



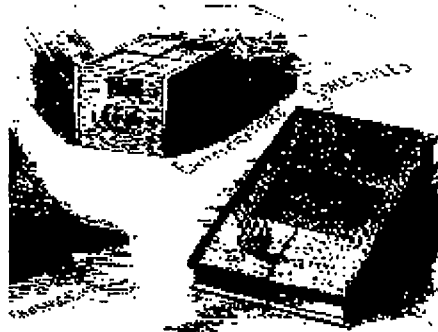
HISTORICAL BACKGROUND

Note: This article is scanned and reprinted from: *200 Years of Census Taking: Population and Housing Questions, 1790-1990*. Washington, DC: Bureau of the Census, 1989.

A nationwide population census on a regular basis dates from the establishment of the United States. Article I, Section 2, of the United States Constitution required in 1787 that

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three-fifths of all other Persons. The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct.

In subsequent decades, the practice of "Service for a Term of Years" died out. "Indians not taxed" were those not living in settled areas and paying taxes; by the 1940's, all American Indians were considered to be taxed. The Civil War of 1861-65 ended slavery (abolished legally through the 13th Amendment in



1865), and the 14th Amendment to the Constitution, ratified in 1868, officially ended Article I's three-fifths rule. Thus, the original census requirements were modified Direct taxation based on the census never became practical

The 1790 Census

The first enumeration began on the first Monday in August 1790, little more than a year after the inauguration of President Washington and shortly before the second session of the first Congress ended. The Members assigned responsibility for the 1790 census to the marshals of the U.S. judicial districts under an act that, with minor modifications and extensions, governed census-taking through 1840. The law required that every household be visited and that completed census schedules be posted in "two of the most public places within [each jurisdiction], there to remain for the inspection of all concerned.." and that "the aggregate amount of each description of persons" for every district be transmitted to the President. The six inquiries in 1790 called for the name of the head of the family and the number of persons in each household of the following descriptions: Free White males of 16 years and upward (to assess the country's industrial and military potential), free White males under 16 years, free White females, all other free persons (by sex and color), and slaves. Marshals took the census in

in the original 13 States, plus the districts of Kentucky, Maine, and Vermont, and the Southwest Territory (Tennessee). There is no evidence of a 1790 census in the Northwest Territory.

Into the 19th Century

Starting with the 1800 census, the Secretary of State directed the enumeration and, from 1800 to 1840, the marshals reported the results to him. From 1850 through 1900, the Interior Department, established in 1849, had jurisdiction.



The 1800 and 1810 population censuses were similar in scope and method to the 1790 census. However, Members of Congress, as well as statisticians and other scholars both within and outside

the Federal Government, urged that while the populace was being canvassed, other information the new Government needed should be collected. The first inquiries on manufacturing were made in 1810 and, in later decades, censuses of agriculture, mining, governments, religious bodies (discontinued after 1936), business, housing, and transportation were added to the decennial census. (Legislation enacted in 1948 and later years specified that the various economic, agriculture, and government censuses would be taken at times that did not conflict with those in which the population and housing censuses occurred.) The census of 1820 covered the subject of population in somewhat greater detail than the preceding one. This census is notable for having obtained, for the first time, the numbers of inhabitants engaged in agriculture, commerce, and manufacturing.

The 1830 census related solely to population, but its scope concerning this subject was extended substantially. The marshals and their assistants began using uniform printed schedules; before that, they had to use whatever paper was available, rule it, write in the headings, and bind the sheets together.

The census act for 1840 authorized the establishment of a centralized census office during each enumeration and provided for the collection of statistics pertaining to "the pursuits, industry, education, and resources of the country." The new population inquiries included school attendance, illiteracy, and type of occupation.

Through the census of 1840, the household, rather than the individual, was the unit of enumeration in the population census, and only the names of the household heads appeared on the schedules. There was no tabulation beyond the simple addition of the entries the marshals had submitted, and there was no attempt to publish details uniformly by cities or towns, or to summarize returns for each State, other than by county, unless the marshals had done so.

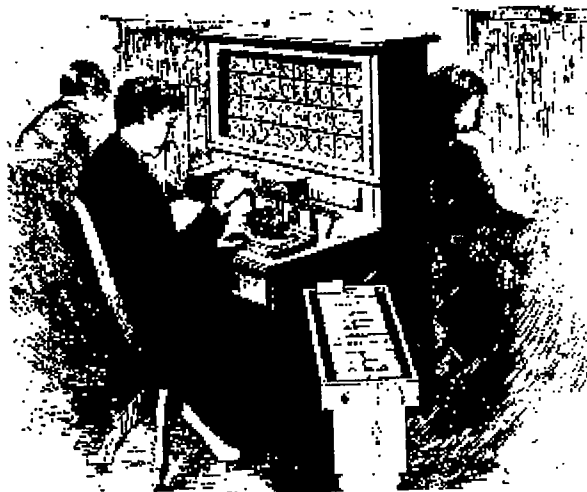
Census Expansion

The act which governed the taking of the Seventh, Eighth, and Ninth Decennial Censuses (1850-1870) made several changes in census

procedures: Each marshal was responsible for subdividing his

district into "known civil divisions," such as counties, townships, or wards, and for checking to ensure that his assistants' returns were completed properly. The number of population inquiries grew; every free person's name was to be listed, as were the items relating to each individual enumerated. For the first time, in 1850, the marshals collected additional "social statistics" (information about taxes, schools, crime, wages, value of estate, etc.) and data on mortality. Decennial mortality schedules for some States and territories exist for 1850-1880 and for a few places in 1885; see page 12 for text and location of records.

Noteworthy features of the 1870 census were the introduction of a rudimentary tallying device to help the clerks in their work, and the publication of maps, charts, and diagrams to illustrate the most significant census results.



The general scope of the 1880 census was expanded only slightly over that of 1870, but much greater detail was obtained for many of the items -- such detail, in fact, that beyond the basic counts, which were made and released promptly, it took almost until the 1890 census (because of budget constraints) to tabulate and publish some of the 1880 data. The census act for 1880 replaced the marshals and their assistants with specially appointed agents (experts assigned to collect technical data, such as on manufacturing processes), supervisors, and enumerators, every one of whom was forbidden to disclose census information. Ever since the first census in 1790, some people had regarded many of the questions as an invasion of privacy, but before the 1880 census, there was no law limiting the extent to which the public could use or see the information on any schedule. (Subsequent demographic and economic censuses, as well as most surveys, have been carried out according to statutes that make compliance mandatory, with penalties for refusal; and responses confidential, with penalties for disclosure. Congress codified these laws in 1954 as Title 13, U.S. Code.) For the first time, enumerators were given detailed maps to follow so they could account for every street or road and not stray beyond their assigned boundaries. The National Archives' Cartographic and Architectural Branch has a collection of these maps.

Again, in 1890, there was a slight extension of the decennial census's scope, and some subjects were covered in even greater detail than in 1880. Data were collected in supplemental surveys on farm and home mortgages and private corporations' and individuals' indebtedness. The 1890 census also used, for the first time in history, a separate schedule for each family. Herman Hollerith, who had been a special agent for the 1880 census, developed punchcards and electric tabulating machines in time to process the census returns, reducing considerably the time needed to complete the clerical work. Hollerith's venture became part of what is now the IBM Corporation. Both the cards and the machines were improved progressively over the next 50 years.

The 1890 census was historic in another way. In the first volume of the results, the Superintendent of the Census wrote these significant words:

Up to and including 1880 the country had a frontier of settlement, but at present the unsettled area has been so broken into by isolated bodies of settlement that there can hardly be said to be a frontier line. In the discussion of its extent, its westward movement, etc., it can not, therefore, any longer have a place in the census reports.

Commenting on this statement in a classic paper delivered in 1893, one of America's great historians, Frederick Jackson Turner, wrote, "Up to our own day American history has been in a large degree the history of the colonization of the Great West. The existence of an area of free land, its continuous recession, and the advance of American settlement westward, explain American development."² The censuses that followed 1890 reflected the filling in rather than the expansion of the colonized areas, and this meant a turning point in American life.

Moving into the 20th Century

The 1900 census was limited to those questions asked for all the population in 1890, with only minor changes in content. The period, however, featured the first U.S. censuses outside the continental States and territories:

Following its annexation in 1898, Hawaii (where the local government took a census every 6 years from 1866 through 1896) was included in the 1900 census, which also had the first count of the U.S. population abroad (Armed Forces and Government civilian employees, and their households).



The War Department carried out an enumeration in Puerto Rico in 1899 following that island's acquisition from Spain in 1898 (there were periodic censuses from 1765 to 1887 under Spanish rule), and there have been decennial censuses in the Commonwealth (its

status since 1952) from 1910 onward.

The Census Bureau compiled and published one census of the Philippine Islands following their accession by the United States in 1898; this census was taken under the direction of the Philippine Commission in 1903. (Under Spanish rule, there had been censuses in 1818 and 1876. The Philippine legislature directed a census in 1918, and the Commonwealth's statistical office began periodic enumerations in 1939. The Philippines became an independent republic in 1946.)

The Isthmian Canal Commission ordered a general census of the Panama Canal Zone when the United States took control of the area in 1904; there

was another general census in 1912 and several special censuses at various times, but the Canal Zone was included in the U.S. censuses from 1920 to 1970. (Sovereignty over the Zone was transferred to the Republic of Panama in 1979.)

The United States occupied Guam in 1899, and the local governor conducted a census there in 1901 and later years; the island was included in U.S. censuses from 1920 on.

The governors of American Samoa took censuses at various times after U.S. acquisition in 1900, and the population there was enumerated in U.S. censuses from 1920 onward.

In what have been the Virgin Islands of the United States since 1917, the Danish Government took periodic censuses between 1835 and 1911; there was a Federal census in 1917, and the islands appeared in the 1930 and subsequent U.S. censuses.

The Census Bureau took a census of Cuba under a provisional U.S. administration there in 1907; there were earlier censuses under Spanish rule (which ended in 1898), then a U.S. War Department enumeration in 1899, and subsequent ones under the Republic (established in 1901) beginning in 1919.

Later in the 20th century, the decennial census reports included figures for the Trust Territory of the Pacific Islands. There had been quinquennial Japanese censuses in these islands from 1920 to 1940; the U.S. Navy enumerated in 1950, and the U.S. High Commissioner carried out the 1958 census (the results of which appeared in the 1960 U.S. census). The Census Bureau conducted the 1970 and 1980 censuses; in 1980 and 1990, there was a separate census of the Commonwealth of the Northern Mariana Islands, which had been part of the Trust Territory.

A number of the censuses noted above collected data on agriculture, housing, and economic subjects and included enumerations on isolated islands, such as Truk and Yap, mainly in the Pacific.

In some censuses, there were supplemental questionnaires for American Indians; in 1980, enumerators used these forms only on reservations to collect additional information about households with one or more American Indian, Eskimo, or Aleut residents.

From the 1840 through the 1900 censuses, a temporary census office had been established before each decennial enumeration and disbanded as soon as the results were compiled and published. Congress established a permanent Bureau of the Census in 1902 in the Department of the Interior, so there would be an ongoing organization capable of taking frequent censuses throughout the decades instead of concentrating all the work in the years ending in "0." The Bureau moved to the new Department of Commerce and Labor in 1903 and continued with the Commerce Department when the Labor Department was split off in 1913.

The 1910 census had several notable features. First, prospective census employees took open competitive examinations administered throughout the country (since 1880, appointees had been given noncompetitive tests). Second, the way in which results were published was changed. Those statistics that were ready first -- and especially those in greatest demand (such as the total population of individual cities and States, and of the United States as a whole) -- were issued first as press releases, then in

6

greater detail as bulletins and abstracts, the latter appearing 6 months to a year before the final reports were issued.

In 1920 and also in 1930, there were minor changes in scope. A census of unemployment accompanied the 1930 census; data were collected for each person reported to have a gainful occupation but who was not at work on the working day preceding the enumerator's visit.

Sampling. In many ways, 1940 saw the first contemporary census. One of its major innovations was the use of advanced statistical techniques, such as probability sampling, that had only been tried experimentally before, such as in crop sampling in the 1920's, a trial census of unemployment carried out by the Civil Works Administration in 1933-1934 and surveys of retail stores in the same decade, and an official sample survey of unemployment in 1940 that covered about 20,000 households. Sampling in the 1940 census allowed the addition of a number of questions for just 5 percent of the persons enumerated without unduly increasing the overall burden on respondents and on data processing, and also made it possible to publish preliminary returns 8 months ahead of the complete tabulations. The Bureau was able to increase the number of detailed tables published and, also by sampling, to review the quality of the data processing with more efficiency.

Most population and housing inquiries included in the 1940 census were repeated in later years, and a few were added, for example, place of work and means of transportation to work (1960), occupation 5 years before the census (1970 and 1980 only), and housing costs (1980). In 1940 and 1950, the sample population questions were asked only for those persons whose names fell on the schedules' sample lines. Sampling was extended to the housing schedule in 1950, with a few questions asked on a cyclic basis: One pair of questions for household 1, another pair for household 2, etc., until household 6, when the cycle was started again with the first pair of questions. In the 1960 census, the sampling pattern was changed for population and housing questions alike: If a housing unit was in the sample, all of the household members were in the sample too. This scheme yielded sufficient data for accurate estimates of population and housing characteristics for areas as small as a census tract (an average of 4,000 people). The only population questions asked on a 100-percent basis (name and address, age, sex, color or race [and beginning in 1980, Spanish/Hispanic origin, marital status, and relationship to the householder] were those necessary to identify the population and avoid duplication.

The sampling pattern changed in later censuses. For 1970, some sample questions were asked of either a 15-percent or a 5percent sample of households, but some were asked for both, thus constituting a 20-percent sample. There was no "split sample" for 1980, but it was used at every other household (50 percent) in places with fewer than 2,500 inhabitants and at every sixth household (17 percent) elsewhere. For 1990, the sample was tailored even more to population size. (See p.98 for details.)

New inquiries. Reflecting the concerns of the Depression years, the 1940 census asked several questions to measure employment and unemployment, internal migration, and income. It was also the first to include a census of housing; this obtained a variety of facts on the general condition of the Nation's housing and the need for public housing programs. (Prior to this, the housing data collected as part of the population censuses generally were limited to one or two items.)

At the time of the 1950 census, a survey of residential financing was conducted as a related, but separate, operation, with information collected

on a sample basis from owners of owner-occupied and rental properties and mortgage lenders. Similar surveys accompanied the subsequent censuses. There also were surveys of components of housing change with the 1960, 1970, and 1980 censuses (but not 1990, when the survey was scheduled for 1989 and 1991); these measured the quantitative and qualitative impact of basic changes that occurred in the Nation's housing stock during the previous decade. The survey also offered a measure of "same" units, i.e., the preponderant part of the housing inventory that was not affected by the basic changes. The first survey of this type had been a key part of the National Housing Inventory in 1956. (The housing survey inquiries are not included in this publication; see the bibliography on p. 107 for references.)

New Directions

Processing. The major innovation of the 1950 census was the use of an electronic computer, UNIVAC (for Universal Automatic Computer) I, the first of a series, delivered in 1951 to help tabulate some of the statistics. Nearly all of the data processing was done by computer in the 1960 census, now with the further aid of FOSDIC (film optical sensing device for input to computers), an electronic device for "reading" the data on the returns instead of having clerks prepare punchcards. Special schedules were designed on which the answers could be indicated by marking small circles. The completed schedules or questionnaires were photographed onto microfilm with automatic cameras. FOSDIC then "read" the blackened dots (which appeared as clear holes on the negative film) and transferred the data they represented to magnetic tape for the computer at speeds that ranged from 3,000 items a minute to 70,000 items a minute in more recent versions.

Collecting the data. The 1960 census was the first in which the mails were used extensively to collect population and housing data. The field canvass was preceded by delivery to every occupied housing unit of a questionnaire that contained the 10-percent questions (those asked for all persons and housing units). Householders were asked to complete the questionnaire and hold it until an enumerator called. The sample items were on a different questionnaire: In urban areas containing about 80 percent of the Nation's population, the enumerators carried questionnaires containing the sample population and housing questions for every fourth housing unit. If the units were occupied, the householders were asked to fill out the sample questionnaires themselves and mail them to the census district office. (The enumerators completed the questionnaires for vacant units.) Self-enumeration had been used on a very limited scale previously, but this was the first time it had been made a major part of the decennial procedure. When these questionnaires were received in the district offices, the responses were transcribed to the special FOSDIC schedules. In rural areas, the enumerators obtained the sample information during their visits, and they recorded it directly on FOSDIC schedules. The 1970 census marked the use everywhere of separate, FOSDIC-readable household questionnaires -- approximately 70 million of them -- rather than the large schedules that contained information for four or more households. Thus, respondents could mark the appropriate answer circles on their questionnaires, which then could be processed directly without transcription.

Subsequent censuses were taken principally by mail -- approximately 60 percent of the population in 1970, 90 percent in 1980, and 94 percent in 1990. The questionnaires contained the 10-percent and, where appropriate, sample questions. In areas where the mailout/mailback procedure was used, enumerators contacted either by telephone or personal visit only those households that had not returned questionnaires or had given incomplete or inconsistent answers. For the remainder of the population, most of which was located in rural areas or small towns, postal carriers left a census form

