

The authors are to be commended for their effort to document some critical features of the Census of Agriculture. The speakers were well prepared and made good use of graphics to illustrate major points.

Each paper addressed a specific part of the overall program to conduct the Census of Agriculture. They provide a valuable insight into the intricacies involved in constructing a mail list, organizing and managing a massive data collection effort, conducting a coverage evaluation study and finally evaluating the comparability of the 1982 Census data with that from previous censuses.

Rather than discussing each paper individually, the following comments will focus on questions or issues one could raise. The issues to be examined are:

- 1) Completeness of the mail list
vs.
Using an area frame to estimate for the incompleteness
- 2) Number of times follow-up by mail
vs.
Telephoning non-respondents
- 3) Telephone with conventional questionnaire
vs.
Computer assisted telephone interviewing (CATI)
- 4) Coverage Evaluation
and
Comparability of data
- 1) Completeness of the Mail List vs. the use of an Area Frame.

To briefly review the development of the mail list, the initial effort began with 19.0 million names from different sources. After processing through a record linkage system, names were classified as "probable farms" and "Farm Status questionable". The names in the latter category were then contacted via the Farm and Ranch Identification Survey. The purpose of this survey was to ferret out non-farm names. The remaining names were included in the census proper. The basic philosophy seemed to be that the mail list was to be made as complete as possible.

The final Census mail list was 3.6 million names. At the conclusion of the census, it turned out that 1.6 million of the 3.6 million names were out of scope -- or non-farms.

Because of budget constraints, an area frame sample was not used to estimate for the incompleteness of the mail list as was done with the 1978 census. However, when one considers the cost of the Farm and Ranch Survey and the cost of contacting 1.6 million other names, the use of an area frame sample may have been feasible. The following questions are raised:

- o What was the source of the 1.6 million other names? How many were also in the Farm and Ranch Identification Survey? If many resulted from the Farm and Ranch survey, why did this survey not eliminate them from the list?
- o How many farms were identified in the Farm and Ranch Survey? What size area sample

would have been needed to estimate for these farms?

The decision to not use an area frame seriously affected the comparability of the 1982 data with the 1978 data. When planning begins for the 1987 Census, the overall cost of developing the mail list needs to be weighed against the alternative of using an area frame to supplement the mail list. More will be said about the comparability issue because that is an issue by itself.

- 2) Number of Times Follow-up by Mail vs. Telephoning Non-respondents.

The next issue concerns the number of times that a follow-up with a mail questionnaire was used vs. the use of the telephone to contact non-respondents. Six different follow-up mailings occurred. Some consisted only of a reminder card, some consisted of a letter, while others included another census form with the letter. The first point is that postage and paper are not free. After the third mailing, a 75 percent response had been obtained. Three more mailings were made to only net 5 percent more returns, yet the composite of these three mailings involved 2.4 million forms or letters. Somewhere the use of the telephone has to become economical.

Another point concerns the research that was imbedded into the mailing procedure to determine whether a report form vs. a letter only improved the response. The finding that the report form included with the letter resulted in a better response than a letter only is similar to what has been experienced in SRS. The primary reason is that the respondent no longer has the form to return if the letter changes the respondent's mind about reporting. Therefore, it is necessary to continue to send the form even though this increases the cost. This again brings up the issue about the number of mailings to use compared to the cost of a telephone non-response follow-up. There is a point where it is probably more economical to telephone non-respondents.

- 3) Telephone with conventional questionnaire vs. CATI.

The next general issue was the use of the telephone for interviewing along with standard questionnaires vs. the use of a computer to ask questions and record the data. The use of CATI has received a lot of publicity and has the potential to improve the quality of survey data. Since it is a new technology, however, we must be careful that we evaluate it properly. In this evaluation some points need to be considered.

- o The CATI enumerators obtained more training. The reason was that logic, branching paths, etc., had to be explained. Nevertheless, the enumerators working with the CATI instrument probably had a better understanding of the entire survey questionnaire as a result of this training than did the other interviewers.
- o Considerable time and effort went into the CATI effort to program all branching paths

and logic requirements. What if the same effort had gone into the regular paper and pencil questionnaire? That should be remembered when comparing the two approaches.

- o We should be careful how we evaluate CATI. One of the main reasons for the use of CATI is that it helps manage the overall survey process. It helps schedule calls and call backs, provides status reports, and minimizes clerical coding and editing. Improvements in data collection could be made using the paper and pencil approach if it received the same attention.

4) Coverage Evaluation and comparability of Data.

The final issue has to do with coverage evaluation and the comparability of Census data. The coverage evaluation was well designed and the results will be very helpful. The overall coverage evaluation included two phases. One phase was the use of a small area sample to evaluate the coverage of the mail list. This pointed out that the farms missed were mostly small because the incompleteness in terms of land is quite small. Phase two of the study evaluated whether operations were classified as farms or non-farms correctly. One question about the classification error study is why was nothing done with non-respondents? The Farm and Ranch identification survey or other administrative sources could have provided more information about the non-respondents.

The paper on comparability of Census data identified some key problems. When looking at the Census data from a data users standpoint, there are two basic problems. For example, the Census report showed 2.2 million farms for 1982 while the USDA/SRS estimated 2.4 million farms. Which is correct? The coverage evaluation survey estimate was 2.4 million farms, the same as published by SRS. However, the basic Census publication will show 2.2

million farms. That is the basic comparison the majority of the data users will be using unless they also have access to the coverage evaluation report. Also, depending upon which census publication is used, the number of farms between 1978-1982 either went up or down.

It is very difficult to use Census data on a time series basis because each point represents something different. Something needs to be done to make Census data more comparable from census to census. The primary purpose of the census every five years is to provide detailed data by size of farm and type of operation at the State and County level. Much information is provided by the USDA/SRS monthly, quarterly, and annually, but not at the detail made possible by the census. When SRS and Census data differ, the public is confused and concerned. Both agencies lose credibility even though the data can differ for legitimate reasons.

Some suggestions are offered.

- o Procedures to develop a mail list as complete as possible need to be weighed against a smaller scale list building effort accompanied with an area frame
- o If budget constraints, etc., do not allow the use of an area frame, then the Census Bureau and the USDA/SRS should collectively get their heads together to work out a way to utilize the SRS area sample frame and on-going surveys once every five years to supplement the mail list census. The overriding concern should be to make Census data more comparable from census to census.

In summary, the papers will serve two important functions. They will be invaluable as reference materials because they document much of the background work involved with the 1982 Census. They will also provide a frame of reference when preparations begin for the 1987 Census.