DEPARTMENT OF SOCIOLOGY
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THREAT PERCEPTION AND CIVIL DEFENSE

BY

DONNA K. KONTOS

FOR

OFFICE OF CIVIL DEFENSE
OFFICE OF THE SECRETARY OF THE ARMY

OCD-PS-64-61

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A SUMMARY

OF

IMPACTS RESEARCH

THE OBJECTIVES OF IMPACTS RESEARCH. The Office of Civil Defense is charged with the responsibility of provision of a system to protect life and property in the United States in the event of an enemy attack. In an era where such an attack may assume the form of a massive nuclear strike at the American homeland, the technological and organizational requirements levied upon such a protective system are unprecedented. The vast scope of both the threat and the nation's response to that threat raises two fundamental questions concerning the impact of the threat on the American social system and possible responses to that threat. These can be summarily expressed as:

1. What are the possible and what are the likely consequences of alternative civil defense systems for the American as an individual and for his social structure and its values, institutions, and functions?
2. What is the societal context into which alternative CD systems would be introduced? What are the nature and dynamics of public and institutional support, opinion, and information?

Research on the impact of Civil Defense on society must address itself to the specification of these fundamental questions and to provision of responsible answers within the constraints of available information and methodologies. Where present information and methodologies are not adequate this must be spelled out and criteria established for the development of future studies as may be required. An innovation of the magnitude of a comprehensive Civil Defense program will have definite and pervasive consequences for the individual as well as the larger society, as, indeed, does any major effort on behalf of the public welfare. It will not be possible to determine fully all possible and probable effects of the proposal,

introduction and implementation of a variety of alternative CD systems with existing social science techniques and methodologies. But, within these limits, some answers can be provided and the boundaries of our ignorance delineated.

In addition to evolution of methodologies for present and future application, impacts research has been concerned with a variety of substantive inquiries. Some of these are listed below.

1. What is the nature of the public controversy centered around Civil Defense and related Cold War issues?
2. Provision of a general frame of reference for the specification of the acceptance process of any major system innovation and the application of this paradigm to Civil Defense.
3. What is the present perception of the American public of the consequences of Civil Defense for certain basic personal and social values?
4. What are the social institutions and customs upon which <u>any</u> innovating federal program might have an impact of consequence? What might be the impact of a variety of alternative CD programs be on each component of such a check list?
5. What is the flow and dynamic of information and opinion concerning Civil Defense and Cold War issues? Who are the opinion influentials that may determine acceptance and support of a program?
6. Are there ecological and socio-structural differences in American society with regard to Civil Defense and Cold War issues?
7. Have there been any trends over time with regard to selected CD and Cold War issues?

8. What has been the American perception of the threat and the response to it to date?

THE METHODOLOGY OF IMPACTS RESEARCH. As comprehensive an endeavor as the examination of present and future impacts of existing and possible innovations for a complex social structure necessarily entails a wide range and variety of methodology and associated techniques. Concepts and approaches have been drawn from system design, sociology, economics and political science and have been implemented via a number of specific support technologies including statistical and computer applications. The integration of this diversity has been effected in terms of the relationship among elements of system design criteria with structural sociological theory, especially in terms of Dr. Jiri Nehnevajsa's Outcomes methodology. Part One of the 1963 final report, Civil Defense and Society provides an extensive overview of impacts methodology.

Some specific techniques and their applications are listed below. In addition to the social-science oriented modes of data collection and analysis which comprise the core of impacts research, reference has also been made where necessary to "hard" data that comprise the "reality" of nuclear war and Civil Defense programs.

Content Analysis. For a five year publication period, an extensive literature search was made in professional and lay journals, books, etc., to extract all major propositions and arguments bearing on Civil Defense systems, their implementation and postulated impact on society. Specific propositional statements concerning Civil Defense and its possible relation to American traits and values were abstracted and codified. These formed the base of the opposition-acceptance paradigm of the final report, Civil Defense and Society.

In addition to the examination of the available literature, an ongoing compilation of news and editorial content of a number of American newspapers is being conducted on all aspects of Civil Defense, the Cold War, and military technology.

Survey Research. The Data Bank of the Research Office of Sociology contains some 400 study references and approximately 300,000 IBM punch cards from surveys containing material of interest to impacts research. In addition to OCD sponsored studies, this file includes material dating back to the nineteen-forties from surveys conducted by the American Institute of Public Opinion, the National Opinion Research Center, the University of Minnesota and others. This material is essential for assessment of the direct impact of issues, events and programs on the American public. The range and scope of the date available permit a wide range of analysis both over time and topic.

Historiography. The Research Office staff includes an historian who applies the special techniques of his discipline in a variety of applications, including the tracing of American value patterns and the investigation of archival materials.

The final result of the application of the above methodologies is to be a mapping of the American value system and social structure, for the present and to some distance into the future, with regard to the relevant stress elements that may pertain to the innovation of alternative CD systems. Once identified, a variety of techniques will be applied to specify the consequences of proposal, adoption and implementation of CD alternatives into such system environments.

THREAT PERCEPTION. This report, which focusses on the nation's perception of the threat posed, is one of two that specify in detail the major elements of the acceptance-opposition paradigm that comprised the frame of reference for the Civil Defense and Society report, July, 1964. The nature of the perception of threat held by the public has considerable consequences for the actions and attitudinal structures that, in large measure, determine the immediate receptive environment into which innovation may be introduced. Threat perception was selected as a major report focus because it was seen as a prime determinant of the terminal objectives and related system goals of any CD system. The level of anxiety, the nature of the actual possible consequences of an attack, the weapons to be used and their effects all contribute to the degree to which there is a "felt need" for CD and a predicate for broad-base support of specific CD programs.

In addition to its substantive interest, an analysis of perception of threat provided an opportunity to examine the structural components of American society to determine if, in fact, differences of perception do arise among collectivities differentially located in the structure and ecology of American society. Such differences may have relevance for fragmentation and lack of consensus. They may also simply reflect the realities of the situation and indicate a given level of "objectivity" on the part of the public. The analysis provided in this report of the chronology of threat perception comprises a statement of the impact of the threat itself upon the social system and individual Americans. Over time, Americans have evolved an essentially realistic estimate of the level and content of the threat posed by the possibility of global war. They are concerned but not panicked. Despite the furor in the press and other media, they do not seem to be particularly fragmented in opinion.

Analysis of their threat perception indicates that they have faced up to the threat they must live with and are ready for satisfactory responses to that threat.

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ABSTRACT

Threat perception has considerable psychological consequences for actions and attitudinal structures. As such, it was looked into as one of the bases for differential public receptivity to civil defense programs.

The analysis of the nation's perception of threat included anxiety about war; the nature of the threat perceived, namely: what are the perceived targets and what weapons will be used; estimates of weapons effects; the consequences of threat perception of varying degrees and type for action; and the consequences of threat perception of varying degrees and type on the respondent's feeling about civil defense and/or fallout shelters.

The above topics were specified by all pertinent cross-tabulations we now have in the data bank at the University of Pittsburgh. The data bank is a collection of empirical studies on attitudes concerning civil defense. The various sample populations were discretely specified into sub-groups along such variables as age, sex, religion, geographic location, socio-economic status, and other relevant demographic variables. Given the data limitations, there was also an attempt to provide a "trend analysis" establishing the basic chronology of public opinion with regard to this topic.

The research supports the fact that a little under half of the population say they are apprehensive over the possibility of nuclear war. The findings indicate that the wider horizons of the young, the greater responsibilities of the married, especially parents, and the emotionality of women aggravate fear of war. The less educated and those of lower socio-economic status worry the most.

Americans expect the nation's cities to be bombed and generally their own city. They also expect some cities in their immediate vicinity or in their part of the country to be subject to an attack. They also expect people to get killed in an attack although population per se is not perceived as a high priority target. Six out of every ten Americans estimate their chances of survival as bad.

The worse people rate our defenses the more pessimistic they are about their chances of survival. People generally consider that their survivability would be enhanced in a fallout shelter.

The percentages of people who mention nuclear, or thermonuclear weapons spontaneously as the weapons of war have been increasing

throughout the years. Chemical and biological weapons references are less frequent. However, there are as many people who do anticipate their deployment as there are those who do not. Of course, two out of three Americans claim to know nothing or very little about them.

Without any question, systems to protect lives and property are viewed chiefly as those which must deal with thermonuclear weapons.

People have become more aware of the secondary weapons effects over the years since about 1950. By 1964, fallout is viewed as more of a danger to more people than are primary effects. People are also not very optimistic that they could do anything to protect themselves. If they are directly attacked, people do not believe that much can be done at all.

There is no doubt that the worried tend to think about and volunteer for civil defense more than those who express no worry. There is also no doubt that people who have a realistic notion of weapons effects and who do believe their city to be a target tend to have a more constructive response to the threat. They also tend to volunteer more readily than those with exaggerated estimates of bomb effects. It is also clear that the more worried the citizen, the more likely he is to favor shelters. However, the nuclear threat, except for the above-mentioned tendencies has little or no effect on people's plans for the future. This may be because it is too abstract a notion for most. When the threat becomes more specific, such as during the Cuban crisis, there is the expected, but slight, increase in protective behavior. However, the general tendency is to feel that there is very little one can do in the face of nuclear threat.

The public has a reasonable estimate of threat. However, the discrete threat aspects have not been related to the civil defense system by the populace. The public is not informed as to what a fallout shelter is supposed to do and there is concern about what they don't do. It would seem that the public would be receptive to specific definition of an attack threat in terms of radioactive fallout and the role that can be played by fallout shelters. Specification of the threat in terms of a feasible response may help to win public support and acceptance of the fallout shelter program. A consistent and coherent public information program, thus, may tap the public's reasonable estimate of threat.

I. INTRODUCTION

Since the inception of World War II, the American public has been aware of the possibility of enemy attack. With the advent of the possibility of global nuclear warfare, this threat perception, which has considerable psychological consequences for actions and attitudinal structures, has become an increasingly important consideration for government policy and action. It is reasonable to expect, for example, that anxiety about war is highly related to opinions on the fallout shelter issue and may be one of the bases for differential public receptivity to the program.

Analysis of the nation's perception of threat must consider not only anxiety about war per se but a number of related areas as well. Therefore, in this paper we consider the following:

1. Is there anxiety about war?

2. What is the nature of the threat perceived? What are the perceived targets? What weapons will be used?

3. What are the estimates of weapons effects?

4. What are the consequences of threat perception of varying degrees and type for action?

5. What are the consequences of threat perception of varying degrees and type on the respondent's feeling about civil defense and/or fallout shelters?

It is not only interesting to find out if people think nuclear war is possible, but also if they think it probable. However, an analysis of the estimations of the probability of war will not be considered in this paper, as it will be treated in a report presently planned based on the 1963 and 1964 national surveys.

Thus, this report will be a preliminary investigation of the above listed queries. The topic will be specified by all the pertinent cross-tabulations we now have in the data bank at the University of Pittsburgh. The data bank is a collection of empirical studies on attitudes concerning civil defense and the data utilized in this study ranges from 1946 to 1964.

The various sample populations will be discretely specified into sub-groups along such variables as age, sex, religion, geographic location, socioeconomic status, etc. There will also be some attempt, given data limitations, to provide a "trend analysis" establishing the basic chronology of public opinion with regard to this topic. It must be kept in mind that the data comes from a variety of studies using different size sample and whose questions were designed to tap different dimensions.

II. ANXIETY ABOUT WAR

In January, February, and March of 1963 a study was conducted in nine communities by the Bureau of Applied Social Research of Columbia University in which the respondents were asked the following question:

> Q. 23 Questions of war and peace are on people's minds a lot these days. How much do you yourself worry about the possibility of a nuclear attack on the United States?

It appeared that several months after the Cuban crisis had subsided, a majority of the respondents were apprehensive about the possibility of a nuclear war. It was found that 20 percent worried "a great deal", 31 percent worried "some", 21 percent worried "a little", and 28 percent were not worried at all (Table 1).

When asked if any of their children had ever talked about the possibility of a nuclear war, it was found that 43 percent said yes, 55 percent said no, and 2 percent didn't recall (Table 2).

When asked if they worried about living in or close by a place that might be a target in a nuclear war, it was found that 35 percent said yes, they were worried while 55 percent explicitly denied being worried (Table 3).

The characteristics of the worried were analyzed in a subsequent study by Columbia University and it was found that there was a strong relationship between age and anxiety about war. The older a person was, the less worried he was likely to be about the possibility of a nuclear attack (Table 4). It was also found that those with greater responsibilities--the married, and especially parents of minor children, were more worried about war than the single. Youth, marriage, and parenthood combined to intensify anxiety (Table 5).

It was also found that women were more likely to be anxious about the possibility of war than men. Sixty-one percent of the women but only 41 percent of the men said they worried "a great deal"

or "some" about a nuclear attack.[1] The University of Michigan study of 1961 found similar results, as did the Michigan State study of 1963.[2]

During the summer of 1964, the University of Pittsburgh conducted a national survey which asked the respondents the following question:

> Ques. 8: How much do you worry about the possibility of a nuclear attack on the U.S.?

It appeared that a year and a half after the Columbia study was conducted respondents were a little less apprehensive about the possibility of a nuclear war but anxiety was still running high. Table 6 provides the national distribution relative to the total sample excluding those people who either didn't know or were unwilling to answer the question. It is clear from Table 6 that a little more than four out of ten Americans answered that they were worried a "great deal" or "some". One in four respondents said they worried "a little" and about 1 in 3 respondents answered that they do not worry at all. Thus, a little under half (44.2 percent) of the population said they were apprehensive over the possibility of nuclear war.

A. Anxiety about War--Demographic Factors

Geographical factors seem to operate directly upon anxiety about war. However, the operative factor in bringing about differential local levels of worry about war is not size of the community but rather where it is situated geographically. Table 7 indicates clearly that except for a slight tendency for people of metropolitan areas to worry more, people in rural as well as urban centers tend to worry equally about war.

However, when looking at the worried by geographical location a pattern does emerge. We find that people are more likely to worry if they are from the Pacific region than if they are from the West North Central or West South Central states. About 48 percent of Pacific respondents (which

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1. The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions on the Fallout Shelter Issue, by Gene N. Levine and Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 44.

2. See Stephen B. Withey, The U.S. and the U.S.S.R.: A Report on the Public's Perspectives on United States-Russian Relations in Late 1961, Ann Arbor: Survey Research Center, University of Michigan, March, 1962, p. 13; and also David K. Berlo, et al., The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense, East Lansing: Department of Communication, College of Communication Arts, Michigan State University, April, 1963, p. 29.

includes the states of Alaska, California, Hawaii, Washington and Oregon) said they worried "a great deal" or "some" about war as compared with 38.8 percent of the West North Central states (which include Iowa, Kansas, and Minnesota) and 39.5 percent of the West South Central states (which include Arkansas, Louisiana, Oklahoma, and Texas). In general, people in the eastern part of the United States tend to be more worried about nuclear attack than people in the western part, with the striking exception of the Pacific states (Table 8).

There is a clear relationship between race and worry about nuclear attack on the United States. Negroes tend to worry more than whites with 20.0 percent saying they worry a "great deal" as compared with 14.7 percent of the white respondents who say so; 23.2 percent of the Negro respondents say they do not worry at all as compared with 31.2 percent of the white respondents who say they do not worry at all. This can probably be accounted for by the divergence of socioeconomic positions which Negroes and whites hold in the United States. Also, as will be seen later, there is a direct relationship between education and anxiety about war--the less educated tend to be more worried--and this may well bear directly on the racial relationship mentioned above as Negroes are less educated than whites in the United States.

Women worry more than do men about the possibility of nuclear attack. Seventeen and five-tenths percent of the women said they worried "a great deal" and 33.7 percent said they worried "some" as compared with 13.6 percent of the men who said they worried "a great deal" and 22.1 percent who worried "some". It has been suggested in a working paper, "General Anxiety and War Anxiety," by John Modell of Columbia University that women are more ready than men to admit to worrying about war, even when the salience of the dangers of war is held constant. For example, 55 percent of men who said that the danger of a world war is the most important issue facing the United States also said that they were very or somewhat worried about war while 75 percent of like-minded women did. It was also found that 36 percent of men as compared with 52 percent of women who did not feel war a prime problem worried much or some about it. It was pointed out, however, that a somewhat higher proportion of women than of men (33 percent as against 28 percent) felt war was a first rank problem.[1] It may also be assumed that it is more socially acceptable for women rather than men to express anxieties.

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1. The Threat of War and American Public Opinion by Gene N. Levine and John Modell, "General Anxiety and War Anxiety" A Working Paper No. 6 by John Modell, Bureau of Applied Social Research, Columbia University, September, 1964, p. 4 footnote.

Consistent with Columbia University's findings in 1963, the 1964 University of Pittsburgh data indicates that there continues to be a strong relationship between age and anxiety about war. Those people 49 years old and younger tend to be more anxious about war than older people (Table 9). Perhaps the young feel they have a greater stake in the future and thus would tend to be more anxious about war.

Marriage also seems to intensify anxiety about war somewhat. About 44 percent of married people claimed they worried about nuclear attack "a great deal" and "some" compared with 39.5 percent of single people who say so. Table 10 presents the respondents according to their marital status.

It also follows that those people with children regardless of the age of the children worry more about war than do childless couples. However, those parents with four children or more worry more than do the smaller families (Tables 11 and 12). The findings thus confirm that the wider horizons of the young, the greater responsibilities of the married, especially parents, and the emotionality of women aggravate fear of war.

Religious affiliation seems to have some effect upon anxiety about war as well. Of the Jewish respondents, 20.4 percent say they worry "a great deal" and 32.7 percent say they worry "some". Of those respondents who are Roman Catholics, 19.1 percent say they worry "a great deal" and 30.2 percent say they worry "some". This compares with the 14.1 percent of Protestants who say they worry "a great deal" and 28.1 percent who say they worry "some" (Table 13). This may be explained by Jewish historical and perhaps recent war experience which has been so devastating. Also, Jews and Catholics tend to live in large urban areas which are objectively greater risk areas. To be considered also is the inequable strain and pressure placed upon these groups by the sheer fact of being minorities.

There appears to be a negative association between education and anxiety about nuclear attack although as can be seen from Table 14 the trend is not clear. The higher the education of the respondents the smaller are the percentages of those people who say they worry "a great deal" with the exception of an increase in percentage of those people with an education higher than college. However, the groups with the largest percentages of those who say they worry "some" are those with an incomplete college education (36.8 percent), college graduates (44.2 percent) and those with no schooling at all, (31.6 percent) (Table 14). Therefore, the trend is not as clear as that reported in the Columbia study where it was reported from 1946, 1961, and 1963 data that the particular locus of war anxiety had switched from the educated to the uneducated (Table 15).

All we can say is that the less educated tend to be more intense worriers about the possibility of nuclear attack than the more highly educated.

We find, as is expected, that the tendency to worry a great deal about war is also linked to low status, with 23 percent of those identifying with the lower class and 17.6 percent identifying with the working class saying they worry "a great deal" as compared with 12.7 percent of the upper class group and 12.9 percent of the middle class group who say so. The data is presented in Table 16.

It then follows that those in the lowest income group worry the most, as well as those in the lower status occupations. This is clear from Tables 17 and 18.

TABLES

II. ANXIETY ABOUT WAR

Table 1

Q. 23 Questions of war and peace are on people's minds a lot these days. How much do you yourself worry about the possibility of a nuclear attack on the United States--a great deal, some, only a little, or not at all?

I - Col. 48 (s.p.)	Cross Section No.	%
0 - No answer	16	XX
1 - Great deal	273	20
2 - Some	410	31
3 - A little	293	21
4 - Not at all	387	28
5 - Don't know	3	XX
	1382	100%
		(1363)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 62.

Table 2

Q. 23 (b) (Has your child) (Have any of your children) ever talked to you about the possibility of a nuclear war?

I - Col. 50 (s.p.)	Cross Section No.	%
0 - No answer	14	XX
1 - Yes	274	43
2 - No	356	55
3 - Don't recall	11	2
X - Does not apply	727	XX
	1382	100%
		(641)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 63.

Table 3

Q. 26 - B. How do you feel about living in or close by a place that might be a target in a nuclear war? "Are you worried?"	Cross Section No.	Cross Section %
Y - Col. 71 (s.p.)		
0 - No answer: Impossible to determine whether or not respondent is worried, anxious, or concerned about living where he does	264	XX
1 - Yes: Respondent states that he is worried, anxious, or concerned about living where he does	341	35
2 - No: Respondent explicitly denies that he is worried about living where he does	546	55
9 - Vague, irrelevant responses	98	10
X - Not asked, but should have been	32	XX
Y - Does not apply	101	XX
	1382	100% (985)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 72.

Table 4

Table III-17

Age, by Degree of Worry about Nuclear Attack

Respondent is:	Per cent who worried "a great deal" or "some"
Under 30 years old Total number	60% (225)
30 - 39 years old Total number	55% (337)
40 - 49 years old Total number	49% (283)
50 - 59 years old Total number	49% (228)
60 years old or more Total number	37% (277)

The American Public and the Fallout Shelter Issue, A Wire Community Survey, Vol. III, Perspectives and Opinions on the Fallout Shelter Issue by Gene M. Levine and Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 42.

Table 5

Table III-18

Age, Marital Status, and Parenthood, by Degree of Worry about Nuclear Attack

	Per cent shown who worried "a great deal" or "some"		
	Ever Married		Never Married
	Parents	Childless	
Under 40 years old	58%	52%	43%
Total number	(469)	(63)	(28)
40 years old or more	52%	44%	17%
Total number	(263)	(485)	(36)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions on the Fallout Shelter Issue by Gene N. Levine and Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 44.

Table 6

Quest. 8: Var. 28 - How much do you worry about the possibility of a nuclear attack on the U.S.?

Card 1: Col. 50	N	%
Great deal	229	15.7
Some	415	28.5
A little	375	25.7
Not at all	438	30.1
Missing data	7	XX
TOTAL	1457	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 26.

Table 7

WORRY ABOUT NUCLEAR ATTACK BY RESIDENCE SIZE

In Percent

By Size of Community:	Great deal	Some	A little	Not at all	N
Largest metropolitan areas (2,000,000 and over)	17.0	29.5	21.3	32.1	352
Large metropolitan	15.6	29.6	26.5	28.2	570
Non-metropolitan areas with city of 10,000 or over	12.5	25.4	31.3	30.8	224
Non-metropolitan areas with no city of 10,000	16.7	27.3	25.4	30.5	311

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 8

WORRY ABOUT NUCLEAR ATTACK BY GEOGRAPHICAL LOCATION

In Percent

Geographical Location:	A great deal	Some	A little	Not at all	N
New England	16.0	29.3	26.7	28.0	75
Middle Atlantic	20.8	23.8	20.0	35.4	260
East North Central	13.5	32.1	27.0	27.4	252
West North Central	9.7	29.1	29.1	32.1	165
South Atlantic	18.1	28.0	25.9	28.0	232
East South Central	12.9	32.9	28.6	25.7	70
West South Central	13.2	26.3	30.5	29.9	167
Mountain	19.6	21.7	21.7	37.0	46
Pacific	16.3	31.6	24.2	27.9	190

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 9

WORRY ABOUT NUCLEAR ATTACK BY AGE

In Percent

Age:	Great deal	Some	A little	Not at all	N
10-19	41.2	29.4	23.5	5.9	17
20-29	16.4	34.0	31.9	17.6	238
30-39	13.8	33.6	29.1	23.5	327
40-49	17.8	32.9	23.0	26.3	304
50-59	13.9	25.9	25.5	34.7	259
60-69	16.7	15.5	20.1	47.7	174
70-79	13.7	18.6	17.6	50.0	102
80-89	16.0	16.0	24.0	44.0	25

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 10

WORRY ABOUT NUCLEAR ATTACK BY MARITAL STATUS

In Percent

Marital Status:	Great deal	Some	A little	Not at all	N
Single - never married	14.7	24.8	30.3	30.3	109
Married	15.2	29.3	26.3	29.2	1108
Divorced	16.7	24.1	18.5	40.7	54
Widowed	17.4	26.8	18.8	36.9	149
Separated	27.0	27.0	35.1	10.8	37

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 11

WORRY ABOUT NUCLEAR ATTACK BY NUMBER OF CHILDREN 12 YEARS AND UNDER

In Percent

Children 12 and Under:	Great deal	Some	A little	Not at all	N
None	15.1	25.2	23.8	35.9	349
One	14.9	31.3	31.8	21.9	201
Two	17.8	31.4	29.8	20.9	191
Three	13.4	37.8	24.4	24.4	119
Four	25.4	37.3	18.6	18.6	59
Five	31.3	18.8	31.3	18.8	16
Six	-	28.6	28.6	42.9	7
Seven or more	16.7	50.0	33.3	-	6

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 12

WORRY ABOUT NUCLEAR ATTACK BY NUMBER OF CHILDREN 21 AND UNDER

In Percent

Children 13 to 21:	Great deal	Some	A little	Not at all	N
None	15.2	25.9	26.7	32.1	1002
One	14.9	33.0	25.3	26.7	221
Two	19.2	36.7	22.3	21.6	139
Three	14.8	31.1	21.3	32.8	61
Four	31.3	37.5	25.0	6.3	16
Five	33.3	50.0	-	16.7	6
Six	-	100.0	-	-	1
Seven or more	-	-	-	-	0

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 13

WORRY ABOUT NUCLEAR ATTACK BY RELIGION

In Percent

Religion:	Great deal	Some	A little	Not at all	N
Protestant	14.1	28.1	26.4	31.4	1004
Roman Catholic	19.1	30.2	23.5	27.3	341
Jewish	20.4	32.7	16.3	30.6	49
Other	27.3	18.2	36.4	18.2	22
None	12.8	25.6	35.9	25.6	39

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 14

WORRY ABOUT NUCLEAR ATTACK BY EDUCATION

Respondent's Education:	In Percent: Great deal	Some	A little	Not at all	N
No schooling	52.6	31.6	10.5	5.3	19
Grammar school (1-8 yrs.)	21.9	23.2	21.0	33.9	366
Some high school (9-11 yrs.)	18.2	25.3	25.0	31.4	296
Completed high school (12 yrs.)	14.8	29.0	31.1	25.1	431
College, incomplete	7.3	36.8	24.4	31.6	193
College graduate	1.2	44.2	20.9	33.7	86
Higher than college	9.5	22.2	34.9	33.3	63

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 15

Table I[1]

WAR WORRIES BY EDUCATION AND DATE OF INTERVIEW

	Date		
Education	1946	1961	1963
Not high school graduate	32%	59%	52%
High school graduate	33%	58%	53%
Some college	50%	61%	44%

[1]1946 question: "How about yourself? (How worried are you about the bomb?)"

1961 question: "How worried are you about the chance of a world war breaking out in which atom bombs and hydrogen bombs would be used--very worried, fairly worried, or not worried at all?"

1963 question: "Questions of war and peace are on people's minds a lot these days. How much do you yourself worry about the possibility of a nuclear attack on the United States--a great deal, some, only a little, or not at all?" Sources: Leonard S. Cottrell, ed., Public Reaction to the Atomic Bomb and World Affairs, preliminary report (Ithaca, New York: Cornell University, March, 1947, mimeographed), part II, pp. 159-160. Hazel Gaudet Erskine, "The Polls: Atomic Weapons and Nuclear Energy," Public Opinion Quarterly, XXVII (1963), p. 156. Columbia University's nine-community survey.

The Threat of War and American Public Opinion by Gene N. Levine and John Modell, "General Anxiety and War Anxiety" Working Paper No. 6 by John Modell, Bureau of Applied Social Research, Columbia University, September, 1964, p. 1.

Table 16

WORRY ABOUT NUCLEAR ATTACK BY SOCIAL CLASS

In Percent

Social Class:	Great deal	Some	A little	Not at all	N
Upper	12.7	21.8	25.5	40.0	55
Middle	12.9	29.3	27.2	30.6	618
Working	17.6	29.0	25.5	28.0	683
Lower	25.0	30.0	15.0	30.0	40
There are no classes	16.7	13.3	23.3	46.7	30

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 17

WORRY ABOUT NUCLEAR ATTACK BY INCOME

In Percent

Income:	Great deal	Some	A little	Not at all	N
Under $3,000	22.0	20.3	22.3	35.4	291
$3,000 to $4,999	13.7	31.7	25.1	29.5	271
$5,000 to $7,499	13.6	29.5	29.0	27.9	369
$7,500 to $9,999	14.9	32.4	25.2	27.5	222
$10,000 to $14,999	14.5	32.5	26.5	26.5	166
$15,000 to $24,999	5.3	26.3	28.1	40.4	57
$25,000 and over	5.6	27.8	33.3	33.3	18

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 18

WORRY ABOUT NUCLEAR ATTACK BY OCCUPATION

Occupation:	In Percent: Great deal	Some	A little	Not at all	N
Professional	9.2	35.3	29.9	25.5	184
Farmers and farm managers	8.6	14.3	20.0	57.1	35
Managers, officials and proprietors	13.8	29.2	24.6	32.3	195
Clerical	10.0	26.4	30.9	32.7	110
Sales	14.7	32.4	20.6	32.4	68
Craftsmen, foremen, and kindred workers	13.7	27.4	23.0	35.9	270
Operatives and kindred workers	20.2	32.3	24.2	23.3	223
Service workers	19.9	35.0	25.7	29.4	136
Farm laborers and foremen	18.3	30.1	21.5	30.1	93
Laborers	24.5	20.3	32.2	23.1	143

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

III. NATURE OF THE ATTACK

There is ample evidence that Americans are convinced that the nation's cities would not be spared in an attack and that their own particular city or community might be among those subject to attack.

In a study conducted by Roper in 1946, 22 percent thought it likely that a large American city would be atom-bombed in the next ten years, while 56.4 percent thought it unlikely (Table 19).

In 1946, NORC also conducted a study which found that 53.1 percent of the respondents thought that there was a real danger that an atomic bomb would be dropped in their community if war were to occur and 28.8 percent felt there was a slight danger (Table 20).

In NORC's 1949 study, it was found that 76.9 percent thought that if there was another war, atomic bombs would be dropped on the United States and 48.3 percent of these respondents thought that an atomic bomb would be dropped on their community (Table 21).

In the 1950 University of Michigan sample from eleven cities, some 61 percent of the respondents were convinced that cities would be attacked; and 65 percent believed so in 1951 (Table 22). In the same studies, 71 percent in 1950 and 63 percent in 1951 thought that their own city would be included as an enemy target (Table 23).

The American Institute of Public Opinion Research also asked in 1951 about expectation that U.S. cities would be bombed. Seventy-five percent thought that they would be (Table 24). On the whole, there is a tendency to expect one's own city to be a target more than other cities (Table 25).

The most frequent reasons given for the belief that United States cities would be hit with atomic bombs in the event of war were that "Russia would stop at nothing" (13 percent), that the "enemy would want to wipe out supply centers, industry, war plants and population centers" (13 percent), and that "Russia has the atomic bomb" (12 percent). The most frequent reasons given for the belief that cities won't be bombed were that "American defenses are good enough" (8 percent), and a cluster of reasons such as Russia doesn't have the bomb or doesn't intend to use it, or neither side would dare use it (5 percent respectively). Table 26 makes this clear.

As can be seen in Table 27, the reasons given for believing one's own city to be a likely target most often referred to the existence of industries (especially war industries) and transportation facilities there (50 percent). Geographical inaccessibility or

distance from Russia was the most frequent reason given for feeling that a city was not a high-priority target (12 percent).

This accounts for the fact that people did differ from region to region in their feelings about the relative likelihood of atomic bombing of their own cities. People living in large West Coast cities were more likely than others to feel that their cities are top-priority atomic bomb targets. New York inhabitants were next in this respect, with Midwesterners least likely to believe that their cities were probable targets (Table 28).

In the 1952 University of Michigan national sample, 86 percent of the respondents were convinced that people in the United States would be in danger from an enemy attack if war were to break out and 84 percent thought so in 1954 (Table 29). In the same samples, 46 percent in 1952 and 56 percent in 1954 believed that their own community would be in danger (Table 30). In 1956, the University of Michigan study indicates that the interviewees were again convinced that their city would be a target. Some 63 percent gave this response either in an unqualified or somewhat qualified manner (Table 31). At that time, industrial strength of the community and its population were singled out more frequently as reasons for the city being attacked than were military installations as such, or specifically defense related industry of the community (Table 32).

The eight-city study of Michigan State University (1961) shows that about seven in ten respondents thought that their city would be bombed; and some 18 percent in addition to this were convinced that their part of the country would be subject to attack (Table 33). Also in 1961, the American Institute of Public Opinion study found that 52.6 percent of the respondents thought that their locality would be one of the ones the Russians would particularly want to bomb (Table 34). In the 1963 Columbia University community cross-section, some 68 percent of the respondents believed their community was at least in some danger of being a target; and 45 percent were convinced that this danger was quite considerable (Table 35). At the same time, almost eight in ten Americans thought that there were cities nearby that would definitely be bombed (Table 36). Considering realistic targets in the New York-New Jersey megalopolitan complex, the Columbia study showed that people could identify differential risk: respondents in "objectively" more vulnerable areas thought also that their communities were more vulnerable (Table 37). This seems to show up, also, in the 1961 Michigan State study. The overall percentage results from averaging as high an expectation as that revealed in Boston and Seattle (90 percent respectively) and as low a percentage as that in Chapel Hill, North Carolina (20 percent expecting Chapel Hill to be attacked; yet, an additional 48 percent think the area will be attacked) and Manhattan, Kansas (47 percent). (See Table 33.)

In the University of Pittsburgh 1964 study, 20.0 percent of the respondents thought that it was most important or important to the enemy to destroy our cities (Table 38), and 11.3 percent thought that it was most important or important to the enemy to destroy our people (Table 39). About 81 percent of the respondents thought that there was danger that their locality would be a target in case of a nuclear war and 53.8 percent thought that the danger was considerable (Table 40). About 63 percent in the same sample thought that their chances for survival if a nuclear war started next week were bad, with 34.7 percent estimating their chances as very bad and 6.9 percent giving themselves no chance at all (Table 41).

We have drawn from a variety of instruments a variety of questions all of which were designed to tap different dimensions. However, the available information permits us to draw some overall conclusions. When no opportunity to discriminate among types of attacks or targets was offered, we can infer that people generally expect the nation's cities to be bombed as well as their own city. Secondly, people generally expect some cities in their immediate vicinity, or in their part of the country to be subject to an attack. Finally, from the relatively diffuse questions asked, Americans expect people to get killed in an attack. However, it cannot be assumed from this that people regard cities and population per se as high-priority targets. As a matter of fact they don't, as can be seen in Tables 38 and 39.

What accounts for the varying perceptions of the nature of a nuclear attack? Who are the people who feel more or less directly threatened? A number of findings stand out and they are important for an understanding of differential local levels of worry about war and the perceived nature of attack. This in turn should give us some understanding of the differential public acceptance level of a civil defense program.

TABLES

III. NATURE OF THE ATTACK

Table 19

Ques. 13. Would you say it is likely or unlikely that a large American city will be atom-bombed in the next ten years?

	%	N
Likely	22.0	786
Unlikely	56.4	2010
Don't know	17.9	639

Missing data omitted

Roper-Fortune #56, Col. 37, Ques. 13, 9/46.

Table 20

Ques. 15. Suppose the United States should fight in another war within 25 years, how much danger do you think there would be of an atomic bomb being dropped in the place where you live--a very real danger, a slight danger, or no danger at all?

	%	N
Real danger	53.1	672
Slight danger	28.8	364
No danger	14.0	177

Missing data omitted

NORC #55/144, Col. 32, Ques. 15, 9/46.

Table 21

Q. 18. If we have another war, do you think that atomic bombs will be dropped on the United States?
Q. 18A. If "Yes" or "Don't know". How about around here--Do you think an atomic bomb would be dropped near here?

Atomic Bombs Dropped Here?	Atomic Bombs Dropped on U.S.? Yes	No	Don't know	Reject	Total %	N
Yes	48.3	23.1	5.5	-	76.9	969
No	-	-	-	12.3	12.3	155
Don't know	1.9	2.7	5.7	0.5	10.8	136
Total					100.0	1260

NORC #92/170, 10/12/49.

Table 22

Expectations of Atomic Bombing of U.S. Cities

Table 15

"If the United States is attacked, do you think our cities are likely to be hit with atomic bombs?"

	September 1950	August 1951
Very likely or certain	15%	10%
Likely	46	55
Pro-con	9	6
Unlikely	15	19
Very unlikely or certainly not	7	2
Don't know	6	5
Not ascertained	2	3
	100%	100%

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 14.

Table 23

Danger of Atomic Bombs to Respondents' Own Cities

Table 18

"What about your city? Do you think it would be bombed? (Follows question: "If the United States is attacked, do you think our cities are likely to be hit with atomic bombs?")

	September 1950	August 1951
Yes, definitely	22%	17%
Yes, qualified	49	46
Pro-con	4	3
No, qualified	14	22
No, definitely	3	4
Don't know	2	3
Not ascertained	6	5
	100%	100%

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 15.

Table 24

If the United States should get into another world war, do you think any U.S. cities would be bombed?

	%	N
Yes	75.0	1007
No	11.5	155
No opinion	13.2	177

Missing data omitted

AIPO #455 TPS, Col. 31, Ques. 8A, 5/2/51.

Table 25

Table 19

"Do you think your city is more likely or less likely to be attacked than the other big cities?"

It will be the top United States target	5%
Much more likely	15
More likely	38
About the same, pro-con	8
Less likely	20
Much less likely	1
Cities won't be bombed	3
Don't know	5
Not ascertained	5
	100%

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October, 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 45.

Table 26

Table 16

Reasons For and Against Belief that United States Cities Are Likely to Be Hit with Atomic Bombs, in Event of War

Reasons for belief that cities would be bombed	
Russia's aims; Russia would stop at nothing	13%
Russia has (probably has) the atomic bomb	12
If we could use the atomic bomb, or since we already have, Russia can, or will	6
Russia would want to strike first--preventive action	4
Russia has planes, equipment, for attacks	3
American defenses not good enough; United States doesn't have enough radar	2
Enemy would want to (have to) wipe out supply centers, industry, war plants, population centers	13
It's an effective weapon	8
No complete defenses possible; next war will be an all-out war	3
Sneak attacks effective; bomb can be sneaked in	2
Accessibility: world small, polar routes	2
Psychological effects of atomic bombing	2
Reasons for belief that cities won't be bombed	
Russia (probably) doesn't have the atomic bomb, or enough bombs	5
Russia doesn't intend to, wouldn't (dare) use atomic bomb	5
American defenses good enough; United States has radar	8
Neither side will dare use it or want to use it; atomic bomb will be outlawed	5
Too far to come; United States inaccessible	3
Other reasons	2
Depends on whether they have the bomb	4
Don't know of any reasons	4
Reasons not ascertained	14
	*

* The total is more than 100 percent because some respondents gave more than one reason.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October, 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 43.

Table 27

Table 20

"Why do you say that (about relative priority of own city)?"

Reasons for believing own city has priority

Industry in city	24%
War materials made here	13
Transportation, shipping center	13
Population density	9
Psychological effect, effect of hitting our largest city (New York)	8
Geographical accessibility, city close to Russia	7
Military installations	3
Not enough aerial defenses, not as much as other cities	*

Reasons for believing own city does not have priority

Geographical inaccessibility: city too far from Russia, too far inland	12
Wouldn't be good target: no industry, no military installations	8
Population not dense, city spread out	5
Other	2
All large cities are equally good targets	2
Cities won't be bombed	6
Don't know	2
Not ascertained	7
	**

* Less than half of one percent.

** The total is more than 100 percent because some respondents gave more than one reason.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October, 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 46.

Table 28

Table 28

Distribution of Expectations of Urban Bombing by Region*

	West Coast	New York	Chicago	East Coast	Midwest
Felt their city more likely or much more likely than others to be bombed	68%	65%	55%	51%	51%
Felt their city about the same as others, as far as likelihood of bombing was concerned	13	5	10	9	8
Felt their city less or much less likely to be bombed than other large cities	12	21	24	19	26
Felt United States cities will not be bombed at all	2	4	3	3	2
Don't know; not ascertained	5	5	8	18	13
	100%	100%	100%	100%	100%
Percent of total sample	14	33	17	18	18

* Table 1, Chapter 1, gives the major cities included in each region. The percents of total sample reported here, as in the case of all tables, are percentages of the total weighted sample. In this table, "East coast" and "Midwest" do not include New York and Chicago, respectively.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 56.

Table 29

TABLE 4-7

DANGER OF ENEMY ATTACK ON THE UNITED STATES

Q.: If war were to break out, do you think people in the United States would be in danger of enemy attack?

	April 1952	March 1954
Yes	86%	84%
No	8	10
Don't know or depends	5	5
Not ascertained	1	1
	100%	100%

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March, 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, September, 1954, p. 59.

Table 30

TABLE 4-8

DANGER OF ENEMY ATTACK ON RESPONDENT'S OWN COMMUNITY*

Q.: Would you say people here in.....are in danger?

	April 1952	March 1954
Yes	37	50%
Yes, qualified (less than big cities)	9	6
Pro-con	1	1
No, qualified (not as much as big cities)	14	8
No	21	15
Don't know	2	2
Not ascertained	2 86%	2 84%

* This question was asked only of those people who thought that the nation as a whole was in danger of enemy attack.

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 59.

Table 31

Q. 12 Would you say people here in (use name of town in which R lives) are in danger from any of the type of things that might be used against us in an attack?

	N	%
Yes	931	56.7
Yes, qualified (less than big cities, etc.)	112	6.8
Pro-con	57	3.5
No, qualified (not as much as big cities, etc.)	137	8.3
No	322	19.6
DK, NA, and other	84	5.1
	1643	100.0

University of Michigan, # 418, 1956, (Unpublished).

Table 32

Q. 12 Would you say people here in (use name of town in which R lives) are in danger from any of the type of things that might be used against us in an attack? Reasons, if offered in Q. 12.

	N	%
Military base	73	4.4
Industry-general	168	10.2
Defense work	44	2.7
Port, port facilities, shipping	28	1.7
Size of city--population congestion	131	8.0
No reasons mentioned	1011	61.5
DK, NA	188	11.4
	1643	100.0

University of Michigan, # 418, 1956, (Unpublished).

Table 33

Table 3. Q: "If the U. S. is attacked, do you think any bombs or missiles would fall on (name of community)?" If answer was no, we asked: "Do you think this part of the country would be hit directly?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Community	82%	90	86	75	61	47	20	90	70%
This part of country	8	4	5	12	28	38	48	4	18
Neither	8	4	6	10	10	13	31	4	10
No answer	2	2	3	3	1	2	1	2	2

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information About Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April, 1963, Appendix A, p. 2.

Table 34

Q. 26. If we should happen to get into an all-out nuclear war, do you think this locality would be one of the ones the Russians would particularly want to bomb?

	%	N
Yes	52.6	1666
No	38.0	1204
Missing data omitted		

AIPO #649K, Col. 20, Ques. 26, 8/22/61.

Table 35

Q. 26 In case of nuclear war, how great a danger do you think there is that (TOWN) itself would be a target--a certain danger, great danger, some danger, little danger, or no danger at all?

I - Col. 54 (s.p.)	Cross Section No.	%
0 - No answer	1	XX
1 - Certain	189	14
2 - Great danger	435	31
3 - Some danger	319	23
4 - Little danger	213	15
5 - No danger	185	14
6 - Don't know	40	3
	1382	100% (1381)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 71.

Table 36

IF "LITTLE" OR "NO DANGER" OR "DON'T KNOW," ASK A:

Q. 26 - A. Are there any places nearby that would probably be targets in a nuclear war?	Cross Section	
I - Col. 55 (s.p.)	No.	%
0 - No answer	7	XX
1 - Yes	339	79
2 - No	41	9
3 - Don't know	51	12
X - Does not apply	944	XX
	1382	100%
		(431)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 71.

Table 37

Table III-39

Objective Risk of Nuclear Attack, by Perceived Danger that Town Would be a Target
Believed Town is in:

High Risk:	Certain or Great Danger	Some Danger	Little or No No Danger	Total Percent	Total Number
Chicopee	89%	9	2	100%	(146)
Harlem	60%	18	22	100%	(130)
Union City	67%	15	18	100%	(143)
West Orange	35%	19	46	100%	(148)
Medium Risk:					
Greenwich	38%	14	48	100%	(154)
Stamford	46%	30	24	100%	(148)
Lancaster	43%	34	23	100%	(142)
York	39%	38	23	100%	(181)
Low Risk:					
Port Jervis	16%	33	51	100%	(149)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions on the Fallout Shelter Issue by Gene Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 81.

Table 38

Ques. 38-C: Var. 73 - How important to the enemy is destroying our cities?

Card 2: Col. 38	N	%
1 - Most important	83	5.8
2 -	204	14.2
3 -	933	65.1
4 - Least important	213	14.9
Missing data	31	XX
Total	1464	1433

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 52.

Table 39

Quest. 38-D: Var. 74 - How important to the enemy is destroying our people?

Card 2: Col. 39	N	%
1 - Most important	83	5.9
2 -	76	5.4
3 -	185	13.1
4 - Least important	1063	75.6
Missing data	57	XX
Total	1464	1407

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 52.

Table 40

Ques. 11: Var. 31 - In case of nuclear war, how great a danger do you think there is that the area around here would be a target?

Card 1: Col. 53	N	%
Never will happen	8	0.6
Certain danger	312	21.6
Great danger	466	32.2
Some danger	389	26.9
Little danger	198	13.7
No danger at all	62	4.3
Everywhere would be hit, no local difference	12	0.8
Missing data	17	XX
Total	1464	1447

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 28.

Table 41

Quest. 12: Var. 32 - If a nuclear war started next week how good are the chances for local people to survive?

Card 1: Col. 54	N	%
Never will happen	3	0.2
Very good	67	4.7
Fairly good	303	21.2
50-50 chance	161	11.3
Fairly bad	301	21.0
Very bad	497	34.7
No chance at all	99	6.9
Missing data	33	XX
Total	1464	1431

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 28.

A. Perceived Priority Targets--Demographic Factors

Again, geographical factors seem to operate directly upon the kind of target people perceive as important to the enemy. Large metropolitan areas have the largest number of people who think that the destruction of our cities (7.3 percent) and our people (7.4 percent) is "most important" to the enemy. However the rural areas have large percentages of people who think that it is "important" but not necessarily "most important" that the enemy destroy our cities and population (17.6, 12.4 percent for cities and 6.7, 5.4 percent for population respectively). Tables 42 and 43 make this clear.

People living in heavily populated coastal areas such as the Pacific states (Alaska, California, Hawaii, Washington and Oregon), the Middle and South Atlantic states (New Jersey, New York, Pennsylvania, Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia and West Virginia) tend to attribute the destruction of cities as the "most important" or "important" objective of the enemy (Table 44).

However, the southern part of the United States (Alabama, Mississippi, Kentucky, Tennessee, Arkansas, Louisiana, Oklahoma, Texas, Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia and West Virginia) has the largest percentages of people who think destruction of the population is the "most important" or "important objective" of the enemy (Table 45).

As in the case with anxiety about war, there is a clear relationship between race and targets attributed as important to the enemy. Negroes tend to feel that cities and population are important targets to the enemy more than do white people. About 30 percent of Negroes thought that it was "most important" or "important" to the enemy to destroy our cities as compared with 18.5 percent of whites who thought so. About 18 percent of Negroes thought it was "most important" or "important" to the enemy to destroy our population as compared with 10.4 percent of whites who thought so. This again can probably be accounted for by the divergence of education and socioeconomic positions which Negroes and whites hold in the United States which as one saw earlier affected anxiety about war.

There is a slight tendency for women to feel that cities and population are high priority destructive objectives of the enemy more than do men; but, this tendency can be accounted for by the fact that women are more anxious or at least are more willing to admit their anxiety about nuclear war.

Unlike age and anxiety about war, there seems to be no clear association between age and how important people think it is to the

enemy to destroy our cities. Regardless of age, people feel that cities are not important targets (Table 46). However, when it comes to perceptions about population as a priority target, there there is a tendency for people in their twenties and people 60 years and over to view it as a more important target than other age groups (Table 47).

Marriage seems to affect how important people think it is to the enemy to destroy our cities and population. About 11 percent of married people thought that it was "most important" or "important" to the enemy to destroy our population as compared to 6.7 percent of the single people who thought so (Table 48). However, when asked how important they thought it was to the enemy to destroy our cities, 27.4 percent of the single people thought it was "most important" or "important" as compared with 19.5 percent of the married people who thought so (Table 49). However, most people, regardless of marital status, do not believe population or cities to be high priority targets. The same seems to be true regarding parenthood and age of the children in the household. Regardless of number or children or their age, people do not feel themselves or their cities to be targets of high priority.

Religious affiliation seems to have some effect upon how important people think it is to the enemy to destroy our cities and population. About 33 percent of the Jewish respondents thought it "most important" or "important" to the enemy to destroy our cities, while 17.2 percent of the Catholics and 20.0 percent of the Protestants thought so (Table 50). However, only 6.5 percent of the Jewish respondents thought it important to the enemy to destroy our population, while 12.7 percent of the Protestant respondents and 7.4 percent of the Catholic respondents thought so (Table 51). The explanation for this is not altogether clear and it would seem that there are other variables determining this relationship. It may be said, however, that regardless of religious affiliation, people do not think either cities or populations are high priority enemy targets.

People with no schooling or a grammar school education and people with education higher than college have the highest percentages of those who think cities have priority with the enemy as a target (33.4, 25.7, and 33.9 percent respectively). Those respondents with only a grammar school education have the highest percentage of people who think population is a priority target (18.7 percent). Again, those with no education and those with the highest education are coupled by having the smallest percentages of people who think population is a priority target (there was no one of the no schooling group who thought so and only 6.8 percent of the highly educated thought so). This may be seen in Table 52 and 53. The lower status occupations and clericals have the highest percentages of those respondents who think cities have priority as a target (Table 54). This is true regarding population as a target only among the very lowest status occupations such as laborers (Table 55).

It then follows that those with the lowest income (under $3,000) have the highest percentage (24.7 percent) of those who think cities are a priority target. However, the relationship to the other income groups is unclear (Table 56). This is not the case regarding population as a target. There is an inverse relationship between income and how important people think it is to the enemy to destroy our population. The less income people have the more they tend to see population as a priority target (Table 57). As for class identification, people identifying with the upper class and the lower class have the highest percentages of those who think cities and population are priority targets (Tables 58 and 59).

It is fairly evident from the above that given a chance to discriminate between targets a very small percentage of the population perceives cities and population as high priority targets. They see military bases (88.4 percent) and factories and transportation centers (80.7 percent) as having much higher priority (Tables 60 and 61). Also, in spite of the few findings reported above in the demographic analysis, it is evident that the majority of the American population regardless of demographic characteristics does not find cities and population high on the enemy's target list. However, it was reported earlier that four out of ten Americans (44.2 percent) were anxious about nuclear attack and 80.7 percent of the respondents thought that there was danger that their locality would be a target in case of a nuclear war. It is fruitful at this point to examine the demographic characteristics of those people who feel that there is danger that their locality would be hit.

TABLES

III. NATURE OF THE ATTACK

A. Perceived Priority Targets--Demographic Factors

Table 42

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES BY SIZE OF COMMUNITY

In Percent

By Size of Community:	Most important 1	2	3	Least important 4	N
Largest Metropolitan Areas (2,000,000 and over)	7.3	15.5	64.3	12.9	342
Large Metropolitan	4.6	13.2	65.8	16.4	562
Non-metropolitan areas with city of 10,000 or over	5.4	17.6	61.7	15.3	222
Non-metropolitan areas with no city of 10,000	6.5	12.4	67.1	14.8	307

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 43

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION BY SIZE OF COMMUNITY

In Percent

By Size of Community	Most important 1	2	3	Least important 4	N
Largest Metropolitan Areas (2,000,000 and over)	7.4	3.2	11.8	77.6	340
Large Metropolitan	5.1	6.0	14.4	74.5	548
Non-metropolitan areas with city of 10,000 or over	5.4	5.4	14.0	75.2	222
Non-metropolitan areas with no city of 10,000	6.1	6.7	11.8	75.4	297

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 44

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES BY GEOGRAPHICAL LOCATION

In Percent

Geographical Location:	Most important 1	2	3	Least important 4	N
New England	4.1	12.3	61.6	21.9	73
Middle Atlantic	5.9	17.3	64.3	12.5	255
East North Central	4.5	9.4	74.7	11.4	245
West North Central	6.7	10.4	71.2	11.7	163
South Atlantic	7.8	18.1	57.3	16.8	232
East South Central	5.7	15.7	47.1	31.4	70
West South Central	4.3	16.5	59.8	19.5	164
Mountain	2.2	4.3	78.3	15.2	46
Pacific	7.0	15.7	67.6	9.7	185

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 45

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION BY GEOGRAPHICAL LOCATION

	In Percent				
Geographical Location:	Most important 1	2	3	Least important 4	N
New England	5.5	2.7	17.8	74.0	73
Middle Atlantic	6.7	3.6	13.0	47.6	253
East North Central	3.8	4.6	10.5	81.2	239
West North Central	3.1	4.3	10.6	82.0	161
South Atlantic	7.0	7.0	16.3	69.6	227
East South Central	9.1	13.6	24.2	53.0	66
West South Central	8.8	6.3	12.6	72.3	159
Mountain	2.2	4.3	15.2	78.3	46
Pacific	6.0	5.5	9.3	79.2	183

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 46

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES BY AGE

In Percent

Age:	Most important 1	2	3	Least important 4	N
10-19	5.9	5.9	58.8	29.4	17
20-29	4.7	17.1	62.4	15.8	234
30-39	4.0	14.6	65.1	16.2	321
40-49	7.7	13.8	64.1	14.4	298
50-59	5.4	12.4	71.0	11.2	259
60-69	6.4	12.2	66.9	14.5	172
70-79	6.1	18.4	56.1	19.4	98
80-89	16.7	12.5	58.3	12.5	24

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 47

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION BY AGE

In Percent

Age:	Most important 1	2	3	Least important 4	N
10-19	-	12.5	25.0	62.5	16
20-29	4.7	10.6	13.6	71.1	235
30-39	5.7	2.8	13.9	77.6	317
40-49	5.5	3.1	14.1	77.3	291
50-59	5.6	4.4	10.0	80.1	251
60-69	7.7	8.3	9.5	74.4	168
70-79	8.3	5.2	19.8	66.7	96
80-89	8.3	4.2	16.7	70.8	24

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 48

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION BY MARITAL STATUS

In Percent

Marital Status:	Most important 1	2	3	Least important 4	N
Single - never married	1.0	5.7	11.4	81.9	105
Married	6.2	5.2	13.1	75.4	1073
Divorced	5.5	7.3	7.3	80.0	55
Widowed	6.5	5.8	15.2	72.5	138
Separated	8.3	5.6	19.4	66.7	36

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh. Summer, 1964.

Table 49

IMPORTANCE ATTRIBUTED TO THE ENEMY'S DESTROYING OUR CITIES BY MARITAL STATUS

In Percent

Marital Status	Most important 1	2	3	Least important 4	N
Single - never married	5.7	21.7	64.2	8.5	106
Married	6.1	13.4	65.3	15.1	1093
Divorced	3.6	10.9	72.7	12.7	55
Widowed	4.9	14.7	64.3	16.1	143
Separated	2.8	19.4	52.8	25.0	36

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 50

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES RELATED TO RELIGIOUS AFFILIATION

In Percent

Religion:	Most important 1	2	3	Least important 4	N
Protestant	5.8	14.2	63.3	16.6	992
Roman Catholic	4.5	12.7	70.9	11.8	330
Jewish	14.6	18.8	60.4	6.3	48
Other	4.5	18.2	68.2	9.1	22
None	5.1	20.5	64.1	10.3	39

Unpublished Data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 51

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION RELATED TO RELIGIOUS AFFILIATION

In Percent

Religion:	Most important 1	2	3	Least important 4	N
Protestant	6.5	6.2	14.4	72.9	971
Roman Catholic	4.3	3.1	11.3	81.3	327
Jewish	4.3	2.2	13.0	80.4	46
Other	4.5	9.1	-	86.4	22
None	7.7	7.7	5.1	79.5	39

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 32

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES RELATED TO EDUCATION

In Percent

Respondent's Education:	Most important 1	2	3	Least important 4	N
No Schooling	6.7	26.7	46.7	20.0	15
Grammar School (1-8 yrs.)	6.4	19.3	55.2	19.0	357
Some High School (9-11 yrs.)	4.1	7.8	71.3	16.7	293
Completed High School (12 yrs.)	4.5	15.1	67.5	12.9	425
College, Incomplete	7.3	11.5	66.7	14.6	192
College Graduate	5.8	11.6	76.7	5.8	86
Higher than College	14.5	19.4	59.7	6.5	62

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 53

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION RELATED TO EDUCATION

In Percent

Respondent's Education:	Most important 1	2	3	Least important 4	N
No Schooling	-	-	20.0	80.0	15
Grammar School (1-8 yrs.)	11.2	7.5	16.7	64.6	347
Some High School (9-11 yrs.)	4.1	5.5	14.7	75.8	293
Completed High School (12 yrs.)	3.4	4.6	11.1	81.0	415
College, Incomplete	5.8	5.3	13.2	75.8	190
College Graduate	4.7	4.7	3.5	87.1	85
Higher than College	5.1	1.7	10.2	83.1	59

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 54

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES RELATED TO OCCUPATION

In Percent

Occupation:	Most important 1	2	3	Least important 4	N
Professional	7.1	11.5	69.2	12.1	182
Farmers and farm managers	5.9	8.8	67.6	17.6	34
Managers, officials and proprietors	5.2	11.5	74.0	9.4	192
Clerical	7.3	16.5	65.1	11.0	109
Sales	2.9	10.1	79.7	7.2	69
Craftsmen, foremen, and kindred workers	6.0	8.7	66.4	18.9	265
Operatives and kindred workers	6.4	17.0	61.5	15.1	218
Service workers	5.3	18.0	62.4	14.3	133
Farm laborers and foremen	3.3	19.8	57.1	19.8	91
Laborers	5.7	22.1	50.7	21.4	140

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 55

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION RELATED TO OCCUPATION

In Percent

Occupation:	Most important 1	2	3	Least important 4	N
Professional	3.4	5.7	10.3	80.5	174
Farmers and farm managers	-	3.0	21.2	75.8	33
Managers, officials and proprietors	5.9	2.1	9.1	82.9	187
Clerical	3.7	6.5	7.5	82.2	107
Sales	2.9	2.9	8.7	85.5	69
Craftsmen, foremen, and kindred workers	6.8	7.2	13.3	72.6	263
Operatives and kindred workers	3.7	6.5	16.1	73.7	217
Service workers	5.5	3.1	18.0	73.4	128
Farm laborers and foremen	13.2	7.7	14.3	64.8	91
Laborers	10.9	5.8	16.7	66.7	138

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Department of Sociology, Research Office of Sociology, University of Pittsburgh, Summer, 1964.

Table 56

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES RELATED TO INCOME

In Percent

Income:	Most important 1	2	3	Least important 4	N
Under $3,000	7.3	17.4	57.1	18.1	287
$3,000 to $4,999	4.5	16.2	64.7	14.7	266
$5,000 to $7,499	5.2	12.7	65.2	16.9	362
$7,500 to $9,999	4.1	16.3	68.8	10.9	221
$10,000 to $14,999	6.7	8.5	70.7	14.0	164
$15,000 to $24,999	10.7	8.9	71.4	8.9	56
$25,000 and over	5.6	11.1	83.3	-	18

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 57

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION RELATED TO INCOME

In Percent

Income:	Most important 1	2	3	Least important 4	N
Under $3,000	9.3	6.1	16.5	68.1	279
$3,000 to $4,999	6.2	6.6	12.0	75.2	258
$5,000 to $7,499	2.5	7.0	14.6	75.9	357
$7,500 to $9,999	6.0	4.1	9.6	80.3	218
$10,000 to $14,999	6.1	3.0	12.8	78.0	164
$15,000 to $24,999	3.6	3.6	7.3	85.5	55
$25,000 and over	5.9	-	5.9	88.2	17

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 58

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR CITIES RELATED TO SOCIAL CLASS

In Percent

Social Class:	Most important 1	2	3	Least important 4	N
Upper	11.1	25.9	53.7	9.3	54
Middle	5.5	13.5	68.1	12.8	615
Working	4.6	13.7	65.0	16.7	671
Lower	5.3	21.1	52.6	21.1	38
There are no classes	10.3	10.3	65.5	13.8	29

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 59

IMPORTANCE ATTRIBUTED TO THE ENEMY OF DESTROYING OUR POPULATION RELATED TO SOCIAL CLASS

In Percent

Social Class:	Most important 1	2	3	Least important 4	N
Upper	7.5	9.4	11.3	71.7	53
Middle	5.5	5.0	11.9	77.6	603
Working	5.6	5.6	13.2	75.6	659
Lower	18.4	2.6	18.4	60.5	38
There are no classes	-	3.4	20.7	75.9	29

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 60

Quest. 38-A: Var. 71 - How important is destroying our military bases?

Card 2: Col. 36	N	%
1 - Most important	857	59.3
2	420	29.1
3	120	8.3
4 - Least important	48	3.3
Missing data	19	XX
Total	1464	1445

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Pennsylvania, December, 1964, p.51.

Table 61

Quest. 38-B: Var. 72 - How important to the enemy is destroying our factories and transportation centers?

Card 2: Col. 37	N	%
1 - Most important	421	29.2
2	742	51.5
3	196	13.6
4 - Least important	83	5.8
Missing data	22	XX
Total	1442	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Pennsylvania, December, 1964, p. 51.

B. Danger of Local Attack--Demographic Factors

Geographical factors seem to operate directly upon how much danger people think there is that their area would be a target in the event of nuclear attack. People who live in metropolitan areas perceive much more danger about local attack (91.4 and 88.1 percent) than do people who live in rural areas (66.6 and 65.1 percent). This may be accounted for by the fact that people generally think that cities will be hit. The data is presented in Table 62.

We also find that more people feel there is danger that their area will be a target if they live anywhere but in the southern part of the United States although even there a large percentage feel directly threatened. Some 85 percent of the New England respondents, 88.7 percent of the respondents from the Middle Atlantic states, 87.1 percent of the respondents from the East North Central states, 81.9 percent of the respondents from the West North Central states, 79.8 percent of the respondents from the Pacific states and 78.3 percent of the respondents from the Mountain states felt that there was danger that their area would be attacked as compared to 76.2 percent of the respondents from the South Atlantic states, 60.0 percent of the respondents from the East South Central states and 71.7 percent of the respondents from the West South Central states (Table 63). This seems related to the earlier finding that when given a chance to discriminate between targets respondents from the southern part of the United States thought that cities were high priority enemy targets. The inference here is that the cities referred to are cities in the more highly populated and industrialized parts of the United States.

Race does not seem to operate directly on this variable. Both Negroes (77.2 percent) and whites (81.1 percent) tend to perceive danger that their area will be attacked equally. This is true regarding sex as well. Both men and women perceive danger that their area will be attacked equally.

More people 49 or younger feel that there is danger that their area will be attacked than do people over 50 (Table 64). This correlates with the earlier finding that young people tend to be more anxious about the possibility of nuclear attack than are the older members of our society.

More single people feel that there is danger that their area will be attacked than do married people (Table 65). Also, parenthood regardless of the age of the children or number of children in the household doesn't seem to affect perceptions of local danger. The exception to this is those families with three or four children 12 years old or under who experience

anxiety about local attack more than do others. For the main, the figures are uniformly high (Tables 66 and 67).

Religious affiliation seems to have some effect upon people's perception of local danger of a nuclear attack. Some 90 percent of the Jewish respondents and 88.3 percent of the Catholic respondents thought there was danger that their area would be attacked as compared with 77.1 percent of the Protestant respondents who thought so (Table 68). This again correlates with the finding regarding anxiety about war and religion.

There is a positive association between education and perceptions of local danger. The higher the education of the respondents the higher are the percentages of those people who feel their area is in danger of attack. There is a slight falling off of people with education higher than college but the percentage is substantially higher (90.4 percent) than those with less education such as those who have completed high school (82.1 percent). The data is presented in Table 69.

It is realistic to posit that educated people are more likely to be located in areas which are objective targets and which are recognized by them as such. It must be kept in mind that the lack of association between anxiety about nuclear attack and education and perceptions of local danger and education is due to the nature of the questions. The first question simply asks how worried are you by the possibility of attack. The second question posits the attack and then asks if you think your area will be a target. The tendency to perceive local danger in the event of a nuclear attack is also linked to high status. Eighty-six percent of those respondents identifying with the middle class thought that their area would be in danger in the event of an attack as compared with 76.8 percent of those respondents identifying with the working class and 78.9 percent of those identifying with the lower class (Table 70).

There is also a positive association between income and perceived local danger in the event of attack. The higher the income the higher the percentage of people who perceive local danger (Table 71). It follows that this is true of occupation as well. Those who have the higher status occupations also tend to perceive local danger in the event of an attack more than those in the lower status occupations (Table 72).

TABLES

III. NATURE OF THE ATTACK

B. Danger of Local Attack--Demographic Factors

Table 62

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO SIZE OF COMMUNITY

In Percent

By Size of Community:	Never	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere would be hit	N
Largest metropolitan area (2,000,000 and over)	1.1	30.5	43.1	17.8	4.6	1.7	1.1	348
Large metropolitan	0.5	26.4	35.3	26.4	8.6	2.1	0.7	569
Non-metropolitan areas with city of 10,000 or over	0.5	12.7	19.5	34.4	24.9	6.3	1.8	221
Non-metropolitan areas with no city of 10,000	-	9.1	23.3	32.7	25.2	9.7	-	309

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 63

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO GEOGRAPHICAL LOCATION

In Percent

Geographical Location:	Never	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere would be hit	N
New England	-	16.0	37.3	32.0	12.0	1.3	1.3	75
Middle Atlantic	0.8	29.7	38.3	20.7	7.8	2.0	0.8	256
East North Central	0.4	26.5	31.3	29.3	7.6	3.2	1.6	249
West North Central	-	15.8	30.3	35.8	10.9	6.7	0.6	165
South Atlantic	0.4	24.7	29.4	22.1	18.2	4.3	0.9	231
East South Central	4.3	4.3	25.7	30.0	22.9	11.4	1.4	70
West South Central	-	13.9	28.3	29.5	22.3	5.4	0.6	166
Mountain	-	28.3	21.7	28.3	17.4	4.3	-	46
Pacific	0.5	19.0	36.5	24.3	15.3	4.2	-	189

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 64

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO AGE

In Percent

Age:	Never happen	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere would be hit	N
10-19	-	23.5	23.5	23.5	29.4	-	-	17
20-29	-	27.4	31.6	26.2	9.7	4.2	0.8	237
30-39	0.6	24.0	35.1	22.5	13.2	3.1	1.5	325
40-49	0.3	18.9	32.9	31.9	13.0	2.7	0.3	301
50-59	0.4	22.8	30.5	24.3	13.5	3.5	-	259
60-69	2.3	18.7	32.2	29.8	9.4	7.0	0.6	171
70-79	-	9.9	30.7	27.7	18.8	10.9	2.0	101
80-89	-	8.0	24.0	40.0	20.0	4.0	4.0	25

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 65

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO MARITAL STATUS

In Percent

Marital Status:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere would be hit	N
Single - never married	0.9	22.0	36.7	23.9	11.9	3.7	0.9	109
Married	0.5	22.2	30.9	27.7	13.8	4.1	0.9	1102
Divorced	-	7.3	56.4	20.0	10.9	5.5	-	55
Widowed	1.4	20.1	29.9	27.1	16.0	5.6	-	144
Separated	-	27.0	32.4	21.6	10.8	5.4	2.7	37

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 66

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO NUMBER OF CHILDREN 12 YEARS OR UNDER

In Percent

Children 12 and under:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger at all	Everywhere would be hit - no local difference	N
None	0.5	19.9	33.4	26.8	14.2	4.4	0.8	944
One	2.0	26.3	25.8	26.8	15.7	3.5	-	198
Two	-	23.2	32.1	26.3	11.6	4.7	2.1	190
Three	-	28.6	30.3	26.9	11.8	2.5	-	119
Four	-	15.5	43.1	29.3	6.9	3.4	1.7	58
Five	-	6.3	25.0	43.8	18.8	6.3	-	16
Six	-	28.6	28.6	14.3	-	28.6	-	7
Seven or more	-	33.3	66.7	-	-	-	-	6

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 67

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK BY NUMBER OF CHILDREN 13 TO 21 YEARS OLD

In Percent

Children 13 to 21:	Never will happen	Certain Danger	Great danger	Some danger	Little danger	No danger at all	Everywhere would be hit - no local difference	N
None	0.5	21.9	30.7	27.8	13.1	4.8	1.2	998
One	0.9	23.4	35.8	22.9	15.1	1.8	-	218
Two	0.7	21.9	37.2	21.9	14 6	3.6	-	137
Three	-	16.4	29.5	39.3	11.5	3.3	-	61
Four	-	12.5	50.0	18.8	18.8	-	-	16
Five	-	-	50.0	33.3	-	16.7	-	6
Six	-	-	100.0	-	-	-	-	1
Seven or more	-	-	-	-	-	-	-	0

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 68

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO RELIGION

In Percent

Religion:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere would be hit	N
Protestant	0.4	18.3	30.1	28.7	16.3	5.3	0.9	1002
Roman Catholic	0.6	26.9	36.5	24.9	8.1	2.1	0.9	334
Jewish	4.1	36.7	40.8	12.2	4.1	2.0	-	49
Other	-	42.9	33.3	19.0	4.8	-	-	21
None	-	28.2	35.9	20.5	12.8	2.6	-	39

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 69

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO EDUCATION

In Percent

Respondent's Education:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger at all	Everywhere would be hit - no local difference	N
No schooling	5.9	11.8	41.2	29.4	5.9	-	5.9	17
Grammar school (1-8 yrs.)	1.4	15.6	30.2	25.7	18.2	8.1	0.8	358
Some high school (9-11 yrs.)	0.3	17.2	30.6	32.7	13.8	4.0	1.3	297
Completed high school (12 yrs.)	0.2	21.1	32.7	28.3	13.9	2.8	0.9	431
College, incomplete	-	26.7	38.2	20.4	11.0	3.7	-	191
College graduate	-	36.8	32.2	25.3	5.7	-	-	87
Higher than college	-	44.4	27.0	19.0	6.3	3.2	-	63

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 70

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO SOCIAL CLASS

In Percent

Social Class:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger	Everywhere will be hit	N
Upper	1.8	23.6	43.6	10.9	16.4	3.6	-	55
Middle	0.3	24.8	35.0	26.2	10.8	2.4	0.5	618
Working	0.7	18.6	29.4	28.8	15.7	5.6	1.2	677
Lower	-	26.3	23.7	28.9	15.8	5.3	-	38
There are no classes	-	13.8	34.5	31.0	13.8	6.9	-	29

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 71

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO INCOME

In Percent

Income:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger at all	Everywhere would be hit - no local difference	N
Under $3,000	2.1	14.3	28.2	27.2	15.7	10.5	2.1	287
$3,000 to $4,999	0.4	16.7	27.8	30.0	21.1	3.7	0.4	270
$5,000 to $7,499	-	24.0	29.8	31.1	11.7	2.7	0.5	366
$7,500 to $9,999	0.5	25.8	34.8	24.9	10.4	2.3	1.4	221
$10,000 to $14,999	-	23.5	42.8	21.7	9.6	2.4	-	166
$15,000 to $24,999	-	29.8	40.4	22.8	7.0	-	-	57
$25,000 and over	-	44.4	44.4	5.6	5.6	-	-	18

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 72

DANGER THAT OWN AREA WOULD BE A TARGET
IN THE EVENT OF NUCLEAR ATTACK RELATED TO OCCUPATION

In Percent

Occupation:	Never will happen	Certain danger	Great danger	Some danger	Little danger	No danger at all	Everywhere would be hit	N
Professional	-	31.5	33.2	23.9	9.8	1.1	0.5	184
Farmers and farm managers	-	2.9	17.1	40.0	14.3	25.7	-	35
Managers, officials and proprietors	0.5	24.0	38.5	19.8	13.0	3.6	0.5	192
Clerical	0.9	29.1	29.1	23.6	14.5	1.8	0.9	110
Sales	1.5	27.9	26.5	25.0	13.2	4.4	1.5	68
Craftsmen, foremen, and kindred workers	-	19.0	33.5	32.3	11.5	2.2	1.5	269
Operatives and kindred workers	-	20.2	32.3	26.9	15.2	4.0	1.3	223
Service workers	0.7	20.1	34.3	27.6	11.9	5.2	-	134
Farm laborers and foremen	-	13.0	29.3	25.0	23.9	8.7	-	92
Laborers	2.9	15.0	28.6	30.7	15.7	6.4	0.7	140

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer 1964.

C. Chances of Survival--Demographic Factors

In investigating threat perception, it is not only important to look at how anxious people are about the possibility of attack and whether or not they perceive themselves or their area as a target but also how they estimate their chances of survival in the event of an attack.

As reported in an A.I.P.O. study conducted in May of 1951, 15.9 percent of the national sample thought that another world war would mean an end to mankind (Table 73). In June of 1956, A.I.P.O. found that 38.6 percent of the national sample thought that it was not likely that they and their families would live through an atomic war (Table 74). In another study conducted by A.I.P.O. in August of 1961, 42.9 percent estimated their chances of survival as poor in the event of an all-out nuclear war and 39.6 percent estimated their chances as fifty-fifty (Table 75).

We have reported earlier that 62.6 percent of the respondents in the 1964 University of Pittsburgh study thought that their chances for survival were "fairly bad", "very bad" or that they had "no chance at all" (Table 41). It may increase our understanding of threat perception to know who are these people who have such a pessimistic evaluation of their chances of survival.

Although the percentages of people who see their chances of survival as bad are high regardless of size of their community, it is the largest metropolitan areas which have the highest percentage (76.4 percent) as compared with 51.8 and 50.9 percent from the rural areas (Table 76).

Those people from the New England (71.7 percent), East North Central (70.1 percent), Middle Atlantic (65.6 percent), and Pacific (62.9 percent) states tend to feel that their chances for survival are bad or that they have no chance at all as compared with respondents from the East South Central (46.3 percent), Mountain (52.2 percent), or West South Central (60.1 percent) states who feel that way. This is accountable by the fact that the people who are most pessimistic about their chances for survival tend to come from highly industrialized urban areas that are objectively targets and perceived as such (Table 77).

There is no direct relationship of race and estimates of chances of survival when the pessimistic response range is grouped; 62.7 percent of the whites and 62.8 percent of the Negroes feel that their chances of survival are "fairly bad", "very bad" or that they have "no chance at all". However, more whites (35.3 percent) rate their chances as "very bad" as compared with 30.9 percent of the Negroes who say so. Eight percent of the Negroes say

that they have "no chance at all" as compared with 6.7 percent of the whites who say so (Table 78).

Women also tend to feel that their chances of survival are worse than do men. Some 66 percent of the women estimate their chances as "fairly bad", (23.9 percent), "very bad" (34.5 percent), or "no chance at all" (7.4 percent) as compared with 58.9 percent of the men who said their chances were "fairly bad" (17.6 percent), "very bad" (35.0 percent) or "no chance at all" (6.3 percent). Table 79 contains the data.

There is a relationship between age and estimates of chances of survival. The young tend to feel their chances are "fairly bad" or "very bad" more than do older people with the exception of the 60 to 69 age group which also has a high percentage. However, it is the older age groups which have the highest percentages of those people who feel they would have no chance at all (Table 80).

Consistent with the findings regarding the relationship of marital status and feelings that the respondent's local area would be a target is the fact that single people tend to perceive their chances of survival as worse than do married people. About 70 percent of the single people fell into the pessimistic response category as compared with 61.5 percent of the married people who felt that way (Table 81). People also tend to estimate their chances of survival as bad regardless of whether they have children and regardless of the age of the children (Tables 82 and 83).

Religious affiliation seems to have some effect, however. Jews and Catholics perceive their chances as worst than Protestants. Of the Jewish respondents 63.2 percent rate their chances as "fairly bad" and "very bad" and 14.3 percent feel they have "no chance at all" and 52.0 percent of the Catholic respondents who rate their chances as "fairly bad" and "very bad" and 10.9 percent who feel they have "no chance at all" compared with 56.3 percent of the Protestant respondents who feel their chances are "fairly bad" and "very bad" and 5.4 percent who feel they have "no chance at all" (Table 84).

Except for those people with no schooling almost 9 out of 10 of which rate their chances as bad or non-existent and those people with education higher than college who perceive their chances more positively than the other educated groups, the association between education and the tendency to rate survival chances as bad is positive. The higher the education the more likely people are to perceive their chances as bad. Table 85 makes this clear. This can certainly be related to the fact that the higher educated anticipate local attack more than the less educated, and that given a direct attack feel there is little that can be done.

How socioeconomic status affects people's estimates of their chances of survival in the event of nuclear attack is not clear. Since this is the case, it will have to be sufficient here to point to some findings without necessarily being able to offer a satisfactory explanation at present.

Those people who identify with the middle class have the highest percentage of those who perceive their chances pessimistically (66.1 percent), as compared with those people of the working class (60.7 percent) and those people of the upper class (63.6 percent). This is understandable given the previous data. However, when looking at the degree of pessimism more people identifying with the lower class rate their chances as "very bad" (41.0 percent) as compared with those people identifying with the upper class (23.6 percent) or even the middle class (36.2 percent) who feel that way (Table 86).

With the exception of a drop in the high income group of $15,000 to $24,999, there is a positive association between income and pessimism about chances of survival. The higher the income the more people tend to view their chances of survival as bad. However, more people of the lowest income group perceive that they have no chance at all (10.7 percent) as compared with the higher income groups all of which range from 5.5 to 6.1 percent on this perception (Table 87). Those in the higher status occupations tend to be more pessimistic as well. This is clear from Table 88.

It is also interesting to note that as might be expected there is a positive association between how people rate their chances of survival in the event of nuclear attack and their estimates of the effectiveness of our defenses. The worse people rate our defenses the more pessimistic they are about their chances of survival. The data is presented in Table 89.

TABLES

III. NATURE OF THE ATTACK

C. Chances of Survival--Demographic Factors

Table 73

Some people say that if another world war comes, it would mean an end to mankind. Do you agree or disagree?

	%	N
Agree	15.9	213
Disagree	69.0	927
No opinion	11.6	156
Qualified agree	2.3	31
Qualified disagree	0.2	3
Qualified no opinion	0.4	5

Missing data omitted

AIPO #455 TPS, Col. 34, Question 9, 5/2/51.

Table 74

Do you think you and your family would be likely to live through an atomic war?

	%	N
Yes	28.6	595
No	38.6	801
Don't know	32.4	674

Missing data omitted

AIPO #566, Col. 30, Question 21, 6/13/56.

Table 75

If we should happen to get into an all-out nuclear war, what do you think your own chances would be of living through it--very good, poor, or just 50-50 chance?

	%	N
Very good	8.4	266
Poor	42.9	1358
50-50 chance	39.6	1255

Missing data omitted

AIPO #649 K, Col. 19, Question 25, 8/22/61.

Table 76

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO COMMUNITY SIZE

	In Percent							
By size of community:	Never	Very good	Fairly good	50-50 Chance	Fairly bad	Very bad	No Chance	N
Largest metropolitan areas (2,000,000 and over)	0.3	4.3	11.5	7.5	20.2	43.2	13.0	347
Large metropolitan	0.4	3.2	20.2	11.5	22.2	37.5	5.0	563
Non-metropolitan areas with city of 10,000 or over	-	5.1	25.0	19.0	15.7	30.1	5.1	216
Non-metropolitan areas with no city of 10,000	-	7.5	31.1	9.5	23.6	23.3	4.9	305

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 77

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO GEOGRAPHICAL LOCATION

Geographical Location:	In Percent							
	Never	Very good	Fairly good	50-50 Chance	Fairly bad	Very bad	No Chance	N
New England	-	-	21.6	6.8	17.6	36.5	17.6	74
Middle Atlantic	0.4	5.9	18.8	9.4	20.3	35.9	9.4	256
East North Central	-	3.2	16.9	9.7	21.4	43.1	5.6	248
West North Central	-	3.2	29.1	10.1	27.2	25.3	5.1	158
South Atlantic	-	5.2	21.2	13.0	22.9	32.0	5.6	231
East South Central	2.9	10.1	20.3	20.3	13.0	30.4	2.9	69
West South Central	-	4.9	21.5	13.5	20.9	33.7	5.5	163
Mountain	-	6.5	28.3	13.0	19.6	30.4	2.2	46
Pacific	-	4.8	21.5	10.8	18.8	36.0	8.1	186

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 78

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO RACE

In Percent

Race:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
White	0.2	4.7	22.1	10.4	20.7	35.3	6.7	1225
Negro	0.5	5.3	14.9	16.5	23.9	30.9	8.0	188

Unpublished data from 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 79

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO SEX

In Percent

Sex:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Male	0.5	6.3	22.2	12.0	17.6	35.0	6.3	648
Female	-	3.3	20.3	10.6	23.9	34.5	7.4	783

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 80

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO AGE

In Percent

Age:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance	N
10-19	-	5.9	11.8	23.5	35.3	17.6	5.9	17
20-29	-	3.4	21.6	9.3	22.5	37.3	5.9	236
30-39	0.6	6.2	22.4	9.3	20.8	36.3	4.3	322
40-49	-	3.7	16.4	14.0	22.1	36.8	7.0	299
50-59	0.4	4.7	23.1	12.9	21.6	29.4	7.8	255
60-69	-	3.5	20.5	9.4	21.1	35.7	9.9	171
70-79	-	6.3	26.0	12.5	12.5	32.3	10.4	96
80-89	-	8.3	29.3	8.3	16.7	29.2	8.3	24

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 81

CHANCES OF SURVIVAL IN THE EVENT OF A NUCLEAR ATTACK
RELATED TO MARITAL STATUS

In Percent

Marital Status:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Single - never married	-	3.7	17.8	9.3	27.1	34.6	7.5	107
Married	0.3	4.4	21.9	12.0	20.6	34.5	6.4	1094
Divorced	-	9.1	23.6	7.3	27.3	27.3	5.5	55
Widowed	-	5.7	17.9	9.3	18.6	37.9	10.7	140
Separated	-	5.7	17.1	8.6	17.1	42.9	8.6	35

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 82

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO NUMBER OF CHILDREN 12 YEARS OLD OR UNDER

In Percent

Children 12 and Under:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
None	-	4.9	19.4	11.9	22.1	33.6	8.0	833
One	1.0	5.1	20.2	12.1	22.2	34.3	5.1	198
Two	0.5	2.6	26.8	10.0	18.4	36.3	5.3	190
Three	-	6.1	21.7	8.7	19.1	38.3	6.1	115
Four	-	3.4	25.9	10.3	19.0	36.2	5.2	58
Five	-	12.5	37.5	6.3	12.5	31.3	-	16
Six	-	-	28.6	-	14.3	42.9	14.3	7
Seven or more	-	-	-	-	16.7	83.3	-	6

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 63

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO NUMBER OF CHILDREN 13 TO 21

In Percent

Children 13 to 21:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
None	0.2	5.1	21.5	11.3	22.2	33.1	7.6	982
One	0.5	2.3	19.8	13.4	18.9	40.6	4.6	217
Two	-	5.0	18.0	13.7	18.0	37.4	7.9	139
Three	-	4.9	31.1	13.1	21.3	29.5	-	61
Four	-	12.5	6.3	6.3	6.3	56.3	12.5	16
Five	-	-	33.3	-	16.7	50.0	-	6
Six	-	-	-	100.0	-	-	-	1
Seven or more	-	-	-	-	-	-	-	0

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 84

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO RELIGION

In Percent

Religion:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Protestant	0.2	4.9	21.7	11.6	23.0	33.3	5.4	988
Roman Catholic	-	4.2	21.5	11.5	15.7	36.3	10.9	331
Jewish	2.0	4.1	14.3	2.0	22.4	40.8	14.3	49
Other	-	-	13.6	18.2	22.7	45.5	-	22
None	-	7.7	20.5	7.7	15.4	43.6	5.1	39

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 85

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK RELATED TO EDUCATION

In Percent

Respondent's Education:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
No schooling	-	5.9	-	5.9	17.6	52.9	17.6	17
Grammar school (1-8 yrs.)	0.6	6.0	25.6	12.0	15.4	30.5	10.0	351
Some high school (9-11 yrs.)	-	3.0	21.6	14.9	18.6	35.8	6.1	296
Completed high school (12 yrs.)	0.2	4.2	22.5	9.6	21.5	36.1	5.9	427
College, incomplete	-	5.3	13.2	10.5	26.8	40.5	3.7	190
College graduate	-	3.4	18.4	4.6	37.9	28.7	6.9	87
Higher than college	-	8.3	18.3	15.0	21.7	28.3	8.3	60

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 86

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO SOCIAL CLASS

In Percent

Social Class:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Upper	-	5.5	16.4	14.5	29.1	23.6	10.9	55
Middle	-	5.1	19.6	9.2	22.7	36.2	7.2	611
Working	0.4	3.9	22.8	12.1	20.1	34.6	6.0	670
Lower	-	12.8	10.3	12.8	15.4	41.0	7.7	39
There are no classes	-	-	32.1	21.4	7.1	28.6	10.7	28

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 87

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK
RELATED TO INCOME

In Percent

Income:	Never will happen	Very good	Fairly good	50-50 Chance	Fairly bad	Very bad	No chance at all	N
Under $3,000	0.7	7.9	22.9	11.4	17.5	28.9	10.7	280
$3,000 to $4,999	-	2.2	22.8	13.1	19.9	36.3	5.6	267
$5,000 to $7,499	0.3	3.6	22.9	10.5	25.1	32.2	5.5	363
$7,500 to $9,999	-	4.5	19.8	11.3	18.0	40.5	5.9	222
$10,000 to $14,999	-	4.9	17.1	10.4	22.0	39.6	6.1	164
$15,000 to $24,999	-	3.5	17.5	10.5	24.6	36.8	-	57
$25,000 and over	-	5.6	11.1	5.6	38.9	38.9	-	18

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 88

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK RELATED TO OCCUPATION

In Percent

Occupation:	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Professional	-	4.9	19.0	10.9	25.5	33.7	6.0	184
Farmers and farm managers	-	6.1	36.4	6.1	21.2	27.3	3.0	33
Managers, officials and proprietors	-	4.2	19.3	10.9	20.3	42.2	3.1	192
Clerical	-	4.7	16.0	6.6	24.5	34.9	13.2	106
Sales	-	10.4	16.4	13.4	20.9	35.8	3.0	67
Craftsmen, foremen, and kindred workers	0.4	2.6	22.6	11.3	18.5	36.6	7.9	265
Operatives and kindred workers	-	4.5	22.6	10.0	22.2	33.9	6.8	221
Service workers	0.8	3.0	21.2	13.6	18.2	34.8	8.3	132
Farm laborers and foremen	-	6.6	24.2	14.3	19.8	27.5	7.7	91
Laborers	0.7	6.4	22.1	13.6	20.0	29.3	7.9	140

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 89

CHANCES OF SURVIVAL IN THE EVENT OF NUCLEAR ATTACK RELATED TO ESTIMATES OF EFFECTIVENESS OF OUR DEFENSE AGAINST ENEMY BOMBERS AND ENEMY MISSILES

	In Percent Chances of Survival							
	Never will happen	Very good	Fairly good	50 - 50 chance	Fairly bad	Very bad	No chance at all	N
Defense Against Enemy Bombers:								
Low Effectiveness (0-3)	-	8.3	16.7	2.1	25.0	39.6	8.3	48
Medium Effectiveness (4-6)	-	5.3	18.2	11.2	20.3	36.9	8.0	187
High Effectiveness (7-10)	0.3	4.4	22.2	11.4	21.2	34.1	6.5	1171
Defense Against Enemy Missiles:								
Low Effectiveness (0-3)	-	5.6	15.4	11.9	21.7	35.7	9.8	143
Medium Effectiveness (4-6)	-	4.5	19.2	12.4	21.5	35.3	7.1	354
High Effectiveness (7-10)	0.3	4.4	23.1	10.7	20.7	34.6	6.2	900

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

D. Kinds of Weapons

In the early 1950 University of Michigan study, 61 percent thought it very likely, likely or certain that our cities would be hit with atomic bombs (Table 22). In the same study when asked if they perceived danger from any other kind of enemy activities or attack, 37 percent cited sabotage as a source of danger, 3 percent cited biological warfare and no one at all thought there was danger from chemical warfare. Twenty-four percent thought that there was not other danger (Table 90). When asked specifically about some of these dangers other than atomic bombings, sabotage was still mentioned most frequently as a danger with biological warfare mentioned less often, and chemical warfare least often (Table 91).

Although atomic bombing was seen by the majority of the urban people as the most likely possible wartime danger and the most terrible, there were some who considered it the most terrible weapon who did not think it the most likely weapon. However, of the approximate three in ten who saw sabotage as most likely, only three in a hundred considered it most terrible in its consequences. The reverse is essentially true of biological warfare as can be seen in Table 92.

In the 1951 University of Michigan study, 40 percent thought that people in the United States would be in real danger from either biological warfare, chemical warfare or both. However, 51 percent did not expect this (Table 93). Yet, people have admitted limited knowledge about such weapons: 65 percent heard nothing about biological weapons, and 76 percent could recall nothing specific about chemical weapons (Table 94).

In 1954, some 62 percent of the respondents cited that nuclear weapons would be used in the event of a war; and an additional 19 percent referred to bombs in general without identifying whether these would be conventional or nuclear devices. Germ warfare is mentioned by 7 percent; and gas (chemical) warfare by 6 percent (Table 95). Among the people who did not mention biological weapons to begin with, 28 percent thought that they are more likely to be used than not upon further probing and an added 9 percent said there was a 50-50 chance (Table 96). Twenty-eight percent believed that chemical weapons would be used with 9 percent believing there was a 50-50 chance (Table 97).

In January of 1955, NORC conducted a study and it was found that 61.7 percent expected that in any future war with Russia, atomic and hydrogen bombs would be used. About 27 percent thought that both sides would avoid using weapons (Table 98). By 1956, 62.6 percent, as reported in a study by A.I.P.O.,

thought that in another world war hydrogen bombs would be used against the U.S. About 18 percent thought that they wouldn't be used (Table 99). By 1961, a University of Michigan study reports that 69 percent thought that it was unlikely or that there was no chance at all that there would be a war with Russia without rockets or atomic bombs being used (Table 100).

In the 1961-1962 Austin, Texas study, over 80 percent of the respondents singled out thermonuclear weapons as means of enemy attack; and an additional 21 percent referred to guided missiles and rockets. Chemical warfare was mentioned only by 2 percent and biological warfare by only 1.6 percent although 5 percent of the subjects simply stated that we would be attacked with "everything they have" (Table 101). In 73 percent of the instances, the community sample in the Columbia University research answered that hydrogen bombs specifically would be used (Table 102).

In the mid-1963 University of Pittsburgh study, extremely few respondents thought that thermonuclear weapons would not be used in the conduct of a central war. Only 3.6 percent thought that no nuclear weapons would be used at all and the war would be fought by conventional means (Table 103). Furthermore, some 35 percent of the respondents considered the use of chemical and biological agents somewhat likely or very likely; and an overall percentage of 58 percent believed the use of such weapons to have chances of at least fifty-fifty (Table 104). In the 1964 University of Pittsburgh study, again extremely few respondents (5.1 percent) thought that thermonuclear weapons would not be used in the conduct of a central war (Table 105).

In open-ended probes regarding probable weapons to be used in an attack, Americans do not display a tendency to mention mysterious new weapons, or some possible weapons of the future. In the studies in which information on the problem appears at all, no answers of this kind are found. Other than citing nuclear weapons, and occasionally chemical and biological devices, the respondents mention "sabotage", "invasion" or "incendiary bombs" and so on. But there is no evidence to suggest that the public is convinced that some other weapons than those already referred to might be in existence or under development. There is also no evidence of concern with such possibilities.

Percentages of people who mention nuclear, or thermonuclear, weapons spontaneously has been increasing throughout the years. This is to be expected. Spontaneous references to chemical and biological agents are less frequent, and represent a distinct minority concern. Nonetheless, when people are asked explicitly about such weapons, they think that such agents might indeed be

used. However, there have been as many people who do not anticipate their deployment as there are those who do. At the same time, when asked about their knowledge of chemical and biological weapons, the data suggest that some two out of three Americans know either nothing or very little about them.

There is evidence of public concern with thermonuclear weapons; the evidence on concern with chemical and biological devices is not as clear-cut. Without any question, systems to protect lives and property are viewed chiefly as those which must deal with thermonuclear weapons.

TABLES

III. NATURE OF THE ATTACK

D. Kinds of Weapons

Table 90

Table 29

"In case we have another world war, do you think (your city) will be in danger from any other kind of enemy activities or attacks?" "What kinds?"

Danger from sabotage	37%
Danger from sea attacks	6
Danger from biological warfare	3
Danger from land invasion	3
Danger from internal Communist revolt	1
Danger from rockets, guided missiles, non-conventional aircraft or aerial weapons	1
Danger from chemical warfare	*
Yes, there would be danger from other (unspecified) attack	7
No other danger	24
Don't know of any other dangers	15
Not ascertained	3
	100%

* Less than half of one percent.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 58.

Table 91

Table 30

Perception of Possible Dangers Other than Bombing (in Case of War), when Specifically Asked about each Danger

	Sabotage	Biological Warfare	Chemical Warfare
There would be danger	86%	43%	34%
It depends	2	5	6
There wouldn't be danger	8	36	48
Don't know	3	13	9
Not ascertained	1	3	3
	100%	100%	100%

Public Thinking about Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 59.

Table 92

Table 31

"Of all of these (germs, atomic bombs, poison gas, sabotage):

	which do you think is most likely to be used?"	which do you think would be most terrible?"
Atomic bomb	47%	62%
Sabotage	27	3
Biological warfare	5	15
Chemical warfare	4	6
Name more than one as equally likely or terrible	6	8
Don't know	7	3
Not ascertained	4	3
	100%	100%

Public Thinking about Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 59.

Table 93

Danger of Biological and Chemical Warfare

Table 19

"In case there is a war, do you think people in this country will be in real danger from either of these?" (biological or chemical warfare.) Which one?"

Biological warfare	12%	
Chemical warfare	12	40%
Both	16	
Depends	1	
Neither	51	
Don't know	3	
Not ascertained	5	
	100%	

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 16.

Table 94

Table 13

"Have you heard or read anything in the last few months about biological or germ warfare? Have you heard or read anything about poison gas or chemical warfare? What have you heard or read?"

	Biological	Chemical
Heard something definite	25%	14%
Heard something, not specific "what"	8	7
Heard nothing	65	76
Not ascertained	2	3
	100%	100%

Defense of Our Cities: A Study of Public Attitudes on Civil Defense, Survey Research Center, University of Michigan, Ann Arbor, December, 1951, p. 17.

Table 95

Table 4-13

SPECIFIC TYPES OF ENEMY ATTACK EXPECTED

Q: What sort of things do you think would be used against us in an attack?

Atomic bombs, H-bombs	62%
Bombs (unspecified), planes	19
Rockets, guided missiles	10
Sea attack, submarines, warships	8
Germ warfare	7
Gas warfare	6
Sabotage, subversion, 5th column	5
Land invasion, paratroopers, troops	3
High explosive and/or incendiary bombs	2
Other	3
Don't know or not ascertained	9
No danger of attack	10
	*

* Totals to more than 100% since several people mentioned more than one type.

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, September, 1954, p. 63.

Table 96

TABLE 4-14

EXPECTATION OF BIOLOGICAL WARFARE

Q.: People who did not mention germ warfare spontaneously were asked the following: "How about germ warfare that spreads diseases? Do you think this is likely?"

Mentioned spontaneously and listed in previous table	7%
Yes, germ warfare likely	28
Maybe, possibly, 50-50 chance	9
No	30
Don't know	9
Not ascertained	1
No danger of attack	16
	100%

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, September, 1954, p. 63.

Table 97

Table 4-15

EXPECTION OF CHEMICAL WARFARE

Q.: People who did not mention gas warfare spontaneously were asked the following: "How about gas warfare that spread poisons? Do you think that is likely?"

Mentioned spontaneously and listed in pre ous table	6%
Yes	27
Maybe, possibly, 50-50 chance	10
No	32
Don't know	8
Not ascertained	1
No danger of attack	16
	100%

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, September, 1954, p. 64.

Table 98

In any future war with Russia, do you think atomic and hydrogen bombs would be used, or would both sides avoid using these weapons?

	%	N
Would be used	61.7	736
Both would avoid	26.7	318
Don't know	11.4	136

Missing data omitted

NORC, 142/366, Col. 14, Ques. 8, 1/21/55.

Table 99

If there should be another World War, do you think the hydrogen bomb will be used against us?

	%	N
Yes	62.6	1301
No	17.5	363
Don't know	19.6	407

Missing data omitted

AIPO #566, Col. 27, Ques. 18, 6/13/56.

Table 100

Q. "If we do get into a war with Russia, how likely do you think it is that it could be an ordinary kind of war without rockets or atomic bombs being used?"

Certain, very likely	6%
Probable, likely	9
Even chances	6
Unlikely, probably not	16
Very unlikely, no chance	53
Don't know	10
	100%

The U.S. and the U.S.S.R.: A Report of the Public's Perspectives on United States - Russian Relations in Late 1961, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, March, 1962, p. 35.

Table 101

Table 25
Item 32

*TYPES OF WEAPONS EXPECTED

Responses	HS	%	LOH	%	Both	%
No answer	15	5.0	2	1.0	17	3.4
A-bombs, H-bombs, Nuclear weapons	222	74.0	182	91.0	404	80.8
Bombs (unspecified) planes	54	18.0	18	9.0	72	14.4
Rockets, guided missiles	56	18.7	49	24.5	105	21.0
Sea attack	3	1.0	1	0.5	4	0.8
Germ warfare, biological warfare	3	1.0	5	2.5	8	1.6
Sabotage, subversion	6	2.0	5	2.5	11	2.2
Invasion	3	1.0	3	1.5	6	1.2
Explosives	3	1.0	4	2.0	7	1.4
Conventional weapons	9	3.0	6	3.0	15	3.0
Everything they have	14	4.7	11	5.5	25	5.0
Don't know	4	1.3	9	4.5	13	2.6
Gas warfare, chemical warfare	6	2.0	5	2.5	11	2.2

* Numbers have been converted to percents for purposes of this report.

Attitudes and Knowledge Concerning Fallout Shelters in Austin, Texas, Harry Estill Moore, January, 1962, p. 43.

Table 102

3. If a world war should come, do you think H-bombs would be used?

Col. 22 (s.p.)

0 - Yes	154	73
1 - No	53	35
* 2 - Don't know	3	2
	210	100% (210)

* Starred categories (except, of course, for "No Answer") were not part of the checklist presented respondents.

Fallout Shelter Study, Codebook Number Three, Haworth, New Jersey Data, Bureau of Applied Social Research, Columbia University, New York, May, 1963, p. 1.

Table 103

Quest. 12: Var. 36 - Which is most likely way in which you think a World War will be fought if it should come?

Card 1: Col. 60			N	%
0		There never will be a World War.	13	.9
1	A.	All nuclear weapons would be used just about at once.	330	23.4
2	B.	Many nuclear weapons would be used but each side would try to keep plenty in reserve to be able to use them in later attacks.	349	24.7
3	C.	Few nuclear weapons would be used and these only against carefully selected military targets.	229	16.2
4	D.	Few nuclear weapons would be used but primarily against civilians in cities.	33	2.3
5	E.	No nuclear weapons would be used at first, but they might be used later on depending on how the war went.	398	28.2
6	F.	No nuclear weapons would be used at all and the war would be fought by conventional means.	51	3.6
7		Other (Specify)	10	.7
X		Missing data	21	XX
TOTAL			1434	1413

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Department of Sociology, University of Pittsburgh, June, 1964, p. 34.

Table 104

Quest. 14: Var. 38 - Apart from what you think about nuclear weapons, how likely is it that chemical and bacteriological (germ) weapons would be used if a war should come?

Card 1: Col. 62		N	%
0	There will never be a World War	8	.6
1	Very likely	244	17.6
2	Somewhat likely	241	17.4
3	Fifty-fifty	316	22.8
4	Somewhat unlikely	239	17.3
5	Very unlikely	324	23.4
7	Depends (Specify)	13	.9
X	Missing data	49	XX
	TOTAL	1434	1385

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Department of Sociology, University of Pittsburgh, June, 1964, p. 36.

Table 105

Ques. 37: Var. 70 - Which do you think is the most likely way a world war would be fought if it should come?

	%	N
There will never be a world war	1.2	17
All-out nuclear war	23.7	337
Nuclear weapons used, but some kept in reserve	24.1	343
Nuclear weapons - military targets	16.9	240
Nuclear weapons - population targets	1.1	16
No nuclear weapons used at first, but used later	27.1	386
Conventional	5.1	73
Other	0.8	12
Missing data	XX	40
TOTAL	1424	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 50.

IV. ESTIMATES OF WEAPONS EFFECTS

As with the kinds of weapons people think would be used against them in the event of another war, so it is important in analyzing what people feel threatened by to look at their estimates of weapons effects.

We had reported in the previous chapter that atomic bombing was seen by the majority of the urban people as the most terrible weapon in its consequences. Of the people who saw sabotage as most likely, very few saw it as most terrible. The reverse was found to be true of biological warfare (Table 92).

In the early University of Michigan studies, the respondents cited "explosion, flash" more frequently as causes of most deaths in a nuclear attack than they mentioned "radiation". In 1950, the percentages were 29 and 21 respectively; and 1951, 30 and 20 (Table 106).

The percentage of subjects who fairly realistically estimated the radius "within which almost everybody would be killed" (at that time, considered to be between one quarter of a mile to one mile) increased from 17 to 29 percent between 1950 and 1951; estimates viewed as highly exaggerated declined from 23 to 19 percent (Table 107).

In the 1950 Michigan study, when asked to give the reasons for their feelings that a particular weapon would be most dangerous, 24 percent said they considered the atomic bomb most terrible because of greater (complete) death and destruction, 11 percent said biological warfare was most terrible because of the amount of death and illness, and 4 percent said chemical warfare was the worst because of amount of death and illness (Table 108).

When asked specifically what they thought would happen to people (in case of an atomic bomb attack), the majority responded principally in terms of the number of deaths and injuries which would be caused. About half as many talked about specific kinds of effects (mental strain, insanity, radiation effects, burns). Social disorganization and panic were mentioned about one third as often as extent of death and injury (Table 109).

In the same study, the cause of most deaths from an atomic bomb explosion was related to estimates of how far from where the bomb exploded would everyone be killed. Sixty percent of those who thought radiation would cause most deaths estimated that everyone would be killed at least five miles or less from where the bomb exploded. Sixty-three percent who thought most deaths

would be caused by blast also estimated that everyone would be killed at least five miles or less from where the bomb exploded (Table 110).

Of those who estimated that most deaths would be caused by radiation, 73 percent thought that the effect of an atomic explosion on a city's ability to operate would be serious as compared with 66 percent who thought that blast was the most dangerous factor who estimated serious effect on the city's ability to operate. There was no difference between those who thought radiation or blast the most dangerous when estimating the effect on the city's ability to operate as completely disastrous (Table 111).

In a Michigan study conducted in 1952, when asked what causes most of the deaths in an atomic attack, 19 percent of the respondents cited radiation and 20 percent cited blast. Twenty-one percent thought that heat and fire would cause most of the deaths. In the Michigan 1954 study, 37 percent of the respondents cited radiation as causing most of the deaths, 29 percent cited blast, and 19 percent thought that heat and fire were the most dangerous (Table 112).

In the same 1954 Michigan study, the respondents were also asked what other dangers they thought there might be. In response to this question, fire and burns received major mention. One in four realized that fire would be a danger, following the dangers accompanying the atomic attack itself. One in ten mentioned the dangers of food and water contamination and a similar percent mentioned dangers of "hot" areas. Radiation under various guises comes up as a continuing danger following atomic attack (Table 113). By 1956, more respondents referred to radiation (some 30.7 percent) as the major cause of deaths than cited blast (13.4 percent) or heat (6.3 percent) effects (Table 114).

The estimates of near-complete mortality radius reflect also a major shift. Only about 1 percent of the University of Michigan sample assess the radius below one mile; and a little over 17 percent place it at between 10 to 20 miles. In fact, an additional 18.9 percent consider it to be 50 miles or more (Table 115).

This shift from stressing blast as a source of most casualties was already noticeable in the previously reported 1954 University of Michigan research. However, in those early Michigan studies all combined primary effects of a nuclear attack still exceeded estimates of fallout casualties. The clear shift does not really take place until 1956.

By 1961, in the Austin, Texas study of 500 respondents, blast and heat effects jointly are singled out by 30 percent of the

interviewees as primary agents of death; whereas fallout is explicitly mentioned by 53.6 percent of these subjects (Table 116).

If their own community were not directly hit in an attack, many respondents still consider it very likely that they would be killed. The eight-city sample of Michigan State University's inquiry of 1961-1962 shows that 48 percent expect to be killed (or injured) by blast effects anyway; some 39 percent by fire effects; and 77 percent by fallout (Table 117). The differences in expectation that their own city would be attacked were considerable (Table 33). But the differences in anticipated casualties if their city were spared by the bombing of some other nearby targets do not vary anywhere near as much (Table 117).

Some impressions of the longer range effects were studied in the Michigan State University's research of the early 60s. It was found that 27 percent of the eight-city respondents (with 15 percent claiming lack of knowledge in this study) agreed with the proposition that an atomic war would contaminate the water supply so that almost everyone would die before the water was fit to drink anyway (Table 118). Thirty-nine percent agreed with the proposition that all food and ways of producing food would be destroyed in an attack--so that people would die soon (Table 119). Although 21 percent claimed lack of knowledge, 48 percent of the total sample also agreed that the earth, or major areas at least, would remain uninhabitable for years--or even centuries (Table 120).

By 1964, the University of Pittsburgh study reveals that 80.0 percent of the respondents felt that the danger from fallout would be great even if their own area were not destroyed (Table 121).

On the whole, the results suggest that people have become more aware of the secondary weapons effects over the years since about 1950. Indeed, by 1964, it is safe to conclude that fallout is viewed as more of a danger to more people than are primary effects, either blast or heat or both (as well as subsidiary primary effects having to do with casualties due to debris, falling buildings, flying objects, etc.).

The 1961 Michigan State University research leads to the conclusion that people are not very optimistic as to whether anything could be done to protect themselves now against weapons effects if their own community were attacked: some 27 percent claim that something might be feasible by way of protection against blast while 73 percent do not think so or do not know. With regard to heat and fire effects, 32 percent believe some protection would be possible while 68 percent either think so or don't know.

Thirty-six percent think that some protection would be possible against fallout even if bombs were dropped on or close to their communities while 64 percent either didn't think so or didn't know (Table 122).

At the same time, when asked about casualties, provided their own city or community were not directly under attack, most respondents mention fallout as a danger, and substantially fewer anticipate direct danger from blast and heat effects from adjacent targets (Table 117). If they are directly attacked, people do not believe that much can be done (Table 122).

TABLES

IV. ESTIMATES OF WEAPONS EFFECTS

Table 106

TABLE 88

"From what you've heard, what would cause most of the deaths?" (If an atomic bomb struck)

	September 1950	August 1951
Explosion, flash	29%	30%
Radiation	21	20
Falling building, flying objects, debris	11	6
The bomb (not specific)	6	2
Gas, fumes, smell	6	6
Fire	5	8
Panic, fright	3	5
Other	9	11
Don't know	8	8
Not ascertained	2	4
	100%	100%

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 63.

Table 107

Estimates of Atomic Bomb Destructiveness

Table 87

"If an atomic bomb hit in the center of a large city, how far away from where it fell do you think almost everybody would be killed?"

	September 1950	August 1951
Realistic estimate (½ mile to 1 mile)	17%	29%
Exaggerated estimate (1 to 5 miles)	29	27
Highly exaggerated estimate (over 5 miles)	23	19
Don't know	23	19
Not ascertained	8	6
	100%	100%

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 62.

Table 108

Table 32

"Why do you feel that way (about which weapon would be most terrible)?"

Reasons for choosing atomic bomb	
Greater (complete) death and destruction	24%
Amount, extent, breadth of destruction, damage, fire	16
Amount, extent of death, injury, maiming	12
Hereditary effects	5
Psychological effects	3
Radiation	2
Odd or unusual effects	1
Something heard or read	5
Reasons for choosing biological warfare	
Amount of death, illness	11
No defense or remedy against it; limited defense, shortage of doctors, medicines	4
Horrible effects on people	4
Reasons for choosing chemical warfare	
Amount of death, illness	4
No defense or remedy against it	2
Horrible effects on people	1
Reasons for choosing sabotage	
Specific damage to trains, plants	1
No defense or remedy against it	1
Amount of death, other effects on people	1
All equally bad: all kill you, all do equal damage	3
Don't know any reason -- just feel it	2
Don't know which most terrible	3
Reason not ascertained	8
Choice not ascertained	3
	*

* The total is more than 100 percent because some respondents gave more than one reason.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 60.

Table 109

Table 35

"What do you think would happen to the people?"

Nature and extensiveness of effects on humans	
Extent of killing, more killing, more deadly	30%
Extent of injuries-maiming, blindness, deafness (cause is due neither to radiation nor heat, or cause is unspecified)	18
Mental strain, insanity, suicide	12
Radiation effects (realistic)--burns, blood, etc.	11
Thermal effects: blindness, burns	5
Duration of effects on people	2
Radiation effects (unrealistic)	1
Social effects	
Disrupt organization; panic	18
More people homeless; dependency	2
Talked about activities of people rather than effects on them (would flee the city or other actions)	3
More horrible, worse, more terrible--in ways not specified	1
Odd or unusual responses	2
Don't know	3
Not ascertained	6
	*

* The total is more than 100 percent because some respondents gave more than one item.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 69.

Table 110

Appendix Table 10

Relation between Conceptions of Cause of Most Deaths and Mortality Radius of an Atomic Bomb Explosion

How far from where an atomic bomb exploded would everyone be killed?	In an atomic bomb explosion, most deaths would be caused by: Radiation	Blast	Others**
1 mile or less	30%	23%	18%
1-5 miles	30	40	32
5-20 miles	16	12	18
Over 20 miles	7	10	7
Don't know	11	10	17
Not ascertained	6	5	8
	100%	100%	100%
Percent of total sample#	19	21	28

** "Other" means fire, falling buildings, panic, fumes, gas, and "the bomb".

This table includes only those people who had heard of radiation. Others were excluded in order to remove the effect of people mentioning blast as the main source of death, not because they thought it more dangerous than radiation, but because they had never heard of dangers other than blast. This was not a crucial step, however, since the above figures differ only very slightly when the total sample is examined.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 243.

Table 111

Appendix Table 11

Relation between Conception of Cause of Most Deaths and Estimates of Effects on City

The effect of an atomic explosion on a city's ability to operate would be:	What would cause most deaths in an atomic bomb explosion? Radiation	Blast	Other
Slight	17%	22%	17%
Serious	73	66	70
Completely disastrous	3	3	3
Don't know	--	4	3
Not ascertained	2	5	7
	100%	100%	100%
Percent of total sample	19	21	28

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 244.

Table 112

TABLE 4-25
CAUSES OF DEATH IN AN ATOMIC ATTACK

Q: From what you've heard, what causes most of the deaths in atomic attack?

	April 1952	March 1954
Radiation, rays	19%	37%
Blast, concussion, the explosion	20	29
Falling buildings, debris, flying objects	5	26
Gas fumes, smell, chemicals	15	18
Heat, the flash) Fire)	21	12 7
Panic	3	9
"The bomb"	1	1
Other	1	11
Don't know	12	13
Not ascertained	3	1
	100% #	164%

Comments: 72% of those who mentioned one cause mentioned a second cause.
64% of the total population mentioned two causes.
(Double mentions were not coded on the 1952 study, so the two columns should not be compared except in terms of the order of frequencies)

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March, 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, September, 1954, p. 70.

Table 113

TABLE 4-26

OTHER DANGERS FROM AN ATOMIC ATTACK

Q.: What other dangers would there be do you think? (in an atomic attack)

Burns, fires (non-radiation) (or burns unspecified)	24% of the population
Other miscellaneous dangers	23
Food and water contamination	11
Hot areas, burns (radiation)	10
Shock	7
Radiation sickness	5
Diseases (not radiation caused)	4
Shortages, food, drugs, medical services, etc.	2
Don't know	20
Not ascertained	21

Comments: 77% of those who mentioned one cause mentioned a second cause. 24% of the total population mentioned two causes.

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March, 1954, Stephen B. Withey, Survey Research Center, University of Michigan, Ann Arbor, September 1954, p. 71.

Table 11h

Q.9, 9a. From what you've heard, what causes most of the deaths in an atomic attack?

	#	%
Fire	65	4.0
Blast, concussion, the "explosion"	220	13.4
Radiation - rays, "hot" areas	504	30.7
Heat, the "flash"	103	6.3
Panic, fright	93	5.7
Falling building, debris, flying objects	27	1.6
The bomb - low priority	21	1.3
Gas, fumes, smell chemicals (probably synonymous with radiation) and other	148	9.0
DK, NA	462	28.1
	1643	

University of Michigan, No. 418, 1956 (Unpublished).

Table 115

Q.8 If an H-bomb hit a large city, how far away from where it fell do you think almost everybody would be killed?

	N	%
Less than 1 mile up to 1 mile	20	1.2
1 up to 5 miles	209	12.7
5 up to 10 miles	193	11.7
10 miles up to 20	290	17.7
20 miles up to 50	218	13.3
50 miles up to 100	131	8.0
100 miles or over	180	10.9
DK and NA	402	24.5
	1643	100.0

University of Michigan, No. 418, 1956 (Unpublished).

Table 116

TABLE 30
Item 37

*FALLOUT VS BLAST AND HEAT AS AGENTS OF DEATH FROM BOMB

Responses	SS	%	LDR	%	Both	%
No answer	4	1.3	2	1.0	6	1.2
Blast and heat	76	25.3	75	37.5	151	30.2
Fallout	180	60.0	88	44.0	268	53.6
Each about the same	11	3.7	15	7.5	26	5.2
Don't know	29	9.7	20	10.0	49	9.8
	300	100.0	200	100.0	500	100.0

*Numbers have been converted to percents for purposes of this report.

Attitudes and Knowledge Concerning Fallout Shelters in Austin, Texas, Harry Estill Moore, January, 1962, p. 49.

Table 117

Table 6-1

Q: "Now let's suppose that (name of community) is not hit directly by bombs or missiles. Do you see any other dangers to you personally? For instance, do you think you would be killed or injured by the blast from bombs or missiles exploding somewhere else?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	40%	56	48	54	47	52	46	40	48%
No, Don't know	60	44	52	46	53	48	54	60	52

Table 6-2

Q: "Do you think you would be killed or injured by fire?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	37%	49	46	50	35	36	30	33	39%
No, Don't know	63	51	54	50	65	64	70	67	61

Table 6-3

Q: "Do you think you would be killed or made sick from fallout radiation?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	81%	77	81	64	77	81	80	72	77%
No, Don't know	19	23	19	36	23	19	20	28	23

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April, 1963, p. 4, Appendix A.

Table 118

Table 8-5. Q: "An atomic war would contaminate the water supply and almost everyone would die before the water was fit to drink."

Responses	Cities								
	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Agree	25%	34	34	24	30	20	24	23	27%
Disagree	63	52	53	61	54	63	58	60	58
Don't know	12	14	13	15	16	17	18	17	15

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April, 1963, p. 6, Appendix A.

Table 119

Table 8-6. Q: "An atomic war would destroy all food and ways of producing food, so you would die soon--even if you were protected by a shelter. Do you agree or disagree?"

Responses	Cities								
	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Agree	40%	44	42	34	46	35	35	32	39%
Disagree	55	50	51	58	47	59	59	60	54
Don't know	5	6	7	8	7	6	6	8	7

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April, 1963, p. 7, Appendix A.

Table 120

Table 8-10. Q: "The radioactivity after an attack would make the earth, or some areas of it, impossible to live in for years or even centuries."

Responses	Cities								
	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Agree	49%	50	49	39	49	48	50	47	48%
Disagree	35	29	29	41	29	30	27	29	31
Don't know	16	21	22	20	22	22	23	24	21

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April 1963, p. 8, Appendix A.

Table 121

Ques. 13: Var. 33 - If a nuclear war occurred and this area itself was not destroyed, how great a danger do you think there would be from fallout around here?

Card 1: Col. 55	%	N
Never will happen	0.1	2
Very great	34.5	484
Fairly great	45.5	638
Little danger	18.4	258
No danger	1.5	21
Missing data	XX	61
TOTAL	1403	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 29.

Table 122

Table 4-1. Q: "Let's suppose that H-bombs or missiles were dropped on or close to (name of community). Do you feel that you could do something now to protect yourself from the blast of the bombs?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	29%	17	36	24	29	32	27	21	27%
No, Don't know	71	83	64	76	71	68	73	79	73
No answer	0	0	0	0	0	0	0	0	0

Table 4-2. Q: "Could you do something now to protect yourself from fire caused by bombs?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	32%	25	39	25	34	35	33	33	32%
No, Don't know	68	75	61	75	66	65	67	67	68

Table 4-3. Q: "Could you do something now to protect yourself from radioactive fallout?"

	Cities								
Responses	Minneap	Boston	Ok City	Sta Mon	Lansing	Man.K.	Ch Hill	Seattle	Total
Yes	40%	28	42	29	31	41	35	37	36%
No, Don't know	60	72	58	71	69	59	65	63	64

The Fallout Protection Booklet: (I) A Report of Public Attitudes Toward and Information about Civil Defense by David K. Berlo et al., Department of Communication, College of Communication Arts, Michigan State University, April, 1963, p. 3, Appendix A.

V. THREAT PERCEPTION AND CONSEQUENCES FOR ACTION

The nature of the threat perceived, its intensity, and whether or not the perceived threat is realistic has behavioral consequences. Conceptions of danger are, of course, intimately related to predicted actions, since predictions are responses chiefly to these conceptions.

In 1950, the University of Michigan included as part of their study an analysis of people's anticipated behavior in the event of bombing. When asked what they thought they would do if they heard that there was about to be an atomic attack on their city, the bulk of the responses tended to be constructive or non-flight responses (Table 123). The University of Michigan study found no indication of a connection between non-constructive anticipated behavior and pessimism about the likelihood of war and atomic bombings on our cities in general or on the respondent's own city. However, Michigan did look into whether or not non-constructive reactions were relatively more common among the people who had unrealistic ideas about the effects of atomic bombs and it was found that people who had exaggerated ideas about the effects of atomic bombs were more likely than others to have non-constructive anticipations of their emergency behavior (Table 124).

Thus, although people's predicted reactions to a bombing crisis were not related to their expectations of war and bombings (a more abstract notion), when their perceptions of what such a crisis would be like were considered, it was found that these were significantly related to anticipated behavior. It was also found that feelings of need for civil defense were apparently related, but inconclusively so, to anticipated actions under bombing. People who expressed a strong feeling of need for civil defense activity were more likely than those who either moderately or weakly recognized need for such activity to give constructive responses to questions about how they would act in a bombing. The other two latter groups (those moderately or weakly recognizing need for civil defense) did not differ in predicted behavior (Table 125).

Michigan also looked at the relationship between expectations of bombing and willingness to work in civil defense. It was found that among the people who believed their city would definitely be an atomic attack target, there were almost three times as many respondents who said they were willing to participate as compared with those indicating unwillingness. In the group who doubt that their city would be bombed the ratio of willing to unwilling respondents was less than two to one (Table 126).

Also, people who exaggerated the effects of an atomic bomb tended to be less willing to work. Of the people who conceived the complete mortality radius of an atomic bomb to be within a mile from air or ground zero, about half were clearly willing to give time and not quite a fifth were unwilling. Of the people who estimated the radius at five miles or greater, under half were willing and about a third unwilling to give time (Table 127).

In another of Michigan's early studies (1951), expectation of respondent's own city being bombed was linked to volunteering for civil defense work. It was found that more people who believed that their own city would be bombed had thought about or had actually volunteered than had those who didn't think their city would be bombed (Table 128). Also, more people who thought that either biological or chemical warfare or both would be used in the event of war had thought about volunteering or had actually volunteered than had those who didn't expect such warfare (Table 129). Also, more people who admitted being worried about war and bombing had thought about volunteering or had actually volunteered than had those who said they were not very worried or were not worried at all (Table 130).

Michigan again looked into conjectured behavior in the event of an attack on the U.S. in 1954. When asked what they might do if they heard that an A-bomb attack had started on the U.S., 8 percent said they would leave town while 88 percent said they would remain in town (Table 131). Thus, if extrapolated to the total population, 12 to 13 million persons would be moving out of town. The proportion was slightly higher (11 percent) in the metropolitan cities. The number who suggested evacuation had increased since 1952. In metropolitan areas the number had risen, in two years, from two to 11 percent (Table 132).

In Michigan's 1961 study, the respondents who had no shelter were asked what would have to happen to make them have a shelter in the next year or two. Forty-three percent replied that war would have to be unavoidable or very likely, 11 percent stated personal conditions and 10 percent said more money or financial aid (Table 133). In a study conducted by A.I.P.O. in 1961, 84.3 percent of the respondents said that their fears about nuclear war or fallout had no effect on their lives or their plans for the future (Table 134).

In Columbia's nine community study conducted in 1963, the respondents were asked if they as individuals could do anything about the threat of war. Fifty-three percent answered "nothing at all", 26 percent answered "hardly anything", and 15 percent thought they could do a moderate amount (Table 135). However, when asked if they could do anything in a group, 14 percent answered "a great deal", 31 percent "a moderate amount", 17

percent "hardly anything" and 34 percent "nothing at all" (Table 136). Of the 62 percent who replied that at least something might be done, more than three out of four (78 percent) gave "threat-of-war" replies in response to the probe as to what they might do (Table 137). Threat-of-war replies are a list of responses given to the open-ended question of what can people do about the threat of war. The variety of responses are listed in Table 138. Forty-six percent of those who gave threat-of-war replies answered that they thought they would communicate with public officials, 39 percent thought they might influence the opinions of people, or join a peace group. Only 4 percent said they would build fallout shelters or do civil defense work or otherwise prepare for war (Table 138).

The 1963 University of Pittsburgh study explored some of the action responses to a crisis situation. When the respondents were asked if they had bought more food and drugs than usual because of the Cuban crisis, 8.5 percent replied "yes" while 91.5 percent said "no" (Table 139). When asked if they had thought of building a fallout shelter, or actually had started preparing a shelter space, 13.7 percent replied "yes" while 86.3 percent said "no" (Table 140). They were then asked if they had gotten in touch with local Civil Defense for information or advice either during the Cuban crisis or in connection with it. Five percent replied in the affirmative (Table 141). About 5 percent also admitted that they had thought of leaving their place of residence, or had actually done so (Table 142). Approximately 30 percent said they had discussed with their families what might be done in case of separation in the event of war (Table 143). And, some 15 percent said they had made some provisions as to where they might go to find shelter if there were a war (Table 144).

In the 1964 University of Pittsburgh study, it was found that when the question of whether people had thought about public shelter usage was related to their anxiety about nuclear war, more people who admitted thinking about shelter usage expressed anxiety about nuclear attack than had those who said they had not thought about using a shelter (Table 145). Also, people who said they had talked with their families about using a public fallout shelter also tended to be more worried about nuclear war than those who said they hadn't done so (Table 146). This holds true regarding the question of whether or not they had talked with anyone <u>not</u> in their household about using a fallout shelter (Table 147). There is also a very clear relationship between whether or not people would try to use a shelter in case of attack and anxiety about nuclear war. As to be expected, those people who said they would try tend to be more anxious than those who would not try (Table 148).

There is no doubt that the worried tend to think about and volunteer for civil defense more than those who express no worry. There is also no doubt, based on the early Michigan studies, that those people who have a realistic notion of weapons effects and who do believe their city to be a target tend to have a more constructive response to threat. They also tend to volunteer more readily than those with exaggerated estimates of bomb effects.

However, the nuclear threat, except for the above-mentioned tendencies, has little or no effect on people's plans for the future. This may be because it is too abstract a notion for most. When the threat becomes more specific, such as during the Cuban crisis, there is the expected, but slight, increase in protective behavior. However, the general tendency is to feel that there is very little one can do in the face of nuclear threat.

TABLES

V. THREAT PERCEPTION AND CONSEQUENCES FOR ACTION

Table 123

Table 95

"What do you think you'd do if you heard over the radio that your city was in immediate danger of an atomic bomb attack?"

Constructive or non-flight responses	
Go into basement, cellar, hole, community shelter	28%
Get official instructions	9
Take shelter or cover: get under table, away from windows, next to walls	8
Lie face down, on ground; fall flat, be still	4
Help others; do what could for them	3
Help family	3
Look for family	2
Try to warn others	2
Turn off gas, heat, lights	2
Keep clean, wash clothes, self; cover exposed skin	1
Already in organized unit -- would report for duty	1
Non-constructive or flight responses	
Flee the city; physical escape	18
Pray; go to church	7
Would be shocked, confused, panicky, stunned, frightened	4
Nothing you can do	4
Follow others, do what others do	2
Other responses	
Remain where are, remain at home	15
Get home, get to family	3
Try to adjust	1
Look around to see what happened, try to find out what is occurring	1
Odd or unusual responses	2
Don't know	5
Not ascertained	1
	*

*Total is more than 100 percent because some respondents reacted in more than one way to this question.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 151.

Table 124

Table 102

Relation between Estimates of Mortality Radius and Anticipated Behavior

	Anticipated behavior under attack				Percent of total sample
	Non-constructive	Constructive	D.K., N.A.	Total	
Estimate of atomic bomb mortality radius:					
Realistic	17%	77	6	100%	17#
Exaggerated	25%	72	3	100%	29
Highly exaggerated	30%	60	10	100%	23
Estimate of atomic bomb effect on community's ability to function:					
Slight	20%	74	6	100%	15##
Serious	25%	69	6	100%	68
Completely disastrous	38%	57	5	100%	6

\# The percentages in this section of the table total 69 percent. Distributions for respondents in the following categories of response to the question about mortality radius have been omitted from the table: "don't know" and "not ascertained".

The percentages in this section total 89 percent. The 11 percent of the total weighted sample not represented by data in this table comprises the "don't know" and "not ascertained" groups for the question about effects on the city.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 158.

Table 125

Appendix Table 21

Relation between Feeling of Need for Civil Defense Activities and Anticipated Reactions to an Atomic Bombing

Anticipated behavior under atomic attack	Feeling of need for civil defense: Strong	Moderate	Weak
Flight	19%	26%	26%
Non-flight	76	68	68
Don't know and not ascertained	5	6	6
	100%	100%	100%
Percent of total sample #	23	62	10

These percentages total to 95 percent. Responses for the five percent of the total weighted sample omitted from this table on need for civil defense were not ascertained.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 253.

Table 126

Table 130

Relation between Willingness to Work and Feeling that One's Own City Would Be Bombed

Willingness to give time for civil defense work	Likelihood of atomic bombing of one's own city: Certain	Likely	Unlikely
Willing	51%	42%	43%
Mixed feelings	26	28	13
Unwilling	17	22	35
Don't know	--	--	1
Not ascertained	6	8	8
	100%	100%	100%
Willingness to accept civil defense plan involving family separation			
Willing	59%	50%	51%
Mixed feeling	13	13	10
Unwilling	20	20	29
Don't know	1	3	2
Not ascertained	7	14	8
	100%	100%	100%
Percent of total sample ##	22	49	21

The eight percent of the people who either had no opinion on the subject of one's own city being bombed or whose answers to it were not ascertained were excluded from the table.

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 199.

Table 127

Table 132

Relation Between Estimates of Bomb Mortality-Radius and Willingness to Work in Civil Defense

Willingness to give time for civil defense work	From where an atomic bomb fell, everyone would be killed out to: Under 1 mile	1-5 miles	Over 5 miles	Don't know
Willing	49%	46%	44%	36%
Mixed feelings	23	26	20	23
Unwilling	19	23	29	28
Don't know	2	—	—	—
Not ascertained	7	5	7	13
	100%	100%	100%	100%

Public Thinking about Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Metropolitan Cities, September-October 1950, Survey Research Center, University of Michigan, Ann Arbor, January 1951, p. 201.

Table 128

Table 173

Relation between Expectation of Own City's Being Bombed and Volunteering

Volunteering Status	Belief in Own City Bombed		
	Yes Definitely	Yes	No and No Definitely
Had volunteered	12%	6%	2%
Had thought about volunteering	21	18	13
Had not thought about volunteering	65	74	83
Not ascertained	2	2	2
	100%	100%	100%
No. of cases	169	460	244

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 109.

Table 129

Table 174

Relation between Expectation of Biological or Chemical Warfare and Volunteering

Volunteering Status	Will Biological & Chemical Warfare be Used?		
	Both	One	Neither
Had volunteered	10%	6%	5%
Had thought about volunteering	17	20	16
Had not thought about volunteering	70	73	79
Not ascertained	3	1	0
	100%	100%	100%
No. of cases	160	232	193

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 110.

Table 130

Table 177

Relation between Worry about War and Bombing (by Interviewer Rating) & Volunteering

Volunteering Status	Rated Worry			
	Very worried or quite worried	Somewhat worried	Not very worried	Not at all worried
Had volunteered	10%	6%	6%	5%
Had thought about volunteering	19	20	11	19
Had not thought about volunteering	70	72	80	74
Not ascertained	1	2	3	2
	100%	100%	100%	100%
No. of cases	134	282	304	243

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 111.

Table 131

TABLE 7-1

CONJECTURED BEHAVIOR IN THE EVENT
OF AN ATTACK ON THE U.S.

Q. If you heard some Sunday that an A-bomb attack had started on the U.S., what would you do? Stay where you are or go somewhere else?

If needed: Well, what do you think you might do?
- or - What would you do if there were no orders?

Leave town	8% of the population
Remain in town	88
Don't know	3
Not ascertained	1
	100%

(5.5% would try to leave town by car)

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March 1954, Stephen B. Withey, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan, September, 1954, p. 110.

Table 132

TABLE 7-2

1954

CONJECTURED BEHAVIOR IN THE METROPOLITAN CITIES & ELSEWHERE CONTRASTED

Behavior	Metro	Metro Suburb	50,000 or over	Under 50,000	Rural only
Leave town	11%	10%	10%	6%	5%
Remain in town	86	88	86	89	90
Don't know	2	1	3	3	3
Not ascertained	1	*	1	2	2
	100%	100%	100%	100%	100%

*Less than one per cent

TABLE 7-3

1952

CONJECTURED BEHAVIOR IN THE METROPOLITAN CITIES & ELSEWHERE CONTRASTED

Behavior	Metro	Metro Suburb	50,000 or over	Under 50,000
Leave town	2%	1%	2%	3%
Remain	13	12	20	43
Don't know	-	-	1	2
Not ascertained	-	-	-	1
	15%	13%	23%	49% = 100%

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March 1954, Stephen B. Withey, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan, September 1954, p. 111.

Table 133

Q. "You don't have a shelter to go to now. Say within the next year or two you have one. What do you think would have had to happen to make you have a shelter?"

War unavoidable or very likely	43%
More information on and more confidence in shelters	4
More money or financial aid	10
Government requirement	6
Social pressure, "everyone doing it"	3
Personal conditions	11
Don't know	14
Have one or plan to	4
Nothing could make me get a shelter	12

(more than one item could be mentioned, so total exceeds 100%)

The U.S. and the U.S.S.R.: A Report of the Public's Perspectives on United States - Russian Relations in Late 1961 by Stephen P. Withey, Survey Research Center, University of Michigan, Ann Arbor, Michigan, March 1962, p. 39.

Table 134

Q. 32 Have your fears about nuclear war or fallout had an effect on your life or your plans for the future? If yes in what ways?

	%	N
Yes, no answer	0.3	8
Yes, shelter plans	2.5	69
Yes, thinking about moving	0.5	15
Yes, no plans now	1.5	42
Yes, fear of children's future generations	1.3	37
Yes, fear of bringing children into the world	0.3	9
Yes, general fear, dread	4.5	124
Yes, pessimistic outlook	1.6	44
Yes, live life to fullest each day	1.2	33
Yes, will not live out my full life	0.2	5
Yes, other	0.5	15
Yes, don't know	0.5	15
No	84.3	2331

Missing data omitted

AIPO #652, Col. 28/29, Ques. 32, 11/15/61.

Table 135

Fallout Shelter Study

Q. 9 In general, do you think that you as an individual can do a great deal, a moderate amount, or hardly anything about the threat of war?

I - Col. 32 (s.p.)	Cross Section No.	%
0 - Not asked	1	XX
1 - Great deal	53	4
2 - Moderate amount	212	15
3 - Hardly anything	364	26
4 - Nothing at all	729	53
5 - No opinion	23	2
	1382	100% (1381)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 31.

Table 136

Fallout Shelter Study

Q. 10 How about groups of people like you. Do you feel that together you can do a great deal, a moderate amount, or hardly anything about the threat of war?

I - Col. 33 (s.p.)	Cross Section No.	%
0 - Not asked	5	XX
1 - Great deal	198	14
2 - Moderate amount	424	31
3 - Hardly anything	239	17
4 - Nothing at all	462	34
5 - No opinion	54	4
	1382	100% (1377)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 34.

Table 137

Q. 10 (a) As a group, what can people like you do about the threat of war?	Cross Section	
VI - Col. 48 (s.p.)	No.	%
0 - No actions mentioned, "Don't know what I could do." "Individuals can do little or nothing."	103	12
1 - "Threat-of-war" reply given	679	78
2 - In-case-of-war replies: ("Follow directions on the radio and TV. Don't get panicky, that's all.")	34	4
3 - Vague, unclassifiable replies	39	5
X - Not asked	6	1
Y - Does not apply	521	XX
	1382	100% (861)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 34.

Table 138

Fallout Shelter Study

Q. 10 (a) (continued)	Cross Section No.	%
VI - Col. 49 (m.p.) Threat-of-war replies		
0 - Build fallout shelters, help others to build them, do civil defense work, prepare for war	27	4
1 - Be informed, alert, be a better citizen	63	10
2 - Communicate with public officials, try to influence public officials, wire Congress, President	300	46
3 - Vote, be politically active, contribute time, money to political party.	78	12
4 - Influence opinion of people (other than public officials), talk with others about danger of war or communism, voice your opinion, join a peace group	256	39
5 - Hope, pray	38	6
6 - Support government policies, pay taxes, buy government bonds	47	7
7 - Help developing countries or their people by personal contributions of time or money (Peace Corps, CARE)	20	3
8 - Join armed forces, reserves, National Guard,	14	2
9 - Improve human relations, living up to religious ethics, being friendlier, being a good Christian	37	6
X - Other (List)	27	XX
Y - Does not apply	[illegible]	XX
	1362	(a)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 35.

Table 139

Quest. 39: Var. 119 - Because of the Cuban crisis, did you buy more food and drugs for your household than you usually buy?

Card 3: Col. 42	N	%
1 Yes	122	8.5
2 No	1307	91.5
X Missing data	5	XX
TOTAL	1434	1429

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 88.

Table 140

Quest. 40: Var. 120 - Cuba: Did you think of building a fallout shelter, or actually start preparing a shelter space at your residence?

Card 3: Col. 43	N	%
1 Yes	196	13.7
2 No	1235	86.3
X Missing data	3	XX
TOTAL	1434	1431

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 88.

Table 141

Quest. 41: Var. 121 - Did you at any time during the Cuban crisis, or in connection with it, get in touch with local civil defense for information or advice?

Card 3: Col. 44	N	%
1 Yes	71	5.0
2 No	1359	95.0
X Missing data	4	XX
TOTAL	1434	1430

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 88.

Table 142

Quest. 42: Var. 122 - Cuba: Did you think of leaving your place of residence at that time, or actually leave your residence and go somewhere you thought it might be safer in the event of war?

Card 3: Col. 45	N	%
1 Yes	71	5.5
2 No	1348	94.5
X Missing data	7	XX
TOTAL	1434	1427

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 89.

Table 143

Quest. 43: Var. 123 - Cuba: Did you discuss with your family what you all might do if a war were to start while you were separated from each other?

Card 3: Col. 46	N	%
1 Yes	435	30.5
2 No	991	69.5
X Missing data	8	XX
TOTAL	1434	1426

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 89.

Table 144

Quest. 44: Var. 124 - Cuba: Did you make any provisions at all, either at home or with friends and neighbors, as to where you and your family would go to find shelter if there were a war?

Card 3: Col. 47	N	%
1 Yes	211	14.8
2 No	1218	85.2
X Missing data	5	XX
TOTAL	1434	1429

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 89.

Table 145

THOUGHT ABOUT PUBLIC SHELTER USAGE BY WORRY ABOUT NUCLEAR ATTACK

In Percent

Thought about using shelter?	Worry about Nuclear Attack: Great deal	Some	A little	Not at all	N
Yes	19.6	33.7	25.4	21.2	810
No	10.7	21.8	26.3	41.2	646

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 146

TALKED WITH FAMILY ABOUT USING A PUBLIC FALLOUT SHELTER BY WORRY ABOUT NUCLEAR ATTACK

In Percent

Talked with family about using a public fallout shelter?	Worry about Nuclear Attack: Great deal	Some	A little	Not at all	N
Yes	22.3	35.7	24.7	17.4	328
No	18.1	32.9	26.8	22.2	434

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 147

TALKED WITH ANYONE NOT IN YOUR HOUSEHOLD ABOUT USING A FALLOUT SHELTER BY WORRY ABOUT NUCLEAR ATTACK?

In Percent

Talked with anyone not in your household about using a public fallout shelter?	Worry about Nuclear Attack: Great deal	Some	A little	Not at all	N
Yes	19.0	36.9	27.1	17.1	369
No	20.3	31.1	24.2	24.4	438

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 148

WOULD YOU TRY TO USE A SHELTER IN CASE OF ATTACK BY WORRY ABOUT NUCLEAR ATTACK?

In Percent

Try to use a shelter in case of attack?	Worry about Nuclear Attack: Great deal	Some	A little	Not at all	N
Definitely try	18.9	30.9	23.6	26.6	763
Probably try	12.7	27.8	30.0	29.6	490
Probably not	4.9	28.2	30.1	36.9	103
Definitely not	16.0	12.0	17.3	54.7	75

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Pittsburgh, Summer, 1964.

VI. THREAT PERCEPTION AND FEELINGS ABOUT CIVIL DEFENSE

In the preceding chapter, we have reported on the relationship of threat perception and its consequences for action such as volunteering for civil defense or anticipated crisis behavior. In this chapter, we observe threat perception as one basis of the public's acceptance or rejection of the fallout shelter program.

In the University of Michigan 1950 study, several questions about threat were related to feelings of need for civil defense. It was found that more people who thought it very likely that our cities would be hit with atomic bombs felt strong feelings of need for civil defense than did those who didn't think cities would be bombed (Table 149). Also, more people who thought that their own city would definitely be a target felt strong feelings of need for civil defense than did those who didn't think their own city would be a target (Table 150).

Related to the previously reported Michigan finding regarding the tendency of people who exaggerated the effects of an atomic bomb to be less willing to work in civil defense, is the fact that people who had exaggerated ideas of the extent of atomic bomb killing were also slightly less likely than others to feel the need for civil defense work "at the present time" (Table 151). This indicates that respect for the bomb is not always a sufficient condition for a feeling of need for civil defense. From this table, it would seem that the best condition for constructive response to war and bombing is for a person to have realistic but not exaggerated ideas about threat and protection.

The University of Mighigan 1951 study relates anticipation of U.S. cities being bombed with importance accorded civil defense as well as anticipation of own city's being bombed with importance accorded civil defense. It was found once again that more people who thought it likely or very likely that U.S. cities would be bombed rated civil defense first or second as a community problem than did those who considered city bombing unlikely (Table 152). Expectation of one's own city being bombed tends to increase the importance accorded civil defense to a greater degree than does expectation of the bombing of U.S. cities in general (Table 153).

Columbia's 1963 nine-community study related degree of worry about nuclear attack to opinion about fallout shelters. As to be expected, the more anxious the respondent, the more likely he was to have favored shelters (Table 154). When looking at

what part age, sex and family life played in shaping outlooks on the issue, younger respondents were more likely to favor shelters than the older--particularly so if they were also fearful of a nuclear attack. Three-fourths of the worried younger but about half of the relatively unconcerned older respondents favored the program (Table 155). When the sex factor was introduced it was found that women tended to approve of shelters more than men. In fact, seven in ten apprehensive women, whatever their age, favored them. Only the worried men under 40 years old gave the program so much approval (Table 156). It would seem from this data that the fallout shelter program would have found greater support among the married than among the single. This was not the case. Regardless of worry, those not now married (the single and the divorced, separated, and widowed) tended to favor fallout shelters more than the now married (Table 157). And parents tended to favor shelters less than the childless (Table 158). It appeared that age, sex, and worry aside, the more ties and obligations a person had, the less likely he was to favor shelters. Worry, thus, did not create the greatest support for shelters where it was most expected: among those with the greatest responsibilities--the parents. The study concludes that anticipations of annihilation apparently plague the most those who have the more persons to consider in an emergency. This apparently is related to misgivings about structural adequacy of shelters, about gaining entry to shelters, about shelter living, about separation from parents, and about survival later in a hostile environment.[1] Columbia's data also showed that lower status respondents and the worried (and especially low status and worried respondents) were more likely to favor shelters than higher status respondents and those who worried less. The results also revealed that, regardless of status level or degree of worry, the younger were more likely than the older to accept the shelter program. The exception to this was that among the worried, low socioeconomic status respondents, the younger and the older favored shelters to the same high degree (75 percent). The data is presented in Table 159.

The 1963 University of Pittsburgh study reported changes in attitude about civil defense as a result of the Cuban crisis. About 35 percent of the respondents said that their attitudes had become more favorable while 63.3 percent said they had remained the same (Table 160). The 1963 Columbia study asked if the respondent's feelings about nuclear war had changed

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1. The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions on the Fallout Shelter Issue by Gene N. Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 51

in any way now that he had a shelter. Eighty-three percent said "no", 17 percent said "yes" (Table 161). Of course, this is based on the very small percentage who did have shelters, approximately two percent of the total sample.

The 1964 University of Pittsburgh study asked if fallout shelters make people worry more or less about the possibility of war. Thirty-seven and one-tenth percent thought that it made people worry more, 20.1 percent thought it made them worry less and 42.8 percent didn't think it made any difference (Table 162).

We had reported earlier (Table 41) that 62.6 percent of the respondents in the 1964 University of Pittsburgh study thought that their chances for survival were "fairly bad", "very bad" or that they had "no chance at all". They were then asked what they thought their chances for survival might be if they were in fallout shelters. Some 66 percent thought that they were at least fairly good with some 19 percent still rating their chances as "fairly bad" or "very bad" (Table 163). When estimates of chances of survival in a shelter were related to estimates of chances for survival generally, it was found that 55.2 percent of those people who rate their general chances of survival as very bad or as having no chance at all see their chances in a fallout shelter at least as "fairly good" (Table 164). However, as is expected, more people who see their chances of survival generally as good also see their chances in a shelter as good as compared with those who are more pessimistic about their survival generally and then see their chances in a shelter as good. However, the improvement in estimates of chances of survival in a shelter by people who are very pessimistic about their general survival is dramatic.

Consistent with Columbia's findings in 1963 is the fact that anxiety about war is directly related to opinions about fallout shelters in 1964. The more worried the citizen, the more likely he was to favor shelters. As Table 161 shows, 71.3 percent of the respondents who reported worrying "a great deal" about the possibility of nuclear attack favored shelters as compared with 37.5 percent who said they were not worried at all or 40.2 percent who said they worried "a little" (Table 165).

TABLES

VI. THREAT PERCEPTION AND FEELINGS ABOUT CIVIL DEFENSE

Table 149

Table 68

Relation between Feelings of Need for Civil Defense and Expectations of American Cities Being Bombed

Feeling of need for Civil Defense*	"Do you think our cities are likely to be hit with atomic bombs?"** Yes, very likely	Yes, likely	No, it depends
Strong	41%	22%	18%
Moderate	52	65	63
Weak	4	8	14
Don't know	1	0	2
Not ascertained	2	5	3
	100%	100%	100%
Percent of total sample #	15	46	31

* What we are calling "feeling of need for civil defense" is derived from responses to the question "Do you think they should begin a campaign now to get people to work in civil defense?" The category "strong" in this table is the same as the category "yes, definitely should" in Table 53, "moderate" here is the same as "yes, should", in Table 53, and "weak" in this table includes "pro-con", "no, shouldn't," "no, definitely shouldn't" and "depends" in Table 53.

** The category "yes, very likely" includes the "very likely" and "certain they will be hit" categories of Table 15, Chapter 3. The "no" category here includes the following from Table 15: "unlikely", "very unlikely" and "certain they won't be hit". The nine percent of the total weighted sample who gave equivocal responses are also included in the "no" category for present purposes.

\# Excluded from this table are the data for the eight percent of the total weighted sample who had no opinion on the probability of atomic attack on our cities, or whose opinions were not ascertained. See Table 15, Chapter 3.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September-October, 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 108.

Table 150

Appendix Table 15

Relation between Expectation of Atomic Bombing and Feeling of Need for Civil Defense Activities

Feeling of need for civil defense	Is your own city likely to be hit with atomic bombs? Yes, definitely	Yes	It depends; no
Strong	31%	23%	15%
Moderate	61	62	67
Weak	6	9	15
Don't know; not ascertained	2	6	3
	100%	100%	100%
Percent of total sample #	22	49	21

People who said "don't know" or whose responses were not ascertained on the question of one's own city being bombed were excluded from this table.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, Sept. Oct. 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 248.

Table 151

Table 70

Relation between Estimates of Mortality Radius and Feelings of Need for Civil Defense

Feeling of need for civil defense	Estimate of atomic bomb mortality radius			
	Realistic	Exaggerated	Highly exaggerated	Don't know
Strong	29%	26%	24%	12%
Moderate	55	63	62	69
Weak	13	9	10	8
Don't know	1	—	1	5
Not ascertained	2	2	4	6
	100%	100%	100%	100%
Percent of total sample#	17	29	23	23

Excluded from this table are the data for the eight percent of the total weighted sample whose estimates of mortality radius were not ascertained.

Public Thinking About Atomic Warfare and Civil Defense: A Study Based Upon an Intensive Interview Sample Survey of People in Eleven Major Cities, September - October, 1950, Survey Research Center, University of Michigan, Ann Arbor, January, 1951, p. 110.

Table 152

Table 40

Relation between Anticipation of U.S. Cities' Being Atom Bombed and Importance Accorded Civil Defense

Importance accorded Civil Defense as a Community problem	Likelihood of Atomic Bombings of U.S. Cities		
	Very Likely	Likely	Unlikely or Very Unlikely
Rated First	22) 46%	29) 52%	19) 34%
Rated Second	24)	23)	15)
Rated Third or Fourth (not mentioned)	35	34	47
Rated Last	19	14	19
	100%	100%	100%
No. of cases	91	535	207

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 31.

Table 153

Table 41

Relation between Anticipation of Own City's Being Bombed and Importance Accorded Civil Defense

Importance accorded Civil Defense as a Community Problem	Likelihood of Own City Being Bombed		
	Yes, Definitely	Yes, Qualified	No, Definite or Qualified
Rated First	36) 57%	29) 48%	16) 38%
Rated Second	21)	19)	22)
Rated Third or Fourth (not mentioned)	28	37	44
Rated Last	15	15	18
	100%	100%	100%
No. of Cases	169	460	244

The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major Cities, Survey Research Center, University of Michigan, Ann Arbor, March, 1952, p. 32.

Table 154

Table III-12

Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters[a] Nine-Community Sample[b]

Worried:	Per cent who favored shelters
A great deal	75%
Total number	(256)
Some	67%
Total number	(379)
A little	58%
Total number	(270)
Not at all	49%
Total number	(334)

[a] This and succeeding tables in this Volume are based on the responses of the cross-sectional sample of 1382 respondents in the nine study communities. (In some tables, comparisons are made with the 1482 nationwide respondents.) The totals in any table never equal 1382, however. Respondents who were not asked or did not answer one or more of the questions involved in any table are regularly excluded. In addition, when opinions on the fallout-shelter issue are presented, respondents who expressed no opinion are left out. Usually, but not always, respondents who had no opinion on other items are also excluded. The present table, for example, contains the responses of 1239 of the 1382 cross-sectional respondents. Left out are: 126 respondents who had no opinion about fallout shelters, six who were not asked the question, one more who had no opinion on the worry question, and ten (not already excluded) who were not asked the worry question.

[b] Most of the tables in this Volume are based on the nine-community, cross-sectional sample of 1382 respondents (before the exclusions noted above in footnote a). In some tables, comparative data are presented separately for the 1482 national respondents. When the results for both samples are presented, it is always clearly noted.

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions, by Gene Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 33.

Table 155

Table III-22

Age and Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters

	Per cent shown who favored shelters	
	Worried:	
	"A great deal" or "some"	"Little" or "not at all"
Age:		
Under 30 years old Total number	75% (127)	57% (84)
30 - 39 years old Total number	71% (177)	59% (138)
40 - 49 years old Total number	69% (130)	44% (126)
50 - 59 years old Total number	68% (104)	52% (105)
60 years old or more Total number	65% (88)	53% (148)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions, by Gene Levine with Johathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 48.

Table 156

Table III-23

Age, Sex, and Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters

	Per cent shown who favored shelters			
	Women		Men	
	Under 40	40 or more	Under 40	40 or more
Worried:				
"A great deal" or "some"	73%	72%	73%	63%
Total number	(215)	(169)	(100)	(157)
"Little" or "not at all"	59%	52%	58%	62%
	(101)	(152)	(134)	(205)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions, by Gene Levine with Johathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 48.

Table 157

Table III-24

Marital Status and Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters

Worried:	Per cent shown who favored shelters		
	Never Married	Formerly Married	Now Married
"A great deal" or "some" Total number	75% (16)	78% (69)	69% (548)
"Little" or "not at all" Total number	67% (42)	57% (81)	51% (478)

The American Public and the Fallout Shelter Issue. A Nine Community Survey, Vol. III, Perspectives and Opinions by Gene Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 49.

Table 158

Table III-25

The Ever Married Only: Sex, Age, Parenthood, and Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters

	Per cent shown who favored shelters	
	Parents	Childless
Women		
Under 40 years old:		
Worried:		
"A great deal" or "some"	71%	91%
Total number	(187)	(22)
"Little" or "not at all"	59%	64%
Total number	(87)	(11)
40 years old or more:		
Worried:		
"A great deal" or "some"	69%	76%
Total number	(67)	(98)
"Little" or "not at all"	56%	50%
Total number	(45)	(98)
Men		
Under 40 years old:		
Worried:		
"A great deal" or "some"	72%	76%
Total number	(74)	(21)
"Little" or "not at all"	56%	60%
Total number	(94)	(30)
40 years old or more:		
Worried:		
"A great deal" or "some"	65%	61%
Total number	(60)	(97)
"Little" or "not at all"	46%	50%
Total number	(65)	(171)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions by Gene Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 50.

Table 159

Table III-31

Socioeconomic Status, Age, and Degree of Worry about Nuclear Attack, by Opinion about Fallout Shelters

Per cent shown who favored shelters

	Low SES		Medium SES		High SES	
Worried:	Under 40	40 or more	Under 40	40 or more	Under 40	40 or more
"A great deal" or "Some"	75%	75%	74%	68%	68%	46%
Total number	(77)	(126)	(151)	(101)	(66)	(60)
"Little" or "Not at all"	70%	58%	53%	50%	56%	44%
Total number	(56)	(130)	(97)	(113)	(52)	(97)

The American Public and the Fallout Shelter Issue, A Nine Community Survey, Vol. III, Perspectives and Opinions, by Gene Levine with Jonathan Cole, Bureau of Applied Social Research, Columbia University, March, 1964, p. 59.

Table 160

Ques. 45: Var. 125 - How has your attitude about Civil Defense changed as a result of the Cuban crisis?

Card 3: Col. 48		N	%
1	Much more favorable	106	7.5
2	More favorable	385	27.1
3	Remained the same	898	63.3
4	More unfavorable	26	1.8
5	Much more unfavorable	4	.3
X	Missing data	15	XX
TOTAL		1434	1419

Civil Defense and Cold War Attitudes: Data Book for the 1963 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, June, 1964, p. 90.

Table 161

Q. 56-B. Have your feelings about nuclear war changed in any way now that you have a shelter? (Can you think of any ways?)

Cross Section

III - Col. 12 (s.p.)

	No.	%
1 - Yes	5	17
2 - No	24	83
Y - Non-builder	1353	XX
	1382	100% (29)

Fallout Shelter Study, Codebook Number Five, Survey of Publics in Nine Communities, Bureau of Applied Social Research, Columbia University, August, 1963, p. 133.

Table 162

Ques. 32: Var. 65 - In your opinion, do fallout shelters make people worry more or worry less about the possibility of war, or doesn't it make any difference?

	%	#
More	37.1	529
Less	20.1	287
No Difference	42.8	610
X - Missing data	XX	38
TOTAL	1426	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 47.

Table 163

Ques. 14: Var. 34 - What if they were in fallout shelters? How good would the chances be then that people in this area would survive?

	%	N
Never Will Happen	0.1	2
Very Good	18.4	262
Fairly Good	47.4	674
50 - 50	13.6	193
Fairly Bad	10.6	151
Very Bad	8.0	114
No Chance At All	1.8	26
Missing data	XX	42
TOTAL	1422	1464

Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study, Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964, p. 29.

Table 164

ESTIMATES OF CHANCES OF SURVIVAL IN A SHELTER BY ESTIMATES OF CHANCES FOR SURVIVAL GENERALLY

In Percent

	Survival Generally				
Survival in Shelter	Very Good	Fairly Good	50-50	Fairly Bad	Very Bad or no chance at all
Very Good	56.1	26.4	22.4	10.1	13.8
Fairly Good	22.7	59.9	38.5	56.8	41.4
50-50	9.1	7.0	30.1	13.8	12.2
Fairly Bad	4.5	3.7	8.3	13.5	14.1
Very Bad or no Chance at all	7.6	3.0	0.6	5.7	18.4
	66	299	156	296	581

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

Table 165

WORRY ABOUT NUCLEAR ATTACK BY FEELINGS ABOUT FALLOUT SHELTERS

In Percent

Worry about nuclear attack	Feelings about Fallout Shelters: Strongly Favor	Somewhat Favor	Somewhat Opposed	Strongly Opposed	N
Great deal	71.3	21.1	3.6	4.0	223
Some	48.8	42.5	6.1	2.7	412
A little	40.2	50.8	7.1	1.9	366
Not at all	37.5	43.9	12.2	6.4	419

Unpublished data from the 1964 Study of Civil Defense and Cold War Attitudes, Research Office of Sociology, Department of Sociology, University of Pittsburgh, Summer, 1964.

VII. CONCLUSIONS

For purposes of this report, the analysis of the nation's perception of threat has centered upon public opinion regarding anxiety about war, the nature of the threat perceived, the consequences of threat perception for action, and the consequences of threat perception on feelings about civil defense.

All available empirical evidence on these topics was reviewed, and, given the available data, an attempt was made to specify the topics by pertinent cross-tabulations. The various sample populations, where feasible, were discretely specified into subgroups along demographic characteristics. There was also an attempt to provide a "trend analysis" establishing the basic chronology of public opinion with regard to the various topics under consideration. We have drawn from a variety of instruments a variety of questions all of which were designed to tap different dimensions. However, the available information permits us to draw some over-all conclusions.

1. A little under half of the population say they are worried about nuclear attack. People in the eastern part of the United States and on the Pacific Coast worry more. People with greater responsibilities--young parents--worry more. The less educated and those having low socioeconomic status tend to worry more.

2. When no opportunity to discriminate among types of attacks or targets was offered, we can infer that people generally expect the nation's cities to be bombed as well as their own city. Also, people generally expect some cities in their immediate vicinity or in their part of the country to be subject to an attack. Finally, from the relative diffuse questions asked, Americans expect people to get killed in an attack.

However, given a chance to discriminate between targets, the large majority of the population does not perceive cities and population as high priority targets. They see military bases, factories, and transportation centers as having much higher priority. This is true regardless of demographic characteristics.

Although people generally expect their own city or community to be a target, it was found that people can identify differential risk. Thus, people who live in metropolitan areas perceive more danger than do those in rural areas. Also, once the attack is posited, it is the higher educated and those of high socioeconomic status who perceive the greater local danger.

3. More than six out of every ten Americans estimate their chances for survival in the event of nuclear attack as bad. People who live in highly industrialized urban areas estimate their chances as worse than do others. Again, it is the educated respondent having high socio-economic status who has the most pessimistic estimate of his survival chances. The worse people rate our defenses the more pessimistic they are about their chances of survival, as well.

4. Percentages of people who mention nuclear, or thermonuclear weapons spontaneously has been increasing throughout the years. This is to be expected. Spontaneous references to chemical and biological agents are less frequent and represent a distinct minority concern. Nonetheless, when people are asked explicitly about such weapons, they think that such agents might indeed be used. However, there have been as many people who do not anticipate their deployment as there are those who do. At the same time, when asked about their knowledge of chemical and biological weapons, the data suggest that some two out of three Americans know either nothing or very little about them. Thus, there is evidence of public concern with thermonuclear weapons; the evidence on concern with chemical and biological devices is not as clear-cut. Without any question, systems to protect lives and property are viewed chiefly as those which must deal with thermonuclear weapons.

5. People have become more aware of secondary weapons effects over the years since about 1950. By 1964, it is safe to conclude that fallout is viewed as more of a danger to more people than are primary effects.

However, although fallout is seen as the greatest danger, particularly if their own city or community were not directly under attack, people do not think that much can be done to protect them from it. More than six out of ten Americans say they could do nothing or don't know what they could do against fallout even if bombs were dropped on or close to their communities. If directly attacked, people do not believe that much can be done in the way of protection at all.

6. There is no doubt that the worried tend to think about and volunteer for civil defense more than those who express no worry. There is also no doubt, based on the early Michigan studies, that those people who have a realistic notion of weapons effects and who do believe their city to be a target tend to have a more constructive response to threat. They also tend to volunteer more readily than those with exaggerated estimates of bomb effects.

However, the nuclear threat per se, except for the above-mentioned tendencies, has little or no effect on people's plans for the future.

This may be because it is too abstract a notion for most. When the threat becomes more specific, such as during the Cuban crisis, there is the expected, but slight, increase in protective behavior. However, the general tendency is to feel that there is very little one can do in the face of nuclear threat.

7. Generally, the worried tend to favor fallout shelters more than those who express no worry. Also, people who thought U.S. cities and their own community would be targets tended to feel a greater need for civil defense and to give civil defense high priority as a community problem more than those who didn't see their community as a target.

However, worry did not create the greatest support for shelters where it was most expected--among those with the greatest responsibilities--the parents. It seems that the more ties and obligations a person had the less likely he was to favor shelters. Thus, although parents are the most anxious about nuclear war, shelters offer them little relief from that anxiety. This is apparently related to misgivings about the adequacy of shelters, procedures in the event of attack, and about survival later in a hostile environment.

It was also found that respect for the bomb is not always a sufficient condition for a feeling of need for civil defense. People with exaggerated ideas of bomb effects felt less need. It would seem that the best condition for a constructive response to the threat of war is for a person to have realistic but not exaggerated ideas about threat and protection.

It was found that an increase in threat, such as during a crisis, tends to make attitudes towards shelters more favorable.

Also, although a large majority had a very pessimistic estimate of their chances of survival in the event of an attack, more than one out of two saw their chances as enhanced in a fallout shelter.

We can infer from the above that the public has a reasonable estimate of threat. They do not think an attack is aimed at them. However, the discrete threat aspects have not been related to the civil defense system by the populace. The public is not informed as to what a fallout shelter is supposed to do and there is concern about what they don't do. There is confusion and legitimate confusion, probably due to the plethora of programs over time and the ambiguity resulting from the diverse press and literature on the subject. People do not realize that fallout shelters can be an effective mode of protection after the initial blast; namely, that survivors can go to shelters after blast as defense against fallout. It would seem that the public would be receptive to specific definition of an attack threat in terms of radioactive fallout and the role that can

be played by fallout shelters. Specification of the threat in terms of a feasible response may help to win public support and acceptance of the fallout shelter program. A consistent and coherent public information program, thus, may tap the public's reasonable estimate of threat.

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Data collected in Summer, 1964.

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Probability block sample of 614 people in eleven metropolitan areas.
Data collected August-September, 1951.

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In 1950 a prior study was done using a cross-section of the adult population of the above cities without the suburbs. Both studies are based on open-ended interviews administered to a probability block sample in each metropolitan area.

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Eight cities within the United States selected on the criteria of size and geographical location: Minneapolis; Boston; Oklahoma City; Santa Monica, California; Lansing; Manhattan, Kansas; Chapel Hill, North Carolina; and Seattle.

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Two mail surveys; one of 727 respondents in early 1962 and one of 210 in July, 1962.

In early 1962, a Civil Defense official, Sgt. Michels in Haworth, New Jersey, mailed a questionnaire to each of the some 900 families resident in the town. He received 727 replies.

The BASR tabulated the data and sent a further questionnaire to the original respondents who had written their names and addresses. With one mailing in July, 1962, 210 persons responded.

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A total of 1828 personal interviews were conducted in nine northeastern communities; 110 of these interviews were with community leaders, the rest (1718) of the interviews were with the general public. The sample was heavily weighted with shelter owners and their neighbors.

The nine communities under study were Harlem, New York; Chicopee, Massachusetts; West Orange, New Jersey; Union City, New Jersey; Greenwich, Connecticut; Stamford, Connecticut; Lancaster, Pennsylvania; York, Pennsylvania; Port Jervis, New York.

Interviews were conducted in January, February and March, 1963.

Study analyzes the beliefs, opinions, and behavior of the general public and of community leaders regarding international affairs and the Cold War, with a particular focus upon their views on the fallout shelter issue, i.e., are reactions of communities that are potential targets in a nuclear war different from those in less vulnerable towns? who favor and who oppose fallout shelters? etc.

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Probability sample of 614 people in eleven cities.
Data collected September-October 1950.

614 people interviewed were selected to be a representative cross-section of the adult population of the eleven largest cities in the United States. Suburbs were not included.

City	Number of Interviews
New York	122
Boston	26
Philadelphia	78
Baltimore	27
Chicago	127
Detroit	51
Pittsburgh	23
Cleveland	26
St. Louis	34
Los Angeles	72
San Francisco--Oakland	28
	614

Roper - Unpublished data.

Approximately 3600.
National cross-section of adults.

Survey of Public Knowledge and Attitudes Concerning Civil Defense: A Report of a National Study in March, 1954, Stephen B. Withey, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan, September, 1954.

This is a report of a national study conducted in March, 1954. It also includes material from a number of other studies (3 in number) also conducted by the Survey Research Center on the problems of civil defense.

The first study, done in 1950, covered the population in the metropolitan areas of the eleven largest cities in the United States. Sample size was approximately 600 persons.

The second study, done in 1951, extended the above sample to include the suburban area surrounding these eleven largest cities. Sample size=800 persons.

The third study, done in 1952, extended the sample to the nation as a whole but did not sample the rural areas at the same rate as the urban areas due to available financing. Sample size=1600 persons.

The fourth study, done in 1954, for the first time in this series took a straight unweighted sample of the national adult population but included persons aged 16 to 20 years old in addition to the adults usually interviewed. Sample size=1600 persons.

Each of the studies made use of personal interviewing as a means of obtaining the necessary data.

The fourth study, that was done in March, 1954, receives most of the emphasis in this report.

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Data collected in 1956.

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National probability sample of 1474 respondents.
Data collected September-October 1961.

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