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Questionnaires for Research:

An Annotated Bibliography on Design, Construction, and Use

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ABSTRACT

Questionnaires as social science tools are used increasingly to study people aspects of outdoor recreation and other natural resource fields. An annotated bibliography including subjective evaluations of each article and a keyword list is presented for 193 references to aid researchers and managers in the design, construction, and use of mail questionnaires.

Keywords: Bibliography, questionnaires, recreation, natural resources, public opinion surveys, research.

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INTRODUCTION

This bibliography was compiled in response to frequent requests for information on questionnaires by outdoor recreation researchers and the increasing use and misuse of questionnaires by investigators studying public reaction in the area of natural resources.[1/] Questionnaires are a long standing tool for gathering data in social science research but are used increasingly by researchers and professional managers unfamiliar with the problems associated with their use in fields such as recreation and natural resource. The objective of this annotated bibliography is to make available a summary and appraisal of literature on the construction and use of questionnaires for research purposes.

Several features are built into the bibliography to increase its usefulness:

First, the annotations summarize the content and conclusions of the article rather than merely describing what the article is about. Of course, readers are forewarned against quoting annotations directly without first consulting the original source because our interpretation of the original paper may be different from theirs.

Second, accompanying most annotations is our subjective evaluation of the article. These evaluations may reflect different standards among the evaluators; nevertheless, they should be useful in helping readers decide which references warrant their further attention.

Third, each citation contains a list of keywords geared specifically to topics covered in the article. These keywords are the basis for the index in the back of the bibliography to guide readers to those aspects of questionnaires in which they might be interested.

In conclusion, readers contemplating the use of questionnaires are advised that the complexities of using questionnaires for research are often vastly underrated. The popularity of the method often rests on ignorance of associated problems of data analysis, bias, reliability, and validity of results.

Persons desiring publications included in this bibliography should consult the reference source cited or write to the agency which sponsored the reference. Neither the Pacific Northwest Forest and Range Experiment Station nor the authors can provide copies of any references listed in this bibliography.

1/ Portions of this work were conducted under cooperative agreement between the Forest Service and the University of Washington College of Forest Resources.

ABBREVIATIONS FOR REFERENCE SOURCES

Am. J. Sociol.	American Journal of Sociology
Am. Sociol. Rev.	American Sociological Review
Am. Statist. Assoc. J.	American Statistical Association Journal
Assoc. Am. Coll. Bull.	Association of American Colleges Bulletin
Brit. Psychol. Soc. Bull.	British Psychological Society Bulletin
Educ. Admin. & Superv.	Education Administration and Supervision
Educ. & Psychol. Meas.	Education and Psychological Measurement
Educ. Res. Bull.	Educational Research Bulletin
Educ. Rev.	Educational Review
Int. J. Opin. & Attitude Res.	International Journal of Opinion and Attitude Research
J. Abnorm. & Soc. Behav.	Journal of Abnormal and Social Behavior
J. Abnorm. & Soc. Psychol.	Journal of Abnormal and Social Psychology
J. Adver. Res.	Journal of Advertising Research
J. Appl. Psychol.	Journal of Applied Psychology
J. Appl. Social.	Journal of Applied Sociology
J. Consult. Psychol.	Journal of Consulting Psychology
J. Educ. Psychol.	Journal of Educational Psychology
J. Educ. Res.	Journal of Educational Research
J. Exp. Educ.	Journal of Experimental Education
J. For.	Journal of Forestry
J. Juvenile Res.	Journal of Juvenile Research
J. Marketing	Journal of Marketing
J. Personality	Journal of Personality
J. Personnel Res.	Journal of Personnel Research
J. Psychol.	Journal of Psychology
J. Royal Statist. Soc.	Journal of the Royal Statistical Society
J. Soc. Issues	Journal of Social Issues
J. Soc. Psychol.	Journal of Social Psychology
N. Am. Rev.	North American Review
Pac. Sociol. Rev.	Pacific Sociological Review
Pedagog. Seminary	The Pedagogical Seminary
Personnel Psychol.	Personnel Psychology
Printers' Ink	Printers' Ink
Proc. Iowa Acad. Sci.	Proceedings Iowa Academy of Science
Psychol. Bull.	Psychological Bulletin
Publ. Opin. Quart.	Public Opinion Quarterly
Res. Bull. Natl. Educ. Assoc.	Research Bulletin of the National Education Association
Res. Quart.	Research Quarterly
Rev. Educ. Res.	Review of Educational Research
Royal Statist. Soc. J.	Royal Statistical Society Journal
Rural Sociol.	Rural Sociology
Sales Manage.	Sales Management
Sch. Rev.	The School Review
Sch. & Soc.	School and Society
Sociol. Abstr.	Sociological Abstracts
Soc. Forces	Social Forces
Soc. Probl.	Social Problems
Sociol. & Soc. Res.	Sociology and Social Research

ANNOTATED BIBLIOGRAPHY

1. Ash, Philip, and Edward Abramson
   1952. The effect of anonymity on attitude-questionnaire response. J. Abnorm. & Soc. Behav. 47(3): 722-723.

   Results from three attitude scales of ethnocentrism, political-economic conservatism, and anti-Negro prejudice administered to 96 college sociology students showed no significant difference between half the group required to sign answer sheets and half who remained anonymous.

   EVALUATION: Extension of results should be made with caution--students are not necessarily representative of other sampling populations.

   KEYWORDS: Anonymous respondent.

2. Azrin, N. H., W. Holz, and I. Goldiamond
   1961. Response bias in questionnaire reports. J. Consult. Psychol. 25(4): 324-326.

   To investigate the validity of an earlier study of military personnel concerning behavioral reactions indicative of fear in combat, the authors used two questionnaire forms on two groups of college students totaling 160 people. A response bias was found toward certain symptoms of combat fear regardless of whether or not the symptom was alleged to occur. Correlations between students and fliers were high. Probably the same type of response bias influenced the combat fliers. Unless objective and direct means of measurement are available, the questionnaire responses may be independent of the behavior being studied.

   EVALUATION: Good paper reminding researchers of bias involved if certain questionnaire answers are expected and the respondent learns of this expectation.

   KEYWORDS: Bias: nonresponse, stated vs. actual behavior.

3. Bachrack, Stanley D., and Harry M. Scoble
   1967. Mail questionnaire efficiency: controlled reduction of nonresponse. Publ. Opin. Quart. 31: 264-271.

   Contributors to the National Committee for an Effective Congress as of 1960 were sampled with a 25-page questionnaire yielding a 63.5-percent response rate. A two-page followup yielded an additional 19.5 percent. These procedures were used to reduce nonresponse: a prequestionnaire explanatory letter, a prestamped and addressed return envelope, and a post card for requesting report of findings. Followup letters repeated relevant information, and a second followup letter preceded the two-page questionnaire sent to all remaining nonrespondents. An identical form of this schedule was sent 1 month later, and the remaining nonrespondents were sent post cards containing 13 short, census-type data questions. Three major reasons are suggested that account for nonresponse: infirmities of advancing age, personal disturbances in individual's life style (job change or bereavement), and hostility toward

social survey research. Since a mailed questionnaire is an imposition, resistance is overcome by persuasion, persistence, attention to procedural techniques and details calculated to activate a potential respondent.

EVALUATION: Good, practical suggestions for increasing returns along with a case study example to support conclusions.

KEYWORDS: Followup: mail, post card
Incentive: postage
Cover letter.

4. Bain, Read
1931. Stability in questionnaire response. Am. J. Sociol. 37(3): 445-453.

A 61-item questionnaire given to 50 college freshmen was resubmitted to them 2-1/2 months later to measure the reliability of original results. One-fourth of the answers changed. Factual personal data changed less than factual family or subjective personal data. Girls changed their answers less often than boys.

EVALUATION: The small sample and the author's occasional overenthusiastic and unsupported statements reduce the value of this article. Appears slanted to support the author's point of view.

KEYWORDS: Reliability.

5. Ball, Robert Jaudon
1930. The correspondence method in follow-up studies of delinquent boys. J. Juvenile Res. 14: 107-113, illus.

A brief questionnaire was distributed to parents to determine their satisfaction with the behavior of recently paroled sons. Frequency of meaningful response appeared correlated with child's IQ, but parents gave favorable report when opposite was known to be true. Inferences about parents' intelligence were drawn from the manner in which the questionnaire was completed. Rate of return was extremely low (40-percent return with only 45 percent properly filled out).

EVALUATION: Dated, superficial, weak. It does alert researchers to the possibility of gaining information from the *manner* in which a questionnaire is completed.

KEYWORDS: Bias: nonresponse.

6. Barnette, W. Leslie, Jr.
1951. The non-respondent problem in questionnaire research. J. Appl. Psychol. 34(6): 397-398.

The solution to the nonresponse bias detection when a large nonrespondent group remains after two or three mail questionnaire followups is to randomly sample these nonrespondents and make persistent attempts to contact them. An example is given.

EVALUATION: Good example of persistence paying off in reducing nonresponse bias.

KEYWORDS: Bias: nonresponse
Followup: telephone, mail.

7. Bartholomew, Warren M.
1963. Questionnaires in recreation Their preparation and use. 12 p. New York: Natl. Recreation Assoc.

Results of a study by the National Recreation Association indicated that many questionnaires sent and received by recreation agencies are not effectively designed. Includes general comments on defining and clarifying the problem; types, content, wording, and sequence of questions; length of questionnaire; pretesting; distribution; ways to increase response; tabulation of data; and organization of the final reports.

EVALUATION: Superficial instruction on use of questionnaires with no references to other literature. Perhaps useful to beginners but dangerous if they proceed with this reference alone.

KEYWORDS: Questionnaire: design
Applications.

8. Barton, Allen H.
1958. Asking the embarrassing question. Publ. Opin. Quart. 22: 67-68, illus.

A humorous, short article consisting solely of eight ways to ask the embarrassing question, "Did you kill your wife?" in a nonembarrassing way. For example, the casual approach, the direct approach, a sealed ballot box, a projective technique, etc.

EVALUATION: Too brief with no discussion of important points.

KEYWORDS: Questionnaire: design
Question: wording.

9. Bauer, Rainald K., and Frank Meissner
1963. Structures of mail questionnaires: test of alternatives. Publ. Opin. Quart. 27: 306-311.

A test was made to determine the validity of the following rule of thumb: "A series of logically interdependent questions generate more meaningful answers if put on one page of the questionnaire." Of the 198 complete answers received to a one-page questionnaire, 53.5 percent were absolutely correct, 45.0 percent were conditionally correct, and 1.5 percent were absolute nonsense. Of the 765 complete answers received to a two-page questionnaire, only 47.0 percent were absolutely correct, while the proportion of nonsense answers increased to 5.0 percent. Therefore, not only did the proportion of absolutely correct answers decline when two pages were used

but nonresponse and nonsense answers increased. Test results were, therefore, consistent with the rule of thumb.

EVALUATION: Insufficient information is given to allow the reader to check conclusions, but findings do support other literature.

KEYWORDS: Questionnaire: design.

10. Baur, E. Jackson

1947. Response bias in a mail survey. Publ. Opin. Quart. 11: 594-600, illus.

The Veterans Administration mailed a questionnaire to 6,000 World War II veterans; 92 percent were returned. Characteristics of nonrespondents--interest in questionnaire topic, formal education, age, marital status, and parenthood--were analyzed. Nonresponse bias was highest from difference in interest in questionnaire topic. Forty-nine percent of the nonrespondents had not attained a high school education, whereas of the respondents, 30 percent were without high school education. Those who were married or had little education were slower to respond. Age and parenthood did not influence response. Nonrespondents were not the same as late respondents.

EVALUATION: Well-written, substantive article but a little weak in statistical analysis of results.

KEYWORDS: Bias: nonresponse.

11. Bender, Donald H.

1957. Colored stationery in direct-mail advertising. J. Appl. Psychol. 41(3): 161-164.

Navy and Air Force officers and enlisted men totaling 12,056 received variously colored questionnaires to determine if color would increase the response rates. Response rates for various combinations of color including white, blue, green, canary, pink, and goldenrod ranged from 6.4 to 11.6 percent. Mailings of colored questionnaires yielded higher returns as a group than white questionnaires, but the difference was statistically insignificant.

EVALUATION: This experiment is one of few which tests color, but the return rate was so low that results are totally unreliable.

KEYWORDS: Incentive: motivation
Questionnaire: format.

12. Bennett, E. M., R. L. Blomquist, and A. C. Goldstein

1954. Response stability in limited-response questioning. Publ. Opin. Quart. 18: 218-223.

Coefficients of stability were determined for 30 limited-response questions, for a 4-week, test-retest period, on 197 subjects. All stabilities were

significantly greater than could be expected by chance. The questions were classified into four general categories, and the mean coefficients of stability for these classes of questions ranged from 0.713 to 0.970. Theoretical implications and polling procedures are described in detail.

EVALUATION: Excellent discussion demonstrating problems of interpretation for fixed response—categories between informant and investigator.

KEYWORDS: Validity
Question: wording.

13. Benson, Lawrence E.
1946. Mail surveys can be valuable. Publ. Opin. Quart. 10: 234-241.

Six advantages and seven disadvantages of the mail questionnaire for use in public opinion research are discussed based on Gallup Poll experience. The two main disadvantages are difficulty of obtaining returns from a representative cross section of the population and the proportionately greater number of returns that come from strongly biased respondents. Often results of surveys need to be adjusted to account for predicted changes in voter behavior. Mail questionnaires can be valuable provided their limitations are known and their results properly understood and correctly interpreted. Actual survey problems are used as results, and extensive explanation is made of factors responsible for gross inaccuracies in the 1936 Literary Digest presidential poll.

EVALUATION: Excellent review of problems involved in the use of questionnaires with population samples, specifically for political surveys. Good treatment of nonresponse.

KEYWORDS: Advantages of questionnaires
Bias: nonresponse
Applications
Disadvantages of questionnaires.

14. Bevis, Joseph C.
1948. Economical incentive used for mail questionnaire. Publ. Opin. Quart. 12: 492-493.

During pretesting by Opinion Research Corporation, 10-, 25-, and 50-cent war stamps were distributed with a mail questionnaire. The 25- and 50-cent stamps resulted in roughly the same return rate, but the 10-cent stamp produced definitely lower returns. In the subsequent survey, only 25-cent war stamps were included. Of the 2,734 questionnaires, 84 percent were returned, with one followup. A number of the latter respondents also returned the stamp.

EVALUATION: Information missing on size of pretest samples and percentage returns. Difficult to say that economic incentive or patriotism resulted in greater returns.

KEYWORDS: Pretest
Incentive: money.

15. Blankenship, Albert B.
1940. The choice of words in poll questions. Sociol. & Soc. Res. 25 (Sept.-Oct.): 12-18.

Individual words can elicit emotions and prejudices from respondents. Words may confuse or imply other than what the investigator intended. If the investigator does use emotionally colored words, it should be clearly identified in his analysis just what was measured. Arrangement of words within phrases is important. Qualifying adjectives often provoke different responses to a question than when used without them. Author recommends a list of words to be avoided in questionnaires. Specific questions, clearly stated, are needed to avoid meaningless answers.

EVALUATION: Dated but useful article on word choice. Good references to available literature with some excellent, specific examples.

KEYWORDS: Question: wording.

16. _____
1943. Consumer and opinion research; the questionnaire technique. 238 p. New York: Harper & Bros. Publ.

This test includes topics on a historical perspective of questionnaires, the general technique of conducting a survey, formalizing the problem and study objectives, methods of collecting data, phrasing of questions, format of questionnaire, testing questionnaires for effectiveness, selecting sample, preparing and distributing materials, summarizing results, preparing the report, measuring the validity of surveys, and a case against the questionnaire survey technique.

EVALUATION: Text covers the range of problems encountered in questionnaire surveys. It should be supplemented with recent findings.

KEYWORDS: Textbook
History
Disadvantages of questionnaires.

17. Boek, Walter E., and James H. Lade
1963. A test of the usefulness of the post-card technique in a mail questionnaire study. Publ. Opin. Quart. 27: 303-306.

The post-card technique, a procedure that maintains anonymity but still allows followups with nonrespondents, was used to determine if 178 Health Department personnel would carry out their assigned functions in case of a nuclear attack. Replies were received from 86 percent of the

sample; after a followup letter, total returns were 99 percent. Post cards were an important factor in this high percentage of return, although the type of people surveyed and their relationship with the organization had some effect on the return.

EVALUATION: Rather superficial; response rate may have approached 99 percent without the post card due to nature of topic and official positions of subjects.

KEYWORDS: Anonymous respondent
Followup: post-card, mail.

18. Bradt, Kenneth
1955. The usefulness of a post card technique in a mail questionnaire study. Publ. Opin. Quart. 19: 218-222.

Questionnaires mailed to 5,356 dropouts of an armed forces correspondence course included a post card to be returned separately to provide a means of followup without destroying anonymity of the respondent. Slightly more than 4 percent of those who returned a questionnaire failed to return a post card. An 80-percent return was realized after one followup reminder. This post-card technique has broader application than is generally recognized.

EVALUATION: Good case study of the use of post cards to preserve respondent anonymity.

KEYWORDS: Anonymous respondent
Followup: mail.

19. Brennan, Robert D.
1958. Trading stamps as an incentive in mail surveys. J. Marketing 22(3): 306-307.

From a census tract with characteristics approximating the average of the market area, 456 households were selected at random. In a series of three experiments, half of the households were either sent or promised trading stamps or 25 cents, and half were given no incentives or had the length of their questionnaire reduced. The results of the three experiments indicate that small incentives do not increase the percent of mail returns significantly and that the additional cost does not warrant them. Such procedure merits consideration only if maximal information is desired.

EVALUATION: Study supported by fact that return rates were extremely low--22 to 29 percent.

KEYWORDS: Incentive: money, reward.

20. Britton, Joseph H., and Jean O. Britton
1951. Factors in the return of questionnaires mailed to older persons. J. Appl. Psychol. 35(1): 57-60.

One study of 328 retired Y. M. C. A. secretaries received 68-percent returns from a preliminary questionnaire about retirement and 51.9-percent returns from a longer one on the same subject. Followup letters to the 57 secretaries who had returned neither questionnaire resulted in a 50.8-percent return. Generally the same procedure was followed for a second study of 2,853 retired teachers. A 20-percent sample of nonrespondents was interviewed. Results show that the retired men in both studies had higher return rates. Former school administrators had higher returns than school teachers, and Y. M. C. A. secretaries with the highest returns were most apt to have served 25 years or more and to have moved more often since retirement.

EVALUATION: Case study examples not tied to any broader framework with which to generalize results and conclusions.

KEYWORDS: Questionnaire: length
Bias: nonresponse
Followup: mail.

21. Brooks, Vernon
1947. Can you trust mail questionnaires? Printers' Ink 86, 88, 90, 92, 96, 100.

Registered voters in New York City were selected in a market survey to determine if the respondents were a representative cross section of society. Their results showed that the respondents tended to be better educated, and to be in the upper income and professional and managerial occupation classes. The 20- to 29-year age group along with the 50-year-and-older group were underrepresented while the 30- to 49-year-old group was overrepresented. The authors conclude that if you are seeking opinions from a homogeneous group, mail questionnaires are fairly reliable, but if you seek opinions from a cross section of society, the mail survey is not reliable.

EVALUATION: This article points to some areas that the researcher should consider. The results may be questioned due to biasing effect of a voter registration sample being used as a representative cross section of people.

KEYWORDS: Bias: representativeness.

22. Brown, Morton L.
1965. Use of a postcard query in mail surveys. Publ. Opin. Quart. 29: 635-637.

A sample of 523 physicians was subdivided into two subsamples. The first received a two-page query consisting of a cover letter, two screening questions, and space for patient diagnosis. The second subsample received a cover letter and a return post card containing only the two screening questions. For the original mailing, the post-card form elicited a 15-percent greater response, but this difference disappeared at the conclusion of the second mailing. Only 5-percent fewer contacts were required for the post-card query group. Most significantly, the feasibility of the post-card query is questionable because only 80 percent of the physicians responded to the additional query sent following receipt of the post-card form. The post-card query procedure was considered less efficient than the alternate query for eliciting the type of data needed.

EVALUATION: That the initial post-card query may be less efficient than alternative forms is in part dependent upon the circumstances in a particular study. The method should not be ruled out based on the conclusion drawn in this paper.

KEYWORDS: Cover letter
Questionnaire: format.

23. Cahalan, Don
1951. Effectiveness of a mail questionnaire technique in the army. Publ. Opin. Quart. 15: 575-578.

A sample of 1,051 Army officers received a 23-page questionnaire dealing with Army interests. The cover letter stressed responsibility and requested a return within 5 days. Followup letters were not sent due to the 84-percent return rate. A large body of data available on each officer was used to check representativeness of return. The respondents did not vary significantly from the nonrespondents. The questionnaire technique produced efficient and representative sampling in a single mailing and was more anonymous, less expensive, and faster than the interview technique. The questionnaire technique should work well on any other group with fairly strong lines of institutional control or traditions of responsibility.

EVALUATION: The response rate might have differed if followup letters had been used. The report has little data but is worth reading in light of the use of "built-in" motivation for returning questionnaire.

KEYWORDS: Mail questionnaire vs. interview
Cover letter
Incentive: motivation.

24. Campbell, Donald T.
1950. The indirect assessment of social attitudes. Psychol. Bull. 47(1): 15-38.

Covered are four types of attitude assessment tests: (1) nondisguised structured: direct attitude test; (2) nondisguised-nonstructured: free response approach and essay; (3) disguised-nonstructured: "projective" techniques; and (4) disguised-structured: tests which approximate the objective testing of attitudes. There is no evidence that indirect tests obtain higher validity in measuring attitudes than do direct tests, but direct tests have much higher reliability than do indirect ones. Indirect tests have ability to pick up systematic, unconscious biases.

EVALUATION: Comprehensive review of the literature of the 1940's dealing with indirect assessment of attitudes.

KEYWORDS: Cover letter
Questionnaire: format
Validity
Mail questionnaire vs. interview
Attitudes.

25. Cannell, Charles, and Floyd Fowler
1963. Comparison of a self-enumerative procedure and a personal interview: a validity study. Publ. Opin. Quart. 27: 250-264.

Data of known validity from a sample of general hospitals were compared with data obtained from the responses of 462 persons in an interview procedure, and 465 persons in a self-enumerative procedure. Results show that when records are available or when reporting from respondents is done by proxy, the self enumerative procedure is more accurate. In contrast, diagnosis and type of surgery are reported more accurately in an interview. This is consistent with the common observation that interviews about episodes involving threatening or embarrassing surgery is better than in self-enumerative procedures. Education of the respondent was more important in the interview. But respondent motivation was found more important in self-enumerative procedure, which stresses the need for developing special motivational techniques if this procedure is employed.

EVALUATION: A well-written report tied directly to the data. Hypotheses are developed and tested, and conclusions consistent with the data are drawn.

KEYWORDS: Mail questionnaire vs. interview
Validity.

26. Cantril, Hadley
1940. Problems and techniques experiments in the wording of questions. Publ. Opin. Quart. 4: 330-332.

In a national survey of 3,100 persons, alternate wording of two questions was given. The first question read as follows, "Do you approve of Sumner Welles' visit to European capitals?" and its alternate read, "Do you approve of President Roosevelt's sending Sumner Welles to visit European capitals?" Response choices were: approve, disapprove, and no opinion. When Roosevelt's name was used, more people had opinions and although the percentage of people who approved the visit remained identical at 43 percent, more people disapproved when it was connected with Roosevelt. Response to the question without the President's name was 25 percent and response to the one with his name was 31 percent. This was more true of women than of men.

EVALUATION: One should gain an appreciation for the wording of questions by reading this article. The point to be made is, be extremely cautious in wording questions. For example, in the first question the respondent is asked about Sumner Welles' visit, and in the second question, about Roosevelt's decision.

KEYWORDS: Question: wording.

27. Cavan, Ruth Shonle
1933. The questionnaire in a sociological research project. Am. J. Sociol. 38(5): 721-727.

The reliability of an 80-item questionnaire was determined by retesting 123 eighth-grade children after a 1-week interval. The replies of 62 pairs of siblings were compared, and 29 mothers were interviewed to check on factual questions. Factual questions about parents were completely reliable in 92 percent of the cases; facts about the home, in 95 percent of the cases; and those involving estimates of numbers, time, etc., 62 percent. There was 38-percent disagreement in attitudinal questions, but half were minor. Concludes that questions involving attitudes or estimates have lower reliability than factual questions. Reliability is increased by avoiding fine detail.

EVALUATION: Valuable even though dated. Poorly written with some lack in design and slight inconsistencies in reporting.

KEYWORDS: Reliability
Attitudes.

28. Champion, Dean J., and Alan M. Sear
1969. Questionnaire response rate: a methodological analysis. Soc. Forces 47: 335-339.

A total sample of 2,290 people, from the city directories of Knoxville, Nashville, and Chattanooga, were mailed questionnaires resulting in 42-percent return after one followup. Special delivery postage yielded returns of 61.2 percent versus 41.9 percent for regular postage. Six-page and nine-page questionnaires were returned more often than three-page questionnaires. High and medium socioeconomic status (SES) persons responded more than low ones. Cover letters with an egoistic appeal (benefits the respondent would get from responding) resulted in greater response than letters with an altruistic appeal (benefits the research organization would get) from their response. Higher SES respondents favored altruistic-oriented cover letters, and lower SES respondents favored egoistic. 16 references.

EVALUATION: Informative study of response rate, clearly written with good literature review.

KEYWORDS: Incentive: postage
Cover letter.

29. Clausen, John A., and Robert N. Ford
1947. Controlling bias in mail questionnaires. Am. Statist. Assoc. J. 42(240): 497-511.

Nonresponse bias can be attacked on two fronts: (1) increase response and thus minimize unknown bias from nonrespondents and (2) estimate and correct for bias existing in nonresponding groups. Presents empirical data and literature review to spur returns. Concludes that a well-written cover letter plus followups can motivate response. Airmail and special delivery letters often help. Personalized greeting or signature do not. Interest in the questionnaire can be increased if questions of general or widespread interest are included. Estimating response bias may include consideration of respondent-nonrespondent homogeneity such as education or consistently different answers in successive waves of response after followups.

EVALUATION: Review of bias problems plaguing questionnaires but some too specific to be of general help.

KEYWORDS: Incentive: postage, motivation
Followup: mail, personal contact
Cover letter.

30. Colley, R. H.
1945. Don't look down your nose at mail questionnaires. Printers' Ink 210(March): 21, 104, 106, 108.

The mail questionnaire was once the principal tool in market research. Prior to World War II, however, the personal interview method became ingrained. War shortages of interviewers and transportation caused a reluctant return to the use of mail questionnaires. With careful planning, however, the questionnaire method is a valuable tool for consumer research. Problems of representativeness and respondent interest can be minimized if adequate safeguards are taken.

EVALUATION: Inadequate, popularized discussion of problems in mail questionnaires. Descriptions of procedures employed are incomplete.

KEYWORDS: Mail questionnaire vs. interview
History.

31. Corey, Stephen M.
1937. Signed versus unsigned attitude questionnaires. J. Educ. Psychol. 28(2): 144-148.

Study tested the belief that respondent-signed attitude tests are not as valid as those where respondent remains anonymous. An attitude scale containing 50 statements reflecting sympathy or antipathy toward classroom cheating was administered to 150 students, once with signatures required and once without. Both signed and unsigned tests had high split-half reliability coefficients with no significant differences between them. Correlation between scores on signed and unsigned tests was high (0.85 ± 0.02). Mean scores reflected a slight, but statistically insignificant, tendency for more sympathetic attitudes toward cheating to be expressed on anonymous papers, as did the total range in scores. The invalidating effects of signatures on questionnaires may be exaggerated.

EVALUATION: Concise article reporting a well-executed study.

KEYWORDS: Anonymous respondent.

32. Crutchfield, Richard S., and Donald A. Gordon
1947. Variations in respondents' interpretations of an opinion-poll question. Int. J. Opin. & Attitude Res. 1(3): 1-12.

One Gallup Poll question was studied using 114 interviews to determine respondent interpretation and to determine how these affected the results of the questionnaire. The results varied according to the frame of reference used by the respondent. Men responded differently from women. Questionnaire results may be misleading if the frame of reference is not carefully analyzed.

EVALUATION: Study clearly points to the need for careful question construction and cautious interpretation of the data in light of the respondent's interpretation of the questions.

KEYWORDS: Question: wording
Interpretation.

33. Cuber, John F., and John B. Gerberich
1946. A note on consistency in questionnaire responses. Am. Sociol. Rev. 11(Feb.): 13-15.

Three questionnaires were filled out by 132 sociology students at 2-week intervals. Questions were of a factual, attitudinal, or evaluative nature. Questions

were rearranged each time, and irrelevant questions inserted to disguise the purpose of the study. Seventy-two percent of the answers were consistent between applications. Factual questions showed the least reliability, differences in class levels or age of respondents were consistent. Questionnaire data should be accepted with caution until the methodological problems of reliability are investigated further.

EVALUATION: A note of caution against blind acceptance of questionnaire data. Contradicts other findings that factual questions are most reliable. Does not suggest guidelines to improve reliability or validity.

KEYWORDS: Reliability
Validity.

34. Davis, Robert A., and Edwin L. Barrow
1935. A critical study of the questionnaire in education. Educ. Admin. & Superv. 21(Feb.): 137-144.

Over a period of 38 years, 500 questionnaires used in educational studies were reviewed to determine the rate of return, types of response called for, techniques used to increase returns, reliability, validity, and source of respondent information (fact, opinion, memory). Authors found that reports of many studies omit vital information such as length and number of returns of questionnaires. Reliability and validity of most questionnaires are probably so low that results are inconclusive. More appropriate statistical techniques are needed to determine reliability and validity.

EVALUATION: Review article based on logical research criteria. Dated, but problems identified still exist.

KEYWORDS: Bias: nonresponse.

35. Deming, W. Edwards
1944. On errors in surveys. Am. Sociol. Rev. 9(4): 359-369.

Thirteen factors affecting the usefulness of surveys are: variability in response, differences between kinds and degrees of canvas, bias and variation arising from the interviewer, bias from sponsorship, imperfections in questionnaire design and tabulation plans, changes taking place prior to availability of tabulations, bias from late reports, bias from unrepresentative selection of respondents or the period covered, sampling errors and biases, processing errors, and errors in interpretation. Errors from some of these factors are larger than commonly supposed; research must find ways of reducing errors and survey limitations. There is a special responsibility in presenting data to describe all difficulties to reduce errors of interpretation and utilization. As knowledge about bias and variability increases, their effects can be taken into account systematically and surveys will be less hindered.

EVALUATION: Excellent paper summarizing major sources of error and their impact on survey research results.

KEYWORDS: Bias
Questionnaire: design
Interpretation.

36. Desing, Minerva F.

1941. Suggestions to the novice in the mechanics of research. Sch. Rev. 49(March): 206-212.

A list of suggestions is given to assist students, clerical help, and novices in gathering, organizing, and treating data to guard against ambiguities, inconsistencies, and other irritations impeding progress (and validity) of a questionnaire study. Twelve suggestions are given for gathering data and 23 relevant to coding, analysis, and clerical procedure.

EVALUATION: A good list of "how to do it" suggestions and precautions that would be vital to the novice and useful for the expert to review.

KEYWORDS: Questionnaire: design
Coding
Analysis.

37. Deutscher, Irwin

1956. Physicians' reactions to a mailed questionnaire: A study in "resistentialism." Publ. Opin. Quart. 20: 599-604.

A questionnaire headed "Public Images of Female Occupations," was mailed to a random sample of 379 male physicians. Returns were not received from 43 percent. The following social-psychological factors were isolated as potential reasons for nonresponse: resistance to demands to express stereotypes and broad generalizations; resistance to the limited alternatives presented in multiple-choice questions; resistance to value-laden, linguistic symbols such as "class"; and resistance to projective-type questions whose meaning and purpose are not clear to the potential respondent. The reduction of such forms of resistance would reduce nonresponse and incomplete returns.

EVALUATION: Excellent suggestions worth consideration.

KEYWORDS: Questionnaire: design
Bias: nonresponse.

38. _____

1966. Words and deeds: social science and social policy. Soc. Probl. 13(3): 235-254.

Social science conclusions are often based on verbal response to questions about attitudes and behaviors. But as early as 1934, evidence by LaPiere showed there may be no positive relationship between what people say and do, and there may be a high inverse relationship. However, both empirical evidence and theoretical rationale about this problem have been largely ignored. The social science model shows uncommon concern for methodological issues of reliability, neglecting problems of validity. A technology inappropriate to the understanding of human behavior has been developed. We do not know under what conditions a change in attitude anticipates a change in behavior and vice versa. Ideally, we should obtain information from the same population on verbal behavior and interaction on behavior under natural social conditions. The empirical evidence can best be summarized as reflecting wide variation in the relationships between attitudes and behaviors. Role theory can help us understand why man is constrained from acting as he "ought," and much can be learned from the undeveloped field of sociolinguistics.

What do we know about the attitudinal consequences of behavioral change? To polarize attention upon two variables labeled "attitude" and "behavior" is to continue down the wrong track. It is what goes on in between--the process--that needs attention.

EVALUATION: Lengthy but relevant discussion of an important problem in the interpretation and meaning of questionnaire data. Evidence given demonstrates differences between "what people say" and "what people do."

KEYWORDS: Validity
Interpretation
Bias: stated vs. actual behavior.

39. Diamond, Sigmund
1963. Some early uses of the questionnaire: views on education and immigration. Publ. Opin. Quart. 27: 528-542.

A selective historical review of the questionnaire. Earliest recording of the term in the English language is thought to be 1901. American dictionaries included it in the 1930's. Census, a form of the questionnaire research, is as old as government itself. In the 17th century, particularly in France, the questionnaire was used for studies of social and political phenomena. Horace Mann used questionnaires to both gather and make opinion about public school systems. One early questionnaire study sought to ascertain from slave owners information about religious instruction provided Negro slaves. The questionnaire was used to gather reasons for immigration. Many questionnaires reveal factors of interest to the respondents rather than to the originator.

EVALUATION: Interesting selection of historical examples but of limited applicability to questionnaires as a research tool.

KEYWORDS: History.

40. Dollard, John
1948-49. Under what conditions do opinions predict behavior? Publ. Opin. Quart. 12: 623-632.

Discussed are social and cultural factors which tend to sustain the validity of surveys and other factors which tend to make people's opinions unreliable for predicting their behavior. The following conditions may assist in understanding the relationship between opinion and action: (1) neurotics find it difficult to predict their behavior when their own serious conflicts are involved; (2) persons with poor verbal skills may find it difficult to forecast their own behavior; (3) people who habitually go into effective action after thinking things over can best predict their own actions; (4) the test situation should not be corrupted by extraneous threats or rewards; (5) a man can best predict future situations if he has experienced that situation before; (6) a man can predict a future situation, provided another experience does not change his mind first; and (7) a man can better predict what he will do in a future dilemma if he is told exactly what the dilemma will be.

EVALUATION: Excellent paper based upon psychological behavior theory that implicates the conditions of questionnaire validity.

KEYWORDS: Validity
Bias: stated vs. actual behavior.

41. Donald, Marjorie

1960. Implications of nonresponse for the interpretation of mail questionnaire data. Publ. Opin. Quart. 24: 99-114.

Extensive mail questionnaires to 2,768 dues-paying voluntary association members in 104 local units across the country yielded a 77.3-percent return using three followups. At least half the nonrespondents did not actually support the organization. A significant relationship was found between amount of effort needed to get response and member involvement. The higher the involvement, in terms of active participation, knowledge and understanding of the organization, and loyalty to it, the fewer stimuli required to induce a response. Nonresponse to specific questions was similarly related. A phone call appeared to induce a cognitive reorientation of nonrespondents who were as involved as those responding to the preceding stimulus except their participation followed a more passive pattern. Nonresponse implications for data interpretation appear especially severe for attitudinal items and future behavior. Implications were less pervasive for estimates of respondent's own current behavior and insignificant for estimates of general group behavior of others. In the latter case, although there was more variability in response with decrease in involvement, there were no significant differences among the pooled responses at different levels of involvement. Costs can be minimized by selecting a cutoff point where inferences can be made about remaining nonrespondents.

EVALUATION: "Significant" differences are reported in this paper. Questions that remain unanswered are how strong and important those differences are. Results in this paper are thus merely suggestive.

KEYWORDS: Bias: nonresponse
Incentive: motivation
Followup: mail, telephone.

42. Durant, Henry, and Irene Maas

1956. Who doesn't answer? Brit. Psychol. Soc. Bull. 29: 33-34.

Response is affected by the relationship between the subject of the inquiry and the recipient of the questionnaire. If it makes a difference who does not answer, then either the questionnaire technique should not be used or an attempt must be made to sample nonrespondents to see if they differ from respondents. In a test of university students, there were indications that people previously approached responded more readily a second time and that merely having to fill in two questions did not greatly increase cooperative response over having to fill in a 53-item questionnaire.

EVALUATION: Good advice. Also suggests that questionnaire length is not a major factor in nonresponse.

KEYWORDS: Questionnaire: length
Bias: nonresponse.

43. Eastman, R. O.

1945. Dangers in direct-mail surveys. Printers' Ink 210(Jan.): 36, 40.

Criticizes mail surveys and offers suggestions for improvement. Criticisms are: (1) mailed questionnaires automatically create two groups, the responsive

and the unresponsive and the resulting bias is difficult to determine; (2) data received are of insufficient depth to be useful for ascertaining anything other than strictly factual information. Suggestions are: (1) ascertain the distribution and characteristics of nonrespondents--it is not the number who respond that counts, but *who* responds; (2) don't cheat the data by slighting the analysis; few surveys are any good unless intelligently interpreted. Author concludes that the inexpensive characteristic of mail surveys is not an advantage, because one gets what he pays for.

EVALUATION: Popular and homey in style, but several good points about problems inherent in mail surveys.

KEYWORDS: Interpretation
Disadvantages.

44. Eckland, Bruce K.
1965. Effects of prodding to increase mail-back returns. J. Appl. Psychol. 49(3): 165-169.

The less accessible subjects in a survey sample often exhibit unusual characteristics which may be of interest to the researcher. When telephone and certified mail techniques were used to obtain a 94-percent mail-back return from 1,259 former college students, academic achievement variables were found to be related to the amount of prodding which was required to obtain a response. No significant relationship was found, however, between the amount of prodding and the veracity of the respondents' replies. Results indicate prodding may be warranted to determine effects of nonresponse.

EVALUATION: Well-written, concise report describing one method to reduce nonresponse bias.

KEYWORDS: Bias: nonresponse
Followup: mail, telephone.

45. Edgerton, Harold A., Steuart H. Britt, and Ralph D. Norman
1947. Objective differences among various types of respondents to mailed questionnaire. Am. Sociol. Rev. 12(4): 435-444, illus.

A followup study of all male contestants in the First Annual Science Talent Search using a mailed questionnaire revealed that: (1) "Winner" contestants make almost 100-percent returns of the questionnaire for each of 3 followup years, (2) "Honorable Mention" contestants make the next largest percentage of returns, and (3) "also ran" contestants have the lowest percentage of return. These results are consistent with previous studies which show that interest in the subject or sponsor influences returns. Analysis of Science Aptitude Examination scores of the "other" contestants for 4 followup years revealed that individuals replying faithfully to the questionnaire for 4 years tended to be superior on the examination. Their rising mean scores were directly related to frequency of replies, disregarding succession. Intensive and vigorous followup is a basic tenet in mail questionnaire research. Otherwise the tendency will be to obtain replies from those who have a special interest in the subject under study, or who exhibit some characteristics different from the nonrespondents or from the casual or indifferent respondents.

EVALUATION: Good example of a panel study on students.

KEYWORDS: Bias: nonresponse
Followup: mail.

46. Ellis, Albert

1946. The validity of personality questionnaires. Psychol. Bull. 43(5): 385-440.

This is a check of the validity of studies using questionnaires to distinguish neurotic from nonneurotic personalities. In each study reviewed, the results of personality assessment by questionnaire were compared with results obtained by other methods. Of 232 studies, 101 had correlation coefficients of r = 0.00-0.39. Of an additional 42 studies specifically checking whether respondents overrated themselves, 36 showed overrating. Author concludes that group-administered personality questionnaires are able to discriminate one time out of two between groups of adjusted and maladjusted individuals. There is little indication they can be used at all to diagnose individual cases. Lengthy bibliography included.

EVALUATION: An excellent and monumental review of validity of personality literature utilizing questionnaires. Bibliography, 360.

KEYWORDS: Validity
Literature review.

47. ———

1947. Questionnaire versus interview methods in the study of human love relationships. Am. Sociol. Rev. 12(Oct.): 541-553.

Empirical study involving a questionnaire as a followup 1 year after a structured interview was given on love relationships of college women. Conclusions are: (1) for studying these types of behavior, the questionnaire method is at least as satisfactory as interviews; and (2) as questions become more ego-involving, the questionnaire becomes better for producing relevant data. Does not rule out the interview as a method of providing depth or insight. Questionnaire is included.

EVALUATION: Author does not generalize to other research areas, but information seems useful in many other behavior research efforts.

KEYWORDS: Question: content
Mail questionnaire vs. interview.

48. ———

1948. Questionnaire versus interview methods in the study of human love relations. II. Uncategorized responses. Am. Sociol. Rev. 13: 61-65.

Part II of a study of 69 college girls interviewed on love and family relationships and surveyed 1 year later with an anonymous questionnaire to compare differences in uncategorized (open-end) responses, revealed more self-revelatory or unfavorable responses to the anonymous questionnaire than to the interview. However, probing during interviews increased such responses.

EVALUATION: Mean scores reveal small differences.

KEYWORDS: Mail questionnaire vs. interview
Closed-end vs. open-end questions
Anonymous respondent.

49. Ellis, Robert A., Calvin M. Endo, and J. Michael Armer
1970. The use of potential nonrespondents for studying nonresponse bias. Pac. Sociol. Rev. 13(2): 103-109.

Data obtained through study of 412 college students. Followup efforts of two questionnaires left 19 nonrespondents. Data indicate that late respondents do not provide a suitable basis for estimating the characteristics of nonrespondents. Attempts to distinguish between potential nonrespondents and late respondents indicate only the direction of nonresponse bias, not its magnitude. The researcher's main recourse is to extend the scope of the analysis beyond the self-report data and to gain information on subject characteristics from outside data sources. Although minor effects of nonresponse are evidenced on social background variables in this and other studies, it is possible that serious nonresponse error may be present among other variables.

EVALUATION: Excellent paper on nonresponse bias with 35 references for support.

KEYWORDS: Bias: nonresponse
Early vs. late response.

50. Erdos, Paul L.
1957a. How to get higher returns from your mail surveys. Printers' Ink 258(Feb.): 30-31.

The following 8 factors are important to securing a high percentage of returns: prestige of organization doing the survey, interest of respondents, readability and length of questionnaire, wording of letter and questionnaire to convince respondent of his importance to the survey, list of benefits to the recipient, assurance of respondent anonymity, offer of a report of results, stamped envelope for reply (airmail preferable).

EVALUATION: Excellent rules of thumb but lacking in criteria for evaluating effects of treatment.

KEYWORDS: Questionnaire format
Cover letter
Anonymous respondent
Incentive: motivation, postage.

51. _____
1957b. Successful mail surveys: high returns and how to get them. Printers' Ink 258(March): 56-60, illus.

If questionnaire return rates are low, then further mail survey techniques should include: post-card reminders, several mailings, telegrams, obligating respondent to participate in advance of receiving the questionnaire, or a premium. Premiums should attract the respondent, introduce no bias, and should be inexpensive and easy to mail. Three case histories are discussed. Premiums as a moneysaving device and the possibility of premium bias are discussed. Testing premium bias revealed a higher average income for premium-respondents than for nonpremium respondents.

EVALUATION: Excellent paper with good rules of thumb.

KEYWORDS: Incentive: reward
Followup: post-card, mail.

52. Ferber, Robert

1948a. The problem of bias in mail returns: a solution. Publ. Opin. Quart. 12: 669-676.

Returns are analyzed to determine, without using followups, whether a set of mail returns is, or is not, representative. Returns are grouped on the basis of their arrival time. If the distribution of item responses of the late respondents differs markedly from that of the early respondents, bias is presumed to exist, and followup interviews are necessary. Random order tests are not foolproof indicators of mail bias. Error may be inherent in the theory of probability on which these tests are based, and bias may be independent of the order of return due to certain nonmeasurable characteristics of the respondents. However, in most cases where bias is reflected in measurable characteristics, these tests do provide an objective means of testing for bias in mail surveys. Application of these bias tests to the pretest of a large scale survey would also be advantageous.

EVALUATION: Clues as to the representativeness of an incomplete sample *may* be obtained by assuming that late respondents resemble nonrespondents. This assumption cannot, however, be substantiated, and one is left to proceed on faith. A worthwhile paper--should be read. Also see Robert Ferber, 1950, Publ. Opin. Quart. 14: 193-197, and Publ. Opin. Quart. 13: 562-563, for further discussion of this paper in a letter to the editor. Also see Ford and Zeisel (1949).

KEYWORDS: Bias: nonresponse, representativeness
Early vs. late response.

53. _____

1948b. Which--mail questionnaires or personal interviews? Printers' Ink 222(7): 44-47, 61, 64-65, illus.

Advantages of the mail questionnaire compared with the personal interview include the following: a wider distribution of the sample, a smaller staff, lower cost, opportunity for frank responses, more ease in obtaining opinions of all family members, and easier access to high-income groups. Disadvantages include: nonresponse bias, low response rates from persons with low income and education, necessity of followups, little knowledge of causes and reasons for respondent's actions and attitudes, no assurance that the correct person responded, and length of time until replies are received. Each item is fully discussed, and the general conclusion is that neither the questionnaire nor the interview technique is superior. Conditions of the problem define the relative desirability of the two techniques.

EVALUATION: Well-balanced conclusions, good summary of questionnaire and interview use.

KEYWORDS: Mail questionnaire vs. interview
Advantages of questionnaires
Disadvantages of questionnaires.

54. _____

1966. Item nonresponse in a consumer survey. Publ. Opin. Quart. 30: 399-415.

A study of 14,600 usable questionnaires out of 40,000 mailed to subscribers of *Consumers Union* analyzed item nonresponse by characteristics of respondents and by type, position, and repetition of questions. One-third of the questionnaires contained two or more unanswered items, and one out of seven contained six or more items unanswered. Item nonresponse was higher for females, older people, and those in households where the main wage earner had only a grade school education or was retired or a housewife. Frequency of item nonresponse increased for questions requiring some thought or effort by respondents, but the pattern of item nonresponse by respondent characteristics was very similar for different types of questions. No relationship was found between frequency of item nonresponse and the position of the question on the questionnaire. Although the effect of item nonresponse on parameter estimates is not easily determined, item nonresponse can reduce substantially the reliability of estimates. In particular, if allowance is made for possible bias due to this source in estimates of the variances of parameters, the size of the standard errors may turn out to be substantially higher than without such adjustment.

EVALUATION: Validity of findings is questionable due to low rate of return.

KEYWORDS: Bias: nonresponse.

55. Ferriss, Abbott L.

1951. A note on stimulating response to questionnaires. Am. Sociol. Rev. 16(2): 247-249.

The effectiveness of three techniques for stimulating response to mailed questionnaires was tested in introductory sociology courses in the 11 Southeastern States. The use of a "deadline" stimulated an immediate, heavy response. By providing stamped addressed envelopes in the first and second waves of questionnaires, the flow of returns was increased. Postal cards as reminders were completely ineffective. Costs per return were slightly higher for the segment of the population which was not provided with stamped, return envelopes and which was not prodded. Responses were most frequently mailed on Thursday and Friday; least frequently, on Saturday and Sunday.

EVALUATION: Data support conclusions.

KEYWORDS: Incentive: motivation, postage
Followup: post-card.

56. _____

1963. Applications of recreation surveys. Publ. Opin. Quart. 27: 443-454.

Three types of recreation surveys and their use are discussed: travel studies from persons passing a transportation point; onsite studies from persons engaging in an activity under study; and household surveys from persons at home. Variables usually studied include: demography, trip characteristics (mode of travel, etc.), time and cost of trip, attitude and motivation of traveler, and decisionmaking factors. Several studies are summarized and their applications are discussed. Author suggests that more attitude, motivation, and decisionmaking factors be included to help explain additional variance.

EVALUATION: Although a moderately well-constructed typology of existing recreation surveys, includes nothing specific to the questionnaire method.

KEYWORDS: Applications.

57. Fischer, Robert P.

1946. Signed versus unsigned personal questionnaires. J. Appl. Psychol. 30: 220-225.

A psychological problem checklist was given to 102 female psychology students, first with and then without signatures being required. The interim between testings was 1 week. The results indicated that the mean number of problems listed as not serious did not vary significantly under the two conditions of administration, but that the mean number of serious problems listed tended to be significantly greater when signatures were not required. It would appear that the use of signatures on personal questionnaires might have an inhibitory effect on the honesty and frankness of the people responding to them.

EVALUATION: Good example of value of anonymity, especially for sensitive subjects under investigation.

KEYWORDS: Anonymous respondent.

58. Ford, Neil M.

1968. Questionnaire appearance and response rates in mail surveys. J. Adver. Res. 8(3): 43-45.

This mail survey to consumer shoppers tested printed cover letters against mimeographed cover letters to see if the printed ones would bring in a greater return than the mimeographed letters. Questionnaire and cover letters were sent to 1,556 consumers. The printed letter had a return of 22 percent, and the mimeographed letter had a return of 20 percent. Chi-square statistic showed no significant difference between them.

EVALUATION: The extremely low response rate would have made the results unreliable even if there had been a significant difference in returns between the two cover letters. This survey adds further evidence that no one variable is responsible for high return rates, but a combination of many is necessary.

KEYWORDS: Cover letter.

59. ———

1969. Consistency of responses in a mail survey. J. Adver. Res. 9(4): 31-33.

Questionnaires were mailed to 1,556 households. Of the 319 responding to the questionnaire on consumer shopping behavior, 159 were selected for interview to determine how consistently questions could be answered. Questions dealing with facts such as socio-economic factors elicited the highest degree of consistency. Attitudinal or opinion questions had the lowest average consistency between answers.

EVALUATION: One should gain an appreciation for the difficulty of using attitudinal and opinion questions from reading this paper.

KEYWORDS: Question: type, content
Reliability.

60. Ford, Robert N., and Hans Zeisel

1949. Bias in mail surveys cannot be controlled by one mailing. Publ. Opin. Quart. 13: 494-501.

Experimental data fail to show that a test for random order of response can detect bias after one mailing, as has been suggested by Ferber (1948a). The conclusion is that Ferber's statistical test is not sensitive enough to assure the analyst that a "no bias" finding indicates that no bias actually exists. The theory that late respondents to a single mailing are similar to the nonrespondents appears to have been offered by Ferber without support. The proposed procedure of analysis is dangerous in that it almost inevitably leads to a "no bias" verdict when bias can be shown to exist by the more difficult and costly techniques it seeks to avoid.

EVALUATION: Criticizes Ferber's 1948 paper: "The problem of bias in mail returns: a solution." Worth reading in conjunction with Ferber's paper.

KEYWORDS: Bias: nonresponse
Early vs. late response.

61. Frank, Benjamin
1935. Stability of questionnaire response. J. Abnorm. & Soc. Psychol. 30: 320-324.

The Bernreuter Personality Inventory was personally administered to 76 New Jersey prison inmates. Reliability coefficients (about 0.80) were smaller than reported by Bernreuter. Neutral items showed the highest index of change (average, 32.5 percent) with positive (yes) items and negative (no) items averaging about 21-percent change. Concludes that until the influence of situation and factors motivating response can be definitely stated, the personality questionnaire will remain a dubious clinical instrument.

EVALUATION: Dated study, with confusing presentation.

KEYWORDS: Reliability.

62. Franzen, Raymond, and Paul F. Lazarsfeld
1945. Mail questionnaire as a research problem. J. Psychol. 20: 293-320.

Although the main focus of this paper is on a study of who returns mail questionnaires, the authors also review several advantages and disadvantages of mail questionnaire use. Bias resulting from self-selection may or may not be significant and must be evaluated with regard to the topic of interest. The study reported in this paper compared personal interview replies from those who did respond with those who did not respond to a mail questionnaire to determine (1) the nature of any nonresponse bias which may occur, and (2) the bias which results from the two different methods of inquiry. It was found that consistent and statistically significant differences between respondents and nonrespondents were present. However, for practical purposes, the differences were either not large or could be corrected by weighting. Mail questionnaires have an advantage over interviews. For cultural subjects, they are more informative and show a freer admission of unusual activities or interests. On questions involving buying power, the mail response shows less reluctance to divulge information. An appendix is included in which interviewer bias (selection bias and opinion bias) is discussed.

EVALUATION: This paper takes a comprehensive look at several important problems associated with mail questionnaires and personal interviews. The study discussed is a good example of how problems of bias can be evaluated.

KEYWORDS: Bias: nonresponse
Mail questionnaire vs. interview
Reliability
Advantages of questionnaires
Disadvantages of questionnaires.

63. Frazier, George, and Kermit Bird
1958. Increasing the response of a mail questionnaire. J. Marketing 23(2): 186-187.

Two Idaho counties were chosen to test the effectiveness of adding a handwritten postscript which read, "P. S. We need your help in this report. Could you please send it in promptly?" There were 777 questionnaires sent out with the postscript included and 781 sent without the postscript. A chi-square test showed a 6.7-percent difference between them with 31.4 percent for letters with the postscript and 24.7-percent return for letters without.

EVALUATION: Poorly written paper, with some inaccurate reporting of findings. Data point to desirability of personalizing a questionnaire as much as possible.

KEYWORDS: Cover letter
Incentive: motivation.

64. Freeman, Linton C., and Türköz Ataöv
1960. Invalidity of indirect and direct measures of attitude toward cheating. J. Personality 28(4): 443-447.

The study was to determine the relationship between overt behavior and a direct question and three types of indirect attitude items to predict the behavior. Thirty-eight university freshmen and sophomores were ranked in terms of observed classroom cheating and polled with both direct and indirect items about cheating. All correlations were insignificant, and neither direct nor indirect questionnaire items were of any use in predicting behavior. These results thus cast doubt upon the validity of direct or indirect questions for the assessment of certain types of overt behavior.

EVALUATION: Good, interesting study demonstrating a major shortcoming of questionnaire research.

KEYWORDS: Validity
Disadvantages of questionnaires
Bias: stated vs. actual behavior.

65. Gannon, Martin J., Joseph C. Nothern, and Stephen J. Carroll, Jr.
1971. Characteristics of nonrespondents among workers. J. Appl. Psychol. 55(6): 586-588, illus.

Questionnaires were sent to 552 checkers in 14 food stores to identify their attitudes about supervisory practices, the social climate, and personnel policies in the firm. After a return of 63 percent, nonrespondents were compared with respondents on the basis of education, length of employment, marital status, sex, age, number of children, and supervisory rankings. A chi-squared analysis showed that nonrespondents were typically lower in education, of single status,

male, younger or older than the 30- to 49-year-old age group, and ranking in the bottom fifth of all employees. Length of employment and number of children were not found correlated with nonresponse.

EVALUATION: Brief paper presenting findings only. Discussion and implications of findings are lacking.

KEYWORDS: Bias: nonresponse.

66. Gee, Wilson

1950. The survey method, p. 300-329. *In* Social science research methods. New York: Appleton-Century-Crofts.

The mail questionnaire is introduced as a supplement to a more elaborate survey method. The chief advantages are its range, economy, and usefulness in social research for: supplementing a study, providing preliminary information necessary for a project outline, obtaining primary data, enlarging and supplementing the background of a problem, checking for changes, checking secondary data already available, and disclosing new problems. The serious disadvantages of the questionnaire are: the representativeness and accuracy of replies, and incomplete returns. A strong antagonism toward questionnaires has been created because too many are distributed, often indiscriminately. Preparer of the questionnaire should: carefully analyze and visualize the subject, request only information that respondents can furnish, avoid objectionable questions, impartially and clearly phrase questions, ask for information that can be easily furnished by the respondent, arrange questions in logical sequence, and use brevity that is consistent with a thorough treatment of the subject.

EVALUATION: Excellent reference worth consulting for an overall picture of questionnaire research.

KEYWORDS: Applications
History
Advantages
Questionnaire: design
Textbook.

67. Gerberich, John B.

1947. A study of the consistency of informant responses to questions in a questionnaire. J. Educ. Psychol. 38: 299-306.

Three forms of the same questionnaire were given to each of three groups which totaled 1,000 university students. The three forms were administered at different times and the results were: group A had 91.01 percent of answers consistent at 1-day intervals; group B, 76.08-percent at 7-day intervals; and group C, 73.72-percent at 10-day intervals. Answers to factual questions showed less consistency than either the adjustment or attitude types. Sex, age, and class rank were not significant factors. No informant had all answers consistent, but veterans were slightly more consistent than nonveterans, and students who graduated in the upper third of their class were more consistent than students who ranked in the lower third.

EVALUATION: Excellent paper on questionnaire validity.

KEYWORDS: Reliability
Validity
Attitudes.

68. Gerberich, J. B., and J. M. Mason
1948. Signed versus unsigned questionnaire. J. Educ. Res. 42(2): 122-126.

A 40-item questionnaire on academic background, plans, and study habits was given to 2,876 students taking a biological science course. Results were analyzed to determine the effect of signatures upon response. No significant differences were found between signed and unsigned questionnaires. Questionnaire included.

EVALUATION: Well-designed study; authors are careful not to overgeneralize conclusions.

KEYWORDS: Anonymous respondent.

69. Goldstein, Hyman, and Bernard H. Kroll
1957. Methods of increasing mail response. J. Marketing 22(1): 55-57.

A questionnaire survey of 4,716 general hospitals brought total returns from 99.7 percent of the hospitals. The original mailing of two copies of the questionnaire plus a return envelope brought a 68.1-percent return. The first and second followups plus a note on colored paper requesting cooperation had percentage returns of 63.6 and 56.3, respectively. The third followup using airmail and special delivery postage brought in a return of 72.8 percent. Although at least part of the high return was due to the methods employed, certain responses may have resulted from a sense of obligation to reply to governmental agencies' questionnaires.

EVALUATION: Case study example with no control over variables that had greatest and least influence over response rate.

KEYWORDS: Followup: mail
Incentive: postage, motivation.

70. Green, Bert
1954. Attitude measurement, p. 335-369. *In* Gardner Lindzey (ed.), Handbook of social psychology. Vol. I. Cambridge, Mass.: Addison-Wesley Publ. Co., Inc.

Chapter 9 deals with *scaling* instruments to measure attitudes. Questionnaires, attitudes, and scales are defined along with an evaluation of reliability, validity, and unidimensionality of scales. Most of the chapter is a highly technical discussion, with mathematical equations, of scaling methods.

EVALUATION: This chapter is most valuable for those developing or utilizing scales.

KEYWORDS: Reliability
Validity
Scaling
Textbook.

71. Gullahorn, John T., and Jeanne E. Gullahorn
1959. Increasing returns from non-respondents. Publ. Opin. Quart. 23: 119-121.

Former Fulbright and Smith-Mundt grantees in nine Midwestern States were

sent a prequestionnaire letter asking for post-card returns with their current address. Only 21 percent did not respond. A sample of 20 percent of these grantees, including both respondents and nonrespondents was interviewed; later all the grantees were sent a questionnaire with a business-reply envelope. Approximately 61 percent responded. A followup questionnaire brought an additional 18-percent response. Of the grantees who had responded to the prequestionnaire letter, 89 percent returned their questionnaires. Only 49 percent of those who had not acknowledged the first letter answered the questionnaire. Personal contact stimulated further cooperation since 95 percent of the grantees who had been interviewed were among the questionnaire respondents. After a second followup was sent, with half of the remaining nonrespondents receiving their followup letters by regular mail and half by special delivery, approximately half of the nonrespondents answered bringing the total questionnaire returns to 90 percent. A significantly greater proportion of the special delivery group (62 percent) than of the regular mail group (35 percent) responded to this followup. The use of a special delivery followup is worth the added expense, particularly in eliciting responses from individuals who have not acknowledged any previous correspondence. Among those grantees who had not previously responded, 60 percent of those whose questionnaires were mailed by special delivery answered, contrasted with 24 percent of those whose questionnaires were sent by regular mail.

EVALUATION: Good experimental evidence. Sample size not given.

KEYWORDS: Prequestionnaire letter
Incentive: postage
Followup: mail, personal contact.

72. Gullahorn, Jeanne E., and John T. Gullahorn
1963. An investigation of the effects of three factors on response to mail questionnaires. Publ. Opin. Quart. 27: 294-296.

While surveying former scholarship grantees, the authors investigated the effects of three factors on questionnaire response frequencies: the class of mailing, the color of the questionnaire, and the type of postage on the return envelope. By means of a 2 by 2 factorial design, the sample was randomly divided into eight treatment groups, each receiving a different combination of the three factors. First-class mailing elicited significantly higher returns than third-class (51 vs. 49 percent), but the color of the questionnaire was insignificant. Stamped return envelopes were significantly more effective than business-reply enclosures (52 vs. 48 percent).

EVALUATION: Very small but statistically significant results.

KEYWORDS: Incentive: postage, motivation.

73. Hamel, LaVerne, and Hans G. Reif
1952. Should attitude questionnaires be signed? Personnel Psychol. 5(2): 87-91, illus.

A total of 109 identified and 94 anonymous employee attitude questionnaires were obtained from department store employees. The questionnaire probed working conditions, supervision, coworkers, communication, company hours, pay, and type of work. Mean scores for the two groups did not differ significantly.

Results may have been influenced by the fact that questionnaires were administered by a university staff and respondents were assured that the questionnaires were for confidential research purposes only.

EVALUATION: In the absence of any mention about nonresponse, one wonders if nonresponse bias could affect results of this study.

KEYWORDS: Anonymous respondent.

74. Hancock, John W.

1940. An experimental study of four methods of measuring unit costs of obtaining attitude toward the retail store. J. Appl. Psychol. 24(Apr.): 213-230.

Four methods were used to determine attitudes toward independent stores versus chain stores. The cost per unit of usable returns for each method were: mail questionnaire with accompanying letter, $1.22; mail questionnaire with letter plus 25 cents, $0.79; mail questionnaire with letter and a promise that 25 cents would be mailed upon receipt of the questionnaire, $1.06; personal interview, $0.74. The questionnaire with 25 cents enclosed was the most satisfactory mail method with 47.2-percent usable returns. The questionnaire and letter only produced a response of 9.56 percent.

EVALUATION: Brief report of a Ph.D. dissertation. Conclusions support data.

KEYWORDS: Incentive: money
Mail questionnaire vs. interview
Cover letter.

75. Hansen, Morris H., and William N. Hurwitz

1946. The problem of non-response in sample surveys. Am. Statist. Assoc. J. 41: 517-529.

Mail questionnaires are low cost but may have high nonresponse, whereas interviews give complete response but have relatively high costs. By combining the advantages of each method, one can interview a sample of the nonrespondents of a questionnaire study. Given an estimate of the relative costs and the rate of response, one can compute the number of questionnaires necessary for a designated degree of reliability. With the actual rate of response, the number of interviews can then be adjusted to obtain this reliability. Appendix included with derivations for the statistical formulas.

EVALUATION: Extensive mail followup should precede interview. Bias might exist between mail questionnaire and interview such as evaluation apprehension in face-to-face contact.

KEYWORDS: Bias: nonresponse
Mail questionnaire vs. interview.

76. Hobson, Asher

1916. The use of the correspondence method in original research. Am. Statist. Assoc. J. 15(114): 210-218, illus.

A one-question letter is recommended for simplicity. If more questions are necessary, a one-page questionnaire is desirable over a more bulky presentation. Questionnaire results should be verified from other sources if possible.

Questions should interest recipients. Accompanying letters should be personal, with names of the addressees rather than a "Dear Sir" and signatures of the sender rather than a rubber stamp.

EVALUATION: A presentation of rules of thumb for mail questionnaire use which have changed little in light of recent quantitative evaluation of the same "rules."

KEYWORDS: Questionnaire: design
Incentive: motivation.

77. Hochstim, Joseph R., and Demetrios A. Athanasopoulos
1970. Personal follow-up in a mail survey: its contribution and its cost. Publ. Opin. Quart. 34: 69-81.

An area probability sample was drawn of Alameda County, California, which consisted of 8,083 persons for whom at least demographic and socioeconomic data were gathered by enumeration. A questionnaire was left at each household with a cover letter and return envelope. Returns were secured from 6,928 persons or 86 percent of the listed adults. Forty-two percent returned the questionnaire after the enumeration; 17 percent, after receiving a followup letter; 11 percent, after a telegram; 16 percent, when an interviewer called on them; and 14 percent did not respond. The nonrespondents were older and more likely to be retired, widowed; to live in a small household without children; to own their own home; to be white, male, and skilled. Minority groups were slightly overrepresented in the questionnaire returns due to their overrepresentation in the personal contact stage. Personal-contact followup tended to improve estimates associated with low socioeconomic status, and also resulted in some not-at-home bias resulting in a slight overrepresentation of women and large families. Extrapolation of the data could not be used to improve the estimates. People who reported no organizational membership or political activity, and people with low education, job insecurity, and no provision for medical care were less likely than others to respond by mail. The 5,630 mail responses cost about $6.55 each, and the 1,298 questionnaires secured by interviewers cost $13.65 each.

EVALUATION: Careful documentation of effect of various procedures in a large questionnaire study.

KEYWORDS: Followup: mail, personal contact
Cover letter
Bias: nonresponse.

78. Hoppe, Donald J.
1952. Certain factors found to improve mail survey returns. Proc. Iowa Acad. Sci. 59: 374-376.

Post cards sent to automobile owners of cars observed on the road at a given hour asked age, sex of driver, number of persons in car, and miles driven during the hour observed. Adding the sentence, "Please do not let your failure to return this card make it impossible for us to obtain a 100 percent return," increased response significantly to 64.3 percent. In a second post-card survey in Minnesota and Iowa, adding an identification number in invisible ink versus writing a case number disguised in the address made no significant difference in return rates.

EVALUATION: Study unclear as to the construct tested.

KEYWORDS: Questionnaire design
Bias: nonresponse
Incentive: motivation.

79. Hubbard, Alfred W.
1950. Phrasing questions. J. Marketing 15: 48-56.

A respondent's experience and purpose are integrated with his perceptions which necessarily change a factual answer to a question into a less objective "opinion." An unbiased opinion is never obtained; therefore, the researcher seeks the number of persons who do or do not have such biases and the degree of such biases. The bias should not be influenced or changed by the question itself. Awareness of this problem enables the question phraser to balance the implied favorable and unfavorable judgments against one another. For each question, three preliminary questions should be written and compared side by side. Then pretest several variations to determine bias and re-pretest any revisions. The reliability of alternative questions is discussed. For example, introducing a negative into the question increases suggestibility and decreases reliability. Many other rules and examples are given.

EVALUATION: This article should be read because it deals with seemingly minor but very technical differences in wording questions that are too often taken for granted.

KEYWORDS: Question: wording
Open-end questions
Reliability.

80. Hubbard, Frank W.
1939. Questionnaires. Rev. Educ. Res. 9(5): 502-507.

A review of five articles on questionnaire reliability, seven articles on validity, two on rate of return, and one on the use of illustrated questionnaires. Three trends and innovations include illustrated questionnaires, opinion-type questionnaires, and questionnaires asking the recipient if he will participate in a more detailed study.

EVALUATION: Dated but concise and well-organized review of questionnaire literature.

KEYWORDS: Reliability
Validity
Bias: nonresponse
Literature review.

81. _____
1942. Questionnaires, interviews, personality schedules. Rev. Educ. Res. 12(5): 534-541.

A general discussion of the literature appearing before 1942 which pertains to questionnaire wording, pretesting, sampling, followup, reliability, and use.

EVALUATION: Brief with little substantive content, but valuable as a bibliographic reference. Bibliography, 56.

KEYWORDS: Literature review
Mail questionnaire vs. interview.

82. Jahoda, Marie, Morton Deutsch, and Stuart W. Cook
1951. Data collection: the questionnaire and interview approach, p. 151-208. *In* Research methods in social relations with special reference to prejudice. New York: Dryden Press.

Chapter 6 includes questionnaires and interviews as sources of data, a comparison of the interview and questionnaire technique, types of question content, types of interviews and questionnaires, the sociometric method and pictorial techniques of data collection, questionnaires which form attitude scales, and the use of rating scales.

EVALUATION: Excellent reference.

KEYWORDS: Advantages of questionnaires
Bias: representativeness
Disadvantages of questionnaires
Open-end questions
Question: content, wording
Scaling
Textbook.

83. Jourard, Sidney, and Paul Lasakow
1958. Some factors in self-disclosure. J. Abnorm. & Soc. Psychol. 56(1): 91-98, illus.

A reliable questionnaire for the assessment of self-disclosure was used to test groups of both sexes, white and Negro, married and unmarried, for extent of self-disclosure of six different aspects of self to various target-persons: mother, father, male friend, female friend, female friend and spouse or both. The findings are summarized as follows: Young unmarried subjects, both white and Negro, showed the highest self-disclosure to mother. Subjects tended to vary the amount of self-disclosure with respect to the category of information to which an item about the self belonged. Two clusters of aspects emerged: a high disclosure cluster including attitudes and opinions, tastes and interests, and work; and a low disclosure cluster comprised of money, personality, and body. White subjects disclosed more than Negroes, and females more than males. There was significant interaction among groups of subjects, target-persons, and aspects of self. Married subjects disclosed less to mother, father, and same-sex friend than comparable unmarried subjects. Those who were married disclosed more to their spouses than to any other target-person. A significant correlation was found between parent-cathexis and self-disclosure to the parents. The more that the parents were liked, the more disclosures were made to them.

EVALUATION: Of only indirect interest to the use of questionnaires since focused on question of psychological concern. Identifies differences in self-disclosure that may have implications for questionnaire research.

KEYWORDS: Validity
Reliability
Bias: stated vs. actual behavior.

84. Katz, Daniel
1946. The interpretation of survey findings. J. Soc. Issues 2: 33-44.

Surveys should include: (1) explicitly stated assumptions, (2) research instrument designed on well-constructed hypotheses, (3) selection of an appropriate sample, (4) methods appropriate to study problems, and (5) determination of opinions you are sampling. Errors to be avoided are: (1) failure to ask related and dependent questions, (2) failure to determine respondent's frame of reference, (3) substitution of absolute value for percentage statistics, (4) quotation of a single respondent as "typical", (5) misuse of the "quota-control" method of sampling to control for the representativeness of subgroups.
EVALUATION: Good general discussion of possible pitfalls in interpreting survey research findings.
KEYWORDS: Validity
Questionnaire: design
Interpretation.

85. Kawash, Mary B., and Lawrence M. Aleamont
1971. Effect of personal signature on the initial rate of return of a mailed questionnaire. J. Appl. Psychol. 55(6): 589-592, illus.

A mail questionnaire was used to test if initial return rates would be higher for those receiving a personal signature on the cover letter than for a mimeographed facsimile. Three thousand students and ninety-one faculty members of the University of Illinois were asked about their use of and attitudes toward audiovisual instructional materials. No difference was found between those receiving the personal signature and those receiving the mimeographed one even when faculty were subdivided on rank (professor, associate professor, assistant professor, etc.).
EVALUATION: It is difficult to generalize findings to other studies because of uncontrolled variables operating in the nonresponse group. For example, no attempt was made to control for those who did not use the audiovisual facilities available, and therefore felt the questionnaire did not apply to them.
KEYWORDS: Bias: nonresponse
Cover letter.

86. Kelly, Robert Lincoln
1931. The revolt against questionable questionnaires. Assoc. Am. Coll. Bull. 17(3): 377-390.

Article proposes a plan by the Association of American Colleges for regulating the use of "poorly constructed and meaningless" questionnaires sent to college administrators. Outlined are questions asked about proposed questionnaires to determine if they should be answered. These include: Is the questionnaire adequately sponsored? Is its purpose stated? Is it a worthy educational topic? Can it be answered briefly? What guarantees are given that the information will be put to good use?
EVALUATION: Unlike the majority of antiquestionnaire articles of this era, the article offers questions that would be valuable to anyone constructing his own questionnaire.
KEYWORDS: Questionnaire: design
Disadvantages of questionnaires.

87. Kephart, William M., and Marvin Bressler
1958. Increasing the responses to mail questionnaires: a research study. Publ. Opin. Quart. 22: 123-132.

A questionnaire was sent to 100 nurses divided into 10 groups, but each group received different incentives to affect the return rate. These included a questionnaire only; a preview letter and then the questionnaire; a questionnaire plus a followup letter; a preview letter, questionnaire, and followup letter; questionnaire sent airmail; questionnaire sent special delivery; and questionnaire plus either a penny, nickel, dime, or quarter. Fifty-two percent returned the regular questionnaire, but the quarter incentive inspired a 70-percent return. The airmail delivery produced a 60-percent return; followup, 68-percent; and the special delivery, 66-percent. Other inducements had little effect. The inducements themselves may create a biased return. In view of the lower cost of followup procedures over money incentives, the former is the recommended procedure.

EVALUATION: Clear presentation of a large variety of inducements to increase mail returns. Worth reading before considering special incentives.

KEYWORDS: Prequestionnaire letter
Followup: mail
Incentive: money, postage.

88. Kivlin, Joseph E.
1965. Contributions to the study of mail-back bias. Rural Sociol. 30(3): 323-326.

Study based on 487 Pennsylvania farmers to determine effect on certain attributes of the rate of adoption of improved farm practices. Data show significant differences between respondents and nonrespondents. The nonrespondents adopted fewer practices, were older, had less education, and were less likely to belong to organizations. Perhaps more important than the differences is evidence that these differences may not seriously affect relationships among the variables being investigated. Mail-back bias appears broad and cuts across socioeconomic and research variables. The data also support the hypothesis that differences between early and late respondents tend to be indicative of differences between respondents and nonrespondents, but these can only be considered inferences.

EVALUATION: Paper worth consulting on the nonresponse issue.

KEYWORDS: Bias: nonresponse
Early vs. late response.

89. Knox, John B.
1951. Maximizing responses to mail questionnaires: a new technique. Publ. Opin. Quart. 15: 366-367.

Questionnaires were mailed to 173 unemployed Tennessee railroad firemen who were localized and suspicious of written communication which might adversely affect their chances of railroad reemployment. After 29.5 percent were returned, a followup letter and another copy of the questionnaire were sent. To further encourage replies, a turkey was offered to the lucky respondent whose number was

drawn. A postal authority stated that the practice used here was not a lottery and not illegal since the object was not financial profit. The response to this followup letter and prize offer was 18.8 percent.

EVALUATION: Very brief procedural account of a survey ignoring final results on the effectiveness of the technique, similar studies with conflicting results, nonresponse bias, etc. Of little value.

KEYWORDS: Incentive: reward
Followup: mail.

90. Knudsen, Dean D., Hallowell Pope, and Donald P. Irish
1967. Response differences to questions on sexual standards: an interview-questionnaire comparison. Publ. Opin. Quart. 31: 290-297.

Three different samples of white women, all of whom were or had been premaritally pregnant for the first time, were used. The first sample, 150 private patients of physicians, anonymously completed questionnaires in their physicians' offices. The second sample, 311 women selected from birth certificates, was interviewed confidentially. The third sample, 77 women in maternity homes, filled out questionnaires in the presence of an interviewer. Four similarly worded questions were asked of each sample. Data suggest that in interview situations respondent was more likely to support the public and restrictive sexual norms that she assumed were adhered to by the interviewer. Lower socioeconomic respondents deferred to the norms represented by the higher status interviewers. In the private and anonymous questionnaire situation, the respondents more often answered to subcultural norms. Therefore, compared with anonymous questionnaires, interviews may lessen the expression of deviance.

EVALUATION: Good experimental documentation of anonymity benefits of questionnaires.

KEYWORDS: Mail questionnaire vs. interview
Anonymous respondent.

91. LaPiere, Richard T.
1934. Attitudes vs. actions. Soc. Forces 13(2): 230-237.

Social attitudes are conditioned responses to social stimuli but, by derivation, are seldom more than verbal responses to symbolic situations. All measurement of attitudes by questionnaires proceeds on the assumption that there is a mechanical relationship between symbolic and nonsymbolic behavior. An unusual study indicated that this assumption is unreliable. While traveling with a foreign-born Chinese couple, the author and his companions purchased, in 251 instances, goods or services necessitating intimate human relationships. Only in one instance was service refused. It was concluded that quality and condition of clothing, etc., influenced the behavior of others toward the Chinese more than did race. After 6 months elapsed, the establishments patronized were surveyed by questionnaire. Thus, the overt reaction and the symbolic were both obtained. The questionnaires asked, "Will you accept members of the Chinese race as guests in your establishment?" Out of 128 replies, 92 percent of the restaurants and 91 percent of the hotels said "No." The remainder replied, "Uncertain, depends on circumstances." Only one "yes" was received. The author states that "social attitudes must be

derived from a study of humans behaving in actual social situations, not on the basis of questionnaire data." The questionnaire is cheap, easy, mechanical, and gives quantitative results. Human behavior study is time consuming, intellectually fatiguing, and dependent on the ability of the investigator. Its results are qualitative. Quantitative measurements are quantitatively accurate, qualitative evaluations are subject to human errors. Yet it would seem more worthwhile to make a shrewd guess regarding that which is essential than to accurately measure that which is likely to prove irrelevant.

EVALUATION: An interesting, empirical comparison of observations versus questionnaires that challenges the validity of questionnaire responses to predict behavior.

KEYWORDS: Advantages of questionnaires
Disadvantages of questionnaires
Validity
Bias: stated vs. actual behavior.

92. Larson, Richard F., and William R. Catton, Jr.
1959. Can the mail-back bias contribute to a study's validity? Am. Sociol. Rev. 24(2): 243-245.

Bias can have a "favorable" effect when selective returns are desired. An eight-page questionnaire, a stamped return envelope, cover letter, post card, and two followup letters were used in a study of 700 persons named on the mailing list of a national organization. A comparison of characteristics of early respondents to respondents of successive waves of followup and nonrespondents suggests that the latter group includes persons for whom the organization was not a significant reference group.

EVALUATION: Good systematic evidence on the nature of nonresponse bias.

KEYWORDS: Bias: nonresponse
Incentive: motivation
Followup: mail, telephone.

93. Lawson, Faith
1949. Varying group responses to postal questionnaires. Publ. Opin. Quart. 13: 114-116.

A sample of 950 persons in Great Britain was stratified by occupation and sent a questionnaire measuring attitudes toward gambling. In the 23-percent returns obtained, responding most frequently were psychologists, followed by secretaries, clergymen, lawyers, solicitors, trade union officials, musicians, members of Parliament, and bookmakers. Interest in gambling was considered the determining factor affecting response. Questionnaires from lawyers, bookmakers, and trade union officials were received mostly within the first week.

EVALUATION: The extremely low return rate makes conclusions questionable. Response did support contention that interest in questionnaire topic affects response.

KEYWORDS: Bias: nonresponse
Incentive: motivation.

94. Lazarsfeld, Paul F.
1940. The use of mail questionnaires to ascertain the relative popularity of network stations in family listening surveys. J. Appl. Psychol. 24(Spring): 802-816.

Direct interview and mail questionnaire methods for obtaining information are compared. Respondents to 669 mail questionnaires were later interviewed for the same information. Only minor differences were discovered in their response. Nonrespondents to the questionnaire had lower literacy and interest in the topic than respondents. The questionnaire is likely to be answered by the husband; the interview, by the wife.

EVALUATION: Logical article with empirical data on the use of questionnaires versus interviews, and nonresponse bias as a function of respondent interest and literacy.

KEYWORDS: Mail questionnaire vs. interview
Bias: nonresponse.

95. Lehman, Edward C., Jr.
1963. Tests of significance and partial returns to mail questionnaires. Rural Sociol. 28: 284-289, illus.

Observable differences between early and late respondents appears to provide the basis for approaching problems of nonresponse with regard to representativeness, sample probabilities, and the use of tests of significance. The technique suggests the nature of nonrespondents by indicating what effect they would have on the analysis had they responded. The method can provide qualitative information for general interpretation and can suggest differences between returns and nonresponses and their direction.

EVALUATION: Excellent article that should be consulted before analyzing data. The best the approach gives is a prediction of nonrespondent characteristics.

KEYWORDS: Bias: nonresponse
Early vs. late response.

96. Levine, Sol, and Gerald Gordon
1959. Maximizing returns on mail questionnaires. Publ. Opin. Quart. 22: 568-575.

Within 2-1/2 months of the mailing, 100-percent returns were obtained of two different questionnaires to each of 85 Blue Cross plans. A 90-minute questionnaire was sent to the enrollment director and a 20-minute questionnaire to the executive director of each plan. This article consists of suggestions to other researchers based on experience in the study; e.g., respondent preparation and involvement, questionnaire design and construction, and various followup procedures. A wealth of how-to-do-it questionnaire information is included, although the respondents in the study may have felt obliged to respond due to their official responsibilities rather than the author's expert technique.

EVALUATION: Good how-to-do-it information.

KEYWORDS: Questionnaire: design
Followup: telephone, mail
Incentive: motivation.

97. Lewin, Kurt

1951. Problems of research in social psychology, p. 163. *In* Field theory in social science. New York: Harper.

Discusses in one paragraph the use to which questionnaire data should be put by the researcher. Author suggests treating questionnaire answers not as an expression of fact but as reactions to a situation which are partly determined by the question and partly by the general situation of the respondent.

EVALUATION: Very brief statement of a perspective worth considering.

KEYWORDS: Interpretation
Textbook.

98. Lindsay, E. E.

1921. Questionnaires and follow-up letters. Pedagog. Seminary 28(3): 303-307, illus.

Two methods of timing followup letters were tested on 2,782 respondents: (1) plotting the returning questionnaires and sending out followups when the effects of the previous letter dropped and (2) sending followups soon after the original questionnaire and from then on at slightly increasing intervals. The first method resulted in 68-percent return and the second method in 92-percent return. Author concludes that questionnaire followup increases returns, with the second method the better of the two.

EVALUATION: Methodologically weak in that return rates are not comparable since the two followup techniques involved a different questionnaire and sampling universe. Nonetheless, the two methods are useful for timing followup letters.

KEYWORDS: Bias: nonresponse
Followup: mail.

99. Linn, Lawrence S.

1965. Verbal attitudes and overt behavior: a study of racial discrimination. Soc. Forces 43(3): 353-364, illus.

To measure the relationship between racial attitudes and overt behavior, subjects were asked to pose for a photograph with a Negro of the opposite sex. Discrepancies between verbal attitudes and subsequent behavior were found in 59 percent of the cases. The relationship between attitude (prejudice) and behavior (discrimination) is seen to be a function of the level of social involvement with the attitude object as well as the amount of prior experience with it. One implication of the study is that statements or predictions of racial behavior based on attitude measurements have little reliability unless first validated empirically.

EVALUATION: Long article also reviews several other studies showing discrepancy between questionnaire-measured attitudes and overt behavior.

KEYWORDS: Literature review
Disadvantages of questionnaires
Validity
Bias: stated vs. actual behavior.

100. Linsky, Arnold S.

1965. A factorial experiment in inducing responses to a mail questionnaire. Sociol. & Soc. Res. 49(2): 183-189.

Experimental study tested the contents of cover letters as they relate to response rate. Questionnaires were sent to 912 nurses; only the cover letters differed in the 16 different combinations of four variables: (1) handwritten personal salutation vs. "Dear member" and a mimeographed signature; (2) presence and absence of an explanation of the place and importance of respondent; (3) presence and absence of an argument for the social utility of the research; (4) presence and absence of an appeal to help the study researchers. Response rates significantly increased when a personalized letter and the place and importance of the respondent were included. Results showed that personalization and importance of the respondent brought higher returns (56.1 percent) than when all four factors were present (43.9 percent).

EVALUATION: Excellent study giving empirical evidence and 22 references.

KEYWORDS: Cover letter
Incentive: motivation.

101. Longworth, Donald S.
1953. Use of a mail questionnaire. Am. Sociol. Rev. 18(3): 310-313.

In each of a series of pretests, 50 randomly selected respondents answered an eight-page questionnaire. Placing small denomination stamps of various colors on the envelope increased returns by 2 percent. A personal note and typed letter of explanation on letterhead paper increased returns by 5 percent. When a newspaper clipping about the study was included, a further increase of 5 percent was noted. The followup phone call increased returns by 37 percent. In the study that followed the pretests, 800 questionnaires were distributed, and a total of 69 percent were returned.

EVALUATION: Good experimental evidence on effect of certain procedures on questionnaire returns.

KEYWORDS: Incentive: postage, motivation
Cover letter
Followup: telephone.

102. Lundberg, George A.
1929. Social research. Chapters 6 and 9. New York: Longmans, Green and Co.

These chapters discuss the value of systematic measurement through questionnaires, thoroughly describe their construction (size, shape, material, color, arrangement of items, wording), and make suggestions for getting accurate and wide response. Eight general types of questionnaires which can be used to measure attitudes are described and illustrated. Validity and the limitations of measurement in general are discussed.

EVALUATION: Although old, this book appears highly useful. Chapter 6 in particular might be consulted when designing a questionnaire study.

KEYWORDS: Questionnaire: design
Applications
Mail questionnaire vs. interview
Advantages of questionnaires
Validity
Disadvantages of questionnaires.

103. Macoby, E. A., and Nathan Macoby
1954. The interview: a tool of social science. Handbook of social psychology I: Theory and method. Reading, Mass.: Addison-Wesley.

This handbook deals explicitly with the methodology of interviewing but is directly applicable to mail questionnaires. Included are discussions on: when open-end questions are preferable to closed-end; how to word questions to promote understanding, accuracy, and conceptual validity; modifications and precautions necessary for cross cultural or linguistic settings; presentation of research findings on the validity of questionnaire versus interview data; four ways of judging the validity of the findings. Advantages and disadvantages of interviews and mail questionnaires, and when each is used best are included.
EVALUATION: Comprehensive, especially relevant where the choice of method is a concern.
KEYWORDS: Validity
Applications
Questionnaire: design
Mail questionnaire vs. interview
Textbook.

104. Magid, Frank N., Nicholas G. Fotion, and David Gold
1962. A mail-questionnaire adjunct to the interview. Publ. Opin. Quart. 26: 111-114.

The mail questionnaire can be used as an adjunct to the interview to shorten interview time without diminishing the volume of information. Nonresponse bias can be estimated from the distribution of related variables identified in the interview which characterize respondents and nonrespondents. Example of this is included. The rapport, interest, and commitment built up during the interview increase the probability of questionnaire response. Different interviewers successfully solicit different response rates to followup questioning. Other advantages include the provision of more anonymity and the possibility of making reliability checks to determine if differences between the individual interviewers can be explained by differences in the characteristics of their respondents.
EVALUATION: A descriptive how-to-do-it article by survey consultants.
KEYWORDS: Applications
Bias: nonresponse
Mail questionnaire vs. interview.

105. Manfield, Manuel N.
1948. A pattern of response to mail surveys. Publ. Opin. Quart. 12: 493-495.

The longer a recipient delays in answering, the less likelihood he will ever respond. Respondent interest in the topic of the questionnaire and his education level affect the rate of return but are of secondary importance. Veterans Administration questionnaires show roughly one-half of all returns to a particular mailing are received by the 3d day, three-fourths by the 5th day, and nine-tenths by the 10th day. Tabulation of returns should start the day the first batch of returns is received, and reports should include size of mailing,

number of returns, and description of sample.

EVALUATION: Superficial but illustrates rate and speed of questionnaire returns.

KEYWORDS: Bias: nonresponse.

106. Mason, Ward S., Robert J. Dressel, and Robert K. Bain
1961. An experimental study of factors affecting response to a mail survey of beginning teachers. Publ. Opin. Quart. 25: 296-299.

Differences in response rate were tested for combinations of a six-page, 62-item questionnaire; an eight-page, 92-item questionnaire; an address with respondent's name and code number; and an address with code number only. Four forms were randomly distributed to 741 teachers, and no significant differences in response were found. Neither placing the respondent's name and address directly on the questionnaire nor the use of a longer questionnaire influenced the results.

EVALUATION: Brief and to the point.

KEYWORDS: Questionnaire: length
Anonymous respondent
Bias: nonresponse.

107. Mayer, Charles S., and Robert W. Pratt, Jr.
1966. A note on nonresponse in a mail survey. Publ. Opin. Quart. 30: 637-646.

Data were collected as part of a study designed to explore the economic and psychological consequences of personal injury automobile accidents in Michigan. Returns were received from 2,137 of the 2,872 individuals (74 percent) receiving questionnaires. When nonrespondents were segmented into two categories, those who refused an interview and those who could not be located, each category produced a different, and sometimes offsetting, bias. Respondents who cannot be located tend to differ from respondents in that they are more often male, younger, and nonwhite, and they possess lower occupational skills. When these factors are combined, they represent a relatively mobile group in society. Analysis shows serious bias when that portion of the sample which has moved residence and does not receive a questionnaire is subtracted from the total sample size in order to show a higher percent return. If individual involvement in the survey subject underlies the motivation to respond, motivation provides a means of predicting the distribution of the characteristics of those who refuse. Biases introduced by nonrecipients of a questionnaire tend to coincide with characteristics of the mobile portion of the population being studied. As long as the relative size of nonresponse groups is known and the directions of bias can be evaluated through knowledge about the motivations of the "refusers" and the characteristics of the "mobiles," meaningful techniques can be developed to adjust for possible nonresponse bias.

EVALUATION: Excellent paper worth consulting before running an analysis.

KEYWORDS: Bias: nonresponse
Early vs. late response
Incentive: motivation.

108. Mayer, Edward N., Jr.

1946. Postage stamps *do* affect results of your mailing. Printers' Ink 217(Oct.): 91.

If all other factors are equal, the best return rate results from colored stamps in the following order: purple, blue, red, brown, green, and black. Newly issued stamps increase returns regardless of color. First class over third class mailing may or may not result in more returns.

EVALUATION: Weak. Lacks supporting data for the results presented. Business advertising is the probable source of facts.

KEYWORDS: Incentive: postage.

109. McDonagh, Edward C., and Leon A. Rosenblum

1965. A comparison of mailed questionnaires and subsequent structured interviews. Publ. Opin. Quart. 29: 131-136.

Questionnaires were mailed to 2,497 randomly selected residents listed in a California city directory. Interviews were conducted on a 10-percent subsample of the 1,117 respondents and the 1,262 nonrespondents. The data show no statistically significant differences between the mailed questionnaire and the structured interview. The mailed questionnaire revealed representative responses in spite of the partial return.

EVALUATION: Important methodological study suggesting choice of data gathering technique can be based on the type of information desired rather than representativeness of results.

KEYWORDS: Bias: nonresponse
Mail questionnaire vs. interview.

110. McNemar, Quinn

1946. Opinion--attitude methodology. Psychol. Bull. 43(4): 289-374.

A critical appraisal of major methodological problems involved in study of opinions and attitudes. Topics include problems and issues, attitudes by scaling techniques, single-question opinion gaging, administration, statistical issues, study of changes, correlates and interrelationships, and studies of morale. Stresses need for greater reliability, validity, and unidimensionality of opinion- and attitude-measuring instruments. Questions the dependability of single-question measures and recommends the use of attitude scales to attain satisfactory reliability. Unitary scales can be developed using Guttman scaling technique. Validity can be established, but not without more effort than is usually expended. Study of attitude change might be conducted under experimental conditions with control groups and study of attitude and opinion correlates, but greater stress on formulation of hypothesis is needed.

EVALUATION: Dated, but a definitive "state of the art" work in opinion and attitude measurement with excellent literature review (133 citations).

KEYWORDS: Reliability
Validity
Literature review
Attitudes
Scaling.

111. Metzner, Charles A.

1950. An application of scaling to questionnaire construction. Am. Statist. Assoc. J. 45(249): 112-118, illus.

The best form of a question on the price World War II veterans would pay for housing was determined by Thurston scaling. Semantically different questions were submitted to 100 people who judged the meaning of the questions. The question most central to the scale presumably had the least bias. The undesirable semantic effects of words or phrases were negated in the questionnaire to the veterans.

EVALUATION: A good example of the possibilities which scaling techniques can offer for question construction.

KEYWORDS: Questionnaire: design
Scaling
Question: wording.

112. Metzner, Helen, and Floyd Mann

1952. A limited comparison of two methods of data collection: The fixed alternative questionnaire and the open-ended interview. Am. Sociol. Rev. 17(4): 486-491.

About 800 company employees filled out fixed alternative questionnaires and were interviewed to determine if differences existed between the two data collecting methods on personal and background characteristics and feelings about their jobs. Respondents indicated more positive attitudes toward their jobs on interviews than on questionnaires. The degree of confidence in anonymity and degree of satisfaction with job might account for the differences.

EVALUATION: Well-written article relevant to selecting a research instrument for measurement of attitudes.

KEYWORDS: Mail questionnaire vs. interview
Bias: stated vs. actual behavior
Anonymous respondent.

113. Mitchell, Walter, Jr.

1939. Factors affecting the rate of return on mailed questionnaires. Am. Statist. Assoc. J. 34(208): 683-692, illus.

Seven factors affect the rate of returns: selectivity of the mailing list, timeliness, prestige of the sending agency, salesmanship in the cover letter, reluctance of respondents to identify confidential figures, respondents' stake in the success of the survey, and time in filling out the questionnaire. Forty-three surveys are plotted to show how time burden affects the percent return. Best returns are obtained when questionnaires are brief, on a current interest topic, sponsored by a prestigious organization, and sent to large enterprises who have previously cooperated.

EVALUATION: Good attempt to quantify factors related to rate of return.

KEYWORDS: Incentive: motivation
Bias: nonresponse
Questionnaire: format.

114. Moore, Clarence Carl

1941. Increasing the returns from questionnaires. J. Educ. Res. 35(2): 138-141.

Questionnaires were sent to 494 school superintendents. Of the accompanying letters, 238 were individually typewritten and 256 were duplicated. A duplicated followup letter was sent 8 weeks later. Eighty-two percent of the typewritten sample responded whereas 66 percent of the duplicated letter group responded. Conclusion is that typewritten letter accounted for 16-percent increase in number of questionnaires received. Followup is also effective in increasing response.

EVALUATION: The followup should have been typewritten or duplicated to be consistent with the original mailing. Quality of the duplication may greatly affect results also.

KEYWORDS: Followup: mail
Incentive: motivation.

115. Morgan, Roy

1949. Follow-up letters disclose trends following opinion surveys. Publ. Opin. Quart. 13: 686-688.

Australian public opinion polls commonly send followup letters to people interviewed in regular opinion surveys to check the performance of interviewers and to reveal shifts in opinion which take place after a survey. The letters reproduce the answers which respondents gave a month previously and ask respondents to indicate the cases in which their opinions have changed. Business reply envelopes are enclosed, and returns average between 50 and 55 percent of all letters sent out. In general, respondent opinions on most subjects are stable, but there is a uniform decrease in the "undecided" or "no opinion" categories for mail surveys. This latter effect suggests that mail surveys make respondents think about current problems.

EVALUATION: Poor mail return leaves half the sample out of the analysis.

KEYWORDS: Applications
Mail questionnaire vs. interview
Followup: mail.

116. National Education Association

1930. The questionnaire. Res. Bull. Natl. Educ. Assoc. 8(1): 1-51, illus.

Contains reasons for and against questionnaire use, ways to prepare better questionnaires, ways to report questionnaire results, a proposed plan for the cooperative regulation of questionnaires, and 33 references.

EVALUATION: Useful "handbook" for questionnaire research even though it is compiled for school administrators.

KEYWORDS: History
Disadvantages of questionnaires
Advantages of questionnaires
Literature review
Questionnaire: design, format.

117. Nichols, Robert C., and Mary Alice Meyer
1966. Timing postcard follow-ups in mail-questionnaire surveys. Publ. Opin. Quart. 30: 306-307.

A 12-page questionnaire was sent to 1,600 college students. Half received a followup post card 3 days after the questionnaire was mailed; the other half did not. An additional followup post card was sent to half of each group after 16 days and to the other half 27 days after the questionnaire was mailed. After 45 days, a second copy of the questionnaire was sent to all remaining nonrespondents. At 120 days, the response rate was significantly higher for the 3-day post-card group. After 45 days, there were no significant differences in response rate between the 16-day followup and the 27-day followup. The best response rate was a combination of 3-day and 27-day followups which by the 27th day produced a 77- to 51-percent advantage over the group that received no followup.

EVALUATION: Excellent reference pointing to the need for followup reminders.

KEYWORDS: Followup: mail
Incentive: postage.

118. Nixon, John E.
1954. The mechanics of questionnaire construction. J. Educ. Res. 47(7): 481-487.

Presents a series of practical suggestions for constructing and developing the physical form and for final publication of a questionnaire. Emphasis is placed on consideration for the respondent, since the objective is to obtain as many responses as possible. Questionnaire forms that meet criteria of physical attractiveness and consideration, including materials, arrangement, directions, cover letter, envelopes, mailing, and followup technique, should receive the percentage of replies sufficient to fulfill the investigator's requirements.

EVALUATION: Well-organized outline for questionnaire construction.

KEYWORDS: Questionnaire: design.

119. Norman, Ralph D.
1948. A review of some problems related to the mail questionnaire technique. Educ. & Psychol. Meas. 7(2): 235-247.

A literature review of 37 references concentrated between 1930-48 shows that: followups increase the percentage of returns, rewards should be used with caution, the questionnaire format is important, the study sponsor's identity is important, best time to issue a questionnaire is early in the week and early in the school year, and too long a questionnaire may reduce returns. Respondents differ from nonrespondents in interest toward the questionnaire. Late respondents may differ from early respondents.

EVALUATION: Good general summary supported by several tables illustrating comparisons.

KEYWORDS: Literature review
Bias: nonresponse
Followup: mail
Questionnaire: format
Early vs. late response
Incentive: reward, motivation.

120. Olson, Williard C.
1936. The waiver of signature in personal reports. J. Appl. Psychol. 20(4): 443-450.

The Woodworth-Mathews Personal Data Sheet, a personality test to measure emotional instability, was given to two comparable groups of college women, one group remaining anonymous, the other group signing their names. The test was then given a second time with instructions reversed. In the initial application, subjects reported significantly more feelings and symptoms with neurotic implications under anonymous conditions than when required to sign their names. However, the initial test appeared to establish a set, or memory factor, preventing large changes on the second application to the same group.

EVALUATION: Substantial evidence of questionnaire bias on very personal data with secondary evidence of memory restricting much change on the same questionnaire. Well written but confusing presentation of quantitative data.

KEYWORDS: Anonymous respondent.

121. Oppenheim, A. N.
1966. Questionnaire design and attitude measurement. 298 p., illus. New York: Basic Books.

A comprehensive text on all phases of questionnaire use. Discusses problems associated with the several approaches to survey and questionnaire research. Questionnaire construction chapters deal with question wording, attitudes and attitude scaling, use of projective techniques, and others. Analysis section deals with data coding, preparation of cards for computer analysis, and table analysis. Appendix lists established socioeconomic rankings for approximately 500 occupational categories.

EVALUATION: Excellent, comprehensive, up-to-date, readable references.

KEYWORDS: Analysis
Question wording
Reliability
Advantages and disadvantages of questionnaires
Questionnaire: design
Attitudes
Textbook.

122. Pace, Robert C.
1939. Factors influencing questionnaire returns from former university students. J. Appl. Psychol. 23(3): 388-397.

A 52-page questionnaire was sent to 1,507 former University of Minnesota students to determine characteristics and activities since leaving school. With 69-percent return, the study results show that the method of comparing early versus late returns is not as sensitive to the true extent of bias as is the direct comparison of returns versus nonreturns, but this former comparison does indicate direction of bias. University graduation and number of years of school completed were important factors influencing returns, but sex, age, and year of entrance to the university were unimportant.

EVALUATION: Good study worth reading.

KEYWORDS: Bias: nonresponse
Early vs. late response.

123. Parry, Hugh J., and Helen M. Crossley
1950. Validity of responses to survey questions. Publ. Opin. Quart. 14: 61-80.

The article examines two concepts of validity (as a test to predict performance and as a matter of interpretation or definition), reviews the literature on the subject, and presents results of a specially designed survey in Denver which showed that the validity of even simple "factual" responses may often be open to question. Invalidity was shown to commonly follow social pressures; with more respondents exaggerating their participation in elections than underreporting it. The same tendency was noted in the report of possession of library cards and driver's licenses.

EVALUATION: Excellent discussion on questionnaire validity both for philosophical reasons and for practical reasons.

KEYWORDS: Validity
Literature review.

124. Parten, Mildred
1950. Surveys, polls, and samples: practical procedures. 624 p., illus. New York: Harper and Brothers.

Presents information on procedures used by population surveyors and on evaluations of populations by questionnaires and related devices. Includes the historical background of population surveying and a description of significant current practices. Presented is a guide for planning the survey, drafting the forms, writing the instructions, securing the information, and interpreting and reporting the results. Particular emphasis is given to the problem of bias and to specific procedures which meet technical problems arising at each stage of the survey operation. Primary consideration is given to surveys that gather information about people rather than about the agencies or facilities provided for them.

EVALUATION: Good reference text especially on historical aspects. Includes 1,145-reference bibliography.

KEYWORDS: History
Questionnaire: design
Bias: nonresponse, representativeness, stated vs. actual behavior
Analysis
Textbook.

125. Payne, Stanley L.
1950a. Case study in question complexity. Publ. Opin. Quart. 13: 653-658.

This article examines 16 questions given in a national survey of 6,400 people. Each of the questions contains an alternative question such as, "Do you think that this tax is about right, or is it too high?" Half the questionnaire had the alternative in the question reversed such as, "Do you think that this tax is about right,

or is it too low?" Nine of the questions proved to be "tight," in that differences in answers between the two forms did not exceed 2 percent. Seven questions, labeled as "loose," produced statistically significant different answers ranging from 4.5 percent to 7.5 percent. Results show that the loose question's alternative was selected more often when it was presented last, opinions were held less strongly on the tight questions than on the loose ones, and question brevity and simplicity are important elements of "tightness." Flesch Readability Scores revealed that the tight questions qualified as suitable for people who had completed seventh or eighth grade, and the seven loose questions qualified as difficult or suited for people of high school or more education.

EVALUATION: This paper is addressed to interviewers but the generalities apply to mail surveys.

KEYWORDS: Question: wording.

126. _____ 1950b. Thoughts about meaningless questions. Publ. Opin. Quart. 14: 687-696.

Researchers should understand that respondents will answer questions that may be meaningless to them and that answers are not always random depending upon the respondents' predisposition. The proportion of respondents for whom questions are meaningless is impossible to determine and the fact that answers fit subsequent behavior does not prove that questions were meaningful. Even consistency of replies is no proof that a question is full of meaning. Precautions against meaningless questions include recognizing issues or terms that could be meaningless to many respondents, avoiding abstractions or words with vague and general definitions, avoiding long and complicated questions or words, using "filter" question to determine if respondent understands question or issue, using scaling techniques which will eliminate questions that do not "scale" with others on the same topic, and pretesting questions before they are used extensively.

EVALUATION: Excellent suggestions, clear and well presented with examples to support contentions.

KEYWORDS: Question: wording.

127. _____ 1951. The art of asking questions. 249 p. Princeton, N.J.: Princeton Univ. Press.

Major topics covered include the importance of asking good questions; a description of the open-end question and its demerits; a discussion of the two-way question and its duplicities; a discourse on the multiple-choice question and its misconstructions; a description of special types of questions and their faults; the concern for respondents' privacy; the virtues of brevity and simplicity; problems with individual words and questions; a short lesson on punctuation, phonetics, and abbreviations; a checklist of 100 considerations; and 53 references.

EVALUATION: Clearly presented text on a subject deserving greater appreciation.

KEYWORDS: Question: content, type, wording
Textbook.

128. Pedersen, Darhl M., and Vincent J. Breglio
1968. The correlation of two self-disclosure inventories with actual self-disclosure: a validity study. J. Psychol. 68: 291-298.

Two self-disclosure measures and a self-disclosure questionnaire were administered to 52 subjects. Each of the self-disclosure measures yielded four scores which indicated the extent to which the subjects claimed they had disclosed information about themselves to four target persons (mother, father, best male friend, and best female friend). The questionnaire yielded separate scores of actual depth of self-disclosure in five topic areas (interest, personality, studies, body, and money), a total depth of disclosure score, and a total amount of disclosure score. Correlations between the 10 scores and the seven questionnaire scores indicated that total depth of disclosure was highly correlated with total amount of disclosure; that both total depth and total amount of disclosure were correlated with mother and father; that the only area of actual disclosure consistently related to claimed disclosure was that of studies.

EVALUATION: Worth reading if interested in overt versus verbal disclosed behavior.

KEYWORDS: Bias: stated vs. actual behavior.

129. Perry, Harold E.
1925. The questionnaire method. J. Appl. Sociol. 10(Sept.-Dec.): 155-158.

Responses to two questionnaires completed by junior high teachers were rejected because the investigator "knew," from 2-year association with the subjects, that their true attitudes were not revealed. Reasons why the questionnaire method is good for objective data but inaccurate for subjective data are given: (1) it is impersonal and fails to arouse emotions which reveal attitudes; (2) it allows variation in interpretation of questions; (3) questions are often answered to give certain impressions; (4) it encourages brief, concise answers which do not portray attitudes; (5) questions are often too direct and arouse antagonism or inhibition.

EVALUATION: Dated, essay-style article based on intuition and vague experience rather than data.

KEYWORDS: Advantages of questionnaires
Disadvantages of questionnaires.

130. Perry, Reginald
1923. Putting persuasive power into a questionnaire. Printers' Ink Vol. 123, May 10, p. 125-129.

Essay about using questionnaires to gather ideas for equipment advertising from superintendents of plants. Advises readers to leave plenty of white space between questions. Avoid "yes" or "no" questions since they will not provide new ideas. Write questionnaires in conversational style. Dovetail questions with one another to insure adequate information.

EVALUATION: Dated, weak essay of no value for research purposes.

KEYWORDS: Questionnaire: design.

131. Phillips, Marjorie

1941. Problems of questionnaire investigation. Res. Quart. 12: 528-537.

Seven disadvantages and three advantages of questionnaires are given. Nine items are given to consider before constructing a questionnaire, and 15 desirable practices are given for its construction. Ten questions are then offered as criteria for judging a questionnaire already constructed. A questionnaire is a cooperative effort between the individual constructing it and the respondents who should thus be treated with all possible consideration. Lengthy bibliography of questionnaire use in education included.

EVALUATION: Good general advice but some of it outdated and specific to education.

KEYWORDS: Disadvantages of questionnaires
Advantages of questionnaires
Questionnaire: design.

132. Phillips, William M., Jr.

1951. Weaknesses of the mail questionnaire: a methodological study. Sociol. & Soc. Res. 35(3): 260-267.

To ascertain the extent of investigator control over representativeness of response, the author obtained data from a sample of 93 Fisk University graduates. By the use of followups, response was increased approximately 50 percent; by the use of personalizing devices (postage and personal letter), response was increased approximately 70 percent. No significant differences were found between early, late, and nonrespondents when the four factors of year of graduation, sex, marital status, and number of children were tested. It was concluded that the investigator can control the representativeness of his sample by increasing response to a mailed questionnaire through use of followup and personalized devices.

EVALUATION: Paper falls short of expectations aroused by title, but it does offer further evidence of the value of followups to questionnaire studies.

KEYWORDS: Bias: nonresponse
Followup: mail
Early vs. late response
Incentive: motivation, postage.

133. Plog, Stanley C.

1963. Explanations for a high return rate on a mail questionnaire. Publ. Opin. Quart. 27: 297-298.

The return rate for 162 questionnaires mailed to readers who had sent letters to the editor was 92 percent for one sample and 98 percent in a second. Factors affecting the return rate were respondent interest, mailing of questionnaires the same day that letters were received, enclosure of individually typed letters of explanation and postage-free, addressed return envelopes.

EVALUATION: Results have limited application and were based upon speculation.

KEYWORDS: Incentive: motivation, postage
Cover letter.

134. Price, D. O.
1950. On the use of stamped return envelopes with mail questionnaires. Am. Sociol. Rev. 15(5): 672-673.

All 157 members of a regional sociological society were sent invitations to join a national sociological society. Half of the return envelopes were postage paid; the other half were not. After 6 months, 23.3 percent of those receiving stamped return envelopes and 17.3 percent of those receiving unstamped envelopes had joined. This significant difference in response rate was considered due to convenience since a $6 membership fee was required of all who joined.

EVALUATION: Brief note indicating the value of return postage.

KEYWORDS: Incentive: postage.

135. Reid, Seerley
1942. Respondents and nonrespondents to mail questionnaires. Educ. Res. Bull. 21(4): 87-96.

School principals (3,293) were contacted by questionnaire to determine the extent of audio-visual equipment being used, and 42 percent responded initially. Special delivery letters and telephone calls to 92 names randomly selected from the remaining (1,032) nonrespondents increased response 69 percent. The replies of the 87 that answered were assumed to be representative of the nonrespondents. On nine out of the 10 questions, there were statistically significant differences between respondents and nonrespondents. Differences reflected less interest in topic by nonrespondents and indicate that respondents are not representative of nonrespondents. Every questionnaire study should include a followup. Nonrespondents can be sampled rather than resurveyed in total. Review of previous studies of nonresponse bias.

EVALUATION: Good example of nonresponse bias. Extent of bias may have been greater with some other topic.

KEYWORDS: Bias: nonresponse
Followup: mail, telephone.

136. Reuss, Carl F.
1943. Differences between persons responding and not responding to a mailed questionnaire. Am. Sociol. Rev. 8(4): 433-438.

Differences between student respondents and nonrespondents to a mail questionnaire were analyzed for differences in (1) intelligence, (2) length of stay in college, (3) community backgrounds, (4) family backgrounds, and (5) social participation. Intelligence and amount of college were positively related to response. Students from rural backgrounds responded more than those with urban backgrounds. Farm children responded better than children of skilled laborers. Sorority and fraternity members responded more than nonmembers. Initiative and strength of ties to the school (interest) generally increased returns.

EVALUATION: Dated article that supports differences between nonrespondents and respondents.

KEYWORDS: Bias: nonresponse.

137. Robin, Stanley S.
1965. A procedure for securing returns to mail questionnaires. Sociol. & Soc. Res. 50(1): 24-35.

A literature review indicates differences between respondents and nonrespondents when the study is concerned with opinions, values, and psychological characteristics but no difference when the questionnaire deals with preference and behavior. Incentives such as money or registered letters rarely increase returns to interview levels. Author suggests a maximum of five contacts with respondents: a prequestionnaire letter, a questionnaire with cover letter, a followup letter, a second questionnaire, and a third followup letter. Content of cover letter is suggested along with a mailing interval of 7 days. Results from nine questionnaire studies show no basis for concluding that prequestionnaire letters made significant differences in returns.

EVALUATION: Excellent literature review and discussion of questionnaire returns. Interpret with caution the nine studies because eight deal with student respondents who may not be representative of other respondents.

KEYWORDS: Cover letter
Bias: nonresponse
Followup: mail
Prequestionnaire letter
Literature review
Incentive: money.

138. Robinson, R. A.
1952a. How to design a mail survey. Printers' Ink 239(9): 27-30.

Planning and construction of the mail survey include: (1) obtain background on the subject; (2) prepare a preliminary list of questions; (3) design the sample to be representative of the population; (4) use accurate, complete, and adequate lists or files, which are current and not subject to duplication; (5) pretest the questionnaire by either direct mail to the respondents or by personal interviews; (6) carefully check the questionnaire before mailing to avoid coding and tabulating bottlenecks; and (7) send along a collated sample of all enclosures to insure proper mailing.

EVALUATION: Brief cookbook outline of questionnaire construction. Excellent for the beginner.

KEYWORDS: Questionnaire: design.

139. ———
1952b. How to boost returns from mail surveys. Printers' Ink 258(June): 35-37.

A variety of procedures designed to increase the probability of questionnaire returns from mail surveys are briefly discussed. The author points out that response rates can be increased by properly designing the questionnaire itself; providing monetary inducement for its completion; including a warm, friendly letter of introduction; providing a stamped, return envelope; and sending several followup letters and at least one additional questionnaire to

nonrespondents. The author points out that, with proper precautions, response to mail questionnaire studies can be increased appreciably above what would otherwise be expected. Data are presented which demonstrate that nonresponse bias is unimportant when the return rate exceeds 80 percent.

EVALUATION: Although much has been learned about mail questionnaires since this paper was written, the major problems associated with constructing questionnaires and prompting their return are well summarized.

KEYWORDS: Questionnaire: design
Incentives: money, motivation, postage
Followup: mail
Cover letter.

140. _____, and Philip Agisim
1951. Making mail surveys more reliable. J. Marketing 15: 48-56.

A men's wear survey of 5,960 subscribers to a leading national magazine showed a 93-percent return after a 25-cent inducement was given in the original questionnaire and a $1 tie clasp was offered in a followup reminder. No significant difference was found between the responses before and after the followup. Authors conclude that when returns reach 80 percent, reliability of data is little affected by nonrespondents. In the followup, a question was included to determine why people had not responded. Almost half said they mislaid it or overlooked answering, and only 7 percent refused outright. This finding indicated the importance of followup mailings with an additional questionnaire included. The authors examined several studies that had high return rates to determine factors that may be helpful in conducting questionnaire studies. These include: preliminary study of the survey population; pretesting questionnaires to discover bias or ambiguities; careful design and format of questionnaire; inclusion of some sort of incentive for respondents; inclusion of a cover letter; inclusion of a return envelope preaddressed and stamped; and the use of followup reminders. In nine studies, the daily returns showed that 50 to 60 percent of the total returns come within 7 days, 90 percent after 2 weeks, and nearly all questionnaires should be received after 3 weeks.

EVALUATION: Excellent paper that corresponds to the objectives behind this annotated bibliography. Three references.

KEYWORDS: Bias: nonresponse
Followup: mail
Cover letters
Pretest
Questionnaire: design, format
Incentive: reward
Early vs. late response.

141. Roeher, G. Allan
1963. Effective techniques in increasing response to mailed questionnaires. Publ. Opin. Quart. 27: 299-302.

A 32-item attitude and information scale was sent to 400 subjects living in both rural and urban areas who had donated to Easter seals and the March of

Dimes. One-fourth of the cover letters gave no title to the endorser and the remainder had a fictitious title, "Director of Rehabilitation," after the name. Of those who received questionnaires with a title, 81 percent returned them; of those without a title, 55 percent. Also, urban residents responded better (83 percent) than rural subjects (72.3 percent).

EVALUATION: Findings are suggestive but lack rigorous analysis to determine significance and amount of variation due to the various factors. Lack of evaluation of nonresponse further weakens results. 12 references.

KEYWORDS: Cover letter
Bias: nonresponse.

142. Rollins, Malcolm
1940. The practical use of repeated questionnaire waves. J. Appl. Psychol. 24(6): 770-772.

In a study by *Cosmopolitan Magazine* to determine for advertising purposes whether their readers traveled by commercial airlines, 750 questionnaires were sent to subscribers. Initial returns were less than 23 percent, and 13 percent of a followup wave were returned. Seventeen percent of the original respondents had flown compared with only 7 percent of the followup respondents. Respondents under age 55 were interested in lower cost, and respondents over 45 interested more in safety.

EVALUATION: Interesting example of how nonresponse bias can affect results.

KEYWORDS: Bias: nonresponse
Followup: mail
Incentive: motivation.

143. Rosen, Hjalmar, and R. A. Hudson Rosen
1955. The validity of "undecided" answers in questionnaire responses. J. Appl. Psychol. 39(3): 178-181, illus.

A questionnaire to union members was supplemented by interviews with a sample of nonrespondents to determine whether responses in the "undecided" category can be considered as valid evidence that individuals have not made definite judgments. Opinion items consisted of statements on norms, perceptions, and evaluations. Findings for the undecided group, that indicated definite perceptions, cast considerable doubt on the validity of middle category (undecided, uncertain) responses. In no case was the undecided group both significantly less homogeneous than the satisfied group and significantly more homogeneous than the dissatisfied group. The "undecided" judgments of members who did not know what was being done on any point would appear to be valid. There is no evidence for the validity of other undecided responses. It may be advantageous to omit the undecided category. Respondents undecided because of insufficient information could leave the question blank, but others may be lured into taking a stand.

EVALUATION: Excellent paper worth considering when designing questions containing "undecided," "don't know," "no comment," or "neutral."

KEYWORDS: Validity
Interpretation
Question: wording.

144. Rosen, Ned A.

1960. Anonymity and attitude measurement. Publ. Opin. Quart. 24: 675-679.

In a preliminary investigation of the effectiveness of the developmental reading program at Purdue University, 678 first-semester college freshmen completed two questionnaires. Half of the students were requested to sign their names and half were not. 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. This position is supported by eight of 10 studies cited. Where respondent identification is essential for correlational or followup purposes, the straightforward approach is preferable to a number coding system. In sensitive issues or where there is expected distortion, it may be advisable to use an anonymous questionnaire.

EVALUATION: Caution is advised in extending results of this study to studies involving other age groups who may react differently to signing their names.

KEYWORDS: Anonymous respondent
Questionnaire: design.

145. Rosenau, James N.

1964. Meticulousness as a factor in the response to mail questionnaires. Publ. Opin. Quart. 28: 312-314.

A short questionnaire asking for name, home address, organizational affiliation, phone number, and availability for volunteer work was given to 1,067 national leaders attending a White House conference on foreign aid. Only 32.4 percent were returned. It was hypothesized that idiosyncratic differences rather than interest or involvement in conference topic distinguished respondents and nonrespondents, and that those who returned the questionnaire would more likely respond to a mail questionnaire. A second questionnaire was mailed to the same 1,067 conferees after they returned home. Of the 61 percent who returned questionnaires, a significant 75.1 percent of those who returned the first questionnaire responded. Of those who did not respond to the first questionnaire, 51.6 percent responded to the second one. Cross-tabulation revealed that interest and involvement in the topic was not associated with rate of return. Author concludes that response to surveys is a function of the respondent's habits and attitudes that are highly personal and deeply ingrained.

EVALUATION: Short but interesting paper pointing to an inherent weakness in the use of mail questionnaire.

KEYWORDS: Bias: nonresponse
Incentive: motivation.

146. Roslow, Sydney, and Albert B. Blankenship

1939. Phrasing the question in consumer research. J. Appl. Psychol. 23(5): 612-622.

Included in nine principles considered in the phrasing of questionnaire items are rapport, nonambiguous and concrete questions, question's position in the schedule, importance of respondents' background, nonemotional and unbiased questions, and possible influence of multiple choice-type questions.

EVALUATION: Clear statement of sound principles, still timely.

KEYWORDS: Question: wording.

147. Ruckmick, Christian A.
1930. The uses and abuses of the questionnaire procedure. J. Appl. Psychol. 14(1): 32-41.

Five weaknesses of the questionnaire are given: (1) It stresses explicit categorical answers, (2) it does not account for individual reactions, (3) its results may depend upon the researcher's interpretation, (4) its statistical treatment is often misleading, and (5) nonresponse and the percentage of replies left blank can seriously affect findings. Three advantages of questionnaires are given: (1) large amounts of data can be gathered in a short time, (2) insights can be gained by its exploratory approach to problems, and (3) whoever constructs a questionnaire is forced to define his problem and the implications at the onset.

EVALUATION: Advances during last 40 years make disadvantages seem less serious and advantages obvious.

KEYWORDS: Disadvantages of questionnaires
Advantages of questionnaires.

148. Rugg, Donald
1941. Experiments in wording questions: II. Publ. Opin. Quart. 5: 91-92.

A simple experiment on question wording indicates that alternate word forms may result in different response patterns among certain socioeconomic groups.

EVALUATION: The findings are not definitive, however; and no recommendations are made by the author.

KEYWORDS: Question: wording.

149. Rushmore, Elsie M.
1934. How to get results in mail questionnaires. Printers' Ink 166(March): 17-21.

As a basis for evaluating questionnaire construction, 24 questions are given; and 14 additional questions are given to evaluate reports based upon the findings of questionnaire studies. States that questionnaires are more reliable for quantitative factual data and interviews more reliable for subjective personal data. Weather favors questionnaires over interviews since poor weather makes standing on the doorstep impractical, but good weather decreases the number of people at home.

EVALUATION: Logical, general guidelines reflecting the era in which they were written.

KEYWORDS: Questionnaire: design
Mail questionnaire vs. interview.

150. Russell, Susan D., Robert Konrad, and Arnold D. Kaluzny
1970. Influencing the respondent: an experiment in maximizing the response rate of mail questionnaires. Sociol. Abstr. 18(3): 22.

Mail questionnaires were sent to 623 hospital administrators to test the effect of three mailing conditions: postage--regular, airmail, or airmail-special

delivery; presence or absence of postscript; and presence or absence of "personal" stamped on the envelope. None of the variables had a direct effect, but a combination of airmail-special delivery, a postscript, and "personal" marked on the envelope brought in a 92-percent return. Only 67-percent return was realized from the combination of airmail, no postscript, and no "personal" stamped on the envelope. The highest response was from the closest area from questionnaire origin. The organizational size was related to response rate with the smallest hospitals having the lowest return rates.

EVALUATION: The article is a very brief description of a study with no discussion of findings.

KEYWORDS: Incentive : postage, motivation.

151. Salisbury, Philip

1938. 18 elements of danger in making mail surveys. Sales Manage. 42(Feb.): 28-30, 84-85.

Chances for misinformation and misinterpretation are greater for mail surveys than for interviews. Handicaps of mail surveys include: they take too much of respondent's time; mailing lists are inaccurate; surveys take too long to complete and are more costly than assumed; certain answers are inaccurate when written; nonresponse is high; representativeness is questionable; person sampled may not be the one who answered questions; response is highest for those most interested; negative opinion holders are most likely to respond; incomplete questionnaire is more likely; income is likely to be overstated for prestigious reasons; there is no chance to qualify unclear questions and no chance to evaluate subjectively respondent's mood.

EVALUATION: Handicaps largely overcome through more refined questionnaire design and sampling techniques. Many handicaps listed were poorly supported.

KEYWORDS: Bias: nonresponse
Disadvantages of questionnaires
Mail questionnaire vs. interview.

152. Schwirian, Kent P., and Harry R. Blaine

1966. Questionnaire return bias in the study of blue-collar workers. Publ. Opin. Quart. 30: 651-653.

Analysis of questionnaire returns from the study of members of the United Automobile Workers Union gave significant information on the nature and direction of questionnaire return bias. Three hypotheses were explored: (1) that questionnaire return bias is characteristic of blue-collar populations, as of other populations; (2) that the direction of the bias is predictable; and (3) that the nature of the associations among the variables is not disturbed by the bias. Initial respondents (26.5 percent) to a mailed questionnaire were examined separately from those who responded to a second mailing (27.0 percent). The data lent support for the first two hypotheses. For the third, however, contradictory evidence was found. Not only does return bias have a serious effect upon the estimation of population parameters, but the findings suggest that the association between two variables may be affected.

EVALUATION: The authors properly conclude that researchers not only must

strive to obtain the maximum possible returns to mailed questionnaires but must be sensitive to the subtle effects of return bias.

KEYWORDS: Bias: nonresponse.

153. Scott, Christopher

1961. Research on mail surveys. J. Royal Statist. Soc. 124(2): 143-205.

Five mail surveys by the British Government are examined along with the literature on mail questionnaires. Experimental features introduced into these studies allow measurement of nonresponse bias, early versus late questionnaire returns, response by nonaddressees, the influence of a variety of factors on the response rate, and response reliability and validity. An attempt is also made to evaluate all published research on each topic. 120 references.

EVALUATION: Excellent state-of-the-art compilation.

KEYWORDS: Bias: nonresponse, representativeness
Early vs. late response
Literature review
Followup: mail
Questionnaire: length
Cover letter
Incentive : postage.

154. Scott, Frances Gillespie

1957. Mail questionnaires used in a study of older women. Sociol. & Soc. Res. 41: 281-284.

To ascertain the relationship between personal adjustment in old age and occupational mobility, the author sent questionnaires to 360 women, 60 years of age and older, randomly selected from poll-tax exemption lists. The sample was divided into four parts to test the usefulness of mailing time and the use of a preliminary letter explaining the study. Earlier responses were received when the questionnaire was delivered early in the week, but the ultimate response rate after followup was significantly higher for questionnaires mailed later in the week. A chi-square test revealed no difference in ultimate responses between those receiving and those not receiving a preliminary letter. The preliminary letter may have increased interest and caused respondents to reply promptly. Apparently the followup letter had a similar effect on those who did not receive the preliminary letter.

EVALUATION: Excellent but brief paper on a topic generally underestimated--timed mailing.

KEYWORDS: Followup: mail
Prequestionnaire letter
Incentive: postage.

155. Seitz, Richard M.

1944. How mail surveys may be made to pay. Printers' Ink 209(Dec.): 17-19, 96, 98, 99, 102.

Advantages of direct mail questionnaires are enumerated as well as their disadvantages. Primarily directed to readers wishing to use questionnaires

commercially. "Non-white collar groups are not regarded as good possibilities since they are often unaccustomed to writing." Suggestions on form, wording, cover letter are made as well as ways to increase returns.

EVALUATION: Casual, offhand advice, much of which is misleading; methodology is unsound.

KEYWORDS: Questionnaire: design
Advantages of questionnaires.

156. Selltiz, Claire, Marie Johoda, Morton Deutsch, and Stuart W. Cook
1959. Research methods in social relations. 622 p. New York: Holt Rinehart & Winston.

Chapters 7 and 10 and Appendix C pertain to mail questionnaires. Discussed are problems of validity, questionnaires versus interviews, question content, type of questionnaires, and scaling. Questionnaire construction includes: (1) deciding what information is needed, (2) deciding on the type of questionnaire and writing the first draft, (3) reexamining and revising questions, (4) pretesting, (5) editing questionnaire, and (6) specifying procedures for its use.

EVALUATION: Systematic and thorough discussion of the basic principles of questionnaire construction and use. Worth consulting.

KEYWORDS: Questionnaire: design
Mail questionnaire vs. interview
Advantages of questionnaires
Scaling
Disadvantages of questionnaires
Question: content
Pretest
Textbook.

157. Shafer, Elwood L., Jr., and John F. Hamilton, Jr.
1967. A comparison of four survey techniques used in outdoor recreation research. USDA Forest Serv. Res. Pap. NE-86, 22 p., illus. Northeast. Forest Exp. Stn., Upper Darby, Pa.

Handout questionnaires and mailed surveys--with three to four waves for nonrespondents--provided results that were comparable to personal interview data in 75 to 87 percent of the question items. Delayed mail surveys conducted 3 months after the camping experience,with questions of the same type or of similar complexity as those in the present study, are recommended over handout or immediately mailed surveys.

EVALUATION: Good example of various techniques used in questionnaire research.

KEYWORDS: Advantages of questionnaires
Mail questionnaire vs. interview.

158. Shannon, J. R.
1948. Percentages of returns of questionnaires in reputable educational research. J. Educ. Res. 42(2): 138-141.

A total of 639 research studies in master's theses, Ph.D. dissertations,

and articles in the *Journal of Educational Research* using questionnaires were examined to determine their rate of returns. The mean percentage of returns for the 433 usable studies was 72 percent, but 206 studies lacked enough information to compute returns.

EVALUATION: Article is very generalized but does point out inadequacies in research report writing.

KEYWORDS: Bias: nonresponse
Literature review.

159. Sharp, Harry
1955. The mail questionnaire as a supplement to the personal interview. Am. Sociol. Rev. 20(6): 718.

Survey was made of demographic and economic information on 2,556 adults in a Detroit area survey. Questionnaires were left at each household where any adult contacted could not supply the information needed on adults who were not present. The mail questionnaires were used only to a limited extent, but 40 percent or 21 of the 53 respondents for whom questionnaires were left did return the forms. The use of the mail questionnaire as a supplement to the personal interview did result in a more complete collection of data with comparatively little additional effort on the part of the researchers.

EVALUATION: Good example of the use of questionnaires to supplement an interview survey. Nonresponse was extremely high which reduced the reliability of the questionnaire portion of the study.

KEYWORDS: Applications
Mail questionnaire vs. interview.

160. Shuttleworth, Frank K.
1931. A study of questionnaire technique. J. Educ. Psychol. 22(Dec.): 652-658.

A six-item questionnaire evaluating the effectiveness of a rural public health project was sent to 608 persons with a 25-cent coin enclosed, and to 376 persons with no coin enclosed. There was 52-percent response from those who received the coin but only 19-percent response from the no-coin sample. Coin questionnaires were 12 percent more expensive in terms of unit cost per return.

EVALUATION: The value of money incentive is illustrated, but serious nonresponse may still exist in the 52-percent return. Extensive followup reminders inducing higher returns may be cheaper.

KEYWORDS: Incentive: money.

161. ———
1941. Sampling errors involved in incomplete returns to mail questionnaires. J. Appl. Psychol. 25(5): 588-591.

To test sampling errors due to incomplete questionnaire returns, great effort was invested in securing complete returns in a survey of the employment status of 327 chemistry graduates. Results after 60 percent (184 questionnaires) were returned showed 0.5 percent were unemployed. After another 125 questionnaires were received, the unemployment rate was 5.6 percent; but after

100-percent return, the unemployment rate stood at 4.0 percent. Suggests securing complete returns from at least a portion of the total population in a pretest to aid planning to help minimize sampling errors.

EVALUATION: Concise article demonstrating possible bias resulting from nonresponse to mail questionnaires.

KEYWORDS: Bias: nonresponse
Pretest.

162. Simon, Raymond

1967. Responses to personal and form letters in mail surveys. J. Adver. Res. 7(1): 28-30.

Two readership studies of industrial company magazines and a study of subscribers' attitudes toward a hospital insurance plan provided an opportunity to compare the effects of a personally typed cover letter and a mimeographed form letter. In all three studies, 2,414 questionnaires were sent out to employee readers and general public readers. Questionnaire returns ranged from 26 percent to 60 percent. Results indicate that personally typed letters have no clear-cut advantage over mimeographed form letters in terms of percent response.

EVALUATION: The author's opening statement that "a form letter produced greater returns than a personal letter" is contrary to his results. The nonresponse level in all three studies is extremely high. Eight references.

KEYWORDS: Cover letter.

163. Sjoberg, Gideon

1954. A questionnaire on questionnaires. Publ. Opin. Quart. 18: 423-427.

Two census tracts in Texas were surveyed to determine what attitudes people have toward questionnaires and interviewing. Both tracts were predominantly "Anglo-American," but one had high income and education; the other had low income and education. More people in tract 1 (72 percent) had heard of the Gallup, Belden, and Roper polls than had persons in tract 2 (17 percent). Eighty-three percent of the respondents in tract 1 and 70 percent in tract 2 believed that people should be asked their opinions about political and social problems. Most people were opposed to having the city exercise restraint on interviewing. However, only 52 percent in tract 1 and 38 percent in tract 2 favored having interviewers come to their homes. Little more than half the people preferred personal interviews to mailed questionnaires or telephone contacts. Interviewees were more willing to answer questions concerning religious beliefs and their jobs than to answer questions about money matters, political beliefs, and family life. In tract 1, 78 percent, and in tract 2, 55 percent responded with "Yes" when asked, "Do you believe most people answer honestly the questions they are asked by the interviewers?"

EVALUATION: Interesting findings on type of questions respondents like and dislike most. Survey oriented toward interviews but has application for mail questionnaire surveys.

KEYWORDS: Mail questionnaire vs. interview.

164. Sletto, Raymond F.
1940. Pretesting of questionnaires. Am. Sociol. Rev. 5(Apr.): 193-200.

Over 6 months were spent pretesting a questionnaire to be sent to 1,600 former university students. Length of questionnaire did not significantly affect the response rate of a 10-, 25-, and 35-page questionnaire in a 300-member pretest group. Three different cover letters did not significantly affect the rate of return. One cover letter requested help on an altruistic basis, another on a challenge basis, and a third on a "help us" basis. To test post-card versus letter followup notices, half of the nonrespondents from above received the post card and the other half, the letter. The number of returns was identical for each method. A third test involved recipients of the 25-page questionnaire who were asked to check difficult, dull, or unrelated sections of the questionnaire. Twenty-two of the 60 respondents reacted unfavorably to questions relating to problems in the communities. These questions were rearranged with other, more favorable questions so their impact would be reduced. Another test asked 47 students to rate the esthetic appearance of 10 different page formats. Results indicate that esthetic preferences are not highly individualistic nor erratic. The final questionnaire containing 52 pages yielded 69-percent return. Author concludes that greater attention should be directed at pretesting to discover the selective factors that will bias the final questionnaire.

EVALUATION: Excellent study demonstrating the importance of pretesting. Well worth reading before starting a questionnaire study.

KEYWORDS: Cover letter
Pretest
Followup: mail
Question: type
Questionnaire: format, length.

165. Slocum, W. L., L. T. Empey, and H. S. Swanson
1956. Increasing response to questionnaires and structured interviews. Am. Sociol. Rev. 21(2): 221-225.

Results of four studies involving farmer-hunter relationships, occupational planning of high school seniors, consumer habits, and college student withdrawals show that efforts to establish an image of the social utility of a survey and to emphasize the special role of each respondent will maximize response. Improvising and designing approaches to fit specific situations are necessary for utilizing these principles.

EVALUATION: High response case studies used to support hypothesis. Poor control over other variables that probably contributed to response rate.

KEYWORDS: Incentive: motivation.

166. Smith, Francis F.
1935. The direct validation of questionnaire data. Educ. Admin. & Superv. 21(8): 561-575.

In an analytical inquiry into the validity of questionnaire data, various studies showed that individual response, taken by itself, is questionable. Individuals differ in their ability to furnish valid data such as estimates of size, number,

time, speed, and so on, particularly under rigorous standards. Validity is increased by increasing the sample size and merging their responses. In no case studied does the validity of questionnaire data seem to meet the rigorous demands made by more precise sciences. The validity of responses involving judgment and opinion is usually lower than for responses involving factual data. But factual data involving personal accomplishment often has prestige bias.

EVALUATION: Dated but good basic data presented with analytical support.

KEYWORDS: Validity
Literature review.

167. Smith, Mapheus
1933. A note on stability in questionnaire response. Am. J. Sociol. 38(5): 713-720.

Fifty college students were given a 60-item questionnaire dealing with factual family items, factual personal items, and subjective personal items. Four months later they retook the questionnaire, and 780 answers were different. Average change per person on 16 family items was 4.0 questions for 22 males, and 3.1 for 28 females. Changes in 19 factual personal items were 4.3 for males and 3.5 for females. Changes in 25 subjective personal items were 10.0 for males and 6.9 for females. Forty-six of the students changed 10 or more items each.

EVALUATION: Many items reported may have logically changed in the intervening 4 months of study. For example, "Are you engaged?" "Age of mother," or "Do you dream often?"

KEYWORDS: Reliability.

168. Stanton, Frank
1939. Notes on the validity of mail questionnaire returns. J. Appl. Psychol. 23(1): 95-104.

A three-page mail questionnaire concerning the use of classroom radio facilities was sent to 11,169 U.S. schoolteachers, and 28.3 percent were returned. Results showed that the first half of the respondents' answers did not differ significantly from the last half, and the first 95 percent to respond did not differ from the last 5 percent. After 5 days, 43.5 percent of the total responses had been received. Another sample of 4,942 teachers was sent the same questionnaire; however, a followup questionnaire was sent on the 17th day after the original mailing. This time, 50.2 percent responded, and results showed a much higher proportion of teachers who did not use the radio facilities. These two examples indicate that the use of followup technique produces a significant increase in returns and gives a more representative sample in that people who were less interested or believed they had little to contribute were stimulated into responding.

EVALUATION: This is one of the few actual tests of the effects of followup to stimulate response. In addition, the author claims to have received a 94-percent return using three followup contacts in another study.

KEYWORDS: Followup
Bias: nonresponse
Early vs. late response.

169. Stephan, Frederick F.
1948. History of the uses of modern sampling procedures. Am. Statist. Assoc. J. 43(241): 12-39.

An extensive history of sampling is presented. Empirical knowledge is derived from incomplete observation and is a sampling of experience. Principles of sampling emerged from common sense, custom, and experience arising from needs of agriculture crop estimates, economic statistics, statistical phases of social and health surveys, and public opinion polling. Probability theory, though well established in the 18th century, was not applied until the 20th with statistical needs of the government increasing during the depression. Complex sampling systems have been designed to fit the sample population, the costs and administrative factors, and the principles of efficient design. Sampling choices are based on the study purpose, knowledge of the material, and experience with previous studies. Most current opinion polls and market research studies employ quota methods. The second war has been a greater accelerating stimulus to sampling than the depression of the 1930's.

EVALUATION: Excellent historical perspective of survey research in general. Questionnaire research as such is not stressed.

KEYWORDS: Literature review
History
Applications.

170. Stoke, Stuart M., and Harvey C. Lehman
1930. The influence of self-interest upon questionnaire replies. Sch. & Soc. 32(822): 435-438.

Studies of individual members of seven classes on educational psychology lead to one conclusion: It is naive to assume that the lazy student would give an accurate report of his own laziness. Probably little reliance can be placed on students' statements of how much they study.

EVALUATION: Dated, but points to problem of soliciting self-evaluation on sensitive subject.

KEYWORDS: Reliability
Incentive: motivation
Bias: stated vs. actual behavior.

171. Suchman, Edward A.
1962. An analysis of "bias" in survey research. Publ. Opin. Quart. 26: 102-111.

Given the fact that nonresponse does introduce a bias, an important question is not only "Are the data biased?" but also "How does the presence of bias affect the relationship between variables?" Despite a biased frequency distribution of interest and education in a panel study, the interrelationship between education and interest was not affected by this biased sampling. Another panel study found that even though educated people respond more, they did so regardless of whether they were Catholic or Protestant. The presence of this bias did not affect the relationship between education and religion. The differential effect of bias appears to be a key factor in evaluating the importance of bias.

If a bias is constant (e.g., all educated people respond more regardless of interest, and vice versa), then the biased and unbiased samples will show the same results. However, if the bias is differential (e.g., the uninterested educated people and the interested uneducated people respond more), then the respondent and nonrespondent may differ. Finally, when the emphasis is upon the phenomenon being studied and not upon its distribution in the general population, bias may be used intentionally to one's advantage.

EVALUATION: Good perspective of bias with a rigorous approach to it.

KEYWORDS: Bias, nonresponse
Validity.

172. _____ and Louis Guttman
1947. A solution to the problem of question "bias." Publ. Opin. Quart. 11: 445-455, illus.

Presents an objective method of dividing respondents into pro and con groups which are relatively independent of question wording. The procedure for eliminating question "bias" consists of: (1) asking many questions on the same topic; (2) determining by scale analysis whether questions ask the respondent about the same dimension of opinion; (3) asking "How strongly do you feel about this?" after each opinion question; (4) relating content of opinion to intensity of feeling. This determines the zero or neutral point for content. The theory that the same intensity curve will be obtained by any sample of questions from the same scale can be tested by taking two series of opinion questions on the same topic which are biased in opposite directions and determining if the intensity measurement serves to correct these biases. Two examples illustrate this study.

EVALUATION: Excellent paper backed with objectivity. A must for those constructing scale-type questions.

KEYWORDS: Questionnaire: design
Question: wording
Scaling.

173. _____ and Boyd McCandless
1940. Who answers questionnaires? J. Appl. Psychol. 24(6): 758-769.

Two studies involving radio listeners each received response rates of over 95 percent. In the first study, original mail questionnaires were followed by a second followup, and finally by a telephone contact of nonrespondents. In the second study, the original questionnaire was followed by three followup questionnaires with the last questionnaire simplified and shortened to contain only key questions. Two main factors were found to influence the returns: interest or familiarity with the topic under investigation--the more interest, the greater the returns; and education of the respondent--the better educated, the greater the returns. For the analysis, respondents of the original questionnaire were compared with those responding to followup questionnaires. A biasing effect would have occurred if the researchers had not sent followup questionnaires.

EVALUATION: Good example of the value of followup contacts with study subjects.

KEYWORDS: Bias: nonresponse
Early vs. late response
Followup: mail, telephone.

174. Tallent, Norman

1959. A note on an unusually high rate of returns for a mail questionnaire. Publ. Opin. Quart. 23: 579-581, illus.

A total of 1,567 mimeographed questionnaires with a covering letter of explanation were mailed to 393 psychologists, 741 psychiatrists, and 433 social workers, all employees of the Veterans Administration, as part of a study on the preparation of clinical reports. Completed forms were returned by 384 psychologists (97.7 percent), 602 psychiatrists (81.2 percent), and 421 social workers (97.2 percent). Three solicitations for cooperation were made: the initial questionnaire and a first and second followup letter. A personal cover letter and a postage-free return envelope also increased response. The questionnaire form had brief directions, a simple method of indicating choice of response, and space for comment. Establishment of a deadline and the enclosure of a duplicate questionnaire after the second followup letter also may have increased returns.

EVALUATION: Return rate most likely due to professional commitment; study lacks rigorous analysis.

KEYWORDS: Cover letter
Questionnaire: design
Bias: nonresponse
Incentive: motivation, postage.

175. Toops, Herbert A.

1923. Validating the questionnaire method. J. Personnel Res. 2(4&5): 153-169, illus.

Five followup letters gave 93-percent returns from 93 trade school graduates. Graphs show number and timing of returns resulting from each followup. The cost per return decreased as the number of returns increased. Questionnaires arriving at the recipients' homes on Friday and Saturday were answered more often than ones arriving at the beginning of the week. Plotting a cumulative curve of daily returns can indicate when followup letters should be sent. Copies of all followup letters included.

EVALUATION: An excellent example of the use of followups.

KEYWORDS: Followup: mail
Incentive: postage.

176. _____

1926. The returns from followup letters to questionnaires. J. Appl. Psychol. 10(1): 92-101.

Six followup letters resulted in 100-percent return from 110 questionnaires sent to college administrators asking about their use of intelligence tests. The relationship between use or nonuse of the tests and the number of followups required was examined to determine what caused the recipients to delay responding to the questionnaire. Recipients who knew the sender replied sooner than strangers. All followup letters are illustrated.

EVALUATION: Excellent example of effect of persistent followup.

KEYWORDS: Followup: mail.

177. _____

1935. Predicting the returns from questionnaires: a study in the utilization of qualitative data. J. Exp. Educ. 3(3): 204-215.

Multiple regression analysis of two questionnaire investigations was used to determine which of 17 questionnaire characteristics were most closely related to maximum returns. Questionnaire factors which had the highest zero-order correlation with percentage of returns include questionnaire subject; number of copies issued; address of questionnaire sender; ease of answering questions; type of question asked (yes-no, short answer, or long answer); objective or subjective answers requested; and title of questionnaire sender.

EVALUATION: Poorly written; conclusions weakened by presenting a summary of "seemingly important elements . . . which go beyond our data" and are plainly labeled as a "guess." However, the factors can be used as pointers in questionnaire construction.

KEYWORDS: Questionnaire: design
Incentive: motivation.

178. _____

1937. The factor of mechanical arrangement and typography in questionnaires. J. Appl. Psychol. 21(2): 225-229.

The questionnaire should be viewed as a stimulus for achieving a particular end result, and in its construction other considerations must be subordinated to that purpose. Rules of rhetoric are important only inasmuch as they make questions more clear. Redundancy may be useful. Illustrated is the use of certain capitalized words of a sentence so that an idea can be obtained at a glance of the capitalized portions. This facilitates both the respondent and the evaluator.

EVALUATION: Theoretically sound idea, worth considering when constructing questions.

KEYWORDS: Questionnaire: design
Question: wording.

179. Vernon, P. E.

1939. Questionnaire, attitude tests and rating scales, p. 199-299. *In* F. C. Bartlett, The study of society. New York: The Macmillan Co.

Sections of this chapter include advantages of the questionnaire, types of questionnaires, criticisms, precautions in applying questionnaires and interpreting results, and the representativeness of results.

EVALUATION: This is a broad overview; if more recent material is unavailable, this text is worth reading.

KEYWORDS: Bias: representativeness
Disadvantages of questionnaires
Interpretation
Textbook.

180. Vincent, Clark E.

1964. Socioeconomic status and familial variables in mail questionnaire responses. Am. J. Sociol. 69(6): 647-653.

Data show that mail questionnaire research appears to elicit a disproportionately high response from subjects whose self-reported backgrounds in "normal" lower-middle-class families skew familial data in the direction of the predominant textbook model of the nice, stable, middle-class family. Data were based on the returns from two California psychological inventory questionnaires sent to 517 senior class students in 1954 and again in 1959. A slight tendency was noted for the cooperative respondents to have a more "socially desirable," conformist personality profile. When the distribution of subjects among three response groups (cooperative, post-card, and no-response) was examined, the cooperative group was most likely to have completed high school and be in clerical and sales level jobs, whereas the no-response group more often had fathers of high educational levels and both high and low occupational levels. The data on intrafamily relationships provided the most impressive trend evidence of bias introduced by respondent-nonrespondent differences. The cooperative group consistently overrepresented positive intrafamily relationships and underrepresented negative relationships. Similarly, the respondent sample overrepresented subjects who in childhood were "verbally disciplined by mother" and underrepresented subjects who were "physically disciplined by father."

EVALUATION: Relevant to mail questionnaire research in general with implications for mail questionnaire research on the family in particular.

KEYWORDS: Bias: nonresponse.

181. Wagner, Isabelle F.

1939. Articulate and inarticulate replies to questionnaires. J. Appl. Psychol. 23(1): 104-115.

In open-end questionnaires, some respondents are more articulate than others. To determine if this articulate minority is representative, 558 women were asked two open-end questions. Answers were rated for articulateness (defined as the total number of words used to reply). Results indicate (1) similar amounts of articulateness to both questions; (2) no relation to age, income, marital status, and husband's occupation; and (3) positive relation of habits and interests of articulate respondents to intellectual training and personality.

EVALUATION: Assumption that articulateness equates to verbosity is questionable. Results are inconclusive.

KEYWORDS: Open-end questions.

182. Waisanen, F. B.

1954. A note on the response to a mailed questionnaire. Publ. Opin. Quart. 18: 210-212.

A sample of 300 TV and no-TV families were randomly selected in Iowa City. Phone calls were made to 175 of these families; of TV owners and nonowners who were phoned prior to the questionnaire mailing, 47.8 and 44.7 percent, respectively, returned the questionnaire within 10 days. The return from TV owners and nonowners who were not phoned was only 28 and 24.5 percent, respectively. Although limited to local research studies, the phone contact technique provides personal contact, elicits the promise of cooperation, and provides an opportunity to emphasize the brevity and simplicity of the questionnaire.

Phone contacts could have been made at the rate of 30 per hour, and of 175, only two refused to cooperate.

EVALUATION: Good example of what personal attention to respondents can do for stimulating returns. With additional prompting and longer time period, greater returns could have been realized.

KEYWORDS: Prequestionnaire letter , contact (phone)
Bias: nonresponse.

183. Wallace, David

1954. A case for -- and against -- mail questionnaires. Publ. Opin. Quart. 18: 40-52.

Two groups were compared: male *Time* magazine subscribers and the male population-at-large in Dayton, Ohio. Four questionnaires were sent successively to each group at intervals of 3 weeks. Approximately the same number of men replied to each mailing, and there was no marked variation in the response rates due to question content. There was little indication of respondent "fatigue" even after four questionnaires. In the "case for" the questionnaire, the authors found that repliers and nonrepliers were almost the same over the four mailings. Typical mail surveys with 15- to 30-percent return rate often assume that the respondents are representative of the entire sample population. This is based upon the idea that for one reason or another some persons answered this time and those who did not will answer the next survey questionnaire. In the "case against" mail questionnaires, the authors found that persons who answered any three or all four questionnaires is greater than the number who might be expected to do so by chance. Also, the number who did not answer any of the questionnaires was greater than chance expectations. In other words, typical mail response consists of upwards of 50 percent of habitual repliers and a disproportionately small number of persons who answer only occasionally. Thus, in surveys with low return rates, the response is rarely representative of the universe being sampled.

EVALUATION: Excellent lesson on representativeness of low response rate surveys. One weakness is the apparent assumption that low return rates are inevitable with mail questionnaires; thus, the author is addressing himself to low return rate surveys and not mail surveys as such.

KEYWORDS: Bias: nonresponse, representativeness.

184. Wang, Charles K. A.

1932. Suggested criteria for writing attitude statements. J. Soc. Psychol. 3(3): 367-373.

The statement must be debatable; all statements on a given issue should belong to the same attitude variable; statements should have only one interpretation; express only one idea; be short; use specific terms; avoid more than one sentence; not infer an attitude but be clear cut and direct; avoid words subject to interpretation such as only, mere, just, large, etc.; and avoid colorless expressions. Sentences should be simple rather than complex or compound. If sentence cannot be simple, make it complex rather than compound; use the active voice; try to use the term of the issue as the subject of the sentence; and avoid

uncommon words, technical terms, negative expressions, double infinitives, redundant phrases, double negatives, and phrases such as "I think . . .," "I believe . . . ."

EVALUATION: Excellent suggestions, highly recommended for anyone constructing questions of any kind.

KEYWORDS: Question: wording
Questionnaire: design.

185. Weilbacher, William M., and H. Robert Walsh
1952. Mail questionnaires and the personalized letter of transmittal. J. Marketing 16(3): 331-336, illus.

A total of 472 letters were mailed to university alumni fraternity members; 46 were returned unclaimed, 184 returns were received, and 242 did not respond. The sample was divided so that half received a personalized letter of transmittal and a control group did not. There was no significant difference between the two groups.

EVALUATION: Poorly written; findings may be questioned due to very low response rate.

KEYWORDS: Cover letter
Incentive: motivation.

186. Wembridge, Eleanor Rowland, and Edger R. Means
1918. Obscurities in voting upon measures due to double-negative. J. Appl. Psychol. 2: 156-163.

Sixteen propositions were expressed in six different ways: simple affirmative, simple negative (with a word like prohibit), simple negative (with the word not), double negative (with words not prohibit), double negative (with prohibit prohibit), and double negative (with not not). Results show that test subjects took much greater time to answer the double negative questions than the simple affirmative ones. In addition, the double negative questions confused respondents as to the true meaning of the question. An example of the double negative is "minors shall not be forced not to smoke."

EVALUATION: Excellent paper on a topic often taken for granted.

KEYWORDS: Question: wording.

187. Whitney, Frank P.
1924. The questionnaire craze. Educ. Rev. 68(Oct.): 139-140.

A barrage of questionnaires were sent to school administrators from irresponsible sources or merely curious parties.

EVALUATION: An interesting commentary on the early misuse of questionnaires.

KEYWORDS: Applications
History.

188. Wiiliams, Allan F., and Henry Wechsler
1970. The mail survey: methods to minimize bias owing to incomplete response. Sociol. & Soc. Res. 54(4): 533-535.

A 20-item questionnaire was sent to 1,695 dentists to determine willingness to expand their practice. Five contacts were made with respondents: preliminary letter, initial questionnaire, followup reminder, second questionnaire, and final followup reminder (each sent at 7-day intervals). Guidelines are presented on presentation, content, and form of the questionnaire. Response rate was 77.8 percent. A telephone followup was conducted on the 440 nonrespondents 1 month later. Results indicate that about 15 percent of the nonrespondents had moved and 20 percent agreed to return the questionnaire. Of the original 358, 64 percent were reached on the first phone call and only 7.5 percent required more than three attempts. Respondents were typically younger specialists who worked fewer weeks per year than nonrespondents. When the telephone contact was treated as nonresponse and compared with earlier respondents, no statistically significant differences were found. Telephone contacts are of value to determine eligible members of the sample and thus raise the response rate, and they also provide some information on nonrespondents.

EVALUATION: Author presents an example of using Robin's system (see Robin 1965) for minimizing bias in questionnaire research.

KEYWORDS: Followup: mail, telephone
Prequestionnaire letter
Questionnaire: design.

189. Wilson, P. W.
1934. A question of questionnaires. N. Am. Rev. 237(4): 325-330.

Essay criticizing questionnaires because they invade the privacy of the individual and can be used to "manage our minds for us." Questionnaires not only yield answers but affect the respondent as well. If psychologists ask questions for the sake of their science, we may expect politicians to ask questions for the sake of their politics.

EVALUATION: Opinions poorly supported.

KEYWORDS: Disadvantages of questionnaires.

190. Young, Pauline V.
1939. Schedule and the questionnaire as aids in field exploration, p. 138-171. *In* Scientific social surveys and research. New York: Prentice Hall.

Instructions for the construction of questionnaires are presented, including suitable topics for maximum utility of the questionnaire, times for use, and suggestions for reducing nonresponse. Gives 11 checks used to evaluate the completed questionnaire.

EVALUATION: Practical; organized to facilitate comprehension of essential points.

KEYWORDS: Questionnaire: design
Applications
Textbook.

191. _____
1956. The questionnaire and other reporting forms as aids in field exploration, chapter VIII, p. 176-204. *In* Scientific social surveys and research. Englewood Cliffs, N.J.: Prentice Hall.

Types of questionnaires are discussed along with aspects of design, communication problems, and bias. Under questionnaire format, the author discusses question arrangement, type used in printing, kind of paper used, margins, spacing, cover letter and followup letters.

EVALUATION: Practical and organized to facilitate comprehension of essential points.

KEYWORDS: Questionnaire: design
Applications
Textbook.

192. Young, R. A., I. I. Holland, and A. R. Gilmore
1970. Getting better returns from mail questionnaires. J. For. 68: 723-724, illus.

A mail questionnaire case study of 500 randomly selected Illinois campers showed an 85-percent return. The high rate of return was attributed to the questionnaire's appearance, simple layout, and wording; a pretest; a personalized cover letter; stamped return envelope; and two followup letters.

EVALUATION: Good practical questionnaire procedures outlined. Article fails to point out importance of sampling nonrespondents to determine if they differ from respondents.

KEYWORDS: Questionnaire: design
Cover letter
Incentive: postage
Followup: mail.

193. Zimmer, Herbert
1956. Validity of extrapolating nonresponse bias from mail questionnaire follow-ups. J. Appl. Psychol. 40(2): 117-121.

A study tests the hypothesis that response-nonresponse probability function indicates the presence and direction of nonresponse bias. Questionnaires were mailed to 220 servicemen; and after one followup and 11 months, 87 percent had been returned. Results indicate that five (age, education, rank, years in service, and occupation) of the seven variables considered were found to be consistent with the hypothesis but failed to attain statistical significance. Marital and military status each contained significant nonresponse bias but was inconsistent with the hypothesis.

EVALUATION: Excellent attempt to predict nonresponse bias. Failure to prove hypothesis may be due to small sample size.

KEYWORDS: Bias: nonresponse
Validity.

AUTHOR INDEX

KEYWORD INDEX

Potter, Dale R., Kathryn M. Sharpe, John C. Hendee, and Roger N. Clark
1972. Questionnaires for research: an annotated bibliography on design, construction, and use. USDA Forest Serv. Res. Pap. PNW-140, 80 p. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

Questionnaires as social science tools are used increasingly to study people aspects of outdoor recreation and other natural resource fields. An annotated bibliography including subjective evaluations of each article and a keyword list is presented for 193 references to aid researchers and managers in the design, construction, and use of mail questionnaires.

Keywords: Bibliography, questionnaires, recreation, natural resources, public opinion surveys, research.

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