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41ST CONGRESS, } HOUSE OF REPRESENTATIVES. { REPORT
2d Session. } 3 { No. 3.

NINTH CENSUS.

JANUARY 18, 1870.—Laid on the table and ordered to be printed.

Mr. GARFIELD, from the Committee on the Ninth Census, made the following

REPORT.

The Committee of the House of Representatives on the Ninth Census, having had the subject under consideration, beg leave respectfully to submit the following report:

The relations of a census of the United States to the general subject of statistics are so intimate that the committee have thought it proper to offer a few preliminary suggestions on the general subject of statistics, and to submit a brief history of such inquiries made by ancient and modern nations, together with an exhibit of the statistical methods now in use in each of the states of Europe. They have also added a history of statistical inquiries, including censuses, made in this country, from the beginning of the colonial period to the present.

The great change made in the basis of popular representation by the thirteenth and fourteenth amendments to the national Constitution made it necessary for the committee to examine the constitutional and statutory provisions of the several States of the Union, in order to ascertain what would be the effect of the constitutional amendments referred to upon the representative population of each State. The committee addressed a circular to the governors of the several States, forwarding to each a copy of the clauses of the State constitution and laws which define the qualifications of a voter therein, and requesting him to cause the same to be examined, corrected and authenticated. The results of that investigation and correspondence are submitted in the appendix to this report, marked "A." In appendix "B" will be found the provisions made by the different States of the Union in regard to taking censuses and making other statistical inquiries. Appendix "C" is a paper laid before the committee by Dr. Edward Jarvis, of Dorchester, Massachusetts, relating to vital statistics, and suggesting what inquiries ought to be made concerning population. It is believed that the several subjects discussed in this report and in the appendix will be of sufficient interest to warrant the committee in laying them before the House.

CENSUS-TAKING AND STATISTICAL INQUIRY FROM THE EARLIEST HISTORICAL PERIOD TO THE BEGINNING OF THE NINETEENTH CENTURY.

The science of statistics, of which census-taking is one of the practical applications, is of modern growth, but its germs are found in the earliest periods of known history. The need of a positive knowledge of the social forces at play in communities of men appears to have been

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felt from the time when the human race first segregated into distinct social and political bodies. Statistical observation, indeed, may be said to be coeval with the very organization of society and government. Every reader of the Bible is familiar with the enumeration of the tribes of Israel instituted by Moses during the exodus, and the disastrous census of King David. Among the Chinese, public statistics were collected thousands of years before the Christian era. We have a distinct account of the census ordained by the Emperor Yee, 2042 years B. C. There is a record of a census in Japan, under the Mikado Su-jin-tenno, in the last century B. C. Under the reign of the Incas, as related by Prescott, in his history of the conquest of Peru, statistical information was assiduously gathered. Some of the rulers of ancient Persia made statistical data the basis of taxation. In old Greece, registers of citizens were kept at Athens, and in other cities, and statistical researches made in various directions. Herodotus, Aristotle, Strabo, and Pausanias, made use of statistical material in their writings. In Rome public statistics became the very foundation of government at an early period. From the time of King Servius Tullius, through the whole republican era, the periodical census, which comprised both persons and property, and attained a high degree of exactitude, served to regulate the duties of the citizens toward the state. Under the emperors even more attention was paid to public statistics. Augustus enlarged the scope of the census, and improved the mode of taking it. He had the entire population enumerated; the whole empire surveyed and the *Rationarum imperii*; a statistical exposé of the warlike and other resources of the state, compiled. Under the more enlightened of his successors the collection and preservation of statistical information was continued and developed into a regular branch of public business. Under Constantine there existed what may be styled the first statistical bureau under the name of *Scrinium Memoriae*.

In the middle ages the general decline of intellectual life confined the pursuit of statistical knowledge within the narrowest limits. The term "census" still appeared in political nomenclature, but with the discontinuance, upon the collapse of the Roman empire, of the public act which it signified, its original meaning was lost. In mediæval times it was applied almost exclusively to cadastral operations. Up to the thirteenth century, there is no record of a distinct enumeration of the population in the annals of any people. Still, from the supremacy in that dark period of the law of force, which rendered a knowledge of such elements of offensive and defensive strength as the population capable of bearing arms and its taxability indispensable to rulers, it may be presumed, though we have little proof of the fact, that information regarding the number and means of the subjects was generally sought by different methods. But, while the practice of regular population censuses seems to have been unknown, we find, here and there, evidence of spasmodic statistical activity on the part of both governments and individuals. Charlemagne instituted the *missi dominici*, or inquiries into the capacity of the soil and the cereal products of all the provinces of his vast empire. The famous Doomsday Book of William the Conqueror bore some resemblance to a modern census. The cadastral inquiries instituted in a limited measure by some of the German emperors partook of the nature of public statistics. The active geographical labors of the Arabs between the eleventh and fourteenth centuries produced, incidentally, some valuable statistical material. The best known geographers, among them El-Masundi, Edrisi, and Chalil-Ben-Schahin, were, in a certain sense, statistical writers. The only mediæval population

censuses of which there seems to be any record, are those of the Mongolians in the thirteenth and of Peter of Aragon in the fourteenth century. In the fourteenth and sixteenth centuries, some of the republican governments of Italy, and among them especially that of Venice, attached much importance to the collection of reliable data concerning the material resources of their own territories as well as of foreign countries. In the last named century a popular enumeration took place in the kingdom of Castilia. Philip II of Spain commenced the careful preservation of statistical matter, relating to his vast dominions. Among his cotemporaries were several compilers of geographical-statistical works. Pope Pius II compiled his *Descriptio Asiae atque Europae*. In 1544 Sebastian Mueneter printed his well known cosmography in Germany. In 1562 the Roman Francesco Sansovino published an account of twenty ancient and modern states. In 1591 Botero brought out at Rome his *Relazioni Unversali*, in which he describes all the states of Europe. Machiavelli's accounts of his numerous missions abroad, and his enrollment of the military population of the Florentine Republic, deserve to be named in the same connection. In the sixteenth century the practice of keeping church registers of births, marriages, and deaths, which formed the beginning of the modern systems of recording the movements of population, became general.

According to the authority of a British writer on statistics, a complete survey was made of the English realm under the reign of Henry VIII, in the first half of the sixteenth century, in which the number of the inhabitants, their ages, professions, wealth, and increase, were ascertained, but there is no known record of this census.

In the seventeenth century, while no exact popular enumerations were made, the need of a more accurate acquaintance with the resources of the state for the successful conduct of government was felt in the more progressive countries. Thus in France, Sully, the great minister of Henry IV, exerted himself to constitute the administration of the public finances on a statistical basis. Louis XIV, upon the advice of the celebrated Fénelon, required the intendants or governors of provinces to furnish the most accurate data that could be obtained relative to commerce, agriculture, and industry; the clergy and nobility; the population in general; public roads; inland navigation, and other material interests of the several provinces. The reports were published in a series of forty-two folio volumes. They contained statistical tables of population, and a vast amount of other valuable information; but the want of a uniform plan of inquiry, and the different degrees of diligence, comprehensiveness, and exactitude shown in the reports of the several compilers, detracted considerably from the value of the reports as a whole. In 1698 the French government also commenced the publication of the *Almanac Royal*, a sort of Blue Book. In England, the compilation and publication of general commercial statistics were commenced upon the establishment of the office of inspector general of exports and imports, toward the close of the seventeenth century.

Much private labor was likewise given in the same century to glean- ing and even practically applying statistical information. Divanti, in 1612, brought out his "État des Empires, Royaumes et Républiques."

Yan van Leet published his "Respublicae Elzeviriana," between 1624-1640. The great work of Pierre d'Avity, on "Les États et Empires du Monde," appeared in 1626. In 1666 John Graunt, the founder of political arithmetic, brought out his "Observations on the Bills of Mortality," which had the effect of awakening a more general interest in vital statistics in England and France. Helenus Politianus's "Microscopum Stat-

isticum" came out in 1672. Sir William Petty, besides numerous other politico-economic writings, in 1690 published his "Political Arithmetic," in which he gives many curious statistical facts regarding the number of inhabitants, resources, public revenues, &c., of England at that time. In 1693 the celebrated Dr. Edmund Holley printed the first mortality table for insurance purposes, calculated on the mortuary statistics of the German city of Breslau. In 1695 Bois Guilbert brought out a large statistical work entitled "Le détail de la France sous Louis XIV," of which several editions appeared.

The eighteenth century may be said to have witnessed the birth of official statistics. In the course of it some of the leading governments took measures looking to their systematic collection. In Russia partial censuses were taken by order of the government in 1700, 1704, 1705, and 1710. In 1718 Peter the Great promulgated an ukase requiring all landed proprietors to make a bona fide declaration of the number of serfs belonging to each, and of their location. In the following year he organized a special commission and ordered it to visit all the provinces of the empire (with few exceptions) for the purpose of making a general census. The commission was charged to ascertain the exact number of peasants, mechanics, domestics, and persons without regular employment, and to return the whole population, including old and young, but excepting females. The provincial authorities were required at the same time to return the number and population of all the towns, villages, and landed estates within their respective jurisdictions. A subsequent ukase of 1722 directed the revision of the returns in order to ascertain the number of insane and infirm persons without means of subsistence. The exclusion of females from the census, which was taken solely for purposes of revenue and military conscription, naturally impaired its statistical value. The ukase of 1722 directed that a census should take place every twenty years. But this interval of time was not regularly observed during the remainder of the century. The first census after the revision of 1722 was taken in 1742, followed by others in 1762, 1782, and 1796. Females were included after a time in the enumeration, but returned with less exactitude than the males. The taking of the censuses eventually devolved on the central administration of the several provinces, which were held responsible for their correctness.

In Prussia, census-taking was inaugurated under King Frederick William I, who wholly re-organized the civil administration of the kingdom. By his order the ministers and provincial authorities took measures to ascertain the number of the population. For this purpose a series of questions were addressed to administration officers, the responses to which were based, however, not on an actual census, but on calculations from various data. This imperfect system was greatly improved by Frederick II, who gave the statistical inquiries a more regular character. From 1748 till the close of the century, a general census was taken annually except during a few years, when war rendered it impossible. The successive enumerations of the population were made by the superior authorities of each province. Separate lists for town and country were prepared. Attempts were made to connect with the census the collection of statistics showing the annual crops of cereals, but they met with meager success.

In Sweden a law making the keeping of church registers by the clergy obligatory was promulgated as early as 1686. From that time up to the present day the clergy have been the ex-officio collectors of population statistics in that country. The law in question required them to keep a register: first, of marriages; second, of legitimate and illegitimate

births; third, of deaths; fourth, of persons who removed from and settled in the parishes; fifth, of all the inhabitants, arranged by habitations and households. No effort was made to compile from these registers any consolidated statement until 1746, when the Stockholm Academy of Sciences published, for the first time, a table showing the total population of the realm, based on extracts from the parish registers. At the request of the academy, the diet caused uniform schedules, accompanied by explanatory instructions, to be prepared and distributed among the twenty-five hundred parishes of the kingdom, with a view to obtaining annual consolidated returns. Such annual returns were made regularly by the clergy after 1749. They showed the number of births according to sex and legal character, with the age of the mothers; of marriages; of deaths, arranged according to sex, age, and cause; of dissolutions of marriages by death. The schedules were enlarged from time to time. Besides the annual returns from the clergy, separate general censuses were taken yearly between 1749 and 1751, every three years between 1751 and 1775, and every five years after 1775. These censuses were taken by police officers, toward the close of the year, and verified by personal investigations of the clergy. They showed the number, sex, age, and occupation of the inhabitants; the number and sex of married and single persons, widows and widowers; the number of blind, deaf and dumb, and insane persons; the number of pupils of educational establishments; the number of persons not belonging to the established church, and the number of the inmates of hospitals, asylums, and prisons. In 1756, a regular statistical commission, consisting of superior officials and members of the Academy of Science, was created by the government, which continued in function until the present century, when it was superseded by a regular bureau of statistics attached to one of the ministries.

In Austria census-taking dates from the middle of the eighteenth century. Successive imperial decrees in 1753 and 1754 ordained a double general enumeration for German Austria, and Bohemia, Moravia and Silesia, to be conducted separately by the clerical and secular authorities. The first census was to be taken in 1854, and to be followed by a general enumeration every three years at the beginning of the solar year. The aim of the census was to ascertain the actual, as distinguished from the legal, population, according to age, sex, and civil relations. The results of the first census were worked up into summaries, in which the population was grouped into four classes according to age, sex and civil status being exhibited in each class. The males of towns and villages were besides enumerated separately in three groups according to age. The unsatisfactory results of the first censuses taken under this plan caused several modifications of the original schedules. By degrees provision was made to obtain special exhibits of the number of cities, towns, hamlets, villages, and landed estates; the number of families with and without houses, together with that of the clergy, nobility, public officials, domestic servants, artisans, tradesmen, and inmates of hospitals. Efforts were also made to ascertain the movements of the population. In 1770, the enlightened Emperor Joseph ordered, with a view to a more general distribution of the burden of military service, a general so-called conscription census, by special commissioners appointed for each province. In conjunction with it an enumeration of draught animals was to take place. But the execution of the measure was found difficult and had to be temporarily abandoned. In 1776, the subject was turned over to a special commission, on the strength of whose report an imperial patent, in 1777, ordered a general enumeration of both sexes to be made by the adminis-

trative authorities on the basis of the legal population. The census was to be taken by household schedules, for the return of which three months were allowed. The schedules, called for nominative lists of all the members of each household, showing their age, sex, civil state, and religion. The social position, occupation, legal domicile, and residence of males, were also returned. No statement of age was required of clergymen, noblemen, public officials, Jews, the followers of certain liberal professions, and females, as not liable to military service. A new decree, in 1781, required an annual revision of the census in the months of March, April, and May. In 1784 a similar enumeration was ordered for the Kingdom of Hungary and dependencies, which was executed in the following year. But the war with the Turks and the death of Joseph II prevented its repetition. Under Joseph's successor the conscription census laws became ineffective during the remainder of the century in the eastern portion of the empire.

In Switzerland census-taking also commenced in the eighteenth century. About 1733 a census took place in the canton of Zurich. Other cantons followed the example.

In Spain a census was taken under the minister Florida Blanca, the results of which were published in 1787. Another was undertaken in 1798, the returns of which were printed in 1801. There are records of two enumerations in Cuba, one in 1775 and 1791. A general census took place in 1795, in the Batavian Republic, (Holland.)

In France the government did very little toward the advancement of public statistics during the first half of the eighteenth century. But individuals performed some highly valuable labors in statistical fields. First among the fruits of these in point of time and merit was the famous "Projet d'une dixme royale," by the Marshal Vauban, an elaborate proposition based on a statistical *exposé* of the resources of France for a reform of the system of taxation of the kingdom, which was published in 1707 and attracted general attention. In 1715 appeared the "Description de la France," by Piganiol de la Force, a statistical, geographical, and historical compilation, and next to the reports of the intendants the most valuable work of the kind of that period. The Abbé Expilly worked up a good deal of statistical information in his works entitled "De la Population de la France," and "Dictionnaire Géographique des Gaules et de la France." Déparcieux made his investigations into the laws of mortality. Other publications of minor importance in the same period attested the increasing interest of cultivated French minds in statistical science.

In the latter part of the reign of Louis XV, the French government commenced to occupy itself more seriously with public statistics. M. de Gournay, minister of commerce, organized a "bureau de renseignements" in his ministry, charged with extracting the reports of the governors of provinces, inspectors of manufactures, consular reports, and other public documents. Much attention was given by this bureau to the subject of population. Under its auspices M. Messance published a treatise on the population of various provinces in 1766. M. Moheau, attached to the bureau, undertook some comprehensive statistical inquiries by order of the government, the results of which were published in 1774.

Many valuable contributions to statistical science appeared in several of the periodicals of that time, among which the "Journal Economique" and "Journal des Arts, du Commerce, et des Finances" deserve to be ranked.

A profound impression was produced by the appearance, in 1784, of

the work of M. Necker, the famous minister of finance of Louis XVI, entitled "Traité de l'Administration des Finances." It dealt largely in statistics, containing as it did detailed accounts of the territorial extent, population, products, and commerce of each province; and tabulated statements of the resources and expenditures of the kingdom as a whole. Necker inaugurated the practice of publishing periodically elaborate statements of the condition of the public finances. (budgets.) which was afterward adopted by the governments of all civilized countries. He reorganized the "bureau des renseignements," giving a wider scope to its labors.

In 1789 M. de Pommelles, an army officer, published a work on the state and movement of the population of France, remarkable for extent and originality of research. At about that time there appeared, also, M. de Beaufort's "Grand Porte-feuille politique," containing all the information then extant relative to the government, population, army and navy, revenues and expenditures, debts, agriculture, commerce, manufactures, &c., of the leading countries of Europe, as also the work of the celebrated Count Mirabeau on the Prussian, Saxon and Austrian governments. Numerous smaller works of a statistical nature, mostly from government officials, appeared between 1790 and 1800. Toward the close of the century, the "Dictionnaire Universel de Géographie Commerciale," the most extended statistical work produced by private enterprise in France up to that time, commanded the general attention of the public.

The new political era which opened in France upon the downfall of the monarchy, stimulated the development of public statistics. The constituent assembly had no sooner obtained undisputed sway than the revolutionary law-makers showed their clear perception of the truth, which found formal recognition at about the same time in the organic law of the young republic of the United States, that healthy legislation can only flow from an exact knowledge of the condition and wants of the people, and that population is the proper basis of representation in a free State. Statistical inquiries were, without delay, ordered to be made by administrative and municipal officers. But the returns of the latter regarding population, obtained or made up from the civil registers, were found to be unreliable, owing to the temptation which many of them were not conscientious enough to resist, of overstating the population in order to secure a larger representation in the national legislature. In the subsequent inquiries into the population under the republic, the reverse took place after population had been made the basis of taxation, as the officers charged with making the returns sought to lighten the burden of taxation in their respective localities, by understating the actual figures. In the tenth year of the republic a regular enumeration of the population was ordained to be made by the justices of the peace, which furnished better but not wholly satisfactory results.

The "bureau des renseignements" of the monarchy was supplanted under the republic by the bureau of the "balance du commerce," with more limited statistical functions. When Lucien Bonaparte became minister of the interior after the commencement of the reaction, he endeavored to promote public statistics by combining the labors of officials with those of independent men of science, and by making the results of their inquiries available to the government and the public through the agency of a statistical bureau which he organized in his ministry. His object was, to obtain a complete statistical *exposé* of France; but while a good deal of valuable material was collected under his direction, his purpose was not fully realized, owing to the want of a

uniform plan of operation. Under his successor such a plan was devised, and the administrative officers required to adopt it.

While a fair beginning in census-taking was thus made by the governments of various continental countries, the eighteenth century closed without anything having been attempted in the same direction in England. Considering that that country before the outbreak of the French Revolution was more advanced, materially and politically; that commercial and financial statistics had been collected at the instance of its governments for generations; that economic science had already attained a high degree of development in the British Isles; that many minds had successfully investigated and written upon statistical subjects, and that censuses had been periodically taken, by order of the home government, in the American colonies since the seventeenth century, this backwardness is no little surprising. But it is an historical fact that even at the time when Adam Smith wrote and up to the beginning of the nineteenth century, the most erroneous notions prevailed among Englishmen on the subject of the population of their country. The population question was indeed the subject of frequent controversy. The current estimates were just one-half of what the number of subjects subsequently turned out to be, and yet no effort was made to solve it by actual inquiry until 1790, when Sir John Sinclair, a high authority in matters of public finance in his time, and a man of rare intelligence, enterprise, and perseverance, undertook the compilation of a complete population, agricultural, commercial, and industrial census of Scotland. For this purpose he addressed one hundred and sixty questions, on as many different subjects, to all the clergymen of the Established Church. He had much difficulty in obtaining answers from them, but by dint of persistently repeated appeals he succeeded in the course of time in securing returns from nearly all the parishes. The returns were published by him successively in a series of twenty-one volumes. The energy of this remarkable man may be judged from the fact that he secured no less than nine hundred contributors to his census, and that the whole compilation and publication were completed in just seven years. He subsequently prepared a masterly compendium of the series, entitled an "Analysis of the statistics of Scotland." His statistics were not absolutely accurate, but they formed, although the work of a single individual, a more complete census than any yet undertaken by any government. Sir John Sinclair may be said to be the founder of British public statistics. For it was mainly at his suggestion that Parliament, on December 31, 1800, passed an act providing for a general enumeration of the population of England, Wales, and Scotland, in the following spring.

In addition to the considerable progress of official statistics, the eighteenth century was remarkable for the formal recognition of statistics as a distinct science. Throughout the middle and the later ages, statistics were treated by writers on the subject as a subordinate element of geography and demography, rather than as a separate field of intellectual labor, capable of independent cultivation. Lectures on statistics (*collegie statistice*) were instituted, it is true, at two German universities respectively in the last but one decennium of the seventeenth and the third decennium of the eighteenth century. But, nevertheless, the elevation of statistics to the dignity of an independent science was due to Gottfried Achenwall, the German professor who taught it as such for the first time in 1748 at the University of Göttingen, which was at that time largely frequented by students of political science from all parts of Europe. The work of Achenwall was worthily

continued by his pupil Schloezer, a profoundly erudite and philosophic mind, to whom the immortal definition, "History is current statistics; statistics, history in repose," is due. How clearly Schloezer perceived and defined the nature of statistics is shown by the fact that his theory of it has the weight of authority to this day.

GROWTH OF PUBLIC STATISTICS AND STATISTICAL SCIENCE FROM THE BEGINNING OF THE NINETEENTH CENTURY TO THE PRESENT.

Like every other branch of human activity, statistical knowledge has experienced a far more rapid and extensive development in the nineteenth century than in any preceding period. With the steady progress of most civilized states during the last two generations towards more liberal political institutions, public statistics, as the most reliable gauge of the true interests of both governments and governed, have become more and more the basis of the enactment and administration of laws. And again, the greater concern of man in man, growing out of the general advancement of society, has naturally tended to increase the number of those who privately devoted themselves to the study of statistical facts, and to the building up of the science of statistics to the commanding proportions which it has now reached. In the following an account will be given—first, of the growth of the systems of public statistics practiced under the leading European governments; and, secondly, of the labors of associations and individuals in developing the science of statistics and applying its teachings to the affairs of mankind.

SYSTEMS OF PUBLIC STATISTICS IN THE LEADING COUNTRIES OF EUROPE.

The Russian government, though one of the least progressive in other respects, continued its efforts—begun under Peter the Great for the development of public statistics—very actively during the present century. A "central bureau of statistics" was organized as early as 1802, under the direction of the ministry of the interior, to which the results of the statistical inquiries of the several departments of the government were referred. In addition to the digestion of these results, the bureau instituted inquiries of its own on such subjects as did not come within the scope of the several ministries. Statistical exhibits of the public administration, population, territorial extent and subdivision, agriculture, commerce and industry of the empire, were published from time to time by the bureau in the official organ of the ministry of the interior. The central bureau was aided in its labors by statistical commissions, consisting of administrative officers and competent private individuals, which were organized by degrees in all of the thirty-three governments or provinces of the monarchy. These commissions were required to maintain direct relations with the central bureau, and to furnish it with any desired information. The methods of procedure are carefully indicated to them. Besides these statistical organs, special commissions are attached to particular branches of the administration. An independent statistical commission, composed of the professors of the University of Kieff, has also rendered valuable services.

Another peculiar instrument, employed by the Russian government for statistical purposes, is the "statistical expeditions," which, since 1852, are sent out regularly into the several provinces for the purpose of making original inquiries on the spot, relative to population and other subjects, rectifying and supplementing statistical returns, &c. These

"expeditions" consist of practiced statisticians attached to the several ministries. The local administrative authorities are required to lend them their assistance.

The "central bureau of statistics" was reorganized in 1852, under the name of "statistical commission." It received another transformation in 1858, when it was re-constituted under the name of "central statistical commission," and divided into two sections, viz, one charged with the supervision of the whole field of administrative statistics, and another with the duty of conducting all inquiries pertaining to the abolition of serfdom. The statistical section was composed of representatives of the several ministries and other central authorities, and given power to initiate statistical labors in the several departments. Under the direction of the new central authority the provincial statistical commissions were also reorganized.

One of the main functions of the several organs of public statistics has been the taking of population censuses. Of these, five have taken place in the present century, viz: 1812, 1815, 1834, 1850, and 1860. It is intended hereafter to take a census every ten years. Up to 1860 the range of inquiries in the successive censuses was very limited. The last census, taken in the year named, was a considerable improvement on the preceding ones. As a preliminary measure, a complete list of inhabited places, including isolated habitations, was prepared. This furnished the basis for the census, in which the legal population, by sexes, the number of houses in towns, and of estates in villages and country; the number of churches and chapels, benevolent institutions, schools, fairs, markets, post-stations, as well as that of manufacturing and other noteworthy establishments, was comprised. The census was taken by means of printed schedules distributed by the local administrative authorities, which are responsible for proper returns. The government fixes the time in which the census is to be taken, a longer term being allowed for the Asiatic than for the European provinces. The consolidation and digestion of the census returns devolves upon the central statistical authorities.

In the province of Finland a separate mode of census-taking prevails, which dates from the time when that province was still a Swedish possession. It is taken by the civil authorities in conjunction with the clergy, and relates exclusively to population. A separate statistical bureau exists for that province.

Besides the census operations, separate inquiries have been carried on under the direction of the different ministries regarding the distribution and condition of real property, the extent of seignorial possessions, the movement of the population, public education, the administration of public justice, industrial production, commerce, the number of live stock, the economic organization and revenue of cities and towns, and the banking institutions of the empire. Numerous staff officers are sent out regularly by the government to study the resources of the different provinces from a military point of view. Their labors furnish valuable contributions to the statistics of the country.

While the statistical machinery of Russia is, as has been shown, very extensive, the results of its working are not as satisfactory as could be wished. Most of its failures are due to the ignorance of the subordinate officials in many of the provinces. Still, the fruits of Russian public statistics, as a whole, have proved valuable additions to statistical knowledge. The official literature is already quite voluminous, and some of it possesses no mean merit. Among the leading publications is the work entitled "Inhabited places of the Empire," which contains statis-

tical, ethnographical, geographical, and historical accounts of each of the thirty-three provinces, in as many volumes. The "Statistical Annual" of the empire appears in annual volumes since 1866, and contains the latest statistics of population, habitations, commerce, and industry, public finance, education, justice, &c. A number of minor works, mainly monographs, have been brought out under the auspices of the central statistical commission. The reports of the staff officers referred to, form already a series of not far from a hundred volumes.

Some of the statistical labors of certain departments of the government are not allowed to be published, but this is rather exceptional, publicity being the rule.

A new impulse was given to public statistics in Prussia by the organization in 1805 of a central bureau of statistics, which has existed, with progressive changes in its constitution, up to the present day. The labors of the bureau touched upon, 1st. General statistics; 2d. Births, marriages, and deaths; 3d. Schools and churches; 4th. Medical statistics; 5th. Statistics of mechanical trades and manufactures. At first, inquiries into these various subjects were made every year, but from 1820 information relative to the first, third, fourth, and fifth subjects was collected only every three years. The movement of the population, however, continued to be ascertained annually. Upon the establishment of the Customs Union in 1834, triennial population censuses were adopted, which practice has prevailed up to the present time.

The immediate object of the Customs Union census is, according to its constitution, to furnish a basis for the *pro rata* distribution of the receipts of the union among its members. But in the different States, forming the union, the triennial census was made to serve for statistical purposes beyond the mere enumeration of the population. As taken at first in Prussia, it comprised the following subjects of inquiry: The actual population, according to sex, age, (arranged in yearly classes,) birth-place, and civil condition; mental and physical disabilities; school attendance, religion, immigration, and emigration. In 1840 the enumeration was made nominative, which resulted immediately in a large increase in the population returns. In 1846 the number of families was determined, and in 1849 the distribution of the population by habitations. In 1858 the persons of the two sexes, between seventeen and forty-five years of age, were returned in five classes. In 1861 the unmarried and widowed were specially classified. With the census of the same year an inquiry into the linguistic relations, and the social condition and occupation of the population was connected. The Prussian census is taken by civil officers, in the month of December, on one day, by means of printed schedules. Great expedition is shown in the publication of the census returns.

Besides the census, a great number of other interesting inquiries have been made in Prussia with gratifying results, partly at the instance of the statistical bureau, and partly under the direction of the several departments of the government. Among the principal subjects inquired into are the nature, extent, distribution, movement, value, and indebtedness of real property; the numerical strength of the Catholic and Protestant churches; wages and salaries; goods' traffic on railways; the vitality and mortality of the civil and military population; assurance, mutual aid, and co-operative societies; commerce and industry. The results of these special inquiries have all been made public, and rank among the most creditable achievements of statistical science. The different compilations on the subject of real property, and more especially those treating of the distribution and agricultural character of real prop-

erty; the statistics of wages and salaries; the vital and mortuary statistics, and the statistics of societies, deserve to be specially mentioned. The statistical bureau, whose head, Dr. Engel, has a world-wide reputation for intelligent, original, and untiring industry, issues several periodical publications, of which the "Statistical Year Book," the "Journal of Statistics," a quarterly, and the "Occasional Papers on Prussian Statistics," are the principal ones.

Through the efforts of Dr. Engel a statistical seminary was established at Berlin some years since, in which young men receive a regular education in the theory and practice of the science. It is open to all, natives as well as foreigners, who prove themselves possessed of a certain degree of general education. Dr. Engel, animated by the conviction that public states can only reach a high degree of perfection when the intelligent public co-operate with the government in the prosecution of statistical inquiries, is now making strenuous efforts to organize statistical societies throughout the kingdom.

Public statistics are assiduously cultivated in all the minor German states. Nearly all of them maintain bureaus of statistics, the chiefs of some of which are highly distinguished statisticians. Under these bureaus statistical researches are carried on very methodically. In most of these states the census is taken triennially under the regulations of the Customs Union, differing but little from the Prussian. In Bavaria a special census is taken, besides the Customs Union census, every twelve years.

In Austria the main object of public statistics, during the first half of the present century, was, as in the latter half of the last, the determination of the population liable to military duty. In 1804 the conscription system in the western provinces of the empire, north of the Alps, was newly regulated by imperial rescript. Each province was divided into thirty-six conscription districts; each district into a certain number of sections, and again each section into other subdivisions. Although instituted for military rather than for general administration purposes, the conscription censuses, taken by virtue of the edict of 1804, became the instrument for general enumerations of the population, and for determining its movement during a given period. They furnished the basis for a classification of the population by age, sex, family, social condition, civil state, religion, occupation, and legal and actual domicile. Inquiries as to the number of dwellings and useful domestic animals were likewise regularly connected with them. Printed schedules were used in obtaining the prescribed data, which were collected by conscription commissioners, consisting of military, administrative, and municipal officers and the clergy in each territorial subdivision. The clergy were especially charged with making returns from the civil registers. The conscription lists were carefully revised at regular periods. The conscription proper took place at the beginning of each solar year, and continued for weeks and even months.

Separate laws were in force in the Italian provinces of the empire. By the imperial decree of September 17, 1820, each commune was required to prepare tabular statements of its population, including the number and numerical relations of families, and the age, sex, civil state, religion, and occupation of each member of the commune, together with the marriages, births, deaths, and removals.

In the kingdom of Hungary and its dependencies the edict of 1804 did not apply. In 1802 the Diet enacted a law for a general enumeration of the population with special reference to conscription. It exempted the nobility and clergy from enumeration. The civil authorities alone

were to take the census. A general enumeration accordingly took place in 1805, but it remained the only one under the law of 1802, so that the sources of information relative to the population of the kingdom during the first half of the century are very meager.

In Transylvania and the territory known as the military frontier separate systems of enumeration prevailed, with military conscription as the main object.

The tendency to centralization which characterized the government of the empire, after the opening of the revolutionary era of 1848, led to an extension of the conscription census system of the western provinces over the whole of the eastern part of the monarchy. A uniform enumeration was made throughout the empire in 1851, but its unsatisfactory results led to the appointment in 1855 of a commission, composed of high administrative officers, and charged with the elaboration of a new census law. The commission submitted a project of a law early in 1857, which received the imperial sanction, and was soon after officially promulgated. The new law was a great improvement upon the old system, inasmuch as it made the military needs of the State no longer the main motive of public statistical inquiries, but recognized their indispensability for the safe conduct of public affairs generally. It provided that a census should take place every six years. The enumerations were to comprise the population and the useful domestic animals, and were to be conducted exclusively by the civil authorities.

The actual population was to be the basis of the census. Printed schedules were distributed by municipal and administrative officers, to be filled up by the heads of families, owners of tenement houses, and those in charge of convents, schools, and public institutions. Detailed printed instructions as to the filling up accompanied the schedules. Those that intentionally failed to furnish the desired information were punished by fine and imprisonment. The schedules used in the censuses taken under the law of 1857 called for information under the following heads: Composition of families including servants, age, sex, names and titles, civil state, social condition, religion, occupation, marriages, births, and deaths; the number of cities, towns, hamlets, villages, dwellings, and renters. The number of Austrian subjects living in foreign parts was obtained through the imperial legations. The census of the naval and military population was separately taken by the proper authorities.

Up to 1828 no official organ of public statistics existed in Austria. In that year, however, a bureau of statistics was established by imperial order. Its function, as then defined, was to furnish government with such statistical information as it might need for administrative purposes. The bureau was attached to the supreme court of control and made use mainly of the data obtained by the several authorities of control reporting to the court; but all departments of the government were required to respond to any calls for information it might make upon them. Yearly reports of the management of public affairs by the different ministries were made up by the bureau and circulated in official circles, no general publicity being given to them.

In 1840, in order to widen the range of public statistics and to unite their scientific with their simply administrative part, the "direction of administrative statistics" was established. In 1848 the chief supervisor of public statistics was assigned to the ministry of commerce and public works. A further statistical authority was subsequently created in the form of the "central statistical commission," which has had the supreme guidance of the entire statistical service to this day. This body is composed of the ablest officials connected with and representing

the several ministries and other central authorities, and of men not directly connected with the government but eminent as statisticians and economists. The commission has power to secure, in particular inquiries, the services of specialists. The composition of the commission insures a perfect understanding and thorough co-operation between it and the great departments of the government. The "direction of administrative statistics" serves as the executive organ of the central commission, executing its orders as to the manner of conducting statistical inquiries and of preparing their results for general use.

The census returns collected by municipal and administrative authorities are consolidated through the central statistical organs. The published census reports show a steady progress in the method of the successive enumerations. In addition to the census, many other statistical inquiries are carried on, under the general direction of the statistical authorities, and through the agency of the different ministries. Thus within the last twenty years, statistics of land and water communications, the distribution of real property, of rural economy, (collected mainly through agricultural societies, organized through the efforts of the government in most of the provinces,) of mining and manufacturing industry and mechanical trades, of internal and external commerce, of railways and telegraph lines, of schools of every grade, of civil and criminal justice, have been and are being carefully collected.

The official statistical literature of Austria has attained very considerable proportions during the last generation. The most voluminous publication is the series of large volumes entitled "Grand Statistical Tables," and comprising the whole of the statistical information gathered, relative to public administration and social economy in general, together with explanatory texts. An abstract of the large series in convenient form is printed every year, under the title of "Statistical Annual." A condensation of this abstract for popular use is also published, under the title of "Statistical Manual." The "Statistical Communication," a monthly publication, serves as the periodical organ of the Central Statistical Commission. The ministry of commerce prints a statistical journal as its own organ. Among the special publications of the statistical authorities deserve to be mentioned, 1st. "The Ethnography of the Empire," consisting of a chromo-lithographic ethnographical map of the monarchy, with a comprehensive text treating of the history of the government, established religions, arts and sciences, and a topographical and general statistical description of the country, and special statistics showing the distribution of the different nationalities over the Austrian territory. Sixteen years were occupied in the preparation of this unique work. 2d. An elaborate work descriptive of land and water communications. 3d. The statistics of the international commerce on the river Danube, from its sources to its mouth. 4th. An industrial atlas in sixty-four sheets, showing the distribution of manufacturing industries over the empire. 5th. The statistics of commercial corporations and societies. 6th. The statistics of the export, import and transit trade of the empire.

One of the most promising measures in the interest of statistical science taken by the Austrian government is the establishment in the capital of the empire of a statistical seminary, an institution for the training of the younger administrative officers in the theory and practice of public statistics. The idea of this institution was inspired by the similar school in Berlin, already referred to.

As shown in the previous chapter, census-taking in Sweden is nearly two hundred years old. To the subjects of the inquiries in the census

as taken since 1775, there were added, in 1804, the number of vaccinated persons; in 1821, the number of first, second and third marriages, the age of the married, the number of legitimate children deceased when less than one year old, the number of immigrants and emigrants; in 1831, the number of marriages, births and deaths among all classes, the number of legitimate and illegitimate children, still-born and deceased, in their second and third year (by months,) the number and age of persons deceased in hospitals, asylums and prisons, and the movement of the population not belonging to the established church. A separate census of the Laplanders and Fins is taken since 1805. The census for the kingdom at large is taken every five years by means of printed schedules, through, as in past times, the joint agency of the civil and clerical authorities. The governors of provinces are required to make up statistical summaries upon a variety of subjects not included in the census, every five years.

The statistical commission organized at Stockholm in the last century continued to exist until 1857, when it was superseded by the organization of a central statistical bureau, charged with the superintendence of population statistics, and with such statistical inquiries as do not come within the scope of the several ministries. A central statistical commission was also subsequently organized, consisting of high functionaries attached to the different ministries, and charged with insuring the uniformity of administrative statistics, maintaining the necessary connection between them, and making them available for scientific and government purposes. In the pursuit of these ends the commission cooperates with the statistical bureau.

The official statistical publications of Sweden comprise the long series of volumes containing, under the title "Materials for the Public Statistics of Sweden," the census returns proper as well as the results of inquiries into agriculture, mining and manufacturing industry, interior and exterior commerce, public health, judiciary, penitentiary, telegraph, railroad, and post office statistics. The bureau of statistics also prints a periodical entitled "Journal of Statistics."

In Norway a decennial census was instituted in 1815, and continued up to the present time, comprising inquiries as to age, sex, civil state, number of families and habitations, useful domestic animals, and the territorial area of each district. A bureau of statistics is in existence, which attends to all the branches of official statistics except those pertaining to the administration of justice, public education, and financial administration. Quinquennial inquiries are made as to the condition of industry. Annual exhibits are made up of births, marriages, and deaths; of commerce and navigation, and of the administration of justice and the population suffering from physical and mental disabilities.

The governors of provinces are required to make up quinquennial reports, as in Sweden. These, together with the regular census returns, and all other material obtained by the civil authorities, are published by the bureau of statistics. The last census was taken in the first days of January, 1866, by means of schedules filled up in the cities and towns by the proprietors and lessees of buildings, and in the country by the teachers of primary schools. The census was nominative, and comprised the legal population.

In Spain the government paid no attention to public statistics since the census of 1798, until 1856, when a central statistical commission junta, consisting of high functionaries and other competent persons, was organized under the presidency of the prime minister, with power to initiate statistical inquiries. Simultaneously sub-commissions were

organized in each of the forty-nine provinces, and in all the districts of each province under the respective presidency of the chief administrative officers. The provincial and district commissions were composed of great landed proprietors, officers of the administration, and public instructors. Their secretaries received regular salaries from the state.

With the aid of this net-work of statistical commissions, a general census was taken in 1857. Being a new undertaking, its results were not very satisfactory. Another census followed in 1860, which furnished more accurate returns. Since then a general census has been taken every three years, comprising the following subjects of inquiry: name, sex, age, birthplace, civil condition, occupation, physical disabilities, degree of education, school attendance, habitations, and the aggregations of population in cities, towns, villages, and hamlets. The censuses are taken towards the close of the year, in the course of one night, by government officials charged with the collection, verification, and consolidation of the returns. Their reports are revised and consolidated by the district and provincial commissions. A final revision is made by the central commission.

Other statistical labors have been performed under the direction of the central commission, including the statistics of scientific, artistic, and literary societies, and of places of amusement, railroad statistics, and the census of useful domestic animals. The commercial, industrial, and other statistics are collected under the direction of the several ministries.

The official statistical publications comprise the census reports and the results of the special inquiries mentioned. A "Statistical Annual" and a "Statistical Almanac" are also published by the central commission. In Cuba several enumerations have been made in the present century.

The original constitution of the federation of Switzerland required its population census to be taken every twenty years. The constitutions of the several cantons, however, required the cantonal governments to prepare periodical statistical exhibits for the legislative authorities. These exhibits, which have been rendered in some of the cantons for generations, were not remarkable for either accuracy or comprehensiveness in former years, but they have steadily improved in character, and of late years have even attained a high degree of perfection. They treat of population, pauperism, and financial, judiciary, medical, and educational statistics.

A law enacted by the federal assembly in 1860 prescribed a decennial census for the whole federation, and instituted a federal bureau of statistics, under the direction of the Interior Department. The labors of this bureau are annually prescribed by the federal council. In some of the cantons separate statistical bureaus are attached to the cantonal governments.

The first census under the new law was taken in 1860. The inquiries included sex, age, civil condition, origin, birth-place, domicile, religion, language, physical disabilities, immigration, the distribution of real property, and the number of families, habitations and other buildings. The statistical bureau is endeavoring to extend the range of the census, but finds its efforts somewhat impeded by the difficulty of dealing with twenty-five cantonal governments.

The cantonal statistics collected by the local governments are consolidated and published by the central bureau. The latter is endeavoring to give a more national character to the statistical service. Until a few years ago, the different cantons followed different methods in the collection of vital and mortuary statistics, but at the instance of the bureau they have now adopted a uniform plan.

In 1866 the central bureau initiated the census of live stock, and later collected very full statistics of railways, savings banks, and fire insurance companies.

The bulk of the official statistical publications of Switzerland consists of the census reports. Valuable compilations of financial, commercial, and industrial statistics, and monographs on forest culture, mines, public works, railways and telegraphs, public health, civil and criminal justice, prisons, benevolent institutions, fire insurance companies, savings banks, mutual aid societies, wages of workmen, and the different branches of public instruction, have also been published by the federal government, the statistical bureau, and the cantonal authorities.

In Belgium, in keeping with the character of that State as one of the most progressive in Europe, public statistics have been carefully fostered ever since the revolution which made the kingdom an independent sovereignty. One of the first acts of the provisional government in 1831 was the creation of a special statistical service. In 1841 a central commission of statistics was established by royal decree, with which M. Quetelet and other distinguished statisticians have been connected from its organization. In 1843 provincial statistical commissions were instituted throughout the kingdom. In 1856 a law was enacted newly regulating the mode of taking the census and keeping the civil registers. It provided that a general census should be taken every ten years throughout the kingdom, and that the population returns should form the basis of representation. The census was to be taken in such a manner as to give the actual as well as the legal population. The prescribed inquiries included surnames and Christian names, sex, age, by year and month, birth-place, civil state, occupation or condition, habitual domicile, and town and country population. Three schedules, printed in the French, German, and Flemish languages, were distributed and collected throughout the kingdom by special census agents. Both the distribution and collection were to be made in one day. Temporary census bureaux were established, one for each province, which were to receive the returns of the agents after they had been revised by the communal juries—bodies appointed for each community and consisting of officials and private citizens. The statistics of schools and public institutions were taken by means of special schedules. The military authorities were charged with the army census. The refusal to give information to the census agents was punishable by fine and imprisonment. The law of 1856 also contained provisions regarding the keeping of civil registers, which insured great accuracy in the recording of the movement of the population.

Two general censuses have been taken under the law of 1856, one in that year and another in 1866. In the latter, comprehensive inquiries into the agricultural, mining, and manufacturing industries of the kingdom were made. In 1858 a special census of deaf mutes and blind was taken. The central statistical commission receives the returns of the successive censuses, yearly abstracts from the civil registers, and the results of special inquiries, and prepares the whole for publication.

The ministries of the interior, of finance, of public works, of justice, and of public instruction, institute periodical inquiries in their respective departments.

The official statistical literature of Belgium is very voluminous and distinguished for its scientific character. It comprises the census reports proper, periodical accounts of the movement of the population, and the results of all special inquiries. Current statistics, collected in the intervals between the general censuses, are published by the cen-

tral statistical commission, in a series of volumes, under the title of "Bulletins." There appears also a sort of statistical almanac.

No census was taken since the close of the eighteenth century in the country now forming the kingdom of the Netherlands until the close of the third decade of the nineteenth. The government of the kingdom founded a bureau of statistics in 1826. Under its direction the first of the decennial censuses, decreed about the same time, was taken in 1829. The bureau ceased to exist in 1830. From that year up to 1848 the collection of statistics in the kingdom was performed mainly by the so-called permanent deputations in the different provinces. The second decennial census was taken under the direction of the governors of the provinces. In 1848 the government created two statistical bureaus, one attached to the ministry of the interior, and the other to the ministry of finance. In 1850 and 1851 laws were enacted prescribing the formation of a bureau of statistics in each province, but the organization of the provincial bureaus was not completed until 1858, since when they have been in successful operation throughout the kingdom. In 1859 a central statistical commission was created by the government, which has existed to this day. Though nominally subordinated to the ministry of the interior, it really exercises perfectly independent functions. It is authorized to call upon all the ministries, and municipal, and administrative authorities generally, for statistical information, and may suggest statistical inquiries to the several departments of the government.

In the census as now conducted, inquiries are made as to name, sex, age, birth-place, civil state, profession, occupation or condition, physical disabilities, religion, number of families, and habitations. The inmates of hospitals, almshouses, prisons, schools, and public institutions generally, are separately enumerated, as also the army and navy.

As in most other continental countries, the several departments of the government of the Netherlands regularly carry on special statistical inquiries within their respective official spheres.

The official statistical publications of the Netherlands comprise the census reports and condensations from them, by the central statistical bureau; annual reports of the movement of the population, and the statistics of schools, charitable institutions, public health, civil and criminal justice, agriculture, commerce, industry, public works, and public finances.

In Denmark a central commission of statistics was created in 1833, charged with the publication of public statistics. It consisted of distinguished members of the different branches of the administration. The commission published, between 1838 and 1849, a series of eighteen large volumes, containing all the statistical information collected by administrative authorities. In 1849, the commission was superseded by a central bureau of statistics, composed of seven members, which has been continued up to this time.

A general population census has been taken every five years in Denmark, since 1835. The movement of the population is ascertained by means of civil registers. Enumerations of live stock have been repeatedly made. Agricultural, commercial, financial, real estate, and criminal statistics receive regular attention and publication. Special inquiries have been made regarding highways, savings banks, suicides, and other subjects. All the material collected is published under the general title of "statistical tables."

In the early part of the nineteenth century a good deal of attention was paid to public statistics in Italy, by the French rulers. In the

kingdom of Italy, established by Napoleon, the service of administrative statistics was regularly organized and yielded some valuable results, which have been preserved. After the cutting up of the Peninsular, upon the restoration of 1815, into different sovereignties, little was done in the interest of public statistics for a generation in any of the Italian States. In Sardinia, King Charles Albert, at the beginning of his reign, instituted a commission of statistics, which was followed by the organization of thirty-seven sub-commissions, corresponding to the political divisions of the kingdom. These bodies were charged with the collection of public statistics, including the census of the population. The results of their labors were published in extenso in four large volumes, under the title of "Statistical Intelligence," and in periodical condensations of the contents of these, under the names of "General Calendar," and "Statistical Annual." In Tuscany, the government created a statistical bureau in 1848, charged with the collection, classification and publication of documents relative to commerce and industry. Up to that time public statistics had been cultivated in the Grand Duchy only, by an association of the savants, independent of the government. In 1849, a statistical section was organized in the ministry of finance and charged with inquiries as to population, topography, industry, and public administration. Additional measures, calculated to make the services of public statistics more efficient, were taken by the government. No regular census appears to have been taken; but the bureau of statistics published annually statistical exhibits, derived from the civil registers and other sources of the population, classified by communes and families, and according to social condition, and religion. The publications of the bureau also included the results of inquiries into the physical, industrial, and commercial resources of the country and other minor subjects. In the kingdom of the Two Sicilies, the Pontifical States, and Parma, a statistical service was also organized after 1848. In the last named States its functions were very limited. In the kingdom of the Two Sicilies a statistical commission was organized under the ministry of the interior, with the sub-commissions in the several provinces and districts. Through these organs statistics were collected relative to the population, public instruction, public charity, criminal justice, penitentiary establishments, agriculture, industry and commerce. But the data thus obtained were intended merely for government purposes, and few of them received publicity.

The modern kingdom of Italy was no sooner constituted, in consequence of the events of 1859 and 1860, than the government of Victor Emanuel established a service of public statistics, after the best modern models, which soon attained considerable efficiency. A bureau of statistics was created, of which Dr. P. Maestri, a well-known statistician, became the chief. The bureau was given ample powers, and displayed at once great activity. Under its direction the first general census of the kingdom, which was to form the basis of representation in the national parliament, took place on December 31, 1861, by virtue of a law prescribing decennial general enumerations. The census was taken by municipal and administrative officers in one day, by means of previously distributed schedules, calling for information under the following heads: actual population by age, sex, civil state, and domestic relations, families, habitations, and places of nativity, religion, language, physical and mental infirmities, occupation, emigration and immigration; aggregations of population by communes; aggregations of habitations. The census returns obtained under the general direction of the bureau of statistics, through the agencies of prefects, sub-prefects,

mayors and other officials, were revised by local commissions appointed throughout the kingdom, and consolidated in census bureaux temporarily established in every province, and every sub-division of each province. The census report as published comprises three large volumes. A separate record of the movement of the population was compiled from the census data.

Since 1861 the Italian bureau of statistics has prosecuted special inquiries relative to mutual aid societies, savings banks, public charities, industrial corporations, elementary, higher and technical instruction, libraries, and general and municipal elections. The results of all these investigations, some of which were very elaborate, are now in print. Other statistical publications, brought out under the auspices of the royal government, during the last nine years, include a dictionary of all the communes of the kingdom; the statistics of silk industry, navigation, internal and external commerce, industry in general, silk industry, agriculture, railways, postal service, telegraphs, general and communal finances, public health, and other phases of national life.

In France some important changes were made in the service of public statistics before the downfall of the first republic. A law requiring the prefects of departments to prepare from the civil registers exact annual abstracts of the number of marriages, births and deaths, went into force at the close of the century. This law has obtained up to the present time. In 1801 the legislative power decreed that national censuses, which until then had been taken annually, should take place only every five years. The next census after that year was consequently taken in 1806. No other was made under the first Napoleonic régime. The next general enumeration took place only six years after the final restoration of the Bourbons. Since that year quinquennial censuses have been the rule. In the census of 1826, however, no actual enumeration was made; but the population was computed by adding to the number ascertained for 1821, the excess of births over deaths in the five intervening years. In 1836 the census was taken by means of individual schedules, in which the age of each person was for the first time called for. Up to that time only the legal population had been ascertained, but in 1841 the actual population became the basis of the census. Subsequently a system of enumeration was adopted whose object it is to furnish means for deducing the legal from the actual population, but which has not worked to the satisfaction of the leading French statisticians. Under it the population is considered as consisting of two classes: a floating, comprising the military, the inmates of public and private educational establishments, and of penal and charitable institutions, the members of religious orders, political exiles, and a few other categories; and a resident, comprising both regular and transient sojourners not included in the floating. In practice it has been found difficult to apply this distinction. The "floating" population is enumerated on a fixed day by the authorities exercising a direct control over it; the "resident" by municipal officers, within a prescribed period covering some weeks. The employment of municipal officers as enumerators is considered detrimental to the accuracy of the census, owing to the levying of certain general taxes on the basis of population, which forms a constant temptation to local officials to make incorrect returns. The want of a special census law—the taking of the general census is provided for by decrees of executive power—inflicting proper penalties for intentional inaccuracies, is also considered as tending to detract from the correctness and completeness of the returns. The traditional time for taking the census, the months of May and June, is likewise considered unfavorable. The