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UNITED STATES DEPARTMENT OF LABOR

Frances Perkins, *Secretary*

BUREAU OF LABOR STATISTICS

Isador Lubin, *Commissioner*



Average Annual Wage  
and Salary Payments in Ohio  
1916 to 1932

By

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## Letter of Transmittal

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UNITED STATES DEPARTMENT OF LABOR,  
BUREAU OF LABOR STATISTICS,  
*Washington, August 27, 1935.*

MADAM SECRETARY: I have the honor to transmit herewith a report entitled "Average Annual Wage and Salary Payments in Ohio, 1916 to 1932." This report brings together 12 articles published in the January, February, March, April, May, June, August, September, October, November, and December 1934, and January 1935 issues of the Monthly Labor Review.

The report shows the amount and trend of annual wage and salary payments in Ohio from 1916 to 1932 and is based on statistical information collected and compiled by the Ohio Division of Labor Statistics. The Ohio reports furnish an unusually comprehensive and continuous record of employment and wage and salary payments. The importance of the studies collected in this report lies in the fact that annual income is a more significant economic factor in determining the standard of living than the wage rate per hour, day, week, or month.

ISADOR LUBIN, *Commissioner.*

HON. FRANCES PERKINS,  
*Secretary of Labor.*

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AVERAGE ANNUAL WAGE AND SALARY  
PAYMENTS IN OHIO, 1916 TO 1932

Chapter 1.—Sources and Scope of Studies

**T**HIS series of studies has been made in an effort to measure as nearly as possible the amount and course of annual wage and salary payments in Ohio. The importance of such studies is due to the fact that the annual income, rather than the hourly, daily, weekly, or monthly rate of pay, is the important economic factor in determining the standard of living. The reports which form the basis of these studies have been compiled for a period of 19 years and afford an unusual statistical record of employment and of wage and salary payments to wage earners, clerical employees, and salespeople.

The data which form the basis of these computations of average wage and salary payments in the three general occupation groups—"wage earners"; "bookkeepers, stenographers, and office clerks"; and "salespeople (not traveling)"—were collected by the office of the State government of Ohio responsible for labor statistics. For the earlier years of the period covered, that office was the Department of Investigation and Statistics of the Industrial Commission, but since July 1, 1921, it has been known as the Division of Labor Statistics, Department of Industrial Relations of Ohio.

The statistical information collected each year was compiled by the Ohio department for all of the years except 1922. For that year it was compiled by the Women's Bureau of the United States Department of Labor. While the compilations were made promptly each year, the information has been published by the Ohio department for only 1914, 1915, 1923, 1928, and 1929, with a summary report for 1924 to 1927 accompanying the 1928 report.<sup>1</sup> The series of Ohio

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<sup>1</sup> General summaries covering fluctuation of employment have been published in the Monthly Labor Review for April, August, and December 1930, for March 1932, and for December 1933. Bulletin No. 553 of the United States Bureau of Labor Statistics shows summary and detailed information concerning fluctuation of employment in Ohio for 1914 to 1929.

reports bears the title, Rates of Wages, Fluctuation of Employment, Wage and Salary Payments in Ohio. A separate series of reports covers mining and quarrying, and that general industry group is not covered in these studies. The years 1914 and 1915 are also not covered, owing to the considerable difference in number of establishments reporting data relative to number of employees and the number reporting data relative to wage and salary payments, and for the same reason 1916 and 1917 are omitted from the chapter on "all industries" (p. 6) and that on "construction" (p. 20).

The statistical data covering employees, classified rates of wages, and wage and salary payments were furnished annually, as required by law, by the employers of Ohio. The information was requested during 1914 to 1923 of all employers of five or more persons and during 1924 to 1932 of all employers of three or more persons in all industry groups except interstate transportation and governmental activities.

The list of establishments reporting statistical information and the list of establishments carrying workmen's compensation insurance are carefully and continuously checked against each other. Compensation insurance was compulsory during 1914 to 1923 for all employers employing five or more, and since January 1, 1924, it has been compulsory for all employing three or more. Employers of fewer than the minimum number are permitted, but not required, to avail themselves of the provisions of the State workmen's compensation law. Employers are not required to carry insurance for employees in household or domestic service, but may do so.

Some employers with fewer than three employees (fewer than five prior to 1924) furnish statistical data each year and such reports are included in the tabulations. Comparatively few employing three or more (five or more prior to 1924) fail to report. The lists in the workmen's compensation insurance file and in the statistical file have been expanded from year to year, and therefore represent a more nearly complete coverage during the later years than during the earlier years of the period.

The approximate completeness of the material included in the Ohio reports, particularly during the period 1924 to 1932, in which information has been requested from all employers of three or more persons, can be seen from a comparison of the Ohio reports on the single industry group "manufactures", with the United States biennial Census of Manufactures. Census figures in table 1 include only those Ohio manufacturing concerns reporting "value of product" of \$500 or more in 1919 and \$5,000 or more in other years covered. The Ohio reports, on the other hand, include only a comparatively few establishments employing fewer than three persons (fewer than five persons for the years prior to 1924). The census figures therefore

include a number of small manufacturing establishments not requested to furnish information to the Ohio Division of Labor Statistics. In table 1 the census and the Ohio reports are compared for each of the years in which the census made its biennial report for the period covered by this article.

TABLE 1.—COMPARISON OF COVERAGE OF UNITED STATES CENSUS REPORTS ON MANUFACTURES IN OHIO, AND OF REPORTS (MANUFACTURES SECTION ONLY) OF OHIO DIVISION OF LABOR STATISTICS, 1919, 1921, 1923, 1925, 1927, 1929, AND 1931

Year and report	Estab-lish-ments	Wage earners (average of 12 months)	Amount paid in wages
1919			
United States Census of Manufactures .....	16, 125	730, 733	\$944, 651, 734
Ohio report.....	9, 011	678, 525	1 872, 014, 593
Difference.....	7, 114	52, 208	72, 637, 141
1921			
United States Census of Manufactures .....	11, 479	494, 288	627, 032, 666
Ohio report.....	8, 632	460, 671	1 576, 968, 355
Difference.....	2, 847	33, 617	50, 064, 311
1923			
United States Census of Manufactures .....	11, 195	669, 132	979, 659, 869
Ohio report.....	8, 701	654, 142	1 933, 989, 207
Difference.....	2, 494	14, 990	45, 670, 662
1925			
United States Census of Manufactures .....	11, 131	676, 661	975, 738, 405
Ohio report.....	9, 502	651, 944	1 956, 106, 644
Difference.....	1, 629	24, 717	19, 631, 761
1927			
United States Census of Manufactures .....	10, 961	669, 097	968, 181, 165
Ohio report.....	9, 880	649, 111	1 950, 200, 395
Difference.....	1, 081	19, 986	17, 980, 770
1929			
United States Census of Manufactures .....	11, 855	741, 143	1, 102, 166, 499
Ohio report.....	10, 035	718, 108	1 076, 213, 730
Difference.....	1, 820	23, 035	25, 952, 769
1931			
United States Census of Manufactures <sup>2</sup> .....	9, 883	506, 974	593, 051, 176
Ohio report.....	9, 683	482, 782	1 571, 917, 215
Difference.....	200	24, 192	21, 133, 961

<sup>1</sup> Amount reported paid to wage earners, and does not include amounts paid to bookkeepers, stenographers, and office clerks, salespeople (not traveling), and superintendents and managers.

<sup>2</sup> Press release, Bureau of the Census, Apr. 1, 1933.

Even with the omission, prior to 1924, from the reports of the Ohio Division of Labor Statistics of practically all manufacturing plants employing fewer than five persons and the omission for 1924 to 1932 of practically all those employing fewer than three persons, the average number of wage earners and the total amount paid in wages are not far below the census figures for manufactures in Ohio. The per-

cent which the figures of the Ohio Division of Labor Statistics form of the figures of the census for each of those two items is as follows:

TABLE 2.—PERCENT WHICH FIGURES OF OHIO DIVISION OF LABOR STATISTICS FORM OF FIGURES OF THE CENSUS OF MANUFACTURES FOR WAGE EARNERS AND WAGE PAYMENTS

Year	Wage earners	Wage payments	Year	Wage earners	Wage payments
1919.....	92.9	92.3	1927.....	97.0	98.1
1921.....	93.2	92.0	1929.....	96.9	97.6
1923.....	97.8	95.3	1931.....	95.2	96.4
1925.....	96.3	98.0			

The industry groups included in these studies on average wage and salary payments are manufacturers, wholesale and retail trade, service,<sup>2</sup> transportation and public utilities, construction, and agriculture. The great majority of Ohio farmers who hire help employ fewer than three persons, and therefore this report does not give a complete picture of conditions in agriculture in general, as the information comes from the larger commercial farming undertakings, from the larger dairy farms, and from the larger florist, fruit-growing, and nursery establishments. The figures in the subgroup "domestic service", under the general industry group "service", also do not afford a complete report, as comparatively few would employ three or more in domestic service and furthermore workmen's compensation insurance is not compulsory for such employers. In all the other industry groups included the Ohio reports and this report give practically a complete picture except for the very small establishments. Fisheries was carried as a separate industry group by the Ohio Division of Labor Statistics prior to 1932, in which year the returns were tabulated under "trade, wholesale and retail", as the establishments reporting were largely packing and sales houses. Chapter 2 shows average number of employees and total wage and salary payments for "fisheries", but average wage and salary payments were not computed owing to the small number of persons involved.

Average wage and salary payments shown in this report have been computed from reports furnished by Ohio employers immediately after the close of each calendar year. These reports show, among other items, the number of persons employed on the 15th of each month and the total wage and salary payments during the year. Employers are not requested to furnish, in connection with such annual reports, information concerning number or proportion of employees working full time, part time, and overtime, nor are they requested to furnish information relative to the extent to which they have "spread"

<sup>2</sup> The principal businesses and activities classified under the industry group "service" are: Hotels, restaurants, clubs, theaters, bowling alleys, servants in private homes, garages, laundering and dry cleaning, barbers and hair dressers, banks, offices, office buildings, welfare agencies, hospitals, churches, schools and colleges, photographers, shoe repairing, undertakers, cemeteries, etc.

work or shortened hours during slack periods or provided overtime during busy periods. Spreading work through reduced hours for individual employees, groups of employees, or for the establishment as a whole, was followed by many employers during the slack period in 1921 and was followed very generally during the longer slack period since 1929. Such plans, of course, merely distribute available work and wage and salary funds among the larger number of employees and all carry a part of the hardship resulting from reduced incomes. Such a procedure in which both employees and employers cooperate, it is generally believed, means less suffering on the part of the whole body of employees than would be caused by retention only of those who could be provided with full-time employment at former hours and furloughing or releasing all others.

Spreading work during the slack periods following 1920 and 1929 was undoubtedly a considerable factor in reducing the average wage and salary payments during those two periods. Overtime work during the periods of great industrial activity preceding the slack periods, on the other hand, increased average wage and salary payments at those periods. It is not possible from data available to determine the amount of part-time and overtime work during the 17 years covered by these studies and to measure, even approximately, the effect of such conditions upon average wage and salary payments.

Under each of the several general industry groups, data are shown in this chapter for each of the three general occupation groups—"wage earners"; "bookkeepers, stenographers, and office clerks"; and "salespeople (not traveling)." The table showing total wage and salary payments also shows separately payments to superintendents and managers, but data for such employees do not enter into any of the other tables or computations.

## Chapter 2.—All Industries, 1918 to 1932 <sup>1</sup>

**R**EPORTS from practically all establishments in Ohio employing three or more persons and falling within the general industry groups of manufactures, wholesale and retail trade, service, transportation and public utilities, construction, agriculture, and fisheries show an average wage and salary payment of \$1,048 for the year 1932 as compared with \$1,480 in 1929.

For the occupation group, "wage earners", the reports show an average wage and salary payment of \$978 for the year 1932 and \$1,457 for 1929. For the group, "bookkeepers, stenographers, and office clerks", the average was \$1,390 for 1932 and \$1,677 for 1929. The group, "salespeople (not traveling)", averaged \$1,014 for 1932, \$1,374 for 1929, and \$1,417 for 1927.

### Average Number of Employees

TABLE 3 shows the average number of employees in each of the three general occupation groups under each industry group. The annual reports made by employers to the Ohio Division of Labor Statistics show the number of persons employed on the 15th of each month, and the averages shown in this table were computed by dividing the total of the monthly figures by 12. Employers are not requested in their annual reports to give information as to the number of employees on full time and the number on part time each month.

The number of establishments from which reports are secured varies from year to year, but within each year the establishments are identical throughout the 12 months. It should be borne in mind that reports were requested of employers of three or more persons each year from 1924 to 1932, and of employers of five or more during the earlier years of the period covered, and therefore any comparisons between years should be made separately within those two periods.

For the first of the two periods indicated, 1918 to 1923, the highest average number of employees occurred in 1920 for all industries combined, for construction, and for manufactures, and in 1923 for service, trade, and transportation and public utilities. For the second of the two periods, 1924 to 1932, the highest average number of employees occurred in 1929 for all industries combined, for manufactures, and for trade; in 1930 for service and for transportation and public utilities; and in 1927 for construction. The lowest average during the

<sup>1</sup> Certain figures in this study, as published in the Monthly Labor Review for January 1934, have been changed in accord with detailed studies made later. See statement as to 1916 to 1924 in studies of service and trade (pp. 150 and 163).

first period occurred in 1921 for all industries combined and for construction, manufactures, and transportation and public utilities, and in 1918 for service and trade. The lowest averages during the second period occurred in 1932, except in service, where, with a very much smaller number of establishments reporting, it occurred in 1924.

TABLE 3.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED EACH YEAR, 1918 TO 1932, BY INDUSTRY AND BY GENERAL OCCUPATION GROUPS

Year	All industries					Agriculture				
	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)
1918	22,709	1,041,993	895,726	104,264	42,002	520	4,776	4,511	217	48
1919	23,652	1,039,150	876,103	116,185	46,861	552	4,635	4,403	180	53
1920	27,241	1,123,955	942,925	130,857	50,173	586	4,895	4,562	247	57
1921	23,562	812,646	655,340	110,523	46,784	504	4,450	4,185	202	63
1922	24,124	912,160	750,403	112,283	49,474	519	4,413	4,138	215	60
1923	25,904	1,070,998	889,627	126,470	54,901	548	4,590	4,358	233	(1)
1924	30,439	1,055,721	860,379	133,235	62,106	732	5,772	5,433	271	68
1925	33,443	1,121,840	917,380	138,800	65,660	910	6,436	6,056	301	79
1926	36,004	1,175,950	959,800	146,255	69,895	1,052	7,144	6,714	334	96
1927	38,509	1,171,288	947,125	150,848	73,295	1,199	7,754	7,287	359	108
1928	39,979	1,197,885	966,125	154,287	77,473	1,329	8,545	8,016	422	108
1929	42,216	1,278,992	1,024,165	168,127	86,701	1,444	8,940	8,437	410	93
1930	43,348	1,133,846	888,527	174,099	71,220	1,639	8,989	8,471	431	87
1931	42,095	963,791	739,813	153,136	70,842	1,777	9,159	8,706	379	73
1932	39,109	817,862	619,044	134,296	64,523	1,736	7,915	7,528	317	69
Year	Construction					Manufactures				
	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)
1918	4,273	61,072	57,276	3,381	415	8,858	766,914	699,656	62,155	5,103
1919	4,747	57,194	53,506	3,177	511	9,011	752,121	678,525	68,249	5,346
1920	5,382	72,217	67,871	3,717	629	9,652	794,627	715,858	73,035	5,735
1921	4,890	50,985	47,411	2,972	602	8,632	524,316	460,671	57,965	5,680
1922	5,005	54,518	50,981	2,913	624	8,403	608,903	546,435	57,550	5,919
1923	5,883	69,202	65,077	3,461	663	8,701	726,043	654,142	65,538	6,363
1924	7,364	74,791	69,838	4,030	923	9,125	679,523	606,558	65,967	7,002
1925	8,407	77,670	72,574	4,104	992	9,502	727,988	651,944	68,383	7,657
1926	9,145	79,928	74,600	4,244	1,084	9,704	751,340	671,910	71,195	8,234
1927	9,724	83,535	77,944	4,485	1,106	9,880	726,250	649,111	71,769	8,371
1928	9,942	78,434	72,633	4,727	1,073	9,937	749,434	669,039	72,041	8,355
1929	10,183	78,631	72,670	4,844	1,117	10,035	806,607	718,108	79,197	9,202
1930	9,672	69,607	63,625	5,323	660	10,011	673,178	590,506	77,702	4,969
1931	8,272	45,601	41,066	3,630	904	9,683	552,905	482,782	65,011	5,112
1932	6,456	27,519	24,094	2,691	734	9,102	461,183	399,790	56,500	4,893
Year	Service <sup>2</sup>					Trade, wholesale and retail <sup>3</sup>				
	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)
1918	3,071	57,014	40,301	14,813	1,899	4,815	92,318	41,539	16,448	34,331
1919	3,157	63,157	42,086	18,685	2,386	5,063	100,434	43,843	18,208	38,383
1920	4,650	77,052	48,662	25,993	2,397	5,786	110,524	49,494	19,904	41,126
1921	3,499	74,850	48,537	23,418	2,896	4,962	98,818	42,910	18,547	37,360
1922	3,745	79,438	51,517	24,644	3,277	5,354	104,063	45,593	19,083	39,408
1923	4,120	90,767	59,082	27,641	4,045	5,497	114,128	49,805	20,850	43,473
1924	5,215	104,095	66,937	32,219	4,939	6,707	122,071	51,967	21,380	48,724
1925	5,971	113,046	73,399	34,124	5,523	7,277	126,928	53,759	22,263	50,907
1926	6,761	124,424	82,072	35,664	6,688	7,867	132,770	56,536	23,055	53,179
1927	7,598	130,525	87,132	37,934	5,459	8,526	139,720	58,368	23,721	57,631
1928	8,210	138,542	91,160	40,181	7,202	8,916	140,780	56,884	23,887	60,909
1929	9,335	153,109	100,805	44,374	7,930	9,524	149,224	56,971	24,973	67,280
1930	10,241	155,012	99,427	51,162	4,423	10,022	142,286	57,845	24,482	59,959
1931	10,452	150,122	97,184	48,590	4,348	10,111	137,304	55,482	22,267	59,555
1932	10,357	138,405	91,523	42,964	3,918	9,716	122,738	49,087	19,545	54,106

<sup>1</sup> Tabulations of the Ohio Division of Labor Statistics carry these employees under "Industries, not otherwise classified."

<sup>2</sup> Including "Offices."

<sup>3</sup> Not including "Offices."

TABLE 3.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED EACH YEAR, 1918 TO 1932, BY INDUSTRY AND BY GENERAL OCCUPATION GROUPS—Continued

Year	Transportation and public utilities					Fisheries					Industries, not otherwise classified		
	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales people (not traveling)	Estab-lish-ments	All em-ployees	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales people (not traveling)	All em-ployees	Book-keepers, stenog-raphers, and office clerks	Sales people (not traveling)
1918.....	1, 134	59, 448	52, 037	7, 205	205	33	452	406	46				
1919.....	1, 081	61, 172	53, 357	7, 633	181	41	439	384	54	1			
1920.....	1, 146	64, 254	56, 115	7, 915	224	39	385	333	47	6			
1921.....	1, 048	58, 919	51, 368	7, 372	179	27	307	257	46	4			
1922.....	1, 071	59, 473	51, 462	7, 830	181	27	327	278	49	(1)	4		4
1923.....	1, 129	65, 876	56, 877	8, 701	298	26	287	287	(1)	105	46		59
1924.....	1, 271	69, 096	59, 320	9, 331	446	25	325	325	(1)				
1925.....	1, 353	69, 426	59, 345	9, 584	498	23	304	304	(1)	(1)	46	42	4
1926.....	1, 453	80, 008	67, 671	11, 728	609	22	296	296	(1)	(1)	41	37	4
1927.....	1, 561	80, 162	66, 999	12, 546	617	21	283	283	(1)	(1)	37	33	4
1928.....	1, 625	81, 849	68, 126	12, 999	725	20	268	268	(1)	(1)	33	31	2
1929.....	1, 674	82, 137	66, 862	14, 297	978	21	344	312	31	1			
1930.....	1, 741	84, 450	68, 358	14, 969	1, 123	22	295	295	(1)	(1)	30	30	
1931.....	1, 776	68, 382	54, 303	13, 231	847	24	289	289	(1)	(1)	31	28	3
1932.....	1, 742	60, 103	47, 021	12, 279	803	(2)	(2)	(2)	(2)	(2)			

<sup>1</sup> Tabulations of the Ohio Division of Labor Statistics carry these employees under "Industries, not otherwise classified."

<sup>2</sup> Tabulations of the Ohio Division of Labor Statistics carry fisheries under "Trade" in 1932, as the establishments reporting were largely packing and sales houses.

### Total Wage and Salary Payments

TOTAL wage and salary payments reported paid in each of the 15 years 1918 to 1932 are shown in table 4. In supplying data for this table, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were also instructed not to include salaries of officials.

While payments to superintendents and managers are included in this table, that occupation group is not included in the other tables in this article, and the amounts paid to that group do not enter into the average payments shown in table 6.

Considering all industry groups combined, during the period 1918 to 1923, the highest payments occurred in 1920, and the lowest occurred in 1921, with a drop (omitting payments to superintendents and managers) of 39.1 percent. During the period 1924 to 1932 there was a gradual increase in payments each year until the highest point was reached in 1929. Each year since 1929 shows a marked decrease, until in 1932 the payments reported (omitting payments to superintendents and managers) show a decline from 1929 of \$1,035,921,872, or 54.7 percent.

In construction the highest payments reported during the second period were in 1927 and the lowest in 1932, with a drop (omitting

payments to superintendents and managers) from the peak in 1927 of \$107,878,101, or 79.3 percent. In manufactures the highest payments reported during the second period were in 1929 and the lowest in 1932, with a drop (omitting superintendents and managers) in 3 years of \$762,296,717, or 61.6 percent.

TABLE 4.—TOTAL WAGE AND SALARY PAYMENTS, EACH YEAR 1918 TO 1932, BY INDUSTRY AND GENERAL OCCUPATION GROUPS

<i>All industries</i>							
Year	Establishments	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)	Total	Superintendents and managers	Grand total
1918	22,709	\$993,233,308	\$113,268,144	\$37,548,872	\$1,144,050,324	\$56,330,774	\$1,200,381,098
1919	23,652	1,091,922,134	152,690,186	48,693,649	1,293,295,969	73,247,706	1,366,543,675
1920	27,241	1,454,725,511	195,573,486	62,713,753	1,713,012,755	87,328,956	1,800,341,711
1921	23,562	820,250,496	163,589,396	59,447,291	1,043,287,183	83,596,901	1,125,884,084
1922	24,025	937,666,389	191,696,182	60,165,261	1,189,527,832	82,884,097	1,272,411,929
1923	25,904	1,264,809,860	188,694,543	73,152,030	1,526,656,433	95,328,822	1,621,985,255
1924	30,439	1,209,620,128	207,015,167	81,728,091	1,498,363,386	103,035,637	1,601,399,023
1925	33,443	1,316,203,710	214,608,478	89,783,496	1,620,595,684	113,110,564	1,733,706,248
1926	36,004	1,360,927,636	230,689,854	97,523,735	1,689,141,225	117,637,539	1,806,778,764
1927	38,509	1,355,767,253	244,426,090	103,849,983	1,704,043,326	120,285,265	1,824,328,591
1928	39,979	1,398,706,201	252,050,747	109,017,515	1,769,774,463	131,366,774	1,891,141,237
1929	42,216	1,492,141,261	282,017,895	119,084,364	1,893,243,520	133,461,924	2,026,705,444
1930	43,348	1,193,353,662	291,736,043	88,972,655	1,574,042,360	137,112,337	1,711,154,497
1931	42,065	877,928,035	239,454,060	82,265,334	1,199,648,197	115,105,919	1,314,754,116
1932	39,109	605,190,299	186,710,032	65,421,317	857,321,648	88,841,093	946,162,741
<i>Agriculture</i>							
1918	520	\$3,356,920	\$182,546	\$41,880	\$3,581,346	\$212,913	\$3,794,259
1919	552	3,625,412	186,241	52,845	3,864,498	255,093	4,119,591
1920	586	4,789,088	301,168	72,610	5,162,866	331,992	5,494,858
1921	504	3,788,157	236,724	82,391	4,107,272	331,291	4,438,563
1922	524	3,705,059	263,726	65,911	4,024,696	338,837	4,363,533
1923	548	4,236,632	263,927	165,366	4,565,925	420,316	4,986,241
1924	732	5,466,661	312,116	80,476	5,859,253	506,092	6,365,345
1925	910	6,116,041	348,940	108,879	6,573,860	542,439	7,116,299
1926	1,052	6,404,230	413,050	115,041	6,932,321	558,358	7,490,679
1927	1,199	7,080,170	431,662	155,052	7,616,884	593,543	8,210,427
1928	1,329	7,798,284	511,921	144,225	8,424,430	704,202	9,128,632
1929	1,444	8,074,741	483,350	123,803	8,681,984	712,565	9,394,549
1930	1,639	7,040,580	481,285	108,100	8,529,965	717,974	9,247,939
1931	1,777	6,999,893	419,193	80,587	7,499,673	649,410	8,149,083
1932	1,736	4,894,524	271,694	62,582	5,228,800	495,600	5,724,400
<i>Construction</i>							
1918	4,273	\$62,646,726	\$3,629,209	\$566,429	\$66,842,364	\$4,288,305	\$71,130,669
1919	4,747	75,722,325	4,063,456	1,061,366	80,847,147	4,001,698	84,848,845
1920	5,382	115,574,650	5,856,206	1,228,550	122,659,406	5,474,355	128,133,761
1921	4,890	65,528,871	4,761,255	1,080,441	71,370,567	4,949,853	76,320,420
1922	5,007	69,408,474	4,327,049	1,141,497	74,877,020	4,751,917	79,628,937
1923	5,883	126,632,946	5,512,851	1,318,568	133,463,865	5,986,960	139,400,825
1924	7,364	114,334,620	6,631,822	1,808,800	122,776,242	6,339,353	129,114,595
1925	8,407	119,736,318	6,767,973	2,047,099	128,601,390	6,553,488	135,154,848
1926	9,145	120,158,128	7,191,240	2,268,407	129,615,775	7,003,820	136,619,605
1927	9,724	126,076,960	7,712,554	2,332,337	136,121,851	7,334,053	143,455,904
1928	9,942	117,922,441	8,275,667	2,161,140	128,359,248	7,585,688	135,944,936
1929	10,183	121,413,067	8,160,166	2,196,454	131,769,687	7,823,916	139,593,603
1930	8,672	98,314,644	9,367,262	1,449,083	109,130,989	7,992,681	117,123,670
1931	8,272	54,519,506	5,833,638	1,313,937	61,667,081	5,695,227	67,362,308
1932	6,456	23,657,092	3,636,039	950,619	28,243,750	3,270,559	31,514,309

<sup>1</sup> Tabulations of the Ohio Division of Labor Statistics carry these employees under "Industries, not otherwise classified."

TABLE 4.—TOTAL WAGE AND SALARY PAYMENTS, EACH YEAR 1918 TO 1932, BY INDUSTRY AND GENERAL OCCUPATION GROUPS—Continued

*Fisheries*

Year	Establishments	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)	Total	Superintendents and managers	Grand total
1918	38	\$577,228	\$49,004	-----	\$626,232	\$56,871	\$683,103
1919	41	573,347	64,205	\$1,250	633,802	63,082	731,884
1920	39	626,871	65,907	12,807	705,585	68,424	774,009
1921	27	378,476	68,460	9,744	456,680	58,750	515,430
1922	27	416,996	66,321	1 10,290	493,607	46,599	540,206
1923	26	408,462	1 58,783	1 9,320	477,065	59,975	537,040
1924	25	537,035	1 63,013	1 12,020	612,068	65,885	677,953
1925	23	489,088	1 52,100	1 5,673	546,861	68,920	615,781
1926	22	481,277	1 49,888	1 5,950	537,115	73,275	610,390
1927	21	479,939	1 49,218	1 10,358	539,515	62,620	602,135
1928	20	455,426	1 46,125	1 4,320	505,871	68,400	574,271
1929	21	511,443	1 46,515	1 744	599,702	72,822	632,524
1930	22	481,506	1 46,565	1 400	528,471	69,640	598,111
1931	24	434,362	1 47,323	1 6,095	487,780	61,153	548,933
1932	(?)	(?)	(?)	(?)	(?)	(?)	(?)

*Manufactures*

1918	8,858	\$810,785,446	\$72,401,476	\$7,633,182	\$890,820,104	\$34,550,921	\$925,371,025
1919	9,011	872,014,593	99,616,394	9,022,859	990,653,856	46,296,998	1,026,950,854
1920	9,652	1,143,062,785	118,045,344	11,365,308	1,273,971,437	51,667,818	1,324,739,255
1921	8,632	576,968,355	89,700,261	11,194,833	677,863,449	46,048,858	723,912,407
1922	8,330	693,948,886	118,786,876	10,629,889	823,365,751	45,706,009	869,071,760
1923	8,701	933,989,207	105,092,484	12,959,885	1,052,041,376	51,259,820	1,103,301,196
1924	9,125	867,024,674	108,441,736	13,865,043	989,331,453	51,142,061	1,040,473,514
1925	9,502	956,106,644	116,531,491	17,046,075	1,089,684,210	56,133,781	1,145,817,991
1926	9,704	973,197,214	121,169,678	17,225,427	1,111,592,319	58,268,417	1,169,860,736
1927	9,880	950,200,395	127,339,270	17,821,103	1,095,360,768	58,822,884	1,154,183,652
1928	9,937	1,000,676,770	126,630,061	18,073,918	1,145,380,749	59,420,091	1,204,800,840
1929	10,035	1,076,213,730	141,959,719	20,198,389	1,238,371,838	62,777,638	1,301,149,476
1930	10,011	806,211,539	141,830,517	10,326,936	958,368,992	60,396,459	1,018,765,451
1931	9,683	571,917,215	109,165,152	9,135,088	690,217,455	50,905,300	741,122,755
1932	9,102	382,080,692	85,497,253	8,497,176	476,075,121	38,432,348	514,507,469

*Service, including "offices"*

1918	3,071	\$30,516,708	\$16,348,100	\$2,698,080	\$49,562,888	\$5,180,566	\$54,743,454
1919	3,157	35,598,590	22,453,467	3,555,612	61,607,669	7,053,211	68,660,880
1920	4,650	52,601,409	36,426,294	4,845,853	93,873,556	10,297,669	104,171,225
1921	3,499	53,671,210	35,368,928	4,637,305	93,677,443	11,059,427	104,736,870
1922 <sup>1</sup>	3,034	50,008,110	19,645,610	3,504,463	73,158,183	7,589,873	80,748,056
1923	4,120	65,361,822	40,017,329	8,377,123	113,756,274	14,204,573	127,960,847
1924	5,215	77,458,058	46,763,611	9,275,878	133,497,547	19,617,426	153,114,973
1925	5,971	86,197,038	48,314,102	10,948,449	145,459,589	21,959,639	167,419,228
1926	6,761	94,622,091	53,930,013	13,078,376	161,630,480	21,849,163	183,479,643
1927	7,598	105,462,147	59,000,261	10,809,448	175,271,856	21,607,204	196,879,060
1928	8,210	102,061,685	65,040,343	13,801,649	180,903,677	25,058,030	205,961,707
1929	9,335	118,959,260	76,873,897	16,074,147	211,907,304	26,384,039	238,291,343
1930	10,241	111,692,103	83,742,536	6,998,762	202,433,401	27,932,230	230,365,631
1931	10,452	103,607,067	75,869,112	6,060,877	185,537,056	24,510,860	210,047,916
1932	10,357	85,957,730	58,630,191	4,093,525	148,681,446	19,735,297	168,416,743

<sup>1</sup> Tabulations of the Ohio Division of Labor Statistics carry these employees under "Industries, not otherwise classified."<sup>2</sup> Tabulations of the Ohio Division of Labor Statistics carry fisheries under "Trade" in 1932, as the establishments reporting were largely packing and sales houses.<sup>3</sup> Not including offices. Data not available to combine.

TABLE 4.—TOTAL WAGE AND SALARY PAYMENTS, EACH YEAR 1918 TO 1932, BY INDUSTRY AND GENERAL OCCUPATION GROUPS—Continued

*Trade, wholesale and retail, not including "offices"*

Year	Estab-lish-ments	Wage earners	Book-keepers, stenog-raphers, and office clerks	Salespeople (not travel-ing)	Total	Superin-tendents and man-agers	Grand total
1918.....	4,815	\$34,922,511	\$14,323,442	\$26,379,860	\$75,625,813	\$9,619,073	\$85,244,886
1919.....	5,063	43,359,687	18,892,259	34,693,649	96,945,595	12,282,299	109,227,894
1920.....	5,786	58,837,839	25,512,300	44,205,304	128,555,443	15,917,877	144,473,320
1921.....	4,962	52,203,124	23,802,292	42,127,308	118,132,724	15,729,323	133,862,047
1922 <sup>4</sup> .....	6,031	55,724,935	37,310,729	44,403,951	137,439,615	20,162,319	157,601,934
1923.....	5,497	59,354,971	26,453,941	49,346,849	135,655,761	19,384,463	155,040,224
1924.....	6,707	64,715,087	28,011,605	55,619,297	148,345,989	20,594,823	168,940,812
1925.....	7,277	67,929,464	28,228,086	58,611,692	155,369,242	22,965,987	178,335,229
1926.....	7,867	72,366,350	31,231,010	63,490,776	167,088,136	24,120,423	191,208,559
1927.....	8,526	74,471,388	32,032,811	71,337,704	177,841,903	25,718,819	203,560,722
1928.....	8,916	73,571,115	31,704,191	73,229,892	178,505,198	31,854,439	210,359,637
1929.....	9,524	72,980,211	33,268,959	78,338,716	184,587,886	28,532,443	213,120,329
1930.....	10,022	72,844,362	34,396,203	67,848,122	175,088,687	32,256,244	207,344,931
1931.....	10,111	67,505,063	28,548,605	64,051,911	160,105,579	26,096,282	186,201,861
1932.....	9,716	52,243,081	21,934,553	50,317,419	124,495,053	20,821,876	145,316,929

*Transportation and public utilities*

1918.....	1,134	\$50,427,769	\$6,334,367	\$229,441	\$56,991,577	\$2,422,125	\$59,413,702
1919.....	1,081	61,028,180	7,414,174	296,065	68,738,422	3,295,325	72,033,747
1920.....	1,146	78,632,889	9,366,267	985,328	88,984,462	3,570,821	92,555,283
1921.....	1,048	67,712,303	9,651,476	315,269	77,679,048	4,419,299	82,098,347
1922.....	1,072	64,453,929	11,305,871	409,160	76,168,960	4,288,543	80,457,503
1923.....	1,129	74,825,820	11,295,723	574,619	86,696,167	4,062,715	90,758,882
1924.....	1,271	80,083,993	16,791,264	1,066,577	97,941,834	4,769,997	102,711,831
1925.....	1,353	79,579,117	13,765,786	1,015,629	94,360,532	4,886,340	99,246,872
1926.....	1,453	93,698,346	16,704,975	1,341,758	111,745,079	5,764,073	117,509,152
1927.....	1,561	92,046,254	17,860,314	1,383,981	111,290,549	6,146,142	117,436,691
1928.....	1,625	96,250,480	19,842,439	1,602,371	117,695,290	6,725,924	124,421,214
1929.....	1,674	93,988,809	21,225,289	2,151,021	117,365,119	7,158,501	124,523,620
1930.....	1,741	95,848,928	21,871,675	2,241,252	119,961,855	7,746,909	127,708,764
1931.....	1,776	72,945,697	19,571,037	1,616,839	94,133,573	7,187,687	101,321,260
1932.....	1,742	56,357,180	16,740,302	1,499,996	74,597,478	6,085,413	80,682,891

<sup>4</sup> Including "offices", data not available to separate.

<sup>5</sup> This amount is undoubtedly an error, but original schedules and work sheets have been destroyed and definite correction, therefore, cannot be made. The most likely error was mistaking a figure "1" in the left-hand column for a figure "7". If this assumption is correct, it involves a reduction of \$600,000, which would make the following changes in averages for 1920 shown in table 6 of this article: Transportation and public utilities, "all employees", from \$1,385 to \$1,376; all industries combined, "salespeople", from \$1,250 to \$1,238.

*Average Annual Wage and Salary Payments*

TABLE 6 shows average wage and salary payments for each year of the period, computed by dividing total wage and salary payments, as reported to and compiled by the division of labor statistics and shown in table 4, by the average number of employees within the same group, as shown in table 3. Very little information concerning average annual wage and salary payments has been made available on any extensive basis. The United States Census Bureau does not compute average annual wage payments in compiling the biennial Census of Manufactures, and states in the 1929 report the reasons for not making such computations. When computations are made, however, from the census reports, for wage earners in manufactures in Ohio, one finds the following comparisons (table 5) with the average wage and salary payments to wage earners based on the Ohio Division of Labor Statistics data.

TABLE 5.—AVERAGE WAGE PAYMENTS TO WAGE EARNERS IN MANUFACTURES IN OHIO, IN SPECIFIED YEARS, 1919 TO 1929

Year	Average wage payment—		Year	Average wage payment—	
	Computed from United States census	Based on Ohio Division of Labor Statistics data		Computed from United States census	Based on Ohio Division of Labor Statistics data
1919.....	\$1, 293	\$1, 285	1927.....	\$1, 447	\$1, 464
1921.....	1, 269	1, 252	1929.....	1, 487	1, 499
1923.....	1, 464	1, 428	1931.....	1, 170	1, 185
1925.....	1, 442	1, 467			

The two series show a remarkable agreement. The average annual payments to wage earners in manufactures in Ohio computed from the Ohio reports as compared with those computed from the United States census reports, are 0.62 percent lower in 1919, 1.34 percent lower in 1921, 2.46 percent lower in 1923, 1.73 percent higher in 1925, 1.17 percent higher in 1927, 0.81 percent higher in 1929, and 1.28 percent higher in 1931.

It is not possible from the reports made to the Ohio Division of Labor Statistics to show wage and salary payments separately for males and for females, nor is it possible to classify occupations beyond the three general occupation groups shown in this report. Considering all industries combined, and all employees, the highest average wage and salary payment was in 1920, with the second highest in 1929. The lowest average was in 1932, with a drop in 3 years of \$432, or 29.2 percent.

In construction the highest average payment was in 1923, with a drop to the lowest point in 1932 of \$903, or 46.8 percent.

In manufactures the highest average payment was in 1920, and the second highest in 1929. The lowest was in 1932, with a drop of \$503, or 32.8 percent, in 3 years. In service the highest average was in 1929 and the lowest in 1918. In wholesale and retail trade the highest average was in 1927 and the lowest in 1918; for salespeople (not traveling) under the general industry group "trade", the highest average payment was in 1927. In transportation and public utilities the highest average was in 1928 and the lowest in 1918.

Charts 1 to 6 show graphically average wage and salary payments from 1918 to 1932 for each of the industry groups numerically important and for all industry groups combined. Data are not available to compute 1922 average wage and salary payments for service (including offices) and for wholesale and retail trade (not including offices).

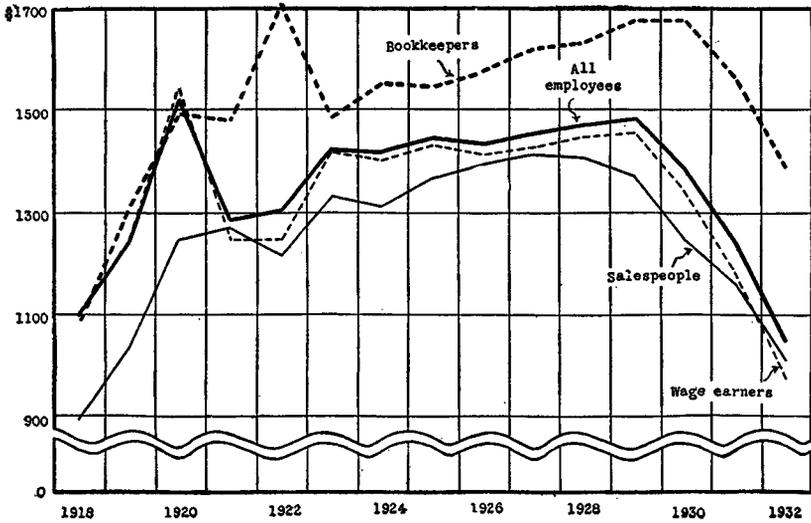


FIGURE 1.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN ALL INDUSTRY GROUPS COMBINED, 1918 TO 1932, BY GENERAL OCCUPATION GROUPS

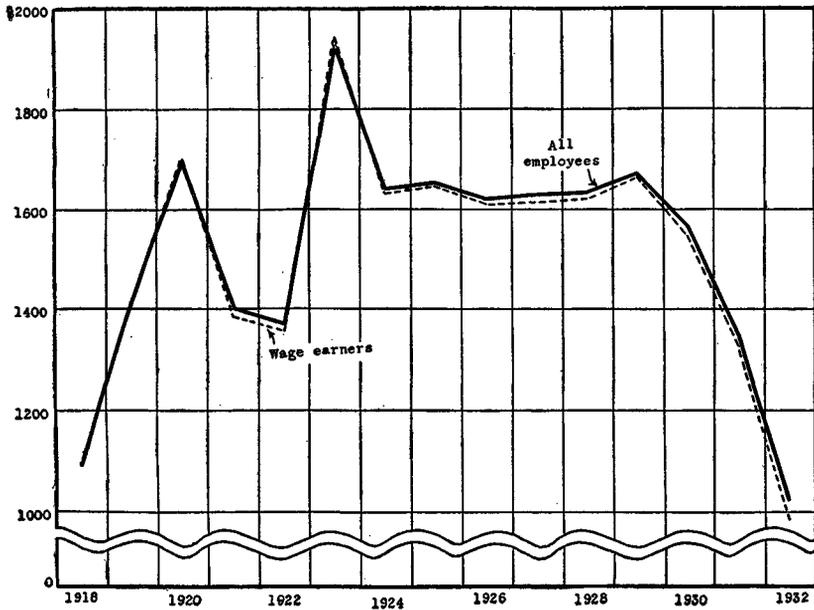


FIGURE 2.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS AND TO ALL EMPLOYEES IN THE CONSTRUCTION INDUSTRY, 1918 TO 1932

## AVERAGE ANNUAL WAGE PAYMENTS IN OHIO

TABLE 6.—AVERAGE WAGE AND SALARY PAYMENTS, EACH YEAR 1918 TO 1932, BY INDUSTRY AND GENERAL OCCUPATION GROUPS

Year	All industries					Agriculture				
	Establishments	All employees	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Establishments	All employees	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)
1918	22,709	\$1,098	\$1,109	\$1,086	\$894	520	\$750	\$744	(1)	(1)
1919	23,652	1,245	1,246	1,314	1,039	552	834	823	(1)	(1)
1920	27,241	1,524	1,543	1,495	1,250	586	1,055	1,043	(1)	(1)
1921	23,562	1,284	1,252	1,480	1,271	504	923	905	(1)	(1)
1922	24,025	1,304	1,250	1,707	1,216	524	912	895	(1)	(1)
1923	25,904	1,425	1,422	1,492	1,332	548	981	972	(1)	(1)
1924	30,439	1,419	1,406	1,554	1,316	732	1,015	1,006	(1)	(1)
1925	33,443	1,445	1,435	1,546	1,367	910	1,021	1,010	(1)	(1)
1926	36,004	1,436	1,418	1,577	1,395	1,052	970	954	(1)	(1)
1927	38,509	1,455	1,431	1,620	1,417	1,199	982	965	(1)	(1)
1928	39,979	1,469	1,448	1,634	1,407	1,329	986	969	(1)	(1)
1929	42,216	1,480	1,457	1,677	1,374	1,444	971	957	(1)	(1)
1930	43,348	1,388	1,343	1,676	1,249	1,639	949	937	(1)	(1)
1931	42,065	1,245	1,187	1,564	1,161	1,777	819	804	(1)	(1)
1932	39,103	1,048	978	1,390	1,014	1,736	661	650	(1)	(1)
	Construction					Manufactures				
1918	4,273	\$1,094	\$1,094	\$1,073	(1)	8,858	\$1,162	\$1,159	\$1,165	\$1,496
1919	4,747	1,414	1,415	1,279	\$2,077	9,011	1,304	1,285	1,460	1,688
1920	5,382	1,698	1,703	1,576	1,953	9,652	1,602	1,598	1,616	1,981
1921	4,890	1,400	1,382	1,602	1,795	8,632	1,293	1,252	1,547	1,971
1922	5,007	1,373	1,361	1,485	1,829	8,330	1,350	1,270	2,064	1,796
1923	5,883	1,929	1,946	1,593	1,989	8,701	1,449	1,428	1,604	2,037
1924	7,364	1,642	1,637	1,646	1,960	9,125	1,456	1,429	1,644	1,980
1925	8,407	1,656	1,651	1,649	2,064	9,502	1,497	1,467	1,704	2,226
1926	9,145	1,622	1,611	1,694	2,091	9,704	1,479	1,448	1,702	2,092
1927	9,724	1,630	1,618	1,720	2,109	9,880	1,502	1,464	1,774	2,129
1928	9,942	1,637	1,624	1,751	2,014	9,937	1,528	1,496	1,758	2,163
1929	10,183	1,676	1,668	1,685	1,966	10,035	1,535	1,499	1,792	2,171
1930	9,672	1,568	1,545	1,760	2,196	10,011	1,424	1,365	1,825	2,078
1931	8,272	1,352	1,328	1,607	1,453	9,683	1,248	1,185	1,679	1,787
1932	6,456	1,026	982	1,351	1,295	10,357	1,032	956	1,365	1,045
	Service <sup>6</sup>					Trade, wholesale and retail <sup>7</sup>				
1918	3,071	\$869	\$757	\$1,104	\$1,421	4,815	\$819	\$841	\$871	\$768
1919	3,157	975	846	1,202	1,490	5,063	965	989	1,038	904
1920	4,650	1,218	1,081	1,401	2,022	5,786	1,163	1,187	1,282	1,075
1921	3,499	1,252	1,106	1,510	1,601	4,962	1,195	1,217	1,283	1,128
1922	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
1923	4,120	1,253	1,106	1,448	2,071	5,497	1,189	1,192	1,289	1,147
1924	5,215	1,282	1,157	1,451	1,878	6,707	1,215	1,245	1,310	1,142
1925	5,971	1,287	1,174	1,416	1,982	7,277	1,224	1,264	1,295	1,151
1926	6,761	1,299	1,153	1,512	1,955	7,867	1,258	1,280	1,355	1,194
1927	7,595	1,343	1,210	1,555	1,980	8,526	1,273	1,276	1,350	1,238
1928	8,210	1,306	1,120	1,619	1,916	8,916	1,268	1,293	1,327	1,220
1929	9,335	1,384	1,180	1,732	2,027	9,524	1,237	1,281	1,332	1,164
1930	10,241	1,306	1,123	1,637	1,582	10,022	1,231	1,259	1,405	1,132
1931	10,452	1,236	1,066	1,561	1,394	10,111	1,166	1,217	1,282	1,076
1932	10,357	1,074	939	1,365	1,045	9,716	1,014	1,064	1,122	930

<sup>1</sup> Not computed owing to small number involved.<sup>2</sup> See note 5 to table 4.<sup>3</sup> The number of establishments reporting employees was: Total, 24,124; agriculture, 519; construction, 5,005; fisheries, 27; manufactures, 8,403; service, 3,032; trade, wholesale and retail, 6,067; and transportation and public utilities, 1,071.<sup>4</sup> Wage and salary payments to salespeople (not traveling) not included in this average, as number of such employees could not be determined.<sup>5</sup> Combined with "Industries, not otherwise classified" in detailed tabulation by Ohio Division of Labor Statistics; number does not exceed 60.<sup>6</sup> Including "offices."<sup>7</sup> Not including offices.<sup>8</sup> Information concerning total wages and salary payments not available.

TABLE 6.—AVERAGE WAGE AND SALARY PAYMENTS, EACH YEAR 1918 TO 1932, BY INDUSTRY AND GENERAL OCCUPATION GROUPS—Continued

Year	Transportation and public utilities				
	Establishments	All employees	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)
1918.....	1,134	\$959	\$969	\$879	(1)
1919.....	1,081	1,124	1,144	971	(1)
1920.....	1,146	<sup>2</sup> 1,385	1,401	1,183	(1)
1921.....	1,048	1,318	1,318	1,309	(1)
1922.....	<sup>3</sup> 1,072	1,281	1,252	1,444	(1)
1923.....	1,129	1,316	1,316	1,298	(1)
1924.....	1,271	1,417	1,350	1,800	(1)
1925.....	1,353	1,359	1,341	1,436	(1)
1926.....	1,453	1,397	1,385	1,424	\$2,203
1927.....	1,561	1,388	1,374	1,423	2,243
1928.....	1,625	1,438	1,413	1,526	2,210
1929.....	1,674	1,429	1,406	1,485	2,199
1930.....	1,741	1,420	1,402	1,461	1,997
1931.....	1,776	1,377	1,343	1,479	1,909
1932.....	1,742	1,241	1,199	1,363	1,868

<sup>1</sup> Not computed owing to small number involved.

<sup>2</sup> See note 5 to table 4.

<sup>3</sup> The number of establishments reporting employees was: Total, 24,124; agriculture, 519; construction, 5,005; fisheries, 27; manufactures, 8,403; service, 3,032; trade, wholesale and retail, 6,067; and transportation and public utilities, 1,071.

### General Indexes for Employment and for Wage and Salary Payments

GENERAL indexes for all employees, for wage earners, for book-keepers, stenographers, and office clerks, and for salespeople (not

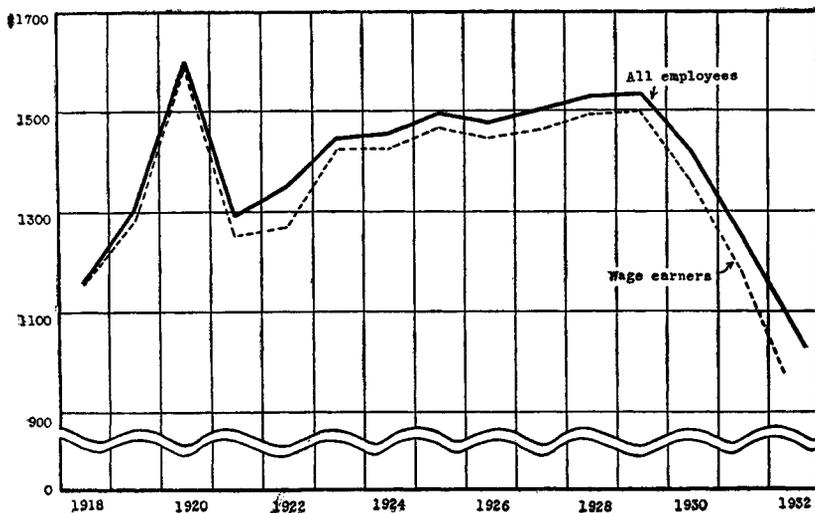


FIGURE 3.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS AND TO ALL EMPLOYEES IN MANUFACTURES, 1918 TO 1932

traveling), in all industries (manufactures, wholesale and retail trade, service, transportation and public utilities, construction, agriculture, and fisheries), are presented in table 7. Indexes, based

AVERAGE ANNUAL WAGE PAYMENTS IN OHIO

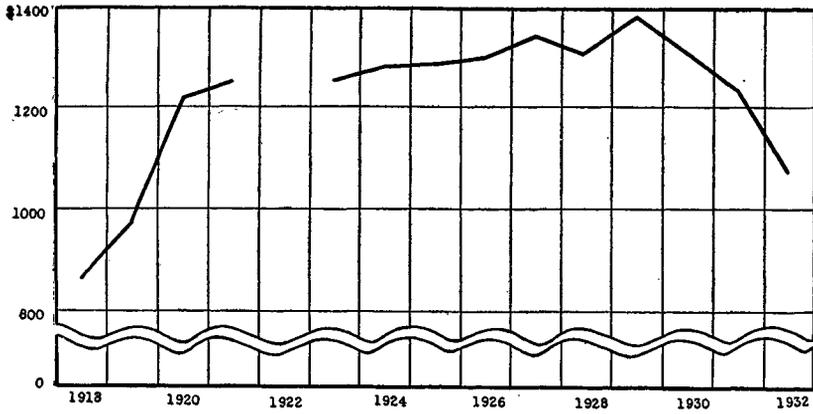


FIGURE 4.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO ALL EMPLOYEES IN THE "SERVICE" GROUP, 1918 TO 1932

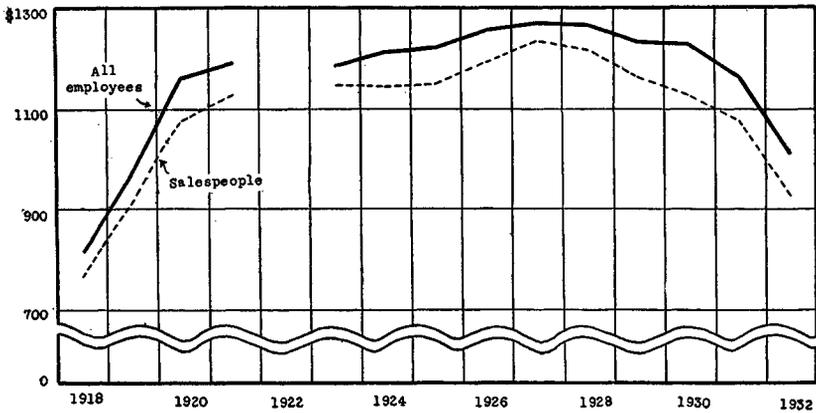


FIGURE 5.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO SALESPEOPLE (NOT TRAVELING) AND TO ALL EMPLOYEES IN WHOLESALE AND RETAIL TRADE, 1918 TO 1932

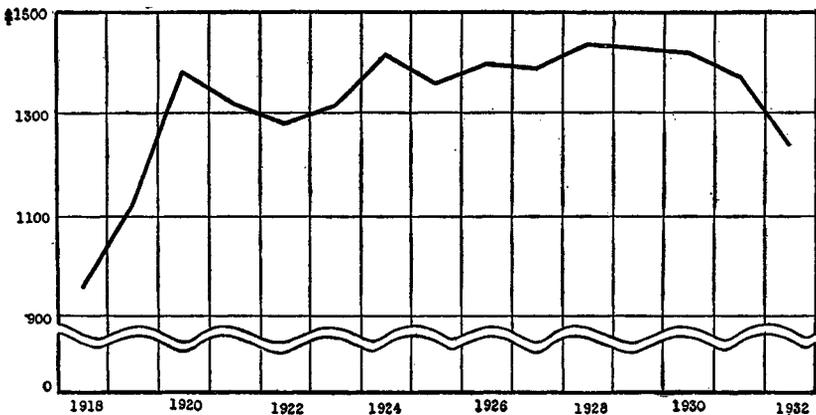


FIGURE 6.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO ALL EMPLOYEES IN TRANSPORTATION AND PUBLIC UTILITIES, 1918 TO 1932

on the Ohio reports, are here shown for average number employed, total wage and salary payments, and average wage and salary payments for 1924 to 1932, which is the period during which reports were requested by the Ohio Division of Labor Statistics from all establishments employing three or more persons. The year 1926 was used as the base, or 100, in computing these indexes for the reason that it was, at the time of the publication of this study, the year used by the Bureau of Labor Statistics as the base in computing general indexes for employment and pay rolls in manufacturing.

In 1932 the index for average number of wage earners in all industries combined was 64.5; for bookkeepers, stenographers, and office clerks, 91.8; for salespeople (not traveling), 92.3; and for all employees, 69.5. The index for total wage and salary payments in 1932 was 44.5 for wage earners; 80.9 for bookkeepers, stenographers, and office clerks; 67.1 for salespeople (not traveling); and 50.8 for all employees. The index for average wage and salary payments for wage earners was 69.0; for bookkeepers, stenographers, and office clerks, 88.1; for salespeople (not traveling), 72.7; and for all employees, 73.0.

TABLE 7.—GENERAL INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN ALL INDUSTRIES COMBINED, 1924 TO 1932

[1926=100.0]

Year	All employees			Wage earners		
	Average number	Total wage and salary payments	Average wage and salary payment	Average number	Total wage and salary payments	Average wage and salary payment
1924.....	89.8	88.7	98.8	89.6	88.9	99.2
1925.....	95.4	95.9	100.6	95.6	96.7	101.2
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	99.6	100.9	101.3	98.7	99.6	100.9
1928.....	101.9	104.2	102.3	100.7	102.8	102.1
1929.....	108.8	112.1	103.1	106.7	109.6	102.8
1930.....	96.4	93.2	96.7	92.6	87.7	94.7
1931.....	82.0	71.0	86.7	77.1	64.5	83.7
1932.....	69.5	60.8	73.0	64.5	44.5	69.0
	Bookkeepers, stenographers, and office clerks			Salespeople (not traveling)		
1924.....	91.1	89.7	98.5	88.9	83.8	94.3
1925.....	94.9	93.0	98.0	93.9	92.1	98.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	103.1	106.0	102.7	104.9	106.5	101.6
1928.....	105.5	109.3	103.6	110.8	111.8	100.9
1929.....	115.0	122.2	106.3	124.0	122.1	98.5
1930.....	119.0	126.5	106.3	101.9	91.2	89.5
1931.....	104.7	103.8	99.2	101.4	84.4	83.2
1932.....	91.8	80.9	88.1	92.3	67.1	72.7

### Conclusion

A CONSIDERATION of wage and salary payments and number of employees reported in Ohio affords some measure of the economic changes among wage earners, bookkeepers, stenographers, and office

clerks, and salespeople (not traveling) in Ohio during the 3 years from 1929 to 1932.

The average number of employees reported in all industries covered in this chapter combined fell from 1,278,992 in 1929 to 817,862 in 1932. The total amount paid in wages and salaries (omitting superintendents and managers) fell from \$1,893,243,520 in 1929 to \$857,321,648 in 1932. The average wage and salary payment to those employed fell from \$1,480 in 1929 to \$1,048 in 1932. The average number employed decreased 461,130, or 36.1 percent, the total wage and salary payment decreased \$1,035,921,872, or 54.7 percent, and the average wage and salary payment to those who were employed decreased \$432, or 29.2 percent.

In all industries covered in this chapter combined, the average number of wage earners reported fell in the 3 years, 1929 to 1932, from 1,024,165 to 619,044. The total amount paid to wage earners in wages and salaries fell from \$1,492,141,261 to \$605,190,299 and the average wage and salary payment to those employed fell from \$1,457 to \$978. The average number employed decreased 405,121, or 39.6 percent, the total wage and salary payments to wage earners decreased \$886,950,962, or 59.4 percent, and the average wage and salary payment to those who were employed decreased \$479, or 32.9 percent.

The average number of bookkeepers, stenographers, and office clerks reported fell in the 3 years from 168,127 to 134,296. The total wage and salary payments to that occupation group fell from \$282,017,895 to \$186,710,032, and the average wage and salary payment to those who were employed fell from \$1,677 to \$1,390. The average number employed decreased 33,831, or 20.1 percent, the total wage and salary payment decreased \$95,307,863, or 33.8 percent, and the average wage and salary payment to those who were employed decreased \$287, or 17.1 percent. This general occupation group shows a higher average number employed and a higher total wage and salary payment in 1930 than in 1929, with only \$1 less in the average wage and salary payment.

The average number of salespeople (not traveling) reported fell in the 3 years from 86,701 to 64,523. The total wage and salary payments to that occupation group fell from \$119,084,364 to \$65,421,317, and the average wage and salary payment to those employed fell from \$1,374 to \$1,014. The average number employed decreased 22,178, or 25.6 percent, the total wage and salary payment decreased \$53,663,047, or 45.1 percent, and the average wage and salary payment to those who were employed decreased \$360, or 26.2 percent. In this occupation group the highest average wage and salary payment was reported in 1927 and a decline has been reported each year since that date.

The greatest decrease in average number employed, in total wage and salary payments, and in average wage and salary payments during the 3 years 1929 to 1932 was in the general occupation group "wage earners." The lowest decrease in each of the three items was in the general occupation group "bookkeepers, stenographers, and office clerks." A comparison of the general occupation groups, showing the percent of decrease from 1929 to 1932, is shown in table 8.

TABLE 8.—PERCENT OF DECREASE IN AVERAGE NUMBER EMPLOYED, AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS, FROM 1929 TO 1932, BY GENERAL OCCUPATION GROUPS

General occupation group	Average number employed	Total wage and salary payments	Average wage and salary payments
Wage earners.....	39.6	59.4	32.9
Bookkeepers, stenographers, and office clerks.....	20.1	33.8	17.1
Salespeople (not traveling).....	25.6	45.1	26.2
All employees.....	36.1	54.7	29.2

Comparing the decreases between 1929 and 1932 by industry groups, the construction industry shows the largest percent of decrease in average number employed, in total wage and salary payments, and in average wage and salary payments. The smallest percent of decrease is found in service for the first two items, and transportation shows the smallest percent of decrease in average wage and salary payments. Table 9 shows the percent of decrease during the 3 years for wage earners, bookkeepers, stenographers, and office clerks, and salespeople (not traveling), combined. The figures are for both sexes.

TABLE 9.—PERCENT OF DECREASE IN AVERAGE NUMBER EMPLOYED, AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS, 1932 COMPARED WITH 1929, BY INDUSTRY GROUPS

Industry group	Average number employed	Total wage and salary payments	Average wage and salary payments
Agriculture.....	11.5	39.8	31.9
Construction.....	65.0	78.6	38.8
Manufactures.....	42.8	61.6	32.8
Service.....	9.6	29.8	22.4
Trade, wholesale and retail.....	17.7	32.6	18.0
Transportation and public utilities.....	26.8	36.4	13.2
All industries combined.....	36.1	54.7	29.2

### Chapter 3.—Construction Industry, 1918 to 1932

**T**HE average wage and salary payment in Ohio to wage earners in the construction industry, as computed from reports from practically all concerns or individuals employing 3 or more persons (with reports from some who employ fewer than 3), was \$1,668 in 1929 and \$982 in 1932—a decrease in the 3 years of \$686, or 41.1 percent.

The total wage and salary payments to wage earners in the construction industry, as reported by employers, were \$121,413,067 in 1929, and \$23,657,092 in 1932—a decrease in the 3 years of \$97,755,975, or 80.5 percent.

The average number of wage earners reported in the construction industry was 72,670 in 1929 and 24,094 in 1932—a decrease in the 3 years of 48,576, or 66.8 percent.

#### Scope of Study

THE United States Bureau of the Census recently issued a report on the construction industry. The report states that "in 1930 the first census of the contracting group in the construction industry was inaugurated as part of the decennial census." The report further states that "all persons and establishments engaged in construction business of any kind, provided their gross business for the year amounted to at least \$25,000, were required to furnish detailed reports." Reports were required for "all kinds of construction work, including the erection of buildings and installation of equipment essential to their proper operation, as well as engineering construction, such as highways, streets, water-power developments, railroads and car lines, bridges and tunnels, docks and piers, sewage disposal and drainage, airports, and all kinds of public works, and utilities construction except that done on 'force account.'" "Force account" is defined as the term "used to indicate work by 'day labor' or labor employed directly by individuals, corporations, municipal, county, State, or Government authorities and not done under contract." Construction work on repairs and remodeling, as well as new work, is covered. The census report includes operative builders, general contractors and subcontractors.

The census report, which is limited to concerns whose "gross business for the year (1929) amounted to at least \$25,000", covers in Ohio less than one-fifth as many establishments in the construction industry as reported for 1929 to the Ohio Division of Labor Statistics,

which secured reports from practically every establishment employing 3 or more persons and from some employing fewer than 3. The average number of wage earners reported for Ohio in the census was 68 percent of the number reported to the Ohio division and the wage payments (to wage earners only) were 72 percent of the amount reported to the Ohio division.

The classification of contractors differs in the two reports, so that comparisons of lesser industry classifications are unsatisfactory. Generally, however, the average wage payments are higher in the census report than in the Ohio report with its very large proportion of small establishments. The average wage payment to wage earners in 1929 for the construction industry in Ohio, as computed from the 1,929 establishments included in the census report, was \$1,786 and as computed from the reports from 10,183 establishments compiled by the Ohio Division of Labor Statistics it was \$1,668. Comparisons of the two reports are shown in table 10.

TABLE 10.—COMPARISON OF COVERAGE OF UNITED STATES CENSUS REPORT ON THE CONSTRUCTION INDUSTRY IN OHIO AND OF REPORT (CONSTRUCTION INDUSTRY ONLY) OF THE OHIO DIVISION OF LABOR STATISTICS, 1929

Item	United States Census	Ohio Division of Labor Statistics
Establishments.....	1, 929	10, 183
Wage earners (average).....	49, 183	72, 670
Wages paid (to wage earners).....	\$87, 842, 724	\$121, 413, 067
Average wage payment (computed).....	\$1, 786	\$1, 668

The census report on the construction industry presents a table (table XVI, p. 32) which shows, for the United States and for geographical areas, certain items based upon the computed average number employed. One of these items is "wages paid for construction labor per workman employed." The report states that "in making use of these figures the reader is cautioned that they should be considered to provide only a very general basis of comparison and should not be taken as an accurate measure of any given item." After explaining the method of computing the average number employed (dividing by 12 the sum of the number on the pay roll on the 15th of each month), the report states:

It is recognized that this figure may not represent the actual average number employed throughout the year, because the actual number of men employed at other periods may have been greater or less than the number on the midmonth pay roll. Nevertheless, the average obtained by this method may be assumed, in most instances, to be a close approximation of the actual number. By dividing total wages paid throughout the year by this derived number employed, the approximate average annual amount paid each workman was obtained.

The method used in the present study in computing average number employed and average wage and salary payments is the same

as that just described, and the same caution should therefore be observed in using the resultant figures. It should also be borne in mind that employers are not requested to give information as to how many employed on the 15th of each month are working full time and how many are on part time, so that some reported as employed may be working either a short week or a short day.

Table 11 shows the number of wage earners employed in the construction industry on the 15th of each month of 1929, as reported by the 1,929 establishments included in the United States Census report and the 10,183 establishments reporting to the Ohio Division of Labor Statistics. The percent of variation from maximum to minimum employment in this industry is slightly less when the larger number of establishments is considered.

TABLE 11.—NUMBER OF WAGE EARNERS EMPLOYED IN THE CONSTRUCTION INDUSTRY IN OHIO ON THE 15TH OF EACH MONTH OF 1929, AS REPORTED BY THE UNITED STATES CENSUS AND THE OHIO DIVISION OF LABOR STATISTICS

Month	United States Census	Ohio Division of Labor Statistics	Month	United States Census	Ohio Division of Labor Statistics
January.....	29, 991	46, 346	November.....	53, 268	75, 806
February.....	31, 737	46, 779	December.....	41, 759	61, 363
March.....	34, 990	54, 814	Maximum.....	63, 352	91, 734
April.....	43, 187	66, 568	Minimum.....	29, 991	46, 346
May.....	49, 598	76, 626	Variation from maximum:		
June.....	55, 649	85, 393	Number.....	33, 391	45, 388
July.....	60, 709	91, 734	Percent.....	52.7	49.5
August.....	63, 150	91, 275	Establishments reporting...	1, 929	10, 183
September.....	63, 382	87, 478			
October.....	62, 773	87, 857			

### The Construction Industry as a Whole

#### Total Wage and Salary Payments

WAGE and salary payments in the construction industry, according to the reports received and compiled by the division of labor statistics, represented 5.8 percent of the total wage and salary payments in all industry groups covered by this series of studies in the year 1918. This percentage rose in 1920 to 7.2, in 1927 to 8.0, and dropped in 1932 to 3.3. Payments to superintendents and managers are not included in these computations. The average number of employees in the construction group as compared to the total for the industry groups named was 5.9 percent in 1918, 6.4 percent in 1920, 7.1 percent in 1927, and 3.4 percent in 1932.

Table 12 shows total wage and salary payments reported in the construction industry each year from 1918 to 1932. Payments are reported separately for each of four occupation groups—wage earners; bookkeepers, stenographers, and office clerks; salespeople (not traveling); and superintendents and managers. Payments and other data relating to superintendents and managers are not included

in any other tables nor in any of the computations in this study. Employers are instructed not to include in their reports salary payments to officials. Total wage and salary payments (omitting superintendents and managers) in the construction industry increased rapidly from 1918 to 1920, decreased 41.8 percent in 1921, increased slightly in 1922, and showed a very large increase in 1923. There was a recession in 1924, a gradual increase through 1927, a recession in 1928, a comparatively slight increase in 1929, and a very great decrease each year since that date. The total wage and salary payment in 1932 as compared with 1927 shows a decrease of \$107,878,101, or 79.3 percent.

TABLE 12.—TOTAL WAGE AND SALARY PAYMENTS IN THE CONSTRUCTION INDUSTRY, 1918 TO 1932, BY GENERAL OCCUPATION GROUPS AND BY YEARS

Year	Estab-lish-ments	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not trav-eling)	Total of preceding	Superin-tendents and managers	Grand total
1918.....	4, 273	\$62, 646, 726	\$3, 629, 209	\$566, 429	\$66, 842, 364	\$4, 288, 305	\$71, 130, 669
1919.....	4, 747	75, 722, 325	4, 063, 456	1, 061, 366	80, 847, 147	4, 001, 698	84, 848, 845
1920.....	5, 382	115, 574, 650	5, 856, 206	1, 228, 550	122, 659, 406	5, 474, 355	128, 133, 761
1921.....	4, 890	65, 528, 871	4, 761, 255	1, 080, 441	71, 370, 567	4, 949, 853	76, 320, 420
1922.....	5, 007	69, 408, 474	4, 327, 049	1, 141, 497	74, 877, 020	4, 751, 917	79, 628, 937
1923.....	5, 883	126, 632, 946	5, 512, 351	1, 318, 568	133, 463, 865	5, 936, 960	139, 400, 825
1924.....	7, 364	114, 334, 620	6, 631, 822	1, 808, 800	122, 775, 242	6, 339, 353	129, 114, 595
1925.....	8, 407	119, 786, 318	6, 767, 973	2, 047, 099	128, 601, 390	6, 553, 458	135, 154, 848
1926.....	9, 145	120, 158, 128	7, 191, 240	2, 266, 407	129, 615, 775	7, 003, 830	136, 619, 605
1927.....	9, 724	126, 076, 960	7, 712, 554	2, 332, 337	136, 121, 851	7, 334, 053	143, 455, 904
1928.....	9, 942	117, 922, 441	8, 275, 667	2, 161, 140	128, 359, 248	7, 535, 688	135, 894, 936
1929.....	10, 183	121, 413, 067	8, 160, 166	2, 196, 454	131, 769, 687	7, 823, 916	139, 593, 603
1930.....	9, 672	98, 314, 644	9, 367, 262	1, 449, 083	109, 130, 989	7, 992, 681	117, 123, 670
1931.....	8, 272	54, 519, 506	5, 833, 638	1, 313, 937	61, 667, 081	5, 695, 227	67, 362, 308
1932.....	6, 456	23, 657, 092	3, 636, 039	950, 619	28, 243, 750	3, 270, 559	31, 514, 309

<sup>1</sup> The number of establishments reporting employees was 5,005; the number reporting wage and salary payments was 5,007.

#### Fluctuation in Employment

Not only does employment in the construction industry vary greatly from year to year, but the number employed within a year probably fluctuates more widely than in any other industry in Ohio employing large numbers of people, except possibly some special agricultural lines for which data are not available.

The fluctuation in employment within each year is shown in table 13. The numbers include both sexes employed as wage earners, bookkeepers, stenographers, and office clerks, and salespeople (not traveling). The smallest variation from maximum number of employees was 35.2 percent in 1921, and the greatest 54.2 percent in 1922. The fluctuation was more than 40 percent of the maximum for the year in 11 of the 15 years covered in this study.

## AVERAGE ANNUAL WAGE PAYMENTS IN OHIO

TABLE 13.—FLUCTUATION IN EMPLOYMENT (BOTH SEXES) IN THE CONSTRUCTION INDUSTRY, 1918 TO 1932, BY YEARS AND MONTHS

[This table includes the 3 general occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)]

Month	1918	1919	1920	1921	1922	1923	1924	1925
January	44,840	38,448	55,538	43,463	32,994	49,161	54,228	53,527
February	44,851	36,932	54,699	39,820	32,759	46,665	53,549	54,997
March	52,271	38,940	62,260	42,724	33,001	52,482	57,834	61,133
April	61,438	47,162	71,570	48,551	39,773	61,639	71,399	74,292
May	63,364	50,834	76,733	45,315	51,450	70,280	77,271	83,607
June	72,253	59,044	80,830	55,684	60,942	79,017	83,201	89,721
July	74,001	63,371	83,917	58,784	66,007	82,337	90,122	92,792
August	73,574	69,277	83,158	59,387	71,587	85,939	90,330	92,880
September	67,254	72,062	86,793	61,423	70,499	82,105	88,681	89,955
October	66,419	73,401	79,869	59,225	70,706	79,591	87,424	88,395
November	50,330	71,624	71,210	51,963	67,014	75,495	78,484	79,348
December	53,268	65,228	60,030	45,477	57,481	65,714	64,974	71,393
Maximum	74,001	73,401	86,793	61,423	71,585	85,939	90,330	92,880
Minimum	44,840	36,932	54,699	39,820	32,759	46,665	53,549	53,527
Variation from maximum:								
Number	29,161	36,469	32,094	21,608	38,828	39,274	36,781	39,353
Percent	39.4	49.7	37.0	35.2	54.2	45.7	40.7	42.4
Establishments reporting	4,273	4,747	5,382	4,890	5,005	5,883	7,364	8,407

Month	1926	1927	1928	1929	1930	1931	1932
January	54,655	59,160	54,363	51,965	55,338	37,870	22,315
February	54,738	61,230	53,034	52,461	55,174	37,526	22,659
March	56,558	67,340	59,484	60,592	60,103	39,670	22,329
April	69,200	77,775	70,937	72,427	72,037	47,429	26,478
May	81,978	88,101	82,070	82,554	81,203	52,179	29,316
June	93,101	96,463	87,411	91,432	82,239	54,402	30,984
July	96,273	100,442	91,919	97,838	84,511	54,885	31,057
August	97,455	102,812	97,550	97,432	81,937	53,657	31,915
September	98,970	101,680	94,819	93,615	77,639	51,469	32,693
October	93,992	94,716	94,230	93,976	72,797	47,671	31,949
November	87,287	83,566	85,216	81,904	62,290	39,388	27,641
December	74,933	69,140	70,169	67,374	50,021	31,060	20,891
Maximum	98,970	102,812	97,550	97,838	84,511	54,885	32,693
Minimum	54,655	59,160	53,034	51,965	50,021	31,060	20,891
Variation from maximum:							
Number	44,315	43,652	44,516	45,873	34,490	23,825	11,802
Percent	44.8	42.5	45.6	46.9	40.8	43.4	36.1
Establishments reporting	9,145	9,724	9,942	10,183	9,672	8,272	6,456

The average number (both sexes) reported employed each year in each of the three general occupation groups and for all groups combined is shown in table 14. The highest average occurred in 1927 and the lowest in 1932 with a drop in the 5 years of 67.1 percent.

TABLE 14.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN THE CONSTRUCTION INDUSTRY, BY GENERAL OCCUPATION GROUPS AND BY YEARS, 1918 TO 1932

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1918	4,273	57,276	3,381	415	61,072
1919	4,747	53,506	3,177	511	57,194
1920	5,382	67,871	3,717	629	72,217
1921	4,890	47,411	2,972	602	50,985
1922	5,005	50,981	2,913	624	54,518
1923	5,883	65,077	3,461	663	69,202
1924	7,364	69,838	4,030	923	74,791
1925	8,407	72,574	4,104	992	77,670
1926	9,145	74,600	4,244	1,084	79,928
1927	9,724	77,944	4,485	1,106	83,535
1928	9,942	72,633	4,727	1,073	78,434
1929	10,183	72,670	4,844	1,117	78,631
1930	9,672	63,625	5,323	660	69,607
1931	8,272	41,066	3,630	904	45,601
1932	6,456	24,094	2,691	734	27,519

## Average Annual Wage and Salary Payments

Table 15 shows average wage and salary payments made to each of the three general occupation groups. These averages were computed by dividing the total wage and salary payments by the average number employed.

The highest average wage and salary payment was reported for wage earners in 1923, for bookkeepers, stenographers, and office clerks in 1930, and for salespeople (not traveling) in 1930. The lowest average payment was reported for wage earners and for salespeople (not traveling) in 1932, and for the clerical group in 1918.

TABLE 15.—AVERAGE WAGE AND SALARY PAYMENTS IN THE CONSTRUCTION INDUSTRY, BY GENERAL OCCUPATION GROUPS AND BY YEARS, 1918 TO 1932

Year	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1918	\$1,094	\$1,073	\$1,365	\$1,094
1919	1,415	1,279	2,077	1,414
1920	1,703	1,576	1,953	1,698
1921	1,382	1,602	1,795	1,400
1922	1,361	1,485	1,829	1,373
1923	1,946	1,593	1,989	1,929
1924	1,637	1,646	1,960	1,642
1925	1,651	1,649	2,064	1,656
1926	1,611	1,694	2,091	1,622
1927	1,618	1,720	2,109	1,630
1928	1,624	1,751	2,014	1,637
1929	1,668	1,685	1,966	1,676
1930	1,545	1,760	2,196	1,568
1931	1,328	1,607	1,453	1,352
1932	982	1,351	1,295	1,026

Chart 7 shows in graphic form the average wage and salary payments to wage earners in the construction industry from 1918 to 1932.

## Wage Earners in Various Construction Industries

This study deals primarily with average wage and salary payments to wage earners in each of the various industries classified by the division of labor statistics as subdivisions of the construction-industry group. Wage earners formed more than 90 percent of the employees reported in the construction-industry group in each of the 15 years except 1932 which shows 87.6 percent.

The number of establishments in the construction industry reporting statistical data to the division of labor statistics is shown in table 16. The general construction-industry group is composed of 12 industries plus construction "not otherwise classified." As previously stated, reports were requested prior to 1924 from all employers of 5 or more persons, and from 1924 to 1932 from all employers of 3 or more.

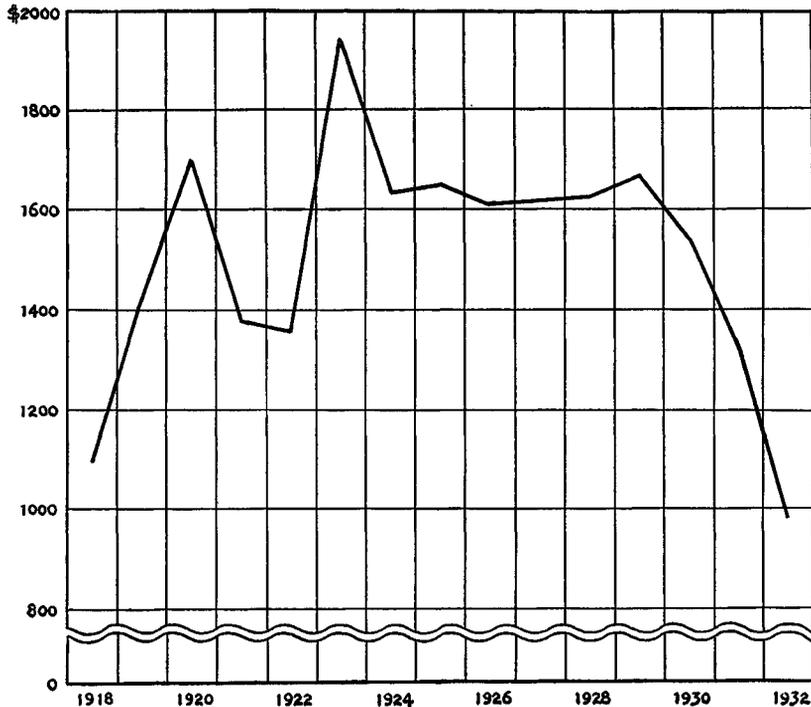


FIGURE 7.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, 1918 TO 1932

TABLE 16.—NUMBER OF ESTABLISHMENTS REPORTING EMPLOYEES AND TOTAL WAGE AND SALARY PAYMENTS, BY INDUSTRIES AND BY YEARS, 1918 TO 1932

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water, drilling or producing	Painting and decorating	Plastering, including lathing and stucco work	Plumbing and steam fitting	Sand and gravel excavating	Sheet metal work and roofing	Street road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	Total
1918..	421	169	73	1,462	370	274	78	369	86	307	603	40	21	4,273
1919..	441	186	85	1,808	436	287	131	<sup>3</sup> 394	73	306	556	29	15	4,747
1920..	513	224	104	1,970	493	365	158	440	86	338	625	58	8	5,382
1921..	480	202	86	1,731	485	311	131	373	72	294	663	58	4	4,890
1922..	507	228	49	1,798	484	325	130	371	79	282	705	45	2	<sup>2</sup> 5,005
1923..	558	219	80	2,185	521	490	150	416	91	306	795	70	2	5,883
1924..	733	294	113	2,771	<sup>1</sup> 589	688	205	523	117	<sup>3</sup> 353	906	69	3	7,364
1925..	775	331	152	3,180	651	804	273	649	124	403	965	85	15	8,407
1926..	874	388	161	3,346	708	887	301	747	135	431	1,029	117	21	9,145
1927..	950	428	164	3,554	708	932	318	832	148	441	1,093	121	35	9,724
1928..	955	454	194	3,608	707	942	316	851	151	457	1,131	125	51	9,942
1929..	1,005	456	239	3,538	739	990	329	842	155	515	1,161	141	73	10,183
1930..	897	433	245	3,139	751	1,002	284	821	158	505	1,203	148	86	9,672
1931..	795	402	180	2,566	670	860	254	742	146	473	973	157	54	8,272
1932..	600	317	152	1,825	639	645	169	618	136	382	770	169	34	6,456

<sup>1</sup> 1 additional establishment reported total wage and salary payments.

<sup>2</sup> 2 additional establishments reported total wage and salary payments.

<sup>3</sup> 1 of these establishments did not report total wage and salary payments.

Some who employ fewer than the indicated minimum make annual reports to the division of labor statistics and such reports are included in the tabulations. Reports from all establishments employing fewer than three persons in this industry group would, of course, increase the number of employees and total wage and salary payments, but the effect on the figures of average wage and salary payments probably would not be great.

#### Total Wage and Salary Payments

Table 17 shows total wage and salary payments reported paid to wage earners in each of the 12 specified subdivisions of the construction-industry group. The year of highest total wage and salary payments to wage earners during the period was 1920 for oil, gas, and water, drilling or producing; 1923 for general contracting, including wrecking; 1927 for brick, stone, and cement work, for plastering, including lathing and stuccowork, for plumbing and steam fitting, and for street, road, and sewer contracting; 1929 for electrical contracting, for erecting and installing machinery, for sand and gravel excavating, for sheet-metal work and roofing, and for ventilating and heating. For painting and decorating, the figure for 1919 undoubtedly contains a clerical error. The amount of this error cannot be definitely determined, as all original schedules and work sheets were destroyed some years ago. Ignoring 1919 leaves 1927 as the highest year for painting and decorating. Wage and salary payments for 1922 were not tabulated for individual industries by the division of labor statistics.

TABLE 17.—TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, BY INDUSTRIES AND BY YEARS, 1918 TO 1932

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water, drilling or producing	Painting and decorating	Plastering, including lathing and stuccowork
1918	\$3,723,965	\$2,344,269	\$532,624	\$29,369,737	\$4,664,744	\$1,760,571	\$798,531
1919	4,020,501	2,747,551	543,918	35,932,286	4,826,955	<sup>1</sup> 8,130,348	1,033,799
1920	7,096,687	4,626,351	1,063,629	61,797,823	7,244,175	3,634,081	2,319,708
1921	4,796,198	2,746,188	678,033	27,324,324	5,133,372	2,435,930	1,677,335
1922	(?)	(?)	(?)	(?)	(?)	(?)	(?)
1923	8,273,515	4,567,314	821,039	70,788,995	6,124,838	4,711,684	2,586,648
1924	9,765,847	6,392,767	1,118,287	51,699,955	5,235,221	5,284,414	3,277,208
1925	10,616,263	5,022,878	1,337,015	52,803,369	5,426,241	6,095,479	3,488,827
1926	11,497,547	4,754,735	1,255,172	51,609,933	5,579,322	5,577,021	3,345,643
1927	11,498,602	5,877,669	1,550,966	52,516,510	4,933,887	6,618,215	3,526,698
1928	11,077,411	5,828,505	1,785,229	49,958,661	3,861,371	6,123,203	3,051,283
1929	9,321,964	8,327,784	1,908,439	49,728,610	4,528,510	6,233,150	3,087,133
1930	7,251,131	6,382,162	1,891,426	36,887,662	3,931,343	4,907,841	2,823,363
1931	4,415,377	4,033,332	1,417,566	19,064,336	2,609,033	2,875,719	1,587,566
1932	1,570,294	1,688,827	704,785	6,568,991	2,105,639	1,178,982	476,461

<sup>1</sup> Apparently a clerical error but original schedules and work sheets have been destroyed.

<sup>2</sup> Information not tabulated for individual industries.

TABLE 17.—TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, BY INDUSTRIES AND BY YEARS, 1918 TO 1932—Contd.

Year	Plumbing and steam fitting	Sand and gravel excavating	Sheet-metal work and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	Total for construction industry
1918.....	\$3,482,929	\$1,334,719	\$2,363,983	\$11,579,826	\$500,136	\$190,692	\$62,646,726
1919.....	4,311,783	991,477	2,676,208	10,018,758	360,399	128,342	75,722,325
1920.....	6,623,781	1,227,000	4,428,101	14,494,307	894,815	124,092	115,874,650
1921.....	4,634,266	720,220	2,623,078	12,011,516	710,721	37,690	69,498,474
1922.....	(?)	(?)	(?)	(?)	(?)	(?)	(?)
1923.....	6,487,897	1,235,285	4,000,132	16,075,879	933,209	26,511	126,632,946
1924.....	7,891,800	1,414,831	4,041,704	17,072,641	1,110,257	29,688	114,334,620
1925.....	9,226,283	1,461,270	4,589,575	18,226,804	1,358,086	134,228	119,786,318
1926.....	8,909,769	2,010,320	4,687,455	18,820,568	1,909,400	201,213	120,158,128
1927.....	9,786,114	2,014,581	4,855,797	20,740,877	1,842,197	314,847	126,078,960
1928.....	9,370,665	2,023,808	4,625,910	18,051,784	1,751,694	412,917	117,922,441
1929.....	8,985,868	2,135,412	5,040,264	19,047,804	2,427,662	640,567	121,413,067
1930.....	7,670,555	1,915,355	4,132,070	17,613,006	1,944,991	963,709	98,314,644
1931.....	4,386,120	1,179,212	2,564,741	8,596,268	1,424,202	466,034	54,519,506
1932.....	1,791,863	781,247	1,092,041	4,951,779	570,668	175,515	23,657,092

<sup>2</sup> Information not tabulated for individual industries.

### Fluctuation in Employment

Probably no numerically important industrial group is subject to such violent fluctuations of employment as are wage earners in the construction industry. In addition to the wide variance of such employment from periods of expansion to periods of contraction and from year to year, there is a very great fluctuation within a year due to seasonal conditions, weather, and various other causes. Table 18 shows the fluctuations from month to month within each of the 15 years covered by this study. The variation from maximum was lowest (37.7 percent) in 1921 and highest (56.5 percent) in 1922. In 12 of the 15 years the variation exceeded 40 percent.

TABLE 18.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, BY YEARS AND MONTHS, 1918 TO 1932

Month	1918	1919	1920	1921	1922	1923	1924	1925
January.....	41,298	35,160	51,516	39,711	29,792	45,315	49,488	48,676
February.....	41,316	33,652	50,566	36,134	29,537	42,792	48,719	50,129
March.....	48,757	35,617	58,029	39,025	29,758	48,568	52,975	56,207
April.....	57,848	43,734	67,186	44,881	36,454	57,651	66,470	69,275
May.....	59,641	47,305	72,277	41,685	48,003	66,158	72,322	78,533
June.....	68,249	55,406	76,351	52,082	57,375	74,796	78,169	84,564
July.....	69,860	59,609	79,415	55,219	62,356	78,067	85,084	87,522
August.....	69,506	65,411	78,678	55,864	67,852	81,684	85,301	87,606
September.....	63,288	68,093	82,340	57,956	66,746	77,895	83,601	84,699
October.....	62,515	69,418	75,469	55,797	66,940	75,305	82,327	83,187
November.....	55,509	67,541	66,894	48,524	63,232	71,214	73,535	74,208
December.....	49,524	61,121	55,726	42,055	53,723	61,483	60,069	66,292
Maximum.....	69,860	69,418	82,340	57,956	67,852	81,684	85,301	87,606
Minimum.....	41,298	33,652	50,566	36,134	29,537	42,792	48,719	48,676
Variation from maximum:								
Number.....	28,562	35,766	31,774	21,822	38,315	38,892	36,582	38,930
Percent.....	40.9	51.5	38.6	37.7	56.5	47.6	42.9	44.4
Establishments reporting.....	4,273	4,747	5,382	4,890	5,005	5,883	7,364	8,407

TABLE 18.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, BY YEARS AND MONTHS, 1918 TO 1932—Continued

Month	1926	1927	1928	1929	1930	1931	1932
January.....	49,682	53,855	48,940	46,346	49,419	33,411	18,815
February.....	49,715	55,926	47,572	46,779	49,234	33,030	19,170
March.....	51,453	61,965	53,930	54,814	54,110	35,181	18,880
April.....	63,992	72,294	65,249	66,568	65,982	42,705	22,960
May.....	76,693	82,528	76,276	76,626	75,040	47,421	25,303
June.....	87,672	90,832	81,508	85,393	76,029	49,671	27,462
July.....	90,769	94,718	85,950	91,734	78,479	50,235	27,567
August.....	91,920	97,042	91,540	91,275	75,887	48,993	28,456
September.....	93,416	95,866	88,802	87,478	71,634	46,886	29,264
October.....	88,491	88,980	88,268	87,857	66,900	43,243	28,590
November.....	81,844	77,828	79,285	75,806	56,447	35,126	24,403
December.....	69,552	63,498	64,281	61,363	44,333	26,895	17,762
Maximum.....	93,416	97,042	91,540	91,734	78,479	50,235	29,264
Minimum.....	49,682	53,855	47,572	46,346	44,333	26,895	17,762
Variation from maximum:							
Number.....	43,734	43,187	43,968	45,388	34,146	23,340	11,502
Percent.....	46.8	44.5	48.0	49.5	43.5	46.5	39.3
Establishments reporting.....	9,145	9,724	9,942	10,183	9,672	8,272	6,456

The average number of wage earners reported for each of the industries is shown in table 19 for 1918 to 1932. Employers report the number of wage earners employed on the 15th of each month, and the average was computed by dividing the sum of the monthly figures in each instance by 12. Both males and females are included in this table. The reports from employers and the compilations of the division of labor statistics show the sexes separately as far as employees are concerned, but employers are not requested to show wage and salary payments separated according to sex of employees. In the whole construction-industry group, however, the number of female wage earners reported is small. The average number of female wage earners for each of the 15 years 1918 to 1932, in order, was 130, 155, 165, 147, 117, 119, 130, 154, 298, 129, 146, 156, 120, 108, and 60, representing a maximum of four tenths of 1 percent in 1926.

TABLE 19.—AVERAGE NUMBER OF WAGE EARNERS REPORTED EMPLOYED IN THE CONSTRUCTION INDUSTRY, BY INDUSTRIES AND BY YEARS, 1918 TO 1932

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water drilling or producing	Painting and decorating	Plastering, including lathing and stucco work	Plumbing and steam fitting	Sand and gravel excavating	Sheet-metal work and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	Total
1918.	3,341	1,983	397	26,127	3,801	1,549	1,351	2,805	1,000	2,149	12,194	411	167	57,276
1919.	3,238	2,007	338	26,437	3,893	1,753	668	3,116	820	2,062	8,815	274	85	53,506
1920.	4,416	2,447	562	34,961	4,473	2,049	1,105	3,621	867	2,610	10,185	507	71	67,871
1921.	3,378	1,661	379	19,373	3,527	1,544	898	2,797	594	1,874	10,950	417	21	47,411
1922.	4,153	1,576	222	21,997	3,698	1,843	927	2,959	731	1,928	10,668	268	12	50,981
1923.	5,229	2,668	424	26,984	5,002	2,610	1,175	3,778	903	2,420	13,187	677	16	65,077
1924.	6,001	2,877	629	29,242	3,903	2,790	1,487	4,800	1,107	2,500	14,410	574	20	69,838
1925.	6,602	2,671	648	28,845	4,525	3,275	1,830	4,783	1,138	2,747	14,741	674	93	72,574
1926.	6,824	2,479	601	28,663	4,527	3,054	1,584	4,764	1,452	2,922	16,641	956	135	74,600
1927.	7,039	3,145	752	30,768	3,916	3,520	1,705	5,205	1,470	2,896	16,452	889	187	77,944
1928.	6,733	2,976	878	29,641	3,072	3,311	1,550	5,015	1,438	2,764	14,151	796	309	72,633
1929.	5,935	3,080	983	28,796	3,646	3,415	1,629	4,828	1,499	3,041	14,184	1,180	457	72,670
1930.	4,837	3,670	916	22,695	3,139	2,834	1,462	4,270	1,430	2,651	14,001	1,078	642	63,625
1931.	3,380	2,372	742	13,866	2,349	1,895	972	2,885	1,066	1,771	8,509	909	353	41,666
1932.	1,678	1,267	467	6,516	2,295	1,061	420	1,680	863	1,159	5,921	556	212	24,094

## Average Annual Wage and Salary Payments

The average wage and salary payments to wage earners are shown for each year from 1918 to 1932, except 1922, in table 20. These averages were computed for each year by dividing the total wage and salary payments to wage earners within each of the subdivisions as reported by employers to the division of labor statistics by the average number of wage earners employed as calculated from the employers' reports of the number employed on the 15th of each month.

TABLE 20.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE CONSTRUCTION INDUSTRY, 1918 TO 1932, BY INDUSTRIES AND BY YEARS

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water, drilling or producing	Painting and decorating	Plastering, including lathing and stucco-work
1918.....	\$1,115	\$1,182	\$1,342	\$1,124	\$1,227	\$1,137	( <sup>1</sup> )
1919.....	1,242	1,369	1,609	1,359	1,240	( <sup>1</sup> )	\$1,548
1920.....	1,607	1,891	1,893	1,768	1,620	1,774	2,099
1921.....	1,420	1,653	1,789	1,410	1,455	1,578	1,868
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923.....	1,582	1,712	1,936	( <sup>1</sup> )	1,224	1,805	2,201
1924.....	1,627	( <sup>1</sup> )	1,778	1,768	1,341	1,894	2,204
1925.....	1,608	1,881	2,063	1,831	1,199	1,861	1,906
1926.....	1,685	1,918	2,088	1,801	1,282	1,826	2,112
1927.....	1,634	1,869	2,062	1,707	1,260	1,880	2,068
1928.....	1,645	1,959	2,033	1,685	1,257	1,849	1,969
1929.....	1,571	( <sup>1</sup> )	1,941	1,727	1,242	1,825	1,895
1930.....	1,499	1,739	2,065	1,625	1,252	1,732	1,931
1931.....	1,306	1,700	1,910	1,375	1,068	1,518	1,633
1932.....	936	1,333	1,509	1,008	917	1,111	1,134

Year	Plumbing and steam fitting	Sand and gravel excavating	Sheet-metal work and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	Total for construction industry
1918.....	\$1,242	\$1,335	\$1,100	\$950	\$1,217	( <sup>2</sup> )	\$1,094
1919.....	1,384	1,209	1,298	1,137	1,315	( <sup>2</sup> )	1,415
1920.....	1,829	1,415	1,697	1,427	1,765	( <sup>2</sup> )	1,708
1921.....	1,657	1,212	1,409	1,097	1,704	( <sup>2</sup> )	1,382
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1,361
1923.....	1,717	1,368	1,653	1,219	1,378	( <sup>2</sup> )	1,946
1924.....	1,835	1,278	1,617	1,185	1,934	( <sup>2</sup> )	1,637
1925.....	1,929	1,284	1,671	1,236	2,015	( <sup>2</sup> )	1,651
1926.....	1,870	1,384	1,604	1,131	1,997	( <sup>2</sup> )	1,611
1927.....	1,880	1,370	1,677	1,261	2,072	( <sup>2</sup> )	1,618
1928.....	1,869	1,407	1,674	1,276	2,201	\$1,336	1,624
1929.....	1,861	1,425	1,657	1,343	2,057	1,402	1,668
1930.....	1,796	1,339	1,559	1,258	1,804	1,501	1,545
1931.....	1,520	1,106	1,448	1,010	1,567	1,320	1,328
1932.....	1,067	905	942	836	1,026	828	982

<sup>1</sup> Apparently a clerical error was made in reporting or in tabulating number of employees or total wage and salary payments, but not possible to determine definite correction.

<sup>2</sup> Not computed owing to small number involved.

<sup>3</sup> Information concerning total wage and salary payments not tabulated for individual industries.

Detailed tabulations for industries for 1922 were not made by the division of labor statistics and therefore only the average for the construction industry as a whole is shown. In five instances the individual averages have been omitted, as clerical errors have undoubtedly occurred and, since all original schedules and work sheets for those years have been destroyed, it is not possible to make correc-

tions. These probable errors will affect only slightly the average for the entire construction industry.

Wage earners in the construction industries, particularly in the building trades, have an hourly rate which is comparatively high as compared with rates of pay in factories and some other lines of industrial work. They have, however, also been subject to greater irregularity in work than is the case in most if not all other industries. Fluctuation of employment was discussed briefly in connection with table 18.

With all the information available from many sources concerning hourly rates of wages in the construction industries, there has been very little made available concerning average wage and salary payments to such wage earners.

According to the reports made to the Ohio Division of Labor Statistics covering the 15-year period 1918 to 1932, the highest average wage and salary payment to wage earners in brick, stone, and cement work was \$1,685 in 1926, and the lowest \$936 in 1932, which represented a drop of \$749, or 44.4 percent. The average payment to wage earners in electrical contracting was \$1,959 in 1928, and \$1,333 in 1932, which was a drop of \$626, or 32 percent. In that industry, however, the average payment was lower in 1918 than in 1932. The average payment to wage earners in erecting or installing machinery fell from \$2,088 in 1926 to \$1,509 in 1932, which, though above the 1918 average, was a drop of \$579, or 27.7 percent.

In general contracting, including wrecking, the average payment to wage earners fell from \$1,831 in 1925 to \$1,008 in 1932, a drop of \$823, or 44.9 percent. In oil, gas, and water, drilling or producing, the average payment to wage earners was \$1,620 in 1920 and \$917 in 1932, a drop of \$703, or 43.4 percent. In painting and decorating, the average payment to wage earners was \$1,894 in 1924 and \$1,111 in 1932, a drop of \$783, or 41.3 percent.

The average payment to wage earners in plastering, including lathing and stucco work, was \$2,204 in 1924 and \$1,134 in 1932, a drop of \$1,070, or 48.5 percent. The average payment to wage earners in plumbing and steam fitting was \$1,929 in 1925 and \$1,067 in 1932, a drop of \$862, or 44.7 percent. The average payment to wage earners in sand and gravel excavating was \$1,425 in 1929 and \$905 in 1932, a drop of \$520, or 36.5 percent.

In sheet-metal work and roofing the average payment to wage earners was \$1,697 in 1920 and \$942 in 1932, a drop of \$755, or 44.5 percent. In street, road, and sewer contracting the average payment to wage earners was \$1,427 in 1920 and \$836 in 1932, a drop of \$591, or 41.4 percent. In ventilating and heating the average payment to wage earners was \$2,201 in 1928 and \$1,026 in 1932, a drop of \$1,175, or 53.4 percent.

In considering the average wage and salary payments shown in table 20 it should be borne in mind that the average number of wage



FIGURE 8.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN BRICK, STONE, AND CEMENT WORK, 1918 TO 1932 (EXCEPT 1922)

earners was used in computing the average wage and salary payments. The total number of wage earners who received wage and salary payments was, of course, in excess of the average number. The average number of wage earners was computed by adding the number reported employed on the 15th of each month of the year and dividing that sum by 12. As employers are not requested to give information as to how many employed on the 15th of each month are working full time and how many are on part time, some reported as employed may be working either a short week or a short day. The general occupation group "wage earners" includes skilled, semiskilled, and unskilled workers. Both sexes also are included, but the number of female wage earners reported in the construction industry group did not exceed four-tenths of 1 percent of the total wage earners in that group in any year during the 15-year period.

Charts 8, 9, and 10 show in graphic form the average wage and salary payments to wage earners in three industries—brick, stone, and cement work; general contracting, including wrecking; and street, road, and sewer contracting. The omission of 1922 from the three charts and of 1923 from one chart is explained in notes to table 20.

General Indexes for Employment and for Wage and Salary Payments

GENERAL indexes, based on the Ohio reports, are shown in table 21 for average number of wage earners employed, total wage and salary

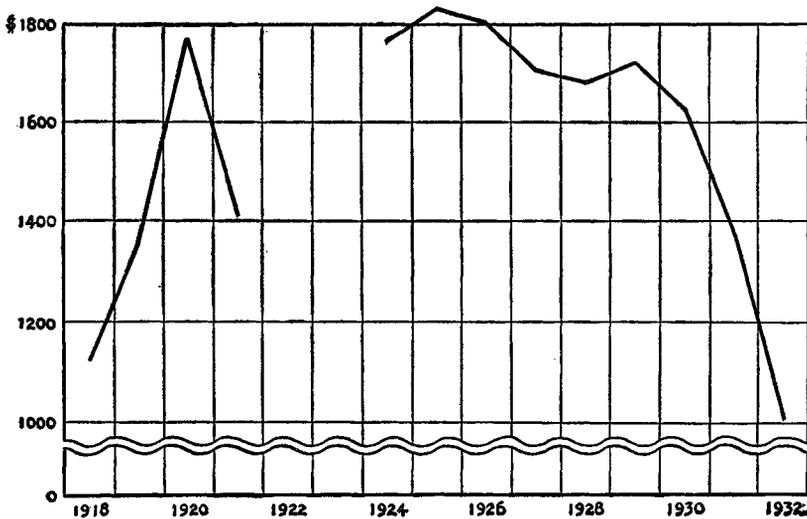


FIGURE 9.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN GENERAL CONTRACTING, INCLUDING WRECKING, 1918 TO 1932 (EXCEPT 1922 AND 1923)

payments, and average wage and salary payments for 1924 to 1932, which is the period during which reports were requested by the

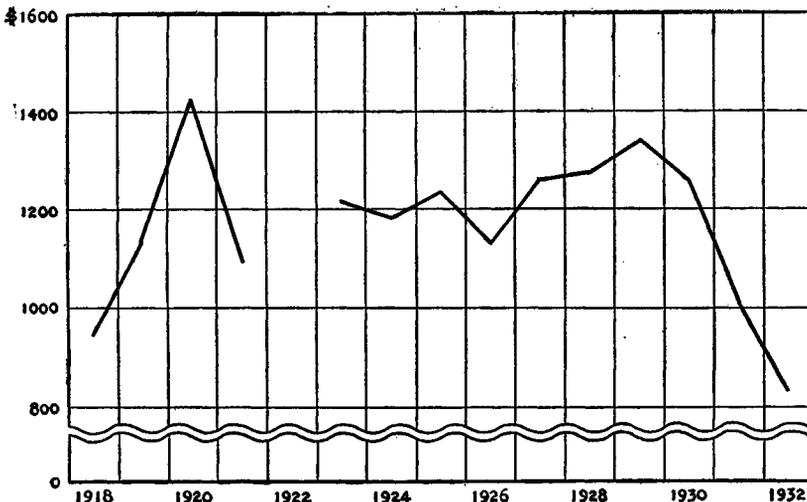


FIGURE 10.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN STREET, ROAD, AND SEWER CONTRACTING, 1918 TO 1932 (EXCEPT 1922)

Ohio Division of Labor Statistics from all establishments employing three or more persons. The year 1926 was used as the base, or 100.

In 1932 the index for average number of wage earners employed in construction was 32.3; for total wage and salary payments to wage earners, 19.7; and for average wage and salary payment, 61.0.

TABLE 21.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN CONSTRUCTION, 1924 TO 1932

[1926=100.0]

Year	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Year	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	93.6	95.2	101.6	1929.....	97.4	101.0	103.5
1925.....	97.3	99.7	102.5	1930.....	85.3	81.8	95.9
1926.....	100.0	100.0	100.0	1931.....	55.0	45.4	82.4
1927.....	104.5	104.9	100.4	1932.....	32.3	19.7	61.0
1928.....	97.4	98.1	100.8				

### Conclusion

THE average number of wage earners employed, as reported by practically all concerns and individuals employing 3 or more persons (with reports from some employing fewer than 3), decreased between 1929 and 1932 more than 70 percent in 3 of the 11 individual industries listed under construction. Electrical contracting has not been included in the comparisons in this and succeeding paragraphs for reasons noted in table 20. The decrease was more than 50 percent in 9 of the 11 industries.

The total wage and salary payments to wage earners, as reported by employers, decreased between 1929 and 1932 more than 80 percent in 5 of the 11 industries listed under construction. The decrease was more than 70 percent in 9 of the 11 industries.

The average wage and salary payments to wage earners, as computed from reports from employers, decreased between 1929 and 1932 more than 40 percent in 6 of the 11 industries classified under construction. The decrease was more than 35 percent in 9 of the 11 industries.

The greatest decrease in average number reported employed and in total wage and salary payments occurred in the general contracting industry, and the greatest decrease in average wage and salary payments occurred in ventilating and heating. In most of the industries classified under construction, the highest peak in number of employees and in total wage and salary payments came earlier than 1929.

Table 22 shows for each industry the percent of decrease from 1929 to 1932 in each of the three items just discussed.

TABLE 22.—PERCENT OF DECREASE IN AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS, 1932 COMPARED WITH 1929, BY INDUSTRIES

Industry	Average number employed	Total wage and salary payments	Average wage and salary payments
Brick, stone, and cement work .....	71.7	83.2	40.4
Erecting or installing machinery .....	52.5	63.1	22.3
General contracting, including wrecking .....	77.4	86.8	41.6
Oil, gas, or water, drilling or producing .....	37.1	53.5	26.2
Painting and decorating .....	68.9	81.1	39.1
Plastering, including lathing and stucco work .....	74.2	84.6	40.2
Plumbing and steam fitting .....	65.2	80.1	42.7
Sand and gravel excavating .....	42.4	63.4	36.5
Sheet-metal work and roofing .....	61.9	78.3	43.2
Street, road, and sewer contracting .....	58.3	74.0	37.8
Ventilating and heating .....	52.9	76.5	50.1
Total, construction industry .....	66.8	80.5	41.1

## Chapter 4.—Manufactures, 1916 to 1932 <sup>1</sup>

**I**N MANUFACTURING industries in Ohio, according to reports from practically all establishments employing 3 or more persons in that industry group, the average wage and salary payment to the group "wage earners" was \$1,499 in 1929 and \$956 in 1932.

The average for the group "bookkeepers, stenographers, and office clerks" was \$1,792 in 1929 and \$1,513 in 1932, and the average for the group "salespeople (not traveling)" was \$2,171 in 1929 and \$1,737 in 1932. The average for the 3 occupation groups combined was \$1,535 in 1929 and \$1,032 in 1932.

The decline in average wage and salary payments in manufactures during the 3 years from 1929 to 1932 was \$543, or 36.2 percent, for wage earners; \$279, or 15.6 percent, for bookkeepers, stenographers, and office clerks; \$434, or 20 percent, for salespeople (not traveling); and \$503, or 32.8 percent, for the 3 groups combined.

### Scope of Study

**W**HEN measured by employment afforded, manufactures is the most important of the general industry groups covered in this series of studies. During the years 1916 to 1923, when reports were requested from employers of 5 or more persons, manufactures included from 64.5 to 73.6 percent of all employees covered and from 65 to 77.9 percent of total wage and salary payments. During the years 1924 to 1932, when reports were requested from employers of 3 or more persons, manufactures included 64.9 percent of all employees covered in 1925, but the percentage decreased each year, except in 1928 and 1929, until it was only 56.4 in 1932. Total wage and salary payments in manufactures in 1925 were 67.2 percent of the amount reported for all industries, with a decrease to 55.5 percent in 1932. Table 23 shows the percentage for each year 1916 to 1932.

<sup>1</sup> Certain figures in this study, as published in the Monthly Labor Review for March 1934, have been changed in accord with detailed studies made later. See notes for 1926 in study of metals and metal products (p. 130); for 1926 and 1932 in stone, clay, and glass products (p. 108); for 1916 and 1917 in textiles (p. 133); and for 1916, 1917, and 1918 in vehicles (p. 112) and miscellaneous manufactures (p. 143).

TABLE 23.—PERCENT EMPLOYMENT AND PAY ROLL IN MANUFACTURES FORM OF THOSE IN ALL INDUSTRIES IN OHIO, 1916 TO 1932

Year	Percent employees in manufactures form of all employees (average)	Percent pay roll in manufactures forms of that in all industries	Year	Percent employees in manufactures form of all employees (average)	Percent pay roll in manufactures forms of that in all industries
1916.....	73.5	75.2	1925.....	64.9	67.2
1917.....	72.9	75.4	1926.....	63.9	65.8
1918.....	73.6	77.9	1927.....	62.3	64.3
1919.....	72.4	75.8	1928.....	62.6	65.1
1920.....	70.7	74.3	1929.....	63.1	65.4
1921.....	64.5	65.0	1930.....	59.4	60.9
1922.....	66.9	69.2	1931.....	57.4	57.5
1923.....	67.8	68.9	1932.....	56.4	55.5
1924.....	64.4	66.0			

Table 24 shows the coverage in Ohio of the United States Census biennial reports on manufactures and of the reports of the Ohio Division of Labor Statistics. Prior to 1919 the census of manufactures was taken every 5 years. Census figures include Ohio manufacturing concerns with "value of product" of \$500 or more in 1919 and \$5,000 or more in other years covered. The Ohio reports, on the other hand, include only a comparatively few establishments employing fewer than 3 persons (fewer than 5 prior to 1924). The census figures therefore include a number of small manufacturing establishments not requested to furnish information to the Ohio Division of Labor Statistics.

TABLE 24.—COMPARISON OF COVERAGE OF CENSUS REPORTS ON MANUFACTURES IN OHIO AND OF REPORTS (MANUFACTURES ONLY) OF OHIO DIVISION OF LABOR STATISTICS, BIENNIALLY FROM 1919 TO 1931

Year	Establishments		Wage earners (average)		Total wage and salary payments to wage earners	
	United States census	Ohio report	United States census	Ohio report	United States census	Ohio report
1919.....	16,125	9,011	730,733	678,525	\$944,651,734	\$872,014,593
1921.....	11,479	8,632	494,288	460,671	627,032,666	576,968,355
1923.....	11,195	8,701	669,132	654,142	979,659,869	933,989,207
1925.....	11,131	9,502	676,661	651,944	975,738,405	956,106,644
1927.....	10,961	9,880	669,097	649,111	968,181,165	950,200,395
1929.....	11,855	10,035	741,143	718,108	1,102,166,499	1,076,213,730
1931.....	<sup>1</sup> 9,883	9,683	<sup>1</sup> 506,974	482,782	<sup>1</sup> 593,051,176	571,917,215

<sup>1</sup> Press release, Bureau of the Census, Apr. 1, 1933.

Table 25 shows the percent of wage earners and of total wage and salary payments to wage earners in manufactures covered by the Ohio reports as compared with the United States census reports on manufactures.

TABLE 25.—COVERAGE OF OHIO REPORTS (MANUFACTURERS ONLY) AS COMPARED WITH CENSUS REPORTS ON MANUFACTURES IN OHIO, BIENNIALY FROM 1919 TO 1931

Year	Percent Ohio coverage forms of census coverage as regards—	
	Number of wage earners (average)	Wage and salary payments to wage earners
1919.....	92.9	92.3
1921.....	93.2	92.0
1923.....	97.8	95.3
1925.....	96.3	98.0
1927.....	97.0	98.1
1929.....	96.9	97.6
1931.....	95.2	96.4

### Total Wage and Salary Payments, and Numbers Employed

TOTAL wage and salary payments paid in manufactures as reported to the Division of Labor Statistics of Ohio are shown for each year from 1916 to 1932 in table 26. Payments are reported separately for each of four occupation groups—wage earners; bookkeepers, stenographers, and office clerks; salespeople (not traveling); and superintendents and managers. Payments and other data relating to superintendents and managers are not included in any other tables or computations in this study. Employers were requested to report each year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were instructed not to include in their reports salary payments to officials. Total wage and salary payments (omitting superintendents and managers) in manufactures increased rapidly from 1916 to 1920, decreased 46.8 percent in 1921, increased each of the next 2 years, decreased slightly in 1924, increased for 2 years, decreased slightly in 1927, increased in 1928 and 1929, and decreased very rapidly from 1929 to 1932. The highest total paid was in 1920 and the second highest in 1929. The lowest total was in 1932. The decrease from 1920 to 1932 was \$796,996,316, or 62.6 percent.

TABLE 26.—TOTAL WAGE AND SALARY PAYMENTS IN MANUFACTURES IN OHIO, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Wage and salary payments to—					Grand total
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total of preceding	Superintendents and managers	
1916.....	8,308	\$483,223,146	\$43,999,761	\$7,245,967	\$534,468,874	\$22,137,792	\$556,606,666
1917.....	8,608	625,127,087	56,387,407	6,808,428	688,302,922	26,874,017	715,176,939
1918.....	8,858	810,785,446	72,401,476	7,633,182	890,820,104	34,550,921	925,371,025
1919.....	9,011	872,014,593	90,616,384	9,022,859	980,653,836	46,296,998	1,026,950,834
1920.....	9,652	1,143,862,785	118,045,344	11,363,308	1,273,071,437	51,667,818	1,324,739,255
1921.....	8,632	1,576,968,355	189,700,261	11,194,833	1,677,863,449	46,048,958	1,723,912,407
1922.....	8,330	693,948,886	118,786,876	10,629,989	823,365,751	45,706,009	869,071,760
1923.....	8,701	933,989,207	105,092,484	12,959,685	1,052,041,376	51,259,820	1,103,301,196
1924.....	9,125	867,024,674	108,441,736	13,865,043	989,331,453	51,142,061	1,040,473,514
1925.....	9,502	956,106,644	116,531,491	17,046,075	1,089,684,210	56,133,781	1,145,817,991
1926.....	9,704	973,197,214	121,169,678	17,225,427	1,111,592,319	58,268,417	1,169,860,736
1927.....	9,880	950,200,395	127,339,270	17,821,103	1,095,360,768	58,822,884	1,154,183,652
1928.....	9,937	1,000,676,770	126,630,061	18,073,918	1,145,380,749	59,420,091	1,204,800,840
1929.....	10,035	1,076,213,730	141,959,719	20,198,389	1,238,371,838	62,777,638	1,301,149,476
1930.....	10,011	806,211,539	141,830,517	10,326,936	958,368,992	60,396,459	1,018,765,451
1931.....	9,683	571,917,215	109,165,152	9,135,088	690,217,455	50,905,300	741,122,755
1932.....	9,102	382,080,692	85,497,253	8,497,176	476,075,121	38,432,348	514,507,469

<sup>1</sup> Details for specific industries exceed total for the manufactures industry by \$21 (\$20 for wage earners and \$1 for bookkeepers, stenographers, and office clerks).

Table 27 shows the average number of persons reported employed in manufactures each year, 1916 to 1932, in each of the three general occupation groups and for all groups combined. Both sexes are included. Employers in their annual reports show the number employed on the 15th of each month and the average was computed by dividing the sum of the numbers reported for each month of the year by 12. The highest average number employed was in 1929, the second highest in 1920, and the lowest in 1932. The decrease in average number employed from 1929 to 1932 was 345,424, or 42.8 percent.

TABLE 27.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	8,299	628,208	49,079	5,035	682,322
1917.....	8,600	682,379	55,741	5,316	743,436
1918.....	8,858	699,656	62,155	5,103	766,914
1919.....	9,011	678,525	68,249	5,346	752,121
1920.....	9,652	715,858	73,035	5,735	794,627
1921.....	8,632	460,671	57,965	5,680	524,316
1922.....	8,403	546,435	57,550	5,919	609,903
1923.....	8,701	654,142	65,638	6,363	726,043
1924.....	9,125	606,558	65,963	7,002	679,523
1925.....	9,502	651,944	68,387	7,657	727,988
1926.....	9,704	671,910	71,195	8,234	751,340
1927.....	9,880	649,111	71,769	8,371	729,250
1928.....	9,937	669,039	72,041	8,355	749,434
1929.....	10,035	718,108	79,197	9,302	806,607
1930.....	10,011	590,506	77,702	4,969	673,178
1931.....	9,683	482,782	65,011	5,112	552,905
1932.....	9,102	399,790	56,500	4,893	461,183

The fluctuation in employment in manufactures within each year is shown in table 28. The least variation from maximum employment within a year was 3.1 percent in 1917, and the greatest was 26.9 percent in 1920. The fluctuation was more than 11 percent of the maximum for the year in 10 of the 17 years covered. The month of maximum employment during the 17-year period was March 1920, and the month of minimum employment was August 1932. The variation from maximum to minimum for the 17 years was 427,177, or 49.8 percent. The second highest number employed was in May 1929. The maximum employed during 1932 was slightly below the minimum employed in any other year in the period covered by the study.

TABLE 28.—FLUCTUATION IN EMPLOYMENT (BOTH SEXES) IN MANUFACTURES, 1916 TO 1932

[Includes the 3 general occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)]

Month	1916	1917	1918	1919	1920	1921
January.....	612, 838	730, 008	728, 224	731, 843	841, 071	542, 341
February.....	643, 360	738, 585	739, 834	716, 585	834, 445	536, 545
March.....	661, 690	753, 422	759, 095	713, 013	857, 366	530, 071
April.....	669, 106	741, 361	753, 425	709, 252	846, 274	530, 598
May.....	672, 247	748, 464	767, 878	706, 836	824, 476	529, 435
June.....	687, 933	751, 979	784, 098	728, 345	844, 531	524, 630
July.....	684, 107	742, 324	790, 880	761, 881	835, 352	499, 263
August.....	700, 054	743, 490	793, 976	788, 524	801, 398	508, 228
September.....	706, 418	743, 536	775, 796	794, 472	785, 346	512, 913
October.....	708, 185	745, 270	778, 696	759, 045	750, 158	521, 458
November.....	717, 977	747, 249	774, 308	793, 552	688, 556	531, 039
December.....	723, 949	735, 548	756, 752	822, 599	626, 562	525, 271
Maximum.....	723, 949	753, 422	793, 976	822, 599	857, 366	542, 341
Minimum.....	612, 838	730, 008	728, 224	706, 836	626, 562	499, 263
Variation from maximum:						
Number.....	111, 111	23, 414	65, 752	115, 763	230, 804	43, 078
Percent.....	15.3	3.1	8.3	14.1	26.9	7.9
Establishments reporting.....	8, 299	8, 600	8, 858	9, 011	9, 652	8, 632

Month	1922	1923	1924	1925	1926	1927
January.....	507, 562	688, 264	709, 872	696, 498	733, 130	710, 987
February.....	530, 843	711, 427	726, 175	705, 748	741, 602	736, 762
March.....	556, 100	740, 836	733, 686	717, 741	749, 195	751, 444
April.....	574, 924	741, 235	723, 205	721, 615	754, 479	750, 988
May.....	598, 326	749, 373	687, 200	725, 959	750, 771	749, 004
June.....	629, 447	756, 243	644, 854	724, 881	753, 283	745, 332
July.....	631, 922	732, 935	631, 913	722, 264	747, 934	727, 987
August.....	644, 406	736, 158	642, 840	729, 413	758, 375	726, 733
September.....	646, 186	722, 905	661, 455	746, 969	775, 597	731, 609
October.....	651, 612	719, 014	666, 443	753, 087	770, 615	720, 407
November.....	662, 224	714, 338	657, 252	749, 713	749, 377	701, 771
December.....	685, 289	702, 784	669, 383	741, 970	731, 723	694, 980
Maximum.....	685, 289	756, 243	733, 686	753, 087	775, 597	751, 444
Minimum.....	507, 562	688, 264	631, 913	696, 498	731, 723	694, 980
Variation from maximum:						
Number.....	177, 727	67, 979	101, 773	56, 589	43, 874	56, 464
Percent.....	25.9	9.0	13.9	7.5	5.7	7.5
Establishments reporting.....	8, 403	8, 701	9, 125	9, 502	9, 704	9, 880

TABLE 28.—FLUCTUATION IN EMPLOYMENT (BOTH SEXES) IN MANUFACTURES, 1916 TO 1932—Continued

Month	1928	1929	1930	1931	1932
January.....	689, 774	784, 410	708, 893	564, 729	489, 708
February.....	719, 446	808, 359	712, 557	572, 525	496, 479
March.....	734, 971	819, 917	711, 876	581, 691	489, 228
April.....	736, 907	827, 839	721, 938	585, 839	475, 021
May.....	746, 657	835, 820	715, 937	583, 543	465, 873
June.....	753, 921	834, 405	695, 838	571, 990	460, 345
July.....	752, 001	831, 223	664, 999	555, 230	444, 690
August.....	766, 243	824, 563	652, 518	541, 745	430, 189
September.....	779, 492	823, 718	647, 883	540, 331	445, 724
October.....	778, 660	808, 934	634, 641	522, 918	449, 596
November.....	770, 132	755, 581	611, 376	513, 669	446, 593
December.....	765, 007	724, 513	599, 679	500, 647	440, 745
Maximum.....	779, 492	835, 820	721, 938	585, 839	496, 479
Minimum.....	689, 774	724, 513	599, 679	500, 647	430, 189
Variation from maximum:					
Number.....	89, 718	111, 307	122, 259	85, 192	66, 290
Percent.....	11. 5	13. 3	16. 9	14. 5	13. 4
Establishments reporting.....	9, 937	10, 035	10, 011	9, 683	9, 102

A comparison of the biennial changes in average number of wage earners employed and in total wage and salary payments, as reported by the United States Census of Manufactures and as shown in the reports of the division of labor statistics, is presented in table 29. The change recorded by the two series of reports is in the same direction each biennium except in 1923-25, when the change was very slight. There is a remarkable agreement in the degree of change except in the biennium 1921-23.

TABLE 29.—BIENNIAL CHANGES IN AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND IN TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURES: COMPARISON OF OHIO REPORTS AND CENSUS REPORTS ON MANUFACTURES IN OHIO, 1919 TO 1931

Period	Wage earners (average)		Total wage and salary payments to wage earners	
	United States census	Ohio reports	United States census	Ohio reports
1919-21.....	-32. 4	-32. 1	-33. 6	-33. 8
1921-23.....	+35. 4	+42. 0	+56. 2	+51. 9
1923-25.....	+1. 1	- . 3	- . 4	+2. 4
1925-27.....	-1. 1	- . 4	- . 8	- . 6
1927-29.....	+10. 8	+10. 6	+13. 8	+13. 3
1929-31.....	-31. 6	-32. 8	-46. 2	-46. 9

### Average Wage and Salary Payments

TABLE 30 shows average wage and salary payments in manufactures to each of the three general occupation groups and to all groups combined. These averages were computed by dividing the total wage and salary payments by the average number employed. The highest average wage and salary payment was reported for wage earners and for all groups combined in 1920, for bookkeepers, stenographers, and

office clerks in 1922, and for salespeople (not traveling) in 1925. The lowest average payment was reported for all except salespeople in 1916 and for salespeople (not traveling) in 1917. Charts 11 and 12 show in graphic form average wage and salary payments to all employees in manufactures and to each of the three general occupation groups.

TABLE 30.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	1 8,299	\$769	\$897	\$1,439	\$783
1917	1 8,600	918	1,011	1,281	926
1918	8,858	1,159	1,165	1,496	1,162
1919	9,011	1,285	1,460	1,688	1,304
1920	9,652	1,598	1,616	1,981	1,602
1921	8,632	1,252	1,547	1,971	1,293
1922	3 8,403	1,270	2,064	1,796	1,350
1923	8,701	1,428	1,604	2,037	1,449
1924	9,125	1,423	1,644	1,980	1,456
1925	9,502	1,467	1,704	2,226	1,497
1926	9,704	1,445	1,702	2,062	1,479
1927	9,680	1,464	1,774	2,129	1,502
1928	9,937	1,496	1,758	2,163	1,528
1929	10,035	1,499	1,792	2,171	1,535
1930	10,011	1,365	1,825	2,078	1,424
1931	9,683	1,185	1,679	1,787	1,248
1932	9,102	956	1,513	1,737	1,032

<sup>1</sup> The number of establishments reporting employees was, 8,299, the number reporting total wage and salary payments was 8,306.

<sup>2</sup> The number of establishments reporting employees was 8,600, the number reporting total wage and salary payments was 8,606.

<sup>3</sup> The number of establishments reporting employees was 8,403, the number reporting total wage and salary payments was 8,330.

<sup>4</sup> This figure, which is in accord with number employed and total wage and salary payments as tabulated by the Division of Labor Statistics, seems high. No further verification is possible as original schedules have been destroyed. The average for 1922 has been omitted from chart 12.

It should be emphasized that average wage and salary payments as here computed do not show average full-time earnings, as data concerning part-time and overtime work are not available. The changes in averages from year to year, also, do not afford any measure of changes in wage or salary scales or rates of pay.

The United States Census Bureau does not compute average annual wage payments in compiling the biennial census of manufactures.<sup>2</sup> For this study, however, such averages have been computed and are shown in table 31, which compares average wage and salary payments to wage earners in manufactures based on the Ohio Division of Labor Statistics data with computed average payments to wage earners in manufactures in Ohio based upon the census reports. The two series show a remarkable agreement.

<sup>1</sup> In a report recently issued covering the construction industry, the Census Bureau computed the average annual wage payment in that industry.

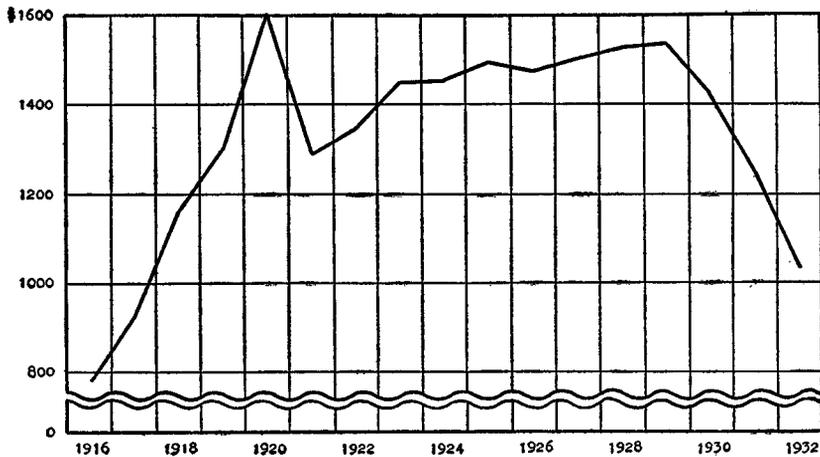


FIGURE 11.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN MANUFACTURES, 1916 TO 1932, ALL EMPLOYEES

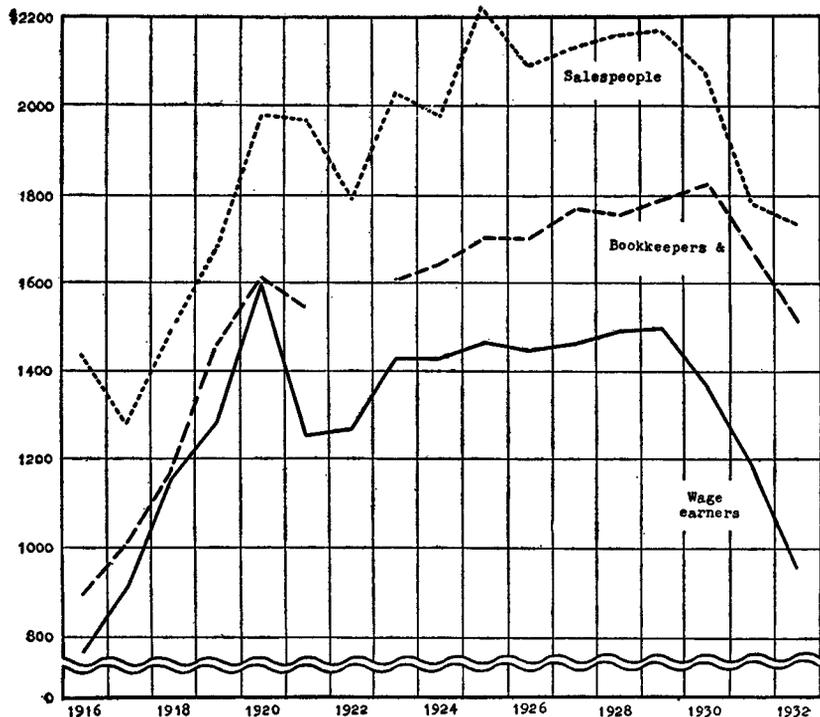


FIGURE 12.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

TABLE 31.—COMPUTED AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURES: COMPARISON OF OHIO REPORTS AND CENSUS REPORTS ON MANUFACTURES IN OHIO, BIENNIALY FROM 1919 TO 1931

Year	Average wage and salary payments to wage earners		Ohio reports below United States census		Ohio reports above United States census	
	United States census	Ohio reports	Amount	Percent	Amount	Percent
1919.....	\$1,293	\$1,285	\$8	0.62	-----	-----
1921.....	1,269	1,252	17	1.34	-----	-----
1923.....	1,464	1,428	36	2.46	-----	-----
1925.....	1,442	1,467	-----	-----	\$25	1.73
1927.....	1,447	1,464	-----	-----	17	1.17
1929.....	1,487	1,499	-----	-----	12	.81
1931.....	1,170	1,185	-----	-----	15	1.28

### Average Annual Wage and Salary Payments by Manufacturing Subgroups

FROM the basic tables showing total salary payments and numbers of employees for the different subgroups of manufactures <sup>3</sup> there have been computed the average wage and salary payments in each of the subgroups for each year from 1916 to 1932. The subgroups of manufactures, as classified in the Ohio reports, are as follows:

- Chemicals and allied products.
- Food and kindred products.
- Iron and steel and their products.
- Leather and leather products.
- Liquors and beverages.
- Lumber and its products.
- Metals and metal products, other than iron and steel.
- Paper and printing.
- Rubber products.
- Stone, clay, and glass products.
- Textiles.
- Tobacco manufactures.
- Vehicles.
- Miscellaneous manufactures.

### Average Annual Wage and Salary Payments

TABLE 32 shows average wage and salary payments in each of the 14 industry subgroups for each year 1916 to 1932. The average is shown for each of the 3 general occupation groups and for all combined.

The highest average wage and salary payment (all employees) occurred in 1920 for iron and steel and their products, rubber products, stone, clay, and glass products, and tobacco manufactures; in 1923 for liquors and beverages; in 1925 for lumber and its products; in 1926 for textiles and miscellaneous manufactures; in 1927 for leather and leather products and vehicles; in 1928 for chemicals and allied products, food and kindred products, and paper and printing; and in 1929 for metals and metal products, other than iron and steel.

<sup>3</sup> For these basic tables see the discussion on the different subgroups of manufactures.

The lowest average wage and salary payments occurred in 1916 for all industry subgroups except liquors and beverages, where it occurred in 1917. The year 1917 shows the second lowest average for 12 of the 14 industry subgroups, and the year 1932 shows the third lowest average for 8 of the 14 industry subgroups.

TABLE 32.—AVERAGE WAGE AND SALARY PAYMENTS IN EACH INDUSTRY SUBGROUP IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Chemicals and allied products					Food and kindred products				
	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees
1916.....	1 317	\$743	\$879	( <sup>3</sup> )	\$768	<sup>3</sup> 1,289	\$674	\$814	\$912	\$702
1917.....	340	857	914	( <sup>3</sup> )	894	<sup>4</sup> 1,364	723	832	994	751
1918.....	351	1,074	1,120	( <sup>3</sup> )	1,091	1,439	907	1,053	1,266	941
1919.....	369	1,222	1,187	( <sup>3</sup> )	1,218	1,475	1,061	1,180	1,348	1,091
1920.....	411	1,465	1,491	( <sup>3</sup> )	1,470	1,601	1,287	1,350	1,696	1,222
1921.....	360	1,305	1,390	( <sup>3</sup> )	1,324	1,426	1,222	1,383	1,532	1,262
1922.....	<sup>5</sup> 373	1,267	1,419	( <sup>2</sup> )	1,301	1,125	1,424	1,450	1,450	1,180
1923.....	332	1,379	1,451	( <sup>2</sup> )	1,398	1,278	1,235	1,416	1,500	1,274
1924.....	392	1,437	1,600	( <sup>2</sup> )	1,468	1,366	1,255	1,537	1,623	1,315
1925.....	412	1,437	1,587	( <sup>2</sup> )	1,477	1,433	1,252	1,434	1,704	1,315
1926.....	415	1,438	1,629	( <sup>2</sup> )	1,481	1,498	1,219	1,451	1,628	1,284
1927.....	433	1,459	1,559	( <sup>2</sup> )	1,485	1,601	1,317	1,463	1,627	1,366
1928.....	444	1,470	1,696	( <sup>2</sup> )	1,522	1,617	1,343	1,504	1,682	1,395
1929.....	457	1,475	1,656	( <sup>2</sup> )	1,518	1,636	1,331	1,499	1,677	1,386
1930.....	458	1,462	1,683	( <sup>2</sup> )	1,520	1,715	1,363	1,475	1,807	1,371
1931.....	461	1,370	1,788	( <sup>2</sup> )	1,468	1,685	1,212	1,409	1,237	1,232
1932.....	440	1,220	1,586	( <sup>2</sup> )	1,305	1,600	1,067	1,298	1,192	1,093
	Iron and steel and their products					Leather and leather products				
1916.....	<sup>7</sup> 1,490	\$879	\$993	( <sup>8</sup> )	\$893	<sup>9</sup> 161	\$571	\$606	( <sup>2</sup> )	\$574
1917.....	1 1,583	1,073	1,111	\$2,429	1,077	160	635	672	( <sup>2</sup> )	676
1918.....	1 1,635	1,377	1,285	2,375	1,372	161	770	858	( <sup>2</sup> )	738
1919.....	1 1,687	1,534	1,442	2,442	1,528	166	938	1,039	( <sup>2</sup> )	945
1920.....	1 1,797	1,874	1,669	2,978	1,859	158	1,123	1,134	( <sup>2</sup> )	1,125
1921.....	1 1,667	1,327	1,665	( <sup>2</sup> )	1,372	144	1,074	1,318	( <sup>2</sup> )	1,091
1922.....	<sup>10</sup> 1,613	1,423	( <sup>8</sup> )	2,626	1,598	<sup>11</sup> 138	1,072	1,298	( <sup>2</sup> )	1,088
1923.....	1 1,647	1,656	1,707	3,421	1,664	145	1,089	1,355	( <sup>11</sup> )	<sup>12</sup> 1,104
1924.....	1 1,673	1,609	1,718	3,727	1,624	138	1,087	1,311	( <sup>2</sup> )	1,105
1925.....	1 1,717	1,675	1,841	4,107	1,695	141	1,078	1,325	( <sup>2</sup> )	1,096
1926.....	1 1,750	1,640	1,843	3,274	1,662	147	1,103	1,463	( <sup>2</sup> )	1,129
1927.....	1 1,700	1,621	1,922	3,041	1,652	137	1,113	1,552	( <sup>2</sup> )	1,144
1928.....	1 1,751	1,686	1,782	3,362	1,699	130	1,092	1,473	( <sup>2</sup> )	1,118
1929.....	1 1,775	1,705	1,980	3,344	1,734	126	1,096	1,461	( <sup>2</sup> )	1,122
1930.....	1 1,754	1,541	2,034	2,997	1,599	119	922	1,395	( <sup>11</sup> )	<sup>13</sup> 954
1931.....	1 1,697	1,260	1,621	2,578	1,305	110	864	1,323	( <sup>11</sup> )	<sup>12</sup> 892
1932.....	1 1,606	959	1,543	2,505	1,038	106	690	1,315	( <sup>11</sup> )	<sup>13</sup> 724

<sup>1</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 2.

<sup>2</sup> Not computed, owing to small number involved.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

<sup>4</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 10.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>6</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 12.

<sup>7</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 3.

<sup>8</sup> Omitted; apparent clerical error in reporting, which cannot be definitely corrected, as original schedules have been destroyed.

<sup>9</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

<sup>10</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 90.

<sup>11</sup> Carried with "Manufactures, not otherwise classified" in detailed tabulation.

<sup>12</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average, as average number in that group could not be determined from detailed tabulation.

TABLE 32.—AVERAGE WAGE AND SALARY PAYMENTS IN EACH INDUSTRY SUB-GROUP IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS—Con.

Year	Liquors and beverages					Lumber and its products				
	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees
1916	192	\$1,170	\$1,094	(?)	\$1,172	<sup>13</sup> 860	\$617	\$867	(?)	\$640
1917	179	974	1,154	(?)	1,004	<sup>3</sup> 899	728	939	(?)	748
1918	182	1,137	1,286	(?)	1,160	913	892	1,064	(?)	907
1919	167	1,286	1,409	(?)	1,308	923	1,009	1,295	(?)	1,032
1920	150	1,754	1,551	(?)	1,732	1,008	1,271	1,457	(?)	1,288
1921	121	1,455	1,615	(?)	1,483	914	1,200	1,545	(?)	1,236
1922	120	1,351	1,549	(?)	1,393	<sup>4</sup> 932	1,069	1,437	(?)	1,123
1923	124	1,771	1,973	(?)	1,761	1,007	1,230	1,513	(?)	1,254
1924	140	1,492	1,499	(?)	1,561	1,130	1,218	1,618	(?)	1,259
1925	147	1,489	1,617	(?)	1,584	1,175	1,370	1,689	(?)	1,407
1926	153	1,428	1,594	(?)	1,493	1,206	1,265	1,629	(?)	1,310
1927	155	1,475	1,623	(?)	1,521	1,238	1,275	1,807	(?)	1,331
1928	150	1,491	1,560	(?)	1,553	1,215	1,280	1,652	(?)	1,329
1929	164	1,484	1,554	(?)	1,527	1,231	1,275	1,678	(?)	1,328
1930	163	1,470	1,566	(?)	1,522	1,192	1,178	1,717	(?)	1,244
1931	175	1,306	1,444	(?)	1,431	1,104	1,047	1,544	(?)	1,115
1932	158	1,200	1,243	(?)	1,233	999	834	1,359	(?)	904
	Metals and metal products other than iron and steel					Paper and printing				
1916	<sup>3</sup> 331	\$699	\$815	(?)	\$715	<sup>14</sup> 928	\$720	\$741	\$1,204	\$735
1917	339	786	943	(?)	802	930	781	833	1,478	803
1918	395	1,113	1,060	(?)	1,110	939	909	835	1,200	907
1919	409	1,128	1,170	(?)	1,137	924	1,100	1,052	1,707	1,109
1920	457	1,416	1,410	(?)	1,422	977	1,412	1,295	1,939	1,409
1921	432	1,180	1,440	(?)	1,222	869	1,292	1,323	1,790	1,311
1922	<sup>15</sup> 406	1,154	1,544	(?)	1,199	<sup>8</sup> 886	1,328	1,319	2,002	1,345
1923	456	1,311	1,761	(?)	1,360	913	1,376	1,478	2,075	1,411
1924	471	1,302	1,549	(?)	1,333	980	1,420	1,446	2,116	1,445
1925	488	1,372	1,662	(?)	1,412	1,037	1,282	1,309	2,334	1,319
1926	490	1,373	1,693	(?)	1,416	1,075	1,478	1,466	2,354	1,503
1927	506	1,371	1,688	(?)	1,418	1,110	1,464	1,554	2,341	1,506
1928	523	1,422	1,705	(?)	1,466	1,130	1,508	1,979	2,637	1,605
1929	544	1,434	1,740	(?)	1,476	1,158	1,513	1,550	2,307	1,545
1930	519	1,355	1,809	(?)	1,411	1,151	1,473	1,621	2,354	1,516
1931	544	1,155	1,711	(?)	1,235	1,160	1,362	1,538	2,112	1,414
1932	531	973	1,477	(?)	1,047	1,139	1,192	1,356	1,997	1,250

<sup>1</sup> Not computed, owing to small number involved.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

<sup>4</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

<sup>13</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 7.

<sup>14</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 7.

<sup>15</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 4.

TABLE 32.—AVERAGE WAGE AND SALARY PAYMENTS IN EACH INDUSTRY SUB-GROUP IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS—Con.

Year	Rubber products					Stone, clay, and glass products				
	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees	Estab-lish-ments	Wage earn-ers	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees
1916.....	78	\$810	\$844	(2)	\$815	712	\$689	\$891	(2)	\$697
1917.....	82	1,042	1,032	(2)	1,041	702	829	1,003	(2)	836
1918.....	93	1,233	1,235	(2)	1,236	683	971	1,043	(2)	976
1919.....	108	1,288	2,463	(2)	1,434	693	1,145	1,252	(2)	1,151
1920.....	114	1,710	2,089	(2)	1,762	713	1,453	(8)	(2)	1,483
1921.....	107	1,465	1,817	(2)	1,520	637	1,209	1,421	(2)	1,220
1922.....	3 109	1,433	1,681	(2)	1,462	16 664	1,117	1,436	(2)	1,132
1923.....	119	1,589	1,717	(11)	1,602	674	1,188	1,533	(2)	1,204
1924.....	120	1,540	1,896	(2)	1,576	711	1,363	1,577	(2)	1,374
1925.....	113	1,553	1,906	(2)	1,586	762	1,359	1,624	(2)	1,374
1926.....	112	1,562	1,857	(2)	1,593	763	1,360	1,716	(2)	1,381
1927.....	128	1,583	1,936	(11)	1,619	768	1,330	1,686	(2)	1,351
1928.....	133	1,611	2,014	(11)	1,653	772	1,314	1,757	(2)	1,341
1929.....	127	1,562	2,033	(11)	1,610	770	1,319	1,796	(2)	1,348
1930.....	113	1,450	2,008	(11)	1,520	747	1,187	1,909	(2)	1,241
1931.....	104	1,254	1,985	(11)	1,341	708	1,096	1,780	(2)	1,145
1932.....	95	1,011	1,873	(11)	1,115	622	834	1,432	(2)	878
	Textiles					Tobacco manufactures				
1916.....	17 719	\$540	\$806	(2)	\$562	242	\$448	(2)	(2)	\$457
1917.....	18 751	592	814	(2)	611	239	492	(2)	(2)	499
1918.....	757	700	1,032	(2)	724	246	558	(2)	(2)	571
1919.....	767	856	1,128	(2)	878	249	645	(2)	(2)	657
1920.....	810	1,054	1,382	(2)	1,081	269	948	(2)	(2)	957
1921.....	680	1,043	1,519	(2)	1,082	226	690	(2)	(2)	705
1922.....	3 689	967	1,378	(2)	998	15 210	693	(2)	(11)	12 705
1923.....	679	1,012	1,338	(2)	1,039	213	741	(2)	(11)	12 752
1924.....	687	1,039	1,396	(2)	1,070	191	553	(2)	(11)	12 562
1925.....	705	1,069	1,463	(2)	1,105	175	713	(2)	(11)	12 726
1926.....	707	1,080	1,360	(2)	1,107	172	717	(2)	(11)	12 729
1927.....	679	1,055	1,458	(2)	1,087	160	688	(2)	(11)	12 701
1928.....	662	1,035	1,417	(2)	1,066	157	676	(2)	(11)	12 691
1929.....	647	1,026	1,449	(2)	1,062	137	660	(2)	(11)	12 676
1930.....	627	954	1,502	(2)	996	144	627	(2)	(11)	12 643
1931.....	587	865	1,389	(2)	904	133	599	(2)	(11)	12 614
1932.....	567	705	1,303	(2)	746	127	507	(2)	(11)	12 525

<sup>2</sup> Not computed, owing to small number involved.  
<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.  
<sup>8</sup> Omitted; apparent clerical error in reporting, which cannot be definitely corrected, as original schedules have been destroyed.  
<sup>11</sup> Carried with "Manufactures, not otherwise classified", in detailed tabulation.  
<sup>12</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average, as average number in that group could not be determined from tabulation.  
<sup>16</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 4.  
<sup>18</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 3.  
<sup>17</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 5.  
<sup>18</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 3.

TABLE 32.—AVERAGE WAGE AND SALARY PAYMENTS IN EACH INDUSTRY SUB GROUP IN MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS—Con.

Year	Vehicles					Miscellaneous manufactures				
	Estab-lish-ments	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees	Estab-lish-ments	Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	All em-ploy-ees
1916.....	<sup>1</sup> 376	\$789	\$969	(?)	\$800	<sup>3</sup> 604	\$745	\$891	(?)	\$759
1917.....	383	952	1,148	(?)	967	<sup>4</sup> 649	799	1,021	(?)	824
1918.....	374	1,246	1,204	(?)	1,244	690	1,090	1,151	(?)	1,099
1919.....	390	1,394	1,383	(?)	1,394	694	1,161	1,262	(?)	1,176
1920.....	416	1,695	1,629	(?)	1,693	776	1,432	1,437	(?)	1,435
1921.....	363	1,364	1,611	(?)	1,401	686	1,206	1,436	(?)	1,247
1922.....	<sup>19</sup> 320	1,342	1,618	(?)	1,370	<sup>20</sup> 700	1,166	1,441	(?)	1,204
1923.....	331	1,538	1,719	( <sup>11</sup> )	<sup>12</sup> 1,552	733	1,224	1,504	(?)	1,273
1924.....	328	1,656	1,874	(?)	1,677	798	1,309	1,566	(?)	1,347
1925.....	319	1,631	1,842	(?)	1,650	878	1,341	1,835	(?)	1,410
1926.....	318	1,394	1,836	(?)	1,430	898	1,420	1,676	(?)	1,458
1927.....	319	1,687	2,004	(?)	1,731	946	1,387	1,785	(?)	1,443
1928.....	304	1,666	1,583	(?)	1,661	949	1,373	1,783	(?)	1,431
1929.....	304	1,609	1,647	(?)	1,622	959	1,379	1,823	(?)	1,441
1930.....	297	1,331	1,744	(?)	1,374	982	1,285	1,798	(?)	1,361
1931.....	265	1,174	1,910	( <sup>11</sup> )	<sup>13</sup> 1,242	950	1,196	1,825	(?)	1,297
1932.....	228	934	1,667	( <sup>11</sup> )	<sup>13</sup> 1,008	884	940	1,526	(?)	1,043

<sup>1</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 2.

<sup>2</sup> Not computed, owing to small number involved.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

<sup>4</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>11</sup> Carried with "Manufactures, not otherwise classified", in detailed tabulation.

<sup>12</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average as average number in that group could not be determined from detailed tabulation.

<sup>13</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 8.

<sup>20</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 9.

### General Indexes for Employment and for Wage and Salary Payments

GENERAL indexes for all employees (wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)) and separately for wage earners in manufactures, based upon the Ohio reports, are shown in table 33. Indexes are here shown for average number employed, total wage and salary payments, and average wage and salary payments for 1924-32, which is the period during which reports were requested by the Ohio Division of Labor Statistics from all establishments employing three or more persons. The year 1926 was used as the base, or 100, in computing these indexes.

The indexes for employees and for total wage and salary payments increased from 1924 to 1926, decreased in 1927, increased in 1928 and 1929, and decreased rapidly during 1930, 1931, and 1932. The index for average wage and salary payments increased in 1925, decreased slightly in 1926, increased each year until 1929, and decreased in 1930, 1931, and 1932.

The course of the indexes for wage earners is the same as the indexes for all employees. The indexes for wage earners, however, do not reach as high a level in 1929 as do the indexes for all employees, and

in 1932 they reach a lower level than do those for all employees. These differences are found in each of the three items for which indexes were computed.

TABLE 33.—GENERAL INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURES IN OHIO FOR ALL EMPLOYEES AND FOR WAGE EARNERS, 1924 TO 1932

[1926=100.0]

Year	All employees			Wage earners		
	Employees (average)	Total wage and salary payments	Average wage and salary payments	Employees (average)	Total wage and salary payments	Average wage and salary payments
1924.....	90.4	89.0	98.4	90.3	89.1	98.7
1925.....	96.9	98.0	101.2	97.0	98.2	101.3
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	97.1	98.5	101.6	96.6	97.6	101.1
1928.....	99.7	103.0	103.3	99.6	102.8	103.3
1929.....	107.4	111.4	103.8	106.9	110.6	103.5
1930.....	89.6	86.2	96.3	87.0	82.8	94.3
1931.....	73.6	62.1	84.4	71.9	58.8	81.8
1932.....	61.4	42.8	69.8	59.5	39.3	66.0

Chart 13 shows in graphic form general indexes for average number employed (all employees) and total and average wage and salary payments in manufactures.

Table 34 presents a comparison of the general indexes for average number employed and total wage and salary payments in manufac-

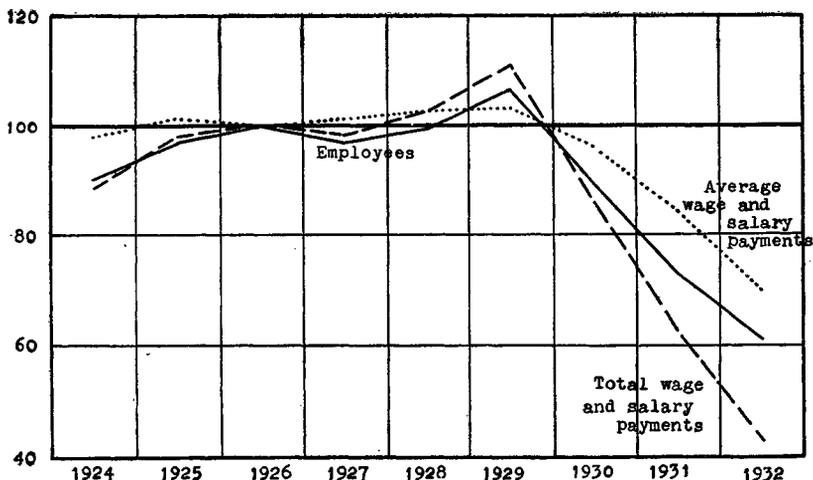


FIGURE 13.—GENERAL INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURES, 1924 TO 1932 (1926=100)

tures in Ohio, computed from reports of the Ohio Division of Labor Statistics, with the general indexes of the United States Bureau of Labor Statistics for employment and pay rolls in manufacturing in

the United States. Indexes computed from the Ohio reports are shown for all employees (wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)), and separately for wage earners.

The course of the three series of indexes is the same, except in 1928, both for employment and for wage and salary payments. The Ohio indexes are considerably lower than the Bureau indexes for the United States in 1924 and considerably higher in 1928 and 1929. For other years there is comparatively close agreement, particularly in 1932. It is probable that certain industries which have a wide fluctuation in number employed and in total wage and salary payments, such as iron and steel, rubber products, and vehicles, form a larger proportion of the total in the Ohio reports than they do in the Bureau's reports which cover the United States.

TABLE 34.—COMPARISON OF INDEXES OF U. S. BUREAU OF LABOR STATISTICS FOR EMPLOYMENT AND PAY ROLLS, IN MANUFACTURING IN THE UNITED STATES, WITH INDEXES FOR MANUFACTURES IN OHIO, COMPUTED FROM OHIO REPORTS, 1924 TO 1932

[1926=100.0]

Year	Employees (average)			Wage and salary payments		
	U. S. Bureau of Labor Statistics	Ohio reports		U. S. Bureau of Labor Statistics	Ohio reports	
		All employees	Wage earners		All employees	Wage earners
1924.....	98.2	90.4	90.3	94.6	89.0	89.1
1925.....	99.2	96.9	97.0	97.7	98.0	98.2
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	96.4	97.1	96.6	96.5	98.5	97.6
1928.....	93.8	99.7	99.6	94.5	103.0	102.8
1929.....	97.5	107.4	106.9	100.5	111.4	110.6
1930.....	84.7	89.6	87.9	81.3	86.2	82.8
1931.....	72.2	73.6	71.9	61.5	62.1	58.8
1932.....	60.1	61.4	59.5	41.6	42.8	39.3

Table 35 shows general indexes for each of the 14 industry subgroups under manufactures. The indexes are confined to wage earners only, and cover average number employed, total wage and salary payments, and average wage and salary payments. The 14 industry subgroups are classified, upon the basis of a classification used by the United States Bureau of Labor Statistics, as manufactures of "durable" products and manufactures of "nondurable" products.

The index for average number of wage earners in 1932 stood below 50 for 4 of the 5 industry subgroups listed under "durable" products. The lowest index for that year in the 9 industry subgroups listed under "nondurable" products was 57.2 and none of the other 8 fell below 65.5. The indexes in the "durable" group generally rose higher in 1928 and 1929 than did those in the "nondurable" group.

The index for total wage and salary payments in 1932 stood below 33 for 4 of the 5 industry subgroups listed under "durable." The

lowest index for that year in the "nondurable" group was 40.5. The indexes for total wage and salary payments generally rose higher in the "durable" group in 1928 and 1929 than did those in the "nondurable" group.

The index for average wage and salary payments do not disclose as great a difference between the "durable" and the "nondurable" groups as do the indexes for number of wage earners and total wage and salary payments to such employees. The lowest index in 1932 (58.5) and also the second lowest are found in the "durable" group, but the third and fourth lowest are found in the "nondurable" group. The highest index in that year in the "durable" group is 70.4 and the index for 5 of the 9 under "nondurable" was higher than that figure.

TABLE 35.—GENERAL INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURES, BY INDUSTRY SUBGROUPS CLASSIFIED AS MANUFACTURERS OF "DURABLE" AND OF "NONDURABLE" PRODUCTS, 1924 TO 1932

[1926=100.0]

*Wage earners (average number)*

Industry subgroup	1924	1925	1926	1927	1928	1929	1930	1931	1932
<b>Manufactures of "durable" products:</b>									
Iron and steel and their products.....	90.5	95.2	100.0	93.7	95.0	103.7	81.5	58.6	45.1
Lumber and its products.....	101.2	105.3	100.0	101.8	95.7	95.3	77.7	62.4	49.0
Metals and metal products, other than iron and steel.....	93.7	99.9	100.0	96.5	99.3	116.0	98.5	85.7	77.0
Stone, clay, and glass products.....	96.0	102.7	100.0	97.0	95.8	92.1	75.4	62.8	46.1
Vehicles.....	82.3	100.9	100.0	91.4	114.8	127.4	89.6	69.4	45.0
<b>Manufactures of "nondurable" products:</b>									
Chemicals and allied products.....	94.2	100.9	100.0	100.1	105.1	108.7	98.0	93.2	79.8
Food and kindred products.....	90.9	93.1	100.0	94.6	97.4	103.7	112.4	106.4	97.5
Leather and leather products.....	93.4	98.4	100.0	101.5	96.4	95.2	86.6	81.6	79.7
Liquors and beverages.....	99.5	105.6	100.0	95.7	89.8	89.7	85.1	73.1	67.6
Paper and printing.....	91.7	95.8	100.0	102.0	101.1	108.2	103.7	98.5	90.8
Rubber products.....	85.3	101.7	100.0	104.2	107.4	113.3	83.2	70.6	65.5
Textiles.....	92.0	95.2	100.0	96.4	94.9	94.0	88.5	78.6	72.7
Tobacco manufactures.....	114.4	96.5	100.0	96.0	91.0	80.7	74.5	65.4	57.2
Miscellaneous manufactures.....	80.2	88.7	100.0	99.4	106.9	120.6	100.1	81.8	67.2

*Total wage and salary payments to wage earners*

<b>Manufactures of "durable" products:</b>									
Iron and steel and their products.....	88.8	97.3	100.0	96.2	97.7	107.8	76.6	45.0	26.4
Lumber and its products.....	97.4	114.0	100.0	102.6	96.9	96.1	72.3	51.6	32.3
Metals and metal products, other than iron and steel.....	88.9	99.9	100.0	96.4	102.9	121.2	97.3	72.1	54.6
Stone, clay, and glass products.....	96.2	102.6	100.0	94.9	92.6	89.3	65.8	50.6	28.3
Vehicles.....	97.7	118.1	100.0	110.6	137.2	147.1	85.6	58.5	30.2
<b>Manufactures of "nondurable" products:</b>									
Chemicals and allied products.....	94.1	100.8	100.0	101.6	102.7	111.5	99.6	88.8	67.7
Food and kindred products.....	93.6	95.6	100.0	102.2	107.3	113.1	125.6	105.8	85.3
Leather and leather products.....	92.1	96.2	100.0	102.4	95.5	94.6	72.5	64.0	49.9
Liquors and beverages.....	103.9	110.1	100.0	98.9	93.8	93.2	87.6	76.4	56.8
Paper and printing.....	88.1	83.1	100.0	101.0	103.2	110.7	103.3	90.8	73.3
Rubber products.....	84.6	101.0	100.0	105.6	110.8	113.3	77.2	56.7	42.4
Textiles.....	88.5	94.1	100.0	94.1	90.9	93.9	78.1	63.0	47.4
Tobacco manufactures.....	88.3	96.0	100.0	92.2	85.8	74.3	65.2	54.7	40.5
Miscellaneous manufactures.....	73.9	83.7	100.0	97.1	103.4	117.1	90.6	68.9	44.5

TABLE 35.—GENERAL INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURES, BY INDUSTRY SUBGROUPS CLASSIFIED AS MANUFACTURES OF "DURABLE" AND OF "NONDURABLE" PRODUCTS, 1924 TO 1932—Continued

*Average wage and salary payments to wage earners*

Industry subgroup	1924	1925	1926	1927	1928	1929	1930	1931	1932
<b>Manufactures of "durable" products:</b>									
Iron and steel and their products.....	98.1	102.1	100.0	98.8	102.8	104.0	94.0	76.8	58.5
Lumber and its products.....	96.3	108.3	100.0	100.8	101.2	100.8	93.1	82.8	65.9
Metals and metal products, other than iron and steel.....	94.8	99.9	100.0	99.9	103.6	104.4	98.7	84.1	70.9
Stone, clay, and glass products.....	100.2	99.9	100.0	97.8	96.6	97.0	87.3	80.6	61.3
Vehicles.....	118.8	117.0	100.0	121.0	119.5	115.4	95.5	84.2	67.0
<b>Manufactures of "nondurable" products:</b>									
Chemicals and chemical products.....	99.9	99.9	100.0	101.4	102.2	102.6	101.7	95.3	84.8
Food and kindred products.....	103.0	102.7	100.0	108.0	110.2	109.2	111.8	99.4	87.5
Leather and leather products.....	98.5	97.7	100.0	100.9	99.0	99.4	83.6	78.3	62.6
Liquors and beverages.....	104.5	104.3	100.0	103.3	104.4	103.9	102.9	97.8	84.0
Paper and printing.....	96.1	86.8	100.0	99.1	102.0	102.4	99.7	92.2	80.6
Rubber products.....	98.6	99.4	100.0	101.3	103.1	100.0	92.8	80.3	64.7
Textiles.....	96.2	99.0	100.0	97.7	95.8	95.0	88.3	80.1	65.3
Tobacco manufactures.....	77.1	99.4	100.0	96.0	94.3	92.1	87.4	83.5	70.7
Miscellaneous manufactures.....	92.2	94.4	100.0	97.7	96.7	97.1	90.5	84.2	66.2

### Conclusion

For manufactures as a whole in Ohio, during the 17 years, 1916-32, the maximum employment was 857,366 in March 1920 and the minimum was 430,189 in August 1932. This was a variation from maximum of 427,177, or 49.8 percent. The highest average number employed during a year was 806,607 in 1929 and the lowest average was 461,183 in 1932, which was a reduction of 345,424, or 42.8 percent. The highest total wage and salary payment (omitting superintendents and managers) was \$1,273,071,437 in 1920, and the lowest was \$476,075,121 in 1932, which was a decrease of \$796,996,316, or 62.6 percent. The highest average wage and salary payment was \$1,602 in 1920, and the lowest was \$783 in 1916. The second highest average was in 1929. The second lowest average was in 1917 and the third lowest in 1932.

Two major declines in manufactures occurred during the 17-year period. The first began in the latter part of 1920 and the second began for manufactures as a whole late in 1929, although marked declines in numbers employed and in total wage and salary payments in six subgroups began 2 or 3 years prior to 1929. The six were leather and leather products, lumber and its products, liquors and beverages, stone, clay, and glass products, textiles, and tobacco manufactures.

Table 36 shows for manufactures the decline in average number employed and in total and average wage and salary payments from 1920 to 1921 and from 1929 to 1932. In both periods wage earners show a greater decline in each of the three items than do either of the

other two general occupation groups, except in average employees in the later period.

The number employed (all three occupation groups) in manufactures declined 270,311, or 34.0 percent, between 1920 and 1921, and 345,424, or 42.8 percent, between 1929 and 1932.

Total wage and salary payments to the three general occupation groups in manufactures declined \$595,207,988, or 46.8 percent, between 1920 and 1921, and \$762,296,717, or 61.6 percent, between 1929 and 1932.

Average wage and salary payments in manufactures declined \$309, or 19.3 percent, between 1920 and 1921, and \$503, or 32.8 percent, between 1929 and 1932.

TABLE 36.—AMOUNT AND PERCENT OF DECREASE IN AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURES IN OHIO, FROM 1920 TO 1921, AND FROM 1929 TO 1932, BY GENERAL OCCUPATION GROUPS

Period and general occupation group	Average number employed		Total wage and salary payments		Average wage and salary payments	
	Number decrease	Per-cent of de-crease	Amount of decrease	Per-cent of de-crease	Amount of de-crease	Per-cent of de-crease
<i>1920-21</i>						
All employees.....	270,311	34.0	\$595,207,988	46.8	\$309	19.3
Wage earners.....	255,187	35.6	566,694,430	49.6	346	21.7
Bookkeepers, stenographers, and office clerks....	15,070	20.6	28,545,083	24.0	69	4.3
Salespeople (not traveling).....	55	1.0	168,475	1.5	10	.5
<i>1929-32</i>						
All employees.....	345,424	42.8	762,296,717	61.6	503	32.8
Wage earners.....	318,318	44.3	694,133,038	64.5	543	36.2
Bookkeepers, stenographers, and office clerks....	22,897	28.7	56,462,466	39.8	279	15.6
Salespeople (not traveling).....	4,409	47.4	11,701,213	57.9	434	20.0

Table 37 shows for each industry subgroup the decline in average number employed and in total and average wage and salary payments from 1920 to 1921 and from 1929 to 1932.

Considering average number employed, the greatest decline in each period was in the manufacture of vehicles. The decline in that industry was 52.6 percent from 1920 to 1921 and 63.6 percent from 1929 to 1932. Other industry groups with a decline of more than 40 percent in each of the two periods were iron and steel and their products and rubber products. Leather and leather products show a smaller decline (2.9 percent) from 1920 to 1921 than any other subgroup, and food and kindred products show the lowest decline from 1929 to 1932 and the second lowest decline in the first period.

Considering total wage and salary payments, the greatest decline in each period was also in the manufacture of vehicles. Other industry subgroups showing a decline of more than 40 percent in

each period are iron and steel and their products, metal and metal products other than iron and steel, rubber products, and miscellaneous manufactures. Additional industries showing a decline of more than 40 percent from 1929 to 1932 are leather and leather products, lumber and its products, stone, clay, and glass products, textiles, and tobacco manufactures.

The average wage and salary payments declined more than 25 percent in two industry subgroups—iron and steel and their products and tobacco manufactures—from 1920 to 1921. The decline was more than 25 percent in 9 of the 14 industry subgroups during the period from 1929 to 1932, the greatest decline being in iron and steel and their products, with vehicles second in order. The least decline from 1929 to 1932 was in chemicals and allied products.

TABLE 37.—AMOUNT AND PERCENT OF DECREASE IN AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN EACH INDUSTRY SUBGROUP IN MANUFACTURES FROM 1920 TO 1921 AND FROM 1929 TO 1932

Period and industry subgroup	All employees (average number)		Total wage and salary payments		Average wage and salary payments	
	Number (de- crease)	Per- cent of de- crease	Amount of decrease	Per- cent of de- crease	Amount of decrease	Per- cent of de- crease
<i>1920-21</i>						
Chemicals and allied products.....	5,483	22.3	\$10,863,462	30.1	\$146	9.9
Food and kindred products.....	2,559	7.1	5,406,153	11.3	60	4.5
Iron and steel and their products.....	122,750	41.9	311,003,309	57.1	487	26.2
Leather and leather products.....	511	2.9	1,154,459	5.8	34	3.0
Liquors and beverages.....	1,071	25.3	2,642,572	36.0	249	14.4
Lumber and its products.....	6,072	21.1	9,006,048	24.2	52	4.0
Metals and metal products other than iron and steel.....	12,010	31.4	22,309,347	41.0	200	14.1
Paper and printing.....	4,713	11.4	10,233,937	17.5	98	7.0
Rubber products.....	34,554	48.4	69,819,468	55.5	242	13.7
Stone, clay, and glass products.....	8,245	19.7	21,047,150	34.0	263	17.7
Textiles.....	7,228	16.3	7,787,920	16.3	11	1.1
Tobacco manufactures.....	2,363	14.8	5,706,032	37.3	252	26.3
Vehicles.....	40,326	52.6	78,904,499	60.8	292	17.2
Miscellaneous manufactures.....	22,425	37.2	39,323,621	45.5	188	13.1
Total.....	270,311	34.0	595,207,988	46.8	309	19.3
<i>1929-32</i>						
Chemicals and allied products.....	6,841	24.6	14,062,217	35.2	213	14.0
Food and kindred products.....	5,842	13.9	18,715,432	32.0	293	21.1
Iron and steel and their products.....	148,962	54.7	344,231,688	72.9	696	40.1
Leather and leather products.....	2,856	17.4	8,579,315	46.5	398	35.5
Liquors and beverages.....	557	24.8	1,345,914	39.3	292	19.1
Lumber and its products.....	12,607	47.4	22,658,765	64.2	424	31.9
Metals and metal products, other than iron and steel.....	13,507	31.6	32,457,865	51.5	439	29.1
Paper and printing.....	8,048	14.8	26,087,468	31.0	295	19.1
Rubber products.....	28,510	41.0	66,306,184	59.2	495	30.7
Stone, clay, and glass products.....	21,249	49.0	39,068,836	66.8	470	34.9
Textiles.....	12,391	26.7	23,925,705	48.5	316	29.8
Tobacco manufactures.....	2,644	29.1	2,770,205	44.9	151	22.3
Vehicles.....	49,921	63.6	98,395,656	77.3	614	37.9
Miscellaneous manufactures.....	31,900	41.7	63,711,467	57.8	398	27.6
Total.....	345,424	42.8	762,296,717	61.6	503	32.8

<sup>1</sup> Increase.

<sup>2</sup> Owing to a clerical error, the article on "Average wage and salary payments in Ohio, 1918 to 1932", in the Monthly Labor Review for January 1934, shows the decrease \$481, or 30 percent.

**Manufacture of Iron and Steel and Their Products**

MANUFACTURE of iron and steel and their products in Ohio recorded the highest total wage and salary payments to wage earners during the 17 years, 1916 to 1932, in 1920 and the second highest in 1929. The amount reported for 1920 was \$502,546,495 and for 1929, \$420,269,624. The lowest total was \$102,971,570 in 1932.

The greatest average number of wage earners during the 17 years was 268,187 in 1920 and the lowest average was 107,348 in 1932. The maximum number of wage earners employed was 284,009 in March 1920, and the minimum number was 94,902 in August 1932.

Average wage and salary payments to wage earners reached the highest point in 1920 and the second highest in 1929. The lowest average was shown for 1916 and the second lowest for 1932. From 1920 to 1921 average wage and salary payments to wage earners decreased from \$1,874 to \$1,327, and from 1929 to 1932 the average decreased from \$1,705 to \$959.

The industries classified by the division of labor statistics under manufacture of iron and steel and their products employ approximately one-third of the total persons employed in manufactures in Ohio. During the 17 years, 1916 to 1932, the percent varied from 38 in 1917 to 26.8 in 1932. The percent had not fallen below 32.5 prior to 1931.

The total wage and salary payments in the manufacture of iron and steel and their products shows an even higher percent of the total of such payments in manufactures. During the period from 1916 to 1932 the percent varied from 44.5 in 1918 to 26.9 in 1932. The percent stood above 40 in 7 of the 17 years and did not fall below 36.5 except in 1921, 1931, and 1932.

With the percent for total wage and salary payments higher than the percent for number of employees, it means, of course, that average wage and salary payments in the manufacture of iron and steel and their products were higher than the average for manufactures as a whole.

Table 38 shows the percent the average number employed and the total wage and salary payments reported in the manufacture of iron and steel and their products form of those in manufactures. The three general occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)—are included. The data are for both sexes combined as employers are not requested to show separately total wage and salary payments to males and females.

TABLE 38.—PERCENT EMPLOYMENT AND PAY ROLL IN THE IRON AND STEEL INDUSTRY FORM OF THOSE IN MANUFACTURES, IN OHIO, 1916 TO 1932

Year	Percent employees in iron and steel industry form of all employees in manufactures (average)	Percent pay roll in iron and steel forms of that in manufactures	Year	Percent employees in iron and steel industry form of all employees in manufactures (average)	Percent pay roll in iron and steel forms of that in manufactures
1916	36.8	42.4	1925	34.3	38.9
1917	38.0	44.2	1926	34.9	39.2
1918	37.6	44.5	1927	33.8	37.1
1919	35.3	41.4	1928	33.4	37.1
1920	36.9	42.8	1929	33.8	38.2
1921	32.5	34.5	1930	32.5	36.5
1922	34.2	40.5	1931	28.7	30.0
1923	36.0	41.3	1932	26.8	26.9
1924	35.1	39.2			

Total wage and salary payments to general occupation groups in the manufacture of iron and steel and their products are shown in table 39. Payments to superintendents and managers are also shown but data for that group are not included in any other tables or computations in this study. In supplying data, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were instructed not to include salaries of officials.

Total wage and salary payments to the three general occupation groups combined (omitting superintendents and managers) increased each year from 1916 to 1920, when the highest total of \$544,726,590 was reached, then alternately decreased and increased from 1921 to 1929, and decreased each year thereafter, reaching the lowest total of \$128,275,747 in 1932. The decrease from maximum to minimum was \$416,450,843, or 76.5 percent.

From 1920 to 1921, total wage and salary payments to wage earners declined 60.1 percent and to bookkeepers, stenographers, and office clerks 23.8 percent. Payments to salespeople (not traveling) increased. The decline for the three groups combined was 57.1 percent.

From 1929 to 1932, total wage and salary payments to wage earners declined 75.5 percent; to bookkeepers, stenographers, and office clerks, 51.2 percent; and to salespeople (not traveling), 60.0 percent. The decline for the three groups combined was 72.9 percent.

TABLE 39.—TOTAL WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Total wage and salary payments to—					Grand total
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total	Superintendents and managers	
1916	1,493	\$208,727,435	\$15,695,199	\$2,051,022	\$226,473,656	\$6,892,316	\$233,365,972
1917	1,581	282,854,136	20,743,181	782,185	304,379,502	8,825,169	313,204,661
1918	1,635	368,668,646	26,516,900	983,200	396,168,746	11,259,841	407,428,587
1919	1,687	371,891,426	32,238,757	1,362,369	405,492,552	14,253,989	419,746,541
1920	1,797	502,546,495	40,655,200	1,524,895	544,726,590	17,241,774	561,968,364
1921	1,667	200,732,645	30,988,188	2,002,448	233,723,281	14,638,263	248,361,574
1922	1,523	269,758,761	162,399,986	1,155,545	333,314,292	13,809,018	347,123,310
1923	1,647	394,175,213	38,472,874	1,645,622	434,293,709	15,632,423	449,926,132
1924	1,673	345,224,983	39,465,209	1,677,028	387,367,220	15,416,692	402,783,912
1925	1,717	379,481,681	42,173,960	2,110,855	423,766,496	17,656,783	441,423,279
1926	1,750	389,986,133	43,619,979	1,869,523	435,475,635	18,479,065	453,954,700
1927	1,700	361,055,437	44,315,282	1,514,329	406,885,048	17,533,714	424,418,762
1928	1,751	381,073,764	42,053,082	1,758,116	424,884,962	18,137,375	443,022,337
1929	1,775	430,269,624	50,131,320	2,106,491	472,507,435	19,344,111	491,851,546
1930	1,754	268,611,604	50,301,885	1,324,488	350,237,977	18,319,553	368,557,530
1931	1,697	175,577,104	30,540,053	618,657	206,735,814	13,890,090	220,625,904
1932	1,606	102,971,570	24,462,368	841,809	128,275,747	10,271,831	138,547,578

<sup>1</sup> Apparently a clerical error was made in reporting or in tabulating, but unable to make definite correction as original schedules have been destroyed.

The average number of persons reported employed in each of the three general occupation groups and in the three groups combined in the manufacture of iron and steel and their products is shown in table 40.

The general course of the average number of employees was the same as the general course of total wage and salary payments just discussed, except that in 1919 the average number of employees decreased and total wage and salary payments increased.

The highest average number of employees was 293,054 in 1920 and the lowest 123,537 in 1932, the difference being 169,517, or 57.8 percent.

From 1920 to 1921, the average number of wage earners reported employed decreased 43.6 percent and the average number of bookkeepers, stenographers, and office clerks decreased 23.6 percent.

From 1929 to 1932, the average number of wage earners reported employed decreased 56.5 percent and the average number of bookkeepers, stenographers, and office clerks decreased 37.4 percent.

The number of salespeople (not traveling) in this industry subgroup is small, but a decrease was reported in each of the two periods. The decrease in the average for the three occupation groups combined was 41.9 percent from 1920 to 1921 and 54.7 percent from 1929 to 1932.

TABLE 40.—AVERAGE NUMBER OF PERSONS EMPLOYED IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average number of persons (both sexes) employed as—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	1,490	237,345	15,804	355	253,504
1917	1,583	263,505	18,667	322	282,493
1918	1,635	267,688	20,635	414	288,737
1919	1,687	242,506	22,361	558	265,424
1920	1,797	268,187	24,355	512	293,054
1921	1,667	151,257	18,610	436	170,304
1922	1,613	188,847	19,312	440	208,599
1923	1,647	238,036	22,543	481	261,059
1924	1,673	215,136	22,976	450	238,562
1925	1,717	226,552	22,904	514	249,970
1926	1,750	237,795	23,663	571	262,028
1927	1,700	222,736	23,051	498	246,285
1928	1,751	226,022	23,603	523	250,148
1929	1,775	246,554	25,316	630	272,499
1930	1,764	193,792	24,735	442	218,968
1931	1,697	139,394	18,843	240	158,476
1932	1,606	107,348	15,854	336	123,537

The computed average wage and salary payment to wage earners in the manufacture of iron and steel and their products is shown for each year, 1916 to 1932, in table 41. The highest average is shown for 1920 and the second highest for 1929. The lowest average was in 1916 and the second lowest in 1932.

The average wage and salary payment to wage earners increased each year from 1916 to 1920, decreased and increased alternately thereafter until 1930; beginning with that year decreases have been shown.

From 1920 to 1921, the decrease in average wage and salary payments to wage earners was \$547, or 29.2 percent, and from 1929 to 1932 it was \$746 or 43.8 percent.

TABLE 41.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932

Year	Average wage and salary payment to wage earners	Year	Average wage and salary payment to wage earners	Year	Average wage and salary payment to wage earners
1916	\$879	1922	\$1,428	1928	\$1,686
1917	1,073	1923	1,656	1929	1,705
1918	1,377	1924	1,609	1930	1,541
1919	1,534	1925	1,675	1931	1,260
1920	1,874	1926	1,640	1932	959
1921	1,327	1927	1,621		

Chart 14 shows in graphic form average wage and salary payments to wage earners in manufacture of iron and steel and their products, 1916 to 1932.

Table 42 shows fluctuation in employment of wage earners in the manufacture of iron and steel and their products. The fluctuation

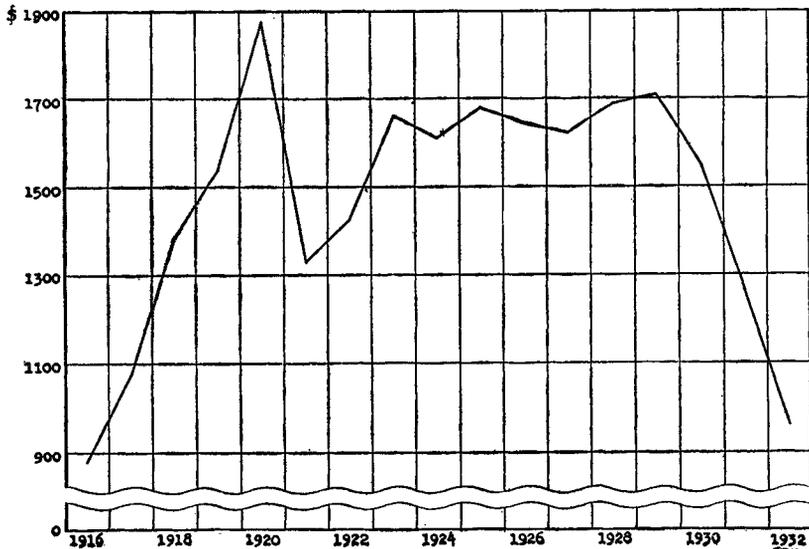


FIGURE 14.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932

from maximum within the year varied from 4.9 percent in 1918, the year of least fluctuation, to 39.1 percent in 1922, the year of greatest fluctuation. The variation exceeded 20 percent in 8 of the 17 years.

Maximum employment reported for wage earners during the 17 years was 284,009 in March 1920, and the minimum reported was 94,902 in August 1932. The variation from maximum within the period covered by this study was 189,107, or 66.6 percent.

TABLE 42.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932

Month	1916	1917	1918	1919	1920	1921	1922	1923	1924
January.....	210, 268	256, 851	260, 471	262, 719	278, 796	184, 993	140, 990	221, 850	238, 390
February.....	222, 857	257, 355	261, 511	247, 464	273, 372	172, 593	150, 299	227, 806	243, 497
March.....	230, 041	264, 432	267, 384	239, 715	284, 009	162, 411	164, 159	240, 903	244, 067
April.....	229, 770	257, 134	262, 262	232, 595	274, 824	154, 695	171, 698	239, 038	236, 303
May.....	232, 392	262, 900	268, 388	232, 842	260, 073	152, 142	182, 914	245, 405	219, 356
June.....	240, 106	263, 787	267, 329	234, 843	275, 016	145, 447	195, 278	249, 272	193, 284
July.....	235, 434	261, 709	273, 151	246, 578	277, 535	128, 310	197, 511	243, 668	192, 901
August.....	243, 849	264, 653	273, 891	253, 443	273, 682	135, 411	201, 733	246, 646	196, 660
September.....	246, 122	265, 398	267, 632	254, 069	279, 608	137, 489	201, 412	240, 146	199, 627
October.....	246, 564	270, 901	273, 485	209, 605	269, 161	142, 958	211, 385	238, 252	203, 280
November.....	253, 718	271, 583	270, 790	236, 211	250, 121	150, 845	217, 385	234, 425	200, 524
December.....	257, 017	265, 351	265, 965	259, 982	222, 049	147, 795	231, 346	220, 022	213, 744
Maximum.....	257, 017	271, 583	273, 891	262, 719	284, 009	184, 993	231, 346	249, 272	244, 067
Minimum.....	210, 268	256, 851	260, 471	209, 605	222, 049	128, 310	140, 990	221, 850	192, 901
Variation from maximum:									
Number.....	46, 749	14, 732	13, 420	53, 114	61, 960	56, 683	90, 356	27, 422	51, 166
Percent.....	18. 2	5. 4	4. 9	20. 2	21. 8	30. 6	39. 1	11. 0	21. 0
Number of establishments.....	1, 490	1, 583	1, 635	1, 687	1, 797	1, 667	1, 613	1, 647	1, 673

TABLE 42.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932—Con.

Month	1925	1926	1927	1928	1929	1930	1931	1932
January.....	224, 937	235, 263	224, 127	209, 093	241, 525	215, 180	151, 254	121, 338
February.....	224, 472	236, 823	232, 185	218, 113	246, 650	215, 272	153, 082	121, 882
March.....	225, 610	238, 957	236, 391	222, 840	252, 604	211, 169	154, 317	118, 237
April.....	223, 988	240, 450	232, 453	221, 136	255, 098	215, 536	154, 655	112, 444
May.....	224, 219	236, 638	229, 310	224, 520	259, 386	212, 315	151, 481	107, 410
June.....	221, 612	237, 375	230, 842	222, 829	256, 027	199, 629	144, 712	107, 130
July.....	223, 489	237, 816	222, 382	223, 925	256, 673	190, 147	139, 398	104, 007
August.....	221, 585	238, 378	219, 443	230, 114	255, 208	183, 361	130, 730	94, 902
September.....	227, 134	243, 331	217, 489	232, 936	249, 668	180, 837	126, 378	98, 406
October.....	232, 950	243, 903	212, 620	236, 663	247, 200	175, 667	125, 539	102, 186
November.....	232, 264	234, 659	207, 057	236, 485	223, 870	165, 209	122, 150	100, 389
December.....	236, 369	229, 942	208, 537	233, 611	214, 731	161, 181	119, 026	100, 347
Maximum.....	236, 369	243, 903	236, 391	236, 663	259, 386	215, 536	154, 655	121, 382
Minimum.....	221, 585	229, 942	207, 057	209, 093	214, 731	161, 181	119, 026	94, 902
Variation from maximum:								
Number.....	14, 784	13, 961	29, 334	27, 570	44, 655	54, 355	35, 629	26, 480
Percent.....	6.3	5.7	12.4	11.6	17.2	25.2	23.0	21.8
Number of establishments..	1, 717	1, 750	1, 700	1, 751	1, 775	1, 754	1, 697	1, 606

### Industries Manufacturing Iron and Steel and Their Products

THE Ohio Division of Labor Statistics classifies 26 industries under manufacture of iron and steel and their products. In addition a group designated as "iron and steel and their products, not otherwise classified" is carried. For the purposes of this study 8 of the smaller industries, 2 of which are represented by so few establishments that the division found it necessary in some years to tabulate them under "not otherwise classified" to avoid identification of individual establishments, and iron and steel, not otherwise classified, are combined under "iron and steel and their products, other." The industries combined under "other" are burial vaults, steel; files; nails and spikes, cut, wrought, and wire; pipe, wrought; saws; scales and balances; screws, machine and wood; sewing machines, cases, and attachments; springs, coil; springs, steel, car and carriage; and iron and steel and their products, not otherwise classified.

Table 43 shows for each of 16 industries and for the group "iron and steel and their products, other," the number of establishments reporting, average number of wage earners, and total wage and salary payments to wage earners each year, 1916 to 1932, excepting 1922, for which the division of labor statistics did not tabulate total wage and salary payments by individual industries. For two industries data were not separately tabulated by the division of labor statistics for 1916 to 1918.

The highest average number of wage earners during the 17 years was reported in 1917 for steel doors and shutters, foundry and machine-shop products, and wire work; in 1918 for bolts, nuts, washers, and rivets, and cutlery and tools; in 1919 for blast furnace products and forgings; in 1920 for safes and vaults and stoves and furnaces;

in 1923 for boilers and tanks, and pumps and windmills; in 1924 for wire; in 1926 for steel works and rolling mills; and in 1929 for calculating machines, gas engines and tractors, and tin plate and terne plate.

The lowest average number of wage earners was reported in 1916 for manufactures of calculating machines; in 1917 for pumps and windmills; in 1919 for boilers and tanks; in 1921 for gas engines and tractors, tin plate and terne plate, and wire work; in 1922 for steel doors and shutters; in 1931 for blast furnace products; and in 1932 for the 8 other industries.

The highest total wage and salary payments to wage earners (with data for 1922 not available) was reported in 1917 for manufactures of wire work; in 1918 for cutlery and tools; in 1919 for blast furnace products; in 1920 for boilers and tanks, forgings, foundry and machine-shop products, safes and vaults, steel works and rolling mills, stoves and furnaces, and wire; in 1923 for bolts, nuts, washers, and rivets, and pumps and windmills; and in 1929 for calculating machines, steel doors and shutters, gas engines and tractors, and tin plate and terne plate.

The lowest total wage and salary payments to wage earners was reported in 1916 for calculating machines and wire work; in 1917 for pumps and windmills; and in 1932 for the 13 other industries.

TABLE 43.—AVERAGE NUMBER OF WAGE EARNERS (BOTH SEXES) REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Blast furnace products			Boilers and tanks			Bolts, nuts, washers, and rivets		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916.....	32	7, 626	\$7, 814, 558	(1)	(1)	(1)	23	5, 167	\$3, 917, 427
1917.....	33	10, 661	14, 575, 881	(1)	(1)	(1)	23	5, 489	5, 014, 516
1918.....	33	<sup>2</sup> 12, 097	22, 799, 675	(1)	(1)	(1)	26	<sup>2</sup> 5, 948	5, 774, 406
1919.....	33	15, 237	30, 807, 195	23	989	\$1, 426, 120	30	5, 389	6, 615, 074
1920.....	32	8, 336	19, 704, 265	34	2, 573	4, 675, 718	30	5, 533	7, 166, 469
1921.....	34	<sup>3</sup> 3, 815	6, 300, 350	36	<sup>3</sup> 1, 149	1, 500, 298	30	<sup>3</sup> 3, 324	3, 264, 053
1922.....	31	4, 547	( <sup>4</sup> )	39	1, 570	( <sup>4</sup> )	26	4, 503	( <sup>4</sup> )
1923.....	33	12, 498	24, 399, 077	44	2, 887	4, 453, 567	27	5, 518	7, 252, 037
1924.....	27	6, 290	11, 809, 300	45	2, 345	3, 564, 495	28	4, 602	5, 999, 517
1925.....	26	5, 922	11, 259, 391	47	2, 722	4, 041, 486	29	5, 303	7, 244, 258
1926.....	23	6, 225	11, 465, 568	45	2, 467	3, 886, 261	27	5, 070	6, 829, 174
1927.....	19	8, 460	15, 679, 408	48	2, 586	4, 029, 046	24	4, 506	5, 936, 098
1928.....	21	5, 708	11, 201, 810	49	2, 466	4, 059, 976	24	4, 851	6, 755, 922
1929.....	16	5, 612	10, 125, 412	53	2, 768	4, 537, 724	21	5, 253	7, 016, 049
1930.....	13	4, 927	9, 556, 144	55	2, 518	3, 813, 862	20	3, 953	4, 585, 717
1931.....	10	2, 627	4, 821, 541	55	1, 844	2, 450, 516	19	3, 097	2, 933, 475
1932.....	11	2, 747	3, 563, 492	53	1, 333	1, 423, 249	19	2, 410	1, 683, 201

<sup>1</sup> Not shown separately by Ohio Division of Labor Statistics.

<sup>2</sup> Total reported by industries exceeds total for iron and steel by 214.

<sup>3</sup> Total reported by industries exceeds total for iron and steel by 331.

<sup>4</sup> Not tabulated by individual industries by Ohio Division of Labor Statistics.

TABLE 43.—AVERAGE NUMBER OF WAGE EARNERS (BOTH SEXES) REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY INDUSTRIES—Continued

Year	Calculating machines			Cutlery and tools			Doors and shutters, iron and steel		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916	14	5,345	\$4,450,484	50	3,991	\$4,751,891	8	397	\$441,682
1917	12	6,973	6,612,350	52	4,668	3,857,578	10	791	698,995
1918	7	<sup>2</sup> 5,503	6,025,831	124	<sup>6</sup> 11,990	<sup>7</sup> 13,442,258	8	<sup>1</sup> 587	584,828
1919	10	8,105	11,196,276	87	6,362	8,148,186	7	439	500,034
1920	13	9,418	15,704,018	86	4,997	7,483,908	7	521	778,762
1921	9	<sup>3</sup> 6,040	8,811,889	76	<sup>3</sup> 2,485	2,568,817	7	<sup>3</sup> 347	460,108
1922	18	6,943	( <sup>4</sup> )	71	3,070	( <sup>4</sup> )	6	332	( <sup>4</sup> )
1923	21	8,287	12,167,843	70	3,831	4,803,947	7	562	749,704
1924	22	7,549	12,244,700	71	3,472	4,403,943	9	621	893,749
1925	24	7,453	11,654,069	68	3,695	4,930,763	8	680	999,212
1926	27	7,945	12,351,034	69	3,893	5,139,688	8	605	902,867
1927	29	8,170	12,860,892	69	3,333	4,285,162	9	694	1,122,964
1928	27	8,877	14,145,437	66	3,280	4,628,454	10	712	1,189,370
1929	30	10,152	15,927,499	67	2,898	4,204,685	10	737	1,224,125
1930	27	7,769	11,893,722	61	2,541	3,004,812	8	690	981,223
1931	32	7,093	8,493,224	22	1,163	1,074,501	7	539	707,227
1932	28	6,383	6,150,363	16	1,035	679,295	5	492	391,310
Year	Forgings			Foundry and machine-shop products			Gas engines and tractors		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916	<sup>5</sup> 35	5,602	\$4,665,654	<sup>1</sup> 1,045	115,937	\$93,062,131	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1917	37	5,846	5,492,904	<sup>8</sup> 1,151	123,069	119,029,907	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1918	36	<sup>2</sup> 6,812	8,667,771	1,112	<sup>1</sup> 116,782	138,472,788	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1919	34	8,236	9,872,500	1,151	108,073	145,258,653	25	2,009	\$2,775,412
1920	37	7,241	11,847,593	1,222	117,264	195,910,962	31	3,203	5,496,971
1921	34	<sup>3</sup> 3,001	3,362,607	1,127	<sup>3</sup> 62,334	78,216,897	25	<sup>1</sup> 1,220	1,748,644
1922	33	3,745	( <sup>4</sup> )	1,079	69,582	( <sup>4</sup> )	25	1,677	( <sup>4</sup> )
1923	34	4,755	5,903,388	1,086	92,977	152,490,628	20	1,662	2,477,579
1924	35	4,827	6,511,908	1,104	79,167	116,139,746	21	2,365	3,668,582
1925	37	5,135	7,496,977	1,143	82,927	124,964,528	21	2,047	3,822,417
1926	39	4,570	6,641,784	1,176	90,467	138,177,292	19	2,235	3,537,720
1927	38	3,632	5,069,733	1,126	85,374	129,529,326	18	2,232	3,440,582
1928	35	4,389	7,045,301	1,181	86,386	134,805,119	18	2,581	4,274,970
1929	36	3,878	6,534,183	1,208	96,964	154,920,597	18	3,349	5,520,190
1930	34	2,543	3,561,808	1,220	76,423	106,922,227	14	2,448	3,882,349
1931	34	1,909	1,896,390	1,209	54,785	63,577,747	15	1,743	2,671,109
1932	32	1,271	1,041,566	1,144	39,305	35,212,399	17	1,336	1,394,948
Year	Pumps and windmills			Safes and vaults			Steel works and rolling mills		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916	16	1,121	\$755,199	11	1,829	\$1,344,175	51	59,315	\$61,941,809
1917	16	999	748,679	12	1,909	1,553,266	48	71,416	93,992,805
1918	23	<sup>2</sup> 2,816	3,077,040	16	<sup>2</sup> 2,096	2,160,588	54	<sup>2</sup> 74,358	127,783,724
1919	25	2,482	3,048,040	15	2,565	3,051,815	54	55,039	108,556,468
1920	30	2,218	3,218,360	17	2,963	4,349,931	63	71,701	168,237,913
1921	28	<sup>3</sup> 1,866	2,268,492	19	<sup>3</sup> 2,585	3,336,907	59	<sup>3</sup> 43,560	63,554,745
1922	28	2,080	( <sup>4</sup> )	11	2,022	( <sup>4</sup> )	59	62,356	( <sup>4</sup> )
1923	28	3,476	4,777,342	11	2,555	4,282,001	62	70,849	129,214,482
1924	29	2,312	3,762,407	11	2,406	4,032,144	64	72,145	131,203,957
1925	29	2,341	3,883,868	11	2,399	3,956,580	68	79,822	155,956,727
1926	29	2,874	4,032,422	9	2,169	3,686,352	68	84,610	154,225,748
1927	27	2,574	<sup>5</sup> 2,834,854	10	2,038	3,464,765	66	75,460	136,630,642
1928	<sup>10</sup> 27	2,277	3,568,272	9	2,033	<sup>8</sup> 1,938,458	60	77,748	149,174,386
1929	31	2,483	3,612,665	9	1,786	2,861,131	69	81,165	156,489,837
1930	32	2,425	3,431,782	9	1,550	2,081,740	60	63,615	112,105,497
1931	30	2,119	2,550,267	10	1,135	1,321,865	52	43,114	60,199,457
1932	30	1,868	1,678,601	7	532	460,893	54	34,102	34,389,558

<sup>1</sup> Not shown separately by Ohio Division of Labor Statistics.

<sup>2</sup> Total reported by industries exceeds total for iron and steel by 214.

<sup>3</sup> Total reported by industries exceeds total for iron and steel by 331.

<sup>4</sup> Not tabulated by individual industries by Ohio Division of Labor Statistics.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>6</sup> Figure seems high, but cannot be verified, as original reports have been destroyed. Total reported by industries exceeds total for iron and steel by 214.

<sup>7</sup> Figure seems high, but cannot be verified, as original reports have been destroyed.

<sup>8</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 2.

<sup>9</sup> Figure seems low, but cannot be verified, as original reports have been destroyed.

<sup>10</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

TABLE 43.—AVERAGE NUMBER OF WAGE EARNERS (BOTH SEXES) REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY INDUSTRIES—Continued

Year	Stoves and furnaces			Tin plate and terne plate			Wire		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916.....	85	9,558	\$7,451,362	6	4,290	\$4,852,966	10	6,324	\$4,296,960
1917.....	89	10,552	9,567,900	7	5,225	7,999,553	7	4,233	4,468,851
1918.....	90	<sup>2</sup> 10,440	11,605,675	8	<sup>2</sup> 4,773	9,731,067	11	<sup>2</sup> 6,411	10,190,578
1919.....	87	9,833	12,722,913	10	4,080	8,130,531	10	5,190	9,438,972
1920.....	87	11,366	17,807,153	9	5,267	11,702,227	11	6,851	14,993,918
1921.....	<sup>2</sup> 84	<sup>3</sup> 8,005	9,368,570	8	<sup>2</sup> 1,909	3,571,650	9	<sup>2</sup> 4,148	5,231,243
1922.....	87	9,649	( <sup>4</sup> )	8	4,213	( <sup>4</sup> )	9	4,265	( <sup>4</sup> )
1923.....	93	9,870	13,167,530	7	4,923	8,000,709	10	5,656	9,116,673
1924.....	87	9,497	13,753,303	9	3,882	7,868,050	11	7,078	11,648,463
1925.....	84	9,233	13,252,697	8	4,749	8,895,320	10	5,077	8,268,551
1926.....	91	8,330	11,945,310	8	4,896	9,285,034	9	3,887	6,355,536
1927.....	90	8,320	12,766,449	8	4,287	7,689,602	10	4,781	7,620,993
1928.....	95	9,773	14,513,167	4	3,770	7,079,873	9	4,507	7,486,569
1929.....	86	10,340	15,124,721	5	7,644	14,337,463	6	4,290	7,271,242
1930.....	86	8,394	10,838,531	4	3,375	6,103,507	9	5,445	8,683,697
1931.....	74	5,307	6,899,938	5	2,905	4,361,801	8	3,532	5,469,919
1932.....	71	5,261	4,612,109	5	2,674	3,271,173	8	2,810	3,209,200
	Wirework, wire rope and cable			Iron and steel and their products, other					
1916.....	36	733	\$678,206	65	10,113	\$5,302,931			
1917.....	42	<sup>7</sup> 3,038	<sup>7</sup> 3,336,471	44	8,637	5,904,480			
1918.....	38	<sup>2</sup> 696	678,442	49	<sup>2</sup> 6,593	7,673,975			
1919.....	36	622	679,835	50	7,857	9,663,402			
1920.....	37	672	875,495	51	8,064	12,593,332			
1921.....	30	<sup>2</sup> 532	744,658	52	<sup>2</sup> 5,269	6,422,537			
1922.....	24	555	( <sup>4</sup> )	59	7,730	( <sup>4</sup> )			
1923.....	29	652	876,498	65	7,079	10,342,208			
1924.....	31	648	<sup>8</sup> 889,380	69	5,431	7,831,339			
1925.....	34	676	977,109	70	5,869	8,377,723			
1926.....	33	662	1,036,881	70	6,901	10,487,462			
1927.....	34	783	1,221,207	75	5,007	6,873,714			
1928.....	32	714	1,107,557	<sup>8</sup> 84	5,950	8,099,203			
1929.....	33	710	1,153,672	77	6,526	9,408,429			
1930.....	31	605	948,703	71	4,575	6,216,283			
1931.....	32	<sup>7</sup> 1,608	<sup>7</sup> 1,874,094	83	3,873	4,274,033			
1932.....	32	882	1,181,483	74	2,908	2,628,730			

<sup>1</sup> Total reported by industries exceeds total for iron and steel by 214.

<sup>2</sup> Total reported by industries exceeds total for iron and steel by 331.

<sup>4</sup> Not tabulated by individual industries by Ohio Division of Labor Statistics.

<sup>7</sup> Figure seems high, but cannot be verified, as original reports have been destroyed.

<sup>8</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 2.

Average wage and salary payments to wage earners in each of the 16 industries and in the group "iron and steel and their products, other" are shown in table 44. As explained heretofore, average wage and salary payments were computed by dividing total wage and salary payments by the average number of employees reported. The averages should not be taken as exact measures but as approximate figures. Wage earners include skilled, semiskilled, and unskilled workers. Both sexes are included but only 3.1 percent of the wage earners in manufactures of iron and steel and their products were females in 1920 and in 1929. Data concerning total wage and salary

payments for 1922 were not tabulated by the division of labor statistics for individual industries, and information for 1916 to 1918 was not separately tabulated for boilers and tanks and gas engines and tractors.

The highest average wage and salary payment to wage earners was in 1920 for manufacture of blast furnace products, boilers and tanks, calculating machines, cutlery and tools, foundry and machine-shop products, gas engines and tractors, steel works and rolling mills, stoves and furnaces, tin plate and terne plate, and wire; in 1926 and 1927 for safes and vaults; in 1928 for bolts, nuts, washers, and rivets, steel doors and shutters, and pumps and windmills; and in 1929 for forgings and wirework.

The lowest average wage and salary payment to wage earners was in 1916 for 9 of the 16 industries, and in 1932 for 7 industries.

TABLE 44.—AVERAGE WAGE AND SALARY PAYMENT TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Blast furnace products	Boilers and tanks	Bolts, nuts, washers, and rivets	Calculating machines	Cutlery and tools	Doors and shutters, steel	Forgings	Foundry and machine-shop products	Gas engines, and tractors
1916	\$1,025	-----	\$758	\$823	\$1,191	\$1,113	\$833	\$803	-----
1917	1,367	-----	914	948	( <sup>1</sup> )	884	940	967	-----
1918	1,885	-----	971	1,095	1,121	996	1,272	1,186	-----
1919	2,022	\$1,442	1,228	1,351	1,281	1,139	1,199	1,344	\$1,381
1920	2,364	1,817	1,295	1,667	1,498	1,495	1,636	1,671	1,716
1921	1,651	1,306	982	1,459	1,034	1,326	1,120	1,255	1,433
1922	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923	1,952	1,543	1,314	1,468	1,254	1,334	1,178	1,640	1,491
1924	1,877	1,520	1,304	1,622	1,268	1,439	1,349	1,467	1,551
1925	1,901	1,485	1,366	1,564	1,334	1,469	1,460	1,507	1,623
1926	1,842	1,582	1,347	1,555	1,320	1,492	1,453	1,527	1,582
1927	1,853	1,558	1,317	1,574	1,286	1,618	1,396	1,517	1,541
1928	1,962	1,646	1,393	1,593	1,411	1,670	1,605	1,560	1,656
1929	1,804	1,639	1,336	1,569	1,451	1,661	1,685	1,598	1,648
1930	1,940	1,514	1,160	1,531	1,183	1,422	1,401	1,399	1,586
1931	1,835	1,329	947	1,197	924	1,312	993	1,160	1,532
1932	1,297	1,068	698	964	656	795	819	896	1,044

Year	Pumps and windmills	Safes and vaults	Steel works and rolling mills	Stoves and furnaces	Tin plate and terne plate	Wire	Wire work, including wire rope and cable	Iron and steel and their products, other
1916	\$674	\$735	\$1,044	\$780	\$1,131	\$679	\$925	\$821
1917	749	814	1,316	907	1,531	1,056	1,098	684
1918	1,093	1,031	1,718	1,112	2,039	1,590	975	1,164
1919	1,228	1,190	1,972	1,294	1,993	1,819	1,093	1,230
1920	1,451	1,468	2,346	1,567	2,222	2,189	1,303	1,562
1921	1,216	1,291	1,459	1,170	1,871	1,261	1,400	1,219
1922	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923	1,374	1,676	1,824	1,334	1,625	1,612	1,344	1,461
1924	1,338	1,676	1,819	1,443	2,027	1,646	1,373	1,442
1925	1,367	1,649	1,954	1,436	1,873	1,629	1,445	1,427
1926	1,403	1,700	1,823	1,434	1,896	1,635	1,566	1,520
1927	( <sup>1</sup> )	1,700	1,811	1,447	1,794	1,594	1,560	1,373
1928	1,567	( <sup>1</sup> )	1,919	1,485	1,878	1,661	1,551	1,261
1929	1,455	1,602	1,928	1,463	1,876	1,695	1,625	1,442
1930	1,415	1,343	1,762	1,291	1,808	1,595	1,568	1,359
1931	1,204	1,165	1,396	1,094	1,501	1,549	1,165	1,104
1932	899	866	1,008	877	1,223	1,142	1,340	904

<sup>1</sup> Omitted, as figure seems extremely low in comparison with other years; cannot be verified, however as original reports have been destroyed.

<sup>2</sup> Not tabulated for individual industries by Ohio Division of Labor Statistics.

Tables 45 and 46 show fluctuation in employment of wage earners in foundries and machine-shop products and in steel works and rolling mills. In the manufactures of iron and steel and their products these two industries rank first and second in number of wage earners employed. Manufactures of foundry and machine-shop products included 39.3 percent of the total in 1929 and 36.6 percent in 1932. Steel works and rolling mills included 32.9 percent of the total in 1929 and 31.8 percent in 1932.

In manufactures of foundry and machine-shop products the variation from maximum was 4 percent in 1917, which was the year of least variation, and 45.9 percent in 1922, which was the year of greatest variation. The variation from maximum exceeded 20 percent in 6 of the 17 years covered. Maximum employment during the 17-year period was 125,719 in March 1920, and minimum employment was 35,666 in August 1932. The variation from maximum for the period was 90,053, or 71.6 percent.

In steel works and rolling mills the variation from maximum in 1918, the year of least change, was 6.6 percent and in 1919, the year of greatest change, it was 58.9 percent. The variation from maximum exceeded 20 percent in 10 of the 17 years covered. Maximum employment during the 17-year period was 89,188 in October 1926, and minimum employment was 26,467 in October 1919. The variation from maximum for the period was 62,721, or 70.3 percent. The second lowest month of employment was August 1932, with 29,782 reported.

TABLE 45.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF FOUNDRY AND MACHINE-SHOP PRODUCTS, 1916 TO 1932

Month	1916	1917	1918	1919	1920	1921	1922	1923
January.....	104,978	120,247	113,495	113,666	123,645	81,764	50,929	86,232
February.....	110,364	121,270	115,842	105,889	121,891	76,383	53,085	90,167
March.....	114,598	122,282	116,074	103,930	125,719	71,511	55,686	93,710
April.....	113,483	120,863	113,346	100,971	124,351	66,350	59,073	95,812
May.....	112,490	122,588	114,180	100,077	118,649	64,523	64,701	97,927
June.....	116,806	123,816	115,683	101,306	121,126	59,881	69,484	99,779
July.....	115,565	123,304	118,655	105,340	121,721	55,298	73,176	99,011
August.....	118,716	123,332	119,644	108,239	121,361	54,058	75,911	97,701
September.....	118,658	123,582	116,873	108,096	119,653	52,974	76,494	93,527
October.....	119,187	125,135	120,370	113,559	111,155	53,177	81,330	89,244
November.....	121,914	125,266	120,351	116,367	103,954	55,830	80,902	86,893
December.....	124,489	125,140	116,876	119,430	93,942	56,253	94,213	85,726
Maximum.....	124,489	125,266	120,370	119,430	125,719	81,764	94,213	99,779
Minimum.....	104,978	120,247	113,346	100,077	93,942	52,974	50,929	85,726
Variation from maximum:								
Number.....	19,511	5,019	7,024	19,353	31,777	28,790	43,284	14,053
Percent.....	15.7	4.0	5.8	16.2	25.3	35.2	45.9	14.1
Number of establishments...	1,048	1,151	1,112	1,151	1,222	1,127	1,079	1,086

TABLE 45.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF FOUNDRY AND MACHINE-SHOP PRODUCTS, 1916 TO 1932—Con.

Month	1924	1925	1926	1927	1928	1929	1930	1931	1932
January	84,009	79,267	88,535	86,408	77,832	91,926	84,763	60,301	45,343
February	87,216	80,794	90,404	88,832	81,107	96,041	84,627	60,711	45,298
March	89,068	81,569	91,917	90,392	82,397	98,559	84,011	60,123	44,166
April	85,941	82,034	92,288	89,758	83,277	98,969	84,145	59,975	41,043
May	83,029	82,204	91,077	88,226	85,700	100,502	82,688	59,372	40,124
June	78,776	81,866	91,225	88,115	86,445	100,254	80,595	57,108	39,013
July	75,202	82,594	91,478	86,086	86,408	100,370	75,415	54,336	36,721
August	73,101	82,092	90,763	84,099	88,695	99,383	72,554	51,397	35,666
September	73,140	83,425	91,267	82,722	89,931	98,140	70,892	50,678	35,733
October	72,595	85,553	90,557	81,092	91,178	98,299	67,644	49,201	36,052
November	72,669	85,776	88,078	79,275	91,401	92,758	65,393	47,422	36,522
December	75,257	87,945	88,020	79,377	92,266	88,372	64,350	46,791	35,975
Maximum	89,068	87,945	92,288	90,392	92,266	100,502	84,763	60,711	45,343
Minimum	72,595	79,267	88,020	79,275	77,832	88,372	64,350	46,791	35,666
Variation from maximum:									
Number	16,473	8,678	4,268	11,117	14,424	12,130	20,413	13,920	9,677
Percent	18.5	9.9	4.6	12.3	15.6	12.1	24.1	22.9	21.4
Number of establishments	1,104	1,143	1,176	1,126	1,181	1,208	1,220	1,209	1,144

TABLE 46.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN STEEL WORKS AND ROLLING MILLS, 1916 TO 1932

Month	1916	1917	1918	1919	1920	1921	1922	1923
January	50,213	64,811	72,428	64,361	74,282	51,264	46,305	64,071
February	54,542	66,175	73,853	61,392	70,734	47,034	49,195	64,185
March	55,947	70,161	75,130	56,078	75,593	41,219	58,455	71,839
April	56,590	66,639	73,904	53,546	69,971	42,087	61,045	69,362
May	58,615	73,135	77,574	54,822	63,117	43,086	62,559	71,451
June	60,869	72,964	74,248	56,373	73,663	41,111	66,020	73,610
July	58,130	72,526	75,877	60,211	74,716	34,677	65,369	70,921
August	62,007	74,189	74,933	62,880	70,373	40,498	65,911	73,270
September	62,980	73,508	72,761	63,134	77,546	42,050	64,710	72,707
October	61,681	74,645	74,520	66,467	76,972	45,444	67,872	74,251
November	64,768	75,290	73,462	43,595	71,962	48,641	70,521	73,705
December	65,432	72,947	73,906	57,712	61,483	45,604	70,629	71,811
Maximum	65,432	75,290	77,574	64,361	77,546	51,264	70,629	74,251
Minimum	50,213	64,811	72,428	26,467	61,483	34,677	46,305	64,071
Variation from maximum:								
Number	15,219	10,479	5,146	37,894	16,063	16,587	24,324	10,180
Percent	23.3	13.9	6.6	58.9	20.7	32.4	34.4	13.7
Number of establishments	51	48	54	54	63	59	59	62

Month	1924	1925	1926	1927	1928	1928	1930	1931	1932
January	84,801	82,809	84,296	75,354	73,337	83,520	71,623	46,737	38,776
February	84,114	79,999	83,429	80,220	77,258	83,099	70,965	47,959	38,258
March	84,151	80,118	83,453	82,425	79,779	84,591	68,857	49,748	37,281
April	80,949	78,725	85,349	79,248	77,089	85,075	73,161	49,586	35,922
May	71,136	79,119	83,714	78,568	77,449	87,603	72,976	48,422	33,045
June	65,597	76,672	83,771	80,180	74,333	86,352	64,608	45,548	33,432
July	60,089	73,590	84,275	75,040	76,895	86,897	63,437	44,084	34,065
August	65,716	76,677	84,859	73,423	78,634	86,627	60,454	39,816	29,782
September	67,440	80,136	88,176	72,731	79,838	82,590	58,934	37,149	32,214
October	69,041	81,750	89,188	70,509	80,554	78,879	57,464	36,950	33,024
November	67,142	80,464	83,700	67,735	80,391	65,289	51,322	36,526	31,227
December	75,566	82,803	81,107	70,087	77,423	63,456	49,579	34,847	32,197
Maximum	84,801	82,809	89,188	82,425	80,554	87,603	73,161	49,748	38,776
Minimum	55,597	76,672	81,107	67,735	73,337	63,456	49,579	34,847	29,782
Variation from maximum:									
Number	29,204	6,137	8,081	14,690	7,217	24,147	23,582	14,901	8,994
Percent	34.4	7.4	9.1	17.8	9.0	27.6	32.2	30.0	23.2
Number of establishments	64	68	68	66	60	69	60	52	54

## Indexes for Employment and Wage and Salary Payments

GENERAL indexes for average number of wage earners employed and total and average wage and salary payments to wage earners in the manufacture of iron and steel and their products are shown in table 47. The base for these indexes is 1926. The years covered are 1924 to 1932, during which period reports were requested by the Ohio Division of Labor Statistics from all establishments employing three or more persons.

TABLE 47.—GENERAL INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1924 TO 1932

Year	Index numbers (1926=100.0) of—			Year	Index numbers (1926=100.0) of—		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payments		Wage earners (average)	Total wage and salary payments	Average wage and salary payments
1924.....	90.5	88.8	98.1	1929.....	103.7	107.8	104.0
1925.....	95.2	97.3	102.1	1930.....	81.5	76.6	94.0
1926.....	100.0	100.0	100.0	1931.....	58.6	45.0	76.8
1927.....	93.7	92.6	98.8	1932.....	45.1	26.4	58.5
1928.....	95.0	97.7	102.8				

The general index for average number of wage earners employed exceeded the base year, 1926, in 1929 only, and fell to 45.1 in 1932. The general index for total wage and salary payments also exceeded the base year only in 1929 and fell to 26.4 in 1932. The general index for average wage and salary payments exceeded the base year as 100.0, in 1925, 1928, and 1929, and fell to 58.5 in 1932. In each of the 3 years (1930 to 1932) of declining employment and total wage and salary payments, the general index for average wage and salary payments has stood considerably above the indexes for the other two items.

Chart 15 shows in graphic form general indexes for average number of wage earners employed and total and average wages and salary payments to wage earners, in manufacture of iron and steel and their products, 1924 to 1932.

Table 48 shows for each of 14 industries classified under manufacture of iron and steel and their products, indexes for average number of wage earners employed and total and average wage and salary payments to wage earners. Indexes were not computed for two industries, included in tables 43 and 44, which reported an average of less than 1,000 wage earners, nor for the group "iron and steel and their products, other."

The index for average number of wage earners employed reached the highest point during the 9 years in 1924 for 2 industries, in 1925 for 2 industries, in 1926 for 3 industries, in 1927 for 1 industry, and in 1929 for 6 industries. The lowest point was reached in 1932 by each of the 14 industries included.

The index for total wage and salary payments to wage earners reached the highest point during the 9 years in 1924 for 2 industries,

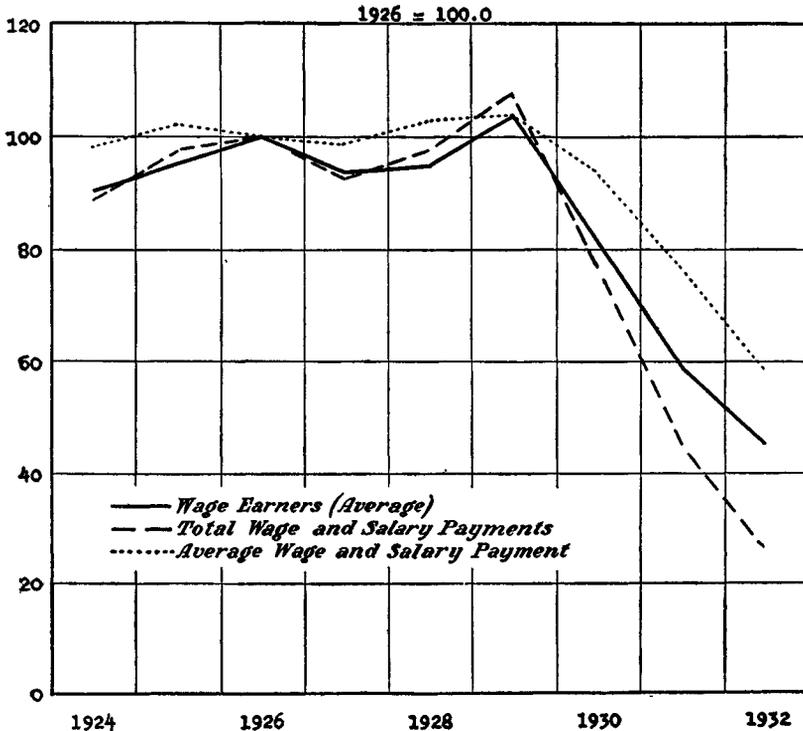


FIGURE 15.—GENERAL INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1924 TO 1932

in 1925 for 2 industries, in 1926 for 2 industries, in 1927 for 1 industry, and in 1929 for 7 industries. The lowest point was reached in 1932.

The index for average wage and salary payments reached the highest point during the 9 years in 1924 for 2 industries, in 1925 for 1 industry, in 1926 and 1927 for 1 industry, in 1928 for 6 industries, and in 1929 for 4 industries. The lowest point was reached in 1932.

In 1932 the index for average number of wage earners employed fell below 50 for 7 of the 14 industries; the index for total wage and salary payments to wage earners fell below 30 for 6 industries; and the index for average wage and salary payments to wage earners fell below 50 for only 1 of the 14 industries.

Charts 16 and 17 show in graphic form indexes for average number of wage earners employed and total and average wage and salary

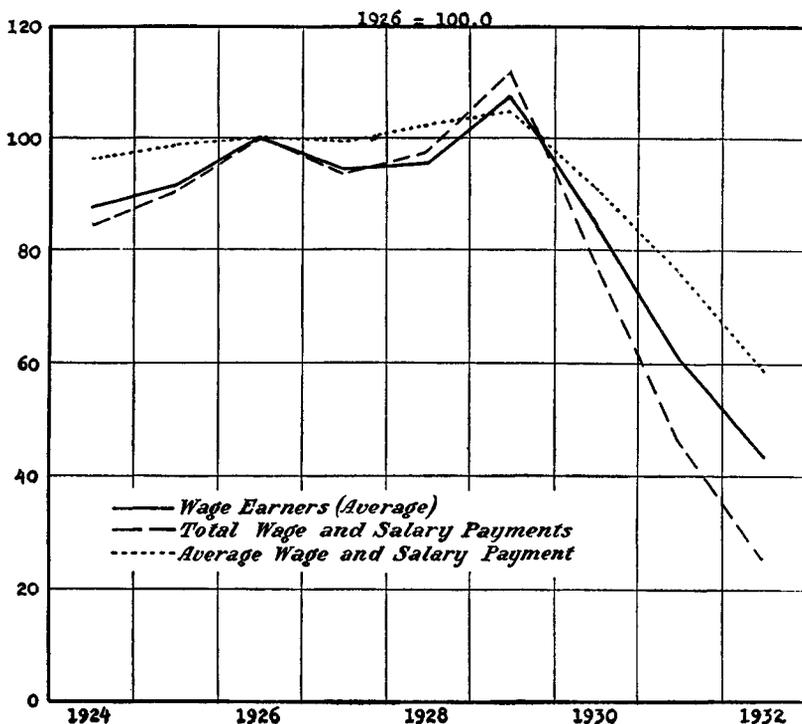


FIGURE 16.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF FOUNDRY AND MACHINE-SHOP PRODUCTS, 1924 TO 1932

payments to wage earners, in manufactures of foundry and machine-shop products and in steel works and rolling mills, 1924 to 1932.

TABLE 48.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1924 TO 1932, BY INDUSTRIES

Year	Index numbers (1926=100.0) in specified industries								
	Blast furnace products			Boilers and tanks			Bolts, nuts, washers, and rivets		
	Wage earners (average)	Wage and salary payments		Wage earners (average)	Wage and salary payments		Wage earners (average)	Wage and salary payments	
		Total	Average		Total	Average		Total	Average
1924	101.0	103.0	101.9	95.4	91.7	96.1	90.8	87.9	96.8
1925	95.1	98.2	103.2	110.8	104.0	93.9	104.6	106.1	101.4
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	135.9	136.8	100.5	105.3	103.7	98.5	88.9	86.9	97.3
1928	91.7	97.7	106.5	100.4	104.5	104.0	95.7	98.9	103.4
1929	90.2	83.3	97.9	112.7	116.8	103.6	103.6	102.7	99.2
1930	79.1	83.3	105.3	102.5	98.1	95.7	73.0	67.1	86.1
1931	42.2	42.1	99.6	75.1	63.1	84.0	61.1	43.0	70.3
1932	44.1	31.1	70.4	54.3	36.6	67.5	47.5	24.6	51.8

TABLE 48.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS, 1924 TO 1932, BY INDUSTRIES—Continued

Year	Index numbers (1926=100.0) in specified industries								
	Calculating machines			Cutlery and tools			Forgings		
	Wage earners (average)	Wage and salary payments		Wage earners (average)	Wage and salary payments		Wage earners (average)	Wage and salary payments	
		Total	Average		Total	Average		Total	Average
1924	95.0	99.1	104.3	89.2	85.7	96.1	105.6	98.0	92.8
1925	93.8	94.4	100.6	94.9	95.9	101.1	112.4	112.9	100.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	102.8	104.1	101.2	85.6	83.4	97.4	79.5	76.3	96.1
1928	111.7	114.5	102.4	84.3	90.1	106.9	96.0	106.1	110.5
1929	127.8	129.0	100.9	74.4	81.8	109.9	84.9	98.4	116.0
1930	97.8	96.3	98.5	65.3	58.5	89.6	55.6	53.6	96.4
1931	89.3	68.8	77.0	29.9	20.9	70.0	41.8	28.6	68.3
1932	80.3	49.9	62.0	26.6	13.2	49.7	27.8	15.7	59.4
	Foundry and machine-shop products			Gas engines and tractors			Pumps and windmills		
1924	87.5	84.1	96.1	105.8	103.7	97.5	97.8	93.1	95.4
1925	91.7	90.4	98.7	91.6	93.9	102.6	98.9	96.1	97.4
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	94.4	93.7	99.3	99.9	97.3	96.8	89.6	(1)	(1)
1928	95.5	97.6	102.2	115.5	120.8	104.7	79.2	88.5	111.7
1929	107.2	112.1	104.6	149.8	156.0	104.2	86.4	89.6	103.7
1930	84.5	77.4	91.6	109.5	109.7	100.3	84.4	85.1	100.9
1931	60.6	46.0	76.0	78.0	75.5	96.3	73.7	63.2	85.8
1932	43.4	25.5	58.7	59.8	39.4	66.0	65.0	41.6	64.1
	Safes and vaults			Steel works and rolling mills			Stoves and furnaces		
1924	110.9	109.4	98.6	85.3	85.1	99.8	114.0	115.1	101.0
1925	110.6	107.3	97.0	94.3	101.1	107.2	110.8	110.9	100.1
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	94.0	94.0	100.0	89.2	88.6	99.3	105.9	106.9	100.9
1928	93.7	(1)	(1)	91.9	96.7	105.3	117.3	121.5	103.6
1929	82.3	77.6	94.2	95.9	101.5	105.8	124.1	126.6	102.0
1930	71.5	56.5	79.0	75.2	72.7	96.7	100.8	90.7	90.0
1931	52.3	35.9	68.5	51.0	39.0	76.6	75.7	57.8	76.3
1932	24.5	12.5	50.9	40.3	22.3	55.3	63.2	38.6	61.2
	Tin plate and terne plate			Wire					
1924	79.3	84.7	106.9	182.1	183.3	100.7			
1925	87.0	95.8	98.8	130.6	130.1	99.6			
1926	100.0	100.0	100.0	100.0	100.0	100.0			
1927	87.9	82.8	94.6	123.0	119.9	97.5			
1928	77.0	76.3	99.1	116.0	117.8	101.6			
1929	156.1	154.4	98.0	110.4	114.4	103.7			
1930	69.0	65.7	95.4	140.1	136.6	97.6			
1931	59.3	47.0	79.2	90.9	86.1	94.7			
1932	54.6	35.2	64.5	72.3	50.5	69.8			

<sup>1</sup> Omitted as total wage and salary payments were extremely low as compared to previous and succeeding years but unable to make further verification as original schedules have been destroyed.

### Conclusion

IN THE manufacture of iron and steel and their products during the 17 years, 1916-32, employment for wage earners reached the peak in 1920. Employment was only slightly less in 1918 and 1917, which came second and third in order. The year 1929 was fourth in average number employed. Two major reductions in average number employed occurred, the first following 1920 and the second following 1929. Lesser reductions in employment occurred in 1919-1924, and 1927.

Total wage and salary payments to wage earners reached the highest amount during the 17 years in 1920. The year 1929 showed

the second highest amount, 1923 stood third, and 1926 fourth in order. The total for 1929 was \$82,276,871 below the total for 1920 and \$26,094,411 above the total for 1923. Major reductions in total wage and salary payments occurred following the 2 peak years. Lesser reductions occurred in 1924 and 1927.

Average wage and salary payments to wage earners during the 17 years were highest in 1920 and second highest in 1929, with 1928 and 1925 third and fourth in order. Major decreases in average wage and

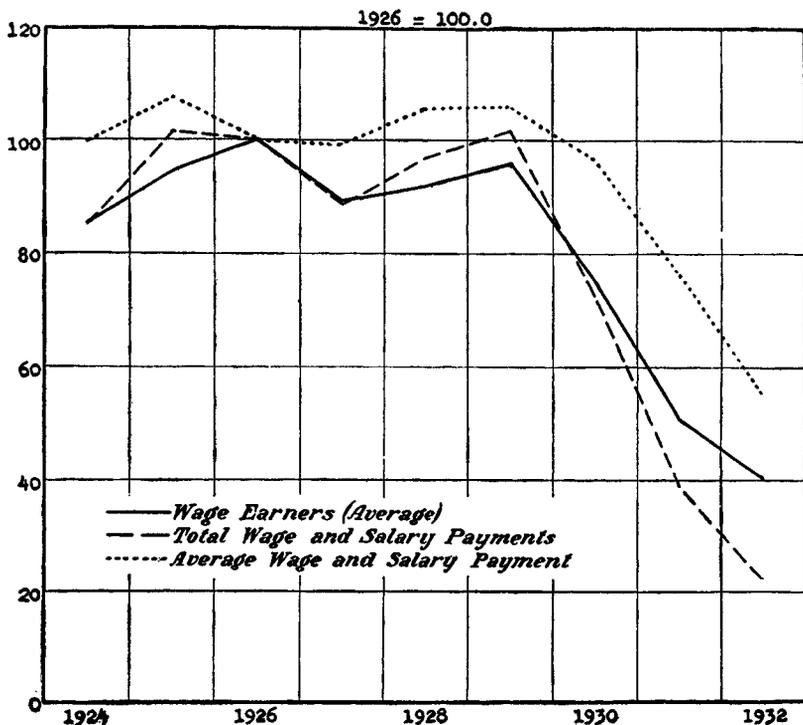


FIGURE 17.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN STEEL WORKS AND ROLLING MILLS, 1924 TO 1932

salary payments to wage earners followed the two peak years with lesser reductions in 1924, 1926, and 1927.

Table 49 shows for the manufacture of iron and steel and their products and for each of the several industries classified under that heading, the change in employment of wage earners and in total and average wage and salary payments to wage earners, from 1920 to 1921 and from 1929 to 1932.

Manufacture of iron and steel and their products shows a decrease in average number of wage earners employed of 116,930, or 43.6 percent, from 1920 to 1921, and a decrease of 139,206, or 56.5 percent, from 1929 to 1932. The decrease in total wage and salary payments

to wage earners was \$301,813,850 or 60.1 percent, from 1920 to 1921, and \$317,298,054, or 75.5 percent, from 1929 to 1932. The decrease in average wage and salary payments to wage earners was \$547, or 29.2 percent, from 1920 to 1921, and \$746, or 43.8 percent, from 1929 to 1932.

Of the 16 industries included and the group "iron and steel and their products, other", the decrease in average number of wage earners employed exceeded 50 percent for 6 industries from 1920 to 1921, and for 10 industries and the group "other" from 1929 to 1932. The decrease was less than 25 percent for three industries from 1920 to 1921 and for one from 1929 to 1932. One industry shows an increase from 1929 to 1932 in average number employed. Manufacture of tin plate and terne plate shows the highest percent of change during the first period, and safes and vaults during the second period.

Total wage and salary payments to wage earners declined more than 60 percent for 9 industries from 1920 to 1921, and for 13 industries and the group "other" from 1929 to 1932. The decline was less than 25 percent for two industries from 1920 to 1921. From 1929 to 1932, one industry shows a slight increase but no other industry shows a decline of less than 50 percent.

Average wage and salary payments to wage earners declined more than 25 percent for seven industries from 1920 to 1921 and for all industries except one from 1929 to 1932. During the earlier period the average increased for one industry.

TABLE 49.—AMOUNT AND PERCENT OF DECREASE IN AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS FROM 1920 TO 1921 AND FROM 1929 TO 1932, BY INDUSTRIES

Period and industry	Wage earners (average number)		Total wage and salary payments		Average wage and salary payments	
	Number (de- crease)	Percent of de- crease	Amount of decrease	Percent of de- crease	Amount of decrease	Percent of de- crease
<i>1920 to 1921</i>						
Blast-furnace products.....	4,521	54.2	\$13,403,915	68.0	\$713	30.2
Boilers and tanks.....	1,424	55.3	3,175,420	67.9	511	28.1
Bolts, nuts, washers, and rivets.....	2,209	39.9	3,902,416	54.5	313	24.2
Calculating machines.....	3,378	35.9	6,892,129	43.9	208	12.5
Cutlery and tools.....	2,512	50.3	4,915,091	65.7	464	31.0
Doots and shutters, steel.....	174	33.4	318,654	40.9	169	11.3
Forgings.....	4,240	58.6	8,484,966	71.6	516	31.5
Foundry and machine-shop products.....	54,930	46.8	117,694,065	60.1	416	24.9
Gas engines and tractors.....	1,983	61.9	3,747,327	68.2	283	16.5
Pumps and windmills.....	352	15.9	950,368	29.5	235	16.2
Safes and vaults.....	378	12.8	1,013,024	23.3	177	12.1
Steel works and rolling mills.....	28,141	39.2	104,683,168	62.2	887	37.8
Stoves and furnaces.....	3,361	29.6	8,438,583	47.4	397	25.3
Tin plate and terne plate.....	3,358	63.8	8,130,577	69.5	351	15.8
Wire.....	2,703	39.5	9,762,495	65.1	928	42.4
Wirework, including wire rope and cable.....	140	20.8	130,837	14.9	<sup>1</sup> 97	<sup>1</sup> 7.4
Iron and steel and their products, other.....	2,795	34.7	6,170,795	49.0	343	22.0
Total.....	116,930	43.6	301,813,850	60.1	547	29.2

<sup>1</sup> The total reported by industries exceeds the total for iron and steel and their products by 331 in 1921.

<sup>2</sup> Increase.

TABLE 49.—AMOUNT AND PERCENT OF DECREASE IN AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS FROM 1920 TO 1921 AND FROM 1920 TO 1932, BY INDUSTRIES—Continued

Period and industry	Wage earners (average number)		Total wage and salary payments		Average wage and salary payments	
	Number (decrease)	Percent of decrease	Amount of decrease	Percent of decrease	Amount of decrease	Percent of decrease
<i>1920 to 1932</i>						
Blast-furnace products.....	2,865	51.1	\$6,561,920	64.8	\$507	28.1
Boilers and tanks.....	1,435	51.8	3,114,475	68.6	571	34.8
Bolts, nuts, washers, and rivets.....	2,843	54.1	5,332,848	76.0	638	47.8
Calculating machines.....	3,769	37.1	9,777,136	61.4	605	38.6
Cutlery and tools.....	1,863	64.3	3,525,390	83.8	795	54.8
Doors and shutters, steel.....	245	33.2	832,815	68.0	866	52.1
Forgings.....	2,607	67.2	5,492,617	84.1	866	51.4
Foundry and machine-shop products.....	57,659	59.5	119,708,198	77.3	702	43.9
Gas engines and tractors.....	2,013	60.1	4,125,242	74.7	604	36.7
Pumps and windmills.....	615	24.8	1,934,064	53.5	556	38.2
Safes and vaults.....	1,254	70.2	2,400,238	83.9	736	45.9
Steel works and rolling mills.....	47,063	58.0	122,100,279	78.0	920	47.7
Stoves and furnaces.....	5,079	49.1	10,512,612	69.5	536	40.1
Tin plate and terne plate.....	4,970	65.0	11,066,290	77.2	653	34.8
Wire.....	1,480	34.5	4,062,042	55.9	553	32.6
Wirework, including wire rope and cable.....	<sup>1</sup> 172	<sup>1</sup> 24.2	<sup>1</sup> 27,811	<sup>2</sup> 2.4	285	17.5
Iron and steel and their products, other.....	3,618	55.4	6,779,699	72.1	538	37.3
Total.....	139,206	56.5	317,298,054	75.5	746	43.8

<sup>1</sup> Increase.

#### Manufacture of Food and Kindred Products

REPORTS compiled from practically all establishments in Ohio employing three or more persons in the manufacture of food and kindred products show a reduction from 1929 to 1932 of 13.9 percent in average number of persons employed, a reduction of 32 percent in total wage and salary payments, and a reduction of 21.1 percent in the average wage and salary payments.

During the 17 years covered by this study the average number of employees (wage earners; bookkeepers, stenographers, and office clerks; and salespeople—not traveling) reached the highest point in 1930 and total wage and salary payments reached the highest amount in 1929. The average wage and salary payment to the three general occupation groups combined reached the highest amount in 1928, when it was \$1,395 or \$9 above 1929. The average in 1932 was \$1,093, which was lower than in any year since 1919.

Total wage and salary payments to each general occupation group in the manufacture of food and kindred products are shown in table 50 for the 17 years, 1916 to 1932. Payments to superintendents and managers are shown in this table, but data for that group are not included in any other tables or computations in this study. In their annual returns to the Ohio Division of Labor Statistics, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and

lodging furnished. Employers were instructed not to include salaries of officials.

Total wage and salary payments to the three general occupation groups combined (omitting superintendents and managers) increased each year from 1917 to 1920, decreased in 1921 and 1922, increased each year from 1923 to 1929, and decreased in 1930, 1931, and 1932. The great increase in total wage and salary payments to wage earners from 1929 to 1930 and the corresponding decrease to salespeople were occasioned by the change of classification by the Ohio Division of Labor Statistics of bakery-wagon drivers from "salespeople" to "wage earners", beginning in 1930.

TABLE 50.—TOTAL WAGE AND SALARY PAYMENTS IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Total wage and salary payments to—					
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total	Superintendents and managers	Grand total
1916	1,291	\$16,235,629	\$1,875,961	\$1,820,146	\$19,931,736	\$1,423,307	\$21,355,043
1917	1,374	19,074,215	2,278,716	2,083,681	23,436,612	1,830,166	25,266,778
1918	1,439	25,327,701	2,698,833	2,623,167	30,649,701	2,407,717	33,057,418
1919	1,475	31,914,316	3,755,945	3,117,622	38,787,883	3,024,171	41,812,054
1920	1,601	39,042,634	4,464,524	4,363,517	47,870,675	3,419,168	51,289,843
1921	1,426	35,856,893	4,688,149	3,919,480	42,464,522	3,355,903	45,820,425
1922	1,255	31,573,015	4,467,679	4,182,688	40,223,382	3,291,830	43,515,212
1923	1,278	36,296,747	4,742,100	4,437,112	45,465,959	3,535,578	49,001,537
1924	1,306	36,792,791	5,058,752	5,459,096	47,310,639	3,716,263	51,026,902
1925	1,433	37,556,715	4,959,436	6,439,547	49,015,698	3,879,539	52,895,237
1926	1,438	39,308,242	5,157,532	6,904,109	51,369,833	4,218,742	55,588,675
1927	1,601	40,154,737	5,273,928	7,168,164	52,596,849	4,224,092	56,820,941
1928	1,617	42,167,215	5,440,098	7,389,529	54,996,842	3,993,353	58,990,195
1929	1,636	44,476,748	5,833,977	8,086,751	58,397,476	4,578,972	62,976,448
1930	1,715	149,382,918	6,043,039	12,546,940	57,972,897	4,561,737	62,534,634
1931	1,685	41,570,846	5,424,379	2,536,266	49,531,491	3,954,936	53,486,427
1932	1,600	33,540,768	4,375,497	1,765,779	39,682,044	3,247,201	42,929,245

<sup>1</sup> Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

Table 51 shows the average number of persons reported employed in each of the three general occupation groups and in the three combined, in the manufacture of food and kindred products. The general course of the average number employed was the same as the general course of total wage and salary payments (table 50) except that the average number of employees increased in 1922, decreased in 1927, and reached the highest point in 1930. The average in 1929 was second highest and in 1931 third highest for the 17-year period. The average in 1932 was the lowest since 1924. The large increase from 1929 to 1930 in wage earners and the corresponding decrease in salespeople were occasioned, as already noted, by a change of classification of bakery-wagon drivers.

TABLE 51.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN THE MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	1,289	24,074	2,306	1,996	28,376
1917.....	1,364	26,374	2,738	2,097	31,209
1918.....	1,439	27,933	2,564	2,072	32,569
1919.....	1,475	30,067	3,182	2,313	35,561
1920.....	1,601	30,335	3,306	2,572	36,213
1921.....	1,426	27,706	3,390	2,558	33,654
1922.....	1,243	28,058	3,138	2,885	34,082
1923.....	1,278	29,336	3,350	2,992	35,677
1924.....	1,366	29,323	3,291	3,364	35,978
1925.....	1,433	30,007	3,459	3,809	37,275
1926.....	1,498	32,241	3,555	4,216	40,011
1927.....	1,601	30,485	3,606	4,406	38,496
1928.....	1,617	31,409	3,617	4,392	39,418
1929.....	1,636	33,422	3,893	4,821	42,137
1930.....	1,715	36,237	4,098	1,949	42,284
1931.....	1,685	34,302	3,851	2,051	40,204
1932.....	1,600	31,442	3,372	1,481	36,295

<sup>1</sup> Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

Table 52 shows the computed average wage and salary payments to each of the three general occupation groups and to the three combined, in the manufacture of food and kindred products, for each year from 1916 to 1932.

The average wage and salary payment to wage earners increased each year from 1917 to 1920, then alternately decreased and increased until 1931 and 1932, which both showed decreases. The 1930 increase in average to wage earners and decrease to salespeople were due, doubtless, to the change of classification of bakery-wagon drivers.

The average wage and salary payment to bookkeepers, stenographers, and office clerks increased each year from 1917 to 1922, decreased in 1923, increased in 1924, decreased in 1925, increased in 1926, 1927, and 1928, and decreased each year from 1929 to 1932.

Considering the three general occupation groups combined, the highest average wage and salary payment was reported in 1928, with 1929 and 1930 second and third in order. The average in 1932 was lower than in any year except the first four (1916 to 1919) of the period covered.

TABLE 52.—AVERAGE WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	<sup>1</sup> 1,289	\$674	\$814	\$912	\$702
1917	<sup>2</sup> 1,364	723	832	994	751
1918	1,439	907	1,053	1,266	941
1919	1,475	1,061	1,180	1,348	1,091
1920	1,601	1,287	1,350	1,696	1,322
1921	1,426	1,222	1,383	1,532	1,262
1922	<sup>3</sup> 1,243	1,125	1,424	1,450	1,180
1923	1,278	1,235	1,416	1,500	1,274
1924	1,366	1,255	1,537	1,623	1,315
1925	1,433	1,252	1,434	1,704	1,315
1926	1,498	1,219	1,451	1,628	1,284
1927	1,601	1,317	1,463	1,627	1,366
1928	1,617	1,343	1,504	1,682	1,395
1929	1,636	1,331	1,499	1,677	1,386
1930	1,715	<sup>4</sup> 1,363	1,475	<sup>4</sup> 1,307	1,371
1931	1,685	1,212	1,409	1,237	1,232
1932	1,600	1,067	1,298	1,192	1,093

<sup>1</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 10.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 12.

<sup>4</sup> Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

Chart 18 shows graphically average wage and salary payments to the three general occupation groups combined.

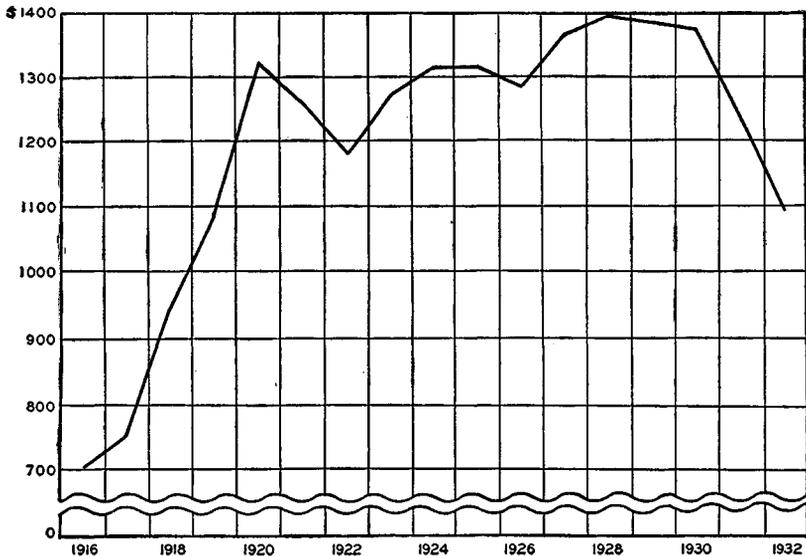


FIGURE 18.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932, ALL EMPLOYEES

Fluctuation in employment of wage earners in the manufacture of food and kindred products is shown in table 53. Fluctuation from

the maximum within a year varied from 14.8 percent in 1932 to 27.4 percent in 1925. The fluctuation falls between 20 and 25 percent in 11 of the 17 years. Extreme seasonal fluctuations occur in two industries—canning and preserving and in manufacture of sugar. In bakeries and in flour and grist mills there is comparatively slight seasonal fluctuation.

For the industry group, maximum employment for wage earners occurred in September in every year except 1922. Minimum employment fell in 1 of the first 4 months of the year, most frequently in April.

TABLE 53.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932

Month	1916	1917	1918	1919	1920	1921	1922	1923	1924
January	21,769	24,124	25,030	28,136	29,582	26,648	25,003	26,236	27,933
February	21,786	24,010	25,343	26,843	27,947	25,699	25,577	26,462	28,081
March	21,890	24,233	25,804	26,396	27,581	25,674	25,425	26,452	28,004
April	22,021	23,964	25,865	26,459	27,423	25,375	25,304	26,083	27,597
May	22,174	24,250	26,111	27,036	27,973	25,689	25,295	26,754	27,627
June	23,005	25,652	28,329	30,183	30,529	27,675	27,665	29,459	28,777
July	23,199	25,760	27,352	29,947	31,125	26,350	26,768	28,782	29,534
August	25,068	26,393	30,565	32,348	32,123	29,005	29,004	31,126	29,133
September	28,184	30,755	31,503	35,224	36,378	31,725	31,638	35,283	33,668
October	27,418	29,921	29,811	33,133	33,600	30,510	32,752	33,205	32,236
November	27,155	29,234	29,582	33,256	31,321	29,833	31,686	31,927	30,250
December	25,220	28,193	29,904	31,843	28,438	28,289	30,581	30,302	29,036
Maximum	28,184	30,755	31,503	35,224	36,378	31,725	32,752	35,283	33,668
Minimum	21,769	23,964	25,030	26,396	27,423	25,375	25,003	26,083	27,597
Variation from maximum:									
Number	6,415	6,791	6,473	8,828	8,955	6,350	7,749	9,245	6,071
Percent	22.8	22.1	20.5	25.1	24.6	20.0	23.7	26.2	18.0
Establishments reporting	1,289	1,364	1,439	1,475	1,601	1,426	1,243	1,278	1,366

Month	1925	1926	1927	1928	1929	1930	1931	1932
January	27,705	29,900	28,061	28,373	30,582	34,514	32,468	30,367
February	27,530	30,018	28,342	28,888	30,771	34,666	32,482	30,227
March	27,264	30,236	28,288	29,171	30,921	34,459	32,305	30,228
April	26,982	29,540	28,265	29,252	30,990	34,710	32,453	30,214
May	27,913	30,956	28,809	29,752	31,755	35,372	33,284	30,601
June	30,593	32,269	30,575	31,629	34,094	36,289	34,754	31,140
July	29,324	31,901	30,231	31,803	33,872	35,605	33,929	30,659
August	31,865	33,403	30,547	32,116	34,555	35,877	35,512	31,440
September	37,157	37,934	35,576	37,052	39,538	42,259	41,358	35,462
October	32,155	35,107	34,462	34,462	36,631	39,687	36,054	33,854
November	31,219	33,678	32,199	33,028	34,721	36,425	33,865	31,945
December	30,376	31,945	30,460	31,377	32,335	34,978	33,159	31,166
Maximum	37,157	37,934	35,576	37,052	39,538	42,259	41,358	35,462
Minimum	26,982	29,540	28,061	28,373	30,582	34,459	32,305	30,214
Variation from maximum:								
Number	10,175	8,394	7,515	8,679	8,956	7,800	9,053	5,248
Percent	27.4	22.1	21.1	23.4	22.7	18.5	21.9	14.8
Establishments reporting	1,433	1,498	1,601	1,617	1,636	1,715	1,685	1,600

Industries in the Manufacture of Food and Kindred Products

IN THIS study several of the smaller industries classified by the Ohio Division of Labor Statistics under the manufacture of food and kindred products have been combined under "Food and kindred

products, other." The manufacturing industries combined are: Cordials, sirups, and flavoring extracts; oleomargarine; sugar; vinegar and cider; and food and kindred products, not otherwise classified.

Table 54 shows average wage and salary payments to wage earners in each of eight industries and in the group "Food and kindred products, other." Average wage and salary payments were computed by dividing the total wage and salary payments for a given year by the average number employed. These averages should not be taken as exact measures but as approximate figures.

The average wage and salary payment to wage earners was highest in 1920 for flour and grist mills and food and kindred products, other, in 1921 for confectionery, in 1925 for slaughtering and meat packing, in 1926 for food preparations, in 1928 for bakery products, in 1929 for canning and preserving, and in 1930 for coffee, spices, and peanut roasting and grinding, and dairy products and ice cream. The lowest wage and salary payment was in 1916 for all industries.

It should again be emphasized that average wage and salary payments as here computed do not show full-time earnings, as data concerning part-time and overtime work are not available. The changes from year to year, also, do not afford any measure of changes in wage or salary scales or rates of pay.

TABLE 54.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Bakery products	Canning and preserving	Coffee, spices, and peanuts: roasting and grinding	Confectionery	Dairy products and ice cream	Flour-mill and grist-mill products	Food preparations	Slaughtering and meat packing	Food and kindred products, other
1916.....	\$729	\$414	\$526	\$572	\$713	\$730	\$651	\$809	\$657
1917.....	745	483	702	607	911	785	817	1 750	750
1918.....	931	605	723	714	1, 014	980	965	1, 067	985
1919.....	1, 075	713	859	705	1, 232	1, 115	1, 201	1, 272	1, 175
1920.....	1, 292	832	1, 058	842	1, 387	1, 589	1, 516	1, 473	1, 467
1921.....	1, 236	1 545	1, 035	1 1, 039	1, 544	1, 202	1, 285	1, 375	1, 062
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923.....	1, 335	744	1, 058	809	1, 470	1, 273	1, 393	1, 396	1, 122
1924.....	1, 251	732	1, 055	873	1, 419	1, 302	1, 390	1, 467	1, 243
1925.....	1, 285	722	1, 074	867	1, 375	1, 325	1, 361	1, 510	1, 241
1926.....	1, 304	750	1, 090	868	1, 559	1, 402	1, 550	( <sup>3</sup> )	1, 135
1927.....	1, 294	726	981	866	1, 570	1, 346	1, 506	1, 455	1, 405
1928.....	1, 466	678	1, 044	921	1, 498	1, 359	1, 429	1, 433	1, 261
1929.....	1, 309	839	1, 041	893	1, 617	1, 323	1, 418	1, 480	1, 270
1930.....	<sup>4</sup> 1, 380	699	1, 110	880	1, 635	1, 309	1, 336	1, 491	1, 294
1931.....	1, 216	627	924	797	1, 461	1, 159	1, 290	1, 340	1, 057
1932.....	1, 095	494	937	671	1, 266	1, 163	777	1, 139	1, 073

<sup>1</sup> In accord with Ohio Division of Labor Statistics tabulations; further verification is impossible as original schedules have been destroyed.

<sup>2</sup> Not tabulated by Ohio Division of Labor Statistics for individual industries.

<sup>3</sup> Omitted; owing to probable error.

<sup>4</sup> Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

## Indexes for Employment and Wage and Salary Payments

INDEXES for average number employed and for total and average wage and salary payments in the manufacture of food and kindred products are shown in table 55 and chart 19. The base for these indexes is 1926. The years covered are 1924 to 1932, during which period reports were requested each year by the Ohio Division of Labor Statistics from all establishments employing 3 or more persons.

Indexes are shown for all employees, which is the total of the three general occupation groups—wage earners; bookkeepers, stenogra-

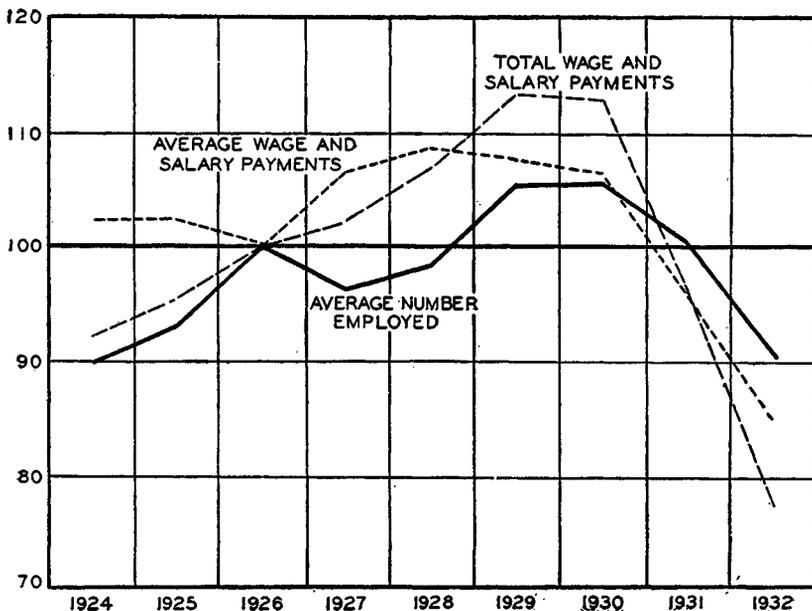


FIGURE 19.—INDEXES OF AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1924 TO 1932 (1926=100)

phers, and office clerks; and salespeople (not traveling)—and also for wage earners. The indexes for wage earners are affected by the change in 1930, by the Ohio Division of Labor Statistics, in the classification of bakery-wagon drivers from salespeople to wage earners.

Considering the three general occupation groups combined, the index for average number employed exceeded the base year (1926) in 1929, 1930, and 1931, and fell to 90.7 in 1932. The indexes for both total wage and salary payments and average wage and salary payments exceeded the base year in 1927, 1928, 1929, and 1930, and fell to 77.2 and 85.1, respectively, in 1932.

TABLE 55.—INDEXES OF AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1924 TO 1932

Year	Index numbers (1926=100.0) of—					
	All employees			Wage earners		
	Average number	Total wage and salary payments	Average wage and salary payment	Average number	Total wage and salary payments	Average wage and salary payment
1924.....	89.9	92.1	102.4	90.9	93.6	103.0
1925.....	93.2	95.4	102.4	93.1	95.6	102.7
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	96.2	102.4	106.4	94.6	102.2	108.0
1928.....	98.5	107.1	108.6	97.4	107.3	110.2
1929.....	105.3	113.7	107.9	103.7	113.1	109.2
1930.....	105.7	112.9	106.8	<sup>1</sup> 112.4	<sup>1</sup> 125.6	<sup>1</sup> 111.8
1931.....	100.5	96.4	96.0	106.4	105.8	99.4
1932.....	90.7	77.2	85.1	97.5	85.3	87.5

<sup>1</sup> Classification of bakery-wagon drivers changed by Ohio Division of Labor Statistics from "salespeople" to "wage earners", beginning in 1930.

Table 56 shows indexes for each of seven industries. Slaughtering and meat packing is omitted owing to the probable error in data for 1926. In 1932, the indexes for average number of wage earners employed stood above the base year in 3 of the 6 industries for which data were available for that year, but in manufacture of confectionery it fell to 65.5. The indexes in 1932 for total and average wage and salary payments show the greatest decline in food preparations, in confectionery, and in canning and preserving.

TABLE 56.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Bakery products			Canning and preserving			Coffee, spices, and peanuts: Roasting and grinding			Confectionery		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment
1924.....	97.8	93.8	95.9	89.8	87.7	97.6	109.8	106.2	96.8	94.5	95.2	100.6
1925.....	98.8	97.3	98.5	114.2	109.9	96.3	118.5	116.8	98.5	99.0	98.9	99.9
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	108.6	107.8	99.2	86.0	83.2	96.8	127.4	114.7	90.0	84.1	83.9	99.8
1928.....	112.5	126.4	112.4	90.8	82.1	90.4	137.5	131.7	95.8	83.0	88.1	106.1
1929.....	120.1	120.5	100.4	109.1	122.0	111.9	136.5	130.5	95.5	92.5	95.2	102.9
1930.....	(1)	(1)	(1)	106.2	98.9	93.2	106.3	108.3	101.8	80.3	81.4	101.4
1931.....	(1)	(1)	(1)	115.2	95.4	83.6	89.9	76.3	84.8	75.7	69.5	91.8
1932.....	(1)	(1)	(1)	97.7	64.3	65.9	100.2	86.2	86.0	65.5	50.7	77.3

<sup>1</sup> Omitted. See note to table 50.

**TABLE 56.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF FOOD AND KINDRED PRODUCTS, 1924 TO 1932, BY INDUSTRIES—Continued**

Year	Dairy products and ice cream			Flour mill and grist mill products			Food preparations		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment
1924.....	90.2	82.1	91.0	100.3	93.2	92.9	114.5	102.6	89.7
1925.....	96.9	85.4	88.2	91.3	86.3	94.5	112.8	99.1	87.8
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	106.5	107.3	100.7	99.2	95.2	96.0	107.5	104.4	97.2
1928.....	105.2	101.1	96.1	98.5	95.5	96.9	112.2	103.5	92.2
1929.....	113.4	117.7	103.7	96.2	90.8	94.4	106.5	97.4	91.5
1930.....	120.4	126.3	104.9	94.3	88.1	93.4	117.1	100.9	86.2
1931.....	118.4	101.9	93.7	88.9	73.5	82.7	117.8	98.0	83.2
1932.....	103.6	84.1	81.2	106.4	88.3	83.0	84.0	42.1	50.1

### Manufacture of Lumber and Lumber Products

IN THE manufacture of lumber and lumber products in Ohio, according to reports from practically all establishments employing three or more persons, the average number of persons employed declined 12,607, or 47.4 percent, from 1929 to 1932; total wage and salary payments decreased \$22,658,765, or 64.2 percent; and the average wage and salary payment decreased \$424, or 31.9 percent.

During the 17 years covered by this study the average number of employees (wage earners; bookkeepers, stenographers, office clerks; and salespeople—not traveling) reached the highest point in 1917, and both total and average wage and salary payments reached the highest amount in 1925. In 1932, the average number of persons employed and total wage and salary payments were at the lowest point during the 17 years and the average wage and salary payment was the lowest since 1917.

Total wage and salary payments are shown in table 57 for the 17 years, 1916-32. Payments to superintendents and managers are included in this table, but data for that group are not included elsewhere in this study. In their annual returns to the Ohio Division of Labor Statistics employers are requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were instructed not to include salaries of officials.

Total wage and salary payments to wage earners reached the highest amount in 1925, to bookkeepers, stenographers, and office clerks in 1927, and to salespeople (not traveling) in 1929. Total wage and salary payments in 1932 to wage earners were the lowest for any year during the period covered; to bookkeepers, stenographers, and office clerks the lowest since 1918; and to salespeople the lowest since 1922.

TABLE 57.—TOTAL WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Total wage and salary payments to—					
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total	Superintendents and managers	Grand total
1916.....	867	\$17,562,961	\$1,712,886	\$337,982	\$19,613,829	\$1,117,267	\$20,731,096
1917.....	901	20,967,472	1,919,356	368,303	23,255,131	1,254,873	24,510,004
1918.....	1,913	22,528,312	1,722,879	277,708	24,528,899	1,306,332	25,835,231
1919.....	1,923	25,561,658	2,209,712	283,818	27,995,188	1,560,221	29,555,409
1920.....	1,003	34,087,906	2,720,582	337,815	37,146,303	2,054,150	39,200,453
1921.....	914	25,013,240	2,720,595	406,120	28,140,255	1,931,289	30,071,544
1922.....	933	25,016,955	2,578,035	406,251	28,001,241	2,108,637	30,109,878
1923.....	1,007	32,751,129	3,091,756	592,431	36,435,316	2,701,727	39,137,043
1924.....	1,130	36,825,527	3,274,386	641,293	34,741,206	2,897,813	37,639,019
1925.....	1,175	36,067,047	3,866,868	711,229	40,645,144	2,932,257	43,577,401
1926.....	1,206	31,641,184	3,677,859	782,189	36,101,232	2,908,529	39,009,761
1927.....	1,238	32,452,919	4,178,851	710,020	37,341,790	3,147,804	40,489,594
1928.....	1,215	30,657,439	3,750,316	805,939	35,222,694	3,114,850	38,337,544
1929.....	1,231	30,401,272	4,025,948	869,472	35,296,692	3,040,814	38,337,506
1930.....	1,192	22,889,967	3,704,156	559,999	27,154,122	2,791,969	29,946,091
1931.....	1,104	16,332,758	2,871,244	536,340	19,740,342	2,234,576	21,974,918
1932.....	999	10,215,185	1,985,314	437,428	12,637,927	1,567,465	14,205,392

<sup>1</sup> Details by industries total 917 establishments.<sup>2</sup> Details by industries total 924 establishments.

The average number of persons reported employed in each of the three general occupation groups is shown in table 58. The highest average number of wage earners was employed in 1917 and the lowest in 1932. The average in that occupation group showed a decline each year since 1927. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1929 and the lowest in 1932. Comparatively few salespeople (not traveling) are reported in the manufacture of lumber and lumber products.

TABLE 58.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN THE MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	860	26,452	1,975	197	30,623
1917.....	899	28,817	2,045	245	31,108
1918.....	913	25,268	1,619	144	27,031
1919.....	923	25,277	1,707	146	27,130
1920.....	1,003	26,828	1,867	143	28,839
1921.....	914	20,842	1,761	164	22,767
1922.....	932	22,974	1,794	165	24,932
1923.....	1,007	26,843	2,044	163	29,050
1924.....	1,130	25,307	2,024	259	27,590
1925.....	1,175	26,329	2,289	260	28,873
1926.....	1,206	25,014	2,258	278	27,549
1927.....	1,238	25,461	2,312	282	28,055
1928.....	1,215	23,949	2,276	288	26,512
1929.....	1,231	23,844	2,399	344	26,587
1930.....	1,192	19,426	2,157	241	21,824
1931.....	1,104	15,602	1,860	249	17,711
1932.....	999	12,255	1,461	264	13,980

<sup>1</sup> Details by industries total 8 less.

More than 85 percent of the employees in the manufacture of lumber and lumber products each year were classified as wage earners. Table 59 shows for that occupation group the fluctuation in employment from 1916 to 1932. The fluctuation from maximum within a year varied from 6.5 percent in 1926 to 23.3 percent in 1922. The fluctuation was less than 10 percent in 8 of the 17 years.

Maximum employment during the 17-year period was 29,911 in November 1916 and minimum employment 11,379 in December 1932.

TABLE 59.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN THE MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932

Month	1916	1917	1918	1919	1920	1921	1922	1923	1924
January.....	26,343	28,793	24,608	22,533	27,761	19,295	19,666	25,134	24,482
February.....	27,190	29,119	25,161	23,023	27,148	20,611	20,415	25,726	25,388
March.....	27,942	29,617	25,875	22,944	27,735	20,716	21,145	26,133	25,851
April.....	28,173	28,859	25,449	22,678	27,396	20,853	21,762	26,432	26,288
May.....	27,743	29,656	25,287	24,800	27,245	20,842	22,550	26,782	26,681
June.....	28,784	29,659	25,989	25,689	27,915	21,677	23,184	27,872	25,238
July.....	28,661	29,793	26,550	26,192	27,878	20,354	23,615	27,791	24,308
August.....	28,690	28,995	26,062	26,414	27,627	20,362	23,626	27,533	24,692
September.....	29,094	28,883	24,863	26,293	27,133	20,779	23,982	27,857	25,019
October.....	29,095	27,837	24,720	27,212	26,122	20,843	24,764	27,564	25,670
November.....	29,911	27,962	24,370	27,630	25,105	21,882	25,349	27,936	25,734
December.....	29,793	27,234	24,283	27,911	22,876	21,888	25,627	26,471	25,549
Maximum.....	29,911	29,793	26,550	27,911	27,915	21,888	25,627	27,872	26,268
Minimum.....	26,343	27,234	24,283	22,533	22,876	19,295	19,666	25,134	24,308
Variation from maximum:									
Number.....	3,568	2,559	2,267	5,378	5,039	2,593	5,961	2,738	1,960
Percent.....	11.9	8.6	8.5	19.3	18.1	11.8	23.3	9.8	7.5
Establishments reporting....	860	899	913	923	1,003	914	932	1,007	1,130

Month	1925	1926	1927	1928	1929	1930	1931	1932
January.....	24,911	24,439	24,128	22,475	22,767	20,451	15,701	12,316
February.....	25,476	24,071	24,742	23,141	23,140	20,314	15,978	12,828
March.....	25,923	24,630	25,117	23,739	23,585	20,362	16,189	12,780
April.....	26,400	24,663	25,254	23,783	23,944	20,209	16,252	12,969
May.....	26,656	24,875	25,570	24,040	23,998	20,462	16,398	12,748
June.....	26,636	25,357	26,278	24,394	24,188	20,125	15,878	12,619
July.....	26,427	25,117	26,837	24,305	23,981	19,269	15,777	11,640
August.....	26,656	25,299	25,986	24,296	24,566	19,196	15,778	11,888
September.....	26,755	25,379	26,292	24,513	24,766	18,851	15,705	12,167
October.....	26,978	25,755	26,235	24,925	25,000	18,898	15,161	12,254
November.....	26,876	25,718	25,616	24,198	23,970	17,965	14,499	11,966
December.....	26,256	24,861	24,479	23,574	22,217	17,009	13,908	11,379
Maximum.....	26,978	25,755	26,292	24,925	25,000	20,462	16,398	12,969
Minimum.....	24,911	24,071	24,128	22,475	22,217	17,009	13,908	11,379
Variation from maximum:								
Number.....	2,067	1,684	2,164	2,450	2,783	3,453	2,490	1,590
Percent.....	7.7	6.5	8.2	9.8	11.1	16.9	15.2	12.3
Establishments reporting....	1,175	1,206	1,238	1,215	1,231	1,192	1,104	999

Table 60 shows average wage and salary payments to wage earners, to bookkeepers, stenographers, and office clerks, and to all occupation groups combined. Chart 20 shows graphically average wage and salary payments to wage earners. Average wage or salary payments to salespeople (not traveling) were not computed, because of the small number involved.

The average wage and salary payment to wage earners reached the highest amount in 1925. The average declined each year since 1928, and in 1932 it was the lowest since 1917. The average wage and salary payment to bookkeepers, stenographers, and office clerks reached the

highest amount in 1927, and in 1932 it was at the lowest amount since 1919. The average payment to the three general occupation groups

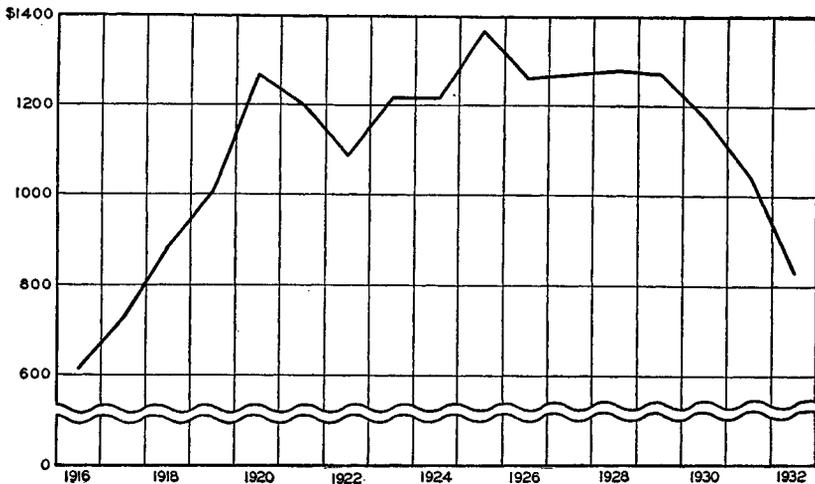


FIGURE 20.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932

combined reached the highest amount in 1925, and in 1932 it was at the lowest amount since 1917.

TABLE 60.—AVERAGE WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Book-keepers, stenographers, and office clerks	All employees			Wage earners	Book-keepers, stenographers and office clerks	All employees
1916.....	<sup>2</sup> 860	\$617	\$367	\$640	1925.....	1, 175	\$1, 370	\$1, 689	\$1, 407
1917.....	<sup>3</sup> 899	728	939	748	1926.....	1, 206	1, 265	1, 629	1, 310
1918.....	913	892	1, 064	907	1927.....	1, 238	1, 275	1, 807	1, 331
1919.....	923	1, 009	1, 295	1, 032	1928.....	1, 215	1, 280	1, 652	1, 329
1920.....	1, 003	1, 271	1, 457	1, 288	1929.....	1, 231	1, 275	1, 673	1, 328
1921.....	914	1, 200	1, 545	1, 236	1930.....	1, 192	1, 178	1, 717	1, 244
1922.....	<sup>4</sup> 932	1, 089	1, 437	1, 123	1931.....	1, 104	1, 047	1, 544	1, 115
1923.....	1, 007	1, 220	1, 513	1, 254	1932.....	999	834	1, 359	904
1924.....	1, 130	1, 218	1, 618	1, 259					

<sup>1</sup> Average for salespeople (not traveling) not computed, owing to small number involved.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 7.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 2.

<sup>4</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

### Industries in the Manufacture of Lumber and Lumber Products

SEVERAL of the smaller industries classified by the Ohio Division of Labor Statistics under the manufacture of lumber and lumber products have been combined in this study under "lumber and

lumber products, other." The manufacturing industries combined are: Baskets, wood, rattan, and willow; billiard tables and materials; boxes, cigar; furniture, wicker and reed; lasts; looking-glass and picture frames; show cases and store fixtures; wood preserving; and lumber and lumber products, not otherwise classified.

Table 61 shows average wage and salary payments to the wage earners in each of 7 industries and the group "Lumber and lumber products, other." Average wage and salary payments were computed by dividing the total wage and salary payments for a given year by the average number employed. These averages should not be taken as exact measures but as approximate figures.

Considering the 7 manufacturing industries and the group "other", average wage and salary payments to wage earners reached the highest amount in 1920 for boxes and packing crates, cooperage and related goods, and matches, in 1921 for wood bending, turning, and carving, in 1925 for sawmills and planing mills, in 1927 for furniture, and in 1929 for coffins and undertakers' goods and the group "other." The lowest average for each of the industries was in 1916, except for boxes and packing crates (with data not available for 1916 and 1917), which was in 1932.

TABLE 61.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURES OF LUMBER AND LUMBER PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Boxes and packing crates	Coffins and undertakers' goods	Cooperage and related goods	Furniture, including upholstering	Matches	Sawmill and planing-mill products	Wood bending, turning, and carving	Lumber and lumber products, other
1916.....	(1)	\$665	\$629	\$578	\$582	\$668	\$574	\$556
1917.....	(1)	730	691	745	753	746	628	596
1918.....	\$815	874	876	866	918	961	944	704
1919.....	863	995	950	1,036	1,072	1,033	949	946
1920.....	<sup>2</sup> 1,207	1,244	1,230	1,276	1,356	1,331	1,152	1,065
1921.....	940	1,100	1,119	1,255	1,167	1,234	1,332	1,082
1922.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1923.....	1,020	1,207	1,109	1,182	1,130	1,356	1,014	1,089
1924.....	1,047	1,152	1,194	1,216	1,226	1,256	1,097	1,207
1925.....	1,086	1,258	1,137	1,267	1,191	1,579	1,206	1,236
1926.....	1,084	1,321	1,197	1,258	1,184	1,327	1,120	1,226
1927.....	1,047	1,291	1,159	1,301	1,215	1,343	1,132	1,169
1928.....	1,138	1,330	1,152	1,288	1,188	1,344	1,159	1,231
1929.....	1,104	1,369	1,196	1,290	1,195	1,311	1,151	1,272
1930.....	1,062	1,348	1,095	1,149	1,146	1,231	1,052	1,154
1931.....	957	1,271	928	1,013	1,171	1,070	926	1,017
1932.....	743	1,054	759	753	987	855	602	843

<sup>1</sup> Data not available.

<sup>2</sup> In accord with Ohio Division of Labor Statistics; unable to make further verification as original schedules have been destroyed.

<sup>3</sup> Data relating to total wage and salary payments not tabulated for individual industries by the Ohio Division of Labor Statistics.

### Indexes for Employment and Wage and Salary Payments

INDEXES for average number of wage earners employed and for total and average wage and salary payments to wage earners are shown in table 62 and chart 21. The base for these indexes is 1926,

The indexes cover the period during which the Ohio Division of Labor Statistics annually requested reports from all employers of 3 or more persons. Indexes are shown in the table for the manufacture of

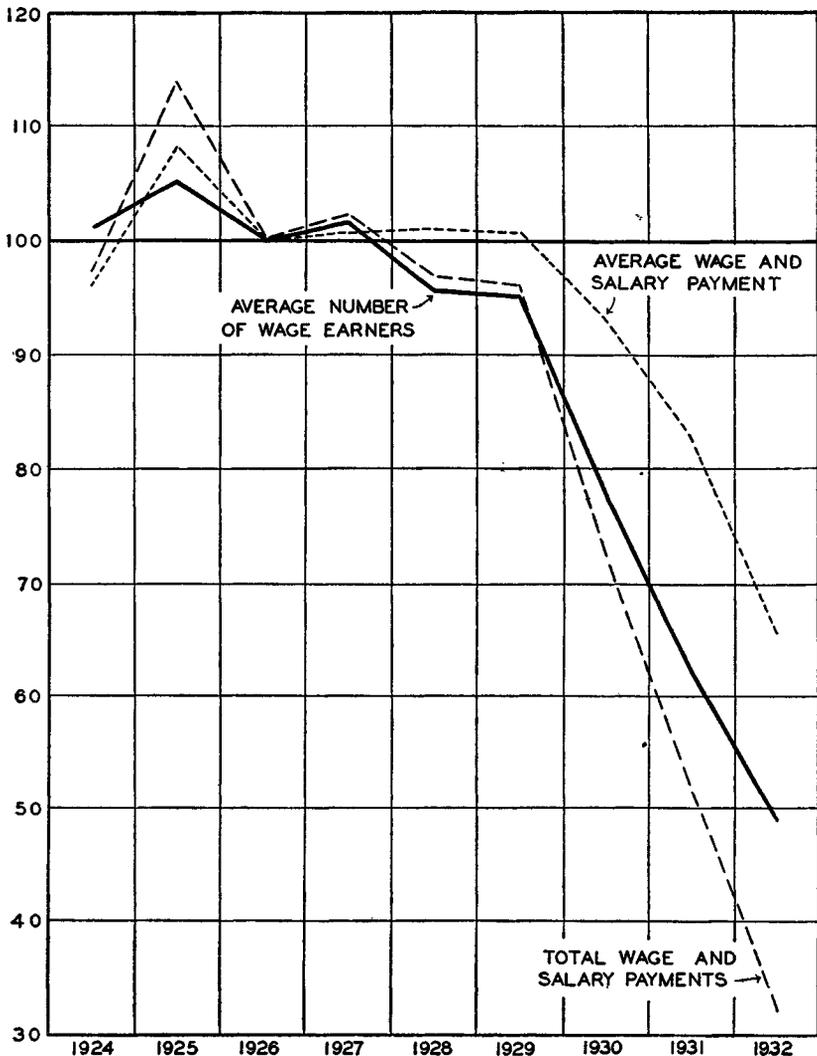


FIGURE 21.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1924 TO 1932 (1926=100)

lumber and lumber products and for each of the 7 industries under that classification.

In 1932, the index for average number of wage earners employed stood slightly above the base year (1926) in the manufacture of matches. For the general industry group, for furniture, and for

sawmills and planing mills, the index for 1932 was below 50, the lowest index (35.5) being shown for sawmills and planing mills.

The 1932 index for total wage and salary payments to wage earners was below 50 for the general industry group and for each of the industries except coffins and undertakers' goods and matches. For sawmills and planing mills the index was 22.8. The 1932 index for average wage and salary payments to wage earners stood above 60, except for furniture and for wood bending, turning, and carving.

TABLE 62.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS, IN THE MANUFACTURE OF LUMBER AND LUMBER PRODUCTS, 1924 TO 1932, BY INDUSTRIES

[1923=100.0]

Year	Lumber and lumber products			Boxes and packing crates			Coffins and undertakers' goods			Cooperage and related goods		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	101.2	97.4	96.3	94.0	90.7	96.6	90.8	79.2	87.2	106.1	105.9	99.7
1925	105.3	114.0	108.3	95.9	96.0	100.2	111.6	106.3	95.2	106.8	101.5	95.0
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	101.8	102.6	100.8	100.8	97.3	96.6	105.4	103.1	97.7	98.3	95.2	96.8
1928	95.7	96.9	101.2	96.4	101.2	105.0	99.8	100.4	100.7	91.3	87.9	96.2
1929	95.3	96.1	100.8	96.2	97.9	101.8	117.7	122.0	103.6	83.1	83.1	99.9
1930	77.7	72.3	93.1	70.5	69.0	98.0	108.2	110.4	102.0	72.8	66.6	91.5
1931	62.4	51.6	82.8	73.6	65.0	88.3	77.0	74.1	96.2	64.9	50.3	77.5
1932	49.0	32.3	65.9	55.8	38.2	68.5	76.4	60.9	79.8	48.8	30.9	63.4
Year	Furniture, including upholstery			Matches			Sawmill and planing-mill products			Wood bending, turning, and carving		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	93.6	90.5	96.7	121.9	126.3	103.5	104.0	98.5	94.6	96.6	94.7	97.9
1925	100.7	100.6	99.9	119.6	120.3	100.6	107.2	127.5	113.0	91.4	88.4	107.7
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	102.2	105.7	103.4	102.0	104.7	102.6	100.3	101.5	101.2	105.9	107.0	101.1
1928	97.5	99.8	102.4	106.3	106.7	100.3	90.5	91.6	101.3	105.0	108.7	103.5
1929	99.2	101.7	102.5	99.4	100.4	100.9	89.7	88.6	98.8	111.0	114.1	102.8
1930	77.6	70.9	91.3	94.7	91.7	96.8	68.8	63.8	92.8	84.8	79.6	93.9
1931	58.7	47.2	80.5	98.1	97.1	98.9	51.5	41.5	80.6	61.5	50.9	82.7
1932	45.2	27.0	59.9	100.3	83.6	83.4	35.5	22.8	64.4	50.9	27.4	53.8

Manufacture of Chemicals and Allied Products

The highest total amount of wage and salary payments to wage earners in the manufacture of chemicals and allied products in Ohio during the 17 years, 1916 to 1932, was reported in 1929, and the second highest in 1920. The amount reported for 1929 was \$30,647,937 and the amount for 1920 was \$845,356 less. The lowest total was reported in 1916, with 1917 and 1932 second and third lowest. The total reported for 1932 was \$12,044,135 below 1929.

The highest average number of wage earners during the 17 years was 20,779 in 1929 and the second highest was 20,340 in 1920. The lowest average number was 14,713 in 1916 and the second lowest was 14,968 in 1921.

The average wage and salary payment to wage earners reached the highest point in 1929, with 1928 and 1920 second and third in order. From 1920 to 1921 the average wage and salary payment to wage earners declined from \$1,465 to \$1,305, or 10.9 percent, and from 1929 to 1932 the average declined from \$1,475 to \$1,220, or 17.3 percent.

Slightly more than 3 percent of the wage earners in manufactures in Ohio were employed in the industries classified by the division of labor statistics under manufactures of chemicals and allied products, in 13 of the 17 years covered. The number was less than 3 percent in 1916 and 1917 and exceeded 4 percent in 1931 and 1932.

Total wage and salary payments to wage earners in manufactures of chemicals and allied products were from 3 to 4 percent of the total for manufactures in 10 of the 17 years. They were less than 3 percent in each of the first 5 years of the period, 4.9 percent in 1931, and 5.4 percent in 1932.

Table 63 shows percentages for each year from 1916 to 1932. The three general occupation groups—wage earners; bookkeepers, stenographers and office clerks; and salespeople (not traveling)—are included. The data are for both sexes combined, as employers are not requested to show separately total wage and salary payments to males and females.

TABLE 63.—PERCENT EMPLOYMENT AND PAY ROLL IN THE MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS FORM OF THOSE IN ALL MANUFACTURES REPORTED IN 1916 TO 1932

Year	Percent employees in chemicals form of all employees (average) in manufactures	Percent pay roll in chemicals forms of that in manufactures	Year	Percent employees in chemicals form of all employees (average) in manufactures	Percent pay roll in chemicals forms of that in manufactures
1916	2.6	2.6	1925	3.3	3.3
1917	2.7	2.7	1926	3.2	3.2
1918	3.0	2.8	1927	3.3	3.3
1919	3.2	2.9	1928	3.2	3.2
1920	3.1	2.8	1929	3.3	3.2
1921	3.6	3.7	1930	3.6	3.9
1922	3.4	3.5	1931	4.2	4.9
1923	3.2	3.1	1932	4.3	5.4
1924	3.3	3.4			

Table 64 shows total wage and salary payments to general occupation groups in the manufacture of chemicals and allied products. Payments to superintendents and managers are also shown in this table but data for that group are not included in any other table or computations in this study. In their annual returns to the division of labor statistics, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were instructed not to include salaries of officials.

Total wage and salary payments to the three general occupation groups combined (omitting superintendents and managers) increased each year from 1916 to 1920, decreased \$10,863,462 in 1921, increased in each year from 1922 to 1925, decreased slightly in 1926, increased in 1927, remained practically the same in 1928, increased in 1929, and decreased in 1930, 1931, and 1932.

From 1920 to 1921, total wage and salary payments to wage earners declined 34.4 percent and to bookkeepers, stenographers, and office clerks, 11.2 percent. Payments to salespeople (not traveling) increased 13.5 percent. The decline for the three groups combined was 30.1 percent.

From 1929 to 1932, total wage and salary payments to wage earners declined 39.3 percent, to bookkeepers, stenographers, and office clerks, 19.8 percent, and to salespeople (not traveling), 48.9 percent. The decline for the three groups combined was 35.2 percent.

TABLE 64.—TOTAL WAGE AND SALARY PAYMENTS IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Total wage and salary payments to—					Grand total
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total of preceding	Superintendents and managers	
1916.....	315	\$10,928,677	\$2,714,704	\$169,836	\$13,813,217	\$1,147,730	\$14,960,947
1917.....	340	14,917,943	3,117,251	233,260	18,268,454	1,387,544	19,655,998
1918.....	351	20,370,871	3,911,847	432,972	24,715,690	1,592,817	26,308,507
1919.....	369	23,729,351	4,836,359	318,792	28,884,502	2,287,572	31,172,074
1920.....	411	29,802,581	5,883,978	436,871	36,123,430	2,767,256	38,890,686
1921.....	360	19,537,820	5,226,491	495,657	25,259,968	2,921,224	28,181,192
1922.....	374	21,524,453	5,199,164	536,964	27,260,581	2,735,902	29,996,483
1923.....	382	28,062,140	6,322,314	568,655	32,953,109	3,206,202	36,159,401
1924.....	392	25,870,674	7,037,064	506,754	33,414,492	3,057,896	36,472,388
1925.....	412	27,708,226	7,627,797	562,478	35,898,501	2,909,386	38,807,887
1926.....	415	27,491,839	7,695,488	483,802	35,671,129	3,273,720	38,944,849
1927.....	433	27,919,278	7,525,383	515,196	35,959,857	3,700,771	39,660,628
1928.....	444	28,235,663	8,037,916	672,881	36,946,460	3,385,203	40,781,663
1929.....	457	30,647,937	8,676,862	620,867	39,945,666	4,188,920	44,131,586
1930.....	458	27,387,946	9,145,624	445,803	36,979,373	3,965,731	40,945,104
1931.....	401	24,407,767	9,022,451	310,588	33,740,806	3,762,085	37,502,891
1932.....	440	18,603,802	6,962,173	317,474	25,883,449	3,213,671	29,097,120

<sup>1</sup> This total exceeds the total for industries by \$60,938, but correction cannot be made as original schedules have been destroyed.

<sup>2</sup> This total exceeds the total for industries by \$1,595, but correction cannot be made as original schedules have been destroyed.

Table 65 shows the average number of persons reported employed in each of the three general occupation groups and in all three combined, in the manufacture of chemicals and allied products. Employers show in their annual reports to the Ohio Division of Labor Statistics the number of persons employed in each of the three general occupation groups on the 15th of each month. They are not requested to give information in their annual reports as to the number of employees working full time, part time, and overtime each month.

The general course of the average number of employees was the same as the general course of the total wage and salary payments,

except that in 1924 the average number of employees decreased slightly while total wage and salary payments increased.

The highest average number of employees reported was 26,320 in 1929 and the lowest 17,983 in 1916. The second highest average was 24,568 in 1920. The years 1921 and 1932 rank second and third lowest in average number employed.

From 1920 to 1921, the average number of wage earners reported employed decreased 26.4 percent and the average number of bookkeepers, stenographers, and office clerks decreased 4.7 percent.

From 1929 to 1932, the average number of wage earners decreased 26.6 percent and the average number of bookkeepers, stenographers, and office clerks decreased 16.2 percent.

Salespeople (not traveling), who were very few in number, increased from 1920 to 1921 and decreased from 1929 to 1932.

TABLE 65.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	317	14,713	3,088	182	17,983
1917.....	340	16,825	3,409	210	20,444
1918.....	351	18,974	3,492	187	22,654
1919.....	369	19,421	4,076	208	23,705
1920.....	411	20,340	3,946	282	24,568
1921.....	360	14,968	3,759	357	19,085
1922.....	373	16,989	3,664	303	20,956
1923.....	382	18,903	4,359	316	23,578
1924.....	392	18,005	4,397	354	22,756
1925.....	412	<sup>1</sup> 19,277	4,806	230	24,313
1926.....	415	19,112	4,725	247	24,084
1927.....	433	19,138	4,827	253	24,218
1928.....	444	19,209	4,738	324	24,270
1929.....	457	20,779	5,239	302	26,320
1930.....	458	18,730	5,434	170	24,334
1931.....	461	17,812	5,047	122	22,981
1932.....	440	15,253	4,360	196	19,839

<sup>1</sup> This total exceeds the total for industries by 19, but correction cannot be made as original schedules have been destroyed.

Table 66 and chart 22 show average wage and salary payments to wage earners in the manufacture of chemicals and allied products; these averages were computed by dividing total wage and salary payments to wage earners by the average number (total of number employed on the 15th of each month, divided by 12) reported employed each year, 1916 to 1932.

The average wage and salary payment to wage earners increased each year from 1916 to 1920, decreased in 1921 and 1922, increased in 1923 and 1924, remained unchanged in 1925, increased each of the next four years, and decreased in 1930, 1931, and 1932.

From 1920 to 1921, the decrease in average wage and salary payments to wage earners was \$160, or 10.9 percent, and from 1929 to 1932 the decrease was \$255, or 17.3 percent.

TABLE 66.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932

Year	Number of establishments	Average wage and salary payment	Year	Number of establishments	Average wage and salary payment
1916.....	<sup>1</sup> 317	\$743	1925.....	412	\$1,437
1917.....	340	887	1926.....	415	1,438
1918.....	351	1,074	1927.....	433	1,459
1919.....	369	1,222	1928.....	444	1,470
1920.....	411	1,465	1929.....	457	1,475
1921.....	360	1,305	1930.....	458	1,462
1922.....	<sup>2</sup> 373	<sup>3</sup> 1,267	1931.....	461	1,370
1923.....	382	1,379	1932.....	440	1,220
1924.....	392	1,437			

<sup>1</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by two.

<sup>2</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by one.

<sup>3</sup> In accord with Ohio Division of Labor Statistics tabulations; unable to make further verification as original schedules have been destroyed.

Fluctuation in the employment of wage earners in manufactures of chemicals and allied products is shown in table 67.

The least fluctuation from the maximum within a year was 8.1 percent in 1918 and the greatest was 23.4 percent in 1920. The fluctuation was in excess of 15 percent in 3 of the 17 years and was below 10 percent in 6 years.

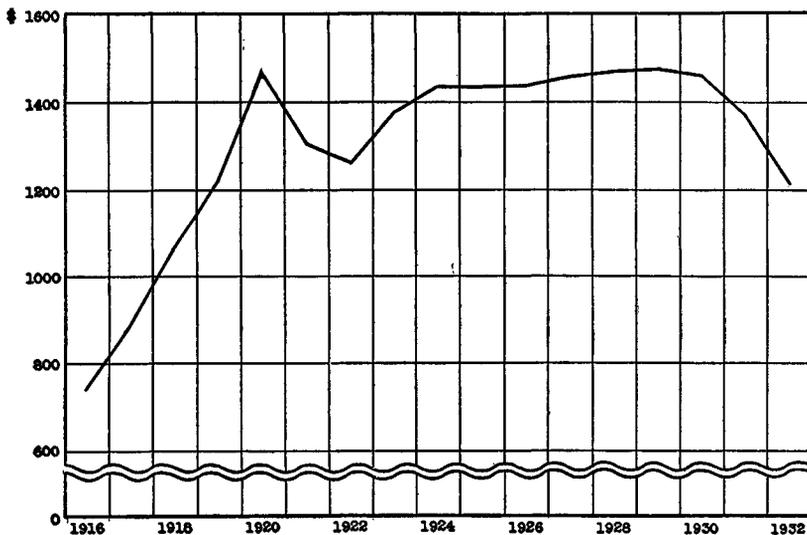


FIGURE 22.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932.

tuation was in excess of 15 percent in 3 of the 17 years and was below 10 percent in 6 years.

The maximum employment reported for wage earners during the 17 years was 22,232 in September 1929, and the minimum was 13,825 in January 1916.

TABLE 67.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932

Month	Number of wage earners (both sexes) employed in—								
	1916	1917	1918	1919	1920	1921	1922	1923	1924
January.....	13,825	15,777	18,009	19,353	20,347	15,543	16,015	18,672	17,978
February.....	14,144	16,186	18,284	18,773	20,443	15,248	16,300	18,828	18,356
March.....	14,881	16,864	19,251	18,125	21,505	15,156	16,374	19,304	18,864
April.....	14,766	16,719	19,028	17,637	20,820	14,812	16,512	19,106	18,978
May.....	14,509	16,703	18,550	18,140	20,074	14,435	16,565	19,178	18,451
June.....	14,807	16,911	18,609	18,985	20,922	14,197	16,435	19,119	17,829
July.....	14,607	16,888	19,187	19,715	21,366	14,068	16,883	19,117	16,874
August.....	14,876	17,145	19,377	20,871	21,418	14,498	17,269	19,386	17,166
September.....	15,364	17,311	19,459	21,809	21,298	15,496	17,710	19,539	18,117
October.....	14,886	17,080	19,194	20,520	20,404	15,435	17,606	18,504	17,789
November.....	14,913	17,142	19,140	20,003	19,010	15,559	17,964	18,201	17,737
December.....	15,273	17,178	19,601	19,126	16,472	15,174	18,236	17,823	17,922
Maximum.....	15,364	17,311	19,601	21,809	21,505	15,559	18,236	19,539	18,978
Minimum.....	13,825	15,777	18,009	17,637	16,472	14,068	16,015	17,823	16,874
Variation from maximum:									
Number.....	1,539	1,534	1,592	4,172	5,033	1,491	2,221	1,716	2,104
Percent.....	10.0	8.9	8.1	19.1	23.4	9.6	12.2	8.8	11.1
Number of establishments.....	317	340	351	369	411	360	373	382	392

Month	Number of wage earners (both sexes) employed in—							
	1925	1926	1927	1928	1929	1930	1931	1932
January.....	18,259	18,786	18,697	17,763	19,600	19,525	18,865	16,158
February.....	18,782	19,118	18,977	18,176	19,888	19,344	18,834	16,117
March.....	19,311	19,237	19,707	18,788	20,325	19,739	19,688	15,676
April.....	19,789	19,197	19,561	19,154	21,111	19,892	19,229	15,789
May.....	19,313	19,085	19,176	19,053	21,108	19,432	17,961	15,569
June.....	19,338	19,017	19,067	19,281	21,099	18,936	17,273	15,159
July.....	19,335	18,834	18,865	19,473	21,045	18,540	16,864	14,989
August.....	19,250	18,987	19,003	19,549	21,224	17,890	16,502	14,521
September.....	20,419	20,434	20,329	20,744	22,232	18,661	17,510	15,023
October.....	19,400	19,072	19,139	19,461	21,258	18,134	17,068	14,601
November.....	19,170	18,929	18,762	19,622	20,590	17,651	17,215	14,742
December.....	18,952	18,663	18,370	19,493	19,870	17,001	16,748	14,600
Maximum.....	20,419	20,434	20,329	20,744	22,232	19,892	19,688	16,158
Minimum.....	18,259	18,663	18,370	17,763	19,600	17,001	16,502	14,521
Variation from maximum:								
Number.....	2,160	1,771	1,959	2,981	2,632	2,891	3,186	1,637
Percent.....	10.6	8.7	9.6	14.4	11.8	14.5	16.2	10.1
Number of establishments.....	412	415	433	444	457	458	461	440

## Industries in Manufacture of Chemical and Allied Products

THE industries classified under manufacture of chemical and allied products by the Ohio Division of Labor Statistics total 14, with an added group designated as "not otherwise classified." For the purposes of this study 7 of the smaller industries and the group "chemicals and allied products, not otherwise classified" are combined under "chemicals and allied products, other." The industries combined under "other" are baking powder and yeast; blacking, cleansing, and polishing preparations; bone, carbon, and lampblack; dyestuffs and extracts; explosives; ink (printing and writing); oil—linseed,

lubricating, and cottonseed—and oil cake; and chemicals and allied products, not otherwise classified.

Table 68 shows average wage and salary payments to wage earners (both sexes combined) in each of 7 industries and in the group "chemicals and allied products, other." The average wage and salary payment, as previously explained, was computed by dividing the total wage and salary payments for a given year by the average number employed. These averages should not be taken as exact measures but as approximate figures. Data concerning total wage and salary payments for 1922 were not tabulated by the division of labor statistics for individual industries.

The highest average wage and salary payment to wage earners was in 1920 for manufacture of chemicals, acids, and wood distillation, fertilizers, tankage, petroleum refining, and salt; in 1921 for patent medicines and drug compounds; in 1927 for soap, candles, grease, and tallow; and in 1928 for paint and varnish. The lowest average wage and salary payment to wage earners was in 1916 for all industries.

It should be emphasized, as explained heretofore, that average wage and salary payments as here computed do not purport to show full-time earnings, as data concerning part-time and overtime work are not available. The changes from year to year also do not afford any measure of changes in wage or salary scales or rates of pay.

TABLE 68.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Chemicals, acids, and wood distillation	Fertilizers, tankage	Paint and varnish	Patent medicines and drug compounds	Petroleum refining	Salt	Soap, candles, grease, and tallow	Chemicals and allied products, other
1916.....	\$911	\$753	\$713	\$479	\$839	\$610	\$621	\$768
1917.....	1,086	927	797	544	989	971	718	842
1918.....	( <sup>1</sup> )	1,153	993	599	1,123	1,116	872	1,279
1919.....	1,547	1,235	1,173	739	1,376	1,232	1,059	1,235
1920.....	1,892	1,540	1,352	957	1,623	1,556	1,165	1,414
1921.....	1,507	1,026	1,268	<sup>2</sup> 1,214	1,503	1,391	1,099	1,290
1922.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1923.....	1,644	1,272	1,355	1,021	1,474	1,405	1,195	1,325
1924.....	1,657	1,315	1,410	1,100	1,496	1,417	1,276	1,522
1925.....	1,728	1,282	1,420	1,053	1,457	1,421	1,334	1,380
1926.....	1,720	1,300	1,424	1,128	1,516	1,444	1,282	1,379
1927.....	1,731	1,304	1,459	1,133	<sup>2</sup> 1,223	1,487	<sup>2</sup> 1,602	1,358
1928.....	1,701	1,264	1,502	1,148	1,489	1,334	1,413	1,407
1929.....	1,695	1,291	1,486	1,090	1,548	<sup>2</sup> 1,286	1,401	1,411
1930.....	1,653	1,268	1,445	1,114	1,533	1,422	1,416	1,391
1931.....	1,577	1,069	1,350	1,119	1,401	1,453	1,323	1,290
1932.....	1,433	929	1,175	971	1,316	1,369	1,131	1,130

<sup>1</sup> "Chemicals" apparently tabulated with "Chemicals and allied products, not otherwise classified" by Ohio Division of Labor Statistics; acids and wood distillation was tabulated separately but in this study it has been combined in 1918 with "Chemicals and allied products, other."

<sup>2</sup> In accord with Ohio Division of Labor Statistics tabulations; unable to make further verification as original schedules have been destroyed.

<sup>3</sup> Total wage and salary payments not tabulated for individual industries by Ohio Division of Labor Statistics.

## Indexes for Employment and Wage and Salary Payments

INDEXES for average number of wage earners employed and for total and average wage and salary payments to wage earners in manufactures of chemicals and allied products are shown in table 69 and chart 23. The base for these indexes is 1926. The years covered are 1924-32, during which period reports were requested each year by the

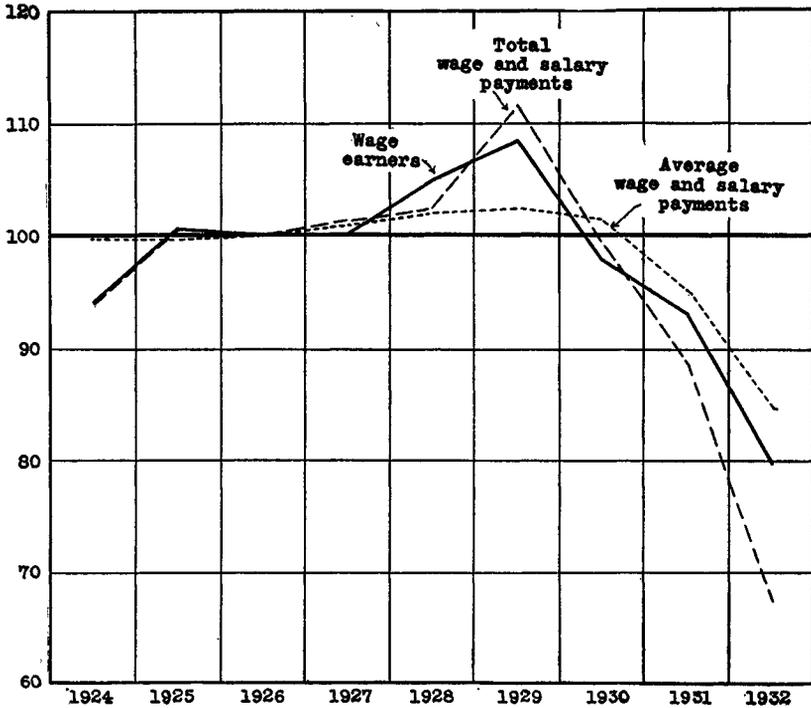


FIGURE 23.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS AND OF TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1924 TO 1932 (1926=100)

Ohio Division of Labor Statistics from all establishments employing three or more persons.

The index for average number of wage earners employed exceeded the base year, 1926, in 1925, 1927, 1928, and 1929, and fell to 79.8 in 1932. The same trend was shown by total wage and salary payments, which fell to 67.7 in 1932. The index for average wage and salary payments exceeded the base in 1927, 1928, 1929, and 1930, and fell to 84.8 in 1932.

TABLE 69.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1924 TO 1932

Year	Index numbers (1926=100.0) of—		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payment
9924.....	94.2	94.1	99.9
1925.....	100.9	100.8	99.9
1926.....	100.0	100.0	100.0
1927.....	100.1	101.6	101.4
1928.....	105.1	102.7	102.2
1929.....	108.7	111.5	102.6
1930.....	98.0	99.6	101.7
1931.....	93.2	88.8	95.3
1132.....	79.8	67.7	84.8

Table 70 shows for each of seven industries classified under manufacture of chemicals and allied products, indexes for average number of wage earners employed and total and average wage and salary payments to wage earners. Indexes have not been computed for the group "chemicals and allied products, other."

The index for average number of wage earners employed reached the highest point during the 9 years in 1924 for 1 industry, in 1925 for 1 industry, in 1925 and 1926 for 1 industry, in 1928 for 1 industry, in 1929 for 2 industries, and in 1931 for 1 industry. The lowest point was reached in 1928 for 1 industry, in 1930 for 1 industry, in 1931 for 1 industry, and in 1932 for 4 industries.

The index for total wage and salary payments to wage earners reached the highest point during the 9 years in 1924 for 1 industry, in 1925 for 1 industry, in 1926 for 1 industry, in 1928 for 1 industry, in 1929 for 2 industries, and in 1931 for 1 industry. The lowest point was reached in 1930 for 1 industry and in 1932 for 6 industries.

The index for average wage and salary payments to wage earners reached the highest point during the 9 years in 1924 for 1 industry, in 1927 for 3 industries, in 1928 for 2 industries, and in 1929 for 1 industry. The lowest point was reached in 1927 for 1 industry, in 1929 for 1 industry, and in 1932 for 5 industries.

TABLE 70.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Chemicals, acids and wood distillation			Fertilizers, tankage			Paint and varnish			Patent medicines and drug compounds		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment
1924.....	96.2	92.7	96.3	87.7	88.2	101.2	85.8	85.0	99.0	90.0	87.8	97.5
1925.....	101.8	102.3	100.5	108.5	106.4	98.6	96.3	96.1	99.7	100.0	93.4	93.4
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	104.0	104.7	100.6	90.2	90.0	100.3	97.7	100.1	102.5	89.4	89.8	100.4
1928.....	103.0	101.8	98.9	107.3	103.7	97.2	96.8	102.0	105.5	86.2	87.7	101.8
1929.....	113.8	112.2	98.5	103.5	102.3	99.3	100.1	104.5	104.4	80.8	78.1	96.6
1930.....	100.6	96.7	96.1	94.7	91.9	97.5	92.1	93.5	101.5	73.7	72.8	98.8
1931.....	87.9	80.6	91.7	67.7	56.4	83.8	74.4	70.5	94.8	64.1	63.6	99.2
1932.....	77.0	64.2	83.3	72.0	51.2	71.5	67.1	55.4	82.5	63.8	54.9	86.1

Year	Petroleum refining			Salt			Soap, candles, grease, and tallow		
	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment	Wage earners (average)	Total wage and salary payments	Average wage and salary payment
1924.....	113.7	112.1	98.7	112.6	110.5	98.1	84.5	84.1	99.5
1925.....	119.7	115.0	96.1	97.9	96.4	98.4	89.2	92.8	104.1
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	120.7	97.4	80.7	100.0	103.0	103.0	88.3	110.3	125.0
1928.....	95.8	94.0	98.2	88.2	81.5	92.4	106.6	117.5	110.2
1929.....	106.1	108.3	102.1	81.3	72.4	89.1	104.8	114.6	109.3
1930.....	110.8	112.1	101.1	73.5	72.3	98.5	93.4	103.2	110.5
1931.....	123.3	119.5	92.4	77.5	78.0	100.6	91.0	93.9	103.2
1932.....	100.7	87.4	86.8	78.1	74.0	94.8	78.3	69.1	88.2

### Manufacture of Paper and Printing

IN THE manufacture of paper and printing in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment for all occupation groups combined was \$1,605 in 1928, the second highest was \$1,545 in 1929, and the lowest was \$735 in 1916. The average in 1932 was \$1,250, which was the lowest since 1919.

The decline in average wage and salary payments from 1929 to 1932 was \$321, or 21.2 percent, for wage earners; \$194, or 12.5 percent, for bookkeepers, stenographers, and office clerks; \$310, or 13.4 percent, for salespeople (not traveling); and \$295, or 19.1 percent, for the three general occupation groups combined.

The average number of persons reported employed in each of the general occupation groups is shown in table 71.

The year 1929 shows the highest average number employed of wage earners, of salespeople (not traveling), and of the general occupation groups combined. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1930. The lowest average number of wage earners was employed in 1918, of salespeople (not traveling) in 1917, and of bookkeepers, stenogra-

phers, and office clerks, and of the general occupation groups combined, in 1916. In 1932 the average number of wage earners employed was the lowest since 1923 and the average for the general occupation groups combined was the lowest since 1924.

TABLE 71.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF PAPER AND PRINTING, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	928	29,339	4,367	820	34,526
1917	930	29,627	4,383	764	34,774
1918	939	29,032	4,685	951	34,668
1919	924	31,239	5,072	903	37,205
1920	977	34,862	5,605	1,029	41,496
1921	869	29,946	5,776	1,061	36,783
1922	886	32,207	5,787	1,047	39,041
1923	913	34,766	6,096	1,235	42,097
1924	980	37,182	6,936	1,357	45,475
1925	1,037	38,851	7,292	1,451	47,594
1926	1,075	40,540	7,676	1,518	49,734
1927	1,110	41,352	8,005	1,591	50,948
1928	1,130	41,004	6,430	1,508	48,951
1929	1,158	43,871	8,651	1,764	54,286
1930	1,151	42,022	9,462	1,968	52,451
1931	1,160	39,933	7,866	1,596	49,395
1932	1,139	36,817	7,696	1,726	46,238

<sup>1</sup> In accord with tabulations of Ohio Division of Labor Statistics, but possibly some error in reporting or tabulating.

In 16 of the 17 years covered in this study more than 80 percent of the employees were classified as wage earners. Table 72 shows for that occupation group fluctuation in employment from 1930 to 1932. Maximum employment for the 17-year period was 45,024 in October 1929, and minimum employment was 27,881 in January 1916.

TABLE 72.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF PAPER AND PRINTING, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January	42,267	40,899	38,172	November	41,072	38,934	36,530
February	42,352	40,956	38,115	December	40,892	38,389	35,968
March	42,999	40,936	38,074	Maximum	43,142	41,035	38,172
April	43,142	40,809	37,735	Minimum	40,892	38,389	35,447
May	42,708	41,035	37,198	Variation from maximum:			
June	42,597	40,701	36,425	Number	2,250	2,646	2,725
July	41,966	39,425	35,781	Percent	5.2	6.4	7.1
August	41,514	38,935	35,447	Number of establishments	1,151	1,160	1,139
September	41,410	39,225	36,196				
October	41,341	38,984	36,159				

<sup>1</sup> For years 1916 to 1929, see Bureau of Labor Statistics Bul. No. 553.

Table 73 shows average wage and salary payments in the manufacture of paper and printing.

TABLE 73.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF PAPER AND PRINTING, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	1 923	\$720	\$741	\$1, 204	\$735
1917.....	930	781	833	1, 478	803
1918.....	939	909	835	1, 200	907
1919.....	924	1, 100	1, 052	1, 707	1, 109
1920.....	977	1, 412	1, 295	1, 939	1, 409
1921.....	869	1, 292	1, 323	1, 790	1, 311
1922.....	1 886	1, 323	1, 319	2, 002	1, 345
1923.....	913	1, 376	1, 476	2, 075	1, 411
1924.....	980	1, 420	1, 446	2, 116	1, 445
1925.....	1, 037	1, 282	1, 309	2, 334	1, 319
1926.....	1, 075	1, 478	1, 466	2, 354	1, 503
1927.....	1, 110	1, 464	1, 554	2, 341	1, 506
1928.....	1, 130	1, 508	1, 979	2, 637	1, 605
1929.....	1, 153	1, 513	1, 550	2, 307	1, 545
1930.....	1, 151	1, 473	1, 621	2, 354	1, 516
1931.....	1, 160	1, 362	1, 536	2, 112	1, 414
1932.....	1, 139	1, 192	1, 356	1, 997	1, 250

<sup>1</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 7.

<sup>2</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 1.

The highest average wage and salary payment to wage earners was made in 1929 and to each of the other occupation groups and to the three groups combined in 1928. The lowest average was paid in 1916 to each classification except salespeople (not traveling), where the lowest average was paid in 1918. The 1932 average payment to wage earners and to the occupation groups combined was the lowest since 1919, the 1932 payment to bookkeepers, stenographers, and office clerks the lowest since 1922, and to salespeople (not traveling) the lowest since 1921. Chart 24 shows graphically the trend of average payments to wage earners.

#### Industries in Manufacture of Paper and Printing

IN THIS study the following industries have been combined under "Paper and printing, other": Card cutting and designing; engraving and die sinking; type founding and printing materials; wall paper; and paper and printing, not otherwise classified.

Table 74 shows average wage and salary payments to wage earners in each of the 8 industries and in the group "Paper and printing, other." These averages should not be taken as exact measures but as approximate figures.

TABLE 74.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF PAPER AND PRINTING, 1916 TO 1932, BY INDUSTRIES

Year	Bags, paper	Boxes, fancy and paper, and drinking cups	Envelops	Labels and tags	Paper, including stationery	Photo-engraving	Printing and publishing	Stereotyping and electrotyping	Paper and printing, other
1916.....	\$534	\$469	(1)	(1)	\$666	\$1,015	\$790	\$842	\$564
1917.....	659	516	\$607	(1)	775	1,172	822	983	705
1918.....	770	635	726	\$803	1,010	1,232	930	1,068	835
1919.....	940	766	863	905	1,182	1,569	1,156	1,239	895
1920.....	1,107	918	1,024	1,311	1,564	1,920	1,489	1,482	1,194
1921.....	941	941	970	1,367	1,244	1,862	1,393	1,606	1,186
1922.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1923.....	1,122	1,037	983	999	1,308	2,017	1,518	1,741	1,245
1924.....	1,117	1,094	1,012	1,246	1,343	2,124	1,545	1,840	1,241
1925.....	1,041	1,124	1,000	1,386	1,345	2,115	(2)	1,828	1,336
1926.....	990	1,130	1,046	1,330	1,345	2,298	1,631	1,926	1,328
1927.....	1,047	1,143	1,028	1,367	1,318	2,394	1,593	1,980	1,270
1928.....	993	1,158	1,043	1,282	1,371	2,491	1,648	2,012	1,399
1929.....	1,111	1,237	1,085	1,147	1,386	2,610	1,622	2,001	1,331
1930.....	1,099	1,149	1,061	1,167	1,337	2,384	1,580	1,915	1,431
1931.....	1,038	1,103	1,011	1,317	1,240	2,158	1,436	2,000	1,338
1932.....	874	900	907	1,204	1,027	1,960	1,289	1,730	1,018

<sup>1</sup> Data not available.

<sup>2</sup> Omitted due to probable error in reporting or tabulating; no further verification possible.

The highest average wage and salary payment to wage earners was made in 1920 in 1 industry, in 1923 in 1, in 1925 in 1, in 1928 in 2, in

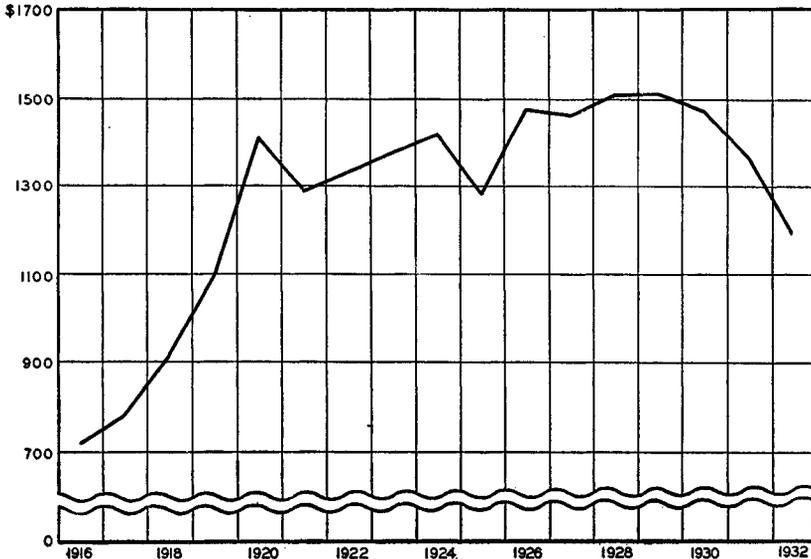


FIGURE 24.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF PAPER AND PRINTING, 1916 TO 1932

1929 in 3, and in 1930 in 1. The lowest average payment was made in 1916 in 7 industries, in 1917 in 1, and in 1918 in 1.

## Indexes of Employment and of Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 75. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics requested reports from all employers of 3 or more persons. Indexes are shown for manufacture of paper and printing as a whole and for each of 8 industries.

TABLE 75.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF PAPER AND PRINTING, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Paper and printing			Bags, paper			Boxes, fancy and paper, and drinking cups		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	91.7	88.1	96.1	78.5	88.5	112.8	93.6	90.6	96.8
1925.....	95.8	83.1	86.8	82.1	86.4	105.2	96.3	95.7	99.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	102.0	101.0	99.1	98.0	103.6	105.8	93.8	94.9	101.2
1928.....	101.0	103.2	102.0	107.7	108.1	100.3	90.5	92.7	102.5
1929.....	108.2	110.7	102.4	90.4	101.5	112.2	111.6	122.2	109.5
1930.....	103.7	103.3	99.7	93.0	103.2	111.0	89.8	91.3	101.7
1931.....	98.5	90.8	92.2	110.2	115.6	104.8	86.8	84.7	97.6
1932.....	90.8	73.3	80.6	90.4	79.9	88.3	82.4	65.6	79.6
	Envelops			Labels and tags			Paper, including stationery		
1924.....	95.1	92.0	96.7	95.6	89.6	93.7	95.1	94.9	99.9
1925.....	87.3	93.0	95.6	97.6	101.7	104.2	98.7	98.7	100.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	102.7	101.0	98.3	98.6	101.3	102.8	101.4	99.4	98.0
1928.....	98.9	98.6	99.7	109.1	105.1	96.4	104.8	106.9	101.9
1929.....	96.6	100.2	103.7	114.1	98.4	86.2	101.5	104.6	103.0
1930.....	98.6	100.1	101.4	96.4	84.7	87.7	98.3	97.7	99.4
1931.....	90.9	87.9	96.7	38.9	38.7	99.0	84.5	77.9	92.2
1932.....	84.4	73.3	86.7	35.1	31.8	90.5	77.5	59.2	76.4
	Photo-engraving			Printing and publishing			Stereotyping and electrotyping		
1924.....	83.1	76.8	92.4	90.6	85.8	94.7	91.8	87.7	95.5
1925.....	94.3	86.8	92.0	95.1	( <sup>1</sup> )	( <sup>1</sup> )	104.0	98.7	94.9
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	120.5	125.5	104.2	103.7	101.2	97.7	108.4	111.4	102.8
1928.....	125.5	136.0	108.4	100.5	101.6	101.0	116.1	121.3	104.5
1929.....	144.9	164.6	113.6	111.2	110.6	99.4	105.3	109.4	103.9
1930.....	142.5	147.8	103.7	110.3	106.8	96.9	99.8	99.2	99.4
1931.....	138.2	129.8	93.9	109.1	95.0	88.0	80.7	83.8	103.8
1932.....	111.0	94.7	85.3	101.5	80.2	79.0	78.4	70.4	89.8

<sup>1</sup> Omitted due to probable error in reporting or tabulating; no further verification possible.

Considering the industry group as a whole, the index in 1932 was 90.8 for average number of wage earners employed, 73.3 for total wage and salary payments to wage earners, and 80.6 for average wage and salary payments.

Labels and tags show the lowest 1932 index for average number of wage earners employed and for total wage and salary payments, and

manufacture of paper the lowest 1932 index for average payments. Two of the 8 industries show a higher average number of wage earners employed in 1932 than in the base year (1926). The 1932 index for average wage and salary payments to wage earners was above 85 in 5 of the 8 industries.

Chart 25 shows graphically the indexes for the industry as a whole.

#### Manufacture of Rubber Products

IN THE manufacture of rubber products in Ohio, according to reports from practically all establishments employing three or more persons, the average number of persons employed declined 28,510, or 40.9

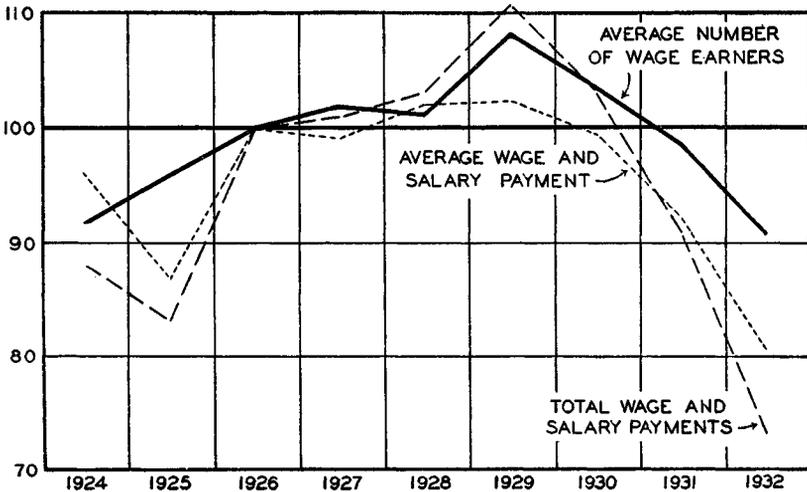


FIGURE 25.—INDEXES OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF PAPER AND PRINTING, 1924 TO 1932 (1926=100)

percent, from 1929 to 1932; the total wage and salary payments decreased \$66,306,184, or 59.2 percent; and the average wage and salary payment decreased \$495, or 30.7 percent.

During the 17 years covered by this study the average number of employees (wage earners; bookkeepers, stenographers, and office clerks; and salespeople, not traveling) reached the highest point in 1919, and both total and average wage and salary payments reached the highest amount in 1920. The average number employed reached the lowest point in 1921, and both total and average wage and salary payments were lowest in 1916.

The average number of persons reported employed in each of the three general occupation groups is shown in table 76.

The highest average number of wage earners was employed in 1919 and the highest average number of bookkeepers, stenographers, and office clerks in 1920. The average number of wage earners employed

reached the lowest point in 1921, and the average number of bookkeepers, stenographers, and office clerks the lowest point in 1932.

TABLE 76.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF RUBBER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	78	42,401	5,702	113	48,216
1917.....	82	55,418	6,942	428	62,788
1918.....	93	49,236	7,835	53	57,124
1919.....	108	66,367	9,213	73	75,653
1920.....	114	61,671	9,598	73	71,343
1921.....	107	31,270	5,458	61	36,789
1922.....	109	43,617	5,314	53	48,985
1923.....	119	46,804	5,311	(1)	52,175
1924.....	120	47,207	5,040	96	52,343
1925.....	113	55,929	5,614	62	61,605
1926.....	112	55,021	5,994	57	61,072
1927.....	128	57,311	6,450	(1)	63,761
1928.....	133	59,114	6,897	(1)	66,011
1929.....	127	62,358	7,138	(1)	69,496
1930.....	113	45,755	6,515	(1)	52,270
1931.....	104	38,870	5,252	(1)	44,122
1932.....	95	36,048	4,937	(1)	40,986

<sup>1</sup> Carried with "Manufactures, not otherwise classified", in tabulations of the Ohio Division of Labor Statistics.

More than 85 percent of the employees in the manufacture of rubber products were classified as wage earners except in 3 of the 17 years covered. Table 77 shows for that general occupation group fluctuation in employment from 1930 to 1932. Maximum employment for the 17-year period was 82,063 in April 1920, and minimum employment was 23,240 in January 1921, with a reduction of 58,823, or 71.7 percent, in a period of 9 months.

TABLE 77.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF RUBBER PRODUCTS, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	49,561	39,734	37,427	November.....	39,759	37,487	34,586
February.....	48,696	39,019	37,706	December.....	39,540	37,267	34,404
March.....	48,073	39,248	37,497	Maximum.....	49,928	40,428	37,706
April.....	48,980	38,759	37,191	Minimum.....	39,540	37,267	33,544
May.....	49,928	39,950	36,904	Variation from maximum:			
June.....	49,254	40,428	37,488	Number.....	10,388	3,161	4,162
July.....	46,954	39,789	36,599	Percent.....	20.8	7.8	11.0
August.....	45,354	39,003	35,086	Number of establishments.....	113	104	95
September.....	42,347	38,154	33,544				
October.....	40,617	37,602	34,149				

<sup>1</sup>For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553

Table 78 shows average wage and salary payments to wage earners, to bookkeepers, stenographers, and office clerks, and to all occupation groups combined.

The average wage and salary payments to wage earners reached the highest amount in 1920. The average declined each year following 1928 and in 1932 it was the lowest since 1916. The average payment to bookkeepers, stenographers, and office clerks reached the highest amount in 1919, with 1920 second in order. The lowest average payment to that group was in 1916, with 1917 second in order.

TABLE 78.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF RUBBER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	78	\$810	\$844	(1)	\$815
1917.....	82	1,042	1,032	(1)	1,041
1918.....	93	1,233	1,235	(1)	1,236
1919.....	108	1,288	2,463	(1)	1,434
1920.....	114	1,710	2,089	(1)	1,762
1921.....	107	1,465	1,817	(1)	1,520
1922.....	<sup>1</sup> 109	1,433	1,681	(1)	1,462
1923.....	119	1,589	1,717	(3)	<sup>4</sup> 1,602
1924.....	120	1,540	1,896	(1)	1,576
1925.....	113	1,553	1,906	(1)	1,586
1926.....	112	1,562	1,857	(1)	1,593
1927.....	128	1,583	1,936	(3)	<sup>4</sup> 1,619
1928.....	133	1,611	2,014	(3)	<sup>4</sup> 1,653
1929.....	127	1,562	2,033	(3)	<sup>4</sup> 1,610
1930.....	113	1,450	2,008	(3)	<sup>4</sup> 1,520
1931.....	104	1,254	1,985	(3)	<sup>4</sup> 1,341
1932.....	95	1,011	1,873	(3)	<sup>4</sup> 1,115

<sup>1</sup> Not computed, owing to small number involved.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments greater by 2.

<sup>3</sup> Carried with "Manufactures, not otherwise classified", in tabulations of Ohio Division of Labor Statistics.

<sup>4</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average, as average number in that group could not be determined from detailed tabulation.

Chart 26 shows graphically average wage and salary payments to wage earners.

### Industries in Manufacture of Rubber Products

DATA for industries classified under manufacture of rubber products were not tabulated separately by the Ohio Division of Labor Statistics for 1916 to 1918. In this study, manufacture of rubber garments and of rubber products not otherwise classified have been combined under "Rubber products, other."

Average wage and salary payments to wage earners in each of the industries and in the group "Rubber products, other", are shown in table 79. These averages should not be taken as exact measures but as approximate figures.

TABLE 79.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF RUBBER PRODUCTS, 1919<sup>1</sup> TO 1932, BY INDUSTRIES

Year	Druggists' sundries, and toys, rubber	Tires and tubes	Rubber products, other	Year	Druggists' sundries, and toys, rubber	Tires and tubes	Rubber products, other
1919.....	\$981	\$1,299	-----	1926.....	\$1,227	\$1,594	\$1,379
1920.....	1,094	1,727	-----	1927.....	1,194	1,619	1,195
1921.....	1,061	1,488	-----	1928.....	1,195	1,659	1,186
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1929.....	1,215	1,600	1,306
1923.....	1,163	1,629	( <sup>3</sup> )	1930.....	1,101	1,492	1,152
1924.....	1,162	1,580	\$1,297	1931.....	968	1,294	978
1925.....	1,238	1,580	1,395	1932.....	808	1,040	801

<sup>1</sup> Data by industries not available for 1916 to 1918.

<sup>2</sup> Data not available.

<sup>3</sup> Not computed, owing to small number involved.

In the manufacture of druggists' sundries and toys, rubber, the highest average payment to wage earners was \$1,238 in 1925, and

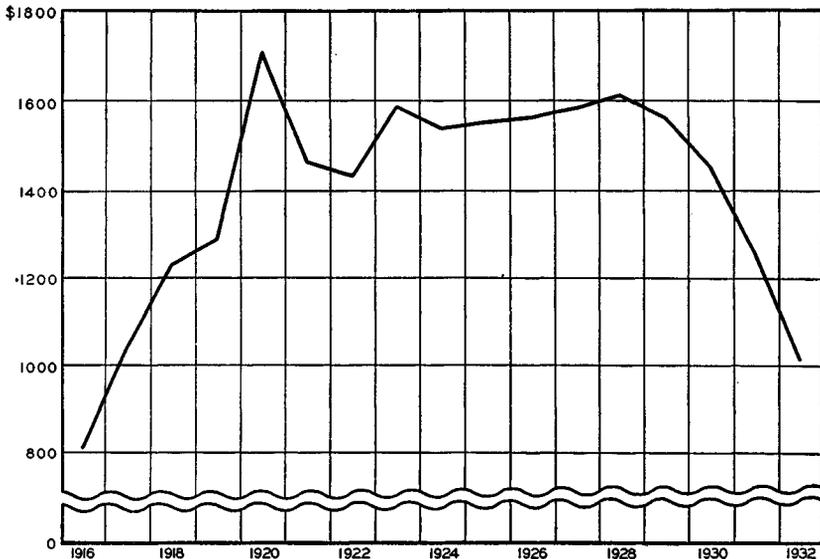


FIGURE 26.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF RUBBER PRODUCTS, 1916 TO 1932

the lowest \$808 in 1932. In the manufacture of tires and tubes the highest average payment to wage earners was \$1,727 in 1920, and the lowest \$1,040 in 1932.

#### Indexes of Employment and of Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 80 for 1924 to 1932. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics re-

quested reports annually from all employers of three or more persons. Indexes are shown for the manufacture of rubber products and for each of the industries classified thereunder.

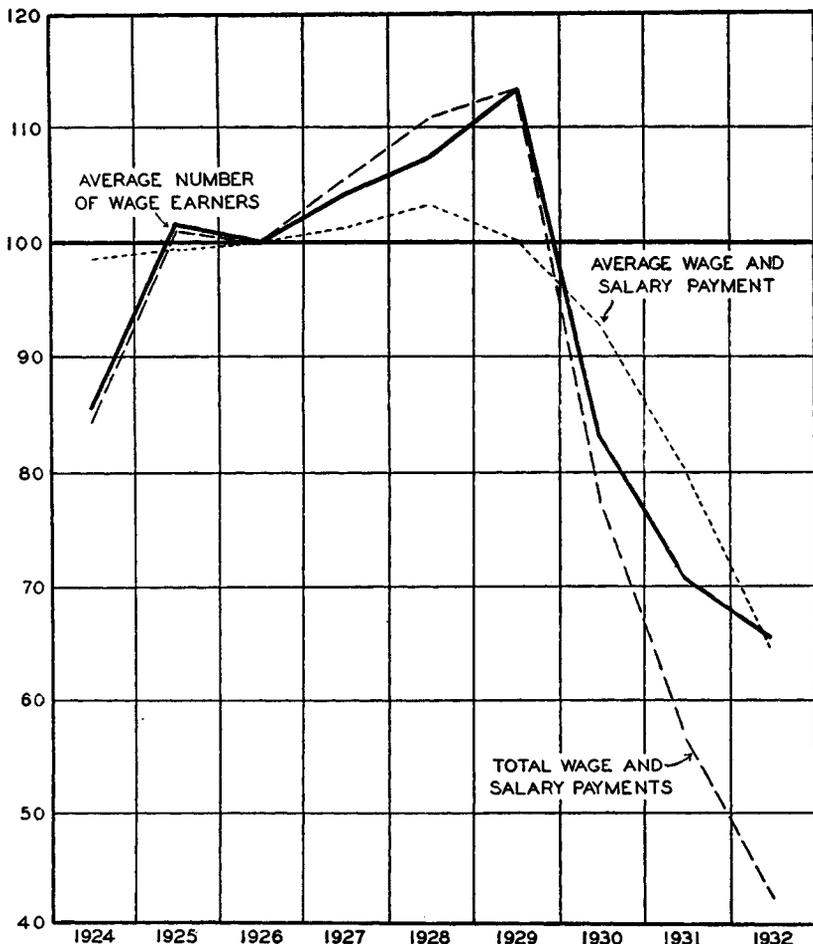


FIGURE 27.—INDEXES OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF RUBBER PRODUCTS, 1924 TO 1932 (1926=100)

In 1932, the indexes of employment of wage earners and of average wage and salary payments were above 60, and the index of total wage and salary payments to wage earners fell below 50 except for druggists' sundries and toys, rubber.

Chart 27 shows graphically the indexes for the manufacture of rubber products.

TABLE 80.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF RUBBER PRODUCTS, 1924 TO 1932, BY INDUSTRIES

[1926=100]

Year	Rubber products			Druggists' sundries and toys, rubber			Tires and tubes		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	85.8	84.6	98.6	103.0	97.5	94.7	85.6	84.8	99.1
1925.....	101.7	101.0	99.4	99.2	100.0	100.9	102.8	101.9	99.1
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	104.2	105.6	101.3	97.7	95.0	87.3	105.9	107.5	101.6
1928.....	107.4	119.8	103.1	117.1	114.0	97.4	106.8	111.2	104.1
1929.....	113.3	113.3	100.0	115.2	114.0	99.0	112.3	112.7	100.4
1930.....	83.2	77.2	92.8	102.9	92.3	89.7	82.3	77.0	93.6
1931.....	70.6	56.7	80.3	85.8	67.7	78.9	68.8	55.8	81.2
1932.....	65.5	42.4	64.7	76.3	50.2	65.9	63.7	41.6	65.2

The total amount of wage and salary payments to the three general occupation groups in the manufacture of rubber products during the 9 years, 1924 to 1932, formed 8.9 percent of the total reported paid in manufactures in Ohio.

In the manufacture of rubber products, in which the manufacture of tires and tubes employs more than 85 percent of the total wage earners employed, the peak in employment and also in total and average wage and salary payments was reached prior to the depression in 1921. The peak year for employment and total wage and salary payments during the latter part of the period covered was 1929, but in that year the average number of employees (the three general occupation groups combined) was below 1919 and 1920, total wage and salary payments were below 1920, and average wage and salary payments were below 1920, 1928, and 1927. The average number of persons employed in 1932 did not reach so low a point as in 1921. The reduction in number of employees since 1929 has continued for a longer period but the reduction was not so rapid nor so great as occurred beginning in midsummer of 1920.

#### Manufacture of Stone, Clay, and Glass Products

IN THE manufacture of stone, clay, and glass products in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment to all occupation groups combined was \$1,483 in 1920, the second highest was \$1,381 in 1926, and the lowest was \$697 in 1916. The average in 1932 was \$878, which was the lowest since 1917.

The decline in average wage and salary payments from 1929 to 1923 was \$485, or 36.8 percent, for wage earners; \$364, or 20.3 percent, for bookkeepers, stenographers, and office clerks; and \$470, or 34.9 percent, for the three general occupation groups (including salespeople, not traveling) combined.

Certain of the figures for 1926 and 1932 in this study will not be in agreement with the study of "Average wage and salary payments in manufactures", published in the Monthly Labor Review for March 1934, due to correction of an error in the tabulations of the Ohio Division of Labor Statistics after the publication of that study.

The average number of persons reported employed in each of the three general occupation groups is shown in table 81.

The year 1925 shows the highest average number employed for wage earners and for the occupation groups combined. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1930, and of salespeople, not traveling (a very small group) in 1929. The year 1932 shows the lowest average employment for wage earners and for the occupation groups combined.

TABLE 81.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	712	44,096	1,329	84	45,509
1917.....	702	43,591	1,287	84	44,962
1918.....	683	35,192	1,323	83	36,598
1919.....	693	36,916	1,361	88	38,364
1920.....	713	40,168	1,532	101	41,802
1921.....	637	32,054	1,443	61	33,557
1922.....	664	34,909	1,471	65	36,445
1923.....	674	43,053	1,827	93	44,973
1924.....	711	42,898	1,816	94	44,808
1925.....	762	45,871	1,971	145	47,987
1926.....	763	44,665	2,099	160	46,924
1927.....	768	43,328	2,077	133	45,539
1928.....	772	42,805	2,173	147	45,126
1929.....	770	41,128	2,091	174	43,393
1930.....	747	33,670	2,262	139	36,071
1931.....	708	28,068	2,089	78	30,234
1932.....	622	20,603	1,460	81	22,144

More than 90 percent of the employees in the manufacture of stone, clay, and glass products were classified each year as wage earners. Table 82 shows for that general occupation group fluctuation in employment from 1930 to 1932. Maximum employment for the 17-year period was 47,603 in October 1925, and minimum employment was 18,323 in July 1932.

TABLE 82.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	33, 670	26, 713	21, 516	November.....	31, 937	25, 795	20, 054
February.....	34, 589	28, 401	22, 482	December.....	29, 515	24, 076	19, 504
March.....	35, 322	29, 516	22, 567	Maximum.....	35, 930	31, 108	22, 567
April.....	35, 930	30, 680	21, 818	Minimum.....	29, 515	24, 076	18, 323
May.....	35, 806	31, 108	21, 192	Variation from maximum:			
June.....	35, 795	30, 219	20, 581	Number.....	6, 415	7, 032	4, 244
July.....	32, 329	27, 623	18, 323	Percent.....	17. 9	22. 6	18. 8
August.....	33, 384	28, 199	18, 672	Number of establish-			
September.....	32, 876	27, 454	20, 202	ments.....	747	708	622
October.....	32, 887	27, 030	20, 321				

<sup>1</sup> For years 1916 to 1929, see Bureau of Labor Statistics Bul. No. 553. Certain figures have been revised since publication of the bulletin.

Table 83 and chart 28 show average wage and salary payments in the manufacture of stone, clay, and glass products.

The highest average payment to wage earners and to the occupation groups combined was in 1920, with 1924 second in order for wage earners and 1926 for the groups combined. The highest average payment to bookkeepers, stenographers, and office clerks was in 1930. The lowest average payment in each classification was in 1916. The 1932 average payment to wage earners and to the occupation groups combined was the lowest since 1917.

TABLE 83.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers and office clerks	Salespeople (not traveling)	All employees
1916.....	712	\$689	\$391	( <sup>1</sup> )	\$696
1917.....	702	829	1, 003	( <sup>1</sup> )	837
1918.....	683	971	1, 043	( <sup>1</sup> )	976
1919.....	693	1, 145	1, 252	( <sup>1</sup> )	1, 151
1920.....	713	1, 453	( <sup>2</sup> )	( <sup>1</sup> )	1, 483
1921.....	637	1, 209	1, 421	( <sup>1</sup> )	1, 220
1922.....	<sup>3</sup> 664	1, 117	1, 436	( <sup>1</sup> )	1, 132
1923.....	674	1, 188	1, 535	( <sup>1</sup> )	1, 204
1924.....	711	1, 363	1, 577	( <sup>1</sup> )	1, 374
1925.....	762	1, 359	1, 624	( <sup>1</sup> )	1, 374
1926 <sup>4</sup> .....	763	1, 360	1, 716	( <sup>1</sup> )	1, 381
1927.....	768	1, 330	1, 686	( <sup>1</sup> )	1, 351
1928.....	772	1, 314	1, 757	( <sup>1</sup> )	1, 341
1929.....	770	1, 319	1, 796	( <sup>1</sup> )	1, 348
1930.....	747	1, 187	1, 909	( <sup>1</sup> )	1, 241
1931.....	708	1, 096	1, 780	( <sup>1</sup> )	1, 145
1932.....	622	<sup>4</sup> 834	1, 432	( <sup>1</sup> )	<sup>4</sup> 878

<sup>1</sup> Not computed, owing to small number involved.

<sup>2</sup> Omitted, owing to probable error in reporting or tabulating; no further verification possible.

<sup>3</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 8.

<sup>4</sup> Not in agreement with study of "Average wage and salary payments in manufactures", Monthly Labor Review, for March 1934, due to correction in tabulations of Ohio Division of Labor Statistics after publication of March study.

Industries in Manufacture of Stone, Clay, and Glass Products

IN THIS study the following manufacturing industries have been combined under "Stone, clay, and glass products, other": Burial vaults, concrete; crucibles; emery wheels and other abrasives, including sand and emery cloth; glass cutting, staining, and ornamenting;

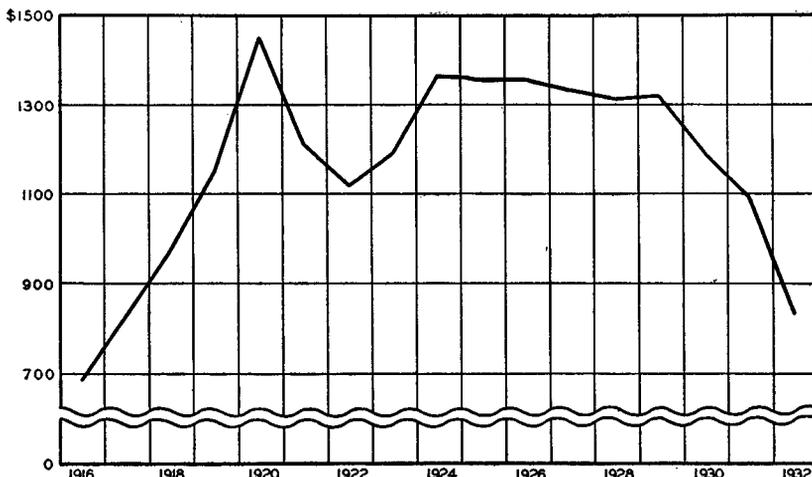


FIGURE 28.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1916 TO 1932

lime; mirrors; statuary and art goods; stone and clay crushing and grinding; and stone, clay, and glass products, not otherwise classified.

Average wage and salary payments to wage earners in each of the 7 industries and in the group "other" are shown in table 84. These averages should be taken not as exact measures but as approximate figures.

TABLE 84.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Brick and tile, clay	Cement	Concrete products	Glass	Marble and stone work, stone yards	Pottery, terra cotta, and fire-clay products	Wall plaster, including hydrated lime	Stone, clay, and glass products, other
1916.....	\$681	\$819	\$691	\$738	\$818	\$651	\$735	\$698
1917.....	796	1,070	822	833	912	780	927	(1)
1918.....	973	1,467	861	981	1,109	937	1,362	1,002
1919.....	1,235	1,473	1,470	1,136	1,353	1,104	1,399	1,080
1920.....	1,770	1,652	1,344	1,400	1,755	1,372	1,717	1,361
1921.....	1,203	1,524	1,238	1,109	1,743	1,201	1,789	1,189
1922.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1923.....	1,341	1,518	1,403	1,262	1,808	1,043	1,653	1,266
1924.....	1,385	1,696	1,392	1,355	1,834	1,342	(1)	1,282
1925.....	1,364	1,557	1,401	1,332	1,807	1,320	1,519	1,303
1926.....	1,480	1,578	1,491	1,329	1,789	1,257	1,647	1,372
1927.....	1,302	1,873	1,401	1,344	1,876	1,250	1,632	1,327
1928.....	1,314	1,792	1,355	1,344	1,893	1,231	1,379	1,326
1929.....	1,291	1,739	1,333	1,346	1,953	1,227	1,527	1,332
1930.....	1,154	1,620	1,225	1,190	1,888	1,085	1,443	1,293
1931.....	947	1,455	1,061	1,109	1,686	1,123	1,302	1,092
1932.....	693	1,136	916	959	1,335	734	901	776

<sup>1</sup> Omitted owing to probable error in reporting or tabulating; no further verification possible.

<sup>2</sup> Data not available.

The highest average wage and salary payment to wage earners was made in 1920 in 3 industries, in 1921 in 1, in 1926 in 2, in 1927 in 1, and in 1929 in 1. The lowest average payment was made in 1916 in each of the 8 industries and the average in 1932 was second lowest in 4.

### Indexes of Employment and of Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 85. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics has requested reports from all employers of three or more persons. Indexes are shown for manufactures of stone, clay, and glass products as a whole and for each of seven industries.

TABLE 85.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1924 to 1932, BY INDUSTRIES

[1926=100.0]

Year	Stone, clay, and glass products <sup>1</sup>			Brick and tile, clay			Cement			Concrete products		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	96.0	96.2	100.2	69.5	65.0	93.6	64.7	69.5	107.5	78.9	73.7	93.4
1925.....	102.7	102.6	99.9	115.1	106.2	92.2	105.9	104.5	98.7	96.9	91.1	94.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	97.0	94.9	97.8	105.6	92.9	88.0	90.1	106.9	118.7	103.8	97.5	94.0
1928.....	95.8	92.6	96.6	109.9	97.5	88.8	83.6	95.0	113.6	104.6	95.0	90.9
1929.....	92.1	89.3	97.0	127.4	111.1	87.2	77.6	85.1	110.2	96.6	86.4	89.4
1930.....	75.4	65.8	87.3	94.4	73.6	78.0	64.4	66.1	102.7	76.1	62.5	82.2
1931.....	62.8	50.6	80.6	81.3	52.0	64.0	45.3	41.8	92.2	61.3	43.7	71.2
1932.....	46.1	28.3	61.3	39.5	18.5	46.8	37.1	26.7	72.0	30.3	18.6	61.4
Year	Glass			Marble and stone work, stone yards			Pottery, terra cotta, and fire-clay products			Wall plaster, including hydrated lime		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	92.2	94.0	102.0	114.3	117.2	102.5	112.8	120.4	106.8	100.2	67.2	(?)
1925.....	99.7	99.9	100.2	114.1	115.3	101.0	98.9	103.9	105.0	99.8	92.1	92.2
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	94.0	95.1	101.1	122.3	128.3	104.9	95.6	95.1	99.4	62.8	62.3	99.1
1928.....	99.3	100.5	101.1	93.2	98.7	105.8	89.3	87.5	97.9	61.7	51.6	83.7
1929.....	109.3	110.8	101.3	112.2	122.6	109.7	69.0	67.4	97.6	55.4	51.4	92.7
1930.....	83.9	75.1	89.5	101.5	107.2	105.5	60.1	51.9	86.3	45.0	39.5	87.6
1931.....	87.0	72.6	83.4	89.5	84.3	94.2	42.1	37.6	89.3	33.8	26.7	79.1
1932.....	76.3	55.1	72.2	59.2	44.1	74.6	36.7	21.4	58.4	25.8	14.1	54.7

<sup>1</sup> Indexes not in agreement with study of "Average wage and salary payments in manufactures", Monthly Labor Review for March 1934, due to corrections in tabulations of Ohio Division of Labor Statistics after publication of March study.

<sup>2</sup> Omitted owing to probable error in reporting or tabulating; no further verification possible.

Considering stone, clay, and glass products as a whole, the index in 1932 was 46.1 for average number of wage earners employed, 28.3 for total wage and salary payments to wage earners, and 61.3 for average wage and salary payments. The indexes for the industry group are not in agreement with the study of "Average wage and salary payments in manufactures", published in the Monthly Labor Review for March 1934, due to corrections in the tabulations of the Ohio Division of Labor Statistics after the publication of that study.

The 1932 index fell below 40 in 5 of the 7 industries for average number of wage earners employed and for total wage and salary payments to wage earners. The 1932 index for average payments fell below 75 in each of the 7 industries, and in 1 it fell below 50.

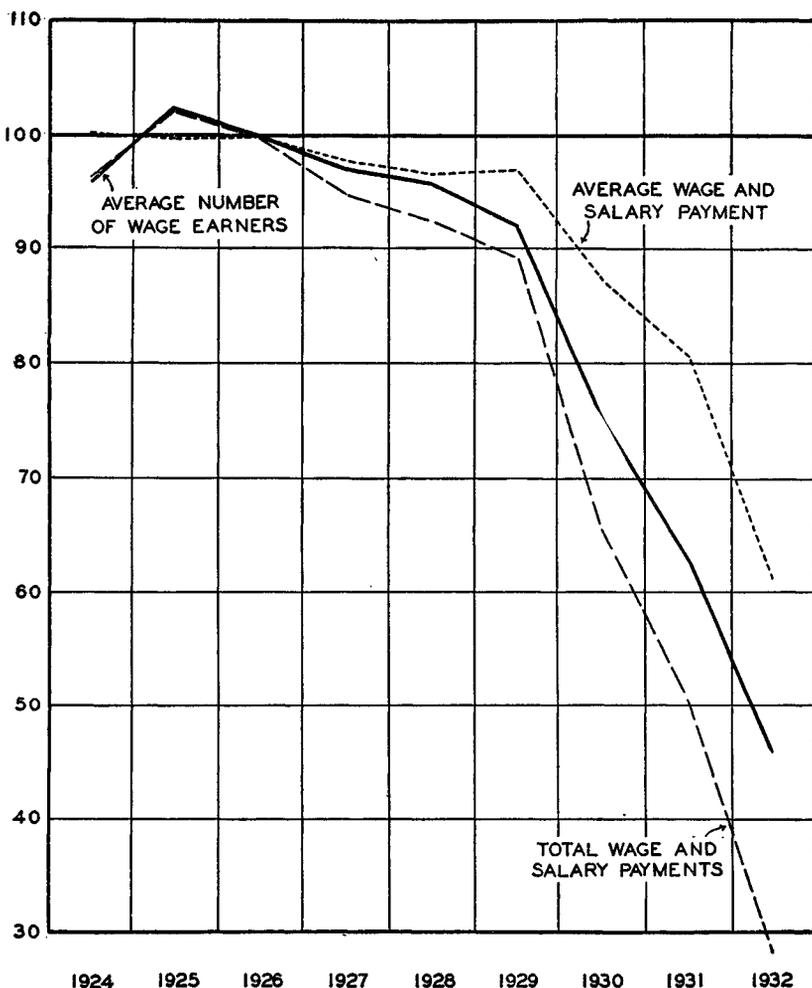


FIGURE 29.—INDEXES OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF STONE, CLAY, AND GLASS PRODUCTS, 1924 TO 1932 (1926=100)

Chart 29 shows graphically the indexes for the industry group as a whole.

#### Manufacture of Vehicles

IN THE manufacture of vehicles in Ohio, the average number of persons employed declined 49,921, or 63.6 percent, from 1929 to 1932; total wage and salary payments decreased \$98,395,656, or 77.3 percent; and the average wage and salary payment decreased \$614, or 37.9 percent.

During the 17 years covered by this study the average number of employees (wage earners; bookkeepers, stenographers, and office clerks; and salespeople, not traveling) reached the highest point in 1919; total wage and salary payments reached the highest amount in 1920; and the average wage and salary payment reached the highest amount in 1927. Employment and total wage and salary payments reached the lowest point in 1932, and average wage and salary payments in 1916.

The Ohio Division of Labor Statistics classifies airplanes and ship and boat building under "Vehicles" beginning with 1919. In this study, therefore, those industries have been transferred for the earlier years from "Miscellaneous manufactures" to "Manufacture of vehicles" and the figures for 1916, 1917, and 1918 will not be in agreement with the summary for manufactures published in the Monthly Labor Review for March 1934.

The average number of persons reported employed in each of the three general occupation groups is shown in table 86.

The highest average number of wage earners was employed in 1929. The average in 1919, however, was only one-half of 1 percent less. The lowest average number was employed in 1932 and the second lowest in 1921. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1920, the lowest average in 1932, and the second lowest in 1916.

TABLE 86.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF VEHICLES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916 <sup>1</sup> .....	376	58, 144	3, 663	<sup>2</sup> 101	61, 907
1917 <sup>1</sup> .....	383	68, 821	4, 681	<sup>3</sup> 54	73, 556
1918 <sup>1</sup> .....	374	71, 487	<sup>4</sup> 5, 584	<sup>4</sup> 71	77, 142
1919.....	390	72, 340	6, 982	88	79, 410
1920.....	416	89, 283	7, 287	98	76, 668
1921.....	363	31, 942	4, 315	85	36, 342
1922.....	320	46, 090	4, 510	65	50, 664
1923.....	331	64, 520	5, 732	( <sup>6</sup> )	70, 252
1924.....	328	46, 952	5, 083	97	52, 132
1925.....	319	57, 584	5, 012	115	62, 711
1926.....	318	57, 066	4, 711	90	61, 867
1927.....	319	52, 174	4, 897	95	57, 166
1928.....	304	65, 484	5, 186	116	70, 786
1929.....	304	72, 727	5, 617	120	78, 463
1930.....	297	51, 144	5, 375	111	56, 630
1931.....	265	39, 613	4, 022	( <sup>6</sup> )	43, 635
1932.....	228	25, 684	2, 858	( <sup>6</sup> )	28, 542

<sup>1</sup> Shipbuilding and boatbuilding classified by Ohio Division of Labor Statistics under "Manufacture of vehicles" beginning in 1919 and therefore transferred in this study from "Miscellaneous manufactures" for 1916 to 1918. Manufacture of airplanes and parts also transferred for the same reason for 1917 and 1918 but no data for that industry are available for 1916.

<sup>2</sup> Number of salespeople (not traveling) in shipbuilding and boatbuilding not known. Total wage and salary payment, \$7,200.

<sup>3</sup> Number of salespeople (not traveling) in shipbuilding and boatbuilding not known. Total wage and salary payments, \$2,600.

<sup>4</sup> Number of bookkeepers, stenographers, and office clerks in manufacture of airplanes and parts not known. Total wage and salary payments, \$46,627.

<sup>5</sup> Number of salespeople (not traveling) in shipbuilding and boatbuilding not known. Total wage and salary payments, \$2,700.

<sup>6</sup> Tabulated by Ohio Division of Labor Statistics with "Manufactures, not otherwise classified."

More than 90 percent of the employees in the manufacture of vehicles were classified as wage earners in 11 of the 17 years covered in this study, and more than 85 percent in the other 6 years.

Table 87 shows fluctuation in employment of wage earners from 1930 to 1932. Maximum employment for the 17-year period was 86,400 in February 1929, and minimum employment was 21,179 in October 1932.

TABLE 87.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF VEHICLES, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	54,365	41,062	29,137	November.....	43,430	35,207	23,353
February.....	56,553	41,079	30,890	December.....	45,100	33,710	24,610
March.....	56,809	43,231	28,855	Maximum.....	58,691	46,022	30,890
April.....	58,691	46,022	27,379	Minimum.....	43,430	32,024	21,179
May.....	57,343	45,637	27,119	Variation from maximum:			
June.....	54,558	43,096	25,626	Number.....	15,261	13,998	9,711
July.....	50,023	41,081	25,169	Percent.....	26.0	30.4	31.4
August.....	47,622	37,582	22,712	Number of establish-			
September.....	45,225	35,621	22,179	ments.....	297	265	228
October.....	44,010	32,024	21,179				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Average wage and salary payments to wage earners, to bookkeepers, stenographers, and office clerks, and to the general occupation groups combined are shown in table 88.

The average wage and salary payment to wage earners reached the highest amount in 1920. The average in 1927, however, was only \$11, or six-tenths of 1 percent less. Following 1927, the average declined each year, and in 1932 it was the lowest since 1916. Average wage and salary payments to bookkeepers, stenographers, and office clerks, and to the general occupation groups combined, reached the highest amount in 1927 and the lowest in 1916.

TABLE 88.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF VEHICLES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916 <sup>1</sup> .....	2 376	\$789	\$969	( <sup>5</sup> )	<sup>4</sup> \$800
1917 <sup>1</sup> .....	383	952	1,148	( <sup>5</sup> )	<sup>4</sup> 967
1918 <sup>1</sup> .....	374	1,246	<sup>4</sup> 1,204	( <sup>5</sup> )	<sup>4</sup> 1,244
1919.....	390	1,394	1,383	( <sup>5</sup> )	1,394
1920.....	416	1,695	1,629	( <sup>5</sup> )	1,693
1921.....	363	1,364	1,611	( <sup>5</sup> )	1,401
1922.....	2 320	1,342	1,618	( <sup>5</sup> )	1,370
1923.....	331	1,538	1,719	( <sup>5</sup> )	<sup>7</sup> 1,552
1924.....	328	1,656	1,874	( <sup>5</sup> )	1,677
1925.....	319	1,631	1,842	( <sup>5</sup> )	1,650
1926.....	318	1,394	1,836	( <sup>5</sup> )	1,430
1927.....	319	1,687	2,004	( <sup>5</sup> )	1,731
1928.....	304	1,666	1,583	( <sup>5</sup> )	1,661
1929.....	304	1,609	1,647	( <sup>5</sup> )	1,622
1930.....	297	1,331	1,744	( <sup>5</sup> )	1,374
1931.....	265	1,174	1,910	( <sup>5</sup> )	<sup>7</sup> 1,242
1932.....	228	934	1,667	( <sup>5</sup> )	<sup>7</sup> 1,008

<sup>1</sup> See note 1 to table 86.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments less by 2.

<sup>3</sup> Not computed, owing to small number involved.

<sup>4</sup> Amounts indicated in notes to table 86 deducted before computing averages.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments greater by 8.

<sup>6</sup> Carried with "Manufacturers, not otherwise classified" in detailed tabulation.

<sup>7</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average, as average number in that group could not be determined from detailed tabulation.

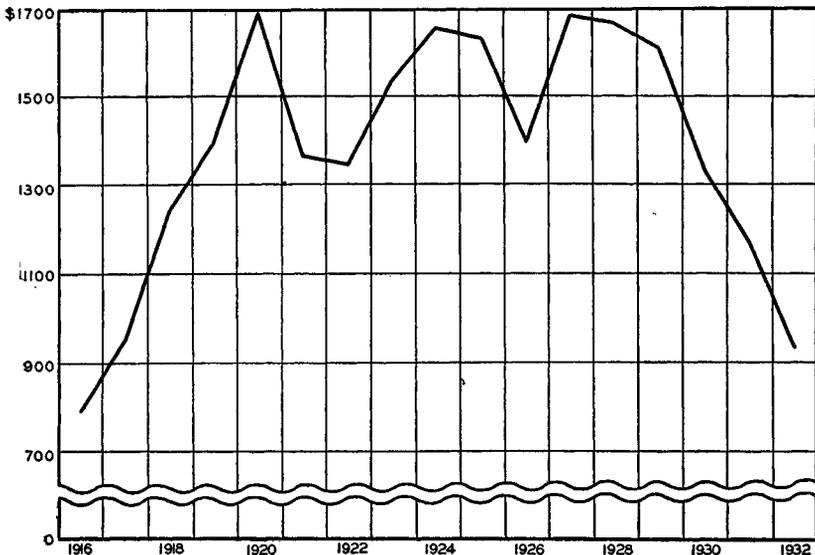


FIGURE 30.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF VEHICLES, 1916 TO 1932

Chart 30 shows graphically average wage and salary payments to wage earners.

## Industries in Manufacture of Vehicles

IN THIS study manufacture of bicycles, motorcycles, and parts, and manufacture of vehicles, not otherwise classified, have been combined under "Vehicles, other."

Table 89 shows average wage and salary payments to wage earners in each of the six industries and in the group "Vehicles, other." These averages should not be taken as exact measures but as approximate figures.

The average wage and salary payment to wage earners reached the highest amount in 1920 for automobiles and parts, steam and street railroad cars, and ship and boat building, in 1921 for airplanes and parts, in 1926 for carriages and wagons, in 1928 for children's carriages and sleds, and in 1929 for the group "Vehicles, other." The lowest average was paid in 1916 for all industries except airplanes and parts for which industry data for 1916 are not available, and the lowest average was paid in 1917. In 4 of the 6 industries the highest average for the 17 years was paid prior to the depression in 1921.

TABLE 89.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF VEHICLES, 1916 TO 1932, BY INDUSTRIES

Year	Airplanes and parts	Auto-mobiles and parts	Carriages and sleds, children's	Carriages, wagons, and materials, including repairing	Cars, steam and street railroad	Ship and boat building	Vehicles, other
1916.....	( <sup>1</sup> )	\$801	\$684	\$691	\$836	\$780	\$759
1917.....	\$989	958	733	825	1,036	1,058	772
1918.....	1,214	1,184	892	956	1,189	1,791	973
1919.....	1,740	1,380	1,001	1,030	1,483	1,633	1,210
1920.....	1,600	1,727	1,208	1,386	1,750	1,806	1,444
1921.....	1,899	1,365	1,015	1,279	1,380	1,478	1,280
1922.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1923.....	1,735	1,567	1,080	1,205	1,496	1,579	1,312
1924.....	1,816	1,700	1,226	1,196	1,561	1,654	1,422
1925.....	1,791	1,659	1,172	1,280	1,662	1,664	1,457
1926.....	1,602	1,380	1,282	1,437	1,491	1,642	1,385
1927.....	1,601	1,719	1,259	1,356	1,657	1,660	1,370
1928.....	1,578	1,687	1,293	1,331	1,613	1,702	1,504
1929.....	1,604	1,621	1,272	1,236	1,725	1,628	1,580
1930.....	1,718	1,309	1,133	1,144	1,605	1,549	1,344
1931.....	1,761	1,153	1,143	943	1,264	1,305	1,282
1932.....	1,527	916	845	759	1,076	1,240	981

<sup>1</sup> Data not available.

## Indexes of Employment and of Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 90. The base is 1926. The indexes are for the period during which the Ohio Division of Labor Statistics requested reports annually from all employers of three or more persons. Indexes are shown for manufactures of vehicles as a whole and for each of six industries,

In 1932, the employment index for airplanes and parts was considerably above the base year. In all other industries, except children's carriages and sleds, the index was below 50. The 1932 index of total wage and salary payments to wage earners, also, was considerably above the base year for airplanes and parts, but it was below 50 in all other industries. The 1932 index of average wage and salary payments to wage earners was above 65 for all industries except carriages and wagons.

TABLE 90.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF VEHICLES, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Vehicles			Airplanes and parts			Automobiles and parts			Carriages and sleds, children's		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	82.3	97.7	118.8	92.4	104.7	113.3	81.6	100.6	123.2	94.3	90.2	95.6
1925.....	100.9	118.1	117.0	171.9	192.1	111.8	102.6	123.3	120.2	96.0	87.8	91.4
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	91.4	110.6	121.0	117.1	117.1	99.9	92.8	115.6	124.6	101.1	99.3	98.2
1928.....	114.8	137.2	119.5	222.0	218.6	98.5	121.9	149.1	122.2	93.1	93.9	100.9
1929.....	127.4	147.1	115.4	248.4	248.7	100.1	134.7	158.3	117.5	106.4	105.5	99.2
1930.....	89.6	85.6	95.5	257.9	276.5	107.2	93.1	88.4	94.9	55.0	48.6	88.4
1931.....	69.4	58.5	84.2	230.2	253.0	109.9	73.3	61.3	83.6	64.4	57.4	89.2
1932.....	45.0	30.2	67.0	126.8	120.9	95.3	47.2	31.3	66.4	72.7	47.9	65.9

Year	Carriages, wagons, and materials, including repairing			Cars, steam and street railroad			Ship and boat building		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	106.7	88.8	83.2	104.2	109.1	104.7	36.6	36.8	100.7
1925.....	104.8	93.3	89.1	73.7	77.1	104.8	86.1	87.2	101.3
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	79.1	74.6	94.4	45.5	50.6	111.1	124.7	126.0	101.1
1928.....	88.0	81.5	92.6	43.6	47.2	108.2	62.4	64.6	103.7
1929.....	57.2	49.2	86.0	53.8	62.2	115.7	111.5	110.5	99.1
1930.....	35.8	28.5	79.6	48.2	51.9	107.6	105.5	99.5	94.3
1931.....	26.0	17.1	65.6	21.3	18.1	84.8	41.5	32.9	79.5
1932.....	17.4	9.2	52.8	13.8	9.9	72.2	27.0	20.4	75.5

Two industries show extreme declines since 1926. In 1932 the indexes for manufacture of carriages and wagons were 17.4 for employment and 9.2 for total wage and salary payments to wage earners, and the indexes for steam and street railroad cars were 13.8 for employment and 9.9 for total wage and salary payments to wage earners.

Chart 31 shows graphically the indexes for the manufacture of vehicles.

### Manufacture of Leather and Leather Products

IN THE manufacture of leather and leather products in Ohio, according to reports from practically all establishments employing three or more persons, the average number of wage earners, bookkeepers, stenographers, and office clerks employed declined 17 percent from

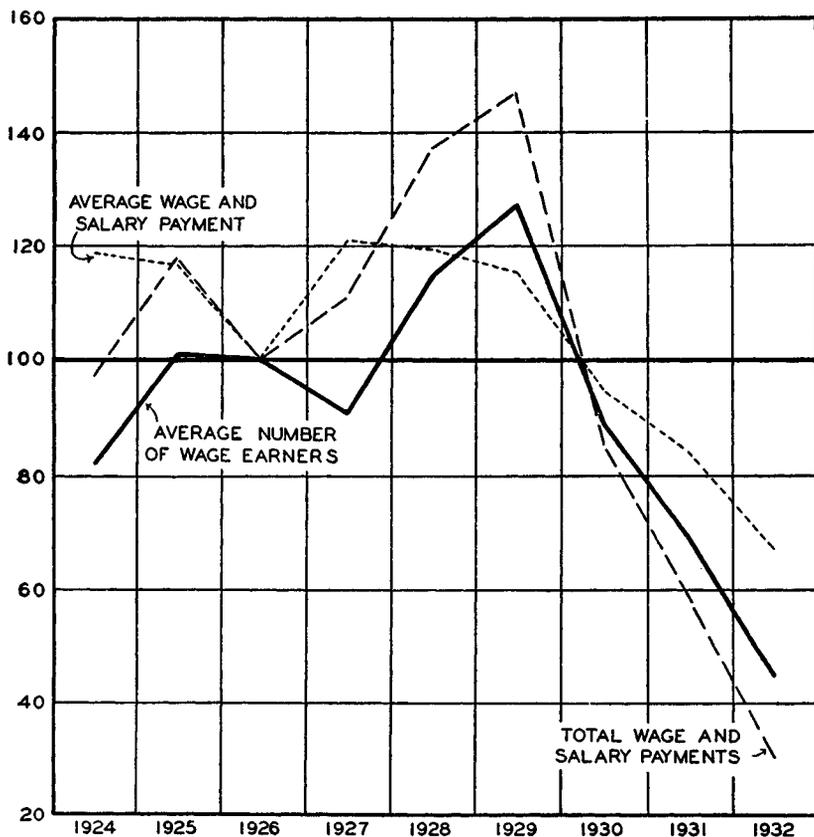


FIGURE 31.—INDEXES OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF VEHICLES, 1924 TO 1932 (1926=100)

1929 to 1932, total wage and salary payments to such employees decreased 46.3 percent, and average wage and salary payments decreased 35 percent. Salespeople (not traveling) were omitted in the preceding comparison, as data concerning the number employed in 1932 were not available.

During the 17 years, 1916 to 1932, the average number of persons employed reached the highest point in 1916 and the lowest in 1932. Both total and average wage and salary payments reached the highest amount in 1927 and the lowest in 1916.

The average number of persons reported employed in the manufacture of leather and leather products in each of the three general occupation groups is shown in table 91.

The highest average number of wage earners was reported employed in 1916 and the second highest in 1919, while the lowest was in 1932, with 1931 and 1930 second and third in order. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1926 and the lowest in 1932. The average number of wage earners, of bookkeepers, stenographers, and office clerks, and of the general occupation groups combined show a decline in employment each year following 1927.

TABLE 91.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	161	18,346	1,060	37	19,443
1917.....	160	17,465	1,068	34	18,566
1918.....	161	16,855	1,049	27	17,930
1919.....	166	17,790	1,075	39	18,904
1920.....	158	16,395	1,146	42	17,583
1921.....	144	15,947	1,078	47	17,072
1922.....	138	14,876	959	58	15,893
1923.....	145	16,266	1,013	(1)	17,279
1924.....	138	15,043	981	55	16,079
1925.....	141	15,855	993	60	16,848
1926.....	147	16,113	1,176	59	17,348
1927.....	137	16,351	1,165	67	17,582
1928.....	130	15,538	1,049	61	16,647
1929.....	126	15,345	1,039	65	16,449
1930.....	119	13,959	1,001	(1)	14,960
1931.....	110	13,153	852	(1)	14,005
1932.....	106	12,844	749	(1)	13,593

<sup>1</sup> Carried with "Manufactures, not otherwise classified," in detailed tabulation by Ohio Division of Labor Statistics.

More than 90 percent of persons employed in the manufacture of leather and leather products are classified in the general occupation group of wage earners. Fluctuation in employment from 1930 to 1932 in that general occupation group is shown in table 92.

Maximum employment during the 17 years was reported in December 1919. Minimum employment was reported in June 1922, when the number of wage earners employed was 41.7 percent below the number at the peak 2½ years earlier. The second lowest number reported employed was in November 1931.

TABLE 92.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	14, 975	12, 590	12, 663	November.....	12, 566	11, 580	11, 958
February.....	14, 805	13, 345	13, 203	December.....	12, 089	11, 709	12, 175
March.....	14, 547	13, 756	13, 224	Maximum.....	14, 975	14, 379	13, 394
April.....	14, 063	13, 547	12, 886	Minimum.....	12, 089	11, 580	11, 958
May.....	13, 539	13, 091	12, 660	Variation from maximum:			
June.....	13, 840	13, 023	12, 649	Number.....	2, 886	2, 799	1, 436
July.....	14, 278	14, 221	13, 017	Percent.....	19.3	19.5	10.7
August.....	14, 820	14, 379	13, 293	Number of establishments.	119	110	106
September.....	14, 253	13, 941	13, 394				
October.....	13, 737	12, 652	13, 007				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Table 93 shows average wage and salary payments to wage earners, to bookkeepers, stenographers, and office clerks, and to the general occupation groups combined, in the manufacture of leather and leather products.

TABLE 93.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Bookkeepers, stenographers, and office clerks	All employees			Wage earners	Bookkeepers, stenographers, and office clerks	All employees
1916.....	161	\$571	\$806	\$574	1925.....	141	\$1, 078	\$1, 325	\$1, 096
1917.....	160	635	672	638	1926.....	147	1, 103	1, 463	1, 129
1918.....	161	770	858	776	1927.....	137	1, 113	1, 552	1, 144
1919.....	156	938	1, 039	945	1928.....	130	1, 092	1, 473	1, 118
1920.....	158	1, 123	1, 134	1, 125	1929.....	126	1, 096	1, 461	1, 122
1921.....	144	1, 074	1, 318	1, 091	1930.....	119	922	1, 395	954
1922.....	<sup>2</sup> 138	1, 072	1, 298	1, 088	1931.....	110	864	1, 323	892
1923.....	145	1, 089	1, 355	<sup>3</sup> 1, 104	1932.....	106	690	1, 315	<sup>4</sup> 724
1924.....	138	1, 087	1, 311	1, 105					

<sup>1</sup> Average for salespeople (not traveling) not computed owing to small number involved; in 1923, 1930, 1931, and 1932, carried with "Manufactures, not otherwise classified", in detailed tabulation by Ohio Division of Labor Statistics.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>4</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing this average, as average number in that group could not be determined from detailed tabulation.

The average wage and salary payments to wage earners reached the highest amount during the 17 years in 1920 and the lowest in 1916. Bookkeepers, stenographers, and office clerks received the highest average amount in 1927 and the lowest in 1916. Combining the three general occupation groups, the highest average wage and salary payment was reported for 1927 and the lowest for 1916.

Chart 32 shows graphically average wage and salary payments to wage earners in the manufacture of leather and leather products.

#### Industries in Manufacture of Leather and Leather Products

IN THIS study several of the smaller industries classified by the Ohio Division of Labor Statistics under the manufacture of leather and leather products have been combined under "Leather and leather products, other." The industries thus combined are: Leather belting

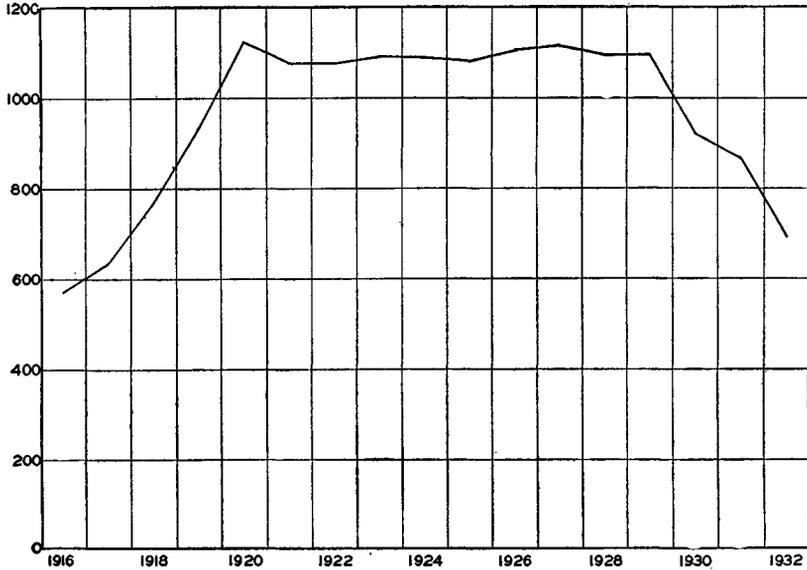


FIGURE 32.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1916 TO 1932

and hose; leather gloves and mittens; saddlery and harness; trunks and valises; and leather and leather products, not otherwise classified.

Except in the year 1918, more than 80 percent of the wage earners in industries classified by the Ohio Division of Labor Statistics under manufacture of leather and leather products, were employed in the manufacture of boots, shoes, cut stock, and findings. Table 94 shows fluctuation in employment of wage earners in that industry from 1930 to 1932.

Maximum employment of wage earners during the 17 years was reported in December 1919 and minimum employment  $2\frac{1}{2}$  years later, June 1922, when the number was 47.1 percent less. The second lowest number reported employed was in November 1931.

TABLE 94.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF BOOTS, SHOES, CUT STOCK, AND FINDINGS, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	12,251	10,398	10,606	November.....	10,081	9,452	10,076
February.....	12,089	11,044	11,131	December.....	9,664	9,571	10,399
March.....	11,899	11,546	11,271	Maximum.....	12,255	12,166	11,551
April.....	11,467	11,330	10,987	Minimum.....	9,664	9,452	10,076
May.....	10,937	10,838	10,806	Variation from maximum:			
June.....	11,271	10,858	10,916	Number.....	2,601	2,714	1,475
July.....	11,724	11,995	11,290	Percent.....	21.2	22.3	12.8
August.....	12,265	12,166	11,540	Number of establishments.....	45	38	40
September.....	11,716	11,702	11,551				
October.....	11,147	10,428	11,037				

<sup>1</sup> For years 1916 to 1929, see Bureau of Labor Statistics Bul. No. 553.

Table 95 shows average wage and salary payments to wage earners in each of the industries and in the group "Leather and leather products, other." These averages should be taken not as exact measures but as approximate figures.

TABLE 95.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1916 TO 1932, BY INDUSTRIES

Year	Boots, shoes, cut stock, and findings	Leather, tanned, curried, and finished	Leather and leather products, other	Year	Boots, shoes, cut stock, and findings	Leather, tanned, curried, and finished	Leather and leather products, other
1916.....	\$542	\$785	\$628	1925.....	\$1,044	\$1,325	\$1,138
1917.....	590	854	773	1926.....	1,062	1,370	1,207
1918.....	719	1,050	873	1927.....	1,076	1,415	1,137
1919.....	836	1,348	1,015	1928.....	1,046	1,441	1,127
1920.....	1,067	1,490	1,227	1929.....	1,050	1,430	1,132
1921.....	1,045	1,302	1,184	1930.....	859	1,344	1,022
1922.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1931.....	816	1,242	882
1923.....	1,061	1,302	1,089	1932.....	650	999	177
1924.....	1,050	1,356	1,138				

<sup>1</sup> Information concerning total wage and salary payments not tabulated by Ohio Division of Labor Statistics for individual industries.

In the manufacture of boots, shoes, cut stock, and findings, the average wage and salary payment was highest in 1927, second highest in 1920, lowest in 1916, and second lowest in 1917. In the manufacture of tanned, curried, and finished leather, the average was highest in 1920, second highest in 1928, lowest in 1916, and second lowest in 1917. In the group "Leather and leather products, other", the average was highest in 1920, second highest in 1926, lowest in 1916, and second lowest in 1932.

Chart 33 shows, graphically, average wage and salary payments in the manufacture of boots, shoes, cut stock, and findings.

### Indexes of Employment and Wage and Salary Payments

INDEXES of average number of wage earners employed and total and average wage and salary payments to wage earners are shown in table 96. The base for these indexes is 1926. The years covered are

1924 to 1932, during which period reports were requested each year by the Ohio Division of Labor Statistics for all establishments employing three or more persons.

In the manufacture of leather and leather products, the index for each of the three items covered exceeded the base year in 1927. The indexes were lowest in 1932—79.7 for average number of wage earners employed, 49.9 for total wage and salary payments, and 62.6 for average wage and salary payment.

In the manufacture of boots, shoes, cut stock, and findings, the index for each of the items also exceeded the base year in 1927. The

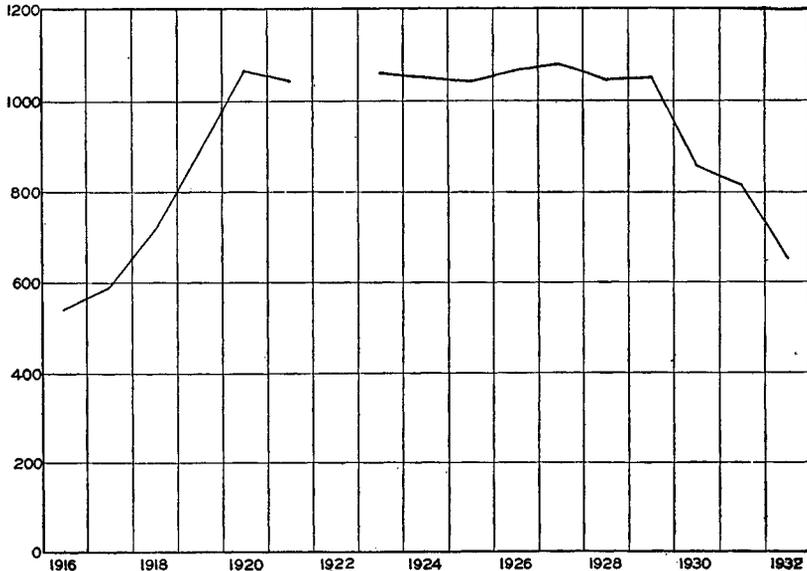


FIGURE 33.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF BOOTS, SHOES, CUT STOCK, AND FINDINGS, 1916 TO 1932

indexes, however, were lowest in 1931 for average number of wage earners employed (82.1), and in 1932 for total wage and salary payments (50.4) and for average wage and salary payments (61.2).

In the manufacture of tanned, curried, and finished leather, the index was at the highest point in 1926 for average number of wage earners employed and at the lowest point (79.3) in 1932. The index for total wage and salary payments reached the highest point (102.3) in 1927 and the lowest (57.9) in 1932, while that for average wage and salary payment reached the highest point (105.2) in 1928 and the lowest (72.9) in 1932.

In the group "Leather and leather products, other", the index for average number of wage earners employed and also for total wage and salary payments was highest in 1929 and lowest in 1932. For average wage and salary payments the index was highest in 1926 and lowest in 1932.

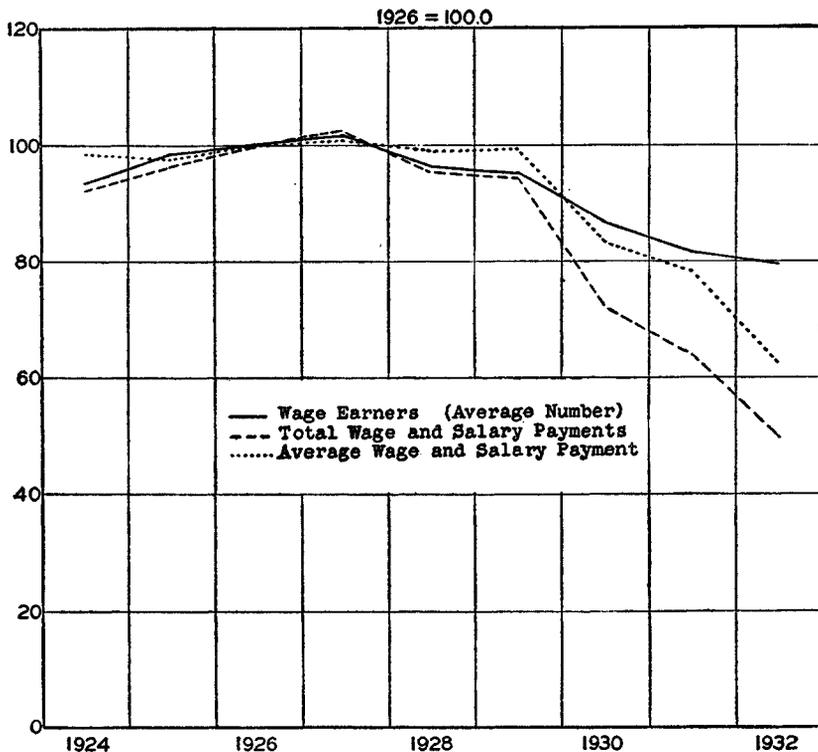


FIGURE 34.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1924 TO 1932

Charts 34 and 35 show graphically indexes for the manufacture of leather and leather products and for the manufacture of boots, shoes, cut stock, and findings.

TABLE 96.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF LEATHER AND LEATHER PRODUCTS, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Leather and leather products			Boots, shoes, cut stock, and findings			Leather, tanned, cured, and finished			Leather and leather products, other		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	93.4	92.1	98.5	93.9	92.8	98.9	98.2	97.2	99.0	81.6	77.0	94.3
1925	98.4	96.2	97.7	98.6	96.9	98.3	98.2	95.0	96.7	96.9	91.4	94.3
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	101.5	102.4	100.9	101.7	103.1	101.3	99.0	102.3	103.3	102.1	96.2	94.2
1928	96.4	95.5	99.0	95.0	93.7	98.5	96.1	101.1	105.2	112.4	105.0	93.4
1929	95.2	94.6	99.4	93.2	92.2	98.9	97.5	101.8	104.4	114.2	107.2	93.8
1930	86.6	72.5	83.6	85.4	69.1	80.9	90.0	88.3	98.1	96.3	81.6	84.7
1931	81.6	64.0	78.3	82.1	63.1	76.8	85.9	77.9	90.7	70.6	51.6	73.1
1932	79.7	49.9	62.6	82.3	50.4	61.2	79.3	57.9	72.9	51.6	33.0	63.9

### Manufacture of Liquors and Beverages

IN THE manufacture of liquors and beverages in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment to all occupation groups combined was \$1,761 in 1923; the second highest was \$1,732 in 1920; and the lowest was \$1,004 in 1917. The average payment in 1932 was \$1,233, which was the lowest since 1918. In this industry group employment of wage earners and total wage

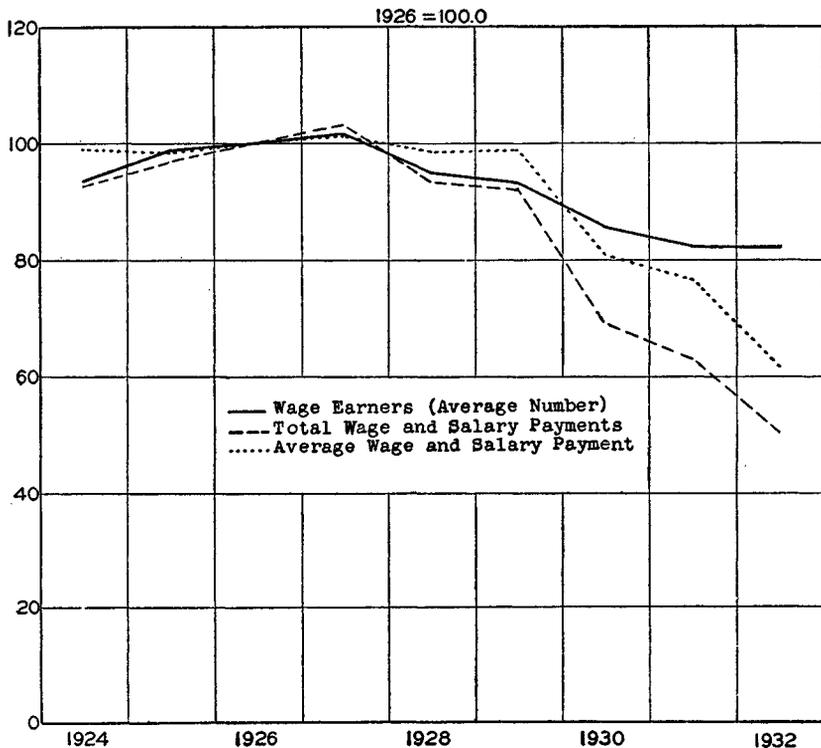


FIGURE 35.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF BOOTS, SHOES, CUT STOCK, AND FINDINGS, 1924 TO 1932

and salary payments have declined each year since 1925, and average payments each year since 1928.

Employment and pay rolls in this industry group were, of course, affected by the adoption of the eighteenth amendment to the Federal Constitution. The manufacture of distilled liquor disappears from the Ohio reports following 1918, and the manufacture of malt liquor following 1919. There occurred at once a great increase in employment and pay rolls in the manufacture of mineral and soda waters. Following 1920, however, employment and pay rolls in that industry began to decrease and a decline was reported each year since 1925.

Table 97 shows the average number of persons reported employed in each of the three general occupation groups.

The highest average number was employed in each of the occupation groups, except salespeople (not traveling), in 1916, and the second highest in 1917. The lowest average number was employed in 1932 in each of the occupation groups.

TABLE 97.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF LIQUORS AND BEVERAGES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	192	6,461	639	150	7,249
1917.....	179	6,342	636	168	7,147
1918.....	182	5,820	576	152	6,547
1919.....	167	4,533	529	144	5,206
1920.....	150	3,651	453	128	4,232
1921.....	121	2,670	362	129	3,161
1922.....	120	2,234	313	134	2,681
1923.....	124	2,194	316	127	2,637
1924.....	140	2,015	279	142	2,436
1925.....	147	2,139	282	131	2,552
1926.....	153	2,026	285	165	2,476
1927.....	155	1,939	255	163	2,357
1928.....	150	1,820	245	143	2,207
1929.....	164	1,817	261	163	2,242
1930.....	163	1,724	247	99	2,071
1931.....	175	1,583	248	91	1,922
1932.....	158	1,370	244	71	1,685

More than 80 percent of the employees in the manufacture of liquors and beverages were classified each year as wage earners. Table 98 shows for that occupation group fluctuation in employment from 1930 to 1932.

This industry group has a high seasonal fluctuation and the variation from maximum within the year exceeded 30 percent in 11 of the 17 years. Within the year, maximum employment occurred in June, July, or August—usually in July—and minimum employment in January, February, or December—usually in December. Maximum employment of wage earners reported during the 17-year period was 7,368 in August 1916, and minimum employment was 1,183 in December 1932.

TABLE 98.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF LIQUORS AND BEVERAGES, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	1,498	1,421	1,312	November.....	1,480	1,414	1,286
February.....	1,602	1,439	1,320	December.....	1,449	1,389	1,183
March.....	1,526	1,460	1,291	Maximum.....	2,122	1,887	1,717
April.....	1,652	1,556	1,378	Minimum.....	1,449	1,389	1,183
May.....	1,942	1,650	1,470	Variation from maximum:			
June.....	2,044	1,720	1,717	Number.....	673	498	534
July.....	2,118	1,887	1,468	Percent.....	31.7	26.4	31.1
August.....	2,122	1,856	1,408	Number of establishments.....	163	175	158
September.....	1,762	1,668	1,356				
October.....	1,595	1,530	1,249				

<sup>1</sup> For years 1916 to 1929, see Bureau of Labor Statistics Bul. No. 553.

Table 99 shows average wage and salary payments in the manufacture of liquors and beverages.

The highest average payment to wage earners and to the three general occupation groups combined was reported in 1923, the second highest in 1920, and the lowest in 1917. The average in 1932 was the lowest since 1918.

TABLE 99.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF LIQUORS AND BEVERAGES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Book-keepers, stenographers, and office clerks	All employees			Wage earners	Book-keepers, stenographers, and office clerks	All employees
1916.....	192	\$1,170	\$1,094	\$1,172	1925.....	147	\$1,489	\$1,617	\$1,584
1917.....	179	974	1,154	1,004	1926.....	153	1,428	1,594	1,493
1918.....	182	1,137	1,286	1,160	1927.....	155	1,475	1,623	1,521
1919.....	167	1,286	1,409	1,308	1928.....	150	1,491	1,560	1,553
1920.....	150	1,754	1,551	1,732	1929.....	164	1,484	1,554	1,527
1921.....	121	1,455	1,615	1,483	1930.....	163	1,470	1,566	1,522
1922.....	120	1,351	1,549	1,393	1931.....	175	1,396	1,444	1,431
1923.....	124	1,771	1,573	1,761	1932.....	158	1,200	1,243	1,233
1924.....	140	1,492	1,499	1,516					

<sup>1</sup> Average for salespeople (not traveling) not computed owing to small number involved.

### Industries in the Manufacture of Liquors and Beverages

IN THIS study, the manufacture of vinous liquors, malt, and liquors and beverages not otherwise classified, has been combined under "Liquors and beverages, other."

Two of the industries disappear from the reports following the adoption of the eighteenth amendment. Data for total wage and salary payments for 1922 were not tabulated by the Ohio Division of Labor Statistics for individual industries.

Average wage and salary payments to wage earners in each of the industries are shown in table 100. These averages should be taken not as exact measures, but as approximate figures.

TABLE 100.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LIQUORS AND BEVERAGES, 1916 TO 1932, BY INDUSTRIES

Year	Liquors, distilled	Liquors, malt	Mineral and soda waters	Liquors and beverages, other	Year	Liquors, distilled	Liquors, malt	Mineral and soda waters	Liquors and beverages, other
1916.....	(1)	\$940	\$765	\$777	1925.....			\$1,476	\$1,637
1917.....	\$712	1,010	846	789	1926.....			1,406	1,624
1918.....	748	1,154	1,157	1,022	1927.....			1,447	1,725
1919.....		1,263	1,301	1,156	1928.....			1,460	1,736
1920.....			1,775	1,448	1929.....			1,456	1,669
1921.....			1,463	1,333	1930.....			1,434	1,664
1922.....			(2)	(2)	1931.....			1,365	1,521
1923.....			1,791	1,483	1932.....			1,161	1,331
1924.....			1,479	1,650					

<sup>1</sup> Omitted due to error in reporting or tabulating; unable to make further verification. Average for 1915 was \$651.

<sup>2</sup> Data not available.

Indexes of Employment and Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 101 for the industry group as a whole and for the manufacture of mineral and soda waters. The base is the year 1926. The indexes cover the period during which the Ohio Division of Labor Statistics requested reports from all employers of three or more persons.

The indexes of employment and total payments show a decline each year since 1925, and the indexes of average payments a decline each year since 1928.

TABLE 101.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF LIQUORS AND BEVERAGES AND IN THE MINERAL AND SODA-WATER INDUSTRY, 1924 TO 1932

[1926=100.0]

Year	Manufacture of liquors and beverages			Mineral and soda waters		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	99.5	103.9	104.5	102.2	107.6	105.2
1925.....	105.6	110.1	104.3	107.9	113.2	105.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	95.7	98.9	103.3	95.6	98.3	102.9
1928.....	89.8	93.8	104.4	88.9	92.4	103.8
1929.....	89.7	93.2	103.9	87.1	90.2	103.6
1930.....	85.1	87.6	102.9	79.7	81.3	102.0
1931.....	78.1	76.4	97.8	69.1	67.0	97.1
1932.....	67.6	56.8	84.0	57.6	47.5	82.6

Manufacture of Metals and Metal Products, Other than Iron and Steel

IN THE manufacture of metals and metal products, other than iron and steel, in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment to all occupation groups combined

was \$1,476 in 1929 and the lowest was \$715 in 1916. The average in 1932 was \$1,047, which was the lowest since 1917.

The decline in average wage and salary payments from 1929 to 1932 was \$461, or 32.1 percent, for wage earners; \$263, or 15.1 percent, for bookkeepers, stenographers, and office clerks; and \$429, or 29.1 percent for the three general occupation groups (including salespeople, not traveling) combined.

Table 102 shows the average number of persons reported employed in each of the three general occupation groups.

The year 1929 shows the highest average number employed of wage earners and of the occupation groups combined, the year 1920 shows the second highest average, 1921 the lowest during the 17 years, and 1932 the lowest since 1921.

TABLE 102.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	331	24,993	2,229	109	27,332
1917	339	25,433	2,339	107	27,879
1918	395	31,800	2,950	193	34,943
1919	409	29,643	3,494	121	33,259
1920	457	34,404	3,742	138	38,284
1921	432	22,746	3,395	134	26,274
1922	406	27,523	3,022	122	30,667
1923	456	34,148	3,601	123	37,873
1924	471	30,496	3,540	109	34,144
1925	488	32,506	3,622	175	36,303
1926	490	32,533	3,657	185	36,375
1927	506	31,383	4,062	185	35,629
1928	523	32,306	4,115	195	36,616
1929	544	37,744	4,724	234	42,703
1930	549	32,061	4,869	187	37,116
1931	544	27,879	4,493	97	32,469
1932	531	25,046	4,022	128	29,196

More than 85 percent of the employees in the manufacture of metals and metal products, other than iron and steel, were classified each year as wage earners. Table 103 shows fluctuation in employment for that occupation group from 1930 to 1932. Maximum employment for the 17-year period was 40,148 in October 1929, and minimum employment was 20,733 in August 1921.

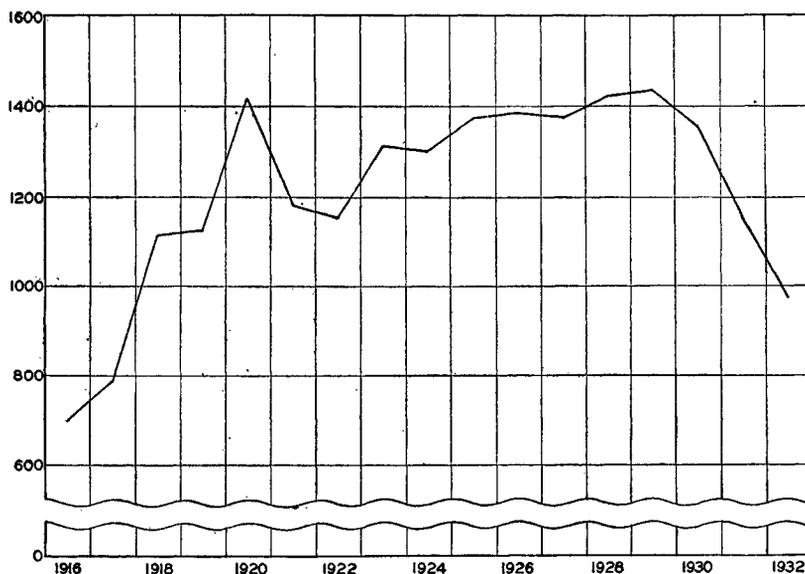
**TABLE 103.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1930 TO 1932<sup>1</sup>**

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	34,047	27,397	26,023	November.....	30,179	26,889	24,769
February.....	33,715	28,483	26,300	December.....	29,160	26,069	23,748
March.....	33,988	29,182	26,435	Maximum.....	34,322	29,591	26,435
April.....	34,322	29,591	25,520	Minimum.....	29,160	26,069	23,073
May.....	33,991	29,148	25,419	Variation from maximum—			
June.....	32,490	28,351	25,148	Number.....	5,162	3,522	3,362
July.....	31,075	27,665	24,259	Percent.....	15.0	11.9	12.7
August.....	30,302	27,043	23,073	Number of establishments.....	549	544	531
September.....	30,657	27,317	24,825				
October.....	30,801	27,409	25,027				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Table 104 shows average wage and salary payments in the manufacture of metals and metal products, other than iron and steel.

The highest average payment to wage earners and to the general occupation groups combined was in 1929. The highest average pay-



**FIGURE 36.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1916 TO 1932**

ment to bookkeepers, stenographers, and office clerks was in 1930. The lowest average was paid to each group in 1916. The 1932 average payment to wage earners and to the groups combined was the lowest since 1917. Chart 36 shows graphically average wage and salary payments to wage earners.

TABLE 104.—AVERAGE WAGE AND SALARY PAYMENTS IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Book-keepers, stenographers, and office clerks	All employees			Wage earners	Book-keepers, stenographers, and office clerks	All employees
1916.....	331	\$699	\$815	\$715	1925.....	488	\$1,372	\$1,662	\$1,412
1917.....	339	786	943	802	1926 <sup>4</sup> .....	490	1,373	1,693	1,416
1918.....	395	1,113	1,060	1,110	1927.....	506	1,371	1,688	1,418
1919.....	409	1,128	1,170	1,137	1928.....	523	1,422	1,705	1,466
1920.....	457	1,416	1,410	1,422	1929.....	544	1,434	1,740	1,476
1921.....	432	1,180	1,440	1,222	1930.....	549	1,355	1,809	1,411
1922.....	406	1,154	1,544	1,199	1931.....	544	1,155	1,711	1,235
1923.....	456	1,311	1,761	1,360	1932.....	531	973	1,477	1,047
1924.....	471	1,302	1,549	1,333					

<sup>1</sup> Average for salespeople (not traveling) not computed, owing to small number involved.

<sup>2</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 2.

<sup>3</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 4.

<sup>4</sup> Not in agreement with study of "Average wage and salary payments in manufactures," Monthly Labor Review, March 1934, due to corrections in tabulations of Ohio Division of Labor Statistics after publication of March study.

### Industries in the Manufacture of Metals and Metal Products, Other Than Iron and Steel

IN THIS study the following manufacturing industries have been combined under "Metals and metal products other than iron and steel, other": Babbitt metal and solder; metal caskets; electroplating; galvanizing; bar, pipe, and sheet lead; silverware and plated ware; smelting and refining of aluminum, brass, and copper; smelting and refining, not from ore; metals and metal products, other than iron and steel, not otherwise classified.

Average wage and salary payments to wage earners in each of the 6 industries and in the group "Other" are shown in table 105. These averages should be taken not as exact measures but as approximate figures.

Omitting consideration of 1927 data for clocks, watches, and materials, and 1928 data for the group "Other"<sup>1</sup> the highest average wage and salary payment to wage earners was made in 1920 in 3 industries, in 1927 in 1, in 1928 in 1, in 1929 in 1, and in 1930 in 1. The lowest average payment was made in 1916 in 6 industries and in 1932 in 1.

<sup>1</sup> See note to table 105.

**TABLE 105.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1916 TO 1932, BY INDUSTRIES**

Year	Brass, bronze, and aluminum products	Clocks, watches, and materials	Copper, tin, and sheet-iron products	Furniture and office fixtures	Gas and electric fixtures and lamps and reflectors	Jewelry, including reducing and refining	Metals and metal products, other
1916.....	\$855	\$615	\$709	( <sup>1</sup> )	\$594	\$757	\$820
1917.....	891	750	808	( <sup>1</sup> )	658	840	975
1918.....	1,183	855	1,228	( <sup>1</sup> )	806	929	1,109
1919.....	1,368	998	1,123	\$1,056	911	1,000	1,246
1920.....	1,651	1,242	1,424	1,420	1,154	1,253	1,611
1921.....	1,277	1,066	1,154	1,066	1,183	1,366	1,295
1922.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1923.....	1,468	1,253	1,279	1,295	1,175	1,131	1,348
1924.....	1,435	1,305	1,266	1,467	1,181	1,372	1,235
1925.....	1,457	1,438	1,351	1,380	1,267	1,459	1,419
1926.....	1,505	1,313	1,314	1,424	1,275	1,479	1,459
1927.....	1,452	( <sup>2</sup> )	1,300	1,485	1,311	1,526	1,425
1928.....	1,494	1,586	1,357	1,490	1,301	1,455	( <sup>2</sup> )
1929.....	1,564	1,585	1,401	1,535	1,247	1,507	1,518
1930.....	1,466	1,470	1,289	1,380	1,336	1,432	1,376
1931.....	1,268	1,305	1,058	1,200	1,222	1,212	1,270
1932.....	997	1,113	906	956	1,095	1,079	1,049

<sup>1</sup> Data not available.

<sup>2</sup> Omitted, due to apparent error in reporting or tabulating; no further verification possible.

**Indexes of Employment and Wage and Salary Payments**

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 106. The base is the year 1926. The indexes cover the period during which the Ohio Division of Labor Statistics requested reports from all employers of 3 or more persons. Indexes are shown for the manufacture of metal and metal products, other than iron and steel, as a whole, and for each of 6 industries.

**TABLE 106.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1924 TO 1932, BY INDUSTRIES**

[1926=100.0]

Year	Metals and metal products, other than iron and steel <sup>1</sup>			Brass, bronze, and aluminum products			Clocks, watches, and materials			Copper, tin, and sheet-iron products		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	93.7	88.9	94.8	79.3	75.6	95.3	94.5	93.9	99.4	101.9	98.1	96.3
1925.....	99.9	99.9	99.9	98.0	94.9	96.8	42.5	46.6	109.5	106.3	109.3	102.8
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	96.5	96.4	99.9	98.7	95.2	96.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	94.3	93.3	98.9
1928.....	99.3	102.9	103.6	108.7	107.8	99.3	49.1	59.3	120.8	94.1	97.2	103.3
1929.....	116.0	121.2	104.4	123.1	127.9	103.9	55.4	66.9	120.7	109.7	117.0	106.6
1930.....	98.5	97.3	98.7	96.0	93.5	97.4	38.8	43.4	112.0	109.9	107.8	98.1
1931.....	85.7	72.1	84.1	76.3	64.3	84.3	33.6	33.4	99.4	100.5	80.9	80.5
1932.....	77.0	54.6	70.9	74.2	49.2	66.2	19.3	16.4	84.8	85.5	58.9	68.9

<sup>1</sup> Indexes not in agreement with study of "Average wage and salary payments in manufactures," Monthly Labor Review, March 1934, due to corrections in tabulations of Ohio Division of Labor Statistics after publication of March study.

<sup>2</sup> Omitted due to apparent error in reporting or tabulating; no further verification possible.

TABLE 106.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL, 1924 TO 1932, BY INDUSTRIES—Continued

Year	Furniture and office fixtures			Gas and electric fixtures and lamps and reflectors			Jewelry, including reducing and refining		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	97.7	100.6	103.0	93.1	86.3	92.6	91.2	84.6	92.8
1925.....	115.7	112.0	96.9	91.5	90.9	99.4	98.2	96.9	98.6
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	105.8	110.4	104.3	103.5	106.4	102.8	97.0	100.1	103.2
1928.....	104.6	109.4	104.6	104.4	106.5	102.0	122.0	120.0	98.4
1929.....	124.0	133.7	107.8	133.4	130.5	97.8	110.0	112.1	101.9
1930.....	105.4	102.1	96.9	87.8	92.0	104.8	90.3	90.5	100.2
1931.....	85.3	71.8	84.3	71.9	69.0	95.8	83.3	68.3	81.9
1932.....	64.1	43.0	67.1	65.1	55.9	85.9	53.6	39.1	73.0

Considering the industry group as a whole, the index in 1932 was 77 for average number of wage earners employed, 54.6 for total wage and salary payments to wage earners, and 70.9 for average wage and

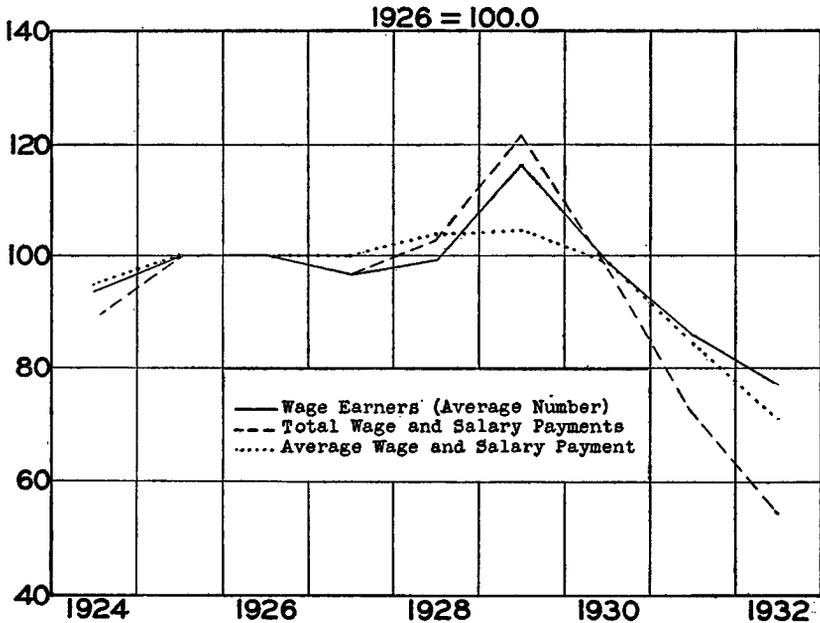


FIGURE 37.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MANUFACTURE OF METALS AND METAL PRODUCTS OTHER THAN IRON AND STEEL, 1924 TO 1932

salary payments. The indexes for the industry group are not in agreement with the study of Average Wage and Salary Payments in Manufactures published in the Monthly Labor Review for March 1934, due to corrections in the tabulations of the Ohio Division of

Labor Statistics after the publication of the study in March. Chart 37 shows indexes for the industry group as a whole.

The manufacture of clocks, watches, and materials shows the lowest 1932 index for average number of wage earners employed and for total payments to wage earners. The manufactures of brass, bronze, and aluminum show the lowest 1932 index for average payments to wage earners and furniture and office fixtures second lowest.

#### Manufacture of Textiles

IN THE manufacture of textiles in Ohio the average number of employees (wage earners; bookkeepers, stenographers and office clerks; and salespeople—not traveling) declined 26.7 percent from 1929 to 1932, total wage and salary payments decreased 48.5 percent, and average wage and salary payments decreased 29.8 percent.

During the 17 years covered by this study the average number of employees reached the highest point in 1923 and both total and average wage and salary payments reached the highest amount in 1926. Employment reached the lowest point in 1932 and both total and average wage and salary payments the lowest amount in 1916.

Table 107 shows by general occupation groups the average number of persons reported employed each year. The highest average number of wage earners and of bookkeepers, stenographers, and office clerks was employed in 1923 and the lowest in 1932.

TABLE 107.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) EMPLOYED IN THE MANUFACTURE OF TEXTILES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916 <sup>1</sup> .....	719	40,336	2,330	<sup>2</sup> 385	43,051
1917 <sup>1</sup> .....	751	41,291	2,555	<sup>2</sup> 320	44,146
1918.....	757	40,503	2,486	266	43,255
1919.....	767	39,364	2,786	326	42,476
1920.....	810	41,058	2,959	294	44,311
1921.....	680	34,170	2,661	253	37,083
1922.....	689	37,556	2,467	292	40,315
1923.....	679	44,316	3,285	278	47,879
1924.....	687	40,234	2,953	290	43,476
1925.....	705	41,601	3,066	297	44,965
1926.....	707	43,721	3,228	312	47,261
1927.....	679	42,138	2,915	259	45,312
1928.....	662	41,500	2,916	252	44,669
1929.....	647	43,272	2,972	235	46,479
1930.....	627	38,674	2,675	223	41,572
1931.....	587	34,359	2,405	180	36,944
1932.....	567	31,788	2,131	170	34,088

<sup>1</sup> Manufacture of mattresses classified by Ohio Division of Labor Statistics under "Manufacture of textiles" beginning in 1918 and therefore transferred in this study from "Miscellaneous manufactures" for 1916 and 1917.

<sup>2</sup> Number of salespeople (not traveling) in the manufacture of mattresses and spring beds not known. Total wage and salary payments \$2,483 in 1916 and \$3,565 in 1917.

More than 90 percent of the employees in the manufacture of textiles were classified as wage earners in each year of the period covered. Table 108 shows fluctuation in employment of wage earners

from 1930 to 1932. Maximum employment in the 17-year period was 45,693 in October 1926 and minimum employment was 27,260 in July 1932. The month of second lowest employment was January 1921.

TABLE 108.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN THE MANUFACTURE OF TEXTILES, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	40,531	33,702	31,661	November.....	36,314	33,248	34,061
February.....	41,216	34,892	33,757	December.....	35,183	31,761	31,814
March.....	40,906	35,235	33,649	Maximum.....	41,216	35,857	34,967
April.....	40,954	35,024	31,304	Minimum.....	35,183	31,761	27,260
May.....	40,317	34,635	30,739	Variation from maximum—			
June.....	39,871	34,966	30,255	Number.....	6,033	4,096	7,707
July.....	36,844	33,780	27,260	Percent.....	14.6	11.4	22.0
August.....	37,101	34,700	28,974	Number of establishments.....	627	587	567
September.....	37,427	35,857	33,010				
October.....	37,426	34,509	34,967				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Table 109 shows average wage and salary payments to wage earners, to bookkeepers, stenographers, and office clerks, and to the general occupation groups combined. Averages for salespeople (not traveling) were not computed because of the small number involved.

The average wage and salary payments to wage earners reached the highest amount in 1926 and declined each year since. The lowest average paid was in 1916. The average payment to bookkeepers, stenographers, and office clerks reached the highest amount in 1921 and the lowest in 1916.

TABLE 109.—AVERAGE WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF TEXTILES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Bookkeepers, stenographers, and office clerks	All employees			Wage earners	Bookkeepers, stenographers, and office clerks	All employees
1916 <sup>2</sup> .....	<sup>3</sup> 719	\$540	\$906	<sup>4</sup> \$562	1925.....	705	\$1,069	\$1,463	\$1,105
1917 <sup>2</sup> .....	<sup>3</sup> 751	592	814	<sup>4</sup> 610	1926.....	707	1,080	1,360	1,107
1918.....	757	700	1,032	724	1927.....	679	1,055	1,458	1,087
1919.....	767	856	1,128	878	1928.....	662	1,035	1,417	1,066
1920.....	810	1,054	1,382	1,081	1929.....	647	1,026	1,449	1,062
1921.....	680	1,043	1,519	1,082	1930.....	627	954	1,502	996
1922.....	<sup>5</sup> 689	967	1,378	998	1931.....	587	865	1,339	904
1923.....	679	1,012	1,336	1,039	1932.....	567	705	1,303	746
1924.....	687	1,039	1,396	1,070					

<sup>1</sup> Averages for salespeople (not traveling) not computed, owing to small number involved.

<sup>2</sup> See note 1 to table 107.

<sup>3</sup> Number of establishments reporting employees; number reporting total wage and salary payments greater by 5.

<sup>4</sup> Amounts indicated in note to table 107 deducted before computing averages.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments less by 3.

<sup>6</sup> Number of establishments reporting employees; number reporting total wage and salary payments greater by 2.

Chart 38 shows graphically average wage and salary payments to wage earners.

#### Industries in the Manufacture of Textiles

SEVERAL of the smaller industries classified by the Ohio Division of Labor Statistics under the manufacture of textiles have been combined in this study under "Textiles, other." The manufacturing industries combined are: Bags, other than paper; buttonholes; carpets and rugs; cotton goods, including small wares; dyeing, finishing, and sponging textiles; men's furnishing goods; hats and caps, other



FIGURE 38.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TEXTILES, 1916 TO 1932

than felt, straw, and wool; horse clothing; oil cloth and linoleum; shoddy; and textiles, not otherwise classified.

Table 110 shows average wage and salary payments to wage earners in each of 12 industries and in the group "Textiles, other." These averages should not be taken as exact measures but as approximate figures.

The highest average wage and salary payment during the period covered was in 1920 for women's clothing, gloves, and woolen and worsted, in 1921 for men's clothing, in 1923 for custom tailoring and mattresses, pillows, etc., in 1924 for cordage, etc., in 1926 for millinery and lace goods, in 1927 for hosiery and knit goods and the group "Other", and in 1929 for awnings, etc., flags, banners, and regalia, and silk and silk goods. The lowest average was paid in 1916 for 9 industries and the group "Other", in 1917 for flags, banners, and regalia, and in 1932 for gloves and silk and silk goods.

TABLE 110.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TEXTILES, 1916 TO 1932, BY INDUSTRIES

Year	Awnings, tents, and sails, including auto fabrics	Clothing, men's, including shirts and coat pads	Clothing, women's, including corsets	Cordage, twine, jute, and linen goods	Custom tailoring, men's and women's	Flags, banners, and regalia	Gloves, cloth
1916.....	\$519	\$505	\$637	\$459	\$604	\$522	\$450
1917.....	707	( <sup>1</sup> )	705	569	( <sup>1</sup> )	405	410
1918.....	686	636	301	722	653	670	510
1919.....	946	803	1,066	734	936	809	578
1920.....	1,142	1,059	1,286	912	1,226	983	700
1921.....	1,018	1,249	1,186	753	1,100	915	555
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923.....	984	1,054	1,168	900	1,389	971	626
1924.....	( <sup>2</sup> )	1,053	1,178	956	1,312	953	629
1925.....	1,083	1,108	1,294	937	1,212	977	595
1926.....	1,036	1,104	1,295	917	1,263	977	698
1927.....	1,079	997	1,242	929	1,244	1,014	693
1928.....	1,161	1,003	1,147	872	1,309	1,023	635
1929.....	1,203	995	1,091	862	1,335	1,037	642
1930.....	1,106	925	1,010	856	1,081	983	545
1931.....	950	870	868	807	985	894	469
1932.....	769	667	753	841	824	599	346

Year	Hosiery and knit goods	Mattress es, pillows, and cotton felts	Millinery and lace goods, including artificial flowers and feathers	Silk and silk goods, including throwsters	Woolen, worsted, and wool-felt goods, including fur and felt hats	Textiles, other
1916.....	\$429	\$655	\$543	( <sup>2</sup> )	\$504	\$563
1917.....	467	706	584	( <sup>2</sup> )	650	597
1918.....	555	780	713	( <sup>2</sup> )	925	742
1919.....	665	965	915	( <sup>2</sup> )	799	894
1920.....	787	1,165	1,108	( <sup>2</sup> )	1,075	1,017
1921.....	763	996	1,000	\$1,002	887	918
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923.....	830	1,187	998	1,071	930	944
1924.....	864	1,126	1,024	1,173	937	945
1925.....	852	1,149	1,047	1,213	965	1,146
1926.....	878	1,171	1,168	1,171	869	1,206
1927.....	913	1,184	1,112	1,216	926	1,366
1928.....	896	1,130	1,111	1,231	964	1,106
1929.....	886	1,144	1,018	1,276	1,013	1,110
1930.....	900	1,133	994	1,193	919	1,070
1931.....	765	979	936	1,027	792	987
1932.....	682	798	735	905	644	854

<sup>1</sup> Apparently some employees classified under custom tailoring should be under manufacture of men's clothing, but further verification not possible, therefore omitted.

<sup>2</sup> Data not available.

<sup>3</sup> Omitted due to apparent error in reporting or tabulating; no further verification possible.

### Indexes of Employment and Wage and Salary Payments

TABLE 111 shows indexes of average number of wage earners employed and of total and average wage and salary payments to wage earners. The base is the year 1926. The indexes cover the period during which the Ohio Division of Labor Statistics has requested reports annually from all employers of three or more persons. Indexes are shown for the manufacture of textiles and for each of 12 industries.

The 1932 index for employment of wage earners was above 75 for 7 of the 12 industries and below 50 for 3 industries. The 1932 index for total wage and salary payments to wage earners was above 50 for 7 industries and below 25 for 2 industries. The 1932 index for average wage and salary payments to wage earners was above 75 for 3 industries and below 60 in 2 industries.

TABLE 111.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TEXTILES, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Textiles			Awnings, tents, and sails, including auto fabrics			Clothing, men's, including shirts and coat pads			Clothing, women's, including corsets		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	92.0	88.5	96.2	80.5	(1)	(1)	84.2	80.3	95.4	117.9	107.2	91.0
1925	95.2	94.1	99.0	108.5	113.0	104.5	94.6	95.0	100.4	96.3	96.2	99.9
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	96.4	94.1	97.7	102.6	106.8	104.2	97.0	87.6	90.3	124.6	119.5	95.9
1928	94.9	90.9	95.8	101.5	113.6	112.1	93.4	84.9	90.9	137.6	121.9	88.6
1929	99.0	93.9	95.0	118.3	137.4	116.1	102.1	92.0	90.1	133.3	112.3	84.2
1930	88.5	78.1	88.3	98.2	104.8	106.8	93.4	78.3	83.8	125.1	97.6	78.0
1931	78.6	63.0	80.1	90.9	83.4	91.7	84.1	66.3	78.8	120.4	80.7	67.0
1932	72.7	47.4	65.3	78.0	57.8	74.2	79.2	47.8	60.4	91.2	53.0	58.1

Year	Cordage, twine, jute and linen goods			Custom tailoring, men's and women's			Flags, banners, and regalia		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	107.3	112.0	104.3	97.8	101.6	103.9	130.4	127.2	97.5
1925	96.8	99.0	102.2	101.0	96.9	96.0	129.8	129.8	100.0
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	96.7	97.9	101.3	66.2	65.2	98.5	122.0	126.5	103.8
1928	99.1	94.3	95.1	67.0	69.4	103.6	141.7	148.3	104.7
1929	99.3	93.4	94.0	47.8	50.4	105.7	145.8	154.7	106.1
1930	84.7	79.1	93.3	25.4	21.7	85.6	126.4	128.9	100.6
1931	85.2	75.0	88.0	21.4	16.7	78.0	110.2	100.8	91.5
1932	78.4	72.0	91.7	18.4	12.0	65.2	86.7	53.1	61.3

Year	Gloves, cloth			Hosiery and knit goods			Mattresses, pillows, and cotton felts		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	112.7	101.5	90.1	101.5	99.9	98.4	76.9	73.9	96.2
1925	97.1	82.8	85.2	106.7	103.4	97.0	86.2	84.6	98.1
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	111.2	110.4	99.3	96.2	100.1	104.0	79.9	80.8	101.1
1928	94.8	86.2	91.0	95.6	97.5	102.1	79.4	76.7	96.5
1929	101.6	93.5	92.0	98.5	99.4	100.9	87.8	85.8	97.7
1930	95.8	74.8	78.1	90.4	92.6	102.5	66.3	64.1	96.8
1931	63.9	42.9	67.2	75.2	65.6	87.1	56.1	46.9	83.6
1932	56.5	28.0	49.6	91.9	71.3	77.7	47.1	32.1	68.1

<sup>1</sup> Omitted. See note to table 110.

TABLE 111.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TEXTILES, 1924 TO 1932, BY INDUSTRIES—Continued

Year	Millinery and lace goods, including artificial flowers and feathers			Silk and silk goods, including throwsters			Woolen, worsted, and wool-felt goods, including fur and felt hats		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	85.5	75.0	87.7	65.7	65.8	100.2	97.4	105.1	107.8
1925.....	85.8	76.9	89.6	82.4	85.3	103.6	93.6	104.0	111.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	92.0	87.5	95.2	88.8	92.2	103.8	95.7	102.0	106.6
1928.....	80.6	76.7	95.1	90.7	95.3	105.1	81.3	90.2	110.9
1929.....	55.7	48.5	87.2	91.1	99.2	109.0	100.1	116.7	116.6
1930.....	48.3	41.1	85.1	90.4	92.1	101.9	96.5	102.1	105.8
1931.....	35.6	28.5	80.1	90.5	79.4	87.7	75.6	88.9	91.1
1932.....	38.8	24.3	62.8	78.6	60.8	77.3	71.3	52.9	74.1

Custom tailoring shows the lowest indexes for employment of wage earners and total wage and salary payments. In that industry, the

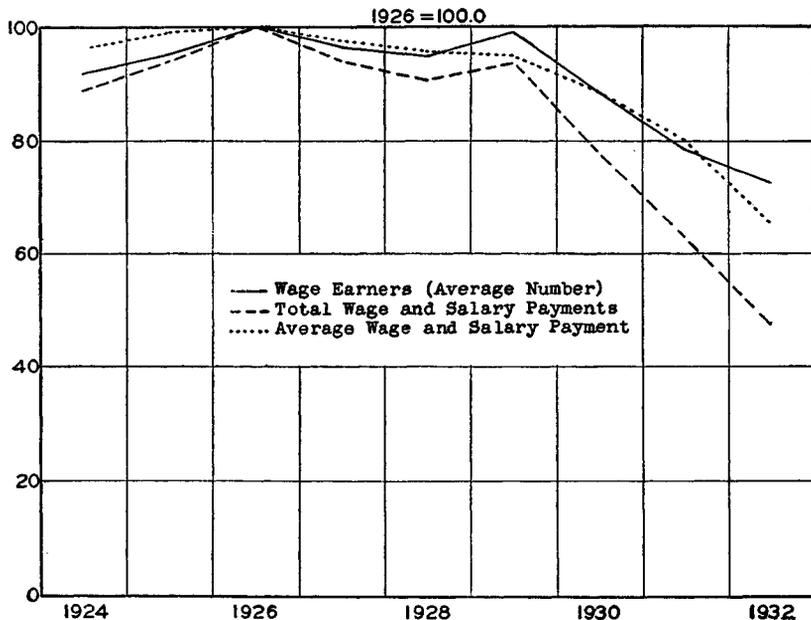


FIGURE 39.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TEXTILES, 1924 TO 1932

1932 index for employment was 18.4, for total wage and salary payments 12, and for average wage and salary payments 65.2.

Chart 39 shows graphically the indexes for the manufacture of textiles.

## Manufacture of Tobacco

IN THE manufacture of tobacco the highest average wage and salary payment in all occupations combined during the 17 years was \$957 in 1920 and the lowest was \$457 in 1916. The average payment in 1932 was \$525 which was the lowest since 1917. In this industry group employment and total and average wage and salary payments have declined each year since 1926.

The average number of persons reported employed in each of the three general occupation groups is shown in table 112. The highest average was reported in 1920 and the lowest in 1932. There was a decline each year since 1926.

TABLE 112.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN THE MANUFACTURE OF TOBACCO, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	242	12,065	185	24	12,273
1917.....	239	13,405	185	20	13,610
1918.....	246	12,991	190	21	13,203
1919.....	249	13,211	217	32	13,459
1920.....	269	15,725	247	22	15,994
1921.....	226	13,400	202	29	13,631
1922.....	210	12,756	203	(1)	12,959
1923.....	213	12,995	219	(1)	13,213
1924.....	191	12,667	203	(1)	12,870
1925.....	175	10,680	192	(1)	10,872
1926.....	172	11,071	216	(1)	11,287
1927.....	160	10,631	198	(1)	10,830
1928.....	157	10,079	191	(1)	10,270
1929.....	137	8,930	171	(1)	9,101
1930.....	144	8,250	143	(1)	8,393
1931.....	133	7,245	133	(1)	7,378
1932.....	127	6,334	122	(1)	6,457

<sup>1</sup> Carried with "Manufactures, not otherwise classified" in tabulations of Ohio Division of Labor Statistics.

More than 95 percent of the employees in the manufacture of tobacco were classified each year as wage earners. Table 113 shows for that occupation group fluctuation in employment from 1930 to 1932. Maximum employment reported during the 17-year period was 16,259 in June 1920 and minimum employment was 5,644 in June 1932.

TABLE 113.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN THE MANUFACTURE OF TOBACCO, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	7,926	5,740	6,452	November.....	8,158	7,013	6,109
February.....	8,674	7,181	6,743	December.....	8,219	6,773	6,029
March.....	8,241	7,945	6,705	Maximum.....	8,674	8,318	6,917
April.....	8,421	7,748	6,917	Minimum.....	7,926	5,740	5,644
May.....	8,151	8,318	6,597	Variation from maximum—			
June.....	8,318	7,718	5,644	Number.....	748	2,578	1,273
July.....	7,974	7,258	5,963	Percent.....	8.6	31.0	18.4
August.....	8,271	7,109	6,290	Number of establishments..	144	133	127
September.....	8,242	6,954	6,492				
October.....	8,404	7,180	6,064				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Average wage and salary payments in the manufacture of tobacco are shown in table 114. The highest average payment was reported in 1920 and the lowest in 1916. There was a decline each year since 1926.

TABLE 114.—AVERAGE WAGE AND SALARY PAYMENTS IN THE MANUFACTURE OF TOBACCO, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

Year	Number of establishments	Average wage and salary payments to—		Year	Number of establishments	Average wage and salary payments to—	
		Wage earners	All employees			Wage earners	All employees
1916.....	242	\$448	\$457	1925.....	175	\$713	<sup>3</sup> \$726
1917.....	239	492	499	1926.....	172	717	<sup>3</sup> 729
1918.....	246	558	571	1927.....	160	688	<sup>3</sup> 701
1919.....	249	645	657	1928.....	157	676	<sup>3</sup> 691
1920.....	269	948	957	1929.....	137	860	<sup>3</sup> 676
1921.....	226	690	705	1930.....	144	627	<sup>3</sup> 643
1922.....	<sup>2</sup> 210	693	<sup>3</sup> 705	1931.....	133	599	<sup>3</sup> 614
1923.....	213	741	<sup>3</sup> 752	1932.....	127	507	<sup>3</sup> 525
1924.....	191	553	<sup>3</sup> 562				

<sup>1</sup> Bookkeepers, stenographers, and office clerks—averages not computed owing to small number involved. Salespeople (not traveling)—1916 to 1921, average not computed owing to small number involved; 1922 to 1932, carried with "Manufactures, not otherwise classified" in tabulations of Ohio Division of Labor Statistics.

<sup>2</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 4.

<sup>3</sup> Total wage and salary payments to salespeople (not traveling) deducted before computing average, as average number in that group could not be determined from detailed tabulation.

Table 115 shows average wage and salary payments to wage earners in each of the 3 industries each year, 1918 to 1932. These averages should not be taken as exact measures but as approximate figures.

The highest average payment was reported in 1920 in 2 industries and in 1930 in 1. The lowest (omitting 1924 for chewing and smoking tobacco and snuff) was reported in 1918 in 1 industry and in 1932 in 2.

TABLE 115.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TOBACCO, 1918<sup>1</sup> TO 1932, BY INDUSTRIES

Year	Chewing and smoking tobacco and snuff	Cigars and cigarettes	Tobacco rehandl-ers	Year	Chewing and smoking tobacco and snuff	Cigars and ciga-ettes	Tobacco rehandl-ers
1918.....	\$681	\$546	\$506	1926.....	\$999	\$682	\$631
1919.....	742	643	575	1927.....	990	658	561
1920.....	964	975	754	1928.....	1,000	637	556
1921.....	877	673	628	1929.....	987	617	530
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1930.....	1,011	579	519
1923.....	903	743	597	1931.....	1,003	518	573
1924.....	( <sup>3</sup> )	570	623	1932.....	811	413	493
1925.....	1,004	696	581				

<sup>1</sup> Data by industries not available for 1916 and 1917.<sup>2</sup> Data not available.<sup>3</sup> Omitted due to apparent error in reporting or tabulating; no further verification possible.

### Indexes for Employment and Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 116 for the manufacture of tobacco as a whole and for each of the 3 industries. The base is the year 1926. The indexes for each of the three items in the manufacture of tobacco as a whole and in cigars and cigarettes show a decline each year since 1926, except for a slight increase in one item in 1928.

TABLE 116.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TOBACCO, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Manufactures of tobacco			Chewing and smoking tobacco and snuff		
	Wage earn-ers (average number)	Total wage and salary payments	Average wage and salary pay-ment	Wage earn-ers (average number)	Total wage and salary payments	Average wage and salary pay-ment
1924.....	114.4	88.3	77.1	81.2	( <sup>1</sup> )	( <sup>1</sup> )
1925.....	96.5	96.0	99.4	75.6	78.9	100.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	96.0	92.2	96.0	96.5	95.6	99.1
1928.....	91.0	85.8	94.3	89.4	89.5	100.1
1929.....	80.7	74.3	92.1	87.6	86.5	98.8
1930.....	74.5	65.2	87.4	76.0	77.0	101.2
1931.....	65.4	54.7	83.5	73.3	73.6	100.4
1932.....	57.2	40.5	70.7	87.6	71.1	81.2

<sup>1</sup> Omitted due to apparent error in reporting or tabulating; no further verification possible.

TABLE 116.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN THE MANUFACTURE OF TOBACCO, 1924 TO 1932, BY INDUSTRIES—Continued

Year	Cigars and cigarettes			Tobacco rehandlers		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	126.8	106.0	83.6	90.8	89.7	98.7
1925.....	102.7	104.8	102.1	85.3	78.6	92.1
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	97.1	93.6	96.5	91.4	81.4	88.9
1928.....	97.3	90.9	93.4	66.8	58.9	88.1
1929.....	80.9	73.5	90.5	74.1	62.3	84.0
1930.....	70.9	60.2	84.9	88.2	72.5	82.3
1931.....	69.0	52.4	76.0	44.7	40.6	90.8
1932.....	54.7	33.1	60.6	43.0	33.7	78.1

#### Miscellaneous Manufactures

IN MISCELLANEOUS manufactures in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment to all occupation groups combined was \$1,458 in 1926 and the lowest \$759 in 1916. The average in 1932 was \$1,043 which was the lowest since 1917.

The decline in average wage and salary payments from 1929 to 1932 was \$439, or 31.8 percent, for wage earners; \$297, or 16.3 percent, for bookkeepers, stenographers, and office clerks; and \$398, or 27.6 percent, for the 3 general occupation groups (including salespeople, not traveling) combined.

The Ohio Division of Labor Statistics classified the manufacture of mattresses and spring beds and the manufacture of airplanes and parts and ship and boat building under miscellaneous manufactures during the first years of the period covered. Beginning with 1918, the manufacture of mattresses was classified by the Ohio division under the manufacture of textiles and beginning with 1919 the other two industries were classified under the manufacture of vehicles. In order to secure in this study as far as possible a comparison of the same groups throughout the period from 1916 to 1932, all data concerning the three industries enumerated above (except as noted in table 117) have been transferred from miscellaneous manufactures to the manufacture of textiles and the manufacture of vehicles. The figures in this study, therefore, will not be in agreement in 1916 to 1918 with the study of Average Wage and Salary Payments in Manufactures published in the Monthly Labor Review for March 1934.

Table 117 shows the average number of persons reported employed in each of the three general occupation groups.

The highest average number of wage earners was employed in 1918 with 1929 second in order. The lowest average was reported in 1921. The highest average number of bookkeepers, stenographers, and office clerks was employed in 1929 and the lowest in 1916. For the three general occupation groups combined, the highest average was reported in 1929 with 1918 second in order and the lowest was reported in 1921.

TABLE 117.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN MISCELLANEOUS MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

[Figures for 1916 to 1918 will not be in agreement with the study of Average Wage and Salary Payments in Manufactures, Monthly Labor Review for March 1934, due to transfer of industries. See statement in text]

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	604	47,444	4,401	1,483	152,328
1917.....	649	45,466	4,826	2,467	250,758
1918.....	690	66,876	7,168	4,470	74,514
1919.....	694	49,861	6,195	308	56,365
1920.....	776	52,949	6,990	302	60,241
1921.....	686	31,754	5,757	306	37,816
1922.....	700	37,800	5,596	270	43,666
1923.....	733	41,902	5,842	314	48,058
1924.....	798	44,093	6,444	317	50,854
1925.....	878	48,764	6,946	391	56,100
1926.....	898	54,994	7,952	355	63,302
1927.....	946	54,682	7,951	367	63,001
1928.....	949	58,801	8,596	347	67,744
1929.....	959	66,319	9,685	406	76,410
1930.....	982	55,063	8,729	347	64,139
1931.....	950	44,971	8,050	329	53,350
1932.....	884	36,959	7,203	348	44,510

<sup>1</sup> Includes few salespeople in the manufacture of mattresses and spring beds and ship and boat building. Number could not be determined. Total wage and salary payments \$2,488 and \$7,200, respectively, and those amounts were added before computing the average shown in table 119.

<sup>2</sup> Includes few salespeople in the manufacture of mattresses and spring beds and ship and boat building. Number could not be determined. Total wage and salary payments \$8,565 and \$2,600, respectively, and those amounts were added before computing the average shown in table 119.

<sup>3</sup> Includes bookkeepers, stenographers, and office clerks in the manufacture of airplanes and parts. Number could not be determined. Total wage and salary payment \$46,627 was added before computing the average shown in table 119.

<sup>4</sup> Includes few salespeople in the manufacture of airplanes and parts. Number could not be determined. Total wage and salary payment \$2,700.

<sup>5</sup> Amounts shown in 2 preceding notes added before computing average shown in table 119.

More than 80 percent of the employees in miscellaneous manufactures were classified each year as wage earners. Table 118 shows for that general occupation group fluctuation in employment from 1930 to 1932. Maximum employment for the 17-year period was 76,308 in November 1918, and minimum employment was 29,872 in January 1922, which was a reduction of 46,436, or 60.9 percent, in a period of 3 years and 2 months following the World War armistice.

TABLE 118.—FLUCTUATION IN EMPLOYMENT OF WAGE EARNERS (BOTH SEXES) IN MISCELLANEOUS MANUFACTURES, 1930 TO 1932<sup>1</sup>

Month	Number of wage earners (both sexes) employed in—			Month	Number of wage earners (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	55,989	44,629	39,688	November.....	49,181	41,662	35,718
February.....	56,633	45,000	40,534	December.....	48,678	40,625	34,820
March.....	59,386	46,294	39,681	Maximum.....	61,174	48,073	40,534
April.....	61,174	47,450	38,181	Minimum.....	48,678	40,625	33,877
May.....	60,525	48,073	38,175	Variation from maximum—			
June.....	58,427	47,959	37,771	Number.....	12,496	7,448	6,657
July.....	54,928	46,173	35,684	Percent.....	20.4	15.5	16.4
August.....	53,440	44,742	33,877	Number of establishments.....	982	950	884
September.....	52,008	44,392	34,167				
October.....	50,385	42,650	35,215				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Average wage and salary payments in miscellaneous manufactures are shown in table 119.

The highest average wage and salary payment to wage earners was in 1920 with 1926 second in order, and the lowest was in 1916. The highest average payment to bookkeepers, stenographers, and office clerks was in 1925 and the lowest in 1916. The average payment to the three general occupation groups combined was highest in 1926 and lowest in 1916. The average payment in 1932 to wage earners and to the general occupation groups combined was the lowest since 1917. Chart 40 shows graphically average payments to wage earners.

TABLE 119.—AVERAGE WAGE AND SALARY PAYMENTS IN MISCELLANEOUS MANUFACTURES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS<sup>1</sup>

[Figures for 1916 to 1918 will not be in agreement with the study of Average Wage and Salary Payments in Manufactures, Monthly Labor Review for March 1934, due to transfer of industries. See statement in text]

Year	Number of establishments	Average wage and salary payments to—			Year	Number of establishments	Average wage and salary payments to—		
		Wage earners	Book-keepers, stenographers, and office clerks	All employees			Wage earners	Book-keepers, stenographers, and office clerks	All employees
1916.....	* 604	\$745	\$891	\$759	1925.....	878	\$1,341	\$1,835	\$1,410
1917.....	* 649	799	1,021	824	1926.....	898	1,420	1,676	1,458
1918.....	690	1,090	1,151	1,099	1927.....	946	1,387	1,785	1,443
1919.....	694	1,161	1,262	1,176	1928.....	949	1,373	1,783	1,431
1920.....	776	1,432	1,437	1,435	1929.....	959	1,379	1,823	1,441
1921.....	686	1,206	1,436	1,247	1930.....	982	1,285	1,798	1,361
1922.....	* 700	1,166	1,441	1,204	1931.....	950	1,196	1,825	1,267
1923.....	733	1,224	1,504	1,273	1932.....	854	940	1,526	1,403
1924.....	798	1,309	1,566	1,347					

<sup>1</sup> Average for salespeople (not traveling) not computed, owing to small number involved.

<sup>2</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 2.

<sup>3</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 1.

<sup>4</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 9.

### Industries in Miscellaneous Manufactures

THE Ohio Division of Labor Statistics classifies under miscellaneous manufactures several industries which employ comparatively large numbers of persons and also a number of industries employing but few people. In this study the manufacturing industries listed below have been combined under "Miscellaneous manufactures, other": Artists' materials; belting and hose; brooms and mops; brushes; buttons; dairymen's, poulterers', and apiarists' supplies; enameling and japanning; fancy articles; fire extinguishers, chemical; fireworks, flares, and signals; foundry supplies; fur goods; hair work; hand stamps, stencils, and brands; instruments, professional and scientific; jewelry and instrument cases; mucilage and paste; optical goods; paving materials; pens, fountain, stylographic, and gold;

photographic apparatus and supplies; soda-water apparatus; stationery goods; steam packing; surgical appliances and artificial limbs; umbrellas and canes; upholstering furniture (not manufacturing furniture); washing machines and clothes wringers; window shades and fixtures; and miscellaneous manufactures, not otherwise classified.

Average wage and salary payments to wage earners in each of the 16 manufacturing industries and in the group "Other" are shown in

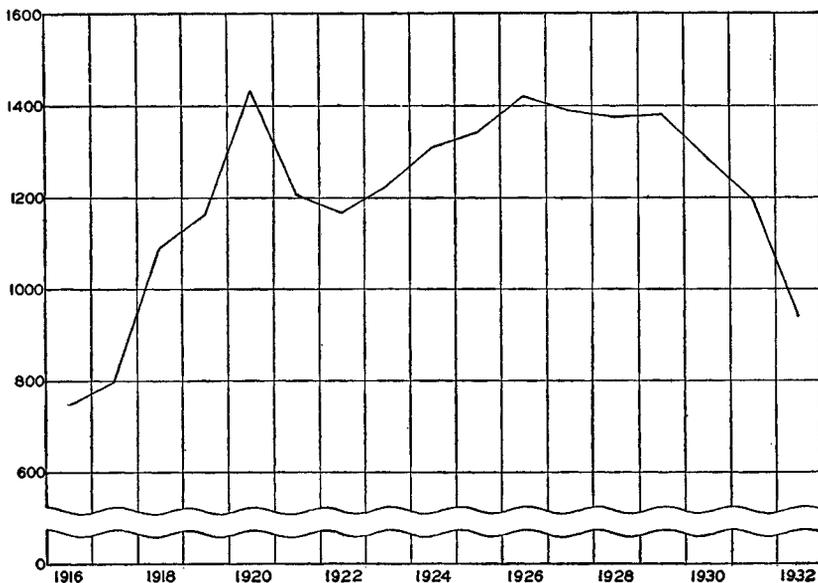


FIGURE 40.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MISCELLANEOUS MANUFACTURES, 1916 TO 1932

table 120. These averages should not be taken as exact measures but as approximate figures.

As far as data are available, the highest average wage and salary payment to wage earners was reported for 1 industry (munitions) in 1919, for 4 in 1920, for 1 in 1925, for 2 in 1926, for 1 in 1926 and 1927, for 2 in 1927, and for 6 in 1929. The lowest average was reported in 1916 for all industries for which data are available for the whole period except in manufactures of pianos, organs, and materials where the lowest average was reported in 1932. The lowest average was reported in 1932 for 4 industries for which data are not available for the whole 17-year period.

TABLE 120.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MISCELLANEOUS MANUFACTURES, 1916 TO 1932, BY INDUSTRIES

Year	Agricultural implements	Batteries, dry and storage	Coke	Dentists' supplies	Electrical machinery, apparatus, and supplies	House-furnishing goods, miscellaneous	Ice, manufactured	Models and patterns, other than paper	Munitions
1916	\$728	(1)	\$878	\$580	\$743	(1)	\$866	\$816	\$834
1917	848	(1)	1,170	558	803	(1)	946	961	848
1918	1,081	(1)	1,423	772	1,048	(1)	1,139	1,300	1,217
1919	1,239	(1)	1,675	899	1,186	(1)	1,347	1,610	1,246
1920	1,471	(1)	2,260	1,232	1,465	(1)	1,637	1,945	-----
1921	1,149	(1)	1,616	1,137	1,217	(1)	1,605	1,507	-----
1922	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	-----
1923	1,267	(1)	1,703	1,142	1,165	(1)	1,570	1,603	-----
1924	1,322	(1)	1,825	1,179	1,318	(1)	1,620	1,615	-----
1925	1,308	\$1,334	1,834	1,163	1,378	(1)	1,651	1,748	-----
1926	1,376	1,469	1,817	1,254	1,464	(1)	1,602	1,808	-----
1927	1,382	1,422	1,862	1,259	1,425	(1)	1,590	1,754	-----
1928	1,282	1,476	1,860	1,313	1,406	\$1,559	1,583	1,865	-----
1929	1,358	1,604	1,864	1,338	1,352	1,633	1,539	2,111	-----
1930	1,275	1,333	1,979	1,213	1,257	1,493	1,515	1,692	-----
1931	1,150	1,183	1,637	1,379	1,147	1,382	1,613	1,720	-----
1932	879	992	1,504	1,205	870	1,004	1,407	1,253	-----

Year	Musical instruments and materials, other than pianos and organs	Pianos, organs, and materials	Radios and parts	Roofing materials	Signs and advertising novelties	Sporting and athletic goods	Toys and games	Miscellaneous manufactures, other
1916	(1)	\$815	(1)	\$688	\$551	\$625	\$561	\$617
1917	(1)	867	(1)	875	590	701	580	691
1918	\$968	992	(1)	1,105	664	842	745	845
1919	1,219	1,156	(1)	1,342	742	995	858	956
1920	1,340	1,223	(1)	1,953	1,159	1,289	1,005	1,229
1921	1,067	1,197	(1)	1,583	1,106	1,165	924	1,061
1922	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1923	1,166	1,191	(1)	1,797	1,073	1,224	1,000	1,173
1924	1,131	1,248	(1)	1,816	1,146	1,244	956	1,221
1925	1,151	1,335	\$977	1,659	1,041	1,253	1,063	1,238
1926	1,315	1,338	1,051	1,724	1,270	1,347	1,066	1,346
1927	1,455	1,305	1,182	1,601	1,270	1,312	1,085	1,260
1928	1,379	1,312	848	1,677	1,259	1,305	1,061	1,254
1929	1,789	1,358	877	1,855	1,247	1,297	1,065	1,308
1930	1,513	1,241	928	1,516	1,239	1,268	990	1,207
1931	1,459	1,109	866	1,540	1,073	1,084	879	1,082
1932	882	702	744	1,116	895	930	692	881

<sup>1</sup> Data not available.<sup>2</sup> In accord with compilations of the Ohio Division of Labor Statistics but possibly some error in reporting or tabulating.

### Indexes of Employment and Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners are shown in table 121. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics has requested reports from all employers of three or more persons. Indexes are shown for miscellaneous manufactures as a whole and for each of the 14 industries for which data are available.

Considering miscellaneous manufactures as a whole, the index in 1932 was 67.2 for average number of wage earners employed, 44.5 for total wage and salary payments, and 66.2 for average wage and

salary payments. Chart 41 shows graphically the indexes for wage earners in miscellaneous manufactures.

Of the 14 industries, 2 (batteries and radios) are of comparatively recent development or have had a remarkable expansion in business and the increase in average number of wage earners employed and in

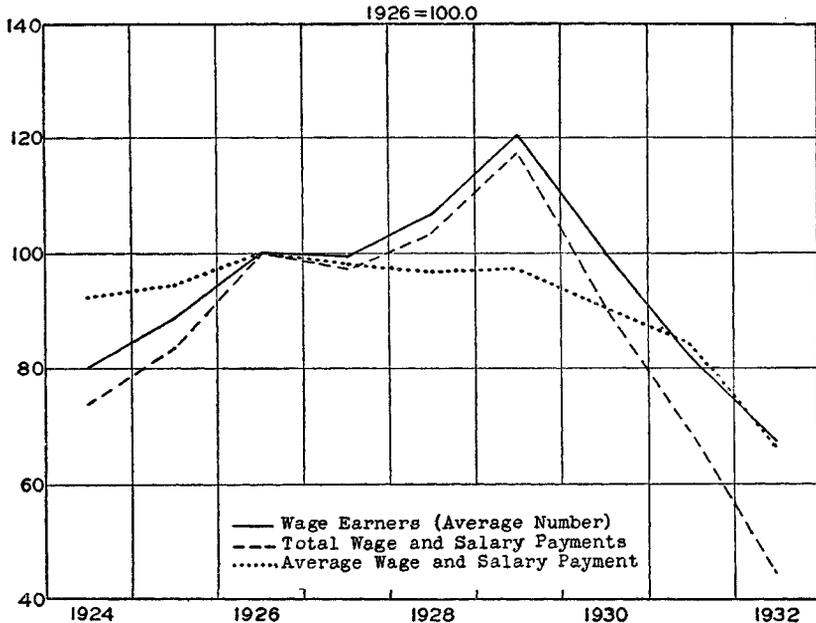


FIGURE 41.—INDEXES OF WAGE EARNERS EMPLOYED AND WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MISCELLANEOUS MANUFACTURES, 1924 TO 1932

total wage and salary payments since 1926 (the base year) produces extremely high indexes for the later years of the period covered.

Considering the 12 other industries, the 1932 index of average number of wage earners employed was below 50 for 6 and above 90 for 1. The 1932 index of total wage and salary payments to wage earners was below 50 for 7 of the 12 industries and the index for 5 of the 7 was below 25. Considering the 14 industries, the 1932 index of average wage and salary payments to wage earners was below 75 for 11 industries but none was below 50.

TABLE 121.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MISCELLANEOUS MANUFACTURES, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Miscellaneous manufactures			Agricultural implements			Batteries, dry and storage			Coke		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	80.2	73.9	92.2	84.1	80.8	96.1	(1)	(1)	(1)	110.0	110.4	100.4
1925.....	88.7	83.7	94.4	93.4	83.8	95.1	102.0	92.7	90.8	107.8	108.8	100.9
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	99.4	97.1	97.7	98.7	99.2	100.4	203.7	197.2	96.8	98.6	101.0	102.5
1928.....	106.9	103.4	96.7	98.5	63.8	93.2	220.7	221.8	100.5	91.7	93.9	102.4
1929.....	120.6	117.1	97.1	74.5	73.6	98.7	211.7	216.8	102.4	101.4	104.0	102.6
1930.....	100.1	90.6	90.5	67.3	53.1	92.7	169.3	153.6	90.7	72.6	79.1	108.9
1931.....	81.8	68.9	84.2	35.0	29.2	83.6	157.4	126.8	80.5	27.4	24.7	90.1
1932.....	67.2	44.5	66.2	22.1	14.1	63.9	170.5	115.2	67.5	28.2	23.3	82.8

Year	Dentists' supplies			Electrical machinery, apparatus, and supplies			Ice, manufactured			Models and patterns, other than paper		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	87.5	82.2	94.0	74.8	67.3	90.0	106.0	107.2	101.1	72.6	64.9	89.3
1925.....	99.0	91.8	92.7	78.3	73.7	94.1	123.9	127.7	103.1	87.2	84.3	96.7
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	87.8	88.1	100.4	90.8	88.4	97.3	98.8	98.0	99.3	97.2	94.3	97.0
1928.....	90.4	94.7	104.7	83.6	80.2	96.0	100.0	98.8	98.8	91.1	93.9	103.2
1929.....	107.8	115.0	106.7	102.6	94.8	92.3	105.0	100.9	96.1	127.0	148.2	116.8
1930.....	104.0	100.6	96.7	81.0	69.6	85.9	106.7	101.0	94.6	107.7	100.8	93.6
1931.....	104.1	114.5	110.0	63.9	50.1	78.3	115.6	116.4	100.7	58.3	55.5	95.1
1932.....	84.0	80.7	96.1	52.8	31.3	59.4	97.8	85.9	87.8	38.6	26.7	69.3

Year	Musical instruments and materials, other than pianos and organs			Pianos, organs, and materials			Radios and parts			Roofing materials		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	100.2	86.2	86.0	98.7	92.0	93.3	(1)	(1)	(1)	84.7	89.2	105.3
1925.....	93.6	81.9	87.5	96.4	96.2	99.3	82.3	76.5	93.0	92.3	88.8	96.2
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	91.3	101.0	110.6	91.3	89.1	97.5	131.8	148.2	112.5	105.0	97.5	92.9
1928.....	108.4	113.6	104.9	66.9	65.6	98.1	306.9	247.5	80.7	89.4	86.9	97.3
1929.....	28.5	38.8	(?)	47.1	47.8	101.5	454.5	379.2	85.4	87.8	94.5	107.6
1930.....	30.3	34.8	115.1	39.7	36.8	92.3	336.3	335.2	85.3	90.4	79.5	87.9
1931.....	22.4	24.9	111.0	31.2	25.8	82.9	316.5	260.9	82.4	86.0	76.8	89.3
1932.....	22.2	14.9	67.1	24.4	12.8	52.5	230.9	163.4	70.8	79.4	51.4	64.7

1 Data not available.

2 Omitted, due to possible error in reporting or tabulating; no further verification possible.

TABLE 121.—INDEXES OF AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN MISCELLANEOUS MANUFACTURES, 1924 TO 1932, BY INDUSTRIES—Continued

Year	Sign and advertising novelties			Sporting and athletic goods			Toys and games		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924.....	98.7	89.1	90.2	95.5	88.3	92.4	104.1	93.4	89.7
1925.....	104.8	85.9	82.0	97.9	91.1	93.0	94.1	93.9	99.7
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	81.3	81.3	100.0	108.4	105.6	97.4	105.3	107.2	101.8
1928.....	114.8	113.8	99.1	120.5	116.8	96.9	105.7	105.3	99.5
1929.....	123.7	121.4	98.2	120.6	116.2	96.3	114.3	114.2	99.9
1930.....	114.4	111.6	97.6	135.9	128.1	94.1	78.8	73.2	92.9
1931.....	82.3	69.6	84.5	113.2	91.1	80.5	31.7	26.2	82.5
1932.....	81.0	57.1	70.5	87.3	60.3	69.0	25.8	16.8	64.9

## Chapter 5.—Wholesale and Retail Trade, 1916 to 1932

**I**N WHOLESALE and retail trade in Ohio during the 17 years, 1916 to 1932, the highest average annual wage and salary payment to wage earners was \$1,293 in 1928 and the lowest \$671 in 1916. The highest average wage and salary payment to bookkeepers, stenographers, and office clerks was \$1,405 in 1930 and the lowest \$723 in 1916. The highest average wage and salary payment to salespeople (not traveling) was \$1,238 in 1927 and the lowest \$656 in 1916. For the three general occupation groups combined, the highest average was \$1,273 in 1927 and the lowest \$675 in 1916. The average wage and salary payment in 1932 was the lowest since 1919 (with data for 1922 not available) for each of the three general occupation groups.

The highest average number of persons reported employed was 149,224 in 1929. The average in 1932 was 122,738, which was less than in any year since 1924.

The decline from 1929 to 1932 was 17.7 percent in average number of persons employed, 32.6 percent in total wage and salary payments, and 18 percent in the average wage and salary payment.

The Ohio Division of Labor Statistics classifies under wholesale and retail trade, three trade groups—wholesale and retail stores; coal, lumber, and scrap yards; and retail delivery of milk, ice, and water. A fourth group “offices” was included prior to 1925 but beginning in that year, that group has been classified by the division of labor statistics under the industry group “service.” In order to secure in this study a comparison of the same trade groups throughout the period from 1916 to 1932, all data concerning “offices” have been eliminated from the wholesale and retail group for 1916 to 1924, except in table 123 as noted. With the elimination of data concerning “offices” the figures for wholesale and retail trade in this study will not be in agreement, during the earlier years, with the study of Average Wage and Salary Payments in Ohio, published in the Monthly Labor Review for January 1934.

The average number of employees reported in the trades grouped by the Ohio Division of Labor Statistics under wholesale and retail trade was almost exactly one-ninth of the average reported to the division by employers in “all industries” (manufactures, wholesale and retail trade, service, transportation and public utilities, construction, agriculture, and fisheries) from 1922 to 1929. During the period 1916 to 1920, the percentage varied from 8.7 to 9.8. The

percentage was 12.2 in 1921, 12.5 in 1930, 14.2 in 1931, and 15.0 in 1932. Similar computations for total wage and salary payments show a general upward trend from 6.6 percent in 1918 to 14.5 percent in 1932. The higher percentages during periods of slackened activities arise in part from the greater stability of employment and pay rolls in principal lines of trade than in some other lines of industry. Table 122 shows percentages for each year from 1916 to 1932. The three general occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling) are included. The data are for both sexes combined as employers are not requested to show separately total wage and salary payments to males and females.

TABLE 122.—PERCENT EMPLOYMENT AND PAY ROLL IN WHOLESALE AND RETAIL TRADE FORM OF THOSE IN ALL INDUSTRIES IN OHIO, 1916 TO 1932

Year	Percent employ-ees in trade form of employ-ees in all indus-tries (av-erage)	Percent pay roll in trade forms of that in all indus-tries	Year	Percent employ-ees in trade form of employ-ees in all indus-tries (av-erage)	Percent pay roll in trade forms of that in all indus-tries
1916.....	Percent 8.8	Percent 7.7	1925.....	Percent 11.3	Percent 9.6
1917.....	8.7	7.4	1926.....	11.3	9.9
1918.....	8.9	6.6	1927.....	11.9	10.4
1919.....	9.7	7.5	1928.....	11.8	10.1
1920.....	9.8	7.5	1929.....	11.7	9.7
1921.....	12.2	11.3	1930.....	12.5	11.1
1922.....	11.4	( <sup>1</sup> )	1931.....	14.2	13.3
1923.....	10.7	8.9	1932.....	15.0	14.5
1924.....	11.6	9.9			

<sup>1</sup> Data not available.

Table 123 shows total wage and salary payments to each of the three general occupation groups in wholesale and retail trade. Payments to superintendents and managers are also shown in this table but data for that group are not included in any other table or computations in this study.

In preparing annual reports for the Ohio Division of Labor Statistics, employers were instructed to classify employees as follows:

*Wage earners:* Include mechanics of all kinds, factory employees, shop foremen, laborers, laundry employees, cleaners and caretakers in buildings, employees of alteration departments and delivery departments in stores, cash girls, check boys, farm hands, etc.

*Bookkeepers, stenographers, and office clerks:* Include bookkeepers, typists, stenographers, copyists, timekeepers, draftsmen, filing clerks, sales office employees, cashiers, etc.

*Salespeople (not traveling):* Include the selling force in stores and other establishments. Do not include traveling salespeople.

*Superintendents and managers:* Include all superintendents and managers but not shop foremen. Do not include salaries of officials.

In their annual returns to the division of labor statistics, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished.

The division of labor statistics did not tabulate total wage and salary payments for the year 1922 by individual industries and trades and it was, therefore, impossible to eliminate data for "offices" for that year.

In wholesale and retail trade, total wage and salary payments to the three general occupation groups (omitting superintendents and managers) increased each year from 1916 to 1920, decreased \$10,422,-719 in 1921, increased each year from 1923 to 1929, and decreased in 1930, 1931, and 1932. The greatest increase in a single year was \$31,609,848 from 1919 to 1920 and the greatest decrease was \$35,610,-526 from 1931 to 1932.

Total wage and salary payments to wage earners reached the highest amount during the 17 years in 1927; to bookkeepers, stenographers, and office clerks in 1930; and to salespeople (not traveling) in 1929. During the 9 years, 1924 to 1932, in which reports were requested of all employers of 3 or more persons, total wage and salary payments to each of the 3 general occupation groups reached the lowest point in 1932.

TABLE 123.—TOTAL WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Estab- lish- ments	Wage earners	Bookkeep- ers, stenog- raphers, and office clerks	Salespeople (not trav- eling)	Total of pre- ceding	Superin- tendents and manag- ers	Grand total
1916.....	4, 056	\$24, 980, 288	\$10, 159, 344	\$19, 699, 259	\$54, 838, 891	\$5, 919, 182	\$60, 758, 073
1917.....	4, 425	31, 212, 896	12, 460, 593	23, 402, 760	67, 076, 249	7, 605, 098	74, 681, 347
1918.....	4, 815	34, 922, 511	14, 323, 442	20, 379, 860	75, 625, 813	9, 619, 073	85, 244, 886
1919.....	5, 063	43, 359, 087	18, 692, 259	34, 693, 649	96, 945, 595	12, 282, 239	109, 227, 894
1920.....	5, 786	58, 837, 839	25, 512, 300	44, 205, 304	128, 555, 443	15, 917, 877	144, 473, 320
1921.....	4, 962	52, 203, 124	23, 802, 292	42, 127, 308	118, 132, 724	15, 729, 323	133, 862, 047
1922 <sup>1</sup> .....	6, 031	55, 724, 935	37, 310, 729	44, 403, 951	137, 439, 615	20, 162, 319	157, 601, 934
1923.....	5, 497	59, 354, 971	26, 453, 041	49, 846, 849	135, 655, 761	19, 384, 463	155, 040, 224
1924.....	6, 707	64, 715, 067	28, 011, 605	55, 619, 297	148, 345, 989	20, 594, 823	168, 940, 812
1925.....	7, 277	67, 929, 464	28, 828, 086	58, 611, 692	155, 369, 242	22, 965, 987	178, 335, 229
1926.....	7, 867	72, 366, 350	31, 231, 010	63, 490, 776	167, 088, 136	24, 120, 423	191, 208, 559
1927.....	8, 526	74, 471, 388	32, 032, 811	71, 337, 704	177, 841, 903	25, 718, 819	203, 560, 722
1928.....	8, 916	73, 571, 115	31, 704, 191	73, 229, 892	178, 505, 198	31, 854, 439	210, 359, 637
1929.....	9, 524	72, 980, 211	33, 268, 959	78, 338, 716	184, 587, 886	28, 532, 443	213, 120, 329
1930.....	10, 022	72, 844, 362	34, 396, 203	67, 848, 122	175, 088, 687	32, 256, 244	207, 344, 931
1931.....	10, 111	67, 505, 063	28, 548, 605	64, 051, 911	160, 105, 579	26, 096, 282	186, 201, 861
1932.....	9, 716	52, 243, 081	21, 934, 553	50, 317, 419	124, 495, 053	20, 821, 876	145, 316, 929

<sup>1</sup> Data are not available to compute total wage and salary payments for wholesale and retail trade (not including offices).

Table 124 shows the average number of persons reported employed in wholesale and retail trade, and in each of the three trade groups classified by the division of labor statistics under trade, each year from 1916 to 1932.

In wholesale and retail trade as a group the highest average number of wage earners was reported employed in 1927, and of bookkeepers, stenographers, and office clerks, and salespeople (not traveling) in 1929. For the three general occupation groups combined, the highest average number was employed in 1929 and the average number employed in 1932 was lower than in any other year since 1924.

In wholesale and retail stores, the highest average number of wage earners was employed in 1930, and of bookkeepers, stenographers, and office clerks, and salespeople (not traveling) in 1929. The highest average for the three general occupation groups combined was in 1929 and the average in 1932 was lower than in any other year since 1924.

In coal, lumber, and scrap yards, the highest average number employed for the three general occupation groups combined was in 1928 and the lowest average number during the 17 years was in 1932.

In retail delivery of milk, ice, and water, the highest average number reported employed for the three general occupation groups combined was in 1931 and the second highest was in 1932.

TABLE 124.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS

*Trade—wholesale and retail*

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916	4,068	37,237	14,049	30,010	81,297
1917	4,420	40,304	15,622	32,551	88,477
1918	4,815	41,539	16,448	34,331	92,313
1919	5,063	43,843	18,208	38,383	100,434
1920	5,736	49,494	19,904	41,128	110,524
1921	4,962	42,910	18,547	37,360	98,818
1922	5,354	45,593	19,083	39,408	104,083
1923	5,497	49,805	20,850	43,473	114,128
1924	6,707	51,967	21,380	48,724	122,071
1925	7,277	53,759	22,263	50,907	126,928
1926	7,867	56,536	23,055	53,179	132,770
1927	8,526	58,368	23,721	57,631	139,720
1928	8,916	56,884	23,887	60,009	140,780
1929	9,524	56,971	24,973	67,280	149,224
1930	10,022	57,845	24,482	59,959	142,286
1931	10,111	55,482	22,267	59,555	137,304
1932	9,716	49,087	19,545	54,106	122,738

*Stores—wholesale and retail*

1916	3,366	29,611	12,681	29,768	72,060
1917	3,695	31,639	14,052	32,288	77,989
1918	4,021	32,882	14,754	33,989	81,636
1919	4,271	35,910	16,576	38,083	90,580
1920	4,932	41,112	18,161	40,840	100,113
1921	4,218	36,237	16,992	37,058	90,286
1922	4,526	38,215	17,441	39,120	94,876
1923	4,634	41,161	19,006	43,146	103,313
1924	5,666	42,235	19,453	48,293	109,981
1925	6,107	43,357	20,221	50,328	113,906
1926	6,603	45,622	20,906	52,597	119,125
1927	7,195	47,139	21,462	57,078	125,678
1928	7,485	45,442	21,689	59,441	126,573
1929	8,061	46,395	22,835	66,777	136,007
1930	8,494	49,204	22,289	59,617	131,109
1931	8,553	46,498	20,254	59,134	125,886
1932	8,155	41,000	17,791	53,722	112,513

TABLE 124.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS—Continued

*Yards—lumber, coal, and scrap*

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	667	7,184	1,326	226	8,737
1917.....	673	7,903	1,492	238	9,632
1918.....	730	7,843	1,608	211	9,662
1919.....	738	7,058	1,532	220	8,808
1920.....	738	7,436	1,645	223	9,305
1921.....	682	5,585	1,436	227	7,247
1922.....	764	6,341	1,504	273	8,118
1923.....	791	7,417	1,709	273	9,399
1924.....	949	8,277	1,781	379	10,437
1925.....	1,066	8,887	1,884	410	11,181
1926.....	1,157	9,185	1,962	436	11,582
1927.....	1,224	9,566	2,074	435	12,075
1928.....	1,299	9,639	2,004	479	12,122
1929.....	1,326	8,597	1,920	444	10,961
1930.....	1,389	6,578	1,963	307	8,848
1931.....	1,304	6,445	1,709	392	8,547
1932.....	1,390	5,943	1,513	359	7,814

*Retail delivery—milk, ice, and water*

1916.....	35	443	42	16	501
1917.....	52	762	78	16	856
1918.....	64	814	85	121	1,020
1919.....	64	875	100	70	1,045
1920.....	66	946	97	63	1,106
1921.....	62	1,089	120	76	1,284
1922.....	64	1,037	137	16	1,189
1923.....	72	1,226	135	55	1,416
1924.....	92	1,455	146	51	1,653
1925.....	104	1,514	158	169	1,841
1926.....	107	1,730	187	146	2,063
1927.....	107	1,664	185	118	1,967
1928.....	132	1,803	193	89	2,085
1929.....	137	1,979	218	59	2,256
1930.....	139	2,064	230	34	2,328
1931.....	164	2,538	304	29	2,871
1932.....	171	2,145	241	24	2,411

Fluctuation in employment in wholesale and retail trade, for the three general occupation groups combined is shown in table 125. The least fluctuation from maximum within a year was 8.3 percent in 1918 and the greatest was 19.8 percent in 1922. The fluctuation was in excess of 15 percent in 9 of the 17 years. Maximum employment reported during the 17 years was 168,839 in December 1929, and the minimum was 76,183 in February 1916. In the 9-year period, 1924 to 1932, during which reports have been requested from all establishments employing 3 or more persons, minimum employment reported was 116,929 in August 1932, which was 51,910, or 30.7 percent, below the maximum for the 9 years in December 1929, and 30,893, or 20.9 percent, below the number reported employed in the corresponding month (August) in 1929.

TABLE 125.—FLUCTUATION IN EMPLOYMENT (BOTH SEXES) IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932

[This table includes the 3 general occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)]

Month	1916	1917	1918	1919	1920	1921	1922	1923	1924
January	77,009	86,037	90,513	93,296	107,807	99,638	98,071	107,756	117,819
February	76,183	84,893	90,306	93,061	106,034	97,409	96,477	107,511	117,917
March	78,026	87,454	92,619	94,561	108,404	98,575	98,252	110,448	119,928
April	81,027	88,417	92,176	97,058	109,483	98,913	102,046	111,807	122,266
May	80,349	88,268	91,866	97,903	109,641	98,221	101,684	112,275	120,965
June	80,112	88,146	92,662	99,740	110,403	98,731	103,076	113,919	120,406
July	79,193	87,837	91,462	100,648	111,093	96,572	103,376	112,848	119,420
August	78,065	86,514	90,508	101,399	110,256	95,470	102,267	111,900	118,547
September	81,714	88,788	91,587	103,396	111,331	96,642	104,340	115,302	121,451
October	84,874	89,726	92,425	104,687	111,559	99,317	107,431	116,521	123,356
November	86,920	90,686	93,171	107,597	113,015	100,367	111,714	120,327	126,110
December	92,092	94,958	98,517	111,859	117,262	105,982	120,267	128,921	136,664
Maximum	92,092	94,958	98,517	111,859	117,262	105,982	120,267	128,921	136,664
Minimum	76,183	84,893	90,306	93,061	106,034	95,470	96,477	107,511	117,819
Variation from maximum:									
Number	15,909	10,065	8,211	18,798	11,228	10,512	23,790	21,410	18,845
Percent	17.3	10.6	8.3	16.8	9.6	9.9	19.8	16.6	13.8
Number of establishments	4,068	4,420	4,815	5,063	5,786	4,962	5,354	5,497	6,707

Month	1925	1926	1927	1928	1929	1930	1931	1932
January	122,243	127,854	134,570	133,135	139,904	140,361	134,622	122,470
February	121,441	126,651	133,883	132,598	139,981	139,685	133,540	121,311
March	123,010	128,273	135,728	135,172	143,364	141,836	135,958	123,385
April	125,419	130,275	138,802	137,278	146,154	145,993	139,181	123,928
May	125,329	130,830	138,361	138,022	147,133	143,854	138,620	124,323
June	125,509	130,511	138,600	139,173	148,505	143,088	138,022	122,579
July	123,598	129,534	136,802	138,533	147,296	138,799	134,852	118,746
August	124,047	129,402	136,908	137,787	147,822	136,844	134,243	116,929
September	126,068	133,517	138,770	142,182	151,122	139,151	137,429	120,176
October	130,185	136,336	142,306	145,124	155,118	141,065	137,085	123,830
November	132,703	139,169	144,117	147,324	155,454	142,765	136,635	123,167
December	143,589	150,883	157,791	163,029	168,839	153,985	147,458	132,010
Maximum	143,589	150,883	157,791	163,029	168,839	153,985	147,458	132,010
Minimum	121,441	126,651	133,883	132,598	139,904	136,844	133,540	116,929
Variation from maximum:								
Number	22,148	24,232	23,908	30,431	28,935	17,141	13,918	15,081
Percent	15.4	16.1	15.2	18.7	17.1	11.1	9.4	11.4
Number of establishments	7,277	7,867	8,526	8,916	9,524	10,022	10,111	9,716

Average wage and salary payments in wholesale and retail trade to wage earners, to bookkeepers, stenographers, and office clerks, to salespeople (not traveling), and to the three general occupation groups combined are shown for 1916 to 1932 (except 1922) in table 126. The average wage and salary payment, as previously explained, was computed by dividing the total wage and salary payments for a given year by the average number of persons employed. These averages should not be taken as exact measures but as approximate figures. Data concerning total wage and salary payments for 1922 were not tabulated by the division of labor statistics for individual industries and trades.

In the group wholesale and retail trade and also in wholesale and retail stores, the highest average wage and salary payment to wage earners was in 1928; to bookkeepers, stenographers, and office clerks in 1930; and to salespeople (not traveling) and to the three general occupation groups combined in 1927. The lowest average for each of the occupation groups was reported in 1916. The average for each group in 1932 was lower than in any other year since 1919.

TABLE 126.—AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS

*Trade—wholesale and retail*

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	<sup>1</sup> 4,068	\$671	\$723	\$656	\$675
1917.....	<sup>2</sup> 4,420	774	798	719	758
1918.....	4,815	841	871	768	819
1919.....	5,063	989	1,038	904	965
1920.....	5,786	1,187	1,282	1,075	1,163
1921.....	4,982	1,217	1,283	1,128	1,195
1922.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1923.....	5,497	1,192	1,269	1,147	1,189
1924.....	6,707	1,245	1,310	1,142	1,215
1925.....	7,277	1,264	1,295	1,151	1,224
1926.....	7,867	1,280	1,355	1,194	1,258
1927.....	8,526	1,276	1,350	1,238	1,273
1928.....	8,916	1,293	1,327	1,220	1,268
1929.....	9,524	1,281	1,332	1,164	1,237
1930.....	10,022	1,259	1,405	1,132	1,231
1931.....	10,111	1,217	1,282	1,076	1,166
1932.....	9,716	1,064	1,122	930	1,014

*Stores—wholesale and retail*

1916.....	<sup>4</sup> 3,366	\$667	\$708	\$652	\$668
1917.....	3,695	723	772	714	728
1918.....	4,021	845	865	761	814
1919.....	4,271	954	1,013	898	941
1920.....	4,932	1,142	1,253	1,067	1,132
1921.....	4,218	1,204	1,258	1,121	1,180
1922.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1923.....	4,634	1,166	1,248	1,138	1,169
1924.....	5,666	1,224	1,286	1,133	1,195
1925.....	6,107	1,247	1,266	1,139	1,203
1926.....	6,603	1,264	1,333	1,183	1,240
1927.....	7,195	1,255	1,327	1,228	1,255
1928.....	7,485	1,279	1,302	1,210	1,250
1929.....	8,061	1,258	1,310	1,155	1,215
1930.....	8,494	1,216	1,392	1,124	1,204
1931.....	8,553	1,217	1,274	1,068	1,156
1932.....	8,155	1,077	1,115	925	1,011

*Yards—lumber, coal, and scrap*

1916.....	<sup>6</sup> 667	\$682	\$872	( <sup>5</sup> )	\$724
1917.....	<sup>7</sup> 673	886	1,051	( <sup>5</sup> )	925
1918.....	730	778	918	( <sup>5</sup> )	823
1919.....	728	1,123	1,305	( <sup>5</sup> )	1,171
1920.....	788	1,379	1,608	( <sup>5</sup> )	1,442
1921.....	682	1,208	1,562	( <sup>5</sup> )	1,305
1922.....	( <sup>3</sup> )				
1923.....	791	1,253	1,493	( <sup>5</sup> )	1,328
1924.....	949	1,265	1,565	( <sup>5</sup> )	1,348
1925.....	1,066	1,269	1,590	( <sup>5</sup> )	1,363
1926.....	1,157	1,267	1,583	( <sup>5</sup> )	1,363
1927.....	1,224	1,288	1,582	( <sup>5</sup> )	1,378
1928.....	1,200	1,276	1,592	( <sup>5</sup> )	1,374
1929.....	1,326	1,274	1,576	( <sup>5</sup> )	1,376
1930.....	1,389	1,418	1,552	( <sup>5</sup> )	1,484
1931.....	1,394	1,053	1,343	( <sup>5</sup> )	1,160
1932.....	1,390	852	1,183	( <sup>5</sup> )	950

<sup>1</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 12.

<sup>2</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 5.

<sup>3</sup> Information concerning total wage and salary payments not available.

<sup>4</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 11.

<sup>5</sup> Not computed, owing to small number involved.

<sup>6</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 1.

<sup>7</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 3.

**TABLE 126.—AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS—Contd.**

*Retail delivery—milk, ice, and water*

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not travelling)	All employees
1916	35	\$764	( <sup>3</sup> )	( <sup>3</sup> )	\$752
1917	<sup>4</sup> 52	1,732	( <sup>3</sup> )	( <sup>3</sup> )	1,612
1918	64	1,269	( <sup>3</sup> )	( <sup>3</sup> )	1,233
1919	64	1,354	( <sup>3</sup> )	( <sup>3</sup> )	1,326
1920	66	1,725	( <sup>3</sup> )	( <sup>3</sup> )	1,677
1921	62	1,668	( <sup>3</sup> )	( <sup>3</sup> )	1,638
1922	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1923	72	1,689	( <sup>3</sup> )	( <sup>3</sup> )	1,663
1924	92	1,742	( <sup>3</sup> )	( <sup>3</sup> )	1,719
1925	104	1,713	( <sup>3</sup> )	( <sup>3</sup> )	1,711
1926	107	1,763	( <sup>3</sup> )	( <sup>3</sup> )	1,720
1927	107	1,786	( <sup>3</sup> )	( <sup>3</sup> )	1,753
1928	132	1,750	( <sup>3</sup> )	( <sup>3</sup> )	1,725
1929	137	1,860	( <sup>3</sup> )	( <sup>3</sup> )	1,831
1930	139	1,782	( <sup>3</sup> )	( <sup>3</sup> )	1,752
1931	164	1,623	( <sup>3</sup> )	( <sup>3</sup> )	1,612
1932	171	1,410	( <sup>3</sup> )	( <sup>3</sup> )	1,400

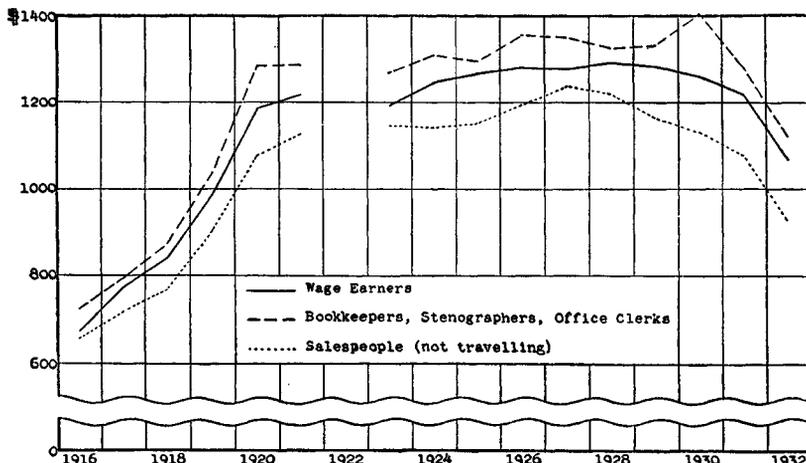
<sup>3</sup> Information concerning total wage and salary payments not available.

<sup>4</sup> Not computed, owing to small number involved.

<sup>5</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 2.

Charts 42 and 43 show in graphic form average wage and salary payments in wholesale and retail trade and in wholesale and retail stores.

It is possible to make only limited comparisons of this study, based upon reports to the Ohio Division of Labor Statistics, and the United



**FIGURE 42.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE, 1916 TO 1932**

States Census of Distribution in 1929. The Bureau of the Census separates wholesale and retail establishments and apparently classifies under "Trade" some activities not so classified by the Ohio Division of Labor Statistics. The census also includes a great number of small

establishments which would not be covered by the Ohio Division of Labor Statistics which requested reports only from those employing 3 or more persons (5 or more prior to 1924). The census report covers in Ohio 8,077 wholesale establishments and 83,717 retail establishments for 1929 which is the first census report on distribution. Volumes 2 and 3 of the Census Report on Distribution have not yet been published in final form. Volume 1 relates to retail trade and shows for Ohio 229,870 full-time and 41,163 part-time employees. The total annual pay roll to full-time and part-time employees was \$318,273,446 and the total annual pay roll to part-time employees was \$10,100,969. Of the 83,717 retail establishments, 71,361 re-

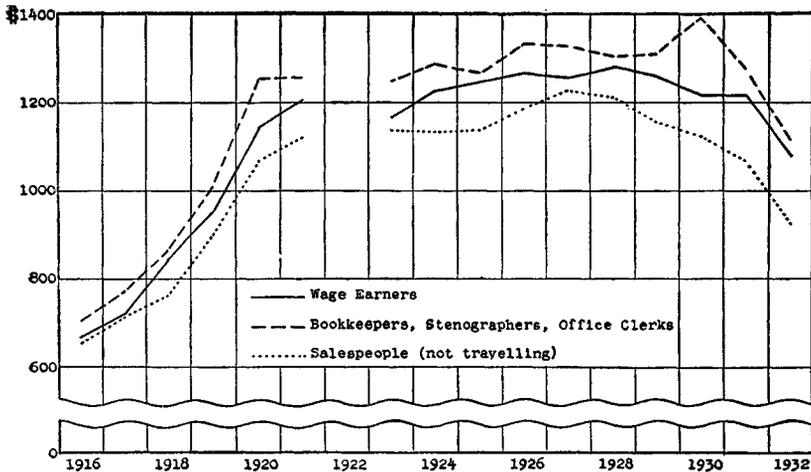


FIGURE 43.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL STORES, 1916 TO 1932

ported annual sales of less than \$50,000 and 33,350 reported annual sales of less than \$10,000.

The Bureau of the Census computes an average annual salary in retail trade in Ohio per full-time employee in 1929 of \$1,341. The average annual wage and salary payment in wholesale and retail trade according to the reports to the Ohio Division of Labor Statistics for 1929, including full-time, part-time, and overtime workers, was \$1,237 which is \$104, or 7.8 percent, less than the census average for full-time employees.

#### Indexes for Employment and Wage and Salary Payments

INDEXES for average number of persons employed (wage earners, bookkeepers, stenographers, and office clerks, and salespeople, not traveling) and for total and average wage and salary payments in wholesale and retail trade and in each of the trade groups classified under that industry are shown in table 127. The base for the

indexes in this table is 1926. The years covered are 1924 to 1932 during which period reports were requested each year by the Ohio Division of Labor Statistics from all establishments employing three or more persons.

In the wholesale and retail trade, the index for average number of persons employed exceeded the base year (1926) each year from 1927 to 1931 and fell to 92.4 in 1932. The index for total wage and salary payments exceeded the base year in 1927, 1928, 1929, and 1930, and fell to 74.5 in 1932. The index for average wage and salary payments exceeded the base year in 1927 and 1928 and fell to 80.6 in 1932.

In wholesale and retail stores, the index for average number of salespeople (not traveling) employed exceeded the base each year since 1926 and stood at 102.1 in 1932. The index for total wage and salary payments exceeded the base in 1927 to 1931 and fell to 79.9 in 1932. The index for average wage and salary payments exceeded the base in 1927 and 1928 and had fallen to 78.2 in 1932. The index for the three general occupation groups combined in 1932 was 94.4 for average number of persons employed, 77.0 for total wage and salary payments, and 81.5 for average wage and salary payments.

TABLE 127.—INDEXES OF AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE IN OHIO, 1924 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS

[1926=100.0]

*Trade—wholesale and retail*

Year	Wage earners			Bookkeepers, stenographers, and office clerks		
	Number (average)	Total wage and salary payments	Average wage and salary payments	Number (average)	Total wage and salary payments	Average wage and salary payments
1924	91.9	89.4	97.3	92.7	89.7	96.7
1925	95.1	93.9	98.8	93.6	92.3	95.6
1926	100.0	100.0	100.0	100.0	100.0	100.0
1927	103.2	102.3	99.7	102.9	102.6	99.6
1928	100.6	101.7	101.0	103.6	101.5	97.9
1929	100.8	100.8	100.0	108.3	106.5	93.3
1930	102.3	100.7	98.4	106.2	110.1	103.7
1931	98.1	93.3	95.1	96.6	91.4	94.6
1932	86.8	72.2	83.1	84.8	70.2	82.8
	Salespeople (not traveling)			All employees		
1924	91.6	87.6	95.6	91.9	88.8	96.6
1925	95.7	92.3	96.4	95.6	93.0	97.3
1926	100.0	100.0	100.0	100.0	100.0	100.0
1927	108.4	112.4	103.7	105.2	106.4	101.2
1928	112.8	115.3	102.2	106.0	106.8	100.8
1929	126.5	123.4	97.5	112.4	110.5	93.3
1930	112.7	106.9	94.8	107.2	104.8	97.9
1931	112.0	100.9	90.1	103.4	95.8	92.7
1932	101.7	79.3	77.9	92.4	74.5	80.6

TABLE 127.—INDEXES OF AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE IN OHIO, 1934 TO 1932, BY TRADES AND BY GENERAL OCCUPATION GROUPS—Con.

*Stores—wholesale and retail*

Year	Wage earners			Bookkeepers, stenographers, and office clerks		
	Number (average)	Total wage and salary payments	Average wage and salary payments	Number (average)	Total wage and salary payments	Average wage and salary payments
1924.....	92.6	89.6	96.8	93.0	89.8	96.5
1925.....	95.0	93.7	98.7	96.7	91.9	95.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	103.3	102.6	99.3	102.7	102.2	99.5
1928.....	99.6	100.8	101.2	103.7	101.3	97.7
1929.....	101.7	101.2	99.5	109.2	107.3	98.3
1930.....	107.9	103.8	96.2	106.6	111.3	104.4
1931.....	101.9	98.1	96.3	96.9	92.6	95.6
1932.....	89.9	76.6	85.2	85.1	71.2	83.6
	Salespeople (not traveling)			All employees		
1924.....	91.8	87.9	95.8	92.3	89.0	96.4
1925.....	95.7	92.1	96.3	95.6	92.7	97.0
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	108.5	112.7	103.8	105.5	106.8	101.2
1928.....	113.0	115.6	102.3	106.3	107.1	100.8
1929.....	127.0	124.0	97.6	114.2	111.9	98.0
1930.....	113.3	107.8	95.0	110.1	106.9	97.1
1931.....	112.4	101.5	90.3	105.7	98.5	93.2
1932.....	102.1	79.9	78.2	94.4	77.0	81.5

*Yards—lumber, coal, and scrap*

Year	Wage earners			Bookkeepers, stenographers, and office clerks		
	Number (average)	Total wage and salary payments	Average wage and salary payments	Number (average)	Total wage and salary payments	Average wage and salary payments
1924.....	90.1	89.9	99.8	90.8	89.7	98.9
1925.....	96.8	96.9	100.2	96.0	96.4	100.4
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	104.1	105.9	101.7	105.7	105.6	99.9
1928.....	104.9	105.6	100.7	102.1	102.7	100.6
1929.....	93.6	94.1	100.6	97.9	97.4	99.6
1930.....	71.6	80.1	111.9	100.1	98.1	98.0
1931.....	70.2	58.3	83.1	87.1	73.9	84.8
1932.....	64.7	43.5	67.2	77.1	57.6	74.7
	All employees					
1924.....	90.1	89.1	98.9	-----	-----	-----
1925.....	96.5	96.5	100.0	-----	-----	-----
1926.....	100.0	100.0	100.0	-----	-----	-----
1927.....	104.3	105.4	101.1	-----	-----	-----
1928.....	104.7	105.5	100.8	-----	-----	-----
1929.....	94.6	95.5	101.0	-----	-----	-----
1930.....	76.4	83.1	108.9	-----	-----	-----
1931.....	73.8	62.8	85.1	-----	-----	-----
1932.....	67.5	47.0	69.7	-----	-----	-----

*Retail delivery—milk, ice, and water*

Year	Wage earners			All employees		
	Number (average)	Total wage and salary payments	Average wage and salary payments	Number (average)	Total wage and salary payments	Average wage and salary payments
1924.....	84.1	83.1	98.8	80.1	80.1	99.9
1925.....	87.5	85.1	97.2	89.2	88.8	99.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	96.2	97.4	101.3	95.3	97.2	101.9
1928.....	104.2	103.5	99.3	101.1	101.4	100.3
1929.....	114.4	120.7	105.5	109.4	116.4	106.5
1930.....	119.3	120.6	101.1	112.8	114.9	101.9
1931.....	146.7	135.5	92.3	139.2	130.5	93.7
1932.....	124.0	99.1	80.0	116.9	95.2	81.4

Charts 44 and 45 show in graphic form indexes for wholesale and retail trade and for wholesale and retail stores. The data are for the three general occupation groups combined.

Table 128 provides a comparison of indexes of the United States Bureau of Labor Statistics for employment and pay rolls in wholesale trade and in retail trade in the United States and of indexes for average number employed and total wage and salary payments in whole-

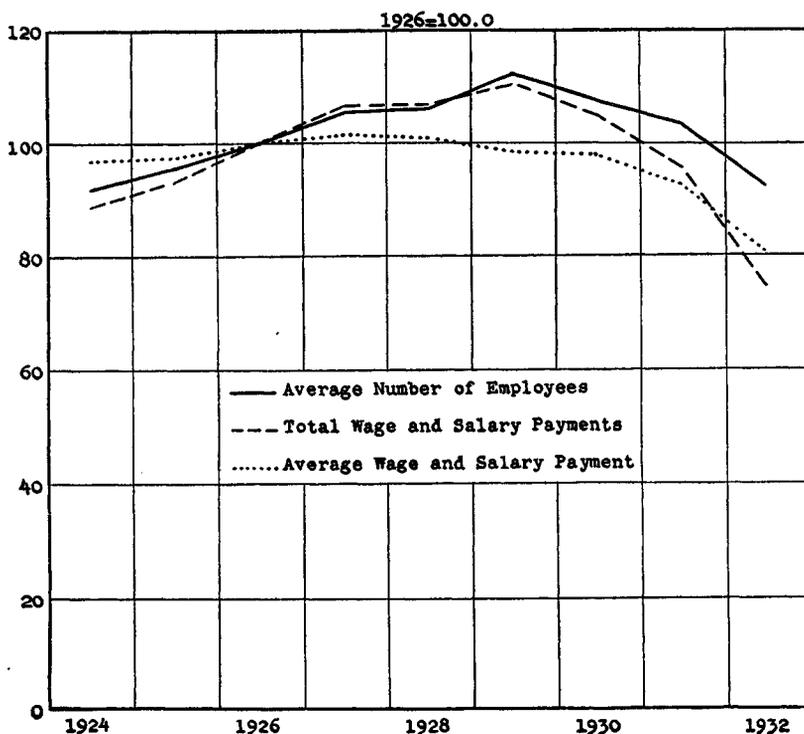


FIGURE 44.—INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE, 1924 TO 1932

sale and retail trade in Ohio computed from reports of the Ohio Division of Labor Statistics for 1929 to 1932. The Bureau of Labor Statistics indexes for trade cover only the period beginning in 1929 and the average for that year is used by the Bureau as the base. It is therefore used in this comparative table.

For employment the Ohio index for wholesale and retail trade is very slightly lower than the Bureau's United States indexes for wholesale trade and for retail trade in 1930, considerably higher than either of the Bureau's indexes in 1931, and also somewhat higher in 1932. For pay rolls, or total wage and salary payments, the Ohio index was lower than either of the Bureau's indexes in 1930, slightly higher than

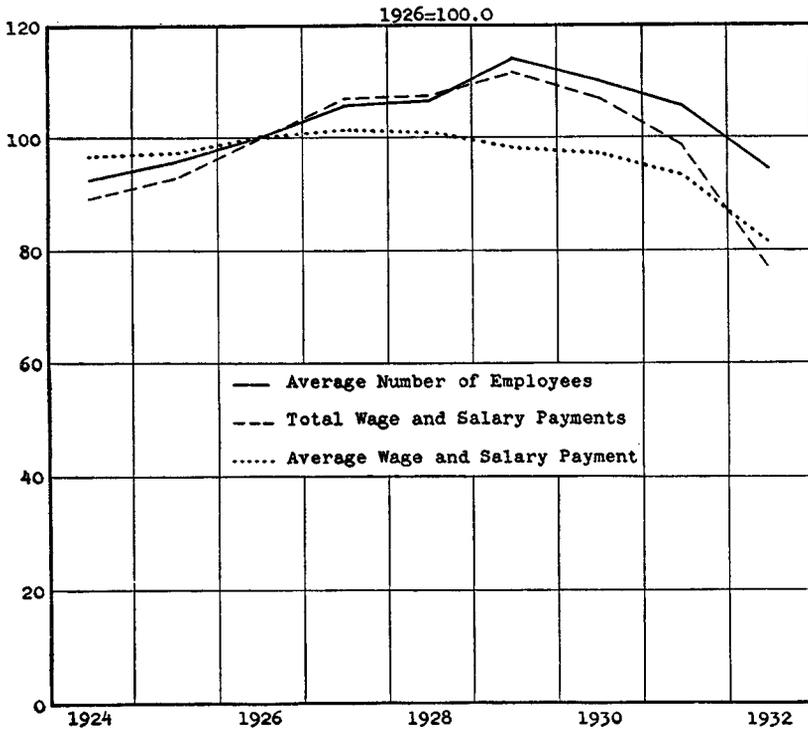


FIGURE 45.—INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL STORES, 1924 TO 1932

either in 1931, and slightly lower than the retail trade and a trifle higher than the wholesale trade index in 1932.

TABLE 128.—COMPARISON OF INDEXES OF THE UNITED STATES BUREAU OF LABOR STATISTICS FOR EMPLOYMENT AND PAY ROLLS IN WHOLESALE TRADE AND IN RETAIL TRADE IN THE UNITED STATES AND INDEXES FOR AVERAGE NUMBER EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS IN WHOLESALE AND RETAIL TRADE IN OHIO COMPUTED FROM REPORTS OF THE OHIO DIVISION OF LABOR STATISTICS, 1929 TO 1932

[1929=100.0]

Year	Bureau of Labor Statistics				Ohio reports—Wholesale and retail trade	
	Wholesale trade		Retail trade		Employees (average)	Total wage and salary payments
	Employment	Pay rolls	Employment	Pay rolls		
1929.....	100.0	100.0	100.0	100.0	100.0	100.0
1930.....	96.0	95.9	95.9	96.2	95.4	94.9
1931.....	86.6	83.6	89.4	86.6	92.0	86.7
1932.....	78.2	67.0	80.9	69.4	82.3	67.4

## Chapter 6.—“Service” Industries, 1916 to 1932

**T**HE highest average wage and salary payment in the “service” industries in Ohio during the 17 years, 1916 to 1932, to all occupation groups combined was \$1,384, in 1929; the lowest was \$646, in 1916. The average in 1932 was \$1,074, which was the lowest since 1919.

The decline in average wage and salary payments from 1929 to 1932 was \$241, or 20.4 percent, for wage earners; \$367, or 21.2 percent, for bookkeepers, stenographers, and office clerks; \$982, or 48.4 percent, for salespeople (not traveling); and \$310, or 22.4 percent, for the three general occupation groups combined.

The Ohio Division of Labor Statistics classified “offices” under “Wholesale and retail trade” prior to 1925, but beginning with that year “offices” have been classified under “service.” In order to secure in this study a comparison of the same groups, as far as possible, throughout the period from 1916 to 1932, all data concerning “offices” have been transferred from “trade” to “service”, except for 1922, in table 129, as noted, and, therefore, the figures in this study are not in agreement, for the earlier years, with the study of average wage and salary payments in Ohio, published in the Monthly Labor Review for January 1934.

The industry group “service” contains a number of activities seldom covered in statistical studies of employment and wage and salary payments. The reporting lists in some of such activities necessarily have been developed slowly, and, therefore, increases in employment and in total wage and salary payments are accounted for in part by more nearly complete coverage during the later years of the period. This should be borne in mind in using figures in this study for comparative purposes.

Table 129 shows total wage and salary payments reported in “service” for the 17 years, 1916 to 1932. Payments to superintendents and managers are included in this table, but data for that group are not included elsewhere in this study. In their annual reports to the Ohio Division of Labor Statistics, employers were requested to report for the year total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were instructed not to include salaries of officials.

Total wage and salary payments to the three general occupation groups combined reached the highest amount in 1929, while the total in 1932 was lower than in any year since 1925.

TABLE 129.—TOTAL WAGE AND SALARY PAYMENTS IN "SERVICE", 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

[Figures for the earlier years are not in agreement with study of Average Wage and Salary Payments in Ohio, Monthly Labor Review for January 1934, due to transfer of "offices" from "trade" to "service"]

Year	Estab-lishments	Wage earners	Bookkeepers, stenogra- phers, and office clerks	Salespeople (not traveling)	Total of preceding	Superintend- ents and managers	Grand total
1916.....	2,153	\$19,652,032	\$6,929,190	\$1,231,512	\$27,812,734	\$2,831,003	\$30,643,737
1917.....	2,595	26,609,508	9,913,932	2,102,440	38,625,880	4,269,087	42,894,967
1918.....	3,071	30,516,708	16,348,100	2,698,080	49,562,888	5,180,566	54,743,454
1919.....	3,157	35,598,590	22,453,467	3,555,612	61,607,669	7,053,211	68,660,880
1920.....	4,650	52,601,409	36,426,294	4,845,853	93,873,556	10,297,669	104,171,225
1921.....	3,499	53,671,210	35,368,928	4,637,305	93,677,443	11,059,427	104,736,870
1922 <sup>1</sup> .....	3,034	50,008,110	19,645,610	3,504,463	73,158,183	7,589,873	80,748,056
1923.....	4,120	65,361,822	40,017,329	8,377,133	113,756,274	14,204,873	127,960,847
1924.....	5,215	77,458,058	46,763,611	9,375,878	133,497,547	19,617,426	153,114,973
1925.....	5,971	86,197,038	48,314,102	10,948,449	145,459,589	21,959,639	167,419,228
1926.....	6,761	94,622,091	53,930,013	13,078,376	161,630,480	21,849,163	183,479,643
1927.....	7,598	105,462,147	59,000,261	10,809,448	175,271,856	21,607,204	196,879,060
1928.....	8,210	102,061,685	65,040,343	13,801,649	180,903,677	25,058,030	205,961,707
1929.....	9,335	118,959,260	76,873,897	16,074,147	211,907,304	26,384,039	238,291,343
1930.....	10,241	111,692,103	83,742,536	6,998,762	202,433,401	27,932,230	230,365,631
1931.....	10,452	103,607,067	75,869,112	6,060,877	185,537,056	24,510,860	210,047,916
1932.....	10,357	85,957,730	58,630,191	4,093,525	148,681,446	19,735,297	168,416,743

<sup>1</sup> Not including "offices." Data not available to compute total wage and salary payments for service including offices.

Table 130 shows the average number of persons reported employed in each of the three general occupation groups. Employers, in their annual reports to the Ohio Division of Labor Statistics, show the number of persons employed in each of the three general occupation groups on the 15th of each month. The average was computed by dividing the sum of the number employed on the 15th of each month by 12.

The highest average number reported employed was in 1930. The statement made earlier in this study concerning the more nearly complete coverage during the later years of the period should be borne in mind in using this table.

TABLE 130.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN "SERVICE", 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

[Figures for the earlier years are not in agreement with study of Average Wage and Salary Payments in Ohio Monthly Labor Review for January 1934, due to transfer of "offices" from "trade" to "service"]

Year	Estab-lishments	Wage earners	Bookkeepers, stenogra- phers, and office clerks	Salespeople (not traveling)	All employees
1916.....	2,157	33,433	8,334	1,292	43,058
1917.....	2,599	40,490	10,735	1,784	53,009
1918.....	3,071	40,301	14,813	1,899	57,014
1919.....	3,157	42,086	18,685	2,386	63,157
1920.....	4,650	48,662	25,993	2,397	77,052
1921.....	3,499	48,587	23,418	2,896	74,850
1922.....	3,745	51,517	24,644	3,277	79,438
1923.....	4,120	59,082	27,641	4,045	90,767
1924.....	5,215	66,937	32,219	4,939	104,095
1925.....	5,971	73,399	34,124	5,523	113,046
1926.....	6,761	82,072	35,664	6,688	124,424
1927.....	7,598	87,132	37,984	6,459	130,525
1928.....	8,210	91,160	40,181	7,202	138,542
1929.....	9,335	100,805	44,374	7,930	153,109
1930.....	10,241	99,427	51,162	4,423	155,012
1931.....	10,452	97,184	48,590	4,348	150,122
1932.....	10,357	91,523	42,964	3,918	138,405

Average wage and salary payments in “service” are shown in table 131. The average was computed by dividing the total wage and salary payment by the average number (sum of the number employed on the 15th of each month divided by 12) reported employed each year.

The highest average wage and salary payment to wage earners was in 1927; to bookkeepers, stenographers, and office clerks, in 1929; to salespeople (not traveling), in 1923; and to the three groups combined, in 1929. The average in 1932 was lower than in any year since 1919 for the first two occupation groups and for the three combined.

TABLE 131.—AVERAGE WAGE AND SALARY PAYMENTS IN “SERVICE”, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

[Figures for the earlier years are not in agreement with study of Average Wage and Salary Payments in Ohio, Monthly Labor Review for January 1934, due to transfer of “offices” from “trade” to “service”]

Year	Establishments	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	<sup>1</sup> 2, 157	\$588	\$331	\$953	\$646
1917.....	<sup>1</sup> 2, 599	657	924	1, 178	729
1918.....	3, 071	757	1, 104	1, 421	869
1919.....	3, 157	846	1, 202	1, 490	975
1920.....	4, 650	1, 081	1, 401	2, 022	1, 218
1921.....	3, 499	1, 106	1, 510	1, 601	1, 252
1922.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1923.....	4, 120	1, 106	1, 448	2, 071	1, 253
1924.....	5, 215	1, 157	1, 451	1, 878	1, 282
1925.....	5, 971	1, 174	1, 416	1, 982	1, 287
1926.....	6, 761	1, 153	1, 512	1, 955	1, 299
1927.....	7, 598	1, 210	1, 555	1, 980	1, 343
1928.....	8, 210	1, 120	1, 619	1, 916	1, 306
1929.....	9, 335	1, 180	1, 732	2, 027	1, 384
1930.....	10, 241	1, 123	1, 637	1, 582	1, 306
1931.....	10, 462	1, 066	1, 561	1, 394	1, 236
1932.....	10, 357	939	1, 365	1, 045	1, 074

<sup>1</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 4.

<sup>2</sup> Data not available.

Chart 46 shows graphically the average wage and salary payments.

### Industries or Activities Classified under “Service”

IN STUDYING individual industries or activities under “service”, consideration is given only to the two numerically important occupation groups—wage earners; and bookkeepers, stenographers, and office clerks.

In the tables relating to wage earners the following industries or activities have been combined in this study under “service, other”: Homes for aged and children, laboratories, mausoleums and cemeteries, photographers, professional, recreation camps for boys and girls, shoe repairing, undertakers, and service, not otherwise classified. In the tables relating to bookkeepers, stenographers, and office clerks, all

of the industries enumerated above and all except seven of the industries in table 132 are included in "Service, other."

It should be emphasized that more nearly complete coverage during the later years is an important factor in several of the industries or activities, to be borne in mind, in consideration of increases in

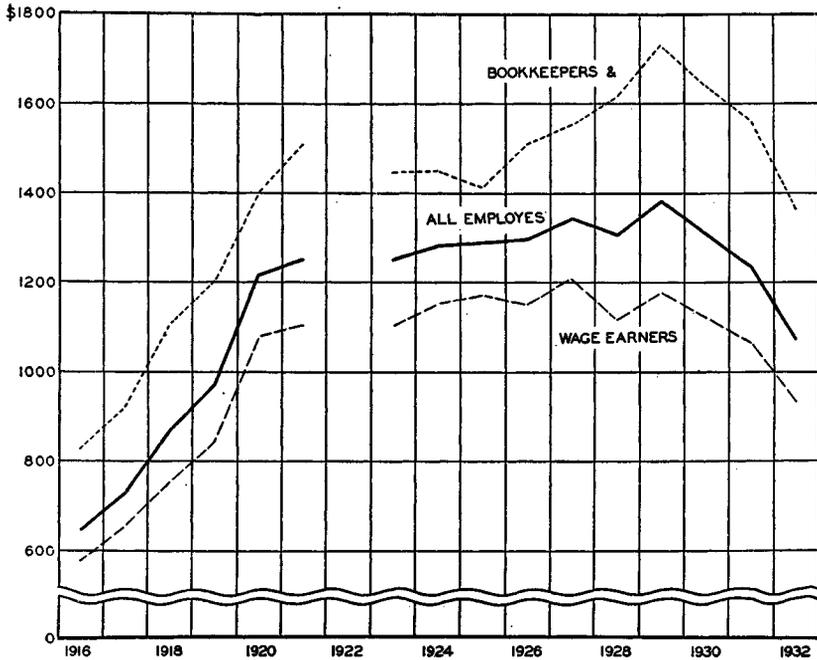


FIGURE 46.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN "SERVICE" INDUSTRIES, 1916 TO 1932

total wage and salary payments and in average number of persons employed.

Tables 132 and 133 show for wage earners and for bookkeepers, stenographers, and office clerks, the number of establishments reporting, average number reported employed, and total wage and salary payments each year.

TABLE 132.—AVERAGE NUMBER OF WAGE EARNERS REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES

Year	Advertising			Banks			Barbers and hairdressers		
	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments
1916	(1)	(1)	(2)	(1)	(1)	(1)	24	229	\$148,606
1917	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
1918	36	296	\$292,087	188	328	\$258,484	25	199	189,719
1919 <sup>1</sup>	38	421	506,097	192	412	362,915	24	214	217,084
1920	46	495	771,073	4 1,073	701	555,267	31	247	318,930
1921	42	451	724,500	334	847	923,640	27	230	277,500
1922	40	503	(1)	385	898	(1)	30	289	(1)
1923	46	676	830,046	401	970	1,064,120	35	285	367,789
1924	57	742	1,085,516	579	1,461	2,647,145	57	403	492,804
1925	45	499	920,877	599	1,491	1,508,163	66	475	570,459
1926	47	471	943,030	606	1,646	1,853,147	73	498	625,358
1927	55	703	1,465,327	632	1,646	1,851,244	95	627	824,320
1928	47	652	1,199,016	636	1,725	1,759,501	100	707	872,484
1929	58	949	1,239,331	908	2,093	2,108,744	108	749	1,000,929
1930	65	1,060	1,263,572	920	2,069	2,181,032	119	910	1,032,939
1931	65	1,005	1,055,326	821	1,891	1,781,042	142	1,013	1,072,291
1932	69	926	1,781,888	787	1,794	1,656,890	168	1,129	990,197

Year	Bowling alleys and parks			Churches			Clubs (athletic, country, and yacht)		
	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments
1916	5 45	892	\$608,258	(1)	(1)	(1)	(1)	(1)	(1)
1917	55	1,117	1,035,506	(1)	(1)	(1)	(1)	(1)	(1)
1918	67	1,104	777,473	(1)	(1)	(1)	(1)	(1)	(1)
1919 <sup>2</sup>	59	867	851,150	(1)	(1)	(1)	(1)	(1)	(1)
1920	70	1,026	1,253,538	(1)	(1)	(1)	(1)	(1)	(1)
1921	66	917	1,242,253	(1)	(1)	(1)	(1)	(1)	(1)
1922	71	946	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1923	88	1,136	1,338,218	(1)	(1)	(1)	(1)	(1)	(1)
1924	116	1,398	1,702,493	(1)	(1)	(1)	(1)	(1)	(1)
1925	138	1,702	2,110,797	11	125	\$93,124	140	2,625	\$2,863,320
1926	164	1,753	1,919,194	28	276	235,852	152	2,734	2,898,647
1927	195	2,079	2,265,471	49	446	401,219	184	3,158	3,353,507
1928	223	2,244	2,493,337	65	537	526,589	167	2,907	3,177,443
1929	217	2,538	2,652,989	78	601	557,528	194	3,028	3,230,437
1930	311	2,812	2,747,409	113	941	822,300	225	3,088	3,438,932
1931	265	2,323	1,989,162	138	1,077	1,102,937	267	3,099	3,175,811
1932	231	1,858	1,499,989	160	1,182	1,120,129	268	2,714	2,230,787

Year	Garages, including auto-body repairing			Hospitals			Hotels		
	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments	Estab-lish-ments	Wage earners (average)	Total wage and salary payments
1916	295	2,857	\$2,353,190	18	395	\$169,876	6 300	8,680	\$4,220,219
1917	7 420	4,195	3,878,736	21	487	209,750	6 351	9,924	5,194,887
1918	505	4,466	4,736,077	27	602	306,714	356	9,223	5,617,439
1919 <sup>3</sup>	576	5,543	6,980,756	37	766	448,660	330	10,700	7,528,522
1920	795	7,141	10,969,979	47	1,156	926,442	352	10,914	8,932,948
1921	674	5,957	8,795,155	85	3,735	3,787,440	318	10,470	8,975,429
1922	711	6,160	(1)	96	4,343	(1)	303	10,561	(1)
1923	802	7,965	11,484,236	110	4,908	4,177,744	348	11,444	9,588,675
1924	1,062	9,412	14,207,772	125	5,652	4,729,461	390	11,725	10,230,997
1925	1,242	10,623	16,165,183	136	6,337	5,781,399	340	10,753	8,558,784
1926	1,468	12,729	18,740,425	146	7,116	6,022,306	364	11,613	9,764,422
1927	1,624	11,821	18,177,235	173	8,007	7,388,279	360	10,933	9,133,790
1928	1,771	12,692	19,574,658	176	8,790	4,928,136	411	11,819	9,824,079
1929	1,921	14,447	22,139,131	199	9,989	9,079,611	406	12,697	10,300,526
1930	1,947	12,933	19,431,205	217	10,073	9,153,476	390	12,589	10,539,727
1931	1,820	10,920	13,977,810	192	10,008	8,701,021	383	11,441	8,914,610
1932	1,618	8,976	9,101,898	191	9,406	7,619,766	356	9,808	6,711,585

<sup>1</sup> Data not available.

<sup>2</sup> Combined with "service, other."

<sup>3</sup> Total of average number of wage earners by industries 1,346 less than service industry group total; no further verification possible.

<sup>4</sup> In accord with compilations of Ohio Division of Labor Statistics, but possibly some error in reporting or tabulating.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>6</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 2.

<sup>7</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

TABLE 132.—AVERAGE NUMBER OF WAGE EARNERS REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES—Continued

Year	Laundries, dry cleaners, and renovated			Offices			Office buildings, including window cleaning		
	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments	Estab-lish-ments	Wage earners (aver-age)	Total wage and salary payments
1916	7 281	8, 439	\$4, 237, 075	7 369	1, 224	\$1, 375, 090	5 186	2, 938	\$1, 776, 903
1917	7 295	8, 627	4, 738, 564	7 488	2, 070	2, 669, 187	7 198	3, 396	2, 374, 342
1918	294	7, 765	4, 619, 590	515	1, 925	2, 872, 853	210	3, 351	2, 388, 929
1919 <sup>3</sup>	281	7, 837	4, 984, 771	594	1, 911	3, 085, 599	217	2, 009	2, 776, 782
1920	332	8, 325	7, 623, 998	803	2, 242	4, 797, 864	243	3, 583	3, 522, 274
1921	291	7, 308	6, 751, 435	676	2, 374	5, 025, 786	235	3, 366	3, 344, 352
1922	287	7, 172	(1)	713	2, 771	(1)	239	3, 359	(1)
1923	305	8, 890	8, 177, 447	779	2, 858	6, 366, 611	250	4, 078	4, 277, 149
1924	344	9, 717	9, 342, 840	982	4, 103	7, 978, 013	286	4, 225	4, 547, 692
1925	368	10, 589	11, 463, 041	1, 088	4 2, 934	7, 872, 357	326	4, 485	4, 991, 289
1926	405	11, 642	12, 229, 747	1, 252	3, 644	8, 040, 702	372	5, 176	5, 601, 481
1927	449	12, 664	14, 358, 044	1, 403	4, 927	10, 376, 576	421	5, 214	5, 872, 279
1928	478	13, 318	14, 000, 370	1, 601	4, 445	10, 257, 752	454	5, 101	5, 114, 405
1929	526	14, 487	15, 447, 090	1, 826	4, 728	11, 365, 212	502	5, 981	6, 062, 726
1930	537	14, 571	14, 798, 866	2, 145	2, 502	4, 358, 195	575	6, 304	7, 056, 866
1931	555	13, 428	12, 537, 847	2, 301	3, 281	5, 605, 232	612	6, 549	7, 013, 842
1932	534	11, 915	9, 212, 019	2, 501	5 5, 972	9 9, 909, 947	653	6, 768	6, 334, 047
	Restaurants			Saloons			Schools and colleges		
1916	7 272	4, 003	\$1, 989, 311	115	1, 300	\$965, 353	(1)	(1)	(1)
1917	7 280	4, 699	2, 574, 035	190	1, 606	1, 300, 194	(1)	(1)	(1)
1918	327	5, 177	3, 363, 482	201	1, 543	1, 771, 493	24	385	\$381, 726
1919 <sup>3</sup>	406	5, 860	4, 191, 304	78	269	274, 240	26	440	392, 545
1920	440	7, 368	6, 447, 133				55	1, 127	1, 109, 114
1921	365	6, 306	5, 367, 496				70	2, 525	3, 327, 965
1922	421	7, 803	(1)				66	2, 416	(1)
1923	465	8, 076	6, 661, 751				79	2, 737	4, 313, 978
1924	615	8, 825	7, 783, 419				94	3, 329	4, 352, 631
1925	758	10, 351	8, 815, 289				89	3, 137	4, 691, 187
1926	850	10, 986	8, 860, 737				92	3, 360	5, 448, 979
1927	1, 004	11, 868	11, 190, 694				99	3, 707	6, 076, 644
1928	1, 011	11, 943	10, 424, 751				107	3, 988	6, 578, 697
1929	1, 207	13, 731	12, 033, 885				130	4, 539	7, 512, 060
1930	1, 365	14, 438	12, 153, 193				126	4, 767	8, 479, 988
1931	1, 336	13, 496	12, 415, 063				132	4, 877	8, 510, 027
1932	1, 159	11, 404	7, 586, 438				132	4, 915	7, 731, 907
	Servants in private homes			Social agencies			Theaters		
1916	(1)	(1)	(1)	(1)	(1)	(1)	7 122	1, 508	\$1, 052, 645
1917	(1)	(1)	(1)	(1)	(1)	(1)	136	1, 982	1, 537, 396
1918	(1)	(1)	(1)	(1)	(1)	(1)	152	2, 223	1, 880, 181
1919 <sup>3</sup>	(1)	(1)	(1)	(1)	(1)	(1)	154	2, 363	1, 844, 825
1920	(1)	(1)	(1)	(1)	(1)	(1)	188	3, 001	3, 426, 547
1921	(1)	(1)	(1)	(1)	(1)	(1)	171	2, 903	3, 303, 841
1922	(1)	(1)	(1)	51	692	(1)	161	2, 378	(1)
1923	(1)	(1)	(1)	46	504	\$443, 547	179	3, 124	4, 514, 921
1924	(1)	(1)	(1)	70	687	714, 936	207	3, 540	5, 405, 084
1925	36	107	\$93, 962	77	912	986, 871	231	3, 618	5, 517, 574
1926	83	344	341, 298	93	1, 118	1, 219, 748	261	4, 131	6, 468, 066
1927	118	563	606, 143	109	1, 170	1, 222, 621	275	4, 369	6, 947, 769
1928	169	849	974, 921	121	1, 408	1, 384, 855	308	4, 523	7, 079, 818
1929	228	1, 050	1, 169, 635	133	1, 473	1, 511, 435	291	4, 217	6, 768, 936
1930	310	1, 520	1, 682, 058	139	1, 703	1, 851, 448	274	3, 605	5, 875, 370
1931	403	1, 739	1, 826, 861	138	1, 937	2, 079, 074	278	3, 775	6, 013, 291
1932	458	1, 844	1, 646, 731	148	2, 396	2, 315, 997	279	3, 028	4, 072, 324

<sup>1</sup> Data not available.

<sup>2</sup> Total of average number of wage earners by industries 1,346 less than service industry group total; no further verification possible.

<sup>3</sup> In accord with compilations of Ohio Division of Labor Statistics, but possibly some error in reporting or tabulating.

<sup>4</sup> Number of establishments reporting employees; number reporting total wage and salary payments was greater by 1.

<sup>5</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

<sup>6</sup> Increases probably due largely to change in classification of employees, in certain types of offices, by Ohio Division of Labor Statistics.

TABLE 132.—AVERAGE NUMBER OF WAGE EARNERS REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES—Continued

Year	Y. M. C. A. and Y. W. C. A.			Service, other		
	Estab- lish- ments	Wage earners (aver- age)	Total wage and salary payments	Estab- lish- ments	Wage earners (aver- age)	Total wage and salary payments
1916.....	(1)	(1)	(1)	130	968	\$775,506
1917.....	(1)	(1)	(1)	165	<sup>4</sup> 2,390	1,096,851
1918.....	(1)	(1)	(1)	144	1,013	1,060,461
1919 <sup>5</sup> .....	(1)	(1)	(1)	<sup>7</sup> 145	1,128	1,153,340
1920.....	(1)	(1)	(1)	175	1,338	1,940,302
1921.....	(1)	(1)	(1)	145	1,148	1,321,018
1922.....	(1)	(1)	(1)	171	1,226	(1)
1923.....	(1)	(1)	(1)	187	1,370	1,755,590
1924.....	(1)	(1)	(1)	231	1,721	2,237,165
1925.....	25	785	\$687,707	256	1,853	2,505,655
1926.....	28	784	681,514	277	2,054	2,727,408
1927.....	34	748	685,904	319	2,484	3,265,081
1928.....	39	907	796,640	326	2,557	3,094,233
1929.....	47	947	888,671	366	2,663	3,400,374
1930.....	44	874	722,516	419	2,969	4,102,912
1931.....	41	1,024	811,348	563	4,304	5,024,371
1932.....	37	904	667,146	608	4,583	4,768,035

<sup>1</sup> Data not available.

<sup>2</sup> Total of average number of wage earners by industries 1,346 less than service industry group total; no further verification possible.

<sup>4</sup> In accord with compilations of Ohio Division of Labor Statistics, but possibly some error in reporting or tabulating.

<sup>7</sup> Number of establishments reporting employees; number reporting total wage and salary payments was less by 1.

TABLE 133.—AVERAGE NUMBER OF BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES

Year	Banks			Garages, including auto- body repairing			Hospitals		
	Estab- lish- ments	Book- keep- ers, steno- graph- ers, and office clerks (aver- age)	Total wage and salary payments	Estab- lish- ments	Book- keep- ers, steno- graph- ers, and office clerks (aver- age)	Total wage and salary payments	Estab- lish- ments	Book- keep- ers, steno- graph- ers, and office clerks (aver- age)	Total wage and salary payments
1916.....	(1)	(1)	(1)	295	543	\$391,059	(1)	(1)	(1)
1917.....	(1)	(1)	(1)	<sup>6</sup> 420	834	677,185	(1)	(1)	(1)
1918.....	188	4,045	\$5,675,894	505	961	1,154,983	(1)	(1)	(1)
1919.....	192	5,955	7,285,573	576	1,130	1,315,265	(1)	(1)	(1)
1920.....	1,073	9,896	14,282,902	795	1,592	2,251,762	(1)	(1)	(1)
1921 <sup>3</sup> .....	334	9,200	14,915,129	674	1,459	1,932,757	(1)	(1)	(1)
1922.....	385	9,419	(1)	711	1,591	(1)	85	294	\$317,193
1923.....	401	10,207	14,871,217	802	1,946	2,962,034	96	329	(1)
1924.....	579	12,019	16,653,801	1,062	2,455	3,464,682	110	456	462,951
1925.....	599	12,228	16,125,118	1,242	2,650	3,860,093	125	437	656,017
1926.....	606	12,476	19,065,585	1,468	2,998	4,277,577	136	522	617,229
1927.....	632	12,623	19,694,310	1,624	2,903	4,222,545	146	599	654,223
1928.....	636	12,841	20,548,868	1,771	3,105	4,432,215	173	759	888,549
1929.....	908	14,149	22,436,897	1,921	2,794	4,734,176	176	697	4,071,334
1930.....	920	14,283	22,426,543	1,947	3,054	4,240,297	189	907	1,040,455
1931.....	821	12,249	18,314,158	1,820	2,521	3,146,707	217	907	1,071,553
1932.....	787	11,161	16,222,488	1,618	2,017	2,167,971	192	918	1,076,010
							191	882	839,910

See footnotes at end of table.

TABLE 133.—AVERAGE NUMBER OF BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS REPORTED EMPLOYED AND TOTAL WAGE AND SALARY PAYMENTS TO BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES—Continued

Year	Hotels			Laundries, dry cleaners, and renovators			Offices		
	Estab-lish-ments	Book-keepers, stenog-raph-ers, and office clerks (aver-age)	Total wage and salary payments	Estab-lish-ments	Book-keepers stenog-raph-ers, and office clerks (aver-age)	Total wage and salary payments	Estab-lish-ments	Book-keepers, stenog-raph-ers, and office clerks (aver-age)	Total wage and salary payments
1916.....	6 300	786	\$560,497	6 281	703	\$382,558	6 369	5,389	\$4,975,171
1917.....	7 351	846	699,761	6 295	625	373,944	6 488	7,537	7,447,713
1918.....	356	949	817,617	294	597	390,265	515	5,856	6,644,321
1919.....	330	1,147	1,036,169	281	610	4 807,685	594	8,430	10,449,361
1920.....	352	1,160	1,332,932	332	645	632,056	803	11,002	16,031,468
1921 <sup>1</sup> .....	318	1,169	1,387,779	291	599	4 946,803	676	9,230	13,944,327
1922.....	308	1,126	( )	287	598	( )	713	9,818	( )
1923.....	348	1,248	1,350,096	305	665	713,708	779	10,989	16,705,632
1924.....	390	1,356	1,402,794	344	731	796,982	982	12,691	20,420,468
1925.....	340	1,377	1,363,065	368	769	858,369	1,088	13,718	21,987,567
1926.....	364	1,308	1,446,348	405	826	918,125	1,252	14,316	23,338,357
1927.....	360	1,135	1,477,587	449	986	1,069,550	1,403	16,075	26,848,769
1928.....	411	1,249	1,461,432	478	945	1 2,065,651	1,601	18,207	31,654,279
1929.....	406	1,408	1,654,474	526	1,021	1,177,130	1,826	20,495	41,246,320
1930.....	390	1,279	1,486,832	537	1,083	1,293,668	2,145	26,536	47,821,356
1931.....	383	1,188	1,285,726	555	955	1,037,528	2,301	26,194	45,201,813
1932.....	356	1,068	1,056,351	534	892	835,958	2,501	22,445	32,361,719
	Schools and colleges			Service, other					
1916.....	( )	( )	( )	912	913	\$619,905			
1917.....	( )	( )	( )	6 1,045	892	715,329			
1918.....	24	517	\$642,167	6 1,189	988	1,022,853			
1919.....	7 26	429	525,044	6 1,158	984	1,034,370			
1920.....	55	394	523,417	1,240	1,304	1,371,757			
1921 <sup>1</sup> .....	70	489	631,884	1,051	986	1,233,056			
1922.....	66	482	( )	1,184	1,282	( )			
1923.....	79	606	804,836	1,296	1,521	2,146,855			
1924.....	94	694	861,757	1,639	1,837	2,507,110			
1925.....	89	501	641,603	2,109	2,359	2,861,058			
1926.....	92	529	667,672	2,428	2,612	3,582,121			
1927.....	99	551	750,679	2,858	2,903	4,078,272			
1928.....	107	570	797,185	3,030	2,567	3,406,379			
1929.....	130	637	958,449	3,429	2,964	3,625,996			
1930.....	126	676	932,343	3,959	3,345	4,469,644			
1931.....	132	678	921,133	4,248	3,889	4,886,037			
1932.....	132	610	790,009	4,238	3,890	4,346,785			

<sup>1</sup> Data not available.

<sup>2</sup> Combined with "Service, other."

<sup>3</sup> Total of average number of bookkeepers, stenographers, and office clerks, by industries, 8 greater than "service" industry group total.

<sup>4</sup> In accord with compilations of the Ohio Division of Labor Statistics, but possibly some error in reporting or tabulating.

<sup>5</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 2.

<sup>6</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 1.

<sup>7</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 1.

Average wage and salary payments in each of the industries or activities are shown for wage earners in table 134, and for bookkeepers, stenographers, and office clerks in table 135. The average wage and salary payment, as previously explained, was computed by dividing the total wage and salary payment for a given year by the average

number employed. These averages should not be taken as exact measures but only as approximations.

As far as data are available, the highest average wage and salary payment to wage earners was reported for 1 industry or activity in 1920; for 2 in 1921; for 1 in 1924; for 2 in 1926; for 4 in 1927; for 2 in 1928; for 3 in 1929; for 3 in 1930; and for 1 in 1931. The lowest average was generally reported for the earliest years for which data are shown, although in three instances the average was lowest in 1932. Comparatively few reports are received from employers of servants in private homes, and those are doubtless from the wealthier households.

Average wage and salary payments to bookkeepers, stenographers, and office clerks are shown for seven industries or activities and for the group “Other.” The highest average was reported in 1921 for 2 classifications; in 1923 for 1; in 1929 for 3; in 1930 for 1; and in 1925 and 1930 for 1. The lowest average was reported for the earlier years except in one classification where the lowest average was paid in 1932.

TABLE 134.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN “SERVICE”, 1916 TO 1932, BY INDUSTRIES

Year	Advertising	Banks	Barbers and hair dressers	Bowling alleys and parks	Churches	Clubs (country, athletic, and yacht)	Garages, including auto-body repairing	Hospitals	Hotels	Laundries, dry cleaners, and renovators
1916.....	(1)	(1)	\$649	\$682	(1)	(1)	\$817	\$430	\$486	\$502
1917.....	(1)	(1)	(1)	927	(1)	(1)	925	431	523	549
1918.....	\$987	\$783	953	704	(1)	(1)	1,060	509	566	595
1919.....	1,202	881	1,014	982	(1)	(1)	1,259	586	704	636
1920.....	1,558	792	1,291	1,222	(1)	(1)	1,536	801	818	916
1921.....	1,606	1,090	1,208	1,355	(1)	(1)	1,476	1,014	857	924
1922.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1923.....	1,228	1,097	1,290	1,178	(1)	(1)	1,442	841	838	920
1924.....	1,463	(2)	1,223	1,218	(1)	(1)	1,510	837	873	961
1925.....	1,845	1,012	1,201	1,240	\$745	\$1,091	1,522	912	796	1,083
1926.....	2,002	1,126	1,256	1,095	855	1,060	1,472	846	841	1,050
1927.....	2,084	1,125	1,315	1,090	900	1,062	1,538	923	835	1,134
1928.....	1,839	1,020	1,234	1,111	897	1,093	1,542	(?)	831	1,051
1929.....	1,306	1,008	1,336	1,045	928	1,067	1,532	904	818	1,066
1930.....	1,192	1,054	1,135	977	874	1,114	1,502	909	858	1,016
1931.....	1,050	942	1,059	856	1,024	1,025	1,280	869	779	934
1932.....	844	924	877	807	948	822	1,014	810	684	773

<sup>1</sup> Data not available.

<sup>2</sup> Omitted, see note 4 to table 132.

TABLE 134.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES—Continued

Year	Offices	Office buildings, including window cleaning	Restaurants	Saloons	Schools and colleges	Servants in private homes	Social agencies	Theaters	Y. M. C. A. and Y. W. C. A.	Service, other
1916.....	\$1, 123	\$605	\$497	\$743	(1)	(1)	(1)	\$698	(1)	\$801
1917.....	1, 289	699	548	810	(1)	(1)	(1)	776	(1)	(?)
1918.....	1, 492	713	650	1, 148	\$991	(1)	(1)	846	(1)	1, 047
1919.....	1, 615	(?)	715	1, 019	892	(1)	(1)	781	(1)	1, 022
1920.....	2, 140	983	876	-----	984	(1)	(1)	1, 142	(1)	1, 450
1921.....	2, 118	994	851	-----	1, 318	(1)	(1)	1, 310	(1)	1, 151
1922.....	(1)	(1)	(1)	-----	(1)	(1)	(1)	(1)	(1)	(1)
1923.....	2, 228	1, 049	825	-----	1, 576	(1)	\$880	1, 445	(1)	1, 281
1924.....	1, 944	1, 076	882	-----	1, 307	(1)	1, 041	1, 527	(1)	1, 300
1925.....	(?)	1, 113	852	-----	1, 495	\$878	1, 082	1, 525	\$876	1, 352
1926.....	2, 207	1, 082	807	-----	1, 622	992	1, 091	1, 566	869	1, 328
1927.....	2, 106	1, 126	943	-----	1, 639	1, 077	1, 044	1, 590	917	1, 314
1928.....	2, 308	(?)	873	-----	1, 650	1, 148	984	1, 565	878	1, 210
1929.....	2, 404	1, 104	876	-----	1, 655	1, 114	1, 026	1, 605	938	1, 277
1930.....	1, 742	1, 119	842	-----	1, 773	1, 107	1, 087	1, 630	827	1, 382
1931.....	1, 708	1, 071	920	-----	1, 745	1, 051	1, 073	1, 593	792	1, 167
1932.....	1, 659	936	665	-----	1, 573	893	967	1, 345	738	1, 040

<sup>1</sup> Data not available.<sup>2</sup> Omitted, see note 4 to table 133.

TABLE 135.—AVERAGE WAGE AND SALARY PAYMENTS TO BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN "SERVICE", 1916 TO 1932, BY INDUSTRIES

Year	Banks	Garages, including auto-body repairing	Hospitals	Hotels	Laundries, dry cleaners, and renovators	Offices	Schools and colleges	Service, other
1916.....	(1)	\$720	(1)	\$713	\$544	\$923	(1)	\$679
1917.....	(1)	812	(1)	827	598	988	(1)	802
1918.....	\$1, 148	1, 202	(1)	862	654	1, 135	\$1, 242	1, 035
1919.....	1, 223	1, 164	(1)	903	(?)	1, 240	1, 234	1, 051
1920.....	1, 443	1, 414	(1)	1, 149	980	1, 457	1, 328	1, 052
1921.....	1, 621	1, 325	\$1, 079	1, 187	(?)	1, 511	1, 292	1, 311
1922.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1923.....	1, 457	1, 522	1, 015	1, 082	1, 073	1, 520	1, 322	1, 411
1924.....	1, 386	1, 411	(?)	1, 035	1, 090	1, 609	1, 242	1, 365
1925.....	1, 319	1, 457	1, 182	990	1, 116	1, 603	1, 281	1, 213
1926.....	1, 528	1, 427	1, 059	1, 106	1, 112	1, 630	1, 262	1, 371
1927.....	1, 560	1, 455	1, 171	1, 392	1, 054	1, 670	1, 362	1, 405
1928.....	1, 600	1, 427	(?)	1, 170	(?)	1, 739	1, 399	1, 328
1929.....	1, 586	1, 694	1, 147	1, 175	1, 153	2, 013	1, 505	1, 223
1930.....	1, 570	1, 388	1, 182	1, 162	1, 195	1, 802	1, 379	1, 336
1931.....	1, 495	1, 248	1, 172	1, 082	1, 086	1, 726	1, 359	1, 256
1932.....	1, 453	1, 075	952	989	937	1, 442	1, 310	1, 117

<sup>1</sup> Data not available.<sup>2</sup> Omitted, see note 4 to table 133.

### Indexes for Average Wage and Salary Payments

INDEXES have been computed in this study for average wage and salary payments only. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics has requested reports annually from all employers of three or more persons.

Table 136 and chart 47 show indexes for the industry group "service" by general occupation groups. In 1932 the index for wage earners was 81.4; for bookkeepers, stenographers, and office clerks 90.3; and for the three general occupation groups combined (including salespeople, not traveling) 82.7.

TABLE 136.—INDEXES FOR AVERAGE WAGE AND SALARY PAYMENTS IN “SERVICE”, 1924 TO 1932, BY GENERAL OCCUPATION GROUPS

[1926=100.0]

Year	Wage earners	Bookkeepers, stenographers, and office clerks	All employees	Year	Wage earners	Bookkeepers, stenographers, and office clerks	All employees
1924.....	100.3	96.0	98.7	1929.....	102.3	114.6	106.5
1925.....	101.8	93.7	99.1	1930.....	97.4	108.3	100.5
1926.....	100.0	100.0	100.0	1931.....	92.5	103.2	95.2
1927.....	104.9	102.8	103.4	1932.....	81.4	90.3	82.7
1928.....	97.1	107.1	100.5				

Tables 137 and 138 show indexes for average wage and salary payments to wage earners and to bookkeepers, stenographers, and office

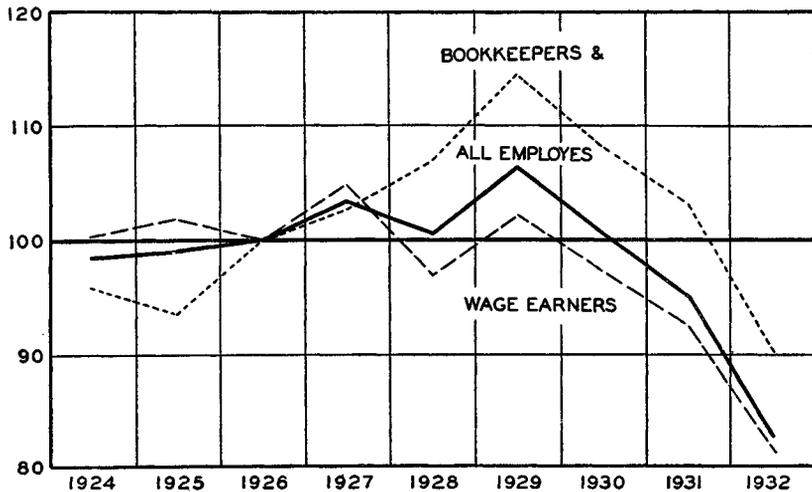


FIGURE 47.—INDEXES FOR AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN “SERVICE” INDUSTRIES, 1924 TO 1932

clerks. For wage earners, the index in 1932 was above 100 for 1 of the 19 classifications, between 90 and 100 for 3 classifications, and below 80 for 8. For bookkeepers, stenographers, and office clerks, the index in 1932 was above 100 for 1 of the 8 classifications and below 80 for 1 classification.

TABLE 137.—INDEXES FOR AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN "SERVICE", 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Adver- tising	Banks	Barbers and hair dressers	Bowling alleys and parks	Churches	Clubs (country, athletic, and yacht)	Garages, includ- ing auto- body re- pairing	Hos- pitals	Hotels	Laun- dries, dry cleaners, and ren- ovators
1924.....	73.1	( <sup>1</sup> )	97.4	111.2	( <sup>2</sup> )	( <sup>2</sup> )	102.6	98.9	103.8	91.5
1925.....	92.2	89.9	95.6	113.2	87.1	102.9	103.4	107.8	94.6	103.1
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	104.1	99.9	104.7	99.5	105.3	100.2	104.5	109.1	99.3	108.0
1928.....	91.9	90.6	98.2	101.5	104.9	103.1	104.8	( <sup>1</sup> )	98.8	100.1
1929.....	65.2	89.5	106.4	95.4	108.5	100.7	104.1	106.9	97.3	101.5
1930.....	59.5	85.6	90.4	89.2	102.2	105.1	102.0	107.4	102.0	96.8
1931.....	52.4	83.7	84.3	78.2	119.8	96.7	87.0	102.7	92.6	89.0
1932.....	42.2	82.1	69.8	73.7	110.9	77.5	68.9	95.7	81.3	73.6

Year	Offices	Office buildings, including window cleaning	Restau- rants	Schools and colleges	Servants in pri- vate homes	Social agencies	Theaters	Y.M.C.A. and Y.W.C.A.	Service, other
1924.....	88.1	99.4	109.3	80.6	( <sup>2</sup> )	95.4	97.5	( <sup>2</sup> )	97.9
1925.....	( <sup>1</sup> )	102.9	105.6	92.7	88.5	99.2	97.4	100.8	101.8
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	95.4	104.1	116.9	101.0	108.6	95.7	101.5	105.5	98.9
1928.....	104.6	( <sup>1</sup> )	108.2	101.7	115.7	90.2	99.9	101.0	91.1
1929.....	108.9	102.0	108.6	102.0	112.3	94.0	102.5	107.9	96.2
1930.....	78.9	103.4	104.3	109.3	111.0	99.6	104.1	95.2	104.1
1931.....	77.4	99.0	114.0	107.6	105.9	98.4	101.7	91.1	87.9
1932.....	75.2	86.5	82.4	97.0	90.0	88.6	85.9	84.9	78.3

<sup>1</sup> Omitted, see note 4 to table 132.<sup>2</sup> Data not available.

TABLE 138.—INDEXES FOR AVERAGE WAGE AND SALARY PAYMENTS TO BOOK-KEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN "SERVICE", 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Banks	Garages, including auto-body repairing	Hospitals	Hotels	Laundries, dry clean- ers, and renovators	Offices	Schools and col- leges	Service, other
1924.....	90.7	98.9	( <sup>1</sup> )	93.6	98.0	98.7	98.4	99.6
1925.....	86.3	102.1	111.6	89.5	100.4	98.3	101.5	88.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	102.1	102.0	110.6	117.7	94.8	102.5	107.9	102.5
1928.....	104.7	100.0	( <sup>1</sup> )	105.8	( <sup>1</sup> )	106.7	110.9	96.9
1929.....	103.8	118.7	108.3	106.2	103.7	123.5	119.3	89.2
1930.....	102.7	97.3	111.6	105.1	107.5	110.6	109.3	97.4
1931.....	97.8	87.5	110.7	97.8	97.7	105.9	107.7	91.6
1932.....	95.1	75.3	89.9	89.4	84.3	88.5	103.8	81.5

<sup>1</sup> Omitted, see note 4 to table 132.

### Conclusion

IN THE industry group "service", considering the three general occupation groups combined, there was only a very slight decline from 1920 to 1921 in average number of persons employed (2.9 percent) and in total wage and salary payments (0.2 percent), with an increase of 2.8 percent in the average wage and salary payment. From 1929 to 1932, the decrease was 9.6 percent in average number of persons employed, 29.8 percent in total wage and salary payments, and 22.4 percent in the average wage and salary payment.

Table 139 shows the amount and percent of decrease from 1929 to 1932 in average wage and salary payments to wage earners and to bookkeepers, stenographers, and office clerks by industries or activities.

The average wage and salary payment to wage earners increased slightly for 1 of the 19 classifications, decreased less than 15 percent for 4, and more than 25 percent for 5 classifications. The average payment to bookkeepers, stenographers, and office clerks decreased less than 15 percent for 3 of the 8 classifications and more than 25 percent for 2 classifications.

TABLE 139.—AMOUNT AND PERCENT OF DECREASE IN AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS AND TO BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN “SERVICE”, FROM 1929 TO 1932

Industry	Amount of decrease	Percent of decrease	Industry	Amount of decrease	Percent of decrease
<i>Wage earners</i>			<i>Wage earners—Continued</i>		
Advertising.....	\$462	35.4	Service, other.....	\$237	18.6
Banks.....	84	8.3	Total.....	241	20.4
Barbers and hair dressers.....	459	34.4	<i>Bookkeepers, stenographers, and office clerks</i>		
Bowling alleys and parks.....	238	22.8	Banks.....	133	8.4
Churches.....	<sup>1</sup> 20	<sup>1</sup> 2.2	Garages, including auto-body repairing.....	619	36.5
Clubs—country, athletic, and yacht.....	245	23.0	Hospitals.....	195	17.0
Garages, including auto-body repairing.....	518	33.8	Hotels.....	186	15.8
Hospitals.....	94	10.4	Laundries, dry cleaners, and renovators.....	216	18.7
Hotels.....	134	16.4	Offices.....	571	28.4
Laundries, dry cleaners, and renovators.....	293	27.5	Schools and colleges.....	195	13.0
Offices.....	745	31.0	Service, other.....	106	8.7
Office buildings, including window cleaning.....	168	15.2	Total.....	367	21.2
Restaurants.....	211	24.1			
Schools and colleges.....	82	5.0			
Servants in private homes.....	221	19.8			
Social agencies.....	59	5.8			
Theaters.....	260	16.2			
Y. M. C. A. and Y. W. C. A.....	200	21.3			

<sup>1</sup> Increase.

## Chapter 7.—Transportation and Public Utilities, 1916 to 1932

IN TRANSPORTATION and public utilities in Ohio during the 17 years, 1916 to 1932, the highest average wage and salary payment to all occupation groups combined was \$1,438 in 1928, the second highest was \$1,429 in 1929, and the lowest was \$727 in 1916. The average in 1932 was \$1,241 which was the lowest since 1919. This study does not include reports from companies engaged in interstate transportation nor from activities owned by Government units.

The decline in average wage and salary payments from 1929 to 1932 to wage earners was \$207, or 14.7 percent; to bookkeepers, stenographers, and office clerks \$122, or 8.2 percent; to salespeople (not traveling) \$331, or 15.1 percent; and to the three general occupation groups combined \$188, or 13.2 percent.

Table 140 shows the average number of persons reported employed in each of the three general occupation groups as far as covered by reports to the Ohio Division of Labor Statistics.

The year 1930 shows the highest average number of persons employed during the 17 years in each of the general occupation groups. The lowest average number of wage earners was reported in 1932. The lowest average number of bookkeepers, stenographers, and office clerks and of persons in all groups combined were reported in 1916.

TABLE 140.—AVERAGE NUMBER OF PERSONS (BOTH SEXES) REPORTED EMPLOYED IN TRANSPORTATION AND PUBLIC UTILITIES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Number of employees			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	1,137	50,098	5,439	191	55,728
1917.....	1,149	53,084	6,257	236	59,577
1918.....	1,134	52,037	7,205	205	59,448
1919.....	1,081	53,357	7,633	181	61,172
1920.....	1,146	56,115	7,915	224	64,254
1921.....	1,048	51,368	7,372	179	58,919
1922.....	1,071	51,462	7,830	181	59,473
1923.....	1,129	56,877	8,701	298	65,876
1924.....	1,271	59,320	9,331	446	69,096
1925.....	1,353	59,345	9,684	498	69,426
1926.....	1,453	67,671	11,728	609	80,008
1927.....	1,561	66,999	12,546	617	80,162
1928.....	1,625	68,126	12,999	725	81,849
1929.....	1,674	66,862	14,297	978	82,137
1930.....	1,741	68,358	14,969	1,123	84,450
1931.....	1,776	54,303	13,231	847	68,382
1932.....	1,742	47,021	12,279	803	60,103

Table 141 shows for the three occupation groups combined the fluctuation in employment from 1930 to 1932. Maximum employment during the 17-year period was 87,540 in July 1930, and minimum employment was 49,143 in February 1916.

TABLE 141.—FLUCTUATION IN EMPLOYMENT (BOTH SEXES) IN TRANSPORTATION AND PUBLIC UTILITIES, 1930 TO 1932<sup>1</sup>

[Includes three general occupation groups—Wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling)]

Month	Number (both sexes) employed in—			Month	Number (both sexes) employed in—		
	1930	1931	1932		1930	1931	1932
January.....	84, 419	70, 325	62, 758	November.....	80, 966	65, 491	57, 664
February.....	83, 465	69, 255	62, 122	December.....	78, 107	64, 154	57, 231
March.....	83, 182	68, 532	61, 401	Maximum.....	87, 540	70, 325	62, 758
April.....	84, 716	69, 515	61, 562	Minimum.....	78, 107	64, 154	57, 231
May.....	86, 730	69, 703	60, 913	Variation from maximum:			
June.....	87, 217	69, 767	60, 599	Number.....	9, 433	6, 171	5, 527
July.....	87, 540	68, 948	60, 144	Percent.....	10.8	8.8	8.8
August.....	87, 131	68, 831	59, 245	Number of establish-			
September.....	85, 843	68, 579	58, 813	ments.....	1, 741	1, 776	1, 742
October.....	84, 083	67, 482	58, 789				

<sup>1</sup> For years 1916 to 1929 see Bureau of Labor Statistics Bul. No. 553.

Table 142 and chart 48 show average wage and salary payments in transportation and public utilities as far as covered by reports to the Ohio Division of Labor Statistics.

The highest average wage and salary payment to wage earners, to bookkeepers, stenographers, and office clerks (omitting 1924), and to the general occupation groups combined, was made in 1928. The lowest average was paid in 1916. The 1932 average payment to wage earners and to the occupation groups combined was the lowest since 1919, and to bookkeepers, stenographers, and office clerks the lowest since 1923.

TABLE 142.—AVERAGE WAGE AND SALARY PAYMENTS IN TRANSPORTATION AND PUBLIC UTILITIES, 1916 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments	Average wage and salary payments to—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1916.....	<sup>1</sup> 1, 137	\$718	\$790	(?)	\$727
1917.....	<sup>2</sup> 1, 149	814	817	(?)	814
1918.....	1, 134	969	879	(?)	959
1919.....	1, 081	1, 144	971	(?)	1, 124
1920.....	1, 146	1, 401	1, 183	(?)	1, 385
1921.....	1, 048	1, 318	1, 309	(?)	1, 318
1922.....	<sup>4</sup> 1, 071	1, 252	1, 444	(?)	1, 281
1923.....	1, 129	1, 316	1, 298	(?)	1, 316
1924.....	1, 271	1, 350	(?)	(?)	1, 417
1925.....	1, 353	1, 341	1, 436	(?)	1, 359
1926.....	1, 453	1, 385	1, 424	\$2, 203	1, 397
1927.....	1, 561	1, 374	1, 423	2, 243	1, 388
1928.....	1, 625	1, 413	1, 526	2, 210	1, 438
1929.....	1, 674	1, 406	1, 485	2, 199	1, 429
1930.....	1, 741	1, 402	1, 461	1, 997	1, 420
1931.....	1, 776	1, 343	1, 479	1, 909	1, 377
1932.....	1, 742	1, 199	1, 363	1, 868	1, 241

<sup>1</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 8.

<sup>2</sup> Not computed owing to small number involved.

<sup>3</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was less by 7.

<sup>4</sup> Number of establishments reporting employees; the number reporting total wage and salary payments was greater by 1.

<sup>5</sup> Omitted due to probable error in reporting or tabulating; no further verification possible.

## Industries in Transportation and Public Utilities

IN THIS study the following transportation and public utility industries have been combined under "Transportation and public utilities, other": Gas, illuminating and heating; steam railroads; stock yards; water works; and transportation and public utilities, not otherwise classified.

Table 143 shows average wage and salary payments to wage earners and to bookkeepers, stenographers, and office clerks, by industries.

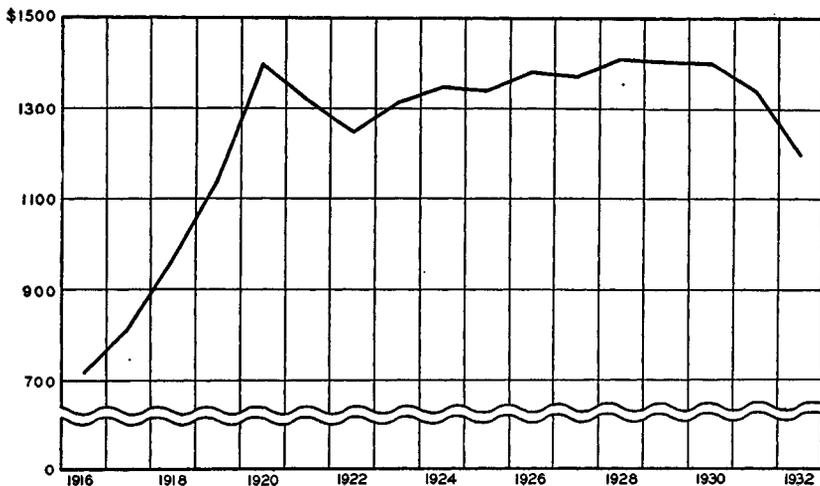


FIGURE 48.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN TRANSPORTATION AND PUBLIC UTILITIES, 1916 TO 1932

These averages should not be taken as exact measures but as approximate figures.

Considering wage earners only and omitting 1921 data for drayage and storage and 1920 data for transportation by water (see notes to table 143), the highest average wage and salary payment was made in 1920 in 2 industries, in 1927 in 1, in 1928 in 3, in 1929 in 1, in 1930 in 1, and in 1932 in 1. The lowest average payment was made in 1916 in 8 industries and in 1917 in 1.

TABLE 143.—AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS AND TO BOOKKEEPERS, STENOGRAPHERS, AND OFFICE CLERKS IN TRANSPORTATION AND PUBLIC UTILITIES, 1916 TO 1932, BY INDUSTRIES

Year	Drayage and storage, including livery stables		Electric light and power		Electric railroads		Natural gas		Pipe lines (petroleum)	
	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks
1916.....	\$693	\$781	\$796	\$784	\$742	\$702	\$731	\$985	\$857	(1)
1917.....	791	778	836	940	926	795	932	1,079	933	(1)
1918.....	926	922	(2)	(2)	1,115	899	1,063	1,183	1,034	(1)
1919.....	1,100	1,139	1,292	1,035	1,345	964	1,115	1,263	1,234	(1)
1920.....	1,411	1,434	1,618	1,777	1,570	1,240	1,470	1,612	1,407	(1)
1921.....	(3)	1,627	1,457	1,529	1,482	1,316	1,367	1,649	1,479	(1)
1922.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
1923.....	1,338	1,451	1,523	1,316	1,435	1,417	1,442	1,489	1,230	(1)
1924.....	1,340	1,547	1,588	1,455	1,492	1,416	1,454	1,570	1,217	(1)
1925.....	1,412	1,511	1,576	1,463	1,467	1,458	1,228	1,630	1,278	(1)
1926.....	1,490	1,633	1,533	1,411	1,588	1,425	1,182	1,662	1,369	(1)
1927.....	1,547	1,649	1,563	1,409	1,647	1,425	1,229	1,481	1,294	(1)
1928.....	1,422	1,681	1,539	1,519	1,660	1,466	1,240	1,840	1,339	(1)
1929.....	1,487	1,648	1,589	1,466	1,589	1,296	1,338	1,709	1,256	(1)
1930.....	1,506	1,681	1,580	1,427	1,600	(4)	1,307	1,443	1,501	(1)
1931.....	1,365	1,608	1,538	1,449	1,498	1,126	1,358	1,384	1,518	(1)
1932.....	1,190	1,392	1,413	1,355	1,344	1,050	1,159	1,429	1,595	(1)

Year	Taxicab and bus service		Telegraph and telephone, including messenger service		Transportation by water, including stevedoring		Transportation and public utilities, other	
	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks	Wage earners	Book-keepers, stenographers, and office clerks
1916.....	(5)	(5)	\$614	\$766	\$984	(1)	7 \$762	(1)
1917.....	\$749	(1)	616	694	1,175	(1)	982	(1)
1918.....	978	(1)	684	742	1,511	(1)	1,256	(1)
1919.....	1,049	(1)	819	861	1,648	(1)	1,333	(1)
1920.....	1,123	(1)	1,002	794	(4)	(1)	1,731	(1)
1921.....	1,208	(1)	1,033	1,079	1,387	(1)	1,443	(1)
1922.....	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
1923.....	1,166	(1)	1,065	1,127	1,640	(1)	1,651	(1)
1924.....	1,151	(1)	1,094	(4)	1,831	(1)	1,701	(1)
1925.....	1,344	(1)	1,108	1,317	1,824	(1)	1,703	(1)
1926.....	1,422	(1)	1,117	1,270	1,856	(1)	1,691	(1)
1927.....	1,364	(1)	1,016	1,287	1,819	(1)	1,655	(1)
1928.....	1,430	(1)	1,166	1,333	1,829	(1)	1,770	(1)
1929.....	1,364	(1)	1,195	1,391	1,931	(1)	1,710	(1)
1930.....	1,072	(1)	1,206	1,442	1,855	(1)	1,551	(1)
1931.....	1,067	(1)	1,194	1,520	1,627	(1)	1,500	(1)
1932.....	760	(1)	1,114	1,368	1,256	(1)	1,213	(1)

<sup>1</sup> Not computed owing to small number involved.

<sup>2</sup> Included with electric railroads in tabulations of Ohio Division of Labor Statistics.

<sup>3</sup> Includes electric light and power.

<sup>4</sup> Omitted due to probable error in reporting or tabulating; no further verification possible.

<sup>5</sup> Data not available.

<sup>6</sup> Data tabulated by Ohio Division of Labor Statistics with transportation and public utilities, not otherwise classified.

<sup>7</sup> Includes taxicab and bus service.

## Indexes of Employment and of Wage and Salary Payments

INDEXES of average number of wage earners employed and of total and average wage and salary payments to wage earners, are shown in table 144. The base is 1926. The indexes cover the period during which the Ohio Division of Labor Statistics has requested reports from all employers of three or more persons (except Government employment and interstate transportation). Indexes are shown for transportation and public utilities as a whole, as far as covered by reports to the Ohio Division of Labor Statistics, and for each of eight industries.

TABLE 144.—INDEXES FOR AVERAGE NUMBER OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN TRANSPORTATION AND PUBLIC UTILITIES IN OHIO, 1924 TO 1932, BY INDUSTRIES

[1926=100.0]

Year	Transportation and public utilities			Drayage and storage, including livery stables			Electric light and power		
	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment	Wage earners (average number)	Total wage and salary payments	Average wage and salary payment
1924	87.7	85.5	97.5	59.9	53.8	89.9	72.8	75.4	103.6
1925	87.7	84.9	96.8	65.9	62.4	94.8	87.7	90.2	102.8
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.0	98.2	99.2	105.4	109.4	103.8	97.7	99.6	101.9
1928	100.7	102.7	102.0	138.0	131.7	95.4	100.6	101.0	100.4
1929	98.8	100.3	101.5	111.2	111.0	99.8	108.9	112.9	108.7
1930	101.0	102.3	101.2	107.1	108.2	101.1	98.1	101.1	108.1
1931	80.2	77.9	97.0	98.2	90.0	91.6	91.7	92.0	100.3
1932	69.5	60.1	86.6	89.5	71.4	79.9	79.5	73.3	92.2
	Electric railroads			Natural gas			Pipe lines (petroleum)		
1924	104.0	97.7	94.0	76.7	94.3	123.0	142.1	126.3	88.9
1925	87.6	80.9	92.4	89.1	92.5	103.9	117.3	109.5	93.4
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	92.1	95.5	103.7	102.7	106.8	104.0	115.0	108.7	94.5
1928	89.1	93.2	104.5	108.7	114.1	104.9	119.5	116.9	97.8
1929	(1)	(1)	100.0	119.0	134.7	113.2	137.6	126.3	91.7
1930	80.5	81.1	100.8	115.7	128.0	110.6	109.9	120.4	109.6
1931	41.6	39.3	94.3	78.4	90.0	114.9	95.6	106.1	110.9
1932	34.4	29.1	84.6	70.2	68.9	98.1	69.4	80.9	116.5
	Taxicab and bus service			Telegraph and telephone, including messenger service			Transportation by water, including stevedoring		
1924	76.1	61.6	80.9	93.8	91.9	97.9	105.8	104.3	98.7
1925	74.0	70.0	94.5	95.4	94.6	99.2	90.1	88.5	98.3
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	102.1	98.0	95.9	99.7	90.6	91.0	106.3	104.2	98.0
1928	93.1	93.6	100.6	92.7	96.7	104.4	97.7	96.3	98.5
1929	114.5	109.8	95.9	110.4	118.1	107.0	108.8	113.1	104.0
1930	157.2	118.5	75.4	104.2	112.4	108.0	97.0	97.0	100.0
1931	141.3	106.0	75.0	89.3	95.4	106.9	76.3	66.9	87.7
1932	127.2	67.9	53.4	75.3	75.0	99.7	56.1	38.0	67.7

<sup>1</sup> Omitted due to probable error in reporting or tabulating; no further verification possible.

Considering the general industry as a whole, the index in 1932 was 69.5 for average number of wage earners employed, 60.1 for total wage and salary payments to wage earners, and 86.6 for average wage and salary payments.

Of the industries covered, electric railroads show the lowest 1932 index for average number of wage earners employed and for total

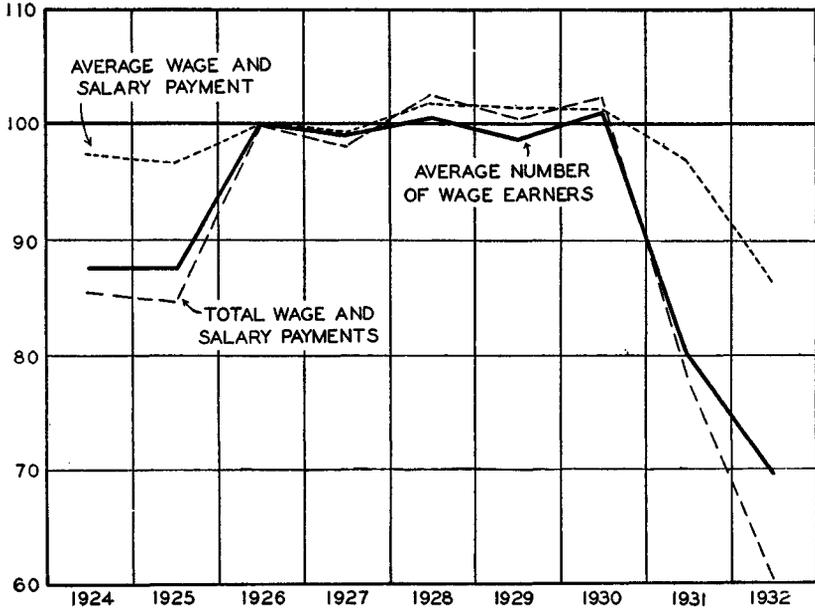


FIGURE 49.—INDEXES OF WAGE EARNERS EMPLOYED AND TOTAL AND AVERAGE WAGE AND SALARY PAYMENTS TO WAGE EARNERS IN TRANSPORTATION AND PUBLIC UTILITIES, 1924 TO 1932 (1926=100)

wage and salary payments to wage earners, and taxicab and bus service the lowest index for average payments to wage earners. The 1932 index of average wage and salary payments to wage earners was above 100 in 1 of the 8 industries and above 90 in 3 others. Chart 49 shows graphically the number employed and total and average wage and salary payments to wage earners in transportation and public utilities.