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Introduction

Texts and articles frequently note the technical problems of survey research, such as sample size and response rate. Decisions regarding what techniques will be employed are often determined in part by the availability of funding and particular contract provisions. Thus, selection of survey methods becomes a question of cost/effectiveness, or in the words of Cox, et al. (1974), "finding the best balance between reliability and quantity of responses given budgetary and time constraints." Confounding variables such as biased sampling, intrusive measurement, and technical precision have also received attention in the applied survey research field. In contrast, a number of problems which may be categorized as intervening variables have not been adequately addressed. The resolution of such intervening structural restrictions are vital for the accuracy, reliability and validity of a survey research project.

The purpose of this paper is to illustrate the importance and highlight the impact of intervening factors by examining the circumstances surrounding a particular research project. The factors to be discussed include (1) environmental constraints, (2) population restrictions, (3) sponsor problems, and (4) intervening political variables. All are present to a greater or lesser degree in most applied survey research. No attempt has been made to measure their impact quantitatively; rather, the authors wish to draw attention to an area of survey research that has often been neglected.

Review of the Literature

Empirical studies addressing the validity of various methods of survey research have generally compared mail questionnaires, telephone and personal interviews relative to expediency (Kephart and Bressler, 1958), precision (Case, 1971; Hochstim, 1967; Nuckols, 1964) and openness and honesty of response (McDonagh and Rosenblom, 1965; Wiseman, 1972). Research examining the technical advantages and disadvantages of each of these methods is extensive.

The literature concerning mail surveys is dominated by studies designed to improve reliability, either through increased response rates or estimation of non-response bias. Efforts to improve response rate have generally been concerned with precontact and follow-up (Dillman, Gallegos and Frey, 1976; Linsky, 1975; Parsons and Medford, 1972; Payne, 1964; and Scott, 1961) or with techniques such as: sponsorship (Brunner and Carroll, 1969; Scott, 1961); appeal of the cover letter (Houston and Nevin, 1977), personalization (Andreasen, 1970; Simon, 1967) and combination methods (Payne, 1964).

Two studies conducted by Cox (1976) and Cox, Anderson and Fulcher (1974) have explored the relationship among survey results, cost, time and reliability. These studies discuss optimization of sample size/response rate for the purpose of analysis.

The refinement of these techniques, and extrac-

tion of elements common to mail and survey research as a whole is of continuing importance. However, little attention has been directed towards the study of structural factors that impede survey research. Becker and Myers (1974-1975) discuss intervening constraints encountered in interviewing bureaucrats, but little effort has been made to determine the impact of such factors on the validity and reliability of survey research.

Preface to the Case

The need for additional data on unemployment and local labor market demand to supplement that information provided by census data and Statewide Occupational Employment Statistics has been recognized by Prather and Hutcheson (1980). Effective planning of local employment and training programs depends upon the availability of data concerning employer needs and practices.

Private Industry Councils (hereinafter referred to as PIC) are non-profit service organizations existing in many localities, which aim to coordinate employee training needs of private concerns within a given geographic area. The particular PIC discussed here represents a large geographical region composed of rural and small town areas, and one medium-sized metropolitan area. The council membership includes local business leaders and representatives from human service organizations. While the PIC is officially considered an independent, non-profit organization, it does have certain informal ties to various governmental agencies (state and federal) which are also interested in employment training.

In order to obtain locally relevant information concerning employer needs, the PIC employed a professional survey research center to conduct a survey according to its specifications. The survey contract called for development and administration of a survey instrument directed to a sample of all privately run businesses within the geographic area described above. The contract was a simple one that specified a rigid time schedule in which a mail survey would be conducted. Contract negotiations led to the agreement that the PIC would supply the enumeration of the population to be sampled.

Technical Problems Resulting from Environmental and Population Factors

The technical problems encountered by the survey team could generally be attributed to population and environmental heterogeneity. The survey team had anticipated numerous problems due to the large geographic area involved, and the sharp demarcation in composition between the single urban area and surrounding rural areas. As expected, discontinuities became evident as the lack of regional identification by a large portion of the sample population was disclosed. This element apparently undercut the appeal for cooperation made by the PIC and possibly contributed to non-response.

Further, heterogeneity was encountered in organizational size and type. The surveyed organizations ranged in size from one person operations to large manufacturing plants employing well over 1000 workers. Organizational types included

corporations, subsidiaries, branch operations, and independent businesses. The diversity of style and internal structure of these businesses led to several problems in obtaining an unbiased response. First, given the large rural component in the population, a style of doing business which differed greatly from that in urban areas was frequently encountered. This rural business style was characterized by a strong hierarchy which lacked staff support, a narrow and intense focus upon a limited range of activities, and by a general distrust of contacts originating outside its community and strata. Second, the internal structures of various types of businesses proved to be influential in determining the likelihood of response. Those businesses which had large staffs were easiest to contact, while it was often difficult to locate a responsible person to whom the survey instrument could be addressed in a decentralized organization.

The response rate was also thought to be inhibited by the timing of the survey (determined by the sponsoring PIC to meet its deadline needs). The survey, mailed in late January, met with difficulty in competing with activities that businesses were engaged in at that time of the year, including end of year bookkeeping and tax matters, and reductions or cutbacks following the holiday season. Severe weather also had its effect by interrupting operating schedules for mailing, and eventually telephoning.

Because the lack of homogeneity within the population was recognized by the survey research team before agreeing to the contract, it was possible to design the survey to account for these factors. Thus, additional unanticipated heterogeneity was managed without imposing serious complications on the sampling and analytic procedures. An accurate picture of the heterogeneous character of the population was acquired in the following ways:

- (1) strict adherence to established survey principles;
- (2) careful design of the questionnaire, with the inclusion of an appropriate introductory letter;
- (3) the willingness to seek external expertise in technical matters that arose;
- (4) schedule orientation towards minimization of time constraints;
- (5) pulling a large enough sample for the dual purpose of allowing for an acceptable degree of nonresponse, and an appropriate level for stratification.

Sponsor Problems: Internal and External Factors

Studies concerning the effects of sponsorship on response rates (Brunner and Carroll, 1969; Scott, 1961) imply that response rate is improved when the sponsoring group has the power (political or otherwise) to compel response. The relationship of the PIC to its external linkages illustrates such a potential influence.

The external environment of the PIC is dominated by its relationships with clientele and with its own sponsors. This section will address PIC's relationships with clients; the impact of the PIC's relationship to its sponsors will be discussed in a later section.

Perceptions of the PIC by its clients varied

from nonrecognition to misperceptions to objections. The PIC was not typically recognized in this geographic area, with many respondents claiming total unfamiliarity. A group of respondents with a misconception of the PIC tended to think that it was some other organization and thus misidentified it, or that it was an official government unit, rather than one with a quasi-private, non-profit status. A sizeable group of potential respondents expressed animosity towards the PIC. A typical response from this group was their insistence that they were against collective assistance in any form, or that they were specifically against the type of survey that PIC was attempting.

In addition to the external environment, it is equally important to recognize the effects of the internal structure of the sponsoring agency. The internal structure of the PIC was characterized by unclear organization and mission. The wide range of complex and contradictory goals held by PIC members was aggravated by the lack of central authority within the organization. Controversies that arose over the questions to be included in the survey instrument led to disagreements over final approval of the questionnaire, uncertainty of details concerning the make-up of the population, the type and appropriate stratification of the sample, and the overall time frame.

Difficulties that resulted from poorly defined internal goals and external position of the PIC were met satisfactorily, though only with increased man-hours and unanticipated efforts. The survey research team found it necessary to do the equivalent of public relations for PIC in order to obtain the entree for consideration of a response to the instrument. The various conflicting interests within the organization resulted in a questionnaire that was far more complex than appropriate under the circumstances. Problems such as these occur to some extent with all sponsored survey projects and must be dealt with contingently. The impact and severity of these problems may be alleviated by improved communication and increased familiarity on the part of both the sponsor and the survey group.

Intervening Political Variables

The stated purpose of this paper is to illustrate ways in which an unstable environment, particularly a political environment, can impede the survey process and threaten the validity and reliability of results.

The politics of bureaucracy are strongly motivated by a desire to maintain power. It has been said that information is the currency of power; thus, concealment of information avoids risk of power erosion and ultimately public accountability. The disclosure of public information by governmental agencies is mandated by the Information Act with 1972 addenda. However, studies of evasion (Gordon, et al., 1973) suggest several methods by which information is concealed, including refusal to collect information, use of access laws as shields, delay and time strategies, and neutralizing effects by controlling the interpretation of data or taking counter measures. Becker and Myers (1974-75) discuss bureaucrats' reasons for withholding information, and methods for retrieving necessary data.

In this case, the relationship of the PIC to its government sponsors was clouded by the overlap

of various political boundaries. One such ambiguous relationship was characterized by a series of refusals on the part of the government agency responsible for providing necessary information. Specifically, the PIC's request for the population enumeration was denied by the government agency; therefore the terms of the contract with the survey team could not be met as agreed upon.

It was apparent that the government agency was equipped to supply the population list but felt that the survey initiated by the PIC was actually part of the agency's mandate. Agency spokespersons acknowledged that they had not obtained the information that would be generated by the survey, but felt constrained not to acknowledge that they were unable to perform the task themselves. The agency's goal was to provide information concerning training needs, but obtaining this information was not one of its operational objectives. The survey appeared to threaten the government organization's perceived self-interest. The government agency felt it was important to keep demand for the desired information high, but at the same time it attempted to stop anyone other than itself from supplying this information.

Refusal of the government agency to supply information was accompanied by public denial of either involvement or interest in the survey. The survey research team was recognized by the government agency as having high expertise, but very little political entree; thus the survey team found itself with no political impact, power, or control in the situation.

Thus, the sponsoring PIC presented an absolute and inflexible completion deadline with little, if any, control over the components necessary for success. The consequences of political problems to the survey research team were numerous. Additional staff time was necessary to locate the businesses, which resulted in tightening the schedule and forcing multiple-method follow-up for what was contracted and intended to be a mail survey. Telephone reminders were eventually replaced by telephone interviews, eliminating open-ended questions and causing a cutback in the amount of information gathered. Lack of endorsement by the government agency compounded these problems, apparently affecting the willingness of businesses to respond. Such compromises altered planned allocation of resources and weakened the import, reliability and validity of the results.

Conclusions

The lack of cooperation that often characterizes a professional survey constrained by a political environment is not in itself an insurmountable problem. Gordon, et al., suggest methods of obtaining public data from resistant government agencies. These "seeker strategies" include: (1) alteration of the perceived advantages of providing access to information; (2) increasing the cost of non-response to an agency until it exceeds the cost of response by threats of expose, embarrassment, or legal action, i.e., using what forms of power the seeker can assert or feign; and (3) "short-circuiting" the agency decision system by seeking information at a different level of the organization, or sending nonthreatening individuals to obtain information. The use of methods other than a straightforward request for data, however, is likely to alter needs for time, man-

power, and monetary resources.

Concealment of information is not the only problem generated by an unstable political environment. Refusal of a governmental power figure (agency or individual) to endorse surveys may result in a lower response rate from those aligning themselves with the dominant power and a reluctance to reveal confidential information by those who fear this power.

Successful execution of survey research is in part dependent on control through planning. Unplanned restrictions on time, manpower and cost, or unwarranted control of these factors by unanticipated sources can jeopardize success. Further research should be focused on the degree of control necessary to produce cost-effective studies, and on the interrelationships and possible trade-offs among resource factors. Methods of estimating bias in results that are subject to inordinate environmental forces need to be explored, as well as the negative effects of these forces on the viability of results. Finally, pre-contract communication between those conducting research and their clients (or other experts) must receive more emphasis as a part of the planning phase of survey research. A clear understanding of all conditions prior to design efforts will facilitate progress and improve accuracy.

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