

EMPLOYMENT and PAY ROLLS

**DETAILED REPORT
JANUARY 1948**

**United States Department of Labor
Bureau of Labor Statistics**

ESTIMATES OF MANUFACTURING EMPLOYMENT - NEW SERIES

Industries in the Nonferrous Metals and Their Products Group

In this detailed report the Bureau presents a new series of production-worker estimates for the individual industries comprising the nonferrous metals and their products group. The new estimates, adjusted to bench mark data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency, correct the downward bias which has accumulated since 1939 and are, therefore, more representative of the true levels of employment.

Despite the lapse of several years without any adjustment to levels other than the 1939 Census of Manufactures, only four of the industries (jewelry (precious metals) and jewelers' findings; silverware and plated ware; lighting equipment; and sheet-metal work, not elsewhere classified) required adjustment and these from only 1941 forward. The changes, moreover, were relatively slight. However, minor revisions have been incorporated in the other industries.

This report shows the new production-worker employment estimates and indexes of employment and weekly pay roll for the months currently presented. A set of summary sheets presenting comparable data from January 1939 to date for the industries in the nonferrous metals and their products group will be provided upon request.

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Bureau of Labor Statistics

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Explanatory notes outlining briefly the concepts, methodology, and sources used in preparing data for this report appear in the appendix. See pages i - vii.

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Data for the 2 most recent months shown are subject to revision.

Table 1. - Estimated Number of Wage and Salary Workers in
Nonagricultural Establishments, by Industry Division

(In thousands)

Industry division	1948		1947		1946	
	Jan.	Dec.	Nov.	Jan.	Dec.	
TOTAL	43,006	44,081	43,450	41,803	42,928	
Manufacturing	15,852	15,965	15,872	15,372	15,348	
Mining	895	899	897	883	874	
Contract construction	1,692	1,788	1,849	1,527	1,644	
Transportation and public utilities: <u>1/</u>	3,998	4,042	4,049	4,014	4,071	
Transportation <u>1/</u>	2,787	2,829	2,844	2,863	2,919	
Communication	719	719	713	692	691	
Other public utilities	492	494	492	459	461	
Trade	8,834	9,455	9,075	8,552	9,234	
Finance	1,595	1,591	1,588	1,544	1,546	
Service	4,723	4,688	4,670	4,527	4,573	
Government: <u>1/</u>	5,417	5,653	5,450	5,384	5,638	
Federal	1,743	1,985	1,751	1,963	2,236	
State and local <u>1/</u>	3,674	3,668	3,699	3,421	3,402	

See explanatory notes, sections A - H.

1/ An adjustment has been made in these data beginning in October 1947 because of the transfer of some companies from private to municipal operation. The October figures are: Transportation and public utilities 4,070; Transportation 2,872; Government 5,469; State and local government 3,725.

Table 2. - Estimated Number of Wage and Salary Workers
in Manufacturing Industries, by Major Industry Group

(In thousands)

Major industry group	1948	1947			1946
	Jan.	Dec.	Nov.	Jan.	Dec.
ALL MANUFACTURING	15,852	15,965	15,872	15,372	15,348
<u>Durable goods</u>	8,039	8,057	7,987	7,781	7,731
Iron and steel and their products	1,890	1,888	1,875	1,823	1,787
Electrical machinery	751	759	758	773	771
Machinery, except electrical	1,563	1,557	1,538	1,504	1,489
Transportation equipment, except automobiles	589	579	567	603	600
Automobiles	1,004	1,006	988	924	943
Nonferrous metals and their products	469	474	471	494	493
Lumber and timber basic products	736	749	750	654	652
Furniture and finished lumber products	545	542	538	514	504
Stone, clay, and glass products	492	503	502	492	492
<u>Nondurable goods</u>	7,813	7,908	7,885	7,591	7,617
Textile-mill products and other fiber manufactures	1,375	1,372	1,355	1,354	1,353
Apparel and other finished textile products	1,373	1,369	1,338	1,244	1,229
Leather and leather products	414	416	411	403	403
Food	1,548	1,611	1,644	1,513	1,548
Tobacco manufactures	101	102	104	104	105
Paper and allied products	471	474	470	465	465
Printing, publishing, and allied industries	710	717	711	683	688
Chemicals and allied products	755	761	759	741	732
Products of petroleum and coal	233	234	235	222	221
Rubber products	275	277	275	294	296
Miscellaneous industries	558	575	583	568	577

See explanatory notes, sections A - E

Table 3. - Federal Employment and Pay Roll in All Areas and in Continental United States and Total Government Employment and Pay Roll in Washington, D. C.

(In thousands)

Area and branch	Employment (as of first of month)			Pay roll (total for month)		
	1948	1947		1948	1947	
	Jan. 1/	Dec. 1/	Jan.	Jan. 1/	Dec. 1/	Jan.
<u>Total (including areas outside United States)</u>						
Total Federal	1,986.0	2,229.2	2,279.1	\$471,461	\$531,358	\$538,717
Executive	1,946.3	2,189.5	2,237.1	462,004	521,900	529,195
Defense agencies	890.7	894.9	1,129.7	205,737	214,033	250,359
Post Office Dept. 2/	433.1	667.9	426.8	98,471	143,537	97,186
Other agencies	622.5	626.7	680.6	157,796	164,330	181,650
Legislative	7.0	7.0	6.9	2,451	2,461	2,369
Judicial	3.5	3.5	3.1	1,292	1,336	1,222
Government corps.	29.2	29.2	32.0	5,714	5,661	5,931
<u>Continental United States</u>						
Total Federal	1,763.5	2,005.6	1,982.6	432,988	491,697	492,977
Executive	1,731.1	1,973.1	1,948.3	424,192	482,860	484,126
Defense agencies	704.2	708.1	868.5	174,646	182,090	211,846
Post Office Dept. 2/	431.6	665.7	425.4	98,135	143,057	96,863
Other agencies	595.3	559.3	654.4	151,411	157,712	175,417
Legislative	7.0	7.0	6.9	2,451	2,461	2,369
Judicial	3.4	3.4	3.0	1,255	1,301	1,183
Government corps.	22.0	22.1	24.4	5,090	5,075	5,299
<u>Washington, D. C.</u>						
Total government	221.8	224.4	246.5	61,746	64,122	70,447
District of Columbia government	18.4	18.4	17.8	4,482	4,571	4,326
Federal	203.4	206.0	228.7	57,264	59,551	66,121
Executive	195.8	198.3	221.3	54,600	56,872	63,538
Defense agencies	65.1	64.7	75.7	16,694	17,230	21,003
Post Office Dept. 2/	7.3	10.1	7.8	2,315	3,135	3,102
Other agencies	123.4	123.5	137.8	35,591	36,507	39,433
Legislative	7.0	7.1	6.8	2,451	2,461	2,369
Judicial	.6	.6	.6	213	218	214

1/ Data for Central Intelligence Agency are excluded.

2/ December figures include estimated additional employment and pay roll for Christmas season.

Table 4. - Personnel and Pay of the Military Branch of the Federal Government

(In thousands)

	1948	1947		Average monthly personnel and total annual pay	
	January	December	January	1943	1939
Personnel, total as of first of month, including those on active duty and those on terminal leave....	1,412	1,452	1,988	8,944	345
Army.....	898	911	1,320	6,733	192
Navy.....	408	433	539	1,744	124
Marine Corps.....	86	89	107	311	19
Coast Guard.....	20	19	22	156	10
Men.....	1,395	1,435	1,962	8,833	<u>1/</u>
Women.....	17	17	26	111	<u>1/</u>
Pay, total.....	\$284,634	\$292,746	\$745,843	\$11,173,186	\$331,523
Army.....	171,413	176,403	481,281	8,143,833	155,482
Navy.....	94,947	97,646	215,871	2,408,736	143,238
Marine Corps.....	13,847	14,495	35,594	392,140	16,877
Coast Guard.....	4,427	4,202	13,097	228,477	15,926
Pay rolls.....	235,638	238,952	368,485	10,140,852	331,523
Mustering-out pay.....	13,202	13,362	29,967	-	-
Family allowances.....	23,428	23,827	29,051	1,032,334	-
Leave payments.....	12,366	16,605	318,340	-	-
Cash.....	2,204	2,866	22,958	-	-
Bonds.....	10,162	13,739	295,382	-	-

1/ Data not available.

Table 5. - Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State *

(In thousands)

Region and State	1947			1946	
	Dec.	Nov.	Oct.	Dec.	Nov.
New England:					
Maine	113.5	112.5	113.1	117.8	117.1
New Hampshire	85.3	83.9	82.9	83.0	81.6
Vermont	40.3	39.8	39.7	43.1	41.8
Massachusetts	756.9	753.2	741.6	766.9	762.1
Rhode Island	154.6	154.3	152.9	154.4	152.0
Connecticut	419.1	416.0	414.3	420.6	416.1
Middle Atlantic:					
New York	1924.6	1918.6	1922.8	1930.3	1939.6
New Jersey	764.0	757.4	751.4	768.0	757.7
Pennsylvania	1528.3	1524.1	1519.0	1515.1	1511.7
East North Central:					
Ohio	1249.9	1247.3	1244.7	1231.1	1238.3
Indiana	559.1	558.7	561.0	544.2	538.4
Illinois	1273.6	1266.3	1257.0	1236.0	1229.6
Michigan	1024.2	1019.0	1021.8	1032.8	1041.6
Wisconsin	437.3	434.1	432.7	422.5	420.1
West North Central:					
Minnesota	200.3	199.9	199.0	200.1	200.2
Iowa	151.8	149.8	148.6	146.9	144.0
Missouri	367.6	366.8	362.6	357.9	356.0
North Dakota	6.7	6.8	6.7	6.6	6.5
South Dakota	11.3	11.5	11.4	11.5	10.5
Nebraska	46.3	45.9	45.1	44.5	44.0
Kansas	81.9	79.9	79.8	79.6	79.3
South Atlantic:					
Delaware	44.9	45.2	45.6	45.2	45.0
Maryland	229.6	231.1	229.3	241.3	240.7
District of Columbia	17.5	17.4	17.5	17.3	17.0
Virginia	215.3	217.3	217.1	213.3	212.6
West Virginia	132.5	133.0	133.4	131.9	133.4
North Carolina	380.3	378.2	373.6	371.5	367.0
South Carolina	198.9	197.6	194.8	188.0	186.7
Georgia	257.4	256.7	253.9	260.2	263.6
Florida	86.0	82.7	80.6	90.4	89.4
East South Central:					
Kentucky	130.4	130.7	130.3	129.1	127.4
Tennessee	252.4	253.0	253.8	247.7	248.6
Alabama	231.9	230.0	228.0	222.9	221.6
Mississippi	95.7	95.5	94.1	91.5	90.5
West South Central:					
Arkansas	76.0	76.3	76.0	70.0	70.1
Louisiana	142.2	141.2	143.5	*133.4	132.5
Oklahoma	57.0	56.5	55.7	* 55.2	55.8
Texas	346.6	347.6	339.9	330.0	328.9

Table 5. - Estimated Number of Wage and Salary Workers in Manufacturing Industries by State* - Continued
(In thousands)

Region and State	1947			1946	
	Dec.	Nov.	Oct.	Dec.	Nov.
Mountain :					
Montana	18.5	18.7	19.1	*17.9	18.1
Idaho	19.2	20.1	20.4	20.1	21.9
Wyoming	7.0	7.2	7.1	6.7	7.0
Colorado	61.0	60.3	60.6	56.2	58.7
New Mexico	10.2	10.3	10.2	10.2	10.2
Arizona	12.9	13.0	12.6	13.9	13.5
Utah	26.8	27.3	29.4	24.5	25.4
Nevada	3.6	3.7	3.7	3.5	3.5
Pacific :					
Washington	174.6	178.2	183.9	*166.0	168.8
Oregon	111.4	112.2	117.2	118.0	118.4
California	714.8	717.4	736.3	705.9	705.4

Table 5a. - Estimated Number of Wage and Salary Workers in Nonagricultural Establishments for Selected States*
(In thousands)

State	1947			1946	
	Dec.	Nov.	Oct.	Dec.	Nov.
Illinois	3,225	3,180	3,165	3,124	3,092
Massachusetts	1,768	1,738	1,725	1,753	1,735
Montana	137	136	137	134	133
New Jersey	1,604	1,580	1,573	1,596	1,569
New York	5,559	5,488	5,482	5,226	5,469
Pennsylvania	3,663	3,620	3,606	3,572	3,536
Texas	1,708	1,690	1,675	1,655	1,639
Wisconsin	996	982	981	963	950

See explanatory notes, sections H and I

* Revised data in all except the first three columns are identified by an asterisk for the first month of publication of such data.

Table 6. - Estimated Number of Production Workers in Manufacturing Industries

(In thousands)

Industry group and industry	1948	1947			1946
	Jan.	Dec.	Nov.	Jan.	Dec.
ALL MANUFACTURING	12,850	12,961	12,882	12,511	12,514
Durable goods	6,621	6,641	6,578	6,429	6,393
Nondurable goods	6,229	6,320	6,304	6,082	6,121
<u>Durable goods</u>					
IRON AND STEEL AND THEIR PRODUCTS	1,607	1,605	1,592	1,552	1,521
Blast furnaces, steel works, and rolling mills	500.1	498.1	498.0	479.7	467.0
Gray-iron and semisteel castings	84.2	83.9	83.4	86.2	84.4
Malleable-iron castings	28.0	27.8	27.2	25.1	24.2
Steel castings	49.9	49.4	49.1	50.5	51.5
Cast-iron pipe and fittings	21.0	21.3	20.9	19.8	19.2
Tin cans and other tinware	46.5	47.0	46.4	41.6	41.5
Wire drawn from purchased rods	30.8	31.0	30.7	30.5	29.9
Wirework	42.7	41.7	39.9	41.9	40.5
Cutlery and edge tools	24.3	24.6	24.4	27.8	27.7
Tools (except edge tools, machine tools, files, and saws)	25.4	25.5	25.0	26.7	26.8
Hardware	52.3	51.7	50.4	50.1	49.6
Plumbers' supplies	29.5	29.5	29.3	30.1	29.8
Stoves, oil burners, and heating equipment not elsewhere classified	65.3	67.4	68.0	62.8	60.8
Steam and hot-water heating apparatus and steam fittings	46.2	46.1	45.6	52.6	51.0
Stamped and enameled ware and galvanizing	85.2	86.6	86.2	84.9	84.5
Fabricated structural and ornamental metalwork	59.2	59.7	59.5	57.5	57.1
Metal doors, sash, frames, molding, and trim	10.6	10.7	10.5	10.2	10.1
Bolts, nuts, washers, and rivets	21.2	21.1	21.0	21.6	21.2
Forgings, iron and steel	27.7	27.6	27.2	26.9	26.7
Wrought pipe, welded and heavy-riveted	14.6	14.4	14.0	13.6	13.2
Screw-machine products and wood screws	26.5	26.4	26.2	29.4	29.3
Steel barrels, kegs, and drums	6.2	6.0	5.9	6.2	6.1
Firearms	14.7	14.5	14.2	14.1	14.2
ELECTRICAL MACHINERY <u>1/</u>	577	585	584	598	597
Electrical equipment	378.4	382.2	380.3	377.1	375.4
Radios and phonographs	100.5	104.8	106.3	110.7	111.6
Communication equipment	98.2	98.2	97.5	110.3	110.5

See explanatory notes, sections A, C, and G.

Table 6. - Estimated Number of Production Workers in Manufacturing Industries-Cont'd

(In thousands)

Industry group and industry	1948	1947			1946
	Jan.	Dec.	Nov.	Jan.	Dec.
MACHINERY, EXCEPT ELECTRICAL	1,216	1,210	1,194	1,173	1,161
Machinery and machine-shop products	377.3	376.8	376.1	381.9	379.6
Engines and turbines	43.9	43.9	42.7	45.4	45.6
Tractors	60.3	59.3	57.8	54.8	54.5
Agricultural machinery, excluding tractors	54.7	53.7	51.4	46.1	44.8
Machine tools	49.4	50.5	50.3	59.8	60.6
Machine-tool accessories	42.5	42.5	42.2	51.3	51.5
Textile machinery	40.0	39.9	39.2	36.4	35.3
Pumps and pumping equipment	55.1	55.0	54.6	58.8	58.9
Typewriters	25.3	25.4	24.8	22.7	22.3
Cash registers, adding, and calculating machines	44.5	44.4	43.4	37.6	37.3
Washing machines, wringers, and driers, domestic	16.0	16.1	15.5	12.7	12.5
Sewing machines, domestic and industrial	13.2	13.1	12.8	10.9	10.7
Refrigerators and refrigeration equipment	81.1	80.2	78.8	68.2	65.2
TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES	462	454	443	474	473
Locomotives	26.6	26.5	26.0	26.6	27.1
Cars, electric- and steam-railroad	55.9	56.9	56.8	51.2	50.8
Aircraft and parts, excluding aircraft engines	134.4	133.2	133.4	143.9	144.7
Aircraft engines	25.3	25.9	25.9	29.5	29.0
Shipbuilding and boatbuilding	132.9	125.7	117.6	142.4	142.8
Motorcycles, bicycles, and parts	14.5	14.7	14.4	12.2	12.1
AUTOMOBILES	811	813	797	755	774
NONFERROUS METALS AND THEIR PRODUCTS <u>1/</u>	402	406	403	428	426
Smelting and refining, primary, of nonferrous metals	39.9	40.0	39.7	40.2	40.2
Alloying; and rolling and drawing of nonferrous metals, except aluminum	53.5	53.4	52.9	63.1	62.8
Clocks and watches	28.1	28.6	28.4	28.3	28.2
Jewelry (precious metals) and jewelers' findings	27.3	27.7	28.1	27.3	27.2
Silverware and plated ware	26.8	27.1	26.5	23.8	23.2
Lighting equipment	33.5	34.4	34.3	37.6	36.7
Aluminum manufactures	45.3	44.8	43.6	51.2	51.3
Sheet-metal work, not elsewhere classified	37.5	39.4	39.2	39.3	40.1

See explanatory notes, sections A, C, and G.

Table 6.- Estimated Number of Production Workers in Manufacturing Industries - Cont'd
(In thousands)

Industry group and industry	1948		1947		1946
	Jan.	Dec.	Nov.	Jan.	Dec.
LUMBER AND TIMBER BASIC PRODUCTS <u>1/</u>	665	678	680	592	592
Sawmills and logging camps	530.8	544.4	547.3	471.1	472.8
Planing and plywood mills	134.6	133.6	132.4	120.7	119.3
FURNITURE AND FINISHED LUMBER PRODUCTS <u>1/</u>	459	457	453	432	425
Mattresses and bedsprings	36.3	36.0	35.9	31.2	30.6
Furniture	248.6	246.8	243.6	230.1	227.2
Wooden boxes, other than cigar	35.5	34.8	35.3	35.1	34.3
Caskets and other morticians' goods	19.7	19.8	19.7	19.9	19.6
Wood preserving	16.5	16.9	17.4	17.3	16.8
Wood, turned and shaped	32.2	32.8	32.5	32.7	31.9
STONE, CLAY, AND GLASS PRODUCTS <u>1/</u>	422	433	432	425	424
Glass and glassware	117.2	119.7	120.1	122.7	122.4
Glass products made from purchased glass	12.5	12.7	12.6	13.2	12.9
Cement	36.3	36.7	36.8	35.0	35.2
Brick, tile, and terra cotta	76.3	76.3	75.8	70.4	69.3
Pottery and related products	56.0	57.6	57.2	55.3	55.0
Gypsum	6.6	6.6	6.5	6.1	6.2
Wallboard, plaster (except gypsum), and mineral wool	12.6	12.7	12.7	11.1	11.1
Lime	9.3	9.4	9.5	8.9	8.9
Marble, granite, slate, and other products	18.0	18.3	18.5	16.9	17.3
Abrasives	11.5	16.5	16.5	20.3	20.1
Asbestos products	21.9	21.7	21.3	21.6	21.7
<u>Nondurable goods</u>					
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES <u>1/</u>	1,258	1,256	1,238	1,242	1,242
Cotton manufactures, except smallwares	523.6	523.2	516.9	518.3	516.3
Cotton smallwares	14.5	14.3	13.9	16.1	16.0
Silk and rayon goods	107.4	108.2	106.9	107.1	106.9
Woolen and worsted manufactures, except dyeing and finishing	177.4	177.3	174.2	180.2	181.7
Hosiery	139.1	138.4	136.2	136.8	135.9
Knitted cloth	11.6	11.5	11.5	12.0	12.5
Knitted outerwear and knitted gloves	30.6	31.3	31.4	34.9	36.4
Knitted underwear	49.1	48.8	47.8	42.0	41.3
Dyeing and finishing textiles, including woolen and worsted	87.4	87.0	85.9	85.7	84.5
Carpets and rugs, wool	35.7	35.4	34.4	29.9	29.5
Hats, fur-felt	13.7	13.8	13.6	13.9	13.8
Jute goods, except felts	4.2	3.1	3.0	4.2	4.1
Cordage and twine	16.8	16.5	16.1	16.8	17.2

See explanatory notes, sections A, C, and G.

Table 6.- Estimated Number of Production Workers in Manufacturing Industries - Cont'd

(In thousands)

Industry group and industry	1948	1947		1946	
	Jan.	Dec.	Nov.	Jan.	Dec.
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS <u>1/</u>	1,203	1,199	1,171	1,090	1,079
Men's clothing, not elsewhere classified	308.1	310.5	309.2	284.6	282.7
Shirts, collars, and nightwear	81.6	82.4	81.1	71.4	70.5
Underwear and neckwear, men's	18.1	18.4	18.1	18.3	18.8
Work shirts	15.8	15.5	15.5	16.3	15.9
Women's clothing, not elsewhere classified	476.2	470.5	452.1	421.8	414.4
Corsets and allied garments	19.6	19.6	19.4	16.8	16.9
Millinery	26.5	23.6	21.6	24.2	22.5
Handkerchiefs	4.9	5.1	5.2	4.7	4.6
Curtains, draperies, and bedspreads	31.6	32.2	32.1	25.7	26.9
Housefurnishings, other than curtains, etc.	29.7	30.6	30.0	29.1	29.6
Textile bags	28.2	28.6	28.4	29.3	29.8
LEATHER AND LEATHER PRODUCTS <u>1/</u>	371	373	369	362	362
Leather	46.7	46.9	46.9	45.8	45.4
Boot and shoe cut stock and findings	19.7	19.8	19.8	20.3	20.6
Boots and shoes	231.8	231.3	227.5	222.6	221.7
Leather gloves and mittens	12.2	13.1	13.2	13.1	13.7
Trunks and suitcases	13.2	14.2	14.8	13.9	14.7
FOOD <u>1/</u>	1,102	1,165	1,197	1,098	1,139
Slaughtering and meat packing	196.7	203.7	191.7	184.4	179.7
Butter	32.6	32.9	33.9	32.8	34.7
Condensed and evaporated milk	18.5	18.6	19.5	19.3	19.0
Ice cream	23.6	24.9	26.3	23.9	24.3
Flour	39.2	39.4	39.7	38.9	39.0
Feeds, prepared	29.3	29.1	28.5	27.8	26.9
Cereal preparations	12.1	12.1	12.8	13.0	13.7
Baking	215.4	220.8	224.8	212.3	215.1
Sugar refining, cane	18.4	20.0	20.8	18.0	18.3
Sugar, beet	10.3	20.9	26.2	11.0	19.3
Confectionery	74.7	78.7	79.5	64.0	65.9
Beverages, nonalcoholic	33.2	33.3	34.3	26.9	27.5
Malt liquors	68.0	69.7	73.3	62.8	64.0
Canning and preserving	126.6	148.9	172.0	158.4	194.8
TOBACCO MANUFACTURES	87	88	90	90	92
Cigarettes	33.3	34.2	34.0	34.1	34.5
Cigars	40.4	40.2	42.2	41.8	42.9
Tobacco (chewing and smoking) and snuff	7.2	7.3	7.2	7.5	7.8

See explanatory notes, sections A, C, and G.

Table 6.- Estimated Number of Production Workers in Manufacturing Industries - Cont'd

(In thousands)

Industry group and industry	1948	1947		1946	
	Jan.	Dec.	Nov.	Jan.	Dec.
PAPER AND ALLIED PRODUCTS <u>1/</u>	387	390	387	386	387
Paper and pulp	199.8	199.6	197.6	192.4	191.8
Paper goods, other	57.9	59.1	58.8	57.7	58.0
Envelopes	12.4	12.4	12.4	11.9	12.0
Paper bags	18.1	18.2	17.9	20.0	19.7
Paper boxes	97.7	99.6	99.0	103.0	104.3
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES <u>1/</u>	431	436	435	417	420
Newspapers and periodicals	144.3	146.3	145.1	135.3	136.7
Printing; book and job	180.6	182.8	182.0	178.0	178.0
Lithographing	32.1	32.9	33.0	32.5	32.7
Bookbinding	37.6	38.3	38.7	36.5	36.9
CHEMICALS AND ALLIED PRODUCTS <u>1/</u>	575	579	577	564	555
Paints, varnishes, and colors	50.7	50.6	50.2	48.5	48.4
Drugs, medicines, and insecticides	65.7	65.9	66.4	69.6	68.9
Perfumes and cosmetics	12.1	12.9	13.9	13.9	14.6
Soap	25.5	25.5	25.8	22.4	22.1
Rayon and allied products	63.2	63.5	63.1	61.1	60.6
Chemicals, not elsewhere classified	197.7	198.1	196.4	193.0	190.5
Explosives and safety fuses	22.0	21.9	21.7	20.3	19.4
Compressed and liquefied gases	9.9	9.9	9.7	9.1	8.8
Ammunition, small-arms	6.2	7.4	7.2	6.7	6.6
Fireworks	2.4	2.8	2.9	3.0	3.5
Cottonseed oil	21.6	24.4	24.5	20.5	22.3
Fertilizers	30.4	28.0	26.7	29.6	26.5
PRODUCTS OF PETROLEUM AND COAL <u>1/</u>	161	162	163	154	155
Petroleum refining	109.7	109.9	109.7	106.2	107.2
Coke and byproducts	30.5	30.0	30.0	27.5	26.9
Paving materials	2.1	2.7	3.4	2.3	2.3
Roofing materials	18.0	18.3	18.5	17.2	17.3

See explanatory notes, sections A, C, and G.

Table 6.- Estimated Number of Production Workers in Manufacturing Industries - Cont'd

(In thousands)

Industry group and industry	1948	1947			1946
	Jan.	Dec.	Nov.	Jan.	Dec.
RUBBER PRODUCTS <u>1/</u>	223	225	223	240	242
Rubber tires and inner tubes	113.5	114.8	115.1	127.7	129.0
Rubber boots and shoes	22.5	22.5	22.0	23.2	23.0
Rubber goods, other	86.8	87.7	86.1	89.6	89.9
MISCELLANEOUS INDUSTRIES <u>1/</u>	431	447	454	439	448
Instruments (professional and scientific), and fire-control equipment	27.7	28.1	27.8	28.2	28.4
Photographic apparatus	40.1	40.3	39.9	35.5	35.4
Optical instruments and ophthalmic goods	27.8	28.0	27.6	30.6	30.6
Pianos, organs, and parts	16.6	17.6	17.8	14.6	13.3
Games, toys, and dolls	33.5	38.5	43.4	29.9	33.8
Buttons	13.3	13.4	12.7	14.1	14.6
Fire extinguishers	2.6	2.7	2.7	3.0	3.0

See explanatory notes, sections A - E, G and H.

1/ Estimates for the individual industries comprising the major industry group have been adjusted to levels indicated by data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. More recently adjusted data for the individual industries comprising the major industry group indicated below supersede data shown in publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Products of petroleum and coal	January 1948	February 1948
Electrical machinery	February 1948	March 1948
Chemicals and allied products	February 1948	March 1948
Nonferrous metals and their products	March 1948	April 1948

Table 7. - Estimated Number of Employees in
Selected Nonmanufacturing Industries 1/

(In thousands)

Industry group and industry	1948	1947			1946
	Jan.	Dec.	Nov.	Jan.	Dec.
MINING: <u>2/</u>					
Coal:					
Anthracite	66.9	67.2	67.0	69.1	68.7
Bituminous coal	339	337	335	336	326
Metal:	78.0	77.9	77.5	76.9	76.0
Iron	28.2	28.6	29.2	26.4	26.6
Copper	25.4	25.1	24.6	23.9	23.3
Lead and zinc	14.0	14.0	13.8	16.5	16.1
Gold and silver	8.1	8.0	7.7	7.7	7.6
Miscellaneous	2.2	2.3	2.3	2.2	2.4
TRANSPORTATION AND PUBLIC UTILITIES:					
Class I steam railways <u>3/</u>	1,318	1,331	1,340	1,332	1,353
Street railways and busses <u>4/</u>	250	249	249	254	252
Telephone	620	620	614	588	586
Telegraph <u>5/</u>	36.6	36.7	36.6	39.4	40.4
Electric light and power	268	269	268	250	252
SERVICE:					
Hotels (year-round)	378	381	378	378	384
Power laundries <u>2/</u> <u>6/</u>	235	237	238	246	246
Cleaning and dyeing <u>2/</u> <u>6/</u>	88.9	91.0	92.7	92.2	94.0

See explanatory notes, section G.

1/ Includes all employees unless otherwise noted.

2/ Includes production and related workers only.

3/ Includes all employees at middle of month. Excludes employees of switching and terminal companies. Class I steam railways include those with over \$1,000,000 annual revenue. Source: Interstate Commerce Commission.

4/ Includes private and municipal street railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.

5/ Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

6/ The figures presented here differ from those shown previously (in the mimeographed releases dated prior to February 1948 and the Monthly Labor Review prior to March 1948) in two respects: The employee definition has been changed from "wage earners" to "production workers" with the resultant exclusion of driver-salesmen, and the data have been adjusted to levels indicated by data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency. Comparable data from January 1939 are available upon request.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries
(1939 Average = 100)

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
ALL MANUFACTURING	156.9	158.2	157.3	152.7	350.2	356.7	345.0	307.3
Durable goods	183.4	183.9	182.2	178.0	392.6	399.5	384.7	340.0
Nondurable goods	136.0	138.0	137.6	132.8	308.7	314.8	306.2	275.3
<u>Durable goods</u>								
IRON AND STEEL AND THEIR PRODUCTS	162.1	161.9	160.6	156.5	339.7	341.2	331.3	287.9
Blast furnaces, steel works, and rolling mills	128.7	128.2	128.2	123.5	258.7	253.5	251.2	208.9
Gray-iron and semisteel castings	141.1	143.6	142.8	147.4	327.4	330.4	314.0	317.1
Malleable-iron castings	155.2	154.0	150.7	139.2	378.0	378.3	362.8	302.8
Steel castings	165.8	164.1	163.1	167.7	350.0	347.9	337.5	302.8
Cast-iron pipe and fittings	127.1	128.7	126.7	120.0	315.2	317.7	299.6	286.7
Tin cans and other tinware	146.4	147.9	146.0	131.0	314.3	331.2	315.9	242.8
Wire drawn from purchased rods	140.2	141.3	139.6	138.8	266.7	275.7	266.0	247.7
Wirework	140.4	137.1	131.2	137.7	314.7	316.6	292.9	273.8
Cutlery and edge tools	157.4	159.6	158.5	180.5	375.1	380.0	378.3	405.1
Tools (except edge tools, machine tools, files, and saws)	166.1	166.7	163.6	174.1	374.2	374.7	357.5	361.3
Hardware	146.7	145.1	141.3	140.4	346.2	340.2	323.8	291.9
Plumbers' supplies	119.7	119.8	118.7	122.2	253.1	261.5	255.6	237.6
Stoves, oil burners, and heating equipment not elsewhere classified	141.6	146.1	147.3	136.2	308.9	330.9	317.2	277.9
Steam and hot-water heating apparatus and steam fittings	152.3	152.3	150.6	173.5	318.1	340.0	330.2	331.2
Stamped and enameled ware and galvanizing	153.5	155.8	155.1	152.9	357.7	371.4	356.9	318.3
Fabricated structural and ornamental metalwork	166.6	168.2	167.6	162.0	338.0	354.2	345.2	287.9
Metal doors, sash, frames, molding, and trim	136.8	138.6	136.2	131.3	289.4	308.0	293.6	253.8
Bolts, nuts, washers, and rivets	148.0	147.5	146.9	150.7	309.6	320.1	309.1	277.4
Forgings, iron and steel	179.9	179.6	177.3	175.0	390.9	397.5	380.7	341.0
Wrought pipe, welded and heavy-riveted	174.1	172.6	167.1	161.9	370.7	372.8	349.9	292.9
Screw-machine products and wood screws	156.8	155.8	154.5	173.9	349.9	347.9	331.7	355.0
Steel barrels, kegs, and drums	102.3	99.4	97.3	102.9	262.5	263.1	243.4	232.4
Firearms	294.5	290.5	284.6	282.8	665.5	657.2	627.0	580.4
ELECTRICAL MACHINERY 1/	222.7	225.8	225.4	230.8	462.0	472.1	463.1	425.6
Electrical equipment	207.2	209.2	208.2	206.4	430.6	434.3	423.9	374.9
Radios and phonographs	228.5	238.2	241.7	251.7	507.5	542.9	539.6	500.4
Communication equipment	302.4	302.7	300.3	339.9	586.4	604.6	597.8	626.7

See explanatory notes, sections A, C, F, and G.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries - Continued

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948	1947			1948	1947		
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
MACHINERY, EXCEPT ELECTRICAL	230.0	229.0	225.9	222.0	469.6	470.2	450.4	406.6
Machinery and machine-shop products	186.5	186.3	185.9	188.8	383.6	388.7	374.3	350.3
Engines and turbines	235.4	235.4	228.9	243.5	532.3	541.6	510.6	491.7
Tractors	192.9	189.6	184.7	175.2	347.9	341.3	331.8	273.3
Agricultural machinery, excluding tractors	196.9	193.1	184.8	165.7	421.0	409.1	376.6	294.9
Machine tools	135.0	137.9	137.4	163.2	245.3	257.9	249.5	282.7
Machine-tool accessories	168.9	169.0	167.7	204.0	307.9	307.8	294.6	342.7
Textile machinery	182.5	182.2	179.1	166.2	410.4	405.4	390.3	337.3
Pumps and pumping equipment	227.4	226.8	225.3	242.7	481.4	486.8	470.9	466.5
Typewriters	156.0	156.9	153.2	139.8	359.6	363.5	352.8	276.2
Cash registers, adding, and calculating machines	226.1	225.6	220.7	191.2	483.1	482.6	456.5	355.7
Washing machines, wringers, and driers, domestic	213.9	215.2	208.0	169.6	462.5	483.7	442.9	326.8
Sewing machines, domestic and industrial	167.8	167.3	163.2	138.6	394.8	392.2	376.3	278.1
Refrigerators and refrigeration equipment	230.7	228.0	224.2	194.1	470.6	458.2	427.8	345.7
TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES	291.2	285.8	278.9	298.4	596.7	588.1	544.1	562.6
Locomotives	411.4	409.4	402.0	410.9	863.1	878.6	863.1	797.2
Cars, electric- and steam-railroad	228.0	231.8	231.4	208.6	500.6	522.4	503.5	411.2
Aircraft and parts, excluding aircraft engines	338.7	335.8	336.2	362.8	653.6	668.7	653.8	668.7
Aircraft engines	284.0	291.0	291.0	331.4	482.9	503.5	479.2	535.0
Shipbuilding and boatbuilding	191.9	181.5	169.9	205.7	416.7	378.9	316.6	395.8
Motorcycles, bicycles, and parts	207.6	210.1	207.0	175.1	414.5	448.2	441.3	318.5
AUTOMOBILES	201.6	202.1	198.2	187.7	399.0	419.8	388.1	321.1
NONFERROUS METALS AND THEIR PRODUCTS 1/	175.3	177.2	175.7	186.9	365.3	371.2	361.0	354.8
Smelting and refining, primary, of nonferrous metals	144.5	144.6	143.7	145.7	303.1	299.9	300.3	270.1
Alloying; and rolling and drawing of nonferrous metals, except aluminum	137.9	137.5	136.3	162.5	270.3	271.9	263.7	301.8
Clocks and watches	138.6	140.8	139.9	139.5	324.8	333.3	330.5	296.4
Jewelry (precious metals) and jewelers' findings	189.3	191.6	194.6	188.9	383.4	415.6	403.6	360.7
Silverware and plated ware	221.0	223.5	218.8	195.8	520.5	535.5	507.4	425.3
Lighting equipment	163.8	167.8	167.3	183.7	339.6	339.6	333.9	332.3
Aluminum manufactures	192.2	190.1	185.4	217.5	369.8	364.7	351.7	382.4
Sheet-metal work, not elsewhere classified	200.0	209.9	209.1	209.8	438.5	459.9	438.0	413.2

See explanatory notes, sections A, C, F, and G.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries - Continued

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
LUMBER AND TIMBER BASIC PRODUCTS 1/	158.3	161.3	161.7	140.9	372.7	390.2	388.6	292.4
Sawmills and logging camps	169.2	173.6	174.5	150.2	399.0	422.0	425.3	309.2
Planing and plywood mills	170.2	168.8	167.4	152.6	398.7	403.6	385.5	311.5
FURNITURE AND FINISHED LUMBER PRODUCTS 1/	139.8	139.2	138.2	131.8	330.3	333.9	322.1	283.1
Mattresses and bedsprings	177.1	175.8	174.9	152.3	388.3	395.0	372.6	308.4
Furniture	139.8	138.7	136.9	129.3	333.4	334.3	323.2	278.8
Wooden boxes, other than cigar	125.3	122.7	124.6	123.8	304.2	312.1	301.9	278.5
Caskets and other morticians' goods	141.4	142.2	141.5	142.8	294.9	299.6	287.3	274.8
Wood preserving	131.1	134.8	138.8	137.7	330.4	347.2	353.0	333.2
Wood, turned and shaped	131.1	133.4	132.1	133.0	298.3	305.3	290.8	283.0
STONE, CLAY, AND GLASS PRODUCTS 1/	143.7	147.6	147.1	144.9	305.0	320.4	316.3	280.0
Glass and glassware	164.3	167.8	168.4	171.9	339.4	356.5	357.2	326.2
Glass products made from purchased glass	125.0	127.1	125.8	131.7	271.6	287.1	269.4	267.4
Cement	149.1	150.5	151.0	143.9	284.7	291.3	294.0	234.3
Brick, tile, and terra cotta	131.4	131.4	130.6	121.3	296.9	301.9	296.7	247.1
Pottery and related products	165.7	170.3	169.0	163.6	336.3	354.4	349.8	294.6
Gypsum	132.7	134.6	132.4	123.9	283.0	290.2	284.5	244.0
Wallboard, plaster (except gypsum), and mineral wool	154.9	156.5	156.4	136.3	374.0	384.6	381.5	291.0
Lime	98.2	99.6	99.9	94.2	249.6	258.0	259.5	210.2
Marble, granite, slate, and other products	97.5	99.0	100.1	91.4	173.5	183.3	175.9	153.1
Abrasives	148.6	217.6	213.7	262.0	308.0	462.1	418.2	482.9
Asbestos products	138.0	136.6	134.1	136.2	328.3	322.0	313.6	305.6
Nondurable goods								
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES 1/	110.0	109.8	108.2	108.6	295.0	294.1	280.8	254.3
Cotton manufactures, except smallwares	125.2	125.1	123.6	123.9	378.7	376.4	362.1	317.7
Cotton smallwares	103.4	101.7	98.6	114.8	241.8	232.9	215.1	249.7
Silk and rayon goods	84.9	85.5	84.4	84.6	252.6	248.1	236.6	213.2
Woolen and worsted manufactures, except dyeing and finishing	112.5	112.4	110.5	114.3	292.0	294.4	276.6	263.6
Hosiery	82.8	82.3	81.1	81.4	188.8	193.5	186.4	169.8
Knitted cloth	100.4	99.9	99.4	104.1	236.5	231.6	221.7	215.7
Knitted outerwear and knitted gloves	102.9	105.5	105.5	117.3	234.3	241.6	243.0	258.9
Knitted underwear	120.6	120.0	117.5	103.1	306.6	306.9	295.4	234.1
Dyeing and finishing textiles, including woolen and worsted	123.7	123.2	121.6	121.3	303.5	297.5	279.8	264.5
Carpets and rugs, wool	132.2	130.9	127.1	110.5	316.8	311.6	297.6	222.9
Hats, fur-felt	89.1	89.7	88.5	90.5	193.3	202.1	181.9	198.0
Jute goods, except felts	110.1	80.6	79.4	111.3	259.3	175.4	170.1	254.2
Cordage and twine	131.6	128.8	125.7	131.3	330.6	320.0	300.6	287.8

See explanatory notes, sections A, C, F, and G.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries - Continued

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS 1/	152.4	151.9	148.3	138.0	353.4	343.3	319.6	300.6
Men's clothing, not elsewhere classified	134.2	135.2	134.7	123.9	313.4	309.5	301.5	277.2
Shirts, collars, and nightwear	110.4	111.4	109.7	96.5	275.8	283.2	266.0	225.9
Underwear and neckwear, men's	106.6	108.8	106.5	107.9	292.0	304.0	292.9	270.8
Work shirts	112.0	109.8	109.4	115.6	247.5	248.2	253.1	273.7
Women's clothing, not elsewhere classified	166.4	164.4	158.0	147.4	374.8	355.9	319.3	322.3
Corsets and allied garments	104.7	104.4	103.3	89.7	236.2	230.5	226.8	183.5
Millinery	103.7	92.3	84.7	95.0	206.5	159.0	123.6	169.6
Handkerchiefs	99.7	101.1	102.2	91.6	222.5	251.2	260.4	201.4
Curtains, draperies, and bedspreads	178.0	181.3	180.9	144.6	414.9	424.7	422.2	310.7
Housefurnishings, other than curtains, etc.	265.9	274.3	268.7	260.2	591.6	653.1	590.1	522.0
Textile bags	223.7	226.8	225.3	232.7	481.1	492.9	484.8	473.1
LEATHER AND LEATHER PRODUCTS 1/	106.9	107.4	106.4	104.4	240.7	241.8	235.4	220.8
Leather	93.4	93.6	93.7	91.6	199.8	202.3	199.8	179.4
Boot and shoe cut stock and findings	98.8	99.4	99.0	101.8	201.4	202.6	190.3	192.0
Boots and shoes	100.4	100.2	98.5	96.4	233.8	231.9	223.5	212.8
Leather gloves and mittens	122.5	130.8	131.8	130.8	245.6	262.7	264.1	248.4
Trunks and suitcases	158.5	170.1	177.9	166.5	319.8	369.3	406.0	321.3
FOOD 1/	129.0	136.4	140.1	128.4	273.9	298.9	300.6	256.4
Slaughtering and meat packing	145.7	150.8	142.0	136.5	304.2	338.9	317.4	285.7
Butter	162.0	163.6	168.2	163.0	330.3	342.2	346.0	309.4
Condensed and evaporated milk	169.6	170.6	179.7	177.8	370.7	364.0	377.8	356.4
Ice cream	133.7	141.4	149.1	135.4	248.0	258.5	269.9	240.4
Flour	141.3	141.9	143.1	140.1	305.9	319.4	336.9	305.4
Feeds, prepared	169.4	168.4	165.3	161.1	379.0	381.4	346.9	323.4
Cereal preparations	145.0	144.3	153.7	155.5	307.8	306.3	313.7	295.6
Baking	113.1	116.0	118.1	111.5	221.5	229.2	227.8	207.8
Sugar refining, cane	116.0	125.9	131.1	113.7	218.4	250.6	302.3	184.2
Sugar, beet	88.9	179.7	225.5	94.7	181.3	392.8	516.8	170.6
Confectionery	134.0	141.2	142.7	114.9	289.5	326.6	325.1	227.5
Beverages, nonalcoholic	139.4	139.7	143.8	112.8	234.3	236.3	240.0	175.1
Malt liquors	168.2	172.4	181.3	155.3	289.4	307.7	326.8	251.0
Canning and preserving	84.2	99.1	114.4	105.4	213.9	250.2	265.7	236.6
TOBACCO MANUFACTURES	93.5	94.4	96.5	96.1	209.9	219.8	216.3	209.4
Cigarettes	121.3	124.5	124.0	124.2	255.8	267.9	253.3	241.5
Cigars	79.4	79.0	82.9	82.1	181.7	190.0	195.8	195.2
Tobacco (chewing and smoking) and snuff	78.2	79.4	78.9	82.1	160.9	169.8	164.0	155.8

See explanatory notes, sections A, C, F, and G.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries - Continued

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
PAPER AND ALLIED PRODUCTS <u>1/</u>	145.7	146.9	145.7	145.6	321.5	327.5	319.6	285.1
Paper and pulp	145.0	144.8	143.4	139.6	325.0	327.3	319.9	274.3
Paper goods, other	153.6	156.6	155.9	153.0	328.8	335.7	327.4	298.0
Envelopes	142.0	142.6	142.5	137.0	279.9	282.7	281.5	255.5
Paper bags	162.6	163.9	161.3	180.0	366.6	370.2	347.4	363.6
Paper boxes	140.9	143.7	142.7	148.5	307.7	321.9	314.5	290.2
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES <u>1/</u>	131.3	133.0	132.8	127.2	250.2	258.0	252.3	219.6
Newspapers and periodicals	121.6	123.2	122.2	114.0	219.8	231.0	224.0	185.2
Printing; book and job	141.5	143.2	142.6	139.5	283.2	286.7	279.3	249.4
Lithographing	122.1	125.3	125.8	123.7	224.2	237.1	236.1	214.7
Bookbinding	145.9	148.8	150.3	141.7	315.3	326.6	325.1	301.0
CHEMICALS AND ALLIED PRODUCTS <u>1/</u>	199.6	201.0	200.1	195.6	417.3	414.9	407.5	362.9
Paints, varnishes, and colors	179.3	178.9	177.7	171.4	332.6	329.8	327.4	287.4
Drugs, medicines, and insecticides	238.8	239.2	241.3	252.7	497.9	488.5	489.9	450.6
Perfumes and cosmetics	115.9	123.6	133.1	134.0	231.7	240.5	265.3	241.4
Soap	167.0	167.4	168.9	147.1	379.3	381.3	371.0	273.7
Rayon and allied products	130.8	131.4	130.5	126.5	268.6	265.9	260.5	227.5
Chemicals, not elsewhere classified	282.8	283.3	280.9	276.1	561.3	555.8	540.8	495.5
Explosives and safety fuses	301.3	300.7	298.0	278.1	580.2	565.0	566.2	481.7
Compressed and liquefied gases	249.2	248.8	244.9	228.2	464.3	459.6	458.0	382.8
Ammunition, small-arms	144.1	172.7	168.7	155.5	333.7	411.9	398.0	331.3
Fireworks	209.6	243.5	249.0	258.5	583.1	633.8	711.6	660.5
Cottonseed oil	141.6	159.5	160.5	134.5	394.7	448.4	448.7	347.5
Fertilizers	161.3	148.7	141.6	156.9	433.4	393.0	362.5	376.1
PRODUCTS OF PETROLEUM AND COAL <u>1/</u>	152.4	152.9	153.5	145.4	312.8	308.2	304.5	253.9
Petroleum refining	149.9	150.1	149.8	145.0	296.8	293.4	288.9	244.3
Coke and byproducts	140.6	138.3	138.2	126.9	319.8	294.8	292.7	239.6
Paving materials	83.6	109.9	138.1	92.8	165.7	221.5	268.8	159.7
Roofing materials	222.7	226.2	228.0	212.4	508.3	535.7	526.4	431.1

See explanatory notes, sections A, C, F, and G.

Table 8. - Indexes of Production-Worker Employment and Weekly Pay Roll
in Manufacturing Industries - Continued

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
RUBBER PRODUCTS <u>1/</u>	184.2	186.1	184.5	198.8	376.8	396.5	383.3	386.3
Rubber tires and inner tubes	209.2	211.7	212.2	235.5	388.4	412.1	407.5	416.3
Rubber boots and shoes	151.5	151.4	147.9	156.5	342.8	367.1	322.4	322.5
Rubber goods, other	167.4	169.1	166.0	172.8	368.3	379.9	362.2	354.5
MISCELLANEOUS INDUSTRIES <u>1/</u>	176.1	182.7	185.6	179.3	377.9	396.6	393.7	356.7
Instruments (professional and scientific), and fire-control equipment	245.3	248.1	246.1	249.2	507.5	499.2	480.8	451.2
Photographic apparatus	226.7	228.2	225.9	200.6	428.0	431.0	426.7	348.0
Optical instruments and ophthalmic goods	233.6	235.4	232.1	257.3	452.3	458.5	445.3	472.2
Pianos, organs, and parts	213.3	226.3	228.6	186.9	447.8	513.4	500.1	407.7
Games, toys, and dolls	175.0	201.3	226.9	156.3	399.7	469.5	525.9	323.5
Buttons	118.7	119.1	113.0	125.6	275.7	280.8	262.5	278.0
Fire extinguishers	254.6	263.8	269.5	294.0	540.0	508.4	560.6	582.9

See explanatory notes, sections A, C, F, and G.

1/ Indexes for the individual industries comprising the major industry group have been adjusted to levels indicated by data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. More recently adjusted data for the individual industries comprising the major industry group indicated below supersede data shown in publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Products of petroleum and coal	January 1948	February 1948
Electrical machinery	February 1948	March 1948
Chemicals and allied products	February 1948	March 1948
Nonferrous metals and their products	March 1948	April 1948

Table 9. - Indexes of Employment and Weekly Pay Roll in
Selected Nonmanufacturing Industries

(1939 Average = 100)

Industry group and industry	Employment indexes				Pay-roll indexes			
	1948		1947		1948		1947	
	Jan.	Dec.	Nov.	Jan.	Jan.	Dec.	Nov.	Jan.
MINING:								
Coal:								
Anthracite	80.8	81.1	80.9	83.4	227.1	212.2	199.1	202.0
Bituminous coal	91.4	91.0	90.5	90.8	294.2	290.2	275.2	265.4
Metal:	88.4	88.3	87.8	87.2	183.5	183.7	179.8	156.8
Iron	140.1	141.9	145.1	131.4	289.4	289.2	298.0	229.4
Copper	106.3	105.4	103.3	100.4	235.7	234.3	222.6	193.6
Lead and zinc	90.3	90.0	88.9	106.4	215.0	218.4	208.0	221.7
Gold and silver	32.9	32.3	31.1	31.3	55.9	56.0	53.2	48.3
Miscellaneous	56.3	57.4	57.1	54.7	105.3	105.6	105.1	85.5
Quarrying and nonmetallic	95.6	100.4	103.4	96.9	220.9	241.7	250.2	204.8
Crude petroleum production <u>1/</u>	94.1	94.0	94.1	92.1	183.4	172.9	179.6	153.8
TRANSPORTATION AND PUBLIC UTILITIES:								
Class I steam railways <u>2/</u>	133.4	134.8	135.7	134.9	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>
Street railways and busses	129.1	128.5	128.7	130.9	230.3	226.9	223.6	216.1
Telephone	195.0	195.0	193.3	185.2	315.8	314.5	321.5	267.5
Telegraph	97.2	97.6	97.2	104.6	209.5	207.8	206.8	189.1
Electric light and power	109.8	110.3	109.7	102.5	187.9	185.7	187.6	159.5
TRADE: <u>4/</u>								
Wholesale	116.2	116.9	116.5	112.2	214.9	213.7	213.6	189.7
Retail	114.7	130.4	119.8	110.5	210.0	237.1	216.5	187.2
Food	114.4	117.4	116.1	108.5	219.4	221.5	220.0	189.4
General merchandise	130.9	176.1	143.6	125.6	236.0	312.5	251.1	208.4
Apparel	111.5	136.7	124.0	110.0	198.8	248.8	222.7	188.2
Furniture and housefurnishings	93.6	97.4	92.4	84.3	174.5	192.9	177.3	144.1
Automotive	106.5	109.9	107.6	98.3	193.9	204.2	198.6	170.4
Lumber and building materials	122.5	126.1	126.4	113.4	228.0	238.1	233.5	193.4
SERVICE:								
Hotels (year-round) <u>5/</u>	117.2	118.1	117.1	117.3	230.4	233.2	228.6	215.1
Power laundries <u>6/</u>	120.1	120.9	121.3	125.7	232.9	233.6	226.8	228.6
Cleaning and dyeing <u>6/</u>	152.8	156.5	159.4	158.4	285.6	292.8	293.7	286.7

See footnotes, table 7, and explanatory notes, sections F and G.

1/ Does not include well drilling or rig building.2/ Source: Interstate Commerce Commission.3/ Not available.4/ Includes nonsupervisory workers and working supervisors only.5/ Money payments only; additional value of board, room, uniforms, and tips, not included.6/ See footnote 6, table 7.

EXPLANATORY NOTES

Sec. A. Revisions of Employment Estimates - The employment estimates shown in this report for the industry divisions (e.g., mining, manufacturing, etc.) and industry groups (e.g., iron and steel, electrical machinery, etc.) have been adjusted to levels indicated by benchmark data through 1945 and supersede data shown in mimeographed releases dated prior to April 1947 and in the Monthly Labor Review dated prior to May 1947.

Sec. B. Sources of Benchmark Data - The chief purpose of recent revisions published in the February 1947 DETAILED REPORT, was to adjust the levels of employment estimates to benchmark data through 1945. In preparing estimates for private employment prior to 1939, the various industrial censuses taken by the Bureau of the Census were used as sources of benchmark data. Data obtained from unemployment compensation agencies and the Bureau of Old Age and Survivors Insurance are the main bases for 1945 benchmarks. Benchmarks for State and local government are based on data compiled by the Bureau of the Census, while most of the data on Federal Government employment is made available by the U. S. Civil Service Commission. The Interstate Commerce Commission is the source for railroads, and the U. S. Maritime Commission for water transportation.

Sec. C. Scope of Employment Revisions - Recent revisions also include a new type of estimate for employment in construction based upon establishment reports. This estimate is more consistent with the estimating procedure used for other industry divisions. In addition, federal force account construction employment has been transferred from the construction segment to government.

Each of the industry divisions was affected by the recent revisions. Adjustments have also been made in each of the 20 major groups comprising the manufacturing industry division. To be consistent with the estimates for these major industry groups, and more representative of the true level of employment, estimates for the individual manufacturing industries, formerly based on the 1939 Census of Manufactures, are now being revised. As these revisions are completed, they are published in this report and indicated by appropriate footnotes. Since the revised employment estimates shown in this report cover only the current months a set of summary sheets presenting comparable figures from January 1939 to date, by month, for each industry will be provided upon request.

Sec. D. How Employment Estimates Are Made - Estimates of changes in the level of employment are based on reports from a sample group of establishments, inasmuch as full coverage is prohibitively costly and time-consuming. In using a sample, it is essential that an accurate base be established from which estimates may be carried forward. This base or "benchmark" is either a complete count or an estimate with a satisfactory degree of accuracy. When a new benchmark becomes available, estimates prepared since the last benchmark are reviewed to determine if any adjustment of level is required. This is the basic principle of employment estimating used by the BLS. It yields a satisfactory compromise between a slow but highly accurate complete count on the one hand, and a rapid but less accurate sample count on the other.

Briefly, the Bureau of Labor Statistics computes employment estimates as follows: first, a benchmark or level of employment is determined; second, a sample of establishments is selected; and third, changes in employment indicated by this reporting sample are applied to the benchmark to determine the monthly estimates of

employment between benchmark periods. For example, if the latest complete data on employment for an industry were 40,200 in September 1945, and if the industry has a reporting sample of 13 establishments employing 23,200 workers in September and 23,800 in October, the October estimate would be prepared as follows:

$$40,200 \times \frac{23,800}{23,200} = 41,240$$

In general, data showing month-to-month changes in employment reflect the fluctuations shown by establishments reporting to the Bureau of Labor Statistics. However, the usual estimating method is inadequate in the finance and service industries, which have a preponderance of small establishments. A special sampling procedure has been introduced, involving the scientific selection of a sample of cities and of a representative list of blocks in these cities. Data obtained from the establishments in these blocks yield substantially better estimates of month-to-month changes in employment in the service and finance industries than would be obtained by the use of the sampling procedure employed for other industries. For railroads and the Federal Government, complete reports of employment are available.

Why Revisions are Necessary - Because reports are not immediately available from new firms, they are frequently introduced into the Bureau of Labor Statistics sample after they have been in operation for some time. This lapse of time produces a rather consistent understatement which becomes larger from year to year. It is important, therefore, that estimates not be allowed to go uncorrected for too long a period. During the war period adjustment of many of the nonmanufacturing industry divisions was unavoidably postponed for several years. Consequently, the most recent revision corrects for the downward bias that had accumulated in the nonmanufacturing series since 1941. Revisions in some industry divisions have been carried back to 1939 in order to incorporate greater refinements in methodology and new source materials that have become available. For example, improved data on the small firm component of the trade and service industries, supplied by the Bureau of Old Age and Survivors Insurance, made possible refinements in these series back to 1939.

Sec. E. Comparability With Other Types of Employment Data - The Bureau of Labor Statistics employment estimates are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report of the Labor Force. The Bureau of Labor Statistics estimates of employment in nonagricultural establishments differ from the Monthly Report of the Labor Force total nonagricultural employment estimates in several important respects. For example: (1) The Bureau of Labor Statistics estimates cover all full- and part-time wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month, in Federal establishments during the pay period ending just before the first of the month, and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once; (2) Proprietors, self-employed persons, domestic servants, and unpaid family workers are excluded.

Sec. F. Pay-Roll Indexes - Cooperating establishments are instructed to report pay rolls of production or nonsupervisory workers prior to deduction for old age and unemployment insurance, withholding taxes, bonds, and union dues. Pay for sick leave, holidays, and vacations taken is included. Respondents are instructed to exclude pay for vacations not taken as well as cash estimates of any payments in kind. Bonuses, unless earned and paid regularly each pay period, are also excluded.

The methodology for obtaining pay-roll estimates is similar to that for employment estimates. Sample changes showing monthly movements are used in projecting established benchmarks to secure current pay-roll estimates. These pay-roll estimates are converted into indexes, using the 1939 average as a base.

Sec. G. Source of Data - Employment and pay-roll estimates are based on reports from cooperating establishments. Excluding about 9,000 block-sample returns, the approximate number of establishments, and workers covered, for each of the industry divisions are shown below.

Approximate Coverage of BLS Employment
and Pay-Roll Sample

Industry division	: Number of : establishments	: Employees or production workers	
		: Number	: Percent of total
Manufacturing	33,200	7,438,000	58
Mining	2,700	396,000	61
Contract construction	12,500	335,000	18
Public utilities	7,200	877,000	76
Trade:			
Wholesale	11,800	333,000	20
Retail	38,600	1,069,000	25
Service:			
Hotels (year-round)	1,200	142,000	37
Power laundries and cleaning and dyeing	1,600	71,000	20

Sec. H. Coverage of Employment Estimates - The employment estimates shown in Tables 1, 2, and 5 cover all full- and part-time wage and salary workers who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. The estimates as shown in Tables 6 and 8 refer to production and related workers as defined in the Glossary, page vi.

Sec. I. State Estimates - State estimates are prepared in cooperation with various State Agencies as indicated below. The estimates for manufacturing have been adjusted to recent data made available under the Federal Social Security program. Since some states have adjusted to more recent benchmark data than others, and because varying methods of computation are used, the total of the state estimates differs from the national total (see Tables 1 and 2). Because of these recent revisions the state estimates for manufacturing are not consistent with the unrevised data shown prior to June 1947 for total employment in nonagricultural establishments, by state. Comparable series of manufacturing estimates for each state, January 1943 to date, and also for nonagricultural employment for selected states, through December 1946, are available upon request to the cooperating State agency or the appropriate Bureau of Labor Statistics regional office. Estimates of nonagricultural employment, by state, for those States which are now publishing such estimates are shown in Table 5a. These totals are consistent with the manufacturing estimates in Table 5. As estimates for additional States become available, they will be shown in Table 5a.

Cooperating State Agencies

Arizona - Employment Security Commission, Phoenix.
Arkansas - Employment Security Div., Dept. of Labor, Little Rock.
California - Div. of Labor Statistics and Research, San Francisco 2.
Connecticut - Employment Security Division, Hartford 15.
Delaware - Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.
Florida - Industrial Commission, Tallahassee.
Georgia - Employment Security Administration, Atlanta 3.
Illinois - Dept. of Labor, Div. of Unemployment Compensation, Chicago 54.
Indiana - Employment Security Div., Indianapolis 12.
Kansas - State Labor Dept., Topeka.
Louisiana - Louisiana State University, Bureau of Business Research, Baton Rouge 3.
Maine - Unemployment Commission, Augusta.
Maryland - Dept. of Labor and Industry, Baltimore 2.
Massachusetts - Dept. of Labor and Industries, State House, Boston 33.
Michigan - Dept. of Labor and Industry, Lansing 13.
Minnesota - Div. of Employment and Security, St. Paul 1.
Missouri - Div. of Employment Security, Jefferson City.
Montana - Unemployment Compensation Commission of Montana, Helena.
Nevada - Employment Security Dept., Carson City.
New Jersey - Dept. of Labor, Trenton 8.
New Mexico - Research and Statistics, Employment Security Commission, Albuquerque.
New York - Dept. of Labor, Div. of Placement and Unemployment Insurance, New York 17.
North Carolina - Dept. of Labor, Raleigh.
Oklahoma - Employment Security Commission, Oklahoma City 2.
Pennsylvania - Federal Reserve Bank of Philadelphia, Philadelphia 1. (Manufacturing)
Dept. of Labor and Industry, Harrisburg. (Nonmanufacturing)
Rhode Island - Dept. of Labor, Div. of Census and Statistics, Providence 2.
Tennessee - Dept. of Employment Security, Nashville 3.
Texas - University of Texas, Bureau of Business Research, Austin 12.
Utah - Dept. of Employment Security, Salt Lake City 13.
Vermont - Unemployment Compensation Commission, Montpelier.
Virginia - Dept. of Labor and Industry, Div. of Research and Statistics, Richmond 21.
Washington - Office of Unemployment Compensation and Placement, Olympia.
Wisconsin - Industrial Commission of Wisconsin, Madison 3.

BLS Regional Offices

New England - Regional Director, U. S. Bureau of Labor Statistics, Old South Bldg.,
294 Washington St., Boston 8, Massachusetts (Connecticut, Maine,
Massachusetts, New Hampshire, Rhode Island, Vermont)
North Atlantic - Regional Director, U. S. Bureau of Labor Statistics, 1000 Parcel
Post Bldg., 341 Ninth Avenue, New York 1, New York (Delaware,
Pennsylvania, New Jersey, New York)
North Central - Regional Director, U. S. Bureau of Labor Statistics, 312 National
War Agencies Bldg., 226 W. Jackson Blvd., Chicago 6, Illinois
(Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota,
Missouri, Nebraska, Ohio, North Dakota, South Dakota, Wisconsin)
Southern - Regional Director, U. S. Bureau of Labor Statistics, 6th Floor Silvey
Bldg., 114 Marietta Street, N. W., Atlanta 3, Georgia (Alabama
Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina,
Oklahoma, South Carolina, Tennessee, Texas)
Pacific-Rocky Mountain - Regional Director, U. S. Bureau of Labor Statistics,
546 Federal Office Bldg., San Francisco 2, California (Arizona,
California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah
Washington, Wyoming)

Technical advice and assistance on employment statistics in the states of
Virginia, West Virginia, Maryland, and the District of Columbia will be given by the
Bureau's Washington Office.

GLOSSARY

Continental United States - Covers only the 48 States and the District of Columbia.

Contract construction - Covers only firms engaged in the construction business on a contract basis for others. Force account construction workers, i.e., hired directly by and on the pay rolls of Federal, State, and local government, public utilities, and private establishments, are excluded.

Defense Agencies - Covers civilian employees of the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, Philippine Alien Property Administration, Philippine War Damage Commission, Office of Selective Service Records, War Assets Administration, Office of Defense Transportation, Office of Scientific Research and Development, National Security Resources Board.

Family Allowances - Represents the Government's contribution; the amount contributed by the personnel is included under pay rolls.

Federal Government-Executive branch - Includes U. S. Navy Yards, Federal arsenals, and force-account construction. Fourth-class postmasters are included under the executive branch in table 3, but are excluded from the government data shown in table 1. Employment shown here for the executive branch differs from data published by the U. S. Civil Service Commission in the following respects: (1) Substitute rural mail carriers are excluded here; (2) seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission are excluded here; (3) the Panama Railroad Company is shown here under Government corporations but is included under the executive branch by the Civil Service Commission; (4) employment collected and published by the Civil Service Commission as of the last day of the month, is here presented as of the first day of the next month.

Finance - Covers establishments operating in the fields of finance, insurance, and real estate; excludes the Federal Reserve District Banks and the mixed ownership banks of the Farm Credit Administration.

Government - Covers Federal, State, and local governmental establishments performing legislative, executive, and judicial functions, as well as all government-owned and operated establishments and institutions (arsenals; navy yards, hospitals, Federal Reserve banks, etc.) and government force-account construction. The data shown in table 1 exclude fourth-class postmasters because they presumably have other major jobs.

Government corporations - Covers only three corporations: The Panama Railroad Company, the Federal Reserve banks, and the mixed-ownership banks of the Farm Credit Administration. All other corporations are included under the executive branch.

Indexes of production-worker employment - Estimates of production-worker employment expressed as a percentage of the average employment in 1939.

Indexes of production-worker pay rolls - Estimates of production-worker pay rolls expressed as a percentage of the average weekly pay roll for 1939.

Leave payments - Payments were authorized by P. L. 704 of the 79th Congress and P. L. 254 of the 80th Congress to enlisted personnel who were discharged prior to September 1, 1946 for accrued and unused leave and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds represents face value; interest will be paid in addition to the face value at the time the bonds are cashed. Terminal leave payments to persons discharged after September 1, 1946 are excluded from leave payments shown but are included in pay rolls.

Manufacturing - Covers only privately owned establishments; governmental manufacturing operations such as arsenals and navy yards are excluded.

Military pay rolls - Covers personnel on active duty or on terminal leave. Coast Guard pay rolls and Army pay rolls for 1943 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel count. Pay rolls for the Navy proper and Coast Guard include cash payments for clothing-allowance balances in January, April, July, and October. Starting October 1946 pay rolls include lump sum payments for terminal leave authorized by Public Law 350 of the 80th Congress.

Mining - Covers establishments engaged in the extraction from the earth of organic and inorganic minerals which occur in nature as solids, liquids, or gases; includes various contract services required in mining operations, such as removal of overburden, tunnelling and shafting, and the drilling of acidizing of oil wells; also includes ore dressing, beneficiating, and concentration.

Nonagricultural establishments - Governmental or private business establishments; (1) that are physically located within continental United States; and (2) whose principal activity can be classified under one of the following industry divisions--mining, contract construction, manufacturing, transportation and public utilities, wholesale and retail trade, finance, service, or government.

Pay rolls - Private pay rolls represent pay rolls of production and related workers (or nonsupervisory employees and working supervisors) before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues, but after deductions for damaged work. Includes pay for sick leave, holidays, and vacations taken. Excludes cash payments for vacations not taken, retroactive pay not earned during period reported, value of payments in kind, and bonuses, unless earned and paid regularly each pay period. In mining industries further deductions are made for explosives or other supplies furnished by the company. In coal mining portal-to-portal pay is included. Federal civilian pay rolls are for all employees before deductions for income tax, retirement, and bonds.

Production and related workers - Includes working foremen and all nonsupervisory workers (including lead men and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, products development, auxiliary production for plant's own use (e.g., power plant) and record-keeping and other services closely associated with the above production operations. Excludes supervisory employees (above the working foreman level) and their clerical staffs, routemen, salesmen, and other groups of nonproduction workers defined below under wage and salary workers.

Service - Covers establishments primarily engaged in rendering services to individuals and business firms. Excludes automobile repair services, government owned and operated hospitals, museums, etc., and domestic service.

Trade - Covers establishments engaged in wholesale trade, i.e., selling merchandise to retailers, and in retail trade, i.e., selling merchandise for personal or household consumption, and rendering services incidental to the sale of goods. Includes auto repair services.

Transportation and public utilities - Covers only privately owned and operated enterprises engaged in providing all types of transportation and related services; telephone, telegraph and other communication services; or providing electricity, gas, steam, water, or sanitary services. Government owned and operated establishments are included under government.

Wage and salary workers - In addition to production and related workers as defined above, includes workers engaged in the following activities: executive, purchasing, finance, accounting, legal, personnel (including cafeterias, medical, etc.), professional and technical activities, sales, sales-delivery, advertising, credit, collection, and in installation and servicing of own products, routine office functions, factory supervision (above the working foreman level), and other workers not included as production workers. Also includes employees on the establishment pay roll engaged in new construction and major additions or alterations to the plant who are utilized as a separate work force (force-account construction workers).

Wage earner - See production workers.

Washington, D. C. - Data for the executive branch of the Federal Government also include areas in Maryland and Virginia which are within the metropolitan area, as defined by the Bureau of the Census.