

## Chapter II.—GENERAL SUMMARY

This chapter presents combined statistics for all manufacturing industries for 1925 in comparison with those for preceding census years. The table on page 14, gives a summary for 1925, 1923, 1921, 1919, and 1914, with percentages of increase or decrease from census to census, and the table on page 15 gives a combined summary for all manufacturing industries from 1849 to 1925. Since the principal tabulations for 1925, 1923, and 1921 did not include data for establishments reporting products under \$5,000 in value, the corresponding data have been eliminated, so far as possible, from the statistics for 1919 and 1914.

**Production as measured by physical volume.**—Because of the radical changes in prices which took place during the period covered by the preceding table, and particularly between 1914 and 1919, the total values of products for the several census years are not properly comparable. Statistics of the actual physical quantity of products manufactured provide the most accurate available measure of growth and production. A study of the physical volume of output as disclosed by census figures was made for the Department of Commerce by Prof. Edmund E. Day, of the University of Michigan, and Mr. Woodlief Thomas, of the Federal Reserve Board, and the results will be published under the title "The Growth of Manufactures," as one of the series of Census Monographs. Index numbers calculated from the material used in the preparation of this monograph are given below, with the percentages of increase or decrease for the several periods covered and also for the entire period, 1914 to 1925. Although data on physical volume of output can be obtained for only a comparatively few of the many commodities manufactured, and furthermore do not reflect changes in quality of products, the figures available cover industries of such basic importance that when summarized into a set of index numbers they may be considered as approximately representative of relative changes in the total volume of products manufactured.

Index of physical output:		Per cent of increase or decrease (—):	
1914.....	100.0	1914-1919.....	26.1
1919.....	126.1	1919-1921.....	-20.6
1921.....	100.1	1921-1923.....	53.7
1923.....	153.8	1923-1925.....	5.5
1925.....	162.2	1914-1925.....	62.2

**Summary, 1849-1925.**—Although the manufacturing industries of the country were canvassed at the censuses of 1810, 1820, and 1840, the results were not comparable with those of the manufactures inquiries made in 1850 and subsequent census years. The returns made by each manufacturing establishment at each census from 1850 to 1890, inclusive, covered either the preceding calendar year or some other 12-month period which usually ended within the census year. The returns from the censuses taken in 1900 and subsequent years have related in the case of each establishment either to the preceding calendar year or to the business year which corresponded most nearly thereto. In this report the statistics for all censuses are presented as relating to the year immediately preceding that in which the census was taken.

The manufactures data collected at the decennial censuses from 1850 to 1900, inclusive, covered the so-called neighborhood, hand, building, and household industries, as well as the factory industries, whereas the canvasses for 1904 and subsequent census years covered factory industries only. (See "The factory system," p. 5.)

COMBINED GENERAL STATISTICS FOR ALL MANUFACTURING INDUSTRIES: 1914 TO 1925

[No data for establishments reporting products under \$5,000 in value are included in the figures for 1925, 1923, or 1921. For 1919 and 1914 data for such establishments have been eliminated from certain of the items shown, as follows: For 1919—Number of establishments, 60,215; wage earners (average number), 41,252; cost of materials, \$56,029,000; value of products, \$151,632,000; value added by manufacture, \$35,903,000. For 1914—Number of establishments, 95,408; wage earners (average number), 127,465; cost of materials, \$80,602,000; value of products, \$228,655,000; value added by manufacture, \$146,053,000. For the remaining items, separate figures for this class of establishments have not been compiled, so that corresponding deductions can not be made. In order further to preserve the comparability of the figures, the following establishments have been made: The data for establishments engaged in automobile repairing and those for purchased power other than electric have been omitted from the figures for 1919 and 1914, no such data having been tabulated at censuses subsequent to that for 1913; and the data for coffee roasting and spice grinding have been omitted from the figures for 1923 and prior years, no such data having been tabulated for 1925]

YEAR OR PERIOD	PERSONS ENGAGED IN THE INDUSTRY					SALARIES AND WAGES <sup>1</sup>			Paid for contract work Dollars	Cost of materials <sup>2</sup> Dollars	Value of products <sup>1</sup> Dollars	Value added by manufacture <sup>3</sup> Dollars		
	Num-ber of estab-lish-ments	Pro- prietors and firm mem- bers	Salaried officers and em- ployees	Wage earners (average number)	Horse- power	Total	Salaries						Wages	
							Dollars	Dollars						
1925	187,390	9,857,697	133,054	41,340,352	8,384,261	35,772,628	113,877,297	603	3,147,328,676	10,724,968,927	601,366,183	35,935,647,704	62,713,713,730	26,778,066,026
1924	195,580	10,265,508	148,048	1,349,969	8,768,491	33,056,870	14,000,272,313	3	3,000,960,529	10,999,231,784	625,056,150	34,480,854,297	60,258,470,607	25,777,616,310
1923	195,555	8,251,156	172,399	1,141,079	6,937,683	(4)	10,744,138,437	2	2,551,186,555	8,192,952,102	450,896,704	25,154,806,641	48,427,223,807	18,272,417,166
1921	212,631	6,685,679	250,015	1,420,128	8,899,536	29,297,963	13,316,940,985	2	2,864,364,358	10,452,585,627	462,650,697	36,988,875,992	61,757,128,332	24,748,249,340
1919	176,468	6,102,510	238,698	956,444	6,887,677	22,264,343	5,328,733,699	1	1,265,522,651	4,063,211,048	132,876,685	14,161,896,937	23,837,257,989	9,675,361,052
1914														
1925-1925	-4.2	-4.0	-10.1	-0.7	-4.4	8.2	-0.9	4.9	-2.4	-3.8	4.2	4.1	4.1	3.9
1924-1923	(6)	24.4	-14.1	18.3	26.4		30.3	17.6	34.3	38.9	37.1	38.5	38.9	41.1
1919-1921	-8.5	-22.7	-31.0	-20.2	-22.8		-19.8	-17.9	-1.6	152.0	161.9	159.7	159.7	126.2
1914-1919	-21.1	31.7	-3.4	49.4	30.5	31.6	148.9	126.3	177.2	183.4	49.0	44.4	44.4	46.8
1924-1925	-4.2	19.5	-22.8	17.5	20.9		23.2	23.4	31.0	33.4	42.0	41.4	41.4	48.5
1919-1925	-12.3	-7.6	-46.8	-6.2	-6.7	22.1	4.2	8.9	2.7	30.9	23.8	23.8	23.8	8.2
1914-1925	6.2	21.7	-48.6	40.1	21.7	60.7	160.4	148.7	164.1	223.8	153.7	163.1	163.1	176.8

PER CENT OF INCREASE OR DECREASE (-)

<sup>1</sup> The amount of manufacturers' profits can not be calculated from the census figures, for the reason that no data are collected in regard to a number of items of expense, such as interest on investment, taxes, insurance, and advertising.

<sup>2</sup> Including also cost of fuel, electric power, mill supplies, and containers sold with products.

<sup>3</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>4</sup> Statistics for salaried officers and employees and for salaries, as presented in this table, include data for central-administrative-office employees and for the salaries of such employees. No corresponding data are included in any of the other tables in this report, but the number of central-administrative-office employees and the amounts of their salaries are given in footnotes to the "General statistics" tables for those industries for which separate figures have been prepared. (The numbers of central-administrative-office employees and the amounts of their salaries, as reported at the censuses for 1925 and 1923, were as follows: 1925—54,646 employees; salaries, \$225,512,798; 1923—86,378 employees; salaries, \$207,840,169. The corresponding figures for prior years were not tabulated separately. (See "Central-administrative-office employees," p. 1163.)

<sup>5</sup> Not called for on schedule.

<sup>6</sup> Less than one-tenth of 1 per cent.

COMBINED SUMMARY FOR ALL MANUFACTURING INDUSTRIES, FOR THE UNITED STATES: 1849 to 1925

[No data for the "Automobile repairing" industry are included in this table, and the data for the "Coffee and spice, roasting and grinding" industry have been eliminated for 1914 and subsequent years]

	Number of establishments	Wage earners (average number)	Capital	Wages
<b>FACTORIES AND HAND AND NEIGHBORHOOD INDUSTRIES</b>				
1849.....	123, 025	957, 059	\$533, 245, 351	\$236, 755, 464
1859.....	140, 433	1, 311, 246	\$1, 009, 855, 715	\$378, 878, 966
Per cent of increase, 1849 to 1859.....	14. 1	37. 0	89. 4	60. 0
1869 (gold value).....	252, 148	2, 053, 996	\$1, 694, 567, 015	\$620, 467, 474
Per cent of increase, 1859 to 1869.....	79. 6	56. 6	67. 8	63. 8
1879.....	253, 852	2, 732, 595	\$2, 790, 272, 606	\$947, 953, 795
Per cent of increase, 1869 to 1879.....	0. 7	33. 0	64. 7	52. 8
1889.....	355, 405 <sup>1</sup>	4, 251, 535	\$6, 525, 050, 759	\$1, 891, 219, 696
Per cent of increase, 1879 to 1889.....	40. 0	56. 6	133. 8	99. 5
1899.....	512, 191	5, 306, 143	\$9, 813, 834, 330	\$2, 320, 938, 168
Per cent of increase, 1889 to 1899.....	44. 1	24. 8	50. 4	22. 7
<b>FACTORIES, EXCLUDING HAND AND NEIGHBORHOOD INDUSTRIES</b>				
1899.....	207, 514	4, 712, 763	\$8, 975, 256, 496	\$2, 908, 361, 119
1904.....	216, 180	5, 468, 383	\$12, 075, 580, 874	\$2, 610, 444, 953
Per cent of increase, 1899 to 1904.....	4. 2	16. 0	41. 2	30. 0
1909.....	268, 491	6, 615, 046	\$18, 428, 269, 706	\$3, 427, 037, 884
Per cent of increase, 1904 to 1909.....	24. 2	21. 0	45. 4	31. 3
Per cent of increase, 1899 to 1909.....	29. 4	40. 4	105. 3	70. 6
1914.....	271, 822	7, 015, 136	\$22, 717, 286, 132	\$4, 063, 211, 048
Per cent of increase, 1909 to 1914.....	1. 2	6. 0	23. 3	18. 6
Per cent of increase, 1904 to 1914.....	25. 7	28. 3	79. 2	55. 7
1914 <sup>1</sup> .....	176, 468	6, 887, 677	\$22, 717, 286, 132	\$4, 063, 211, 048
1919 <sup>1</sup> .....	213, 631	8, 989, 536	\$44, 197, 722, 282	\$10, 452, 585, 627
Per cent of increase, 1914 to 1919.....	21. 1	30. 5	94. 6	157. 2
1921.....	195, 555	6, 937, 688	( <sup>2</sup> )	\$8, 192, 952, 102
Per cent of decrease (-), 1919 to 1921.....	-8. 5	-22. 8		-21. 6
1923.....	195, 580	8, 768, 491	( <sup>2</sup> )	\$10, 999, 281, 784
Per cent of increase, 1921 to 1923.....	( <sup>1</sup> )	26. 4		34. 3
1925.....	187, 390	8, 384, 261	( <sup>2</sup> )	\$10, 729, 968, 927
Per cent of increase or decrease (-), 1923 to 1925.....	-4. 2	-4. 4		-2. 4

	Cost of materials	Value of products	Value added by manufacture
<b>FACTORIES AND HAND AND NEIGHBORHOOD INDUSTRIES</b>			
1849.....	\$555, 123, 882	\$1, 019, 106, 616	\$463, 982, 734
1859.....	\$1, 031, 605, 092	\$1, 885, 861, 676	\$554, 256, 584
Per cent of increase, 1849 to 1859.....	85. 8	85. 1	84. 1
1869 (gold value).....	\$1, 990, 741, 704	\$3, 385, 860, 354	\$1, 395, 118, 560
Per cent of increase, 1859 to 1869.....	93. 0	79. 5	63. 3
1879.....	\$3, 396, 823, 549	\$5, 369, 579, 191	\$1, 972, 755, 642
Per cent of increase, 1869 to 1879.....	70. 6	58. 6	41. 4
1889.....	\$5, 162, 013, 878	\$9, 372, 373, 843	\$4, 210, 364, 935
Per cent of increase, 1879 to 1889.....	52. 0	74. 5	113. 4
1899.....	\$7, 343, 627, 875	\$13, 000, 149, 159	\$5, 656, 521, 284
Per cent of increase, 1889 to 1899.....	42. 3	38. 7	34. 3
<b>FACTORIES, EXCLUDING HAND AND NEIGHBORHOOD INDUSTRIES</b>			
1899.....	\$6, 575, 851, 491	\$11, 406, 926, 701	\$4, 831, 075, 210
1904.....	\$8, 500, 207, 810	\$14, 793, 902, 593	\$6, 293, 694, 753
Per cent of increase, 1899 to 1904.....	29. 3	29. 7	30. 3
1909.....	\$12, 142, 790, 878	\$20, 672, 051, 870	\$8, 529, 260, 992
Per cent of increase, 1904 to 1909.....	42. 9	39. 7	35. 5
Per cent of increase, 1899 to 1909.....	84. 7	81. 2	75. 5
1914.....	\$14, 242, 415, 411	\$24, 065, 765, 817	\$9, 823, 350, 406
Per cent of increase, 1909 to 1914.....	17. 3	16. 4	15. 2
Per cent of increase, 1904 to 1914.....	67. 6	62. 7	56. 1
1914 <sup>1</sup> .....	\$14, 161, 896, 937	\$23, 837, 257, 989	\$9, 675, 361, 052
1919 <sup>1</sup> .....	\$30, 988, 875, 992	\$61, 737, 125, 332	\$24, 748, 249, 340
Per cent of increase, 1914 to 1919.....	161. 2	159. 0	155. 8
1921.....	\$25, 154, 806, 641	\$43, 427, 223, 807	\$18, 272, 417, 166
Per cent of decrease (-), 1919 to 1921.....	-32. 0	-29. 7	-26. 2
1923.....	\$34, 480, 854, 297	\$60, 258, 470, 607	\$25, 777, 616, 310
Per cent of increase, 1921 to 1923.....	37. 1	38. 8	41. 1
1925.....	\$35, 935, 647, 704	\$62, 713, 713, 330	\$26, 778, 066, 026
Per cent of increase or decrease (-), 1923 to 1925.....	4. 2	4. 1	3. 9

<sup>1</sup> Excluding data for establishments reporting products valued at less than \$5,000. See "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5.

<sup>2</sup> Includes data for all establishments reporting products valued at \$500 or more.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Less than one-tenth of 1 per cent.

The statistics for 1899 (census of 1900) have been reduced to the factory basis by eliminating, so far as possible, the data for the neighborhood, hand, building, and household industries, but no such elimination is possible in the case of the earlier censuses. For this reason the statistics for years prior to 1899 are not comparable with those for 1904 and subsequent census years. Nevertheless, for the purpose of showing in a rough way the industrial progress of the country from census year to census year since 1849, the summary on the preceding page is presented.

Two sets of figures are given for 1899, one including data for the neighborhood, hand, building, and household industries, in order to preserve comparability between 1899 and earlier years, and the other excluding such data in order to make the figures for 1899 comparable with those for later years. The financial items for 1869, which were reported in inflated currency worth in gold about 80 per cent of its nominal value, have been reduced to a gold basis in this presentation in order to make the figures for that year comparable with those for preceding and following census years.

In making use of the figures for 1919, 1921, 1923, and 1925, the great increases in wages and prices which have taken place since 1914 must be kept in mind. (See "Production as measured by physical volume," p. 13.)