CHAPTER 1. Introduction

The 1974 Census of Agriculture, the 20th such enumeration in U.S. history, was taken by the Bureau of the Census, an agency of the U.S. Department of Commerce. The census covered approximately 140,000 agricultural service operations in the 50 States and about 2.5 million farms engaged in agricultural production in the 50 States, Puerto Rico, Guam, and the Virgin Islands. The reference dates for the census (i.e., the periods for which data were collected) varied among the different areas. For the 50 States, inventory data were obtained as of December 31, 1974; citrus crop data, from the bloom of 1973; and all other information, for calendar year 1974. In Puerto Rico, Guam, and the Virgin Islands, inventory data were collected as of the enumeration date; production data were obtained for the 12-month period ending June 30, 1975, in Puerto Rico and the Virgin Islands and for calendar year 1974 in Guam.

Legal Authority

The Census Bureau operates under the provisions of Title 13, United States Code. Agriculture censuses for years ending in 4 and 9 are authorized by section 142 of that code. Section 191 specifies the inclusion in these censuses of the Commonwealth of Puerto Rico, Guam, and the Virgin Islands, and, as determined by the Secretary of Commerce, other areas under the jurisdiction and control of the United States. This section also stipulates the manner in which the censuses are to be taken outside the 50 States. Except for Puerto Rico, the data may be collected by the Governor or highest ranking Federal official in accordance with plans prescribed or approved by the Director of the Census Bureau, acting for the Secretary of Commerce. The census of Puerto Rico is taken in accordance with a special agreement between the Bureau of the Census and the Government of the Commonwealth of Puerto Rico. Section 5 provides, "The Secretary [of Commerce] shall prepare schedules, and shall determine the inquiries, and the number, form, and subdivisions thereof, for the statistics, surveys, and censuses provided for in this title." Section 195 authorizes the Bureau, where appropriate, to make use of sampling.

The law, which in sections 221 and 224 requires the respondent to supply any information requested, at the same time protects the confidentiality of the report. Section 9(a) prohibits (1) the use of information furnished by respondents for any purpose other than the statistical ones for which it is supplied, (2) the publication of any data which would identify any particular establishment or individual, and (3) the examination of the reports by anyone other than sworn officers and employees of the Department of Commerce.

The Scope and Use of Agriculture Census Data

The major purpose of the agriculture census is to provide, on a uniform basis, periodic statistical measures of agricultural activity and productivity for every county, State, and region in the United States and for the Nation as a whole. The principal categories for which data were collected in the 1974 census included the following:

- Acreage and value
- Land use
- Crop acreage and production
- Irrigation and drainage
- Fertilizer and pesticide use
- Livestock and poultry production
- Machinery and equipment
- Contracts and marketing agreements
- Payroll and employment
- Farm injuries and illnesses
- Farm debts
- Value of products sold
- Production expenses
- Fuel and grain storage
- Type of organization (partnership, corporation, etc.)
- Operator characteristics (age, race, residence, occupation, etc.)
- Agricultural services (cotton ginning, baling and combining, crop dusting, plowing, veterinary services, commercial hunting and trapping, etc.)

Usually, the census data are collected at 5-year intervals and published in such a manner that they are comparable from one census to the next and, therefore, useful to as broad a spectrum of users as possible. The data are made available in printed reports and on microform and computer tape.

Census data are essential not only to the farm operators (although seldom used directly), but to persons and firms that provide goods and services to farms; to others involved in the transportation, marketing, processing, and distribution of food and other farm products; and to those responsible for agricultural forecasting and management. The data serve the needs of administrators and legislative bodies at all levels of government, of farm organizations and publications, and of researchers in universities and elsewhere. The census provides a framework for research projects and benchmarks for current statistical series maintained by the U.S. Department of Agriculture and other organizations that provide current data.

Census statistics are used to measure the changes in technology and the effects of mechanization and consolidation of operations and to analyze capital structure. While no individual data can be identified in the census reports, a farm operator may use the census aggregates by comparing his own operations with totals for his county or elsewhere. Much agriculture legislation is dependent on census figures, both to determine policy and to measure its effect. Thus, the accuracy and completeness of each agriculture census are important to the individual farm operator who provides the information, as well as to the wide variety of users who must rely on these statistics about this most essential part of the U.S. economy.

Historical Background

Nineteenth Century

Although the 1820 decennial census of the United States included an inquiry on the number of people engaged in agriculture (slightly over 70 percent of them were), there were no other agriculture questions until 1840. At that time, there were 27 inquiries on livestock inventories, grain and other crops, agricultural products, horticulture, forest products (including skins and furs), as well as the capital invested in nurseries and the number of men employed in them. Results of that census, which covered 26 States, the District of Columbia, and the territories of Wisconsin, Iowa, and Florida, showed a population of 17 million, of which slightly over 15 million lived in rural areas. The statistics about the activities of that population, which had been gathered by U.S. marshals and issued by the State Department, were neither detailed nor considered to be very authoritative and led to demands for a more comprehensive census.

The 1850 census, under the supervision of the newly established Department of the Interior but still taken by the marshals, met the need for more detail. It was specific as to the time frame—inventories as of June 1, 1850 and production for the year ending on that date—and included questions on the value and the number of livestock, such as horses, asses, mules, milch cows, working oxen, sheep, and swine. Determinations were made as to the quantity produced of each of the following crops or farm products: Wheat, rye, Indian corn, oats, barley, buckwheat, rice, tobacco, ginned cotton, wool, peas, beans, Irish potatoes, sweet potatoes, wine, butter, cheese, hay, clover seed, other grass seeds, hops, dew-rotted hemp, water-rotted hemp, flax, flaxseed, silk cocoons, maple sugar, cane sugar, molasses, beeswax, and honey. Similar accountings were made for the value of orchard products, produce of market gardens, homemade manufactures, and slaughtered animals. The census included, for the first time, a count of the number of farms and the acreage and value of farmland. At that time there were about 1.4 million farms, approximately 294 million acres under cultivation, and a total value of nearly $4 billion in farmland, buildings, machinery, equipment, and working livestock.

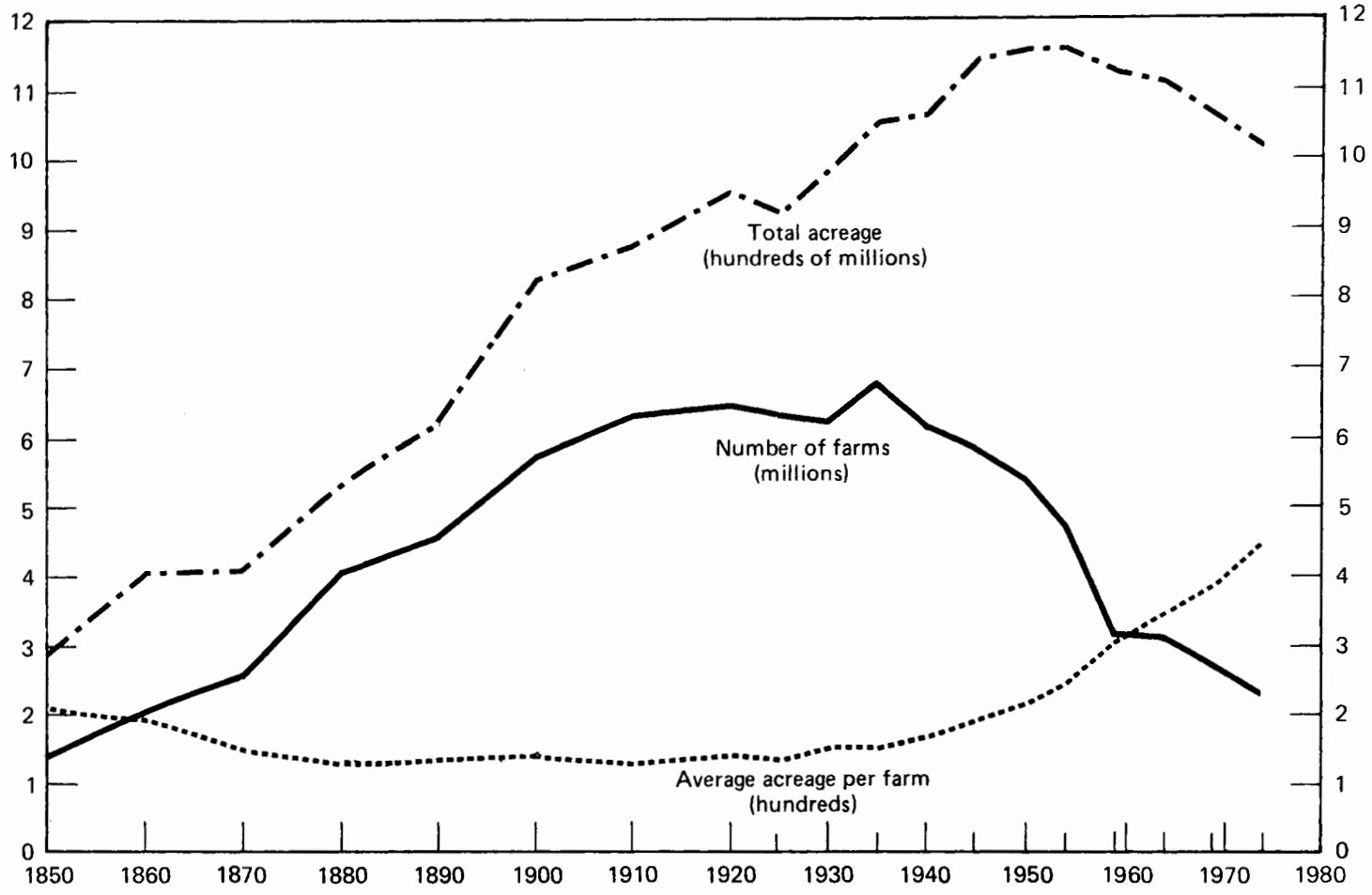
The average size of a farm in 1850 was just over 200 acres. However, the Homestead Act and the breaking up of southern plantations during the 1860's resulted in a decline in average farm size. It was not until 1950 that the average size was again in excess of 200 acres. (See chart on p. 3.)

The 1880 Census. The 1860 and 1870 censuses were almost identical with 1850 in content and procedures, except that the 1870 results were presented for the first time in cartographic as well as tabular form. A number of important changes were made for 1880, however. The first of these was procedural. Enumeration was shifted from the U.S. marshals to a number of local supervisors (appointed by the President and confirmed by the Senate) who, in turn, hired and trained enumerators and reviewed their work. The enumeration assignments were much smaller than in previous censuses so that the returns were completed much sooner, ideally within a month. The second change was in content and format. The schedule relating to agricultural production included new inquiries as to tenure, weeks of hired labor (by race in the South), and the cost of building and repairing fences and of fertilizer purchased. More crop questions were included and questions relating to livestock covered movement during the year as well as inventory. The total number of inquiries on the general schedule was increased from 52 in 1870 to 100 in 1880. As a third innovation, there were a number of special schedules dealing with the production of cereals, meat, tobacco, and hops; cotton culture and the cottonseed oil industry; forest products; fruitgrowing and orchards; and sheep husbandry and woolgrowing. The schedule on cotton culture included questions on labor, sharecropping, and tenant farming. For the first time, a separate schedule was used for each establishment or farmer and completed either by a special agent appointed for the subject-matter area or by the respondent who mailed it to the census office.

The 1890 Census. For 1890, the general schedule was again doubled in size and included questions on tenure, race, irrigated land, milk production, and produce for canning. There were special schedules for agricultural organizations, nurseries, irrigation, nonfarm livestock, tropical and semitropical fruits and nuts, viticulture, carp culture, and alligator and bird hunting. Data on farm mortgages were collected as part of the population census.

The 1900 Census. The general schedule for 1900 was similar to that for 1890, but with the addition of questions on tenure (by the race of the farm operator), total value of farm buildings, and the ownership of rented farms. Punchcards and electric tabulating machines, first used for the population census in 1890, were adopted for the agriculture census processing in 1900. Because of the large number of crop cards to be processed, an automatic sorting machine had to be developed. A new 10-key keypunch machine was used for the farm census cards 20 years before adaptation to the population census (which depended on a slower pantograph-type device). The dollar-bill-sized cards, with 45 columns of round holes, were retained until the 1940 censuses when all were converted to the larger 80-column cards with rectangular holes.

Number of U.S. Farms and Average and Total Acreage: 1850 to 1974



Twentieth Century

From 1840 through 1900, a temporary census office was established before each decennial census and disbanded after the results were compiled and published. In 1902, a permanent Bureau of the Census was established in the Interior Department and transferred to the new Department of Commerce and Labor in 1903. When that Department was split in 1913, the Bureau of the Census was placed in the Department of Commerce.

One of the obvious advantages of a permanent census organization is that the workload can be spread over a decade, and various censuses and surveys can be carried out at different times and more frequently than 10-year intervals. As early as 1909, Congress provided for mid-decade censuses of agriculture to begin in 1915; but, because of abnormal conditions in the United States caused by the onset of World War I in Europe, the mid-decade census was not taken until 1925. A decennial census of irrigation was added in 1910, and one for drainage was added in 1920; these censuses, together with the agriculture census, continued to be taken as part of the decennial census of population in the years ending in 0 through 1950. Under legislation enacted in 1952 and revised in 1957, censuses of agriculture began to be taken for the years ending in 4 and 9. The special census of horticultural specialty production, taken as part of the agriculture census in 1890, was taken again in 1930, 1950, and for 1959. In 1970, the horticultural specialties census was a cooperative effort of the Census Bureau and the Statistical Reporting Service (SRS) of the U.S. Department of Agriculture.

Territorial Censuses. The agriculture census was extended outside the boundaries of the 48 contiguous States and Territories in 1900, when agricultural data for Alaska and Hawaii were collected in conjunction with the decennial census. The first census of agriculture for Puerto Rico was conducted in 1910, and the agriculture enumeration of the Virgin Islands was part of a special census in 1917. Agricultural enumeration of the other territories has been included in decennial censuses since 1920, and starting in 1954, some were included in the quinquennial censuses as well. The areas and frequency of coverage follow on page 4.

During the period when the Philippine Islands were under U.S. jurisdiction, the Census Bureau compiled and published agriculture statistics for 1903 only. A similar census for Cuba in 1907 provided statistics on natural resources and the sugar industry.

Area	Year of first coverage	Subsequent coverage	
		Decennial	Quinquennial
Alaska	1900	1910-1950	1954-1974
Hawaii	1900	1910-1950	1954-1974
Puerto Rico	1910	1920-1960	1964-1974
Guam	1920	1930-1960	1964-1974
Virgin Islands	1917	1930-1960	1964-1974
American Samoa	1920	1930-1970	
Trust Territory of the Pacific Islands	[1] 1969	--	--

[1] Taken in conjunction with the 1970 decennial census.

Sampling. The use of sampling to obtain agriculture data was stimulated by World War II. Cost and time limitations made it impossible to include in the regular census tabulations much of the material wanted for the investigation of special problems. Recent developments in mathematical statistics indicated the feasibility of making the needed tabulations on a sample basis at considerable savings. The availability of enumerated data from the 1940 Census of Agriculture made it possible to secure much needed information on the characteristics of farms and of farm operators, by size of their contribution to food production. Accordingly, a two-stratum sample of the 1940 farms was drawn that consisted of (a) the punchcards for all large farms ($10,000 or more total value of products) and (b) the punchcards for all other farms, with serial numbers ending in 15 or 65.

The experience gained in drawing and processing this sample led to the decision to collect part of the 1945 census data on a sample basis.

For 1945, every county was divided into segments, each of which contained an average of five farms and 2.5 square miles. A 1-in-18 sample then was taken from almost all counties; this, together with 50,000 of the largest farms in 1945, constituted about 1/14th of all the farms in the United States. During the enumeration, additional information was collected from these farms on livestock, farm equipment, produce, and products, and on whether the farm dwelling had a kitchen sink, a mechanical refrigerator, or a clothes washing machine. There were 55 questions dealing with the farm and farm operations and 10 questions for each person residing on the farm.

In 1950, sample questions were asked at all large farms (those with either sales of $70,000 or more, or acreage or livestock minimums that varied geographically) and one-fifth of all other farms. A similar sample was used in 1954, when extra questions were asked at approximately 22.5 percent of all farms. This practice was followed for 1959 and 1964, but for 1969, when mail-out/mail-back enumeration replaced the traditional farm-to-farm canvass, the sampling frame was changed. A standard report form (A1) was sent to all farms expected to have total value of production of $2,500 or more and a short form (A2) to 50 percent of all other operators. No sampling was done for 1974 because of the abbreviated time available for planning.

Enumeration. Until 1950, most agriculture census enumeration was carried out by farm-to-farm canvassing with the enumerator asking the questions and completing the report form. As before, however, certain schedules were completed by special agents or by mail. For 1950, however, in many States a boxholder-addressed interview-type questionnaire was delivered to each rural route boxholder in predominantly rural post offices. Questions were phrased exactly as if they were being asked aloud. An accompanying letter requested each farm operator to complete the form and hold it for the enumerator's visit. This new technique proved moderately successful and was used in subsequent censuses. (A version of this procedure was tested in 1925, 1930, and 1935 on a fairly large scale: Blank schedules were mailed in advance to rural-route patrons, but the enumerator transcribed to his own schedule any information the respondent had filled in on the delivered questionnaire.) The 1969 census was the first major agricultural enumeration by mail. The use of enumerators was limited to a small amount of field followup and to the censuses in Puerto Rico and the outlying areas. The mailing lists for the States were compiled from 1964 census records plus listings from the Internal Revenue Service, the Social Security Administration, and the Agricultural Stabilization and Conservation Service. For 1974, only about 29,000 reports were obtained by field enumeration. Followup was by letter and by telephone from the Bureau's processing facilities in Jeffersonville, Ind., and Pittsburg, Kans., and from some of the regional offices.

Reference and Enumeration Dates. From 1880 through 1950, the agriculture censuses, conducted along with the decennial censuses of population and housing, involved enumeration in the spring (except for the 1920 enumeration, which started on January 1) with reference to production in the preceding calendar year. (From 1850 to 1870, reference to production had been for the year ending June 1 of the census reference year.) The enumeration for the mid-decade censuses of 1925, 1935, and 1945 was begun in January of those years; but in 1954, 1959, and 1964, enumeration began in the fall with reference to production in the same year. Enumeration dates were varied in different parts of the country in an effort to obtain data after the harvest was over but before severe winter weather set in. The inauguration of the mail-out/mail-back census for 1969 and following years made it possible for the farm operator to report data immediately following the reference year and eliminated the weather problem. The report forms were mailed out at the end of the year with the request that they be mailed back promptly. The reference years were unchanged, but the inventory series were now comparable with the U.S. Department of Agriculture January 1 estimates.

Report Form Format. Separate reporting forms have been used for each farm since 1900.[1] For each census, the number of questions asked varied considerably: There were 415 in 1920, but only 100 in 1935, a depression year when census activities were curtailed. In an effort to reduce the 1940 enumeration and response burden, the general report forms were tailored to the agricultural operations of nine different regions of the country

[1] In 1945 an exception was made; enumerators used columnar schedules bound into large booklets. This was done to reduce the need for cardpunch and tabulation machines, which were in short supply during World War II.

(reduced to seven regions in 1945). The enumerators were able to precode certain items simply by checking appropriate answer boxes. In 1950, following the 1948 pretest, three basic forms were printed: A1, A2, and A3. The A2 was used at each farm in conjunction with a regional version of the A1. (There were 41 variations tailored for individual States and groups of States. In 1954, this number was reduced to 21.) This method, together with sampling (see above), allowed the collection of considerably more information. The A2 form was used in urban areas to screen for agricultural activities; if the answers to the screening questions were positive, an A1 form was completed as well. In the South, an A3 report form, covering landlord-tenant operations, was completed where appropriate.

For 1959, again following a pretest, 40 report forms were revised to cover individual States or groups of States. Thus, of 316 possible inquiries, the number for any given State ranged from 159 (Maine) to 194 (California). Of these, only about 50 questions were required of large operations and of 20 percent of the smaller farms. A similar scheme was followed for 1964, when each State or outlying area had its own questionnaire.

When mail-out/mail-back enumeration was adopted for 1969, two basic forms, A1 (standard) and A2 (short), were used for all States, except Hawaii. Special report forms were used for agricultural services, irrigation, drainage, and horticulture and for Hawaii, Puerto Rico, and each of the outlying areas. Except for design changes from a mailing package of assembled parts—envelopes, report form, instruction sheet, etc.—to a self-mailing report form containing removable components, a similar format was followed for 1974.

Report Form Content. Changes in report form content since 1910 reflect interest in (1) the degree to which agriculture is affected by technological change and (2) the socioeconomic characteristics of farm operators and their families. While some of these characteristics could be obtained from the population and housing censuses, collecting data on them in the agriculture censuses allows cross-tabulation with farm data as well. Since 1950, there has been an increasing emphasis on the measurement of farm versus nonfarm employment and income, farm expenditures, and (in 1969) the type of organization (individual, partnership, corporation, etc.) operating the farm.

The 1910 agriculture census included a study of southern plantation farming and an analysis of expenditures for hired labor, e.g., cash wages and perquisites. The 1920 census carried the first inquiry on whether the farm dwelling had gas or electric lighting (7 percent did); in 1930 the question was narrowed to electricity only (14.3 percent of the farm homes had it by this time). In 1940, the census quantified the availability (whether power was within 1/4 mile of the farm) and use of electricity, the presence of a telephone, and the kinds of roads adjoining the farm. Plantation data collected in the 1940 census were later published as a special study. Similar data on multiple-unit operations were collected as an aid to the accurate and complete enumeration of farms in the 1945, 1950, 1954, and 1959 censuses and published in separate reports for 1945, 1950, and 1954. By 1964, a special enumeration of multiple-unit operations was no longer needed, since such operations had, for the most part, been supplanted by mechanized agriculture and most tenant farmers had migrated to nonfarm jobs in the North.

The 1920 and 1930 censuses analyzed the causes behind the marked changes in the number of farms and the acreage under cultivation. (See fig. 1.) Between 1910 and 1920, these numbers declined markedly because of the scarcity of labor and consequent consolidation of farms and abandonment of low-grade land. Other causes included the cotton boll weevil infestation in the South, oil and mining development, and the extension of cities. By 1930, however, the labor situation was reversed and more than 300,000 people had returned to farming. Acreage increased overall, with the greater use of machinery; but abandonment of farms continued, especially in the South. This census included inquiries on the indebtedness of mortgaged farms.

The 1920 census provided the first detailed information on the patterns of cooperative marketing and farm supply purchasing, as well as the first data on tractors, automobiles, and farm trucks. In 1945, combines and milking machines were added; in 1950, cornpickers and pickup balers; and in 1954, field forage harvesters. Other major pieces of equipment were added as they came into general use.

Since 1950, farms have been classified by economic class—commercial, part-time, residential, and abnormal. In 1950, only commercial farms were classified by type of operation—dairy, vegetable, etc. In 1954, 1959, and 1964, special emphasis was placed on the inclusion of estimates for crops and livestock **expected** to be sold by the end of the crop or calendar year. This reporting problem was alleviated for 1969 when the report forms were mailed in January 1970. (See the discussion of enumeration dates above.)

Advisory Groups. The Census Bureau has a long history of consultation with statisticians and other experts, both in and outside the Federal Government. The U.S. Department of Agriculture (USDA) has provided especially close cooperation for the agriculture censuses since that department's inception in 1862, but this process was not formalized until the 20th century.

In 1933, the Administration established the Central Statistical Board (the forerunner of the Office of Federal Statistical Policy and Standards of the Department of Commerce). This board participated in decisionmaking for the 1935 Census of Agriculture, and the USDA and other Federal agencies and organizations gave aid and advice. Statisticians from USDA's State offices took the 1938 trial census in preparation for 1940. The General Census Advisory Committee, composed of six American Statistical Association members, and a special advisory committee, which included representatives of the American Farm Economic Association, the USDA, the National Grange, the Agricultural Publishers Association, the Farmers' Educational and Cooperative Union of America, and the Central Statistical Board, provided planning assistance for the 1940 census. The special committee was reconstituted for the 1950, 1954, and 1959 censuses and was formally established as the ongoing Census Advisory Committee on Agriculture Statistics in

1962. (See appendix B for membership during the 1974 census period.)

Publicity. Farm organizations and the news media always have been vitally interested in the agriculture census results, and the Census Bureau has responded to this interest. In the 1910 census, the Bureau began issuing, ahead of publication of the usual volumes, separate press bulletins with tabulations by major subject by State. These were the forerunners of the more recent preliminary county reports. Data from the 1920 census were reported by radio when station KDKA, Pittsburgh, Pa., included them in the first broadcast of agricultural market news on December 1, 1920. Reporting of agriculture census data on farm radio programs elsewhere in the Nation followed in 1921 and continued thereafter.

As the agriculture censuses moved toward self-enumeration, advance publicity became more and more important. Farm organizations, newspapers, journals, and radio were enlisted to help publicize the 1930 census, and the first television announcements appeared during the 1959 census. (The 1974 census publicity campaign is described in chapter 2.)

Processing the Data. From 1900 to 1940, the methods of processing the census data underwent little change. In the 1940 census, however, the 45-column punchcards with round perforations were replaced by 80-column cards with rectangular perforations. For special study purposes, some of these 80-column cards also were slotted on their edges so a given deck of cards could be analyzed simply by sorting the cards by related characteristics and noting the interrelationships of the different slots as they appeared on the edge of the deck. Corrections were made by punching new cards. In 1940, the punchcards were edited mechanically for the first time. An electric collator was programmed to compare the various fields within the card for consistency as the cards passed through the electrical reading and sorting station. Rejected cards were listed and clerically reviewed, the data were checked against the original reports, and the cards with errors were corrected. In the 1964 census, the data on the punch cards were transferred to magnetic tape. Most of the editing, coding, and tabulating was done by an electronic computer; an on-line, high-speed printer produced the tabulations that were then reviewed and corrected.

Publication. In contrast to earlier practices of having the final tabulations typewritten or typeset for printing, many of the 1964 printed reports were prepared by attaching reruns of the corrected computer printouts to appropriate preprinted boxheads and reproducing them by the offset printing process. In the 1974 census, the data were keyed directly to computer tape with a limited amount of editing performed electronically. (See chapter 4 for details.)

While most agriculture census reports published since 1870 included maps and charts, no separate publications were devoted to graphics until 1948, when graphic summaries of farm tenure and land utilization were published jointly with the USDA Bureau of Agricultural Economics. In 1950, graphic summaries were added covering farm characteristics, irrigation, and economic class and type of farm. The 1954 census graphic summary was issued in three chapters and covered land utilization, farm machinery and facilities, and farm tenure. The 1959 census included a presentation on changes and developments in agricultural resources and the production of agricultural products. The popularity of this type of report grew consistently. The 1969 census graphic summary contained 215 computer-generated maps, and was the first census project to employ computer graphics for publication.

Special Censuses and Surveys. In addition to the decennial and quinquennial censuses of agriculture, the Bureau conducts a number of special censuses and surveys related to agriculture. Foremost is the Cotton Ginnings Survey, taken annually since 1905, covering each ginning season by State and county. The survey provides cotton statistics in agriculture, foreign trade, and industry programs, and reports on monthly activities or conditions from August through December and production by crop year.

In 1935, the Bureau conducted a special study of part-time farming and, in cooperation with the Bureau of Agricultural Economics, a study of farm mortgage indebtedness. Since 1890, there have been surveys on selected aspects of agricultural finance, some taken as supplements to the regular agriculture censuses and others mounted in cooperation with the USDA. The latest agricultural finance survey covers 1970, but the principal finance questions were included on the all-farm report form for the 1974 agriculture census.

Special censuses of horticultural specialties were taken in conjunction with the regular censuses of agriculture in 1890, 1930, 1950, and 1959. In 1970, this census was conducted as part of the Survey of Specialized Agriculture, the remainder of which consisted of sample surveys taken in January 1972, one for each of the nine major types of farm products (grain, tobacco, cotton, poultry, etc.).

In the 1969 census, the Bureau began collecting data on agricultural services covered by Standard Industrial Classification (SIC) Major Group 07. This classification includes establishments primarily engaged in performing soil preparation services, crop services, veterinary and other animal services, farm labor and management services, and landscape and horticultural services, for others on a fee or contract basis. (Feedlots and poultry hatcheries operated on a fee or contract basis are not included in this group.)

In earlier years, most of these agricultural services were performed by the farmers themselves. However, the great technological, scientific, and economic changes in the agricultural system over the past few decades encouraged the development of a separate, specialized industry that can deliver the services farmers can no longer provide for themselves. Business and agricultural enterprises, government agencies, and academic institutions increasingly sought data on the growing agricultural services industry, and the 1969 enumeration was designed to answer these demands.

Since the services sector of the agricultural economy continued to grow in importance, the enumeration of agriculture services was included as part of the 1974 Census of Agriculture

program. The data-collection operation was intended to obtain information necessary for (1) a broad view of overall agricultural production and capabilities, (2) an understanding of long-term trends and changes in agriculture, and (3) an analysis of the relationships among agricultural production, agricultural services, and agribusinesses.

Farm Definition

The definition of a farm for census purposes has been changed several times since 1850. In all censuses, however, the essential features of the farm definition have been that the land should be operated under the day-to-day control of one person or management (partnership, corporation, etc.) and should be used for or connected with agricultural operations. Control may be exercised by the owner or a manager, or through a lease, rental, or cropping arrangement, and the tracts of land operated as a farm need not be contiguous.

Agricultural operations are defined as those that include the growing of crops, the raising of livestock and poultry and their products, and the production of other agricultural items such as honey and greenhouse or nursery products. Such operations may vary in size from a small truck garden to the operation of diversified enterprises including thousands of acres of cropland harvested, extensive orchards, large livestock feedlots, and sizable dairy and poultry operations.

It has been necessary since the first agriculture census to specify some minimum limits for inclusion of agriculture operations in the census. The minimum criteria have included measures of land area, land use, agricultural resources, and agricultural output or sales. These are outlined by census years below.

1850-1860. No acreage qualifications were specified, but a minimum of $100 was set for value of products.

1870-1890. No tract of less than 3 acres was to be reported as a farm unless $500 worth of produce was sold from it during the year.

1900. No acreage or production limits were set. Market, truck, and fruit gardens; orchards; nurseries; cranberry marshes; greenhouses; and city dairies were to be included if the entire time of at least one person was devoted to their care.

1910-1920. Farms of less than 3 acres with products valued at less than $250 were to be included only if they required the continuous services of at least one person.

1925-1945. Farms included (1) places of 3 or more acres on which there were agricultural operations and (2) places of less than 3 acres if the agricultural products for home use or for sale were valued at $250 or more. The only reports excluded from the 1925-1940 tabulations, however, were those taken in error and those reporting limited agricultural production, such as a small home garden, a few fruit trees, or a small flock of chickens.

1950-1954. Places of 3 acres or more were counted if the annual value of their agricultural products, whether for home use or for sale, amounted to $150 or more during the census year. Places of less than 3 acres were counted as farms only if the sale of their agricultural products amounted to $150 or more during the census year. Places for which the value of agricultural products in 1954 was less than these minimums, because of crop failure or other unusual conditions, and places that operated for the first time in 1954, were counted as farms if they normally could be expected to produce these minimum quantities. If a place had croppers or other tenants, the land assigned to each one was considered a separate farm, even though the landlord handled the entire holding as one operating unit. Land retained by the landlord and worked with the help of his family and/or hired labor was considered a separate farm.

1959-1974. A place was counted as a farm if it contained 10 acres or more and had an estimated total value of products sold of $50 or more. If the place had less than 10 acres, it was counted as a farm if it had an estimated total value of products sold of $250 or more. If sales were not reported or were obviously incorrect, average prices were applied to estimated proportions of the crops harvested and the livestock produced. In addition, certain farms were counted even though their sales did not meet the minimum requirements, but their inventories of livestock or acreage and production of specific crops indicated that they normally would have had enough sales to be classified as farms.

The need for a change in the farm definition for census purposes was discussed repeatedly in advisory committee meetings, conferences, and other contacts with interested agencies and data users. On August 12, 1975, after extensive discussions, and with the concurrence of the responsible officials in the Office of Management and Budget (OMB), it was announced in separate press releases by the U.S. Departments of Agriculture and Commerce that the 1974 census farm definition would encompass any place that had, or normally would have had, gross sales of $1,000 or more, regardless of acreage. To provide users with a measurable effect of the change, data would also be presented for 1974 and 1969 for places that met the old definition, but not the new one.

Opposition to the new definition was expressed at the September 1975 meeting of the Subcommittee on Family Farms and Rural Development of the House Committee on Agriculture, which originally had met to review the proposal to change the reference years of future agriculture censuses. Public Law 94-229, signed March 15, 1976, included a provision preventing publication before July 1, 1976, of agriculture data based on the new definition. In April 1976, the House Subcommittee on Census and Population began hearings on the question of the farm definition. On June 22-23, 1976, questions indicating congressional resistance to the new definition were raised during hearings on various other legislative proposals that, if passed, would affect the census of agriculture.

The initial decision to change the farm definition was considered by the Departments of Agriculture and Commerce,

and by many other interested parties, to be justified in view of increased prices and other changes in the structure of agricultural operations. Census statistics are increasingly important elements in the development and evaluation of Federal programs, and statistical concepts based on dollar values are more useful and valid if they are adjusted periodically to reflect changes in economic activities. Congressional reaction prompted the Bureau to publish "all-farms" data in the county, State, regional, and national preliminary reports of the 1974 census that included figures for farms meeting the same minimum criteria used for 1959 through 1969. However, to provide a more realistic profile of that segment of the economy, on December 10, 1976, the Secretary of Commerce directed use of the new farm definition for the remaining 1974 census publications. Accordingly, the all-farms data shown in the final reports were for places having $1,000 or more in actual (or potential) sales of agricultural products in 1974.

The 1974 Census of Agriculture

Legislation

In late October 1972, the decision was made to postpone the agricultural census and take it in conjunction with the 1977 economic censuses; the funds appropriated for the 1974 enumeration were impounded. The reasons for the action were given as follows: Efforts had to be made to reduce expenditures in all Federal agencies during fiscal 1974 and changes in agriculture occurring in the past decades indicated that farming is an economic enterprise. Therefore, combining the censuses would be feasible as well as economical. (Economic censuses cover the years ending in 2 and 7, while the agriculture census is taken for years ending in 4 and 9.)

Adverse reaction to the postponement of the 1974 enumeration prompted the Bureau to propose conducting a sample census early in 1975 to collect information for calendar year 1974. Data were to be collected on the classification of farm operations, farm and nonfarm income, farm expenditures, associated nonfarm activities, and other related subjects. A sample survey, however, was not considered an adequate substitute for a full census. Accordingly, Congress amended the 1973 Agriculture and Consumer Protection Act to include provisions directing the Secretary of Commerce to conduct a census of agriculture for 1974 and to submit a budget proposal for the enumeration within 30 days after the bill became law. The Act was signed into law on August 10, 1973, and shortly thereafter, the impounded funds were released to enable the resumption of planning for the 1974 census.

Expenditures

The conduct of a census, including the preparatory and followup evaluation work, extends over a period of several years. The initial planning for the 1974 Census of Agriculture was begun in 1972, before work on the 1969 enumeration had been completed. Work on the 1974 operation was suspended from September 1972 to October 1973. Fiscal 1974 was the first year in which funds were specifically targeted for the 1974 census. The total cost of the 1974 Census of Agriculture was approximately $25 million. Fiscal year expenditures for the 1974 Census of Agriculture program were as follows:

Fiscal year [1]	Expenditures
Total	$24,958,000
1974	2,679,000
1975	8,210,000
1976	8,825,000
Transition quarter (July 1-September 30, 1976)	1,925,000
1977	2,248,000
1978 (estimated)	996,000
1979	75,000

[1] Through FY 1976, the period began on July 1 of the previous year; beginning with FY 1977, the period began on October 1.

Organization of the Census Bureau

During most of the period of work on the 1974 Census of Agriculture, the Bureau of the Census was organized under a Director; a Deputy Director; five Associate Directors responsible for demographic fields, economic fields (including agriculture and governments), statistical standards and methodology, electronic data processing, and field operations and user services; and two Assistant Directors responsible for the demographic and economic censuses.

The Bureau consisted of three types of functional divisions—those concerned directly with subject matter (agriculture, population, housing, etc.), data collection and processing, and statistical services, including mapping and geographic presentation of data. In addition, a Public Information Office was responsible for the publicity for all censuses and surveys, and a Data User Services Division coordinated Bureau liaison with users and had primary responsibility for servicing the users' needs.

The 1974 Census of Agriculture was conducted by the Agriculture Division under the general direction of the Associate Director for Economic Fields. Other Bureau divisions and offices participated in the census program, as did divisions of the Social and Economic Statistics Administration (SESA)[2] which provided administrative and support functions. After the dissolution of SESA in July 1975, these functions reverted to the Bureau under the Associate Director for Administration and Field Operations. The roles of all units involved in the 1974 census, with the names and functions of key personnel, are detailed (together with an organization chart) in appendix A.

[2] From 1972 to 1975, the Census Bureau was part of this new agency within the Department of Commerce. In addition to overseeing the statistical programs, SESA provided administrative, personnel, publication, and other services to the Census Bureau.