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## I. Description of Project Proposal

In addition to the growing reluctance on the part of the public to participate in surveys, there is a growing critical attitude on the part of the public about the quality of the surveys conducted. It is not unusual for two surveys on the same topic to reach different conclusions. These differences may be caused by a difference in questions asked, a difference in the sampled populations, a difference in the survey methods used, a difference in the controls of collecting and processing the data, or other such factors.

In order for the survey community to develop effective programs to correct these problems there must be some way of assessing survey practices, particularly as they affect the quality of the data gathered. Such an assessment would provide guidance on the contributions of survey research as well as the limitations and abuses of the method. This assessment would also provide a defense of the use of surveys to those who would like to see them eliminated altogether.

This is an excerpt from the proposal, subsequently funded, which the ASA Subsection on Survey Research Methods submitted to the National Science Foundation. The Subsection realized that the most crucial as well as the most difficult part of assessing survey practices would be in the development of criteria for describing and classifying specific aspects of survey methodology. For this reason the proposal was for a developmental and feasibility study of the methods and practices of survey research, rather than a nationwide study of such practices.

In the proposal the long-term aims of a full-scale study are given as:

- A. the development of a set of specifications by which survey research practices can be assessed,
- B. the determination of the numbers and kinds of surveys being conducted,
- C. the preparation of a profile of survey practices and the state of survey methodology as it is now practiced with emphasis on problems that vary in incidence between government, private, and academic research, and
- D. the encouragement of the working together of representatives of various survey groups to improve the quality of survey results.

Because the Subsection was not clear before doing a good bit of developmental work that those aims could be met, the aims of the developmental and feasibility study are more limited. The aims of the feasibility study are:

- A. to develop sampling frames for surveys sponsored by the Federal government, by state and local governments, by private non-commercial survey research groups, and by private commercial survey organizations,
- B. to develop a list of information items and the specifications of the criteria by which surveys can be evaluated, and
- C. to conduct a pretest of the general approach.

A product of the feasibility study will be a report including a description of the sampling frames, data items collected, response classifications developed, and problems encountered. Detailed and comprehensive recommendations for the full-scale survey will be presented.

This, then, is a description of the project and what is to be accomplished. Work is in progress and we are now convinced, from the results of the ongoing pretest, that the project is not only feasible but critical.

### II. Definition of Universe

To accomplish the aims of both the developmental study and the nationwide study, individual surveys are the subjects of interest. All of the surveys that are conducted by the Federal government, those conducted by State and local governments, those conducted by non-commercial survey research groups, and those conducted by private commercial survey organizations are in the universe of interest. However, since the description of survey practices should relate to survey research as it is currently practiced, the universe is limited to those surveys funded or carried out in 1975. For the purposes of the developmental study only the universe is further limited to those surveys that pertain to human populations.

III. Development of Frames

There are alternative ways of constructing frames for the selection of a sample of surveys from each of the four sectors. One might consider compiling a list of all survey sponsors and then making a list of the surveys for each sponsor. Or, alternatively, one might consider making a list of all survey organizations or survey takers and making a list of the surveys conducted by each survey taker. Either of these approaches would be satisfactory. However, one approach is easier than the other for certain sectors but not for others. Also, there is no complete listing of either type. Currently, we are constructing multiple frames of each type. These, of course, introduce the accompanying problems of multiple probabilities of selection for a survey. The problems of developing frames vary from sector to

sector. Let us consider these problems one by one, first from the point of view of developing a list of survey sponsors and then by developing a list of survey takers.

#### A. Sponsors of Surveys

## 1. The Federal Government

Where would you go if you wanted a list of surveys sponsored by the Federal government for a specific time period? Perhaps you think first of the Office of Management and Budget (OMB), which, under the provisions of the Federal Reports Act, has the function of clearing forms for some agencies and departments for which ten or more people are asked to provide information. These forms include applications, such as passport applications, program evaluation forms, statistical surveys, management forms, and a miscellaneous group. However, OMB does not clear forms for the regulatory agenices of the Federal government; the General Accounting Office (GAO) does.

With this information in mind, it was our intent to ask OMB and GAO for a list of surveys completed in 1975. It quickly turned out that this information is not available. OMB and GAO have lists which show the clearance date of a form and the expiration date. OMB has a quarterly listing that shows the names and numbers of all forms that have not expired as of the end of the quarter. Since some of these forms could have been cleared 3 years earlier and some 1 month earlier, this list represents a mixture of time periods.

Another problem that arises is what forms should be included as surveys. The only type that can always be excluded is applications. All of the other groups contain at least some forms that could be classified as surveys. There is also some confusion about whether forms represented surveys or not. To decide this, one had to look at the individual dockets and decisions had to be made about what would be included. Finally, a list was compiled of about 450 forms which had been cleared in 1975 that were thought to represent surveys of human populations.

However, the clearance numbers do not uniquely identify a survey of interest. One survey of interest has two clearance numbers. The Current Population Survey (CPS) and its control form have two different clearance numbers. One would not want to sample the control card only. So there are some problems of putting several numbers together as a single sampling unit.

The GAO cleared about 200 forms in 1975 and made these lists available. Most of those that were surveys were surveys of businesses not people, so all but four were excluded from this study.

From these two sources now all the surveys commissioned by the executive branch of the Federal government in 1975 either to be carried out by an agency or by a contractor were represented. However, as was found later, the clearance of a form did not guarantee that a survey was carried out.

Yet surveys carried out as part of a grant which may also be federally funded are usually not cleared by the Federal government and so do not appear in either the OMB or GAO files.

There are two strategies that we are currently investigating to get a list of surveys completed under grants. The first strategy is to contact the Smithsonian Science Information Exchange, Inc. The Exchange has a computerized system of information about research conducted under sponsorship by the Federal government and foundations and other institutions which fund research. However, listings in the Exchange are voluntary. They appear to stem from a large number of sources, the nature of which is not known.

Recently, we requested some information from the Exchange on some special topics, just to get an idea of the amount of survey research that is covered by grants. Of 44 research studies on the general topic of racial attitudes and prejudices, no summary of the project was given for four studies, but of the remaining 40 studies, 23 involved some use of surveys.

There are two problems with using the Exchange as a source of surveys. First, the listings are not complete, since it is voluntary. Second, the topics which might conceivably be areas in which surveys are conducted are almost inexhaustible. Therefore, the topics themselves would constitute an additional stage of sampling at best.

A second approach to grants is to go directly to the granting source. This means developing a list of granting organizations. It is possible, though not easy, to do this for Federal agencies. Another kind of survey sponsored by the Federal government but not included in those already mentioned is a survey funded by either the legislative or judicial branches of the government. One of these which recently was reported in the papers was a survey on gambling, sponsored by the Commission on the Review of National Policy toward Gambling, a joint congressional commission. At the present time a survey such as this one could only be represented on a list provided by a survey organization, since no list of sponsors includes congressional committees. It may be that we shall need to develop a list of possible sponsors for each of the legislative and judicial branches of government.

2. State Governments

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To develop a list of surveys sponsored by the State governments, one needs to contact each State government. In some states, it is the State Planning Director and in others the State Budget Officer who is most familiar with survey plans. Letters have been sent to the planning directors and budget officers of each of the 50 States and and the District of Columbia asking them about whether or not there is a central clearance agency for statistical forms and, if not, whether or not they will provide a list of State agencies to be queried directly. Replies from 37 of the States have been received. One State refused to provide any information. All of the others have said there is no central clearance agency. One possible exception is Hawaii which by law requires that copies of all state studies be lodged in the archives. Each of the other States has provided lists of agencies. Many have asked to be kept informed of what we find out and have shown a lively interest in the study.

With a fair amount of effort and considerable letter-writing a list of surveys sponsored by each State, except the one which would not cooperate, should be compiled.

3. Local Governments

There are so many local governments that it would be virtually impossible to contact all of them. For example, there are city governments, county governments, school board districts, and other units of local government that could sponsor surveys. The National League of Cities has a publication called The Mayors of America's Principal Cities, which gives a focal point to make inquiries. However, we have been advised by the Director for Policy Development and Analysis of the National League of Cities and by the Director of the Data Services Center of the International City Management Association to limit attention to cities of about 25,000 or more. They feel that smaller cities would not have the resources to sponsor surveys.

No contacts have yet been made with local governments. In one State a list is being compiled of all the units of local government. Until that list is available, no further steps will be taken.

4. Universities and other non-profit organizations Departments in universities may carry out surveys for use by the university, by the department faculty, or by the students. Many of these surveys are small-scale efforts. We plan to inquire about surveys sponsored by departments at two or three of the larger universities to get an idea of how much survey work is going on in this area.

> Many universities also have survey research centers or other types of non-profit research facilities that may sponsor and carry out surveys. A listing of the survey research centers was available from the Survey Research Laboratory at the University of Illinois.

> The <u>Research</u> <u>Centers</u> <u>Directory</u> published by the <u>Gale</u> Research Co. includes research institutes, centers, foundations, laboratories, bureaus, experiment stations and similar nonprofit research facilities. To be listed in this directory, an organization must have two key characteristics: (1) it must be formally identified by a specific or distinctive name or title, and (2) it must be established on a permanent basis as a separate entity for carrying on a continuing research program. Therefore, one wouldn't find a listing for a specific department at some university.

> The listings in the directory are under 16 main headings, with an addendum and also periodic supplements. Approximately 5,900 listings are included for 1975 with a brief summary of the type of research being carried out. Of the 16 main areas, three of them seemed to have no organizations that might carry out surveys. They were astronomy, physical and earth sciences, and regional and area studies. Of the remainder, some seemed to carry out surveys. Over 500 letters were mailed out to those which seemed likely to be doing surveys. About 70

percent have responded to the inquiry, some in great depth. Many, many of the organizations are carrying out a very small number of surveys.

In a nationwide study, more listings from this directory would have to be contacted. For example, there are 949 listings in the "life sciences" area. Letters were sent to only 48. We had hoped to get a definitive reading on whether hospitals, biomedical labs, psychiatric institutes, and others of this type conducted surveys. Of the 48 places contacted, one is no longer in existence, and 36 have answered the request. About half of them do surveys.

Unfortunately, many of the research groups not only sponsor surveys but are also takers of surveys. So this group of listings is a mixture of sponsors and takers. Also, many of the listings in the <u>Research Centers Directory</u> are not academic centers. Thus, they would represent the non-profit-making sector.

In addition, in the non-profit sector are the large foundations. Reports are available from these foundations that give a list of topics for which grants were given in 1975. It is possible to compile a list of studies which may have involved survey work. The Foundation Directory and The Foundation Grants Index published by Columbia University Press are the sources of the list of foundations.

5. Private Commercial Sector

To get a list of all surveys sponsored by the private commercial sector means getting a list from all private companies of market studies they have sponsored, from political sources of polls or studies they have commissioned, and from newspapers and magazines of the surveys they have instituted.

It has been suggested to us by persons in the private sector that the best way to get a listing of market research studies is by contacting the large companies who sponsor such studies. A list such as the Fortune "500" largest corporations would doubtless provide the largest share of the commercial survey research. This may be the only way to find out about many studies because, in many instances, the organization that carried out the study cannot reveal the name of the client. However, there will be gaps in the frame because of the omission of small companies that commission surveys.

There is a publicationDaily andWeeklyNewspaperListandMagazineList

published by Luce Press Clippings, Inc. that would provide a list of newspapers and magazines to be queried about the surveys they have sponsored.

It does not seem feasible to contact politicians themselves to ask about polls they may have commissioned. Except for individual polls for particular candidates, the political polls would be represented in the list provided by survey takers.

#### B. Survey Organizations or Survey-Takers An alternative way of compiling a list of surveys is to go to the survey-takers. For some sectors this is an easier method of finding out about surveys.

#### 1. Federal Government

Some government agencies carry out many surveys - the Bureau of the Census, the Bureau of Labor Statistics, parts of the Department of Agriculture, etc. However, all of these surveys would be represented in the list of surveys cleared by OMB or GAO. A few agencies such as the Internal Revenue Service, the Central Intelligence Agency, and others which are exceptions to the Federal Reports Act might be queried about survey-taking. However, for the executive branch, the list of survey sponsors seems to be the preferred method of constructing a frame.

2. State Governments

By and large State governments are not takers of surveys. They may do a few mail surveys. However, the surveys that are actually conducted by the State would be revealed in the list of sponsors. Many State governments commission the State Universities to carry out surveys. These surveys would become known to us from the university sources.

3. Local Governments

If a local government carries out its own survey this will be made known to us when the local unit provides the sponsorship of the survey. In some metropolitan areas, a council of governments or municipal leagues may carry out surveys. A listing of these organizations may give us an additional list of surveys.

4. Universities and other non-profit organizations The list of research organizations which is being compiled contains many survey-takers. These survey-takers can provide information on the sponsorship of the surveys they have undertaken. The Federal surveys of the executive branch would be covered elsewhere. But a number of the surveys conducted are for associations or groups that would not be represented on the sponsor list. Also, the surveys sponsored by the legislative or judicial branches would not be represented elsewhere. Therefore, this list provides surveys that would not be covered by the sponsor list.

5. Private Commercial Sector Many of the surveys conducted by the private organizations are for the executive branch of government and would be represented on the sponsor list. But many would be for industrial concerns. At present we are compiling list of private commercial а organizations that carry out surveys. This may be an alternative way to include the market research studies. However, in this case, the organization would have to contact the client before we could even know the name of the client for which a study was done.

> То compile a list of survey organizations, many sources of information have been suggested and used. The American Association for Public Opinion Research (AAPOR) published a list in January, 1975 of 123 agencies and organizations represented by their membership. The organizations are of both the commercial and non-commercial types. American Marketing Association The published a 1975 directory of both marketing services and members. This directory added many organizations to the previous list. At the end of the directory is a vocational listing by universities, colleges, and schools, and by private companies. This vocational directory pulls in companies that are not in the market research business but are large companies that often carry out surveys. Another source of information was Bradford's Survey and Directory of Marketing Research Agencies in the U.S. and the World.

> Using these sources, a list of several hundred organizations was made, yet it is still incomplete. A perusal of the yellow pages of the Washington telephone directory turned up 23 different headings under which organizations that carry out surveys could be listed. Most of these organizations, except the very largest, were not represented in the earlier list. Thus, it seems clear that to develop a frame for these organizations, the yellow pages of telephone directories, at least for certain large cities, must be used.

## IV. Description of Pretest

We have developed a questionnaire that has 15 separate parts, not all of which have to be explored for every survey. These 15 sections are:

- 1. Research problem
- 2. Responsibility for survey
- 3. Questionnaire design
- 4. Sampling design
- 5. Data-gathering activity
- 6. Mail questionnaire surveys
- 7. Personal interview surveys
- 8. Telephone interviews
- 9. Data-collection problems
- 10 Coding procedures
- 11 Keypunching
- 12 Machine editing
- 13 Tabulation
- 14 Report writing
- 15 Dispostion of data

To find out whether this questionnaire would give us the kinds and types of information necessary to assess the quality of the survey, a pretest was necessary. Since the OMB list of Federally sponsored surveys was available and easy to work with, we selected 25 surveys from that list to use in the pretest. The surveys were not a random sample but a purposive selection designed to include different kinds of surveys, problems, and types of contractors. Surveys were classified into two groups--methodological and subject-matter oriented. They were also classified by the method of datacollection--personal visit, telephone, or mail. They were also classified by whether the survey was conducted by the government agency, by a university or non-profit organization, or by a commercial organization. Surveys of all of these types were included. At the present time the field work for most of these surveys has been completed.

To this list of 25 Federal surveys from the OMB list, we plan to add two from the GAO list, five from the State or local governments, and at least three other surveys. This last group will represent surveys sponsored by organizations not appearing on a sponsor list, political polls, and newspaper surveys.

There are usually at least two interviews for each survey - one with the sponsor of the survey and one with the contractor. In the cases in which the sponsor and contractor are the same, separate interviews with groups responsible for different aspects of the survey are usually necessary. Each interview takes no less than 1 hour and usually runs about 1 1/2 hours. The sponsors of the survey can provide information on the objectives of the survey, how they selected a contractor, the cost, the questionnaire, and sometimes more. The contractor provides information on the sampling design, the field work, response rates, coding, and other such problems. In some cases, a subcontractor provides needed information.

# V. Results of Pretest

Initially, the effort to assess surveys was thought of only in terms of specific survey operations. However, the Steering Committee for this project decided that some attention should be paid to the question of whether a survey met its stated objectives. Therefore, the assessment falls into two categories:

Did the survey meet the stated objectives? How well technically was the survey carried out?

A. Accomplishment of Objectives

The objectives we are considering are the subject-matter goals, the objectives that were stated as the reason for carrying out a survey at all. We are not considering the survey specifications, which could be met without satisfying the survey objectives.

Determining whether a survey met its stated objectives is a somewhat subjective judgment. However there are specific cases in which a clear-cut decision can be made. Some of these are as follows:

 The design of the survey does not permit the survey to reach its objectives.

> An example of a survey of this type is one in which the objectives are specified that survey data will be used to predict the performance of a group of people who have been exposed to a certain type of educational experience. It is desired to be able to identify factors associated with success. However, the design of the study calls for the people to be studied within a very short time of their exposure. It is probably too soon for them to have yet been successful or unsuccessful.

2. The results of the study are never made available in written form and thus are never disseminated.

> The purpose of a survey is usually to learn something about a population, a program, or a methodology. The results may never be written up so that it is hard to know whether the objectives were met.

3. The design specifications contain either conflicting or inadequate detail.

> Many of the surveys commissioned by the Federal government are carried out by contractors. The usual method is for the agency to put out a Request For Proposal (RFP) and invite survey organizations to submit bids. Many contractors find conflicting or inadequate specifications. If a counter-proposal is submitted, the contractor may not be granted the work. Many RFP's specify inadequate survey design.

B. Technical Conduct of Survey

It is now apparent that there are certain areas in the survey process which present difficulties. This presentation will focus on only a few major areas.

> 1. <u>Calculation of nonresponse</u> There are two separate kinds of surveys to be discussed--those that use random digit dialing and all others. Let us concentrate first on those which do not use random digit dialing.

> > Many project officers do not understand the hazards of a low response rate. They often specify as acceptable low response rates in the RFP. Many contractors do not see it as their function to enlighten project officers about response rates. Some project officers are not aware of and are not interested in the size of the nonrespondent group. Some do not understand some of the adjustment that is made for nonresponse and thus do not know what the nonresponse rate is. Some of them have specified an acceptable level of response in their research proposal; and if the contractor presents a report which indicates that level, all appears well.

> > A few illustrations may clarify these problems. One project officer told us that the response rate was over 90 percent. This high response rate was because of the foresight of the contractor who arranged that each cell would have back-up samples available. The true response rate was about 56 percent.

> > In another case the response rate was not yet at the specified level of 70 percent. The contractor had certain interviewers work until the level was reached. In a case such as this, there is probably a very big difference between respondents and nonrespondents, especially in the hours at which they are home.

Random digit dialing has brought a new dimension to problems in calculating nonresponse rates. By some process, telephone interviewers are furnished with a set of telephone numbers to call. Some of these numbers do not answer or are busy. A nonresponse rate is often reported in which the denominator is only the number of calls answered. Rarely is the number of "working banks" of numbers within specific exchanges known. Thus, a response rate of 80 percent may be reported for a case in which 20 percent of the numbers were never reached. In many cases, this neglect of keeping adequate records of the results of each call results in quota samples. Thus, in one survey a quota of a certain number of completed calls was assigned to each region for which estimates were to be made, and no nonresponse rates were calculated at all.

Representativeness of the sample 2. This problem is closely related to the problem of nonresponse, but has some additional features. For example, a sponsor may say that his objective is to have estimates for the entire United States. If he selected random digit dialing, he is limiting the sample to telephone households, which have different characteristics from households without telephones. In one survey, blacks were excluded because it was too hard to get enough of them to make good estimates for blacks alone. So, on a topic for which one might expect a difference in behavior between blacks and whites, no information was provided.

> Nonresponse, of course, is a serious problem in the representativeness of the sample data. Some of the time the problem is addressed in the tabulation of the data, where weights are applied or changed in an effort to make the data more representative. This is not done routinely, though. Even when it is done, the weights merely inflate the known sample to represent those never contacted.

- 3. Recall problems
  - There seems to be little or no concern by the sponsor that many of the questions asked may be difficult if not impossible for a respondent to answer. A yearly recall on expenditures for certain items is not unusual. Recall over a period of years for certain types of behavior is common. Though there may be no alternative, very little if any research is going on to help in the determination of realistic recall periods.
- 4. <u>Computation of variances</u> Many project officers do not use variances, even if they are produced. The technique used in

computing variances seldom finds its way into published reports of the study. Frequently, though weights are used in estimating means, totals, and proportions, variances are computed using unweighted data. The usual method of calculating variances is to use the formula for simple random sampling no matter what the structure of the sample. To be fair, certain sponsors do recognize what is being done and are satisfied that their variance estimates are probably conservative.

5. Cost

Technically, cost is not a problem in carrying out a survey. It is included here because there seems to be no way of predicting the cost of a survey given the sample size. In the surveys we have studied, costs ranged from \$5 a case to well over \$300 a case. Differences in cost were not just functions of the method of interview. Thus, one mail survey with some personal interview cost about \$26 a case while another that was mail with telephone followup was \$80 a case. In both cases, the cost included processing and cleaning the data, as well as providing a tape. A personal interview survey cost \$27 a case for one survey and \$204 a case for another, in both of which the contractor was responsible for the processing and cleaning of data.

# IV. Future Work

There are several things that must be completed for the feasibility project. The first of these is to complete the development of the frames.

A second area of concern is that the feasibility at this time has been tested only with government-funded surveys, and even those do not represent surveys conducted under a grant. We need to find out the following things:

- 1. Are there substantive difference between surveys other than government surveys conducted by the private commercial firms, so that the questionnaire developed for government surveys is not useful for the private sector?
- 2. Is the turnaround time of commercial surveys such as market research studies such that the data are too far in the past to be recovered?
- 3. Are the record-keeping practices of commercial firms such that the data would be available?
- 4. Since the commercial firms have no public obligation for reporting and

indeed may be bound to protect their clients' interest will they cooperate in such a study?

Because staffing incurred a late start in working on this project, we cannot do any testing in the private sector, except, of course, for those firms who do work under contract for the Federal government. We have received excellent cooperation from those we have visited, both commercial and non-profit organizations.

The final step in our work is to write a complete report on the feasibility study. This will take place in the fall and winter and we hope to give the National Science Foundation a finished report on this pilot study in the spring of 1977. We intend also to submit a project proposal for a full nationwide study.