

AD 64 646

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION		
Hardcopy	Microfiche	
\$2.00	\$0.50	34 pp ma
1 ARCHIVE COPY		

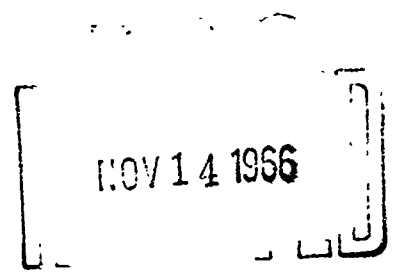
A Summary of the Final Report

ADOPTION OF PUBLIC FALLOUT SHELTERS



A 1964 National Study

Gerald E. Klonglan
George M. Beal
Joe M. Bohlen



Final Report Contract No. OCD-PS-65-9.Research Subtask 4811-E
Submitted to: Office of Civil Defense, Office of the Secretary of the Army, The Pentagon, Washington, D.C.

Sociological Studies in Civil Defense. . . Project Co-Directors: George M. Beal, Joe M. Bohlen and Gerald E. Klonglan
DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY.IOWA STATE UNIVERSITY
Ames, Iowa. . .1966

A SUMMARY OF THE FINAL REPORT

ADOPTION OF PUBLIC FALLOUT SHELTERS

A 1964 National Study

Gerald E. Klonglan

George M. Beal

Joe M. Bohlen

Iowa Agricultural and Home Economics Experiment Station

Project No. 401-44-96-09-1529

Sociological Studies in Civil Defense

Project Co-Directors: George M. Beal, Joe M. Bohlen, and Gerald E. Klonglan

in cooperation with

Office of Civil Defense

Office of the Secretary of the Army

Contract No. OCD-PS-65-9

Work Unit 4811-E

OCD REVIEW NOTICE

This report has been reviewed in the Office of Civil Defense and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Office of Civil Defense.

DDC AVAILABILITY

Distribution of this report is unlimited

Rural Sociology Report No. 49S
Department of Sociology and Anthropology
Iowa State University

Ames, Iowa

1966

PREFACE

The report summarized herein is one in a series of OCD sponsored reports focusing on the public's awareness and adoption of the idea of using public fallout shelters in the event of nuclear attack.

One of the major OCD programs since 1962 has been the surveying, licensing, marking, and stocking of facilities for public fallout shelter use. Thus, the research reported herein is one means of assessing the impact of this program on the general populace of the United States.

The report is an assessment of the public's adoption of the idea of using public fallout shelters. The data presented are based on a national sample of 1,464 respondents interviewed during the summer of 1964.

There are three general objectives of the research presented in the report:

- (1). To determine the extent to which a national sample of people had adopted the idea of using public fallout shelters if there is a nuclear attack.
- (2). To determine the relationship between selected demographic variables and the adoption of the idea of using public fallout shelters if there is a nuclear attack.
- (3). To determine the relationship between selected attitude variables and the adoption of the idea of using public fallout shelters if there is a nuclear attack. Attitude areas studied are:
 - a. Attitudes toward perception of the situation (perception of threat)
 - b. Attitudes toward final world outcomes
 - c. Attitudes toward the innovation of fallout shelters
 - d. Attitudes toward the deployment of anti-missile missiles

The authors wish to acknowledge the research contributions of E. Walter Coward, Jr. Mr. Coward was responsible for preparing the data for the report and for carrying out the statistical analysis used in the report.

TABLE OF CONTENTS

	Page
Introduction.	1
Framework for Analysis.	1
Objective 1: Adoption of Public Fallout Shelters	3
The 1964 Research Study.	3
Public Fallout Shelter Adoption Stages	4
Objectives 2 and 3: Relation of Factors to Stage of Adoption	5
Demographic Variables and Stage of Adoption.	5
Perception of Threat Variables and Stage of Adoption	8
Final Cold War Outcome Variables and Stage of Adoption	13
Perception of Fallout Shelters and Stage of Adoption	17
Perception of Anti-missile Missiles and Stage of Adoption.	21

orts
c
ensing,
the
gram
ising
e of
id
-
-
es
f
er
ort

Vertical line of text on the right margin, possibly a page number or reference marker.

INTRODUCTION

The Office of Civil Defense is conceptualized as a change agent whose goal is to have specified target audiences adopt new civil defense ideas, innovations, and programs. It is assumed that OCD as a change agent is interested in understanding and predicting how people will adopt new civil defense ideas. This involves a clear and detailed understanding of the factors related to the acceptance or rejection of these new ideas. The change agent may find insights about such factors to be important tools in planning, implementing, and evaluating present and future civil defense adoption programs.

FRAMEWORK FOR ANALYSIS

An analytical frame of reference which can be used for planning, implementing, and evaluating civil defense programs, which have as their primary objective the obtaining of the adoption of new ideas, innovations, or programs by individuals in target audiences, was presented. The major concepts of the frame of reference are as follows: The Office of Civil Defense is perceived as a change agent. As a change agent one of its goals is to obtain adoption of its innovations. By innovation is meant an idea, practice, or product perceived as new by the individual or group for whom it is intended. The civil defense innovation which is of central concern to this report is the idea of using public fallout shelters if there is a nuclear attack. Adoption in this study is defined as the adoption of the idea of using a public fallout shelter if there is a nuclear attack. Thus, adoption in this study is symbolic adoption, i.e., the adoption of an idea, rather than behavior adoption. Almost all previous adoption research studies have focused on behavior adoption. Thus, the civil defense innovation and adoption being studied in this report are different from most previous adoption studies. The adoption unit is the individual or group who has to make the decision to adopt an innovation. The adoption unit in this report is the individual. The adoption process is the mental process through which an individual passes from first hearing about an innovation to its final adoption. Conceptually, the adoption process is usually referred to as an

adoption model. The adoption process may be conceptually divided into five stages:

1. Awareness stage. At this stage the individual is initially exposed to the innovation. The individual knows of the innovation but lacks complete information about it. The individual may or may not be motivated to seek additional information about the innovation at this stage.
2. Information stage. The individual becomes interested in the innovation and seeks more information about it. In this stage the individual mainly increases his information about the innovation. The individual is interested in getting both general and more specific information about the intrinsic qualities of the innovation and relating this information to his past experiences and knowledge. At this stage he is building up a data base which will help him to decide whether or not he wishes to become further involved with the innovation.
3. Evaluation stage. The individual is concerned with applying the innovation to his own situation at this stage. The relative advantages and disadvantages of the innovation to other alternatives are considered. The individual makes a mental application of the innovation to his present and future situation and makes the decision either to try it or not. He is concerned with determining if adoption of this innovation will help him to maximize his goals to a greater degree than will any of the other alternatives which are perceived to be available to him.
4. Trial stage. At this stage the individual is motivated to use the innovation on a small scale in order to determine its utility in his own situation. When possible, most potential adopters use an innovation on a small experimental scale to test its applicability and compatibility to their situations.
5. Adoption stage. The individual adopts and decides to continue the full use of the innovation. At this stage and point in time the individual is satisfied that the course of action being pursued is best for him.

It is obvious that if the change agent wants to account for all the people in the social system there is another category of people, those unaware of the idea.

The adoption period is the time required for an individual to pass through the adoption process from awareness to adoption. The rate of adoption is the relative speed with which an innovation is adopted by adoption units in the target audience. One of the goals of the change agent is to increase the rate of adoption of his innovation. One way to attempt this is

to shorten the adoption period. Four categories of factors whose relationship to adoption have been studied are: demographic, knowledge, attitude, and sources of information. Knowledge of these four factors may be used by a change agent to effectively and efficiently shorten the adoption period and increase the rate of adoption of his innovation.

OBJECTIVE 1: ADOPTION OF PUBLIC FALLOUT SHELTERS

The first objective of the report was to determine the extent to which a national sample of people had adopted the idea of using public fallout shelters if there is a nuclear attack. This innovation was selected for study because one of the major goals of civil defense during the past four years has been to develop a fallout shelter capability for all the people in the United States. The major activity to accomplish this goal has been the National Fallout Shelter Survey, Marking, and Stocking Program. This program was designed to locate, mark, and stock existing facilities which would be used as public fallout shelters if needed. Logically flowing from these activities is the desire to have people make plans to use the shelters if there is a nuclear attack.

The five stage adoption process (awareness, information, evaluation, trial and adoption) was used as the basis for developing a series of questions which could be used to determine an individual or family's stage in the adoption of the idea of using public fallout shelters if there is a nuclear attack.

The 1964 Research Study

The 1964 National Study was sponsored jointly by the Office of Civil Defense (OCD) in the Office of the Secretary of the Army and the Advanced Research Projects Agency (ARPA) in the Office of the Director of Defense Research and Engineering, Department of Defense. Major portions of the questionnaire used in the study were developed by members of the Sociology department at the University of Pittsburgh, by members of Tempo, the General Electric Company, and by members of the Sociology Department at Iowa State University. The study was designed to interview a probability sample of 1500 adult respondents. People 21 years of age or older, or married people under 21 were included in the sample. The survey field work was conducted by the National Opinion Research Center (NORC) of the University of Chicago. Field interviewing began

early in June and was completed in September. A total of 1464 respondents completed questionnaires in 78 sampling locations throughout the United States.

Public Fallout Shelter Adoption Stages

Using the questions based on the adoption model, respondents were classified into analytical "stages" of adoption. The analytical stages and the number and percent of respondents in each stage were as follows:

1. Unaware stage: Six hundred fifty-five (655) respondents, or approximately 45 percent of the total respondents, indicated they were not aware of the public fallout shelter program. (This stage has been included in the analysis to account for all individuals in the study sample.)
2. Aware stage: One hundred fifty (150), or approximately 10 percent of the total respondents, indicated that they were at least aware of the public fallout shelter program, but had not obtained additional information about shelters.
3. Information stage: Two hundred forty-three (243), or approximately 17 percent of the total respondents, indicated that they were aware of the public fallout shelter program and had additional information about it, but had not thought about using a public fallout shelter in case of nuclear attack.
4. Evaluation stage: One hundred fifty (150), or approximately 10 percent of the total respondents, indicated that they were aware of the public fallout shelter program, had additional information about it, and had thought about using a public fallout shelter in case of nuclear attack, but had not made a decision to definitely try to use a public fallout shelter if there was a nuclear attack.
5. Adoption stage: Two hundred sixty-six (266), or approximately 18 percent of the total respondents, indicated they were aware of the public fallout shelter program, had additional information about it, had thought about using a public fallout shelter, and would definitely try to use a public fallout shelter in case of nuclear attack.

Thus by the summer of 1964 the sample respondents were almost equally divided between those who were aware of the public fallout shelter program and those who were not aware of the public fallout shelter program. Nearly one fifth (18 percent) of the sample respondents indicated they had adopted the idea of using a public fallout shelter if there is a nuclear attack.

OBJECTIVES 2 AND 3: RELATION OF FACTORS TO STAGE OF ADOPTION

The second and third general objectives of the research presented in this report were to determine the relationships between selected demographic and attitude variables and the adoption of the innovation of using public fallout shelters if there is a nuclear attack. These objectives attempted to provide answers to such questions as: what are the characteristics of people in each stage of adoption? Do people who are in the later stages of adoption have different demographic and attitudinal characteristics than individuals in the earlier stages of adoption? The individuals in the analytical stages of adoption delineated above were compared on selected demographic and attitude variables to determine relationships, if any, by stage of adoption. This research is one of the early attempts to determine variables which are related to the adoption of this type of civil defense innovation. Because of its exploratory nature, a large number of variables are used to determine which ones are related to stage of adoption of public fallout shelters. A statement of relationship does not necessarily mean a causal relationship and the reader should exercise caution in attributing causal effects when a relationship is stated.

Demographic Variables and Stage of Adoption

A knowledge of the relationships or lack of relationships between demographic variables and stage of adoption of public fallout shelters should be helpful to civil defense change agents. Such an analysis makes it possible for the change agent to develop a profile of the people who have been motivated to adopt a civil defense innovation and also to compare these people with those who have not yet been motivated to adopt a civil defense idea. These data can be used in planning and implementing future civil defense programs. Eleven of the 14 demographic variables were related to stage of adoption of public fallout shelters when formal statistical tests were used as the decision criteria.

of relationship.

One of the significant variables had a strong positive relationship to stage of adoption: a larger proportion of individuals in the latter stages of adoption had more years of formal education than did individuals in the earlier stages of adoption. Four of the other significant variables also had a positive relationship to stage of adoption, but not quite as strong a relationship as the above variable: a larger proportion of the individuals in the latter adoption stages (when compared to individuals in the early adoption stages) were in higher occupations (professional-managerial), had higher family incomes, perceived themselves to be in "higher" social classes, and had had more active military service. A larger proportion of individuals in the last four adoption stages, i.e., those who were aware of public fallout shelters, had children under 12 years of age in their home than did individuals in the Unaware stage. The Adoption stage had proportionately more Jews than did the other adoption stages. (Protestants and Catholics were equally distributed among the adoption stages.)

Three of the significant variables had a curvilinear relationship to stage of adoption: a larger proportion of individuals in the first two and last two adoption stages were women, while the Information stage had proportionately more men. Similarly, a larger proportion of individuals in the first two and last two adoption stages rent their homes than do respondents in the Information stage. Likewise, a larger percentage of individuals in the first (Unaware) and last (Adoption) stages had stronger religious beliefs than did individuals in the three middle adoption stages.

One significant variable (age) had a slight negative relationship to stage of adoption: the latter two adoption stages had more younger people (under 50 years of age) than did the Unaware and Information stages, although the Aware stage had a similar proportion of people under 50 years of age as did the last two adoption stages.

None of the three statistically non-significant variables had an apparent relationship to stage of adoption: marital status, political orientation, and military combat duty.

When one analyzes the 266 respondents in the Adoption stage the following "profile" of the "adopter" is obtained. Approximately four out of the ten "adopters" will have at least one child 12 years of age or less. Three out

of four "adopters" are currently married. The "adopter" is somewhat younger than the rest of the adult population. One out of three "adopters" will have had some type of formal training beyond high school. Approximately one third of the adopters have professional or managerial occupations, one fourth clerical, sales, or service occupations; the remaining blue collar occupations. Four out of ten adopters had a family income above \$7,500. Over one half of the "adopters" perceived themselves to be in the upper and middle social classes. Approximately six of every ten "adopters" are home owners. In one of every two "adopter" homes the husband has been in active military service. Approximately one of these husbands in five has been in combat. About two of three "adopters" are Protestant. Seven of ten "adopters" have strong or very strong religious beliefs. Politically, one "adopter" in ten is an Independent, three are Republican oriented and five are Democratic oriented.

Table 1. Summary: Demographic Variables and Stage of Adoption of Public Fallout Shelters

Demographic Variable	Relationship to Stage of Adoption		Percentage Trend ^c
	Statistical at .05 level ^a		
	Tabular Value	Calculated Value	
1. Age of respondent	9.49	43.94 ^b	Negative tendency
2. Years of formal education	9.49	60.01 ^b	Positive trend
3. Sex of respondent	9.49	9.51 ^b	Curvilinear: F-M-F
4. Marital status	9.49	3.85	None apparent
5. Number children in household 12 years of age or less	9.49	14.70 ^b	No clear over-all trend; some positive tendency
6. Occupation	15.51	32.38 ^b	Positive tendency
7. Family income	9.49	40.91 ^b	Positive tendency
8. Home ownership	9.49	12.94 ^b	Curvilinear: R-O-R
9. Perceived social class	9.49	24.09 ^b	Positive tendency
10. Religious preference			
A. Protestant-Catholic	9.49	3.33 ^b	None apparent
B. Protestant-Jew	9.49	19.23 ^b	Jews more
C. Catholic-Jew	9.49	12.51 ^b	Jews slightly more

Table 1. Summary: Demographic Variables and Stage of Adoption of Public Fallout Shelters (Continued)

Demographic Variable	Relationship to Stage of Adoption		
	Statistical at .05 level ^a		Percentage trend ^c
	Tabular Value	Calculated Value	
11. Strength of religious belief	9.49	14.74 ^b	Curvilinear: S-W-S
12. Political orientation			
A. Republicans-Democrat	9.49	8.09	None apparent
B. Rep.-Dem.-Independent	15.50	11.66	None apparent
13. Active military service	9.49	26.10 ^b	Positive tendency
14. Combat duty	9.49	4.95	None apparent

^aAll statistical tests were chi-square tests. Statistical at .05 level means that a calculated value larger than the tabular value would be expected to occur only 5 times out of 100 because of the selection of the sample from the population being studied rather than because there is an actual relationship in the population.

^bStatistically significant value.

^cFive different percentage trend statements are used in this table to describe the percentage trend relationship between a demographic variable and stage of adoption:

1. Positive trend refers to those situations where there is a strong positive linear percentage trend relationship between the demographic variable (as phrased in the summary table) and stage of adoption.
2. Positive tendency refers to those situations where there is a weak positive linear percentage trend relationship between the demographic variable (as phrased in the summary table) and stage of adoption.
3. Curvilinear refers to those situations where the percentage trend from Unaware to Adoption is not linear, but rather where the first and last adoption stages are similar to each other but different from the middle stage or stages.
4. Negative tendency refers to those situations where there is a weak negative linear percentage trend relationship between the demographic variable (as phrased in the summary table) and stage of adoption.
5. None apparent refers to those situations where there is no positive or negative linear relationship and no curvilinear relationship between the demographic variable and stage of adoption.

Perception of Threat Variables and Stage of Adoption

Twenty-two different perception of threat (situation) attitude variables were analyzed in relation to stage of adoption of public fallout shelters.

These 22 attitude variables were categorized into three general attitude areas for discussion purposes. The findings are summarized in Table 2. Seven of the specific perception of threat attitude variables were found to be statistically related to stage of adoption.

The first attitude area was composed of individuals' perceptions of the level of world tension at four different time periods. None of the four variables in this attitude area was found to be statistically related to stage of adoption. However, two of the variables had a slight positive percentage trend relationship to stage of public fallout shelter adoption. A slightly larger proportion of respondents in the latter adoption stages perceived that there was a "high current world tension level in 1964" and that there had been a "high prior world tension level in 1962," than did individuals in the earlier adoption stages. The other two variables had no apparent relationship to stage of adoption: "high future world tension level in 1966" and "high future world tension level 1969."

The second attitude area consisted of fourteen attitude variables focusing on people's perceptions of the possibility of a future World War. Six of these variables were found to be statistically related to stage of adoption.

One of the significant variables had a strong positive relationship to stage of adoption: a larger proportion of individuals in the latter adoption stages perceived that there was a "high likelihood of their local community being a target in a future war," than did individuals in the earlier adoption stages.

Two of the significant variables had a positive relationship to stage of adoption, but not as strong a relationship as the above variable: a larger proportion of the respondents in the latter adoption stages perceived that there was a "high likelihood of a long Cold War" and a "high likelihood of fallout danger to their local community in a future war," than did respondents in the earlier adoption stages.

Two of the significant variables had a curvilinear relationship to stage of adoption: a larger proportion of respondents in the first and last stages (than in the "middle" stages) perceived a "high likelihood of the use of nuclear weapons in a future war" and were "more highly concerned about the possibility of a nuclear attack."

The remaining significant variable had a strong negative relationship to stage of adoption: a larger proportion of respondents in the earlier stages of adoption perceived that there was a "high likelihood of nuclear war in the future," than did respondents in the earlier adoption stages.

Of the eight variables found not to be significantly related to stage of adoption when using the statistical criterion, one of the variables had a slight positive percentage trend relationship to stage of adoption: a larger proportion of individuals in the latter stages of adoption perceived that "military bases are the most important enemy target--more important than factories and transportation centers, and people and cities," than did respondents in the earlier adoption stages.

Three of the statistically non-significant variables had a slight negative percentage trend relationship to stage of adoption: a larger proportion of individuals in the earlier stages of adoption perceived that "war will occur sooner," that "there is a shorter present warning time of war," and that "people are the most important enemy target," than did individuals in the latter stages of adoption. The other four non-significant variables, had no apparent relationship to stage of adoption: "less future warning time of war," "likelihood of local community survival," "factories and transportation centers as the most important enemy target," and "cities as the most important enemy target."

The third attitude area consisted of four attitude variables focusing upon the possibility of future disarmament. Only one of the variables, "Russia desired disarmament, but without controls," was statistically related to stage of adoption. The relationship was a positive one; a larger proportion of respondents in the latter adoption stages perceived that "Russia wanted disarmament but with no controls," than did respondents in the earlier adoption stages.

One of the statistically non-significant variables had a slight positive percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the latter stages of adoption perceived that the U. S. desired "nuclear disarmament with control," than did respondents in the earlier stages. One of the statistically non-significant variables had a curvilinear percentage relationship to stage of adoption: a larger proportion of the respondents in the "middle" adoption stage (Information stage) per-

ceived the "armament race to continue," than did respondents in either the earlier or later adoption stages. The other variable showed no apparent relationship to stage of adoption: approximately the same proportion of respondents in each adoption stage "personally desired a well controlled disarmament situation."

Table 2. Summary: Perception of Threat Variables and Stage of Adoption of Public Fallout Shelters

Attitude Variable ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage trend ^c
	Tabular Value	Calculated Value	
<u>World Tension Levels</u>			
1. High current world tension (1964)	9.49	4.34	Positive tendency
2. High future world tension (1966)	9.49	5.28	None apparent
3. High future world tension (1969)	9.49	1.98	None apparent
4. High prior world tension (1962)	9.49	6.04	Positive tendency
<u>Possibility of Future World War</u>			
5. High likelihood of long Cold War	9.49	11.41 ^b	Positive tendency
6. High likelihood of nuclear war	9.49	20.16 ^b	Negative trend
7. High likelihood of use of nuclear weapons	9.49	10.82 ^b	Curvilinear: P-N-P
8. War will occur soon	9.49	8.78	Negative tendency
9. Short present warning time	9.49	6.79	Negative tendency
10. Less warning time in future	9.49	1.44	None apparent
11. High likelihood of local community being a target	9.49	36.62 ^b	Positive trend
12. Low likelihood of local community survival	9.49	1.74	None apparent
13. High likelihood of fallout danger to the local community	9.49	20.45 ^b	Positive tendency
14. Military bases most important target	9.49	3.15	Positive tendency
15. Factories and transportation centers most important target	9.49	0.46	None apparent
16. People most important target	9.49	8.82	Negative tendency
17. Cities most important target	9.49	0.89	None apparent

Table 2. Summary: Perception of Threat Variables and Stage of Adoption of Public Fallout Shelters (Continued)

Attitude Variable ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage trend ^c
	Tabular Value	Calculated Value	
18. High personal concern about nuclear attack	9.49	22.86 ^b	Curvilinear: P-N-P
<u>Possibility of Future Disarmament</u>			
19. Individual expects arms race to continue	9.49	7.48	Curvilinear: N-P-N
20. Individual desires controlled disarmament	9.49	1.03	None apparent
21. U.S. desires controlled disarmament	9.49	2.90	Positive tendency
22. Russia desires disarmament with no control	9.49	11.17 ^b	Positive tendency

^aAttitude statements in this table are paraphrasings of actual question wordings.

^bAll statistical tests were chi-square tests. Statistical at .05 level means that a calculated value larger than the tabular value would be expected to occur only 5 times out of 100 because of the selection of the sample from the population being studied rather than because there is an actual relationship in the population. Statistically significant values are footnoted in the table.

^cSix different percentage trend statements are used in the attitude chapters (Chapters 5-8) to describe the percentage trend relationship between an attitude variable and stage of adoption:

1. Positive trend refers to those situations where there is a strong positive linear percentage trend relationship between the attitude variable (as phrased in the summary table) and stage of adoption. For example, if a much larger proportion of individuals in the latter stages of adoption agreed with the statement as written in the summary table, than did individuals in the earlier adoption stages, there would be a strong positive relationship between the variable and stage of adoption. Thus, for Variable 11 a larger proportion of individuals in the latter adoption stages agreed that there was high likelihood of local community being a target than did individuals in the earlier adoption stages. The percentage trend relationship between likelihood of local community being a target and stage of public fallout shelter adoption would be called a positive trend.
2. Positive tendency refers to those situations where there is a weak positive linear percentage trend relationship between the attitude variable (as phrased in the summary table) and stage of adoption.

Final Cold War Outcomes and Stage of Adoption

Twenty different final Cold War outcome attitude variables were compared to public fallout shelter stage of adoption. Two attitudinal aspects of each of 10 possible final outcome situations were examined: (1) the individual's perception of the likelihood of the outcome and (2) the individual's perception of the desirability of the outcome. For analysis purposes the 10 possible outcome situations were categorized into three attitude areas. The findings are summarized in Table 3. Only one of the 20 variables was found to be statistically related to stage of adoption.

The first attitude area was composed of people's general perceptions of the end of the Cold War. Eight attitude variables were included in this area, i.e., four likelihood and four desirability statements. None of these eight variables was statistically related to stage of public fallout shelter adoption. However, four of the variables had a slight positive percentage trend relationship with stage of adoption: a slightly larger proportion of respondents in the latter stages of adoption perceived a "high likelihood that the Cold War will continue indefinitely," as well as a "high likelihood Cold War will end through disarmament," and that it was "more desirable that the Cold War will end through disarmament" and "more desirable that a Third World Force will emerge," than respondents in the earlier adoption stages. One variable had a slight curvilinear percentage trend relationship to stage of adoption: a larger proportion of respondents in the first two and last two

-
3. Curvilinear refers to those situations where the percentage trend from Unaware to Adoption is not linear, but rather, positive-negative-positive (P-N-P) or negative-positive-negative (N-P-N). For example, P-N-P means that a larger portion of individuals in the first and last adoption stages agreed or had a positive attitude, while a larger portion of individuals in the middle three stages (or the Information and/or Evaluation stage) disagreed or had a negative attitude. N-P-N would be the opposite percentage trend of P-N-P.
 4. Negative tendency refers to those situations where there is a weak negative linear percentage trend relationship between the attitude variable (as phrased in the summary table) and stage of adoption.
 5. Negative trend refers to those situations where there is a strong negative linear percentage trend relationship between the attitude variable (as phrased in the summary table) and stage of adoption.
 6. None apparent refers to those situations where there is no positive or negative linear relationship and no curvilinear relationship between the attitude variable and stage of adoption.

stages perceived a "high likelihood of the Cold War ending in World War III," than did the middle adoption stages. Three of the variables showed a slight negative percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the earlier adoption stages perceived that it was more "desirable that the Cold War will continue indefinitely," and "desirable that the Cold War will end in World War III," and perceived a "low likelihood that a Third World Force will emerge," than did respondents in the latter stages of adoption.

The second attitude area consisted of six attitude variables focusing on individuals' perceptions of final Cold War outcomes in which the Communists will lose the Cold War. One of these variables was found to be statistically related to stage of adoption: "high likelihood that the Communists will surrender without war," had a negative relationship to stage of adoption; that is, a larger proportion of individuals in the latter stages of adoption perceived a low likelihood that "the Communists will surrender without war," than did individuals in the earlier adoption stages.

Two of the statistically non-significant variables showed a slight positive percentage trend relationship to stage of adoption: a slightly larger proportion of individuals in the latter stages of adoption perceived that it was "more desirable that the Communists will lose due to small wars within the Communists nations," and also "more desirable that the Communists will accept the Western way of life," than did respondents in the earlier stages of adoption. Two of the statistically non-significant variables had a slight curvilinear percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the first and last adoption stages perceived a high likelihood that "Communists will lose due to small wars," and that it was "more desirable that the Communists will surrender without war," than did respondents in the middle adoption stages. The remaining variable had a slight negative percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the earlier adoption stages perceived there was a "high likelihood Communists will accept the Western way of life," than did respondents in the latter stages.

The third attitude area consisted of six attitude variables composed of individuals' perceptions of final Cold War outcomes in which the Communists will win the Cold War. None of the six variables were found to be statisti-

cally related to stage of adoption. However, five of the variables had a slight negative percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the latter adoption stages perceived a low likelihood that "the Communists will win due to small wars," that "the U.S. will surrender without war," and perceived a low desirability that "the Communists will win due to small wars," that "the U.S. will surrender without war," and that "the world will accept Communism." One variable had no apparent relationship to stage of adoption, "high likelihood that the world will accept Communism."

The above analyses indicate that there is essentially no relationship between people's perceptions of Cold War outcomes and stage of public fallout shelter adoption.

Table 3. Summary: Final Cold War Outcome Attitudes and Stage of Adoption of Public Fallout Shelters

Attitude Variable ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
<u>End of the Cold War</u>			
1. High likelihood Cold War will continue indefinitely	9.49	2.64	Positive tendency
2. Desirable that Cold War will continue indefinitely	9.49	1.03	Negative tendency
3. High likelihood Cold War will end through disarmament	9.49	3.41	Positive tendency
4. Desirable that Cold War will end through disarmament	9.49	2.22	Positive tendency
5. High likelihood Cold War will end in World War III	9.49	6.41	Curvilinear: P-N-P
6. Desirable that Cold War will end in World War III	9.49	3.94	Negative tendency
7. High likelihood that a Third Force will emerge	9.49	4.90	Negative tendency
8. Desirable that a Third Force will emerge	9.49	1.91	Positive tendency

Table 3. Summary: Final Cold War Outcome Attitudes and Stage of Adoption of Public Fallout Shelters (Continued)

Attitude Variable ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
<u>The Communists Will Lose the Cold War</u>			
9. High likelihood Communists will lose due to small wars	9.49	3.18	Curvilinear: P-N-P
10. Desirable that Communists will lose due to small wars	9.49	1.41	Positive tendency
11. High likelihood Communists will surrender without war	9.49	16.57 ^b	Negative tendency
12. Desirable that Communists will surrender without war	9.49	1.02	Curvilinear: P-N-P
13. High likelihood Communists will accept Western way of life	9.49	2.12	Negative tendency
14. Desirable that Communists will accept Western way of life	9.49	0.55	Positive tendency
<u>The Communists Will Win the Cold War</u>			
15. High likelihood Communists will win due to small wars	9.49	5.60	Negative tendency
16. Desirable that Communists will win due to small wars	9.49	0.52	Negative tendency
17. High likelihood U.S. will surrender without war	9.49	6.87	Negative tendency
18. Desirable that U.S. will surrender without war	9.49	1.14	Negative tendency
19. High likelihood the world will accept Communism	9.49	3.22	None apparent
20. Desirable that the world will accept Communism	9.49	1.43	Negative tendency

^a Attitude statements in this table are paraphrasings of actual question wordings.

^b All statistical tests were chi-square tests. Statistical at .05 level means that a calculated value larger than the tabular value would be expected to occur only 5 times out of 100 because of the selection of the sample from the population being studied rather than because there is an actual relationship in the population. Statistically significant values are footnoted in the table.

^c See Footnote-c of Table 2 for an explanation of the percentage trend statements in this column.

Perception of Fallout Shelters and Stage of Adoption

Twenty-two different fallout shelter attitude variables were analyzed in relation to stage of adoption of public fallout shelters. These 22 attitude variables were categorized into four attitude areas for analysis purposes. The findings are summarized in Table 4. Thirteen of the fallout shelter variables were found to be statistically related to stage of adoption.

The first attitude area was composed of two attitude variables related to people's general feelings about fallout shelters. One of these variables was statistically related to stage of adoption. The relationship was curvilinear: a larger proportion of individuals in the first and last stages of adoption "favored fallout shelters," than did individuals in the middle adoption stages. The other variable, "good survival chances in fallout shelters" had no apparent relationship to stage of adoption.

The second attitude area was composed of three variables related to people's perceptions about fallout shelters and concern with war. None of the three variables was statistically related to stage of adoption. The three variables "fallout shelters cause worry about war," "fallout shelters make war more likely," and "fallout shelters make disarmament more difficult," had no apparent relationship to stage of adoption.

The third attitude area was composed of twelve attitude variables related to people's perceptions about fallout shelters and future civil defense situations. Nine of the twelve variables were found to be statistically related to stage of adoption. Of these, two had a strong positive relationship to stage of adoption: a larger proportion of respondents in the latter adoption stages perceived a "high likelihood of fallout shelters throughout the nation and "high likelihood that all available shelter space will be marked and stocked," than did respondents in the earlier adoption stages. Two of the significant variables had a slight positive percentage relationship to stage of adoption: a slightly larger proportion of individuals in the latter adoption stages perceived a "high likelihood of federal aid to construct fallout shelters" and "high likelihood that missiles will be a part of our national defense," than did individuals in the earlier adoption stages. The other five significant variables had a curvilinear relationship to stage of adoption: a larger proportion of respondents in the first and last adoption stages perceived that there was a "high likelihood of fallout shelters for all Americans,"

and that it was "more desirable that federal aid be used to construct fallout shelters," "more desirable that there be fallout shelters for all Americans," "more desirable that there be fallout shelters throughout the nation," and "more desirable that missiles will be a part of national defense," than did respondents in the middle, especially the Information, adoption stages. All three of the statistically non-significant variables had a slight curvilinear percentage trend relationship with stage of adoption: a larger proportion of respondents in the first and last adoption stages perceived that there was a "high likelihood of evacuation of target areas," and that it was "more desirable that all available shelter space be marked and stocked," and "more desirable that there be evacuation of target areas," than did respondents in the middle adoption stages.

The final attitude area discussed in this chapter was composed of five attitude variables focusing upon people's perceptions of the relationship between fallout shelters and anti-missile missiles. Three of the variables were significantly related to stage of adoption. Of these, one was a curvilinear relation: a larger proportion of respondents in the first and last stages agreed that "anti-missile missiles will create a greater need for fallout shelters" than did respondents in the middle stages. The other two statistically related variables had a negative relationship with stage of adoption: a larger proportion of respondents in the earlier stages of adoption agreed that there is "no need for anti-missile missiles or fallout shelters," and that "anti-missile missiles create a lesser need for fallout shelters," than did respondents in the latter adoption stages. The two statistically non-significant variables had a slight curvilinear percentage trend relationship to stage of adoption: a slightly larger proportion of respondents in the first and last adoption stages agreed that "fallout shelters are needed because enemy weapons will penetrate missile defenses anyhow" and "anti-missile missiles are meaningful only if there are fallout shelters for everyone," than did respondents in the middle adoption stage.

Table 4. Summary: Perception of Fallout Shelters and Stage of Adoption of Public Fallout Shelters

Attitude Variable ^a	Relationship to Stage of Adoption		Percentage Trend ^c
	Statistical at .05 level ^b		
	Tabular Value	Calculated Value	
<u>General feelings about fallout shelters</u>			
1. In favor of fallout shelters	9.49	46.72 ^b	Curvilinear: P-N-P
2. Good survival chances in fallout shelters	9.49	7.02	None apparent
<u>Fallout Shelters and Concern With War</u>			
3. Fallout shelters cause worry about war	9.49	0.30	None apparent
4. Fallout shelters make war more likely	9.49	1.58	None apparent
5. Fallout shelters make disarmament more difficult	9.49	1.01	None apparent
<u>Fallout Shelters and Future Civil Defense Situations</u>			
6. High likelihood of federal aid to construct fallout shelters	9.49	13.99 ^b	Positive tendency
7. Desirable that federal aid be used to construct fallout shelters	9.49	13.09 ^b	Curvilinear: P-N-P
8. High likelihood of fallout shelters for all Americans	9.49	13.09 ^b	Curvilinear: P-N-P
9. Desirable that there be fallout shelters for all Americans	9.49	17.19 ^b	Curvilinear: P-N-P
10. High likelihood of fallout shelters throughout the nation	9.49	12.10 ^b	Positive trend
11. Desirable that there be fallout shelters throughout the nation	9.49	11.87 ^b	Curvilinear: P-N-P
12. High likelihood that all available shelter space will be marked and stocked	9.49	19.68 ^b	Positive trend
13. Desirable that all available shelter space will be marked and stocked	9.49	6.23	Curvilinear: P-N-P
14. High likelihood of evacuation of target areas	9.49	8.81	Curvilinear: P-N-P
15. Desirable that there be evacuation of target areas	9.49	5.75	Curvilinear: P-N-P

Table 4. Summary: Perception of Fallout Shelters and Stage of Adoption of Public Fallout Shelters (Continued)

Attitude Variable ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
16. High likelihood that missiles will be a part of national defense	9.49	16.28 ^b	Positive tendency
17. Desirable that missiles will be a part of national defense	9.49	9.95 ^b	Curvilinear: P-N-P
<u>Fallout Shelters and Anti-Missile Missiles</u>			
18. There is no need for anti-missiles or fallout shelters	9.49	26.39 ^b	Negative tendency
19. Anti-missile missiles create a greater need for fallout shelters	9.49	16.98 ^b	Curvilinear: P-N-P
20. Anti-missile missiles create a lesser need for fallout shelters	9.49	11.57 ^b	Negative tendency
21. Fallout shelters needed because enemy weapons will penetrate missile defenses anyhow	9.49	7.00	Curvilinear: P-N-P
22. Anti-missile missiles meaningful only if have fallout shelters for everyone	9.49	9.13	Curvilinear: P-N-P

^aAttitude statements in this table are paraphrasings of actual wordings.

^bAll statistical tests were chi-square tests. Statistical at .05 level means that a calculated value larger than the tabular value would be expected to occur only 5 times out of 100 because of the selection of the sample from the population being studied rather than because there is an actual relationship in the population. Statistically significant values are footnoted in the table.

^cSee Footnote-c of Table 2 for an explanation of the percentage trend statements in this column.

Perceptions of Anti-missile Missiles and Stage of Adoption

A total of 46 perception of anti-missile missile attitude variables were compared to stage of adoption of public fallout shelters. The 46 variables were categorized into four attitude areas for discussion purposes. The findings are summarized in Table 5. More than half of the 46 variables were statistically related to stage of adoption.

The first attitude area was composed of nine attitude variables related to people's general perceptions of anti-missile missiles. Six of these variables were statistically related to stage of adoption.

Five of the significant variables had a positive relationship to stage of adoption: a slightly larger proportion of respondents in the latter adoption stages perceived that "the U.S. has anti-missile missiles ready for action," "Russia has anti-missile missiles ready for action," "defense against enemy missiles is possible," "anti-missile missiles are a type of defense against enemy missiles," and "anti-missile missiles will use nuclear warheads", than did respondents in the earlier stages of adoption. One of the significant variables had a curvilinear relationship to stage of adoption: a larger proportion of individuals in the first and last adoption stages perceived "U.S. defense against enemy submarines is good", than did individuals in the "middle" adoption stages.

Two of the non-significant variables had a slight positive relationship to stage of adoption: a slightly larger proportion of respondents in the latter adoption stages perceived that "U.S. defense against enemy bombers is good" and "U.S. defense against enemy missiles is good" than did respondents in the earlier stages of adoption. The other non-significant variable showed no apparent relationship to stage of adoption: perception that "future defense against enemy missiles is possible."

The second attitude area was composed of nineteen attitude variables related to individuals' perceptions of the desirability of anti-missile missiles. Eleven of these variables were statistically related to stage of adoption.

One of the significant variables had a strong positive relationship to stage of adoption: a larger proportion of respondents in the latter adoption stages perceived that "anti-missile missiles around the local city is desirable (second time asked)" than did respondents in the earlier stages of adoption.

Six of the significant variables had a curvilinear relationship to stage of adoption: a larger proportion of individuals in the first and last adoption stages desired anti-missile missiles in the stated situation than did individuals in the "middle," especially the Information, adoption stages. Thus, proportionately more respondents in the first and last stages perceived that "anti-missile missiles around all larger cities is desirable (second time asked)," "living in a city defended by anti-missile missiles is desirable," and said they "would feel more secure if living in a city defended by anti-missile missiles," "would desire to move to a defended city if living in a city not defended by anti-missile missiles," "would feel worried if living in an undefended city," and "would feel something ought to be done if living in an undefended city" than did respondents in the middle adoption stages.

Two of the significant variables had a strong negative relationship to stage of adoption; a larger proportion of respondents in the earlier adoption stages perceived that they "would feel worried if they lived in a city defended by anti-missile missiles" and that they "would feel lucky if they lived in a city not defended by anti-missile missiles," than did respondents in the latter adoption stages.

The remaining two significant variables also had a negative relationship to stage of adoption, but not as strong a relationship as the above two variables: a slightly larger proportion of individuals in the earlier adoption stages perceived that they "would feel guilty if living in a city defended by anti-missile missiles" and that they "would feel it is unfair living in a city not defended by anti-missile missiles," than did respondents in the latter stages of adoption.

Of the eight statistically non-significant variables, five had a slight negative percentage trend relationship with stage of adoption. A slightly larger proportion of respondents in the earlier adoption stages perceived that they "would desire to move to an undefended city rather than live in a city defended by anti-missile missiles," "would feel angry if living in a city defended by anti-missile missiles," "would feel they could do nothing about the missiles if living in a city defended by anti-missile missiles," "would feel more secure if living in a city not defended by anti-missile missiles" and "would feel they could do nothing about the missiles if living in a city not defended by anti-missile missiles," than did individuals in the latter stages of adoption.

Two of the statistically non-significant variables had a slight positive percentage trend relationship with stage of adoption. A slightly larger proportion of respondents in the latter adoption stage perceived that "anti-missile missiles around all larger cities is desirable (first time asked)," and "anti-missile missiles around the local city is desirable (first time asked)," than did respondents in the earlier stages of adoption.

The other non-significant variable had a slight curvilinear percentage relationship to stage of adoption: proportionately more respondents in the first and last adoption stages perceived they "would feel lucky if living in a city defended by anti-missile missiles," than did individuals in the middle adoption stages.

The third attitude area was composed of eight attitude variables related to individuals' perceptions of the desirability of anti-missile missiles even if they cause some local problems. Five of the variables were statistically related to stage of adoption. Of these five variables one had a strong positive relationship to stage of adoption: a larger proportion of respondents in the latter stages of adoption perceived that "anti-missile missiles are desirable even if they might be fired accidentally," than did respondents in the earlier stages of adoption. The other four significant variables had a somewhat less positive relationship with stage of adoption than the above variable. A slightly larger proportion of individuals in the latter stages of adoption perceived anti-missile missiles as desirable even if: "they take up a lot of acres that could have been used for other purposes," "there is poor television reception," "there is some local opposition to anti-missile missiles," and "they have to set up shelters for everyone," than did respondents in the earlier adoption stages.

The three statistically non-significant variables in this attitude area also had a slight positive relationship to stage of adoption. A slightly larger proportion of individuals in the latter stages of adoption perceived anti-missile missiles as desirable even if "local real estate values go down a little when anti-missile missiles are installed," "the efficiency of the missiles is high, but not completely effective, i.e., 9 of 10 enemy missiles shot down," and "the efficiency of the missiles is low, i.e., only shooting down 1 of 3 enemy missiles," than did individuals in the earlier stages of adoption.

The fourth attitude area was composed of ten variables related to people's perceptions of some strategic implications of missile defense. Seven of the variables were statistically related to stage of adoption. Of these seven variables, one had a strong negative relationship to stage of adoption: a larger proportion of the respondents in the earlier adoption stages perceived that "U.S. anti-missile missiles will make Russians think we are going to start war," than did individuals in the latter adoption stages. Five of the significant variables had a somewhat less negative relationship to stage of adoption than the above variable. A slightly larger proportion of individuals in the earlier stages of adoption perceived that anti-missile missiles will "give Americans a false sense of security," "make Americans more anxious," "cost too much," "soon be out of date," and "make disarmament agreements more difficult," than did individuals in the latter adoption stages.

The other significant variable had a curvilinear relationship to stage of adoption: a larger proportion of respondents in the first and last adoption stages perceived that anti-missile missiles will "make America stronger" than did respondents in the middle, especially the Information, adoption stages.

Two of the statistically non-significant variables had a slight negative percentage trend relationship with stage of adoption. A slightly larger proportion of respondents in the earlier adoption stages perceived that anti-missile missiles will "make people think war is more likely" and "lead to stepping up the arms race," than did respondents in the latter stages of adoption.

The other statistically non-significant variable had a slight curvilinear percentage relationship to stage of adoption: proportionately more respondents in the first and last adoption stages perceived that anti-missile missiles will, "make the enemy less likely to push us around," than did individuals in the middle, especially the Information, adoption stages.

Table 5. Summary: Perception of Anti-Missile Missiles and Stage of Adoption of Public Fallout Shelters

Attitude Variables ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
<u>General perceptions of anti-missile missiles</u>			
1. U.S. has anti-missile missiles ready for action	9.49	14.19 ^b	Positive tendency
2. Russia has anti-missile missiles ready for action	9.49	17.79 ^b	Positive tendency
3. U.S. defense against enemy bombers is good	9.49	3.15	Positive tendency
4. U.S. defense against enemy submarines is good	9.49	9.53 ^b	Curvilinear: P-N-P
5. Defense against enemy missiles is possible	9.49	49.27 ^b	Positive tendency
6. U.S. defense against enemy missiles is good	9.49	8.93	Positive tendency
7. Future defense against enemy missiles is possible	9.49	3.34	None apparent
8. Knowledge of missiles as type of defense possible against enemy missiles	9.49	30.70 ^b	Positive tendency
9. Knowledge of how anti-missile missiles will work	9.49	13.17 ^b	Positive tendency
<u>Desirability of anti-missile missiles</u>			
10. Anti-missile missiles around all larger cities is desirable	9.49	6.93	Positive tendency
11. Anti-missile missiles around all larger cities is desirable (2nd time)	9.49	20.33 ^b	Curvilinear: P-N-P
12. Anti-missile missiles around the local city is desirable	9.49	8.37	Positive tendency
13. Anti-missile missiles around the local city is desirable (2nd time)	9.49	25.23 ^b	Positive trend
14. Living in a city defended by anti-missile missiles is desirable	9.49	24.99 ^b	Curvilinear: P-N-P
<u>Personal feelings if living in a city defended by anti-missile missiles</u>			
15. Would feel guilty	9.49	24.04 ^b	Negative tendency

Table 5. Summary: Perception of Anti-Missile Missiles and Stage of Adoption of Public Fallout Shelters (Continued)

Attitude Variables ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
16. Would desire to move	9.49	7.83	Negative tendency
17. Would feel lucky	9.49	8.78	Curvilinear: P-N-P
18. Would feel worried	9.49	19.21 ^b	Negative trend
19. Would feel angry	9.49	5.38	Negative tendency
20. Would feel I can do nothing about the missiles	9.49	2.99	Negative tendency
21. Would feel more secure	9.49	21.33 ^b	Curvilinear: P-N-P
<u>Personal feelings if living in a city not defended by anti-missile missiles when some other cities have them:</u>			
22. Would feel it is unfair	9.49	51.53 ^b	Negative tendency
23. Would desire to move to a defended city	9.49	57.60 ^b	Curvilinear: P-N-P
24. Would feel worried in an undefended city	9.49	28.71 ^b	Curvilinear: P-N-P
25. Would feel more secure	9.49	6.78	Negative tendency
26. Would feel I can do nothing about the missiles	9.49	2.28	Negative tendency
27. Would feel lucky	9.49	10.74 ^b	Negative trend
28. Would feel something ought to be done	9.49	21.62 ^b	Curvilinear: P-N-P
<u>Anti-missile missiles and local problems - anti-missile missiles are desirable even if:</u>			
29. Real estate values go down	9.49	5.73	Positive tendency
30. Take up a lot of acres	9.49	10.20 ^b	Positive tendency
31. There is a risk they might be fired accidentally	9.49	13.88 ^b	Positive trend
32. There is poorer television reception	9.49	10.24 ^b	Positive tendency
33. Have some local opposition to missiles	9.49	9.52 ^b	Positive tendency
34. Have to set up shelters for everyone	9.49	11.71 ^b	Positive tendency

Table 5. Summary: Perception of Anti-Missile Missiles and Stage of Adoption of Public Fallout Shelters (Continued)

Attitude Variables ^a	Relationship to Stage of Adoption		
	Statistical at .05 level ^b		Percentage Trend ^c
	Tabular Value	Calculated Value	
35. Only 9 of 10 enemy missiles shot down	9.49	8.91	Positive tendency
36. Only 1 of 3 enemy missiles shot down	9.49	7.70	Positive tendency
<u>Strategic Implications of Missile Defense. Anti-missile missiles will:</u>			
37. Make people think war is more likely	9.49	9.40	Negative tendency
38. Make Russians think we are going to start a war	9.49	16.81 ^b	Negative trend
39. Give Americans a false sense of security	9.49	12.16 ^b	Negative tendency
40. Make Americans more anxious	9.49	12.74 ^b	Negative tendency
41. Lead to stepping up the arms race	9.49	6.56	Negative tendency
42. Cost too much	9.49	11.06 ^b	Negative tendency
43. Soon be out of date	9.49	10.36 ^b	Negative tendency
44. Make disarmament agreements more difficult	9.49	15.51 ^b	Negative tendency
45. Make Americans stronger	9.49	12.06 ^b	Curvilinear: P-N-P
46. Make the enemy less likely to push us around	9.49	6.78	Curvilinear: P-N-P

^aAttitude statements in this table are paraphrasings of actual wordings.

^bAll statistical tests were chi-square tests. Statistical at .05 level means that a calculated value larger than the tabular value would be expected to occur only 5 times out of 100 because of the selection of the sample from the population being studied rather than because there is an actual relationship in the population. Statistically significant values are footnoted in the table.

^cSee Footnote-c of Table 2 for an explanation of the percentage trend statements in this column.

The above data provide a profile of the individuals in the public fallout shelter adoption stages. These data may be used by OCD in planning and implementing future civil defense programs. One concern of OCD is to have people who have not yet adopted the idea of using public fallout shelters adopt the idea of using them. At what rate may individuals in the early adoption stages be expected, if at all, to adopt the idea of using public fallout shelters? Another concern of OCD may be the extent to which the adoption of this idea will persist in the mind of an individual over time. As was stated above the adoption of the idea of using public fallout shelters may be perceived as symbolic adoption. Will some people who are adopters at this point in time become nonadopters at a future point in time? What will the adoption stage profiles be if this occurs? There is a need for a periodic assessment of people's idea adoption so trends and patterns of symbolic adoption may be delineated and analyzed.

Unclassified

Security Classification

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1 ORIGINATING ACTIVITY (Corporate author) Department of Sociology and Anthropology Iowa State University, Ames, Iowa		2a REPORT SECURITY CLASSIFICATION Unclassified	
		2b GROUP	
3 REPORT TITLE A SUMMARY OF THE FINAL REPORT: ADOPTION OF PUBLIC FALLOUT SHELTERS - A 1964 National Study			
4 DESCRIPTIVE NOTES (Type of report and inclusive dates)			
5 AUTHOR(S) (Last name, first name, initial) Klonglan, Gerald E., Beal, George M., and Bohlen, Joe M			
6 REPORT DATE 1966	7a TOTAL NO OF PAGES 28	7b. NO. OF REFS 0	
8a CONTRACT OR GRANT NO. OCD-PS-65-9	8b. ORIGINATOR'S REPORT NUMBER(S) Rural Sociology Report Number 49S		
b PROJECT NO. (Subtask) 4811-E			
c Systems Evaluation Division	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)		
d OCD Research Directorate			
10 AVAILABILITY/LIMITATION NOTICES Distribution of this report is unlimited.			
11 SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY Office of Civil Defense Department of the Army Washington, D.C., 20310	
13 ABSTRACT A model of the <u>adoption process</u> is used to analyze the public's progress in <u>adopting the idea of using public fallout shelters</u> in the event of nuclear attack. The analysis is based on findings from the 1964 OCD National Survey of 1464 respondents. Respondents are assigned to one of five adoption stages; 44.7% of the respondents were unaware of the existence of public fallout shelters (Unaware Stage); 10.2% were aware of public fallout shelters but had no additional information about them (Aware Stage); 16.6% were aware of and had additional information about public fallout shelters but had not thought about using them (Information Stage); 10.2% were aware of, had additional information, and had thought about using public fallout shelters but had not decided to go to a public fallout shelter (Evaluation Stage); 18.2% were aware of, had additional information, had thought about using and had decided to go to a public fallout shelter in the event of nuclear attack (Adoption Stage). The relationships between selected <u>demographic and attitude variables</u> and stage of adoption of public fallout shelters are analyzed. Fourteen demographic variables were compared to the adoption stages; 11 were statistically related to stage of adoption. The attitude variables were divided into four major sectors: 22 <u>perception of threat variables</u> were analyzed, 7 were statistically related to stage of adoption; 20 <u>final Cold War outcome variables</u> were analyzed, only one was statistically related to stage of adoption; 22 <u>fallout shelter variables</u> were analyzed, 13 were statistically related to stage of adoption; 46 <u>perception of anti-missile missile variables</u> were analyzed, 29 were statistically related to stage of adoption.			

DD FORM 1473
1 JAN 66

Unclassified

Security Classification

KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Innovation						
Adoption unit						
Adoption process						
Stage of adoption						
Unaware Stage						
Aware Stage						
Information Stage						
Evaluation Stage						
Trial Stage						
Adoption Stage						
Rate of adoption						
Demographic variables						
Attitude variables						
1963 Research Study						
1964 Research Study						

INSTRUCTIONS

1. **ORIGINATING ACTIVITY:** Enter the name and address of the contractor, subcontractor, grantee, Department of Defense activity or other organization (*corporate author*) issuing the report.

2a. **REPORT SECURITY CLASSIFICATION:** Enter the overall security classification of the report. Indicate whether "Restricted Data" is included. Marking is to be in accordance with appropriate security regulations.

2b. **GROUP:** Automatic downgrading is specified in DoD Directive 5200.10 and Armed Forces Industrial Manual. Enter the group number. Also, when applicable, show that optional markings have been used for Group 3 and Group 4 as authorized.

3. **REPORT TITLE:** Enter the complete report title in all capital letters. Titles in all cases should be unclassified. If a meaningful title cannot be selected without classification, show title classification in all capitals in parenthesis immediately following the title.

4. **DESCRIPTIVE NOTES:** If appropriate, enter the type of report, e.g., interim, progress, summary, annual, or final. Give the inclusive dates when a specific reporting period is covered.

5. **AUTHOR(S):** Enter the name(s) of author(s) as shown on or in the report. Enter last name, first name, middle initial. If military, show rank and branch of service. The name of the principal author is an absolute minimum requirement.

6. **REPORT DATE:** Enter the date of the report as day, month, year, or month, year. If more than one date appears on the report, use date of publication.

7a. **TOTAL NUMBER OF PAGES:** The total page count should follow normal pagination procedures, i.e., enter the number of pages containing information.

7b. **NUMBER OF REFERENCES:** Enter the total number of references cited in the report.

8a. **CONTRACT OR GRANT NUMBER:** If appropriate, enter the applicable number of the contract or grant under which the report was written.

8b, 8c, & 8d. **PROJECT NUMBER:** Enter the appropriate military department identification, such as project number, subproject number, system numbers, task number, etc.

9a. **ORIGINATOR'S REPORT NUMBER(S):** Enter the official report number by which the document will be identified and controlled by the originating activity. This number must be unique to this report.

9b. **OTHER REPORT NUMBER(S):** If the report has been assigned any other report numbers (*either by the originator or by the sponsor*), also enter this number(s).

10. **AVAILABILITY/LIMITATION NOTICES:** Enter any limitations on further dissemination of the report, other than those imposed by security classification, using standard statements such as:

- (1) "Qualified requesters may obtain copies of this report from DDC."
- (2) "Foreign announcement and dissemination of this report by DDC is not authorized."
- (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through _____."
- (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through _____."
- (5) "All distribution of this report is controlled. Qualified DDC users shall request through _____."

If the report has been furnished to the Office of Technical Services, Department of Commerce, for sale to the public, indicate this fact and enter the price, if known.

11. **SUPPLEMENTARY NOTES:** Use for additional explanatory notes.

12. **SPONSORING MILITARY ACTIVITY:** Enter the name of the departmental project office or laboratory sponsoring (*paying for*) the research and development. Include address.

13. **ABSTRACT:** Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached.

It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (U).

There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words.

14. **KEY WORDS:** Key words are technically meaningful terms or short phrases that characterize a report and may be used as index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, rules, and weights is optional.