

AD 634998

FOR THE  
200 .50 44 as

# ADOPTION OF PUBLIC FALLOUT SHELTERS



A 1966 National Study

Gerald E. Klonglan  
George M. Beal  
Joe M. Bohlen  
E. Walter Coward, Jr.

D D C  
RECEIVED  
JUL 12 1966  
C

Final Report Contract No. OCD-PS-65-9 . . . . . Research Subtask 4811-D  
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  
IOWA AGRICULTURAL AND HOME ECONOMICS EXPERIMENT STATION . . . . . IOWA STATE UNIVERSITY  
Ames, Iowa . . 1966

ADOPTION OF PUBLIC FALLOUT SHELTERS

A 1966 National Study

Gerald E. Klonglan  
George M. Beal  
Joe M. Bohlen  
E. Walter Coward Jr.

Iowa Agricultural and Home Economics Experiment Station  
Project No. 1529  
Sociological Studies in Civil Defense  
Project Co-Directors: George M. Beal, Joe M. Bohlen, Gerald E. Klonglan  
Task Area Coordinator: E. Walter Coward Jr.

in cooperation with

Office of Civil Defense  
Office of the Secretary, of the Army  
Contract No. OCD-PS-65-9  
Research Subtask 4811-D

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. 54  
Department of Sociology and Anthropology  
Iowa Agricultural and Home Economics Experiment Station  
Iowa State University  
Ames, Iowa  
1966

## PREFACE

This report 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.

This report is an assessment of the public's adoption of the idea of using public fallout shelters as of March 1966. The data presented are based on a national sample of 1,497 respondents interviewed in February and March 1966.

The analytical framework used to determine the public's progress in adopting public fallout shelters is outlined. Second, a detailed discussion of the method used to empirically study the public's adoption of public fallout shelters is presented. Third, the findings with regard to the number and percent of respondents in each adoption stage are analyzed. Fourth, a comparison of the changes between the 1966 adoption findings and the 1964 OCD National Study are presented and discussed.

The Department of Sociology and Anthropology at Iowa State University will be continuing the analysis of the adoption data collected in the 1966 National survey. The findings from this continuing analysis will be presented in future reports.

A SUMMARY OF THE FINAL REPORT  
ADOPTION OF PUBLIC FALLOUT SHELTERS - A 1966 NATIONAL STUDY

by

Gerald E. Klomglan, George M. Beal, Joe M. Bohlen, and E. Walter Coward, Jr.  
Iowa State University of Science and Technology. Ames, Iowa. 1966.

Contract No. OCD-PS-65-9. Research Subtask 4811D

The purpose of this report was to analyze the public's progress in adopting the idea of using public fallout shelters in the event of a nuclear attack. The findings were based on data collected in February and March, 1966 as part of a national study sponsored by OCD. The number of respondents interviewed in this national study was 1,497.

The analytical framework used to guide the analysis was that of individual adoption behavior. The individual adoption process was divided into five stages: Unaware, Aware, Information, Evaluation and Adoption. The adoption process was operationalized by a series of questions designed to determine the extent to which individuals had adopted the idea of using public fallout shelters in case of nuclear attack.

The distribution of respondents in the five stages of adoption of public fallout shelters as of March, 1966 was as follows:

<u>Adoption Stages</u>	<u>Number</u>	<u>Percent</u>
1. <u>Unaware</u> : The respondent was <u>unaware</u> of the existence of any public fallout shelters	311	21
2. <u>Aware</u> : The respondent was aware of public fallout shelters but did not have additional information about them	297	20
3. <u>Information</u> : The respondent was aware of and had additional information about public fallout shelters but had not thought about using them	366	24
4. <u>Evaluation</u> : The respondent was aware of and had additional information about public fallout shelters <u>and</u> said he had thought about using a public fallout shelter in case of nuclear attack <u>but</u> had not decided to go to a public fallout shelter if there was a nuclear attack	280	19
5. <u>Adoption</u> : The respondent was aware of, had additional information about, had thought about, <u>and</u> said he had decided to go to a public fallout shelter if there was a nuclear attack	<u>243</u>	<u>16</u>
Totals	1,497	100

The adoption stage findings from the 1966 National Study were also presented in a cumulative framework: 79% of the total respondents were aware of a public fallout shelter (Stages 2, 3, 4, 5); 60% of the total respondents had obtained additional information about public fallout shelters (Stages 3, 4, 5); and 35% of the total respondents had thought about using public fallout shelters (Stages 4, 5). The percent of respondents in the Unaware stage and Adoption stage remains the same in the cumulative framework; 21% and 16% respectively.

When the above 1966 OCD National Study findings were compared to the findings from the 1964 OCD National Study the following changes were found:

Adoption Stage	Cumulative Percentage Totals		Percentage Change from 1964 to 1966
	1966	1964	
Unaware	21	45	24 percent decrease
Aware	79	55	24 percent increase
Information	60	45	15 percent increase
Evaluation	35	28	7 percent increase
Adoption	16	18	2 percent decrease

The report also included a presentation of the frequency of responses to each of the 17 adoption questions used in the 1966 National Study. Some of the highlights of these findings were as follows. Of the total number of 1,497 respondents:

- 68% correctly identified the civil defense fallout shelter sign.
- 53% said they could recall specific buildings selected as public fallout shelters.
- 48% said they had been in a building having a public fallout shelter.
- 16% said they had gone into the shelter area in some of these buildings.
- 16% said they knew of public fallout shelters in their local area that had been stocked with supplies.
- 19% said that television news and special programs were the most useful sources of information about public fallout shelters. This source was also most frequently mentioned as a source of public fallout shelter information--by 61% of the respondents.
- 17% said that pamphlets put out by OCD were the most useful sources of information about public fallout shelters.

Table of Contents

	Page
Preface . . . . .	i
Chapter 1. Background . . . . .	1
Introduction . . . . .	1
Previous Studies of Public Fallout Shelter Adoption . . . . .	3
The 1966 National Study . . . . .	4
Objectives of the Report . . . . .	4
Chapter 2. Framework for Analysis . . . . .	5
Introduction . . . . .	5
Innovation . . . . .	6
Adoption Unit . . . . .	6
Adoption as a Process . . . . .	7
Chapter 3. The Adoption Model Applied to a Civil Defense Innovation . . . . .	9
Introduction . . . . .	9
Innovation . . . . .	9
Adoption . . . . .	9
Adoption Unit . . . . .	10
Adoption Process . . . . .	10
Aware stage . . . . .	12
Information stage . . . . .	14
Evaluation stage . . . . .	15
Trial stage . . . . .	16
Adoption stage . . . . .	17
Chapter 4. The Findings . . . . .	19
Introduction . . . . .	19
Public Fallout Shelter Stage of Adoption . . . . .	19
Individual stage of adoption analysis . . . . .	19
Cumulative stage of adoption analysis . . . . .	20
Changes in Public Fallout Shelter Stages of Adoption: 1966 vs. 1964. . . . .	22
Comparison of individual stages of adoption . . . . .	22
Comparison of cumulative stages of adoption . . . . .	23
Frequency of Responses to Entire Series of Adoption Questions . . . . .	24
Respondents' Sources of Public Fallout Shelter Information . . . . .	34
Chapter 5. Summary . . . . .	37

## Chapter I

### BACKGROUND

#### Introduction

The possibility of a nuclear war continues to present a major decision making problem for the people of the United States. The current Vietnam crisis and its possible escalation are part of a series of events, including the Berlin crisis of 1961 and the Cuban crisis of 1962, that has provided an impetus to improve the civil defense capability to withstand a possible nuclear attack on the United States.

A major means of improving this civil defense capability has been the over-all program of the Office of Civil Defense (OCD) to provide fallout shelters for all of the nation's population as rapidly as possible and at the least possible cost. This over-all program includes the National Fallout Shelter Survey, Marking and Stocking Program which has as its specific objectives to locate, mark and stock public fallout shelters for the largest portion of the nation's population as quickly as possible. The over-all OCD program also includes the Community Shelter Plan Program, a program designed to assign people to available public fallout shelters and to make people aware of their assignment and also to encourage people to make the decision to use their assigned shelter in the event of a nuclear attack.

A 57 city pilot effort to develop community shelter plans was completed in 1964 and 1965. The major effort to develop these plans in local civil defense areas throughout the United States will begin in 1966 and continue through 1967 and 1968 and beyond.

As analysis of fallout shelters available from the National Fallout Shelter Survey, Marking and Stocking Program is completed it is possible to assess the shelter deficiencies in any city, town, or county. OCD programs designed to meet this shelter deficiency are being implemented. The Home Basement Shelter Program, initiated on a pilot basis during February 1966 in Rhode Island, is designed to identify fallout shelter space in home basements.

In addition, the Small Structures Survey is designed to locate buildings with adequate fallout protection but because of size limitations (too few

shelter spaces) have not been included in the National Fallout Shelter Survey. The Shelter Development Program has as its objective the encouraging of architects to design new buildings so as to obtain the maximum amounts of fallout shelter capability in all new construction. To train architects in the principles of obtaining a fallout shelter capability OCD has implemented an architect training program. The construction of fallout shelters in new federal buildings is another program to help eliminate fallout shelter deficits. As Community Shelter Plans are completed and as Home Basement Surveys are completed many individuals and families may find themselves in a decision making situation; should I (or we) use a public fallout shelter or my (our) basement (or perhaps a basement of a friend, relative, or neighbor)? However, at the present time (Spring 1966) the major fallout shelter capability is the public fallout shelter identified in the National Fallout Shelter Survey, Marking and Stocking Program. Since 1962 this has been the major OCD fallout shelter effort.

An evaluation of the National Fallout Shelter Survey, Marking and Stocking Program might focus on either the extent to which public fallout shelters have been located, marked and stocked, or the extent to which people are aware of and have made decisions to use public fallout shelters in the event of a nuclear attack. The emphasis of the research, of which this report is a portion, is on the latter evaluation.

Other periodic materials such as Selected Statistics on the Fallout Shelter Program provide progress reports on the number of buildings and spaces that have been licensed, marked and stocked as public fallout shelters.

In making people aware of public fallout shelters and encouraging them to make a decision to use a public fallout shelter if there is a nuclear attack, the Office of Civil Defense is playing the role of a change agent, i.e., OCD is an organization, attempting to influence the decisions of other groups or individuals in a direction that they believe to be desirable.

Change agents offer their target audiences innovations, i.e., ideas, practices or products perceived as new by the audience. In the case of OCD, the decision to be influenced is, the protection individuals will seek in the event of a nuclear attack. As mentioned above, one of the innovations that OCD is presenting is the idea of using public fallout shelters in the event of nuclear attack.



The process of individuals accepting or rejecting innovations has been studied by sociologists and others under the rubric of adoption-diffusion. It is the purpose of this report to evaluate the extent to which individuals are aware of and have decided to use public fallout shelters in the event of a nuclear attack by applying certain of the adoption-diffusion concepts developed and used by sociologists.<sup>a</sup>

#### Previous Studies of Fallout Shelter Adoption

The concepts and methodology used in this report have been used in two prior studies that examined the same problematic. In 1963 a pilot study conducted in Des Moines, Iowa had as one of its primary objectives "to develop 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 specified target audiences."<sup>b</sup> On the basis of the Des Moines study it was determined that this objective had been met, i.e., the concepts employed were useful in evaluating the extent of awareness and adoption of a civil defense innovation.

Based on the success of this pilot study, a series of questions operationalizing adoption concepts was included in the 1964 National Study sponsored by the Office of Civil Defense. In this study a total of 1,464 respondents completed questionnaires in a national probability sample. One of the objectives of this study was to determine the extent to which a national sample of people had adopted the idea of using a public fallout shelter if there was a nuclear attack.<sup>c</sup>

---

<sup>a</sup>These concepts are discussed in detail in Chapter 2.

<sup>b</sup>Family Adoption of Public Fallout Shelters: A Study of Des Moines, Iowa. Gerald E. Klonglan, George M. Beal, and Joe M. Bohlen, Ames, Iowa. Rural Sociology Report No. 30, 1964.

<sup>c</sup>These findings and others are reported in: Adoption of Public Fallout Shelters: A 1964 National Study. Gerald E. Klonglan, George M. Beal and Joe M. Bohlen, Ames, Iowa. Rural Sociology Report No. 49. 1966.

### The 1966 National Study

The 1966 National Study was sponsored by the Office of Civil Defense (OCD), Office of the Secretary of the Army. The questions used in the study were developed by sociologists at the University of Pittsburg and Iowa State University. The portion of the study reported herein on public fallout shelter adoption stage of respondents was designed by Iowa State University. The study was designed to interview a national sample of 1,500 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 was completed in February and March, 1966. A total of 1,497 respondents were interviewed.

### Objectives of this Report

This report is one of several that will be prepared by Iowa State University based on data collected in the 1966 National Study. The report has the following objectives:

- (1) to briefly discuss the analytical framework of adoption-diffusion concepts,
- (2) to discuss the application of these adoption-diffusion concepts to a civil defense innovation (using public fallout shelters in the event of nuclear attack),
- (3) to present the individual adoption stage analysis and cumulative stage analysis of public fallout shelter adoption as of March 1966,
- (4) to compare the individual stage analysis and cumulative stage analysis of public fallout shelter adoption in the 1966 National Study with the 1964 National Study,
- (5) to present the actual frequency of responses to the entire series of public fallout shelter adoption questions asked in the 1966 National Study, and
- (6) to present a summary of respondents' sources of public fallout shelter information.

## Chapter 2

## FRAMEWORK OF ANALYSIS

## Introduction

Since 1961 the Department of Defense, Office of Civil Defense has been the primary agency for implementing civil defense ideas and programs. In this role of implementing civil defense programs, the Office of Civil Defense has become one of the newest change agents in the United States.

A number of different groups and agencies have been in change agent roles for many years, including educators, businessmen, and other government agencies. The rapid scientific development of new ideas, practices and products since 1900 has generated considerable research dealing with the question of how people adopt new ideas. As a result of this research an extensive body of literature dealing with the adoption and diffusion of new ideas, practices, and products has been produced by rural sociologists, industrial sociologists, medical sociologists, anthropologists, educators and mass communication researchers. The major goal of this research has been to better understand individual adoption behavior so that social structures and communication programs might be more efficient and effective.

In this report a number of the concepts developed by this research tradition are utilized as a framework of analysis for examining the extent to which people are aware of and have made decisions to use a civil defense innovation. This report focuses on both the process of adoption, which is a micro process referring to an individual's acceptance of an idea, practice, or product, as well as the process of diffusion, which is a macro concept referring to the spread of an idea, practice, or product through the whole of a potential audience, market, or social system.

The remainder of this chapter is a discussion of the adoption-diffusion concepts that are utilized as a framework of analysis in examining the extent of the public's adoption of the idea of using public fallout shelters in the event of a nuclear attack.

### Innovation

By innovation is meant an idea, practice, or product perceived as new by the individual or group for whom it is intended. A key notion in this definition is that an innovation is perceived as "new" by the individual. Even though it may or may not be "new" from the viewpoint of the inventor or even the change agent; if the individual perceives it as "new" it is for him an innovation.

The innovation being studied in this report is quite different from most innovations studied by previous adoption-diffusion researchers. Most prior research has dealt with innovations that were technical practices or products, not just ideas. Many of the innovations previously examined were related to economic factors, i.e., requiring an economic investment or expense by the adopter, often offering a promise of immediate economic reward. No such relationship to economic factors apply to this civil defense situation.

Also, adoption-diffusion researchers have usually dealt with technical innovations that are divisible, and lend themselves to trial amounts or periods. With such innovations adopters are able to try out a small amount of a product, or use a practice for a short period of time, before finally deciding to adopt the innovation. The innovation in this study, to use public fallout shelters in the event of nuclear attack, lacks this characteristic of divisibility.

### Adoption Unit

The adoption unit is the individual or group who makes the decision to adopt or not adopt an innovation. The adoption unit may vary by type of innovation, although the majority of innovations will require an individual decision to adopt. One might consider that even when the adoption unit is a group, such as a community decision to use fluorine, it is still individuals who make decisions within these multi-person units.

Because OCD may be dealing with a wide range of innovations, it is important to delineate who is the adoption unit for each of its innovations. In some cases the adoption unit may be an individual, such as a building owner, a doctor, a housewife, a head of household or a mayor. In other cases the adoption unit may be a group such as a school board, a county board of supervisors, a city council, or a hospital board.

The adoption unit can also be affected by an interplay between individual and group. Some innovations can be adopted by an individual regardless of the decisions of others in his group or social system, e.g., purchase emergency supplies. In other cases, an innovation cannot be adopted without the consent of a majority of members in the group, e.g., pass a bond issue for locally financed public fallout shelters. In the latter case an individual may wish to adopt the innovation but cannot do so until others act coordinatively with him.

#### Adoption as a Process

The adoption process is the mental process through which an individual passes from first hearing about an innovation to its final adoption. A study of the adoption of an innovation is essentially a study of individual decision making. When writers in the adoption-diffusion research tradition use the concept "Adoption Model" they are usually referring to the adoption process as described in the following paragraphs.

One may conceptualize an individual's decision to adopt an innovation as a process composed of stages. The adoption of a specific innovation is usually not the result of a single decision to act but rather the result of a series of more specific decisions and actions. By dividing the adoption process into stages it is possible for the change agent (OCD in this case) to assess the extent to which an individual has proceeded in his decision making about a specific innovation. It also makes it possible for the change agent to determine what kinds of appeals and information he needs to communicate, since individuals at different adoption stages usually need different kinds of information. Past researchers have most frequently divided the adoption process into five stages: (1) aware, (2) information, (3) evaluation, (4) trial and (5) adoption. It may be noted that these five stages begin to analyze behavior only after a person is aware of an idea. It is obvious that if the change agent wants to account for all the people in a social system there is another category of people, those unaware of the idea. However, major concern here is with the five stages from aware to adoption. Each of the stages is defined as follows:

### Aware 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.

### 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.

### 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.

### 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.

### 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.

## Chapter 3

## THE ADOPTION MODEL APPLIED TO A CIVIL DEFENSE INNOVATION

## Introduction

The purpose of this chapter is to operationalize, or apply, several of the abstract concepts of the adoption model discussed in the previous chapter to the real world of civil defense operations. The concepts operationalized are; innovation, adoption, adoption unit, and the adoption process or adoption stages. The empirical findings of this study are presented in the following chapter.

## Innovation

The first concept to be operationalized is innovation - an idea, practice, or product perceived as new by the individual or group for whom it is intended. Since 1961 a major civil defense program has been to license, mark, and stock public fallout shelters. Because of this, 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. This program of OCD has not involved a new product to be available for purchase by the public, nor has it involved a new product to be immediately used by the public. However, it does involve a new idea for the public, that of using public fallout shelters in the event of a nuclear attack.

Other OCD innovations which could be analyzed using an adoption-diffusion framework include such ideas, products, and practices as private fallout shelters and their use, medical self-help training, use of emergency hospitals, shelter management training, shelter utilization plans, licensing buildings, marking buildings, stocking buildings, establishing emergency operations centers, developing emergency operation plans, use of slanting techniques by architects, etc. Thus civil defense officials have been developing many innovations that they want to introduce into our society.

## Adoption

The second concept to be operationalized is adoption, the decision to accept the innovation. OCD is not interested in people purchasing space in

a public fallout shelter or agreeing to spend one weekend per year in a fallout shelter, but rather in accepting the idea to use a public fallout shelter in the event of a nuclear attack. Adoption in this study is therefore the symbolic adoption of an idea, the decision to go to a public fallout shelter in the event of a nuclear attack.

A detailed explanation of the operationalization of adoption is presented in the second section titled The Adoption Process, where the adoption stages are discussed.

#### Adoption Unit

The third concept to be operationalized is the adoption unit, the unit which has to make the decision to adopt or not adopt the innovation. The goal of the civil defense program is to have each individual adopt the idea of using a public fallout shelter in the event of a nuclear attack. Consequently, the adoption unit selected for interviewing in this study is the individual.

OCD is interested in having all individuals adopt the idea of using a public fallout shelter in the event of a nuclear attack, even though some individuals (and families) may have private fallout shelters. People with private shelters may not be in the vicinity of their fallout shelters if there is a nuclear attack and thus under these circumstances would need to use a public fallout shelter. Thus it is assumed that all individuals have a potential need for public fallout shelters if there is a nuclear attack.

#### Adoption Process

In this study the adoption process, the mental process through which an individual passes from first hearing about an innovation to its final adoption, has been operationalized into the five stages of adoption. An individual's stage of public fallout shelter adoption was determined by analyzing the individual's responses to a series of questions. The questions and methodology used to analyze the individual's responses to the public fallout shelter adoption stage questions are presented below. The question numbers referred to are the actual question numbers used in the interview schedule. The reader who is not interested in the specific criteria used to empirically define the



public fallout shelter stages of adoption may wish to proceed to the findings chapter for a brief definition of the public fallout shelter adoption stages and the number and percent of individuals in each adoption stage.

It should be pointed out that in analyzing the responses to this series of questions it is assumed that the adoption process is linear in nature. For example, for an individual to be in the Evaluation stage he has to have met the criteria of having gone through all the earlier stages.

Assigning an individual to one of the adoption stages is based on three considerations: (1) he must have "correctly" answered the set of questions for the adoption stage in which he is located, (2) he must have "incorrectly" answered the set of questions for the next immediate stage, and (3) he must have "correctly" answered the set of questions for each of the stages prior to the stage of adoption in which he is placed. The "correct" answer for each set of adoption stage questions is discussed below under the heading, analysing the responses.

Aware stage

Theoretical description of the 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 at this stage.

Operationalizing the stage: Five questions were used to determine if an individual was aware of the idea of using a public fallout shelter in the event of a nuclear attack:

- Q. 32. (Picture of public fallout shelter sign was shown the respondent.)  
Have you ever seen this sign posted on any buildings around here, that is, in your community, neighborhood, or city?
- YES (Ask B)  
NO (Ask A and B)  
DON'T KNOW (Ask A and B)
- Q. 32A. If no or don't know: Have you ever seen this sign posted on any building?
- YES (Ask B)  
NO (Ask B)  
DON'T KNOW (Ask B)
- Q. 32B. Ask everyone: What does this sign mean to you?
- IDENTIFIES IT AS RELATED TO FALLOUT SHELTERS  
DOES NOT IDENTIFY IT AS RELATED TO FALLOUT SHELTERS
- Q. 33. Have you ever seen or heard about any public fallout shelters around here, that is, in your community, neighborhood, or city, that will be available in case of nuclear attack?
- YES (Go to Q. 34)  
NO (Ask A)
- Q. 33A. Have you ever seen or heard about any public fallout shelters which will be available in case of nuclear attack, but which are located outside your community, neighborhood, or city?
- YES  
NO  
NOT APPLICABLE

Analyzing the responses: The key questions in this series of five are Q. 32, Q. 32B, and Q. 33.<sup>a</sup> To be considered in the Aware stage a respondent had to (1) either answer "yes" to both Q. 32 and Q. 32B, or "yes" to Q. 33, and (2) fail to "correctly" answer the Information stage questions, i.e., answer "no" to both additional information questions which meant the respondent was only aware of public fallout shelters, but had not obtained information about them. (See next page for Information stage question.)

The above methodology also delineates those respondents whose answers indicate that they are not aware of the idea of using public fallout shelters in the event of a nuclear attack. Such respondents are perceived as composing an Unaware stage. Thus, to be in the Unaware stage a respondent had to answer "no" to Q. 32, Q. 32B, and Q. 33.

---

<sup>a</sup>Q. 32 and Q. 33 are designed to measure the key dimension of awareness of the innovation at the local level, i.e., reference is made to "your community, neighborhood, or city." On the other hand, Q. 32A and Q. 33A are general questions, i.e., questions about any building or any public fallout shelter, not just those in the individual's local community, neighborhood, or city.

Information stage

Theoretical description of the 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.

Operationalizing the stage: Two questions were used to determine if an individual had additional information about the idea of using a public fallout shelter in the event of a nuclear attack:

Q. 34. Since you first heard about public fallout shelters, have you had any additional information about them?

YES

NO

DON'T KNOW

NOT APPLICABLE

Q. 35. Can you recall any specific buildings which have been selected as public fallout shelters?

YES

NO

DON'T KNOW

NOT APPLICABLE

Analyzing the responses:<sup>a</sup> Respondents were considered to be in the Information stage if; (1) they answered "yes" to either Q. 34 or Q. 35, (2) had answered the Aware stage questions "correctly," i.e., were aware of public fallout shelters, and (3) failed to "correctly" answer the Evaluation stage question, i.e., were not yet in the Evaluation stage with respect to public fallout shelters.

---

<sup>a</sup>Three other questions were related to the Information stage but were not used to operationalize the stage, Q. 36, Q. 36A, and Q. 37. Responses to these additional questions are presented in Chapter 4.

Evaluation stage

Theoretical description of the 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.

Operationalizing the stage: One question was used to determine if an individual had evaluated the idea of using a public fallout shelter in the event of a nuclear attack:

Q. 38. Have you ever thought at all about using a public fallout shelter in case of nuclear attack?

YES

NO

NOT APPLICABLE

Analyzing the responses:<sup>a</sup> Respondents were considered to be in the Evaluation stage if: (1) they answered "yes" to Q. 38, (2) had "correctly" answered the Aware stage questions and the Information stage questions, and (3) failed to "correctly" answer the Adoption stage question.

---

<sup>a</sup>Two other questions were related to the Evaluation stage but were not used to operationalize the stage, Q. 41 and Q. 42. Responses to these questions are presented in Chapter 4.

Trial stage

Theoretical description of the 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 situation.

Operationalizing the stage: Questions pertaining to the Trial stage were not included in the study for two reasons. First, the adoption idea being studied was a concept, i.e., was of a symbolic nature. Second, since licenses signed by building owners do not allow the use of public fallout shelters except in a nuclear attack, in most cases it is impossible for an individual to "try" a public fallout shelter.

Adoption stage

Theoretical description of the 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.

Operationalizing the stage: One question was used to determine if an individual had adopted the idea of using a public fallout shelter in the event of a nuclear attack:

- Q. 43. Which of the following statements best describes how you feel about the use of public fallout shelters if a nuclear attack occurs while you are at home (with your family)?

HAVE DECIDED NOT TO GO TO A PUBLIC FALLOUT SHELTER

HAVE CONSIDERED THE POSSIBILITY BUT HAVE MADE NO DECISION ABOUT GOING TO A PUBLIC FALLOUT SHELTER - UNDECIDED

HAVE DECIDED TO GO TO A PUBLIC FALLOUT SHELTER

HAVE NEVER CONSIDERED USING A PUBLIC FALLOUT SHELTER

Analyzing the responses:<sup>a</sup> Respondents were considered to be in the Adoption stage if: (1) they responded "Have decided to go to a public fallout shelter" in Q. 43 and (2) had "correctly" answered the Aware stage questions the Information stage questions, and the Evaluation stage questions.

---

<sup>a</sup>Two other questions were related to the Adoption stage but were not used to operationalize the stage, Q. 43A and Q. 44. Responses to these questions are presented in Chapter 4.





Chapter 4  
THE FINDINGS

Introduction

In this chapter findings pertaining to an individual's stage of public fallout shelter adoption are presented. These findings are presented in the following sections:

1. Public fallout shelter stage of adoption: 1966
  - A. Individual stage of adoption analysis
  - B. Cumulative stage of adoption analysis
2. Changes in public fallout shelter stages of adoption: 1966 vs. 1964
  - A. Comparison of individual stages of adoption
  - B. Comparison of cumulative stage of adoption
3. Frequency of responses to the entire series of the public fallout shelter adoption questions asked in the 1966 National Study, and
4. A summary of respondents' sources of public fallout shelter information.

Public Fallout Shelter Stage of Adoption 1966

Individual stage of adoption analysis

The number and percent of respondents in each public fallout shelter stage of adoption for the 1966 study are presented in Table 4.1.

Approximately one-sixth (16.2 percent) of the individuals were in the Adoption stage, i.e., they said they were aware of, had additional information about, had thought about, and had decided to go to a public fallout shelter if there was a nuclear attack. (See Adoption stage in Table 4.1.)

Approximately one-fifth (18.7 percent) of the individuals were in the Evaluation stage, i.e., they said they were aware of, had additional information about, and had thought about using a public fallout shelter if there was a nuclear attack, but did not say they had decided to go to a public fallout shelter if there was a nuclear attack. (See Evaluation stage in Table 4.1.)

Approximately one-fourth (24.4 percent) of the individuals were in the Information stage, i.e., they said they were aware of and had additional information about public fallout shelters but had not thought about using them in the case of a nuclear attack. (See Information stage in Table 4.1.)

Approximately one-fifth (19.8 percent) of the individuals were in the Aware stage, i.e., they said they were aware of public fallout shelters but that they did not have additional information about them. (See Aware stage in Table 4.1.)

The remaining one-fifth (20.8 percent) of the individuals were in the Unaware stage, i.e., they said they were not aware of the existence of public fallout shelters. (See Unaware stage in Table 4.1.)

Table 4.1. Public Fallout Shelter Stage of Adoption 1966.

Adoption Stages		Number	Percent
1. Unaware:	The respondent was <u>unaware</u> of the existence of any public fallout shelters	311	20.8
2. Aware:	The respondent was aware of public fallout shelters but did not have additional information about them	297	19.8
3. Information:	The respondent was aware of and had additional information about public fallout shelters but had not thought about using them	366	24.4
4. Evaluation:	The respondent was aware of and had additional information about public fallout shelters <u>and</u> said he had thought about using a public fallout shelter in case of nuclear attack <u>but</u> had not decided to go to a public fallout shelter if there was a nuclear attack	280	18.7
5. Adoption:	The respondent was aware of, had additional information about, had thought about, <u>and</u> said he had decided to go to a public fallout shelter if there was a nuclear attack	<u>243</u>	<u>16.2</u>
Totals		1,497	99.9

Cumulative stage of adoption analysis

The stages of adoption of public fallout shelters for 1966 are presented in a cumulative framework in Table 4.2.

In early 1966 (February and March) 79 percent of the National Study respondents were aware of public fallout shelters (see column 1; stages 2, 3, 4, and 5 in Table 4.2). Sixty percent of the study respondents had obtained additional information about public fallout shelters (see column 2; stages 3, 4, and 5 in Table 4.2).

Approximately 35 percent of the study respondents said they had thought about using a public fallout shelter in case of a nuclear attack (see column 3; stages 4 and 5 in Table 4.2).

And, as noted previously, approximately 16 percent of the respondents said they had decided to go to a public fallout shelter if there was a nuclear attack; and 21 percent were unaware of public fallout shelters.

Table 4.2. Cumulative Presentation of Public Fallout Shelters Stage of Adoption 1966.

Adoption Stages	Percent of Sample:			
	(1) <u>Aware of Public Fall- out Shelters</u>	(2) <u>With Ad- ditional In- formation About Public Fallout Shel- ters</u>	(3) <u>Had Thought About Using Public Fall- out Shelters: Evaluation</u>	(4) <u>Decided to Use Public Fallout Shelters: Adoption:</u>
1. Unaware				
2. Aware	79%			
3. Information		60%		
4. Evaluation	35%			
5. Adoption			16%	

## Changes in Public Fallout Shelter Stage of Adoption: 1966 vs. 1964

### Comparison of individual stages of adoption

A summary of the number and percent of respondents found in each public fallout shelter stage of adoption in the 1966 National Study and in the 1964 National Study is presented in Table 4.3.

There have been major changes in the percentage of respondents in the various public fallout shelter stages of adoption. In 1964, 45 percent of all respondents were unaware of public fallout shelters, whereas in 1966 only 21 percent of the respondents were unaware of public fallout shelters. This is a difference of 24 percent. In other words, the public's total awareness of public fallout shelters had increased from approximately 55 percent in 1964 to 79 percent in 1966. (Other cumulative comparisons between 1966 and 1964 are discussed in the next section of this report.)

The percentage of respondents in the Aware stage in the 1966 National Study was twice the number of respondents in the Aware stage in the 1964 study; 20 percent to 10 percent. The percentage of respondents in the Information stage had increased from 17 percent in the 1964 study to 24 percent in the 1966 study. The percentage of respondents in the Evaluation stage had almost doubled between 1964 to 1966; from 10 percent to 19 percent. However, when the percentage of respondents in the Adoption stage is compared there is essentially no difference between 1964 and 1966; 18 percent to 16 percent.

Thus, between 1964 and 1966, there has been essentially no change in the number of individuals in the Adoption stage, i.e., individuals who said they were aware of, had information about, had thought about, and had decided to go to a public fallout shelter if there was a nuclear attack. However, there were major changes in the number of individuals who were in the other stages of the adoption process. There were 9 percent more people at the Evaluation stage; 7 percent more people at the Information stage; and 10 percent more people at the Aware stage. The number of people in the Unaware stage had decreased 24 percent.

Table 4.3. Public Fallout Shelter Stage of Adoption: 1966 National Study Compared to 1964 National Study

Adoption Stages	1966		1964	
	No.	%	No.	%
Unaware	311	21	655	45
Aware	297	20	150	10
Information	366	24	243	17
Evaluation	280	19	150	10
Adoption	243	16	266	18

Comparison of cumulative stages of adoption

One can also compare the percentage change in the number of respondents in the stages of adoption from 1964 to 1966 on a cumulative basis. A comparison of the cumulative stage of adoption data from the 1964 and 1966 National studies is presented in Table 4.4 and briefly discussed below.

The public's total awareness of public fallout shelters increased from 55 percent in 1964 to 79 percent in 1966, for an increase of 24 percent. (See Aware stage in Table 4.4.)

The total number of respondents who have additional information about public fallout shelters increased from 45 percent to 60 percent between 1964 and 1966, for an increase of 15 percent. (See Information stage in Table 4.4.)

The total number of respondents who have thought about using public fallout shelters increased from 28 percent in 1964 to 35 percent in 1966, for an increase of 7 percent. (See Evaluation stage in Table 4.4.)

As noted earlier, the total number of respondents in the Adoption stage remained essentially the same in the two years, with a slight 2 percent decrease between 1964 and 1966. (See Adoption stage in Table 4.4.)

Table 4.4. Cumulative Public Fallout Shelter Stage of Adoption; Comparison of 1966 and 1964 National Studies.

Adoption Stage	Cumulative Percentage Totals		Percentage Change from 1964 to 1966
	1966	1964	
Unaware	21	45	24 percent decrease
Aware	79	55	24 percent increase
Information	60	45	15 percent increase
Evaluation	35	28	7 percent increase
Adoption	16	18	2 percent decrease

#### Frequency of Responses to Adoption Questions

The frequency distribution of actual responses to those questions asked in the 1966 National Study to analyze the public's awareness and adoption of public fallout shelters are presented in Tables 4.3 to 4.19. A summary of these questions and the responses to them is presented in Table 4.19.

Table 4.3. (Q. 32) Have you ever seen this sign posted on any buildings around here, that is, in your community, neighborhood or city? (Picture of public fallout shelter sign was shown the respondent)

Seen CD sign in local area	No.	% of 1497
Yes	863	57.6
No	596	39.8
Don't know	35	2.3
No answer	<u>3</u>	<u>0.1</u>
TOTAL	1497	99.9

More than one-half of the total respondents indicated that they had seen the public fallout shelter civil defense sign in their local area.

Table 4.4. (Q. 32A) (If no or don't know) Have you ever seen this sign posted on any building?

Seen CD sign somewhere	No.	% of 1497
Yes	201	13.4
No	406	27.1
Not applicable, had seen sign in local area	863	57.6
Don't know	21	1.4
No answer	<u>6</u>	<u>0.2</u>
TOTAL	1497	99.7

Of those respondents who had not seen the CD sign in their local area, about one-third indicated they had seen the CD sign elsewhere.

Table 4.5. (Q. 32B) (Ask everyone) What does this sign mean to you?

Meaning of CD sign	No.	% of 1497
Identifies it as related to fallout shelters	1023	68.3
Does not identify it as related to fallout shelters	472	31.5
No answer	<u>2</u>	<u>0.1</u>
TOTAL	1497	99.9

More than two-thirds of the total respondents were able to correctly identify the CD sign with fallout shelters.

Table 4.6. (Q. 33) Have you ever seen or heard about any public fallout shelters around here, that is, in your community, neighborhood, or city, that will be available in case of nuclear attack?

Knowledge of local public fallout shelters	No.	% of 1497
Yes	739	49.4
No	755	50.4
No answer	<u>3</u>	<u>0.1</u>
TOTAL	1497	99.9

There is nearly an equal number of respondents who indicated that they had seen or heard about public fallout shelters in their local area as who had indicated they had not seen or heard of them.

Table 4.7. (Q. 33A) (If no) Have you ever seen or heard about any public fallout shelters which will be available in case of nuclear attack, but which are located outside your community, neighborhood, or city?

Knowledge of public fallout shelters outside the local area	No.	% of 1497
Yes	413	27.6
No	342	22.8
Not applicable, knew of public fallout shelters in local area	739	49.4
No answer	<u>3</u>	<u>0.1</u>
TOTAL	1497	99.9

Of those who had not seen or heard about public fallout shelters in their local area, slightly more than one-half had seen or heard about public fallout shelters elsewhere which will be available in case of nuclear attack.



Table 4.8. (Q. 34) Since you first heard about public fallout shelters, have you had any additional information about them?

Additional information about public fallout shelters	No.	% of 1497
Yes	470	31.4
No	715	47.8
Not applicable*	268	17.9
Don't know	2	0.1
No answer	<u>42</u>	<u>2.8</u>
TOTAL	1497	100.0

Approximately one-third of all respondents said they had obtained additional information about public fallout shelters since they first heard of them.

Table 4.9. (Q. 35) Can you recall any specific buildings which have been selected as public fallout shelters?

Recalls specific building with public fallout shelters	No.	% of 1497
Yes	793	53.0
No	380	25.4
Not applicable*	268	17.9
Don't know	15	1.0
No answer	<u>41</u>	<u>2.7</u>
TOTAL	1497	100.0

Slightly over one-half of all respondents said they could recall a specific building (or buildings) which have been selected as public fallout shelters.

\*Questions 34-38 were not asked those respondents who did not identify the CD sign correctly and who had never seen or heard about public fallout shelters in their local area.

Table 4.10. (Q. 36) Have you been in any of the buildings in which public fallout shelters are located?

Has been in building with public fallout shelters	No.	% of 1497
Yes	723	48.3
No	461	30.8
Not applicable*	268	17.9
No answer	<u>45</u>	<u>3.0</u>
TOTAL	1497	100.0

Almost one-half of all respondents said they had been in the building (or buildings) in which public fallout shelters are located.

Table 4.11. (Q. 36A) Have you gone into the shelter area in any of these buildings?

Has gone into a shelter area	No.	% of 1497
Yes	240	16.0
No	477	31.9
Not applicable*	268	17.9
Not applicable, has not been in buildings with public fallout shelters	461	30.8
No answer	<u>51</u>	<u>3.4</u>
TOTAL	1497	100.0

Sixteen percent of all respondents said they had gone into the shelter area in some of these buildings.

\* Questions 34-38 were not asked those respondents who did not identify the CD sign correctly and who had never seen or heard about public fallout shelters in their local area.

Table 4.12. (Q. 37) Do you know of any public fallout shelters around here which have been stocked with supplies so people could live in them for a period of time in case of nuclear attack?

Knowledge of local fallout shelters stocked with supplies	No.	% of 1497
Yes	232	15.5
No	952	63.6
Not applicable*	268	17.9
No answer	<u>45</u>	<u>3.0</u>
TOTAL	1497	100.0

Approximately 16 percent of all respondents said they knew of public fallout shelters "around here" which have been stocked with supplies so people could live in them for a period of time in case of nuclear attack.

Table 4.13. (Q. 38) Have you ever thought at all about using a public fallout shelter in case of nuclear attack?

Thought about using public fallout shelter	No.	% of 1497
Yes	666	44.5
No	523	34.9
Not applicable*	268	17.9
No answer	<u>40</u>	<u>2.7</u>
TOTAL	1497	100.0

Approximately 45 percent of all respondents said they had thought about using a public fallout shelter in case of nuclear attack.

\* Questions 34-38 were not asked those respondents who did not identify the CD sign correctly and who had never seen or heard about public fallout shelters in their local area.

Table 4.14. (Q. 41) Have you ever discussed the possibility of using a public fallout shelter in case of nuclear attack with anyone in your household?

Discussed public fallout shelter with someone in the household	No.	% of 1497
Yes	365	24.4
No	702	46.9
Not applicable, not aware of public fallout shelters or lives alone	407	27.2
No answer	<u>23</u>	<u>1.5</u>
TOTAL	1497	100.0

One-fourth of all respondents indicated they had discussed the possibility of using a public fallout shelter in case of nuclear attack with someone in their household.

Table 4.15. (Q. 42) Have you ever discussed the possibility of using a public fallout shelter in case of nuclear attack with anyone else (not in your household)?

Discussed public fallout shelters with someone outside of household	No.	% of 1497
Yes	424	28.3
No	711	47.5
Not applicable, not aware of public fallout shelters	342	22.8
No answer	<u>20</u>	<u>1.3</u>
TOTAL	1497	99.9

Approximately 30 percent of all respondents said they had discussed the possibility of using a public fallout shelter with someone not in their household.

Table 4.16. (Q. 43) Which of the following statements best describes how you feel now about the use of public fallout shelters if a nuclear attack occurs while you are at home (with your family)?

Feelings about use of public fallout shelter if with family when attack occurs	No.	% of 1497
Have decided not to go to a public fallout shelter	113	7.5
Have considered the possibility but made no decision about going to a public fallout shelter - undecided	425	28.4
Have decided <u>to go to</u> a public fallout shelter	367	24.5*
Have never considered using a public fallout shelter	230	15.4
Not applicable, not aware of public fallout shelters	342	22.8
No answer	<u>20</u>	<u>1.3</u>
TOTAL	1497	99.9

Approximately one-fourth of all respondents indicated they had decided to go to a public fallout shelter; more than one-fourth were undecided. Less than one in thirteen had decided not to go to a public fallout shelter.

\*This percentage is higher than the percentage of respondents in the Adoption stage due to the logical screening process used to operationalize the Adoption stage, as described in Chapter 3. As the questions were asked in the interview situations, respondents who did not have additional information (Q. 34 and Q. 35), or who had not thought about using public fallout shelters (Q. 38) could have indicated they had decided to go to a public fallout shelter (Q. 43). Respondents who answered questions in this manner were not considered to be in the Adoption stage as operationalized in Chapter 3.

Table 4.17. (Q. 43A) If have decided to go to a public fallout shelter; Have you made any specific plans to get to a public fallout shelter in case of nuclear attack?

Specific plans to go to a public fallout shelter	No.	% of 1497
Yes	56	3.7
No	302	20.2
Not applicable, not aware of public fallout shelters	342	22.8
Not applicable, has not decided to go to a public fallout shelter	791	52.9
No answer	<u>6</u>	<u>0.4</u>
TOTAL	1497	100.0

Approximately 4 percent of all respondents said they had made specific plans to go to a public fallout shelter in case of nuclear attack.

Table 4.18. (Q. 44) What if (you) (the main earner) were at work when a nuclear attack occurred? Which of the following statements best describes what (you) (the main earner) would probably do?

Specific plans if at work when attack occurs	No.	% of 1497
Would go immediately to closest public fallout shelter	321	21.4
Would join the family at home and then go to a public fallout shelter	300	20.0
Go home to family and stay there	181	12.1
Family would go to place of work and then all would go to public fallout shelter	17	1.1
Family would meet at pre-designated public fallout shelter area	64	4.3
Other	127	8.5
Not applicable, not aware of public fallout shelters or lives alone	414	27.7
Don't know	41	2.7
No answer	<u>32</u>	<u>2.1</u>
TOTAL	1497	99.9

If at work when a nuclear attack occurs, about one-fifth indicated they would go to the closest public fallout shelter. Another one-fifth would go home first and then go to a public fallout shelter. More than one in ten would go home and stay there.

Table 4.19. Summary of Responses to Adoption Questions

Question	No. Respondents Answering Yes	% of Total
1. (Q.32) Seen CD sign <u>around here</u>	863	57.6
2. (Q.32A) Seen CD sign on <u>any</u> building	201	13.4
3. (Q.32B) Identified the CD sign	1023	68.3
4. (Q.33) Seen or heard about public fallout shelters <u>around here</u>	739	49.4
5. (Q.33A) Seen or heard about <u>any</u> public fallout shelters	413	27.6
6. (Q.34) Has had additional information about public fallout shelters	470	31.4
7. (Q.35) Can recall specific buildings selected as public fallout shelters	793	53.0
8. (Q.36) Has been in building with public fallout shelters	723	48.3
9. (Q.36A) Has gone into the sneiter area in some of these buildings	240	16.0
10. (Q.37) Knows of public fallout shelters <u>around here</u> stocked with supplies	232	15.5
11. (Q.38) Has thought about using a public fallout shelter	666	44.5
12. (Q.41) Has discussed possibility of using a public fallout shelter with someone in his (her) household	365	24.4
13. (Q.42) Has discussed the possibility of using a public fallout shelter with others (not in the household)	424	28.3
* * * * *		
14. (Q.43) Have decided not to go to a public fallout shelter	113	7.5
15. (Q.43) Undecided - no decision about going to a public fallout shelter	425	28.4
16. (Q.43) Have decided to go to a public fallout shelter	367	24.5
17. (Q.43) Have never considered using a public fallout shelter	230	15.4
18. (Q.43A) Has made specific plans to get to a public fallout shelter	56	3.7
* * * * *		

(Continued)

Table 4.19. (Continued)

Question	No. Respondents Answering Yes	% of Total
19. (Q.44) If at work, would go immediately to closest public fallout shelter	321	21.4
20. (Q.44) If at work, would join the family at home and then all would go to public fallout shelter	300	20.0
21. (Q.44) If at work, would go home to family and stay there	181	12.1
22. (Q.44) If at work family would go to place of work and then all would go to public fallout shelter	17	1.1
23. (Q.44) If at work, family would meet at pre-designated public fallout shelter	64	4.3

#### Respondents' Sources of Public Fallout Shelter Information

The various information sources used in learning about and/or obtaining information about public fallout shelters is summarized in Table 4.20. The table also shows the number of respondents who ranked each information source as the most useful source of information about public fallout shelters.



Table 4.20. Sources of Public Fallout Shelter Information

Source of Public Fallout Shelter Information	Sources Used			Most Useful Source		
	(1) Rank	(2) No.	(3) Percent of 1497	(1) Rank	(2) No.	(3) Percent of 1497
1. Meetings conducted by civil defense people	7	252	16.8	5	79	5.3
2. Pamphlets put out by the Office of Civil Defense	4	688	46.0	2	260	17.4
3. Television news and special programs	1	921	61.5	1	288	19.2
4. Radio news and special programs	3	745	49.8	4	87	5.8
5. Daily or weekly newspapers	2	818	54.6	3	128	8.6
6. Magazines	5	605	40.4	6	51	3.4
7. Talks or visits with personal friends, relatives, neighbors	6	512	34.2	9	37	2.5
8. Meetings conducted by organizations to which I belong	9	192	12.8	7	46	3.1
9. Visited a public fallout shelter	8	238	15.9	10	33	2.2
10. Have only seen a public fallout shelter sign, have not heard or read further	—	—	—	11	23	1.5
11. Other	10	86	5.7	8	38	2.5
Not applicable	—	—	—	—	342	22.8
Don't know	—	—	—	—	25	1.7
No answer	—	—	—	—	60	4.0
TOTAL					1497	100.0

Television news and special programs were indicated as both the most used and most useful source by the largest number of respondents. Newspapers were the second most used source; however OCD pamphlets were the second most useful information source.



## Chapter 5

## SUMMARY

The purpose of this report has been to analyze the public's progress in adopting the idea of using public fallout shelters in the event of a nuclear attack. The findings were based on data collected in February and March, 1966 as part of a national study sponsored by OCD. The number of respondents interviewed in this national study was 1,497.

The analytical framework used (individual adoption behavior) was similar to one used in two prior civil defense adoption studies. The adoption process was divided into five stages: Unaware, Aware, Information, Evaluation, and Adoption. The adoption process was operationalized with a series of questions which was designed to determine the extent to which respondents had adopted the idea of using public fallout shelters in case of nuclear attack.

The distribution of respondents in the five stages of adoption of public fallout shelters was as follows: 21% of the respondents were in the Unaware stage, i.e., they were not aware of the existence of public fallout shelters; 20% of the respondents were in the Aware stage, i.e., they were aware of public fallout shelters but did not have additional information about them; 24% of the respondents were in the Information stage, i.e., they were aware of and had additional information about public fallout shelters but had not thought about using them in the event of a nuclear attack; 19% of the respondents were in the Evaluation stage; i.e., they were aware of, had additional information about, had thought about using a public fallout shelter, but did not say they had decided to go to a public fallout shelter if there was a nuclear attack; 16% of the respondents were in the Adoption stage, i.e., they were aware of, had additional information about, had thought about, and had decided to go to a public fallout shelter if there was a nuclear attack. (See Table 4.1)

The adoption stage findings from the 1966 National Study are also presented in a cumulative framework: 79% of the total respondents were aware of a public fallout shelter; 60% of the total respondents had obtained additional information about public fallout shelters; and 35% of the total respondents had thought about using public fallout shelters. The percent of respondents in the Unaware stage and Adoption stage remains the same in the cumulative framework; 21% and 16% respectively. (See Table 4.2)

The above 1966 OCD National Study findings are contrasted with the findings from the 1964 OCD National Study. (See Table 4.3 and Table 4.4.)

The report included a presentation of the frequency of response to each of the 16 adoption questions used in the 1966 National Study. (See tables 4.3 - 4.17) These responses are summarized in Table 4.19.

Finally the sources of public fallout shelter information used by the respondents and the information sources found most useful are presented in Table 4.20. Television news and special programs were indicated as both the most used and the most useful source by the largest number of respondents. Newspapers were the second most used source. However, OCD pamphlets ranked second in the most useful category.

DISTRIBUTION LIST

Contract No. OCD-PS-65-9, Work Unit 4811D  
Iowa State University of  
Science and Technology, Ames, Iowa.

Address

U. S. Naval Civil Engineering Laboratory  
Attn: Library  
Port Hueneme, California 93041

Division of Health Mobilization  
Department of Health, Education and Welfare  
Research Branch  
Washington, D.C. 20201  
Attn: Principal Investigator OCD Contracts  
OCD-OS-62-33; 62-130

U. S. Naval Radiological Defense Laboratory  
San Francisco, California 94135  
Attn: Principal Investigator OCD Contracts  
OCD-OS-62-40; 62-212; OCD-PS-64-28  
ODM-SE-59-54

American Institute of Research  
410 Amberson Avenue  
Pittsburgh, Pennsylvania 15232  
Attn: Principal Investigator OCD Contracts  
OCD-OS-64-57, OCD-OS-63-97, OCD-OS-62-164

System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California  
Attn: Principal Investigator  
OCD Contracts OCD-OS-62-14; 62-186; 62-129

Stanford Research Institute  
Menlo Park, California 94025  
Attn: Mr. Rogers Cannell  
Director, Emergency Planning Research  
Center, Management Sciences Division

Hudson Institute Inc.  
Quaker Ridge Road  
Harmon-On-Hudson, New York 10520  
Attn: Dr. William Brown

Human Sciences Research, Inc.  
Westgate Research Park  
Post Office Drawer 370  
McLean, Virginia 22101

University of Pittsburgh  
Research Office of Sociology  
Pittsburgh, Pennsylvania 15213  
Attn: Dr. Jiri Nehnevajsa

Address

Office of Civil Defense  
Office of the Secretary of the Army  
Washington, D.C. 20310  
Attn: Ass't Director of Civil Defense  
(research)

Office of the Adjutant General  
Department of the Army  
Washington, D.C. 20310

Assistant Secretary of the Army (R&D)  
Washington, D.C. 20310  
Attn: Assistant for Research

Chief, Naval Research (Code 104)  
Department of the Navy  
Washington, D.C. 20360

Chief, Bureau of Naval Weapons  
(Code RRRE-5) Department of the Navy,  
Washington, D.C. 20360

Chief, Bureau of Medicine & Surgery  
Department of the Navy  
Washington, D.C. 20390

Chief, Bureau of Supplies & Accounts  
(Code L12)  
Department of the Navy  
Washington, D.C. 20360

Chief, Bureau of Yards & Docks  
Office of Research (Code 74)  
Department of the Navy  
Washington, D.C. 20390

Institute for Defense Analyses  
400 Army-Navy Drive  
Arlington, Virginia 22202  
Attn: Mr. Samuel E. Eastman

Michigan State University  
Department of Communication  
College of Communication Arts  
Michigan State University  
East Lansing, Michigan  
Attn: Dr. David K. Berlo

Research Triangle Institute  
Post Office Box 490  
Durham, North Carolina 27702  
Attn: Dr. Edgar A. Parsons

Advisory Committee on Civil Defense  
National Academy of Sciences  
2101 Constitution Avenue, NW  
Washington, D.C. 20418  
Attn: Mr. Richard Park

Defense Documentation Center  
Cameron Station  
Alexandria, Virginia 22314

Chief, Bureau of Naval Weapons  
(Code R-5)  
Department of the Navy  
Washington 25, D.C.

Chief Naval Operations  
(Op. 07T10)  
Department of the Navy  
Washington 25, D.C.

Chief of Naval Personnel  
(Code Pers 15)  
Department of the Navy  
Washington 25, D.C.

Col. J. D. Yates  
Project Coordinator  
The Simulmatics Corporation  
46 Cotswald Road  
Brookline, Massachusetts 02146

Ohio State University  
Disaster Research Center  
404 E. West 17th Avenue  
Columbus 10, Ohio

Applied Psychological Services  
Science Center  
Wayne, Pennsylvania  
Attn: Dr. Arthur I. Siegel

National League of Cities  
City Bldg. 1612 K Street  
Washington, D.C. 20006  
Attn: Principal Investigator OCD  
Contract OCD-PS-64-52

Oak Ridge National Laboratory  
Post Office Box X  
Oak Ridge, Tennessee 37831  
Attn: Dr. Davis Bobrow  
OCD Project 4114A

Unclassified

Security Classification

DOCUMENT CONTROL DATA - R&D		
<i>(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)</i>		
1 ORIGINATING AGENCY (Corporate author) Department of Sociology and Anthropology Iowa Agricultural and Home Economics Experiment Station, Iowa State University, Ames, Iowa		2a REPORT SECURITY CLASSIFICATION Unclassified
		2b GROUP
3 REPORT TITLE ADOPTION OF PUBLIC FALLOUT SHELTERS A 1966 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., Bohlen, Joe M., and Coward Jr., E. Walter		
6 REPORT DATE 1966	7a TOTAL NO OF PAGES 38	7b NO OF REFS 2
8a CONTRACT OR GRANT NO OCD-PS-65-9	9a ORIGINATOR'S REPORT NUMBER(S) Rural Sociology Report Number 54	
b PROJECT NO (Subtask) 4811-D		
c Systems Evaluation Division		
d OCD Research Directorate	9b OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
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 evaluate the public's progress in <u>adopting the idea of using public fallout shelters</u> in the case of nuclear attack. The analysis is based on findings from the 1966 OCD National Survey of 1497 respondents. Respondents are assigned to one of five adoption stages; Unaware stage, Aware stage, Information stage, Evaluation stage and Adoption stage. The findings: In the early part of 1966 21% of the respondents were unaware of the existence of public fallout shelters (Unaware stage); 20% were aware of public fallout shelters but had no additional information about them (Aware stage); 24% were aware of and had additional information about public fallout shelters but had not thought about using them (Information stage); 19% 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); and 16% 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. The findings from the 1966 OCD National Study were compared with findings from the 1964 OCD National Study.		

KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Innovation						
Adoption unit						
Adoption process						
Unaware stage						
Aware stage						
Information stage						
Evaluation stage						
Trial stage						
Adoption stage						
Sources of information						
1966 National Study						
1964 National 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.