

DISCUSSION

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The first of the three papers which I shall discuss pertains to the Gasoline Purchase Diaries. This paper like the ones on the Consumer Expenditure and Television and Radio Surveys describes the use of diaries in household surveys where a major problem concerns the level and accuracy of response. We recognize, of course, that the amount of nonresponse is not in and of itself the salient concern. Rather, it is the risk of bias that can be introduced into the survey if the nonrespondents have survey characteristics that are different from those of the respondents.

The authors have identified four specific areas for possibly improving the response rates.

1. The use of incentives larger than the \$2.00 per month compensation presently used. We cannot dispute the fact that some type of compensation appears to increase the response rates. I would recommend, however, that consideration be given to some form of nonmonetary compensation. For example, the retail price of a well-known commercial road atlas of the United States, Canada and Mexico is presently \$4.95. For orders of 100 or more the retail price drops to less than \$4.00. I would urge a trial of such type of compensation. The frequent use of such an atlas could serve as a reminder to the respondent of the need to fill the diary and I also believe that this would be a more appropriate compensation than a small amount of money.

2. To provide the respondent with a greater feeling of involvement in the survey. I believe that it would be appropriate to involve the panelists more than has been done. It might, for example, be useful to ask certain respondents with help in evaluating the diary. I believe that survey takers generally are coming to the conclusion that better data can result from attempts to make respondents feel that they are doing more than merely supplying information, that is, making respondents feel that they are, in some way, helping to structure the survey.

3. A change in the procedure for following up "movers." Presently, an attempt is made to track movers from address to address and the inability to do so increases the nonresponse rate. I support the idea that the sample design should be based upon a housing unit concept, thus, the diary should be completed by whomever resides in the sample dwellings thereby eliminating the need for costly followup.

4. Revise and simplify the diary. I believe that attempts to simplify diaries should always be a desirable feature of survey taking and that this should be undertaken whenever possible.

On balance, I believe that the authors are to be commended for their efforts to utilize diaries in the collection of badly needed data for an area where so little is known. I believe that they have approached the task realistically and with due thought to the resolution of a serious survey problem.

Turning now to the Consumer Expenditure Surveys conducted by Census for BLS, this represents the use of a diary for an extremely detailed data collection effort. Although the survey has

response rates some point below those normally obtained by the Census Bureau, the rates are nevertheless high given the nature of the survey. The authors express some dismay for the response rates of the 1979-80 study relative to what was "expected." A comparison, however, of the current response rates with those achieved in the 1972 and 1973 survey suggests that perhaps the expectation was too great.

On a quarter by quarter basis the 1973 response rates showed steady improvement over the 1972 rates. Unfortunately, the 1980 rates have not achieved similar improvements over the 1979 responses. This is certainly one area that begs for an investigation. I am particularly bothered by the response rate fluctuation between weeks and between geographic areas and would hope that the field staff whose areas show low response would be given retraining or other assistance in an attempt to dampen those differences.

Beyond that, Pearl, in the 1977 ASA meetings, recommended several ways of possibly improving response when he examined the 1972-73 data. I believe that those recommendations bear repeating. Namely,

1. Limiting the range of questions to be asked of any one household.
2. Varying the period of recordkeeping.
3. Providing specialized diaries for those consumer unit occupants most likely to make certain kinds of purchases, and
4. Further study of the timing bias in diary placement and week-to-week recordkeeping.

To those recommendations I would add that the reinterview should investigate measures of data quality other than the mere validation of an original interview. The supervisory staff who conduct the reinterviews could engage some of the respondents in conversations about how the diaries are kept with a special interest in discovering techniques that might make the task more accurate or easier. Just as interviewers who have developed unique skills for gaining respondent cooperation can share their knowledge with their peers so might we find some assistance among the cooperating respondents. Cannell at the University of Michigan and others have done recent work in the area of getting respondents more involved in the survey process and it would be useful to examine some of their recommendations.

I am also concerned about the high rates of reporting households as "temporarily absent" during the 1979-80 surveys. I do not recall those rates being so high in the 1972-73 surveys and I would recommend that the reinterviewers verify such reports.

In summary, I believe that the authors have shown that household interviews can collect extremely detailed data through the use of diaries, and in this particular survey, it is difficult to see how quality data could be gathered in another way.

Turning now to the Arbitron Surveys with overall response rates of 50 percent for the television and even less for the radio surveys, concerns about nonresponse and the associated potential for bias are even more serious.

Although the paper did not provide sample size data making it somewhat speculative to evaluate the cost associated with different types of compensation, I was encouraged to see that such efforts are considered. One must be impressed with the extreme difficulty which confronts Arbitron in their attempts to measure the characteristics and behavior of a somewhat elusive "media" population. I would hope, therefore, those of you who have some thoughts about possible ways of improving the response rates would come forth with your ideas. It is my belief, however, that suitable measures for improving response levels and for improving the quality of the data will come from research that attempts to gather knowledge about who are the nonrespondents and why they do not respond. The work done by Arbitron and by the National Association of Broadcasters are indeed useful but much more needs to be done. I suspect that the respondents and nonrespondents are selectively different not only in their demographic characteristic but also in what they tune in.

I am also concerned about the accuracy of the data collected. I would trust that the information contained in the diaries is validated to some extent with published media schedules. I would also hope that the instructions given to diary keepers do in fact reach the appropriate persons. For example, in today's society with increasing instances of working couples it is quite possible that most daytime television and radio programs are chosen by "baby sitters" or other persons who have little or no concern with diary maintenance. Who may in fact be even unaware that a diary has been placed in the household.

In summary, I believe that as concerned statisticians and survey methodologists we should express our concerns about the reliability and the validity of survey data subject to such large nonresponses and that we need to encourage the kind of research described by the author and his colleagues and we must support their continued efforts to study those nonsampling sources of error.