# Chapter 5.

## 1978 Census of Agricultural Services

## **GENERAL INFORMATION**

## Background

Until the late 1960's, when the 1969 Census of Agriculture was planned, it had been generally assumed that except for such obvious things as grain combining (in some States) and the services of a veterinary, farmers provided most of their own special services-fertilizing, cultivating, harvesting, bookkeeping, and so on. While the Bureau of the Census has been conducting an annual survey of cotton ginning since the 19th century (and continues to do so), little was done to collect data on the growth of businesses concerned specifically with providing services to farm operators. However, following World War II, agricultural services became an increasingly specialized and separate industry, closely involved with, and important to, agricultural production. The changes in agriculturally oriented technology and science and the rapid growth of "agribusiness" directly contributed to the development and differentiation of agricultural service industries.

The 1969 Census of Agriculture was the first in which the Bureau of the Census employed the mail-out/mail-back methodology and also the first to include a census of agricultural services. This special census was inaugurated because of the growing need for data on this new and expanding part of the agricultural economy. The area of the new enumeration consisted of the standard industrial classification (SIC) major group 07, agricultural services, which included establishments primarily engaged in supplying agricultural services for others on a fee or contract basis. For 1974 and 1978 this major group was subdivided into the following services: Soil preparation (group 071), crop (072), veterinary (074), animal, except veterinary (075), farm labor and management (076), and landscape and horticultural (078). These groups covered such services as cotton ginning; grain grinding and mixing (custom); combining; picking, sorting, grading, and packing of fruits and vegetables; animal hospitals for livestock; and animal breeding and artificial insemination.

For 1974 and 1978, supplemental data were collected from farm operators on receipts for agricultural services on the standard agricultural census report forms, while, for cotton ginning, additional data were compiled from the reports collected during the ginning season each year. Operations identified in the census of agriculture as having a significant volume of receipts and primarily engaged in providing agricultural services were transferred to the census of agricultural services. The addresses of such operations were matched to the existing agricultural services census mailing list to eliminate duplications prior to their being added to the latter.

## Definition of an Agricultural Service Establishment

The 1978 Census of Agricultural Services, like those for 1969 and 1974, was conducted on an establishment basis. For census purposes, an agricultural service establishment was defined as an economic unit primarily engaged in performing services, for a fee or on a contract basis, in any of the following activities covered by SIC major group  $07^1$ :

Industry subgroup	Detailed industry	Description
071		Soil Preparation Services
	0711	Soil Preparation Services: Establishments primarily engaged in land breaking, plowing, application of fertilizer, seed bed preparation, and other operations for improving the soil.
072		Crop Services
	0721	Crop Planting, Cultivating, and Protection: Establishments primarily engaged in perform- ing a variety of crop planting, cultivating, and protection operations. Establishments primarily engaged in complete citrus grove maintenance are classified in Industry 0762, and those providing a combination of services from soil preparation through harvest are classified in Industry 0729.
	0722	Crop Harvesting, Primarily by Machine: Establishments primarily engaged in mechan- ical harvesting, picking, and combining of crops, and related activities, using machinery provided by the service firm. Farm labor contractors providing personnel for manual harvesting are classified in Industry 0781.

<sup>&</sup>lt;sup>1</sup>Executive Office of the President, Office of Management and Budget, Statistical Policy Division, *Standard Industrial Classification Manual, 1972* (U.S. Government Printing Office, Washington, D.C., 1972). pp. 25-27.

Industry subgroup	Detailed industry	Description	Industry D subgroup ir
	0723	Crop Preparation Services for Market, Except Cotton Ginning: Establishments primarily engaged in performing a variety of operations on crops subsequent to their harvest, with the intent of preparing them for market or further manufacture. Establishments primarily engaged in stemming and redrying of tobacco are classified in Industry 2141.	076
	0724	Cotton Ginning: Establishments primarily engaged in ginning cotton.	
	0729	General Crop Services: Establishments pri- marily engaged in providing a combination of services from soil preparation through harvest, except farm labor and management services which are classified in Group 076.	
074		Veterinary Services	
	0741	Veterinary Services for Livestock, Except Animal Specialties: Establishments of licensed practitioners primarily engaged in the practice of veterinary medicine, dentistry, or surge <b>ry</b> , for cattle, hogs, sheep, goats, and poultry. Establishments of licensed practitioners pri- marily engaged in treating all other animals are classified in Industry 0742.	078
	0742	Veterinary Services for Animal Specialties: Establishments of licensed practitioners pri- marily engaged in the practice of veterinary medicine, dentistry, or surgery, for animal specialties. Animal specialties include horses, bees, fish, fur-bearing animals, rabbits, dogs, cats, and other pets and birds except poultry. Establishments of licensed practitioners pri- marily engaged in veterinary medicine for cattle, hogs, sheep, goats, and poultry are classified in Industry 0741.	In order to be received at 1
075		Animal Services, Except Veterinary	activities dur
	0751	Livestock Services, Except Services for Animal Specialties: Establishments primarily engaged in performing services, except veterinary, for cattle, hogs, sheep, goats, and poultry. Dairy herd improvement associations are also included in this industry. Establishments primarily engaged in the fattening of cattle are classified in Industry 0211. Establishments engaged in incidental feeding of livestock as a part of holding them in stockyards for	single activity largest source It is impor in the structu ity of data fru lishments prin account or or a contract or establishment

periods of less than 30 days (generally in the course of transportation) are classified in

engaged in performing services, except veteri-

nary for animals except cattle, hogs, sheep,

goats, and poultry are classified in Industry

Animal Specialty Services: Establishments

primarily engaged in performing services,

except veterinary, for pets, equines, and other animal specialties. Establishments

primarily engaged in performing services

other than veterinary for cattle, hogs, sheep,

goats, and poultry are classified in Industry

0752.

0751

0752

Industry 4789. Establishments primarily

Industry subgroup	Detailed industry	Description
076		Farm Labor and Management Services
	0761	Farm Labor Contractors and Crew Leaders: Establishments primarily engaged in supplying labor for agricultural production or harvesting Establishments primarily engaged in machine harvesting are classified in Industry 0722.
	0762	Farm Management Services: Establishments primarily engaged in providing farm manage- ment services, including management or complete maintenance of citrus groves, orchards, and vineyards. Such activities may include cultivating, harvesting, or other specialized activities, but establishments primarily engaged in performing such opera- tions without management services are classi- fied in the appropriate specific industry within Group 072.
078		Landscape and Horticultural Services
	0781	Landscape Counseling and Planning: Estab- lishments primarily engaged in performing landscape planning, architectural, and counseling services.
	0782	Lawn and Garden Services: Establishments primarily engaged in performing a variety of lawn and garden services.
	0783	Ornamental Shrub and Tree Services: Estab- lishments primarily engaged in performing a variety of ornamental shrub and tree services. Establishments primarily engaged in forestry services are classified in Major Group 08.

be "primarily engaged," an establishment must have least 50 percent of its gross receipts from such ring calendar year 1978. For cases in which no y accounted for 50 percent of gross receipts, the e must have been from agricultural services.

ortant to note that various changes have taken place ure of the SIC system which affect the comparabilrom census to census. For example, in 1969, estabimarily engaged in hatching poultry for their own on a contract basis, and cattle feed lots operated on custom basis, were classified as agricultural service establishments according to the 1967 SIC manual. In 1974, however, these establishments were classified as farms according to the 1972 SIC manual and were excluded from the agricultural service census. As a result of the 1977 supplement to the 1972 SIC manual, grist mill operations, hay or alfalfa cubing establishments, and custom flour, feed, and grain milling establishments, all of which were included in previous agricultural service censuses, were deleted from the major group 07 and, therefore, were excluded from the 1978 census. On the other hand, with the addition of irrigation system operation services to the major group 07, data for this agricultural service activity are available from the 1978 census.

Also affecting data comparability between censuses is the \$2,500 minimum limit on dollar volume of business placed on agricultural service establishments in 1978; since there was no satisfactory source list for these small establishments, complete coverage was not obtained, and, consequently, no attempt was made to include these establishments in the final tabulations of the 1978 census.

### Scope of Census

The census of agricultural services was conducted by mail and covered the 50 States and the District of Columbia, and attempted to include every establishment meeting the Bureau's definition of an agricultural services operation and active during the census year.

The census was primarily concerned with the business characteristics of the establishments enumerated. The basic data requested included type of business, type of organization, gross receipts in 1978, payroll, number of employees, supplemental labor costs, capital expenditures, changes in value of depreciable assets, and expenditures for energy.

#### Planning

Planning and preparation for the 1978 census began well before the 1974 census was completed, and work on the enumeration continued into 1980. All this was integrated into the overall agriculture census operation, particularly with respect to assembly of the address list, preparation of the mailing packages, and mailout. Nevertheless, considerable independence was required in such areas as design of report forms and writing of processing and tabulation procedures.

#### **Report Forms**

Data from various source lists used in the compilation of the mail list for the 1978 census enabled the Bureau to identify agricultural service operations and, within broad categories, to determine the type of services provided as well. For the 1974 census, a single report form, the A40, was used for *all* agricultural service operations. Each addressee was asked to go through the entire form and complete those sections applicable to his or her operation. In order to reduce respondent burden in the 1978 census, the Bureau used several specialized data-collection forms, each type including a section with gross-receipts inquiries tailored for easier response from specific industry groups. All report form types contained a core of generalized inquiries addressed to all agricultural service establishments.

A total of four forms were used: the A40 versions A, B, C, and D. The A40A was sent to addresses representing soil preparation services, crop services, and cotton ginning. The A40B covered veterinary and animal services and the A40C enumerated landscape and horticultural services, while the A40D was a generalized form covering all types of agricultural services.

All four report forms were identical in format: Sections 1 through 7 requested general business data, i.e., type of business or activity, employer identification number (EIN), type of organization, period operated in 1978, dollar volume of business, payroll, and supplemental labor costs. Sections 9 through 16 were also standardized, requesting information on the geographic location of services performed; labor and payroll for services performed; gross receipts from products provided

in connection with services performed; other operations performed; capital expenditures (excluding land and mineral rights); changes in gross value of depreciable assets; expenditures for electricity, gasoline, petroleum, and other fuels; checks to assure completeness of the form; and the signature and telephone number of the person completing it.

Section 8, "Gross Receipts For Services Performed," varied in content with each version. In version A, section 8 was divided into four subsections. The first three subsections requested gross receipts for soil preparation services (plowing, harrowing, fertilizer spreading, and weed control before planting, etc.) and the number of acres serviced; crop services (planting, cultivating, harvesting, preparation for market, cotton ginning) and the number of acres and/or bales of cotton serviced; and other agricultural services excluding soil preparation and crop services. The fourth subsection asked for the sum of the three previous subsections or total gross receipts. In version B, section 8 was similarly divided, but into subsections on veterinary services, animal services except veterinary services (artificial insemination, livestock vaccination, boarding, showing or training, etc.), other agricultural services excluding veterinary and animal services, and the sum of the three previous subsections or total gross receipts. In version C, section 8 had only three subdivisions-landscape and horticultural services (counseling and planning, lawn and garden services, ornamental tree and shrub services, etc.), other agricultural services excluding landscape and horticultural services, and the sum of the two previous subsections or total gross receipts. Version D included all the other three versions' section 8 subdivisions plus a subsection on farm labor and management services.

The layout and general arrangement of all four versions of the A40 were identical. All were 14" x 21" sheets folded to 14" x 10½" with a left-hand fold. Printing was in black ink on white stock, but each version was shaded with a different color ink as an aid in sorting and identification—version A in light blue, version B in pink, version C in salmon, and version D in lavender. Separate instruction sheets for each version, printed in black ink on colored stock to match each version's shading, were included with the forms.

## Mail List

The mail list for the 1978 Census of Agricultural Services was assembled from census records and from accessible records of other Government agencies. Specifically, the Internal Revenue Service supplied lists of persons and/or organizations who had filed form 1040 Schedule C (individual proprietor-ships), form 1065 (partnerships), or form 1120 or 1120S (corporations), and who were identified from these reports as agricultural service operations, as well as a list of agricultural service establishments filing employer's tax form 941 or 943.<sup>2</sup> In addition, various trade associations representing different agricultural service industry groups provided membership lists of their organizations.

<sup>&</sup>lt;sup>2</sup>IRS form 941 (Employer's Quarterly Tax Return for Non-Agricultural Employees); IRS form 943 (Employer's Annual Tax Return for Agricultural Employees).

Altogether, the initial address list for the census of agricultural services contained over 700,000 names and addresses. This list was unduplicated with the main census list in the fall of 1978, and was reduced to 353,000 names and addresses.

Data from these source lists, as well as from the in-scope 1974 Census of Agricultural Services list, were used to identify agricultural service operations by activity in order to determine the form version to be mailed to each address; addresses for which the primary activity could not be determined were sent the D version of the A40 report form.

## **ENUMERATION**

## **Initial Mailout**

The final address list for the 1978 Census of Agricultural Services contained over twice as many names and addresses as were on the 1974 list and over four times as many as on the first agricultural services list used for the 1969 census. Some 8,000 cases on this final list were considered of questionable status and were withdrawn for further checks and confirmation of activity. The slightly truncated mail list was then used in the production of mailing address labels. The mailout packages were assembled and the address labels applied at the Bureau's Jeffersonville, Ind., facility. All of the packages carried thirdclass postage except those for Alaska and Hawaii, which were sent by first-class mail. Each mailing package contained the appropriate report form (A40A, A40B, A40C, or A40D), a file copy of the form for the respondent's records, an information sheet providing instructions for completing the form, a cover letter requesting prompt response, and a return envelope.

The initial mailout for the census of agricultural services was made from Jeffersonville during the week of January 15, 1979. The total number of each type of report form mailed was as follows:

Report form	Number mailed
Total	344,953
A40A	24,801
A40B	116,316
A40C	129,435
A40D	74,401

The vast majority of the addresses on the agricultural services mail list represented individual establishments, but 3,369 were constituent establishments of about 2,251 identified multiunit companies. For the purpose of data collection these cases were handled the same way as the single-unit addresses.

### Followup Mailings

The agricultural services enumeration included six followup mailings. The closeout date for response to the initial mailing was February 13, after which computer tapes listing CFN's of cases checked in were matched against the mailing list and

the nonrespondent addresses were used to create the mail list for the first followup. Address labels were produced during the week following the closeout. (A similar procedure was employed after each followup mailing.) The first followup to the agricultural services census consisted of a form letter A40(L3) requesting that the addressee respond and offering help if needed. The second consisted of the appropriate report form and a cover letter (A40(L4)). Additional letters were sent in the third, fifth, and sixth followups, while the report forms were again sent to nonrespondents in the fourth followup. The details of these mailings were as follows:

(1st) Feb. 13	Followup letter L3	
	(in A40A through	004.050
	A40D versions)	234,852
(2nd) Mar. 13	Report form — total Followup letter L4 (in A40A through A40D versions)	162,997
	A40A	12,422
	A40B	54,340
	A40C	59,630
	A40D	36,605
(3rd) Apr. 3	Followup letter L5 (in A40A through A40D versions)	145,958
(4th) May 1	Report form total Followup letter L6 (in A40A through A40D versions)	103,442
	A40A	8,684
	A40B	33,290
	A40C	37,510
	A40D	23,958
(5th) May 22	Followup letter L7 (in A40A through A40D versions)	94,031
(6th) June 26	Followup letter A40- L8 (general version sent to all form types)	66,632

Postmaster returns (PMR's), approximately 30,000 cases in, all, were remailed in the second followup only.

#### Supplemental Mailing

By the second week of March the status of the 8,000 cases held from the initial agricultural services mail list had been confirmed to justify including them in the census. Accordingly, a supplement to the census mailing was done. Basic procedures were identical to those employed in the census, except that the periods between the closeout dates were narrowed slightly to shorten the total enumeration period, and a different set of followup letters was used. The mailing packages for each followup were similar to those used in the census. The volume of mailings for the initial mailout and each followup were as follows:

Closeout date	Materials mailed	Number Mailed
(Intial mailout)—		7.005
Mar.13	Report forms – total	7,985
	A40A	923
	A40B	2,990
	A40C	2,035 2,037
	A40D	2,037
	Transmittal letter	
	A43-L2S (general	
	version sent with all	
	form types)	
(1st) Apr. 10	Followup letter A43-	
	L3S	6,806
(2nd) Mav3	Report forms – totał	5,219
(=	(No counts by type	
	available)	
	Followup letter A43-	
	L4S (general version	
	sent with all form types)	
(3rd) May 23	Followup letter A43-	
(0) 0) 110	L5S	3,599
(4th) June 19	Report forms – total	2.886
(4(ii) Julie 13	(No counts by type	
	available)	
	Followup letter A43-	
	L6S (general version	
	sent with all form types)	
(5th) July 10	Followup letter A43-	
10017 0017 10	L7S	2,137
(6th) Aug. 2	Followup letter A40-	
(0(1) Aug. 2	L8	1,581

#### **Telephone Followup**

Each of the addresses on the agricultural services mail list was size-coded by an expected gross value of receipts, based on administrative or historical records. Since large operations represent a major share of the economic activity in the service sector, the Bureau believed their inclusion in the census totals was imperative if the data were to present a valid statistical picture. Accordingly, after the June 26th cutoff date for the last regular mail followup, 2,400 of the nonrespondent cases with expected receipts of \$40,000 or more ("must" cases) were referred to Agriculture Division analysts in Suitland for enumeration by telephone.

An additional telephone followup, of a 1-in-10 random sample of other nonrespondent cases, was also initiated, using the Bureau's regular telephone staff at the Jeffersonville, Ind., facility. Also, as processing of the agricultural service report forms progressed, problem cases—those with incomplete or inconsistent entries, or with other problems not covered in the Bureau's editing and processing instructions—were drawn out of the processing cycle for resolution by telephone and referred to the Suitland and Jeffersonville telephone staffs for followup. Between early July and the end of October 1979 the Jeffersonville staff enumerated 2,601 nonrespondent cases and handled 525 problem cases. The Suitland analysts completed report forms by telephone for the 2,400 "must" cases and resolved an additional 1,189 problem cases referred to them from the overall workload in Jeffersonville.

#### Results

The results of the census revealed that while the source lists obtained from other agencies identified operations as belonging to SIC group 07 (agricultural services), many of these did not, for one reason or another, meet the Census Bureau's criteria for an establishment engaged primarily in providing agricultural services. The final response rate for the 1978 Census of Agricultural Services was approximately 83 percent; report forms were received by the Bureau for about 293,000, out of 352,938 cases mailed. Of these, 93,120 were in-scope and contributed to the census tabulations.

## DATA PROCESSING

## Precomputer Processing

Receipt and check-in-The first step in processing the data from the census of agricultural services was the receipt and check-in of the report forms and any correspondence related to the census. This was necessary to establish and maintain control of the forms, and to identify respondents' operations so their addresses could be deleted from the mail or telephone followup files. This phase of the operation was carried out by the staff of the Bureau's Jeffersonville, Ind., facility, and involved sorting out report forms with correspondence attached, postmaster returns (PMR's), and duplicates or multiple returns. The census file numbers (CFN's) from the report forms received were keyed to magnetic computer tape, and then were matched to the agricultural services address list. Nonrespondent addresses were selected for followup mailing. (PMR cases were also subjected to followup action.) This operation was repeated after each mailing cutoff date until the data-collection effort was closed out in August 1979.

Report forms with correspondence, multiple responses, and other problems were referred to the correspondence unit and/or to agricultural analysts.

**Correspondence**—The correspondence subunit of the agricultural services processing unit handled cases involving respondentoriginated correspondence, Bureau-originated correspondence (concerning agricultural services), report forms with remarks or attached correspondence (e.g., copies of letters to congressional representatives, financial records, etc.), and correspondence referrals from other units.

Correspondence referred to the subunit was read by correspondence clerks on a first-in/first-out basis. When there was doubt as to how an individual case should be handled, it was referred to an agricultural services specialist; otherwise the correspondence was read, problem-resolution procedures were consulted, and proper action was initiated. When the action indicated in the procedures was taken, the clerk annotated the top of the report form and/or correspondence with what had been done before sending it on to the next appropriate processing subunit. To aid the clerks in responding to problems presented by correspondence, a set of over 30 form letters and a manual of standardized paragraphs for insertion into tailored letters, addressing common and not-so-common problems, were prepared for the correspondence subunit.

Clerical screening and coding—The clerical screening and coding procedures were used to spot and reduce potential data-entry problems, identify and separate selected cases for further review, and ensure that each report form was properly and thoroughly prepared for keying and computer processing. A staff of clerks, technical assistants, and statisticians in Jeffersonville and at Bureau headquarters in Suitland, Md., carried out the screening and coding on a flow basis as the report forms arrived. After check-in, report forms were sent to the screening subunit and sorted by type of form before screening. The clerical staff processed the report forms by performing the following tasks:

- 1. Reviewing the report forms to select those with problems requiring technical review (insufficient or questionable responses, apparently out-of-scope, etc.).
- 2. Deleting entries such as "same," "ditto," etc., where referring to a numeric entry, and entering the numeric.
- Converting spelled-out alpha entries to numeric (e.g., "five" to "5", etc.).
- 4. Referring to Agriculture Division analysts in Suitland all report forms for operations with estimated total receipts of \$100,000 or more.
- 5. Checking geographic area codes (GAC's) on labels against section 9 (Location of Services Performed) of the report form and referring those forms with errors for corrections.

The clerical screening staff was provided with a guide listing the problems most often encountered and the corrective actions to be taken. Problem cases were referred to the technical screening unit, where the technical staff carried out the following tasks:

- 1. Confirmed the status of possible out-of-scope report forms. Unresolved forms were referred to Suitland for further analysis.
- 2. Reviewed forms for indicated double entries, bracketed entries, and suspected multiunit status, and initiated the corrective action.
- 3. Resolved some of the inconsistent and/or incomplete forms by following a set of problem-resolution procedures.
- 4. Reviewed each section designated for technical review by the clerical screening unit and made whatever corrections were necessary and appropriate.
- 5. Referred to Agriculture Division analysts for professional review any cases that could not be resolved using the technical review procedures.

The professional staff of the Agriculture Division at the Bureau's Suitland headquarters was responsible for the resolu-

tion of problem cases and the followup of incomplete report forms. About 15,500 "must" and problem cases were referred for resolution.

Keying the data—After work units were screened, edited, and coded, they were passed on to the data keying staff. The data from each report form were keyed directly to magnetic computer tape. The work of each keying operator was verified on a sample basis to ensure a specified level of accuracy among the keying staff. (See p. 46 for details of the quality controls.) Corrections to records that had been rejected by the computer edit were also made by rekeying the corrected records for subsequent re-editing.

Once keyed onto computer tape, the data were transmitted to the Bureau's main computer facility at Suitland for computer editing and tabulation.

#### **Computer Processing**

Editing—The computer processing program for the 1978 Census of Agricultural Services was designed to perform certain tests and comparisons involving key ratios within the data, such as the acres serviced and the cost per acre for the services performed. These ratios were tested by comparing them to tolerance limits based on data from previous censuses and from current agriculture-related publications. As in the agriculture census, computer corrections of errors were made by (1) rounding, (2) substituting the sum of detail items for an inconsistently reported total, and/or (3) imputing items on the basis of one of several ratios in which the questioned component was contained.

During the computer edit process, records that met the criteria for an agricultural service establishment were retained and were assigned specific numeric codes according to characteristics, such as gross receipts and SIC type. Those records that did not meet the criteria were dropped from the data file and were transferred to the out-of-scope file.

**Correction program**—After the computer edit, case listings were produced by high-speed printer for each report form that had one or more items fail the edit program. These listings displayed the items for each form that had either failed to edit altogether or had been changed by the edit program. Each page of the listing contained all the failed or altered items for one establishment.

The failed-edit listings of all flagged items were analyzed by the Agriculture Division's professional staff at Suitland between October 1979 and January 1980. As each case was analyzed, an action code was assigned, and the case was either returned to the processing program or was deleted from the files. The codes and the actions taken were as follows:

Code	Action
1	Mark corrections-re-edit record
4	No corrections—change fail-edit flag to passed edit
5	Delete record from file
6	Make corrections-bypass edit

Tabulation of the data—The basic plan for the final publication tables was developed during the initial planning stages of the agricultural service census. Revisions based on working experience were made to the plans throughout the processing stage of the operation.

After the computer "runs" of the edit and correction programs were completed, the data were ready for tabulation. The Generalized Tabulation System (GTS) software program was used for the agricultural services census data, and crosstabulations of preliminary data were produced by county, State, region, the United States, type of organization, and SIC code. The preliminary totals were reviewed, using previous census and other check data, to determine whether totals for a particular item were questionable.

This table review was intended to reduce the workload of post-tabulation adjustments to the data, although it was anticipated that further adjustments to the tables would be necessary to avoid disclosure of information about individual establishments. When errors were detected during the review, corrections were annotated and were keyed for transfer to the computer records.

All tabulations were examined to ensure that the data were reasonable and consistent. The preliminary tabulations review took place at the Suitland headquarters in April and May 1980, while a final review of tabulations occurred in July and August of that year. Agriculture Division clerks checked the tabulations, located the report forms that had to be reviewed in connection with problems in the tabulations, reviewed the table printouts for consistency of data within individual tables and among related tables, carried routine data changes to the

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tables, assisted in the final consistency and completeness checks of tables before release, and made tabulations by hand for special projects.

The professional staff analyzed the data for reasonableness and accuracy, identified and located tabulation errors, reviewed the relevant report forms, decided what data changes were necessary and the most efficient method of transferring changes to the tables, and handled the transfer of the more complex changes to the tables.

The Agriculture Division staff at Suitland carried out disclosure analysis of the tabulations and made corrections on the basis of further review of the original report forms. Upon completion of all changes to the tabulations, a final check was made to ensure that all problems had been resolved. The final, corrected tables were released to the publication preparation staff in October 1980.

#### PUBLICATION PROGRAM

The publication program of the 1978 Census of Agricultural Services include both preliminary and final reports. A two-page preliminary report for agricultural services was published for each State in April-May 1980. These reports contained data on the number of establishments by primary activity, gross receipts, and payroll. The final results of the census were published in Volume 3, *Agricultural Services*, of the 1978 Census of Agriculture publication series. Volume 3, released in November 1980, contained data for agricultural services establishments at the U.S., State, and county levels (only limited data were shown for counties).