THE INDIVIDUAL IN THE MODERN COMMUNITY

A Report on the Newton Survey

Edited by
WILLIAM ERBE
and
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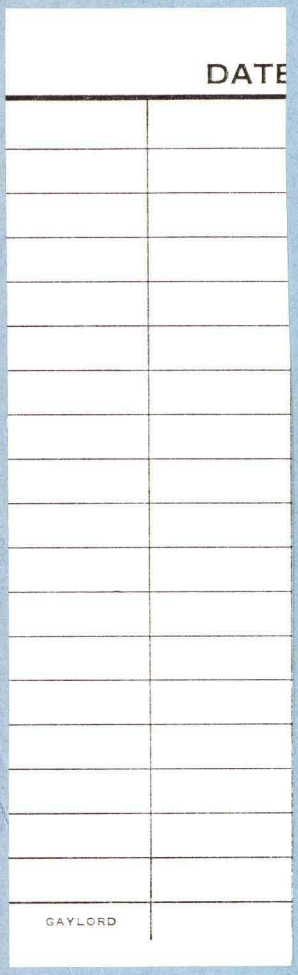
The University of Iowa

A Progress Report of the
IOWA URBAN COMMUNITY RESEARCH CENTER



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A REPORT ON THE NEWTON SURVEY

Edited by

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With Chapters by

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Jerrold L. Buerer

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Iowa Urban Community Research Center

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FOREWORD

by William Erbe

This little volume is a first report on a survey executed in Newton, Iowa, by the Iowa Urban Community Research Center, in the spring of 1963. It is an unusual study, in that no one person guided the content of the survey, but rather the survey represents the pooling of the interests of several persons, all of whom wished to gather data from an Iowa urban population on some limited problem, and whose interests were combined in a survey that became so ubiquitous in its design that we called it "The Individual in the Modern Community," for no other title quite expressed the multiple quality of the interview.

With one exception, each of the persons who had a hand in the construction of the questionnaire is represented here, and the part of the questionnaire that represents his efforts may be identified by the material he is discussing. The one exception is Professor Manford H. Kuhn, of the Department of Sociology and Anthropology, who died in the summer of 1963. The Twenty Statements Test, which was his instrument, will not be examined in these pages.

Both faculty members and graduate students participated in the development of the survey. Our policy in the Iowa Urban Community Research Center is to encourage the cooperation of faculty and advanced graduate students who will, of course, be faculty members and conduct their own independent research in the near future.

The Iowa Urban Community Research Center was established as part of the University in 1958. It is supported, in part, by funds allocated by the federal government under the terms of the National Defense Education Act. The Center's main objectives are to conduct research on urban places in Iowa, and elsewhere, to collect and store data about urban communities, and to train graduate students who plan to do research and teach in the area of urban affairs.

Beginning in 1961, the Center has carried out, each year, one or more surveys oriented toward the achievement of these goals. The surveys now number seven, of which the Newton study was the fourth. Other cities that have been surveyed include Cedar Rapids, Dubuque, Washington, Bettendorf, Centerville, Ottumwa, Fort Dodge and Clinton.

The primary purposes of the Center are academic--research and training in urban sociology. In addition to the scholarly and

theoretical uses of our studies, our findings are made available to various interested business and professional groups, state and federal agencies, private organizations and individuals who are interested in the planning and development of community projects.

Since some of the readers will undoubtedly be Newton residents, some of whose opinions have become part of the statistics reported in this report, it may be of interest to know how we arrived at the decision to conduct our survey in Newton. Perhaps the most important factor was budgetary: the Center had at its disposal, in the spring of 1963, a little over a thousand dollars with which to conduct a field study. Our field operation is efficient, and we can usually complete interviews for an average of about five dollars per unit. Some national survey agencies, who are burdened with the overhead of a permanent field staff, can not undertake interviews of comparable size for less than $15 per unit guarantee. The fact that we had resources to complete about 200 interviews put an upper limit on the size of the town we could select, since a sample of 200 from cities the size of Cedar Rapids, Dubuque or Davenport would constitute a dangerously low sampling fraction--too unreliable a basis for generalization to the whole community. As I shall show in my "Note on the Newton Sample," it was a statistically inadequate proportion of the adult population of Newton.

The fact that we proposed to do the interviewing ourselves, rather than subletting the work to some private research agency, imposed another limitation. The community we selected had to be within two and one-half hour's driving time of Iowa City. Given these limitations, the following communities loomed as possible sampling points: Anamosa, Independence, Knoxville, Manchester, Newton, Oelwein, Oskaloosa and Waverly. A meeting was called in the early spring to select one from this list.

What follows is not an objective analysis of these communities, but rather an account of the thought processes by which several of them were eliminated. Some of the members felt that the first four communities in the above list were too small for their purposes; their questions would not elicit the kinds of answers that would make their data comparable to other studies. Three of the first four cities have sizable populations living in "group quarters" of various kinds, which would further truncate the sampling base. Oelwein and Waverly have relatively large proportions of foreign, or mixed foreign and native parentage, which might have made answers to questions about parents' values and beliefs somewhat misleading. This left us with Newton and Oskaloosa. Since Newton was a slightly larger city, with

a greater industrial base, and since no apparent quality of the social structure was in conflict with the image from which any of the projects that constituted the study was developed, it was chosen as the sample site.

Now, to the findings themselves. Robert Walsh, who has left the Center to become Instructor in Sociology, Illinois State Normal University, discusses attitudes toward local politics in the first chapter, comparing his Newton findings with those in a college town of similar size. Walsh is a former National Defense Education Act Fellow in urban studies at the Center, and served as one of the field directors of the Newton study.

Ronald Wilson, now a Research Associate of the Division of Alcohol Studies of the Psychopathic Hospital at The University of Iowa, surveys feelings about world politics, the prospects for war and peace, and interest in peace and international organizations in the second chapter. Like Walsh, he is a former NDEA Fellow in the Center.

Richard Ingersoll, also a Research Associate in the Division of Alcohol Studies, used the material he gathered in Newton as part of the supporting data in his Ph.D. dissertation. He will discuss attitudes of the self and certain family members toward various social objects in the third chapter, and will briefly discuss the use of the Newton data in his thesis project, which was a study of the relation of perceived value conflict between self and others and deviant drinking behavior.

Harold Mulford is Research Associate Professor in the Departments of Sociology and Psychiatry, and Director of the Division of Alcohol Studies of the Psychopathic Hospital here. He will discuss his findings in Newton on definitions of the alcoholic--just what ways of using alcohol people will say are typical of an "alcoholic" person. These findings are part of a long series of studies Mulford has carried out, over several years' time, on alcoholism and the uses of alcohol. This study was materially aided by a grant from the Division of Alcohol Studies.

Jerrold Buerer, another former NDEA Fellow in urban studies, has returned to the Center this year, after a year of teaching at Luther College, to conduct a study of professional role strain in Lutheran denominational colleges in the United States. He will discuss social alienation in Newton, comparing the results to those of a survey conducted by the Center a year earlier. He will also cover some economic and religious attitudes and behaviors about which data were gathered in Newton.

I drew the Newton sample and directed all field operations connected with the survey. I am Assistant Professor of Sociology and Associate Director of this Center. In the last chapter, I will discuss the theory of sampling, and how we take samples from Iowa urban communities. Using data from the most recent census, I will attempt to evaluate the success of the sampling operation in Newton. Individuals and organizations who wish to do community surveys on their own may find my discussion of sampling theory and method valuable.

Two others, not represented in the text, who made contributions to the Newton study, might be mentioned here. They are Norman Denzin, now a National Institutes of Mental Health Fellow in social psychology, who served as a field director for the survey, and Joseph Merz, another NDEA Fellow in urban studies, who helped with the coding.

It can be seen that this was a survey that involved many ideas and many talents. The study was focused on community involvement and attitudes as well as personal opinions and traits. The subject matters reported in the chapters are remarkably different, from one to another, and the interview itself called for some remarkable changes of pace in the thinking of the respondent. The individuals who are to be credited above all are the residents of Newton who gave up an hour of their leisure time to help us complete the survey.

The complexity of the subject matter of this survey makes it difficult to generalize over all the chapters, and pull out some small number of "trends" that seem to differentiate the Newton population. Indeed, most of the comparisons in the text with other midwestern communities show that the Newton results are quite similar. Walsh finds the ranking of community institutions in Newton very much like the rankings in his "University City." Response to Wilson's questions about the likelihood of war with the Russians, and evaluation of the United Nations are almost exact duplicates of the answers we got to the same questions in three small Iowa cities in 1962. Buerer finds the distribution of social alienation about the same in Newton as in the three 1962 communities. Indeed, the interviewees attribute this similarity to themselves. According to Ingersoll, "the most striking thing" about his study of attitudes toward social objects is the perceived similarity of the views of respondent's spouse, father, and mother to his own about these objects. The views of Newton residents can not even be differentiated clearly from that of social scientists--Mulford declares that his findings about definitions of the alcoholic demonstrate that "the public and

the researchers do have some common beliefs about alcoholism."

It is well known that, ideologically and politically, Iowa is dominated by elements that could best be described as the "center," or the moderates. The Republican party in Iowa is not conspicuously conservative; the Democratic party is not outstandingly liberal. The state voted, by landslide majorities, for center Republicans Eisenhower and Nixon, and rejected, by the same margin, the rightist Goldwater. Newton replicates in small detail that moderate position. A sizeable proportion think there are people who "run things behind the scenes" in Newton, but they also think that most of the decisions affecting the town are made by the mayor and council, and almost two-thirds believe that local leaders are "sincerely interested in the public's welfare." Fifty-seven per cent do not believe that "people like themselves" ought to have more to say about the way things are run in town. This is not the kind of environment in which extremist politics can easily develop. Many persons in Newton would be very interested in an organization with "a definite program for world peace and disarmament," but this does not seem to be based on "a strong anti-war or pacifist sentiment." Newton residents imagine themselves a little less pro-Republican than their parents. They think there are definite opportunities to "get ahead" in existence, but also feel that it takes some luck and some connections as well as hard work to make it. They accept the social security concept, but they are suspicious of federal health insurance, and so it goes, always the moderate and modal opinion. Perhaps this situation is only historically temporary. Many urban residents in Iowa are from immediately agricultural backgrounds, so that the realities of the present are balanced off against the traditions of the past in such a way as to produce this moderation of view. Perhaps Newton and other Iowa cities are too small and insufficiently complex industrially to produce marked ideological politics. Perhaps this is part of the charm of the state for those who decide to locate here permanently.

At any rate, these appeared to be major repetitive themes of this report to the first individual who has read it "cover to cover." Perhaps others more familiar with the local situation can extract inferences from other data, the implications of which went by me. It is time the reader was permitted to examine the findings, and draw his own conclusions.

1. THE LOCAL SCENE:

ATTITUDES TOWARD DECISION MAKING

by Robert H. Walsh

Our first set of findings concern attitudes about the decision-making process in Newton. The distribution of answers to the following question:

> In your judgment, who makes the most decisions affecting this town -- the mayor and city council, a small group of leaders other than the mayor and council, or the community in general?

is presented in Table 1. It can be seen that the majority of the sample see decision making as being a legitimate function performed by either the city council or the public.

TABLE 1.
WHO MAKES MOST DECISIONS

	N	%
Mayor and city council	91	53
Small group of other leaders	40	23
Community in general	41	24
Total	173	100

Although the sample sees a legitimate decision-making process, there is also a belief that things are "run behind the scenes." The distribution to the question:

> Do you think there are people in this town who "run things behind the scenes?"

is presented in Table 2.

TABLE 2
PEOPLE BEHIND THE SCENES?

	N	%
Yes, people behind scenes	117	67
No	40	23
Don't know, uncertain	16	9
Total	173	99

If the sample believes that there is maneuvering behind the scenes it is being done by different people; that is, there seems to be no monolithic power structure. The last question in this series, dealing with the pluralistic-monolithic problem, is:

In some communities there is a small group of men who have influence over almost everything that goes on in town, while in other communities different things do seem to be influenced by different people. Which way do you think it is in Newton?

TABLE 3

MONOLITHIC OR PLURALISTIC INFLUENCES

	N	%
One group runs everything	54	31
Different people run different things	106	61
Don't know, can't answer that	15	8
Total	175	100

We asked a question to see if the sample thought that the community leaders were interested in the town and its citizens. This is similar to a question asked by the Center in an earlier survey of 3 Iowa communities. In that study, it was found that 70% of the sample believed politicians were interested in the public's welfare. In Newton, we asked:

Do you think that Newton's leaders are sincerely interested in the public's welfare, or are they more interested in themselves?

TABLE 4

BELIEF IN SINCERITY OF COMMUNITY LEADERS

	N	%
Interested in public's welfare	105	61
Interested in themselves	40	23
Don't know, uncertain	28	16
Total	173	100

In another question designed to study the responsiveness of the leaders to the people and the community, the following question was asked:

To what extent do the people who run this town care about what people like you care or want?

The distribution indicates that most people think the leaders care at least some, but almost 1/4 feel that the leaders do not consider their problems.

TABLE 5

DO LEADERS CARE ABOUT YOUR PROBLEMS?

	N	%
Leaders care very much	51	30
Leaders care some	79	46
Leaders care very little	36	21
Leaders care not at all (volunteered)	5	3
Total	171	100

After considering the leaders' role, a question was asked about the role or part the citizens felt they should play in community decision making. Specifically, the question asked was:

> Do you think people like yourself should have more to say about the running of things in this town:

TABLE 6

SHOULD PEOPLE LIKE YOU HAVE MORE TO SAY?

	N	%
Yes, more to say	72	41
No	99	57
Don't know, uncertain	4	3
Total	175	101

Further analysis showed that the lower a person considered his social class, the more he felt "people like him" should have more to say.

Following the assumption that citizens satisfied with a community will desire to remain there, the following question was asked:

> Have you ever seriously considered leaving Newton?

The results are presented in Table 7.

TABLE 7

CONSIDERED LEAVING NEWTON?

	N	%
Yes, have considered leaving	66	38
No, have NOT considered leaving	107	62
Total	173	100

The sample seems to be rather satisfied with Newton as almost two-thirds have not considered leaving. However, would these people consider moving if an opportunity presented itself? We asked the following question of those who had not considered moving.

If the opportunity presented itself, do you think you would consider leaving Newton?

The results are presented in Table 8.

TABLE 8

WOULD YOU LEAVE NEWTON IF GIVEN OPPORTUNITY?

	N	%
Yes, would leave	59	55
No, would not leave	40	37
Don't know, can't tell	8	7
Total	107	99

From Tables 7 and 8, it appears that almost two-thirds of the sample would not leave Newton without some quite compelling reason.

Since Newton has an unusual industrial complex for an Iowa community of its size, a question was asked dealing with the civic participation of business and industry.

In some communities business and industry do a lot for the community, that is, they are very civic minded. What do you think of business and industry in Newton? Are they civic minded, just fair, or not very civic minded at all?

The results are presented below in Table 9.

TABLE 9

CIVIC MINDEDNESS OF BUSINESS AND INDUSTRY

	N	%
Civic minded	137	81
Fairly civic minded	31	18
Not civic minded	2	1
Total	170	100

It seems that the high amount of agreement on civic mindedness of business and industry is especially important in a town such as Newton because it is so dependent on industry for its economic base. The rating for industry is probably even higher than the table suggests because several people commented that industry was more civic minded than was business.

Newton, like all communities of its size has an organizational structure that includes both public and private organizations which take care of the various "needs" of the community. The emphasis put upon these organizations will vary somewhat from community to community. In order to give figures on the importance of Newton organizations some more "meaning", they will be compared with an Illinois community of almost the same size. The Illinois

community is a "University Town" in central Illinois. It has almost no industry, so it may differ in the importance of industry and may also differ in the emphasis on education.

The question asked on importance of organizations is as follows:

> Here is a list of some institutions that are found here in Newton. Below the list is a scale of importance. As you can see, "1" means very important and "7" means not important at all. Using these numbers, would you tell me how important each of these institutions is for the well-being of the people who live here?

In Table 10 we present the ranking and the average rating (mean) of the 16 institutions in both Newton and the Illinois "University Town." Table 11 gives a more detailed breakdown for Newton.

TABLE 10

IMPORTANCE OF COMMUNITY INSTITUTIONS

NEWTON			"UNIVERSITY CITY"		
RANK	INSTITUTION	AVERAGE RANK (mean)	RANK	INSTITUTION	AVERAGE RANK
1	Schools	1.14	1	Hospitals	1.30
2	Factories	1.22	2	Churches	1.31
3	Banks	1.24	3	Schools	1.33
4	Hospitals	1.30	4	Banks	1.35
5	Churches	1.39	5	Street and Sanitation	1.58
6	Libraries	1.50	6	Libraries	1.62
7	Streets	1.73	7	Parks	1.87
8	Parks	2.08	8	Factories	2.03
9	Paper	2.16	9	Paper	2.22
10	Stores	2.28	10	Chamber of Commerce	2.31
11	Chamber of Commerce	2.32	11	Stores	2.48
12	Unions	2.42	12	Community Chest	2.70
13	Community Chest	2.63	13	Political Parties	3.14
14	Political Parties	2.89	14	Unions	3.35
15	Veterans	3.24	15	Veterans	3.44
16	Lodges	3.76	16	Lodges	3.91

In general, there is a high degree of agreement in the ratings of the two communities. The biggest difference is, as expected, in the rating of factories. This difference is explained by the fact that Newton is an industrial city while the other has no industry. Hospitals and churches were not ranked as high in Newton as in

"University Town, " which may possibly mean that Newton is more concerned with material things than University Town. In both communities, lodges and veterans organizations are rated low. This may be due to the fact that these organizations are for only the male sex, in general, and that they are more "fellowship" organizations than "community wide" organizations.

TABLE 11

DISTRIBUTION OF RESPONSES ON IMPORTANCE OF NEWTON COMMUNITY INSTITUTIONS

NEWTON INSTITUTIONS		VERY IMPORTANT		MEDIUM IMPORTANCE			NOT IMPORTANT AT ALL	
		1	2	3	4	5	6	7
Schools	N	156	10	4	1	0	1	0
Schools	%	91	6	2	1	0	1	0
Factories	N	150	15	3	2	1	0	1
Factories	%	87	9	2	1	1	0	1
Banks	N	149	12	9	1	2	0	0
Banks	%	86	7	5	1	1	0	0
Hospitals	N	149	9	6	4	0	0	3
Hospitals	%	87	5	3	2	0	0	2
Churches	N	140	13	9	5	1	1	2
Churches	%	82	8	5	3	1	1	1
Libraries	N	116	33	17	3	1	1	0
Libraries	%	68	19	10	2	1	1	0
Streets	N	116	21	16	11	6	1	2
Streets	%	67	12	9	6	3	1	1
Parks	N	93	25	20	22	11	1	1
Parks	%	54	14	12	13	6	1	1
Paper	N	86	34	18	17	7	4	5
Paper	%	50	20	11	10	4	2	3
Stores	N	83	29	25	17	7	4	7
Stores	%	48	17	15	10	4	2	4
Chamber of Commerce	N	75	28	34	23	6	3	4
Chamber of Commerce	%	43	16	20	13	3	2	2
Unions	N	83	22	22	16	7	6	11
Unions	%	50	13	13	10	4	4	7

TABLE 11 (continued)

NEWTON INSTITUTIONS		VERY IMPORTANT		MEDIUM IMPORTANCE			NOT IMPORTANT AT ALL	
		1	2	3	4	5	6	7
Community Chest	N	56	34	36	21	12	6	5
Community Chest	%	33	20	21	12	7	4	3
Political Parties	N	51	33	24	28	17	6	9
Political Parties	%	30	20	14	17	10	4	5
Veterans	N	45	27	26	25	16	12	16
Veterans	%	27	16	16	15	10	7	10
Lodges	N	26	26	27	28	27	13	21
Lodges	%	15	15	16	17	16	8	13

2. THE WORLD SCENE:

ATTITUDES TOWARD WAR AND PEACE

by Ronald W. Wilson

This section of the report will discuss how Newton residents feel about some of the problems of international relations involving war and peace. A brief review of some of the events that were in the news during the months preceding the survey might help in discussing the findings. The Cuban missile crisis, which reached its climax six months prior to this study, was officially declared closed by the United States and the Soviet Union in January of 1963 and United Nations Secretary U Thant urged a continuation of the "spirit of compromise." The United Nations test-ban talks were going through their "on again-off again" period with the first real accomplishment coming in early April with the acceptance of the "hot line" plan. Several days later Pope John XXIII issued his encyclical calling for the establishment of some kind of world government whose aim would be to insure peace.

The first of a series of questions dealing with peace was:

> Do you think that the United States and other Western countries can continue to live more or less peacefully with the Russians -- or do you think that there is bound to be a major war sooner or later?

Table 12 contains the distribution of responses as well as the responses obtained in a similar survey of three Iowa communities a year earlier.

TABLE 12

PERCEIVED LIKELIHOOD OF WAR WITH RUSSIANS: NEWTON AND EARLIER IOWA SURVEY

Percentage who think:	Newton, 1963	1962 Iowa Survey
Can continue to live peacefully with Russians	45	42
Bound to be a major war	43	41
Don't know or unqualified answer	11	18
Number who answered	175	631

The responses from the two surveys are very similar with slightly more Newton respondents (45%) believing we can continue to live peacefully with the Russians. In both cases there is almost an even split between those who think we can live in peace and those who think we will have a major war.

This same question on the likelihood of war with the Russians has been asked in several national surveys by the American Institute of Public Opinion (Gallup Poll) which allows a comparison over the past decade (see Table 13). Apparently the results of the Cuban crisis on the Cold War did not result in any long term pessimism about the possibility of a major war.

TABLE 13

PERCEIVED LIKELIHOOD OF WAR WITH RUSSIANS OVER PAST DECADE: GALLUP POLL

Date	Percentage who think "can continue to live peacefully"
November, 1954	23% (USA)
November, 1955	35% (USA)
October, 1959	46% (USA)
June, 1960	37% (USA)
April, 1962	42% (Iowa)
April, 1963	45% (Newton, Iowa)

Respondents were next asked what kind of job they thought the United Nations and the American government were doing toward preserving world peace. The distribution of responses are shown in Table 14.

TABLE 14

EVALUATION OF THE WORK OF THE UNITED NATIONS AND THE AMERICAN GOVERNMENT IN PRESERVING WORLD PEACE

Percentage who rated doing:	United Nations	American Government
Good job	55	63
Not good, but best they can	34	26
Poor job	10	9

The American government is viewed as doing a slightly better job of preserving peace than the United Nations, 63% as compared with 55% for the U.N. However, when we combine the two categories of "good job" and "best they can," we find 89% for both the U.S. government and the United Nations.

Much of the concern in the Cold War is about under what circumstances it should become a "hot war," particularly a hot war involving the use of nuclear weapons. In order to determine when Newton residents would condone the use of nuclear weapons a series

of seven condition statements were asked following this question:

> There is considerable disagreement as to what conditions should exist before the United States should use nuclear weapons against an enemy. Do you think the United States should use nuclear weapons against the Communists under any of the following conditions? Please answer "yes" or "no."

The distribution of answers to this question is given in Table 15.

TABLE 15

WHEN SHOULD U.S. USE NUCLEAR WEAPONS AGAINST THE COMMUNISTS

		Percentage answering:		
		Yes	Not sure	No
1.	The U.S. should attack the Communists right now with nuclear weapons before they get a chance to attack us. ("pre-emptive war")	5	5	89
2.	If Communists take over any other country, however small?	22	7	69
3.	If Communists attack an ally of the U.S. with conventional weapons?	32	9	58
4.	If Communists interfere with important rights of the U.S., such as access to Berlin?	34	11	53
5.	If Communists attack the U.S. with conventional weapons?	53	5	40
6.	If Communists attack an ally of the U.S. with nuclear weapons?	82	8	9
7.	If Communists attack the U.S. with nuclear weapons?	94	2	3

Average number answering each statement	-173
Average number not answering each statement	- 2

As might be expected, the smallest number of people, 5%, were in favor of a "pre-emptive war" in which we attack our enemy even before they get a chance to attack us, while the largest number, 94%, agreed that the U.S. should retaliate in kind if we are first attacked with nuclear weapons.

Between these two extremes of the U.S. attacking first and the U.S. being attacked with nuclear weapons, the pattern is not com-

pletely clear. Apparently the first criterion is whether nuclear weapons are used by the enemy, since 82% would use such weapons if a U.S. ally were attacked whereas only 53% would use nuclear weapons if the U.S. itself were attacked with conventional weapons. About the same number of persons would use nuclear weapons if U.S. rights were violated or if an ally were attacked with conventional weapons, 34% and 32% respectively. Only one in five would use such weapons if the Communists took over "any other country, however small." Thus, before a majority of Newton residents would "support" the use of nuclear weapons, the U.S. must be directly attacked, with any weapons, or a nuclear attack must have been made on one of our allies. Yet, there were five persons who apparently would not use nuclear weapons under any conditions and another three who were not sure. Some of these findings about the use of nuclear weapons may have changed during the last year with the increased debate over the smaller tactical nuclear weapons.

We will now turn our attention to the problem of war, itself. A set of seven questions were asked which were designed to determine the extent of the anti-war or the pacifism sentiment among Newton residents. The findings are reported in Table 16. First of all, it

TABLE 16

OPINIONS OF NEWTON RESIDENTS ON PACIFISM, WAR, AND PEACE

	Percentage answering:				
	Strongly Agree	Agree a little	Uncertain not sure	Disagree a little	Strongly Disagree
1. The U. S. must be willing to run any risk of war to prevent the spread of Communism. *	53	26	7	7	5
2. If disarmament talks are not successful, the U. S. should begin to disarm whether other countries do or not.	3	5	2	9	81
3. Pacifist demonstrations - picketing missile bases, peace walks, etc. - are harmful to the best interests of the American people. *	44	15	15	10	15

* When scores on the Pacifism Scale were assigned, the responses on these statements were reversed.

TABLE 16 (continued)

	Percentage answering:				
	Strongly agree	Agree a little	Uncertain not sure	Disagree a little	Strongly disagree
4. The U. S. has no moral right to carry its fight with Communists to the point of risking the destruction of the human race.	31	9	19	13	27
5. It is against my moral principles to participate in war and the killing of other people.	13	13	3	21	49
6. The real enemy today is no longer Communism but rather war itself.	19	16	13	15	35
7. Pacifism is simply not a practical philosophy in the world today. *	29	21	30	9	10

Number answering statements	173
Number not answering statements	2

can be seen by looking at the "uncertain, not sure" column that quite a few people have not made up their minds about some of the statements, even though it is generally assumed that people have fairly strong convictions on ideas like these. Almost one-third of the peopl are uncertain as to the practicality of pacifism (statement 7). One-fifth of the respondents are not sure whether "the U.S. has a moral right to carry its fight with Communists to the point of risking the destruction of the human race." On the other hand, most people have their minds made up as to whether the U.S. should begin unilateral disarmament or whether their own moral principles would allow them to participate in war and killing.

The most agreement was to be found on the question of unilateral disarmament, with 90% of the respondents rejecting the notion that the United States should start disarming whether other countries do or not. The next highest agreement is that 79% believe the U.S. must be willing to run any risk of war to prevent the spread of Communism. This willingness to run any risk of war is somewhat

* When scores on the Pacifism Scale were assigned, the responses on these statements were reversed.

contradicted by the fact that 40% believe that "the U.S. had no moral right to carry its fight with Communists to the point of risking the destruction of the human race." Thus, at least 19% of the respondents think we must take any risk of war to prevent the spread of Communism while at the same time believing we have no moral right to risk the destruction of the human race in this fight.

A majority of the people, 59%, view pacifist demonstrations as harmful to our national interests, while 25% believe they are not harmful. The belief that "the real enemy today is no longer Communism but rather war itself," was held by 35% of the respondents as opposed to the 50% who disagreed. One-fourth of the respondents claim moral principles against war and killing, while 70% reject such moral principles. Fifty per cent agree that pacifism is not a practical philosophy in today's world, 30% are uncertain and 19% believe pacifism is practical today.

Respondents were assigned a score on the seven pacifism statements in an attempt to measure the degree or strength of a respondents pacifism or anti-war sentiments. The figures in Table 17 show the distribution of scores for males, females and total.

TABLE 17

SCORES ON PACIFISM SCALE

Percentage agreeing to:	Males	Females	Total
All of the statements	0	0	0
6 of the statements	0	0	0
5 of the statements	1	1	1
4 of the statements	10	12	11
3 of the statements	9	13	11
2 of the statements	25	22	23
1 of the statements	35	35	35
None of the statements	18	17	18
Number answering	90	83	173
Number not answering	2	0	2

It can be seen that there is very little difference in anti-war sentiment between men and women. This does not support the often held idea that women are more "soft-hearted," etc., than men. No one took the pacifistic point of view on six or more of the statements and only two persons agreed on five statements, even though when the statements are considered separately at least 8% take the anti-war view on each statement. Eighteen per cent of the respondents rejected the pacifistic point of view completely and another 35% will only accept one of the seven statements. It should be remembered, however, that these scores do not take into account the "uncertain"

answers; for example, some of the 18% not responding positively to any of the statements might have been "uncertain" on some. These findings may be some indication as to why the current peace movement in the U.S. is not any larger than it is.

We turn now to a section of the interview during which many respondents probably felt they were being given a classroom-type quiz, which indeed they were. Six true or false questions were asked to determine the respondents knowledge about nuclear weapons. (See Table 18.) These questions were apparently quite difficult since from 28% to 51% of the respondents answered "don't know" on the various

TABLE 18

KNOWLEDGE OF NEWTON RESIDENTS ABOUT NUCLEAR WEAPONS

		Percentage answering:		
		True	False	Don't know
1.	The primary material used in the atomic bombs dropped on Japan were derived from uranium.	50*	14	34
2.	A 20-megaton bomb has the destructive force of about twenty thousand tons of TNT.	57	13*	28
3.	The neutron bomb would result in less property damage than the hydrogen bomb.	25*	31	42
4.	A "firestorm" is the initial flash of an atomic explosion.	42	17*	38
5.	Strontium 90 concentrates in the blood like iron and then quickly causes death.	26	21*	51
6.	The bomb dropped on Hiroshima had the power of approximately 20 kilotons.	35*	15	47

Number answering 171 Number not answering 4

* - correct answer

statements. Respondents were given scores on the six questions and their distribution is reported in Table 19.

TABLE 19
SCORES ON NUCLEAR KNOWLEDGE QUESTIONS

Percentage Answering Correctly:	
All 6	1
5	3
4	6
3	14
2	24
1	30
None	21
Number receiving score	171
Number not receiving score	4

If we carry the classroom quiz analogy one step further, we find that at least one-half of those taking the quiz would have flunked with one or no right answers and maybe even another 25% who had only two right answers. (We will ignore the fact in a true-false test the right answer can be guessed correctly half the time.)

Fifty per cent knew that the primary materials used in the atomic bombs dropped on Japan were derived from uranium. The two most difficult questions were on nuclear terminology. Fifty-seven per cent thought a 20-megaton bomb was the equivalent of 20, 000 tons of TNT, whereas it is really equal to 20, 000, 000 tons of TNT. The term "firestorm" refers to the spontaneous fires caused by the intense heat of a nuclear explosion rather than the initial flash of an atomic explosion as answered by 42% of the people. Thirty-five per cent responded correctly on the size of the bomb dropped on Hiroshima, 20-kilotons or the equivalent of 20, 000 tons of TNT. The fact that over 75% could not give the correct response to the statement "Strontium 90 concentrates in the blood like iron and then quickly causes death" is a reflection on the efforts of the public health agencies which continuously measure and report on the Strontium 90 levels and also the efforts of the various peace organizations which emphasize the dangers of Strontium 90. Strontium 90 actually collects in the bones and eventually results in a type of cancer as well as genetic damages. The results of this "quiz" indicate that there is still a considerable educational task for those agencies and organizations which aim to increase the general public's knowledge about nuclear weapons.

Finally, this section of the report will look at the interest shown by Newton residents in joining several "imaginary organizations, " similar to ones which have been suggested or organized in

the past. In order that the respondent might better understand what we meant by "joining" such an organization, he was told that it would involve (1) paying $5.00 a year in dues and (2) devoting one evening a week of his time to the organization. Also he was told to assume that it was a "large organization, with a good possibility of getting what they are favoring and that several people you know are already members." With this in mind they were asked about three "imaginary organizations":

1. An organization with a definite program for world peace and disarmament.
2. An organization which sought to influence the Western nations (Britain, France, U.S., Germany, etc.) to join together under a single government, which would take the place of national governments, including our government at Washington.
3. An organization which sought to influence all the countries of the world (including Russia and China) to join together under a single government, which would take the place of the national governments, including the Russian government and our government at Washington.

TABLE 20

INTEREST IN "IMAGINARY ORGANIZATIONS"

	Percentage who would be:			
Type of Organization	Very interested and would definitely join	Very interested and might join	Interested, but would probably not join	Not interested
"An organization with a definite program for world peace and disarmament"	22	29	35	15
"An organization which sought to influence the Western nations to join together under a single government"	4	8	15	73
"An organization which sought to influence all the countries of the world to join together under a single government"	5	9	18	68

Number who answered 175

Table 20 shows the amount of interest in each of these organizations. The most enthusiasm was shown for the organization with a definite program for world peace and disarmament, with 22% saying they would definitely join, another 29% "very interested, and might join," while 35% were just "interested"; only 15% indicated no interest at all. Similar findings were reported from the Center's survey of 1962. In light of this widespread interest in a peace organization it is surprising that the membership of present peace groups is not larger than it is. Combining these findings with those above on anti-war sentiments, it appears that strong anti-war sentiments are not a necessary part of interest in peace organizations. It may well be that the anti-war sentiments develop at some time after an interest in the peace movement has developed. Further analysis of this data will be undertaken along this line.

A brief summary of the attitudes and opinions of Newton residents during the spring of 1963 on the subject of war and peace would be: (1) about the same number believe we can continue to live peacefully with the Russians as believe we are bound to have a major war (45% vs. 43%), (2) a vast majority (89%) think the U.S. and the U.N. are doing a good job or at least the best they can to preserve world peace, (3) the use of nuclear weapons against the Communists depends on whether they use them first, (4) there is not a strong anti-war or pacifist sentiment, however, there is a full range of beliefs, (5) there is a very low level of factual knowledge about nuclear weapons, and (6) there is considerable interest in joining an "imaginary organization" with a definite plan for world peace and disarmament, but little interest in "single world government" type organizations.

3. ATTITUDES OF SELF, SPOUSE, FATHER, AND MOTHER, TOWARD SEVEN SOCIAL OBJECTS

by Richard L. Ingersoll

This chapter presents an examination of attitudes toward child rearing, church attendance, family structure, the farm-city, education, the Democratic party, and Negroes. The first portion deals with a description of the respondent's attitudes toward the seven social objects and the attitudes he imputes to his spouse, his father, and his mother. The second portion of the chapter shows how these responses were used to answer some questions concerning parental inconsistencies and alcoholism.[1]

The respondent was asked whether he would agree or disagree with two statements about each social object, and then whether he thought his spouse, father, and mother would agree or disagree with the statements. Table 21 presents the distribution of responses for each statement: the respondent's answer and the responses he imputed to his spouse, father, and mother.

TABLE 21

RESPONSE DISTRIBUTION OF SELF, SPOUSE, FATHER, AND MOTHER ON FOURTEEN ATTITUDE STATEMENTS (in per cents)*

STATEMENTS	STATEMENTS AGREED TO	SELF %	SPOUSE %	FATHER %	MOTHER %
CHILD REARING					
A) Children should be seen and not heard.	1) Both	15	16	29	23
	2) A, not B	13	18	17	16
B) Children should never question their parents but should do only as they are told.	3) B, not A	24	26	21	23
	4) Neither	48	40	33	38
	Responses	168	153	163	165
CHURCH ATTENDANCE					
A) It is important that a person attend church every week.	1) Both	60	58	54	68
	2) A, not B	9	10	9	9
	3) B, not A	10	10	9	7
B) It is important that a person be an active church member.	4) Neither	21	22	28	16
	Responses	168	153	161	164

1. A more extensive and detailed comparative analysis between the Newton sample and a population of institutionalized alcoholics may be found in a dissertation by the same author. See: Richard L. Ingersoll, Socialization, Inconsistencies, and Alcoholism: A Study of Attitudes. Doctoral Dissertation, State University of Iowa, January, 1965.

TABLE 21 (Continued)

STATEMENTS	STATEMENTS AGREED TO	SELF %	SPOUSE %	FATHER %	MOTHER %
FAMILY STRUCTURE					
A) Someone should always be the head of the house and their word should never be questioned. B) The husband is the boss of the family and should be obeyed by all its members.	1) Both	21	24	35	26
	2) A, not B	8	9	8	10
	3) B, not A	16	13	16	12
	4) Neither	55	54	41	52
	Responses	168	152	165	166
FARM-CITY					
A) The farmer is the backbone of the nation. B) The city has caused many of the problems of our country.	1) Both	38	36	38	40
	2) A, not B	29	29	33	32
	3) B, not A	16	17	16	14
	4) Neither	17	18	13	14
	Responses	166	146	156	157
EDUCATION					
A) Time spent going to school is never wasted. B) Education is the best way to success.	1) Both	89	88	81	86
	2) A, not B	4	8	9	8
	3) B, not A	4	3	6	4
	4) Neither	3	1	4	2
	Responses	165	150	161	161
DEMOCRATIC PARTY					
A) The Democrats will be the ruin of the nation. B) The Democratic party has gotten the U. S. involved in every major war.	1) Both	5	6	12	7
	2) A, not B	6	5	10	9
	3) B, not A	13	11	12	15
	4) Neither	76	78	66	69
	Responses	167	151	162	162
NEGROES					
A) Negroes should be kept in their place. B) If Negroes live poorly it is mainly because they are naturally lazy, ignorant, and without self-control.[a]	1) Both	21	28	32	26
	2) A, not B	21	19	20	20
	3) B, not A	9	7	5	6
	4) Neither	49	46	43	48
	Responses	152	138	146	149
	TOTAL	175	160	175	175

* Percentaged to the number of responses; not the total number.

[a] T. W. Adorno, et. al., The Authoritarian Personality. New York: Harper & Bros., 1950, p. 117.

Several things worthy of comment are disclosed in this table. Among the differences between the responses of self, spouse, father, and mother, (these will be discussed) the most striking item is the similarity of the response pattern to each statement. It can be generally stated that, where there are differences, the differences are in the direction expected on the basis of information disseminated through the mass media. Each set of statements will be examined and the similarities and differences discussed.

Child Rearing: The two statements concerning child rearing were considered to portray that traditional image where the American family is considered to be an adult oriented family. According to the respondents, only 33 per cent of their fathers would disagree with both statements, whereas 38 per cent of their mothers would disagree with both statements. Although the difference between father and mother is not great, it does suggest that mother is a little more liberal in her child rearing attitudes. Even more remarkable than this difference between father and mother is the difference between self and spouse.

The difference between self and spouse is noticeable for two reasons; first it is the largest difference between husband and wife in the entire table. Secondly, the respondent considers himself as more liberal in child rearing attitudes than his spouse, that is, 48 per cent of the respondents disagree with both statements and only 40 per cent of their spouses are viewed as disagreeing with both statements. With the number of males and females in the sample being about equal, this difference on child rearing attitudes must mean that female respondents perceive themselves as being more liberal than their husbands, and male respondents perceive themselves as more liberal than their wives. A finer breakdown of child rearing attitudes by sex showed this to be the case. Thirty-eight per cent of the males disagreed with both statements but they perceived only 33 per cent of their wives as disagreeing with both statements. On the other hand, 59 per cent of the females disagreed with both statements but they viewed only 47 per cent of their husbands as disagreeing with both statements. This disclosure concerning the difference between husband and wife on child rearing attitudes raises many questions; questions, however, that can only be answered by a more thorough analysis.

Were these findings on child rearing discussed in terms of change, it could be concluded that attitudes toward child rearing are becoming more liberal. Child rearing attitudes, though becoming

more liberal, have a long way to go before they reach that current popular image that parents are giving the reins of control to the children. That is, with only 48 per cent of the respondents rejecting both statements, the family of the modal Newton resident can hardly be considered as being under the control of the children.

Church Attendance: It is no surprise that only 16 per cent of the mothers are seen as disagreeing with both church attendance statements, whereas 28 per cent of the fathers are perceived as disagreeing with both statements.

If viewed as measuring change in church attendance attitudes, the data support two opposing viewpoints. Those who argue that church attendance attitudes are becoming more lax might say that only 16 per cent of the mothers had lax attitudes toward church attendance, while 21 per cent of their offspring have lax attitudes. On the other hand, those who contend that church attendance attitudes are strengthening might point out that 28 per cent of the fathers have lax attitudes toward church attendance, whereas only 21 per cent of their offspring share this laxity of attitude.

This is a good place to bring out the fact that the relation between attitude and behavior is not always one to one. That is, just because a given individual has a specific attitude toward a social object does not mean he will always behave toward that object in terms of the attitude. For an example, a person may have a favorable attitude toward church attendance but he has a stronger attitude toward visiting relatives on Sunday, so instead of staying in Newton on Sunday he may pile the kids in the car and go for a drive to visit some relatives. This caution about the discrepancy between attitude and behavior is also applicable to the other attitude areas, however, it is felt that more people will make misleading inferences about behavior concerning church attendance than with any of the other attitudes.

Family Structure: As with the child rearing attitude, the difference in the attitudes toward family structure support the notion that the family is becoming more equalitarian. Over half the respondents, in answering for themselves and their spouses, disagreed with both statements, suggesting that the family is a democratic unit where things are discussed and evaluated before action is taken. On the other hand, only 41 per cent of the respondents viewed their father as disagreeing with both statements. The mothers' attitudes are perceived by the respondents as being more like the attitudes of self and spouse than like fathers' attitudes. Impressionistically it would

seem that both husband and wife would have to agree in their responses about family structure if the family is to operate smoothly. The difference between father and mother suggests that some of the respondents perceived some conflict in the family in which they were raised. This difference may be due to the respondent's perception of the family, or there may actually be differences in the mother's and father's attitudes toward family structure. A more extensive analysis with the data at hand would shed some light on this problem. By controlling on the age of the respondent it would be possible to see if there is a generational difference in family structure attitudes.

Farm-City: The respondent perceives his own attitudes as being quite similar to spouse, father, and mother, however the direction of the differences are as one would expect. Father and mother are viewed as being slightly more farm oriented than either spouse or self.

Education: The differences here are slight; however father was perceived as valuing education the least and the respondent viewed himself as valuing it the most. Again, this would be as expected on the basis of the mass media. The most remarkable disclosure is how highly education is valued. Even though some of the Newton respondents did not receive a "high" formal education, they at least value education quite highly.

Democratic Party: On the basis of the distribution it could be concluded that the parents of Newton respondents are largely Republican. Thirty-four per cent of the fathers and 31 per cent of the mothers were viewed as agreeing to one or the other or both of the statements. Considering the extremeness of the statements, this writer feels these are sizeable percentages.

This survey was conducted before the presidential election. It would be interesting to see if and how these attitudes have changed in Newton.

Negroes: Attitudes toward Negroes are considered to be quite similar. The thing of most interest concerning race attitudes, however, is the fact that over half the respondents in any of the four categories agree to one or the other or both statements. This would suggest that over half the population in Newton have negative attitudes toward Negroes. Since the survey, however, there has been a movement toward more acceptance of the Negroes. As with attitudes toward the Democratic party, it would be very interesting to reexamine Newton to see what if any changes there have been in these attitudes toward Negroes.

In conclusion, it can be said, generally, that each set of attitudes portrays the popularly held image. An unanswerable question is whether or not the image is correct. In other words, the respondents' answers to these statements could be simply a reproduction of the popular image and not a true description of the attitudes of spouse, father, and mother. It would require more extensive analysis of the data before this and related questions could be answered.

The preceding discussion provided a brief description of the Newton respondents' views and the way he views his spouse, father, and mother, along several attitude dimensions. The major purpose of collecting this data, however, was to compare the Newton respondents with a group of institutionalized alcoholics. The remainder of this chapter is devoted to presentation of a small part of the findings, resulting from this comparative analysis.

Perhaps the simplest way to proceed with this presentation is to follow a pattern frequently used in social science research. That is, starting with an idea derived from empirical findings, examining the idea against generally held notions (both scientific and others), for the purpose of generating an hypothesis, changing the hypothesis to a testable form, and finally, testing it.

In this case, the idea stemmed from an article reporting on research conducted in the state of Washington.[2] The researchers found that parents of alcoholics tend to disagree in their attitudes toward drinking behavior.[3] This finding, when generalized, suggests that parents who are inconsistent in their attitudes toward drinking somehow affect their offspring in such manner as to cause them to become alcoholics. Reflecting on this idea for a moment, it does not appear to be a plausible explanation of alcoholism.

2. Joan K. Jackson and Ralph Connor, "Attitudes of the Parents of Alcoholics, Moderate Drinkers, and Non-Drinkers Toward Drinking". Quarterly Journal of Studies on Alcohol, vol. 14: pp. 596-613, 1953.

3. The idea that inconsistencies are related to alcoholism has been noted by other researchers. Bogue found that skid row alcoholics had a home environment marked by parental conflict. See: Donald J. Bogue, Skid Row In American Cities. University of Chicago: Community and Family Study Center, 1963, p. 344. Ullman examined different societies for institutional (school, church, family, etc.) inconsistencies and found an association with alcoholism. See: Albert D. Ullman, To Know The Difference. New York: St. Martin's Press, 1960, pp. 24-27.

For instance, it does not seem likely that parents who agree on most attitudes but disagree on attitudes toward drinking, could have such an effect on their children as to cause them to become alcoholics. Further, it seems impossible that parents could disagree violently on drinking attitudes without this discord spreading to other areas such as attitudes toward child rearing, church attendance, etc. This leads to the suspicion that perhaps parents who are pervasively inconsistent affect the home environment to such an extent that the individual raised in this environment eventually becomes an alcoholic. This notion suggests the following hypothesis:

> The greater the attitude inconsistency between the parents the greater the tendency toward alcoholism.

To empirically test this hypothesis we must be able to measure both parental inconsistency and alcoholism. The attitude statements presented earlier provide data to measure inconsistency. By counting the differences in the answers for father and mother, as viewed by the respondent, an inconsistency score may be obtained. This score can range from 0 to 7; 7 being given to parents who are perceived by the respondent as disagreeing on all seven attitude dimensions. The next thing to be measured is alcoholism.

Alcoholism could be measured in two ways. One way would be in isolating the alcoholics in the Newton sample. Because the number of alcoholics in any group of people varies tremendously, it is conceivable that there would be no alcoholics in the Newton sample, or there could be as many as 20. Even if there were as many as 20, it is possible they could not be isolated because of inadequate measures. A second technique would be to obtain a group of known alcoholics. This was the procedure followed; alcoholics were obtained from two state hospitals in Iowa and one in Minnesota. Having measured the two variables, the hypothesis can now be stated more concretely.

> Alcoholics will view their parents as disagreeing more than will the Newton sample.

Since the findings can vary between no difference and considerable difference between the two groups, some arbitrary level of significance should be set so there is no disagreement as to whether or not the hypothesis is supported by the data. The .05 level of significance is conventionally used by social scientists, and that is the level used here. If the distributions found by examining empirical data can occur by chance less than 5 times out of 100, the hypothesis will be considered as supported.

Most studies concerned with drinking behavior examine males and females independently. When this is done, differences are frequently found between the two sexes. The possibility that different factors are in operation that result in alcoholism among females dictates that the two sexes should be examined separately.

TABLE 22

PARENTS' DISSIMILARITY ON ATTITUDES TOWARD SEVEN SOCIAL OBJECTS AND ALCOHOLISM: MALES

	Parents' Attitude Dissimilarity				
	None (1)	1 - 2 (2)	3+ (3)		
	%	%	%	Total	(n)
Non-Alcoholics	57	30	11	100	(76)
Alcoholics	20	45	35	100	(127)
	χ^2 = 34.02		p <. 05		
	2 d.f.		d = .289		

Table 22 contains the distribution of cases for testing the parental inconsistency hypothesis on males. Since the probability of this distribution occurring by chance is less than 5 times out of 100, the decision is to accept the hypothesis as stated. On the basis of this finding it is concluded that pervasive parental inconsistencies do in some way affect the attitudes of the male so that he later becomes an alcoholic.

TABLE 23

PARENTS' DISSIMILARITY ON ATTITUDES TOWARD SEVEN SOCIAL OBJECTS AND ALCOHOLISM: FEMALES

	Parents' Attitude Dissimilarity				
	None (1)	1 (2)	2+ (3)		
	%	%	%	Total	(n)
Non-Alcoholics	53	26	21	100	(70)
Alcoholics	42	16	42	100	(12)
	χ^2* = .194		p > .05		
	1 d.f.		d = .194		

* Columns 2 and 3 collapsed to compute χ^2.

Table 23 presents the data for testing the inconsistency hypothesis on females. The probability of this distribution occurring by chance is greater than 5 times out of 100, so the hypothesis cannot be accepted. Therefore it is concluded that pervasive parental inconsistencies do not have the anticipated effect on female alcoholism.

On the basis of these findings concerning parental inconsistencies, and male and female alcoholism, it is concluded that if inconsistencies in the individual's environment do indeed have an effect on the individual so that he becomes an alcoholic, then inconsistencies resulting in female alcoholism must stem from some other source.

This brief comparative analysis should provide the interested but non-social scientific reader with some basic ideas of how the data from a community study is used. Questions such as the one above cannot be answered from books or insight; the need for data from people such as those in Newton and other communities are necessary. It is possible that this comparative analysis of the sample of Newton respondents and the institutionalized alcoholics will shed light on the prevention and treatment of alcoholics. If it does then it must be pointed out that the people of Newton played no small part in the development of knowledge that can help reduce one of the major social problems of our time, alcoholism.

4. PUBLIC CONCEPTIONS OF THE DRINKING AND RELATED BEHAVIOR DISTINGUISHING THE ALCOHOLIC

by Harold A. Mulford*

One of the goals of this survey was to investigate the public's view of the kind of behavior which characterizes the alcoholic. Previous studies have led researchers to conclude that the drinking and related behavior listed in Table 24 is characteristic of persons who have been labeled alcoholic (1, 2, 3 and 4). This study seeks to discover the extent to which members of the general public agree among themselves and with the experts that such behavior renders a drinker an alcoholic or a likely candidate for that label. Respondents were asked:

> Now I'm going to read a list of statements [see Table 24] about how some people use alcoholic beverages (including all kinds: liquor, wine, beer, etc.). In each case, indicate whether you would call a person who drinks like that an alcoholic. That is, would you say that the person himself, or else his family, or if necessary, the authorities, should do something about the person's drinking?

The "Total" column of Table 24 indicates that there is widespread public concensus in Newton that anyone who behaves as indicated by the items listed in the Table deserves the label "alcoholic." On only one of these items was there less than 50% agreement. With regard to most items, more than two-thirds of the respondents agreed that the type of behavior in question characterizes the alcoholic. In fact, for nearly half of the items, more than four out of five of the respondents agreed. That is, 85 per cent of them agreed that a drinker is an alcoholic if:

1) he stays intoxicated for several days at a time
2) he had been repeatedly arrested for drunkenness or other charges involving drinking
3) he was going into debt because of his drinking
4) his drinking was injuring his health
5) once he starts drinking it is difficult for him to stop before he becomes completely intoxicated
6) he worries about being able to get a drink when he needs one
7) his drinking was injuring his health

*The author wishes to thank Mr. Ronald W. Wilson for his assistance in preparing this report.

8) he had been fired, or was about to lose his job, because of his drinking

9) he gets intoxicated on work days

We may suppose that respondents will have different notions as to whether a given item characterizes the alcoholic, depending upon the respondent's own use of beverage alcohol. That is, drinkers might differ from abstainers on these questions and ex-drinkers (i.e., persons who had quit drinking) might have still different views. In order to classify respondents according to their own drinking practices they were asked, "Do you ever have occasion to use alcoholic beverages such as liquor, wine or beer or are you a total abstainer?" Those who declared themselves abstainers were then asked, "Have you always been a total abstainer?" The answers resulted in the following distribution of the 175 Newton respondents:

Drinkers	70%
Ex-drinkers	9%
Abstainers	19%
No answer	3%

A comparison of columns 2, 3 and 4 of Table 24 reveals certain differences. While the differences are not great it does appear that abstainers are generally more inclined than either drinkers or ex-drinkers to see these behaviors as an indication that the drinker is an alcoholic. In fact, 100% of the abstainers would call a person an alcoholic if his drinking was causing him to have trouble with the law or affecting his finances or his family life or was injuring his health, and also if he stayed intoxicated for several days at a time or could not stop drinking until he became completely intoxicated. While these last two mentioned statements were also agreed to by 100% of the ex-drinkers, the ex-drinkers were generally less inclined than abstainers, but more inclined than drinkers, to view this list of behaviors as indicative of an alcoholic drinker. Further evidence that abstainers will more readily label a person an alcoholic than will either drinkers or ex-drinkers is seen in the fact that as one reads down the list of items in the Table the total percentage agreeing declines but it does not decline as much for abstainers as for drinkers and ex-drinkers. In other words, as we proceed down the list of items, the differences between abstainers on the one hand and drinkers and ex-drinkers on the other hand tends to become greater. For example, the difference between abstainers and drinkers on the first two items is 4 and 7 percentage points respectively. But on the last two items, the difference is 36 and 33 percentage points.

We may conclude that there is widespread public agreement, and that the public agrees with the experts, regarding the kind of drinking behavior which distinguishes the alcoholic.

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TABLE 24
"WOULD YOU CALL A PERSON WHO DRANK LIKE THIS AN ALCOHOLIC?"

Percentage who say "Yes"

	Total	Drinkers	Ex-drinkers	Abstainers
Number =	170	122	15	33
1. If he stays intoxicated for several days at a time?	97	96	100	100
2. If he had been repeatedly arrested for drunkenness or other charges involving drinking?	94	93	87	100
3. If he was going into debt because of his drinking?	92	90	87	100
4. If he had lost, or was about to lose, his wife and family because of his drinking?	91	89	93	100
5. If once he starts drinking it is difficult for him to stop before he becomes completely intoxicated?	91	87	100	100
6. If he worries about being able to get a drink when he needs one?	90	89	87	94
7. If drinking was injuring his health?	88	84	93	100
8. If he had been fired, or was about to lose his job, because of his drinking?	86	84	87	94
9. If he gets intoxicated on work days?	85	83	80	97

TABLE 24 (continued)

	Percentage who say "Yes"			
	Total	Drinkers	Ex-drinkers	Abstainers
10. If he sneaks drinks when no one is looking?	75	71	93	79
11. If he drinks for the effect of the alcohol with little or no attention to type or brand name?	71	66	67	88
12. If he neglects his regular meals when he is drinking?	71	66	80	82
13. If he takes a drink the first thing when he gets up in the morning?	68	67	67	70
14. If he tries to keep other people from knowing how much he is drinking?	67	65	73	73
15. If he awakens the next day not being able to remember some of the things he had done while drinking?	63	55	67	91
16. If he doesn't nurse his drinks, but tosses them down pretty fast?	56	50	47	82
17. If liquor has less effect on him than it used to?	53	50	53	64
18. If without realizing what he is doing he ends up drinking more than he had planned?	51	43	67	76
19. If he takes a few quick ones before going to a party to make sure he has enough?	48	40	53	76

5. SOCIAL ALIENATION: ATTITUDES AND OPINIONS

by Jerrold L. Buerer

In recent years a considerable amount of study has been devoted to the topic of social alienation. One of the most widely used measurement devices of this particular phenomenon is Srole's anomia scale. In its shortened form this scale consists of five items. These five items were administered to subjects in the 1963 study conducted in the community of Newton, Iowa. Likewise, they were administered to residents of three other Iowa communities in a similar study conducted in 1962. The three communities are Washington, Bettendorf, and Centerville.[1] In the ensuing discussion, numerous comparisons will be made between the results obtained in the two studies--these comparisons including the results of several items in addition to the alienation item results.

The first item requests individuals to agree or disagree with the statement "There is little use in writing to public officials because often they aren't really interested in the problem of the average man." The assumption is made that individuals agreeing with this statement are those who are overwhelmed by the social system and feel that the "average man" has little to do with the determination of the social processes. Examination of Table 25 indicates that twice as many Newton residents disagree with this statement as agree with it, while 10 per cent are uncertain as to the use of writing public officials. The results from the 1962 study are not significantly different.

Assuming that the individual's attitudes toward the future are indicative of one aspect of social alienation, or conversely, social integration, the question was asked, "Do you think that nowadays a person has to live pretty much for today and let tomorrow take care of itself?" In Table 25 we see that slightly over one-third of the Newton residents felt a person should pretty much live for today while 58 per cent did not feel that way. As was the case with the previous items, no significant differences are found between the responses of Newton residents and residents studied in the 1962 survey.

1 For a presentation and discussion of the 1962 study results, see William Erbe, Satisfaction With Politics in Three Southeastern Iowa Communities: Alienation Survey, Preliminary Report Number 1. Iowa City: Iowa Urban Community Research Center (mimeo), December, 1962.

TABLE 25
RESPONSE TO ALIENATION ITEMS

Percentage

Item	Newton Study			1962 Study		
	Agree	Not Sure	Dis-agree	Agree	Not Sure	Dis-agree
There's little use in writing to public officials because often they aren't interested in the problems of the average man.	30	10	60	32	8	60
Nowadays a person has to live pretty much for today and let tomorrow take care of itself.	35	7	58	36	7	56
In spite of what some people say, the situation of the average man is getting worse, not better.	31	7	62	26	10	64
It's hardly fair to bring children into the world with the way things look for the future.	18	6	75	13	7	80
These days a person doesn't really know whom he can count on.	41	5	54	38	8	54

The third item seeks to get at the individual's general feelings concerning the present situation of mankind relative to the past. From the funds of knowledge in the areas of psychology and social psychology, it is generally recognized that certain individuals have a propensity to overidealize the past while being extremely critical of the present. With this in mind, respondents were asked to either agree or disagree with the statement "In spite of what some people say, the situation of the average man is getting worse, not better." Those who agree with the statement supposedly are the more alienated. Table 25 shows that twice as many people feel the situation is not getting worse as believe it is becoming worse. Yet, the surprising thing to some may be the fact that nearly a third of the people in Newton who were interviewed do indeed feel the situation is getting worse. When a comparison is made to the 1962 study, it can be seen that fewer respondents in the other three communities agreed with the statement. However, the difference does not appear to be drastic.

If the social order is as unpromising as the strongly alienated person senses it to be, and if the future is as dismal as they maintain, it seems realistic to hypothesize that the alienated individual might seriously question the fairness of bringing new members into the world. With this in mind, the question was asked, "Do you agree with this statement: It's hardly fair to bring children into the world with the way things look for the future." Further examination of Table 25 reveals that less than one-fifth (18 per cent) of the respondents felt that it is hardly fair to bring children into the world while three quarters registered disagreement, i.e., they evidently felt it is fair to have children. A comparison to the 1962 results indicates that Newton residents reveal more alienation on this particular item -- five per cent more strongly agreeing to it and five per cent less disagreeing with it. When the responses to the former questions are taken into consideration, and it is noted that in nearly all cases at least 30 per cent of the residents in all four Iowa communities chose the responses assumed to indicate a degree of alienation when answering the three earlier questions, it is apparent that a certain number of individuals who are unsatisfied with the present social order and who see little hope for future improvement still do not think the situation so hopeless that they deem it unfair or unethical to bring new people into the social order.

Since he may tend to be a spectator rather than an active participant in the social order, there may be a tendency for the alienated individual to view the operation of social processes in terms of subversion, plots, and manipulations on the part of decision-makers in power positions in the society. Trust in others is not characteristic of alienated individuals. Thus, interviewees were asked to agree or disagree with the statement "These days a person doesn't really know whom he can count on." As shown in Table 25, a total of 41 per cent of the Newton respondents agreed with this statement while 54 per cent disagreed. In other words, two out of five individuals feel that it is difficult to ascertain just whom they can count on. Further examination of the table shows that no really significant differences exist between the responses received from residents of Newton and the respondents to the 1962 interviews.

As noted previously, the five items discussed above constitute the Srole anomia scale. A total anomia score for each individual can be obtained by assigning a numerical score to the response to each of the five items included in the scale, and then adding together the score. In this particular case, each "agree" response was given

a score of "2". Neutral responses were scored "1", and responses indicating disagreement were given a "0" score. Thus, the most alienated individual would have a score of 10 -- the least alienated person a score of zero.

Table 26 illustrates the distribution of anomia scores for respondents of both the Newton Study and the 1962 Study. In Table 26 A the ungrouped distribution of scores can be seen. Since no clear picture emerges from an examination of the ungrouped distribution of scores, the scores were grouped into quartiles based on the 1962 study responses, the results being shown in Table 26 B. The rationale for using the 1962 study as a basis for comparison rests upon the assumption that the results of a survey conducted in three quite varying communities in Iowa will give a more thorough picture of the alienation in Iowa urban places than will the results from a single community such as Newton.

TABLE 26

DISTRIBUTION OF SCORES ON ANOMIA SCALE

(A). Ungrouped Scores

Percentage having score of:	Newton Study	1962 Study
10 (High)	5	4
9	3	2
8	5	7
7	5	3
6	12	9
5	3	5
4	13	15
3	2	4
2	19	20
1	9	6
0 (Low)	23	26

(B). Grouped Scores

Percentage in 1962 Study Quartiles	Newton Study	1962 Study
Top fourth (scores 06-10)	30	25
Second fourth (scores 03-05)	18	23
Third fourth (scores 01-02)	28	25
Bottom fourth (scores 00)	23	26

From an examination of Table 26 B we see that a greater proportion of Newton residents have slightly higher anomia scores than do respondents in the 1962 study. Thirty per cent of the Newton respondents have scores from 6 to 10 whereas only 25 per cent of the 1962 study respondents have similar scores. Below this, however, the picture is not as clear. Newton residents do have fewer people displaying no alienation whatsoever (scores of zero), but this is offset by the fact that they have more people with low scores of one and two. If the bottom two quartiles are combined, the percentages are exactly the same -- 51 per cent in each study making low anomia scores. Thus it can be concluded that Newton respondents display more high alienation scores, while fewer have scores in the middle range. The proportion of respondents having relatively low alienation scores are about the same for the two groups.

ECONOMIC AND OCCUPATIONAL ATTITUDES

The phrase "Protestant Ethic" is frequently used by social scientists in the discussion of human economic behavior. The term refers to that complex of economic attitudes which stress hard work, savings, frugality, and individual resourcefulness, among other things. According to some social scientists, it is the Protestant Ethic which provided the frame of mind conducive to the development of economic capitalism as it appeared in the Western world.

In the Newton study an attempt was made at measuring the economic attitudes and opinions of residents, keeping in mind the central aspects of the Protestant Ethic mentioned above. Respondents were asked to either agree or disagree to a number of statements referring to economic behavior. In an attempt to measure the intensity of a given opinion or attitude, individuals were asked whether they agreed or disagreed "a little" or "strongly." A total of eight statements were given to the respondent.

Hard work and frugality make for success according to the Protestant Ethic. Respondents were asked to indicate the degree of their agreement or disagreement with the statement "There is little chance for a promotion on a job unless a person gets a break. In Table 27 (Item 1) we see that nearly one-fourth (24 per cent) of the respondents strongly disagree with this statement while 22 per cent, or a little better than one out of five, strongly agree with it.

The same statement was made in a little different manner: When it comes to getting ahead in this world, it's not "what" you know so much as "who" you know. Examination of Table 27 (Item 2) shows that there is virtually no difference in the distribution of the

TABLE 27

ECONOMIC AND OCCUPATIONAL ATTITUDES

Item	Percentage Strongly Agree	Agree a Little	Uncertain Not Sure	Disagree a little	Strongly Disagree
(1) There is little chance for a promotion on a job unless a person gets a break.	22	27	7	19	24
(2) When it comes to getting ahead in this world, it's not "what" you know so much as "who" you know.	18	26	7	21	28
(3) Despite what some people say, there is still a good opportunity to get ahead today for a person who will work hard, save his money, and tend to business.	81	14	2	3	1
(4) Most people could be successful if they were willing to work hard and sacrifice when necessary.	15	73	4	6	4
(5) Social Security interferes with the rights and responsibilities of individuals.	3	9	7	14	67
(6) The Federal Government should provide medical and hospital insurance for all people.	11	11	8	47	23
(7) Too many people buy too much on installment plans.	74	14	3	6	3
(8) One should never buy things on installment plans.	5	10	3	38	43

responses to this statement compared to those of the previous statement.

Further examination of Table 27 reveals some interesting feelings concerning, first of all, the chance to "get ahead" today, and secondly, the means for doing so. Statement 3 reads "Despite what some people say, there is still a good opportunity to get ahead today for a person who will work hard, save his money, and tend to business." Four out of five individuals strongly agree with this

statement and about three out of four of the remaining individuals agree a little. Yet responses to the statement "Most people could be successful if they were willing to work hard and sacrifice when necessary" (Item 4) reveals that only 15 per cent of the respondents strongly agree with this statement. However, three out of four individuals "agree a little." Viewed together, the marked differences in strong agreement to these two statements indicate that residents of Newton definitely feel opportunities to "get ahead" do exist but they feel the path toward success depends on a combination of breaks, knowing the right people and hard work and sacrifice -- not simply on hard work and sacrifice.

Individuals who decry the broadening activities of the Federal Government in the realm of economics are frequently referred to as economic conservatives. Liberals, supposedly, are not as disturbed about this matter of government participation and regulation in the economic sphere. To investigate respondents' attitudes toward the role of government in economic matters, two statements were utilized. The first statement is simply "Social Security interferes with the rights and responsibilities of individuals." Examination of Table 27 (Item 5) gives some indication of the present acceptance of Social Security by Newton inhabitants. Only 3 per cent strongly agree with the statement; another 9 per cent agree a little. Thus, only 12 per cent register any amount of agreement with this statement. On the other hand, two-thirds of the Newton respondents strongly disagree with this statement while another 14 per cent disagree a little. Combining the "disagreers" we see that four out of five Newton respondents do not feel that Social Security interferes with the rights and responsibilities of individuals. If popular opinion has anything to say about it, the program is firmly entrenched in contemporary life.

However, it's a different story when it comes to the Federal Government providing health and hospital insurance. When asked their opinion regarding the statement "The Federal Government should provide medical and hospital insurance for all people," only 11 per cent strongly agreed while another 11 per cent agreed a little. Forty-seven per cent disagreed a little while 23 per cent strongly disagreed. In examining the differences in the degree of agreement, the fact that nearly half the respondents register only slight disagreement may be interpreted to mean that people do not have well-crystalized ideas on this matter. They are not in strong disagreement but are skeptical of any program involving increased government

activity. The loaded term "socialized medicine" which is thrown around quite loosely in our society may come to mind when individuals are asked a question of this nature. Should some form of government health and hospital insurance become a reality in the near future, a similar survey thirty years hence might reveal a widespread acceptance similar to that we just saw regarding Social Security -- a measure which likewise met obstacles in its early days.

As noted above, the act of saving is a major aspect of the Protestant Ethic. By being frugal and amassing capital, the individual is able to make investments, which in turn lead to more profit and savings. Thus, it seems safe to assume that the individual strongly oriented in the direction of the Protestant Ethic may view the issue of installment buying with some disdain -- at least from the standpoint of their own personal consumption habits. Two statements concerning installment buying were utilized. The first of these is the following: "Too many people buy too much on installment plans."

Table 27 (Item 7) shows that nearly three out of four individuals strongly agree with this statement while half of the remaining respondents agree a little. Only 9 per cent register any degree of disagreement. In other words, Newton residents feel that installment buying is overdone. As a refinement of this particular measure, another statement was made -- namely, "One should never buy things on installment plans" (Item 8). But in this manner, only five per cent of the respondents strongly agree while an additional 10 per cent agree a little. Forty-three per cent, on the other hand, strongly disagree with the statement while 38 per cent disagree a little. The findings for these two items lead to the conclusion that the Newton respondents are not opponents of installment buying per se; rather, they believe in using discretion when it comes to such a manner of purchasing.

Sociologists today frequently discuss the segmental nature of contemporary American life. Work, leisure, worship, family life--each occur in social environments frequently unrelated to one another. A job is no longer the central aspect of an individual's existence; it is simply one aspect of it -- a means to other ends rather than an end in itself. Newton residents were asked to respond to a few items which would hopefully shed some light on the manner in which people actually view the occupational aspect of their lives. These same questions had been asked residents of Washington, Bettendorf, and Centerville a year earlier so it is possible to make comparisons between the results obtained in the two survey studies.

To determine opinions concerning specialized training for young people -- in this case young males -- respondents were asked the following:

> Do you think it is more important to teach a boy to do one thing extremely well or to teach him to do many things fairly well?

As seen in Table 28, three out of four respondents feel it is more important to teach a boy to do many things fairly well rather than one thing extremely well. The "All-American boy" image appears to be rather deeply ingrained among Newtonians. A significantly smaller proportion of residents of the other three Iowa communities feel this way, however. Only about two out of three people in these communities think boys should do many things fairly well. More than one out of four (27 per cent) of the respondents in the 1962 study felt boys should be taught to do one thing very well, while about one out of six (17 per cent) of the Newton residents felt this way.

TABLE 28

RESPONSE TO OCCUPATIONAL VALUE ITEMS

(A). Do you think it is more important to teach a boy to do one thing extremely well or to teach him to do many things fairly well?

Percentage who:	Newton study	1962 study
Think boys should do one thing very well	17	27
Not sure or qualified answer	7	8
Think boys should do many things fairly well	76	65

(B). After you come home from work, do you ever like to think about something you are going to do on the job the next day or some time in the future?

Percentage who say:	Newton study	1962 study
Yes, like to think of future work	70	55
Don't know; can't answer	6	14
No, do not like to think about future work	24	31

(C). Do you think that it is perfectly all right for a man to hire his brother or his son to do a job, even if someone else could do the job better?

Percentage who:	Newton study	1962 study
Think it is all right to hire brother or son	26	28
Not sure or qualified answer	16	13
Think best man should be hired	59	58

In an attempt to determine the degree of an individual's occupational involvement, respondents were asked "After you have come home from work, do you ever like to think about something you are going to do on the job the next day or some time in the future?" A significantly greater proportion of Newton respondents indicated that they do like to think about future work than did respondents in the 1962 Study (70 per cent versus 55 per cent). Conversely, nearly one third of the 1962 respondents did not like to think of future work while about one-fourth (24 per cent) of the Newton residents felt this way.

A third question concerns the topic of nepotism. When asked, "Do you think that it is perfectly all right for a man to hire his brother or his son to do a job, even if someone else could do the job better?" one in four individuals interviewed in Newton agreed while three out of five (59 per cent) disagreed. The results of the 1962 study reveal that the feelings of residents of the three communities included in that project expressed nearly identical feelings on this particular issue.

RELIGIOUS ATTITUDES AND OPINIONS

An attempt was made in this study to investigate certain religious attitudes and practices of respondents. They were asked to register their personal agreement or disagreement with two religious statements. The first of these is the statement "I often wonder what the meaning of life really is." As evidenced in Table 29 A, the number of Newton respondents either strongly agreeing, strongly disagreeing, or uncertain of their opinions are approximately the same, the figures being 24 per cent, 23 per cent, and 23 per cent, respectively. Table 29 also reveals that residents of Newton on the whole tend to be more philosophically reflective than residents in the communities included in the 1962 Study. One-third of the respondents from the latter study indicated they strongly disagreed with the statement; another 15 per cent disagreed a little. In other words, almost one-half (48 per cent) of the people interviewed in the study disagreed to some degree with the statement, thus indicating that they did not often wonder about life's meaning.

The second statement reads: With so many religions around, one doesn't know which to believe. In this case, differences of opinion are more distinct, as seen in Table 29 B. Less than one Newtonian in five (18 per cent) strongly agree with this statement while more than one-half (52 per cent) strongly disagree. The same number of respondents either agree a little or disagree a little -- the

TABLE 29
RELIGIOUS ATTITUDES AND OPINIONS

(A). I often wonder what the meaning of life really is.

Percentage who:	Newton study	1962 study
Strongly agree	24	14
Agree a little	19	23
Uncertain	23	15
Disagree a little	10	15
Strongly disagree	23	33

(B). With so many religions around, one doesn't really know which to believe.

Percentage who:	Newton study	1962 study
Strongly agree	18	11
Agree a little	13	12
Uncertain	5	6
Disagree a little	13	13
Strongly disagree	52	58

(C). Do you believe that human life is an expression of divine purpose or is it only the result of chance and evolution?

Percentage who see life as:	Newton study	1962 study
Expression of divine purpose	85	90
Result of chance and evolution	15	10

figure being 13 per cent in each case. Respondents in the 1962 study differ, as the table shows, in that fewer agree strongly while more disagree strongly. The multiplicity of religious groups in this country does not seem to be quite as confusing to residents of Washington, Bettendorf, and Centerville as it does to residents of Newton but the differences are by no means drastic.

Table 29 C illustrates the answers to the question "Do you believe that human life is an expression of divine purpose, or is it only the result of chance and evolution." Eighty-five per cent of the Newton residents view life as an expression of divine purpose. The corresponding figures for the 1962 study are 90 per cent and 10 per cent. Thus, in both cases an overwhelming majority of respondents see life in terms of divine purpose.

When asked the question "How often do you talk to people within your own family about spiritual matters such as prayer, God, Jesus Christ, or similar religious things?" A total of 49 per cent of the respondents from Newton indicated they did so frequently; 20 per cent indicated they did so seldom, as seen in Table 30. The same

question was asked concerning such conversation outside of the immediate family. The results show that individuals are only about one-half as likely to talk about spiritual matters outside of the family as inside the family. Only one person in four talks frequently of such matters outside of the family; five per cent of the respondents indicated they never do so.

TABLE 30
FREQUENCY OF SPIRITUAL DISCUSSIONS

Percentage who discuss spiritual matters:	Within Family	Outside Family
Frequently	49	25
Occasionally	30	39
Seldom	21	31
Never	1	5

6. A NOTE ON THE NEWTON SAMPLE

by William Erbe

The conclusions of any sample survey are only as sound as the sample itself. It has been demonstrated on occasions too numerous to detail here that a well-conducted sample can be a very powerful research tool, providing the analyst with the most intricate and reliable information about very large populations, at only a fraction of the cost involved in observing the entire population. The number of factors that can bias a sample are infinite, as the number of factors that probably condition human behavior and beliefs. When this fact was realized, many years ago, attempts to provide in advance for a "representative" sample, based on such factors as age and sex, income and education, were more or less abandoned in favor of random sampling, [1] which has the advantage of being amenable to interpretation in terms of the mathematics of probability. While no finding can ever be verified by the use of a statistical technique, it is possible, using the statistical model, to assess the probability that such a difference or such a correlation could occur by sheer chance, and to discard findings that appear to be highly likely to occur under such conditions. At the same time, when a sample is random, the operation of all extraneous factors may be considered random, too, and thus the need for such trappings as age and sex quotas is minimized. However, all of this reasoning presumes a random sample.

A "simple random sample," as the statistician defines it, is one in which every member of the population has an equal chance of being drawn. [2] This is simplicity itself, theoretically, but in

1 There is a variant of random sampling, called stratified sampling, in which quotas for sub-groupings of the population are introduced. The quotas may only be used in situations where it is possible to draw at random from the strata, and should be used only when there is reason to believe that the factor being stratified for is relevant somehow to the problem under investigation.

2 The random sample also assumes that all combinations of sampling elements have an equal chance of being drawn. The kind of sample we will describe has the property of equal probability for individuals, but not for combinations of individuals. Thus, we will refer to it as a probability sample, and not as a random sample. For a discussion of the theoretical differences between the two, see Hubert M. Blalock, Jr., Social Statistics; New York: McGraw-Hill, 1960; Chapter 22.

practice it is really a devilishly hard thing to accomplish. Simple random sampling ordinarily proceeds in three steps: (1) definition of the population; (2) enumeration of the population; (3) drawing from the enumeration the sub-group that is to be subjected to scrutiny. We will discuss problems associated with each of these steps in turn.

After I have described the mechanics of an urban sample, we can take a look at the sample of Newton residents. The most important datum about a sample, once drawn, is how well it has been completed. After that, we might look at how well the Newton sample apparently represents the Newton population, on the basis of the 1960 census figures. In the course of doing all this, I shall offer, to those who may be interested, a description of how community surveys are planned and executed at the Iowa Urban Community Research Center.

SAMPLING PROCEDURE

The definition of the population is the easiest step--one so obvious that it is sometimes overlooked by careless researchers, who consequently draw samples that are inappropriate to the problems they are trying to solve. The reasons for the selection of Newton as our sample point in 1963 have already been discussed but, it seems appropriate to point out here, by so doing we eliminated most of the human race from our universe of observation in one step. We further specified that our population of reference was to consist of Newton household residents, aged 18 or over, located in that city as of April 27, 1963. The decision to interview only household residents, eliminates non-permanent hotel and tourist court residents, students who reside at their place of study, and residents of "group quarters," such as nursing homes. The fact that we chose to interview only those at least 18 years of age eliminates almost one-third of the population of Newton who are clearly not yet adults. The nature of the questionnaire itself made us feel that it was relatively pointless to interview transients or non-adults. The decision to "freeze" the population in time at April 27 contributed to the solution of the problem of enumeration, which we will discuss shortly. All the steps of a survey study are interconnected, and the simple act of defining the universe to be observed has many consequences for other details of the study.

If definition of the population is the easiest step, the enumeration, or listing of that population is the most difficult. The most straightforward solution to this problem is to visit every house in town, make a list of the permanent residents over 18, and draw from that list. One does not have to be experienced in social research to

see that this would be very costly, in terms of time and money, and that the possibilities of error are enormous. In addition to this, the population of Newton, or any other city, is never quite the same on Thursday as it was on Wednesday. Families move in, and families move out. One or two youngsters have their eighteenth birthday, and thus become part of the survey population; one or two people die, and pass forever from the interrogations of eager interviewers.

We got around this dilemma by resorting to an area probability sample. In an area probability sample, the only enumeration required is a list of spatial units which comprise the urban area of the community, the city limits being specified as the outer boundaries of the total area. The most natural areal unit of a city is the block, which is ordinarily square or rectangular, and which has dwelling units facing outward from the center in four directions. The method of the area probability sample is to draw areal units, rather than individuals, and to stipulate that all households physically located in that areal unit are drawn. Every household in town thus has an equal chance of being drawn, since every area has an equal chance of being drawn.[3] A map of the city will give us a complete enumeration of the population if we are careful to include every space that could conceivably contain one or more households in one of our areas. Once we have drawn the areas, we need only list households in the sample of areas, thus eliminating the need to enumerate most of the city.

In actual practice we do not use whole blocks as our areal units. In an urban place of any size, there are usually 20 or more households, on the average, per block. Budget limitations often restrict us to drawing samples of about 200 individuals from a city. This means that we would be restricted to a sample of no more than ten or eleven blocks, which could result in a clustering of such a high proportion of individuals in one part of town as to endanger the reliability of our sample. Our spatial unit is defined as the block segment, a row of houses on a block, all of which face in the same direction. An enumeration of block segments is as easily obtainable from a city map as an enumeration of blocks. The use of block segments also helps to equalize the population of the areas, since there are four possibilities of drawing some part of a block with four sides, but only three chances of drawing a segment from a block with three sides; when as total blocks they had an equal chance of being drawn.

3. Again, note that every household has an equal chance of being drawn, but not every conceivable combination of households, since the households are clustered together in the block segments.

When block segments are used, it is possible to sample over 40 areas within the city, raising the likelihood of adequate spatial distribution considerably over that obtained by drawing ten solid blocks.

In describing the enumeration procedure, we have shifted almost imperceptibly into the third step of the sample sequence, which is the draw. The sample of block segments, which can be drawn without ever leaving our office, is the first stage of the drawing procedure. A second stage is necessary, however, since we plan to draw a sample of individuals from within households. This need not be done until the day of the actual beginning of the survey, and can be performed on the spot by our field representative. The major problem associated with the drawing stage is the guarantee of equiprobability--each sample unit must have the same probability of being drawn as every other sample unit. We have already made sure of the equi probability of drawing households, since all the households on a block segment are automatically in the sample, and all block segments have an equal probability of being drawn. We can call the probability of any household being sampled the fraction s/S, where "s" is the number of block segments to be drawn, and "S" is the total number of block segments in the city being surveyed. Now we have to decide how many people we want from each household, and which members of the household shall constitute that number, and do it in such a way that every individual in the household will have a chance of being drawn equal to that of the others in his household, and in every other household, for that matter.

There is another decision connected with the draw that has to be made before we can proceed intelligently, and that concerns the size of the total sample we want to take from the community. According to statistical theory, this problem should be solved by reference to a "table of sample size required for finite populations, for reliability limits in sampling attributes."[4] The census count for 1960 informs us that there were 10, 043 persons 18 years of age or over in Newton at that time. The reliability table tells us that we ought to have a sample of 5, 000 for an attribute reliability of $\pm$ 1%; or at least a sample of 385 for a reliability of $\pm$ 5%, which is usually considered adequate. The Newton sample was not destined to be adequate in this sense. Table or no, we had on hand a little over $1, 000 which, even augmented by a $300 grant from Professor Mulford

4. See, for instance, Herbert Arkin and Raymond R. Colton (eds.), Tables for Statisticians; New York: Barnes & Noble, 1950; Table 19, p. 136.

and the Alcohol Studies Division of the University Psychopathic Hospital, seemed to put an upper limit of 200-225 on our draw, even when the rock-bottom cost of five dollars per interview was used in the computation. Since we ordinarily try to complete 90% or more of any sample we draw, for reasons we will detail below, we decided to aim at a figure of 225 individuals, with the expectation of completing interviews with slightly more than two hundred.

I say we "aimed at" drawing a sample of 225 because, in an area probability sample, one is never quite sure how many individuals he has drawn until the actual household enumerations and draws are made. We can simplify the problem a little, however, by setting the average number of interviews we want to get in each household at one, and then making an estimate of the number of households in the sample. I have said before that all stages of sampling, and indeed of survey work in general, are interconnected. Until the number of households is estimated, we do not know how many block segments should be drawn to get a number of individuals approximate to that desired. Thus, though sample size is a problem logically connected to the second stage of sampling procedure, it must be set in advance to guide the activities of the first stage.

If we know the number of households in town, and the number of block segments, we can compute H/S, the average number of households per block segment. The census supplies us with figures for 1960. When we know H/S, we can divide it into "n", the desired size of the sample, and that will give us "s", the number of block segments that should be drawn to get a sample of the desired size, if the sampler plans to draw one person, on the average, from each household. A little pencil algebra will show the reader that $s = nS/H$.

In actual practice, we find it prudent to compute two values of "H", the total number of households in the city. Cities like Newton often add households at a faster rate than they add block segments, so that H/S has a tendency to rise between censuses. If the real H/S has risen, without our knowing about it, we are likely to draw too many households, and our field work funds may run out before we have adequately completed interviewing the sample. To undershoot, to draw too few households, is not such a problem, because we can always draw more block segments, one or two at a time, and complete them until we have arrived at "n" number of interviews. To protect ourselves from over-sampling, we examine the growth rate of the number of households over the last ten years--this information is also contained in the census volumes--and we use that to get a high estimate of the number of households. For instance, the census

When block segments are used, it is possible to sample over 40 areas within the city, raising the likelihood of adequate spatial distribution considerably over that obtained by drawing ten solid blocks.

In describing the enumeration procedure, we have shifted almost imperceptibly into the third step of the sample sequence, which is the draw. The sample of block segments, which can be drawn without ever leaving our office, is the first stage of the drawing procedure. A second stage is necessary, however, since we plan to draw a sample of individuals from within households. This need not be done until the day of the actual beginning of the survey, and can be performed on the spot by our field representative. The major problem associated with the drawing stage is the guarantee of equiprobability--each sample unit must have the same probability of being drawn as every other sample unit. We have already made sure of the equi probability of drawing households, since all the households on a block segment are automatically in the sample, and all block segments have an equal probability of being drawn. We can call the probability of any household being sampled the fraction s/S, where "s" is the number of block segments to be drawn, and "S" is the total number of block segments in the city being surveyed. Now we have to decide how many people we want from each household, and which members of the household shall constitute that number, and do it in such a way that every individual in the household will have a chance of being drawn equal to that of the others in his household, and in every other household, for that matter.

There is another decision connected with the draw that has to be made before we can proceed intelligently, and that concerns the size of the total sample we want to take from the community. According to statistical theory, this problem should be solved by reference to a "table of sample size required for finite populations, for reliability limits in sampling attributes."[4] The census count for 1960 informs us that there were 10, 043 persons 18 years of age or over in Newton at that time. The reliability table tells us that we ought to have a sample of 5, 000 for an attribute reliability of $\pm$ 1%; or at least a sample of 385 for a reliability of $\pm$ 5%, which is usually considered adequate. The Newton sample was not destined to be adequate in this sense. Table or no, we had on hand a little over $1, 000 which, even augmented by a $300 grant from Professor Mulford

4. See, for instance, Herbert Arkin and Raymond R. Colton (eds.), Tables for Statisticians; New York: Barnes & Noble, 1950; Table 19, p. 136.

and the Alcohol Studies Division of the University Psychopathic Hospital, seemed to put an upper limit of 200-225 on our draw, even when the rock-bottom cost of five dollars per interview was used in the computation. Since we ordinarily try to complete 90% or more of any sample we draw, for reasons we will detail below, we decided to aim at a figure of 225 individuals, with the expectation of completing interviews with slightly more than two hundred.

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figures told us that there were 5,059 households in Newton in 1960, and that this was 38.4% higher than the number of households there 10 years earlier. Three years had passed since the census, so we added three-tenths of 38.4%, 11.52%, to the 1960 count, which gave us an estimate of 5,642 households in Newton in 1963. Using this as an estimate of H gave us an indicated s of 30. The lower 1960 estimate of H indicated that we should draw 33 block segments. We drew 30 segments, and added an "overdraw" of three more, which we proposed to add to the sample, in the order of their being drawn, if the basic 30 did not produce a sample of sufficient size.

All these calculations must be made, of course, before the sample is actually taken. It is necessary to know what the average "take" per household is going to be, in order to make the decision as to how many block segments to draw. The fact that we have chosen to take an average of one from a household is not an automatic solution to our field representative's problem of how many to interview in a given household, however. There are both theoretical and practical difficulties with a one-from-each-household sample. Theoretically, we are committed to a sample in which each individual (if he is part of a household) has a likelihood of being drawn equal to that of any other such individual. At this point, it would be instructive to consider just what a household is. According to the Bureau of the Census,

> a household includes all of the persons who occupy a house, an apartment, or other group of rooms, or a room which constitutes a housing unit. A group of rooms or a single room is regarded as a housing unit [i.e., contains a separate household] when it is occupied or intended for occupancy as separate living quarters, that is, when the actual or intended occupants do not live and eat with any other persons in the structure, and when there is either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants.[5]

In other words, a house is not a household. A single house may contain several "housing units," in the form of apartments, or even furnished rooms, occupied by "lodgers." Households do not contain uniform numbers of people, although we have simplified the problem

5 U.S. Bureau of the Census, U.S. Census of Population, 1960: General Population Characteristics, Final Report PC(1)-17B; Washington, D.C.: U.S. Government Printing Office, 1961; p. ix.

somewhat by limiting our sample to the household population aged 18 and over, which removed the variable of number of children. The commonest arrangement is a household containing two adults, a husband and a wife. If we chose one of those two in every case, each would have a probability of being drawn equal to 1/2 times s/S (the probability of the household itself being drawn) or s/2S. However, one person households are not at all uncommon. A one-from-each sample would automatically choose this person, and his probability would be simply s/S. When we drew the block segment, we automatically drew this person, under such instructions. Households containing more than two adults are rarer in these times, but are not unheard of. The probability of an individual from a three-adult household being drawn is 1/3 times s/S, or s/3S; the probability of an individual from a five-adult household is s/5S, and so on. A one-from-a-household sample does not satisfy the assumption of an equiprobable sample.

This theoretical argument is borne out by cold figures. The kind of sample frame we have been discussing tends to overload a sample with the kinds of people who inhabit one-person households--older women, who are widowed and live alone; and younger men, who have not yet married and formed their permanent household arrangements.

The fact that the commonest number in a household is two provides the clue to how we can get an equiprobable sample that will give us an average of one from a household. Supposing we had the field representatives of our survey toss two coins--one for the husband and one for the wife--with the specification that if either coin came down "tails" that person was drawn in the sample and was to be interviewed. This would generate four possibilities--one or the other might be drawn, for a single interview from that household, or both might be drawn, or neither. Since the probability of either coin coming down either way is exactly one-half, and since the two coins are independent of each other, the probability of the husband would equal that of the wife, and each would equal s/2S. Over a large number of households, we would average one from each. In the case of a one-person household, there would be only one coin to toss, but the probability would still be s/2S. Practically, this means the skipping of about one-half of the one-adult households in the block segments we draw. In actual fact, we would never have our field representatives do anything so flippant as to toss coins in the households--we drew random numbers to simulate the coin-tossing and

gave them out to our interviewers in advance, so that they could glance at their sample forms and tell, immediately they knew how many persons were residents in the household, whom they should interview.

Concisely, then, the Newton sample of 1963 was a two-stage area probability sample of the household population aged 18 or over. In the first stage, we enumerated and drew a sample of block segments from within the Newton city limits; in the second stage, we enumerated and drew a sample of individuals from the households physically contained in these block segments. Only at that point were we down to names of individuals who were to be interviewed. The taking of the sample is only the beginning step, albeit a crucial one, in the execution of a community survey. The most important step in field work is its completion, and this is the matter I shall discuss next.

COMPLETION

Completion of a sample is very important, for two reasons. First, a sample is, by definition, a very small fragment of the population. I have already said that our sample was not large enough, even by the statistician's standards, to be an adequate representation of the adult population of Newton. Although we underestimated in our first draw, we eventually drew enough block segments to enumerate 228 households, from which we drew 206 individuals. This group represents slightly over 2% of the approximately 10, 000 adults in Newton. Having confined ourselves to that two per cent, it became imperative that we not limit ourselves further by failure to complete interviews with these persons. However, it takes two parties to make an interview, and thereby hangs most of the effort and expense of a community survey.

In the first place, an appalling number, ordinarily at least a third, of the individuals whom we draw are not at home on the first day of the survey. Among those who are, the reactions are varied, running from permissive to eager acceptance, through apathy and evasion, to downright hostile opposition. The first group brighten a field representative's whole day, and give him the sustenance needed to carry on. The middle group can usually be won over by explaining the nature and purposes of the survey, the authenticity and reliability of the Iowa Urban Center's survey branch (which this volume hopefully further documents). Interviewing this group is essential, as I shall show in a moment. The final group, the hostile refusals, give us most of our headaches. Some people just do not want to be interviewed

under any circumstances, and we sit up nights trying to guess how to resolve their suspicions and meet their objections.

Since we are unable to collect data about this group, we have no information on them more reliable than our own impressions. Usually, they are not the kinds of persons who seem to be, as they keep insisting, "too busy" to take the hour or so to complete one of our interview schedules. If anything, the opposite is true. They tend to be isolated and non-participant individuals. Some of the entries we carry as "refusals" in our statistical breakdowns are people who are seriously ill and cannot complete an interview; others become so nervous and agitated while being interviewed as to be unable to complete all or part of the questioning, but the majority of our refusals are not that sick. They can take more time and energy to get out of being interviewed than a complete interview would ordinarily demand. We have to keep calling back on them, because completion is of fundamental importance.

If the size of the sample alone were important, though, we could solve the problem in another way. Why not simply keep drawing block segments, households, and individuals until a sufficient number of persons who will readily consent to being interviewed have been impanelled? This would raise the sample size to a respectable figure, while eliminating the difficulties of continued contact with people who do not want to be questioned. This solution has often been used in survey studies, but we reject it.

At the outset of this essay, I said that the number of possible biasing factors in a sample is as large as the number of factors that condition human behavior and belief--and that this number is very large, perhaps infinite. What factors make one person readily willing to be interviewed, and another--his next door neighbor--suspicious and evasive, are not known; but it seems likely that a sample that in reality selects itself could produce rather different results than a sample that has been selected by more objective methods. This may be true of any survey, but seems especially true of one like the "Individual in the Modern Community" study, with its heavy emphasis on social psychological content. So we have no procedure for "replacement" whatsoever, but devote our energy and resources to completing the sample we originally drew as completely as we can.

Sampling and interviewing was commenced in Newton on Saturday, April 27, 1963. During the following week, we sent follow-up crews out on several evenings, trying to locate persons who had not been at home on Saturday, and trying to win over those who had not

consented to be interviewed on the first day. Another follow-up was launched about May 15, and the proportion of completed interviews increased. Seven interviews taken on the evening of Thursday, June 20, 1963, completed our field efforts in Newton. The outcome of our efforts is displayed in Table 31.

TABLE 31.

THE NEWTON SAMPLE: SUMMARY OF COMPLETION

	N	%
Completed interviews	175	85
Lost contact or never located	12	6
Refused	19	9
Total individuals drawn	206	100

We did not complete the Newton sample, as the table shows, but we managed to get interviews with 175 individuals, representing 85% of our sample, a figure which compares favorably with the completion rates of national survey agencies. The nine per cent of those drawn who refused to be interviewed represent a vexation to us, but this figure also compares well with comparable figures from other research institutes, whose refusal rates often run to more than twenty per cent. Perhaps the blackest mark against us, the most frustrating aspect of any survey study, is the admission that we lost or never located 6% of the individuals we drew. It may be that some of this figure is latent refusal, for it includes persons who made definite appointments to be interviewed, but who were not at the proper place at the indicated time and who could not be located subsequently. Nevertheless, unfamiliarity with the town, and inability to adjust to the time schedules of persons who work irregular hours always take a certain amount from our completion rates.

In this section, I have discussed the importance of completion and how adequate a job we did in Newton. Our sample was never really completed, and was, due to shortages of resources, perhaps not adequate in the first place. The completed portion of the sample, 175 interviews, represent the opinions and attitudes of less than one and three-quarters per cent of the adult Newton population. Since we have relatively new census data at hand, however, the reader might find it interesting to look at some comparative distributions of the Newton sample and the population from which it is drawn, to see how closely a sample drawn by the methods I have described can replicate the total community in miniature.

THE SAMPLE AS A REPRESENTATION OF THE COMMUNITY

If what I have said about the large number of ways in which a sample might be biased is accepted by the reader, what follows may seem to him a futile exercise. Comparing the distribution of a few attributes among the sample respondents to the distribution among the community population in 1960 cannot even begin to prove that the sample is a genuine representation of that population. Nevertheless, I shall make the effort. Some readers will find the possibility of such comparisons and the techniques employed in making them instructive. Most of the variables that will be considered have been found to relate to many other things in survey research, so that the comparisons will be more comprehensive than might appear on the surface. Finally, the fact that even these few comparisons are possible leaves a conscientious sampler with little choice; impossible as the task of evaluating a sample may be, the attempt ought to be made.

Before we start these explorations, we ought to settle on an objective definition of "bias." It is extremely unlikely--in many cases mathematically impossible--for a sample of 175 to have exactly the same proportionate distribution as a population of over 10,000. Here, the logic of statistical mathematics can help us again. Statistical "tests of significance" can give us the probability (usually just called "p") of a distribution occurring by sheer chance. There are a great many slightly different combinations of block segments we might have drawn from Newton. Within the block segments, we could multiply this by all the different combinations of numbers we might have drawn from the households. Some of these combinations of 175 persons would be a fairly exact replica of the whole Newton population; other sets of 175 would be wildly different. The use of the equal probability method cannot guarantee a representative sample--the 175 persons we drew might have been the worst conceivable from that standpoint--although it can be shown mathematically that such a sample is more likely to reproduce the true distribution in the population than it is to show any other possible distribution. But we are concerned with how badly "off" a sample can be, and still be acceptable. The test of significance gives us the likelihood of getting such a sample. If "p" is greater than .50, then this is the kind of sample we might get by chance more than half the time, which seems like a reasonable expectation of error. On the other hand, if "p" is less than .01, the indication is that this distribution would be expected in less than one in a hundred samples, which would appear to support an implication of some kind

of bias in our sampling procedure. We will settle for a significance level of .05; if "p" is less than .05, the proper inference is that the sample is less likely than one in twenty, and that will be unlikely enough for us to call it biased. To arrive at our estimate of "p", we will use the one-sample chi square test.[6]

In Table 32, we have placed side by side the distribution of sex among those 18 and over from the Newton census of 1960 and our sample of 1963. Comparison of the proportions shows us to be about 5% off the 1960 distribution. It is somewhat embarrassing that this five per cent error occurs near the 50% mark; our sample indicates that men are in the majority when, in fact, the women outnumber the men. If it had been an election year, and we had been sampling voting preferences, someone might have lost an election bet by relying too heavily on our figures. The chi square test tells us, however, that this is the kind of sex distribution we might expect less often than once in five samples, but more often than once in ten times. By the criterion set out above, this is an acceptable error.

TABLE 32

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER)*, WITH NEWTON SAMPLE, 1963: SEX

	Census, 1960		Sample, 1963	
Sex	N	Prop.	N	Prop.
Men	4,755	.4735	92	.5257
Women	5,288	.5265	83	.4743
Total	10,043	1.0000	175	1.0000

$\chi^2 = 1.914$ df = 1 $.20 > p > .10$

(*) Source: U. S. Bureau of the Census, U.S. Census of Population, 1960: General Population Characteristics, Final Report PC(1)-17B, Washington, D.C.: U. S. Government Printing Office, 1961, Table 20.

The age distribution is less likely than the sex distribution. Here, as is shown in Table 33, we are so far off as to have a sample less likely than might be expected to occur once in twenty times. Inspection of the distributions shows that our major error seems to be among those in the middle years; we have too many in the 45-54

6 The one-sample chi square test is described in Sidney Siegel, Non-Parametric Statistics for the Behavioral Sciences; New York: McGraw-Hill, 1956; pp. 42-47.

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TABLE 33

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER)*, WITH NEWTON SAMPLE, 1963: AGE

	Census, 1960		Sample, 1963	
Age (at last birthday)	N	Prop.	N	Prop.
18 - 20 years	467	.0465	11	.0629
21 - 34 years	2,912	.2899	52	.2971
35 - 44 years	1,967	.1959	38	.2171
45 - 54 years	1,605	.1598	38	.2171
55 - 64 years	1,437	.1431	14	.0800
65 years and older	1,655	.1648	22	.1257
Total	10,043	1.0000	175	.9999

$\chi^2 = 11.534$ df = 5 $.05 > p > .02$

(*) Source: General Population Characteristics, Table 20.

year old group, and too few from the 55-64 year cohort. In general, our sample is biased toward the younger residents of Newton, and is insufficiently representative of the older groups. The Newton population, aged 18 and over, is composed of about 30% persons who are aged 55 or over; our sample is made up of only 20% of such persons.

There is a relationship between sex and age--women live longer than men, and thus their average age is greater. It will be recalled that our sample is slightly over-representative of men, though not significantly so. In Table 34, we hold the sex distribution constant, and compute three more tests of significance. When we compute within each sex, we are taking for granted the fact that we got 92 men and 83 women in the sample, and we are asking the test of significance to tell us whether this is a reasonable age distribution within that sex. It turns out that such an age distribution might be expected among a sample of males in Newton more than one time out of every five. This indicates that most of the sampling error occurred among the women, and inspecting the lower half of the table, we find the age proportions less similar and less likely, according to the statistical test. The age distribution among women is more likely than one sample in twenty would give us, which was our original criterion, but less likely than we would expect from one sample in ten. Indeed, the discrepancies among the women mirror

TABLE 34

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER)*, WITH NEWTON SAMPLE, 1963: AGE BY SEX

	Census, 1960			Sample, 1963		
Age (at last birthday)	N	Prop. Sex	Prop. Total	N	Prop. Sex	Prop. Total
			Men			
18 - 20 years	220	.0463	.0219	6	.0652	.0343
21 - 34 years	1,376	.2894	.1370	33	.3587	.1886
35 - 44 years	982	.2065	.0978	17	.1848	.0971
45 - 54 years	777	.1634	.0774	18	.1957	.1029
55 - 64 years	678	.1426	.0675	6	.0652	.0343
65 years and older	722	.1518	.0719	12	.1304	.0686
Total	4,755	1.0000	.4735	92	1.0000	.5258
χ^2 (Sex) = 7.174		df = 5		.30> p>.20		
			Women			
18 - 20 years	247	.0467	.0246	5	.0602	.0286
21 - 34 years	1,536	.2905	.1529	19	.2289	.1086
35 - 44 years	985	.1863	.0981	21	.2530	.1200
45 - 54 years	828	.1566	.0824	20	.2410	.1143
55 - 64 years	759	.1435	.0756	8	.0964	.0457
65 years and older	933	.1764	.0929	10	.1205	.0571
Total	5,288	1.0000	.5265	83	1.0000	.4743
χ^2 (Sex)= 9.920		df = 5		.10> p>.05		
χ^2 (Total) = 18.827		df = 11		.10>p>.05		

(*) Source: See Tables 30 and 31.

those of the sample as a whole--too many in the 35-54 year old group; not enough over 55. The rest of the younger age bias of the sample seems to be accounted for by the fact that most of our "extra" men were less than 35 years old.

The final test of significance was done on all twelve categories of the age by sex distribution as a whole. This shows that the age by sex distribution of the sample is not significantly different from that

of the 1960 population. From all of these comparisons we conclude that the sex distribution, although not significantly different from that of the Newton population, is sufficiently biased to throw the age distribution off significantly. The bias in the age distribution tends to disappear when sex of respondent is held constant. In general, I conclude that the sex and age distributions of the Newton sample are acceptable representations of that population, though just barely so.

In Table 35 are reproduced the distributions of marital status in the sample and in the Newton population. Here, the sample is almost exactly representative of the population, the sampling error

TABLE 35

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER)*, WITH NEWTON SAMPLE, 1963: MARITAL STATUS

	Census, 1960		Sample, 1963	
Marital status	N	Prop.	N	Prop.
Single (never married)	916	.0912	16	.0914
Married (living with spouse)	7,913	.7879	144	.8229
Separated	70	.0070	0	.0000
Divorced	225	.0224	2	.0114
Widowed	919	.0915	13	.0743
Total	10,043	1.0000	175	1.0000

$\chi^2 = 3.003$ df = 4 $.70 > p > .50$

(*) Basic source: General Population Characteristics, Table 21. Table 21 gives distribution for age 14 and over. Data for the state urban population as a whole (from U.S. Census of Population, 1960: Detailed Characteristics, Final Report PC(1)-17D, Table 105) were used to estimate distribution of marital status in 14-17 age group, which was then subtracted from the figures in Table 21. Thus, the census figures given here are an estimation, and not an exact count.

being about a 3% bias in favor of married persons, at the expense of divorced and widowed persons. When sex is held constant, in Table 36, we can see that most of this error occurred among the men -- we have 6% too many married men. The distribution of marital status among women in the sample is very close to the estimated distribution in the 1960 census. I shall say no more about marital status, except to indicate my satisfaction with the reliability of the sample in that respect.

TABLE 36

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER),* WITH NEWTON SAMPLE, 1963: MARITAL STATUS BY SEX

Marital status	Census, 1960 N	Prop. Sex	Prop. Total	Sample, 1963 N	Prop. Sex	Prop. Total
			Men			
Single (never married)	481	.1012	.0479	9	.0978	.0514
Married (living with spouse)	3,964	.8336	.3947	80	.8696	.4571
Separated	30	.0063	.0030	0	.0000	.0000
Divorced	78	.0164	.0078	0	.0000	.0000
Widowed	202	.0425	.0201	3	.0326	.0171
Total	4,755	1.0000	.4735	92	1.0000	.5256
χ^2 (Sex) = 2.454		df = 4		.70> p>.50		
			Women			
Single (never married)	435	.0823	.0433	7	.0843	.0400
Married (living with spouse)	3,949	.7468	.3932	64	.7711	.3657
Separated	40	.0076	.0040	0	.0000	.0000
Divorced	147	.0278	.0146	2	.0241	.0114
Widowed	717	.1356	.0714	10	.1205	.0571
Total	5,288	1.0001	.5265	83	1.0000	.4742
χ^2 (Sex) = 0.882		df = 4		.95> p>.90		
χ^2 (Total) = 5.439		df = 11		.95> p>.90		

(*) Source: See Table 33.

In Table 37, we compare the educational distributions of the Newton population and of our sample of 175. The comparison is less satisfactory than that for marital status, but more so than that of sex and age. The test of significance indicates the likelihood of this distribution in more than one sample out of five. Comparison of the proportions indicates that the sample errs principally in the inclusion of too many high school graduates, too few individuals whose education stopped in grade school. The proportion who are college trained is very similar in both groups. It may be that our "missing" grade

TABLE 37

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER)*, WITH NEWTON SAMPLE, 1963: EDUCATION

	Census, 1960		Sample, 1963	
Education	N	Prop.	N	Prop.
Less than 5 grades	172	.0171	4	.0229
5 - 8 grades	2,697	.2685	34	.1943
1 - 3 years high school	1,950	.1942	34	.1943
4 years high school	3,588	.3572	75	.4286
1 - 3 years college	986	.0982	16	.0914
4 years or more college	650	.0648	12	.0686
Total	10,043	1.0000	175	1.0001

$\chi^2 = 6.545$ df = 5 $.30 > p > .20$

Basic source: U.S. Census of Population, 1960: General Social and Economic Characteristics, Final Report PC(1)-17C, Table 73. The totals given in this table of persons 25 years old and over do not check with those given in General Population Characteristics, Table 20. The proportions implied in Table 73 were multiplied by the numbers given in Table 20, for a corrected distribution of education among those 25 and older. Data for the state urban population as a whole (from Detailed Characteristics, Table 102) were used to estimate the distribution of education in the 18-24 age group, which was then added to the corrected distribution for age 25 and over, to produce the estimate given in this table.

school educated are contained in the 15% of the sample we were unable to interview. It has been our impression that less educated persons are more likely to resist being interviewed.

When the two populations are partitioned on the basis of sex, as in Table 38, the education distributions become even more likely. The three tests of significance now all indicate that this is a sample--for the attribute of education--that one might expect more than three times in ten tries. The discrepancies in the sample seem to be mostly due to the men; most of the surplus high school graduates in Table 37 are males. There are too few, among both men and women, of those whose education stopped somewhere between completion of the fifth and eighth grades. The education distribution in the sample is not a perfect replication of the Newton population, but the sampling error is within the range of reasonable expectations.

TABLE 38

COMPARISON OF NEWTON CENSUS, 1960 (AGE 18 AND OVER), * WITH NEWTON SAMPLE, 1963: EDUCATION BY SEX

Education (last year completed)	Census, 1960 N	Prop. Sex	Prop. Total	Sample, 1963 N	Prop. Sex	Prop. Total
			Men			
Less than 5 grades	113	.0237	.0112	3	.0326	.0171
5 - 8 grades	1,409	.2963	.1403	20	.2174	.1143
1 - 3 years high school	926	.1948	.0922	18	.1957	.1029
4 years of high school	1,468	.3087	.1461	37	.4022	.2114
1 - 3 years college	409	.0861	.0408	8	.0870	.0457
4 years or more college	430	.0904	.0428	6	.0652	.0343
Total	4,755	1.0000	.4734	92	1.0001	.5257
χ^2 (Sex) = 5.491		df = 5		.50> p> .30		
			Women			
Less than 5 grades	59	.0112	.0059	1	.0120	.0057
5 - 8 grades	1,288	.2436	.1282	14	.1687	.0800
1 - 3 years high school	1,024	.1936	.1019	16	.1928	.0914
4 years high school	2,120	.4009	.2111	38	.4578	.2171
1 - 3 years college	577	.1091	.0574	8	.0964	.0457
4 years or more college	220	.0417	.0220	6	.0723	.0343
Total	5,288	1.0001	.5265	83	1.0000	.4742
χ^2 (Sex) = 4.574		df = 5		.50> p> .30		
χ^2 (Total) = 12.131		df = 11		.50> p> .30		

(*) Source: See Table 35.

The story told by Table 39, in which family income distributions are compared, is not so flattering to the sample. The distribution of incomes in the sample is, to be sure, beautifully symmetrical about the middle category but, unfortunately, the distribution of income in Newton in 1960 was neither so symmetrical nor so steep so that, in comparison, the sample underestimates both those in the less than $3,000 category and those in the seven-ten thousand dollar bracket.

TABLE 39
COMPARISON OF NEWTON CENSUS, 1960, *
WITH NEWTON SAMPLE, 1963: FAMILY INCOME

	Census, 1960		Sample, 1963	
Family income	N	Prop.	N	Prop.
Less than $3,000	565	.1319	16	.0930
$3,000 - $4,999	742	.1732	35	.2035
$5,000 - $6,999	1,338	.3123	70	.4070
$7,000 - $9,999	1,049	.2448	33	.1919
$10,000 - $24,999	511	.1193	15	.0872
$25,000 or more	80	.0187	3	.0174
Total	4,285**	1.0002	172***	1.0000

$\chi^2 = 11.288$ df = 5 $.05 > p > .02$

(*) Source: General Social and Economic Characteristics, Table 76.

(**) Total refers to number of families, rather than to number of persons 18 or over, and is thus different from previous totals.

(***) Three respondents did not answer the question about family income.

The overall tendency of the sample is to underestimate family income.

We have yet to take a sample of a community (this was our fourth try) that comes reasonably close to reproducing the income distribution of this community. The bias is always in the direction of lower incomes reported in the sample. It may be that high income is somehow associated with reluctance to be interviewed, although we are as close as we can possibly get to the correct proportion having incomes of $25,000 or more. It may be that people are modest, or that they suspect us of having some connection with the internal revenue service. My impression is that the discrepancy comes from inability to estimate gross income under the withholding system. The major displacement in the sample is between the groups just under and just over the $7,000 level, which may be assumed to be about the income of factory operatives of whom, as we shall see in a moment, there are many in Newton. The basic pay rate of reference to an operative is neither a monthly or yearly salary, nor an aggregate profit or increase in net worth, but a weekly pay check. In answering this question, many persons make a mental computation of the average

size of this check multiplied by fifty. The check, of course, does not represent gross income, but income after "deductions." The inadvertent deductions might have made our sample look more representative than it appears, if added into those incomes. Since the amount called for is total family income, no breakdown by sex is possible here.

In Table 40, we turn our attention to the distribution of occupations in the Newton population. Here, our sample shrinks to 125, fifty persons reporting no occupation. The occupation is that of the respondent, and not necessarily that of the breadwinner of the house. The categories are the standard census groupings. The test of

TABLE 40

COMPARISON OF NEWTON CENSUS, 1960, *
WITH NEWTON SAMPLE, 1963: OCCUPATION

	Census, 1960		Sample, 1963	
Occupation of those reporting	N	Prop.	N	Prop.
Professional, technical and kindred workers	673	.1129	18	.1440
Farmers and farm managers	29	.0049	2	.0160
Managers, officials and proprietors	585	.0981	12	.0960
Clerical and kindred workers	959	.1609	16	.1280
Sales workers	437	.0733	6	.0480
Craftsmen, foremen and kindred workers	940	.1577	17	.1360
Operatives and kindred workers	1,420	.2382	35	.2800
Private household workers	128	.0215	3	.0240
Service workers, except private household	507	.0850	7	.0560
Farm laborers and farm foremen	18	.0030	2	.0160
Laborers, except farm and mine	266	.0446	7	.0560
Total	5,962**	1.0001	125***	1.0000

$\chi^2 = 16.122$ df = 10 $.10 > p > .05$

(*) Source: General Social and Economic Characteristics, Table 74.

(**) Total refers to number of persons reporting occupation in 1960, regardless of age. It was not possible to use other census data to correct the inclusion of persons under 18 years of age, so that the comparison is distorted by that factor.

(***) Fifty persons in the Newton sample were not gainfully employed or did not report their occupation.

significance indicates an acceptable level of sampling error. We have a little more than 4% too many operatives, but this is the most serious error in the table. We have too few clerical and sales workers, not enough craftsmen, foremen and the like. The shortage of "white collar" workers is somewhat redressed by an oversampling of professionals.

When sex is held constant, in Table 41, we note that the distributions are still acceptable, although the distribution is more accurate among women than among men. The only error of any consequence among women is a slight undersampling of service workers. The shortage of clerical and sales workers, and of craftsmen and foremen occurs among the men. Most of the "surplus" professionals are also men. From Tables 38-39, it would appear that the sample represents the scatter of occupations in Newton sufficiently well.

TABLE 41

COMPARISON OF NEWTON CENSUS, 1960, * WITH NEWTON SAMPLE, 1963: OCCUPATION BY SEX

	Census, 1960			Sample, 1963		
Occupation of those reporting	N	Prop. Sex	Prop. Total	N	Prop. Sex	Prop. Total
			Men			
Professional, technical and kindred workers	439	.1087	.0736	14	.1609	.1120
Farmers and farm managers	29	.0072	.0049	2	.0230	.0160
Managers, officials and proprietors	519	.1285	.0871	10	.1149	.0800
Clerical and kindred workers	266	.0658	.0446	1	.0115	.0080
Sales workers	284	.0702	.0476	3	.0345	.0240
Craftsmen, foremen and kindred workers	891	.2205	.1494	15	.1724	.1200
Operatives and kindred workers	1,124	.2782	.1885	28	.3218	.2240
Private household workers	0	.0000	.0000	0	.0000	.0000
Service workers, exc. pr. hsehld.	224	.0554	.0376	6	.0690	.0480
Farm laborers and foremen	11	.0027	.0018	1	.0115	.0080
Laborers, exc. farm and mine	253	.0626	.0424	7	.0805	.0560
Total	4,040	.9998	.6775	87	1.0000	.6960

χ^2 (Sex) = 15.531 df = 10 .20 > p > .10

TABLE 41 (continued)

Occupation of those reporting	Census, 1960 N	Prop. Sex	Prop. Total	Sample, 1963 N	Prop. Sex	Prop. Total
			Women			
Professional, technical and kindred workers	234	.1217	.0392	4	.1053	.0320
Farmers and farm managers	0	.0000	.0000	0	.0000	.0000
Managers, officials and proprietors	66	.0343	.0111	2	.0526	.0160
Clerical and kindred workers	693	.3606	.1162	15	.3947	.1200
Sales workers	153	.0796	.0257	3	.0789	.0240
Craftsmen, foremen and kindred workers	49	.0255	.0082	2	.0526	.0160
Operatives and kindred workers	296	.1540	.0496	7	.1842	.0560
Private household workers	128	.0666	.0215	3	.0789	.0240
Service workers, exc. pr. hsehd.	283	.1472	.0475	1	.0263	.0080
Farm laborers and foremen	7	.0036	.0012	1	.0263	.0080
Laborers, exc. farm and mine	13	.0068	.0022	0	.0000	.0000
Total	1,922	.9999	.3224	38	.9998	.3040
χ^2 (Sex) = 11.465		df = 10		.50 > p > .30		
χ^2 (Total) = 26.798		df = 21		.20 > p > .10		

(*) Source: See Table 38.

Although there are category differences, the overall balance between "white collar" and "blue collar" occupations is very well represented.

Table 42 shows the distribution of occupations among ten industry groupings. Here the differences are greater, the industrial distribution being our worse approximation of the Newton population with the sample. The results of the test of significance show that this is a sample so peculiar in its distribution as to be expected less than once in a thousand tries! The worst discrepancy is our lack of persons employed in wholesale trade. The census says that about one in every sixteen gainfully employed persons in Newton works in the wholesale area, yet apparently we did not interview a single one. We interviewed too many persons whose occupations are in the areas of agriculture, mining and public administration. It may be that our apparent lack of wholesale--employed persons is due to coding error here in our office. It is very difficult, for instance, to tell when some-

TABLE 42
COMPARISON OF NEWTON CENSUS, 1960*
WITH NEWTON SAMPLE, 1963: INDUSTRY GROUP

	Census, 1960		Sample, 1963	
Industry group of employed persons	N	Prop.	N	Prop.
Agriculture and mining	63	.0105	5	.0413
Construction	262	.0436	7	.0579
Manufacturing	2,689	.4478	57	.4711
Transportation, communication, and other public utilities	234	.0390	6	.0496
Wholesale trade	401	.0668	0	.0000
Retail trade	936	.1559	14	.1157
Finance, insurance, and real estate	195	.0325	2	.0165
Business, repair, personal, entertainment and recreation services	482	.0803	11	.0909
Professional and related services	602	.1002	11	.0909
Public administration	141	.0235	8	.0661
Total	6,005**	1.0001	121***	1.0000
$\chi^2 = 31.918$	df = 9		$p < .001$	

(*) Source: General Social and Economic Characteristics, Table 75.

(**) Total refers to number of persons reporting industry group in 1960, regardless of age. It was not possible to use other census data to correct for the influence of persons under 18 years of age, so that the comparison is distorted by this factor. Note also the discrepancy between the totals of those reporting industry and those reporting occupation in the census figures (cf. Table 38).

(***) Fifty-four persons in the Newton sample were not gainfully employed or did not report their industry group.

one's occupation is "selling," whether he retails or wholesales. Likewise "truck drivers" are hard to code by industry--they may be transportation workers, or they may be trucking for a wholesale distributor.

That our sampling error with respect to sex has come back to haunt us is evident in Table 43, where that factor is again held constant. As the reader can see, we really didn't do badly among women, here "p" is above the minimal .05 level, and the sample among men

is not as inaccurate as the test of significance in Table 40 might lead us to believe. As a matter of fact, I might have cheated a little

TABLE 43

COMPARISON OF NEWTON CENSUS, 1960*, WITH NEWTON SAMPLE, 1963: INDUSTRY GROUP BY SEX

Industry group of employed	Census, 1960 N	Prop. Sex	Prop. Total	Sample, 1963 N	Prop. Sex	Prop. Total
			Men			
Agriculture and mining	55	.0135	.0092	4	.0471	.0331
Construction	255	.0625	.0425	7	.0824	.0579
Manufacturing	2,229	.5465	.3712	47	.5529	.3884
Transportation, communication, and other public utilities	178	.0436	.0296	4	.0471	.0331
Wholesale trade	183	.0449	.0305	0	.0000	.0000
Retail trade	595	.1459	.0991	10	.1176	.0826
Finance, insurance, and real estate	118	.0289	.0196	1	.0118	.0083
Business, repair, personal entertainment and recreation services	163	.0400	.0271	4	.0471	.0331
Professional and related services	191	.0468	.0318	2	.0235	.0165
Public administration	112	.0275	.0187	6	.0706	.0496
Total	4,079	1.0001	.6793	85	1.0001	.7026
χ^2 (Sex) = 19.630		df = 9		.05 > p > .02		
			Women			
Agriculture and mining	8	.0042	.0013	1	.0278	.0083
Construction	7	.0036	.0012	0	.0000	.0000
Manufacturing	460	.2388	.0766	10	.2778	.0826
Transportation, communication, and other public utilities	56	.0291	.0093	2	.0556	.0165
Wholesale trade	218	.1132	.0363	0	.0000	.0000
Retail trade	341	.1770	.0568	4	.1111	.0331
Finance, insurance, and real estate	77	.0400	.0128	1	.0278	.0083
Business, repair, personal, entertainment and recreation services	319	.1656	.0531	7	.1944	.0579
Professional and related services	411	.2134	.0684	9	.2500	.0744
Public administration	29	.0150	.0048	2	.0556	.0165
Total	1,926	.9999	.3206	36	1.0001	.2976
χ^2 (Sex) = 15.436		df = 9		.10 > p > .05		
χ^2 (Total) = 35.102		df = 19		.02 > p > .01		

(*) Source: See Table 40.

and made all the distributions come out more likely than five in a hundred. We are fairly close in the three largest industrial categories--manufacturing, retail trade, and professional services. With the exception of wholesale trade, which appears to be a major error, most of the rest of the differences occur in industries which do not claim a large proportion of the Newton workers--agriculture and mining; finance, insurance, and real estate; public administration. A small error in these categories tends to raise the value of chi square (and thus lower the probability of the distribution) much more rapidly than an error of equal size in one of the larger categories, since chi square is computed on the ratio of observed to expected frequencies. Although the percentage differences are small, we have almost four times as many as might be expected in agriculture and mining; only about half as many as expected in finance, insurance, etc.; almost three times as many as expected in public administration. Thus minor discrepancies are blown up into large ratios that make our chi square much larger. Had we carried four categories: manufacturing, retail trade, professional services, and "other," the differences would not have been so unlikely. Be that as it may, the industrial grouping of employed persons in our sample represents an unsatisfactory approximation of the grouping of the Newton employed population in 1960.

This concludes our comparisons of the Newton sample of 1963 with the Newton population, aged 18 and over, as revealed by the Census of Population in 1960. The sample is a satisfactory approximation of the census distributions with respect to sex, marital status, education, and occupation. The sample distribution was shown to be unlikely for age, but more likely when sex was held constant. The sample is also apparently biased for income and industrial distributions, and some reasons for these discrepancies were considered.

All in all, the sample was a fairly good representation of the Newton population. Had the original sample been larger, or had we completed the truncated sample that we drew, it might have been even a better representation. No one can say this with certainty, but mathematical considerations dispose me to believe so. The reader may indeed be surprised that a sample of less than two per cent of a population may reproduce the distributions as well as this one did, and certainly I am generally pleased with the outcome. I hope that the analysts of this survey can produce results commensurate with the efforts of its field representatives.

This concludes our examination of the results of the Newton sample for the time being. I say for the time being, for no survey analysis

is ever completed; like a work of art it is simply abandoned. A number of theses and other research efforts are still in process, using data from this survey, at this time. Other researches may utilize the data from time to time, as its relevance may dictate. As additional findings are made, the Iowa Urban Community Research Center will continue to make them available.

As I have been writing this, the whole strategy and execution of the Newton survey looks so straightforward and so simple, and I can view it all so objectively, but I assure the reader that it was not like this two years ago, when the study was actually being done. In the week before April 27, the Center was a madhouse of preparation and arrangements for unforeseen last minute details. It rained the day we opened up the survey, and many of the questionnaires and forms have wrinkles in them that have not quite flattened out in these two years. Our hopes for a completion rate of over 90% went a-glimmering one June night when half the town of Newton apparently deserted their homes to attend a baseball game. One of our interviewers became over-enthusiastic in his persuasive efforts with a refusal case, and a policeman was called. It was just our luck that the policeman had been drawn in the sample, and knew what the interviewing was all about, or we might have had to bail out a disturber of the peace. These are poignant memories that recall anxious moments. On the other hand, I can also remember the energy and dexterity of our field directors, Robert Walsh and Norman Denzin, and the unfailing courtesy and patience of our good host in Newton, Mr. Roland Cook of the Hotel Maytag, and the friendliness of the people in town who became our respondents, and thus made all our efforts pay off. Survey work can be fun, and it is people like these who make it so.

Reports on Research by the Center

1. The Participation of Teachers in School and Professional Affairs: A Survey of Teachers in an Urban Iowa School District. Theodore R. Anderson and James Hill Parker (1964) $1.00

2. The Individual in the Modern Community: A Report on the Newton Community. Edited by William Erbe and Ronald W. Wilson (1965) $1.00