

SPEC COL  
HA  
37  
144  
1916  
C. 2

DEPARTMENT OF COMMERCE

THE STORY OF THE  
CENSUS :: :: 1790-1916



BUREAU OF THE CENSUS



The developments of statistics are causing history to be rewritten. Till recently, the historian studied nations in the aggregate, and gave us only the story of princes, dynasties, sieges, and battles. Of the people themselves—the great social body, with life, growth, forces, elements, and laws of its own—he told us nothing. Now, statistical inquiry leads him into hovels, homes, workshops, mines, fields, prisons, hospitals, and all other places where human nature displays its weakness and its strength. In these explorations he discovers the seeds of national growth and decay, and thus becomes the prophet of his generation.

The chief instrument of American statistics is the census, which should accomplish a twofold object. It should serve the country, by making a full and accurate exhibit of the elements of national life and strength; and it should serve the science of statistics by so exhibiting general results that they may be compared with similar data obtained by other nations. The census is indispensable to modern statesmanship.—JAMES A. GARFIELD.



**DEPARTMENT OF COMMERCE.**

*Secretary of Commerce,*  
WILLIAM COX REDFIELD.

**BUREAU OF THE CENSUS.**

*Director,*  
SAM. L. ROGERS.  
*Chief Clerk,*  
WILLIAM L. AUSTIN.

**HEADS OF CENSUS OFFICE, 1840-1915.**

**Census of 1840.**

WILLIAM A. WEAVER, of Virginia, *Superintending Clerk*  
(1840-1842).

**Census of 1850.**

JOSEPH C. G. KENNEDY, of Pennsylvania, *Superintendent*  
(1850-1853).  
JAMES B. DE BOW, of Louisiana, *Superintendent* (1853-54).

**Census of 1860.**

JOSEPH C. G. KENNEDY, of Pennsylvania, *Superintendent.*

**Census of 1870.**

FRANCIS A. WALKER, of Massachusetts, *Superintendent.*

**Census of 1880.**

FRANCIS A. WALKER, of Massachusetts, *Superintendent*  
(1879-1881).

CHARLES W. SEATON, of New York, *Superintendent*  
(1881-1885).

**Census of 1890.**

ROBERT P. PORTER, of New York, *Superintendent* (1889-1893).  
CARROLL D. WRIGHT, of Massachusetts, *Commissioner of Labor*  
*In charge* (1893-1897).

**Census of 1900.**

WILLIAM R. MERRIAM, of Minnesota, *Director* (1899-1902).

**Permanent Census Office.**

WILLIAM R. MERRIAM, of Minnesota, *Director*, 1902-1903.  
S. N. D. NORTH, of Massachusetts, *Director*, 1903-1909.  
E. DANA DURAND, of California, *Director*, 1909-1913.  
WILLIAM J. HARRIS, of Georgia, *Director*, 1913-1915.  
SAM. L. ROGERS, of North Carolina, *Director*, March 16, 1915-

## CONTENTS.

	Page.
CONSTITUTIONAL PROVISION FOR CENSUS.....	5
THE FIRST CENSUS.....	5
Manner of taking First Census.....	6
Recent publication of First Census returns in full.....	7
Conditions under which First Census was taken.....	8
THE SECOND CENSUS.....	10
THE THIRD CENSUS.....	10
First collection of industrial statistics.....	10
THE FOURTH CENSUS.....	10
First statistics of occupations.....	11
THE FIFTH CENSUS.....	11
First statistics of the deaf and blind.....	11
THE SIXTH CENSUS.....	11
First statistics of illiteracy, insane and idiotic, mining, and agriculture.....	11
THE SEVENTH CENSUS.....	12
First mortality and social statistics.....	12
THE EIGHTH CENSUS.....	14
THE NINTH CENSUS.....	14
Introduction of machine tabulation.....	14
THE TENTH CENSUS.....	14
Change in method of enumeration.....	14
THE ELEVENTH CENSUS.....	15
Introduction of electric tabulation.....	16
THE TWELFTH CENSUS.....	16
Restriction of scope.....	16
THE THIRTEENTH CENSUS.....	16
Abstract of the Thirteenth Census.....	17
Scheme of presentation of Thirteenth Census reports.....	18
Population, agriculture, and manufactures.....	19
Mines and quarries.....	20
The field work.....	20
Schedules.....	20
Fraudulent returns.....	23
ESTABLISHMENT OF PERMANENT CENSUS BUREAU.....	23
Scope of the Bureau's work.....	25
Wealth, debt, and taxation.....	25
Religious bodies.....	26
Transportation by water.....	26
Fisheries.....	26
Dependent, defective, and delinquent classes.....	26
Manufactures and electrical industries.....	27
Official Register.....	27
Mortality.....	27
Births.....	28
Statistics of cities.....	28
Financial statistics of States.....	28
Tobacco.....	29
Cotton.....	30
Marriage and divorce.....	30
Special censuses of municipalities.....	31
Special compilations.....	31
Census publications.....	32
Organization of the Bureau.....	32
MECHANICAL TABULATION.....	33
The card system.....	35
COST OF CONDUCTING THE CENSUS BUREAU.....	35
VALUE OF CENSUS STATISTICS.....	36
	38

## THE STORY OF THE CENSUS

THE Bureau of the Census, of the Department of Commerce, now the greatest statistical office in the world, represents the outgrowth and development of a century and a quarter of periodical, and in recent years continuous, statistical inquiry on the part of the Federal Government.

Less than a decade after the American colonies had achieved their independence, and within a year from the date of the inauguration of President Washington and the assembling of the First Congress of the United States, there was begun the first enumeration of the population of this country. The Constitutional requirement of a decennial census is found in Article I, section 3, which reads, in part:

**Constitutional provision for census.**

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.

Thus the United States was the first among the nations to make Constitutional or legal provision for a regular periodical enumeration of its inhabitants.

The First Census, taken in 1790, related solely to population, and its scope, although very limited, was somewhat greater than that required by the Constitutional provision just quoted. The name of the head of each family was taken, together with the total number of persons in the family, classified as free or slave. The free persons were further classified as white or other, the free whites as male or female, and the free white males as 16 or over, or under 16.

**The First Census.**

Subsequently from time to time the field covered by the census has been still further enlarged, until it now embraces detailed inquiries along seventeen distinct lines (pp. 18-20, 25-30), made at decennial, quinquennial, biennial, annual, quarterly, and monthly intervals, in addition to various special inquiries ordered by the President or by Congress.

# THE STORY OF THE CENSUS

## Manner of taking First Census.

The First Census was taken under the supervision of the United States marshals, of whom there were seventeen at that time; the actual work of enumeration was performed by marshals' assistants, of whom there were about 650. The enumeration began on the first Monday in August, 1790, and according to law should have been completed in nine months. Double this time elapsed, however, before the returns were all in. The returns were made by

## RETURN

OF THE  
WHOLE NUMBER OF PERSONS

WITHIN THE  
SEVERAL DISTRICTS

OF THE  
United States,

ACCORDING TO

"An Act providing for the enumeration of the Inhabitants of the United States;"

Passed March the first, seventeen hundred and ninety-one.

WASHINGTON CITY:  
PRINTED BY WILLIAM DUANE.  
1802.

TITLE AND SUMMARY PAGES FROM REPORT OF FIRST CENSUS.  
(See illustration on opposite page.)

the marshals direct to the President and by him turned over to the Secretary of State, who transmitted them to the printer. No clerical force was employed for compilation, verification, or correction, and the results were printed without the explanatory text, percentages, and detailed analyses which now accompany census statistics. The report of the First Census is contained in an octavo volume of 56 pages. This little book, discolored and crumbling with age, is very rare indeed, the existence of only a

( 3 )  
SCHEDULE of the whole number of PERSONS within the several Districts of the United States, taken according to "An Act providing for the Enumeration of the Inhabitants of the United States;" passed March the 1st, 1790.

DISTRICTS.	Free white Males of sixteen Years & upwards Heads of Families	Free white Males under sixteen years	Free white Females including Heads of Families	All other free persons.	Slaves.	Total.
* Vermont	22,813	22,308	40,505	255	16	85,539
New Hampshire	36,986	24,831	72,100	630	158	141,305
† Maine	24,384	24,748	46,870	538	-	96,540
‡ Massachusetts	85,455	97,889	189,582	3,403	-	376,729
Rhode Island	16,015	15,799	32,602	3,607	968	58,991
§ Connecticut	60,323	54,403	117,448	2,808	2,764	237,946
New York	85,700	78,629	182,228	4,554	21,234	349,129
New Jersey	45,231	41,416	83,287	2,962	11,423	184,139
Pennsylvania	110,798	100,948	256,553	3,898	8,827	480,964
Delaware	11,793	12,143	21,384	637	3,737	43,694
Maryland	55,915	51,339	101,295	8,045	103,018	319,728
Virginia	110,956	116,135	213,646	12,866	292,621	747,619
Kentucky	15,154	17,057	28,222	114	12,455	72,677
North Carolina	69,889	77,596	140,710	4,375	100,373	393,751
South Carolina	35,678	27,723	65,880	1,501	137,084	241,973
Georgia	13,103	14,044	25,739	398	59,364	83,548
						Total, 3,803,633
						Total.
S. West. Territory	6,371	10,277	15,365	351	5,417	38,691
N. Do.						

Truly stated from the original returns deposited in the office of the Secretary of State.

October 24th, 1791.

TH. JEFFERSON.

\* This return was not signed by the marshal, but was collected and referred to in a letter written and signed by him.

# THE STORY OF THE CENSUS

few copies being known, two of which are in the Census Bureau and another in the Library of Congress.

The expansion of the census work from 1790 to the present time is strikingly brought out by a comparison of this single 56-page volume, 8 by 5 inches in size, with the hundred or more quarto (12 by 9 inch) volumes, having an aggregate of over 40,000 pages, now issued by the Census Bureau in the course of a decade (see p. 32).



REPORTS OF THE FIRST AND LAST DECENNIAL CENSUSES: 1790 AND 1910.

(The small volume at the right of the illustration is the report of the First Census.)

After the lapse of more than a century the returns of the First Census were considered of such value to historians, genealogists, and others that provision was made by Congress for printing them in full; and accordingly in 1907 they were published in the form of twelve volumes, relating, respectively, to Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont,

Recent publication of First Census returns in full.

## THE STORY OF THE CENSUS

and Virginia. (The returns for the other States covered by the first enumeration had been destroyed by fire during the war of 1812.) Each volume contains the names of all heads of families enumerated in 1790 in the State to which it relates, and gives the number of members in each family, classified as in the original report of the First Census. The heads of families were listed under the names of the counties in which they resided, and were further grouped according to towns or other county subdivisions where such subdivisions were shown in the returns. These volumes ("Heads of Families—First Census of the United States") are for sale at \$1 each. A circular containing full information concerning them will be mailed by the Census Bureau upon request.

Conditions under which First Census was taken.

A comparison of conditions in 1790 with those existing at the present time may be of interest in this connection.<sup>1</sup> The total area of the United States was, in round figures, 825,000 square miles, or about one-fourth of the present area; but the settled area in 1790 was only about 240,000 square miles, or less than 30 per cent of the gross area. The western boundary was the Mississippi River, and a portion of the southern boundary was formed by what is now the northern line of Florida. Western New York was a wilderness, Elmira and Binghamton being but detached hamlets. Most of the territory west of the Alleghenies was unsettled and scarcely explored. Detroit and Vincennes were so small and isolated in that early day that it was not considered worth while to go to the trouble and expense of enumerating their inhabitants. New York City, now the second city in the world, with a population of over four and three-quarters millions in 1910, possessed only 33,000 inhabitants in 1790, although it was then the largest city in the United States. Philadelphia was the capital.

Difficulties confronting early census takers.

Although the area covered by the first enumeration was much smaller than that from which the census statistics are now gathered, the difficulties under which the marshals' assistants performed their work were almost incomparably greater than those which confront the enumerators of the present day. Roads, where they existed at all, were poor and often impassable; bridges were almost unknown. The saddle horse, the stage, and the private coach furnished the only means of land travel. A long

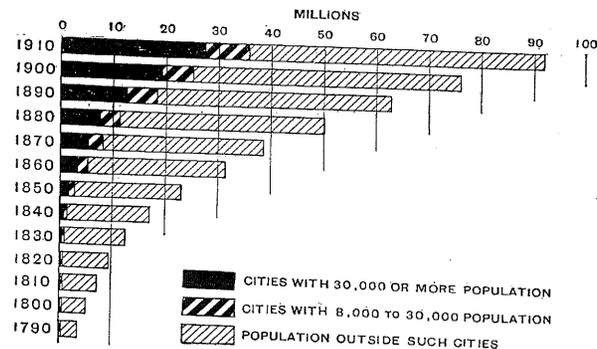
<sup>1</sup> The facts here given with reference to the conditions prevailing in 1790 were obtained, in substance, from an article by Hon. William R. Merriam, former Director of the Census, published in the Century Magazine for April, 1903.

## THE STORY OF THE CENSUS

day's journey was required to cover a distance now traveled in an hour. Mail service was irregular, expensive, and uncertain.

The boundaries of towns and other subdivisions of counties, and often of the counties themselves, were in many cases undefined. Sectional jealousy and distrust of the newly established Federal Government existed in considerable degree. The inhabitants, to whom an enumeration was a totally new idea, surmised

GROWTH OF URBAN AND RURAL POPULATION: 1790-1910.  
(See also diagram, p. 36, and table, p. 37.)



that an increase of taxation might result, and were, therefore, in some cases reluctant to impart the information called for. Moreover, in some quarters there was much opposition to the census, based on the Old Testament account of the disagreeable consequences resulting from the enumeration of the children of Israel.

Small wonder, then, that the first enumeration was not completed in some parts of the country until eighteen months had elapsed from the date of its commencement, although under present conditions a decennial enumeration, of vastly greater scope than that of 1790, can be practically finished, except for the outlying possessions, in only a month. Even in 1910, however, the difficulties encountered by census enumerators in certain regions were very great. In Alaska, for example, enumerators traveled across country with dog teams and along the coast in "bidarkies" (three-holed skin boats). One enumerator reported having crossed and recrossed the Arctic Circle, traveling at each crossing above the timber line, in a temperature

Eighteen months required to complete enumeration.

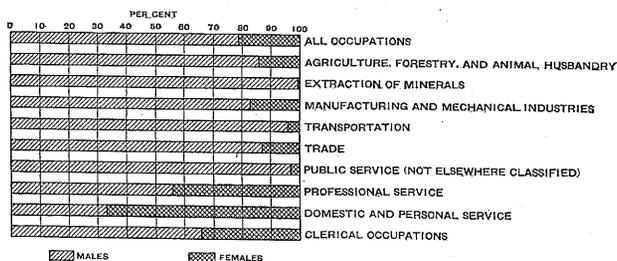
## THE STORY OF THE CENSUS

which at no time during his journey rose above 30 degrees below zero.

### The Second Census.

The census of 1800 was taken and published in substantially the same manner as that of 1790. The returns, however, were made by the marshals to the Secretary of State instead of to the President. The statistics obtained were of the same general

GAINFUL OCCUPATIONS OF THE POPULATION IN 1910 (p. 19).



scope as those of the census of 1790, but the age classifications were more detailed. The report was printed in a folio volume of 74 pages.

### The Third Census.

The census of 1810, so far as it related to population, differed very little from its predecessors, and the schedule inquiries called for information of exactly the same character as that called for in 1800.

### First collection of industrial statistics.

At this census, however, there was attempted for the first time a collection of industrial statistics, the work being done by the marshals' assistants in connection with the enumeration of the population. The kinds, quantities, and values of manufactured goods were shown for each State and Territory, and a few brief and fragmentary statistics relating to the products of quarries were included. The data gathered at this inquiry were inaccurate and far from complete, but were nevertheless of value as furnishing a general indication of the extent and nature of the manufacturing industries of the country.

The population returns were printed in a folio volume of 180 pages, and those relating to manufactures filled a quarto volume of 289 pages.

### The Fourth Census.

The census of 1820 covered the subjects of population and manufactures in somewhat greater detail than the preceding one. At

## THE STORY OF THE CENSUS

this census there were ascertained for the first time the numbers engaged in agriculture, commerce, and manufactures. A few clerks were employed in the handling and preparation of the returns for publication. There is no record of the number, but the amount paid for their services was \$925. The population returns occupied a folio volume of 160 pages, and the manufactures report, also of folio size, contained 128 pages.

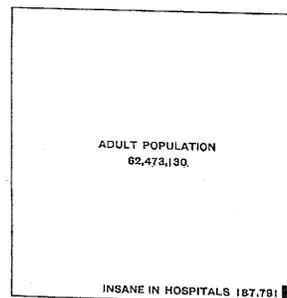
### First statistics of occupations.

The census of 1830 related solely to population, but its scope with reference to this subject was materially extended. The first collection of statistics concerning the deaf and dumb and the

### The Fifth Census.

### First statistics of the deaf and blind.

INSANE IN HOSPITALS: 1910 (p. 26).



blind was made at the census of 1830. At this census there was begun the use of printed schedules. At former enumerations the marshals' assistants had used such paper as they happened to have, ruling it, writing in the headings, and binding the sheets together themselves. The adoption of uniform printed schedules constituted a distinct advance in the science of census taking. At this census a force of 43 clerks was employed in compilation

and tabulation. The returns were printed in a folio volume of 163 pages. An abstract containing 51 quarto pages was also published.

At the census of 1840 the range of the inquiry was still further broadened. It now covered the subjects of population, including school attendance, illiteracy, occupations, the deaf and dumb, the blind, and the insane and idiotic; manufactures; mines and quarries; and agriculture. The results of the latter inquiry showed the quantity or value of the principal products, the numbers of live stock on hand, and the estimated value of poultry on hand. The reports were published in four volumes, two of folio and two of quarto size, containing a total of 1,465 pages.

### The Sixth Census.

### First statistics of illiteracy, insane and idiotic, mining, and agriculture.

A superintending clerk was employed who had immediate charge of the clerical force engaged in the verification, correction, and compilation of the returns. So far as the records show, this was the first official, under the Secretary of State, to be specifically

## THE STORY OF THE CENSUS

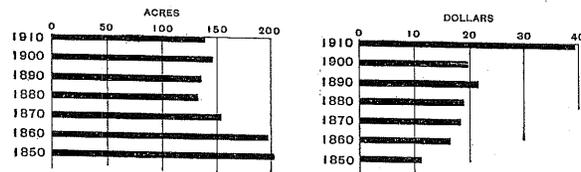
designated as the head of the Census Office. In 1850 a superintending clerk was again employed, and at subsequent censuses the official in charge was known as the Superintendent of the Census, until the census of 1900, when his designation was changed to Director of the Census.

The census of 1840 marks the inauguration of a genuine effort to extend the scope of the decennial enumeration so as to make it the instrument for ascertaining the vital facts with reference to the composition and characteristics of the population and the industrial development of the country.

### The Seventh Census.

The census of 1850, taken under the authority of a law drawn with much more care and deliberation than any former census

AVERAGE SIZE OF FARMS AND AVERAGE VALUE OF LAND AND BUILDINGS PER ACRE (p. 37).



act, constitutes the beginning of scientific census taking in this country. By the terms of an act passed in 1849, creating the Department of the Interior, supervisory and appellate authority over the Census Office was transferred from the Secretary of State to the Secretary of the Interior.

### First mortality and social statistics.

At this census six separate schedules were carried by the marshals' assistants. These related, respectively, to (1) free inhabitants, (2) slave inhabitants, (3) mortality, (4) products of agriculture, (5) products of industry, and (6) social statistics. The inquiries as to free and slave inhabitants were more extended in scope than those of preceding censuses, and much greater care was exercised to insure approximate accuracy of the returns. The several inquiries concerning the free population were made with respect to each person enumerated, whereas at former censuses a return had been made merely as to the number of persons in each of the various classes in each family, in connection with the name of the head of the family; and for the first time detailed individual data were obtained with respect to each slave enumerated.

## THE STORY OF THE CENSUS

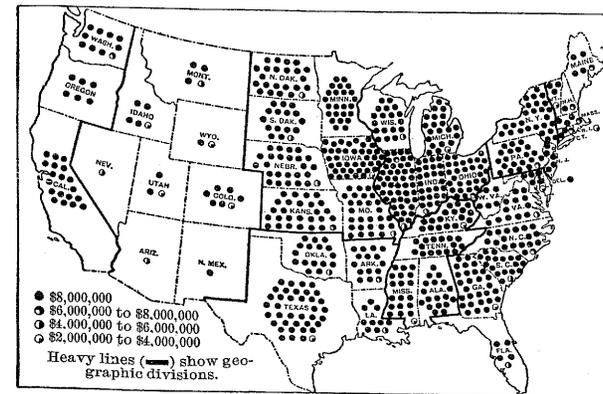
The statistics relating to mortality showed the number of deaths occurring during the year, classified according to cause, sex, age, nativity, season of the year, duration of illness, occupation, color, and whether free or slave.

The inquiry as to agriculture was extended so as to cover, in addition to the classes of data obtained at the census of 1840, acreage of farms, value of farms and implements, and value of animals slaughtered.

Extension of agricultural inquiry.

The schedule relating to products of industry called for information as to number of manufacturing establishments, capital,

VALUE OF ALL FARM CROPS: 1909 (p. 19).



value of materials, employees, wages, value of products, per cent of profit, and home manufactures, as well as data relating to certain individual industries. With respect to mines and quarries, statistics as to number of establishments, capital, employees, wages, and kind and value of products were obtained.

The social-statistics schedule called for information as to valuation of estate; annual taxes; colleges, academies, and schools; seasons and crops; libraries; newspapers and periodicals; churches; pauperism; crime; and wages.

The reports relating to population, illiteracy, school attendance, schools, libraries, churches, newspapers and periodicals, and agriculture were presented in a quarto volume of 1,158 pages. Separate reports, in octavo form, related to mortality and manu-

## THE STORY OF THE CENSUS

factures, and a compendium and an abstract, also of octavo size, were issued. The total number of pages in the five volumes was 2,165. Explanatory and introductory text was included for the first time. This census may, therefore, be called the first "modern census" of the United States, although it differed in many important respects from those taken in recent years.

### The Eighth Census.

The census of 1860 followed the same general lines as that of 1850, the only changes being a few slight amplifications of certain of the inquiries. A preliminary report, of octavo size, was printed, and the final reports were contained in four quarto volumes, one relating to population, one to agriculture, one to manufactures, and one to mortality and miscellaneous statistics. The five volumes contained an aggregate of 3,189 pages.

### The Ninth Census.

#### Introduction of machine tabulation.

The census of 1870 was similar in general scope to those of 1850 and 1860, but a number of extensions and modifications were made for the purpose of increasing the accuracy and usefulness of the statistics. One of the most noteworthy features of this census was the introduction of machine tabulation in the latter part of 1872 (see p. 35).

Another innovation was the employment of maps, charts, and diagrams as a means of presenting graphically the more significant facts ascertained by the enumeration. These were published in a separate volume called the Statistical Atlas of the United States.

The reports were issued in five volumes, including the Statistical Atlas and a Compendium, and contained a total of 3,473 pages.

### The Tenth Census.

#### Change in method of enumeration.

The census of 1880 was a vast and complex undertaking which embodied a marked and radical advance in American census taking. The most important and effective change made was in the method of enumeration. From 1790 to 1870 the actual work of gathering the statistics had been performed by assistants to United States marshals, under the supervision of the marshals themselves, and the enumerations had varied in length from ten to eighteen months. In 1880 there was adopted the plan, which has been followed at all subsequent censuses, of having this work done by a large body of enumerators under the direction of supervisors. Both supervisors and enumerators are especially appointed for the work of the enumeration and hold office only until it is completed. The great gain in efficiency and promptness resulting from this change may be seen by a comparison of the respective periods of time required to complete

## THE STORY OF THE CENSUS

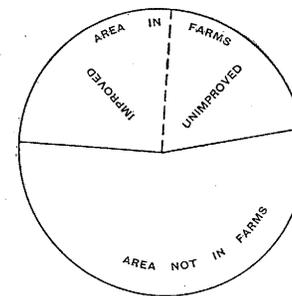
the inquiries of 1870 and 1880. In the earlier year the enumeration, which was made by 75 marshals and their 6,530 assistants, lasted fifteen months in some parts of the country, whereas in 1880 the 150 supervisors and 31,382 enumerators finished their task in one month.

More speedy enumeration.

To compile the returns and prepare them for publication an office force was employed which at its maximum numbered 1,495, nearly three and one-half times as large as that employed at the census of 1870.

AREA IN FARMS AND NOT IN FARMS:  
1910 (p. 19).

The general scope of the inquiry was somewhat extended, and the subjects were covered in much greater detail than at prior censuses. The collection of the statistics of manufactures was in some localities taken out of the hands of the general enumerators and given to special agents. In addition, statistics relating to certain industries were gathered throughout the country and were



printed in a series of special reports or monographs, the work in respect to each industry being done under the direction of an expert. Where official registration of deaths was maintained, the mortality schedules were withdrawn from the general enumerators and the statistics obtained by correspondence. The data relating to certain other subjects were also obtained by expert special agents or by correspondence.

The tallying machine first used during the latter part of the Ninth Census period was again employed at the census of 1880, and effected a very material saving in the work of tabulation.

The reports of the Tenth Census, including the Compendium, were published in the form of 23 quarto and 2 octavo volumes. The total number of pages was 21,458—more than six times the number in the report for 1870.

The statistical field covered by the census of 1890 was extended somewhat, though not greatly, as compared with that from which the data of 1880 were gathered; and the later census was also characterized by some little increase of detail in the presentation of the results.

The Eleventh Census.

## THE STORY OF THE CENSUS

Introduction of electric tabulation.

The distinguishing feature of this census was the use of the electric tabulating machine (see p. 35), without which it would have been impossible to complete the work in any reasonable time.

The total number of pages in the 32 quarto, 1 folio, and 1 octavo volumes of the reports, including the Compendium, Statistical Atlas, and Abstract, was 26,408.

The Twelfth Census.

The census of 1900 represented in many respects a marked advance as compared with its predecessors. So vast and complicated had the task become, not only because of the growth of the country's population and industries, but also by reason of the enormous increase of the detail involved in the scheme of presentation of the data gathered, that the problem of organization was now paramount, superseding that of tabulation, which to a large extent had been solved by the use of the electric tabulating machine introduced at the preceding census. Under the law governing the Twelfth Census the office was organized substantially as at present (see p. 33), and the efficiency of this organization was demonstrated by the increased accuracy of the results and the promptness with which they were published.

Restriction of scope.

The scope of the census was by law restricted to the four subjects of population, mortality, agriculture, and manufactures, so that it covered a materially narrower field than did the Tenth and Eleventh Censuses. Provision was made, however, for the collection, after the completion of the decennial work, of statistics relating to various special lines of inquiry.

By reason of the narrowing of the scope of the Twelfth Census to the four subjects named, the total number of pages contained in the 10 quarto and 1 octavo volumes of its reports, including the Abstract, was kept down to only 10,925—a trifle more than two-fifths of the number in the reports of the preceding census, although the statistics were presented with even greater detail.

The Thirteenth Census.

The census of 1910 was a notable one. It was the first to be taken by the permanent Census Bureau, which had been established in 1902 (see p. 23); and it differed from its predecessors in two other important features: First, in the method by which appointments of temporary clerks were made; and, second, in the manner in which the information obtained by it was compiled and presented to the public.

At prior censuses clerical positions had been filled upon the recommendations of Senators and Representatives, and at the

## THE STORY OF THE CENSUS

more recent censuses the appointments of the candidates named had been contingent upon their passing noncompetitive examinations. At the Thirteenth Census, however, positions on the temporary clerical force were filled through open competitive civil-service examinations held throughout the country by the United States Civil Service Commission.

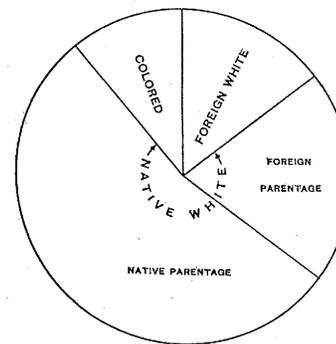
Clerical positions filled through civil-service examinations.

The method of presenting the results of the Thirteenth Census constituted a new and in some respects a radical departure from

former practice. The most important change was with respect to the Abstract. At prior censuses this had been a small octavo volume issued after the publication of the complete reports and containing no text discussion and very few percentages, averages, or comparative statistics for earlier censuses. The Abstract of the Thirteenth Census is a quarto volume of 569 pages, issued in 53 editions, one without supplement and each of the

Abstract of the Thirteenth Census.

ELEMENTS OF THE POPULATION: 1910.



others containing a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. It presents the principal statistics gathered at the census of 1910, covering the subjects of population, agriculture, manufactures, and mining. It contains a text discussion and analysis of the data, many diagrams and maps, and numerous tables which include, for comparison, the statistics of prior censuses, and gives a great number of averages and percentages without which it would be difficult or impossible to grasp the significance of the data presented. The supplement gives complete and detailed statistics for the State to which it relates.

The Abstract was prepared with the idea of making it possible to supply, in one volume, condensed but comprehensive statistics relating to the country as a whole, together with complete and detailed information regarding a particular State, and thus to a great extent it took the place of the complete reports published at previous censuses. With the belief that this was, for

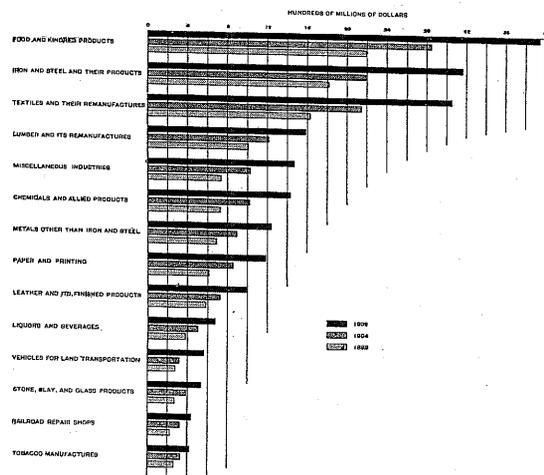
## THE STORY OF THE CENSUS

the general public, the most important volume to be issued in connection with the Thirteenth Census, it was given precedence and right of way over the main reports, and consequently, instead of being one of the last volumes to appear, as had been the case at former censuses, it was the first.

There were various other differences between the scheme of presentation of the results of the Thirteenth Census and that

Scheme of presentation of Thirteenth Census reports.

VALUE OF MANUFACTURED PRODUCTS IN 1909, 1904, AND 1899—PERCENTAGES (p. 37).



formerly employed. These differences need not be discussed in this pamphlet; but a brief description of the Thirteenth Census publications themselves, and of their relationships to one another, may be of interest.

Subjects covered.

The Thirteenth Census covered the subjects of population (including occupations), agriculture, manufactures, and mines and quarries, and its geographic scope comprised continental United States, Alaska, Hawaii, and Porto Rico. The statistics which were first ready for publication, and especially those which were in greatest demand (such, for example, as the aggregate population of individual cities and States, and of the United States as a whole), were first given out in the form of press

## THE STORY OF THE CENSUS

announcements. Later they were presented in greater detail in the form of official bulletins, still later in the Abstract with its supplements, and ultimately in the final reports. In addition, certain portions of the Abstract and of the final reports were reprinted as separate bulletins, each relating to a particular branch or phase of some one of the inquiries. The greater part of the material contained in the census reports was thus placed before the public in bulletin form and in the Abstract with its

VALUE OF MINERAL PRODUCTS IN 1909—PERCENTAGES (p. 37).



State supplements, and a large part of it was published in this manner from six months to a year or more in advance of the issuance of the final reports.

The population reports filled four quarto volumes having a total of 4,373 pages. Volume I is a general report and analysis for the country as a whole. Volumes II and III contain detailed statistics for individual States, counties, cities, and towns. Volume IV relates to occupations.

Population.

The reports present statistics in regard to such details as sex, age, marital condition, birthplace, mother tongue, school attendance, illiteracy, ownership of homes, etc. With reference to occupations, the numbers engaged in nearly 5,000 individual vocations are shown.

Volumes V, VI, and VII, with a total of 2,917 pages, relate to agriculture. Volume V is a general report and analysis, for the United States as a whole. Volumes VI and VII contain detailed statistics for individual States and counties.

Agriculture.

The data shown cover such matters as acreage, value, tenure, mortgages, size of farms, live stock, crops, irrigation, etc.

Volumes VIII, IX, and X, which comprise an aggregate of 3,228 pages, are devoted to the subject of manufactures. Volume VIII is a general report and analysis, for the country as a whole. Volume IX presents detailed reports for the individual States and for principal cities. Volume X contains reports on 52 individual

Manufactures.

## THE STORY OF THE CENSUS

industries, together with general statistics of manufactures for thirteen leading "metropolitan districts."

The figures given relate to such subjects as number of establishments, persons engaged, capital, salaries and wages, expenses, hours of labor, products, etc.

Volume XI, of 369 pages, covers the subject of mines and quarries. It presents data as to geographic distribution, number of enterprises, persons engaged, salaries and wages, hours of labor, products, expenses, capital, etc.

The total number of pages in the twelve quarto (11½ by 9 inches) volumes of the Thirteenth Census reports, including the Abstract, is 11,456. A few of the fundamental data presented in these reports are given in the tables on page 37.

The statistics of agriculture were collected by the population enumerators, but those relating to manufactures and to mines and quarries were gathered by special agents appointed solely for this work.

The enumerators employed to gather data as to population and agriculture numbered 70,286—more than the combined population of New York and Philadelphia in 1790, and more than the total able-bodied adult population of many an important and thriving city of to-day. To superintend the work of the enumerators 329 supervisors of census were employed. These supervisors were in most cases appointed, as at preceding censuses, upon the recommendation of the Members of Congress in whose districts the respective supervisors' districts were located. The enumerators were appointed upon the recommendation of the supervisors. Each candidate was required to fill out a test schedule in order to demonstrate his ability to do the work required of him. The collection of the statistics of manufactures and of mines and quarries required the services of 1,087 special agents.

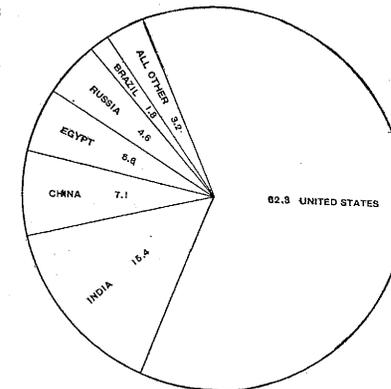
The enumeration of the population in cities and towns lasted fifteen days. In the rural districts the population and agricultural enumerations combined were completed in about thirty days. The length of time required to collect the statistics of manufactures and of mines and quarries varied considerably in different parts of the country, but the average was about one hundred days.

The population schedule carried 32 inquiries and was provided with spaces for the names and data relating to 100 persons. The general agricultural schedule carried 59 inquiries, the sub-

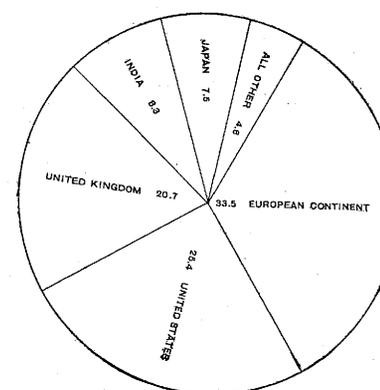
## THE STORY OF THE CENSUS

divisions of which numbered 560. In addition, five special agricultural schedules were used. One general schedule was returned for each farm, and when necessary a special schedule was also employed. The general manufactures schedule and the general schedule for mines and quarries carried 50 inquiries each. In addition, 63 special schedules were used for manufactures and 29 for mines and quarries. A general schedule was returned for each manufacturing establishment and each mine or quarry, together with a special schedule when necessary.

PERCENTAGE OF THE WORLD'S MILL SUPPLY OF COTTON CONTRIBUTED BY EACH COUNTRY: 1914.



PROPORTION OF TOTAL COTTON CONSUMPTION, BY COUNTRIES, YEAR ENDING AUGUST 31, 1914.



The population schedules filed and returned at the Thirteenth Census numbered approximately 1,050,000; the agricultural schedules, 8,590,000; the manufactures schedules, 425,000; and the mines and quarries schedules, 45,000.

These figures will serve to give the reader a faint idea of the magnitude of the task of taking a decennial census of the United States.

The recruiting, organization, and training of the army of enumerators is perhaps the most formidable of the many difficult features of the undertaking.

Number of schedules returned.

Mines and quarries.

The field work.

Schedules.

## THE STORY OF THE CENSUS

### GROWTH OF THE DECENNIAL CENSUS: 1790-1910.

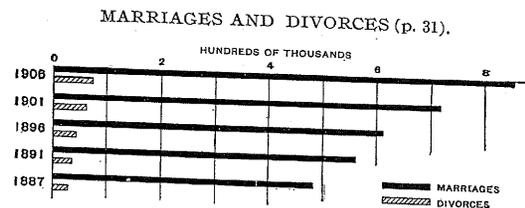
CENSUS YEAR.	Number of marshals or supervisors.	Number of assistant marshals or enumerators.	Legal period for enumeration, excluding extensions. (Months)	Time actually consumed in complete enumeration. (Months)
	<i>Marshals.</i>	<i>Asst. marshals.</i>		
1790.....	17	650	9	18.0
1800.....	24	900	9	16.5
1810.....	30	1,100	5	10.0
1820.....	31	1,188	6	15.0
1830.....	36	1,519	6	14.0
1840.....	41	2,107	5	(b)
1850.....	45	3,231	4	20.5
1860.....	54	4,417	5	(b)
1870.....	75	6,530	4	15.0
	<i>Supervisors.</i>	<i>Enumerators.</i>		
1880.....	150	31,382	1	1.0
1890.....	175	46,804	1	1.0
1900.....	300	52,871	1	1.0
1910.....	329	70,286	1	1.0

CENSUS YEAR.	Maximum size of office force.	Total number of pages in published reports.	Total cost.	Cost per capita.
1790.....	(d)	56	\$44,377.28	\$0.0112
1800.....	(d)	74	66,109.04	0.0124
1810.....	(d)	460	178,444.67	0.0246
1820.....	(e)	288	208,525.99	0.0216
1830.....		214	378,545.13	0.0294
1840.....	43	1,465	833,370.95	0.0488
1850.....	28	2,165	1,423,350.75	0.0613
1860.....	160	3,189	1,909,376.99	0.0626
1870.....	184	3,473	3,421,198.33	0.0877
1880.....	438	1,495	5,790,678.40	0.1148
1890.....	1,495	21,458	11,547,127.13	0.1833
1900.....	3,143	26,408	11,854,817.91	0.1550
1910.....	3,447	10,925	15,968,665.03	0.1736
	3,738	11,456		

<sup>a</sup> Estimated; records destroyed by fire.  
<sup>b</sup> Unknown.  
<sup>c</sup> Not including time spent in making investigations and recounts in certain towns and cities where fraudulent enumeration had been detected.  
<sup>d</sup> No office force employed.  
<sup>e</sup> Amount expended for clerk hire, \$925.  
<sup>f</sup> The scope of the decennial censuses of 1900 and 1910 was greatly restricted as compared with that of the censuses of 1880 and 1890; but practically all of the subjects covered at the earlier inquiries, as well as some which have been taken up more recently, are now handled either at a decennial census or at some time in the course of the period intervening between decennial censuses.

## THE STORY OF THE CENSUS

The pay of enumerators is not large and the duration of their employment is short, so that, especially in urban communities, those who are best qualified to do the work have little incentive, other than that furnished by local pride, to take it up. Dishonest enumerators may sometimes yield to the temptation to increase their pay (which in most cases is based wholly or in part on the number of names turned in by them) by returning fictitious names or names of persons not resident in their districts.



But the "padding" of returns from motives of personal gain has been a less serious obstacle to accurate census taking than that resulting from organized attempts on the part of certain cities and towns to inflate their population figures. The voice of local business interests—disguised as that of local patriotism—has sometimes called more loudly to the supervisor or the enumerator than has the voice of honor, duty, or fidelity to oath of office. After the census of 1910, 69 indictments were brought against enumerators and others believed to be responsible for the falsity of the returns in 14 cities and towns. In 13 cases the defendants were sentenced to imprisonment and the payment of fines, and in 40 cases fines alone were imposed. The jail sentences ranged from one day to six months, and the fines from \$50 to \$1,500.

The number of officials, clerks, and others employed in the Census Bureau at Washington in the compilation and tabulation of the Thirteenth Census returns rose at one time to 3,738—more than the number of marshals' assistants employed to make the enumeration throughout the country at any census prior to 1860.

Until 1900 the Census Office established for the taking of each decennial census and the compilation and publication of its results had been a temporary institution, going practically out of existence at the conclusion of its work. On July 1, 1902, under

Fraudulent returns.

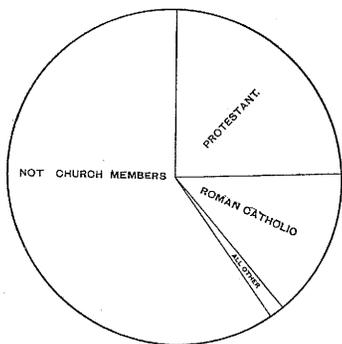
Establishment of permanent Census Bureau.

## THE STORY OF THE CENSUS

authority of an act of Congress passed in March of the same year, the Census Office became a permanent branch of the Department of the Interior, under the name Bureau of the Census. A year later it was transferred to the newly created Department of Commerce and Labor, and since March 4, 1913, it has been a bureau of the Department of Commerce.

While one of the reasons for the creation of the permanent Census Bureau was the need of a nucleus of trained employees

CHURCH AFFILIATIONS OF THE POPULATION: 1906 (p. 26).



around which to organize the large force necessary for the taking of a decennial census, this need was not the only justification—nor, for that matter, the leading one—for the existence of a permanent bureau.

The establishment of the office on a permanent footing was the achievement of more than half a century of agitation, beginning in 1844, when a select committee of the House of Representatives, which had had under consideration a memorial

on the errors of the census of 1840, presented by a committee of the American Statistical Association, reported that it knew of no way of avoiding such errors in future censuses "so easy and practicable as by the establishment of a Bureau of Statistics." In the decades following various committees, officials, superintendents of the census, and statistical organizations repeatedly urged upon Congress the advisability of making the office permanent.

Improvement of the decennial census was the motive chiefly in evidence in all this agitation, and even at the present time is commonly thought of as constituting the chief advantage to be gained through the existence of a permanent bureau. From the first, however, those advocating the establishment of such a bureau have had other considerations in mind as well. In fact, the House committee already referred to recommended, in its reports for 1844 and 1845, the establishment of a bureau which not only should take the decennial census, but should

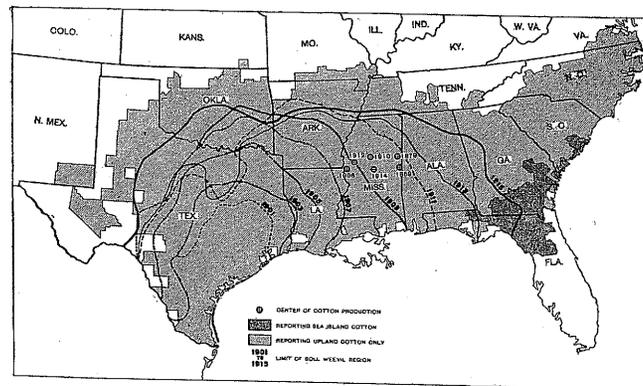
## THE STORY OF THE CENSUS

coordinate the statistical work of all the departments of the Federal Government, and whose publications should include statistics relating to foreign countries.

These efforts on the part of statisticians, administrative officials, and legislators finally resulted in the passage, in March, 1902, of the permanent census act, under the terms of which the Census Bureau was made a permanent instead of a temporary office. The various special lines of inquiry already mentioned

The permanent census act.

COTTON-PRODUCING AREA OF THE UNITED STATES IN 1915, AND CENTER OF PRODUCTION, 1859 TO 1915 (p. 30).



as having been postponed until after the completion of the Twelfth Census work were assigned to the permanent Bureau; and from time to time other duties have been devolved upon it by acts and resolutions of Congress or by direction of the President or the Secretary of Commerce.

As a result of this development, the Census Bureau not only conducts the comprehensive decennial censuses of population, agriculture, manufactures, and mines and quarries, already described, but also carries on numerous other inquiries at intervals varying in length from ten years to less than two weeks. The principal inquiries of this character are the following:

Scope of the Bureau's work.

*Decennial census of wealth, debt, and taxation.*—The most recent inquiry upon this subject, which related to the year 1913, showed the estimated true value of all property in the United States, both public and private, to be approximately \$188,000,000,000.

Wealth, debt, and taxation.

Nucleus of trained employees needed.

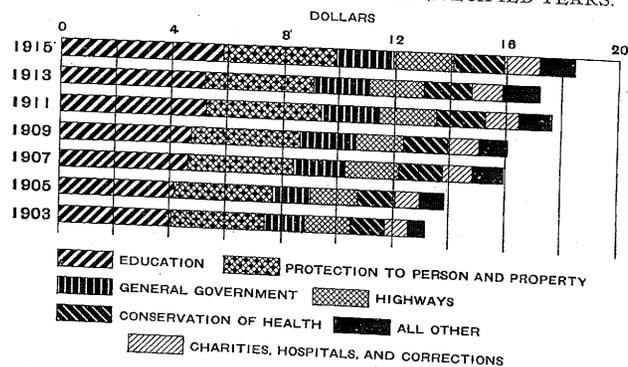
Improvement of decennial census not the only object.

## THE STORY OF THE CENSUS

Religious bodies.

*Decennial census of religious bodies.*—The last enumeration of religious bodies, which related to the year 1906, showed a total of nearly 33,000,000 communicants or members, of whom 20,000,000 were Protestants and 12,000,000 Roman Catholics. (See diagram, p. 24.) The population of the United States in 1906 was approximately 84,000,000. The next enumeration of the religious bodies of the United States will relate to the year 1916.

PER CAPITA PAYMENTS FOR GENERAL DEPARTMENTAL EXPENSES OF CITIES OF OVER 30,000 FOR SPECIFIED YEARS.



Transportation by water.

*Decennial census of transportation by water.*—According to the last investigation, which related to the year 1906, the total tonnage of American-owned vessels engaged in domestic and foreign commerce was 12,736,529. The next census will relate to the year 1916.

Fisheries.

*Decennial census of fisheries.*—This inquiry is conducted by the Census Bureau in cooperation with the Bureau of Fisheries. The latest figures, which relate to the year 1908, show a total value of products amounting, in round numbers, to \$54,000,000.

Dependent, defective, and delinquent classes.

*Decennial census of dependent, defective, and delinquent classes.*—This investigation covers benevolent institutions, inmates of institutions for the insane and feeble-minded, prisoners and juvenile delinquents, paupers in almshouses, and the blind and the deaf and dumb. According to the last inquiry, made in 1910, inmates of benevolent institutions in that year numbered, in round figures, 409,000; insane in hospitals, 188,000 (see diagram, p. 11); feeble-minded in institutions, 21,000; prisoners and juvenile delinquents, 136,000; the blind, 57,000; and the deaf and dumb, 45,000.

## THE STORY OF THE CENSUS

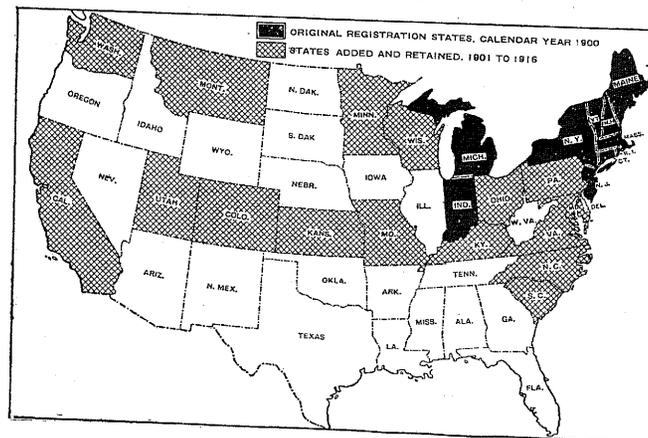
*Quinquennial censuses of manufactures, central electric light and power stations, street and electric railways, and telegraphs and telephones.*—The tables on pages 35 and 37 give a few of the basic statistics obtained at these inquiries.

Manufactures and electrical industries.

*Biennial compilation of Official Register of the United States.*—In the latter half of each year in which a newly elected Congress assembles, the Census Bureau compiles the Official Register of the United States (Blue Book), in which are listed the names of and brief data relating to the civilian employees of the Federal Government. The total number of such persons on July 1, 1915, was about 490,000.

Official Register.

GROWTH OF REGISTRATION AREA FOR MORTALITY STATISTICS: 1900-1916.



*Annual collection of mortality statistics.*—Each year statistics of deaths are collected from States and cities having efficient registration systems. The Bureau cooperates with the State authorities in securing the enactment of suitable registration legislation.

Mortality.

The number of deaths during 1915 in the registration area, which in that year had a population of about 67,000,000—approximately two-thirds of the estimated population of the entire United States—was 909,155, the death rate being 13.5 per 1,000 of population. The registration area has recently been

## THE STORY OF THE CENSUS

Births.

extended, and its population now represents approximately 70 per cent of the total for the United States. (See map, p. 27.)

*Annual collection of birth statistics.*—The Census Bureau has recently undertaken the annual collection of birth statistics, beginning with the year 1915, from a number of States having adequate birth-registration systems. The aggregate population of these States is approximately 31,150,000, or about 31 per cent of the total for the country.

### EXPANSION IN SCOPE OF CENSUS INQUIRIES: 1790-1916.

CLASSIFICATION OF INQUIRIES.	CENSUS OF—										1900 to 1909 <sup>a</sup>	1910 to 1916	
	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880			1890
Population	○	○	○	○	○	○	○	○	○	○	○	○	○
Occupations				○	○	○	○	○	○	○	○	○	○
Mortality													
Indians							○	○	○	○	○	○	○
Deaf and blind							○	○	○	○	○	○	○
Insane							○	○	○	○	○	○	○
Paupers							○	○	○	○	○	○	○
Prisoners							○	○	○	○	○	○	○
Benevolent institutions							○	○	○	○	○	○	○
Religious bodies							○	○	○	○	○	○	○
Marriage and divorce							○	○	○	○	○	○	○
Manufactures				○									
Mines and quarries				○									
Agriculture			○										
Irrigation							○	○	○	○	○	○	○
Fisheries							○	○	○	○	○	○	○
Forest products							○	○	○	○	○	○	○
Wealth, debt, and taxation							○	○	○	○	○	○	○
Transportation by water							○	○	○	○	○	○	○
Telegraphs and telephones							○	○	○	○	○	○	○
Cotton							○	○	○	○	○	○	○
Insurance												○	○
Cities												○	○
Street and electric railways												○	○
Central electric light and power plants												○	○
Federal employees												○	○
Tobacco stocks												○	○

<sup>a</sup> The Census Office became a permanent bureau in 1902.

*Statistics of cities.* *Annual collection of statistics of cities.*—Statistics relating to cities of 30,000 and over are also collected each year. These

## THE STORY OF THE CENSUS

statistics pertain to the financial operations of the municipal governments and also to various nonfiscal subjects of general interest, such as police and fire departments, liquor traffic, parks, water-supply systems, etc.



THE CARD-PUNCHING MACHINE (p. 35).

In the fiscal year 1915 the aggregate revenues of American cities of 30,000 and over, which in that year numbered 204, amounted to more than \$940,000,000, and their aggregate expenditures for governmental costs, including outlays for permanent improvements, were more than \$1,080,000,000 (see also diagram, p. 26).

The Bureau has prepared a report relating to the fiscal year 1915, on financial statistics of States, which is similar in scope to the annual report on financial statistics of cities. Recommenda-

Financial statistics of States.

THE STORY OF THE CENSUS

tions have been made to Congress for legislation authorizing the issuance of an annual series of reports on this subject.

Tobacco.

*Quarterly tobacco inquiry.*—Since October 1, 1912, the Census Bureau has gathered and compiled data relating to stocks of leaf tobacco held by certain classes of manufacturers and dealers on April 1 and October 1 of each year; and beginning October 1, 1916, these data will be collected quarterly. The statistics thus obtained are printed on postcards, which are mailed to numerous growers, dealers, and manufacturers, and on posters, which are displayed in the post offices in the tobacco-growing sections. The stocks of leaf tobacco in the hands of manufacturers and dealers on April 1, 1916, the date of the last report, amounted to 1,418,000,000 pounds.

A CENSUS CARD (p. 35).

The card contains the following information:  
 Name: [Redacted]  
 Age: 20  
 Sex: M  
 Race: Mulatto  
 Birthplace: Georgia  
 Mother's Birthplace: United States  
 Language Spoken: English  
 Employment: Agricultural laborer  
 Education: Did not attend school  
 Military Service: Not a veteran of the Civil War  
 Family members listed include: [Redacted] (Head), [Redacted] (Wife), [Redacted] (Daughter), [Redacted] (Son), [Redacted] (Daughter), [Redacted] (Son), [Redacted] (Daughter), [Redacted] (Son).

The person to whom this card refers resided in Maynard, Mass.; was a son of the head of the family in which he lived; mulatto; 20 years of age; native; single; born in Georgia; father born in United States; mother born in United States; spoke English; was an agricultural laborer; was out of employment on April 15, 1910; was out of employment between 7 and 13 weeks in 1909; could read and write; did not attend school; and was not a veteran of the Civil War.

Cotton.

*Periodical cotton statistics.*—Data as to the ginning of cotton to specified dates; as to cotton consumed, imported, exported, and on hand, and number of cotton spindles in operation, each month; and as to cottonseed crushed and linters obtained to specified dates, are collected, and printed on postcards, a total of 26 such reports being compiled in the course of a year. Each of these reports is mailed to more than 40,000 ginners, manufacturers, warehousemen, and others. Each of the ginning reports is

THE STORY OF THE CENSUS

also printed in the form of a small poster, a copy of which is mailed to each post office in the cotton-growing sections. An annual report, in bulletin form, is also issued.

The Bureau has in its employ more than 750 local special agents who collect the data in the cotton-growing States. The American cotton crop of 1914 amounted to more than 16,000,000 bales of 500 pounds each and that of 1915 to nearly 11,200,000 bales. The United States produces from 60 to 65 per cent of the world's supply of cotton; consumes about 40 per cent of its own product, and about 25 per cent of the world's cotton crop; and operates about 25 per cent of the world's cotton spindles (see also diagrams, p. 21, and map, p. 25).

The Census Bureau's statistics in regard to the cotton industry have been of great value, both to the producer and to the manufacturer, and have tended to minimize the effect of speculation, which in earlier years so seriously influenced the market price of this important commodity.

Occasionally some special inquiry is also made by the Census Bureau at the direction of Congress, the President, or the Secretary of Commerce. An important investigation of this nature was that with reference to marriage and divorce, which covered the 20-year period ending with 1906. A similar inquiry, to be begun in 1917, will relate to the 10-year period ending with 1916; and it is the intention hereafter to collect statistics of marriage and divorce, if not annually, at least at much more frequent intervals than in the past.

Marriage and divorce.

In April, 1915, the Census Bureau established a new precedent by enumerating, at local request and expense, the population of a city between census years. This was done at Tulsa, Okla., under authority of a presidential order. Since that time five other cities and villages have been similarly enumerated, and the Bureau is in receipt of requests from a number of others for intercensal counts of population. The actual work of enumeration in each case has been done by residents of the municipality, under the supervision of a representative of the Census Bureau, but the data collected have been compiled and published by the Bureau.

Special censuses of municipalities.

These intercensal enumerations have been especially valuable to cities and villages which have grown at abnormal rates since the census of 1910, with the result that the Bureau's

## THE STORY OF THE CENSUS

official estimates of population, which are based on the growth between 1900 and 1910, would not furnish close approximations to accuracy.

Special compila-  
tions.

During the intercensal periods a portion of the Bureau's force is employed in making special studies, compilations, and analyses of material obtained at the decennial enumerations. The most important compilation of this character which has recently been made is that relating to the Negro population of the United States, the preliminary results of which were published some time ago in a 207-page bulletin, in which were brought together and assembled in systematic form all the principal statistics relating to the Negro race. A more detailed report will soon be issued. In 1910 the Negro inhabitants of the United States numbered 9,827,763 and represented 10.7 per cent of the total population of the country.

Census publica-  
tions.

The total number of quarto pages contained in the reports of the various inquiries conducted by the Bureau in the course of a decade, not including those embraced in the decennial census, is about 30,000, representing an annual average of about 3,000.

The inclusion of the 11,456 pages in the reports of the last decennial census makes the aggregate for a decade more than 40,000. The total number of bound and unbound volumes comprised in the reports issued during a decade is not far from 100. In addition to the reports, numerous preliminary bulletins and press notices are issued.

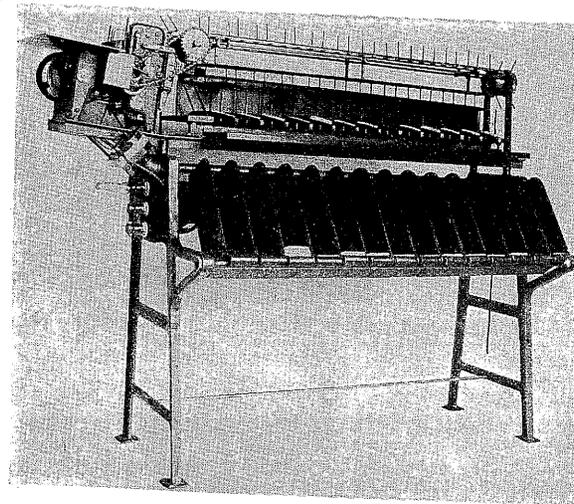
A number of tables, diagrams, and maps showing some of the more important facts ascertained at certain of the census inquiries, and indicating in a general way the growth of the population and industries of the country, are presented throughout this pamphlet. These tables, diagrams, and maps give some hint of the scope of the Bureau's work, although they do not completely outline it.

Information  
furnished by  
correspondence.

But the Bureau does not depend entirely upon the printing press to disseminate the statistics it gathers and compiles. In the course of a year thousands of requests come through the mail from all manner of organizations and individuals for information on nearly every subject within the range of human knowledge. Each such request receives a courteous reply, and whenever possible the information asked for is furnished.

## THE STORY OF THE CENSUS

One important feature of the Census Bureau's activities is found in its efforts to secure uniformity and harmony in the statistical work carried on by States and municipalities, and to bring about coordination of its own work and that of other Federal bureaus. Coordination of  
work.



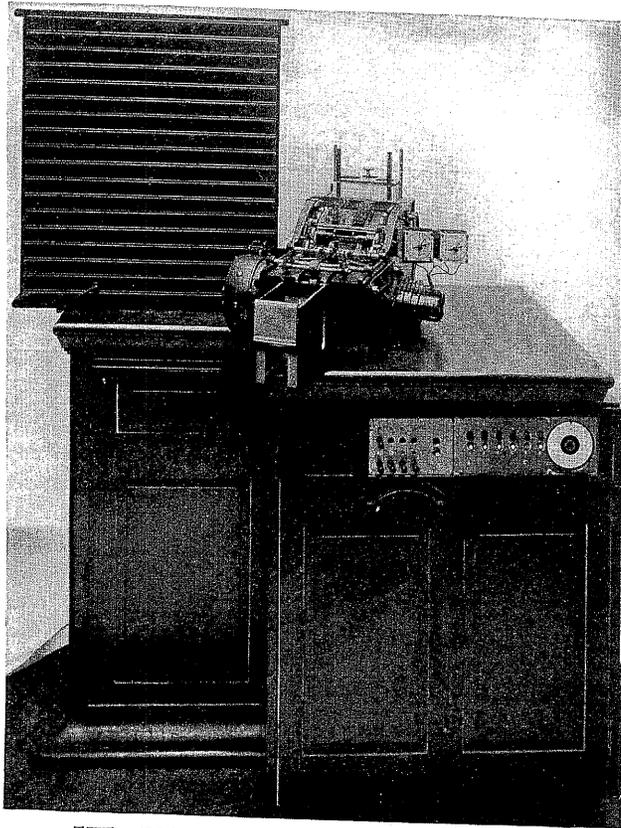
THE CARD-SORTING MACHINE (p. 35).

The organization of the Census Bureau in Washington during the period elapsing between the close of the work of one decennial census and the commencement of that upon another comprises a director, a chief clerk, four chief statisticians (one for population, one for manufactures, one for statistics of cities, and one for vital statistics), a geographer, nine expert chiefs of division, a chief mechanic, a small and varying number of expert special agents, and a force of clerks, subclerical employees (messengers, laborers, etc.), and machine-shop employees, together aggregating nearly 600. In addition to this force there are employed about 770 local special agents to collect statistics of cotton. Organization of  
the Bureau.

During a decennial census the office force is augmented by an assistant director, a private secretary to the director, an appoint-

## THE STORY OF THE CENSUS

ment clerk, a disbursing clerk, a chief statistician, four chiefs of division, and from 1,000 to 3,000 clerks.



THE AUTOMATIC TABULATING MACHINE (p. 35).

Increased efficiency due to permanent organization.

Under the permanent organization the Bureau's numerous inquiries are carried on in a more methodical and businesslike manner than was formerly possible. From time to time various reforms and improvements have been inaugurated, as a result of which the Bureau's current work along all lines is kept as nearly up to date as its magnitude and complexity will permit.

## THE STORY OF THE CENSUS

The first use of mechanical appliances in the compilation of census data was made during the closing months of the work on the census of 1870, when a simple tallying machine was employed with good results. The same machine was also used throughout the census of 1880.

Mechanical tabulation.

### GROWTH OF ELECTRICAL INDUSTRIES IN THE UNITED STATES: 1890-1912.

	1912	1907	1902	1890
<i>Street and electric railways.</i>				
Miles of track.....	41,065	34,404	22,577	8,122
Passengers carried.....	9,545,554,667	7,441,114,508	4,774,211,904	2,023,010,203
<i>Central electric light and power plants.</i>				
Number of stations.....	5,221	4,714	3,620	
Output, kilowatt hours..	11,532,963,006	5,862,276,737	2,507,051,115	
<i>Telephones.</i>				
Miles of wire.....	20,248,326	12,999,369	4,900,451	<sup>a</sup> 240,412
Number of telephones...	8,729,592	6,118,578	2,371,044	<sup>a</sup> 233,678
Calls (estimated) <sup>a</sup> .....	13,735,700,000	11,372,600,000	5,070,000,000	453,200,000
<i>Telegraphs. <sup>b</sup></i>				
Miles of wire.....	1,814,196	1,577,961	1,318,350	
Number of messages.....	109,377,698	103,794,076	90,834,789	

<sup>a</sup> Not reported for independent farmer or rural lines.

<sup>b</sup> Exclusive of ocean cable lines and telegraph lines operated by railways for railway purposes only.

At the census of 1890 there was introduced the card system of tabulation, which, with modifications and improvements, is still employed. Under this system, by which the population and mortality statistics are tabulated, the various details as to color, age, sex, parentage, occupations, etc., are transferred from the schedule to a card  $6\frac{3}{8}$  by  $3\frac{1}{4}$  inches in size, by means of a mechanical punch, the position of the hole on the card indicating the particular fact to be recorded. The cards thus punched are first run through a verification machine which throws out all inconsistencies and also provides a count for subsequent checking purposes; next they are separated into classes or groups by an automatic sorting machine which will take care of 300 cards a minute; then, depending upon requirements, they are run through a machine which counts them at the rate of 500 a minute; and, finally, they are run through an electric tabulating machine capable of han-

The card system.

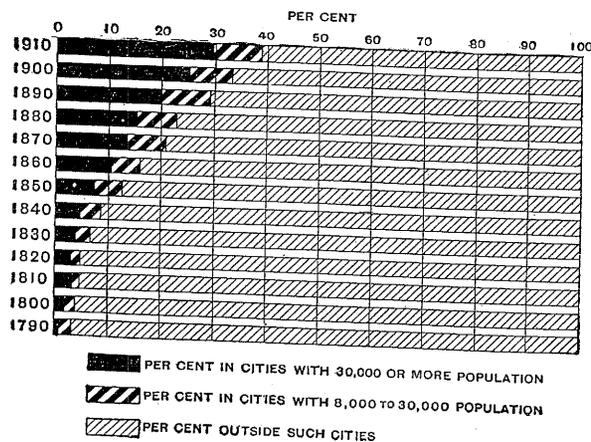
## THE STORY OF THE CENSUS

dling from 375 to 425 cards a minute, which not only counts the cards themselves but records each of the items of information indicated on them. (See illustrations, pp. 29, 33, and 34.)

Other machinery used by the Census Bureau includes adding machines, typewriter-adding machines, and calculating machines, all of which are of the ordinary commercial types.

### URBAN AND RURAL POPULATION: 1790-1910.

(See also diagram, p. 9, and table, p. 37.)



### Cost of conducting the Census Bureau.

The amount spent for the last decennial census was, in round numbers, \$15,970,000—a large sum, indeed, in comparison with the value of the average citizen's worldly possessions or the amount of his annual income; but it must be remembered that the Government handles millions as the individual handles dollars. As a matter of fact, this sum, considered as a tax levied upon the entire population of the United States, would amount to only 17 cents per capita—about the price of a package of breakfast food or of a couple of moderately good cigars. Moreover, the expenditure of an amount like this comes but once in 10 years and is distributed over a period of several years. The annual cost of conducting the Census Bureau during the period intervening between the decennial censuses varies considerably.

## THE STORY OF THE CENSUS

### GROWTH OF THE UNITED STATES—POPULATION AND AREA: 1790-1910.

(See also diagrams, pp. 9, 17, and 36.)

CENSUS YEAR.	Total population.	Land area in square miles.	Population per square mile.	Per cent of increase.	Per cent of total population in places of 8,000 or more.
1910	91,972,266	2,973,890	30.9	21.0	38.8
1900	75,994,575	2,974,159	25.6	20.7	33.1
1880	62,947,714	2,973,965	21.2	25.5	29.1
1870	50,155,783	2,973,965	16.9	30.1	22.8
1860	38,558,371	2,973,965	13.0	22.6	20.9
1850	31,443,321	2,973,965	10.6	35.6	16.1
1840	23,191,876	2,944,337	7.9	35.9	12.5
1830	17,069,453	1,753,588	9.7	32.7	8.5
1820	12,866,020	1,753,588	7.3	33.5	6.7
1810	9,638,453	1,753,588	5.5	33.1	4.9
1800	7,239,881	1,685,865	4.3	36.4	4.9
1790	5,308,483	867,980	6.1	35.1	4.0
	3,929,214	867,980	4.5	.....	3.3

<sup>a</sup> Exclusive of Alaska and the insular possessions.

### GROWTH OF THE UNITED STATES—AGRICULTURE, MANUFACTURES, AND MINES AND QUARRIES: 1850-1914.

(See also diagrams, pp. 12, 15, 18, and 19, and map, p. 13.)

CENSUS YEAR.	Number of farms.	Average size of farms (acres)	Value of farm property.	Value of manufactured products. <sup>a</sup>	Value of mineral products. <sup>a</sup>
1914	.....	.....	.....	\$24,246,323,000	.....
1910	6,361,502	138.1	\$40,991,449,090	20,672,051,870	\$1,255,370,163
1904	.....	.....	.....	14,793,902,503	.....
1900	5,737,372	146.2	20,439,901,164	11,406,926,701	796,826,417
1890	4,564,641	136.5	16,082,267,689	9,372,378,843	470,760,770
1880	4,008,907	133.7	12,180,501,538	5,369,579,191	251,967,055
1870	2,659,985	153.3	8,944,857,749	3,385,860,354	191,002,543
1860	2,044,077	199.2	7,980,493,063	1,885,861,676	89,544,435
1850	1,449,073	202.6	3,967,343,580	1,019,106,616	29,826,699

<sup>a</sup> Relates, except for 1902, 1904, and 1914, to the year preceding that shown in the first column.

<sup>b</sup> Includes value of products of hand and neighborhood industries.

## THE STORY OF THE CENSUS

from year to year, according to the nature of the inquiries carried on; but the total cost during a decade, including the expenses of the decennial census, amounts to about \$30,000,000, or approximately 3 cents per capita per annum. So the average citizen does not pay so very much, after all, for his Federal statistics.

Value of  
census  
statistics.

The casual reader may ask: "What is the use of all these complicated figures on so many different subjects?" Perhaps the best reply to such a query is found in the quotation from President Garfield, printed on page 1. In this connection, too, may well be cited an excerpt from an article by John Cummings in the December, 1913, issue of the Quarterly Publications of the American Statistical Association:

It is true of every sort of social change, whether of progress or decline, that the steps are imperceptible to the unaided vision of those who, as legislators or administrators, in the face of existing conditions of infinite complexity in their origin and interdependence, mold public policy. To determine the direction and extent of these changes requires the survey of a long period of time. It requires accurate measurements which embrace the full detail of social phenomena, and it is the proper function of a great statistical laboratory, by assembling the data of social phenomena, to make this survey, and by so doing to extend the scope and power of vision of those who are at any given time directing the trend of social forces. In the records of such a laboratory the growth of a nation is epitomized and in its current work the imperceptible changes which are taking place are accurately determined.

Such, in brief, is the story of the growth of American census taking, from the simple inquiry of 1790, which amounted to little more than a mere count of the population, to the many, varied, and complex lines of investigation now conducted by a great statistical laboratory organized on a permanent basis.