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INFORMATION SEEKING DURING A NATIONAL CRISIS

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OVERVIEW

This report summarizes the findings of two studies based on personal interviews conducted in Detroit, Michigan, in February, 1964. The purpose of the first study was to determine whether or not the Office of Civil Defense should consider setting up a special communication campaign directed at persons who contact civil-defense agencies during periods of national crisis. To obtain evidence on this point, personal interviews were conducted with 70 adults living in households in which someone contacted the Detroit Office of Civil Defense during the Cuban missile crisis in fall, 1962. To determine how adults in these "information-seeker" households differ from the general Detroit population, an area probability sample of 202 adults in Detroit and its adjacent suburbs were also personally interviewed. Respondents were questioned to determine the mass media habits, knowledge about public affairs and fallout protection, attitudes toward community fallout shelters, and activity in social groups and organizations. In addition, a specially prepared one-page message about fallout protection was mailed to half of the respondents a week before they were interviewed. The effects of this message on information level and attitudes were assessed for "information seekers" and for the general-population sample separately.

The second study was concerned with the communication habits of several subaudiences the Office of Civil Defense may wish to reach in special communication campaigns. Subaudiences were classified by sex, race, age, education, and number of children living at home. As in the first study, respondents were questioned about their media habits, knowledge of public

affairs and fallout protection, attitudes toward community fallout shelters, and activity in social organizations.

The findings of the first study suggest that a special communication campaign designed for persons who seek information from civil-defense agencies during national crises may be warranted. First, the "information seekers" during the Cuban missile crisis seemed to perform "key communicator" roles in the groups of which they are a part. In any given week, they are more likely to ask for opinions, and to be asked for opinions, on major topics in the news than other persons in their groups. This is true, despite the fact that they do not see themselves as "opinion leaders" on public-affairs issues. Second, they are more knowledgeable about major news topics and about fallout protection than other persons. However, they were not especially knowledgeable about local news topics and the status of the local Detroit fallout-shelter program.

Third, these "information seekers" are very active in social organizations. They are more likely to be members of social organizations, and to hold office in these organizations, than other members of the general urban population. They are particularly likely to belong to fraternal-social organizations. Finally, these "information seekers" seem to be found in most major segments of the general urban population. A campaign directed at "information seekers" would reach men and women equally, would reach all age groups, and would reach persons with any number of children living at home. Such a campaign would not reach Negro groups nor would it reach persons with less than a high school diploma. Of course, few persons in any

given subgroup would be actual "information seekers," but the fact that these persons are key communicators in these groups may warrant the cost of such campaigns.

Since "information seekers" had been mailed the Fallout Protection booklet during the Cuban missile crisis, it was felt they might be more receptive to current civil-defense messages than other members of the general population would. To test this, half of the persons in each sample were sent a one-page message about the Detroit shelter program and about fallout protection in general.

"Information seekers" were not more influenced by the message than persons in the general-population sample. On knowledge about fallout protection, the general population learned a significant amount from the message; "information seekers" did not. On knowledge of the status of the Detroit fallout-shelter program, the same pattern occurred. The message did not influence persons in either sample to have more favorable attitudes toward community fallout shelters, but it did increase the strength with which persons in both samples held their present attitudes.

The second study, reported in Part IV of this report, contains findings concerning the communication behavior of several urban subaudiences. In general, the number of children living in a person's home did not predict what his consumption of news in the mass media would be, nor did it predict whom he discussed public-affairs topics with in face-to-face communication. When analyzed by sex groups, men differed from women only in their knowledge of national-news events, in the strength with which they held their attitudes toward community fallout shelters, and in being more

likely to perceive themselves as public-affairs opinion leaders. Age groups differed only in that younger persons were more regular news magazine readers, lower in the readership of news in newspapers, and higher in perceived opinion leadership.

The Negro subaudience did not differ from Whites in their patterns of news consumption across the several mass media, but they did have a lower information level on both local and national news topics. Negroes also felt more strongly about their attitudes toward fallout shelters, were more likely to hold office in the social organizations they belonged to, and were more likely to see themselves as opinion leaders on public-affairs topics. Finally, they were more likely than Whites to belong to fraternal-social and public-affairs organizations.

Education groups differed among themselves more than any of the other subaudiences did. The higher a person's education, the more he reads news magazines, and the less he views television newscasts. As expected, the information level of high education persons is also high on local news, national news, and fallout protection. The higher-education groups were not more likely than other persons to know the status of the Detroit fallout-shelter program though. Nor did the education groups differ in the favorability or unfavorability of their attitudes toward community fallout shelters. Higher-education persons were more likely to be members in, be active in, and to hold office in social organizations. They were also more likely to belong to public-service organizations. Finally, they were the most likely persons to perceive themselves as public-affairs opinion leaders.

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I. PURPOSE OF THE STUDY

Public attentiveness to this country's civil defense program tends to rise during periods of acute international crisis, then ebb again as the crisis eases. This low attentiveness to civil defense messages during periods of calm makes it difficult to prepare the public for possible nuclear attack. However, during periods of international crisis, the Office of Civil Defense can capitalize on the heightened public interest by conducting heavy-saturation information campaigns.

In recent years, several international crises have stimulated interest in civil defense. Most notable are those concerning Berlin and Cuba. The most recent major crisis was the discovery of Russian-made ballistic missiles in Cuba during fall, 1962. Because those missiles were capable of reaching many points in the United States, the crisis led to high public interest in the civil defense program. Civil defense agencies throughout the country received an abnormally high number of requests for information during that crisis. The fact that people sought information directly from civil defense agencies attests to the effect of civil-defense messages sent during that period. Undoubtedly, many persons who did not actively seek information directly from civil defense agencies were also affected by media messages. Nevertheless, one of the strongest types of influence of crisis messages must have been that of inducing persons to actively seek information from a civil

defense agency. In addition, these "information seekers" are likely to have been affected by the detailed civil-defense pamphlets sent to them by request after they sought out the civil defense agency.

The present study is concerned with the dissemination of civil-defense information during periods of international crises. Particular emphasis was placed on determining the potential of utilizing persons who actively seek information during crises to help diffuse whatever information the Office of Civil Defense is trying to communicate to the general public. If these "information seekers" tend to be relatively influential persons, or tend to associate with many people, it may be worthwhile for the Office of Civil Defense to develop special messages for these persons who contact civil defense offices during crises. Part III of this report is devoted to a study of 70 persons who sought information from the Detroit Office of Civil Defense during the Cuban missile crisis. The following research questions are answered in Part III of this report:

1. What types of persons tend to seek civil-defense information during a major international crisis?

2. Does the information sent to information seekers during a crisis seem to have a long-term effect on them?

3. Are persons who seek information during a crisis receptive to similar information in non-crisis periods subsequent to their information-seeking act?

The responses of these 70 "information seekers" made in personal interviews with them are compared with the responses of a fairly representative sample of 202 adults in the Detroit urban area to ascertain

which characteristics best define an "information seeker." Considerable information is also given concerning the communication behavior of the general population.

Part IV of this report represents a somewhat different approach to studying the problems of communicating civil-defense information during crises. During periods of international crisis, civil-defense messages are disseminated through major news stories in newspapers, on radio and television news broadcasts, and through the news magazines. In addition, information which is initially released through the mass media is often passed on by persons exposed to it in the media through face-to-face communication. In Part IV of this report, the types of persons most likely to receive civil-defense information from the news content carried by each mass medium are described. These findings should give civil-defense personnel an idea of the types of persons most readily reached through mass media campaigns during crisis periods. The findings in Part IV are based on the general-population sample of Detroit so that they can be generalized to urban populations.

Part IV also contains some indication of the environment within which different subaudiences will interpret civil-defense messages. For example, persons who have a generally high information level about, and positive attitudes toward community fallout shelters, will interpret civil-defense messages differently than persons with a low information

level and relatively weak fallout-shelter attitudes. In this section, the information level on public affairs topics and on fallout protection is indicated for numerous subaudiences of civil-defense messages.

Finally, Part IV contains information about the extent to which people interact with members of their immediate family, other relatives, neighbors, co-workers, and fellow members of social clubs and organizations. This information should suggest the types of situations which can effectively be used as examples in civil defense messages. Also, it may suggest which face-to-face communication channels could be engaged to reach certain subaudiences with civil-defense information. For example, persons who indicate little social club activity, but who associate heavily with co-workers, can probably be reached most effectively through company-sponsored information sessions. Then persons who simultaneously obtain the information meet frequently afterward, and are likely to discuss this new topic they have in common.

Part V of the report is a summary of all of the findings, with some implications for communication strategy that seemed apparent while the findings of the study were being analyzed.

II. METHOD OF THE STUDY

Selection of the Samples

Selection of the "information-seeker" sample. To fulfill the purposes of this study, it was necessary to identify and personally interview a sample of persons who had been "information seekers" during an international crisis. Fortunately, the Detroit Office of Civil Defense records the addresses of persons who request information from that office. The director of that agency made available the names of about 130 persons living in Detroit and adjacent suburbs who had asked the Detroit office for civil-defense information during and immediately after the Cuban missile crisis. These names were checked in a city directory and telephone books to determine where the persons lived. Because interviewing was done almost a year and a half after these persons had sought the information, it was not possible to locate the present addresses of some of these "information seekers." Also, some of them undoubtedly lived in non-telephone households or in households that were listed in another person's name in the directories used. Of the 130 names, enough information was available on 93 of the "information seekers" to obtain personal interviews with them.

From the list of "information seeker" names, it was not always clear whether the man or the woman of a household was the one who sought the information from the Office of Civil Defense. For that reason, the sample of "information seekers" was defined as "information-seeking households." Within these households, interviewers were

instructed to interview either "the man of the household" or "the woman of the household." Interviewers had no choice on who they were to interview; whether a man or woman should be interviewed was designated on each questionnaire with the household address. Because of this procedure, the "information seeker" sample should be considered as adults who live in households where someone has sought civil defense information. The person interviewed may not have been the actual seeker of the information. Since the "information seekers" were sent the Fallout Protection booklet, however, adults within the household can be considered as having about equal access to the civil-defense information under study here.

Selection of the general-population sample. To describe the sample of "information seekers" and the general population, a message pertaining to nuclear fallout and the community fallout-shelter program in Detroit was sent to one half of the persons interviewed. In the "information-seeker" sample, one half of the respondents were randomly selected to be mailed the civil-defense message. In the general-population sample, the eight sample households designated in a given block were systematically assigned to receive or not to receive the message. In the four households which were sent the message, interviewers were instructed to interview the woman of the household in two households and the man of the household in two households. The same sex quota was used for the four households in each area that did not receive the mailed message. The message was mailed about six days before interviewing began. It will be described in detail later in the report.

Data-Collection Procedures

The respondents designated by the sampling procedures just described were personally interviewed in their own homes. Interviews averaged about 45 minutes in length. Fifteen professional interviewers were hired through a commercial interviewing service. Interviewers attended a three-hour training and briefing session the day before going into the field. Interviewing was conducted from February 10 to 26, 1964. To maximize the completion rate, as many as four calls were made at each sample household before interviewers were permitted to terminate attempts to talk to respondents. "Callbacks" were made at least half a day apart.

Interviewing Success

Attrition of the sample. Table 1 indicates the interviewing success within the Message Group and the No-Message Group for the "information-seeker" and general-population samples separately. Altogether, interviews were completed with 70 of the "information seekers" (75%) and with 202 members of the general Detroit population (72%). The types of interviewing losses were roughly comparable across the four groups.

Table 1: Interviewing Success for Information-Seeker and General-Population Samples, by Message and No-Message Groups.

	Information Seekers		General Population	
	Message Group	No-Message Group	Message Group	No-Message Group
Interviews completed	74%	77%	71%	72%
Interview refused	15%	10%	18%	14%
Respondent not contacted (not home, moved, etc.)	11%	13%	11%	14%
	100%	100%	100%	100%
	N=46	N=47	N=140	N=140

Representativeness of the general-population sample. Because 28% of the persons chosen for interviewing in the general-population sample were not reached, there is some chance for bias in the obtained sample. The sampling procedure of making four calls at least half a day apart in trying to reach people should have minimized the loss of persons who are often away from home. Nevertheless, some very active persons were obviously not reached. Of the 12% of designated respondents "not reached," some of them were these very active persons, while others had moved, were in the hospital, or were too ill to be interviewed. The 14% of designated respondents who refused to be interviewed are harder to describe. For that reason, some socio-demographic characteristics of the sample are compared with data for Wayne County, Michigan, collected in the 1960 U. S. population census.

The geographical area from which the general-population sample was drawn does not exactly coincide with the boundaries of Wayne County. Wayne County includes the corporate city of Detroit and many contiguous suburbs which were included in the sample area. However, there were about 122,000 suburban households in Wayne County which were not included in the area from which the general-population sample was drawn. On the other hand, there were 112,000 suburban households outside of Wayne County which were included in the sampling area. Therefore, if the Wayne County suburban households not sampled are roughly comparable with the suburbs outside of the county that were sampled, the Wayne County census statistics should be a fairly good estimate of what the people in the Detroit corporate city and its contiguous suburbs are like. Table 2 shows the comparison of the general-population sample with Wayne County census data.

Table 2: Representativeness of the General Population Sample
(Data compared with 1960 U. S. Census data for Wayne County)

Sample Characteristic		Gen. Population Sample (N=202)	1960 Census Data Wayne County, Mich.
SEX:	Percent men	50%	48%
RACE:	White	73%	80%
	Negro	26	20
	Other	1	0
		100%	100%
AGE:	18 to 29 years	10%	21%
	30 to 39 years	19	23
	40 to 49 years	27	21
	50 to 59 years	19	16
	60 years and over	25	19
		100%	100%
	Average (Median) Age	47.5 years	43.1 years
YEARS OF SCHOOL COMPLETED:			
	8 years or less	23%	39%
	9 to 11 years	28	23
	High school diploma	29	24
	Some college	12	8
	College degree or more	8	6
		100%	100%
	Average (Median) Education	11.9 years	10.5 years
MARITAL STATUS:			
	Single	5%	21%
	Married, living with spouse	76	65
	Separated	5	3
	Widowed	10	8
	Divorced	4	3
		100%	100%

On the proportion of men studied, the general-population sample was quite representative of the population from which it was drawn because interviewers were assigned to interview as many men as women. On race, however, the general-population sample is over-represented with Negroes. Although the population contains about 20% Negroes, the sample includes 26% Negroes.[1]

The sample was also over-represented by persons 40 years or older.[2] The bias toward older people in the sample is not as great as suggested in Table 2, however. The Wayne County figures are based on all persons 18 years or older in the county. The sample, on the other hand, was drawn from a population of adults who were either the "man of the household" or the "woman of the household." Thus, the Wayne County figures include many persons in the younger age groups who are single, but who live in someone else's household. They were not eligible for interviewing. Therefore, the sample may be somewhat biased toward the older age groups, but it is considerably less biased than the figures in Table 2 suggest.

The main bias in the sample seems to be an education bias. Persons with less than a high school diploma are under-represented, particularly those with eight years or less of schooling.[3] The main influence the

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[1]The White vs. Non-White distribution deviated from the population distribution significantly, using a Chi-square goodness-of-fit test. Chi-square = 5.5; d.f. = 1; p less than .02.

[2]Using a goodness-of-fit test, Chi-square = 20.06; d.f. = 4; p less than .001.

[3]Using a goodness-of-fit test, Chi-square = 20.48; d.f. = 4; p less than .001.

educational non-representativeness is likely to have on this study is to produce information level estimates for the Detroit population that are too high.

The marital-status data also suggest a bias.[1] It seems likely, however, that the differences shown in Table 2 can be explained by the fact that only the man or woman of the household was eligible for interviewing.

In summary, the general-population sample is somewhat biased in that it over-represented Negroes and under-represented persons with less than a high school education. For most of the analyses made in this study, these biases will have little or no effect on the results because the analyses involve comparisons between subgroups of the population. In these comparisons, there may be fewer persons to study in one subgroup than one would get in a more representative sample, but the persons in the subgroup who are studied should be quite representative of that subgroup on the observed attributes. The race and educational biases will be of concern when estimates of what the whole Detroit-area population is like, because certain subgroups are over-represented. When such estimates are made in this report, these biases will be taken into account in the interpretations made of the sample data.

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[1]Using a goodness-of-fit test, Chi-square = 34.12; d.f. = 4; p less than .001.

III. INFORMATION SEEKING DURING A CRISIS

The general purpose of this part of the report is to describe the process of "information seeking" during an international crisis and the participants in that process. The specific purposes of this particular study were detailed in Part I of the report and will be made explicit as the data are presented.

When reading the analysis which follows, it should be recalled that the 70 persons studied are not necessarily the persons who telephoned the Detroit Office of Civil Defense during or immediately after the Cuban missile crisis. Half of these persons are the male head of household in which someone sought information during the crisis, the other half are "the woman of the household" in households containing an "information seeker." Undoubtedly, a large proportion of the persons interviewed were the actual "information seeker," but definite evidence to this effect was impossible to obtain.

To determine how "information seekers" can be distinguished from members of the general population, it was necessary to find something on which to compare them. One possibility was U. S. census data of the type reported in the last section. However, any differences between the "information-seeker" sample and the general-population census data may occur (1) because "information seekers" differ from the Detroit population on that characteristic, or (2) because the 25% of the "information

seekers" who refused to be interviewed or were nor contacted introduced some bias in that sample. Therefore, for comparison purposes, it would be better to compare the "information-seeker" sample with a general-population sample that contains the same "refusal" and "not contacted" biases in it. Then, the differences between the two samples, if larger than one would expect merely from sampling error, are very likely to be due to real differences between "information seekers" and other members of the Detroit population. For this reason, throughout this part of the report, the "information-seeker" sample is compared with a general-population sample that has been interviewed with the same procedures.

Social-Demographic Characteristics of "Information Seekers"

First, a description of the participants in the "information-seeking" process will be given. The social and demographic characteristics of 70 adults living in "information-seeking" households are presented in Table 3. For comparison purposes, the same characteristics are also described for a general-population sample of Detroit residents.

As Table 3 indicates, relatively few "information-seeker" households were Negro households. Only 7% of the "information seekers" were Negro, while 26% of the general-population sample were Negro. This percentage difference is significantly greater than one would expect merely from sampling error.[1]

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[1] The difference in the percentage of Negroes for the two samples was significant at the .001 level, two-tailed test. (z=3.30)

Table 3: Social and Demographic Characteristics of "Information Seekers" and General Detroit Population

Characteristic		Information Seekers (N=70)	General Population (N=202)
RACE:	White	93%	73%
	Negro	7	26
	Other	0	1
		100%	100%
AGE:	18 to 29 years	17%	10%
	30 to 39 years	20	19
	40 to 49 years	32	27
	50 to 59 years	17	19
	60 years and over	14	25
		100%	100%
	Average (Median) Age	43.2 years	47.5 years
YEARS OF SCHOOL COMPLETED:			
	8 years or less	9%	23%
	9 to 11 years	17	28
	High school diploma	40	29
	Some college	19	12
	College degree or more	15	8
		100%	100%
	Average (Median) Education	12.6	11.9
MARITAL STATUS:			
	Single	4%	5%
	Married, living with spouse	87	76
	Separated	1	5
	Widowed	3	10
	Divorced	4	4
		100%	100%
CHILDREN UNDER 18 AT HOME:			
	None, single	4%	4%
	None, married	32	47
	1 or 2	33	29
	3 or 4	24	13
	5 or more	7	7
		100%	100%

"Information seekers" also tended to have a higher educational level than the average Detroit adult. The average education level for "information seekers" was 12.6 years, as compared with 11.9 years for members of the general Detroit population.[1] This educational difference seems clearer if one notes that only a fourth of the "information seekers" were without a high school diploma, while half of the general-population respondents had no high-school diploma.

"Information seekers" did not differ significantly from the general population in age, marital status, or in the number of children under 18 living at home. The differences between the two samples that are shown in Table 3 are small enough to reasonably attribute to sampling error.[2]

In summary, these data indicate that Negroes cannot very well be reached through any crisis communication campaign designed for "information seekers." In addition, low-education subaudiences would be relatively hard to reach directly through such campaigns.

News Consumption by "Information Seekers"

Media habits. A second question of concern in this study was the pattern of mass media use by "information seekers." This information was considered pertinent in that, during international crises, most crucial civil-defense information is disseminated through the news

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[1] Chi-square = 14.81; d.f. = 4; p less than .01, two-tailed test.

[2] Age Chi-square = 5.71; d.f. = 4. Marital-status Chi-square = 3.73; d.f. = 1. Children at home Chi-square = 7.0; d.f. = 4.

content of the mass media. Therefore, the reported exposure to news content in the several mass media by "information seekers" was analyzed. The findings are reported in Table 4.

News magazines are the only mass medium to which adults in "information-seeker" households indicated heavier news exposure than members of the Detroit population as a whole.[1] During the interview, respondents were asked: "What magazines do you read regularly...that is, at least three out of every four issues?" Later, their responses were checked to determine whether they had mentioned any of the three major news magazines--Time, Newsweek, U. S. News and World Report. About a fourth (27%) of the "information seekers" reported reading a news magazine regularly; 15% of the general population reported regular news magazine readership. It should be noted that, though "information seekers" are more likely to read news magazines than other persons, almost three fourths of them do not read news magazines regularly. Thus, a significant proportion of them would not be readily reached through that medium.

"Information seekers" were about the same as other Detroit adults in the amount of time they spend reading the news columns of their daily newspapers and in the frequency with which they listen to radio and television news broadcasts.

Public-affairs information level. During the interview, all respondents were asked to take a six-item, multiple-choice information

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[1]The difference in news magazine readership percentages for "information seekers" and the general-population sample was significant at the .05 level, two-tailed test (z=2.3).

Table 4: Consumption of News Content in the Mass Media, by "Information Seekers" and the General Detroit Population

	Information Seekers (N=70)	General Population (N=202)
NEWS MAGAZINE: % reading at least one news mag. regularly.	27%	15%
MAIN NEWS STORIES IN NEWSPAPERS: Time spent reading them on average day.		
5 minutes or less	10%	16%
10 to 15 minutes	24	24
20 to 25 minutes	23	11
30 to 40 minutes	22	21
45 minutes and more	21	28
	100%	100%
NEWS BROADCASTS ON RADIO:		
Several times a day	43%	48%
Once or twice a day	34	32
One to three times a week	6	6
Less than once a week	17	14
	100%	100%
NEWS BROADCASTS ON TELEVISION:		
More than once a day	36%	42%
About once a day	47	46
One to three times a week	13	8
Less than once a week	4	4
	100%	100%
INFORMATION LEVEL ON MAJOR LOCAL DETROIT NEWS STORIES		
Both items correct	33%	26%
One item correct	44	41
Neither item correct	23	33
	100%	100%
INFORMATION LEVEL ON MAJOR NATIONAL NEWS STORIES		
Average (mean information level; possible range 0-4.	2.8 items	2.2 items

test based on news events that had received heavy news coverage during the week or two before they were interviewed. Two local Detroit news topics covered in the test were an item concerning the violence in Detroit high schools and an item concerning a proposed city ordinance that would allow property owners to sell their property to whomever they wished.[1] Four other items dealt with national-news topics. They covered Astronaut John Glenn's entry into politics, the poll tax amendment to the U. S. Constitution, the Hoffa jury-tampering trial, and the shutting off of water to the Guantanamo, Cuba, marine base.[2] All of these stories were front-page news just prior to the interviewing dates. Responses to items were analyzed by considering the two local-news items as a "local public-affairs information level" index and the four national-news items as a "national public-affairs information level" index. Responses to these items are reported in Table 4.

"Information seekers" were <u>not</u> significantly higher in their information level about local-news topics than other members of the Detroit population.[3] A third of the "information seekers" selected the correct answer to both local-news questions; a fourth of the general-population sample got both answers correct. That small a difference may reasonably be attributed merely to sampling error, rather than to real differences between the two samples.

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[1]For the exact wording of these items, see the yellow page of the questionnaire in the appendix. Items 27 and 30 were the local items.

[2]The national items are items 26, 28, 29, and 31 of the yellow page of the questionnaire.

[3]Chi-square = 2.9; d.f. = 2.

"Information seekers" did have a significantly higher national-news information level than the general Detroit population, however.[1] Among adults in the "information-seeker" households, respondents averaged 2.8 of the 4 items correct. In the general-population sample, respondents averaged only 2.2 of the 4 items correct. In summary, then, "information seekers" seem more sensitive to national-news topics, but not substantially more sensitive to local-news topics, than members of the general Detroit population are.

Long-Term Effects of the "Information Seeking"

After the "information seekers" had sought information from the Detroit Office of Civil Defense during the Cuban missile crisis, the Detroit Office sent them a copy of the Fallout Protection booklet. This booklet, then, came into the "information-seeker" households about 15 to 18 months prior to the time adults in these households were interviewed. One purpose of this study was to try to obtain some evidence on the effect of mailing these booklets to the "information-seeker" households. Of course, evidence on the effects of a booklet that is collected a year and a half after the booklet was mailed cannot be highly reliable. If evidence can be obtained, however, it is evidence of a long-range effect, which is exactly the type of effect hoped for by the Office of Civil Defense.

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[1] The difference in the distributions of information-level scores was significant at the .001 level, two-tailed test. ($t = 3.70$; d.f. = 270)

In an attempt to obtain evidence as to the booklet's effect, several types of data were collected. First, a multiple-choice information test was developed, based on five types of information contained in the Fallout Protection booklet.[1] If persons in the "information-seeker" households, who were sent the booklet, had a higher score on this information test than persons in the general-population sample, this could be considered evidence that the booklet increased the information level of its readers. In fact, this is what happened. The average (mean) score on the fallout-protection test for "information seekers" was 2.2 out of 5 questions. The average (mean) score for the general population sample was 1.5 out of 5. This difference was greater than would be expected merely from sampling error.[2]

The fact that these two samples differ in their fallout-protection information level is not sufficient evidence, however, to conclude that the difference is due to the mailed booklet. It may be that the type of person who lives in an "information-seeker" household has a higher information level in all types of public-affairs topics. If so, he may have had a higher fallout-protection information level even before the booklet was sent to him. Some evidence on this point was gathered in this study, as was reported in the last section. As reported there,

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[1]The exact wording of this test can be seen on the green page of the questionnaire contained in the appendix. Questions 21 through 25 comprise the test.

[2]The difference between the two samples was significant at the .01 level, two-tailed test. ($t=2.99$; $d.f.=136$). Only half of each sample was studied in this analysis as the other half of each sample was mailed another similar message about one week before being interviewed for purposes to be explained in the next section. The sample sizes were: "Information Seekers," 36; General Population, 102.

adults in "information-seeker" households do tend to have a higher information level in national-news topics than the average Detroit adult. Furthermore, the difference between "information seekers" and the average Detroit adult is about the same on the general-news test as on the fallout-protection information test:

Information Test	Score Range	Information Seekers	General Population	Diff.
Fallout-protection topics	0-5	2.2	1.5	+.7
National-news topics	0-4	2.8	2.2	+.6

This evidence suggests that the higher fallout-protection information level among adults in "information seeker" households is due, not to the pamphlet that had been mailed to them, but to the fact that these persons tend to have a higher information level on all types of national public-affairs topics. Therefore, the long-range effect of the booklet on information level concerning fallout protection must be considered negligible.

Although "information seekers" did tend to possess more information about fallout protection than other Detroit adults, it is interesting that their attitudes toward the community fallout-shelter program were not more positive. Respondents were asked to indicate how strongly they agreed or disagreed with seven belief statements about community fallout shelters. There was no significant difference between the "information-seeker" and general-population samples in the favorability of their attitudes toward community fallout shelters.[1] There was a significant

[1] The mean favorability scores were not significantly different at the .05 level, two-tailed test. ($t = .5$; d.f. = 136)

difference between the two samples, however, in the intensity with which they held their fallout-shelter attitudes.[1] These findings correspond to

Attitude Dimension	Range	Information Seekers	General Population
Favorability of attitudes	-7 to +7	+2.9	+3.2
Intensity of Attitudes	0 to 21	12.3	13.5

existing research evidence which suggests that persons with a relatively high information level tend not to be as extreme in the intensity of their attitudes. If so, the intensity difference would seem to be due to the generally higher information level of the "information seekers." In conclusion, then, mailing the Fallout Protection booklet to "information-seeker" households did not seem to have any long-range effects on the information level, the favorability of attitudes, or the intensity of attitudes among adults in those households.

Present Receptivity to Fallout-Protection Information

Purpose and design of the field experiment. About a year and a half before being interviewed, the "information seekers" contacted the Detroit Office of Civil Defense for information. At that time, they also received the Fallout Protection booklet. This exposure to a civil-defense agency might be expected to make them more receptive to civil-

[1] The intensity means above were not significantly different using a t-test (t = 1.26; d.f. = 136). However, a more stable test of the difference between the two samples on attitude intensity is provided in Table 11 later in the report. It indicates a significant main effect between the two samples in an analysis of variance based on twice as large a sample. Therefore, it is concluded that the two samples vary significantly in attitude intensity.

defense messages they are exposed to after their act of "information seeking."

To check this possibility, a one-page, printed message was mailed to one half of the "information-seeker" households and to one half of the households in the general-population sample a week before the interviewing was begun. No messages were sent to the other households. The "no-message" groups were needed as a baseline, to determine how much effect the printed message had. The "no-message" groups represent, in effect, an estimate of the information level and attitudes of the "message" group before they received the message. The persons who were sent the message were selected randomly from the "information-seeker" sample and from the general-population sample, so the "message" and "no-message" groups should be quite comparable within each sample. The comparability of these groups is shown in Table 5.

In the general-population sample, there were no significant differences between the "message" and "no-message" groups on sex, race, marital status, education, or age. In the "information-seeker" sample, there was a significant difference between the two groups on number of years of school completed.[1] Among persons sent the message, 38% had 11 years or less of schooling; among persons not sent the message, only 24% had that little schooling. There were no other significant differences among the two "information-seeker" groups. The direction of

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[1]The proportion of persons with 11 years or less, high school diploma, and at least some college was significantly different in the two groups in the "information-seeker" sample. Chi-square = 7.82; d.f. = 2; p less than .05.

Table 5: Comparability of "Message" and "No-Message" Groups by "Information Seekers" and General Population.

		Information Seekers		General Population	
		Message Group (N=34)	No-Message Group (N=36)	Message Group (N=100)	No-Message Group (N=102)
SEX:	Percent men	47%	47%	53%	46%
RACE:	White	94%	92%	73%	74%
	Negro	6	8	26	25
	Other	0	0	1	1
		100%	100%	100%	100%
AGE:	18 to 29 years	12%	22%	11%	9%
	30 to 39 years	21	19	20	18
	40 to 49 years	34	28	28	25
	50 to 59 years	21	14	16	23
	60 years and over	12	17	25	25
		100%	100%	100%	100%
YEARS OF SCHOOL COMPLETED:					
	8 years or less	9%	8%	21%	25%
	9 to 11 years	29	6	28	28
	High school diploma	41	39	29	29
	Some college	15	22	12	12
	College degree or more	6	25	10	6
		100%	100%	100%	100%
MARITAL STATUS:					
	Single	9%	0%	6%	4%
	Married	79	94	78	75
	Separated	3	0	6	4
	Widowed	6	0	7	12
	Divorced	3	6	3	5
		100%	100%	100%	100%

the bias likely to occur in the experiment because of non-comparability of groups in educational attainment is to make it more difficult to obtain a significant message effect on information level. The direction of bias likely on the attitudinal effects cannot be predicted, but should be kept in mind when the results are interpreted.

The one-page message mailed to respondents consisted of an 8½ x 11 inch page printed by letterpress. Topping the page was a headline that read "Detroit Fallout Shelters Being Stocked with Food and Supplies." The major points of information conveyed by the message were:

1. The Detroit Office of Civil Defense had set up enough community fallout shelters to protect half a million persons from fallout for a two-week period. Three fourths of these shelters are stocked with food and supplies.

2. "Fallout" is composed mainly of radioactive pieces of dirt stirred up by a nuclear explosion.

3. The danger of radiation sickness exists hundreds of miles from the blast site because the fallout is carried great distances, usually <u>east</u>, by high-altitude winds.

4. A fallout shelter requires a heavy, dense material between you and the source of radioactivity so that radioactive particles cannot enter the shelter. The shelter need not be airtight.

5. After a nuclear explosion, one should stay in a fallout shelter, except for short durations, for about two weeks.

6. Fallout protection requires only slight revision of many existing buildings.

In general, the message was written with the intent of including a "local angle" by beginning the message with a statement of the status of the Detroit fallout-shelter program. Then, the remainder of the message was concerned with basic information about fallout itself, what dangers it possesses, and how to protect one's self from these dangers. The message was about 1,000 words in length.

The experimenters were very fortunate in getting the complete cooperation of Peter C. McGillivray, director of the Detroit Office of Civil Defense, in conducting this experiment. After reading the message, he permitted the researchers to sign the message as having been sent from his office. In addition, he provided the researchers with official City of Detroit envelopes in which to mail the messages. The messages were mailed first-class, through a Detroit post office, to the respondents selected to receive them. In the general-population sample, where street addresses were chosen, the names of respondents living at those addresses were found in a street-address directory for the Detroit area. Using that directory, it was possible to send more than 90% of the messages to the head of the household in the designated sample households.

Respondent's awareness of the mailed message. It was desired to obtain some evidence in the interview that respondents who were mailed the message actually exposed themselves to it. Unfortunately, any direct question concerning exposure to the message will tend to induce respondents to say "yes," just to "be nice" to the interviewer. Therefore, an indirect means of obtaining some evidence of message awareness was used. Before the topic of civil defense or fallout shelters was introduced in the interview, respondents were asked: "During the past week or two, have you read anything about the dangers of nuclear war...or how you might protect yourself from a nuclear explosion?" If they answered "yes," they were asked to describe the specific topic they read about. After the interviewing was completed, coders read these responses to determine whether or not there was definite evidence in the answer that

the respondent was talking about having read the one-page message mailed to them. The findings are reported in Table 6.

Table 6: Percentage of Respondents Reporting Awareness of Mailed Message, by "Information Seekers" vs. General-Population Sample.

% Giving Evidence They Saw Message Among...	Message Group	No-Message Group
Information seekers	32%	0%
General population	27%	1%
Sample Size:		
Information seekers	34	36
General population	100	102

Definite evidence was obtained in the interviews that one third of the information seekers and one fourth of the general-population sample were aware of receiving the mailed message.[1] They mentioned that they had received it in the mail, and indicated that they "had read" it. Because this evidence was obtained by indirect questioning, these percentages can probably be considered as the minimum level of message readership obtained. Other persons may have read all or part of the message, but not have thought of it when questioned, or may not have thought of the message as being something "about the dangers of a nuclear war... or how you might protect yourself from a nuclear explosion." This

[1]The difference between message and no-message groups, among "information seekers," was significant at the .001 level, one-tailed test. Chi-square = 11.5; d.f. = 1. The difference for the general population was also significant at the .001 level, one-tailed test. Chi-square = 26.5; d.f. = 1.

evidence suggests, therefore, that a fairly high proportion of persons did actually expose themselves to the mailed message.

Effect of message on knowledge about Detroit shelter program. The headline and first three paragraphs of the message were devoted to a description of the status of the Detroit fallout-protection program. One question asked of respondents was designed to determine how aware Detroit residents were of the shelter labeling and stocking program. The question was:

> At the present time, what is the status of the fallout-shelter program in Detroit:
>
> _____ the city has decided not to set up any community fallout shelters.
> _____ the city has not set up any community shelters, but will next year.
> _____ the city has set up many community shelters, but has not stocked any of them.
> _x_ the city has set up many shelters and has stocked many of them with food.

The final answer is the correct one. At the time of the interviewing, Detroit had labeled enough shelter space for half a million persons and had supplies in three fourths of this space. The findings concerning this question are reported in Table 7.

The present state of knowledge about the fallout-shelter program in the Detroit area can be estimated by looking at the knowledge level for persons who did not receive the mailed message. These data indicate that about one fourth of the general Detroit population are aware of the present status of the fallout-shelter program. However, 31% of the general-population sample consists of suburban residents. The Detroit shelter program is directed by a city office, which is primarily concerned with shelter protection for persons within the corporate city.

Table 7: Percentage of Respondents Who Knew Status of Detroit Shelter Program, by "Information Seekers" vs. General-Population Sample

	Message Group	No-Message Group
Information seekers	47%	31%
General Population	40%	25%
Sample Size:		
Information seekers	34	36
General Population	100	102

The knowledge levels for city and suburban residents separately are:

Corporate city residents	29%	N=70
Suburban Detroit residents	19%	N=32

Because the sample size available for making these population estimates is quite small, the reader is cautioned not to consider them highly precise. However, the reader can be 95% certain that the percentage of corporate city residents who are aware of the current shelter-program status is somewhere between 18% and 39%.[1] The odds are two to one that the corporate-city knowledge level is between 23% and 34%. The difference in knowledge level between city and suburban residents is not greater than one would expect merely from sampling error.[2]

As Table 7 indicates, 15% of the respondents became aware of the status of Detroit's shelter program from the message mailed to them.

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[1] These confidence intervals for the corporate-city information level are based on a standard error of the obtained proportion of .054, n=70.

[2] The difference between percentages was not significant at the .05 level, two-tailed test. (z = 1.06).

In the general Detroit sample, 25% of those not getting the message knew about the labeling and stocking of shelters; 40% of those who did receive the message knew about the program. This difference was greater than one would expect merely from sampling error.[1] As the percentages indicate, the effect of the message was as great among "information seekers" as among the general population. However, because of the small number of "information seekers" available for study, the difference between percentages for the "information-seeker" group is small enough to reasonably attribute to sampling error.[2] Therefore, it cannot be confidently stated that the message had a significant effect on "information seekers" regarding knowledge of the Detroit shelter program.

It is interesting to note who was effected by the message. This can be determined by checking which wrong answers were selected by respondents. For the general-population sample, the figures were as follows:

		Message	No Message
CORRECT:	City has set up & stocked shelters	40%	25%
WRONG:	Labeled shelters, not stocked	36	39
WRONG:	None set up, will next year	12	10
WRONG:	Decided not to set up shelters	5	19
WRONG:	Respondent gave no answer	7	7
		100%	100%
		N=100	N=102

[1] The difference was significant at the .01 level, one-tailed test. ($z = 2.20$).

[2] The difference was not significant at the .05 level, one-tailed test. ($z = 1.42$) $p = .08$.

These figures indicate that a fourth of the respondents knew about the labeling and stocking of shelters; another 15% learned that this was the case from the mailed message. Four of every 10 respondents knew about the labeled shelters, but not that they had been stocked with supplies. The message did not increase or decrease the size of this group. One of every 10 persons thought the program of labeling and stocking would be started next year, and the message did not change the size of this group. The main effect of the message was to decrease the size of the group which thought the city had decided not to set up and stock shelters from 19% to 5%. This same pattern of answers was found among "information-seekers."

Effect of message on fallout-protection information level. More than half of the message was devoted to information about the dangers of radioactive fallout and how to protect one's self from it. Five multiple-choice items were administered to respondents to determine their information level on this topic. The findings are reported in Table 8, for the message and no-message groups separately.

The fallout-protection information level in the general population was not very high. Among persons not receiving the message, respondents averaged 1.5 out of the 5 answers correct. This is not much more than the number of answers they should get right merely by guessing (out of 4). Mailing the message to members of the general Detroit population did increase this information level significantly, from 1.5 to 2.2.[1] However,

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[1] A simple-effects t-test for the general population indicated a significant difference in information level at the .001 level, one-tailed test. ($t = 3.5$; d.f. = 267)

Table 8: Influence of Message on Fallout-Protection Information Level, by "Information Seekers" vs. General Population

(Range: 0 to 5 items correct)

Average (Mean) Information Level of...	Persons Sent Message	Persons Not Sent Message
Information seekers	2.2	2.2
General population	2.1	1.5
*Sample Size:		
Information seekers	34	36
General population	100	102

Analysis of Variance:

Source of Variation	S.S.	d.f.	M.S.	Obs. F	F .05
Message exposure	11.89	1	11.89	7.70	3.89
Information seeking	6.54	1	6.54	4.24	3.89
Interaction	4.58	1	4.58	2.96	3.89
Within groups	412.36	267	1.54		
Total	435.37	270	1.61		

the message did not increase the information level of "information seekers." It should be noted, however, that "information seekers" had a higher information level than the general population before they received the message. (2.2 vs. 1.5) In fact, the message increased the information level of persons in the general population up to the information level already possessed by "information seekers" before they received the message. This is not meant to suggest that "information seekers" already knew all of the information, thus could not learn any more. They did have considerable room for improvement. Whether or not "information

*Because the sample sizes within groups were not exactly proportional, as required in a two-factor analysis of variance, a convention to obtain proportionality was adopted. In the No-message "information-seeker" groups, one person whose score was at the mean for the group was eliminated from the analysis.

seekers" received the message, they averaged only 2.2 of the 5 answers correct.

Again it would seem of interest to know which wrong answers were chosen on the information test, and the effect of the message on which answers were chosen. Table 9 shows the percentage of persons choosing each answer for each item in the test. Responses are given only for the general-population sample because no message effect was found among "information seekers." In general, the popularity of the different answers was about the same for "information seekers" as for the general population.

In the general population, about 1 in 7 of the persons not receiving the message knew that fallout is composed mainly of pieces of dirt stirred up by the blast. No particular type of misinformation is predominant, all three of the wrong answers were fairly common. The message induced another 9% to select the correct answer,[1] while fewer persons receiving the message thought fallout was "radioactive water vapor."

About a fourth of the general population knew that radioactive fallout would be blown to the east by high-altitude winds. Again no particular wrong answer was especially popular. The message increased the proportion of right answers to this question from 24% to 39%.[2] The popularity of all three wrong answers was decreased by the message.

Six of every 10 persons knew that a shelter would offer protection only if it keeps radioactive particles from entering the shelter. The

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[1]Message effect significant. $z = 1.81$. p less than .05, one-tailed test.

[2]Message effect significant. $z = 2.61$. p less than .01, one-tailed test.

Table 9: General-Population Responses to Civil Defense Information Items, by Persons Sent the Mailed Message vs. Persons Not Sent the Message.

	Sent Message (N=100)	No Message (N=102)
"Fallout" from a nuclear explosion is composed mainly of radioactive:		
*pieces of dirt stirred up by the explosion.	23%	14%
fragments of the bomb itself.	33	34
smoke particles caused by fire after the blast.	27	28
water vapor produced by the explosion.	13	19
answer not given.	4	5
	100%	100%
In this part of the United States, radioactive fallout would travel primarily in which direction from the nuclear blast site:		
*east	39%	24%
north	22	26
west	17	24
south	11	15
answer not given.	11	11
	100%	100%
A fallout shelter would offer protection from nuclear explosion only if:		
*it keeps radioactive particles from entering the shelter.	63%	61%
the walls of the shelter are airtight.	15	13
the walls of the shelter are given a special insulated coating.	14	12
outside light is kept from the shelter.	7	10
answer not given.	1	4
	100%	100%
After a nuclear explosion, one should stay in a fallout shelter (except for short durations) for about:		
*two weeks.	50%	33%
a week.	27	40
a day.	14	13
a month.	8	10
answer not given.	1	4
	100%	100%
Protection from radioactive fallout:		
*would require only slight revision on many existing buildings.	37%	19%
would require building large concrete chambers underground.	40	53
would require a massive program of building family shelters.	14	16
is impossible; you can't really protect yourself.	8	9
answer not given.	1	3
	100%	100%

*Correct answer. The correct answers were ordered randomly. See the green page of the questionnaire in the appendix.

belief that the shelter must be airtight was not very common (13%). There was no predominant wrong answer, and the message did not have any influence on people's knowledge of this point. This was the only one of the five message elements that did not increase the information level of respondents.

A third of the Detroit population knew that they should stay in a fallout shelter for two weeks after a nuclear explosion. Forty percent of the population thought that one week was enough. The message increased the proportion of right answers from 33% to 50%, cutting the percentage of persons thinking one week was enough from 40% down to 27%.[1]

Finally, only a fifth of the respondents knew that protection from radioactive fallout requires only slight revision of existing buildings. This may be a carry-over from the campaigns to get people to build family fallout shelters, which were specially constructed structures. The message was quite effective in teaching this idea, however. It increased the percentage of correct answers from 19% to 37%, decreasing the percentage of persons that thought underground concrete chambers were needed from 53% to 40%.[2]

In summary, the fallout-protection information level is quite low both among "information seekers" and the general Detroit population. The mailed message did increase the information level for the general population, but not for "information seekers." The message brought

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[1]Message effect significant. $z = 2.54$. p less than .01, one-tailed test.

[2]Message effect significant. $z = 2.90$. p less than .001, one-tailed test.

knowledge among the general-population sample up to the level maintained by "information seekers" who had not received the message. Even with the message, however, the information level averaged only 2.2 out of 5 information items correct. Furthermore, knowledge was low for four of the five topics contained in the message. However, these were the four topics that the message was effective in teaching.

Effect of message on favorability of attitudes toward community fallout shelters. Although the message was obviously in favor of community fallout shelters, it was not expected to significantly increase the favorability of people's attitudes toward community fallout shelters. This lack of effect was expected because the message was primarily informational, not highly persuasive that shelters are "good." Nevertheless, respondents' attitudes toward community fallout shelters were assessed to determine whether the message influenced them.

During the interview, respondents were asked to react to seven statements "people have made" about community shelters. Four items were pro-shelter; three were anti-shelter.[1] Respondents were asked whether they agree with, disagree with, or "just don't know" about each statement. If they made a pro-shelter response to a statement, they were given a score of +1. If their response was anti-shelter, they scored -1. A "just don't know" was scored zero. Therefore, the favorability-of-attitude scores ranged from +7 to -7. The data concerning the message effect on these attitudes is shown in Table 10.

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[1]The attitude statements are questions 55, 57, 59, 61, 63, 65, and 67 of the questionnaire contained in the appendix.

Table 10: Influence of Mailed Message on Favorability of Attitudes Toward Community Fallout Shelters, by "Information Seekers" vs. General-Population Sample

(Range: -7 to +7 points of favorability)

Average (Mean) Favorability of Comm. Fallout Shelter Attitudes among ...	Persons Sent Message	Persons Not Sent Message
Information seekers	+3.59	+2.94
General Population	+3.64	+3.25
Sample Size:		
Information seekers	34	36
General population	100	102

Analysis of Variance:

Source of Variation	S.S.	d.f.	M.S.	Obs. F	F .05
Message exposure	14.27	1	14.27	1.35	3.89
Information seeking	1.66	1	1.66	.16	3.89
Interaction	.79	1	.79	.07	3.89
Within groups	2822.03	267	10.57		
Total	2838.75	270	10.51		

As predicted, the message had no significant effect on the favorability of attitudes toward community fallout shelters. In both the message and no-message groups, respondents tended to have a moderately favorable attitude toward shelters.

Effect of message on intensity of attitudes toward community fallout shelters. Although no message effect on the favorability of shelter attitudes was expected, an effect on the strength with which people held their present attitude was expected. This prediction was made because heightened awareness of the issue and exposure to information in the message was expected to be "reassuring" to respondents. Therefore,

after a respondent had indicated whether he agreed or disagreed with each pro or con attitude statement, he was asked "how strongly do you feel about your answer...very strongly, strongly, moderately, or indifferent?"[1] Scoring these responses 0 to 3 in intensity, the "intensity-of-attitudes" score for the seven items varies from 0 to 21. The results of this analysis are shown in Table 11.

The message did increase the intensity with which respondents held their attitudes toward community fallout shelters. This was true for "information seekers" as well as the general population. In fact, the amount of effect was almost identical for the two groups. On the average, respondents tended to say they felt "strongly" about their opinions concerning community fallout shelters (i.e., 14 on a 0 to 21 intensity scale). The message effect for both samples was about 1.5 units on a 21-point scale. Therefore, although the amount of message effect found was greater than one would expect merely because of sampling error, the size of the effect was not great.

As mentioned earlier, Table 11 indicates that "information seekers" felt a little less strongly than members of the general Detroit population about their fallout-shelter attitudes. This finding is consistent with the earlier finding that "information seekers" had a generally higher educational level than the general population. In general, people with more education tend to be less extreme in their position than persons of lesser education. They would be more likely to say "strongly" than

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[1]This measurement procedure was adapted from Guttman's intensity analysis. See Edward A. Suchman and Louis Guttman, "A Solution to the Problem of Question 'Bias,'" Public Opinion Quarterly, 11:445-455. (1947)

Table 11: Influence of Mailed Message on Intensity of Attitudes Toward Community Fallout Shelters, by "Information Seekers" vs. General Population Samples

(Range: 0 to 21 intensity points)

Average (Mean) Intensity of Community Fallout Shelter Attitudes Among...	Persons Sent Message	Persons Not Sent Message
Information seekers	13.8	12.3
General Population	15.1	13.5
Sample Size:		
Information seekers	34	36
General Population	100	102

Analysis of Variance

Source of Variation	S.S.	d.f.	M.S.	Obs. F	F .05
Message effect	172.29	1	172.29	8.86	3.89
Information seeking	80.96	1	80.96	4.16	3.89
Interaction	0.00	1	0.00	0.00	
Within groups	5194.63	267	19.46		
Total Sample	5447.87	270	20.18		

"very strongly." Again, although this difference was greater than would be expected from sampling error alone, the difference between the two groups is quite small.

Summary of experimental findings. This field experiment concerning the effects of a one-page message mailed to respondents was conducted to determine whether "information seekers" would be more receptive to civil-defense messages than other members of the general population. Although the message was effective in several ways, the findings did not confirm the idea that "information seekers" would be more receptive to such messages.

About the same percentage of "information seekers" and members of the general Detroit population reported that they "had read" the message. About the same percentage of both samples learned what the present status of the Detroit fallout-shelter labeling and stocking program was. "Information seekers" did not show a significant increase in their fallout-protection information level due to message exposure. On the other hand, the message did increase the fallout-protection information level of the general population sample. The message had no significant effect on the favorability of fallout-shelter attitudes for either sample. The message did have an effect, however, on the strength with which people held their present attitudes toward fallout shelters. This increase in attitude intensity was about the same for both the "information-seeker" and general-population sample. In no case were the "information seekers" more affected by the message than members of the general population. Therefore, it must be concluded that "information seekers" are no more receptive to civil-defense messages than other members of the general population. This should be true, at least, for messages of a type and form similar to the one used in this field experiment.

Face-to-Face Communication of "Information Seekers"

The fourth purpose of the information-seeking portion of this study was to determine the face-to-face communication habits of "information seekers," particularly those conversations that involve the exchange of opinions about major news topics. It is through such conversations that media-originated messages concerning crisis civil-defense information

get passed on, discussed, and reacted to favorably or unfavorably. Of particular interest is whether or not "information seekers" seem to play strategic roles in face-to-face communication networks. If they do, this would be additional evidence suggesting that special communication campaigns should be developed for persons who seek information directly from civil-defense agencies during crises.

Types of social interaction. To begin with, the general leisure time affiliations of respondents will be described. The data are reported in Table 12.

Adults in "information-seeker" households do not differ significantly from the general population in the frequency with which they spend leisure time with their relatives, or with friends, neighbors, and coworkers.[1] Similarly, as a group, "information seekers" seem to spend leisure time with their relatives about as frequently as they spend time with friends, neighbors, and coworkers.

To determine how active "information seekers" were in social clubs and organizations, respondents were asked:

> Now I'd like to know what organizations you are active in... that is...organizations such as civic groups, clubs or lodges, PTA, church groups, veterans' organizations, and the like?

Generally, the adults in "information-seeker" households held the same types of organization memberships that people in the general Detroit population did. For both samples, the most common types of memberships

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[1] The difference in the "relatives" interaction distributions was not significant at the .05 level, two-tailed test. Chi-square = 1.75; d.f. = 3. The "friends, neighbors, coworkers," distributions were not significantly different either. Chi-square = 2.39; d.f. = 3.

Table 12: Types of Social Interaction, by "Information-Seekers" and General-Population Samples

Type of Interaction	Information Seekers (N=70)	General Population (N=202)
FREQUENCY OF INTERACTION WITH RELATIVES:		
Several times a week	14%	20%
Once or twice a week	34	34
Once or twice a month	30	23
Less often	22	23
	100%	100%
FREQUENCY OF INTERACTION WITH FRIENDS, COWORKERS, AND NEIGHBORS:		
Several times a week	26%	19%
Once or twice a week	33	40
Once or twice a month	24	28
Less often	17	13
	100%	100%
*TYPES OF SOCIAL ORGANIZATION ACTIVE IN:		
Church-Religious	31%	27%
Fraternal-Social	33	18
Public Affairs	26	16
Public Service	6	12
Professional (non-union)	11	4
Veterans-Patriotic	7	4
Trade Union	3	3
Hobby (non-sports)	1	1
Business	-	1
Cultural-Aesthetic	4	-
No organizational affiliation	33	45
NUMBER OF ORGANIZATION OFFICES HELD:		
Two or more	11%	4%
One	9	13
None	80	83
	100%	100%
ATTENDANCE AT SOCIAL-ORGANIZATION MEETINGS:		
Attendance index, among respondents who belong to at least one organization	4.3	4.0
Range 0 to 9.	N=47	N=91

*Percentages add to more than 100%; respondents could make multiple responses.

were those in church-religious, fraternal-social, and public affairs organizations. They did have a significantly higher incidence of membership than the general population in fraternal-social and in professional organizations.[1] A third of the "information seekers" belonged to at least one fraternal-social organization; less than a fifth of the general population did. These organizations include such ones as the Masons, Rotary, alumni associations, country clubs, athletic clubs, Toastmasters, bowling league, and Sigma Xi. Although membership in professional organizations was not high for either sample, "information seekers" were more likely to belong to at least one organization than general-population members were (11% vs. 4%).

After respondents had named the organizations they belonged to, they were asked whether or not they held an office in each of the organizations. "Information seekers" tended to hold more offices in social organizations than the general population in general does.[2] The main difference between the two samples was that "information seekers" are more likely to hold two or more offices than Detroiters in general are. Where 11% of the adults in "information-seeker" households held two or more offices, only 4% of the general-population sample did so. Presumably these offices are held primarily in church-religious, fraternal-social, and public-affairs organizations, which are the more-frequently held memberships by adults

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[1]The difference in the "fraternal-social" percentages was significant at the .01 level, two-tailed test. ($z = 2.63$). The "professional" difference was significant at the .05 level. Chi-square (using Yates' correction) = 3.97; d.f. = 1.

[2]The Chi-square was significant at the .05 level, two-tailed test. Chi-square = 6.87; d.f. = 2.

in "information-seeker" households.

Finally, after respondents had listed their organization memberships, they were asked, for each organization they belonged to, how many of the last four meetings they had attended. To get an overall "organizational-activity" index, the number of attended-meetings claimed was simply added across whatever number of organizations the respondent named. If more than nine "meeting attendances" were named, however, only nine were counted. As indicated in Table 12, "information seekers" who belonged to at least one organization were not significantly higher in their amount of meeting attendance than the general population was.

Role in face-to-face communication networks. One major concern of this study was to determine how frequently "information seekers" discuss major news topics, and whether they tend to be opinion leaders or opinion seekers in these conversations. First, however, it was necessary to give respondents an idea of what was meant by "major news topics." This was done by asking them a question:

> Can you...off the top of your head...think of three or four topics or issues that have been getting a lot of attention in the news lately?

In this way, respondents helped to define "major news stories" for themselves, in terms of the kinds of stories people attend to in the mass media. The most frequently mentioned of these news stories are reported in Table 13. The table indicates the percentage of persons who named each news topic as one of the four topics they were asked to name. The topics are ordered in terms of the frequency with which the general-population sample named them. This table describes the news topics most visible to the general population during February, 1964.

Table 13: Most Frequently Recalled "Topics or Issues That Have Been Getting a Lot of Attention in the News Lately" (i.e., February, 1964)

(Each respondent asked to name four topics)

News Topic	Information Seekers (N=70)	General Population (N=202)
Kennedy assassination; Oswald & Ruby trials	34%	46%
Civil rights issue	43	36
Candidates for U.S. Presidential election	27	24
Cutting off water at Guantanamo, Cuba	47	23
Hoffa jury-bribery trial	26	22
Juvenile delinquency in Detroit	24	20
Federal income-tax cut	6	16
War in Vietnam	14	14
Winter Olympics and boxing	6	10
Bobby Baker case in Washington D.C.	4	7
Panama Canal treaty crisis	13	6
The Beatles	10	3

NOTE: Percentages refer to the percentage of persons in the sample naming a story. Because each person was asked to name four topics, the percentages add to much more than 100%. They do not add to 400%, however, because some respondents named less than four topics and some named topics not listed in this table.

To check whether "information seekers" are especially sensitive to certain types of news stories, their responses are also included in Table 13. The only news topic that "information seekers" were especially sensitive to was the crisis that occurred when Fidel Castro cut off the water supply to the U. S. Marine base at Guantanamo, Cuba.[1] Almost half (47%) of the "information seekers" mentioned the Guantanamo water situation as a major news topic getting high attention; less than a fourth (23%) of the general population did. This seems especially interesting

[1]Significant at .001 level, two-tailed test. (z = 3.70).

in that these persons were selected as adults in "information-seeker" households because someone in their household had contacted the Detroit Office of Civil Defense during the Cuban crisis that resulted from the United States discovering Russian missiles in Cuba in the fall of 1962. The finding implies that these "information seekers" are still very sensitive to news about Cuba. They also recalled the Panama Canal crisis somewhat more frequently than the general population, but the difference in percentages was small enough to reasonably attribute to sampling error. The only other international event recalled frequently, the war in Vietnam, did not differentiate "information seekers" from the general population.

The only news topic mentioned significantly less often by "information seekers" than by the general population was the federal income-tax cut. No reason for this was apparent from the findings of this study.

Three types of data were collected to determine whether "information seekers" were opinion leaders or opinion seekers when they had conversations on major news topics. First, respondents were asked whether they had "asked anyone for his or her opinion" during the past week or two on any of the four major news topics they had just named. As Table 14 indicates, adults in "information-seeker" households did act in an "opinion seeker" role more frequently than members of the general population did (44% vs. 30% had in past week or two).[1] Somewhat surprising,

[1] This difference was significant at the .05 level, two-tailed test. ($z = 2.16$)

however, is that these "information seekers" were also more likely to say "yes" when asked: "Has anyone asked you for your opinions on any of these topics in the news?"[1] A fourth of the "information seekers" replied "yes" to this question; only an eighth of the general-population respondents did so. An additional question was asked to determine whether they had been asked for opinions more than once during the past week or so. There, too, "information seekers" were more likely to say "yes." Thus, it would appear that "information seekers" cannot be typed as either opinion leaders or opinion seekers in the area of public affairs information. They can probably be better described as "heavy communicators" of public affairs information.

The data on which the above conclusions are based should not be considered testimony that is likely to be false. If a respondent said "yes" to any of the above questions, their answeres were followed up by eight more questions about the alleged conversation. Included in these follow-up questions were requests for the name, occupation, and address of the person with whome they claimed to have talked. When a respondent was not able to answer the follow-up questions to the researcher's satisfaction, their answer to the original question was recoded as "no conversation took place."[2]

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[1]The overall Chi-square was significant at the .01 level, two-tailed test. Chi-square = 10.63; d.f. = 2.

[2]For an explanation of the rationale behind this procedure, See Roy E. Carter, Jr. and Verling C. Troldahl, "Use of a Recall Criterion in Measuring the Educational Television Audience," Public Opinion Quarterly, 26: 114-121. (Spring 1962).

The third type of evidence provided in Table 14 involved answers to a battery of nine questions designed to determine whether respondents see themselves as opinion leaders. A sample question is:[1]

> About how often would you say people ask you for your opinions on topics which get a lot of attention in the news...would it be several times a week...about once a week...once or twice a month...or less than once a month?

Table 14: Frequency of Opinion Exchange, by "Information-Seeker" and General-Population Samples

Type of Opinion Exchange	Information Seekers (N=70)	General Population (N=202)
Percentage of respondents who asked someone for opinions on major news topics during past week or two.	44%	30%
Percentage of respondents who were asked for their opinions on major news topics during past week or two.		
Two or more times	16%	7%
Once	24	13
Not at all	60	80
	100%	100%
Perceived Opinion-Leadership Index		
High (16-30)	32%	25%
Medium High (11-15)	20	26
Medium Low (6-10)	24	24
Low (0-5)	24	25
	100%	100%
Average (mean) Leadership	11.5	11.2

On an index of "perceived opinion leadership" that could range from 0 to 30, "information seekers" averaged a score of 11.5, the general

[1] The questions used for this index are numbers 33 and 40 through 47 in the questionnaire included in the appendix.

population averaged 11.2. This difference was negligible, and was not greater than what one would expect due to sampling error.

These findings suggest that adults in "information-seeker" households do involve themselves heavily both in opinion seeking and in opinion leadership on public affairs topics. Therefore, it seems that they could best be characterized as "heavy communicators." Furthermore, despite the fact that they tend to report many instances in which they are asked for their opinions, they are not especially likely to see themselves as opinion leaders.

Face-to-face communication channels used by "information seekers." When respondents reported seeking opinions, or being asked for opinions, they were asked a series of questions that would help to characterize those conversations. Tables 15 and 16 summarize their responses to these questions. Since many respondents did not report such conversations, the sample sizes on which the percentages in these tables are based are quite small. The percentages are based on only those persons who reported having had such a conversation. Because of the small sample sizes, none of the differences shown in either Table 15 or 16 are greater than what one might expect merely from sampling error. Nevertheless, for exploratory purposes, some tentative conclusions will be made about these findings.

Table 15 describes the conversations in which the people interviewed were acting as opinion seekers, where the other discussant was acting as an opinion leader. They had asked someone for their opinions on a news topic. The pattern of topic popularity does not differ very

Table 15: Opinion Seeking About Major Public-Affairs Issues, by "Information-Seeker" and General-Population Samples

(Based on Respondents who asked for opinions)

	Information Seekers (N=31)	General Population (N=61)
MOST FREQUENT TOPICS DISCUSSED:		
Kennedy assassination; Oswald & Ruby trials	7%	23%
Civil rights issue	16	21
Candidates for U.S. Presidential election	10	13
Juvenile delinquency in Detroit	19	11
Winter Olympics and boxing	3	11
Hoffa jury-bribery trial	19	7
Federal income-tax cut	7	7
Cutting off water at Guantanamo, Cuba	16	5
REASON RESPONDENT ASKED PERSON FOR OPINION:		
Needed a conversation topic; no evidence of regularized discussion group	47%	58%
News is usual topic in regularized discussion group	20	15
Sought clarification or advice on topic; no evidence of personal problem	13	14
News tied to a personal problem	13	8
Part of job to know about the topic	-	3
Miscellaneous answers	7	2
	100%	100%
OPINION GIVER'S RELATIONSHIP TO RESPONDENT:		
Member of immediate family	26%	25%
Other relative	3	2
Coworker	36	39
Neighbor	6	19
Someone else	29	15
	100%	100%
HOW WELL RESPONDENT KNOWS OPINION GIVER:		
Immediate family	26%	25%
One of closest friends	17	17
Fairly close friend	50	34
Casual acquaintance	7	22
Had not met him before	-	2
	100%	100%
PERCEIVED EFFECT OF DISCUSSION:		
Came away with same opinions he had before	77%	77%
Respondent formed new opinions	23	15
Respondent changed old opinions	-	8
	100%	100%

much from the pattern found in looking at all topics respondents reported having noticed in the news recently. The percentages do tend to be smaller than those in the earlier table, however, because most respondents named only one of the four news topics they had reported earlier as the particular one they had asked someone for an opinion about.

When asked why they happened to ask this person for his opinion, about half of the respondents stated that they merely needed a conversation topic. Another fifth of the respondents said that they usually talk about news topics with their associates. Only 14% of the respondents gave a reason that suggested they were specifically seeking out advice. There were no major differences between "information seekers" and the general population in the reasons they gave for asking people for opinions.

A fourth of the opinion-seeking occasions involved the respondent asking someone within his or her own family for an opinion. (Table 15.) Other relatives were seldom asked, but coworkers were more frequently asked than members of their own family. Furthermore, respondents were more likely to ask coworkers for their opinions than to ask their neighbors. When respondents indicated how well they knew the person they sought opinions from, almost half of them said either that it was a family member or that it was a very close friend. "Information seekers" were a little less likely to ask a person they hardly knew for opinions than members of the general population were.

Finally, less than a fourth of the persons seeking out opinions thought that they had been influenced by the person they had asked. In other workds, this type of conversation tended to reinforce their

Table 16: Opinion Giving on Major Public-Affairs Issues, by "Information-Seeker" and General-Population Samples

(Based on respondents who were asked for opinions)

	Information Seekers (N=28)	General Population (N=41)
MOST FREQUENT TOPICS DISCUSSED:		
Civil rights issue	21%	15%
Juvenile delinquency in Detroit	21	15
Cutting off water at Guantanamo, Cuba	7	15
Kennedy assassination; Oswald & Ruby trials	11	12
Federal income-tax cut	7	12
Candidates for U. S. Presidential election	7	12
OPINION SEEKER'S RELATIONSHIP TO RESPONDENT:		
Member of immediate family	22%	7%
Other relative	3	5
Coworker	39	48
Neighbor	7	7
Someone else	29	33
	100%	100%
HOW WELL RESPONDENT KNOWS OPINION SEEKER:		
Immediate family or relative	25%	12%
One of closest friends	18	7
Fairly close friend	25	54
Casual acquaintance	32	27
Had not met him before	-	-
	100%	100%
RESPONDENT'S PERCEPTION OF HIS INFLUENCE:		
Opinion seeker came away with same opinions	86%	72%
Opinion seeker formed new opinions	7	23
Opinion seeker changed old opinions	7	5
	100%	100%

existing opinions, or had no persuasive power in getting them to change their present opinions.

In general, data on the people who asked respondents for their opinions is quite similar to that just discussed. (Table 16.) The topics discussed were about the same in popularity. However, it is interesting to note that people were less likely to ask "information seekers" about the topic of cutting off the water at Guantanamo, Cuba, than "information seekers" were to ask other people about this topic. Also, a fourth of the persons who asked "information seekers" for their opinions were members of their own family. This was much higher than the percentage of persons in the general population who were asked by their own family for opinions about news topics (7%). Again, "information seekers" tended to be better acquainted with the person who asked them for opinions than persons in the general population were. Also, "information seekers" were less likely than general-population respondents to think they had induced the other person to form new opinions.

The reader should remember that the findings based on Tables 15 and 16 are very tentative. The data used in drawing these conclusions are based on too small a sample size to be highly reliable.

IV. COMMUNICATION BEHAVIOR OF SELECTED CIVIL-DEFENSE SUBAUDIENCES

The study reported in this section involves an attempt to determine how the Office of Civil Defense can best reach selected subgroups within a general population. To facilitate this, three types of data were used, their utility being based on the assumption that during international crises, civil-defense information spreads through the communication channels concerned with all types of major news topics. Therefore, the communication channels studied were those through which different subaudiences obtain knowledge of "issues that have been getting a lot of attention in the news lately."

Three major research questions were the focus of the present analysis:

1. What subaudiences are most easily reached through the news content of the various mass media? The purpose of studying the media habits of subaudiences was to ascertain through which mass media the Office of Civil Defense can most efficiently reach which audiences. For example, do women listen to radio news more than men? Do Negroes watch television news broadcasts more than Whites?

2. Within what contexts of information and attitudes do different subaudiences evaluate civil-defense messages? More specifically, what information level on major local and national news topics do members of different subgroups maintain? Second, how much do different subgroups know about the status of local fallout-shelter programs, and how much

information do they have about fallout protection in general? Third, how favorable or unfavorable are the attitudes of different subgroups toward community fallout shelters, and how intensely do they hold these attitudes?

3. What types of persons do different subaudiences spend their leisure time with? These face-to-face communications represent potential personal channels through which civil-defense messages may flow. They also suggest a kind of context of persons within which messages are evaluated. The amount of time spent with relatives and with friends, neighbors, and coworkers (i.e., non-kinship ties) is investigated. Also membership, activity, and holding offices in social clubs and organizations are studied.

The findings reported in this section are based on the responses of the proportionate area probability sample of Detroit and its adjacent suburbs. Therefore, these findings should be fairly indicative of what these subgroups are like in most urban populations.

Types of Subaudiences Studied

The general-population sample of Detroit was divided into subgroups by the following demographic classifications: sex, race, number of children under 18 living at home, education, and age.

The number-of-children subaudiences were categorized as single, married and no children, one or two children, and three or more. Years of school completed was divided into four categories: eight years or less, nine to 11 years, high school diploma, and one or more years of college. The age groups were 18 to 39 years, 40 to 49 years, 50 to 59 years, and

60 years or more. These categories of subgroups were selected so as to try to cluster fairly homogeneous groups of persons and so that a large enough sample of persons within a group would be available to yield fairly reliable subgroup estimates.

Media Habits of the Subaudiences

The media habits studied were (1) the number of news magazines read regularly, (2) the amount of time spent reading the news content in newspapers, (3) the frequency of radio news-broadcast listening, and (4) the frequency of television news-broadcast viewing.

News magazine readership. Respondents were asked: "What magazines do you read regularly, that is, at least three out of every four issues?" Later, the responses were checked to see whether respondents named any news magazines. Fifteen percent of the persons interviewed reported reading at least one news magazine regularly. Men and women did not differ on the frequency of news magazine readership, nor did Negroes and Whites. (Table 17.) Number of children in the household also made no difference in news magazine readership.

The education of the respondents, however, did make a difference. Only 4% of the respondents who had completed 11 years or less of school read a news magazine regularly. On the other hand, 21% of those with a high school education, and 35% of those with at least some college, read at least one news magazine regularly.[1]

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[1]Chi-square = 23.957; d.f. = 3; p is less than .05, two-tailed test.

Table 17: News-Magazine Readership by Selected Subaudiences

Audience		Percent That Read at Lease One news Magazine Regularly	Sample Size
SEX:	Men	14%	100
	Women	16	102
*RACE:	White	17%	148
	Negro	10	52
AGE:	18 to 39 years	24%	58
	40 to 49 years	13	54
	50 to 59 years	18	39
	60 years and over	4	51
**YEARS OF SCHOOL COMPLETED:			
	8 years or less	4%	46
	9 to 11 years	4	57
	High school diploma	21	58
	At least some college	35	40
CHILDREN UNDER 18 AT HOME:			
	None, single	33%	9
	None, married	11	94
	1 or 2	16	58
	3 or more	20	41
Total Sample		15%	202

*Two respondents of another race were not included in this analysis.

**One respondent refused to give his education, so is excluded from this analysis.

The highest percentage of news magazine readership reported was for individuals under 40 years of age. Twenty-four percent of this group read at least one news magazine regularly. In contrast, only 4 percent of the individuals who were 60 years of age or older read a news magazine regularly. Persons in the middle age categories had readership levels between these figures. Thus it seems that the younger an individual is, the more likely he is to read a news magazine regularly.[1]

Readership of major news content in newspapers. Respondents were also asked how much time on an average day they spent "reading the main news stories of the day." Three of every ten persons interviewed said they spent more than half an hour reading the major news stories; two of every ten said they spent ten minutes or less. (Table 18).

Persons over 40 were more likely to spend large amounts of time reading the main news content of their newspapers than younger individuals were (37% vs. 16% spent 30 minutes or more).[2]

Subgroups defined by race or number of school years completed were not differentiated by news content readership in newspapers. There was a tendency for men to be heavier readers than women, and persons with two or less children to be heavier readers than persons with three or more children. However, these differences were small enough to be due to sampling error. Therefore, news readership is not significantly different among these types of subgroups.

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[1]Chi-square = 9.27; d.f. = 3; p is less than .05.

[2]Chi-square = 17.85; d.f. = 9; p is less than .05.

Table 18: Readership of Major News Content in Newspapers, by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		More Than Half an Hour	25 to 30 Minutes	15 to 20 Minutes	10 Minutes or Less
SEX:	Men	37%	22%	21%	20%
	Women	23	23	30	24
RACE:	White	30%	23%	26%	21%
	Negro	29	19	27	25
AGE:	18 to 39 years	16%	22%	36%	26%
	40 to 49 years	37	15	26	22
	50 to 59 years	31	18	28	23
	60 years or over	37	33	12	18
YEARS OF SCHOOL COMPLETED:					
	8 years or less	33%	15%	19%	33%
	9 to 11 years	32	26	21	21
	High school diploma	28	19	34	19
	At least some college	27	30	28	15
CHILDREN UNDER 18 AT HOME:					
	None, single	11%	33%	22%	33%
	None, married	35	28	20	17
	1 or 2	31	14	33	22
	3 or more	19	20	29	32
Total Sample		30%	22%	26%	22%

Radio news-broadcast listening. Respondents were asked: "About how frequently do you listen to news broadcasts on the radio?" About one half said several times a day, one third said once or twice a day, and one fifth said less than once a day. (Table 19.) The sex, race, education, age, and number of children of the respondents made no difference in radio-news broadcast listening.

Television news-broadcast viewing. In response to the question "How often do you watch news broadcasts on television?," 42 percent of those interviewed said more than once a day, 46 percent said once a day, and 12 percent said less than once a day. (Table 20)

The analysis showed that the less education an individual has, the more likely he is to watch more than one television news broadcast a day.[1]

The subaudiences defined by sex, race, age, and number of children in the home were not differentiated by news-broadcast viewing habits.

Summary of media habits. The analyses presented above show that the higher the education level of an individual, the more likely he is to read at least one news magazine regularly, and the less likely he is to watch more than one television news broadcast a day. The younger a person is, the more likely he is to read a news magazine regularly, and the less likely he is to spend considerable time reading the main news content of his newspaper. Radio news broadcasts do not seem to be attended to selectively by different subgroups.

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[1]Chi-square = 15.78; d.f. = 6; p is less than .05.

Table 19: Listening to Radio News Broadcasts, by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		Several Times a Day	Once or Twice a day	Less Than Once a Day
SEX:	Men	50%	33%	17%
	Women	46	31	23
RACE:	White	46%	32%	22%
	Negro	54	33	13
AGE:	18 to 39 years	48%	31%	21%
	40 to 49 years	50	31	19
	50 to 59 years	49	28	23
	60 years and over	45	37	18
YEARS OF SCHOOL COMPLETED:				
	8 years or less	43%	35%	22%
	9 to 11 years	46	33	21
	High school diploma	50	28	22
	At least some college	52	35	13
CHILDREN UNDER 18 AT HOME:				
	None, single	56%	33%	11%
	None, married	50	32	18
	1 or 2	47	28	25
	3 or more	44	39	17
Total Sample		48%	32%	20%

Table 20: Viewing of Television News Broadcasts, by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		More Than Once a Day	Once a Day	Less Than Once a Day
SEX:	Men	36%	47%	17%
	Women	47	45	8
RACE:	White	43%	45%	12%
	Negro	38	52	10
AGE:	18 to 39 years	36%	40%	24%
	40 to 49 years	44	48	8
	50 to 59 years	41	49	10
	60 years or more	45	49	6
YEARS OF SCHOOL COMPLETED:				
	8 years or less	46%	43%	11%
	9 to 11 years	47	46	7
	High school diploma	40	53	7
	At least some college	30	40	30
CHILDREN UNDER 18 AT HOME:				
	None, single	22%	67%	11%
	None, married	40	49	11
	1 or 2	40	45	15
	3 or more	51	37	12
Total Sample		42%	46%	12%

It is interesting to note that men and women cannot be meaningfully viewed as different subaudiences as far as their exposure to news content in the mass media is concerned. As groups, they reported roughly the same exposure to news in each of the four media. Likewise, the number of children under 18 in the home did not differentiate subgroups as far as media news consumption is concerned.

Negro-White differences were found only in the regular readership of news magazines. Very few Negroes exposed themselves to this medium. On the other hand, they did not report above-average exposure to any of the media.

Although persons with some college education are relatively high in regular news magazine readership, a sizeable proportion of them (65%) are not regular news-magazine readers. Also, although they are low in frequency of television news viewing relative to persons with low education, 30% of them watch two or more television newscasts a day, and 70% of them watch at least one a day. Persons with less than a high school diploma can probably best be reached through television news casts.

Young persons, as with the highly educated, are high in news magazine readership, but unlike highly educated persons, are low in readership of major news stories in the newspaper. Older persons are low in news-magazine readership, but relatively easily reached through the news columns of the newspaper.

Knowledge and Attitudes of Subaudiences

The purpose of this section is to describe the context within which different subaudiences evaluate civil-defense messages. How much knowledge

different subgroups have about major local-news events and major national-news topics is described. These same subgroups are studied to determine their knowledge of the status of the Detroit fallout-shelter program and their knowledge about fallout protection in general. Finally, the favorability and intensity of their attitudes toward community fallout shelters are indicated.

The analyses that pertain to knowledge of major news events are based on the total general-population sample of 202 adults in the Detroit area. All analyses that are directly concerned with civil-defense information and attitudes, however, are based on a random sample of one half of the respondents in that general-population sample. This was necessary because the other half of that sample were mailed a message about community fallout shelters a week before they were interviewed, for purposes of the experiment described in Part III. This message may have made those persons more knowledgeable about, and more favorable to, fallout shelters than is the case during periods when no special communication campaign is directed at them. The concern of this chapter is to describe the usual information level and attitudes of different subgroups that the Office of Civil Defense may wish to direct messages.

Knowledge about local Detroit news. The scores used to obtain the local-news information level of different subaudiences were derived from two multiple-choice items on current Detroit news topics. One item concerned juvenile delinquency in Detroit schools; the other was about a proposed city ordinance allowing home owners to decide to whom they are willing to sell their homes. For the sample as a whole, a fourth of the respondents got both items correct; 41% had one item correct. (Table 21.)

Table 21: Information Level on Local Public Affairs by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		2-Items Correct	1-Item Correct	0-Items Correct
SEX:	Men	26%	48%	26%
	Women	26	34	40
RACE:	White	32%	41%	27%
	Negro	8	40	52
AGE:	18 to 39 years	29%	40%	31%
	40 to 49 years	26	37	37
	50 to 59 years	28	33	39
	60 years or more	20	53	27
YEARS OF SCHOOL COMPLETED:				
	8 years or less	11%	41%	48%
	9 to 11 years	10	46	44
	High school diploma	33	40	27
	At least some college	55	35	10
CHILDREN UNDER 18 AT HOME:				
	None, single	33%	33%	33%
	None, married	21	45	34
	1 or 2	36	33	31
	3 or more	20	46	34
Total Sample		26%	41%	33%

On local-news topics, White respondents scored better than Negro respondents.[1] A third of the White persons had both items right, only 8% of the Negroes did. Similarly, individuals with more education scored higher than individuals with less education. More than one half of the individuals having some college education got both items correct; one third of those having a high school diploma did, while one tenth of those with less than a high school diploma scored high.[2]

Subaudiences classified by sex, number of children in household and age did not differ in local-news information level.

Knowledge of national public-affairs news. Scores indicating information level on national public-affairs topics were obtained from four items on a multiple-choice test. The scores ranged from 0 (no answers correct) to 4 (all correct).

As was the case with local public-affairs knowledge, race and education subaudiences differed significantly on national-news knowledge. The average score for White respondents was 1.7.[3] (Table 22) Respondents who had at least some college had an average score of 2.9; those with a high school diploma averaged 2.4; and those with 11 years or less of schooling averaged 1.8.[4]

On the local public-affairs items, men and women did not differ significantly in information level. However, on the national items,

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[1]Chi-square = 16.08; d.f. = 2; p less than .001.

[2]Chi-square = 57.98; d.f. = 6; p is less than .001.

[3]T-test = 3.85; d.f. = 190; p is less than .001. (Two individuals were dropped from this analysis. They were other than White or Negro.)

[4]F = 10.97; d.f. = 3, 190; p is less than .001.

Table 22: Information Level on National Public Affairs News, by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		Average (Mean) Information Level
SEX:	Men	2.5
	Women	1.8
RACE:	White	2.4
	Negro	1.7
AGE:	18 to 39 years	2.3
	40 to 49 years	2.1
	50 to 59 years	2.5
	60 years or over	1.9
YEARS OF SCHOOL COMPLETED:		
	8 years or less	1.7
	9 to 11 years	1.9
	High school diploma	2.4
	At least some college	2.9
CHILDREN UNDER 18 AT HOME:		
	None, single	2.1
	None, married	2.1
	1 or 2	2.4
	3 or more	1.9
Total Sample		2.2

men had an average score of 2.5, while women scored 1.8.[1]

Knowledge of the Detroit fallout-shelter program. An index of whether or not respondents knew the status of the Detroit fallout-shelter labeling and stocking program was assessed with a single multiple-choice item. It was reported in Part III. Of the 102 respondents in the "no-message" sample of Detroit residents, 25 percent knew the correct answer. No subaudience had a significantly higher level of knowledge than any other subaudience. (Table 23.)

General knowledge about fallout protection. Respondents were asked five multiple-choice items about fallout protection in general. These items were described in Part III. The scores, with a possible range from 0 to 5, for each subgroup are shown in Table 24. The average (mean) score for the whole sample was 1.5, indicating a relatively low level of fallout-protection knowledge.

Education was the only factor which differentiated subgroups on general information level about fallout protection.[2] Persons with less than a high school diploma averaged one of the five items correct. Persons with a high school diploma or some college averaged two of the five items correct.

Favorability of attitudes toward community fallout shelters. To assess attitudes toward the fallout-shelter program, respondents were asked to agree, disagree, or say "just don't know" to seven opinion statements about community fallout shelters. "Agree" responses were

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[1] T-test = 4.13; d.f. = 200; p is less than .001

[2] F = 4.37; d.f. = 3, 90. p less than .01.

Table 23: Knowledge About the Detroit Fallout-Shelter Program, by Selected Subaudiences

Audience		% Knowing Local Civil Defense Info	Sample Size
SEX:	Men	32%	47
	Women	20	55
RACE:	White	25%	75
	Negro	27	26
AGE:	18 to 39 years	19%	27
	40 to 49 years	23	26
	50 to 59 years	39	23
	60 years and older	23	26
YEARS OF SCHOOL COMPLETED:			
	8 years or less	16%	25
	9 to 11 years	34	29
	High school diploma	23	30
	At least some college	28	18
*CHILDREN UNDER 18 AT HOME:			
	None, married	21%	52
	1 or 2	37	30
	3 or more	24	17
Total Sample		25%	102

*Only 3 single persons were in this sample, so were not analyzed.

Table 24: Knowledge of National Civil Defense Information Level, by Selected Subaudiences.

Audience		National Civil Defense Average Information Level	Sample Size
SEX:	Men	1.7	47
	Women	1.4	55
RACE:	White	1.7	75
	Negro	1.3	26
AGE:	18 to 39 years	1.8	27
	40 to 49 years	1.6	26
	50 to 59 years	1.6	23
	60 years and older	1.2	26
YEARS OF SCHOOL COMPLETED:			
	8 years or less	1.1	25
	9 to 11 years	1.2	29
	High school diploma	2.0	30
	At least some college	1.9	18
CHILDREN UNDER 18 AT HOME:			
	None, married	1.3	52
	1 or 2	1.8	30
	3 or more	1.7	17
Total Sample		1.5	102

each scored +1, "disagree" as -1, and "just don't know" as 0. Therefore, the total "favorability" score ranged from -7 to +7. The scores for the several subgroups are reported in Table 25. For the sample as a whole, the mean favorability score was +3, indicating a moderately favorable attitude toward community fallout shelters. No differences larger than would be expected merely from sampling error were found among the several subaudiences.

Average intensity of community shelter attitudes. After each of the seven attitude statements, the respondents were asked "How strongly do you feel about your answer?" As explained in Part III, responses were scored from 0 to 3 for each statement--giving a total-intensity score from 0 to 21 for each respondent. The average (mean) intensity score for the total sample was 13.5 out of 21, indicating relatively strong feelings about the opinions held. (Table 26)

The analysis showed that the men's mean score of 14.8 was significantly higher than the women's score of 12.5.[1] Similarly, the average intensity score for Negro respondents was 15.5, which was significantly higher than the White respondents' score of 12.8.[2] The other subaudience groups did not differ significantly on their intensity scores.

Summary. As might be expected, in both the local and national public affairs information tests, respondents with a higher education (i.e., at least a high school diploma) had a higher information level

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[1] $F = 7.89$, d.f. = 1, 100; p less than .01.

[2] $F = 11.7$, d.f. = 1, 99; p less than .001.

Table 25: Favorability of Fallout-Shelter Attitudes, by Selected Subaudiences

Audience		Average Favorability Toward Community Shelters	Sample Size
SEX:	Men	+3.4	47
	Women	+3.1	55
RACE:	White	+2.9	75
	Negro	+4.0	26
AGE:	18 to 39 years	+3.8	27
	40 to 49 years	+3.4	26
	50 to 59 years	+3.6	23
	60 years and older	+2.1	26
YEARS OF SCHOOL COMPLETED:			
	8 years or less	+2.8	25
	9 to 11 years	+3.2	29
	High school diploma	+3.1	30
	At least some college	+4.1	18
CHILDREN UNDER 18 AT HOME:			
	None, married	+2.6	52
	1 or 2	+3.7	30
	3 or more	+4.4	17
Total Sample		+3.0	102

Table 26: Intensity of Fallout-Shelter Attitudes, by Selected Subaudiences

Audience		Average Intensity of Community Shelter Attitudes	Sample Size
SEX:	Men	14.8	47
	Women	12.5	55
RACE:	White	12.8	75
	Negro	15.5	26
AGE:	18 to 39 years	14.2	27
	40 to 49 years	13.7	26
	50 to 59 years	14.3	23
	60 years and older	12.0	26
YEARS OF SCHOOL COMPLETED:			
	8 years or less	13.2	25
	9 to 11 years	14.3	29
	High school diploma	13.1	30
	At least some college	13.4	18
CHILDREN UNDER 18 AT HOME:			
	None, married	12.6	52
	1 or 2	14.1	30
	3 or more	14.9	17
Total Sample		13.5	102

than respondents with less education. Similarly, Negroes, who tend to have a lower education level than Whites, had lower scores than the Whites. Although the local public-affairs items did not differentiate men and women, men scored higher on national-news information than women did.

The amount of knowledge about the Detroit fallout-shelter program did not vary significantly from one subaudience to another. On general fallout-protection knowledge, just as in the public-affairs tests, the higher educated respondents scored higher than the respondents with less education.

Although none of the subaudiences was differentiated by its favorability toward community fallout shelters, an analysis of the intensity with which the respondents held their opinions showed that men had a higher intensity score than women, and that Negroes had a higher score than Whites.

Leisure-Time Activity of Selected Subaudiences

The kinds of face-to-face interaction situations different types of persons are involved in during their leisure time are described in this section. These findings should give some indications of the kinds of concerns different subaudiences have, and the face-to-face communication channels they will utilize in seeking advice and in passing along information they obtain from the media.

Social interaction with relatives and friends. Two questions were asked all respondents to determine the frequency of interaction (1) with relatives, and (2) with friends, neighbors, and coworkers. The findings are reported in Tables 27 and 28. These findings indicate the relative

Table 27: Social Interaction with Relatives, by Selected Subaudiences

(Sample sizes same as in Table 17)

Audience		Several Times a week	Once-Twice a week	Once-Twice a Month	less Often
SEX:	Men	17%	33%	26%	24%
	Women	22	35	21	22
RACE:	White	18%	32%	26%	24%
	Negro	21	39	17	23
AGE:	18 to 39 years	16%	50%	17%	17%
	40 to 49 years	26	22	24	28
	50 to 59 years	15	31	31	23
	60 years and older	20	31	24	25
YEARS OF SCHOOL COMPLETED:					
	8 years or less	15%	39%	26%	20%
	9 to 11 years	21	28	21	30
	High school diploma	12	45	29	14
	At least some college	30	23	15	32
CHILDREN UNDER 18 AT HOME:					
	None, married	22%	30%	24%	24%
	1 or 2	17	38	26	19
	3 or more	15	41	20	24
Total Sample		20%	34%	23%	23%

Table 28: Social Interaction with Friends, Neighbors, and Coworkers; by Selected Subaudiences

Sample size same as in Table 17)

Audience		Several Times a week	Once-Twice a week	Once-Twice a Month	Less Often
SEX:	Men	23%	39%	26%	12%
	Women	16	40	29	15
RACE:	White	19%	40%	26%	15%
	Negro	21	38	31	10
AGE:	18 to 39 years	19%	50%	21%	10%
	40 to 49 years	18	41	28	13
	50 to 59 years	18	31	43	8
	60 years and older	22	33	23	22
YEARS OF SCHOOL COMPLETED:					
	8 years or less	13%	39%	26%	22%
	9 to 11 years	21	35	26	18
	High school diploma	21	45	24	10
	At least some college	20	40	37	3
CHILDREN UNDER 18 AT HOME:					
	None, married	20%	34%	33%	13%
	1 or 2	17	50	21	12
	3 or more	17	39	24	20
Total Sample		19%	40%	28%	13%

amount of kinship and nonkinship interaction. For the sample as a whole, the data were as follows:

	Relatives	Nonkinship
Several times a week	20%	19%
Once or twice a week	34	40
Once or twice a month	23	28
Less often	23	13
	100%	100%

There seems to be no major difference in the amount of interaction respondents have with their relatives and with their friends, neighbors, and coworkers. Slightly more than half of the respondents interact at least once a week with relatives, and at least once a week with friends, neighbors, or coworkers.

None of the subaudiences studied differed significantly in their amount of interaction with either relatives or with nonkinship persons.

Activity in social clubs and organizations. During the interview, respondents were asked to name the social clubs and organizations they belonged to. In addition, they were asked whether they were an officer in each organization they named, and how many of the last four meetings of each organization they had attended. Altogether, 55% of the respondents reported belonging to at least one social club or organization.

The only subaudience breakdown that was related to membership and activity in social organizations was education.[1] (Table 29) Less than half of the persons without a high school diploma belonged to a social club or organization; two thirds of the persons with high school diplomas, and three fourths of those with some college belonged to a

[1]Chi-square = 16.11; d.f. = 3; p less than .01.

Table 29: Amount and Type of Organizational Activity, by Selected Subaudiences

(Sample sizes same as in Table 17)

		Belong to an Organization	Organization Activity	Hold Office in Organization
SEX:	Men	57%	2.2	16%
	Women	54	2.3	18
RACE:	White	54%	2.0	13%
	Negro	60	2.6	27
AGE:	18 to 39 years	57%	2.0	16%
	40 to 49 years	63	2.4	19
	50 to 59 years	56	2.5	21
	60 or older	43	2.0	14
YEARS OF SCHOOL COMPLETED:				
	8 years or less	48%	1.6	11%
	9 to 11 years	37	1.6	12
	High school diploma	66	2.0	12
	At least some college	72	3.9	37
CHILDREN UNDER 18 AT HOME:				
	None, single	54%	1.0	0%
	None, married	49	2.2	17
	1 or 2	59	2.0	17
	3 or more	63	2.8	20
Total Sample		55%	2.2	17%

social organization. The findings were parallel on amount of organizational activity. The index of organizational activity was based on the number of recent meetings respondents had attended for each organization they belonged to. (See Part III for more explanation of this index.) The more education a person had, the more active he tended to be in social organizations.[1] No significant differences in organizational activity were found among the sex, race, children-at-home, and age subgroups.

For each of the organizations named, respondents were asked whether they held an office in that organization. For the sample as a whole, 17% of the respondents reported holding at least one office. Again, education differentiated persons as to the probability they held organizational office. Among persons with no college, 12% reported holding at least one office in a social organization; among persons with college, 37% of respondents held at least one office.[2] Although Negroes were not more likely to join or be more active in organizations than Whites, they were more likely than Whites to report holding an office in social organizations.[3] One of every eight Whites reported holding an office; one of every four Negroes did. No significant differences in the percentage of persons holding organizational office were found among the sex, children-at-home, or age subaudiences.

Types of organizational memberships held. After the interviewing had been completed, the names of organizations mentioned by each respondent

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[1] $F = 6.19$, d.f. = 3, 197; p less than .001.

[2] Chi-square = 14.93; d.f. = 3; p less than .01.

[3] $z = 2.35$; p less than .05.

were classified into types of organizations.[1] Four types of organizations were mentioned often enough to warrant a study of their relative popularity for different subaudiences. They are church-religious, fraternal-social, public-affairs, and public-service organizations. Public-affairs organizations include such things as the League of Women Voters, American Civil Liberties Union, PTA's, and political organizations. Some public-service organizations are March of Dimes, Society for Blind, and community-improvement associations. The percentage of respondents who belonged to each of these types of organizations was:

Church-Religious	27%
Fraternal-Social	18%
Public Affairs	16%
Public Service	12%

None of the subaudiences studied was disproportionately high in its probability of belonging to a church-religious organization. (Table 30) Roughly a fourth of each subaudience belonged to such organizations. Only Negroes were especially likely to belong to fraternal-social organizations.[2] They were twice as likely as Whites to belong to such organizations (29% vs. 14%).

Membership in public-affairs organizations seems highly selective. Women were twice as likely as men to belong to public-affairs organizations (22% vs. 11%).[3] Similarly, Negroes were twice as likely as Whites

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[1]For a description of the classification scheme used, see Charles H. Backstrom and Gerald D. Hursh, Survey Research, Evanston, Illinois, Northwestern University Press, 1963, pp. 101-102.

[2]Chi-square = 5.51; d.f. = 1; p less than .05.

[3]Chi-square = 4.07; d.f. = 1; p less than .05.

Table 80: Types of Organization Memberships, by Selected Subaudiences

(Sample sizes same as in Table 17)

		Percent who are a member in...			
		Church-Religious	Fraternal-Social	Public Affairs	Public Service
SEX:	Men	26%	23%	11%	13%
	Women	27	13	22	11
RACE:	White	27%	14%	12%	14%
	Negro	27	29	27	6
AGE:	18 to 39 years	22%	9%	26%	12%
	40 to 49 years	30	22	20	11
	50 to 59 years	31	26	10	18
	60 and over	26	18	4	8
YEARS OF SCHOOL COMPLETED:					
	8 years or less	24%	17%	17%	4%
	9 to 11 years	19	12	5	5
	High school diploma	29	15	19	12
	At least some college	38	30	25	30
CHILDREN UNDER 16 AT HOME:					
	None, single	0%	0%	1%	22%
	None, married	29	23	5	10
	1 or 2	21	12	21	12
	3 or more	37	17	34	15
Total Sample		27%	18%	16%	12%

to belong to such organizations (27% vs. 12%).[1] The strongest predictor of membership in public-affairs organizations, however, seemed to be the number of children under 18 living in the respondent's household. Among respondents with three or more children at home, 34% belonged to at least one public-affairs organization.[2] This finding, as well as the sex difference, can probably be explained by the fact that parent-teacher organizations were classified as "public affairs." Because of this, it was surprising to find that the differences in the frequency of membership in public-affairs organizations for the different educational subgroups were not greater than one might expect merely from sampling error. The age subgroups, on the other hand, did differ. The younger a respondent was, the more likely he was to belong to a public-affairs organization.[3] This again could be explained by his having children and perhaps belonging to a parent-teacher association.

In contrast, the educational subgroups were the only ones which differed significantly in their membership in public-service organizations.[4] Membership in such organizations seems to be primarily among persons with at least one year of college. Three of every 10 such persons belonged to a public-service organization.

Perceived opinion leadership. In this study, respondents were asked to respond to several items designed to index how much a person

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[1]Chi-square = 4.89; d.f. = 1; p less than .05.

[2]Chi-square = 18.87; d.f. = 2; p less than .001.

[3]Chi-square = 11.53; d.f. = 3; p less than .01.

[4]Chi-square = 17.04; d.f. = 3; p less than .01.

saw himself as one to whom others looked for opinions on public-affairs topics. The "perceived opinion leadership" index varied from 0 to 30, with high scores indicating high opinion leadership. The average (mean) opinion leadership score for each subgroup is shown in Table 31.

Perceived opinion leadership was quite selective among the several subgroups studied. Differences in opinion leadership were found within each subgroup comparison. Men were slightly more likely than women to see themselves as opinion leaders (12.4 vs. 10.0).[1] Negroes were more likely than Whites to do so (13.0 vs. 10.4).[2] The more children a person had, the more likely he was to see himself as an opinion leader.[3] The most striking differences were found among the educational subgroups, however.[4] The average score for persons with 8 or less years of schooling was 9.5, while persons with some college averaged a score of 14.6. Finally, the younger age groups were most likely to perceive themselves as opinion leaders.[5]

Summary. This section was concerned with the social activities of the various subaudiences the Office of Civil Defense may wish to direct messages to. The several subaudiences did not differ among themselves on the frequency with which they interacted with relatives nor the frequency with which they interacted with friends, neighbors, and

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[1] $F = 6.62$; d.f. = 1, 200; p less than .05.

[2] $F = 5.70$; d.f. = 1, 198; p less than .05.

[3] $F = 3.14$; d.f. = 3, 198; p less than .05.

[4] $F = 4.8$; d.f. = 3, 197; p less than .01.

[5] $F = 5.67$; d.f. = 3, 198; p less than .01.

Table 33: Perceived Opinion Leadership, by Selected Subaudiences

(Sample sizes same as in Table 17.)

(Scores range from 0 to 30.)

		Index of Perceived Opinion Leadership
SEX:	Men	12.4
	Women	10.0
RACE:	White	10.4
	Negro	13.0
AGE:	18 to 39 years	13.8
	40 to 49 years	11.4
	50 to 59 years	10.5
	60 and over	8.6
YEARS OF SCHOOL COMPLETED:		
	8 years or less	9.5
	9 to 11 years	10.2
	High school diploma	11.3
	At least some college	14.6
CHILDREN UNDER 18 AT HOME:		
	None, single	15.0
	None, married	9.9
	1 or 2	11.5
	3 or more	13.0
Total Sample		11.2

coworkers. In addition, they tended to interact about as frequently with relatives as with nonkinship persons.

Slightly over half of the respondents were members of at least one social club or organization. The more education a person had, the more likely he was to be a member of an organization, to regularly attend meetings of these organizations, and to hold office in these organizations. Although Negroes were not significantly more likely to be members in, or to actively attend meetings, than Whites, they were more likely to report having an office in an organization they belong to.

The major types of organizations respondents named were, church-religious, fraternal-social, public-affairs, and public-service organizations, in that order of popularity. All subgroups were about equally likely to belong to church-religious organizations. Only Negroes were especially likely to belong to fraternal-social organizations. Membership in public-affairs organizations was highly selective. The most likely members of public-affairs organizations were women, Negroes, persons with 3 or more children at home, and persons young in age. These findings are probably due to the fact that parent-teacher organizations were classified as "public-affairs" organizations. Somewhat surprisingly, the four educational subgroups did not differ significantly on their relative probability of belonging to public-affairs organizations. Finally, membership in public-service organizations was predictable only from a person's educational status. Membership in public-service organizations was found almost entirely to be among persons with at least some college education.

Several questions were asked respondents to determine how much they saw themselves as opinion leaders in the area of public-affairs topics. Persons who were especially likely to perceive themselves as opinion leaders were men, Negroes, persons with 3 or more children at home, persons with considerable education, and the younger age groups. The findings were most striking among the educational subgroups, where each increment of education increased the extent to which a person saw himself as an opinion leader in public affairs.

The findings in this section would seem useful in communication campaigns conducted by the Office of Civil Defense to the extent the findings reflect the interests of special subaudiences which are the message targets and to the extent they indicate the face-to-face communication channels in which these messages are likely to be discussed and evaluated.

V. SUMMARY AND IMPLICATIONS OF FINDINGS

Two separate studies have been reported in this research monograph, both based on data collected through personal interviews in Detroit and its suburbs during February, 1964. The first deals with the personal characteristics and communication habits of adults living in households in which someone had sought information from the Detroit Office of Civil Defense during the Cuban Missile crisis. The purpose of the first study was to determine whether it might be worthwhile to develop a special communication campaign capitalizing on the attentiveness of these "information seekers" whenever a crisis stimulates them to contact a civil-defense agency. The second study is concerned with the communication habits of selected subaudiences which the Office of Civil Defense may wish to reach. These subaudiences are classified by sex, age, number of children under 18 living at home, and years of school completed. Because these two studies are not highly related, the summary of findings and implications of these findings will be reported separately for each study.

The "Information-Seeker" Study

The characteristics of 70 adults living in "information-seeker" households were ascertained by comparing them with a general-population sample of 202 adults in Detroit and adjacent suburbs. This study was concerned with determining which attributes differentiated "information seekers" from the general population. Such information should be useful in determining whether special information campaigns are merited for this identifiable subaudience,

and, if so, which factors should be taken into account in developing that campaign strategy. Since "information seekers" contact civil-defense agencies, it would be easy and economical to have specific messages ready for relaying over the telephone to them or to be sent by letter to the address they give the agency over the telephone.

If an "information-seeker" campaign were developed, it would reach into most major segments of the general population. It would not, however, reach many persons in the Negro community. Only 7% of the "information-seeker" households were Negro, as contrasted with 26% in the general-population sample. Likewise, such a campaign would have relatively low saturation among persons with less than a high school diploma. Only a fourth of the "information seekers" have less than a high school education; half of the general population had no high school diploma. "Information seekers" are fairly evenly distributed throughout the age, sex, and number-of-children-at-home subgroups of the general population. Thus, when described by socio-demographic variables, "information seekers" are found in most major subgroups in the population. Of course, the proportion of persons in any given subgroup that do seek information from a civil-defense agency during a crisis is very small. Nevertheless, further information gathered in this study suggests that these persons have characteristics which may make them worthy of special attention in communication campaigns.

Several types of evidence suggest that adults in "information-seeking" households are "key communicators" in face-to-face communication channels. A higher proportion of "information seekers" than other adults in the general population belong to social clubs and organizations. They are especially

likely to belong to fraternal-social organizations, and are more likely than other persons to belong to professional organizations. Although their attendance at meetings is not above average, they are more likely to hold offices in these organizations than other persons are. In fact, 11% of the "information seekers" held two or more offices in social organizations, whereas 4% of the general population did. A third of the "information seekers" belonged to fraternal-social organizations, a third to church-religious, and a fourth of them belonged to public-affairs organizations. One of the more common public-affairs organizations they belonged to was a parent-teacher association.

Although the "information seekers" did not see themselves as informal "opinion leaders" on public-affairs topics, they did report more discussions of major news topics during the week or two prior to their being interviewed than members of the general population did. A fourth of the "information seekers" said they were asked for their opinions on major news topics at least once during the "past week or so;" an eighth of the general population did. In addition, 44% of the "information seekers" said they had asked someone for his opinions on major news topics during that same time period; 30% of the general-population sample did so. In other words, "information seekers" talked more, both asking and being asked, about topics that are related to civil-defense topics.

In these conversations, the asking for opinions was not really "opinion seeking." Half of the persons who had asked or were asked for opinions on major news topics recently said they had done so merely because they needed a conversation topic. Another 20% said that they usually talk about news topics with their friends and associates. Nevertheless, many of their conversations

tended to be about public affairs, one topic of which is likely to be civil defense during any national crisis. It is also interesting to note who the participants in these conversations were. A fourth of the conversations were with members in their own families. More than a third of them were with their co-workers. Hardly any were with their neighbors. This implies that messages directed to an "information-seeker" audience should relate to family and work-related concerns. Appeals that involve neighbor-cooperation are likely to be ineffective, in that there seems to be little neighborhood interaction on major news topics among the urban residents studied.

When messages are constructed for "information seekers," it is useful to have some idea of the background these people have on civil-defense topics. Evidence in this study suggests that "information seekers" will attune to national affairs more than to local affairs. "Information seekers" had a higher information level on current national-news topics than members of the general-population sample did, and they had a higher information level on fallout protection information than the general population did. On the other hand, they did not have significantly more knowledge about current local news or the current status of the Detroit fallout-shelter stocking program. Their attitudes toward community fallout shelters were not any more favorable than those of the general population, and the strength with which they held these attitudes was somewhat less intense than it was for the general population. This lower intensity of attitudes is probably due to the fact that "information seekers," on the average, were higher in educational attainment than the general population as a whole is. Higher education people tend to be less extreme in their opinions than persons with less education.

"Information seekers" reported the same general pattern of mass-media use for obtaining public-affairs information as the general population did. The one exception was that "information seekers" were somewhat more likely to be regular readers of news magazines than other persons were (27% vs. 15%). Although they are relatively larger users of news magazines, however, three fourths of the "information seekers" do not read news magazines regularly. Therefore, none of the major news media can be used very effectively to reach this special target audience.

About 18 months before being interviewed, someone in each "information-seeker" household had contacted the Detroit Office of Civil Defense for information. This "information seeking" occurred during the Cuban missile crisis in the fall of 1962. At that time, the agency mailed each household a copy of the Fallout Protection booklet. In this study, an information test based on the information contained in that booklet was administered to each respondent. Although "information seekers" had a higher information level on fallout protection than the general population did, consideration of additional evidence obtained in the study suggested that the Fallout Protection booklet did not have a long-run effect on knowledge about fallout protection. The fallout-protection information level of "information seekers" was higher than the general population's to the same degree that they had a higher information level on major national-news events, a similar type of knowledge. This evidence suggests that "information seekers" already had a higher fallout-protection information level before they contacted the Detroit Office of Civil Defense for information during the Cuban missile crisis.

Since "information seekers" had been exposed to the Fallout Protection booklet, it was also felt that they might be more receptive to current civil-

defense messages than other members of the general population would. To test this, half of the persons in each sample was sent a one-page message about the present status of the Detroit fallout-shelter program and about fallout protection in general. A significant proportion of "information seekers" did learn what the present status of the Detroit fallout-shelter program was, but about the same proportion of the general-population sample also learned of its current status. The message did not increase the favorability of attitudes toward community fallout shelters for either group, but it did increase the intensity with which both "information seekers" and the general population held their present attitudes toward fallout shelters. Finally, the message increased the amount of knowledge about fallout protection held by the general population, but did not increase the knowledge on this topic for "information seekers." Prior to exposure to the message, "information seekers" knew more about fallout protection than other members of the general population did. Exposure to the message increased the fallout-protection information level for the general population up to the level held by "information seekers" who did not receive the message. Even with the message, however, the fallout-protection information level for both samples was quite low. (It was 2.2 out of 5 items correct on the information test.) On no attribute, then, did this civil-defense message have more effect on "information seekers" than on the general population. In most cases, the effect was the same for both samples.

In conclusion, the "key communicator" roles played by "information seekers" represent an argument for developing special communication campaigns for persons who seek information from civil-defense agencies during crises. These persons represent a small proportion of any group in the general

population, but seem to exist in most types of groups, and seem to be the most sensitive to public-affairs issues. They frequently ask for, and are asked for, opinions on public-affairs topics, and they are more knowledgeable about major topics in the news than other members of these groups are. In addition, they are more likely to be members of, and to hold office in, social groups and organizations, particularly fraternal-social organizations.

If a communication campaign is developed for "information seekers," however, it should be remembered that the messages are not likely to reach into Negro groups, nor to many persons with less than a high school education. And, despite their having more information on major news topics and about fallout protection, these "information seekers" are not influenced by civil-defense messages to a greater extent than other persons in the general population are. Finally they are heavier consumers of only one mass medium--news magazines--than other persons are.

The Study of Selected Subaudiences

This study of the communication habits of several types of urban audiences was based on the same basic data used in the "information-seeker" study. It was concerned with the news-consumption patterns, information level, attitudes, and leisure-time activities of different sex, race, age, number-of-children-at-home, and education groups in the general Detroit population.

The significance of these findings is dependent upon the type of communication question the Office of Civil Defense has. If a communication campaign is to be directed at just one or two of these subaudiences, the findings of this study can be screened to gather intelligence on a given

subaudience that may be useful in setting guidelines for that campaign. For example, if a campaign is to be developed for Negroes living in urban areas, numerous findings are available in these data.

Negroes do not differ significantly from Whites in their use of news magazines, readership of news in newspapers, or listening to radio and television newscasts. They do know less than Whites about local and national news topics, but know about as much as Whites about fallout protection in general and the present status of the local fallout-shelter program. In addition, this information level on civil-defense matters is quite low. In general, Negroes are somewhat favorable toward community fallout shelters, and hold these attitudes with more intensity than Whites do. Their activity in social organizations is about the same as Whites, although they are more likely to report holding office in these organizations. Also, they are considerably more likely to belong to fraternal-social and public-affairs organizations than Whites. Finally, they are more likely than White persons to see themselves as opinion leaders on public-affairs issues in the groups to which they belong.

In general, it does not seem very useful to differentiate subaudiences according to the number of children a person has living in his home. Subgroups having varying numbers of children did not differ on their media habits, knowledge about major news events and civil-defense matters, attitudes toward community fallout shelters, or activity in social organizations. The only variables on which these subgroups differed was "perceived opinion leadership" and membership in public-affairs organizations. The more children a person had living at home, the more likely he was to see himself as an opinion

leader on public-affairs topics. Also, the more children, the more likely a person belongs to a public-affairs organization. This latter finding was probably due to the fact that parent-teacher organizations were included as "public-affairs" organizations.

Men and women had roughly the same media-habit patterns in obtaining news. They also had about the same amount of knowledge concerning civil-defense matters, but men had more knowledge of national-news topics than women did. They did not differ in social-organization activity, but women were more likely to belong to public-affairs organizations--perhaps this is due to PTA activity. Men did report feeling stronger about their attitudes toward community fallout shelters than women, though the favorability of their attitudes did not differ. Finally, men were more likely to view themselves as public-affairs opinion leaders than women were.

Education groups differed among themselves more than any of the other subaudiences did. The higher a person's education, the more regularly he read news magazines, and the less frequently he viewed television newscasts. The higher his education, the more he knew about local news, national news, and fallout protection. The higher-education groups were not more likely than persons with less education to know the present status of the Detroit fallout-shelter program though. Nor did the education subaudiences differ in the favorability or intensity of their attitudes toward community fallout shelters. The higher-education persons were more likely to be members of, be active in, and hold office in social clubs and organizations. They were also more likely to join public-service organizations. Finally, the higher a person's education, the more he was likely to perceive himself as a public-affairs opinion leader.

A person's age did not predict how much knowledge he had on news and civil-defense topics, his attitudes toward community fallout shelters, nor his activity in social organizations. The younger a person was, however, the more likely he was to read news magazines regularly. Conversely, the older he was, the more likely he was to spend considerable time reading the news in newspapers. Younger persons were also more likely than older persons to belong to public-affairs organizations, and to perceive themselves as public-affairs opinion leaders.

If the Office of Civil Defense is more interested in how several subaudiences differ on a given communication attribute than in how a given subaudience stands across several communication attributes, the section of the report allocated to that particular communication attribute can be read for a summary of the findings. It is difficult to draw any implications from the findings of this report without having a given communication goal in mind. In terms of subaudiences, however, it is clear that education more clearly differentiated subaudiences on the communication variables studied than any other attribute. "Number of children living at home" was the least fruitful in this respect.

In conclusion, a few comments can be made about some findings directly pertaining to civil defense. In general, people did poorly on the five-item information test that tapped knowledge about fallout protection. Nevertheless, attitudes toward community fallout shelters were generally quite favorable, and respondents claimed to hold these attitudes with fair intensity. Finally, about 3 of every 10 adults in the corporate city of Detroit knew that community fallout shelters in the city were currently being stocked with food and supplies.

APPENDIX

DETROIT OPINION AND INFORMATION STUDY

Dept. of Communication
Michigan State University
DOD Clearance No. 120-6304

Study Director: Prof. V. C. Troldahl
Asst. Director: Mr. Robert VanDam

C1
C2 518 Project Number
C3

C4
C5 02 Phase Number

C6
C7_____Respondent Number
C8

RESPONDENT:_____

CALL	DATE OF CALL	TIME OF CALL	DISPOSITION OF THE INTERVIEW					
			Completed Interview	Home, No Time Now	Desired Person Not Home	No Answer At Door	Home, Ref.	Have Moved, Deceased
1		a e						
2		a e						
3		a e						
4		a e						

Hello. . .I'm _____ from Michigan State University. We're doing some research on the opinions people have about a variety of issues. One of the persons chosen for this study was the

Man
Woman. . . .of your household

It's very important that we find out the opinions of every person selected for the study. (Arrange with respondent for interview.)

To begin with. . . I'm going to read some statements people have made as their opinions on several topics. You may agree with some of these statements. . . and disagree with others.

HAND RESPONDENT CARD A

Here's a card. . .After I have read each statement. . .please tell me which of the word-descriptions on that card best describes how you personally feel about the statement I have read.

9. Here's the first statement. . .Before we try to solve all of the world's problems, we should take care of those in our own home town. . .Which answer on the card best fits how you feel about this statement?

0___strongly agree
1___agree
2___don't know (or ref.)
3___disagree
4___strongly disagree

10. The next statement. . .I'm more interested in the problems of our state than in local problems.

4___strongly agree
3___agree
2___don't know (or ref.)
1___disagree
0___strongly disagree

11. You should get to know as many people as you can.

0___strongly agree
1___agree
2___don't know (or ref.)
3___disagree
4___strongly disagree

12. Only people who have grown up in our community can really understand our local problems.

0___strongly agree
1___agree
2___don't know (or ref.)
3___disagree
4___strongly disagree

13. It is more important to know several people in one particular line of work than to know people in many types of work.

4___strongly agree
3___agree
2___don't know (or ref.)
1___disagree
0___strongly disagree

14. There are only a limited number of people in this community with whom I have a lot in common.

4___strongly agree
3___agree
2___don't know (or ref.)
1___disagree
0___strongly disagree

15. Young people who go off to college should come back to their hometown to live when they finish their education.

0___strongly agree
1___agree
2___don't know (or ref.)
3___disagree
4___strongly disagree

16. It's not how <u>many</u> people you know that is important. . .but the <u>type</u> of people you know.

4___strongly agree
3___agree
2___don't know (or ref.)
1___disagree
0___strongly disagree

17. Community leaders should be people who were born and raised in the community.

0___strongly agree
1___agree
2___don't know (or ref.)
3___disagree
4___strongly disagree

18. National issues have a bearing on local problems.

4___strongly agree
3___agree
2___don't know (or ref.)
1___disagree
0___strongly disagree

TAKE BACK CARD A

19. Now I'm going to ask you some questions about your use of the mass media. . . First. . .what magazines do you read regularly. . .that is, at least three out of every four issues?

_____

_____

Any others? _____

Any others? _____

20. What about newspapers. . .on an average day. . .how much time do you spend reading your daily newspapers?

_____ minutes

21. About how much of that time do you spend reading the main news stories of the day?

_____ minutes

22. About how frequently do you listen to news broadcasts on the radio. . .would it be several times a day. . .once or twice a day. . .every other day. . .about once a week. . .or less often?

4___several times a day
3___once or twice a day
2___every other day
1___about once a week
0___less often

23. How about television. . .how often do you watch news broadcasts on television. . . would it be more than once a day. . .about once a day. . .every other day. . .about once a week. . .or less often?

4___more than once a day
3___about once a day
2___every other day
1___once a week
0___less often

24. Now something slightly different. . .Can you. . .off the top of your head. . . think of three or four topics or issues that have been getting a lot of attention in the news lately?

1._____

2._____

3._____

4._____

25. Have you asked anyone for his or her opinion on any of these topics during the past week or two?

0___No

If NO, skip to top of page 6

2___Yes

If YES, go to top of next page

26. Which of these topics did you ask this person about?

_____

Now a few questions about the person you talked to. . .Could I get the person's name?

_____

Do you know where this person lives?

(Address) _____

27-28. Do you know (his) (her) occupation?

_____

_____

29. Is this person a member of your family, a neighbor, a relative, someone you work with, or someone else?

0___family
1___neighbor
2___relative
3___works with him
4___someone else (Specify:) _____

If FAMILY, skip to question 31

30. How well do you know this person. . .would you say he's one of your closest friends. . .a fairly close friend. . .a casual acquaintance. . .or someone you had not met before?

3___one of closest friends
2___fairly close friend
1___casual acquaintance
0___had not met him before

31. Why did you happen to ask this person for <u>his</u> opinion?

_____

_____

32. As a result of this conversation. . .would you say that you formed any <u>new</u> opinions. . .changed any of your <u>old</u> opinions. . .or did you come away from the discussion with the opinions you had before?

2___formed new opinions
1___changed old opinions
0___came away with same as before

33. During the past week or two. . .has anyone asked <u>you</u> for your opinions on any of these topics in the news?

0___No 2___Yes

If YES, ask:

If NO, skip to question 41, on next page

34. Which of the topics did this person ask you about?

_____

Could I get the name of this person?

_____

Where does this person live?

_____

35-36. Do you know (his) (her) occupation?

_____

_____

37. Is this person a member of your family, a neighbor, a relative, someone you work with, or someone else?

0___family
1___neighbor
2___relative
3___works with him
4___someone else (Specify:) _____

If FAMILY, skip to question 39

38. How well do you know this person. . .would you say he's one of your closest friends. . .a fairly close friend. . .a casual acquaintance. . .or someone you had not met before?

3___one of closest friends
2___fairly close friend
1___casual acquaintance
0___had not met him before

39. Do you think that you influenced this person to form any <u>new</u> opinions. . .to change any of his <u>old</u> opinions. . .or do you think his opinions remained about the same?

2___formed new opinions
1___changed old opinions
0___remained about the same

40. Without going through this whole series of questions again. . .I'd just like to know whether anyone <u>else</u> has asked you for your opinions on any of these topics in the news during the past <u>week</u> or two?

0___No 2___Yes

If Yes, ask: Which of the topics did he ask you about?

_____

_____

41. About how <u>often</u> would you say people ask you for your <u>opinions</u> on topics which get a lot of attention in the news. . .would it be <u>several</u> times a week. . . about <u>once</u> a week. . .once or twice a <u>month</u>. . .or <u>less</u> than once a month?

3___several times a week
2___about once a week
1___once or twice a month
0___less than once a month

42. About how many people you know look to you for opinions on major topics in the news?

0___No one
2___1 to 3 persons
4___4 or more persons

43. If someone you know. . .said that he depended a great deal on your judgment regarding major news topics. . .would you believe him?

4___surely
3___probably
2___don't know
1___probably not
0___definitely not

INTERVIEWER JUDGE CODE

44. Would you like to be thought of as a person who others depend upon in making up their minds about major issues in the news?

4___unqualified "yes"
3___"I guess so"
2___don't know
1___"probably not"
0___unqualified "no"

INTERVIEWER JUDGE CODE

45. Compared with your circle of friends. . .are you <u>more</u> likely... .or <u>less</u> likely. . .to be asked for opinions on topics in the news?

4___more likely
2___about the same, D.K.
0___less likely

46. When you and your friends discuss topics in the news, what part do you play?. . . do you mainly listen. . .or do you try to convince them of your ideas?

0___mainly listen
2___both, don't know
4___try to convince them

47. How important is it to you to be considered a person whose opinions on topics in the news are well-founded?. . .Is it very important. . .fairly important. . .not very important. . .or not at all important?

3___very important
2___fairly important
1___not very important
0___not at all important

48. About how often. . .on the average. . .do you get together with your relatives. . . would it be several times a week. . .once or twice a week. . .once or twice a month. . . or less often?

3___several times a week
2___once or twice a week
1___once or twice a month
0___less often

49. About how often do you get together socially with friends and neighbors. . .or with people you work with?. . .would it be several times a week. . .once or twice a week. . .once or twice a month. . .or less often?

3___several times a week
2___once or twice a week
1___once or twice a month
0___less often

Now I'm going to give you a sheet of paper with some questions on it. I'd like you to read each question carefully. . . .then place an "X" in the blank in front of the answer you consider most appropriate. Please choose only one answer for each item. . . . If you don't know. . . .go ahead and guess. Here's the sheet. . . .

HAND RESPONDENT THE YELLOW PAGE

Take back YELLOW page. See that all items are answered.

50-53. Now I'd like to know what organizations you are active in. . .that is. . . organizations such as civic groups, clubs or lodges, PTA, church groups, veterans' organizations, and the like?

	Are you an officer in...		How many meetings have you attended out of the last four
_____	Yes	No	0 1 2 3 4
_____	Yes	No	0 1 2 3 4
_____	Yes	No	0 1 2 3 4
_____	Yes	No	0 1 2 3 4
_____	Yes	No	0 1 2 3 4
_____	Yes	No	0 1 2 3 4

54. Now a somewhat different topic. . .During the past week or two, have you read anything about the dangers of a nuclear war. . .or how you might protect yourself from a nuclear explosion?

0___No ___Yes

If YES, ask: Do you remember what the particular topic was?

_____

_____

_____

Now I'm going to read you several statements people have made on this topic. Here's a card. . .

HAND RESPONDENT CARD B

After I read each statement please tell me whether. . .in general. . .you agree or disagree with the statement. Then tell me how strongly you feel about your opinion.

55. Here's the first statement. . .Community fallout shelters may not save us, but they are the only chance we have to survive. . .do you agree or disagree?

2___agree
0___disagree
1___just don't know

56. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

57. The next statement. . .There is really no protection against the effects of radioactive fallout. . .agree or disagree?

0___agree
2___disagree
1___just don't know

58. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0 0___indifferent

59. The building of community fallout shelters is wrong because it increases the "war scare."

0___agree
2___disagree
1___just don't know

60. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

61. If we had a nuclear attack, I would go to a community fallout shelter.

2___agree
0___disagree
1___just don't know

62. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

63. Community fallout shelters would not be practical in my community.

0___agree
2___disagree
1___just don't know

64. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

65. The drive to build community fallout shelters is merely a money-making scheme.

0___agree
2___disagree
1___just don't know

66. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

67. Our community officials should begin plans now to provide fallout protection for our entire community.

2___agree
0___disagree
1___just don't know

68. How strongly do you feel about your answer?

3___very strongly
2___strongly
1___moderately
0___indifferent

TAKE BACK CARD B

Now I'm going to give you another sheet of paper with questions on it. Again I'd like you to read each question carefully. . .then place an "X" in the blank in front of the answer you consider most appropriate. Remember. . .please choose only <u>one</u> answer for each item. If you don't know. . .go ahead and guess.

Here's the sheet. . .

HAND RESPONDENT <u>GREEN</u> PAGE

TAKE BACK GREEN PAGE

9. FIELD CODE: SEX: 1____Male
0____Female

10. FIELD CODE: RACE: 2____White
1____Negro
0____Other

11. Now I'd like to finish with just a few questions about yourself. . .First. ... what is your marital status? Are you single, married, separated, widowed, or divorced?

1___Single
2___Married and living with spouse
3___Separated
4___Widowed
5___Divorced
6___Other (Specify:) _____

IF SINGLE, SKIP NEXT QUESTION

12. How many children under 18 years of age do you have living at home?

0___None
1___One
2___Two
3___Three
4___Four
5___Five
6___Six or more

What is the name of the last school or college you attended?

_____

13. What was the last grade you completed in school or college?

0___0 to 4 years
1___5 to 8 years
2___9 to 11 years
3___12 years (HS diploma)
4___1 to 3 years of college
5___4 years of college (degree)
6___More than 4 years of college
7___Refused
8___Don't know

14. And what is your age?

0___Under 20
1___20-24
2___25-29
3___30-34
4___35-39
5___40-44
6___45-49
7___50-54
8___55-59
9___60 and over

If Ref., Estimate

15-16. What kind of work does the main wage earner in your household do?

_____

PROBE FOR DETAIL _____

_____

17. And what was the last grade in school or college completed by the main wage earner in your household?

0___0 to 4 years
1___5 to 8 years
2___9 to 11 years
3___12 years (HS diploma)
4___1 to 3 years of college
5___4 years of college (degree)
6___More than 4 years of college
7___Refused
8___Don't know

Finally. . .Could I get your name? _____

THANK YOU VERY MUCH for your cooperation. Your opinions are very important to us.

C18 Interviewer
C19____Number

_____
Interviewer

_____
Time Interview Ended

C80 _2_ IBM Card No.

20. At the present time, what is the status of the fallout shelter program in Detroit:

_____the city has decided not to set up any community fallout shelters.
_____the city has not set up any community shelters, but will next year.
_____the city has set up many community shelters, but has not stocked any of them.
_____the city has set up many shelters and has stocked many of them with food.

21. "Fallout" from a nuclear explosion is composed mainly of radioactive:

_____fragments of the bomb itself.
_____pieces of dirt stirred up by the explosion.
_____water vapor produced by the explosion.
_____smoke particles caused by fire after the blast.

22. In this part of the United States, radioactive fallout would travel primarily in which direction from the nuclear blast site:

_____north
_____south
_____east
_____west

23. A fallout shelter would offer protection from nuclear explosion only if:

_____it keeps radioactive particles from entering the shelter.
_____the walls of the shelter are airtight.
_____outside light is kept from the shelter.
_____the walls of the shelter are given a special insulated coating.

24. After a nuclear explosion, one should stay in a fallout shelter (except for short durations) for about:

_____a day.
_____a week.
_____two weeks.
_____a month.

25. Protection from radioactive fallout:

_____would require building large concrete chambers underground.
_____would require only slight revision of many existing buildings.
_____would require a massive program of building family shelters.
_____is impossible; you can't really protect yourself.

26. Astronaut John Glenn recently announced that he was entering the race for:

_____U.S. Representative from Ohio.
_____President of the United States.
_____Governor of Ohio.
_____U.S. Senator from Ohio.

27. One reason city officials give for the violence found in Detroit schools is that:

_____there are no policemen patrolling Detroit schools.
_____the law doesn't allow judges to give teenagers jail sentences.
_____few youths are sentenced because the training school is crowded.
_____Detroit teachers don't want any teenagers put in jail.

28. The 24th amendment added to the Constitution of the United States this month:

_____forbids charging anyone a poll tax to vote in federal elections.
_____makes it a federal crime to allow segregation in schools.
_____places a death penalty on the crime of putting bombs in airliners.
_____makes it legal to say prayers in public schools.

29. A star witness for the prosecution in the Hoffa jury-tampering trial was:

_____a woman secretary that worked for Hoffa.
_____an officer of a Teamster Union Local in Louisiana.
_____a president of a trucking company.
_____Robert Kennedy, attorney general of the U.S.

30. A Detroit ordinance that would give property owners complete freedom to choose who they will sell or rent their property to:

_____was passed by the Common Council last week.
_____was declared unconstitutional and banned from the August ballot.
_____produced a civil rights demonstration at the state capital last week.
_____did not get enough signatures backing it to qualify for a vote.

31. Last week, Cuba shut off the water supply to the United States marine base at Guantanamo, Cuba, because:

_____the United States cut off diplomatic relations with Cuba.
_____American businessmen are buying Egyptian tobacco instead of Cuban.
_____the United States coast guard seized some Cuban fishing boats.
_____the American Red Cross never gave Cuba the tractors it promised them.