94 .90001	71 .90177	50 .90077
.07	908 .90031	430 .90077	270 .90141	189 .90146	140 .90239	106 .90130	81 .90116	61 .90123	43 .90016
.08	795 .90047	376 .90028	236 .90064	165 .90003	122 .90003	93 .90157	71 .90070	54 .90400	38 .90218
.09	707 .90056	355 .90104	210 .90075	147 .90050	109 .90152	83 .90239	64 .90542	48 .90308	34 .90277
.10	636 .90027	301 .90014	189 .90041	133 .90222	98 .90044	75 .90320	58 .90715	44 .90919	31 .90009
.15	425 .90076	202 .90186	127 .90204	89 .90140	66 .90143	51 .90716	39 .90515	30 .90108	21 .90175
.20	319 .90059	152 .90219	96 .90364	67 .90054	50 .90238	38 .90009	30 .90008	23 .90278	17 .90299
.25	256 .90140	122 .90251	77 .90306	54 .90126	41 .90541	31 .90401	24 .90439	19 .90188	14 .90254
.30	213 .90026	102 .90283	64 .90027	46 .90803	34 .90416	26 .90231	21 .90503	16 .90565	12 .90585
.35	183 .90074	88 .90450	56 .90721	39 .90104	30 .90295	23 .90136	18 .90368	14 .90684	10 .90180
.40	161 .90252	77 .90346	49 .90557	35 .90528	26 .90579	20 .90432	16 .90469	13 .90332	9 .90274
.45	143 .90171	69 .90577	44 .90811	31 .90541	23 .90026	18 .90523	14 .90172	11 .90527	9 .90283
.50	129 .90218	62 .90408	40 .90599	28 .90449	21 .90315	17 .90214	13 .90978	10 .90120	8 .90247
.60	108 .90313	52 .90468	33 .90310	24 .90153	18 .90863	14 .90760	11 .90424	9 .90260	7 .90234
.70	93 .90406	45 .90658	29 .90222	21 .90534	16 .90746	13 .90215	10 .90182	8 .90216	6 .90170
.80	81 .90115	39 .90041	25 .90043	18 .90160	14 .90594	11 .90999	9 .90569	7 .90299	6 .90533
.90	72 .90015	35 .90236	23 .90173	17 .90236	13 .90289	10 .90188	8 .90679	7 .90452	6 .90700

Table III. Sampling Plans for the Quantiles of DFR Distributions

		P* = .90 c = 4								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
.01	7590 .90005	585 .90011	2244 .90018	1567 .90007	1156 .90031	87 .90032	666 .90004	499 .90030	360 .90110	
.02	579 .90007	1794 .90022	1123 .90018	785 .90034	579 .90030	439 .90084	334 .90004	251 .90121	17 .90107	
.03	2531 .90002	1197 .9003	750 .90019	524 .90034	387 .90070	293 .90031	224 .90140	168 .90118	118 .90103	
.04	1879 .90007	898 .90022	63 .90058	394 .90094	291 .90109	221 .90186	168 .90001	127 .90297	89 .90097	
.05	120 .90019	719 .9003	451 .90078	315 .90004	233 .90008	177 .90133	135 .90007	102 .90293	72 .90348	
.06	1277 .90019	600 .90073	376 .90008	213 .90033	195 .90185	148 .90184	113 .90133	85 .90107	60 .90079	
.07	1086 .90007	514 .90022	323 .90118	226 .90090	167 .90066	127 .90130	97 .90002	73 .90009	52 .90328	
.08	951 .90031	40 .90022	283 .90138	198 .90090	147 .90261	112 .90385	86 .90530	65 .90032	46 .90519	
.09	845 .90000	401 .90111	252 .90178	176 .90031	131 .90299	99 .90021	76 .90123	8 .90027	41 .90428	
.10	761 .90018	361 .90098	227 .90178	159 .90140	118 .90238	90 .90380	69 .90388	52 .90202	37 .90284	
.15	508 .90019	241 .90033	152 .90175	107 .90285	79 .90052	61 .90015	47 .90089	36 .91081	26 .91407	
.20	382 .90078	182 .90222	115 .90372	81 .90420	60 .90235	46 .90440	36 .90791	27 .90134	20 .91272	
.25	306 .90078	146 .90220	92 .90167	65 .90268	49 .90788	37 .90000	29 .90598	22 .90037	17 .92744	
.30	251 .90017	122 .90218	77 .90161	55 .90078	41 .90580	32 .91254	25 .91482	19 .90815	14 .90870	
.35	219 .90047	105 .90278	67 .90049	47 .90242	36 .91288	28 .91673	22 .92002	17 .91916	13 .93338	
.40	192 .90076	92 .90212	59 .90737	42 .90923	31 .90140	24 .90175	19 .90704	15 .91384	11 .90295	
.45	171 .90105	82 .90209	52 .90138	37 .90208	28 .90495	22 .91114	17 .90273	14 .92753	11 .94011	
.50	154 .90074	74 .90205	47 .90128	34 .90887	26 .91548	20 .91054	16 .91750	13 .93287	10 .93903	
.60	129 .90192	62 .90196	40 .90698	29 .91373	22 .91472	17 .90915	14 .92658	11 .92241	9 .95014	
.70	111 .90249	54 .90678	35 .91235	25 .91061	19 .91025	15 .91231	12 .91256	10 .93247	8 .94415	
.80	97 .90067	47 .90173	31 .91389	22 .90730	17 .91278	14 .93185	11 .92143	9 .92799	7 .91538	
.90	87 .90361	42 .90150	27 .90000	20 .91201	15 .90000	12 .90201	10 .91815	8 .90000	7 ---	

Table III. Sampling Plans for the Quantiles of DFR Distributions

λ	P* = .0									
	.1	.2	.5	.8	.9	.95	.98	.99	.995	.999
.01	880 .0000	4155 .0005	1905 .0004	1315 .0003	1041 .0017	1017 .0001	117 .0010	77 .0001	40 .0009	
.02	4404 .0001	2081 .0007	1507 .0014	111 .0057	72 .0051	40 .0077	38 .0041	24 .0011	20 .0021	
.03	2957 .0000	1388 .0001	870 .0042	408 .0025	247 .0075	140 .0017	80 .013	19 .0101	17 .0078	
.04	204 .001	1042 .001	655 .0052	407 .0064	338 .0144	27 .008	14 .021	14 .0111	10 .0217	
.05	174 .0027	854 .0015	525 .0041	307 .0080	271 .0162	20 .0011	17 .0142	11 .0077	8 .011	
.06	140 .0012	72 .0031	454 .0012	301 .0141	224 .0101	172 .0228	121 .0052	99 .021	70 .0277	
.07	121 .0053	57 .0011	374 .0002	262 .0021	174 .0089	148 .0218	117 .018	8 .0081	1 .0177	
.08	1103 .0007	27 .00040	228 .0004	230 .0011	170 .0066	130 .0057	77 .0087	7 .008	7 .0082	
.09	81 .0021	45 .0072	292 .0097	208 .00185	152 .0216	111 .00002	89 .0493	7 .0020	48 .0121	
.10	885 .0012	41 .00102	277 .0087	18 .0249	177 .0247	104 .00121	80 .027	71 .0082	47 .0118	
.1	40 .0014	280 .001	17 .00056	124 .0017	92 .00145	7 .0074	4 .0075	42 .0127	30 .0128	
.20	445 .00040	211 .0018	155 .0014	94 .0058	0 .00400	54 .0082	42 .0101	32 .0043	23 .0047	
.25	35 .0005	17 .0007	107 .0021	7 .00144	57 .00820	44 .01087	34 .00895	2 .005	17 .0042	
.30	27 .00011	142 .00329	90 .00441	74 .0075	48 .00882	37 .00754	29 .0127	22 .0027	17 .0271	
.35	25 .00192	122 .00277	77 .00107	55 .0052	41 .00234	32 .00771	2 .00738	20 .0222	17 .0280	
.40	225 .00074	107 .00254	68 .00332	48 .00038	37 .01327	28 .00120	22 .00170	18 .0227	15 .00479	
.45	199 .00218	91 .00054	61 .00552	43 .00085	33 .01042	2 .01750	20 .002	1 .0111	12 .0055	
.50	179 .00119	86 .00197	55 .00403	39 .00128	30 .01086	23 .00218	19 .0213	15 .0221	11 .00177	
.60	150 .0026	72 .00127	46 .00095	33 .00208	2 .00106	20 .0120	16 .0148	13 .0242	10 .02048	
.70	129 .00281	62 .00056	40 .00745	29 .00801	22 .00531	18 .02478	14 .00838	12 .04233	9 .01498	
.80	113 .00195	55 .00451	36 .01289	26 .01354	20 .01590	16 .02089	13 .02438	11 .047	9 .01927	
.90	101 .00229	49 .00261	32 .00815	23 .0038	18 .01289	15 .0313	12 .0283	10 .03825	8 .03145	

Table III. Sampling Plans for the Quantiles of DFR Distributions

		P ₀ = .95 c = 0								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
.01	2844 .95003	1343 .95006	840 .95002	587 .95014	433 .95028	327 .95003	249 .95011	187 .95009	131 .95102	
.02	1422 .95004	672 .95016	420 .95002	294 .95039	217 .95062	164 .95048	125 .95071	94 .95148	72 .95214	
.03	948 .95004	448 .95016	280 .95002	197 .95039	145 .95096	109 .95003	82 .95048	63 .9522	44 .95214	
.04	711 .95004	336 .95017	210 .95002	147 .95039	109 .95130	82 .95048	63 .95188	47 .95148	33 .95214	
.05	596 .95009	269 .95028	168 .95002	118 .95090	87 .95096	66 .95138	50 .95070	38 .95301	27 .95533	
.06	474 .95004	224 .95017	140 .95002	98 .95039	73 .95197	55 .95138	42 .95188	32 .95450	22 .95214	
.07	407 .95030	192 .95017	120 .95002	84 .95039	62 .95062	47 .95093	35 .95188	27 .95225	19 .95323	
.08	356 .95025	168 .95017	105 .95002	74 .95140	55 .95263	41 .95048	32 .95414	24 .95400	17 .9563	
.09	316 .95004	140 .95083	94 .95108	66 .95189	49 .95296	37 .95270	28 .95188	21 .95225	15 .95533	
.10	285 .95035	135 .95083	84 .95002	59 .95090	44 .95263	33 .95138	25 .95070	19 .95301	14 .95019	
.15	190 .95035	90 .95083	56 .95002	40 .95334	29 .95096	22 .95138	17 .95358	13 .95665	9 .95533	
.20	143 .95087	68 .95191	42 .95002	30 .95334	22 .95263	17 .95564	13 .95630	10 .96000	7 .96019	
.25	114 .95035	54 .95083	34 .95177	24 .95334	18 .95581	14 .95952	10 .95070	8 .96000	6 .95838	
.30	95 .95035	45 .95083	28 .95002	20 .95334	15 .95581	11 .95138	9 .96125	7 .96595	5 .95838	
.35	82 .95139	39 .95245	24 .95002	17 .95214	13 .95731	10 .95952	8 .96565	6 .96595	4 .95019	
.40	72 .95190	34 .95191	21 .95002	15 .95334	11 .95263	9 .96307	7 .96565	5 .96000	4 .97488	
.45	64 .95190	30 .95083	19 .95262	14 .95997	10 .95581	8 .96307	6 .96125	5 .97325	3 .95533	
.50	57 .95035	27 .95083	17 .95177	12 .95334	9 .95581	7 .95952	5 .95670	4 .96000	3 .96838	
.60	48 .95190	23 .95401	14 .95002	10 .95334	8 .96410	6 .96307	5 .97300	4 .97899	3 .98415	
.70	41 .95139	20 .95602	12 .95002	9 .95997	7 .96651	5 .95972	4 .96565	3 .96597	2 .96019	
.80	36 .95190	17 .95191	11 .95666	8 .96197	6 .96410	5 .97440	4 .97878	3 .97899	2 .97488	
.90	32 .95190	15 .95083	10 .95965	7 .95997	5 .95581	4 .96307	3 .96125	3 .98703	2 .98415	

Table III. Sampling Plans for the Quantiles of DFR Distributions

		$P_0 = .9 \quad c = 1$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
.01	4504 .95004	2127 .95006	1331 .95007	930 .95018	685 .95003	519 .95029	395 .95033	296 .95049	207 .95045	
.02	2252 .95002	1064 .95010	666 .95015	465 .95007	343 .95017	260 .95048	198 .95048	148 .95010	104 .95091	
.03	1502 .95009	710 .95024	444 .95007	311 .95059	229 .95031	174 .95104	132 .95024	99 .95049	70 .95229	
.04	1127 .95015	532 .95001	334 .95058	233 .95028	172 .95046	130 .95010	100 .95194	75 .95210	53 .95333	
.05	901 .95000	426 .95015	267 .95036	187 .95080	136 .95088	105 .95177	80 .95169	60 .95178	42 .95135	
.06	731 .95002	355 .95010	223 .95073	156 .95090	115 .95074	87 .95047	67 .95241	50 .95145	37 .95087	
.07	644 .95009	305 .95051	191 .95051	134 .95121	99 .95143	75 .95140	57 .95071	43 .95170	30 .95038	
.08	564 .95023	267 .95056	167 .95029	117 .95069	87 .95212	66 .95231	50 .95095	38 .95333	27 .95330	
.09	501 .95009	237 .95024	149 .95094	104 .95059	77 .95115	59 .95320	45 .95309	34 .95424	24 .95485	
.10	451 .95011	214 .95083	134 .95072	94 .95131	69 .95016	53 .95206	40 .95045	30 .95009	22 .95775	
.15	301 .95022	143 .95105	90 .95180	63 .95182	47 .95359	36 .95525	27 .95161	21 .95778	15 .95958	
.20	226 .95032	107 .95037	68 .95285	47 .95025	35 .95153	27 .95436	21 .95723	15 .95897	11 .95310	
.25	181 .95043	86 .95105	54 .95107	38 .95179	28 .95080	22 .95684	17 .95821	13 .96020	9 .95499	
.30	151 .95054	72 .95172	45 .95070	32 .95327	24 .95547	18 .95248	14 .95486	11 .96136	8 .96432	
.35	130 .95129	62 .95238	39 .95247	28 .95659	21 .95853	16 .95834	12 .95359	9 .95093	7 .96569	
.40	113 .95160	54 .95126	34 .95139	24 .95222	18 .95408	14 .95747	11 .96094	8 .95228	6 .95991	
.45	101 .95086	48 .95103	31 .95383	22 .95746	16 .95337	13 .96412	10 .96366	8 .97105	6 .97624	
.50	91 .95096	44 .95430	28 .95614	20 .95876	15 .96015	11 .95212	9 .96259	7 .96547	5 .96265	
.60	76 .95117	36 .95032	23 .95274	16 .95002	12 .95111	10 .96589	8 .97071	6 .96723	5 .98409	
.70	65 .95053	31 .95076	20 .95475	14 .95300	11 .96215	8 .95158	7 .97188	5 .95912	4 .97298	
.80	57 .95074	28 .95632	18 .95917	13 .96272	10 .96714	8 .97260	6 .96686	5 .97741	4 .98597	
.90	51 .95179	25 .95670	16 .95851	11 .95278	9 .96795	7 .96898	5 .95219	4 .95728	3 .95644	

Table III. Sampling Plans for the Quantiles of DFR Distributions

q	$P^* = .95 \quad c = 2$								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	5977 .95001	2823 .95005	1767 .95011	1234 .95010	910 .95018	689 .95030	524 .95003	395 .95048	275 .95048
.02	2989 .95002	1412 .95005	884 .95012	618 .95028	456 .95043	345 .95030	263 .95047	197 .95048	138 .95047
.03	1993 .95003	942 .95013	590 .95024	412 .95010	304 .95018	221 .95036	176 .95030	132 .95010	95 .95210
.04	1495 .95002	707 .95021	443 .95037	310 .95065	225 .95043	173 .95030	132 .95040	99 .95040	70 .95208
.05	1197 .95018	566 .95029	355 .95063	248 .95047	183 .95043	139 .95039	106 .95089	80 .95217	57 .9512
.06	997 .95002	472 .95037	296 .95063	207 .95065	153 .95092	116 .95039	89 .95217	67 .95272	47 .95203
.07	855 .95010	405 .95053	254 .95076	178 .95120	131 .95042	100 .95192	76 .95087	57 .95042	41 .95514
.08	748 .95002	354 .95021	222 .95037	156 .95138	115 .95092	87 .95088	67 .95215	50 .95040	36 .95511
.09	665 .95002	315 .95037	198 .95101	138 .95009	102 .95016	78 .95191	60 .95339	45 .95200	32 .95430
.10	599 .95017	284 .95069	178 .95062	125 .95137	92 .95041	70 .95092	54 .95207	41 .95483	29 .95502
.15	500 .95037	190 .95109	119 .95062	84 .95226	62 .95162	47 .95087	36 .95075	28 .95729	20 .95841
.20	300 .95017	143 .95149	90 .95188	63 .95134	47 .95280	36 .95400	28 .95576	21 .95448	15 .95431
.25	241 .95093	114 .95028	72 .95123	51 .95310	38 .95393	29 .95391	22 .95040	17 .95421	13 .95718
.30	201 .95093	96 .95226	60 .95057	43 .95479	32 .95503	24 .95039	19 .95545	15 .95308	11 .95071
.35	172 .95036	82 .95107	52 .95245	37 .95475	27 .95014	21 .95308	16 .95003	13 .95338	9 .95229
.40	151 .95093	72 .95146	46 .95426	32 .95118	24 .95252	19 .95942	15 .95321	11 .95330	8 .95139
.45	134 .95035	64 .95105	41 .95424	29 .95466	22 .95183	17 .95927	13 .95574	10 .95388	8 .95784
.50	121 .95092	58 .95222	37 .95421	26 .95287	20 .95910	15 .95519	12 .95924	9 .95177	7 .95385
.60	101 .95092	49 .95449	31 .95415	22 .95448	17 .95095	13 .95874	10 .95474	8 .95111	6 .95177
.70	87 .95166	42 .95371	27 .95642	19 .95432	15 .95456	11 .95224	9 .95144	7 .95582	6 .95319
.80	76 .95090	37 .95443	24 .95858	17 .95747	13 .95042	10 .95777	8 .95072	7 .95003	5 .95905
.90	68 .95202	33 .95439	21 .95389	15 .95394	12 .95584	9 .95718	7 .95176	6 .95980	5 .95973

Table III. Sampling Plans for the Quantiles of DFR Distributions

		$P^* = .95 \quad c = 3$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
λ										
.01	7361 .95000	5477 .95006	2176 .95008	1520 .95011	1121 .95020	848 .95009	646 .95020	484 .95039	359 .95058	
.02	3682 .95007	1759 .95002	1089 .95014	761 .95019	561 .95009	425 .95024	324 .95039	243 .95055	170 .95019	
.03	2455 .95005	1160 .95005	727 .95031	508 .95028	375 .95043	284 .95039	217 .95098	163 .95143	114 .95095	
.04	1842 .95010	871 .95024	545 .95001	381 .95002	282 .95077	214 .95114	163 .95078	122 .95010	86 .95090	
.05	1474 .95012	697 .95021	437 .95043	306 .95078	226 .95088	171 .95038	131 .95136	98 .95035	69 .95049	
.06	1229 .95020	581 .95017	364 .95013	255 .95052	188 .95008	143 .95083	109 .95036	82 .95090	58 .95158	
.07	1053 .95005	498 .95006	313 .95078	219 .95077	162 .95110	123 .95127	94 .95134	71 .95240	50 .95190	
.08	922 .95017	436 .95009	274 .95072	192 .95102	142 .95121	108 .95171	83 .95306	62 .95108	44 .95223	
.09	820 .95026	388 .95028	244 .95101	171 .95127	126 .95041	96 .95125	74 .95323	56 .95436	39 .95029	
.10	738 .95020	349 .95002	219 .95013	154 .95118	114 .95142	87 .95257	66 .95030	50 .95154	37 .95566	
.15	493 .95047	234 .95093	147 .95100	103 .95074	77 .95305	58 .95027	45 .95310	34 .95262	25 .95019	
.20	370 .95038	176 .95111	111 .95185	78 .95196	58 .95244	44 .95092	34 .95197	26 .95359	19 .95808	
.25	296 .95011	141 .95092	89 .95154	63 .95314	47 .95400	36 .95443	28 .95640	21 .95194	16 .96499	
.30	247 .95020	118 .95146	74 .95006	53 .95428	39 .95117	30 .95213	24 .96041	18 .95525	13 .95302	
.35	212 .95028	101 .95053	64 .95149	45 .95057	34 .95382	26 .95268	20 .95019	16 .96050	12 .96622	
.40	186 .95072	89 .95179	56 .95059	40 .95338	30 .95424	23 .95320	18 .95464	14 .95656	11 .97159	
.45	166 .95149	79 .95087	50 .95084	36 .95526	27 .95569	21 .95779	16 .95139	13 .96361	10 .97187	
.50	149 .95053	72 .95353	46 .95556	32 .95076	24 .95065	19 .85690	15 .95913	12 .96594	9 .96718	
.60	125 .95173	60 .95244	38 .95158	27 .95141	21 .95971	16 .95498	13 .96308	10 .95823	8 .97215	
.70	107 .95086	52 .95415	33 .95318	24 .95818	18 .95640	14 .95570	11 .95351	9 .96296	7 .96693	
.80	94 .95137	45 .95017	29 .95249	21 .95572	16 .95699	13 .96599	10 .95765	8 .95877	7 .98226	
.90	84 .95221	41 .95541	26 .95292	19 .95770	15 .96646	12 .97041	9 .95439	8 .97905	6 .97030	

Table III. Sampling Plans for the Quantiles of DFR Distributions

$P^* = .95$ $c = 4$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	8941 .9500*	4104 .95000	2569 .95001	1794 .95002	1323 .95009	1001 .95001	763 .95027	571 .95013	400 .95033
.02	4344 .95001	2054 .95013	1289 .95013	848 .95001	603 .95030	502 .95029	383 .95063	287 .95022	201 .95031
.03	2898 .95001	1570 .95013	858 .95018	600 .95033	443 .95051	335 .95000	246 .95033	192 .95000	135 .95100
.04	2174 .95001	1028 .95013	644 .95018	450 .95001	333 .95072	242 .95028	193 .95135	145 .95157	102 .95100
.05	1740 .95007	823 .95020	516 .95040	361 .95048	267 .95093	202 .95027	155 .95170	111 .95057	82 .95122
.06	1450 .95001	686 .95013	430 .95018	301 .95032	223 .95114	169 .95083	129 .95059	97 .95055	70 .95244
.07	1244 .95021	589 .95047	369 .95029	258 .95000	191 .95050	145 .95054	111 .95095	84 .95246	59 .95082
.08	1089 .95001	515 .95013	323 .95017	226 .95000	168 .95155	127 .95024	98 .95273	74 .95337	52 .95145
.09	968 .95020	458 .95013	288 .95083	202 .95125	149 .95049	114 .95245	87 .95164	66 .95333	47 .95474
.10	871 .95007	413 .95054	259 .95039	182 .95124	135 .95195	102 .95022	79 .95339	59 .95041	42 .95129
.15	582 .95040	276 .95054	174 .95146	122 .95122	91 .95292	69 .95153	53 .95146	40 .95013	29 .95416
.20	437 .95039	208 .95121	131 .95145	92 .95118	69 .95386	52 .95000	41 .95645	31 .95453	23 .95233
.25	350 .95039	167 .95154	105 .95088	74 .95113	55 .95069	43 .95652	33 .95452	25 .95171	19 .95444
.30	292 .95039	139 .95051	88 .95139	62 .95017	47 .95564	36 .95507	28 .95591	22 .95205	16 .95030
.35	251 .95087	120 .95185	77 .95242	54 .95402	40 .95150	31 .95355	24 .95208	19 .95949	14 .95963
.40	220 .95103	105 .95116	67 .95343	47 .95092	36 .95728	28 .95956	22 .95146	17 .95086	13 .95894
.45	196 .95134	94 .95248	60 .95441	42 .95082	32 .95522	25 .95812	20 .95392	15 .95356	12 .97223
.50	176 .95037	85 .95311	54 .95334	38 .95072	29 .95505	23 .95134	18 .95059	14 .95928	11 .97102
.60	147 .95039	71 .95241	45 .95111	32 .95048	25 .95020	19 .95330	15 .95287	12 .95727	9 .95014
.70	127 .95195	61 .95169	39 .95204	28 .95326	21 .95002	17 .95999	14 .95930	11 .95682	9 .98061
.80	111 .95048	54 .95361	35 .95669	25 .95586	19 .95556	15 .95668	12 .95662	10 .95810	8 .97418
.90	97 .95128	48 .95227	31 .95381	23 .95215	17 .95294	14 .95485	11 .95811	9 .95189	7 .95283

Table III. Sampling Plans for the Quantiles of DFR Distributions

	$P^* = .95 \quad c = 1$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	9982 .95003	4714 .95002	2950 .95000	201 .95007	1520 .95010	110 .95004	870 .95010	550 .95013	40 .95011
.02	4992 .95003	2359 .95011	1477 .95016	1032 .95014	701 .95006	577 .95044	440 .95012	330 .95082	231 .95021
.03	3329 .95005	1573 .95001	985 .95000	689 .95021	509 .95056	385 .95003	294 .95044	221 .95104	155 .95057
.04	2498 .95012	1181 .95017	740 .95026	518 .95058	382 .95025	290 .95009	221 .95026	157 .95033	117 .95087
.05	1999 .95014	945 .95008	593 .95051	415 .95065	300 .95015	232 .95002	178 .95145	134 .95191	94 .95048
.06	1666 .95009	788 .95011	494 .95015	340 .95043	256 .95084	194 .95041	149 .95195	112 .95165	79 .95141
.07	1428 .95001	676 .95020	424 .95030	297 .95050	220 .95113	167 .95100	128 .95170	96 .95047	68 .95102
.08	1250 .95006	592 .95030	371 .95004	260 .95027	193 .95142	140 .95012	112 .95088	85 .95203	60 .95132
.09	1112 .95022	526 .95001	331 .95091	232 .95108	172 .95171	131 .95232	100 .95137	70 .95355	54 .95405
.10	1001 .95021	474 .95023	298 .95076	209 .95100	155 .95160	118 .95192	90 .95048	68 .95057	49 .95488
.15	668 .95013	317 .95039	200 .95131	140 .95060	104 .95105	80 .95372	61 .95117	47 .95578	34 .95871
.20	502 .95036	239 .95118	150 .95021	106 .95165	79 .95243	60 .95037	47 .95500	30 .95042	20 .95046
.25	402 .95028	191 .95004	121 .95146	85 .95050	64 .95370	49 .95340	38 .95395	29 .95266	21 .95014
.30	336 .95081	160 .95084	101 .95066	72 .95364	54 .95503	41 .95126	32 .95275	25 .95734	18 .95086
.35	288 .95042	138 .95193	87 .95087	62 .95321	46 .95057	36 .95539	28 .95477	22 .95901	17 .95405
.40	252 .95004	121 .95175	77 .95308	55 .95552	41 .95379	32 .95089	25 .95004	20 .95521	15 .95731
.45	225 .95102	108 .95220	69 .95424	49 .95440	37 .95590	29 .95943	23 .95264	18 .95355	14 .95331
.50	203 .95139	97 .95076	62 .95248	44 .95183	33 .95046	26 .95503	21 .95279	16 .95303	13 .95478
.60	169 .95032	82 .95351	52 .95184	37 .95082	28 .95093	22 .95293	18 .95294	14 .95747	11 .95490
.70	146 .95196	70 .95064	45 .95218	33 .95928	25 .95865	20 .95435	16 .95548	13 .95700	10 .95752
.80	128 .95179	62 .95277	40 .95444	29 .95705	22 .95538	18 .95035	14 .95078	12 .95335	9 .95927
.90	114 .95163	55 .95048	36 .95566	26 .95600	20 .95735	16 .95023	13 .95211	11 .95442	9 .95129

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $P^* = .99$ $c = 0$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	4372 .99001	2064 .99001	1292 .99003	902 .99003	665 .99004	503 .99004	383 .99006	287 .99014	201 .99023
.02	2186 .99001	1032 .99000	646 .99003	451 .99002	333 .99011	252 .99013	192 .99018	144 .99030	100 .99000
.03	1457 .99000	688 .99000	431 .99007	301 .99008	222 .99011	168 .99013	128 .99018	96 .99030	67 .99023
.04	1093 .99001	516 .99001	323 .99003	226 .99013	167 .99025	126 .99013	96 .99018	72 .99030	50 .99000
.05	875 .99004	413 .99003	259 .99014	181 .99018	133 .99004	101 .99022	77 .99030	58 .99060	40 .99000
.06	729 .99003	344 .99001	216 .99017	151 .99023	111 .99011	84 .99013	64 .99018	48 .99030	34 .99088
.07	625 .99004	295 .99003	185 .99014	129 .99008	95 .99004	72 .99013	55 .99030	41 .99014	29 .99067
.08	547 .99005	258 .99001	162 .99017	113 .99013	84 .99051	63 .99013	48 .99018	36 .99030	26 .99168
.09	486 .99003	230 .99014	144 .99017	101 .99038	74 .99011	56 .99013	43 .99033	32 .99030	23 .99149
.10	438 .99010	207 .99014	130 .99031	91 .99042	67 .99038	51 .99066	39 .99086	29 .99060	21 .99206
.15	292 .99010	138 .99014	87 .99048	61 .99067	45 .99071	34 .99066	26 .99086	20 .99200	14 .99206
.20	219 .99010	104 .99036	65 .99031	46 .99090	34 .99103	26 .99147	20 .99190	15 .99200	11 .99369
.25	175 .99004	83 .99025	52 .99031	37 .99113	27 .99071	21 .99186	16 .99190	12 .99200	9 .99438
.30	146 .99010	69 .99014	44 .99098	31 .99135	23 .99163	17 .99066	13 .99086	10 .99200	7 .99206
.35	125 .99004	59 .99003	37 .99014	26 .99042	19 .99004	15 .99186	11 .99030	9 .99372	6 .99206
.40	110 .99030	52 .99036	33 .99098	23 .99090	17 .99103	13 .99147	10 .99190	8 .99420	5 .99000
.45	98 .99040	46 .99014	29 .99048	21 .99199	15 .99071	12 .99290	9 .99237	7 .99372	5 .99438
.50	88 .99030	42 .99078	26 .99031	19 .99219	14 .99219	11 .99352	8 .99190	6 .99200	4 .99000
.60	73 .99010	35 .99078	22 .99098	16 .99258	12 .99320	9 .99290	7 .99363	5 .99200	4 .99602
.70	63 .99040	30 .99078	19 .99129	13 .99042	10 .99219	8 .99409	6 .99363	5 .99642	3 .99206
.80	55 .99030	26 .99036	17 .99218	12 .99258	9 .99320	7 .99409	5 .991900	4 .99420	3 .99602
.90	49 .99040	23 .99014	15 .99189	11 .99364	8 .99320	6 .99290	5 .99556	4 .99695	3 .99800

Table III. Sampling Plans for the Quantiles of DFR Distributions

 $P^* = .99 \quad c = 1$

q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	6302 .99001	2976 .99001	1862 .99001	1301 .99004	959 .99005	725 .99000	552 .99001	413 .99000	289 .99004
.02	3151 .99000	1488 .99000	932 .99006	651 .99006	480 .99008	363 .99004	277 .99017	207 .99007	145 .99014
.03	2101 .99001	993 .99005	621 .99001	434 .99004	320 .99005	242 .99000	185 .99022	138 .99000	97 .99024
.04	1576 .99001	745 .99006	466 .99003	326 .99011	240 .99002	182 .99012	139 .99027	104 .99021	73 .99033
.05	1261 .99002	596 .99005	373 .99004	261 .99013	193 .99028	146 .99024	111 .99012	83 .99000	59 .99080
.06	1051 .99002	497 .99008	311 .99006	218 .99024	161 .99031	122 .99035	93 .99037	70 .99061	49 .99052
.07	901 .99003	426 .99007	267 .99013	187 .99026	138 .99028	105 .99054	80 .99052	60 .99054	42 .99042
.08	789 .99007	373 .99010	234 .99021	163 .99002	121 .99037	92 .99058	70 .99047	53 .99099	37 .99070
.09	701 .99004	332 .99016	208 .99019	145 .99004	107 .99005	82 .99069	62 .99021	47 .99080	33 .99079
.10	631 .99004	298 .99000	187 .99012	131 .99024	97 .99043	73 .99004	56 .99037	42 .99034	30 .99123
.15	421 .99006	199 .99005	125 .99019	88 .99056	65 .99057	49 .99023	38 .99108	29 .99188	20 .99075
.20	316 .99009	150 .99029	94 .99027	66 .99050	49 .99070	37 .99041	29 .99175	22 .99214	15 .99023
.25	253 .99011	120 .99024	75 .99004	53 .99055	39 .99027	30 .99097	23 .99106	18 .99290	13 .99375
.30	211 .99013	100 .99019	63 .99041	44 .99023	33 .99097	25 .99077	19 .99031	15 .99262	11 .99401
.35	181 .99015	86 .99033	54 .99034	38 .99054	28 .99025	22 .99196	17 .99233	13 .99285	9 .99140
.40	159 .99035	75 .99009	48 .99113	34 .99163	25 .99122	19 .99110	15 .99251	11 .99080	8 .99174
.45	141 .99020	67 .99033	42 .99018	30 .99114	22 .99052	17 .99126	13 .99096	10 .99168	7 .99028
.50	127 .99022	61 .99032	38 .99040	27 .99104	20 .99093	16 .99325	12 .99205	9 .99132	7 .99490
.60	106 .99026	51 .99101	32 .99023	23 .99197	17 .99170	13 .99171	10 .99155	8 .99381	6 .99526
.70	91 .99031	44 .99126	28 .99177	20 .99248	15 .99284	11 .99060	9 .99344	7 .99414	5 .99334
.80	80 .99033	38 .99046	24 .99053	17 .99079	13 .99213	10 .99226	8 .99371	6 .99261	5 .99723
.90	71 .99039	34 .99073	22 .99201	15 .99013	12 .99361	9 .99251	7 .99254	6 .99655	4 .99277

Table III. Sampling Plans for the Quantiles of DTP Distributions

		P* = .99 c = 2								
		.1	.2	.3	.4	.5	.6	.7	.8	.9
q	A									
.01		7980 .99000	3768 .99000	2358 .99001	1647 .99002	1214 .99002	919 .99004	700 .99006	524 .99009	397 .99017
.02		5991 .99001	1885 .99002	1180 .99004	824 .99002	608 .99007	460 .99004	351 .99017	263 .99021	184 .99017
.03		2661 .99002	1257 .99002	787 .99004	550 .99006	406 .99012	307 .99004	234 .99008	176 .99034	123 .99016
.04		1996 .99002	943 .99002	591 .99009	413 .99010	305 .99018	231 .99019	176 .99017	132 .99021	93 .99051
.05		1597 .99001	755 .99005	473 .99009	331 .99018	244 .99012	185 .99019	141 .99017	107 .99033	75 .99085
.06		1331 .99001	629 .99002	394 .99003	276 .99018	204 .99028	154 .99004	118 .99035	89 .99069	62 .99015
.07		1141 .99002	540 .99010	338 .99006	237 .99026	175 .99028	133 .99046	101 .99016	76 .99033	54 .99100
.08		999 .99005	472 .99002	296 .99009	207 .99010	153 .99018	116 .99018	89 .99053	67 .99069	47 .99049
.09		888 .99004	420 .99007	263 .99003	184 .99006	136 .99012	103 .99004	79 .99035	60 .99103	42 .99065
.10		799 .99001	378 .99005	237 .99009	166 .99018	123 .99039	93 .99018	71 .99016	54 .99091	38 .99081
.15		533 .99001	253 .99022	159 .99036	111 .99017	82 .99011	63 .99086	48 .99060	36 .99028	26 .99156
.20		400 .99001	190 .99022	119 .99009	84 .99056	62 .99037	47 .99016	36 .99012	28 .99194	20 .99223
.25		321 .99018	152 .99014	96 .99049	67 .99016	50 .99062	38 .99049	29 .99008	22 .99019	16 .99139
.30		267 .99001	127 .99022	80 .99036	56 .99016	42 .99087	32 .99083	25 .99178	19 .99184	14 .99337
.35		229 .99001	109 .99022	69 .99062	49 .99127	36 .99060	28 .99173	21 .99000	16 .99004	12 .99261
.40		201 .99018	96 .99056	60 .99007	43 .99126	32 .99133	24 .99006	19 .99169	15 .99358	11 .99429
.45		179 .99026	85 .99022	54 .99074	38 .99071	28 .99003	22 .99168	17 .99165	13 .99161	10 .99469
.50		161 .99018	77 .99055	49 .99112	34 .99011	26 .99176	20 .99195	16 .99370	12 .99253	9 .99403
.60		134 .99001	64 .99021	41 .99111	29 .99122	22 .99216	17 .99245	13 .99146	10 .99128	8 .99516
.70		115 .99001	55 .99020	35 .99058	25 .99119	19 .99211	15 .99341	12 .99463	9 .99304	7 .99538
.80		101 .99017	49 .99118	31 .99108	22 .99116	17 .99289	13 .99228	10 .99112	8 .99278	6 .99278
.90		90 .99025	43 .99019	28 .99179	20 .99214	15 .99199	12 .99372	9 .99091	7 .99026	6 .99695

Table III. Sampling Plans for the Quantiles of DPF Distributions

		P* = .99 c = 3							
q	.1	.2	.3	.4	.5	.6	.7	.8	.9
λ									
.01	9536 .99000	4504 .99002	2818 .99000	1968 .99000	1451 .99002	1098 .99002	836 .99001	626 .99004	438 .99004
.02	4769 .99001	2253 .99002	1410 .99002	985 .99002	727 .99009	550 .99005	419 .99006	314 .99010	220 .99012
.03	3180 .99001	1503 .99005	941 .99006	657 .99000	485 .99007	367 .99001	280 .99010	210 .99016	147 .99004
.04	2385 .99000	1127 .99001	706 .99004	494 .99013	364 .99004	276 .99011	211 .99032	158 .99021	111 .99028
.05	1909 .99003	902 .99001	565 .99003	395 .99004	292 .99016	221 .99008	169 .99027	127 .99038	89 .99019
.06	1591 .99002	752 .99002	471 .99002	330 .99017	244 .99029	185 .99031	141 .99023	106 .99032	75 .99075
.07	1364 .99003	645 .99005	404 .99003	283 .99015	209 .99016	159 .99040	121 .99018	91 .99026	64 .99017
.08	1194 .99005	565 .99010	354 .99009	248 .99020	183 .99014	139 .99024	106 .99013	80 .99042	57 .99119
.09	1061 .99001	502 .99005	315 .99013	221 .99033	163 .99021	124 .99040	95 .99060	71 .99013	51 .99140
.10	955 .99001	452 .99005	284 .99022	199 .99031	147 .99028	112 .99056	85 .99004	64 .99007	46 .99131
.15	638 .99010	302 .99009	190 .99028	133 .99022	99 .99064	75 .99038	58 .99106	44 .99139	31 .99085
.20	479 .99012	227 .99013	143 .99034	100 .99012	74 .99001	57 .99084	44 .99123	33 .99054	24 .99185
.25	383 .99003	182 .99017	115 .99053	81 .99074	60 .99062	46 .99097	35 .99015	27 .99127	20 .99330
.30	320 .99016	152 .99021	96 .99046	68 .99099	50 .99023	39 .99167	30 .99152	23 .99194	17 .99346
.35	274 .99002	131 .99048	82 .99001	58 .99036	43 .99009	33 .99027	26 .99166	20 .99208	15 .99412
.40	240 .99004	115 .99060	72 .99007	51 .99044	38 .99043	29 .99007	23 .99178	18 .99309	13 .99251
.45	214 .99021	102 .99032	65 .99099	46 .99120	34 .99053	26 .99018	21 .99291	16 .99233	12 .99377
.50	193 .99031	92 .99036	58 .99018	41 .99023	31 .99109	24 .99052	19 .99268	15 .99405	11 .99383
.60	161 .99027	77 .99043	49 .99079	35 .99140	26 .99079	20 .99050	16 .99218	13 .99485	10 .99639
.70	138 .99015	66 .99018	42 .99040	30 .99086	23 .99223	18 .99289	14 .99233	11 .99270	9 .99697
.80	121 .99019	58 .99025	37 .99050	27 .99224	20 .99109	16 .99301	13 .99474	10 .99359	8 .99633
.90	108 .99037	52 .99063	33 .99034	24 .99174	18 .99121	14 .99096	11 .99024	9 .99278	7 .99360

Table III. Sampling Plans for the Quantiles of NBT Distribution.

		P* = .99 c = 4								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9	
.01	11017 .99000	5203 .99001	3256 .99001	2274 .99001	1677 .99004	1261 .99003	906 .99001	724 .99011	501 .99000	
.02	5510 .99001	2603 .99002	1629 .99001	1138 .99010	840 .99009	636 .99010	484 .99001	363 .99010	255 .99031	
.03	3674 .99002	1736 .99002	1087 .99004	760 .99008	561 **.013	425 .99016	324 .99017	243 .99021	171 .99046	
.04	2756 .99001	1303 .99005	816 .99006	570 .99009	421 .99008	319 .99009	243 .99001	183 .99032	129 .99060	
.05	2205 .99001	1043 .99007	653 .99004	457 .99011	337 .99004	256 .99022	195 .99009	147 .99042	103 .99014	
.06	1838 .99001	869 .99002	545 .99011	381 .99008	282 .99027	214 .99034	163 .99017	123 .99052	87 .99088	
.07	1576 .99003	745 .99001	467 .99003	327 .99011	242 .99027	183 .99003	140 .99016	106 .99072	75 .99101	
.08	1379 .99001	633 .99011	409 .99006	286 .99001	212 .99027	161 .99033	123 .99032	93 .99072	66 .99115	
.09	1226 .99001	580 .99002	364 .99011	255 .99018	189 .99041	143 .99015	110 .99064	83 .99081	59 .99127	
.10	1104 .99004	523 .99014	328 .99016	230 .99028	170 .99027	129 .99021	99 .99048	75 .99091	53 .99083	
.15	737 .99008	349 .99007	219 .99003	154 .99028	114 .99026	87 .99047	67 .99083	51 .99135	36 .99072	
.20	553 .99004	263 .99029	165 .99015	116 .99027	86 .99024	66 .99077	51 .99117	39 .99176	28 .99197	
.25	443 .99003	211 .99036	133 .99050	93 .99009	70 .99112	53 .99044	41 .99074	31 .99016	23 .99243	
.30	370 .99018	176 .99029	111 .99038	78 .99025	58 .99020	45 .99127	35 .99177	27 .99247	19 .99013	
.35	317 .99008	151 .99021	95 .99001	67 .99006	50 .99017	39 .99150	30 .99098	23 .99095	17 .99200	
.40	278 .99018	133 .99058	84 .99060	59 .99022	44 .99014	34 .99060	27 .99230	21 .99306	15 .99103	
.45	247 .99007	118 .99028	75 .99070	53 .99070	40 .99143	31 .99194	24 .99154	19 .99331	14 .99325	
.50	223 .99025	107 .99071	68 .99103	48 .99085	36 .99098	28 .99162	22 .99213	17 .99191	13 .99402	
.60	186 .99018	89 .99027	57 .99101	40 .99013	31 .99249	24 .99230	19 .99316	15 .99395	11 .99222	
.70	160 .99032	77 .99069	49 .99076	35 .99107	27 .99277	21 .99284	16 .99011	13 .99282	10 .99371	
.80	140 .99017	68 .99110	43 .99050	31 .99132	24 .99303	19 .99397	15 .99381	12 .99456	9 .99282	
.90	125 .99038	60 .99023	39 .99157	28 .99185	21 .99099	17 .99340	13 .99015	11 .99477	9 .99745	

Table III. Sampling Plans for the Quantiles of DF Distributions

	$P^* = .99 \quad c = 5$								
q	.1	.2	.3	.4	.5	.6	.7	.8	.9
.01	12445 .99000	5877 .99000	3678 .99001	2569 .99001	1894 .99002	1434 .99005	1092 .99006	817 .99000	572 .99005
.02	6224 .99001	2940 .99001	1841 .99004	1286 .99005	949 .99008	718 .99002	547 .99002	410 .99005	283 .99025
.03	4150 .99001	1961 .99001	1228 .99003	858 .99001	633 .99001	480 .99011	366 .99013	275 .99031	193 .99032
.04	3113 .99000	1472 .99005	922 .99006	645 .99013	476 .99013	361 .99020	275 .99009	207 .99036	149 .99009
.05	2451 .99001	1178 .99004	738 .99005	516 .99004	381 .99006	289 .99011	221 .99028	166 .99030	117 .99045
.06	2077 .99004	982 .99004	616 .99013	431 .99016	318 .99008	241 .99002	184 .99001	139 .99045	90 .99031
.07	1780 .99001	842 .99003	528 .99008	370 .99021	273 .99010	207 .99005	159 .99050	119 .99008	84 .99013
.08	1558 .99002	737 .99002	462 .99002	324 .99019	239 .99003	182 .99031	139 .99023	105 .99053	74 .99033
.09	1385 .99001	656 .99010	411 .99003	288 .99011	213 .99014	162 .99028	124 .99034	94 .99087	66 .99024
.10	1247 .99002	590 .99001	371 .99022	260 .99029	192 .99016	146 .99024	112 .99045	84 .99000	60 .99072
.15	832 .99001	395 .99019	248 .99016	174 .99020	129 .99026	98 .99007	76 .99097	57 .99020	41 .99094
.20	625 .99006	297 .99022	187 .99033	131 .99011	98 .99078	75 .99104	58 .99144	44 .99133	32 .99237
.25	501 .99014	238 .99018	150 .99027	106 .99066	79 .99087	60 .99030	47 .99155	36 .99189	26 .99187
.30	418 .99016	199 .99029	126 .99065	89 .99088	66 .99052	51 .99123	39 .99022	30 .99060	22 .99129
.35	358 .99000	171 .99032	108 .99037	76 .99014	57 .99060	44 .99104	34 .99069	26 .99018	20 .99409
.40	314 .99012	150 .99035	95 .99052	67 .99037	50 .99024	39 .99138	30 .99035	24 .99329	18 .99452
.45	279 .99000	134 .99059	85 .99079	60 .99059	45 .99074	35 .99045	27 .99046	21 .99078	16 .99303
.50	252 .99022	121 .99069	77 .99104	54 .99016	41 .99121	32 .99201	25 .99191	20 .99401	15 .99441
.60	210 .99005	101 .99047	64 .99025	46 .99120	35 .99207	27 .99160	21 .99057	17 .99329	13 .99417
.70	181 .99035	87 .99053	56 .99140	40 .99157	30 .99099	24 .99306	19 .99316	15 .99319	12 .99615
.80	159 .99051	76 .99001	49 .99084	35 .99076	27 .99221	21 .99170	17 .99313	14 .99549	11 .99645
.90	141 .99014	68 .99021	44 .99112	32 .99225	24 .99112	19 .99171	15 .99043	13 .99626	10 .99540