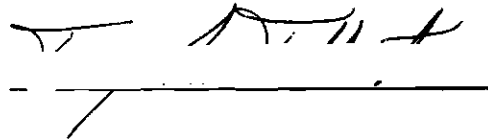


In presenting the dissertation as a partial fulfillment of the requirements for an advanced degree from the Georgia Institute of Technology, I agree that the Library of the Institute shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to copy from, or to publish from, this dissertation may be granted by the professor under whose direction it was written, or, in his absence, by the Dean of the Graduate Division when such copying or publication is solely for scholarly purposes and does not involve potential financial gain. It is understood that any copying from, or publication of, this dissertation which involves potential financial gain will not be allowed without written permission.

A handwritten signature in dark ink, consisting of a series of stylized, connected loops and strokes, positioned above a horizontal line.

7/25/68

RESPONSE BIAS IN SURVEY RESEARCH:
CONSEQUENCES OF INCREASING THE DEMAND TO COMPLY

A THESIS

Presented to

The Faculty of the Division of Graduate
Studies and Research

by

Terry LeGrande Talbert


In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Psychology

Georgia Institute of Technology

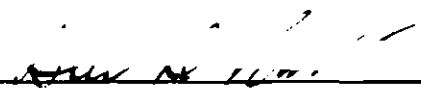
September, 1972

RESPONSE BIAS IN SURVEY RESEARCH:
CONSEQUENCES OF INCREASING THE DEMAND TO COMPLY

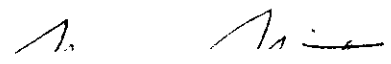
Approved:



C. Michael York, Chairman



Glen D. Baskett



Morris Mitzner

Date approved by Chairman: 15 Nov 1972

ACKNOWLEDGMENTS

Special thanks go to Dr. Thomas D. Cook of Northwestern University, who inspired me to attain a graduate degree in psychology.

For his time, encouragement, guidance, and helpful suggestions, I offer my deepest appreciation to Dr. C. Michael York, my thesis advisor. I would also like to thank Dr. G. Dale Baskett for his comments and aid in computer programming and Dr. Morris Mitzner for his sociological perspectives.

Finally, I express my gratitude for the support I received from my parents and my friends, especially Heidi.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
LIST OF FIGURES	vii
SUMMARY	viii
Chapter	
I. INTRODUCTION	1
Study Background	
The Non-Response Dilemma in Survey Research	
Response Bias in Survey Research	
Independent Variables	
Respondent Income Level	
Study Objectives	
II. METHOD AND PROCEDURE	9
General Research Design	
Test Site and Citizen Samples	
Survey Instrument	
Questionnaire Administration	
Data Reduction	
III. RESULTS	17
Demographic Data on the Respondent Samples	
Findings Relating to Each Hypothesis	
A subsample of Public Housing Occupants	
IV. DISCUSSION	38
Respondent Selectivity	
Response Distortion	
Response Differentiation	

TABLE OF CONTENTS (continued)

	Page
V. RECOMMENDATIONS	48
APPENDICES	
A. FINAL COPY OF THE MEASURING INSTRUMENT. .	51
B. DIFFERENCES BETWEEN RESPONDENT DATA FOR COMPUTER PRINTOUT AND PUBLIC HOUSING AUTHORITY RESIDENTS; BOTH SAMPLES COMBINED	58
C. QUESTIONNAIRE USED IN THE DIRECT MAIL CONDITION AND SUMMARY OF RESPONSES	62
D. QUESTIONNAIRE USED IN THE PERSONAL DELIVERY-AND-PICKUP CONDITION AND SUMMARY OF RESPONSES	70
BIBLIOGRAPHY	78

LIST OF TABLES

Table	Page
1. Population Characteristics and Sample Data	12
2. Summary Distribution of Returns	18
3. Differences between Respondent Data for the Two Delivery Samples	19
4. Questionnaire Return Rates for Two Methods of Delivery	21
5. Comparison of Frequency of "Don't Know" Responses for Direct Mail and Personal Delivery-and-Pickup Respondents	22
6. Comparison of Frequency of "Don't Know" Responses by Item for Direct Mail and Personal Delivery-and-Pickup Respondents	24
7. Content and Frequency of Write-In Suggestions for "Ways to Spend Tax Money More Wisely" by Method of Instrument Administration	25
8. Content and Frequency of Write-In Suggestions for Community Improvements by Method of Instrument Administration	26
9. Comparison of Total Frequency of Write-In Suggestions for "Ways to Spend Tax Money More Wisely" by Method of Instrument Administration	28
10. Comparison of Total Frequency of Write-In Suggestions for Community Improvements by Method of Instrument Administration	28
11. Difference in Favorableness of Rating for Direct Mail and Personal Delivery-and-Pickup Methods.	29

LIST OF TABLES (continued)

Table	Page
12. Return Rates for Public Housing Residents versus Public-at-Large for the Direct Mail Method	31
13. Return Rates for Public Housing Residents versus Public-at-Large for the Personal Delivery Method	31
14. Return Rates for Two Methods of Question- naire Delivery among the Public-at-Large and Public Housing Residents	32
15. Difference in Favorableness of Ratings for Four Income Levels	34
16. Difference in Favorableness of Ratings for the Public-at-Large versus Public Housing Residents	36

LIST OF FIGURES

Figure	Page
1. Research Design for Present Study	10

SUMMARY

A conventional community opinion survey served as a source of information relating to methodological considerations in the collection of data in survey research. The specific areas of emphasis were: (1) the presence or absence of respondent selectivity in the response data, (2) the presence or absence of response distortion through comparison of data collected under two questionnaire delivery conditions, and (3) the significance of the observed respondent selectivity by means of an analysis of response differentiation for various segments of the respondent population.

Respondent selectivity was observed in both methods of instrument administration. The Personal Delivery technique proved to be superior to the Direct Mail method in terms of overall return rate. Respondent selectivity was similar in the two conditions of delivery for two available but arbitrary categories of the respondents' socioeconomic status--Public Housing residents versus the Public-at-Large. Response differentiation was identified for some of the items in the questionnaire. This finding indicated a moderate amount of response bias as effected by the observed differential non-response patterns although item content provided no meaningful interpretation.

Response distortion was measured by the overall favorability in

the ratings and the frequency of "Don't Know" responses among the 35 items to be rated. The favorability of ratings was not different in the two conditions of delivery. However, respondents in the Personal Delivery condition gave significantly more "Don't Know" responses than did respondents receiving the questionnaire by the Direct Mail method.

Hence, four of the six hypotheses dealing with respondent selectivity, response distortion, and response differentiation were confirmed in the present study. The observed response distortion was discussed in terms of the demand characteristics associated with the two methods of instrument administration. The findings suggest a "consistency plus hedonism" model as being operative when responses are made in free-choice situations involving a high demand to comply.

CHAPTER I

INTRODUCTION

Study Background

The success of survey research as a tool for eliciting public attitudes or opinions depends largely on the accuracy of the information gathered in the survey process. Accuracy of the data is influenced by factors such as the sampling procedure, proper wording and content of the questionnaire, and the selection of a method of administering the data instrument that will yield the lowest number of non-responses (Weiss & Hatry, 1971). In attempting to satisfy these considerations, survey researchers have encountered the greatest difficulty with the problem of bias due to non-response. Although a great deal of attention has been directed toward instrument refinement, relatively little consideration has been given to the mechanical administration of surveys (Hinrichs & Gatewood, 1967). A related question concerns the possible bias due to non-response; those who do respond might represent a biased selection among the original addressees.

The Non-Response Dilemma in Survey Research

The problem of non-response has plagued survey researchers ever since they first realized that not all people cooperate by filling

out and returning questionnaires. The important point about poor response rates is not the reduced size of the sample, which could easily be overcome by sending out more questionnaires, but the possibility of bias. This is because almost invariably the returns are not representative of the original sample drawn. Oppenheim (1966, p. 34) has emphasized that non-response is not a random process; it has its own determinants, which vary from survey to survey.

This conclusion has been demonstrated by a number of survey researchers, notably Franzen & Lazarsfeld (1945, p. 297) who reported non-response bias with respect to geographic location, income level, educational level, and occupational level. Franzen & Lazarsfeld (1945, p. 294) state:

Studies made on this basis have rather unanimously led to two conclusions. Mail questionnaires are answered more by people who, due to their educational and occupational background, more easily express themselves in writing and by people who are more interested in the topic under discussion. Writing facility is roughly correlated with educational level or socioeconomic status. Interest in the topic, of course, varies with the subject in hand.

Thus, non-response as a potential source of bias in survey research is functionally dependent on the socioeconomic status of the original addressees and the topic or subject of the questionnaire.

Response Bias in Survey Research

Selltiz, Jahoda, Deutsch, & Cook (1959, p. 69) consider the method of distribution to be one of the major points at which bias is introduced into survey research. This bias is usually associated with

the differential non-response patterns characteristic of various distribution techniques. There is, however, another possible source of bias associated with the various distribution techniques, i. e., response distortion contingent upon the specific conditions present at the time the responses are made.

Response distortion can best be understood, conceptually, by considering the demand characteristics present in the testing situation (Orne, 1962). The proximity of the test administrator and the testee, the specific context within which the test is taken, and the testee's evaluative apprehension are some of many variables which can operate to effect response distortion in any given testing situation.

In survey research, the presence or absence of demand characteristics in the testing situation is a function of the technique of survey administration. Traditionally, survey research has been unique in this respect in that it affords the person who receives the questionnaire the choice of either responding or not responding. This specifies a "free-choice" situation in which the person may choose not to respond. In recent attempts to reduce the non-response dilemma, survey research specialists have sought methods and procedures to alter the demand characteristics of the data collection process in order to produce a higher return rate.

What are the consequences of varying these demand characteristics? It is possible that an implied demand to respond may result in

response distortion as a consequence of the demand to comply. In this instance the bias associated with low return rates is reduced, but another possible source of bias is created, i. e., response distortion as a function of the demand characteristics. In attempting to solve one problem, survey researchers may be creating a new one.

Independent Variables

Another source of response bias which may exist as a function of the technique of survey administration is the effect of "anonymity." A study by Edwards (1957) which compared questionnaire and interview techniques found many more "Don't Know" replies and fewer unfavorable responses associated with the survey interview. This difference was attributed to the fact that questionnaire respondents may have had greater confidence in their anonymity. Edwards suggested that these persons felt a greater freedom to express views they feared might be disapproved of or might get them into trouble.

Selltiz, et al. (1959, p. 240), in their reference book mention that

Although an interviewer may assure the respondent that he will not be identified in any way, the respondent may doubt his good faith; since, in most interviewing situations, the interviewer knows either the respondent's name or his address or other identifying information, it is always possible that he may include this information in the completed interview. If a questionnaire is presented as anonymous and there is no apparent identifying information, the respondent may feel greater confidence that his replies will not (or cannot) be identified as coming from him.

Other researchers have dealt more directly with the "anonymity effect" and have found differences in responses for "identified" versus "anonymous" subjects (Benson, 1941; Elinson & Haines, 1950; Green, 1951; Kahn, 1951; Klein, Maher & Dunnington, 1967; Metzner & Mann, 1952; Wesman, 1952). A study by Dunnette & Heneman (1956) focused on the notion of perceived threat as a function of lack of "psychological anonymity." Although all respondents were literally anonymous, "psychological anonymity" was varied by having the questionnaire administered by either a research staff member from outside the subjects' organization (Low-Threat) or an official from the firm in which the survey was being conducted (High-Threat). They, too, found more favorable responses under the High-Threat condition. The general conclusion relating to the use of questionnaires or interviews is that care must be taken in both content and method to assure minimum distortion attributable to threat associated with respondent identification.

Thus, response bias may be effected in part by the demand characteristics or anonymity effect associated with the method of survey administration. Theoretically, it would be difficult to isolate the two effects in survey research. However, the presence or absence of response distortion as a function of demand characteristics and/or anonymity effect specific to a certain method of survey administration can be tested by comparing the responses obtained from two or more

techniques of survey administration.

Respondent Income Level

Another consideration in the study of this problem is to compare people who have and have not answered the questionnaire submitted to them. There is substantive evidence indicating that individuals of lower economic status answer questionnaires less frequently than do individuals of higher economic status (Franzen & Lazarsfeld, 1945; Hochstein & Athanasopoulos, 1970; Wallace, 1954). Survey data obtained in the present study of one southern town provide the opportunity to evaluate the general response rate and the response rate specific to both high and low economic groups in terms of instrument delivery method.

In addition, by comparing the responses obtained in the questionnaire with respect to certain demographic data, specifically income level, it will be possible to determine whether these characteristics differentiate responses in the questionnaire. An analysis with respect to the income level of those who answered the questionnaire will have direct relevance for the comparison of return rates for high and low economic groups.

Study Objectives

The present study was designed to focus on return rates and possible response biases associated with two methods of survey administration. Direct Mail and Personal Delivery-and-Pickup, two con-

ventional instrument distribution techniques, served as the experimental conditions. A cooperative municipality in Georgia permitted the two conditions of distribution in a current opinion survey of its citizenry.¹ The present investigator directed the survey sponsored by the town manager.

The following hypotheses will be tested:

- H₁: In the methods comparison, response rate will be higher for the Personal Delivery-and-Pickup condition.
- H₂: Individuals who receive the questionnaire by the more personalized Delivery-and-Pickup method will demonstrate response bias in the form of more "Don't Know" responses than will residents in the Direct Mail condition.
- H₃: Individuals in the Personal Delivery-and-Pickup condition will demonstrate response bias by responding with a greater overall

¹Increased attention is being given to the neighborhood as a focus for program administration and for citizen participation, as municipal leaders seek to make the city more manageable (Hallman, 1971). The reorganization of local authorities into bigger units has created a remoteness of administration and consequently has made it necessary for some means to be found by which the ordinary man and woman may at least voice an opinion (Swaffield, 1971).

One way to reduce the sense of remoteness is through the use of survey research which elicits attitudes and opinions from individuals toward selected aspects of city management. Community survey research has been found to be a useful tool in the process of effective municipal management (Farnsley, 1965). In addition, research of this nature is generally perceived by the public as an attempt on the part of city management to become more sensitive to community problems and public needs.

favorability of ratings than that of the subjects in the Direct Mail condition.

- H₄: Individuals of lower economic status will demonstrate a lower return rate in both methods of survey administration in contrast with persons of higher economic status.
- H₅: Individuals of lower economic status will respond differently as a function of the method of delivery. Persons in the Direct Mail condition will respond at a lower rate than those in the Personal Delivery-and-Pickup condition.
- H₆: For those individuals who return the questionnaire, there will be response differences with respect to income level.

CHAPTER II

METHOD AND PROCEDURE

General Research Design

The present study was related to a community opinion survey sponsored by the local government in a Georgia town of about 30,000 population. A tailor-made questionnaire was administered by the staff of the municipal government using two delivery techniques--Direct Mail and Personal Delivery-and-Pickup by a staff member. This arrangement served as one independent variable in the present study. In addition, all questionnaires were coded for economic status of the addressee by an arrangement of staples. The code for economic status was based on the addressee's type of housing. Persons who lived in public housing developments and were selected in the two samples were assumed to have a low annual income and were, therefore, designated as the low-status economic group. Thus, economic status is defined as the second independent variable in the present study.

These two independent variables allowed comparisons to be made on the basis of three dependent variables: return rate, overall favorability of ratings, and percentage of "Don't Know" responses. The general research design can be seen in Figure 1.

Independent Variables		Dependent Variables
Method of Delivery:	Direct Mail	Return Rates
	Personal Delivery	Overall Favorability of Ratings
Economic Status:	Low Economic Status	Percentage of "Don't Know" Responses
	Average to High Economic Status	

Figure 1. Research Design for Present Study.

Test Site and Citizen Samples

The present study was conducted in Marietta, Georgia, whose population is 27,216. The experimental population was defined as all housing units within the city limits of Marietta. This population was derived from a list of public utilities (Parten, 1950, pp. 266-268). A computer printout program of address labels for utility billings yielded a total of 7,012 housing units. To make the representativeness of the population more adequate, the 7,012 housing units derived from the computer printout were supplemented by the addition of 1,265 housing unit addresses which were obtained from the local public housing authority. These additional housing units represent low-income families living in public housing who were not included in the utility billing address program. This yielded a total of 8,277 housing units which was defined as the population of all housing units within the city limits and

was assumed to include families of all socioeconomic levels living within the city limits.

Two random samples were selected from this population of addresses by assuming a random starting point and proceeding to select every n th name throughout the list to produce two samples of 2,500 and 700 households, respectively designated as the Direct Mail (2,500) and the Personal Delivery-and-Pickup (700) samples.

The 2,500 households in the Direct Mail sample consisted of 2,119 addresses as derived from the computer printout of utility billings and 381 addresses as derived from the Marietta Housing Authority's roster of low-income families living in public housing units. Likewise, the 700 addresses included in the Personal Delivery-and-Pickup sample included 593 households from the computer printout list and 107 households from the Marietta Housing Authority list. Table 1 shows a breakdown of the two samples.

Survey Instrument

Development of the instrument involved the selection of community issues and other questions regarding municipal management that would be of practical value in the management of city funds. This task was accomplished through review of prior surveys and consultation with staff members in the cooperating municipality.

After deciding what the content of the instrument should be, a

Table 1

Population Characteristics and Sample Data

Population of Marietta, Georgia	27,216
Occupied Housing in 1970	8,667
Addresses Derived from Computer Printout of Public Utility Listings	7,012
Addresses Derived from Listings Obtained from Marietta Housing Authority (Low Income Public Housing)	1,265
Total Population of Households from Which Samples Were Drawn	8,277
<u>Direct Mail Sample</u>	<u>Personal Delivery Sample</u>
Computer Printout 2,119	Computer Printout 593
Public Housing <u>381</u>	Public Housing <u>107</u>
<u>N</u> 2,500	<u>N</u> 700

questionnaire was designed to measure public attitudes toward these issues and city management questions. Development of the questionnaire was guided by readings from Selltiz, et al. (1959), Edwards (1957), Festinger (1966), Maxwell (1961), Oppenheim (1966), Payne (1951), Weiss & Hatry (1971), Willbern & Williams (1971), and Yates (1949). The resultant product was a six-page questionnaire accompanied by a one-page instruction sheet.

Part I of the instrument dealt with ratings of 35 city services

on a 5-point Likert scale designated on the instrument as: excellent (5), good, average, below average, and poor (1). In addition, a column marked "Don't Know" was provided for each item. Part II was concerned with the expenditure of city funds and consisted of a series of multiple-choice items. Parts III, IV, and V pertained to certain community issues and problems; and Part VI dealt with certain respondent characteristics.

The instrument was based on the rationale for itemized rating scales as a valid method for measuring attitudes, specified in Selltiz, et al. (1959, p. 347). The fixed alternative type of question was used almost exclusively because of the precise nature of the information desired (Krech, Crutchfield, & Ballachey, 1962, p. 170; Scott, 1968, p. 211). However, two open-ended questions were also included in the instrument which allowed the respondent to reply in whatever terms and whatever frame of reference he chose, not being restricted to predetermined categories (Krech, et al., 1962, p. 170; Scott, 1968, p. 211). A content analysis was performed on these items in accordance with the methodology described in Selltiz, et al. (1966, pp. 335-342).

Using small samples from the community, several pretests were performed to check the adequacy of the instrument. The procedure involved having individuals "think out loud" as they read and answered the questions, and on the basis of these pretests, several refinements were made. The final copy of the measuring instrument can be seen in Appendix A.

In addition, it was possible to code the questionnaires for economic status by the placement of staples in the copy. This system provided a means for comparing the return rates for the public-at-large versus individuals of low economic status as defined by the selection of their addresses from the utility billing printout or from the public housing authority listings.

Questionnaire Administration

Questionnaires were administered by the staff of the municipal government using two conventional methods of delivery: (1) Direct Mail and (2) Personal Delivery-and-Pickup by a staff member. This allowed a comparison of return rates for the two methods and also a comparison of response distortion specific to the two methods.

Direct Mail: 2,500 questionnaires were sent out by the Direct Mail method of delivery. Envelopes were addressed to the head of the household. An accompanying instruction sheet asked the addressee, or any adult member of his household, to complete the questionnaire and return it to City Hall by means of the self-addressed, postage-paid envelope provided for this purpose.

A period of two weeks was designated as the time allowed for receiving the completed forms. All questionnaires received after this two-week period were not included in the present analysis.

Personal Delivery-and-Pickup: 700 questionnaires were personally de-

livered to the homes of the addressees by city employees. To insure personal contact between the employee and the addressee, alternate addresses were provided for each primary address. Employees were instructed to use the alternate address if no one was present at the primary address.

Addressees were told that the questionnaire pertained to ratings of city services and the management of city funds and were asked to complete the form and hang it, by means of a plastic bag which was provided, on their front door knob. The employee then said he would return the next day sometime after 5:00 P.M. to pick up the completed form, should the addressee decide to fill it out. An accompanying instruction sheet read:

This questionnaire was personally delivered to your home. Please complete it and hang it, by means of the plastic bag, on your front door knob. Our representative will be by tomorrow sometime after 5:00 P.M., to pick up the completed form.

Data Reduction

When all questionnaires had been returned, each addressee's responses were coded by hand onto code sheets and, subsequently, punched onto computer cards. This procedure resulted in one computer card punched through 78 columns for each questionnaire returned.

The two open-ended questions in the questionnaire were not coded or represented on computer cards. Each individual's response was typed on 3 by 5 index cards and a content analysis was performed.

Analysis of the survey data resulted in frequency distributions and summary data (such as item response means and variabilities). Tests for significant differences of return rates were performed with respect to the two methods of questionnaire distribution and socioeconomic status of the respondent. The test for the presence or absence of response biases was accomplished by an analysis of the differential count of "Don't Know" responses for individual items on the questionnaire and the comparison of the overall favorability of ratings for the two methods of survey administration, as in Edwards (1957). Analyses of variance, chi square tests, and the Kolmogorov-Smirnov two-sample test were used for these purposes.

CHAPTER III

RESULTS

A summary distribution of returns for both methods of instrument administration is presented in Table 2. Fifty-nine of 2,500 questionnaires mailed in the Direct Mail condition were returned as undeliverable (i. e., the resident to whom the questionnaire was addressed had moved). Of the 2,441 copies delivered in this condition, 753 were returned--a response rate of 30.8 per cent which is relatively high for mail surveys. A response rate of 55.7 per cent was realized for the experimental condition of Personal Delivery-and-Pickup (390 returns from 700 deliveries). Clearly, the Personal Delivery technique proved to be superior in terms of return rate ($\chi^2 = 154.0$; 1 df, $p < .01$).

Demographic Data on the Respondent Samples

A comparison of the personal history data obtained from the usable questionnaires is shown in Table 3. Similar respondent profiles were obtained for both conditions of instrument administration with respect to age, marital status, race, income, years lived inside the city limits, location of work, voting registration, and type of housing.

Educational level of the respondent, in the Direct Mail and Personal Delivery samples, was the only significantly different self-

Table 2
Summary Distribution of Returns

<u>Direct Mail</u>		
Mailed	2,500	
Returned as Undeliverable	59	
Total Delivered	2,441	
Returned Blank	6	
Returned Late	35	
Returned and Included in Analysis	712	
Total Returns		753
<u>Personal Delivery-and-Pickup</u>		
Total Delivered	700	
Returned Blank	24	
Returned and Included in Analysis	366	
Total Returns		390

reported personal history variable ($\chi^2 = 16.2$; 3 df, $p < .01$). Persons responding to the Direct Mail condition were more likely to be college graduates (35%) than were those responding to the Personal Delivery condition (23%).

Table 3
Differences between Respondent Data for the Two Delivery Samples

AGE		$(\chi^2 = .32; 4 \text{ df, N.S.}^a)$				
		Under 30	30-40	40-50	50-60	Over 60
DM		176(25%) ^b	118(17%)	159(22%)	134(19%)	113(16%)
PD		94(26%)	62(17%)	78(21%)	67(18%)	60(16%)

EDUCATION		$(\chi^2 = 16.19; 3 \text{ df, } p < .01)$			
		8th Grade or Less	Some High School	High School Graduate	College Graduate
DM		50(7%)	68(10%)	330(46%)	246(35%)
PD		32(9%)	52(14%)	182(50%)	85(23%)

MARRIED- SINGLE		$(\chi^2 = .31; 1 \text{ df, N.S.})$	
		Married	Single
DM		595(84%)	103(14%)
PD		302(83%)	49(13%)

RACE		$(\chi^2 = 1.27; 2 \text{ df, N.S.})$		
		Black	White	Other
DM		36(5%)	663(93%)	1(0%)
PD		20(5%)	334(91%)	2(1%)

INCOME		$(\chi^2 = 10.70; 3 \text{ df, N.S.})$			
		Under \$5,000 per Year	\$5,000- \$10,000	\$10,000- \$15,000	Over \$15,000 per Year
DM		104(15%)	221(31%)	181(25%)	156(22%)
PD		68(19%)	129(35%)	73(20%)	59(16%)

Table 3 (continued)

YEARS LIVED INSIDE CITY LIMITS OF MARIETTA ($\chi^2 = 1.55$; 3 df, N.S.)

	Under 2 Years	2-5	5-10	Over 10 Years
DM	89(13%)	100(14%)	78(11%)	418(59%)
PD	48(13%)	52(14%)	48(13%)	200(55%)

WORK WITHIN CITY LIMITS? ($\chi^2 = 1.83$; 2 df, N.S.)

	Yes	No	Do Not Work
DM	275(39%)	300(42%)	94(13%)
PD	148(40%)	142(39%)	58(16%)

ARE YOU A REGISTERED VOTER? ($\chi^2 = 1.03$; 1 df, N.S.)

	Yes	No
DM	548(77%)	130(18%)
PD	270(74%)	77(21%)

ARE YOU A HOMEOWNER

OR

DO YOU RENT EITHER A HOUSE OR AN APARTMENT? ($\chi^2 = 8.08$;
2 df, N.S.)

	Homeowner	Rent a House	Rent an Apartment
DM	493(69%)	57(8%)	135(19%)
PD	223(61%)	38(10%)	91(25%)

^aNot significant at the .01 level of significance.^bPercentages do not add up to 100% due to the failure of some respondents to answer the question. Chi square analyses are based on the raw count of respondents. Direct Mail (DM), N = 712; Personal Delivery (PD), N = 366.

Findings Relating to Each Hypothesis

The data bearing on each of the testable statements developed in the Introduction will now be reported, in sequence.

Hypothesis 1. In the present community opinion survey, a higher questionnaire return rate was predicted for the Personal Delivery method in contrast with the Direct Mail method of instrument administration to the intended respondents. Although a prevailing assumption among survey research specialists, no empirical instances involving the same instrument to all samples were uncovered in the literature. Table 4 reveals the data which confirm this initial hypothesis.

Table 4
Questionnaire Return Rates for Two Methods of Delivery

Return Rate	Method of Instrument Administration	
	Direct Mail	Personal Delivery
Copies Delivered	2,441 ^a	700
Copies Returned	753	390
Rate of Return	30.8%	55.7%**

^aOf 2,500 mailed.

** chi square of 154.0; 1 df, $p < .01$.

Hypothesis 2. The more complex and less data-supported issue of response distortion was also tested in accordance with the second and third hypotheses. "Distortion" was operationally defined as the

comparative number of "Don't Know" responses (H_2) and favorability in the ratings (H_3) with respect to the two methods of administration.

Table 5 shows a distribution of the total number of rated items and "Don't Know" responses for 35 rated city services and attributes by instrument delivery method. The "Don't Know" response was an option to the traditional 5-point Likert scale for each of the stimulus items. Of the 24,920 responses obtained in the Direct Mail condition, 3,885 were marked "Don't Know." In the Personal Delivery condition, 2,213 out of 12,800 responses were marked "Don't Know." Each respondent was scored for "Don't Know" responses (DK scores). These DK scores could range from 0 to 35. Examination of the data revealed that the distribution of DK scores in both conditions was highly skewed. The non-parametric Kolmogorov-Smirnov two-sample test indicated a significantly greater number of "Don't Know" responses in the Personal Delivery method ($d\text{-max.} = .1272$; $p < .01$), thus confirming Hypothesis 2.

Table 5

Comparison of Frequency of "Don't Know" Responses
for Direct Mail and Personal Delivery-and-Pickup Respondents

Type of Response	Direct Mail	Personal Delivery
Number of Rated Items	21,035	10,587
Number of "DK" Responses	3,885	2,213

Chi square analyses with respect to delivery method were per-

formed for each of the 35 stimulus items and are presented in Table 6. On this response dimension, four (11%) of the chi square values approached the .01 level of significance. The content associated with these "Don't Know" responses provided no meaningful interpretation (public school facilities, urban renewal, city employee courtesy and quality).

The write-in responses. Content analyses were performed for the two open-ended questions in the questionnaire. Category content and frequency of occurrence by delivery method for the question, "In What Way Do You Think Your Tax Money Could Be More Wisely Spent?" are presented in Table 7. Category content and frequency of occurrence by delivery method for the question, "What Are The Three Most Important Things That Need To Be Changed, Fixed Up, Stopped Or Started In Order To Make Marietta A Better Community?" are presented in Table 8. Examination of the category content and frequency of occurrence for both questions indicates no serious qualitative differences for the type of suggestions given in the Direct Mail and Personal Delivery conditions ($\chi^2 = .39$; 8 df, and $\chi^2 = 5.94$; 14 df, insignificant).

The total frequency of write-in suggestions for the two open-ended questions was examined with respect to delivery method. As previously noted, significantly more "Don't Know" responses were obtained in the Personal Delivery condition for the 35 stimulus items which were rated on a fixed alternative scale. For those 35 items a column marked

Table 6

Comparison of Frequency of "Don't Know" Responses by Item
for Direct Mail and Personal Delivery-and-Pickup Respondents

Services and Attributes	Direct Mail		Personal		χ^2
	Rating	DK	Rating	DK	
1. Garbage Collection	708	4	365	1	.44
2. Trash Collection	691	21	350	16	1.45
3. Housing Inspection Program	358	354	164	202	2.88
4. Public Libraries	651	61	318	48	5.51
5. Enforcement of Traffic Laws	685	27	344	22	2.78
6. Street Maintenance & Cleaning	707	5	350	6	2.17
7. Sewer Service	614	98	304	62	1.94
8. Plumbing Inspection	329	383	166	200	.72
9. Urban Renewal	514	198	233	133	8.17**
10. Enforcement of Criminal Laws	629	83	316	50	2.99
11. Public School Facilities	656	56	319	47	6.89**
12. Public School Teachers	618	94	312	54	.51
13. Voting Facilities	631	81	323	43	.03
14. Tax Assessment	595	117	301	65	.22
15. Police Protection	697	15	355	11	.85
16. Courtesy of City Employees	685	27	336	30	9.27**
17. Parks, Playgrounds, & Picnic Areas	655	57	331	35	.76
18. Planned Recreation Programs	541	171	287	79	.80
19. Fire Protection	658	54	338	28	.00
20. Storm Water Drainage	596	116	306	60	.00
21. Electrical Inspection	357	355	188	178	.16
22. Quality of City Employees	597	115	283	83	6.89**
23. Zoning Enforcement	506	206	257	109	.09
24. Water Supply	681	31	349	17	.05
25. Business License Procedures	383	329	182	184	1.59
26. Shopping Facilities	705	7	361	5	.30
27. Electrical Service	677	35	347	19	.04
28. Traffic Signals and Signs	704	8	362	4	.00
29. City Planning/Development Program	504	208	261	105	.03
30. Fire Prevention Program	551	161	280	86	1.04
31. Integrity of City Employees	520	192	255	111	1.35
32. Enclosed Large Public Meeting Place	518	194	268	98	.25
33. Parking in the Business District	693	19	351	15	1.67
34. General Appearance of Marietta	711	1	362	4	4.74
35. Marietta as a Place to Live	710	2	363	3	1.52

** chi square values less than .01 significance.

Table 7

Content and Frequency of Write-In Suggestions for "Ways to Spend Tax Money More Wisely" by Method of Instrument Administration

Categories of Citizen Ideas	Questionnaire Delivery Method	
	DM ^a	PD
A. More Efficiency in General/ Better Management	(45) 13.6%	(22) 13.9%
B. Better Roads and Sidewalks	(36) 10.8%	(17) 10.8%
C. Eliminate Travel Expense Accounts for City Officials	(36) 10.8%	(17) 10.8%
D. Better School Program	(33) 9.9%	(15) 9.5%
E. Better Police Protection/ Crime Prevention	(24) 7.2%	(10) 6.3%
F. Better, More Competent Elected Officials and City Employees	(14) 4.2%	(7) 4.4%
G. Better Recreational Facilities/Parks	(13) 4.0%	(7) 4.4%
H. Better Long Range Planning	(13) 4.0%	(5) 3.2%
I. Other Suggestions ^b	(118) 35.5%	(58) 36.7% ^c

^aDirect Mail (712 returns); Personal Delivery (366 returns).

^bOther suggestions included the following categories not listed due to their low frequency of occurrence; Traffic Control/Parking; General Improvement of City Services; Eliminate Unnecessary Jobs in City Government/Get Rid of "Dead Wood"; Beautification; More Discreet Spending; Better Purchasing/Competitive Bidding; Honesty in City Government/No Special Interests; Improved Street Lighting; Abolish Council-Manager Form of Government; Better Business/Various Business Suggestions; More Help for the Underprivileged; Consolidation with County Government; Let the City Manager Run the City without Interference; Evaluation of City Employee's Salaries; More Low Rent Housing; Evaluation of Hospital Facilities; More Direct Benefits to the Taxpayer; Environmental Control.

^cchi square of .39; 8 df, N.S.

Table 8

Content and Frequency of Write-In Suggestions
for Community Improvements
by Method of Instrument Administration

Categories of Citizen Ideas	Questionnaire Delivery Method	
	DM ^a	PD
A. Improve Parks, More and Better Recreational Facilities	(124) 9.3%	(60) 9.4%
B. Improve, Repair, Widen Streets	(112) 8.3%	(52) 8.1%
C. Beautification	(105) 7.8%	(56) 8.8%
D. Better Police Protection	(87) 6.5%	(32) 5.0%
E. Better Traffic Control	(82) 6.1%	(40) 6.3%
F. Better Schools, School Facilities, Teachers, Busing	(77) 5.7%	(39) 6.1%
G. Attention to Zoning, Housing Inspection, City Planning	(60) 4.5%	(31) 4.9%
H. Better Cooperation among City Officials (Mayor, Council, Manager)	(55) 4.1%	(32) 5.0%
I. Improvements in Downtown Marietta and the Square	(55) 4.1%	(30) 4.7%
J. Enforcement of Laws, City Ordinances	(51) 3.8%	(24) 3.8%
K. Improve Utilities, Sewerage Treatment, Trash/ Garbage Collection	(48) 3.6%	(27) 4.2%
L. Urban Renewal	(45) 3.4%	(15) 2.3%
M. Suggestions for Improving Local City Government	(44) 3.3%	(21) 3.3%
N. Change in Political Representation	(39) 2.9%	(20) 3.1%
O. Other Suggestions ^b	(356) 26.6%	(160) 25.0% ^c

^aDirect Mail (712 returns); Personal Delivery (366 returns).

^bOther suggestions included the following categories not listed due to their low frequency of occurrence: More Efficiency in City Spending, Less Unnecessary Expenditures; Lower Utility Rates; City and County Consolidation; Better Lighting on Streets; Attention to Problem of Downtown Parking; Completion of I-75 and Loop around Marietta; Better Business, More Jobs, Equal Employment; Provide Public Transportation; Start Building a City Auditorium/City Center; More and Better Sidewalks; Attention to the Drug Problem; Resolve Question of Legalized Liquor in Marietta and Cobb County; Lower Taxes; Attention to Problem of Railroad Crossings; Better Hospital Facilities/Ambulance Service; Improve Courts; Better Fire Protection.

^cchi square of 5.94; 14 df, N.S.

"Don't Know" was provided. A similar analysis for the two open-ended questions involved comparing the number of questionnaires received to the number of write-in suggestions given. The frequency by delivery method of write-in suggestions for the two open-ended questions is presented in Tables 9 and 10. Chi square analyses revealed no significant differences between the two conditions of delivery with respect to number of write-in suggestions ($\chi^2 = .53$; 1df, and $\chi^2 = 1.19$; 3 df, insignificant).

Hypothesis 3. The average rating, by delivery condition, is given in Table 11 for each of the 35 city attributes. Twenty-four of the means for the Personal Delivery respondents are more favorable than the average response of the other method's group. But, tests for statistical significance by means of one-way analyses of variance revealed only one significant p value at the .05 level, and thus no support for Hypothesis 3 was found.²

²An overall multivariate analysis for the 35 variables combined was not appropriate because of the high incidence of "Don't Know" responses and missing data for most subjects on at least one of the 35 variables. Such an analysis would have treated "Don't Know" responses and items unmarked as missing data, and consequently, any subject who failed to rate one of the 35 variables would have been discarded from the analysis. This would have resulted in a high frequency of unusable respondents and would have limited the representativeness of the analysis.

Analyses of variance were performed for each of the 35 items separately and in accordance with Dunnette & Heneman's (1956) observation that the crucial variable is item-content, demanding separate analysis.

Table 9

Comparison of Total Frequency of Write-In Suggestions
for Ways to Spend Tax Money More Wisely
by Method of Instrument Administration

Suggestion Rate	Questionnaire Delivery Method	
	DM	PD
Number of Questionnaires Received	712	366
Number of Write-In Suggestions	332	158 ^a

^achi square of .53; 1 df, N.S.

Table 10

Comparison of Total Frequency of Write-In Suggestions
for Community Improvements
by Method of Instrument Administration

Suggestion Rate	Questionnaire Delivery Method	
	DM	PD
0 Suggestions	149	84
1 Suggestion	52	29
2 Suggestions	63	35
3 Suggestions	448	218 ^a

^achi square of 1.19; 3 df, N.S.

Table 11

Difference in Favorableness of Rating for
Direct Mail and Personal Delivery-and-Pickup Methods

Services and Attributes	Average Rating 1-5		p ^a
	DM	PD	
1. Garbage Collection	3.781	3.811	.6803
2. Trash Collection	3.391	3.496	.1878
3. Housing Inspection Program	2.876	2.890	.9013
4. Public Libraries	3.990	4.020	.6416
5. Enforcement of Traffic Laws	3.503	3.593	.2077
6. Street Maintenance/Cleaning	3.153	3.198	.5490
7. Sewer Service	3.679	3.733	.5435
8. Plumbing Inspection	3.191	3.071	.3075
9. Urban Renewal	2.989	3.200	.0305*
10. Enforcement of Criminal Laws	3.428	3.498	.6335
11. Public School Facilities	3.614	3.622	.9012
12. Public School Teachers	3.654	3.663	.8895
13. Voting Facilities	3.606	3.562	.5239
14. Tax Assessment	3.443	3.469	.6848
15. Police Protection	3.697	3.712	.8204
16. Courtesy of City Employees	3.670	3.784	.1013
17. Parks, Playgrounds	2.748	2.737	.8837
18. Planned Recreation Programs	2.827	2.892	.5266
19. Fire Protection	4.159	4.104	.3003
20. Storm Water Drainage	3.276	3.220	.5114
21. Electrical Inspection	3.302	3.285	.8676
22. Quality of City Employees	3.568	3.562	.9138
23. Zoning Enforcement	2.896	3.034	.1359
24. Water Supply	4.026	4.108	.1190
25. Business License Procedures	3.454	3.461	.9476
26. Shopping Facilities	3.759	3.747	.8610
27. Electrical Service	3.937	3.985	.5902
28. Traffic Signals and Signs	3.427	3.448	.7535
29. City Planning	2.906	2.950	.6403
30. Fire Prevention Program	3.837	3.773	.6727
31. Integrity of City Employees	3.582	3.546	.6225
32. Enclosed Public Meeting Place	2.203	2.219	.8605
33. Parking in Business District	2.496	2.602	.1723
34. General Appearance of Marietta	3.153	3.234	.2440
35. Marietta as a Place to Live	4.039	4.036	.9510

^aProbability of obtaining F ratio greater than obtained value if null hypothesis is true.

* $p < .05$ for F ratio; sample N of 712 (DM) and 366 (PD).

Hypothesis 4. The prediction in this case is that individuals of lower economic status (public housing residents) would demonstrate a lower return rate in both methods of survey administration, in contrast with persons living in the usual residential facilities. Inspection of the returns data revealed a 31.4 per cent rate by the public-at-large (average to high economic status implied) whereas the public housing residents responded at a significantly lower rate (12.3%). In terms of the instrument delivery system, the response rate to the personalized Personal Delivery method was a high of 58.2 per cent for the general citizenry and only 19.6 per cent among the tenants of public housing in this small Georgia town. Tables 12 and 13 summarize these findings. The earlier data of Franzen & Lazarsfeld (1945), Hochstein & Athanasopoulos (1970, and Wallace (1954) are thus confirmed in a different geographic region and kind of survey. The person of higher socioeconomic status continues to respond more frequently to requested participation in survey research.

Hypothesis 5. Return data was computed with respect to the public housing subsample of 68 respondents. They responded at a higher rate (19.6%) in the Personal Delivery condition in contrast with a 12.3 per cent rate for the Direct Mail request from City Hall. Inspection of the data in terms of the two methods conditions and the two respondent segments indicated that 15.2 per cent of the recipients in the Direct Mail condition and 15.3 per cent in the Personal Delivery

Table 12

Return Rates for Public Housing Residents versus
Public-at-Large for the Direct Mail Method

Return Rate	Public-at-Large	Public Housing
Delivered	2,119	381
Returned	665	47
Return Rate	31.4%	12.3%**

** chi square of 58.1; 1 df, $p < .01$.

Table 13

Return Rates for Public Housing Residents versus
Public-at-Large for the Personal Delivery Method

Return Rate	Public-at-Large	Public Housing
Delivered	593	107
Returned	345	21
Return Rate	58.2%	19.6%**

** chi square of 16.5; 1 df, $p < .01$.

condition were public housing residents. Of the total number of questionnaire respondents, public housing residents represented 6.6 per cent of the total number received in the Direct Mail condition and 5.7 per cent of respondents in the Personal Delivery condition. It appears that although the response rate for public housing residents was higher in the Personal Delivery condition, this difference is attributable to the technique's effect on response rate at all socioeconomic levels, not being specific to the low income group. Chi square analysis of the relative increase in response rate for public housing residents as compared to the relative increase for the public-at-large was not significant ($\chi^2 = .28$; 1 df, insignificant), and Hypothesis 5 was rejected (Table 14).

Table 14

Return Rates for Two Methods of Questionnaire Delivery
among the Public-at-Large and Public Housing Residents

Delivery Method	Public-at-Large	Public Housing
Direct Mail	31.4% (665)	12.3% (47)
Personal Delivery	58.2% (345)	19.6% (21) ^a

^achi square of .28; 1 df, N.S.

Hypothesis 6. Because persons of lower socioeconomic status demonstrated a significantly lower return rate in the present study, one

might question the representativeness of the data. However, even if the presence of respondent selectivity is admitted, the practical significance of the issue must be considered. It is quite possible that questionnaire returns are biased in regard to the characteristics of the respondents without biasing the desired result. Crucial in answering this question is the nature of the topic of interest or content of the instrument (Franzen & Lazarsfeld, 1945, p. 296).

To answer this question, item response means were calculated with respect to the income level of the respondent as determined from the demographic data available. Four income levels were specified: under \$5,000 a year, \$5,000-\$10,000, \$10,000-\$15,000, and over \$15,000 a year. A simple one-way analysis of variance was performed to test for response mean difference with respect to the four income levels. Means and p values are given in Table 15. Of the 35 items, 11 reached significance at the .05 level. This finding confirms Hypothesis 6, indicating that response distortion as a function of selective non-response patterns is present in some of the items on the questionnaire.

The content associated with the 11 items provided no meaningful interpretation (garbage collection; police protection; courtesy of city employees; parks, playgrounds, and picnic areas; storm water drainage; zoning enforcement; shopping facilities; city planning/development program; enclosed public meeting place; parking in the business dis-

Table 15

Difference in Favorableness of Ratings for Four Income Levels

Services and Attributes	Under \$5,000	\$5,000- 10,000	\$10,000- 15,000	Over \$15,000	<u>p</u>
1. Garbage Collection	3.70	3.64	3.83	4.02	.0010*
2. Trash Collection	3.38	3.34	3.44	3.53	.3317
3. Housing Inspection Program	2.99	2.82	2.79	2.92	.6687
4. Public Libraries	4.09	4.08	3.94	3.91	.0744
5. Enforcement of Traffic Laws	3.62	3.55	3.56	3.49	.7270
6. Street Maintenance/Cleaning	3.22	3.21	3.05	3.24	.2176
7. Sewer Service	3.60	3.69	3.78	3.75	.3803
8. Plumbing Inspection	3.17	3.19	3.04	3.18	.7710
9. Urban Renewal	2.82	3.20	3.02	3.01	.0637
10. Enforcement of Criminal Laws	3.33	3.43	3.47	3.60	.1497
11. Public School Facilities	3.50	3.71	3.66	3.52	.0686
12. Public School Teachers	3.71	3.71	3.66	3.56	.2904
13. Voting Facilities	3.59	3.61	3.56	3.61	.9122
14. Tax Assessment	3.43	3.43	3.49	3.48	.8549
15. Police Protection	3.57	3.61	3.82	3.87	.0026*
16. Courtesy of City Employees	3.79	3.65	3.60	3.87	.0235*
17. Parks, Playgrounds	2.77	2.88	2.66	2.55	.0132*
18. Planned Recreation Programs	2.65	2.92	2.85	2.78	.2137
19. Fire Protection	4.03	4.10	4.20	4.23	.0571
20. Storm Water Drainage	3.19	3.16	3.23	3.50	.0072*
21. Electrical Inspection	3.17	3.26	3.31	3.48	.5997
22. Quality of City Employees	3.58	3.52	3.61	3.60	.7024
23. Zoning Enforcement	3.17	3.09	2.82	2.72	.0020*
24. Water Supply	4.11	4.07	4.02	4.02	.6541
25. Business License Procedures	3.54	3.36	3.34	3.61	.1320
26. Shopping Facilities	3.92	4.03	3.67	3.26	.0001*
27. Electrical Service	3.97	3.98	4.00	3.86	.3733
28. Traffic Signals and Signs	3.47	3.48	3.37	3.36	.5004
29. City Planning	3.17	3.10	2.85	2.63	.0004*
30. Fire Prevention Program	3.71	3.81	3.81	3.86	.5532
31. Integrity of City Employees	3.55	3.51	3.53	3.68	.3415
32. Enclosed Public Meeting Place	2.70	2.48	2.03	1.73	.0001*
33. Parking in Business District	2.68	2.63	2.42	2.33	.0058*
34. General Appearance of Marietta	3.26	3.41	3.06	2.94	.0001*
35. Marietta as a Place to Live	3.93	4.07	4.03	4.10	.2664

*p < .05 for F ratio; sample N of 172, 350, 254, 215.

trict; and general appearance of the city).

Another way to address the problem of selectivity in the returns is to compare the item response means for the public-at-large with the average ratings among the public housing respondents. Results of the analysis of variance are presented in Table 16. Significant p values ($p < .05$) were obtained for eight of the 35 stimulus items,³ again indicating response distortion as a function of non-response selectivity.

A Subsample of Public Housing Occupants

Source lists available on the adult public in the present community provided a distinction between persons in homes and apartments and residents of public housing units. In an attempt to gain insight on this indicator of socioeconomic status, the instruments were precoded by means of staple arrangement for purposes of statistical comparison later. The subsamples thus consisted of two kinds of housing facility and implied composition of respondents--those who pay utility bills in homes and apartments and those who do not because of public housing status. Addresses obtained from the local housing authority were designated as the low socioeconomic status group. Data in Appendix B provide a comparison of demographic data for respondents whose names were obtained from the utility listing or the public housing roster.

³The item content was: Garbage Collection, Enforcement of Criminal Laws, Police Protection, Fire Protection, Electrical Inspection, Zoning Enforcement, City Planning/Development Program, Enclosed Large Public Meeting Place.

Table 16

Difference in Favorableness of Ratings
for the Public-at-Large versus Public Housing Residents

Services and Attributes	Public-at-Large	Public Housing	P
1. Garbage Collection	3.81	3.51	.0296*
2. Trash Collection	3.44	3.26	.2927
3. Housing Inspection Program	2.88	2.90	.9242
4. Public Libraries	3.99	4.23	.0526
5. Enforcement of Traffic Laws	3.55	3.33	.1407
6. Street Maintenance/Cleaning	3.18	3.00	.2297
7. Sewer Service	3.70	3.59	.5693
8. Plumbing Inspection	3.18	2.87	.0842
9. Urban Renewal	3.04	3.30	.1798
10. Enforcement of Criminal Laws	3.47	3.16	.0470*
11. Public School Facilities	3.62	3.57	.7414
12. Public School Teachers	3.65	3.81	.1994
13. Voting Facilities	3.59	3.63	.7718
14. Tax Assessment	3.46	3.32	.6559
15. Police Protection	3.74	2.96	.0001*
16. Courtesy of City Employees	3.72	3.53	.1816
17. Parks, Playgrounds	2.74	2.77	.8739
18. Planned Recreation Programs	2.87	2.64	.1650
19. Fire Protection	4.16	3.85	.0057*
20. Storm Water Drainage	3.27	3.09	.3177
21. Electrical Inspection	3.36	2.63	.0001*
22. Quality of City Employees	3.57	3.50	.5987
23. Zoning Enforcement	2.91	3.35	.0147*
24. Water Supply	4.05	4.07	.8599
25. Business License Procedures	3.45	3.51	.7298
26. Shopping Facilities	3.74	4.02	.0567
27. Electrical Service	3.95	3.96	.9638
28. Traffic Signals and Signs	3.42	3.65	.1053
29. City Planning	2.89	3.41	.0062*
30. Fire Prevention Program	3.82	3.75	.6133
31. Integrity of City Employees	3.58	3.37	.1333
32. Enclosed Public Meeting Place	2.17	2.82	.0019*
33. Parking in Business District	2.52	2.76	.1438
34. General Appearance of Marietta	3.18	3.25	.5993
35. Marietta as a Place to Live	4.05	3.93	.6462

* $p < .05$ for F ratio; sample N of 1,010 (Public-at-Large) and 68 (Public Housing).

The typical public housing respondent was found to be younger ($\chi^2 = 30.8$; 4 df, $p < .01$), to have experienced less education ($\chi^2 = 88.4$; 3 df, $p < .01$), more likely to be black than were respondents from the Public-at-Large ($\chi^2 = 15.9$; 2 df, $p < .01$), and to be unemployed ($\chi^2 = 14.7$; 1 df, $p < .01$). As expected, lower annual income was characteristic of this subsample ($\chi^2 = 94.3$; 3 df, $p < .01$). Review of the questionnaires indicated that 85 per cent of these respondents correctly reported that they rented an apartment; 6 per cent erroneously marked home ownership; and 4 per cent said they rented a house. No sample differentiation was obtained for marital status (chi square less than unity). Years of residence in the city was significant at the .05 level ($\chi^2 = 9.2$; 2 df) suggesting the comparable transiency of these persons. The data in Appendix B support the original designation of public housing occupants as low socioeconomic status.

CHAPTER IV

DISCUSSION

A conventional community opinion survey served as a source of information relating to methodological considerations in the collection of data in survey research. The present study focused on two methods of instrument administration. The specific areas of emphasis were: (1) the presence or absence of respondent selectivity in the response data, (2) the presence or absence of response distortion through comparison of data collected under two questionnaire delivery conditions, and (3) the significance of the observed respondent selectivity by means of an analysis of response differentiation for various segments of the respondent population.

Respondent Selectivity

The problem of respondent selectivity is a function of the specific non-response patterns characteristic of various survey distribution techniques. The magnitude of such a problem as a potential source of bias has traditionally been measured by the degree of selectivity among the respondents with respect to socioeconomic status. On this point, previous research findings indicate that persons of lower socioeconomic status answer questionnaires somewhat less (Franzen &

Lazarsfeld, 1945; Reuss, 1943; Shuttleworth, 1940; Suchman & McCandless, 1940).

In an attempt to reduce the non-response dilemma, survey research methodologists have sought methods and procedures which can be used to alter the demand characteristics of the data collection process, thereby producing a higher return rate. One such method is the Personal Delivery-and-Pickup procedure which supposedly enhances questionnaire return rates. The personalized contact and the implied demand to comply as perceived by the addressee in terms of his or her relative importance to the success of the survey project served as the rationale for the improved data collection. Although this kind of explanation has not been given for the Personal Delivery method of survey administration, the dynamics of personalized contact in both questionnaire distribution and interview procedures have received previous explanation in terms of altruism, i. e., the desire to help someone in need (Richardson, Dohrenwend, & Klein, 1965), and the flattering of respondent vanity (Payne, 1951).

Findings in the present study confirmed this explanation for the Personal Delivery technique. As stated in Hypothesis 1, the overall return rate was significantly higher (55.7%) in the Personal Delivery condition as compared to the Direct Mail method (30.8%). This effect was demonstrated through the use of the same questionnaire in both conditions to two samples derived from the same population of address-

ees. Comparison of available personal history data revealed no sample differentiation among respondents in the two conditions of delivery.

Thus, the obtained difference in return rates for the two means of instrument administration can be considered to be functionally dependent on the inherent qualities of the Personal Delivery method. The data suggest that this approach to survey data collection might influence return rate by increasing each addressee's tendency to respond rather than having a differential appeal to various segments of the addressee population. Respondent selectivity (as reported earlier by Franzen & Lazarsfeld, 1945, and others) was obtained in the present study.

Persons of lower socioeconomic status responded at a significantly lower rate in both conditions of delivery, as stated in Hypothesis 4. Analysis of returns data indicated return rates of 31.4 per cent for the public-at-large and 12.3 per cent for low socioeconomic status residents in the Direct Mail condition. Likewise, return rates of 58.2 per cent for the public-at-large and 19.6 per cent for low socioeconomic status residents were realized for respondents in the Personal Delivery condition.

The relative increase in return rate for both levels of socioeconomic status in both conditions was tested in accordance with Hypothesis 5. Results were negative, indicating that although the return rate for low socioeconomic status persons was higher in the Personal Delivery condition, the relatively higher rate was not significantly dif-

ferent from the relative increase for the public-at-large. In the present study, this finding is more easily understood by considering the proportional representation of public housing residents in the original samples versus their representation in the respondent groups (15.2% of the recipients in the Direct Mail and 15.3% of personal deliveries were public housing residents; 6.6% of the respondents in the Direct Mail and 5.7% in the Personal Delivery condition were public housing residents).

Thus, although the Personal Delivery technique of survey administration deserves praise for its effect on the absolute return rate, its merit as a means for reducing respondent selectivity between socioeconomic groups was not demonstrated in the present study. Equal amounts of respondent selectivity with respect to the defined levels of socioeconomic status were observed in the two conditions of questionnaire administration, suggesting once again that: (1) the demand to comply associated with the Personal Delivery method is universal in its appeal to socioeconomic groups and (2) its usefulness as a means for solving the non-response dilemma among persons of low socioeconomic status should, therefore, be qualified.

Response Distortion

The comparison of survey administration techniques in the present study dealt directly with the notion of response distortion contingent

on the demand characteristics and/or anonymity effect associated with the method of questionnaire administration. Because of the nature of the Personal Delivery method, no attempt was made to isolate these two effects. The process of Personal Delivery by a survey staff member was found to increase return rate over the Direct Mail procedure. This improvement in data collection was supposedly a function of an implied demand to comply as perceived by the addressee in terms of his relative importance to the success of the survey project. An increase in the demand to comply would thus produce higher return rates but might also result in response distortion for those persons who would not have returned the questionnaire by mail. The demand characteristics associated with the Personal Delivery technique is, therefore, a viable explanation to any observed response differences between the two methods.

This does not, however, exclude an explanation based on an anonymity effect for any observed response differences. The personalized contact in the Personal Delivery technique could produce a lack of "psychological anonymity" or fear of being identified for addressees in that condition. This also is a viable explanation. However, it is recognized that an anonymity effect explanation for the present response differences would be weak for the following reasons:

- (1) No real respondent identification took place. In practically all studies reporting an anonymity effect, subjects were literally

identified or experienced face-to-face interviews. Dunnette & Heneman (1956) reported an anonymity effect based on lack of "psychological anonymity" in an anonymous employee opinion survey. However, strong manipulations included having the questionnaire administered by a research staff member from outside the company or by an official in the firm, testing the subject on the premises of the industrial firm and having the test administrator present while the subject filled out the questionnaire. Summarizing the findings of studies on the anonymity effect, Rosen (1960) concludes:

On balance, the literature and the study reported here strongly suggest that identification of respondents in attitude questionnaire surveys conducted under less than highly threatening circumstances is not likely to result in serious statistical or practical distortion.

- (2) Although respondents in the Personal Delivery condition gave significantly more "Don't Know" responses, the favorability of the ratings was not effected. In all previous studies showing a significant anonymity effect, an increase in the number of "Don't Know" responses was also accompanied by a distortion toward more favorable ratings when these two variables were dependent measures. In addition, Dunnette & Heneman (1956) reported fewer and shorter write-in comments to open-ended questions for subjects who showed a distortion in the favorableness of their ratings. Content analysis with respect to delivery method and

subsequent chi square tests for two open-ended questions in the present questionnaire revealed no qualitative differences in either the type of write-in comments given or differences in frequency of occurrence.

- (3) Addressees in the Personal Delivery condition demonstrated a significantly higher return rate than persons receiving the questionnaire by Direct Mail. An anonymity effect explanation would have to predict the reverse in a free-choice situation.

Assuming an anonymity effect to be nonoperative in the present study, an explanation based on the demand characteristics associated with the instructional set and implied demand to comply in the Personal Delivery condition seems most appropriate. One technique for enhancing respondent cooperation in survey research is to emphasize his or her importance to the success of the project (Slocum, Empey, & Swanson, 1956). However, Webb, Campbell, Schwartz, & Sechrest (1966) have suggested that such instructional sets can adversely affect the quality of response as respondents may play the role, unusual for them, of experts. As a consequence, respondents would tend to give the impression that they are knowledgeable or that they hold firm opinions on issues when the opposite may be the case.

Webb, et al. (1966), proposed that the extent to which respondent expertise is introduced by the instructional set can be measured by the number of "Don't Know" responses to an attitude questionnaire.

Specifically, the fewer the "Don't Know" responses, the greater degree of assumed respondent expertise.

Berger & Sullivan (1970) recently examined Webb's so-called "experting" hypothesis, with results contrary to the original predictions. In their study significantly more "Don't Know" responses were obtained in the experimental condition emphasizing the respondents' importance to the success of the survey. Rather than the "experting" hypothesis proposed by Webb, et al. (1966), Berger & Sullivan argue that instructions emphasizing the addressees' importance to a survey might motivate the respondent to be more conscientious in his responses to a questionnaire. An attitude of conscientiousness would lead a respondent to be more sure of his responses before offering them and, therefore, would lead to more "Don't Know" responses.

Results obtained in the present study are supportive of Berger & Sullivan's "conscientiousness" explanation and cast doubt on the "experting" hypothesis proposed by Webb, et al. (1966). Significantly more "Don't Know" responses were obtained in the Personal Delivery condition indicating that this method of survey administration carries to the respondent an implied message of his or her importance to the success of the survey project and therefore results in more "Don't Know" responses through the mediating response of "conscientiousness."

The higher return rate observed in the Personal Delivery condition is consistent with this explanation. Feeling more conscientious,

an addressee might be compelled to comply by filling out and returning the questionnaire. An effect of this nature could be explained in part by means of the dissonance reduction model (Festinger, 1957). The cognitive elements of "conscientiousness" and "not responding" could create a state of dissonance, i.e., psychological tension having motivational characteristics. To reduce the dissonance, the individual could either refute his belief or comply to the implied behavior. Crucial in a resolution of this nature are the consequences of the implied behavior as defined in terms of "costly action" (Cook, Burd, & Talbert, 1970). This specifies a "consistency plus hedonism model" (Rosenburg & Abelson, 1960) in which an act of compliance could be performed as a mode of dissonance reduction.

Response Differentiation

Subsequent to demonstrated respondent selectivity with respect to the low return rates of low socioeconomic residents in both methods of instrument administration, analyses were performed to determine whether the observed selectivity among the returns functioned to effect the representativeness of the data. The crucial question involved the practical significance of the selectivity; as Franzen & Lazarsfeld (1945) have noted, it is quite possible that questionnaire returns are biased in regard to the characteristics of the respondents without biasing the desired result. Similarly, McDonagh & Rosenblum (1965) have indicated

that mailed questionnaires may reveal representative responses in spite of the partial return from the sample of the universe selected.

The present data confirm the observed respondent selectivity as a source of response bias. Comparison of item response means with respect to four income levels derived from respondent demographic data showed significant differences on 11 out of 35 items rated. Likewise, comparison of item response means for low socioeconomic respondents, as defined by public housing residence versus the public-at-large, showed significant p values on 8 of the 35 items.

The low return rates for low socioeconomic status addressees and the response differentiation observed between these residents and the public-at-large suggest response bias probably exists for certain items rated in the questionnaire. Although no conclusion can be made regarding the magnitude of the bias, the data strongly suggest that low return rates for persons of low socioeconomic status (as noted in Franzen & Lazarsfeld, 1945) can effect response distributions for certain items in a survey questionnaire.

CHAPTER V

RECOMMENDATIONS

Results obtained in the present study clearly confirm the Personal Delivery-and-Pickup method of instrument administration as a means for increasing return rates. In instances where a low return rate is anticipated, the feasibility of using Personal Delivery-and-Pickup for data collection should be considered. In addition, the method offers several economic advantages. If a relatively inexpensive work force is available, the administration of questionnaires by the Personal Delivery method eliminates the cost of mailing and because of the higher return rate, reduces the required size of the sample.

The presumably more personalized procedure in data collection was not effective in reducing the relative difference in return rates between low and higher socioeconomic groups. Future research involving respondent composition and survey methodology should involve a more extensive division of addressees into socioeconomic groups. Perhaps a definition of four or five levels of socioeconomic status would show a differential effect on return rates. Although purely speculative, such an effect would be assumed to occur because of a "ceiling effect" for persons in the high socioeconomic status groups.

Response distortion was noted for respondents in the Personal Delivery condition. The favorability of ratings given by respondents in the Personal Delivery condition was not effected; however, the frequency of "Don't Know" responses to these same items was increased. This finding suggests that although favorability of ratings in a free-choice situation involving a high demand to comply may not be effected, the respondents' tendency to state firm opinions or give such ratings can be altered through the element of "conscientiousness." Replication of this finding would have practical significance for the usefulness of certain types of questions in questionnaires wherein a high demand to comply is involved. More specifically, questions calling for ratings in a response mode that elicits respondent certainty (i.e., strongly agree, somewhat agree, don't know, somewhat disagree, strongly disagree) could be expected to be biased in situations involving a high demand to comply. Additional research is needed for the confirmation or repudiation of this tentative hypothesis.

Survey research specialists have assumed an attitude which implies that those techniques, conditions, and methods of instrument administration yielding higher return rates are unconditionally preferable to techniques involving a lower demand to comply. This assumption is based on the belief that higher return rates will ultimately result in less biased, more representative data. Findings in the present study indicate that techniques involving a high demand to comply in free-

choice situations can result in response distortion for certain types of questionnaire items. Although the bias associated with low return rates may be reduced, another possible source of bias is created, i.e., response distortion as a function of demand characteristics in the instrument delivery stage in survey research. Specific research attention should be directed toward a better understanding of the demand characteristics variable.

APPENDIX A

FINAL COPY OF THE MEASURING INSTRUMENT

(Reduced Copy)

MARIETTA SERVICE RATING AND PUBLIC ATTITUDE SURVEYPART I: Service Ratings

The following are questions concerning public thinking about a number of community services in Marietta. The response to the statements below should be your personal opinion. We have tried to cover many relevant services. Please rate them according to the following key:

Example: Rodent control program

	Excellent	Good	Average	Below Average	Poor	Don't Know
Rodent control program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you feel that Marietta has an excellent rodent control program, then check the box as illustrated.

		Excellent	Good	Average	Below Average	Poor	Don't Know	
1. Garbage Collection	1.							1.
2. Trash Collection	2.							2.
3. Housing Inspection Program	3.							3.
4. Public Libraries	4.							4.
5. Enforcement of Traffic Laws	5.							5.
6. Street Maintenance & Cleaning	6.							6.
7. Sewer Service	7.							7.
8. Plumbing Inspection	8.							8.
9. Urban Renewal	9.							9.
10. Enforcement of Criminal Laws	10.							10.
11. Public School Facilities	11.							11.
12. Public School Teachers	12.							12.
13. Voting Facilities	13.							13.
14. Tax Assessment	14.							14.
15. Police Protection	15.							15.
16. Courtesy of City Employees	16.							16.
17. Parks, Playgrounds, & Picnic Areas	17.							17.
18. Planned Recreation Programs	18.							18.
19. Fire Protection	19.							19.
20. Storm Water Drainage	20.							20.
21. Electrical Inspection	21.							21.
22. Quality of City Employees	22.							22.
23. Zoning Enforcement	23.							23.
24. Water Supply	24.							24.
25. Business License Procedures	25.							25.
26. Shopping Facilities	26.							26.
27. Electrical Service	27.							27.
28. Traffic Signals and Signs	28.							28.
29. City Planning/Development Program	29.							29.
30. Fire Prevention Program	30.							30.
31. Integrity of City Employees	31.							31.
32. Enclosed Large Public Meeting Place	32.							32.
33. Parking in the Business District	33.							33.
34. General Appearance of Marietta	34.							34.
35. Marietta as a Place to Live	35.							35.

-2-

PART II.

36. For the City services listed below, indicate (by checking the appropriate box) whether you think the City should "spend more", "spend the same", or "spend less".

	Spend More	Spend Same	Spend Less
a. Police Protection	a.		
b. Streets and Sidewalks	b.		
c. Trash Pickup	c.		
d. Garbage Pickup	d.		
e. Fire Protection	e.		
f. Parks & Recreation	f.		
g. Sewers and Sewerage Treatment	g.		
h. Planning and Zoning	h.		
i. Traffic Control	i.		

37. From the list of City services above, which two do you think are the most important areas for increased effort?

_____ and _____

38. Considering the services that the City has to provide, do you think local taxes are:

_____ High
 _____ About Right
 _____ Low

39. If a choice had to be made, would you rather raise taxes or cut City services?

_____ Raise Taxes
 _____ Cut Services

40. If more money were needed to finance City services, which do you think is the best way to raise it? (Check One Blank)

_____ Local Sales Tax
 _____ Tax on Property
 _____ Tax on Income or Earnings
 _____ Tax on Automobile Owners
 _____ Bond Issues (Long Term Loans)
 _____ Increasing Charges for City Services

41. What is the SECOND best way? (Check One Blank)

_____ Local Sales Tax
 _____ Tax on Property
 _____ Tax on Income or Earnings
 _____ Tax on Automobile Owners
 _____ Bond Issues (Long Term Loans)
 _____ Increasing Charges for City Services

-3-

42. Do you think you get your money's worth from local taxes?

☐ Yes
☐ No
☐ Don't Know

43. In what way do you think your tax money could be more wisely spent?

PART III. Check the appropriate blank indicating your opinion on the following issues:

44. The consolidation of Marietta and Cobb County Schools

☐ A. I favor consolidation.
☐ B. I am against consolidation.
☐ C. Undecided.

45. The further expansion of the Board of Lights and Water into areas beyond the City Limits

☐ A. I favor expansion.
☐ B. I am against expansion.
☐ C. Undecided.

46. The expansion of present Marietta hospital facilities (Kennestone Hospital).....

☐ A. I favor expansion.
☐ B. I am against expansion.
☐ C. Undecided.

47. The annexation of surrounding land to enlarge the City Limits of Marietta

☐ A. I favor enlarging the City Limits.
☐ B. I am against enlarging the City Limits.
☐ C. Undecided.

48. The installation of Cable TV in Marietta (with subscription being optional to each household) at a cost of approximately \$6.00/Month for subscription.

☐ A. I would subscribe to Cable TV.
☐ B. I would not subscribe to Cable TV.
☐ C. Undecided.

49. The improvement of street lighting in Marietta

☐ A. I think the present street lighting is adequate.
☐ B. I favor improving street lighting to be paid for by increased electrical rates.
☐ C. I favor improving street lighting to be paid for by increase in taxes.
☐ D. Undecided.

-4-

50. Do you think Marietta and Cobb County should be a part of the Metropolitan Area Rapid Transit Authority (MARTA)?

- ☐ A. Yes
☐ B. No
☐ C. Undecided

PART IV. The following questions pertain to the improvement of certain City facilities, with funds for this improvement being derived from either general obligation bonds or revenue bonds. A general obligation bond is a long term loan paid for from the City's general fund (taxes, assessments, etc.). A revenue bond is a long term loan paid for out of money collected from the use of the planned facility. Check the appropriate blank indicating your opinion on the following issues:

51. The improvement of Larry Bell Park

- ☐ A. I think no improvements should be made.
☐ B. I favor a bond issue to be financed by a general obligation bond. (With Ownership by the City)
☐ C. I favor a bond issue to be financed by a revenue bond. (With Ownership by the City) (This would mean charging for the use of the park.)
☐ D. Give Larry Bell Park to the County along with the \$350,000. in insurance money which the City had collected due to the fire at the park. (With ownership and responsibility for improvements turned over to the County.)

52. Construction (by the City) of a downtown parking garage

- ☐ A. I think present downtown parking facilities are adequate.
☐ B. I favor construction of a downtown parking garage to be financed by a general obligation bond.
☐ C. I favor construction of a downtown parking garage to be financed by a revenue bond.
☐ D. Undecided.

53. The construction of a new City Hall

- ☐ A. I think the present City Hall is adequate.
☐ B. I favor construction of a new City Hall to be financed by a general obligation bond.
☐ C. I favor construction of a new City Hall to be financed by a revenue bond (in conjunction with the Board of Lights and Water).
☐ D. Undecided.

-5-

PART V.

54. If you had a suggestion or a complaint about a City service, who would you contact:

- ☐ A. Councilman from your Ward.
☐ B. Mayor
☐ C. City Manager
☐ D. City Department Head of the Service Concerned
☐ E. Newspaper
☐ F. Radio Station

_____ Other (Specify)

55. In your opinion, what are the three most important things that need to be changed, fixed up, stopped, or started in order to make Marietta a better community?

1.

2.

3.

56. What do you consider the City of Marietta's form of government to be?

- ☐ A. Commission Form
☐ B. Mayor-Council Form
☐ C. Council-Manager Form
☐ D. Don't Know

PART IV. Anonymous information on you as a Marietta citizen:

57. AGE

Under 30 _____
 30 - 40 _____
 40 - 50 _____
 50 - 60 _____
 Over 60 _____

58. Highest Schooling Completed:

8th Grade or Less _____
 Some High School _____

High School Graduate _____
 College Graduate _____

59. Married _____

Single _____

60. Race

Black _____
 White _____
 Other (Specify) _____

-6-

61. Income

Under \$5,000/Year _____
\$5,000 - \$10,000/Year _____
\$10,000 - \$15,000/Year _____
Over \$15,000/Year _____

62. Years lived inside the City Limits of Marietta.

Under 2 Years _____
2 - 5 Years _____
5 - 10 Years _____
Over 10 Years _____

63. Total members in household (including yourself) _____

64. Work within the City Limits? Yes _____ No _____ Do Not Work _____

65. Are you a registered voter? Yes _____ No _____

66. Are you a home-owner or do you rent either a house or an apartment?

_____ Home-Owner
_____ I Rent a House
_____ I Rent an Apartment

APPENDIX B
DIFFERENCES BETWEEN RESPONDENT DATA FOR COMPUTER
PRINTOUT AND PUBLIC HOUSING AUTHORITY RESIDENTS;
BOTH SAMPLES COMBINED

Appendix B

Differences between Respondent Data for Computer
Printout and Public Housing Authority Residents;
Both Samples Combined

AGE		$(\chi^2 = 30.76; 4 \text{ df}, p < .01)$				
		Under 30	30-40	40-50	50-60	Over 60
UL ^a		236(23%) ^b	170(17%)	232(23%)	195(19%)	162(16%)
PH		34(50%)	10(15%)	5(7%)	6(9%)	11(16%)

EDUCATION $(\chi^2 = 88.41; 3 \text{ df}, p < .01)$

	8th Grade or Less	Some High School	High School Graduate	College Graduate
UL	68(7%)	93(9%)	494(49%)	325(32%)
PH	14(21%)	27(40%)	18(26%)	6(9%)

MARRIED-SINGLE $(\chi^2 = .63; 1 \text{ df}, \text{N.S.}^c)$

	Married	Single
UL	842(83%)	145(14%)
PH	55(81%)	7(10%)

RACE $(\chi^2 = 15.95; 2 \text{ df}, p < .01)$

	Black	White	Other
UL	46(5%)	941(93%)	2(0%)
PH	10(15%)	56(82%)	1(1%)

Appendix B (continued)

INCOME ($\chi^2 = 94.34$; 3 df, p < .01)

	Under \$5,000/Yr.	\$5,000 - \$10,000	\$10,000 - \$15,000	Over \$15,000/Yr.
UL	136(13%)	327(32%)	253(25%)	215(21%)
PH	36(53%)	23(34%)	1(1%)	0(0%)

YEARS LIVED INSIDE CITY LIMITS OF MARIETTA ($\chi^2 = 9.19$; 3 df, N.S.)

	Under 2 Years	2-5	5-10	Over 10 Years
UL	123(12%)	138(14%)	117(12%)	591(59%)
PH	14(21%)	14(21%)	9(13%)	27(40%)

ARE YOU A REGISTERED VOTER? ($\chi^2 = 34.24$; 1 df, p < .01)

	Yes	No
UL	788(78%)	177(18%)
PH	30(44%)	30(44%)

ARE YOU EMPLOYED? ($\chi^2 = 14.75$; 1 df, p < .01)

	Yes	No
UL	825(82%)	133(13%)
PH	40(59%)	19(28%)

Appendix B (continued)

ARE YOU A HOMEOWNER

OR

DO YOU RENT EITHER A HOUSE OR AN APARTMENT? ($\chi^2 = 185.83$;
2 df, p < .01)

	Homeowner	Rent a House	Rent an Apartment
UL	712(70%)	92(9%)	168(17%)
PH	4(6%)	3(4%)	58(85%)

^aName/Address Rosters: Utility Lists (UL) of residents in homes and apartments as derived from a computer printout of address labels for utility billings; Public Housing (PH) occupants not paying utility fees directly.

^bPercentages do not add up to 100% due to the failure of some respondents to answer the question. Chi square analyses are based on the raw count of respondents. UL, N = 1,010; PH, N = 68.

^cp < .01.

APPENDIX C
QUESTIONNAIRE USED IN THE DIRECT MAIL CONDITION
AND SUMMARY OF RESPONSES

(Reduced Copy)

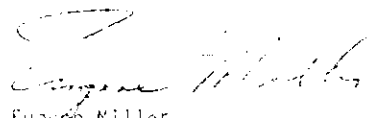
*MARIETTA SCHOOL BOARD
AND
PUBLIC ATTITUDE SURVEY*

Ever hear the old expression, "You can't fight City Hall?" Well we don't think that's quite true. The City of Marietta wants to know what you think. In effect this city is a corporation in the business of providing services and you are one of its stockholders. Please take the time to answer these few questions. It's a convenient way to make your voice heard in matters that directly concern you.

You are one of 2,500 households randomly chosen to receive this questionnaire. You or any adult member of your household may fill it out. Although your reply will be anonymous, it is extremely important that everyone cooperate to insure the success of our effort. Much like the Governor's "Goals for Georgia" program, we intend to use this information to allow the citizens of Marietta to have a greater voice in the planning and operation of local government.

Please complete the questionnaire and return it in the self-addressed, postage paid envelope as soon as possible.

Your replies will be valued and appreciated.


Eugene Miller
City Manager

(Reduced Copy)

MARIETTA SERVICE RATING AND PUBLIC ATTITUDE SURVEYPART 1: Service Ratings

The following are questions concerning public thinking about a number of community services in Marietta. The response to the statements below should be your personal opinion. We have tried to cover many relevant services. Please rate them according to the following key:

Example: Rodent control program

					Below	Don't
					Excellent	Know
					Good	
					Average	
					Poor	
<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>

If you feel that Marietta has an excellent rodent control program, then check the box as illustrated.

							Below	Don't
		Excellent	Good	Average	Average	Poor	Know	
1. Garbage Collection	1.			3.78				4
2. Trash Collection	2.			3.39				21
3. Housing Inspection Program	3.			2.88				354
4. Public Libraries	4.			3.99				61
5. Enforcement of Traffic Laws	5.			3.50				27
6. Street Maintenance & Cleaning	6.			3.15				5
7. Sewer Service	7.			3.68				98
8. Plumbing Inspection	8.			3.19				383
9. Urban Renewal	9.			2.99				198
10. Enforcement of Criminal Laws	10.			3.43				83
11. Public School Facilities	11.			3.61				56
12. Public School Teachers	12.			3.65				94
13. Voting Facilities	13.			3.61				81
14. Tax Assessment	14.			3.44				117
15. Police Protection	15.			3.70				15
16. Courtesy of City Employees	16.			3.67				27
17. Parks, Playgrounds, & Picnic Areas	17.			2.75				57
18. Planned Recreation Programs	18.			2.83				171
19. Fire Protection	19.			4.16				54
20. Storm Water Drainage	20.			3.28				116
21. Electrical Inspection	21.			3.30				355
22. Quality of City Employees	22.			3.57				115
23. Zoning Enforcement	23.			2.90				206
24. Water Supply	24.			4.03				31
25. Business License Procedures	25.			3.45				329
26. Shopping Facilities	26.			3.76				7
27. Electrical Service	27.			3.94				35
28. Traffic Signals and Signs	28.			3.43				8
29. City Planning/Development Program	29.			2.91				208
30. Fire Prevention Program	30.			3.84				161
31. Integrity of City Employees	31.			3.58				192
32. Enclosed Large Public Meeting Place	32.			2.20				194
33. Parking in the Business District	33.			2.50				19
34. General Appearance of Marietta	34.			3.15				1
35. Marietta as a Place to Live	35.			4.04				2

-2-

PART II.

36. For the City services listed below, indicate (by checking the appropriate box) whether you think the City should "spend more", "spend the same", or "spend less".

	Spend More	Spend Same	Spend Less
a. Police Protection	55%	41%	1%
b. Streets and Sidewalks	45%	49%	2%
c. Trash Pickup	21%	71%	4%
d. Garbage Pickup	15%	79%	2%
e. Fire Protection	22%	71%	2%
f. Parks & Recreation	49%	37%	6%
g. Sewers and Sewerage Treatment	32%	56%	4%
h. Planning and Zoning	26%	55%	11%
i. Traffic Control	44%	48%	2%

37. From the list of City services above, which two do you think are the most important areas for increased effort?

_____ and _____

38. Considering the services that the City has to provide, do you think local taxes are:

25% High

67% About Right

5% Low

39. If a choice had to be made, would you rather raise taxes or cut City services?

54% Raise Taxes

34% Cut Services

40. If more money were needed to finance City services, which do you think is the best way to raise it? (Check One Blank)

41% Local Sales Tax

4% Tax on Property

5% Tax on Income or Earnings

4% Tax on Automobile Owners

27% Bond Issues (Long Term Loans)

10% Increasing Charges for City Services

41. What is the SECOND best way? (Check One Blank)

24% Local Sales Tax

8% Tax on Property

10% Tax on Income or Earnings

7% Tax on Automobile Owners

26% Bond Issues (Long Term Loans)

14% Increasing Charges for City Services

-3-

42. Do you think you get your money's worth from local taxes?

<u>46%</u>	Yes
<u>32%</u>	No
<u>22%</u>	Don't Know

43. In what way do you think your tax money could be more wisely spent?

PART III. Check the appropriate blank indicating your opinion on the following issues:

44. The consolidation of Marietta and Cobb County Schools

<u>46%</u>	A. I favor consolidation.
<u>26%</u>	B. I am against consolidation.
<u>28%</u>	C. Undecided.

45. The further expansion of the Board of Lights and Water into areas beyond the City Limits

<u>41%</u>	A. I favor expansion.
<u>32%</u>	B. I am against expansion.
<u>27%</u>	C. Undecided.

46. The expansion of present Marietta hospital facilities (Kennesaw Hospital)

<u>73%</u>	A. I favor expansion.
<u>13%</u>	B. I am against expansion.
<u>15%</u>	C. Undecided.

47. The annexation of surrounding land to enlarge the City Limits of Marietta

<u>61%</u>	A. I favor enlarging the City Limits.
<u>22%</u>	B. I am against enlarging the City Limits.
<u>17%</u>	C. Undecided.

48. The installation of Cable TV in Marietta (with subscription being optional to each household) at a cost of approximately \$6.00/Month for subscription.

<u>27%</u>	A. I would subscribe to Cable TV.
<u>48%</u>	B. I would not subscribe to Cable TV.
<u>24%</u>	C. Undecided.

49. The improvement of street lighting in Marietta

<u>52%</u>	A. I think the present street lighting is adequate.
<u>16%</u>	B. I favor improving street lighting to be paid for by increased electrical rates.
<u>14%</u>	C. I favor improving street lighting to be paid for by increase in taxes.
<u>18%</u>	D. Undecided.

-4-

50. Do you think Marietta and Cobb County should be a part of the Metropolitan Area Rapid Transit Authority (MARTA)?

53% A. Yes
35% B. No
12% C. Undecided

PART IV. The following questions pertain to the improvement of certain City facilities, with funds for this improvement being derived from either general obligation bonds or revenue bonds. A general obligation bond is a long term loan paid for from the City's general fund (taxes, assessments, etc.). A revenue bond is a long term loan paid for out of money collected from the use of the planned facility. Check the appropriate blank indicating your opinion on the following issues:

51. The improvement of Larry Bell Park

7% A. I think no improvements should be made.
19% B. I favor a bond issue to be financed by a general obligation bond. (With Ownership by the City)
23% C. I favor a bond issue to be financed by a revenue bond. (With Ownership by the City) (This would mean charging for the use of the park.)
42% D. Give Larry Bell Park to the County along with the \$350,000. in insurance money which the City had collected due to the fire at the park. (With ownership and responsibility for improvements turned over to the County.)

52. Construction (by the City) of a downtown parking garage

36% A. I think present downtown parking facilities are adequate.
8% B. I favor construction of a downtown parking garage to be financed by a general obligation bond.
35% C. I favor construction of a downtown parking garage to be financed by a revenue bond.
22% D. Undecided.

53. The construction of a new City Hall

49% A. I think the present City Hall is adequate.
15% B. I favor construction of a new City Hall to be financed by a general obligation bond.
13% C. I favor construction of a new City Hall to be financed by a revenue bond (in conjunction with the Board of Lights and Water).
22% D. Undecided.

-5-

PART V.

54. If you had a suggestion or a complaint about a City service, who would you contact:

19% A. Councilman from your Ward.
5% B. Mayor
10% C. City Manager
52% D. City Department Head of the Service Concerned
3% E. Newspaper
1% F. Radio Station
1% Other (Specify)

55. In your opinion, what are the three most important things that need to be changed, fixed up, stopped, or started in order to make Marietta a better community?

1.
 2.
 3.

56. What do you consider the City of Marietta's form of government to be?

2% A. Commission Form
38% B. Mayor-Council Form
30% C. Council-Manager Form
30% D. Don't Know

PART IV. Anonymous information on you as a Marietta citizen:

57. AGE

Under 30 25%
 30 - 40 17%
 40 - 50 22%
 50 - 60 19%
 Over 60 16%

58. Highest Schooling Completed:

8th Grade or Less 7%
 Some High School 10%

High School Graduate 46%
 College Graduate 35%

59. Married 84%

Single 14%

60. Race

Black 5%
 White 93%
 Other (Specify) 0%

-6-

61. Income

Under \$5,000/Year	<u>15%</u>
\$5,000 - \$10,000/Year	<u>31%</u>
\$10,000 - \$15,000/Year	<u>25%</u>
Over \$15,000/Year	<u>22%</u>

62. Years lived inside the City Limits of Marietta.

Under 2 Years	<u>13%</u>
2 - 5 Years	<u>14%</u>
5 - 10 Years	<u>11%</u>
Over 10 Years	<u>59%</u>

63. Total members in household (including yourself) _____

64. Work within the City Limits? Yes 39% No 42% Do Not Work 13%65. Are you a registered voter? Yes 77% No 18%

66. Are you a home-owner or do you rent either a house or an apartment?

<u>38%</u>	Home-Owner
<u>77%</u>	I Rent a House
<u>91%</u>	I Rent an Apartment

APPENDIX D

QUESTIONNAIRE USED IN THE

PERSONAL DELIVERY -AND -PICKUP CONDITION

AND SUMMARY OF RESPONSES

(Reduced Copy)

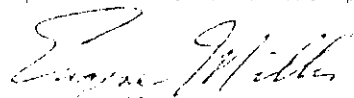
*MARIETTA SERVICE RATING
AND
PUBLIC ATTITUDE SURVEY*

Ever hear the old expression, "You can't fight City Hall?" Well we don't think that's quite true. The City of Marietta wants to know what you think. In effect this city is a corporation in the business of providing services and you are one of its stockholders. Please take the time to answer these few questions. It's a convenient way to make your voice heard in matters that directly concern you.

You are one of 800 households randomly chosen to receive this questionnaire. You or any adult member of your household may fill it out. Although your reply will be anonymous, it is extremely important that everyone cooperate to insure the success of our effort. Much like the Governor's "Goals for Georgia" program, we intend to use this information to allow the citizens of Marietta to have a greater voice in the planning and operation of local government.

This questionnaire was personally delivered to your home. Please complete it and hang it, by means of the plastic bag, on your front door knob. Our representative will be by tomorrow, sometime after 5:00 P.M., to pick up the completed form.

Your replies will be valued and appreciated.


Eugene Miller
City Manager

(Reduced Copy)

MARIETTA SERVICE RATING AND PUBLIC ATTITUDE SURVEYPART 1: Service Ratings

The following are questions concerning public thinking about a number of community services in Marietta. The response to the statements below should be your personal opinion. We have tried to cover many relevant services. Please rate them according to the following key:

Example: Rodent control program

	Excellent	Good	Average	Below Average	Poor	Don't Know
Example: Rodent control program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you feel that Marietta has an excellent rodent control program, then check the box as illustrated.

		Excellent	Good	Average	Below Average	Poor	Don't Know	
1. Garbage Collection	1.			3.81			1	1.
2. Trash Collection	2.			3.50			16	2.
3. Housing Inspection Program	3.			2.89			202	3.
4. Public Libraries	4.			4.02			48	4.
5. Enforcement of Traffic Laws	5.			3.59			22	5.
6. Street Maintenance & Cleaning	6.			3.20			6	6.
7. Sewer Service	7.			3.73			62	7.
8. Plumbing Inspection	8.			3.07			200	8.
9. Urban Renewal	9.			3.20			133	9.
10. Enforcement of Criminal Laws	10.			3.50			50	10.
11. Public School Facilities	11.			3.62			47	11.
12. Public School Teachers	12.			3.66			54	12.
13. Voting Facilities	13.			3.56			43	13.
14. Tax Assessment	14.			3.47			65	14.
15. Police Protection	15.			3.71			11	15.
16. Courtesy of City Employees	16.			3.78			30	16.
17. Parks, Playgrounds, & Picnic Areas	17.			2.74			35	17.
18. Planned Recreation Programs	18.			2.89			79	18.
19. Fire Protection	19.			4.10			28	19.
20. Storm Water Drainage	20.			3.22			60	20.
21. Electrical Inspection	21.			3.29			178	21.
22. Quality of City Employees	22.			3.56			83	22.
23. Zoning Enforcement	23.			3.03			109	23.
24. Water Supply	24.			4.11			17	24.
25. Business License Procedures	25.			3.46			184	25.
26. Shopping Facilities	26.			3.75			5	26.
27. Electrical Service	27.			3.99			19	27.
28. Traffic Signals and Signs	28.			3.15			4	28.
29. City Planning/Development Program	29.			2.95			105	29.
30. Fire Prevention Program	30.			3.77			86	30.
31. Integrity of City Employees	31.			3.55			111	31.
32. Enclosed Large Public Meeting Place	32.			2.22			98	32.
33. Parking in the Business District	33.			2.60			15	33.
34. General Appearance of Marietta	34.			3.23			4	34.
35. Marietta as a Place to Live	35.			4.04			3	35.

-2-

PART II.

36. For the City services listed below, indicate (by checking the appropriate box) whether you think the City should "spend more", "spend the same", or "spend less".

	Spend More	Spend Same	Spend Less
a. Police Protection	54%	39%	2%
b. Streets and Sidewalks	44%	49%	2%
c. Trash Pickup	18%	73%	5%
d. Garbage Pickup	13%	79%	3%
e. Fire Protection	27%	66%	2%
f. Parks & Recreation	51%	37%	6%
g. Sewers and Sewerage Treatment	35%	54%	4%
h. Planning and Zoning	23%	57%	11%
i. Traffic Control	42%	50%	4%

37. From the list of City services above, which two do you think are the most important areas for increased effort?

_____ and _____

38. Considering the services that the City has to provide, do you think local taxes are:

27% High
67% About Right
4% Low

39. If a choice had to be made, would you rather raise taxes or cut City services?

56% Raise Taxes
34% Cut Services

40. If more money were needed to finance City services, which do you think is the best way to raise it? (Check One Blank)

45% Local Sales Tax
7% Tax on Property
5% Tax on Income or Earnings
4% Tax on Automobile Owners
25% Bond Issues (Long Term Loans)
9% Increasing Charges for City Services

41. What is the SECOND best way? (Check One Blank)

26% Local Sales Tax
6% Tax on Property
8% Tax on Income or Earnings
6% Tax on Automobile Owners
31% Bond Issues (Long Term Loans)
16% Increasing Charges for City Services

-3-

42. Do you think you get your money's worth from local taxes?

<u>40%</u>	Yes
<u>33%</u>	No
<u>28%</u>	Don't Know

43. In what way do you think your tax money could be more wisely spent?

PART III. Check the appropriate blank indicating your opinion on the following issues:

44. The consolidation of Marietta and Cobb County Schools

<u>41%</u>	A. I favor consolidation.
<u>29%</u>	B. I am against consolidation.
<u>30%</u>	C. Undecided.

45. The further expansion of the Board of Lights and Water into areas beyond the City Limits

<u>44%</u>	A. I favor expansion.
<u>31%</u>	B. I am against expansion.
<u>26%</u>	C. Undecided.

46. The expansion of present Marietta hospital facilities (Kennesaw Hospital)

<u>73%</u>	A. I favor expansion.
<u>9%</u>	B. I am against expansion.
<u>18%</u>	C. Undecided.

47. The annexation of surrounding land to enlarge the City Limits of Marietta

<u>57%</u>	A. I favor enlarging the City Limits.
<u>20%</u>	B. I am against enlarging the City Limits.
<u>23%</u>	C. Undecided.

48. The installation of Cable TV in Marietta (with subscription being optional to each household) at a cost of approximately \$6.00/Month for subscription.

<u>26%</u>	A. I would subscribe to Cable TV.
<u>52%</u>	B. I would not subscribe to Cable TV.
<u>21%</u>	C. Undecided.

49. The improvement of street lighting in Marietta

<u>49%</u>	A. I think the present street lighting is adequate.
<u>14%</u>	B. I favor improving street lighting to be paid for by increased electrical rates.
<u>15%</u>	C. I favor improving street lighting to be paid for by increase in taxes.
<u>21%</u>	D. Undecided.

-4-

50. Do you think Marietta and Cobb County should be a part of the Metropolitan Area Rapid Transit Authority (MARTA)?

50% A. Yes
36% B. No
14% C. Undecided

PART IV. The following questions pertain to the improvement of certain City facilities, with funds for this improvement being derived from either general obligation bonds or revenue bonds. A general obligation bond is a long term loan paid for from the City's general fund (taxes, assessments, etc.). A revenue bond is a long term loan paid for out of money collected from the use of the planned facility. Check the appropriate blank indicating your opinion on the following issues:

51. The improvement of Larry Bell Park

11% A. I think no improvements should be made.
20% B. I favor a bond issue to be financed by a general obligation bond. (With Ownership by the City)
20% C. I favor a bond issue to be financed by a revenue bond. (With Ownership by the City) (This would mean charging for the use of the park.)
41% D. Give Larry Bell Park to the County along with the \$350,000. in insurance money which the City had collected due to the fire at the park. (With ownership and responsibility for improvements turned over to the County.)

52. Construction (by the City) of a downtown parking garage

35% A. I think present downtown parking facilities are adequate.
8% B. I favor construction of a downtown parking garage to be financed by a general obligation bond.
31% C. I favor construction of a downtown parking garage to be financed by a revenue bond.
26% D. Undecided.

53. The construction of a new City Hall

48% A. I think the present City Hall is adequate.
13% B. I favor construction of a new City Hall to be financed by a general obligation bond.
11% C. I favor construction of a new City Hall to be financed by a revenue bond (in conjunction with the Board of Lights and Water).
28% D. Undecided.

-5-

PART V.

54. If you had a suggestion or a complaint about a City service, who would you contact?

22% A. Councilman from your Ward.
5% B. Mayor
11% C. City Manager
49% D. City Department Head of the Service Concerned
3% E. Newspaper
0% F. Radio Station
1% Other (Specify)

55. In your opinion, what are the three most important things that need to be changed, fixed up, stopped, or started in order to make Marietta a better community?

1.
 2.
 3.

56. What do you consider the City of Marietta's form of government to be?

1% A. Commission Form
37% B. Mayor-Council Form
28% C. Council-Manager Form
34% D. Don't Know

PART IV. Anonymous information on you as a Marietta citizen:

57. AGE

Under 30 26%
 30 - 40 17%
 40 - 50 21%
 50 - 60 18%
 Over 60 16%

58. Highest Schooling Completed:

8th Grade or Less	<u>9%</u>	High School Graduate	<u>50%</u>
Some High School	<u>14%</u>	College Graduate	<u>23%</u>

59. Married 83%

Single 13%

60. Race

Black 5%
 White 91%
 Other (Specify) 1%

-6-

61. Income

Under \$5,000/Year	<u>19%</u>
\$5,000 - \$10,000/Year	<u>35%</u>
\$10,000 - \$15,000/Year	<u>20%</u>
Over \$15,000/Year	<u>16%</u>

62. Years lived inside the City Limits of Marietta.

Under 2 Years	<u>13%</u>
2 - 5 Years	<u>14%</u>
5 - 10 Years	<u>13%</u>
Over 10 Years	<u>55%</u>

63. Total members in household (including yourself) _____

64. Work within the City Limits? Yes 40% No 39% Do Not Work 16%65. Are you a registered voter? Yes 74% No 21%

66. Are you a home-owner or do you rent either a house or an apartment?

<u>61%</u>	Home-Owner
<u>10%</u>	I Rent a House
<u>25%</u>	I Rent an Apartment

BIBLIOGRAPHY

- Adams, J. S. Interviewing procedures. Chapel Hill: University of North Carolina Press, 1958.
- Benson, L. E. Studies in secret ballot technique. Public Opinion Quarterly, 1941, 5, 79-82.
- Berger, P. K., & Sullivan, J. E. Instructional set, interview context, and the incidence of "Don't know" responses. Journal of Applied Psychology, 1971, 54, 414-416.
- Cook, T. D., Burd, J. A., & Talbert, T. L. Cognitive, behavioral, and temporal effects of confronting a belief with its costly action implications. Sociometry, 1970, 33, 358-369.
- Dunnette, M. D., & Heneman, H. G., Jr. Influence of scale administration on employee attitude responses. Journal of Applied Psychology, 1956, 40, 73-77.
- Edwards, A. Techniques of attitude scale construction. New York: Appleton-Century-Crofts, 1957.
- Elinson, J., & Haines, V. T. Role of anonymity in attitude surveys. American Psychologist, 1950, 5, 315.
- Farnsley, C. P. Polls as a tool of government. Public Opinion Quarterly, 1965, 29, 463-464.
- Festinger, L. A theory of cognitive dissonance. Stanford, Calif.: Stanford University Press, 1957.
- Festinger, L., & Katz, D. Research methods in the behavioral sciences. New York: Holt, Rinehart, and Winston, 1966.
- Franzen, R., & Lazarsfeld, P. F. Mail questionnaire as a research problem. The Journal of Psychology, 1945, 20, 293-320.
- Green, R. F. Does a selection situation induce testees to bias their answers on interest and temperament tests? Educational and Psychological Measurement, 1951, 11, 503-516.

- Hallman, H. Guidelines for neighborhood management. Public Management, 1971, 53(1), 3.
- Hinrichs, J. R., & Gatewood, R. D. Differences in opinion-survey response patterns as a function of different methods of survey administration. Journal of Applied Psychology, 1967, 51, 497-502.
- Hochstein, J., & Athanasopoulos, D. Personal follow-up in a mail survey: Its contributions and its cost. Public Opinion Quarterly, 1970, 52, 71.
- Kahn, R. L. A comparison of two methods of collecting data for social research: The fixed alternative questionnaire and the open-ended interview. Unpublished doctoral dissertation, University of Michigan, 1951.
- Klein, S. M., Maher, J. R., & Dunnington, R. A. Differences between identified and anonymous subjects in responding to an industrial opinion survey. Journal of Applied Psychology, 1967, 51, 152-160.
- Krech, D., Crutchfield, R. S., & Ballachey, E. L. Individual in society. New York: McGraw-Hill, 1962.
- Maxwell, A. Analyzing qualitative data. London: Methuen, 1961.
- McDonagh, E. C., & Rosenblum, A. L. A comparison of mailed questionnaires and subsequent structured interviews. Public Opinion Quarterly, 1965, 29, 131-136.
- Metzner, H., & Mann, F. C. A limited comparison of two methods of data collection: The fixed alternative questionnaire and the open-ended interview. American Sociological Review, 1952, 17, 486-491.
- Oppenheim, A. Questionnaire design and attitude measurement. New York: Basic Books, Inc., 1966.
- Orne, M. T. On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. American Psychologist, 1962, 17, 776-783.
- Parten, M. B. Surveys, polls, and samples. New York: Harper, 1950.
- Payne, S. The art of asking questions. Princeton: Princeton University Press, 1951.

- Reuss, C. F. Differences between persons responding and not responding to mail questionnaires. American Sociological Review, 1943, 8, 433-438.
- Richardson, S. A., Dohrenwend, B. S., & Klein, D. Interviewing: Its forms and functions. New York: Basic Books, 1965.
- Rosen, N. A. Anonymity and attitude measurement. Public Opinion Quarterly, 1960, 24, 675-679.
- Rosenburg, M. J., & Abelson, R. P. An analysis of cognitive balancing. In M. J. Rosenberg, C. I. Hovland, W. J. McGuire, R. P. Abelson, & J. W. Brehm (Eds.), Attitude organization and change. New Haven: Yale University Press, 1960.
- Scott, W. A. Attitude measurement. In G. Lindzey & E. Aronson (Eds.), Handbook of social psychology, Vol. 2 (2nd ed.), Research methods. Reading, Mass.: Addison Wesley, 1968.
- Selltiz, C., Jahoda, M., Deutsch, M., & Cook, S. W. Research methods in social relations. New York: Holt, Rinehart, and Winston, 1959.
- Shuttleworth, F. K. Sampling errors involved in incomplete returns to mailed questionnaires. Psychological Bulletin, 1940, 37, 437-439.
- Slocum, W. L., Empey, L. T., & Swanson, H. S. Increasing responses to questionnaires and structured interviews. American Sociological Review, 1956, 21, 221-225.
- Suchman, E. A., & McCandless, B. Who answers questionnaires? Journal of Applied Psychology, 1940, 24, 758-769.
- Swaffield, J. Neighborhood councils seek public participation. Public Management, 1971, 53(1), 14.
- Wallace, D. A case for-and-against mail questionnaires. Public Opinion Quarterly, 1954, 18, 40-52.
- Webb, D. J., Campbell, D. T., Schwartz, R. D., & Sechrist, L. Unobtrusive measures: Nonreactive research in the social sciences. Chicago: Rand McNally, 1966.

- Weiss, C., & Hatry, H. An introduction to sample surveys for government managers. Washington, D. C.: The Urban Institute, March 1971.
- Wesman, A. G. Faking personality test scores in a simulated employment situation. Journal of Applied Psychology, 1952, 36, 112-113.
- Willbern, Y., & Williams, L. City taxes and services: Citizens speak out. Nation's Cities, 1971, 9(8), 16.
- Yates, F. Sampling methods for censuses and surveys. London: Griffin, 1949.