

The Growth

OF THE

Federal Government

1915-1932

BY

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GROWTH OF THE FEDERAL GOVERNMENT—1915-1932

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In addition to production work, investigations have been carried on by the Bureau in the cryogenic laboratory, including research for improving methods of helium production and purification, plant control, and a survey of helium resources. In 1932, 44 employees were assigned to helium production and 12 to helium investigations. Expenditures on these objects in 1932 totaled \$255,498, but only \$87,567 in 1933.¹

4. *Mine Health and Safety*.—Although this type of work was performed at the beginning of the period, being, in fact, the original objective of the Bureau, it has been greatly expanded to meet a growing demand for this work as reflected in appropriations made by Congress (cf. Table R-3). Although in 1915 over 60,000 people visited the safety cars and

Table R-3.—MINE SAFETY WORK, SELECTED FISCAL YEARS

	1915	1920	1925	1930	1931	1932
Number of mine rescue stations.....	6	9	10	11	11	11
Number of mine rescue cars.....	8	10	11	11	11	11
Courses of instruction given.....	4,258	10,177	25,697	113,358	114,920	99,163
First-aid contests held.....	47	4	64	157	114	94
Accidents at which assistance was given.....	77	27	38	4	50	94

Source: Compiled from *Annual Reports* of Bureau of Mines.
• Not stated.

nearly 54,000 attended lectures, complete courses of instruction in first-aid and mine rescue work were given to only 4,258. In 1930 and 1931 more than 112,000 received such training. Other features of the work also expanded. In 1931 and 1932 certificates to first-aid instructors were issued to those worthy of recognition; 1,532 being so issued in 1931 and 1,289 in 1932. In recent years community safety clubs have been organized as chapters of the Holmes Safety Association, this name honoring the first Director of the Bureau, who died in 1915. In 1931, 12 such chapters were organized. Beginning July 1, 1931, under a special appropriation for this purpose, two engineers were assigned to forwarding this work; as a result, 54 new chapters were organized in 1932.

A course in accident prevention designed for bituminous coal mining officials was prepared during the years 1927 to 1929 and first formally taught in 1930. This includes eleven subjects and requires several weeks for presentation. During eight months of the fiscal year 1931, 1,455 mining officials and 500 others took this course; in the fiscal year 1932 it was completed by 1,462 officials and 900 others.

Other work of the health and safety branch has included safety inspections as to mines and other plants, laboratory and field studies of matters
¹ *Ibid.*, Budgets for 1934 and 1935. An appropriation of only \$17,000 was projected for 1935.

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affecting the health of those engaged in the mining industry and statistical studies of health, safety and accident prevention.

Other Activities.—While the four types of work above discussed account for a large part of the growth of the Bureau, both the technological and economic activities have been considerably expanded to meet demands from industry reflected in appropriations made by Congress. The productivity of investigators attached to the Bureau may in part be measured by publications emanating from the various divisions. In 1915, 12 bulletins, 18 technical papers, and 4 miners' circulars were issued. In 1925, 15 bulletins and 20 technical papers were produced, but the number of other publications reached 212. In 1932 the documents issued included 25 bulletins, 36 technical papers, 71 other documents publicly printed, and 234 papers published by outside agencies.¹ The services rendered by the Economics Branch to the mining industry have steadily grown. Special attention should be called to its market services, to its work in petroleum economics, in which it cooperates with the American Petroleum Institute and the Federal Oil Conservation Board, and its reports on the economic possibilities of minerals submitted for identification. Note should also be made of the use of motion pictures in the Bureau's informational work. These were authorized as early as 1915; in 1930 the Bureau had 647 sets, including 1,698 reels; in 1931, 890 sets with 1,951 reels; in 1932, 880 sets with 1,817 reels.

Bureau of Standards (Department of Commerce).—*History and Activities*.—The Bureau of Standards is responsible for the testing of materials for the Federal Government, the custody of legal weights and measures of the United States, and is a national physical laboratory, including such branches of chemistry and engineering as are necessary to accomplish standardization. The Bureau finds its legal sanction in the constitutional provision vesting in the Federal Government the power to fix standard weights and measures. The custody of the standards of weights and measures which had been established in the early part of the nineteenth century long remained under the direction of the Superintendent of the Coast and Geodetic Survey, in the Treasury Department, in his capacity as Superintendent of the Office of Standard Weights and Measures. The Act of March 3, 1901, established the National Bureau of Standards and made it an independent Bureau in the Treasury Department, where it remained until July 1, 1903, when it was transferred to the Department of Commerce.

Since 1903 the Bureau has grown as funds were provided to enable it to take up more fully the functions prescribed in its organic act. The relative urgency of the several lines of activity fixed the order and extent

¹ Cf. *Annual Reports*, years cited.

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of their development.¹ The scope of the work relating to weights and measures has broadened in recent times to include power, light, heat, electricity, and services of other kinds. Not less urgent in recent years were the demands of the interested public for standards of quality, which in certain materials is partially defined by the term "specifications." Units and standards are here needed relating to physical and chemical properties in addition to those of dimension and weight. The Bureau aims to meet this need by the development of standard materials, standard specifications and standard methods of testing the properties of materials.

The Bureau is the agency of the Department of Commerce to promote standardization—"which is service set to measure."² It fosters standardization by exact measures, many of them perfected in the laboratory and tested under actual working conditions; by measuring whatever gives utility to things made for our use; and by specifications or standards defining their usual properties.³

The functions of the Bureau are based upon the organic act establishing it and made more specific by later grants of funds to carry on particular studies and measures. Most of the items receiving specific support came into existence gradually receiving support in appropriation acts in the degree that they had assumed importance. The activities of the Bureau as they existed in 1916 consisted of:

1. Acting as custodian of the standards of weights and measures.
2. Comparison of standards used in scientific investigations, engineering, manufacturing, commercial and educational institutions with standards adopted or recognized by the Federal Government.
3. Construction, when necessary, of standards, their multiples and subdivisions.
4. Testing and calibration of standard measuring apparatus.
5. Research on problems arising in connection with standards.
6. Determination of physical constants and the properties of materials when such information is of sufficient importance and cannot be accurately obtained elsewhere.
7. Determination of the properties of materials, such work being based upon the modern view that quality may be measured and standardized.
8. Cooperation with the standardization agencies of other countries and with the International Bureau of Weights and Measures.
9. Cooperation with, and furnishing information to, any state or municipal government, scientific society, educational institution, firm, corporation, or individual desiring such assistance.

In considering these general statements as to activities one should understand that each has involved the carrying on of various research

¹ Department of Commerce, *Condensed History: Duties, and Practical Operation of the Department*, July 1, 1913, p. 153.

² Circular No. 1 of the Bureau of Standards, 1925, p. 13.

³ *Ibid.*

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projects, the nature of which varies from time to time. The general fund of the Bureau was being used to conduct minor researches in new fields as they arose, and though not noted as being important in reports, nor considered of great consequence, they constituted important innovations which were later to be developed. The new activities of the Bureau emerged largely in this fashion. As a result it is difficult to state definitely that a certain activity is or is not new. The most that can be done in some instances is to say that the activity, though having been carried on by the Bureau for a period of years, later bulked rather large and required special funds from Congress to continue. At times a reorganization of the Bureau caused a division to be established to take care of an activity which previously had been carried on out of the general funds and under the general supervision of the head of some other division. In such instances as these it has been considered proper to describe the activity as new. If the activity was carried on extensively by the Bureau and later received a special appropriation from Congress, it is not considered as a new activity.

New activities of the Bureau of Standards since 1915:

1916.

1. Radio Research. A special appropriation in 1915 provided for greatly extended research though minor research had been carried on out of the general funds of the Bureau since 1912.
2. Fix standard barrel for fruits, vegetables and other dry commodities. A special act of Congress gave authority to do this, superseding action by the States (38 Stat. L., 1186).

1916.

3. Standard barrel for lime to be established by Bureau (39 Stat. L., 530), superseding action by the States.
4. Develop specifications and standardization of colors; investigate phenomena and laws of color vision. New special fund provided (39 Stat. L., 116).
5. Conduct research into and set standards and specifications for ceramic materials and products. Clay researches carried on under this in 1916. Some work prior to 1916 out of regular fund (39 Stat. L., 116).

1917.

6. Ascertain and establish standards, gauges, screw threads and standards required in manufacturing industries throughout the U. S. Work began in fiscal year 1916 but related work had been carried on for several years. The Screw Thread Commission set up in Bureau in 1918.
7. Conduct thorough study of aircraft engines to determine variation of horse power with altitude, compression ratio, and air temperature, fuels, carburetors, etc.
8. Conduct research into chemical composition of glasses and discover their physical and optical properties.

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1918.

9. Develop standards for metals, cement, lime, paper, textiles, rubber, leather, oil, clay products and sugar (40 Stat. L., 808). Some work prior to 1918 from general funds of Bureau.

10. Technical cooperation with the industries upon fundamental research, to promote industrial development and to assist in the permanent establishment of new American industries. A special fund for "Industrial Research" in 1918.

1919.

11. Investigations of methods of high temperature measurements and temperature control in various industrial processes, and making such results available to industries. First Congressional fund in 1919.

1920.

12. Measure acoustic properties of building materials.

13. Develop means by which aviators may land in fog (a single research project).

1921.

14. Study problems of standardization and building materials and the formulation of building and plumbing codes. (42 Stat. L., 47) New as a distinct unit but some research from general funds of the Bureau for several years. Did not displace local governmental agencies although the Federal Government now has a unit for collecting and diffusing information and codes for building and housing. Some of these functions are still exercised by local governmental units.

1922.

15. Division of Simplified Practice organized to cooperate with American industries in furthering a nationwide program for eliminating waste in industry by reducing number of types and sizes in standard products.

16. Research in wearing qualities of textiles.

1923.

17. Investigation of radium, radium compounds, and other radioactive materials; standard testing and certification of radioactive materials. Investigations relative to the development of standard specifications for X-ray equipment and operation; the hazards of X-ray practice; testing and standardization of X-ray protective materials; and related matters.

1924.

18. Promotion of economy and efficiency in automotive transportation—basic principles underlying the design, performance, etc.

1927.

19. Test physical and chemical properties of Dental materials; work actually started in 1922 out of general fund—first special appropriation in 1927.

20. The Division of Specifications organized. Designed to promote and facilitate the use and unification of specifications—ascertainment of standards and specifications and making them known to consumer and producer.

1928.

21. Investigation relating to possibilities of the industrial utilization of waste products from the land, including cooperation with the colleges, other institutions,

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and manufacturers, with respect to the technical details of practical proposals. Some state activities along this line existed previously; Bureau now cooperates in these.

1929.

22. Division of Trade Standards Organized. Purpose to aid those industrial and commercial groups desiring to establish standards of grades, quality, or measurement for their products or their purchases on a purely voluntary basis.

1930.

23. Establishment of National Hydraulic laboratory to study the laws of flowing water and to develop methods of testing and standardizing machines, motors, tools, instruments, etc., employed in hydraulic engineering (46 Stat. L., 327, 873).¹

TABLE R-4.—EXPENDITURES, BUREAU OF STANDARDS, SELECTED YEARS
(In thousands)

Fiscal year	Amount	Fiscal year	Amount	Per cent increase
1915.....	\$ 661.1	1930.....	\$2,759.2	1915-1931: 566
1920.....	4,050.5	1931.....	3,082.5	1915-1932: 566
1925.....	1,958.7	1932.....	3,079.9	

Source: "Combined Statement."

Growth of Bureau of Standards Activities.—It is clear, from the foregoing statements of activities and the accompanying tables (R-4 to R-6), that the Bureau of Standards has been one of the most rapidly expanding agencies of the government. During the war it was required to perform a vast amount of work in testing materials purchased for war purposes and

TABLE R-5.—BUREAU OF STANDARDS: EXPENDITURES, SELECTED YEARS, ON CERTAIN OBJECTS
(In thousands)

Appropriation title	Fiscal years				Per cent increase
	1920	1925	1930	1931	1930-1931
Testing of structural materials.....	\$103.1	\$219.0	\$306.6	\$314.6	205
Public utility standards.....	79.2	100.7	114.6	106.9	34
Textiles research.....	17.7	26.3	59.3	59.0	235
Sugar standards.....	30.2	38.5	81.6	86.7	359
Radio research.....	31.8	45.0	98.7	83.4	166
Industrial research.....	236.8	178.3	230.7	221.8	
Standardization of equipment.....	30.0	104.6	230.4	216.2	617
Radioactive substances.....		12.2	31.7	33.5	
Investigation of automotive engines.....	23.4	26.6	46.4		

Source: Compiled from "Combined Statement."

¹ Activity lists prepared with the cooperation of the Bureau of Standards.

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TABLE R-6.—PERSONNEL OF BUREAU OF STANDARDS, SELECTED YEARS

Year	Regular employees	Cooperative research assistants ^a	Year	Regular employees	Cooperative research assistants ^a
1915.....	233	..	1932.....	1,035	66
1920.....	381	..	Per cent increase:		
1925.....	828	63	1915-1931.....		
1930.....	1,055	97		358	
1931.....	1,066	95			

Source: Compiled from *Annual Reports*, Bureau of Standards.
^a Not officially on roll of Bureau.

in developing new materials. In 1918 and 1919 its expenditures reached approximately three millions per annum. After the termination of the war period some contraction occurred and expenditures dropped to \$1,660,000 in 1921. Until 1928 Bureau costs rose but slightly, but in that year a period of growth began which brought the expenditure totals in 1931 to approximately the level of 1918. The rate of growth for the whole period was thus 366 per cent (although less than 200 per cent if the changing value of the dollar be allowed for). The number of employees of the Bureau rose very rapidly, from 233 in 1915 to 1,066 in 1931, or an increase of 358 per cent.

TABLE R-7.—TESTS PERFORMED BY BUREAU OF STANDARDS, SELECTED YEARS

Year	Tests for bureau	Tests for other government agencies	Tests for public	Total
1915.....		105,092	10,212	116,304
1920.....		72,398	85,401	157,799
1925.....	11,866	66,030	62,648	140,544
1930.....	7,174	131,304	62,348	200,826
1931.....	14,768	137,044	60,305	212,117
1932.....	11,864	203,564	88,385	253,813

Source: Compiled from *Annual Reports* of the Bureau.

The growth described has in considerable measure arisen from the undertaking by the Bureau of new types of research from year to year under special appropriations voted by Congress. The extent of this growth may be illustrated by the fact that in 1915 the separate items of appropriation for the Bureau numbered 14 (exclusive of items for construction work), while in 1931, 31 such items were listed. The principal new projects, or classes of projects, have been indicated in the foregoing list of "new activities." It may be of interest to note that 36 per cent of Bureau expenditures in 1931 were made under appropriation titles not

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found in 1915; this fact, of course, gives no indication as to the number of new projects carried on under older appropriations.

It is impossible to measure the amount of "basic research" carried on by the Bureau during the period, in view of the fact that it is carried on under the appropriation for "salaries." This fact, however, is a recognition of the fundamental importance of research to the entire service of the Bureau in the development, maintenance and use of standards. The Bureau states, on this point:

Laboratory research in connection with standards, provided for in the organic act as a basic function of the Bureau, has been universally found to be essential to the primary functions of the Bureau, and incidentally highly productive to science and industry through the development of new data, devices, materials and processes. Many laboratory products have found places of high utility in industry. Data, instruments and devices, materials and processes have been developed for aeronautics, refrigeration and steam technology, for radio, radiation, and industries involving the use and control of heat. Scores of examples may be cited.¹

The reader will note, also, that direct services to industry, provided under appropriation titles other than "salaries" have experienced much growth in the period (*cf.* Tables R-5).

A very important aspect of the Bureau's service work is that which deals with commercial standardization. Four divisions were, in 1932, engaged in standardization work: the Division of Simplified Practice (1922), the Building and Housing Division (1921), the Division of Specifications (1927), and the Division of Trade Standards (1929). In this field the Bureau has no regulatory authority, but acts as a clearing house where manufacturing, distributing or consuming groups can be brought together and agreement facilitated in such matters as business practices, building codes, building standards, uniform specifications, or commercial standards. Programs involving simplified practices are not published and endorsed by the Department of Commerce unless the program is accepted by 80 per cent of the volume of the manufacturers, distributors, or users concerned; in the case of commercial standards 65 per cent of the industry must agree. The following list of achievements of the Division of Simplified Practice beginning in 1922 may indicate in part the progress made in this field.²

¹ Statement of L. J. Briggs, Acting Director, letter dated December 23, 1932.

² It has been pointed out by certain observers that the standardization work of the Bureau serves producers more effectively than consumers, in view of the fact that "the rules of the game under which the government operates forbid its divulging to consumers the specific brand of a given commodity that corresponds to the highest test-performance under its specifications." Moreover, the ordinary consumer has no ready way of knowing the meaning of the standards which have been promulgated. *Cf.* Lynd and Hanson, "The People as Consumers," Ch. XVII of *Recent Social Trends in the United States* (Report of the President's Research Committee on Social Trends, January, 1933).

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TABLE R-8.—LIST OF CONFERENCES, ETC., HELD BY THE DIVISION OF SIMPLIFIED PRACTICE, 1922-1931

Year	Accomplishments
1922	2 conferences held; 65 contacts made with industries.
1923	45 conferences held in Washington; 50 committee meetings attended by the Division elsewhere.
1924	4 simplification recommendations accepted; 13 simplified recommendations being considered; 26 surveys being made.
1925	23 additional specification recommendations accepted; 50 projects ready for recommendation; 150 new fields request cooperation of Division; 900 conferences held since 1921 on matter of elimination of waste, etc.
1926	18 general conferences, 11 revision conferences, 38 new fields request cooperation of Division
1927	10 recommendations accepted during the year, making a total of 45 accepted.
1928	17 general conferences, 17 recommendations accepted, 9 recommendations revised.
1929	24 general conferences, 14 conferences of revision.
1930	16 general conferences, 41 conferences of revision.
1931	16 general conferences, 39 conferences of revision.
1931	20 general conferences, 38 conferences of revision.

Source: List supplied by H. D. Hubbard, Assistant to the Director.

The Director of the Bureau of Standards has been chairman of the National Screw Thread Commission¹ and ex-officio chairman of the Federal Specifications Board; the Bureau maintains close cooperation with many voluntary agencies interested in the standardization and simplification movement. Beginning in 1930 the Bureau initiated the practice of listing firms willing to supply materials conforming with Federal Specifications and commercial standards. This plan has been applied to 335 specifications (or about half of the total number promulgated by the Federal Specifications Board), and to 21 commercial standards. From the initiation of this work until June 30, 1931, 117 simplified practice recommendations had been accepted by industry, and a total of 34 commercial standards, 27 of which had been issued in printed form. In addition 124 marine standards had been issued by the American Marine Standards Committee, a voluntary body aided by facilities provided by the Department of Commerce and the Shipping Board.² Progress in this general field is reviewed in the "Commercial Standards Monthly," published by the Bureau since July 1, 1924.

The tendency for the services of the Bureau to be made increasingly available to the producer and consumer is further illustrated by the record of tests performed by it since 1915 (cf. Table R-7). In 1915 less than 9 per cent of tests were performed for the public, in 1931 more than 28 per cent. The number of tests performed for the public increased nearly 500 per cent in this period of years.³ Attention may also be called to investigations made since 1928 into the question of utilization of waste products from the land. The Bureau was engaged in 1931 in efforts to develop processes for the making of paper from wheat straw, in developing and improving the use of cornstalks in making pressed

¹ Abolished, 1933.

² Report, Secretary of Commerce, 1931, p. xxxiii.

³ But the proportion was only 15 per cent in 1932.

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board, insulating board and maizolith, in the extraction of starch from sweet potatoes, and a number of other projects.

The great productivity of the technical and scientific staff of the Bureau may be illustrated by the number of publications it has issued. As may be seen in Table R-9, the annual rate of publication was nearly four times as great in the five years 1925-1930 as during the previous years of the Bureau's existence.

TABLE R-9.—PUBLICATIONS OF THE BUREAU OF STANDARDS, FISCAL YEARS 1901-1925 AND 1926-1930

Type of publication	Period 1901-1925	Period July 1, 1926 to February 28, 1930
Research, scientific, and technologic papers.....	797	297
Circulars.....	267	112
Handbooks.....	4	6
Simplified procedure recommendations.....	38	69
Limitation of variety recommendations.....	1	0
Building and housing.....	7	5
Commercial standards.....	0	16
Miscellaneous.....	64	39
Total.....	1,178	544
Annual average.....	29	109+

Source: "Publications of the Bureau of Standards, 1901-1925" (Circular No. 241); "Supplementary List of Publications of the Bureau of Standards, July 1, 1926 to February 28, 1930" (published November 14, 1930).

The demands of commerce, industry and the public generally for the services rendered by the Bureau have increased greatly in recent years, and show little, if any, tendency to fall off in the depression years. In 1931, 45 individual manufacturers or industrial groups maintained research associates in the Bureau's laboratories, in comparison with 41 and 97 respectively the previous year.¹ It is obvious, of course, that the need for elimination of waste, for the improvement of processes, for the development of new products and methods of production becomes more acute as adverse business conditions appear. Bureau expenditures were inflated in 1931 and 1932 by inclusion of costs of site and construction for the new hydraulic laboratory (\$425,881 in 1931, \$364,000 in 1932). Elimination of extraordinary expense and contraction of appropriations for certain types of work were effected in 1933. On July 19, for example, Secretary of Commerce Roper announced that activities of the Bureau in the fields of commercial standardization, safety codes, and building codes, carried on by the Divisions of Building and Housing, Simplified Practices, Specifications, and Safety Standards, were to be gradually

¹ But only 66 research associates, representing 28 associations, in 1932 (*Annual Report*, 1932, p. 1).

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transferred to the American Standards Association, a private, cooperative, non-profit agency.¹

Bureau of the Census (Department of Commerce).—History and Activities.—Prior to 1899 no permanent agency existed for the taking of the decennial census. In that year a statute was enacted² creating a census bureau in the Interior Department. This agency was intended to exist only for the twelfth census, but in 1902 the provisions of the 1899 law were reenacted, and in 1903 the Bureau became a part of the new department of Commerce and Labor, remaining the Department of Commerce when a separate Department of Labor was created in 1913.³ The establishment of the Bureau on a permanent footing is an evidence of the recognition by the government of the importance of having a nucleus of trained employees around which to organize the large force necessary for the taking of a decennial census. It indicates also that work in the intercensal period had increased and it will be seen from the following account that this type of work has continued to expand.

Following are the activities developed upon the Bureau under legislation existing in 1915:

1. Decennial censuses of the United States: 1910 census covered population, manufactures, mines, quarries, oil and gas wells, agriculture and irrigation.
2. Certain other statistical investigations at regular intervals of years.
3. Intermediate census of manufactures in the fifth year after the decennial census.
4. Statistics relative to the defective, dependent, and delinquent classes; crime; social statistics of cities; public indebtedness, expenditures and taxation; digest of state laws relating to taxation and revenue; estimated true value of all property; religious bodies; transportation by water, and express business; savings banks and other savings institutions, mortgage, loan and similar institutions.
5. Statistics relating to the fishing industry, in cooperation with the Bureau of Fisheries; forest products; the quantity of leaf tobacco on hand; ten (increased to twelve in 1924) reports of cotton ginned to specific dates during the ginning season and monthly reports of cotton consumed and cotton held at mills and at public storages.
6. Every five years statistics relating to electric railways, electric light and power stations and telephone and telegraph business.
7. Annual financial statistics of cities having a population of over 30,000; annual financial statistics of states; annual statistics relating to births and deaths in states and cities maintaining efficient registration systems; establishment of birth registration areas; directory of state institutions (added in 1916).

¹ Cf. *U. S. News*, July 15-22, 1933, p. 9. Expenditures in 1932 and 1933, exclusive of Hydraulic Laboratory, were respectively \$2,764,682 and \$2,199,642. Expenditures on "testing, standardization and research" were \$1,390,845 in 1933. Estimated expenditures on these objects were, for 1934, only \$668,700, for 1935, \$732,700. See 1934 Budget, p. 471, 1935 Budget, p. A38.

² 30 Stat. L., 1014.

³ 32 Stat. L., 825. 6. See Wilcox, "The Development of the American Census Office Since 1890," *Political Science Quarterly*, XXIX, 438 (1914).

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Activities added since 1915 are found in the following list:

1916.

1. Tobacco statistics published quarterly instead of semi-annually.
2. Authorized to collect and publish quarterly statistics of raw and prepared cotton and lint, cotton waste, and hull fiber consumed in the manufacture of gun-cotton and explosives of all kinds, and of absorbent and medicated cotton, and the quantity held in such establishments at the end of each quarter. The statistics here provided for are in addition to the cotton statistics previously collected. (Discontinued March 1917, although provision for collection not repealed.)
3. Authorized to collect and publish monthly statistics concerning the quantity of cottonseed received at oil mills, the quantity of seed crushed in such mills, the quantity of crude cottonseed oil and other products manufactured, the quantities of these products shipped out of the mills, and the quantities of products and of cottonseed on hand, the quantities of crude and refined cottonseed oil held by refiners, by manufacturers of compound lard, butterine, oleomargarine, and soap, and by brokers, exporters and warehousemen, engaged in handling crude and refined cottonseed oil and the quantity of cottonseed and products imported and exported.
4. Preparation of United States life tables authorized.

1917.

5. New division created for the gathering of cotton and tobacco statistics.
 6. Authorized to take the census of the Virgin Islands.
 7. At request of Bureau of Chemistry, (Department of Agriculture) authorized to canvass the manufacture of edible oils.
 8. Authorized to canvass the fisheries of New York City (in cooperation with the Bureau of Fisheries).
 9. Authorized to compile and publish Weekly Health Index, giving mortality statistics in 46 large cities.
- 1918.
10. Authorized to publish series of annual bulletins summarizing statistics contained in quarterly reports and adding data regarding production, consumption, imports, exports, and prices obtained in international trade.
 11. Authorized to collect still birth data.
 12. Publish Standard Nomenclature of Diseases and Pathological Conditions, Injuries and Poisonings for the United States.

1919.

13. Authorized to publish monographs giving statistics of special subjects such as those relating to influenza, cancer, etc.
14. Mimeograph quarterly report on fats and oils initiated.
15. Authorized to publish monthly reports of active and idle wool machinery (function formerly performed by the Bureau of Markets, now Bureau of Agricultural Economics, Department of Agriculture).
16. Decennial census of agriculture changed to quinquennial census. (Did not actually begin until 1925.)
17. Authorized to furnish governor of any state, or court of record, with certified copies of population or agricultural returns upon payment of cost plus \$1 certification fee. Authorized to furnish individuals such population data for