

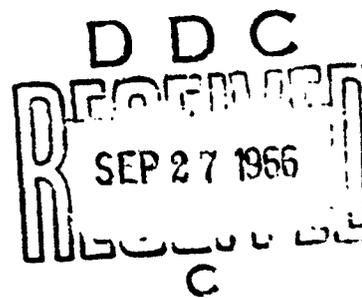
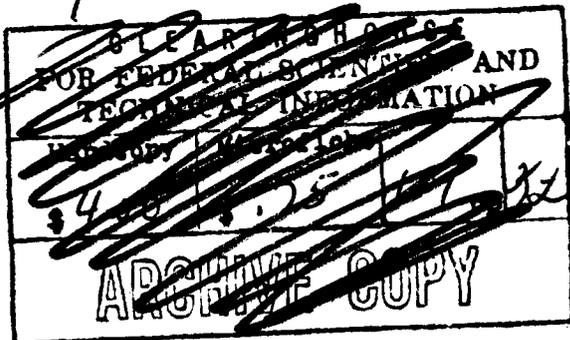
DEPARTMENT OF SOCIOLOGY
UNIVERSITY OF PITTSBURGH

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THE IMPACT OF
CIVIL DEFENSE INFORMATION I:
AN EXAMINATION OF
INFORMATION LEVELS

BY

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OFFICE OF THE SECRETARY OF THE ARMY

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This report is one in a series of impact reports examining the impact of civil defense on American society. These analyses include data from studies available at the Civil Defense Data Bank maintained by the Research Office of Sociology, and by an ongoing content analysis of all major propositions and arguments bearing on civil defense systems, their implementation and postulated impact on society.

The present report examines levels of information about civil defense and related issues, from the point of view of Americans' estimates of the amount of information they possess, and their levels of information as measured by responses to questions of fact. The University of Pittsburgh December 1963-January 1964 Foreign Affairs and Civil Defense survey is the only study available which explored the amount of information people feel they possess; for this reason it provides one of the major data sources for the following report.

THE IMPACT OF CIVIL DEFENSE INFORMATION I:
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SUMMARY OF THE REPORT

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REPORT SUMMARY

This report examines the impact of civil defense information on the American people in terms of levels of information. The basis for our examination is the University of Pittsburgh December, 1963 national block sample of 1402 Americans, in which respondents were asked to evaluate their own levels of information about civil defense in America, the cold war issue, the effects of nuclear weapons, and arms control and disarmament efforts.

The subjective levels of information, and levels of information which were determined objectively by other researchers, are analyzed by selected demographic and personal characteristics, and evaluations of current and expectations about future states of affairs are examined for each subjective information issue. This is an attempt to determine if those whose personal characteristics differ differ in their subjective levels of information; if those who have different subjective levels of information differ in their evaluations and expectations; and if the characteristics by which we describe subjective levels of information are compatible with those used by others who have measured levels of information objectively.

While a relationship does exist among the four subjective information issues, it is far from perfect, which would indicate that civil defense, cold war, weapons effect, and arms control are considered to be distinct areas of information, each related to the others, but not dependent upon them. This finding is consistent with the objective information level research.

The following is a summary of our findings for the subjective levels of information about civil defense. Our study shows that some differences do exist between those who feel they have high civil defense information and those who feel they have high information about the three related issues. Where data is available objective levels of information as measured by other researchers are compared with our subjective findings, and the objective and subjective measures are found to be compatible.

In attempting to describe the subjective levels of civil defense information in terms of location in the broad social structure, we have selected a variety of demographic and personal characteristics of respondents, grouping them into residence, personal and family, and socio-economic categories.

Residence: The residence characteristics include: region of the United States as defined by United States Census Bureau divisions, size of sampling unit and home ownership.

Sampling region appears to be a factor involved in describing the various subjective levels of information about civil defense. The largest high subjective civil defense level groups are located in the West South Central (Civil Defense Region 5 with the exception of New Mexico), the North East, East South Central, and South Atlantic (Civil Defense Regions 1, 2 with the exception of Ohio, and 3).

At the high and medium subjective information levels, the size of the sampling unit appears to be a factor. More metropolitan area residents feel they have high civil defense information, while more non-metropolitan residents have medium subjective civil defense information. Our data indicates that those who rent their home consider themselves to be better informed about civil defense than those who are home owners; however, this factor may be a reflection of sampling unit size or other factors.

Personal and Family Characteristics: Among the personal and family characteristics are: sex, age, strength of religious belief, race, marital status, and age of respondents' children.

Those who tend to feel they are better informed about civil defense are: men, under 40 years of age, strong in their religious beliefs, Negro, and never married or married with children under 12 years of age. What appears to be a paradox in our findings regarding race, and the inconsistency between subjective civil defense information and both our findings on the related issues, and the objective racial finding of others may be explained by such factors as a greater proportion of metropolitan residents, more home renters, stronger religious belief, and younger mean age among Negro respondents.

Socio-Economic Indicators: The factors which are included as socio-economic indicators are: education, income, and perceived social class.

Our findings show that of the four information issues, years of schooling make the least difference in respondents' evaluations of their subjective level of civil defense information. While our findings generally indicate that with increased education there is an increase in subjective information level, there are slightly fewer high school graduates than those with some high school at the high subjective civil defense information level, and those with some high school do not differ appreciably from those with some college. Thus, education may be considered to be less important a factor in describing subjective civil defense information levels than it is for other subjective information issues, or for objective measures.

Those whose family income exceeds \$15,000 feel they have the lowest levels of civil defense information, and those whose income is under \$5,000 very closely resemble the high income group. Between these two extremes of earning power, those in the \$7,500-\$9,999 bracket tend to be somewhat more inclined to feel they have high or low civil defense information than the \$5,000-\$7,499 or the \$10,000-\$14,999 groups. Fewest of those who earn \$10,000-\$14,999 have low subjective civil defense information. The differences in subjective civil defense information levels by income are such that the two extremes of income tend to be the groups that feel they have the least information.

Those who perceive themselves as being members of the middle class tend to feel they have more civil defense information than do those in the working class. The number of cases in the lower and upper classes is too small to allow for meaningful comparisons among the four social classes, however the lower class tends more than any other to feel its level of information is low, and the upper class tends more than any other to feel its level of information is high. These two groups are less inclined than are the working or middle class to have a medium subjective level of civil defense information.

In attempting to determine whether or not there are differences between subjective information issues in the evaluations of current conditions and the expectations about future states of affairs, we include appraisals of the level of world tensions, expectations in terms of likelihoods, evaluations in terms of desirabilities, and two specific items -- the present warning system and the effects of a nuclear war.

Levels of World Tension: The level of world tension was appraised at four points in time, two years ago (1961), the present (1963), two years from now (1965) and five years from now (1968). Our findings indicate that as the subjective level of civil defense information increases, there is a tendency to evaluate the level of world tension in the past and present as high and a slight tendency to expect it to remain high in the future. Those with high subjective civil defense information, when compared with high subjective information level respondents on the other three issues, tend to feel that the past tension level was lower, but it is higher at present, and will continue to be higher.

Likelihoods: The likelihood of a nuclear war, the likelihood of disarmament with adequate controls, and the likelihood of the cold war futures are included in expectations.

A nuclear war in the next five years is considered to be less unlikely by those with high subjective levels of civil defense information than it is by the other two information groups. Those with low and medium subjective civil defense information levels exhibit no real differences in their expectation of nuclear war.

As the subjective civil defense information increases, there is a tendency to feel that disarmament with adequate controls is likely. Those with high subjective civil defense information are less inclined to feel that this would be an unlikely occurrence than are the other two subjective information groups.

As the subjective level of civil defense information increases, there is a decrease in the expectation that the cold war will last indefinitely, and an increase in the expectation that the most likely end will be World War III, resulting in such destruction that it makes no sense to talk of winners or losers.

Desirabilities: The most personally desirable of the cold war futures, and the desirability of six civil defense alternatives are included in our evaluations. In evaluating the cold war futures, as the subjective level of civil defense information increases, there is a slight increase in the proportion of respondents who feel disarmament is most desirable, there is an increase in the proportion who want a Third Force to emerge, and there is a decrease in the proportion who most desire the Communists to have to surrender without war.

Each of sheltering alternatives (CD-1 - CD-5) are felt to be desirable by more, and undesirable by less, of those with a medium subjective level of civil defense information. As the subjective level of information increases the desirability of CD-6 (there will be no shelters because nuclear war will be impossible) decreases and its undesirability increases.

Two Specific Items: Evaluations of the present warning system and expectations about the effect of a nuclear war provide our final view of the differences between different subjective levels of civil defense information.

As the subjective level of civil defense information increases, the proportion of "very good" evaluations of the present warning system increases, and the proportion of respondents who don't know or don't answer decreases. Those who feel they have medium civil defense information are more inclined to feel the warning system is good, while those with low subjective civil defense information tend to evaluate the warning system as poor.

As the subjective level of civil defense information increases, there is a tendency for people to expect that a nuclear war will have a less devastating effect. That is, with increased subjective civil defense information, there is a decrease in the feeling that nuclear war would mean either the end of the world and all life on it, or that it would mean the end of civilization as we know it. On the other hand, there is an increase in the proportions who feel that the people in the United States would make the best of the situation, and that it would be possible to survive as a nation.

One final question remains: What are some of the practical implications of this report? If our findings give an accurate picture of the American people, and we have no reason to believe that they do not, then they contain implications for civil defense policy and programs as they relate to public information.

Many of the arguments against civil defense, as presented in The Civil Defense Discourse, and many of the assertions made by critics of civil defense, involve statements regarding the effect of civil defense on the American people, and the effectiveness of civil defense programs.

Our findings have shown that in general the American people give a fairly accurate estimate of the amount of information they possess, and this allows us to say:

We find no support for the arguments and assertions that civil defense appeals to only a limited number of people, and that the majority of Americans don't really know or care.

Civil Defense information, according to our findings, has had an impact on a broad spectrum of the American people -- women as well as men, Negroes as well as non-Negroes, those at all but the lowest level of education, those at all levels of income. Two out of three Americans feel they have medium or high civil defense information. However, we have no way of knowing whether or not the information they possess is accurate.

Those upon whom civil defense information has had its greatest impact, might be thought of as those who have the greatest stake in the future. They are younger Americans who have determined their life goals, planned for their futures, started their families, either during wartime or under the threat of nuclear warfare.

We find no support for the arguments or assertions that civil defense might make people more anxious, pessimistic, or aggressive.

That civil defense information has had greater impact on those who consider the world situation more tense, and have a greater anticipation of war, may indicate that that these outlooks have made them more receptive to all information about civil defense.

Those who feel they have more civil defense information, have a greater optimism about the future than do those who think they have less information. They are more inclined to anticipate that the cold war will end; while they do not feel that a nuclear war is unlikely, they feel that disarmament with adequate controls is more likely. In addition, should a nuclear war occur, they are more optimistic about the chances for national survival. Of course, we are not asserting that optimism regarding the consequences of thermonuclear warfare is sound. Indeed, the reality might turn out to be worse than the more pessimistic anticipations of the pessimists. Yet, optimistic perceptions of the future do make it easier to cope with both the present and the future, and thus are a more desirable characteristic on the part of our population than would be corresponding pessimistic views of life. Effective planning and effective preparatory action certainly become more feasible in a climate of national optimism, even if it were ill-founded, than if Americans were to expect the worst and saw no means to affect the future of their families and their country.

Those upon whom civil defense information has had the greatest impact are less inclined to want World War III, or a situation in which the Communists must surrender because of United States technological supremacy. They favor all shelter programs, and seem to feel that it is less desirable to have no shelter program.

It must be kept in mind that this report deals with subjective levels of information. We do not claim to know whether respondents have received the knowledge upon which they base their subjective evaluations from official sources, unofficial "factual" sources, or fictionalized presentations. Nor do we know whether respondents base their evaluations on accurate information or misinformation. These two considerations will form the basis for our second and third reports on the impact of civil defense information and seriously limit the possibility of making specific recommendations at this time.

Nonetheless, some statements can be made on the basis of our findings:

- (a) Civil defense programs have a high desirability to Americans regardless of the level of information which they claim to have about civil defense,

weapons effect, or the cold war situation in general. Thus, it follows that there is little, if any, need to attempt to convince the American people that civil defense measures are desirable or warranted: there is little, if any, need to attempt to "sell" civil defense as such.

- (b) Since people with higher subjective information about civil defense actually turn out to be more optimistic about the future than are those with less information, whatever communications might be disseminated to our public, there is little, if any, reason to suspect that our people would become overly anxious, worried or pessimistic. This implies, of course, that civil defense messages can afford complete frankness in depicting to the nation both the promise and the limitations of protective measures.
- (c) Our analysis does not, at this time, sort out people whose information, regardless of its amount, is technically sound from those who labor under misinformation of various kinds. While the more forceful recommendation along these lines must await our subsequent analysis of the data, this would indicate that the fundamentally favorable perceptions of civil defense are not detrimentally affected by misinformation such as has often been publicized in the mass media or in fiction concerning nuclear warfare and its aftermath.

This conclusion may be stated tentatively because it is safe to assume that among the respondents who claim to be quite well informed, there must be -- just probabilistically speaking -- a good number of Americans whose information is high in quantity but low in (technical) accuracy or even (technical) relevance. This would mean, of course, that any publicity concerning civil defense, even publicity intended to have the opposite effect, has either desirable effects for civil defense or, at least, has no negative effects to speak of.

An informed public is an important aspect of the civil defense program and an essential in achieving its objectives. It is hoped that this research makes some contribution to understanding the population upon which civil defense information has had an impact.

THE OBJECTIVES OF IMPACTS RESEARCH

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

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

Research on the impact of Civil Defense on society must address itself to the specification of these fundamental questions and to provision of responsible answers within the constraints of available information and methodologies. Where present information and methodologies are not adequate this must be spelled out and criteria established for the development of future studies as may be required. An innovation of the magnitude of a comprehensive Civil Defense program will have definite and pervasive consequences for the individual as well as the larger society as, indeed, does any major effort on behalf of the public welfare. It will not be possible to determine fully all possible and probable effects of the proposal, introduction and implementation of a variety of alternative CD systems with existing social science techniques and methodologies. But, within these limits, some answers can be provided and the boundaries of our ignorance delineated.

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

1. What is the nature of the public controversy centered around Civil Defense and related Cold War issues?

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

THE METHODOLOGY OF IMPACTS RESEARCH

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

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

Content Analysis. For a five year publication period, an extensive literature search was made in professional and lay journals, books, etc., to extract all major propositions and arguments bearing on Civil Defense systems, their implementation and postulated impact on society. Specific propositional statements concerning Civil Defense and its possible relation to American traits and values were abstracted and codified. These formed the base of the opposition-acceptance paradigm of the final report, Civil Defense and Society. In addition to the examination of the available literature, an ongoing compilation of news and editorial content of a number of American newspapers is being conducted on all aspects of Civil Defense, the Cold War, and military technology.

Survey Research. The Data Bank of the Research Office of Sociology contains some 400 study references and approximately 300,000 IBM punch cards from surveys containing material of interest to impacts research. In addition to OCD sponsored studies, this file includes material dating back to the nineteen-forties from surveys conducted by the American Institute of Public Opinion,

the National Opinion Research Center, the University of Minnesota and others. This material is essential for assessment of the direct impact of issues, events and programs on the American public. The range and scope of the data available permit a wide range of analysis both over time and topic.

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

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CIVIL DEFENSE AND INFORMATION: A FRAME OF REFERENCE

The business of civil defense is survival. This entails activities designed to protect the lives and property of the American people in the event of attack, and to improve the circumstances and opportunities for surviving a nuclear attack upon the United States.¹ The acceptability of this goal has not been disputed, either by the nation's elected decision makers or by the larger body politic, as has been documented in Civil Defense and Society² and The Civil Defense Discourse.³

Civil defense has been a fact of American life at least since the beginning of World War II, and a law of the land for some 15 years--since Congress issued its mandate to provide the country with systems to insure the minimization of damage to life and property under conditions of attack. Over the years, specific civil defense programs have taken various forms, based on most effectively achieving the survival goal in the light of the weapons and the weapon delivery systems which might be used in an attack. During World War II, attack upon the United States would have involved the use of conventional weapons delivered by naval forces or aircraft at relatively close range and targeted primarily by visual sighting. Such measures as the "black-out" were considered to insure maximum survivorship by decreasing the accuracy of target identification. In the late 1940's and early 1950's, when nuclear weapons could have been expected to be delivered by conventional aircraft, a warning time of several hours was possible before the actual attack; the widespread problems of fallout were virtually unknown; the evacuation of potential target areas was considered to be an appropriate civil defense measure.⁴

¹ Office of Civil Defense Program Summary, Department of Defense, Office of Civil Defense, November, 1965.

² Jiri Nehnevajsa, et al., Civil Defense and Society, University of Pittsburgh, Department of Sociology, July, 1964, pp. 28-29.

³ Jiri Nehnevajsa, The Civil Defense Discourse, University of Pittsburgh, Research Office of Sociology, February, 1966.

⁴ Dean Breilis, Run, Dig or Stay? Boston: Beacon Press, 1962, pp. 6-7.

As the destructive potential of nuclear and thermonuclear weapons increased, and the possible warning time decreased to less than half an hour, other means had to be found to provide the maximum opportunities for achieving the civil defense objective. The problems involved in civil defense of the mid-1960's include not only surviving an attack itself, but coping with such effects as radiation and fallout, and maximizing the opportunities to survive in a hostile post-attack environment. The effects of an attack potentially could be felt, at least to some extent, by the entire country, and the whole population.

Civil defense is, so to speak, a last line of defense. Should the United States fail at the bargaining table, and/or should we become involved in a nuclear exchange, civil, as well as military defense programs will become operative. If we differentiate civil defense from the military, then we may say that the civil defense is a passive defense system, as opposed to such active defenses as the Strategic Retaliatory, and Continental Air and Missile Defense Forces. It would be possible to achieve the civil defense objective, while at the same time lose in an accompanying military effort; the converse might hold true, as well.

The current Civil Defense Program effort appears to have two basic components:

1. To provide the tools for survivorship -- warning systems; shelter facilities; emergency command, control and communications systems.
2. To train, educate and inform the population and special groups within the population.

The necessity for the latter activity is explained in the Office of Civil Defense 1966 Program Summary:

"It is essential that the civil defense program have some public support and the understanding and active support of the officials at all levels of government who are responsible for taking action in time of emergency. Without the active support and participation of these officials, public understanding and support will be lacking, and the objective of the civil defense program will not be achieved."⁵

⁵

Office of Civil Defense Program Summary, op.cit., p. 28.

Public understanding of civil defense is important on several levels. In order to provide the tools of survivorship, the public must understand what it is being asked to do: allocate funds for civil defense programs on the local, state and federal levels, provide sheltering space within private as well as public buildings, etc. On another level, whatever the tools for survivorship are, they cannot be effective unless they are used, and they cannot be used unless the population knows of their existence. We can assume that the behavior of the population under conditions for which it has no precedent for action, will be more predictable if that population is informed than if it is uninformed. For example, individuals who know the location of the nearest fallout shelter and know that it has been stocked, might be more prone to seek shelter than those who do not have this information. Or, those who are informed about the effects of light, heat, and flying debris might be more inclined to take cover in any available building as an alternative to the risk of being out-of-doors during a nuclear blast.

In any examination of civil defense information, the researcher is confronted by a variety of problems and alternative solutions. As has been pointed out by a variety of studies⁶ the public does not appear to have given very much thorough objective thought to civil defense programs, nor does it seem possible to predict responses to specific questions about shelters, fallout and radiation on the basis of accurate responses to other questions.

It is almost impossible, and perhaps undesirable, to isolate civil defense information from the other issues to which it is related. When we speak of civil defense, we are referring to specific non-military programs designed for minimizing the hazards of an enemy attack. These programs, however, are designed to meet the challenge of specific kinds of weapons and their effects -- civil defense against what? Information about weapons and weapons effect is closely related to the cold war issue in that one of our major concerns is who has the capability of attack and what is their relationship to the United States, what are the chances of the cold war turning hot? At this level, we turn to questions involving decreasing the chances of nuclear warfare -- arms control and disarmament efforts. The central issue is one of

⁶

For example:

Martha Willis Anderson, The 1964 Civil Defense Postures: Public Response, University of Pittsburgh, Department of Sociology, August, 1965.

David K. Berlo, et al., The Fallout Protection Booklet (I), Michigan State University, Department of Communication, April, 1963.

nuclear and thermonuclear warfare, the implications of which are too horrible to face.⁷ The concept of civil defense involves an "if" -- while the perceived likelihood of a major war has been declining over the years,⁸ some 95% of the population feel that nuclear weapons would be used, should war occur.⁹ At the present juncture, the American people feel that civil defense is a desirable and valuable effort.¹⁰

While Americans seem to feel that the United States can successfully defend itself against a nuclear missile attack,¹¹ and that most people in the government are really interested in the problems of the average man,¹² they seem to recognize the citizen's role in civil defense as being an important one. University of Michigan researchers found in 1956 that only 8.5% felt that civil defense was somebody else's job, a government responsibility, while 55.3% deemed it a citizen and volunteer job.¹³ Withey reports that in late 1961, the climate of opinion about who should do most about the safety of the people and important community resources was that 27% felt this was primarily their responsibility, as groups and individuals. An additional 13% felt they should take this responsibility, but assigned primary responsibility to their Federal, State and City governments.¹⁴

⁷ Herman Kahn, Thinking about the Unthinkable, New York: Horizon Press, 1962, pp. 18-19.

⁸ Jiri Nehnevajsa, The Civil Defense Discourse, op. cit., p. 25, footnote 2.

⁹ 1964 Civil Defense Survey, University of Pittsburgh. 5.1% of the national probability sample thought that should war occur, no nuclear weapons would be used.

¹⁰ Martha W. Anderson, op. cit., pp. 69-71

¹¹ Jiri Nehnevajsa, Civil Defense and Society, op. cit., p. 456, (BASR Fallout Shelter Study, Columbia University, August 1963, p. 82.

¹² Ibid., p. 434 (BASR Fallout Shelter Study, p. 89).

¹³ Ibid., p. 444 (University of Michigan, No. 418, 1956). (unpublished)

¹⁴ Ibid., p. 444 (The U.S. and the U.S.S.R., University of Michigan, March, 1962, p. 38).

Within this framework -- the undesirability of nuclear war, and the unthinkable consequences of an attack upon the United States, the desirability of civil defense programs and planning in the event that such a war should occur, and the recognition that the individual has a role in civil defense -- we move to the question, how much does the population know about civil defense. American attitudes toward and opinions about civil defense are based, at least in part, on the information or misinformation which they have about civil defense and the other issues related to it, and these attitudes and opinions may be the basis of support or rejection of civil defense programs. The public's knowledge also may contribute to the success of civil defense, should it be put to the final test.

Thus, we are interested in several aspects of public knowledge about civil defense and the matters related to it -- we are interested in information, the communication and reception of knowledge, in several ways.

First, we are interested in determining the current level of civil defense information and the population's own perception of its level of information. How does the level of information about civil defense compare with the level of information about other issues? Do those with higher levels of civil defense information differ from those with lower civil defense information levels, and what are the characteristics of people who have different levels of information? Is there a relationship between the objective level of information, measured by responses to specific questions, and the subjective information level, based on how well informed people think they are about an issue? These questions form the basis of our first impact of civil defense information report: An examination of information levels.

Second, we are concerned about sources of current information and resources for information in the event of attack. How, and from whom have people acquired the civil defense information they currently have? Which media of communications have been most widely used? Which authorities are considered to be most influential, and most credible? In the event of an attack, how do people expect to hear about it, and where will they turn for information about what they should do? These are the kind of questions to be examined in the second impact of civil defense information report: An examination of information sources and resources.

Third, an examination of specific informational items dealing with civil defense shelter and warning programs, and other relevant matters, such as weapons effects and active defense

systems, may prove fruitful. How widespread is specific information about civil defense and nuclear warfare? How accurate is the specific information, and how salient is it considered to be? These questions will form the basis of a third impact of civil defense information report: An examination of specific information.

I. INTRODUCTION

This is a study of impact -- the impact of civil defense information on the American people. Over the years a number of research efforts have been directed toward evaluating the quality of civil defense and civil defense-related information that the population has, and how widespread this information is. The concept of civil defense involves those non-military efforts such as the shelter, warning and emergency operations programs which are part of the nation's overall defense posture.

Civil defense in the United States has taken various program forms over the years, from the black-outs and plane spotters during World War II, and the evacuation network and CONELRAD of the early 1950's, to the emphasis on shelters of the 1960's.

When we speak of civil defense, we refer to programs which are designed to meet the challenge of specific kinds of weapons and their effects -- civil defense against what? Information about nuclear weapons and their effects is related to the civil defense information, and in turn both are related to international issues. The United States' relationships with the other nuclear powers is a major concern because the question at hand is one of attack upon the United States; who are the potential attackers, should the cold war turn hot? While we are concerned with nuclear weapons and their effects, and preparation for defense in the face of a nuclear war, we also are interested in preventing war and decreasing the chances of nuclear confrontation, through arms control and efforts toward disarmament.

The major portion of the research about civil defense information has been objective; that is, the level of information about civil defense and related issues has been determined by responses to specific questions, and as these questions have been combined, indices of information have been constructed.

Departing from the objective approach, University of Pittsburgh researchers, in December 1963, inquired into information levels subjectively by asking their national block sample of 1402 Americans:

How well do you consider yourself informed about the Cold War issue?

How well are you informed about the effect of nuclear weapons?

How well do you consider yourself informed about civil defense in America?

How much information do you feel you have about arms control and disarmament efforts?

In the following paper we will examine levels of information about civil defense and civil defense related issues. Section I will be devoted to a description of the measures of information, both subjective and objective. These will include the University of Pittsburgh December 1963 Study, which is the basis of the following analysis, and the objective information studies, as reported in: Public Thinking about Atomic Warfare and Civil Defense, Survey Research Center, University of Michigan, January 1951; The Public and Civil Defense: A Report Based on Two Sample Surveys in Eleven Major American Cities, Survey Research Center, University of Michigan, March 1952; The American Public and the Fallout-Shelter Issue--A Nine-Community Survey, Vol. III, Perspectives and Opinions, Gene Levine with J. Cole, Bureau of Applied Social Research, Columbia University, October 1963; The U. S. and the U.S.S.R.: A Report of the Public's Perspectives on United States -- Russian Relations in Late 1961, Stephen B. Withey, Survey Research Center, University of Michigan, March 1962; and, The Fallout Protection Booklet (I) A Report of Public Attitudes Toward and Information about Civil Defense, David K. Berlo, et al., Department of Communication, Michigan State University, April, 1963.

Sections II and III will include an examination of the levels of information, by selected demographic and personal characteristics, (Section II) and evaluations and expectations (Section III). In these two sections, the basis for our discussion will be the subjective measure of information from the Pittsburgh December, 1963 Study. We will report the findings from this study, comparing civil defense with the three related issues (cold war, weapons effect, arms control), and will compare the subjective levels of information with the objective measures previously mentioned.

Section IV will include a summary of the major findings and the conclusions that can be drawn from our examination.

We have addressed ourselves to the following basic questions:

1. Do those whose demographic and personal characteristics differ differ in their subjective levels of information?
2. Do those who have different subjective levels of information differ in their evaluations and expectations?
3. Can we describe the three subjective information level groups according to the same characteristics as other researchers have described the objectively measured information groups?

II. MEASURES OF INFORMATION

A. The Subjective Measure

In December, 1963, University of Pittsburgh researchers asked 1402 Americans the following four questions:

How well do you consider yourself informed about the Cold War issue?

How well are you informed about the effect of nuclear weapons?

How well do you consider yourself informed about civil defense in America?

How much information do you feel you have about arms control and disarmament efforts?

Respondents were instructed to scale their answers from 0 to 10, zero meaning that an individual has no knowledge of the issues at all, five representing a medium amount of information, and ten representing all or practically all there is to be known about a given issue.

Mean responses were low, below the medium information level of five; mean subjective information levels, in descending order, were:

Issue	Mean
Nuclear Weapons Effect	4.82
Cold War Issue	4.68
Civil Defense	4.43
Arms Control and Disarmament	3.76

The scaled responses can be summarized into low, medium and high subjective information levels, with the low level indicating responses 0-3, medium including 4-6, and high signifying 7-10. We have collapsed the scale in this manner as a reflection of the range of responses, and to differentiate those who feel they have more or less than the designated "medium" level of information. Our rationale is that those who feel they have "about medium" information on each question may give responses one scale value above or below medium, while responses more than one scale value

away from medium would give a clearer indication that respondents felt they had low or high information. We recognize, of course, that if the subjective information scale were summarized differently, it might provide a somewhat different picture of our population.

The following table indicates the percentage of respondents who feel they have low, medium and high information about each of the four issues:

Table 1: Subjective Levels of Information about Four Issues

Subjective Information Level:	Issues			
	Civil Defense	Cold War	Weapons Effect	Arms Control
Low	33.5%	25.3%	28.6%	45.1%
Medium	49.1	58.2	46.4	43.8
High	17.4	16.5	25.0	11.0
(N=)	(1400)	(1400)	(1399)	(1400)

As Table 1 indicates, one third of the respondents feel they have low civil defense information, and almost half feel they have medium civil defense information. More feel they have low information about civil defense than about the cold war or weapons effect. One out of four consider their weapons effect information to be high; this is 7.6% more than feel they have high civil defense information.

Because civil defense programs exist within the framework of the reality situation -- the international cold war climate, the effect of the weapons to be protected against, the effort to control and reverse the arms race -- we might expect a relationship to exist among the levels of information people feel they have on each of these topics.

Table 2 shows the relationship each of the issues has to the other three, by the percentage of respondents who consider themselves to have each of the paired information levels (low-low, medium-medium, high-high, high-low, high-medium, etc.).

**Table 2: Subjective Levels of Information about Four Issues Paired
(in percent of sample)**

		Weapons Effect			Civil Defense		
		Low	Medium	High	Low	Medium	High
Cold War	Low	16.5	7.0	1.9	15.6	8.2	1.6
	Medium	10.8	34.7	12.7	14.7	32.9	10.5
	High	1.3	4.7	10.4	3.1	8.0	5.4
	(N=)	(1399)			(1400)		
		Arms Control			Civil Defense		
		Low	Medium	High	Low	Medium	High
Cold War	Low	21.0	3.8	.5	18.6	8.4	1.6
	Medium	21.0	32.7	4.5	10.6	28.9	6.9
	High	3.0	7.4	6.1	4.2	11.9	8.9
	(N=)	(1400)			(1399)		
		Arms Control and Disarmament Efforts			Civil Defense		
		Low	Medium	High	Low	Medium	High
Weapons Effect	Low	21.7	5.7	1.0	23.4	17.3	4.4
	Medium	17.1	25.8	3.4	8.7	27.1	8.0
	High	5.7	12.6	6.6	1.5	4.6	5.0
	(N=)	(1399)			(1400)		

More than half of the respondents consider their level of information to be the same for both issues in each pair. The greatest similarity occurs for the cold war - weapons effect pair, with 61.6% having the same subjective information level for both issues. The least similar are the civil defense - cold war pair, with 53.9% having the same subjective information level for both. Between 25% and 35% of the respondents feel they have medium information about each pair of issues, while less than six percent consider their level of information to be high on one issue and low on the other.

The relationships among the four issues are far from perfect, which seems to indicate that the respondents consider each issue to be a separate entity, related to the others, but not dependent upon them.

In Table 3, we are examining those with low, medium, and high subjective information about the related issues by their subjective level of information about civil defense in order to study further the relationship between the subjective levels of information.

Table 3: Subjective Levels of Information about Related Issues by Subjective Level of Civil Defense

Related Issues	Low Subjective Civil Defense Information			Medium Subjective Civil Defense Information		
	Cold War	Weapons Effect	Arms Control	Cold War	Weapons Effect	Arms Control
Low	46.6	55.6	69.7	16.6	17.1	35.1
Medium	44.0	31.8	25.8	67.1	58.6	55.6
High	9.4	12.6	4.5	16.3	24.3	9.3
(N=)	(469)	(468)	(469)	(687)	(687)	(687)
Related Issues	High Subjective Civil Defense Information					
	Cold War	Weapons Effect	Arms Control			
Low	9.0	9.4	25.4			
Medium	60.3	39.8	46.0			
High	30.7	50.8	28.6			
(N=)	(244)	(244)	(244)			

The subjective levels of information about the cold war, weapons effect and arms control increase as the subjective level of civil defense information increases, however, a closer examination of the subjective levels of information about weapons effect shows several interesting trends. At each of the three subjective levels of civil defense information, more respondents feel they have information about weapons effect than they do about either of the other two issues. At the high civil defense information level, half (50.8%) feel they also have high weapons effect information; this is 20.1% more than feel they have high cold war information, and 22.2% more than have high subjective arms control information.

That the relationship between subjective information about civil defense and weapons effect appears to be stronger than that for civil defense and the other issues might be explained by the nature of the civil defense information to which the American public has been exposed. Much of this has included weapons effects such as radiation, blast, fallout, fire, etc., and this has been the case in the wide range of fact and fiction -- from Fallout Protection to On The Beach -- that is available to the public.

When we speak of the subjective levels of information, two considerations must be kept in mind. First, we do not know whether the information respondents feel they have is accurate, or if it actually is misinformation, and we have no way of determining this from our data. Second, there may be a tendency for those who are actually highly informed to be conservative in estimating the amount of their information, and those who are uninformed to state that they have more information than they actually do. Again, we have no way of telling from our data, but we expect these tendencies to be reflected in smaller differences between subjective information levels than others have found between objective information levels.

B. The Objective Measures

University of Michigan researchers reported in 1951 that there is a relationship between areas of information on an objective level when they examined those who had and those who did not have information about protective actions and bomb effects. Information about bomb effects was determined from responses to the question, "In the last year or so, have you read or heard anything about the effects of atomic bombs?" (If yes) "What sort of things have you read or heard?" Possession of information about protective actions

was measured by responses to "Have you heard or read anything about what a person ought to do for his own safety if there were an atomic bomb attack?" (If Yes) "What were some of these things?" Three out of four of those who had information about bomb effects also had information about protective actions, while slightly more than half (53%) of those who had no information about effects also had no information about protective actions.¹⁵

The Survey Research Center's The Public and Civil Defense also indicated a relationship between the possession of information on personal protection and the accuracy of understanding of civil defense. Understanding of civil defense was based on responses to "There's a lot of talk about Civil Defense these days. As you understand it, what does the term "Civil Defense" mean?... Well, what do you think the purpose of Civil Defense is?" Of those who had information on personal protection, almost seven out of ten (69%) had a generally accurate understanding of civil defense, while slightly more than half (55%) of those who had no personal protection information were inaccurate, vague, or did not know about civil defense.¹⁶

The Bureau of Applied Social Research reported the construction of two indices of information -- general knowledge and nuclear age knowledge. The general knowledge index was based on identification of men in the news and whether or not respondents knew that two nations other than the United States and the U.S.S.R. had made their own atomic bombs. The index of nuclear age knowledge was based on knowledge of the countries that have made or were widely known to be developing atomic weapons, and on the correctness of the respondent's definition of fallout. The level of information on nuclear age matters was considerably lower than that on general matters -- half of the BASR's early 1963 sample had a low level of nuclear age information, while about one out of five had a low level of general information. Fourteen percent had high general knowledge, while only 7% had high nuclear age knowledge, 65% of the sample

¹⁵ Public Thinking about Atomic Warfare and Civil Defense, Survey Research Center, University of Michigan, January, 1951, p. 141, Table 92.

¹⁶ The Public and Civil Defense, Survey Research Center, University of Michigan, March, 1952, p. 21, Table 28.

had a medium level of general knowledge, while 43% had this level of nuclear age knowledge. In comparing the two indices, they found that 55% of the sample had the same levels of information on both indices, 40% had a lower level of nuclear age information than of general information, and 5% had a higher level of nuclear age information.¹⁷

The Survey Research Center reported on levels of information, based on the correct identification of a series of issues which were prominent in the news in late 1961. These included: Berlin, Congo, Polaris, Peace Corps, Missile Gap, and Troika. They found that 41% of the respondents were informed on four or more of the issues. Based on the quality of responses to the question, "You've probably heard something about fallout after an atomic attack. Could you tell me just what sort of thing you think it is?", Survey Research Center researchers found one out of four expressing adequate information about the nature of fallout.¹⁸

Michigan State researchers evaluated the responses to 14 statements of fact, taken from the Fallout Protection Booklet. Of these questions, nine deal with the effects of nuclear attack -- radiation and fallout -- and five are directed toward shelters and other forms of protection. They found that the respondents on the whole had a greater general knowledge of the effects of fallout and human exposure to radiation -- more than 50% responded accurately -- than they did about the physical properties of fallout or the structure of shelters. No index or indices have been constructed from these questions, but each has been analyzed by selected personal and attitudinal characteristics.¹⁹

¹⁷ The American Public and the Fallout Shelter Issue, Vol. III Perspectives and Opinions, Bureau of Applied Social Research, Columbia University, March, 1964, pp. 68-69, p. 70, Table III. 34.

¹⁸ Stephen B. Withey, The U. S. and the U.S.S.R., Survey Research Center, University of Michigan, March, 1962, pp. 38-47.

¹⁹ David K. Berlo, et al., The Fallout Protection Booklet I, Department of Communication, Michigan State University, April, 1963, p. 11, Table 8.

III. DEMOGRAPHIC AND PERSONAL CHARACTERISTICS

The answer to the question -- Where and who are the segments of the population who have high, medium and low subjective information levels? -- has relevance in our discussion about the impact of civil defense information. In its information dissemination programs, the Office of Civil Defense has told its story in a number of ways, and made the telling generally available. In addition, local Civil Defense offices have publicized the activities of their regions. Radio and television, newspapers and magazines have had a hand in bringing civil defense information to the population.

Civil defense information also is disseminated by a vast number of individuals and organizations who act as lay, or unofficial, sources of information. The scope of lay articles, books, reports and pamphlets is indicated by the 242-item "bibliography for civil defense arguments" in Civil Defense and Society. Whatever the source of civil defense information, be it official or unofficial, lay or professional, and for that matter, whether the information is accurate or inaccurate, it has an impact on the American people. Two-thirds of our respondents have a subjective level of civil defense information that is medium or high.

We are interested in knowing who has been reached and upon which groups civil defense information has had the greatest impact. Within the context of this paper we are considering impact in terms of information levels; that is, information about civil defense is felt to have had the greatest impact on those whose civil information level is high.

To the extent that it is possible to generalize from one survey population to another, and to the total population, it is possible to describe information levels in terms of certain demographic and personal characteristics. It must be remembered that of those who have high subjective civil defense information, 30.7% also consider themselves to be high on the cold war issue, 50.8% also feel they have high information about weapons effect, and 28.6% also feel they have high information about arms control. We have not isolated those who have high subjective information on only one issue. Because of the relationships between the issues, differences in characteristics are probably considerably less than would be reflected had we examined and compared only those who have high subjective information on one issue.

A. Residence

Certain residence characteristics might help to differentiate among subjective information levels, and may provide a starting point for describing information levels within their social structural context.

The three residence variables which we are including in our examination are: region of the United States, as defined by the United States Census Bureau divisions; size of sampling unit, standard metropolitan areas compared with non-metropolitan counties; and home ownership, those who own compared with those who rent their homes.

Regions of the United States:

Table 4: Subjective Level of Information about Four Issues by Region

Issue:	Region							
	North East	East North Central	East South Central	South Atlantic	West North Central	West South Central	Mountain	Pacific
<u>Civil Defense</u>								
Low	34.6%	36.8%	35.9%	32.4%	26.4%	29.4%	28.4%	39.5%
Medium	45.5	50.1	45.4	49.8	60.1	46.7	56.5	45.1
High	19.9	13.1	18.7	17.8	13.5	23.9	15.1	15.4
<u>Cold War</u>								
Low	24.1	25.7	24.5	28.8	22.6	29.4	17.9	25.8
Medium	55.4	56.8	68.0	55.5	65.8	51.0	67.0	61.5
High	20.5	17.5	7.5	15.7	11.6	19.6	15.1	12.7
<u>Effect of Nuclear Weapons</u>								
Low	29.0	32.7	32.2	27.6	25.8	28.8	24.5	25.9
Medium	43.8	45.7	52.7	50.5	46.4	44.6	43.3	48.2
High	27.2	21.6	15.1	21.9	27.8	26.6	32.2	25.9
<u>Arms Control and Disarmament Efforts</u>								
Low	43.7	46.6	39.5	52.1	42.5	44.2	37.8	44.5
Medium	44.4	40.8	56.7	37.5	49.1	42.5	47.0	46.2
High	11.9	12.6	3.8	10.4	8.4	13.3	15.2	9.3
(N=)	(336)	(245)	(155)	(192)	(53)	(184)	(53)	(182)

Regions have been determined by U. S. Census Bureau division with the exception of North East, a combination of the New England and Middle Atlantic divisions. Regional composition by states:

- North East: Me., N.H., Vt., Mass., R.I., Conn., N.Y., N.J., Pa.
- East North Central: O., Ind., Ill., Mich., Wisc.
- East South Central: Ky., Tenn., Ala., Miss.
- South Atlantic: Del., Md., D.C., Va., W.Va., N.C., S.C., Ga., Fla.
- West North Central: Ia., Minn., Mo., N.D., S.D., Nebr., Kans.
- West South Central: Ark., Okla., La., Tex.
- Mountain: Mont., Idaho, Wyo., Colo., N.M., Ariz., Utah, Nev.
- Pacific: Wash., Ore., Cal., Alaska, Hawaii

As the above table indicates, the three largest high information groups can be characterized as coming from the following regions:

Civil Defense: West South Central, North East, East South Central

Effect of Nuclear Weapons: Mountain, West North Central, North East

Cold War: North East, West South Central, East North Central

Arms Control: Mountain, West South Central, East North Central

The smallest high information groups are:

Civil Defense: East North Central, West North Central

Effect of Nuclear Weapons: East South Central

Cold War: East South Central

Arms Control: East South Central

We would have expected certain regional differences in the subjective levels of information on each of the issues. That is, we expected respondents who live closest to testing ranges to be better informed about the effects of nuclear weapons, and by the same token, to be better informed about efforts toward controlling their use. We also expected larger high information level groups in regions with a high degree of industrialization and metropolitanization. Considering the prevailing westerly and north-westerly wind patterns in the United States, we were inclined to expect higher levels of information about civil defense -- protection against fallout -- in regions to the east of the nuclear testing ranges. Our expectations have been confirmed by the data, to the extent that in the regions in which we expected higher levels of information, the subjectively high information groups are largest.

At the other end of the subjective civil defense information level continuum, the largest low information level groups are east of the Mississippi River, and in the Pacific region.

These findings should be viewed with some restraint, in that differences may be accounted for by many factors, for example, differences in the sample populations in each region, and it is not our purpose to perform a geographical analysis of respondents.

We only attempt to indicate what appears to be a tendency toward higher subjective levels of information in regions of the country which have higher degrees of metropolitanization, and regions which are in closer geographic proximity, weapons production and testing.

In The Public and Civil Defense (1952), the Survey Research Center reported that respondents in the Chicago and Detroit metropolitan areas had a less generally accurate understanding of civil defense than did those in the New York, Los Angeles, and Philadelphia areas. Chicago and Detroit are included in the East North Central region, New York and Philadelphia are in the North East, and Los Angeles is in the Pacific Region. Our subjective civil defense information findings are compatible with this measure to the extent that these metropolitan areas are a reflection of the regions in which they are located.

Metropolitan and Non-metropolitan Areas:

Table 5: Subjective Level of Information about Four Issues, by Sampling Unit Size

<u>Civil Defense</u>			<u>Cold War</u>		
Information Level:	Metro.	Non-Metro.	Information Level:	Metro.	Non-Metro.
Low	33.2%	34.0%	Low	25.2%	25.6%
Medium	46.5	53.6	Medium	57.1	59.5
High	20.3	12.4	High	17.7	14.9
(N=)	(899)	(501)	(N=)	(899)	(501)
<u>Effect of Nuclear Weapons</u>			<u>Arms Control & Disarmament</u>		
Information Level:	Metro.	Non-Metro.	Information Level:	Metro.	Non-Metro.
Low	27.0%	31.6 %	Low	42.1%	50.7%
Medium	46.0	47.0	Medium	45.8	40.5
High	27.0	21.4	High	12.1	8.8
(N=)	(899)	(500)	(N=)	(899)	(501)

On all four issues respondents in metropolitan areas consider themselves to have a higher level of information than do respondents in non-metropolitan areas. Overall, the largest differences occur on the arms control and disarmament efforts issue: of metropolitan respondents, 8.6% less feel they have low information, 5.3% more feel their information is medium, and 4.3% more feel their information level is high. It should be remembered that this is the issue upon which the sample considered itself to be least informed. For civil defense and cold war, differences are less than 1% at the low information level, while 4.6% more non-metropolitan respondents considered their information level to be low on the effect of nuclear weapons.

At the high subjective information level, the greatest difference occurs on the civil defense issue: 7.9% more of the metropolitan respondents consider their information level to be high. The second greatest difference at this level of information is the effects of nuclear weapons, with 5.6% more metropolitan respondents placing themselves in this group.

The issue least affected by metropolitan area residence, as indicated by the subjective information levels, is the cold war. Differences between the metropolitan and non-metropolitan respondents do not exceed 2.4% at any of the three subjective information levels.

At the medium and high subjective information levels, civil defense appears to be most sensitive in the metropolitan - non-metropolitan differences. One-third of the respondents in both the metropolitan and non-metropolitan areas consider their levels of civil defense information to be low. Metropolitan - non-metropolitan difference at the higher subjective information levels may be related to total local civil defense effectiveness, of which information dissemination is a part. Lois Dean and Associates, in The Use of Volunteers and Voluntary Organizations in Civil Defense and Preparedness studied characteristics of civil defense directors and program effectiveness in three mid-western states. They found support for the proposition that "where primary responsibility for the conduct of local civil defense programs is assigned not to uncompensated volunteers but to paid professionals, the program is substantially more effective." They found that the full time paid directors in their sample were more urban (half living in and serving communities with populations of 25,000 and over, and nearly one-third from communities of 50,000 or greater populations, as compared with less than 10% of the part time paid directors and full and part time unpaid directors coming from the larger communities).

Although it is impossible to test, using the available data, and in spite of the inability to generalize from the Cornell study to the total population, we wonder what the relationship is between the presence of full-time professional civil defense directors and the greater program effectiveness which the Cornell study indicates, and the higher levels of civil defense information which appear in more urban areas.

Home Ownership

Table 6: Subjective Levels of Information about Four Issues by Home Ownership

Information Level:	Information Issue							
	Civil Defense		Cold War		Weapons Effect		Arms Control	
	Own	Rent	Own	Rent	Own	Rent	Own	Rent
Low	34.4%	31.8%	25.8%	27.8%	26.8%	31.6%	44.0%	46.8%
Medium	50.2	47.5	58.0	55.1	48.7	42.8	45.6	41.0
High	15.4	20.7	16.2	17.1	24.5	25.6	10.4	12.2
(N=)	(876)	(521)	(876)	(521)	(876)	(521)	(876)	(521)

Considering our sample on the basis of whether respondents rent or own their homes, we find that there are certain differences between owners' and renters' subjective levels of information about all four issues, and the civil defense issue differs from the other three.

At the high subjective levels of information, there are more renters than owners; the difference between renters and owners is greatest for civil defense, 5.4%, as compared with less than 2% for each of the other issues.

Renters are somewhat less inclined than owners to feel they have medium information about any of the issues. The differences, at the medium information levels range from 2.7% for civil defense, to 5.9% for effects of nuclear weapons.

More owners than renters have a low subjective civil defense information level, which represents a reversal of the tendency we find for the other issues.

While the differences between home owners and renters are small, and we must view the findings with a measure of caution, compared

with home owners there appears to be a tendency for those who rent to feel they are more informed about civil defense, and less informed about the other three issues.

Berlo, et al., report in The Fallout Protection Booklet I that those who rent or live with others more frequently give accurate responses to nine out of fourteen statements of fact, while home owners are more frequently accurate on five of the statements. The inter-group differences are 5% or less.

The Michigan 444 findings indicate that on cold war matters, home owners are better informed than those who rent, as indicated in Figure 1.

Figure 1: Objective Level of Cold War Information by Home Ownership

Information Level:	Home Ownership	
	Own	Rent
Not Informed	55.5%	64.2%
Informed	44.5	35.8
(N=)	(924)	(458)

The differences between those who own and those who rent their homes reflect the metropolitan-non-metropolitan differences in subjective levels of information. That is, home ownership is more characteristic of those from non-metropolitan areas, while those who rent are found more frequently in metropolitan areas, as indicated in Figure 2.

Figure 2: Home Ownership by Sampling Unit Size

Home Ownership	Sampling Unit Size	
	Metropolitan	Non-Metropolitan
Own	57.5%	72.3%
Rent	42.5	27.7
(N=)	(901)	(498)

B. Individual and Family Characteristics

Certain characteristics of individuals and their families may be used to describe levels of information. That is, such variables as respondents' age, sex, strength of religious belief, race, marital status and age of children may help us determine among whom civil defense information has had its greatest impact.

Sex

Table 7: Subjective Level of Information about Four Issues, By Sex

Information Level:	Information Issue							
	Civil Defense		Cold War		Weapons Effect		Arms Control	
	Male	Female	Male	Female	Male	Female	Male	Female
Low	31.5%	35.7%	20.6%	29.8%	24.7%	32.2%	38.2%	51.4%
Medium	48.5	49.2	55.5	60.5	43.7	48.9	46.8	41.1
High	20.0	15.1	23.9	9.7	31.6	18.9	15.0	7.5
(N=)	(675)	(725)	(675)	(725)	(674)	(725)	(675)	(725)

Men feel they have higher levels of information than do women on all four issues. At the high information level, the greatest differences between men and women are on cold war (14.2%) and weapons effect (12.7%); and at the low information level, the greatest differences are on arms control (13.2%) and cold war (9.2%). Women are more inclined than are men to feel that they have medium information about the cold war and weapons effect.

The proportions of women who feel they have high information about the cold war and arms control issues are quite low; and this might be explained in terms of women directing their attention more toward matters concerning home or family and less in the direction of international relations. If we keep in mind that some seven out of ten women have medium or high subjective cold war information, we may say that women seem somewhat more inclined than men to feel they have more information about civil defense than about arms control.

The University of Pittsburgh Foreign Affairs and Civil Defense studies consistently have shown that women feel civil defense programs are more desirable than do men. This greater desirability on the part of women may help explain this finding insofar as the

perception of the desirability of civil defense may be related to their being more receptive to civil defense information. Another partial explanation may be that given the cold war realities and the unthinkable consequences of thermonuclear warfare, there may be a relationship between the above and Berlo's finding that women are more likely than men to believe that the parent has a duty to protect his child.

Michigan researchers, in their 444 Study found that men are more frequently objectively informed on cold war matters than women, indicated in Figure 3.

Figure 3: Objective Level of Cold War Information by Sex

Information Level:	Sex	
	Male	Female
Not informed	46.8%	67.6%
Informed	53.2	32.4
(N=)	(629)	(822)

Berlo, et al., reported that male heads of households give accurate responses to 13 out of the 14 questions of fact more frequently than do either of two female groups; wives give accurate responses more frequently than do female heads of households on 12 out of 14 questions. This finding is presented as position in the household, rather than solely by sex, but does show that males were more accurate than females in their responses, and for females, there are differences between those who are wives and those who are not.

In 1952, the Survey Research Center reported that males tended to have slightly higher "average civil defense information index" than women.

Age of Respondent

Table 8: Subjective Level of Information about Four Issues, by Age

Information Level:	Age			
	Under 30	30-39	40-49	50 and over
<u>Civil Defense</u>				
Low	31.1%	25.5%	33.4%	40.9%
Medium	48.1	53.4	50.2	46.0
High	20.8	21.1	16.8	13.1
<u>Cold War</u>				
Low	24.4%	17.2%	25.0%	31.8%
Medium	58.3	65.0	60.0	52.0
High	17.5	17.8	15.0	16.1
<u>Weapons Effect</u>				
Low	23.4%	19.0%	29.5%	38.2%
Medium	43.7	53.7	46.5	42.7
High	32.9	27.3	24.0	19.1
<u>Arms Control</u>				
Low	41.7%	41.6%	40.2%	52.5%
Medium	47.0	45.0	49.2	37.8
High	11.3	13.4	10.6	9.7
(N=)	(309)	(326)	(293)	(472)

As Table 8 indicates, there is a relationship between age and the subjective levels of information; the younger age groupings consider themselves to have higher information levels than the older groupings. As age increases, there is a decrease in the proportion of respondents who feel they have high information on the effects of nuclear weapons, however, this is not the case for the other three issues.

More of those who are 30-39 years of age feel they have high information on civil defense, the cold war, and arms control. Differences at the high subjective information levels are not as great as those at the medium and low levels. More of those who are 30-39 years of age feel they have medium information, and fewer feel they have low information about civil defense, the cold war, and the effects of nuclear weapons.

There are no appreciable differences in subjective information levels on arms control among those under 30, 30-39, and 40-49 years of age. While respondents who are 50 and over have the lowest subjective levels of information on all four issues, they are most noticeably lower on arms control.

The Pittsburgh Foreign Affairs and Civil Defense studies have shown that younger respondents view civil defense as being more desirable than do older respondents. This greater desirability may be related to the feeling that they have more civil defense information. Another explanation for our findings may be the fact that younger respondents can be considered products of the nuclear age -- those under 40 were at most 21 years of age at the time of the Hiroshima and Nagasaki bombings -- and may have different outlooks and information than those who were educated and planned for their futures prior to the nuclear age.

Comparing our findings to the Michigan 444 Study, we find that our data on subjective levels of cold war information by age is compatible with the Michigan results in late 1961, as indicated in Figure 4.

Figure 4: Objective Level of Cold War Information
By Age

Information Level:	Age			
	Under 30	30-39	40-49	50 and over
Not Informed	56.7%	52.1%	56.9%	64.7%
Informed	43.3	47.9	43.1	35.3
(N=)	(238)	(332)	(322)	(540)

Berio, et. al., reported that on 14 statements of fact which deal with nuclear weapons effect, and fallout and radiation protection, those under 35 years of age respond accurately to eight statements more frequently than those over 35. The 35-50 year olds give more accurate responses on all 14 items than do those who are over 50.

Survey Research Center researchers reported in 1952 that as age increases, the "average civil defense information index" decreases.

Strength of Religious Belief

Table 9: Subjective Level of Information about Four Issues, by Strength of Religious Belief

Information Level:	Strength of Religious Belief			
	<u>Civil Defense</u> Moderate Strong or Less		<u>Cold War</u> Moderate Strong or Less	
Low	32.3%	32.7%	24.4%	26.2%
Medium	47.4	54.1	58.2	60.4
High	20.3	13.2	17.4	13.4
(N=)	(876)	(432)	(876)	(432)
Information Level:	Strength of Religious Belief			
	<u>Weapons Effect</u> Moderate Strong or Less		<u>Arms Control</u> Moderate Strong or Less	
Low	26.8%	30.6%	44.0%	46.8%
Medium	47.8	45.0	44.0	45.7
High	25.4	24.4	12.0	7.5
(N=)	(876)	(431)	(876)	(432)

Two out of three of our sample express very strong, or strong religious beliefs, while one out of three express their religious beliefs as moderate, not so strong, or not strong at all. More of those with strong religious beliefs have high subjective information levels on all four issues; the greatest differences between the "strong" and "moderate" groups are at the medium and high subjective level of civil defense information, while the smallest differences occur at the low level of civil defense information.

Race

Table 10: Subjective Levels of Information about Four Issues, By Race

Information Level:	Race			
	Civil Defense		Cold War	
	Non-Negro	Negro	Non-Negro	Negro
Low	33.9%	30.8%	24.7%	29.8%
Medium	49.3	47.8	58.3	58.0
High	16.8	21.4	17.0	13.2
(N=)	(1214)	(182)	(1214)	(182)
Information Level:	Weapons Effect		Arms Control	
	Non-Negro	Negro	Non-Negro	Negro
	Low	27.9%	33.0%	44.5%
Medium	46.7	46.1	44.1	44.0
High	25.4	20.9	11.4	7.7
(N=)	(1213)	(182)	(1214)	(182)

The 13% of the sample who are Negro consider their level of information on civil defense to be higher than their level of information on the other three issues; comparing the Negro to the non-Negro respondents, Negroes have a higher subjective level of civil defense information than the non-Negroes, and lower subjective levels of information than the non-Negroes on the other three issues. The Pittsburgh Foreign Affairs and Civil Defense studies have shown Negroes to feel civil defense is more desirable than do non-Negroes, and this greater desirability may be related to the feeling that they have higher information.

The higher subjective level of information for non-Negro respondents on the cold war, weapons effect and arms control issues is consistent with the objective levels of information findings

by other researchers. The University of Michigan 444 Study in late 1961 found clear differences between objective level of cold war information and race:

Figure 5: Objective Level of Cold War Information By Race

Information Level:	Race	
	Non-Negro	Negro
Not Informed	55.0%	86.0%
Informed	45.0	14.0
(N=)	(1274)	(164)

The University of Michigan Survey Research Center reported in 1952 that Negroes were less informed than whites, as measured by indices of atomic bomb information, and civil defense information, and respondents' understanding of "Civil Defense".

The paradox of the Negro's feeling that his level of information on civil defense is higher than the subjective information level for non-Negro respondents is more than likely at least partially a function of a combination of some of the other personal factors which we find to be more characteristic of those with higher levels of civil defense information.

Among the 13% of the sample who are Negro, we find the characteristics summarized in Figure 6. This figure indicates the percent of Negroes and the percent of non-Negroes having each of the selected characteristics.

Figure 6: Selected Personal Characteristics, By Race

Characteristics:	Race	
	Negro	Non-Negro
Metropolitan Residence	85.2%	64.9%
Strong Religious Belief	79.2	65.2
Mean age (in years)	40.2	44.4
Rent Their Home	57.9	34.2

As this figure points out, 20.3% more Negroes are from metropolitan areas, 23.7% more Negroes rent their homes, 14% more have strong religious beliefs, and the mean age of Negroes is 2.2 years less. Our findings show that higher subjective levels of civil defense information are related to each of these four characteristics.

The discrepancy between our subjective civil defense information findings and the Survey Research Center's 1952 reported findings may be indicative of two things: either Negroes have become better informed about civil defense (and better informed than non-Negroes) in the eleven years between the two studies, or Negroes feel that they are better informed than an objective measure would show them to be.

Marital Status

Table 11: Subjective Level of Information about Four Issues, by Marital Status

Information Level:	Marital Status			
	Never Married	Married	Divorced or Separated	Widowed
<u>Civil Defense</u>				
Low	31.5%	32.3%	31.4%	47.4%
Medium	47.0	49.3	53.3	47.4
High	21.5	18.4	15.3	5.2
<u>Cold War</u>				
Low	15.3	24.5	35.0	34.3
Medium	57.2	59.3	49.3	56.0
High	27.5	16.2	15.7	9.7
<u>Effect of Nuclear Weapons</u>				
Low	20.4	26.8	29.0	51.7
Medium	46.0	47.8	44.5	37.7
High	33.6	25.4	26.5	10.6
<u>Arms Control and Disarmament Efforts</u>				
Low	34.7	43.9	45.5	63.1
Medium	52.0	44.0	44.8	33.4
High	13.3	12.1	9.7	3.5
(N=)	(98)	(1104)	(83)	(114)

The relationship between marital status and the subjective levels of information is fairly clear. Never-married respondents consider themselves to be better informed on all four issues than any of the ever-married groups; the divorced or separated feel they are somewhat less informed than the married and the widowed feel they are least informed.

These results may be explained, in part, by looking at the relationship between age and marital status of respondents. The mean ages for the various marital status groups are:

Never married	35.1 years
Married	42.7
Divorced or separated	43.9
Widowed	63.1

We have already shown that younger respondents tend to consider themselves to be better informed than older respondents, and that those in the 30-39 year age group feel they are somewhat better informed than those who are under 30. Considering the mean ages of the never-married and widowed respondents, it is not at all surprising that these groups consider themselves to be at two extremes. Both of these groups are relatively small, the never marrieds represent 7.0% of our sample, while the widowed include 8.1%. Some 93% of our sample has been married at some time, and 78.9% are married currently.

As Table 11 indicates, more of all marital status groups feel they have high information about the effects of nuclear weapons than the other three issues. Comparing the high subjective information level groups on the cold war and civil defense issues; of the marrieds, 2.2% more feel they have high civil defense information; there is virtually no difference in the high information divorced or separated respondents on those two issues; among the never marrieds, 6% less feel they have high civil defense information, and for the widowed, 4.5% less feel they have high civil defense information. Thus, we can say that those who are currently married are slightly more inclined to feel they have high civil defense information than high cold war information; those who are divorced or separated are more inclined to feel they have medium civil defense information, while among the other marital grouping there are more who feel they have medium cold war information.

Age of Respondents' Children

When we divide our sample by age of respondents' children, we find that there is an overlapping of age groups. The criteria for inclusion in each age group is that the respondent have at least one child in that age group. For those whose children fall in more than one age group, data is included in each column; the respondents are included more than once. This tends to minimize inter-group differences.

Table 12: Subjective Levels of Information about Four Issues, by Age of Respondents' Children

Information Level:	Age of Children					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Under 12	12-21	Over 21	Under 12	12-21	Over 21
Low	29.4%	32.6%	39.3%	22.2%	26.6%	32.5%
Medium	51.9	51.4	46.4	61.1	59.1	53.2
High	18.7	16.0	14.3	15.7	14.3	14.3
(N=)	(654)	(405)	(448)	(654)	(405)	(448)

Information Level:	<u>Effect of Weapons</u>			<u>Arms Control</u>		
	Under 12	12-21	Over 21	Under 12	12-21	Over 21
	Low	24.2%	27.0%	37.6%	41.6%	43.2%
Medium	47.7	48.2	42.5	45.9	46.2	37.5
High	27.9	24.8	19.9	12.9	10.6	10.5
(N=)	(653)	(405)	(448)	(654)	(405)	(448)

As Table 12 indicates, there is a relationship between the age of respondents' children and subjective level of information at both the high and low subjective levels of information. Those with younger children more frequently feel their level of information is high, and less frequently feel that it is low. The differences at the high information level are greatest for effect of nuclear weapons (8%) and civil defense (4.4%).

Berlo, et al., report that those who have children in the home respond accurately to 10 out of 14 statements of fact more frequently than do those who have no children or those whose children are gone; those whose children are gone give accurate responses least frequently. Those who have no children more frequently give accurate responses on 13 out of 14 statements than those whose children are gone.

Age of respondents' children is related to the age of respondents; those who have young children would themselves be younger. As we have pointed out previously, younger respondents consider themselves to have higher levels of information.

C. Socio-Economic Indicators

Social class is one of the most useful definitions of position in the broad social structure. A variety of indicators can be used to measure and plot social class, such as income, education, occupation; and usually there is a high correlation among the three. It has been found that any two of these three dimensions can usefully determine social class. In this study, we are considering income and education as social class indicators. In addition, we are including perceived social class -- the social class to which respondents feel they belong.

Education

**Table 13: Subjective Level of Information
about Four Issues, by Education**

Information Level:	Education				
	0-8 years	9-11 years	12 years	13-15 years	16+ years
<u>Civil Defense</u>					
Low	39.5%	31.2%	31.2%	33.1%	28.9%
Medium	47.1	49.7	51.5	47.6	47.6
High	13.4	19.1	17.3	19.3	23.5
<u>Cold War</u>					
Low	34.4 %	29.1%	20.8%	18.6%	10.9%
Medium	53.8	59.7	63.7	55.8	54.7
High	11.8	11.2	15.5	25.6	34.4
<u>Weapons Effect</u>					
Low	42.4%	30.0%	23.7%	16.8%	14.9%
Medium	44.6	47.6	53.7	48.9	37.4
High	13.0	22.4	22.6	34.3	47.7
<u>Arms Control</u>					
Low	55.7%	40.0%	42.3%	37.7%	28.9%
Medium	35.3	46.7	46.4	47.1	50.8
High	9.0	7.3	11.3	15.1	20.3
(N=)	(380)	(330)	(388)	(172)	(128)

As Table 13 indicates, those with 0-8 years of schooling feel they have lower civil defense information levels, and those with 16 or more years of schooling have higher subjective civil defense information levels. High school graduates are somewhat less inclined than those with some high school to feel they have high subjective civil defense information, and those with some college are somewhat more prone to say they have low civil defense information, but there are no appreciable differences among these three educational groups.

Most generally speaking, as the level of education increases, the subjective level of information on all four issues increases; and this finding is consistent with other research findings for the objective measures of information. The subjective information data on the cold war issue, compared with the Michigan 444 Study data on objective information, indicates that the objective and subjective information levels are compatible.

Figure 7: Objective Level of Cold War Information by Education

Information Level:	Education				
	0-8 years	9-11 years	12 years	13-15 years	16+ years
Not Informed	83.0%	68.0%	51.0%	31.0%	17.0%
Informed	17.0	32.0	49.0	69.0	83.0
(N=)	(445)	(270)	(433)	(144)	(152)

If we compare the subjective levels of civil defense information with the levels of information about the other three issues, we find that increased years of schooling make the least difference in how well informed people feel they are about civil defense. This can be summarized by comparing the differences between those with the most and the least education, at the high and low subjective information levels, for all four issues:

Difference between those with least and those with most education.

Low Subjective Information Level:

Civil Defense	10.6%
Cold War	23.5
Weapons Effect	27.5
Arms Control	26.8

High Subjective Information Level:

Civil Defense	10.1%
Cold War	23.5
Weapons Effect	34.7
Arms Control	11.3

In their objective measure of information about weapons effects, and fallout and radiation protection, Berlo, et al., found a direct relationship between education and information: as years of school increase, the frequency of accurate responses on 12 out of 14 questions of fact increases.

Income

**Table 14: Subjective Level of Information
about Four Issues, by Income**

Information Level:	Income				
	Under \$5,000	\$5,000-7,499	\$7,500-9,999	\$10,000-14,999	\$15,000+
<u>Civil Defense</u>					
Low	35.6%	30.6%	35.0%	27.4%	37.1%
Medium	47.0	53.1	45.3	55.5	47.2
High	17.4	16.3	19.7	17.1	15.7
<u>Cold War</u>					
Low	30.7%	24.8%	18.7%	19.8%	9.8%
Medium	56.5	58.1	61.6	56.9	66.7
High	13.2	17.1	19.7	23.3	23.5
<u>Effect of Nuclear Weapons</u>					
Low	35.8%	26.2%	18.7%	21.2%	17.6%
Medium	44.0	46.4	56.7	44.6	49.1
High	20.2	27.4	24.6	34.2	33.3
<u>Arms Control</u>					
Low	52.1%	41.7%	41.9%	37.0%	31.4%
Medium	40.4	45.9	45.4	45.9	56.8
High	7.5	12.4	12.7	17.1	11.8
(N=)	(545)	(386)	(203)	(146)	(51)

As this table points out, the relationship between subjective information levels and income is not a clear cut one. There is a tendency for more people with an income of \$7,500-\$9,999 to feel they have high civil defense information, and fewer to feel they have medium civil defense information, but the differences are small. Those with the highest incomes tend to consider their civil defense information level to be lowest. Fewest of those who earn \$10,000-\$14,999 feel their level of civil defense information is low, and more than half (55.5%) feel they have a medium amount of civil defense information. These findings can be explained by the relationship between age and subjective information levels. Younger respondents have not reached the peak of their earning power, while those in the high income group may reflect the subjective levels of civil defense information of the older respondents.

The highest income respondents tend, as a group, to feel they have higher levels of information on the cold war, effect of nuclear weapons, and arms control and disarmament efforts than do the other income groups, as is reflected by comparing the low subjective information levels for the four issues.

The Michigan 444 Study data indicates the following relationship between income and the objective level of information on cold war matters:

Figure 8: Objective Level of Cold War Information by Income

Information Level:	Income				
	Under \$5,000	\$5,000-7,499	\$7,500-9,999	\$10,000-14,999	\$15,000+
Not Informed	77.0	49.5	39.0	33.0	22.0
Informed	23.0	50.5	61.0	67.0	78.0
(N=)	(652)	(383)	(184)	(128)	(63)

The subjective information findings in Table 14 (Cold War) suggest this relationship. As we noted earlier, there may be a tendency for those who are highly informed to underestimate their level of information and those who are poorly informed to overestimate. This tendency is indicated in the differences between the subjective and objective findings.

Perceived Social Class

Table 15: Subjective Level of Information about Four Issues, by Perceived Social Class

Information Level:	Perceived Social Class			
	Lower	Working	Middle	Upper
<u>Civil Defense</u>				
Low	47.5%	36.4%	29.0%	39.4%
Medium	34.2	47.1	52.8	32.2
High	18.3	16.5	18.2	28.4
<u>Cold War</u>				
Low	47.5%	30.2%	19.0%	14.1%
Medium	36.8	57.3	60.5	46.5
High	15.7	12.5	20.5	39.4
<u>Weapons Effect</u>				
Low	47.5%	33.5 %	21.6%	28.4%
Medium	31.6	46.3	47.6	35.8
High	20.9	20.2	30.8	35.8
<u>Arms Control</u>				
Low	68.4%	50.6%	36.8%	50.0%
Medium	29.0	41.5	47.9	35.8
High	2.6	7.9	15.3	14.2
(N=)	(28)	(616)	(698)	(38)

When we examine subjective level of information by the social class to which respondents assign themselves, several interesting things happen. On all but the arms control issue, there are slightly more lower class than working class members with high subjective information. The working and middle classes exhibit marked differences, with more middle class members having high and medium information on each of the issues. The smallest differences among classes is on the civil defense issue.

The number of respondents who include themselves in the lower and upper classes is too small to allow meaningful discussion, but the table indicates that comparing civil defense with arms control, the lower class group with high subjective civil defense information is seven times larger, while the upper class group with high subjective civil defense information is only twice as large. This difference might point to the explanation that while the upper class does have higher subjective information on both issues, they are more attuned to both options -- protection and prevention -- than are the lower class. The same kind of difference occurs when we look at the working and middle classes, such that we might say of the two issues, civil defense information has a greater impact on the working class. Among the working class, there are about twice as many high subjective civil defense information respondents, while in the middle class, there are only 2.9% fewer who have high subjective arms control information.

The Bureau of Applied Social Research constructed an index of socio-economic status for their nine-community survey. Components of this index were income, occupation and education. Respondents were divided into high, medium and low groups, based on their index scores. The BASR findings, summarized in Figure 9 show a positive relationship between higher socio-economic status and higher levels of nuclear age information.

Figure 9: Objective Level of Nuclear Age Information, by Socio-economic status

	Socio-economic Status		
	Low	Medium	High
Nuclear Age Information	67.7%	49.2%	22.8%
	29.8	44.0	63.6
	2.5	6.6	13.6
(N=)	(392)	(470)	(280)

(From: Levine and Cole, Perspectives and Opinions on the Fallout Shelter Issue, Table III-35, p. 71.)
(Table re-analyzed)

In a sense, the BASR Nuclear Age Information index can be considered to be roughly comparable to the subjective measures of effects of nuclear weapons and cold war information levels. The BASR index is based on knowledge about fallout and the nations who are nuclear powers. Within this context, the BASR socio-economic status findings, and the education, social class, and to a lesser extent income factors in our subjective information findings are in agreement.

IV: EVALUATIONS AND EXPECTATIONS

In our discussion of demographic and personal characteristics we have found that we can roughly identify certain segments of the population as having greater proportions of respondents with high subjective levels of civil defense information; and in some cases these differ from the segments of the population who might be considered more informed about the other related issues.

We now turn to the evaluations and expectations of those who feel they have high, medium and low information about civil defense. In the sense that we are using the terms, evaluations refer to what people think about a situation, whether it is good or bad, how desirable it is or will be. Expectations refer to what people think a future situation will be, or what the future will be like. We make this distinction for ease of handling our findings, and in order to avoid certain of the problems involved in discussing likelihood and desirability assessments in terms of the underlying attitudes and opinions that they may express.

Within the limits of our data, we will attempt to answer the question: Do those with different subjective levels of civil defense information differ in their evaluations and expectations, and do those at each civil defense information level tend to make assessments that are similar to or different from those of their counterparts on the information continua for the three related issues?

This question is important to our discussion about the impact of information to the extent that information serves as a basis for evaluations and expectations, and these may affect sensitivity and receptivity to information. In our attempt to describe differences between subjective information levels, and differences between civil defense and the three related issues, we are making no attempt to explain these differences, or to seek the causes for them. We are not considering the subjective level of information as "causing" a given assessment, nor are we viewing an assessment as "causing" a given level of information, although evaluations and expectations, and information may, in fact, have a causal relationship. As we noted previously, none of the four information issues was defined; respondents were merely asked, "How well do you consider yourself informed about...?" We have no way of determining what respondents considered to be high information, nor can we tell how or whether or not information components differ.

A. Level of World Tensions

Respondents were asked to evaluate the level of world tensions at four points in time:

the present (1963)

two years ago (1961)

two years from now (1965)

five years from now (1968)

These evaluations were made on a zero to ten scale, with zero signifying minimum and ten signifying maximum levels of world tension. We consider responses below four to be low tension, those in the four through six range to be medium tension, and those above six to be high tension.

Present Tension Level (1963)

Table 16: Present Level of World Tensions (1963) by Subjective Level of Information about Four Issues

Tension Level:	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Low	8.2%	3.5%	4.9%	6.5%	4.8%	5.2%
Medium	36.9	35.9	32.6	37.2	34.2	38.0
High	54.8	60.6	62.5	56.3	60.8	56.8
(N=)	(466)	(683)	(243)	(352)	(811)	(229)
Tension Level:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
	Low	5.5%	5.1%	5.5%	4.9%	5.9%
Medium	36.4	34.7	36.3	35.3	36.3	34.2
High	58.1	60.2	58.1	59.9	57.9	60.6
(N=)	(396)	(646)	(349)	(625)	(612)	(155)

As Table 16 indicates, more than half of the respondents at each level of information on all four issues, feel that the present level of world tensions is high.

As the subjective level of civil defense information increases, there is an increased tendency to evaluate the level of tension as being high, and a decrease in the tendency to feel that world tensions are medium. Low tension is perceived most frequently by the low information group.

On the other three issues, the subjective information groupings do not distinguish themselves in their perceptions of present tension levels, there is very little, if any, difference between those with high and low information.

Comparing the subjective levels of civil defense information with the other three issues, those with low civil defense information tend to feel the level of world tensions is lowest, and those with high civil defense tend to feel the level of world tension is highest.

Tension Level Two Years Ago (1961)

Table 17: Level of World Tensions Two Years Ago (1961) by Subjective Level of Information about Four Issues

Tension Level:	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Low	10.0%	7.4%	5.4%	10.7%	7.2%	6.5%
Medium	28.0	24.1	23.0	33.8	24.2	15.9
High	61.8	68.6	71.6	55.6	68.7	77.5
(N=)	(464)	(676)	(239)	(346)	(807)	(226)
Tension Level:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
Low	12.0%	6.5%	6.1%	9.7%	7.3%	4.0%
Medium	30.4	24.6	20.8	27.0	24.9	19.6
High	57.7	68.9	73.1	63.3	68.0	76.5
(N=)	(392)	(640)	(346)	(318)	(608)	(153)

Table 17 shows that there is a direct relationship between high subjective information level and evaluations of high world tension two years ago, and this relationship exists on all four issues.

The smallest differences that occur between the low and high information groups are on the civil defense continuum, at the high and medium tension levels. Those with high civil defense information tend to feel that world tension two years ago was high less frequently, and medium more frequently, than do high information respondents on each of the other issues.

Tension Level Two Years From Now (1965)

Table 18: Level of World Tensions Two Years From Now (1965), by Subjective Level of Information about Four Issues

Tension Level:	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Low	13.3%	9.4%	10.5%	13.3%	9.2%	13.8%
Medium	37.2	37.6	36.0	39.5	35.6	39.7
High	49.5	52.8	53.5	47.2	55.2	46.5
(N=)	(457)	(669)	(239)	(347)	(794)	(224)
Tension Level:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
Low	12.6%	9.3%	12.3%	28.7%	11.0%	12.6%
Medium	36.5	38.0	36.6	36.3	37.8	39.1
High	50.9	52.7	51.1	53.1	51.3	48.4
(N=)	(389)	(632)	(344)	(613)	(601)	(151)

As Table 18 indicates, there is a slight tendency for those with high subjective civil defense information to anticipate high world tensions in 1965, and the reverse of this tendency exists for those with high subjective information on arms control and disarmament efforts. On the other two issues, more medium subjective information respondents tend to feel that world tensions will be high. The greatest differences at the high tension level occur between the medium and the high subjective information levels on the cold war continuum, 8.7%.

Tension Level Five Years From Now (1968)

Table 19: Level of World Tensions Five Years From Now (1968), by Subjective Level of Information about Four Issues

Tension Level:	Information Level					
	Civil Defense			Cold War		
	Low	Medium	High	Low	Medium	High
Low	18.2%	16.4%	19.2%	16.0%	16.3%	23.9%
Medium	42.1	42.8	39.7	45.7	41.1	40.3
High	39.6	40.7	41.1	38.4	42.7	35.7
(N=)	(441)	(651)	(229)	(331)	(772)	(218)
Tension Level:	Weapons Effect			Arms Control		
	Low	Medium	High	Low	Medium	High
Low	16.0%	16.7%	20.7%	15.3%	17.6%	25.9%
Medium	43.0	41.8	41.5	44.7	40.7	37.0
High	40.8	41.5	38.0	39.9	41.8	37.0
(N=)	(374)	(612)	(335)	(593)	(582)	(146)

Table 19 shows that as level of civil defense information increases, there is a slight tendency toward anticipating higher world tensions in 1968. On the three other issues, those with high subjective information tend to expect that world tensions will be lower than the medium and low subjective information groups.

The greatest differences between the high and low subjective information groupings occur at the low tension levels; on the cold war dimension, there is a 7.9% difference; on the arms control and disarmament efforts issue, there is a 10.6% difference; for weapons effect, the difference is 4.7%.

When we compare the world tension levels at the four points in time, as indicated in Tables 16, 17, 18 and 19, for those with high, medium and low subjective levels of civil defense information, we consistently find that world tensions are highest for the high information group and lowest for the low information group.

While world tensions are expected to decrease over time, fewer of those who have high subjective civil defense information remember tension as being high in 1961, more feel that tension is high in 1963, and more expect it to remain so in 1965 and 1968 than the high subjective information respondents on the other three issues.

At all three levels of subjective civil defense information, the greatest decrease in high tension and the greatest increase in low tension is expected between 1965 and 1968. The differences between the high and low subjective civil defense information groups diminish over time. At the high tension level, differences are 9.8% in 1961, 8.7% in 1963, 4% in 1965, and 1.5% in 1968.

In summary, those with high subjective civil defense information can be described as follows:

They remember the level of world tensions two years ago as being lower than the high respondents on the other subjective information issues.

They feel the present level of world tensions somewhat higher than do the high information respondents on the other issues.

They anticipate that the level of world tensions will remain higher two years from now (1965) and five years from now (1968).

Differences between the high, medium and low information groups all but disappear in their evaluations of tension levels in 1968.

B. Likelihoods of a Nuclear War and Likelihood of Disarmament With Adequate Controls -- In The Next Five Years (by 1968)

Likelihoods were evaluated on a zero-to-ten scale on which five was designated as the value representing that which is as likely as it is unlikely -- odds are about 50-50 -- zero is very unlikely, ten is very likely. We have collapsed this eleven-point scale so that all responses below five are considered to be unlikely, all responses above five are considered to be likely, and responses of five represent 50-50 odds.

Likelihood of a Nuclear War in the Next Five Years

Table 20: Likelihood of a Nuclear War in the Next Five Years, by Subjective Level of Information about Four Issues

Likelihood:	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Unlikely	55.1%	54.5%	45.4%	45.8%	53.0%	58.2%
50-50	32.0	34.5	32.8	37.5	34.9	21.3
Likely	13.0	11.0	21.7	16.7	12.1	20.5
(N=)	(463)	(682)	(244)	(352)	(807)	(230)
Likelihood:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
Unlikely	47.6%	52.9%	63.9%	47.3%	55.3%	61.1%
50-50	37.5	36.3	23.2	37.5	33.9	21.4
Likely	14.9	10.8	12.9	15.2	10.8	17.5
(N=)	(395)	(644)	(349)	(624)	(611)	(154)

On the civil defense issue, as the level of information increases, nuclear war in the next five years becomes less unlikely. For the three related issues this trend is reversed: as subjective information increases, nuclear war becomes more unlikely. The 50-50 odds decrease as level of subjective information increases on the three related issues, while on the civil defense continuum, the medium information level group considers the 50-50 odds as being highest, and the low and high information groups are about the same. Nuclear war is felt to be likely by fewer of the medium information level respondents on all four issues.

Andrea Modigliani in "Facts, Beliefs and Baloney About the Cold War Public,"²⁰ points out that more anxious persons are less likely to be informed about the cold war. In Figure 10 we present his data, analyzing anxiety levels by information.

²⁰
Council for Correspondence Newsletter No. 24, March 1963, p. 54.

Figure 10: Anxiety about Nuclear War by Information on Cold War Matters

Anxiety Level:	Information Level	
	Percent in top half of information scale	Percent in bottom half of information scale
High Anxiety	19.0%	29.0%
Medium Anxiety	40.0	42.0
Low Anxiety	41.0	29.0
(N=)	(63)	(58)

Those with lower information tend to have higher anxiety, and those with high information tend to have lower anxiety, which is consistent with our subjective cold war information findings for "unlikely" and "50-50 odds."

In a way, anxiety about, and perceived likelihood of war may be related. That is, we might expect those who have little anxiety about war to express this feeling because they do not think that war is likely.

Withey reported in 1962 that University of Michigan researchers found a relationship between information on cold war matters and the likelihood and timing of war for those who expect an attack to be "worse here," or "worse elsewhere." For the purposes of our discussion, we have eliminated the severity of attack variable. These findings are indicated in Figure 11.

Figure 11: Likelihood and Timing of War, by Level of Information on Cold War Matters

Likelihood and Timing of War:	Level of Information		
	Low	Medium	High
War Very Likely in Two Years or Less	58.0%	38.0%	24.0%
War Possible in Two Years or Less	23.0	15.0	21.0
War Unlikely; 5 years Away, if Ever.	19.0	47.0	55.0
(N=)	(52)	(58)	(76)

These findings, in and of themselves, must be viewed with a certain amount of caution; only three of the many likelihood-timing combinations have been included and these were simplified into "classical type" categories.

As Withey points out, those who consider war very likely in two years or less should feel very threatened. Those who feel war is possible in two years or less should have some serious apprehensions. Those who consider war unlikely within the next five years should not be too tense or worried or apprehensive.

As Figure 11 shows, those who have low information consider war very likely; those who have high information consider war unlikely.

These findings are consistent with our findings for the three civil defense related subjective information issues -- as subjective level of information increases, the unlikelihood of a nuclear war in the next five years increases.

Berlo, et al., report that those who consider war likely, more frequently gave accurate responses to 11 out of the 14 statements of fact than those who feel that war is unlikely. This is consistent with our finding that as the subjective level of civil defense increases the unlikelihood of war decreases.

Likelihood of Disarmament with Adequate Controls in the Next Five Years

Table 21: Likelihood of Disarmament with Adequate Controls in the Next Five Years, by Subjective Levels of Information about Four Issues

Likelihood:	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Unlikely	44.4%	44.3%	36.9%	44.1%	41.4%	47.8%
50-50	35.1	32.4	35.4	32.7	37.4	22.8
Likely	20.4	23.1	27.7	23.1	21.2	29.4
(N=)	(461)	(682)	(243)	(346)	(812)	(228)
Likelihood:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
	Unlikely	43.4%	40.7%	47.0%	44.6%	41.5%
50-50	33.9	37.7	26.6	34.8	35.9	21.9
Likely	22.7	21.4	26.4	20.6	22.7	34.4
(N=)	(389)	(647)	(349)	(618)	(613)	(155)

Those with high subjective civil defense information consider disarmament in the next five years less unlikely than do those who have medium or low civil defense information; and less unlikely than high, medium, or low information groups on the three related issues. There is no difference between the high and low civil defense groups in feeling that the odds are 50-50, however the high civil defense group is more inclined to have this attitude than are those who have high information about the related issues. As subjective levels of information about civil defense and arms control increase, there is an increase in likelihood of disarmament.

C. Likelihood Of The Cold War Futures

In the frequency of selection of the most likely way the cold war will end, there are certain differences between those who feel they have high, medium and low civil defense information and information levels tend to differentiate themselves from their counterparts when we examine the other three issues.

The Civil Defense Futures are stated, and the findings are summarized in Table 22. In this table, and the following discussion, four of the 12 possible Futures have been omitted because none was considered to be "most likely" by more than 5.0% of the respondents at any information level. These include: F-2 (The whole world will become Communistic by people accepting Communism), F-3 (By revolutions, civil wars and small wars, the Communists will come to power in the whole world), F-4 (The Communist powers will be victorious in a world war), and F-11 (The United States will have to surrender without war because of the development of such new weapons by the Communist nations that the United States could not possibly win.)

Table 22: Most Likely Way the Cold War Will End, by Subjective Levels of Information about Four Issues

		Information Level											
		<u>Civil Defense</u>		<u>Cold War</u>		<u>Weapons Effect</u>		<u>Arms Control</u>					
		Low	Medium High	Low	Medium High	Low	Medium High	Low	Medium High				
F-1	The Cold War will continue indefinitely; no end is in sight at all.	25.2%	20.5%	16.8%	19.3%	21.1%	26.8%	18.7%	21.5%	23.9%	21.4%	21.0%	23.3%
F-5	World War III will take place, resulting in such destruction that it makes no sense to talk of "winners" or "losers."	6.7	7.0	14.7	7.7	8.8	6.6	6.6	8.0	10.7	8.3	8.2	8.7
F-6	The United States and its allies will win in a world war.	9.6	10.0	10.1	13.9	9.1	6.4	13.9	10.1	5.0	11.4	9.0	8.0
F-7	The communists are going to lose due to revolutions, civil wars and small wars in communist nations.	7.9	12.4	10.5	8.6	10.9	12.3	10.5	10.5	10.9	9.4	12.6	7.3
F-8	The communists will accept the Western way of life, and the communist powers will become like the United States, Great Britain or Sweden.	8.5	7.7	8.0	4.4	9.4	8.7	7.6	7.1	10.3	8.3	7.8	8.0
F-9	The Cold War will end through disarmament or reconciliation.	24.3	27.3	24.0	24.7	25.4	28.7	22.8	27.4	25.7	23.5	26.2	30.7

Table 22: Most Likely Way the Cold War Will End, by Subjective Levels of Information about Four Issues (Cont'd.)

		Information Level											
		<u>Civil Defense</u>			<u>Cold War</u>			<u>Weapons Effect</u>			<u>Arms Control</u>		
		Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Cold War Futures:													
F-10	A Third Force will emerge in the world able to control the actions of the communist nations as well as the United States.	5.4	5.1	3.7	5.3	4.7	5.5	4.5	4.7	6.2	5.4	4.9	3.3
F-12	The communist nations will have to surrender without war because of the development of such new weapons by the United States that the Communist nations could not possibly win.	7.4	6.8	9.2	9.2	8.3	2.3	9.2	8.0	4.3	7.8	7.3	6.7
	(N=)	(445)	(660)	(238)	(337)	(787)	(219)	(380)	(622)	(340)	(605)	(588)	(150)

The future most frequently selected by those at the high and medium civil defense information levels is F-9 (disarmament) and the next most often mentioned is F-1 (no end in sight). At the low information level these two futures are reversed, with F-1 (no end in sight) considered "most likely", and F-9 (disarmament) running a close second. Measured along each of the other subjective information continua, the most likely and second most likely ways the cold war will end are F-9 (disarmament) and F-1 (no end in sight), respectively.

For those at the middle civil defense information level, F-9 (disarmament) was most often selected with no distinguishable difference between the high and low information groups. Along the cold war and arms control continua, as the levels of information increase, the frequency of selection of F-9 (disarmament) increases. For those at the medium information level on the effects of nuclear weapons, F-9 (disarmament) was most often selected, and it was least often chosen by the low information group.

The tendency toward a decrease in the frequency of F-1 (no end in sight) with increased civil defense information is the reverse of the responses along the other three information continua with the exception of arms control where the differences between the low and medium information levels are only .6%.

The World War III futures (F-5 and F-6) were selected more often by those with high civil defense information than by those with high information about the other three issues. F-5 (WW III-no winner) was selected by the high civil defense information group slightly more than twice as often as it was by the medium and low groups. While the frequency of F-6 (WW III-U.S. wins) decreases with increased subjective information levels on the other three issues, there are no distinguishing differences between the subjective information levels on Civil Defense -- approximately one out of ten at all information levels feel this will be the most likely end of the cold war.

F-12 (Communists surrender without war) is most likely for more of those with high civil defense information than for those with medium or low information. This is the reverse of the tendency that the other three information continua exhibit: the frequency of selection of F-12 (Communists surrender without war) decreases as the information level increases.

In summary, by examining the most likely evaluations at the high subjective civil defense information level in contrast to the evaluations at the medium and low subjective information levels,

and comparing them to the other high subjective information level evaluations, those who consider themselves to have a high level of civil defense information can be characterized as follows:

They are less inclined to feel that the cold war will last indefinitely (F-1).

They are more inclined to feel that World War III will occur (F-5 and F-6).

They are more inclined to feel that there will be no winners or losers (F-5).

They are more inclined to feel that the United States will win (F-6).

They are less inclined to feel that the cold war will end through disarmament or reconciliation (F-9).

They are more inclined to feel that the Communist nations will have to surrender without war (F-12).

D. Most Desirable End of the Cold War

Of the twelve cold war futures, five were considered to be most personally desirable by more than 5% of the respondents at any level of subjective civil defense information. The proportion of respondents selecting each future as most desirable is indicated in Table 23. Percents do not total 100 because we have omitted those futures which were most desirable to less than 5% of the respondents, when examined along the civil defense information continuum.

Table 23: Most Desirable End of the Cold War, by Level of Information about Four Issues

Cold War Futures	Information Level					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
F-6	7.3%	6.1%	6.8%	8.8%	6.5%	3.7%
F-8	23.3	26.7	25.5	20.1	28.1	23.9
F-9	42.4	43.4	44.3	40.4	42.9	49.1
F-10	2.9	3.6	6.4	2.4	4.3	4.6
F-12	15.3	13.3	9.8	18.3	12.7	8.3
(N=)	(450)	(670)	(235)	(339)	(798)	(218)
Cold War Futures	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
F-6	9.5%	6.5%	3.8%	9.2%	4.7%	4.0%
F-8	23.7	24.0	29.9	24.5	26.0	26.8
F-9	39.7	45.7	42.8	41.7	44.1	46.3
F-10	2.9	4.1	4.4	2.6	4.7	5.4
F-12	15.5	13.3	11.1	14.1	13.6	9.4
(N=)	(380)	(633)	(341)	(609)	(597)	(149)

The greatest difference between civil defense and the other subjective information continua occurs among those who feel F-6 (United States and its allies will win in a World War) is most personally desirable. There is a definite tendency for the group who select this future to become smaller as the subjective level of information becomes higher along the continua of the three civil defense related issues; however, when we examine the civil defense information levels, we find that there is very little difference between the highs and the lows.

On all four issues, there is an increase in the selection of F-10 (A Third Force will emerge in the world able to control the actions of the Communist nations as well as of the United States) as the level of information becomes higher. Slightly more of those with high subjective information about civil defense find F-10 most desirable, compared with those with high subjective information on the three other issues.

F-8 (Communists accept Western way of life) is most desirable for more of those with medium subjective civil defense and cold war information and for fewer of those who feel they have low information on both of these issues. On the weapons effect and arms control continua, as level of information increases, the frequency of selection of this future increases.

As the subjective level of information increases on all four continua, the frequency of selection of F-12 by (Communist surrender without war) decreases.

E. Desirability of Civil Defense Alternatives

Respondents were asked to indicate how much they personally were interested in the occurrence of each of six civil defense alternatives. These alternatives include:

- CD-1 All available spaces which provide good protection against fallout will be marked as shelters and stocked with everything necessary for survival.
- CD-2 There will be fallout shelters available for all Americans. Existing spaces will be used, other spaces will be altered to provide protection, and as needed, new fallout shelters will be built.
- CD-3 In tense situations which might precede a war, communities near military bases - plus some large cities will evacuate their people to safer areas where fallout shelters will be available.
- CD-4 There will be fallout shelters throughout the nation, and also shelters against nuclear blast, heat, and chemical and biological agents in large cities.
- CD-5 In addition to shelters and existing defense against bombers, there will be defenses against ballistic missiles around our large cities and military installations.
- CD-6 There will be no shelters against nuclear weapons because arms control and disarmament steps will make nuclear war impossible.

Responses were indicated on the -3 to +3 desirability scale, which ranges from maximum undesirability through "don't care one way or the other" to maximum desirability. We have collapsed these seven scale values to: Undesirable, -3, -2; don't really care, -1, 0, +1; Desirable, +2, +3.

Let us examine the desirability of these alternatives for the three subjective levels of information about civil defense.

Table 24: The Desirability of Civil Defense Alternatives, by the Subjective Level of Civil Defense Information

A: Desirabilities of civil defense alternatives for those with a <u>low subjective level</u> of civil defense information						
Desirability:	Civil Defense Alternatives					
	CD-1	CD-2	CD-3	CD-4	CD-5	CD-6
Undesirable	11.4%	12.7%	16.0%	16.2%	11.6%	27.7%
Don't really care	18.4	25.4	23.7	20.8	17.3	12.6
Desirable	70.2	61.8	60.2	63.0	71.1	59.8
(N=)	(439)	(440)	(438)	(438)	(439)	(438)
B: Desirabilities of civil defense alternatives for those with a <u>medium subjective level</u> of civil defense information						
Undesirable	8.0	9.8	12.8	11.3	7.8	31.3
Don't really care	15.2	17.3	20.9	17.6	15.2	12.7
Desirable	76.9	72.9	66.4	71.1	77.0	56.0
(N=)	(665)	(663)	(666)	(664)	(665)	(662)
C: Desirabilities of civil defense alternatives for those with a <u>high subjective level</u> of civil defense information						
Undesirable	12.1	15.3	18.7	14.5	14.9	39.4
Don't really care	14.2	19.9	17.5	16.2	9.9	8.7
Desirable	73.8	64.7	63.9	69.3	75.5	51.9
(N=)	(240)	(241)	(241)	(241)	(241)	(241)

As Table 24 indicates, alternatives 1-5 are considered to be desirable by more than 60% of the respondents at the low subjective information level, more than 66% of the medium subjective information level respondents and more than 63% of those at a high subjective information level. Each of these five alternatives is considered to be more desirable by the medium information group. At all levels of civil defense

information the most desirable alternative is CD-5; the second most desirable is CD-1. Of the five alternatives, the one considered desirable by the smallest percentage of respondents at all three information levels is CD-3.

At the other end of the desirability scale, the most desirable alternative CD-5 is considered undesirable by 14.9% of those with high information, 11.6% of those with low information, and 7.8% of those with medium information. The smallest percentages of don't really care responses occur in alternatives CD-5 and CD-1 at all three information levels.

CD-6 presents a picture that is quite different from the other alternatives. As the civil defense information level increases, the desirability of this alternative decreases; it is considered desirable by 59.8% of the low information group, while only 51.9% of the high information group feel it is desirable. CD-6 is considered to be the most undesirable of the six alternatives at all three information levels; it has its greatest undesirability for the high information group. That the desirability evaluations of this alternative differ from the evaluations of the other alternatives may appear to be a paradox in many regards if we take our findings at face value. At the desirable end of the scale for the low information level group, CD-6 is desirable for almost the same percentage of respondents as are CD-3 and CD-2. For the medium information group, 10.4% feel CD-6 is less desirable than CD-3, while for the high information respondents the difference between the desirabilities of CD-3 and CD-6 is 12%. Evaluations of undesirability are high at all three information levels; lowest for the low information group and highest for the high information group. One out of eight respondents don't really care about this alternative in the low and medium information groups, while one out of twelve of the high information group don't really care about CD-6.

If we consider the desirability evaluations for the civil defense alternatives in the light of the level of world tensions and the most likely and desirable end of the cold war, the relatively low desirability of CD-6 seems to make more sense.

That the American people favor civil defense and view shelters as desirable is not surprising. Nor is it surprising that for all of the civil defense alternatives, with the exception of CD-2, as the level of information increases the proportion of "don't really care" evaluations decreases. While increased information tends to make people more able to evaluate alternatives, the mere having of information does not necessarily mean they will consider a given alternative as being more or less desirable. The desirability of the alternatives is related to both the likelihood of future events and the evaluation of the current reality.

We have found that the level of world tension is felt to be highest by those with high subjective civil defense information. These high information respondents have indicated that the most likely end to the cold war will come either through disarmament or reconciliation, or because of World War III. Within the next five years they consider the odds that there will be a nuclear war to be higher than do the medium and low civil defense information respondents, and they also feel that the odds that there will be disarmament with adequate controls will be higher.

Considering the high information level, respondents' higher evaluation of the current (1963) level world tensions, and a greater likelihood of a nuclear war in the next five years, coupled with their expectation that the cold war ultimately might end in a World War, it is not at all surprising to find that CD-6 is felt to have less desirability than any of the sheltering options, and has the lowest desirability and highest undesirability for the high information group. Although this feeling is reflected at all civil defense information levels, it is most pronounced at the high level. CD-6 provides an affirmation to the sheltering program -- the likelihood of disarmament is not great enough, nor is the likelihood of nuclear war remote enough to consider abandoning some kind of shelter program as being a highly desirable alternative.

F. Two Specific Items: The Present Warning System, The Effect of Nuclear War.

Our data permit us to look at two specific items at each of the three subjective levels of civil defense information -- the evaluation of the present warning system and the expected effect of a nuclear war.

The warning system evaluations provide us with a clue to the effect and effectiveness of the information that people feel they have about this very specific aspect of the civil defense program.

Views about what the effects of a nuclear war might be allow us to look at the subjective levels of information from another point of view. If we can give attitudinal meaning to these views, then we can look at these expectations in terms of optimism and pessimism; that is, the most optimistic would feel that enough would survive to carry on and perhaps rebuild a system under American values, while the most pessimistic would feel that it would be the end of the world and all life on it.

The Present Warning System

Table 25: Evaluation of the Present Warning System, by Subjective Level of Information about Four Issues

Evaluations:	Level of Information					
	<u>Civil Defense</u>			<u>Cold War</u>		
	Low	Medium	High	Low	Medium	High
Very good	12.1%	16.0%	22.6%	15.2%	16.4%	15.1%
Good	22.2	31.6	26.2	26.3	28.6	26.0
Fair	32.7	31.6	30.3	26.7	33.8	32.0
Poor	23.2	16.3	19.3	22.5	17.7	19.1
Don't know/ No answer	9.8	4.5	1.6	9.3	3.5	7.8
(N=)	(469)	(687)	(244)	(355)	(814)	(231)
Evaluations:	<u>Weapons Effect</u>			<u>Arms Control</u>		
	Low	Medium	High	Low	Medium	High
	Very good	16.5%	15.9%	15.1%	14.4%	17.1%
Good	26.5	30.0	24.0	27.3	28.3	25.8
Fair	31.5	31.4	32.6	32.9	31.5	28.4
Poor	19.0	18.4	22.5	18.7	17.9	22.0
Don't know/ No answer	6.8	4.8	6.3	6.4	4.7	6.5
(N=)	(400)	(649)	(350)	(631)	(614)	(155)

As Table 25 indicates, there is a direct relationship between subjective civil defense information and the "very good" evaluation of the present warning system; as subjective civil defense information increases there is an increase in the proportion of respondents who feel that the warning system is very good. More medium information respondents consider the warning system to be good, while those who have low subjective civil defense information, more often feel it to be fair and poor. At the low information level, 9.8% of the respondents either did not know or did not answer this question, while evaluations are missing for only 1.6% of the high information respondents.

On the cold war information continuum, those with medium subjective information are slightly more inclined to give very good, good and fair evaluations; there is little difference between the high and low information groups on the very good and good evaluations; those with high information are more inclined than those with low information to consider the present warning system fair; those with low cold war information are more prone to feel the warning system is poor.

In examining the evaluations of the warning system by levels of information about the effects of nuclear weapons, we find that although differences are very slight, there is a trend toward fewer high information respondents feeling the present warning system is very good. Medium information respondents more often consider the warning system to be fair, and high information respondents more frequently feel the warning system is fair and poor.

Those with medium subjective information about arms control are slightly more inclined to feel the present warning system is very good and good; those with low information are somewhat more inclined than those with high information to feel it is fair, and those with high information are somewhat more inclined to evaluate the warning system as poor.

On each of the three related issues, the differences between the high and low information groups' very good evaluations of the present warning system are extremely small, while the difference between the high and low subjective civil defense information groups' very good evaluations is 10.4%. The proportion of high and low information respondents for whom data is missing, is about equal for each of the three related issues, while on the civil defense issue, 8.2% more low information respondents did not know or did not answer.

The difference in evaluations seem to indicate that civil defense information has a special impact on assessment of the present warning system. Those with high subjective civil defense information are more inclined to make an evaluation of the warning system, and are more inclined than those with low subjective information to feel that it is very good or good. Those who feel they have low civil defense information are less prone toward evaluating the warning system, and are more apt to feel that it is fair or poor.

The Effects of a Nuclear War

Respondents were asked to indicate which of five statements about the effects of a nuclear war come closest to representing their views, if such a war were to happen. The percentage of respondents with low, medium and high subjective information who selected each of these views is indicated in Table 26, for each of the four information questions.

Table 26: The Effects of Nuclear War, by Subjective Level of Information about Four Issues

Expectations:	Information Level											
	<u>Civil Defense</u>		<u>Cold War</u>		<u>Weapons Effect</u>		<u>Arms Control</u>					
	Low	Medium High	Low	Medium High	Low	Medium High	Low	Medium High				
1. Enough people would survive a nuclear war to pick up the pieces and carry on with a good chance of rebuilding a system which lives under American values, as we know them.	17.4%	17.8%	16.9%	17.3%	16.8%	20.4%	16.2%	17.4%	19.3%	16.4%	19.1%	15.5%
4. A nuclear war would mean the end of civilization as we know it.	21.5	18.2	16.0	17.0	19.4	19.9	18.0	19.0	19.9	17.6	19.7	20.9
2. Although nuclear war would be a terrible thing, it would be possible to survive as a nation	16.7	21.1	26.2	15.2	21.6	25.0	14.6	21.6	25.3	17.6	21.2	29.7
3. If nuclear war does come, people in the U. S. will make the best of the situation.	29.6	31.8	32.5	33.7	31.4	26.4	33.7	31.1	28.3	34.1	29.2	27.7
5. A nuclear war would mean the end of the world and all life in it.	14.7	11.1	8.4	16.7	10.7	8.3	17.5	10.9	7.2	14.3	10.8	6.1
(N=)	(442)	(664)	(237)	(335)	(792)	(216)	(377)	(633)	(332)	(602)	(593)	(148)

While differences between the information levels are not great in any one of the four information dimensions, some tendencies are apparent, which might lead us to believe that those with a high level of civil defense information have a perception of what the effect of nuclear war might be which is somewhat different from the effects perceived by those with high levels of information about the other three related issues. Along the civil defense information continuum, those with high information most infrequently expect nuclear war to mean the end of civilization as we know it, and those with low information most frequently expect this effect. This relationship is reversed when examined along the other three information continua. As the civil defense information level increases, there is a tendency toward more often expecting that people in the United States would make the best of the situation, while this relationship is reversed for each of the other three continua.

For all four issues there is a definite relationship between high information and the expectation that it would be possible to survive as a nation; and a definite relationship between low information and nuclear war meaning the end of the world and all life on it. The view that enough people would survive to pick up the pieces and carry on with a good chance of rebuilding a system which lives under American values as we know them, was least frequently expressed by those with high information on civil defense and arms control and most frequently expressed by those with high cold war and weapons effect information.

We can speak of the subjective civil defense information findings in terms of optimism and pessimism -- the five expectations in Table 26 are ordered from the greatest optimism, the ability to carry on, (Expectation 1) to the greatest pessimism, the end of the world, (Expectation 5). Those with high subjective civil defense information are clearly more optimistic about the effects of a nuclear war, and those with low subjective civil defense information are clearly more pessimistic. As subjective level of civil defense information increases, there is a decrease in the proportion of respondents who have the views expressed in expectations 4 and 5 and an increase in the proportion who hold the views of expectations 2 and 3. At the different subjective levels of civil defense information there is very little difference in the proportion of respondents who have the greatest optimism (Expectation 1).

We cannot say that high subjective information causes optimism -- but our findings do allow us to say that those who feel they have high information about civil defense also have an optimistic outlook about the effects of a nuclear war.

V: SUMMARY AND IMPLICATIONS

In this report we have examined the impact of civil defense information on the American people in terms of levels of information. The basis for our examination has been the University of Pittsburgh December, 1963 national block sample of 1402 Americans, in which respondents were asked to evaluate their own levels of information about civil defense in America, the cold war issue, the effects of nuclear weapons, and arms control and disarmament efforts.

The subjective levels of information, and levels of information which were determined objectively by other researchers were analyzed by selected demographic and personal characteristics, and evaluations of current and expectations about future states of affairs were examined for each subjective information issue. This has been done in an attempt to determine if those whose personal characteristics differ differ in their subjective levels of information; if those who have different subjective levels of information differ in their evaluations and expectations; and if the characteristics by which we describe subjective levels of information are compatible with those used by others who have measured levels of information objectively.

While a relationship does exist among the four subjective information issues, it is far from perfect, which would indicate that civil defense, cold war, weapons effect, and arms control are considered to be distinct areas of information, each related to the others, but not dependent upon them. This finding is consistent with the objective information level research.

In the following section we present a summary of our findings for the subjective levels of information about civil defense. Our findings show that some differences do exist between those who feel they have high civil defense information and those who feel they have high information about the three related issues, and these have been noted in the body of this report. Where data was available, objective levels of information as measured by other researchers have been compared with our subjective findings, and the objective and subjective measures were found to be compatible.

In attempting to describe the subjective levels of civil defense information in terms of location in the broad social structure, we have selected a variety of demographic and personal characteristics of respondents, grouping them into residence, personal and family, and socio-economic categories.

Residence: The residence characteristics which we have included are: region of the United States as defined by United States Census Bureau divisions, size of sampling unit and home ownership.

Sampling region appears to be a factor involved in describing the various subjective levels of information about civil defense. The largest high subjective civil defense level groups are located in the West South Central (Civil Defense Region 5 with the exception of New Mexico), the North East, East South Central, and South Atlantic (Civil Defense Regions 1, 2 with the exception of Ohio, and 3).

At the high and medium subjective information levels, the size of the sampling unit appears to be a factor. More metropolitan area residents feel they have high civil defense information, while more non-metropolitan residents have medium subjective civil defense information. Our data indicates that those who rent their home consider themselves to be better informed about civil defense than those who are home owners, however, this factor may be a reflection of sampling unit size or other factors.

Personal and Family Characteristics: Among the personal and family characteristics we have included are: sex, age, strength of religious belief, race, marital status, and age of respondents' children.

Those who tend to feel they are better informed about civil defense are: men, under 40 years of age, strong in their religious beliefs, Negro and never married or married with children under 12 years of age. What appears to be a paradox in our findings regarding race, and the inconsistency between subjective civil defense information and both our findings on the related issues, and the objective racial finding of others may be explained by such factors as a greater proportion of metropolitan residents, more home renters, stronger religious belief, and younger mean age among Negro respondents.

Socio-Economic Indicators: The factors which we have included as socio-economic indicators are: education, income and perceived social class.

Our findings show that of the four information issues, years of schooling make the least difference in respondents' evaluations of their subjective level of civil defense information. While our findings generally indicate that with increased education there is an increase in subjective information level, there are slightly fewer high school graduates than those with some high school at the high subjective civil defense information level, and those with some high school do not differ appreciably from those with some college. Thus, education may be considered to be less important a factor in describing subjective civil defense information levels than it is for other subjective information issues, or for objective measures.

Those whose family income exceeds \$15,000 feel they have the lowest levels of civil defense information, and those whose income is under \$5,000, very closely resemble the high income group. Between these two extremes of earning power, those in the \$7,500-\$9,999 bracket tend to be somewhat more inclined to feel they have high or low civil defense information than the \$5,000-\$7,499 or the \$10,000-\$14,999 groups. Fewest of those who earn \$10,000-\$14,999 have low subjective civil defense information. The differences in subjective civil defense information levels by income are such that the two extremes of income tend to be the groups that feel they have the least information.

Those who perceive themselves as being members of the middle class tend to feel they have more civil defense information than do those in the working class. The number of cases in the lower and upper classes is too small to allow for meaningful comparisons among the four social classes, however the lower class tends more than any other to feel its level of information is low, and the upper class tends more than any other to feel its level of information is high. These two groups are less inclined than are the working or middle class to have a medium subjective level of civil defense information.

In attempting to determine whether or not there are differences between subjective information levels in the evaluations of current conditions and the expectations about future states of affairs, we have included appraisals of the level of world tensions, expectations in terms of likelihoods, evaluations in terms of desirabilities, and two specific items -- the present warning system and the effects of a nuclear war.

Levels of World Tension: The level of world tension was appraised at four points in time; two years ago (1961), the present (1963), two years from now (1965) and five years from now (1968). Our findings indicate that as the subjective level of civil defense information increases, there is a tendency to evaluate the level of world tension in the past and present as high and a slight tendency to expect it to remain high in the future. Those with high subjective civil defense information, when compared with high subjective information level respondents on the other three issues, tend to feel that the past tension level was lower, but it is higher at present and will continue to be higher.

Likelihoods: The likelihood of a nuclear war, the likelihood of disarmament with adequate controls, and the likelihood of the cold war futures are included in expectations.

A nuclear war in the next five years is considered to be less unlikely and more likely by those with high subjective levels of civil defense information than it is by the other two information groups. Those with low and medium subjective civil defense information levels exhibit no real differences in their expectation of nuclear war.

As the subjective civil defense information increases, there is a tendency to feel that disarmament with adequate controls is likely. Those with high subjective civil defense information are less inclined to feel that this would be an unlikely occurrence than are the other two subjective information groups.

As the subjective level of civil defense information increases, there is a decrease in the expectation that the cold war will last indefinitely, and an increase in the expectation that the most likely end will be World War III, resulting in such destruction that it makes no sense to talk of winners or losers.

Desirabilities: We have included the selection of the most desirable of the cold war futures, and the desirability of six civil defense alternatives in our evaluations. In evaluating the cold war futures, as the subjective level of civil defense information increases, there is a slight increase in the proportion of respondents who feel disarmament is most desirable, there is an increase in the proportion who want a Third Force to emerge, and there is a decrease in the proportion who most desire the Communists to have to surrender without war.

Each of sheltering alternatives (CD-1 - CD-5) are felt to be desirable by more and undesirable by less of those with a medium subjective level of civil defense information. As the subjective level of information increases, the desirability of CD-6 (there will be no shelters because nuclear war will be impossible) decreases and its undesirability increases.

Two Specific Items: Evaluations of the present warning system and expectations about the effect of a nuclear war provide our final view of the differences between different subjective levels of civil defense information.

As the subjective level of civil defense information increases, the proportion of "very good" evaluations of the present warning system increases, and the proportion of respondents who don't know or don't answer decreases. Those who feel they have medium civil defense information are more inclined to feel the warning system is good, while those with low subjective civil defense information tend to evaluate the warning system as poor.

As the subjective level of civil defense information increases, there is a tendency for people to expect that a nuclear war will have a less devastating effect. That is, with increased subjective civil defense information there is a decrease in the feeling that nuclear war would mean either the end of the world and all life on it, or that it would mean the end of civilization as we know it. On the other hand, there is an increase in the proportions who feel that the people in the United States would make the best of the situation, and that it would be possible to survive as a nation.

While civil defense programs potentially may affect all Americans, identifiable groups of Americans have or feel they have more information about civil defense than do others.

One of the implications for further research which is indicated by our findings is a study of the civil defense programs within the various regions of the United States. The kinds of local and regional programs, their participation in natural as well as nuclear disaster activities, their information dissemination programs, etc. may help us to understand some of the differences among civil defense information levels.

A second implication indicated by our findings is a study of the levels of information about civil defense using factors other than the demographic to explain differences in the amount of information people feel they have.

And third, research needs to be done to determine what respondents mean by "civil defense information" when subjective measures are made, and how accurate responses to objective information questions are in one sample population.

One final question remains: What are some of the practical implications of this report? If our findings give an accurate picture of the American people, and we have no reason to believe that they do not, then they contain implications for civil defense policy and programs as they relate to public information.

Many of the arguments against civil defense, as presented in The Civil Defense Discourse, and many of the assertions made by critics of civil defense involve statements regarding the effect of civil defense on the American people and the effectiveness of civil defense programs.

Our findings have shown that in general the American people give a fairly accurate estimate of the amount of information they possess, and this allows us to say:

We find no support for the arguments and assertions that civil defense appeals to only a limited number of people, and that the majority of Americans don't really know or care.

Civil Defense information, according to our findings, has had an impact on a broad spectrum of the American people -- women as well as men, Negroes as well as non-Negroes, those at all but the lowest level of education, those at all levels of income. Two out of three Americans feel they have medium or high civil defense information. However, we have no way of knowing whether or not the information they possess is accurate.

Those upon whom civil defense information has had its greatest impact might be thought of as those who have the greatest stake in the future. They are younger Americans who have determined their life goals, planned for their futures, started their families, either during wartime or under the threat of nuclear warfare.

We find no support for the arguments or assertions that civil defense might make people more anxious, pessimistic, or aggressive.

That civil defense information has had greater impact on those who consider the world situation more tense and have a greater anticipation of war may indicate that these outlooks have made them more receptive to all information about civil defense.

Those who feel they have more civil defense information have a greater optimism about the future than do those who think they have less information. They are more inclined to anticipate that the cold war will end; while they do not feel that a nuclear war is unlikely, they feel that disarmament with adequate controls is more likely. In addition, should a nuclear war occur, they are more optimistic about the chances for national survival. Of course, we are not asserting that optimism regarding the consequences of thermonuclear warfare is sound. Indeed, the reality might turn out to be worse than the more pessimistic anticipations of the pessimists. Yet, optimistic perceptions of the future do make it easier to cope with both the present and the future, and thus are a more desirable characteristic on the part of our population than would be corresponding pessimistic views of life. Effective planning and effective preparatory action certainly become more feasible in a climate of national optimism, even if it were ill-founded, than if Americans were to expect the worst and saw no means to affect the future of their families and their country.

Those upon whom civil defense information has had the greatest impact are less inclined to want World War III, or a situation in which the Communists must surrender because of United States' technological supremacy. They favor all shelter programs, and seem to feel that it is less desirable to have no shelter program.

It must be kept in mind that this report has dealt with subjective levels of information. We do not claim to know whether respondents have received the knowledge upon which they base their subjective evaluations from official sources, unofficial "factual" sources, or fictionalized presentations. Nor do we know whether respondents base their evaluations on accurate information or misinformation. These two considerations will form the basis for our second and third reports on the impact of civil defense information and seriously limit the possibility of making specific recommendations at this time.

Nonetheless, some statements can be made on the basis of our findings:

- (a) Civil defense programs have a high desirability to Americans regardless of the level of information which they claim to have about civil defense, weapons effect, or the cold war situation in general. Thus, it follows that there is little, if any, need to attempt to convince the American people that civil defense measures are desirable or warranted: there is little, if any, need to attempt to "sell" civil defense as such.
- (b) Since people with higher subjective information about civil defense actually turn out to be more optimistic about the future than are those with less information, whatever communications might be disseminated to our public, there is little, if any, reason to suspect that our people would become overly anxious, worried or pessimistic. This implies, of course, that civil defense messages can afford complete frankness in depicting to the nation both the promise and the limitations of protective measures.
- (c) Our analysis does not, at this time, sort out people whose information, regardless of its amount, is technically sound from those who labor under misinformation of various kinds. While the more forceful recommendation along these lines must await our subsequent analysis of the data, this would indicate that the fundamentally favorable perceptions of civil defense are not detrimentally affected by misinformation such as has often been publicized in the mass media or in fiction concerning nuclear warfare and its aftermath.

This conclusion may be stated tentatively because it is safe to assume that among the respondents who claim to be quite well informed, there must be -- just probabilistically speaking -- a good number of Americans whose information is high in quantity but low in (technical) accuracy or even (technical) relevance. This would mean, of course, that any publicity concerning civil defense, even publicity intended to have the opposite effect, has either desirable effects for civil defense or, at least, has no negative effects to speak of.

An informed public is an important aspect of the civil defense program and an essential in achieving its objectives. It is hoped that this research has made some contribution to understanding the population upon which civil defense information has had an impact.

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13. ABSTRACT The purpose of this report is to study the impact of Civil Defense information in terms of information levels. It examines levels of information about CD, cold war, effect of nuclear weapons, and arms control and disarmament efforts. Subjective levels of information on these four issues, based on a national block sample's self-imputed information, are compared with objective levels of information determined by other researchers, and these two measures of information levels are found to be compatible. While there is no way of knowing whether information people think they have is accurate, those who tend to feel they are informed about CD are women as well as men, Negroes as well as non-Negroes, those at all but the lowest level of education, those at all levels of income. The most important personal factors are related to respondent's age. Those who have high subjective CD information display a greater optimism about the future and are less inclined to want World War III or a Communist surrender because of U.S. technological supremacy; they favor all shelter programs and tend to feel that the present warning system is very good. The findings imply that: (1) there is little need to try to convince the American people that CD measures are desirable or warranted; (2) CD messages can afford complete frankness in depicting to the nation both the promise and the limitations of protective measures. In addition, there is an indication that the fundamentally favorable perceptions of CD are not detrimentally affected by misinformation.			

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
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