

Chapter 4. Data Collection

CHANGE IN METHOD OF DATA COLLECTION

The data collection by mail for the 1969 Census of Agriculture required many procedures that were different from those used in previous censuses of agriculture. These procedures involved, among others, the obtaining of supplemental mailing lists to improve coverage, and the conducting of extensive correspondence and telephone followup. These methods are discussed in the following sections.

ASSISTANCE TO FARMERS

For the agriculture censuses prior to 1950 the enumerator was required to take the report form to the farmer and to complete it for him. Starting with the 1950 Census of Agriculture, the blank report forms were mailed to an increasing proportion of rural area post offices and rural route box holders, until by the 1964 census almost all farm operators in the rural areas received the forms by mail. The addressee was asked to complete and retain the report form until an enumerator made a call at his residence. The enumerator checked the report form for completeness and assisted the farmer in completing the items the farmer did not understand.

With a mail-out/mail-back census planned for 1969, it was anticipated that some farmers would require assistance in completing the report form. Approximately 9,500 vocational agriculture instructors representing every high school with an agriculture department, nearly 4,200 county agriculture extension agents, 2,700 Agricultural Stabilization and Conservation Service county office managers, 2,900 Soil Conservation Service district conservationists, 1,750 Farmers Home Administration county and district supervisors, and 9,300 Agricultural Stabilization and Conservation Service county committeemen received materials and instructions on assisting farmers. A special instruction booklet, Form A6, "Reference Booklet for the 1969 Census of Agriculture," was prepared for their use in helping answer questions. The number of trained personnel available per county varied from a low of 4 to as many as 24. The total number of people available for assistance to farmers was 30,450.

Each agency notified its personnel that assistance was to be provided. In addition, farmers were advised of their availability via radio, television, and news releases. Two agencies, the Agricultural Stabilization and Conservation Service and the Extension Service, also notified farmers through local newsletters, news articles, and radio programs.

Many of the 9,500 vocational agriculture instructors devoted one evening of their adult night school classes to an explanation of the census and to instructions on how to complete the report form.

Farmers who contacted the Bureau of the Census about how to complete their report forms were referred to these available resource people.

MAILOUT AND MAIL FOLLOWUP

The initial mailout of the 1969 agriculture census report forms occurred during the period December 28-31, 1969. All recipients were requested to return the completed report forms no later than February 15, 1970. Approximately 3.7 million report forms were mailed, 2.9 million regular forms (A1's) and 800,000 short forms (A2's). Supplemental mailouts described below added approximately 438,700 report forms. These report forms were mailed to recipients who were not on the address list for the January mailout.

The total number of report forms mailed for the 1969 Census of Agriculture represented a decrease of about 3.7 million from the number of forms mailed for the 1964 census. The decrease resulted to a large extent from the extensive use of administrative records for construction of the mailing list, so that forms were mailed only to individuals associated with agriculture, rather than to all rural box holders as in previous censuses.

A reminder card was mailed to all names and addresses on the mailing list on January 10, 1970, to encourage quick response. Subsequent to that date, four mail followups were sent to those recipients who had not responded. Additional report forms were sent with the April and June followup letters in the event that the first forms sent had been misplaced or discarded.

As mail was received in Jeffersonville, it was sorted, reviewed, and then sent to be checked in. The check-in involved keying the census file numbers and having a computer tape of these identification numbers prepared. This check-in tape was then compared to the master mailing list, and all census file numbers which did not appear on the check-in tape were included in the mail followups. (For a detailed explanation of the check-in operation, see chapter 5, page 47.) The following table indicates the number and percent of addressees for the original mailout and for each followup.

Mailout	Date	Number	Percent
Original mailout	December 31, 1969	3,689,170	100.0
First followup	February 27, 1970	1,420,383	38.5
Second followup	April 8, 1970	949,611	25.7
Third followup	May 12, 1970	677,714	18.4
Fourth followup (including 87,833 cases for field followup)	June 9, 1970	517,591	14.0

The fourth followup yielded an additional 52,000 mail receipts, which brought the total number of returned report forms from the original mailout (i.e., excluding the supplemental mailouts described below, and before the major portion of the telephone followup and field followup began) to 3,224,000. Figure 2 indicates actual and expected final receipts from the original mailout.

Each farm operator was requested to sign and date his report form when it was completed. Of approximately 2.7 million farms in the final census counts, more than 89 percent of the farm operators reported the date on which the report form was completed. For the United States, the average reporting date

was February 21, 1970. (The dates the operators completed their report forms, by geographic division and State, are shown in appendix E.)

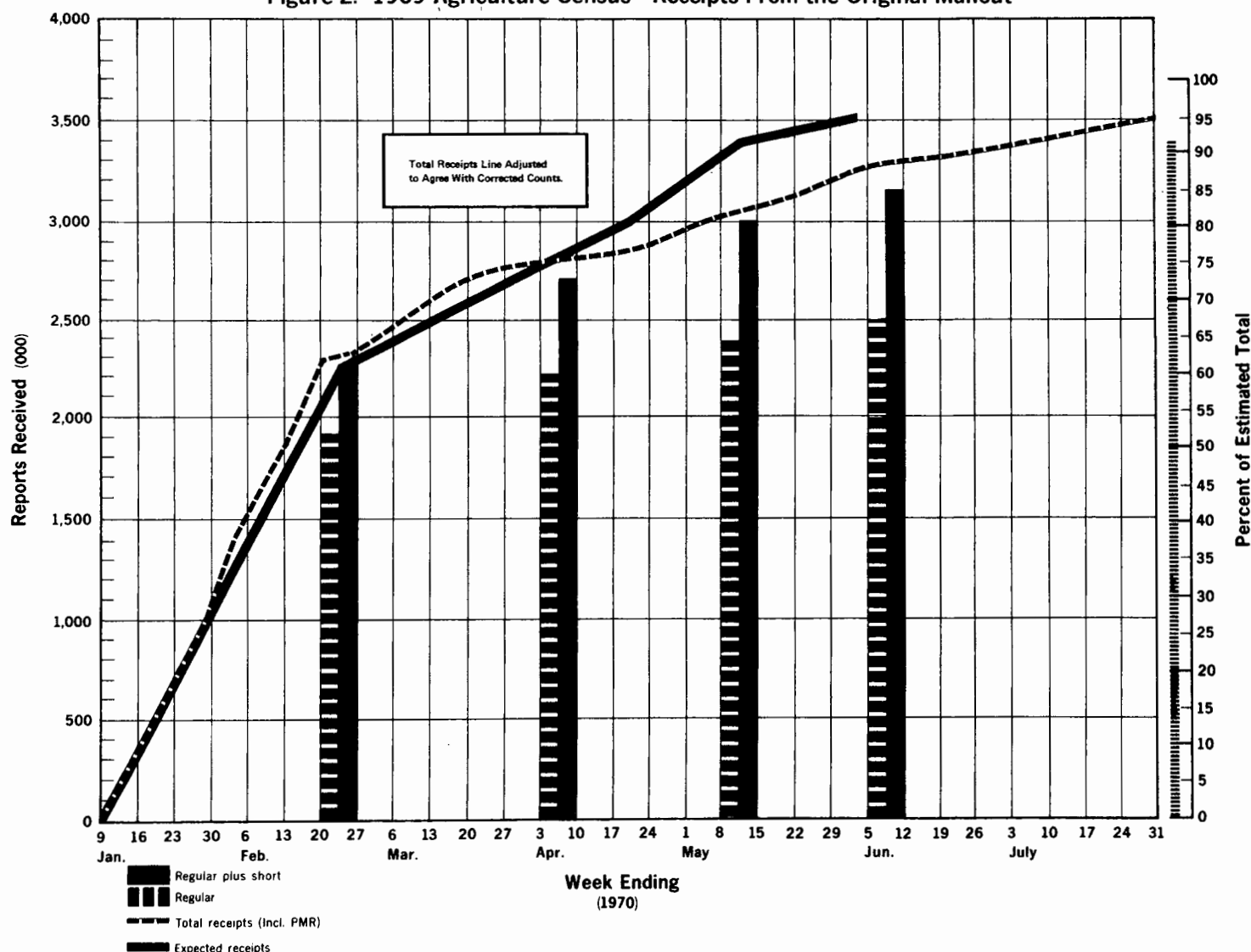
SUPPLEMENTAL MAILINGS

General

For mailings based on the six supplemental sources described below, the time schedule established for processing and tabulation did not permit a full series of mail followups. Only one followup mailing was made for the units in each of these categories except the "births."

The net result of the initial list construction plus the operations to construct the supplemental mailing lists was a potential mailing file totaling nearly 5 million units. About 4.1 million report forms were actually mailed, including approximately 3.2 million regular forms (A1) and 0.9 million short forms (A2). The remaining units were those which qualified only for short forms and did not fall in the sample.

Figure 2. 1969 Agriculture Census—Receipts From the Original Mailout



Births

Since the initial mailing list was based primarily on tax returns for 1968, and the census reference year was 1969, a procedure was established for adding "births," i.e., those units filing "farm" returns with IRS for the tax year 1969 that had not reported any income from agriculture for tax year 1968. Nearly 2,900,000 names for 1969 were obtained from IRS and matched against the basic mailing list (including the nonsample units, i.e., the smaller units to which report forms had not been mailed since they did not fall in the 50-percent sample). The result of this match was as follows:

Not on original list	304,000
Qualifying for regular form (A1)	170,000
Qualifying for short form (A2)	134,000
 On original list as nonsample small agricultural operation, but qualifying for regular form on the basis of 1969 returns	 72,000
 TOTAL	 376,000

Thus, 304,000, or a little more than 10 percent of the 1969 tax returns for farms, were true "births." In addition, there were 72,000 filers who in 1968 had qualified only for the short form, and did not fall in the 50-percent sample, but who, on the basis of their 1969 returns, qualified for the regular form.

The report forms were mailed in July 1970 for about 309,000 births. The mailout included 242,000 regular forms (170,000 plus 72,000) and 67,000 short forms (50 percent of 134,000).

Agricultural Stabilization and Conservation Service (ASCS)

The original mailing list for the 1969 census included farm operators in the Southern States who participated in the ASCS program. The preliminary results of matching a sample of farms from the 1969 June enumerative survey of the Statistical Reporting Service with the initial census mailing list suggested a need for improvement of coverage in some other parts of the country. (The June enumerative survey, carried out by the Statistical Reporting Service on an area sample basis, is used to obtain current estimates for crops, livestock, and number of farms.)

The names of the producers found in the June enumerative survey who were not on the original census mailing list were then compared with the ASCS name and address file. This check indicated that the apparent undercoverage could be substantially decreased by using the additional producer names found on the ASCS lists for certain areas. The enumerative survey showed that an overall 5- to 15-percent increase in coverage would result in the New England States and in Pennsylvania, New Jersey, Michigan, and Ohio. Most of the increase came from farmers who had sales of less than \$2,500 in farm products. Comparing the names from ASCS for the New England States to the census list showed that there would be an increase of 18 percent in the number of farms with sales of less than \$2,500, with an overall increase of 10 percent in New England in the number of farms covered by the 1969 Census of Agriculture. The names obtained from the ASCS list resulted in

approximately 122,000 additional names being added to the census mailing list for a mailout in May of 1970.

Broilers

Prior to the 1969 census, several studies were conducted to determine to what extent persons raising broilers for others on a contract basis might be expected to appear on the census of agriculture mailing list.

It was thought that the names of broiler growers would not be included on the list in as great a proportion as those of other kinds of farms of equal economic importance because (a) many of the places producing broilers on a contract basis have little other agricultural production; (b) the value of broilers produced is not income or sales for the individual growers; and (c) the monetary return that the grower receives is usually based on the number or pounds of broilers grown, with the ownership of the chicken remaining with the contractor.

Results of these studies showed that many broiler growers were not included in the mailing list. Furthermore, about 4 percent of those on the list were in that portion of the list that was to be sampled on a 50-percent basis. Those cases in the 50-percent sample were to be expanded by two for tabulation purposes only if the value of products sold was less than \$10,000; but if the value was \$10,000 or more the case was counted only once in the tabulation because large operations were enumerated on a 100-percent basis. Since practically all broiler operations have a sales value greater than \$10,000, both the number and value of the broiler operations represented by the sample would be undercounted.

A written request for lists of contract growers was sent in October 1969 to 137 persons and firms thought to have persons growing broilers for them on a contract basis. A mail followup to nonrespondents was sent in February of 1970. Finally, a telephone request was made to the remaining nonrespondents in the spring of 1970. The names and addresses of approximately 14,000 growers were furnished by the broiler contractors.

Approximately 9,700 of these names were duplications of names in the original mailing list, leaving approximately 4,300 broiler growers' names to be added to the mailing list for a supplemental mailing. Report forms were mailed to these growers in June 1970, and there was one mail followup. Telephone followups were made to nonrespondents to the mail request. As a result of these efforts, approximately 2,100 farms housing 135 million broilers were added to the census totals. The remaining 2,200 were determined to be out-of-scope or duplications.

Horticulture

In a preliminary match of names obtained from the Statistical Reporting Service (SRS) to the mailing list of horticulture (nursery, cut flowers, etc.) operations, it was discovered that many horticulture operations were not included. Therefore, it was decided to obtain as many horticulture lists as could be found and to use the unmatched names in a supplemental mailing in May 1970. Approximately 2,000 were mailed at that time.

Generally, the nursery lists were obtained through SRS offices from the appropriate agency registering nurseries with each State's Department of Agriculture. These were published lists of growers and dealers. Cut flower and mushroom grower lists were obtained from SRS State officials. The table below shows the States, and the type of list obtained and used for each State included, in the supplemental mailing for horticulture.

State	Type of list		
	Nursery	Cut flower	Mushroom
Maine	X		
Vermont	X		
Massachusetts	X	X	X
Rhode Island	X		
Connecticut	X	X	
New York	X	X	X
New Jersey	X	X	X
Pennsylvania	X	X	X
Indiana		X	X
Michigan		X	X
Minnesota		X	X
Missouri		X	X
Delaware		X	X
Maryland		X	X
North Carolina		X	
Florida	X	X	X
Tennessee		X	
Texas		X	
Colorado		X	X
Oregon		X	X
California		X	X

Alaska

The original mailout of A1's to Alaska farmers was in January 1970. The mailing list used was the composite mailing list for the 1969 Census of Agriculture (with names and addresses obtained from Internal Revenue Service, the 1964 census list, and Social Security Administration). After the first mailout, consisting of 671 names, a complete list of all known farm operators was received from the SRS office in Alaska.

This list was compared with the original census mailing list for completeness. It included the type of farm operation identified under one of seven categories: (1) Oats, (2) barley, (3) hay, (4) dairy, (5) other livestock and poultry, (6) vegetables, and (7) general. The first three of these categories represent the main crops in Alaska, while dairying (category 4) is the main livestock industry. There were a number of farms obtaining most of their farm income from the sale of potatoes and other vegetables (category 6). The remaining farms were classified as either "Other livestock and poultry" or, since there was no single important item of production, as "general."

A supplemental mailing was conducted in May 1970. The May mailing consisted of a mailout of A1's to farm operators who were not included in the January census mailout or who were nonrespondents. Approximately 200 of these forms were mailed. Nonrespondents remaining after one followup were

declared out-of-scope or A1's for them were constructed from information supplied by the SRS office in Alaska and from 1964 agriculture census records.

Abnormal Farms

Twelve hundred places identified as possible institutional or abnormal farms in the 1964 agriculture census were sent report forms in late January 1970 after the original mailout. A brief letter containing instructions pertinent to institutional farms were included in the mailing package. For data processing purposes, the report forms were identified by special census file identification numbers.

The major land-grant colleges and universities, experiment stations, and Indian reservations were contacted prior to this supplemental mailing to determine the number and identification of operations conducted by each organization.

Some of these operations were included on the original agriculture mailing list. Duplications not eliminated by the respondents were eliminated during processing.

POSTMASTER RETURNS

Mailing packages for about 38,121 addresses were returned by the Post Office as undeliverable. These cases were referred to as postmaster returns (PMR's).

Soon after the original mailout for the 1969 Census of Agriculture, a small sample of PMR's (1,200) were remailed in an effort to determine the yield of a total remailing. The sample excluded those PMR's that had been addressed to deceased persons or for which other notes on the PMR envelope indicated that they definitely were not addressed to a current farm operation. About 25 percent of the remailed packages did not return as PMR's, and the Bureau decided therefore, to conduct a total remailing of the PMR's. Of the total number of initial PMR's, 38,121, about 25 percent again were not returned a second time as undeliverable.

Another sample, which consisted of 2,066 cases, was selected for research and analytical purposes. The findings of this analysis were as follows:

1. Post offices gave appropriate single reasons for non-delivery for about 78 percent of the sample cases. On the other hand, they departed from the specified procedure and gave no reasons for about 2 percent of the sample. In the latter instance, postal employees accepted remarks furnished by the addressees or persons at the place of delivery without classifying them into official categories of reasons. For 15 percent of the sample, two or more reasons were given.
2. The official category used most frequently for failure of delivery was "moved." Of the cases for which reasons were shown, 31 percent fell into the "moved" category ("left no address," "not forwardable," or "forwarding order expired"). There were 437 cases described as "deceased"; 5 percent of them had labels addressed to two or more persons. "Duplicates" was written on 88, or 4.2 percent, of the sample cases. Of these cases, 60 appeared on the mailing list as true duplicates. The other 28 could not be found in more than one place on the mailing list.

3. Ten of the cases had the same address with different names. A search of the mailing list revealed five additional names with that same address. New addresses were obtained for 6 of the 10 sample cases and 4 of the 5 nonsample cases. Report forms were then mailed to all 10 cases with new addresses. The results after remailing were six report forms (four sample cases and two nonsample) returned as PMR's, report forms from two sample cases returned showing total value of sales greater than \$2,500, and report forms presumably delivered to two nonsample cases (because they were not returned as PMR's) but not returned by the respondents.

CORRESPONDENCE

Since this was the first "all mail" census of agriculture, and because more than 4 million addresses (including births, supplemental lists, etc.) were involved, it was anticipated that a considerable amount of correspondence would be received.

Prior to the initial mailout in late December 1969, a number of form letters were prepared. These letters were designed to answer the respondents' questions regarding the receipt of followup letters, etc. Some of these form letters were intended for use immediately after the mailout, while some were to be used after reminder cards and followup letters had been sent.

During the review of the incoming correspondence, other types of form letters were determined to be needed. These were drafted, approved, and printed very quickly in order to facilitate rapid response to the correspondent.

A correspondence section was established at the Jeffersonville processing unit on January 19, 1970. Since the mailing envelopes for the report forms carried a Jeffersonville, Ind., return address, it was expected that nearly all correspondence would be sent to this location.

Some correspondence was answered in the Washington, D.C., office. This included all congressional and potential congressional correspondence (those items in which the respondent indicated that he was referring a copy to his Congressman), most correspondence about multiunits, and the unusual or difficult correspondence that the correspondence section was unable to answer. Copies of the answers to the unusual or difficult correspondence were sent to the Jeffersonville correspondence unit for review. This enabled them to answer properly similar cases received.

The instructions for the agriculture processing unit at Jeffersonville provided that immediately after check-in of receipts, all letters and cards and all report forms containing any written remarks were to be referred to the correspondence section. All items were checked in first to prevent the respondents from being included in the next list of addresses to receive a followup letter. During the later processing phases, the correspondence section also was involved in preparing letters to obtain additional information needed to edit or complete the report forms.

The initial staff for the correspondence section numbered 10 employees. Because of the large amount of correspondence referrals received in the first 3 weeks (148,700 pieces by January 23), the staff was enlarged. At its maximum, 112

employees were assigned to this section. During the data collection period, the section handled 1,295,150 pieces of correspondence.

In addition to a supervisor, the correspondence section consisted of readers who reviewed all correspondence items to determine if they could be handled by a form letter or required a tailored letter, composers of replies to those items of correspondence which could not be handled or answered by a form letter, typists who addressed form letters and envelopes and typed tailored letters, and verifiers who determined whether the replies actually answered the questions asked by respondents.

Since all report forms containing any comments or remarks were referred to the correspondence section, the first step in processing them consisted of a review of all notes on the report forms. At this time a decision was made regarding the need for replying to the respondent. If no reply was necessary, the report form was sent to be processed. If a reply was needed, a form letter was sent or, if necessary, a tailored letter was prepared.

The correspondence received in the first 3 weeks fell into three main types:

1. Letters requesting an extension of time beyond February 15 for filing the report. The instructions to the farmer requested that he return his report form by February 15. This date was selected since, at the time the forms and instructions were printed, in the fall of 1969, it coincided with the date that most farmers were expected to file their tax returns with the Internal Revenue Service. However, on December 23, 1969, a new income tax law was passed which extended the filing date for most farmers to March 1, 1970. As a result, many farmers requested an extension beyond February 15. Whenever an extension was granted, the census file number was checked in with a special code to prevent the respondent from being included in any followups during the extension period.
2. Letters requesting assistance in completing the report forms, received from many farmers who had never completed an agricultural census report previously. A form letter directed the respondents to contact one of the county USDA offices or the vocational agriculture instructors.
3. Blank report forms. These report forms were remailed to the farmer with a form letter which asked him to complete all applicable sections before returning the report form to the Census Bureau.

Another major problem assigned to the correspondence unit at this time consisted of 35,359 report forms which either lacked the address label (on which the census file number appeared) or were "file copies" which the respondent had completed and mailed in; the file copies of the report forms did not have a duplicate mailing label. The correspondence unit assigned employees to contact as many of these 35,359 respondents as possible by telephone to obtain their census identification numbers. Where contact by telephone was not possible but a mailing address was available, a form letter was mailed to the respondent asking him to supply his census file number. This letter also advised him that the census file number would appear on the next followup mailing, in case he did not have it.

Even as each respondent's agricultural operations were somewhat different, so were the questions asked. Many of them required tailored letters. In preparing tailored letters, it was evident very quickly that some paragraphs were applicable to many letters and that generally only one or two additional paragraphs were needed to completely answer the respondents. Those paragraphs which were used in many letters were numbered. This enabled the drafter to prepare an answer quickly.

All form letters and tailored letters were coded with either a "C," for complete, or an "N," to show that further action was necessary by the correspondence unit. Generally, those letters requesting additional information from the farm operator in order to complete his report form were coded with an "N," while those answering a respondent's questions, such as the form letter which explained where to obtain assistance in completing the report form, were coded with a "C."

A followup file was established for all "N" units. If an answer had not been received within 21 days, a reminder notice was sent to the farmer. As soon as the answer was received, the report form was sent for processing.

Although most of the correspondence was generated by the original mailout, followup sent to nonrespondents resulted in additional correspondence for the section to handle.

Of the 1,295,150 pieces of correspondence referred to the section, 1,207,189 required answers. The remainder were determined to require no answer.

TELEPHONE FOLLOWUP OF NONRESPONDENTS

The farms with over \$100,000 total value of products sold annually, although relatively few in number, contribute heavily to the Nation's agricultural production. A decision was made early in the 1969 Census of Agriculture planning stages that a report would be needed at an early stage of the data processing for each of the agriculture operations in this group, and special data-collection procedures were devised for the farms identified from the mailing list sources as having \$100,000 or more in sales. All nonrespondents in this category received only two followup letters. At the time of the third general followup, a listing by county and State of nonrespondents in this category was supplied to the Washington office for telephone followup.

Prior to the third followup, employees in the Washington office were trained in collecting data by phone. Seven additional telephone lines were installed for use in calling nonrespondents.

This telephone followup of the nearly 2,400 names furnished began in March 1970, and continued as necessary to complete the required information for all cases in the group. Information for the last cases was not obtained until the early fall.

The Jeffersonville office also furnished the Washington office with a listing, by county and State, of all nonrespondents for those operations with an indicated size of \$50,000 or more in sales, for telephone followup. Both the Washington and Jeffersonville offices participated in telephoning all of these cases. This listing of about 12,000 names was provided prior to the

mailing of the fourth general followup letter. In addition, a listing of all nonrespondents with indicated sales of more than \$2,500 but less than \$50,000 was provided to the Washington office 2 weeks after the fourth followup, excluding those names and addresses in the counties selected for field followup (discussed in the following section). Telephone calls were made only to selected cases by both the Washington and Jeffersonville personnel; the selection was based largely on the judgment of the subject-matter analysts as to the probability that the addressee was in fact a farm operator and that the operation was a significant part of the county's agriculture, according to a large number of criteria for particular areas, types of crops, etc.

In all cases, the Jeffersonville office advised the Washington headquarters of receipts of reports from farm operators.

Beginning in early fall 1970 and continuing through March 1971, telephone calls were made to nonrespondents from the Washington office. Six to eight employees in the Census Bureau obtained telephone numbers, while up to 30 other employees were used to complete calls to the nonrespondents.

In late November 1970, a group of clerks in the Jeffersonville processing unit were trained to begin telephone calls to all except the large farms. Their work also involved calls to respondents to obtain additional information or clarification of information which had already been provided. This group consisted of a maximum of 16 employees.

Not all telephone calls were successful, since some farmers refused to furnish information. Furthermore, in some cases the farmer could not be located. Five employees in the Washington office were designated to attempt to complete the very difficult cases. Two of these employees worked on obtaining telephone numbers, while the other three attempted—almost always successfully—to obtain the needed information. In those rare cases where a farm operator still could not be located or would not provide all of the needed information, data on his agricultural operations were obtained from the county agricultural agent, the Agricultural Stabilization and Conservation Service records, and the Soil Conservation Service.

Telephones were used in Jeffersonville to obtain reports from over 9,200 nonrespondents and in Washington from nearly 8,000. In addition, over 12,000 calls to clarify apparent inconsistencies or to obtain missing items of information were completed by Jeffersonville personnel and nearly 2,000 by Washington personnel. These telephone calls by Bureau employees were made from March 1970 to September 1971.

FIELD FOLLOWUP

A field followup was conducted for the 1969 Census of Agriculture, beginning in late June 1970 and ending in mid-September of the year, to cover those counties that had a relatively high percent of nonresponse (20 to 30 percent) after the mail followups. The field followup was an attempt to contact personally each respondent in the low response counties who had failed to reply after the third followup letter had been sent out. Those included in the field followup were nonrespondents (1) who had been assigned priority codes 4 and 5 (estimated value of sales of less than \$50,000, and less than

\$2,500, respectively); (2) who had been assigned a priority code of 3 (estimated sales of \$50,000 to \$100,000), and had not been contacted during the telephone followup; and (3) who had been selected for the Questionnaire Variation Study (QVS). (The QVS was a test of variations of the A1 report form, conducted during the census for selected names on the original mailing list with assigned priority codes 3 and 4. See chapter 6, page 00.)

The Bureau of the Census originally anticipated a national workload in the field of about 110,000 cases; in fact, the actual workload was 87,833 cases in 370 counties primarily concentrated in the New England, Middle Atlantic, Southern, and Mountain States, and in California and North Dakota. The map on page 00 depicts graphically the counties covered for the 1969 Census of Agriculture field followup.

The workload ranged from as few as 11 to a high of 1,329 cases per county. Where possible, the Bureau used personnel who had been employed for the 1970 Census of Population and Housing.

The followup was directed by 10 of the Bureau's 12 Directors of Data Collection Offices, in the regions where there were low response counties.

Materials for the Followup

The Directors of the Data Collection Offices received one, two, or three bundles of labeled and blank report forms for each county under their jurisdiction; each bundle represented a different size of agricultural establishment according to the priority codes assigned by the Bureau. In each bundle, report forms were sorted by ZIP code and, within the ZIP code, by census file number.

The Directors also received a machine listing of the information on the address labels of the report forms that had not been returned. The names and addresses were arranged on the machine listing by county and were listed by ZIP code within each county. The ZIP codes were in numerical order (though gaps might exist).

Each address on the machine listing consisted of either four or five lines. The first five digits on the first line of the label indicated the State and county code number, and the next five digits made up the serial number. The serial number was followed by the priority code, either a number or a letter, and then the name of the county was given. The information on the second line of the machine listing for each followup case contained the name of the operator(s), and in some cases the third line contained the name of the farm operation. The last two lines contained the mailing address including the post office ZIP code. (See examples below.)

54095 99999 5 Green	54095 99999 4 Green
Jane Doe	John Doe
Rte 1, Box 111	Doe Farms
Sometown, Va. 23400	Star Route 3
	Sometown, Va. 23400

When interviewer assignments were made up, either by a crew leader (first-line supervisor) or regional director, the report forms were compared with the machine listing to make sure that

a report had been labeled for each name and address on the listing. If any forms were missing, the names and addresses had to be copied by hand onto the appropriate forms. The priority code indicated which report form (regular A1 or short A2) should be used: Priority code "3", "4", or a letter (used to denote a QVS farm) required an A1 report form for that address; priority code "5" required an A2 report form for that address.

At the beginning or end of each county on the machine listing there were some instances where mailing addresses were not in that particular county. These were cases in which a person with a mailing address outside the county supposedly had some sort of agricultural operations in the county (e.g., landlord or partner). The Bureau decided that these cases could be resolved so that persons who were not farm operators were removed from the agriculture census mailing list. To accomplish this objective, the Bureau used the knowledge of the interviewer, the telephone directory, the local post office, county ASCS office, agricultural extension office, and any other local source that might have had information on the location and the status of, for example, "the John Smith Farm." If the agricultural operation could not be located by using these sources, the form was marked, "Not known locally", and was sent in as a noninterview.

Material supplied for the agriculture census field followup included, in addition to both addressed and unaddressed regular and short report forms, (1) instructions for training both crew leaders and interviewers, (2) leaflets on the nature and purpose of the census, (3) reference booklets for use of field personnel, (4) a copy of the appropriate county map(s) for each crew leader and interviewer, (5) machine listings of followup mailing addresses, (6) such supplies as identification cards for interviewers and crew leaders, mechanical pencils, portfolios, and cardboard cartons for transmitting completed work to Jeffersonville, and (7) office forms for appointments, payrolls, etc.

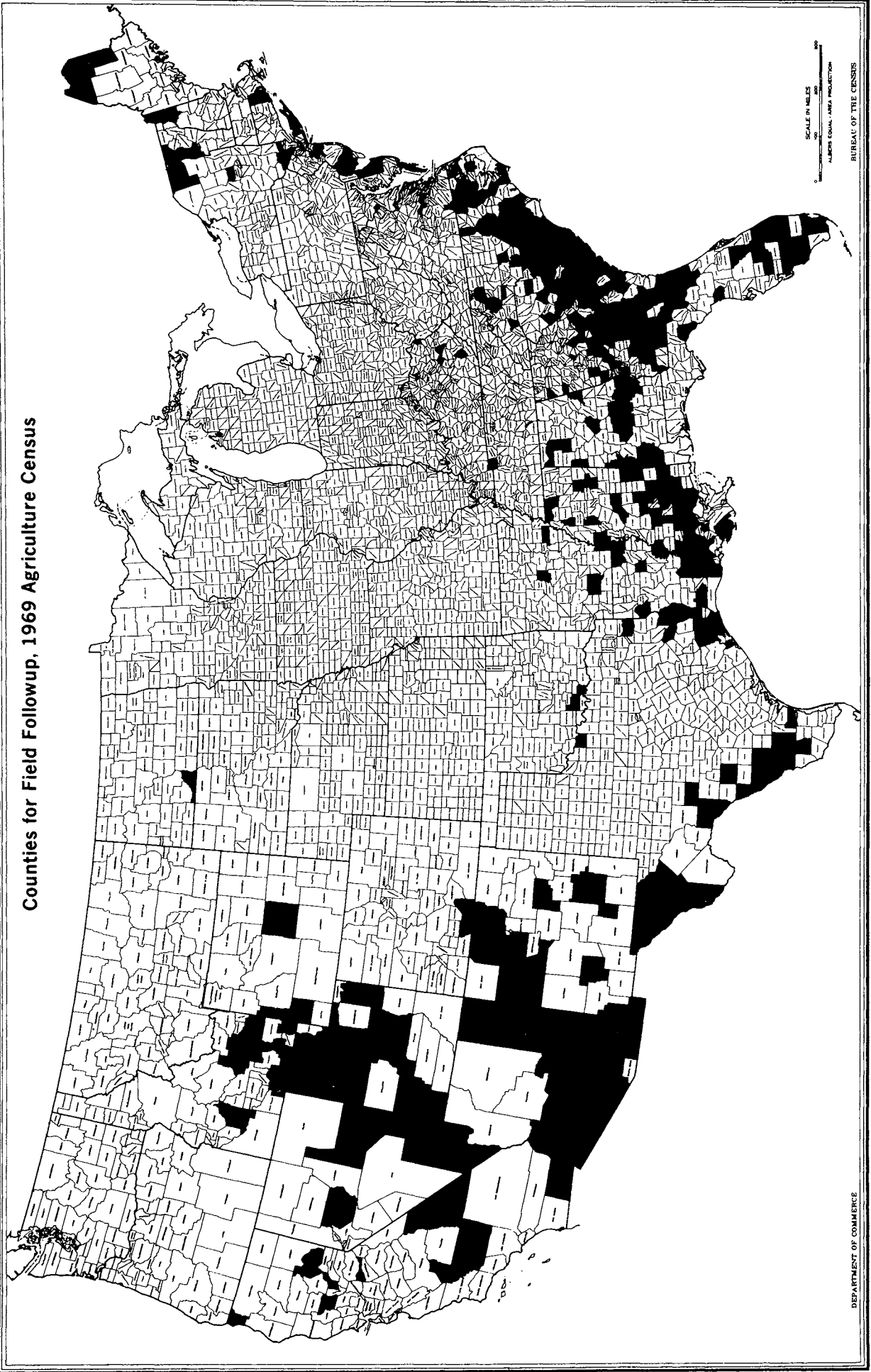
Assigning the Work

In areas where there were enough interviewers (at least 12 or 15) to warrant having crew leaders, the Director of the Data Collection Office assigned the work to crew leaders. He gave the crew leader bundles of forms and marked off, on his copy and the crew leader's copy of the machine listing, the county or counties he had assigned to the crew leader by putting the crew leader's name on each appropriate page. The crew leader was responsible for checking individual cases and making interviewer assignments.

The Bureau of the Census hired 125 crew leaders who were paid an hourly salary of \$3.20. They received their training in a 2-day session conducted by technicians or regional directors at the regional office.

Crew leaders were required to train and supervise a team of from 12 to 15 interviewers, using a crew leaders' training manual. The crew leader districts varied in size from one to three counties. The crew leader's main responsibility was to see that the interviewers obtained completed report forms from all persons in his district who had not replied as of the third mail followup. His duties also consisted of the following:

Counties for Field Followup, 1969 Agriculture Census



1. Training interviewers. This duty required the crew leader to locate and inspect the training space to be used, to prepare adequately to train his interviewers, and to give classroom instruction to his interviewers.

2. Supervising interviewers' work. This included:

- a. Making assignments
- b. Observing interviewers at work and correcting any errors they made
- c. Helping interviewers to find the farms that were difficult to locate
- d. Collecting and reviewing completed work

3. Reviewing the interviewers' completed payroll forms.

Crew leaders received their assignments, in the form of pages from the machine listing, during their 2-day training session. The machine listing was used by the crew leaders to record the assignments they made to their interviewers, by marking off the section or sections of the machine listing assigned to each interviewer.

In areas where there were not enough interviewers to warrant having a crew leader, assignments were made directly to the interviewers by the Director of the Data Collection Office. When he assigned the work, he marked off a section or sections of the machine listing to indicate what portion of work was assigned to each interviewer.

Both the crew leaders and the Directors followed certain guidelines in assigning cases to interviewers:

1. The number of followup cases for each interviewer was to be about 50 or 60.
2. Followup cases for each ZIP code were to be assigned to one interviewer if possible. If, however, two interviewers were assigned to the same ZIP code, the work was to be divided so that each interviewer would have a specified section of the area, with a minimum amount of crisscrossing into each other's area.
3. Followup cases were, if at all possible, to be assigned to the interviewer whose home was nearest.
4. Cases assigned to an interviewer were to be noted on each sheet of the machine listing by outlining them in green pencil. In most cases, two or three pages of the listing were assigned to one interviewer.

Interviews

Fifteen hundred interviewers were hired by the Census Bureau, at an hourly wage of \$2.50, to enumerate the 87,928 cases to be covered in the field followup.

Interviewers were trained by a crew leader, if one was assigned, or by a technician or a regional staff member, from training guides which were to be read verbatim during a one-day training session. Two basic tools used by the interviewer were the

Reference Book (form A-6) and the Leaflet Guide (form A-5), which were distributed during the training session.

Once the interviewers learned of the location of the persons to be interviewed, they marked the names of these persons next to the appropriate symbols on their maps of the areas they were to cover.

The Census Bureau indicated the methods the interviewer might use in locating the addresses to be marked on his county map, and the order of preference, as follows:

1. The addresses could be marked on the county map on the basis of the interviewer's own knowledge of the people who lived in his area.
2. The addresses could be located through the use of telephone directories.
3. Local officials could be requested to show the interviewer on his county map where the addresses were located. Bureau suggested local officials be asked for help, as necessary, in the following order:

- a. The local post office, postmaster, or rural carrier;
- b. The County Executive Director of the Agricultural Stabilization and Conservation Service;
- c. The county agricultural extension agent.

Where there were two, three, or four interviewers in the county, they were to visit the local officials together. If there were five interviewers or more in the county, the crew leader (or an interviewer selected by the crew leader) visited the local official for all of the interviewers.

Interviewers were informed during their training session that duplication of addresses did exist; that is, the interviewer might find that he had been assigned more than one labeled report form that was addressed to the same nonrespondent. Sometimes the duplicates might be the same, or nearly the same, except for having different census file numbers, e.g.,:

51003 99999 4 Sussex	51005 99989 4 Sussex
Samuel Doe	Samuel Doe
Rte 30 Box 9	Route 30, Box 9
Nowhere, Del. 19900	Nowhere, Del. 19900

In other cases, one label might be addressed to husband and wife, and another addressed apparently only to the husband, e.g.,:

87001 99899 3 Sevier	87001 99999 4 Sevier
Bill Doe	William and Mary Doe
Somewhere, Utah 84700	Somewhere, Utah 84700

If the interviewer found a duplicate, he marked one of the labeled forms in the appropriate space provided on the form with the notation "Extra copy—see CFN " and attached it to the form that he completed.

An important element in conducting a successful field enumeration of nonrespondents was for the interviewer to prepare and execute an orderly sequence of his daily visits—telephoning nonrespondents before making his interviews, sorting labels according to the routing planned, and allocating enough time for traveling and interviewing. If the person to be interviewed was not at home at the time the interviewer made his call, the interviewer was to find out from another member of the household or a neighbor when he could reasonably expect the operator to be home. The interviewer then listed all callbacks (on a scratch pad or paper) in sequence, according to their plotting on his county map, so that he could make his callbacks in such a way that he could make all callbacks in a particular area on the same day.

Sometimes interviewers obtained agricultural data from secondary sources such as a neighbor, a hired hand, the county agricultural extension agent, or the county Executive Director of the Agricultural Stabilization and Conservation Service.

Interviewers were responsible for the consistency of related entries; for example, the number of acres reported as irrigated on the farm could not be larger than the total number of acres reported.

If an interviewer encountered any problems which he could not resolve, he discussed them with his crew leader, if he was supervised by a crew leader, or with his supervisor in the regional office.

All completed A1 and A2 report forms were turned in by an interviewer to his crew leader (or were mailed in to his regional office) on a weekly basis, along with a list of the number of callbacks that were unresolved at that time.

The report forms received from the interviewer were reviewed for completeness by checking each page of the A1 and A2 report forms to verify that sections or pages with no entries were explained by notes or entries in other sections of the report form. If there were any sections in a report form which should have been filled and were not, the forms were returned to the interviewer. In such instances, the second attempt to complete a particular report form was sometimes done by the interviewer by telephone. The crew leader or regional office supervisor marked the machine listing to show which report forms had been completed, then sent the completed forms to Jeffersonville. The crew leader turned his machine listing in to the regional office at the end of his assignment so a check could be made to assure that every case assigned to him was accounted for.

The field followup provided favorable results. Of the 87,928 cases covered in the field followup, approximately 84,300 cases (97 percent) were added to the reports obtained from the original mailout and the four mail followups.

FLORIDA CITRUS GROVES

For the 1964 Census of Agriculture, there had been a special enumeration in Florida of approximately 100 citrus fruit grove caretakers or grove management organizations which together accounted for over 20 percent of the citrus acres in the State.

The enumeration procedure in Florida had differed slightly from that of the rest of the census in that not all of the grove owners were contacted separately, as were most other people involved with agricultural operations throughout the United States. This occurred mainly because of absentee ownership, which made it difficult to locate each person connected with a citrus grove operation. In addition, the grove owner did not always have the necessary information about his grove since he did not manage it himself. In the 1964 census, the enumerators had encountered great difficulty in enumerating the caretakers, mainly because of inexperience in that area. Generally, the caretakers did not fall into a clear-cut manager or nonmanager category: The type and amount of service performed for each grove owner varied; the extent of the recordkeeping varied; and more than one caretaker could become involved in the work done for a grove owner. In addition, the caretakers frequently were difficult to contact since the enumeration took place during the harvesting season.

With the changes made in the basic enumeration procedures for the 1969 census, the absentee owners were no longer a major problem, but it was feared that there could be either double counting or undercounting of the groves if both a grove owner and the caretaker of the grove, or neither, responded to the mail enumeration. As a result, the Bureau decided to conduct a special, direct enumeration, similar to that used in the 1964 census, to insure accurate coverage of the managed citrus groves in Florida.

Originally, it was estimated that there would be about 130 caretakers to enumerate; however, only 100 were identified from the 1964 census records and 17 from the preliminary survey of large operations, making a total of 117 caretaker operations to be canvassed. Approximately 75 percent of the 117 caretaker operations were concentrated in the three major citrus producing counties—Lake, Orange, and Polk—and 85 percent of the operations were within a 100-mile radius of Orlando.

The enumeration of citrus caretakers took place in the months of July through September 1969 because this was the period of their lighter workload, and moreover, the data needed for the 1968-69 crop year would be available from the caretaker after July 1, 1969.

The enumeration staff consisted of six enumerators from Florida, one of whom was designated to head up the operation and act as a "contact" person, and one other "contact" person from the Atlanta Data Collection Office. The "contact" people were to visit the caretakers before the enumerators in order to explain the need for and the purpose of the enumeration, and to set up appointments for the enumerators. In addition, prior to the arrival of the field personnel, the Bureau sent an introductory letter to the caretakers briefly explaining that they would be involved in the special enumeration and that they would be visited by an enumerator at a later date.

A one-day training session was conducted on July 9, 1969, by a staff member from Washington, to teach the enumerators what information to obtain and how to evaluate the caretaker's recordkeeping system in order to get the necessary information in the easiest possible manner. The enumerators were to fill an A1 report form for the caretaker's entire operation if it was contained within one county, or if less than 500 acres were

operated in other counties; or to fill one report for each county in which 500 acres or more were operated. The enumerators were not, however, to fill a report form for each of the individual ownership tracts or groves within the caretaker's operation. During the early part of the enumeration, Bureau personnel were made available for consultation, and any technical questions were answered by these people by telephone.

The last report form to be returned to the Census Bureau arrived on October 21, 1969. With the exception of one report on which some expenditure and equipment data were missing, all the report forms were complete. Of the 117 caretakers enumerated, there were 106 in-scope reports, 10 out-of-scope cases, and 1 refusal. The 106 caretakers represented an enumeration of 269,780 acres of citrus fruits and 6,628 grove owners.

The caretakers canvassed during this special enumeration were not included in the regular mail enumeration. They were sent a letter in January 1970 asking them to return any report forms they received and to mark them as duplicate forms, and to instruct any grove owners who received regular census report forms by mail to return them with a note explaining that the citrus operations had been covered in the caretaker's report.

ENUMERATION AND FOLLOWUP PROBLEMS

Since the 1969 Census of Agriculture was the first all-mail agriculture census, a number of problems were encountered that were related directly to asking the farmer to complete his report form himself and then to return it to the Census Bureau's processing facility. Other problems were related to mailing packages, mail handling, forms design, changes in Internal Revenue Service legislation, etc. Some of the problems encountered were as follows:

1. In preparing the packets for mailing, all report forms and related materials were inserted into window envelopes, and the name and address label was placed on the report form through the envelope window. Shortly after placing the packets in the mail, information was received from the U.S. Post Office that the address labels were not adhering to the report forms, and that the packets could not be delivered. The mailing packets returned by the post office were carefully inspected to see if the label had fallen off into the envelope. When mailing labels were found, they were taped onto the report forms, and the forms were remailed. Packets for which no labels could be found were stored and treated as nonrespondents. If farmers wrote to the Bureau requesting a form, they were sent one individually; otherwise, all nonrespondents received another report form in the April followup. In some cases the label remained on the report form long enough to be delivered to the farmer, but subsequently came off prior to receipt of the completed report form back in the Jeffersonville facility. An estimated 100,000 mailing labels failed to adhere to the report forms long enough to be checked in at Jeffersonville. Approximately 35,000 of these report forms with very little or no identification were given to the correspondence unit for resolution. For the other 65,000, either a label was located, or enough identification (postmark and ZIP code, name signed to the form, etc.) was provided so that the mailing list

could be checked for a census file number. An estimated equal number of labels were sufficiently loose to require taping prior to handling at the processing facility.

2. The mailing packet to the farm operators expected to report more than \$2,500 in sales included the 1969 A1 report form, a file copy of the A1, an instruction booklet, and a return envelope. The A1 report consisted of 12 pages and contained 39 sections, which were designed to cover all possible types of agriculture in the continental United States. In prior censuses of agriculture, a different report form was used in different areas to minimize the length of the report form.

With the 1969 report form so large comparatively, the farmer's first impression upon removing the report form from the packet was "It's an awful lot of questions - I don't have time to do it now." Actually, few agricultural operators in the United States needed to complete more than 10 or 12 sections, but on first glance, this was not apparent.

In addition, the presence of the instruction booklet, Form A5, made it appear that the answers requested were not easy to provide. These first impressions tended to cause the farmer to set the report form aside. Some farmers wrote to the Bureau complaining of the size of the report form, and a few wrote to their Congressman on the apparent amount of information requested. The answers to these letters pointed out that the form covered all types of agriculture, that many of the individual farmers normally would complete only a small part of the report form, and that, with the exception of unusual cases, most farmers were able to complete the applicable items in 45 minutes to an hour.

3. The agricultural community is composed of farm operators of widely varying ages and educational backgrounds in all parts of the country. Some farm operators contacted the Bureau indicating that they were willing, but unable, to complete their report forms. Normally, the individual who contacted the Bureau was one who had had little or no schooling. In these cases the individual was referred to one of the U.S. Department of Agriculture representatives near him for assistance. Undoubtedly, there were others who were not reached, and who were unable to communicate their problems in completing the report form.

4. A related but more minor problem existed primarily in Maine, New Hampshire, Vermont, and Texas. Small areas were found in these States where the addressees did not comprehend English. The report forms for the United States had been printed in English only. Cases of this type that were brought to the Bureau's attention were referred to bilingual individuals who could assist the respondent in completing the report form.

5. Instructions provided to the farmer stated that if records were not available, good estimates were acceptable. Some farm operators were unable to understand that good estimates would provide data acceptable at the county level for census purposes. Whenever farmers corresponded with the Bureau saying that their records were not available, the Bureau attempted to point out that good estimates were acceptable and to encourage the respondent to file his report using his best estimates.

6. The report form for the 1969 Census of Agriculture asked for information about land use, crop production, livestock production, production expenses, and the market value of the products produced.

Some segments of the Nation's agricultural operations are integrated from the production of a product through the processing and the marketing of that product. Two different problems arose because of this integration.

In some instances, the producers reported the market value of the processed, or finished, product, such as sugar, instead of reporting the market value of the raw, or unprocessed, products, such as the sugar beets. Such reports were amended by the subject-matter specialists during processing.

The other type of problem arose because of contract operations, particularly those involved with poultry. The Bureau attempted to include in the mailing list the names of all producers involved with contract commodities. However, in the contract operations, the producers normally have the land and the buildings, while the contractor pays the producer a certain amount per pound of product and provides the birds, the feed, and management instructions. These producers, as a result, were unable to provide any information regarding production expenses and the value of products produced. This information had to be supplied by subject-matter specialists after consultation when necessary and possible with the contractor.

7. To the extent possible, the mailing list was to include the names and addresses of all individuals associated with agriculture. In many cases, the individuals on the mailing list were landlords who had rented their land to other farm operators. The Census Bureau experienced some enumerating problems with landlords who reported what had been produced on the land they owned, even though they had not actually done the farming themselves.

The first four items on the report form attempted to make clear that if all the land was rented or leased out, the land owner should not complete any other part of the report form. However, because they had an interest in the share of the production, these individuals also felt they had a responsibility to report this production.

Telephone followup provided information that some of these landlords reported only their share of the production, while other landlords reported the total production. In either case, it provided duplicate data, since the operator had also been asked to report the agriculture production on the land that he had worked.

8. A limited number of farmers expressed a belief, either in writing to or by telephoning the Census Bureau, that agriculture census data were collected to benefit agribusiness, and in consequence they were reluctant to provide the data. (Recognizing the problem, the Bureau had attempted to counteract this feeling by distributing prior to the mailout a leaflet entitled "How the Census of Agriculture Helps You" which pointed out that the census was one source of information available to the farmer, and that other sources of agriculture information on which the farmer relied obtained most of their statistical data from the census figures.)

9. As explained previously, the Census Bureau asked all farm operators to complete their reports and return them, preferably no later than February 15, 1970. February 15 was selected since this date coincided with the date that many farmers were required to file their annual Internal Revenue Service report. This date was printed in the instruction leaflet which accompanied the A1 and the letter which accompanied the A2 report forms. The printing of these leaflets and letters was scheduled and completed well ahead of the anticipated mailout date of the last week in December.

On December 23, 1969, just a few days prior to the mailout, the IRS tax law was changed and the filing date was moved to March 1. A number of farmers wrote to the Bureau suggesting that the filing date for the census of agriculture should be March 1, to coincide with the new filing date for the Internal Revenue Service. In these cases, an extension of time was granted to permit the farmer to make maximum use of his tax records in completing the report form, and the Bureau pointed out that the tax law had been changed at a date which did not permit the Bureau to change the printing of its materials.

10. Because the census mailing list was compiled from several sources, the same farm operator might appear on each source with slight variations in his name and address. It was difficult to determine if these were really duplicate names and addresses, and, as a result, many farmers received more than one report form. Anticipating this problem, the Bureau provided instructions on the report form and in the leaflet guide that any duplicate report forms should be returned along with the one filled out. Nevertheless, many farmers completed and returned only one report form, without reporting the census file numbers on the additional forms. Without this information, it was impossible to remove the additional name and address listing from the followup processes. As a result, some of the farmers who received a followup letter and report form thought that their first report form had not been received by the Bureau, and therefore, they completed a second report with a different census file number and submitted it to the Bureau also. This meant that a duplicate report had been received.

In addition, some farmers who received duplicate forms were evidently reluctant to complete even one, possibly feeling that if the Bureau could not eliminate duplicates, then it also could not provide good data from their reports.

11. Pretests indicated that a reminder card improved the response rate in the early stages of the data collection although it did not have a significant effect on the overall response rate. Because the improved early response would improve the quality of the livestock inventory data and would probably speed up the entire processing operation, it was decided to send a reminder card to everyone on the mailing list 10 days after the initial mailout, January 10. Many farmers objected to receiving the reminder card, since their initial review of the agriculture census packet indicated to them that no action was necessary until February 15. Letters were also received from farmers stating that they had received their reminder cards prior to receipt of the census report forms. It is believed that better phrasing of the message on the reminder card would resolve most of the problems associated with its use.