

EMPLOYMENT and PAY ROLLS

**DETAILED REPORT
JUNE 1947**

United States Department of Labor
Bureau of Labor Statistics

ESTIMATES OF MANUFACTURING EMPLOYMENT - NEW SERIES

Industries in the Stone and Printing Groups

In this detailed report the Bureau presents a new series of production-worker estimates for the individual industries comprising the stone and printing groups. The new estimates, adjusted to 1945 bench-mark data from the Bureau of Employment Security of the Social Security Administration, correct the downward bias which has accumulated since 1939 and are, therefore, more representative of the true levels of employment.

Stone Group - Only four of the industries in this group required adjustment: glass and glassware; cement; brick, tile, and terra cotta; and pottery and related products. Because of the lapse of several years without any adjustment to levels other than the 1939 Census of Manufactures, some of these changes are rather large, glass and glassware showing the largest upward adjustment

Printing Group - The estimates for all industries in this group, with the exception of the newspapers and periodicals industry, have been adjusted. The changes in these industries, however, were relatively small.

The present report shows the new production-worker employment and pay rolls estimates and indexes only for the three current months and June of last year. A set of summary sheets presenting comparable data from January 1939 to date, by month, will be provided upon request.

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U. S. Department of Labor
Bureau of Labor Statistics
Employment and Occupational Outlook Branch
Division 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.

<u>TABLE</u>	<u>CONTENTS</u>	<u>PAGE</u>
1.	Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division.....	2
2.	Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group.....	3
3.	Federal Employment and Pay Rolls in All Areas and in Continental United States, and Total Government Employment and Pay Rolls in Washington, D. C.....	4
4.	Personnel and Pay of the Military Branch of the Federal Government.....	5
5.	Estimated Number of Employees in Nonagricultural Establishments, by State.....	6
6.	Estimated Number of Production Workers in Manufacturing Industries.....	8
7.	Estimated Employment in Selected Nonmanufacturing Industries.....	14
8.	Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries.....	15
9.	Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries.....	21
	Explanatory Notes.....	i
	Glossary.....	v

Data for the current month and the immediately preceding month are preliminary and subject to revision.

2.

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

(In thousands)

Industry division	1947			1946	
	June	May	April	June	May
TOTAL	42,342	41,920	41,824	40,680	40,258
Manufacturing	15,317	15,237	15,429	14,371	14,159
Mining	890	884	856	864	753
Contract construction	1,763	1,685	1,619	1,532	1,438
Transportation and public utilities	4,115	3,970	3,836	3,996	3,946
Trade	8,580	8,546	8,552	8,342	8,302
Finance	1,567	1,561	1,554	1,531	1,517
Service	4,711	4,590	4,552	4,430	4,448
Federal, State, and local government including Federal force-account construction	5,399	5,447	5,426	5,614	5,695

See explanatory notes, sections A - E

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

(In thousands)

Industry group	1947			1946	
	June	May	April	June	May
ALL MANUFACTURING	15,317	15,237	15,429	14,371	14,159
<u>Durable goods</u>	7,848	7,781	7,892	7,172	7,035
Iron and steel and their products	1,833	1,829	1,842	1,663	1,636
Electrical machinery	744	718	732	688	667
Machinery, except electrical	1,520	1,532	1,536	1,362	1,330
Transportation equipment, except automobiles	583	587	601	624	638
Automobiles	969	926	987	853	841
Nonferrous metals and their products	467	479	491	440	421
Lumber and timber basic products	731	715	690	612	593
Furniture and finished lumber products	509	507	516	467	455
Stone, clay, and glass products	492	488	497	463	454
<u>Nondurable goods</u>	7,469	7,456	7,537	7,199	7,124
Textile-mill products and other fiber manufactures	1,292	1,310	1,336	1,296	1,283
Apparel and other finished textile products	1,197	1,192	1,222	1,152	1,131
Leather and leather products	385	385	398	399	398
Food	1,565	1,516	1,505	1,435	1,431
Tobacco manufactures	97	96	95	99	98
Paper and allied products	462	461	465	445	440
Printing, publishing, and allied industries	693	690	689	650	643
Chemicals and allied products	724	744	747	689	689
Products of petroleum and coal	231	228	223	218	214
Rubber products	270	276	289	272	267
Miscellaneous industries	553	558	568	544	530

See explanatory notes, sections A - H

Table 3.--Federal Employment and Pay Rolls in All Areas and in Continental United States and Total Government Employment and Pay Rolls in Washington, D. C.
(In thousands)

Area and branch	Employment (as of first of month)			Pay rolls (total for month)		
	1947		June	1947		June
	June	May	1946	June	May	1946
<u>Total (including areas outside U. S.)</u>						
Total Federal	2,168.9	2,193.1	2,774.2	\$499,896	\$516,791	\$533,860
Executive	2,127.7	2,151.3	2,731.6	490,672	507,481	525,485
Defense agencies	996.2	1,028.1	1,651.0	214,028	232,778	306,230
Post Office Department	437.3	435.4	418.3	96,012	95,486	82,703
Other agencies	694.2	687.8	662.3	180,632	179,217	136,552
Legislative	7.2	7.2	6.6	2,425	2,439	1,828
Judicial	3.1	3.1	3.1	1,149	1,181	950
Government corporations	30.9	31.5	32.9	5,650	5,690	5,597
<u>Continental United States</u>						
Total Federal	1,905.1	1,924.6	2,328.7	457,868	472,537	497,353
Executive	1,871.9	1,890.9	2,293.2	449,308	463,916	489,678
Defense agencies	769.3	796.1	1,238.8	179,411	196,068	275,540
Post Office Department	435.8	434.0	416.8	95,683	95,164	82,445
Other agencies	666.8	660.8	637.6	174,214	172,684	131,693
Legislative	7.2	7.3	6.6	2,425	2,439	1,828
Judicial	3.0	3.0	3.0	1,114	1,145	917
Government corporations	23.0	23.4	25.9	5,021	5,037	4,930
<u>Washington, D. C.</u>						
Total government	237.5	241.1	259.7	64,550	69,666	57,614
District of Columbia						
Government	18.1	18.0	16.6	4,181	4,235	3,345
Federal	219.4	223.1	243.1	60,369	65,431	54,269
Executive	211.6	215.2	236.0	57,748	62,791	52,281
Defense agencies	71.2	73.3	88.7	16,877	18,651	19,750
Post Office Dept.	7.3	7.4	7.5	2,078	2,258	1,972
Other agencies	133.1	134.5	139.8	38,793	41,882	30,559
Legislative	7.2	7.3	6.6	2,425	2,439	1,829
Judicial	.6	.6	.5	196	201	159

See Glossary for definitions.

Table 4. - Personnel and Pay of the Military Branch of the Federal Government
(In thousands)

Personnel and pay	1947		June 1946	Average monthly personnel and total annual pay rolls	
	June	May		1943	1939
Personnel, total as of first of month including those on active duty and those on terminal leave.	1,631	1,703	3,446	8,944	345
Army	1,021	1,082	2,009	6,733	192
Navy	495	501	1,228	1,744	124
Marine Corps	94	99	173	311	19
Coast Guard	21	21	36	156	10
Men	1,608	1,679	3,374	8,833	<u>1/</u>
Women	23	24	72	111	<u>1/</u>
Pay, total	\$322,665	\$363,349	\$736,131	\$11,173,186	\$331,523
Army	191,195	226,210	433,105	8,143,833	155,482
Navy	109,118	113,984	251,196	2,408,736	143,238
Marine Corps	17,072	17,180	33,120	392,140	16,877
Coast Guard	5,280	5,975	13,710	228,477	15,926
Pay rolls	249,936	257,463	544,514	10,140,852	331,523
Mustering-out pay	12,265	14,662	143,984	-	-
Family allowances	24,501	25,814	47,633	1,032,334	-
Leave payments	35,963	65,410	-	-	-
Cash	3,697	6,293	-	-	-
Bonds	32,266	59,117	-	-	-

1/ Data not available.

See Glossary for definitions.

Table 5. - Estimated Number of Employees in Nonagricultural Establishments, by State
(In thousands)

Region and State	All industry divisions			Manufacturing		
	May 1947	Apr. 1947	May 1946	May 1947	Apr. 1947	May 1946
New England	2,916	2,918	2,900	1,525	1,553	1,491
Maine	224	223	228	108	109	111
New Hampshire	143	143	141	78.7	81.1	78.9
Vermont	87.5	88.7	85.8	39.4	42.0	40.1
Massachusetts	1,478	1,479	1,513	734	750	738
Rhode Island	268	269	259	148	151	144
Connecticut	715	715	673	417	420	379
Middle Atlantic	8,907	8,830	8,629	4,056	4,117	3,877
New York	4,465	4,403	4,372	1,835	1,871	1,803
New Jersey	1,327	1,329	1,347	727	738	720
Pennsylvania *	3,115	3,098	2,910	1,494	1,508	1,346
East North Central	8,589	8,537	8,241	4,482	4,523	4,094
Ohio	2,336	2,336	2,244	1,238	1,255	1,148
Indiana	987	982	925	548	554	495
Illinois	2,821	2,795	2,706	1,235	1,248	1,131
Michigan	1,651	1,645	1,615	1,035	1,036	939
Wisconsin	794	779	751	426	430	381
West North Central	2,791	2,758	2,734	829	837	781
Minnesota	659	650	645	193	195	185
Iowa	463	460	444	145	147	135
Missouri	904	898	902	352	356	326
North Dakota	83.6	81.3	77.7	6.8	6.5	6.1
South Dakota	92.6	88.7	87.1	11.2	11.5	10.2
Nebraska	246	242	242	42.3	41.8	42.4
Kansas	343	333	336	79.1	79.3	76.2
South Atlantic	4,361	4,329	4,321	1,513	1,533	1,462
Delaware	94.8	93.0	87.6	45.4	44.9	43.3
Maryland	614	603	599	229	231	224
District of Columbia	448	445	466	17.1	17.2	16.2
Virginia	642	633	626	209	209	193
West Virginia	424	416	401	131	133	129
North Carolina	728	729	708	366	372	358
South Carolina	366	362	357	139	190	178
Georgia	609	604	600	250	254	243
Florida	435	444	476	76.6	81.9	77.9

Table 5. - Estimated Number of Employees in Nonagricultural Establishments, by State - Continued
(In thousands)

Region and State	All industry divisions			Manufacturing		
	May 1947	Apr. 1947	May 1946	May 1947	Apr. 1947	May 1946
East South Central	1,737	1,719	1,655	682	693	635
Kentucky	424	420	412	124	130	121
Tennessee	553	547	532	246	249	232
Alabama	518	509	479	223	224	201
Mississippi	242	243	232	88.5	90.4	81.4
West South Central	2,335	2,311	2,390	585	588	551
Arkansas	232	230	232	71.0	72.7	66.0
Louisiana	441	437	441	137	135	133
Oklahoma	340	335	344	53.0	54.1	51.8
Texas	1,322	1,309	1,373	324	326	300
Mountain	929	917	893	147	145	131
Montana	118	116	112	17.1	16.6	15.4
Idaho	99.0	96.1	97.7	19.2	18.4	19.5
Wyoming	61.2	59.8	58.5	6.0	5.9	5.3
Colorado	271	271	264	53.9	54.1	49.2
New Mexico	85.9	84.2	84.6	9.9	9.9	9.9
Arizona	108.	107	98.8	13.1	13.6	11.1
Utah	141	139	134	23.6	22.7	17.3
Nevada	44.4	43.4	42.9	3.7	3.7	3.0
Pacific	3,175	3,181	3,201	974	975	930
Washington	518	516	528	165	161	163
Oregon	304	303	302	117	115	112
California	2,353	2,362	2,371	692	699	655

* Estimates for manufacturing are revised because of adjustment to more recent benchmark data made available under the Federal Security Agency program.

See explanatory notes, section I.

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

(In thousands)

Industry group and industry	1947			1946	
	June	May	April	June	May
ALL MANUFACTURING	12,397	12,341	12,524	11,623	11,433
Durable goods	6,483	6,426	6,528	5,865	5,740
Nondurable goods	5,914	5,915	5,996	5,758	5,693
Durable Goods					
IRON AND STEEL AND THEIR PRODUCTS	1,557	1,555	1,567	1,403	1,380
Blast furnaces, steel works, and rolling mills	497.0	491.1	486.5	453.1	445.4
Gray-iron and semi-steel castings	85.3	85.7	86.5	78.2	77.1
Malleable-iron castings	26.5	25.8	25.6	23.7	22.6
Steel castings	48.6	49.5	49.4	50.8	50.8
Cast-iron pipe and fittings	20.4	20.5	19.9	16.2	17.1
Tin cans and other tinware	42.4	41.8	41.9	41.9	39.8
Wire drawn from purchased rods	26.4	26.3	30.7	28.6	27.1
Wirework	39.6	39.2	41.4	34.3	34.9
Cutlery and edge tools	23.3	25.6	27.0	25.5	25.2
Tools (except edge tools, machine tools, files, and saws)	25.2	24.7	26.6	25.3	24.9
Hardware	49.5	50.1	50.4	45.1	44.4
Plumbers' supplies	29.2	30.0	30.8	25.6	24.4
Stoves, oil burners, and heating equipment not elsewhere classified	62.8	63.0	62.8	51.9	50.1
Steam and hot-water heating apparatus and steam fittings	48.1	48.9	50.5	46.2	45.4
Stamped and enameled ware and galvanizing	82.7	83.8	84.9	73.0	72.1
Fabricated structural and ornamental metalwork	58.7	59.0	58.9	50.9	49.8
Metal doors, sash, frames, molding, and trim	9.3	9.1	9.8	7.7	7.3
Bolts, nuts, washers, and rivets	21.2	21.5	21.7	17.4	17.4
Forgings, iron and steel	27.2	26.8	27.3	25.9	26.1
Wrought pipe, welded and heavy-riveted	12.7	13.4	13.6	11.2	11.9
Screw-machine products and wood screws	27.7	28.0	29.1	27.2	26.9
Steel barrels, kegs, and drums	6.1	6.3	6.4	5.5	5.4
Firearms	14.2	14.1	14.4	12.6	13.3
ELECTRICAL MACHINERY	574	554	567	521	503
Electrical equipment	314.7	307.8	312.1	276.9	267.7
Radios and phonographs	81.8	85.7	89.4	76.8	73.8
Communication equipment	80.9	67.7	70.8	85.7	84.6

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

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

(In thousands)

Industry group and industry	1947			1946	
	June	May	April	June	May
MACHINERY, EXCEPT ELECTRICAL	1,185	1,194	1,197	1,049	1,025
Machinery and machine-shop products	381.8	383.6	386.0	347.6	345.1
Engines and turbines	43.1	44.4	44.9	40.8	36.9
Tractors	56.4	55.1	55.0	49.3	47.0
Agricultural machinery, excluding tractors	51.4	50.2	49.5	40.6	41.0
Machine tools	53.4	55.1	57.2	59.3	59.0
Machine-tool accessories	44.9	46.2	47.8	47.4	45.9
Textile machinery	38.6	38.4	37.8	32.1	31.9
Pumps and pumping equipment	58.6	59.0	59.6	54.7	52.9
Typewriters	18.1	23.8	23.4	18.4	17.8
Cash registers, adding and calculating machines	37.7	40.7	40.5	33.0	32.1
Washing machines, wringers and driers, domestic	14.8	14.5	14.2	10.7	10.0
Sewing machines, domestic and industrial	11.7	11.6	11.5	9.5	9.2
Refrigerators and refrigeration equipment	78.3	74.3	72.9	57.4	54.0
TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES	463	466	477	479	491
Locomotives	24.3	23.8	25.1	26.5	27.1
Cars, electric- and steam-railroad	54.9	55.2	55.6	42.8	44.5
Aircraft and parts, excluding aircraft engines	133.9	138.2	141.9	125.5	123.5
Aircraft engines	26.9	27.0	28.1	26.0	26.1
Shipbuilding and boatbuilding	140.9	140.3	143.9	183.2	193.2
Motorcycles, bicycles, and parts	13.3	12.8	12.8	10.3	10.0
AUTOMOBILES	789	751	807	693	675
NONFERROUS METALS AND THEIR PRODUCTS	401	412	424	378	360
Smelting and refining, primary, of nonferrous metals	39.8	39.6	40.8	29.7	28.1
Alloying and rolling and drawing of nonferrous metals except aluminum	57.1	59.8	61.7	57.2	52.4
Clocks and watches	27.3	27.6	28.0	26.7	26.0
Jewelry (precious metals) and jewelers' findings	16.5	16.7	17.2	17.1	17.0
Silverware and plated ware	15.9	15.8	15.8	13.9	13.6
Lighting equipment	31.1	31.7	32.4	28.1	25.5
Aluminum manufactures	42.8	46.2	48.9	47.6	46.3
Sheet metal work, not elsewhere classified	25.4	25.4	25.9	24.8	24.6

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

Table 5.-Estimated Number of Production Workers in Manufacturing Industries Cont'd

(In thousands)

Industry group and industry	1947			1946	
	June	May	April	June	May
LUMBER AND TIMBER BASIC PRODUCTS	665	651	627	553	537
Sawmills and logging camps 1/	536.3	525.3	502.8	447.2	434.1
Planing and plywood mills 1/	128.6	126.1	124.7	106.2	103.2
FURNITURE AND FINISHED LUMBER PRODUCTS	426	425	433	391	381
Mattresses and bedsprings 1/	29.9	29.8	29.7	26.4	24.5
Furniture 1/	227.0	225.9	229.2	209.8	204.7
Wooden boxes, other than cigar 1/	36.2	36.3	36.5	32.3	32.2
Caskets and other morticians' goods 1/	19.2	19.3	19.6	17.5	17.1
Wood preserving 1/	18.6	18.2	18.2	15.4	15.4
Wood, turned and shaped 1/	30.1	30.5	33.5	29.9	29.5
STONE, CLAY, AND GLASS PRODUCTS	423	418	429	398	388
Glass and glassware 1/	120.3	122.1	122.8	119.3	119.6
Glass products made from purchased glass 1/	12.4	12.8	13.3	11.9	11.5
Cement 1/	35.2	29.5	35.4	32.7	31.0
Brick, tile, and terra cotta 1/	73.0	72.1	72.3	65.5	64.2
Pottery and related products 1/	55.5	56.0	56.2	50.5	48.5
Gypsum 1/	6.1	5.7	5.9	5.1	5.1
Wallboard, plaster (except gypsum), and mineral wool 1/	11.1	11.0	10.8	10.5	9.9
Lime 1/	9.3	9.4	9.2	8.7	8.7
Marble, granite, slate, and other products 1/	16.3	16.4	17.8	16.6	16.0
Abrasives 1/	18.7	19.4	19.6	18.6	18.3
Asbestos products 1/	21.1	20.9	21.0	19.2	17.9
Nondurable Goods					
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES	1,179	1,197	1,223	1,191	1,178
Cotton manufactures, except small wares	453.3	460.2	467.7	447.7	443.1
Cotton small wares	12.4	13.2	13.7	14.1	14.2
Silk and rayon goods	90.8	91.9	94.0	91.8	90.7
Woolen and worsted manufactures, except dyeing and finishing	146.7	148.1	153.3	160.1	159.3
Hosiery	108.0	111.9	117.0	114.3	112.7
Knitted cloth	9.1	9.3	9.8	11.2	11.0
Knitted outerwear and knitted gloves	24.2	25.7	27.4	31.3	31.3
Knitted underwear	38.0	37.6	37.9	35.3	34.5
Dyeing and finishing textiles, including woolen and worsted	64.0	64.6	65.4	63.7	63.1
Carpets and rugs, wool	28.5	28.3	28.0	24.0	23.5
Hats, fur-felt	11.2	11.0	10.3	11.0	11.0
Jute goods, except felts	3.8	3.8	3.8	3.9	3.7
Cordage and twine	13.8	14.1	14.5	15.3	15.2

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	1947			1946	
	June	May	April	June	May
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS <u>1/</u>	1,040	1,037	1,066	1,013	995
Men's clothing, not elsewhere classified	284.5	280.5	283.5	260.8	255.0
Shirts, collars, and nightwear	74.4	73.2	73.3	64.2	62.6
Underwear and neckwear, men's	16.8	17.4	18.0	16.6	16.6
Work shirts	14.1	14.8	15.7	15.2	14.7
Women's clothing, not elsewhere classified	389.1	389.3	407.5	399.1	396.4
Corsets and allied garments	17.5	17.6	17.6	16.2	15.9
Millinery	20.1	20.1	22.0	19.8	20.8
Handkerchiefs	4.6	4.7	4.8	4.1	4.1
Curtains, draperies, and bedspreads	22.5	22.2	22.3	27.0	25.4
Housefurnishings, other than curtains, etc.	28.6	29.3	29.0	27.8	27.5
Textile bags	27.1	27.8	28.3	26.9	24.5
LEATHER AND LEATHER PRODUCTS	346	345	358	360	359
Leather <u>1/</u>	45.5	45.9	46.3	45.5	46.0
Boot and shoe cut stock and findings <u>1/</u>	18.0	18.3	19.4	20.5	20.6
Boots and shoes <u>1/</u>	214.4	212.6	220.7	220.4	218.7
Leather gloves and mittens <u>1/</u>	12.1	12.0	12.3	14.3	14.1
Trunks and suitcases <u>1/</u>	12.2	12.1	13.2	14.0	13.9
FOOD	1,114	1,077	1,068	1,033	1,024
Slaughtering and meat packing	145.9	143.3	139.4	128.3	136.1
Butter	25.6	25.0	23.8	26.1	25.3
Condensed and evaporated milk	15.7	15.0	14.4	15.7	14.7
Ice cream	22.1	20.1	18.5	19.8	18.5
Flour	29.5	28.8	30.0	26.9	27.2
Feeds, prepared	22.5	21.4	21.9	20.8	20.8
Cereal preparations	9.5	9.3	10.3	9.9	10.0
Baking	247.4	245.8	247.3	234.2	238.9
Sugar refining, cane	16.3	15.8	15.3	14.2	13.6
Sugar, beet	5.8	5.3	4.6	4.7	4.8
Confectionery	53.0	54.6	56.7	47.2	48.9
Beverages, nonalcoholic	26.8	25.0	23.8	24.9	24.0
Malt liquors	58.6	55.6	54.1	50.9	50.0
Canning and preserving	91.3	79.9	79.9	111.4	94.7
TOBACCO MANUFACTURES	84	83	82	86	85
Cigarettes	33.3	32.9	32.8	33.6	33.3
Cigars	38.0	37.0	36.5	39.2	38.9
Tobacco (chewing and smoking) and snuff	6.8	6.7	6.5	7.3	7.1

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	1947			1946	
	June	May	April	June	May
PAPER AND ALLIED PRODUCTS	381	381	385	368	363
Paper and pulp	172.9	171.8	171.2	167.6	165.0
Paper goods, other	47.1	47.1	47.4	46.4	46.3
Envelopes	10.8	10.9	10.9	10.5	10.3
Paper bags	14.5	14.9	15.5	14.3	14.1
Paper boxes	85.3	86.5	89.7	86.6	85.2
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES	423	422	421	393	389
Newspapers and periodicals <u>1/</u>	142.0	141.2	139.9	129.9	129.3
Printing, book and job <u>1/</u>	175.8	175.1	176.3	166.0	163.4
Lithographing <u>1/</u>	32.4	32.7	32.7	30.6	30.2
Bookbinding <u>1/</u>	37.5	37.4	37.3	33.9	33.6
CHEMICALS AND ALLIED PRODUCTS	542	561	565	522	527
Paints, varnishes, and colors	37.0	37.4	37.3	35.3	35.1
Drugs, medicines, and insecticides	52.3	53.3	53.9	51.4	51.4
Perfumes and cosmetics	9.3	9.3	9.7	12.1	12.2
Soap	15.6	15.2	15.3	14.1	14.0
Rayon and allied products	50.0	58.5	58.3	58.4	58.4
Chemicals, not elsewhere classified	126.7	125.4	125.3	117.5	116.5
Explosives and safety fuses	13.8	13.9	13.9	12.2	12.7
Compressed and liquefied gases	6.2	6.1	6.0	5.8	5.8
Ammunition, small-arms	7.0	6.9	6.7	7.6	7.6
Fireworks	2.9	2.9	2.8	3.3	3.3
Cottonseed oil	9.9	11.0	13.0	9.0	9.9
Fertilizers	21.5	25.6	27.4	20.1	24.6
PRODUCTS OF PETROLEUM AND COAL	160	158	154	153	149
Petroleum refining	101.4	100.4	97.6	99.1	97.9
Coke and by-products	26.7	26.3	25.9	24.7	22.7
Paving materials	1.8	1.9	1.9	2.1	2.0
Roofing materials	12.7	12.5	12.3	11.8	11.6

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	1947			1946	
	June	May	April	June	May
RUBBER PRODUCTS	218	223	234	221	217
Rubber tires and inner tubes	100.6	102.2	105.6	106.0	104.7
Rubber boots and shoes	18.0	19.2	20.0	18.1	17.8
Rubber goods, other	67.3	68.8	74.2	68.5	67.0
MISCELLANEOUS INDUSTRIES	427	431	440	418	407
Instruments (professional and scientific), and fire-control equipment	19.7	19.4	19.9	21.7	21.8
Photographic apparatus	26.1	25.8	25.5	24.5	24.0
Optical instruments and ophthalmic goods	20.2	20.6	20.9	21.3	21.2
Pianos, organs, and parts	10.6	10.6	10.6	9.0	8.7
Games, toys, and dolls	24.4	23.8	23.8	20.9	20.6
Buttons	8.2	8.6	9.1	10.3	10.1
Fire extinguishers	2.1	2.0	2.1	2.0	2.0

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

1/ Estimates for the individual industries comprising the major industry group or industry noted have been adjusted to levels indicated by final 1945 data 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 releases dated prior to:

Group	Mimeographed releases	Monthly Labor Review
Furniture and finished lumber products	June 1947	July 1947
Lumber and timber basic products	July 1947	August 1947
Leather and leather products	July 1947	August 1947
Stone, clay, and glass products	August 1947	Sept. 1947
Printing, publishing, and allied industries	August 1947	Sept. 1947

Table 7. - Estimated Employment in
Selected Nonmanufacturing Industries

(In thousands)

Industry group and industry <u>1/</u>	1947			1946	
	June	May	April	June	May
MINING: <u>2/</u>					
Coal:					
Anthracite	66.5	67.1	66.4	65.5	67.0
Bituminous coal	329	326	308	332	248
Metal	80.0	78.9	79.0	65.6	59.7
Iron	29.6	29.0	28.4	26.8	20.2
Copper	24.5	23.9	24.2	14.7	15.5
Lead and zinc	16.0	16.0	16.2	14.7	14.6
Gold and silver	7.6	7.8	7.9	7.1	7.1
Miscellaneous	2.3	2.2	2.3	2.3	2.3
TRANSPORTATION AND PUBLIC UTILITIES:					
Class I steam railways <u>3/</u>	1,376	1,365	1,345	1,330	1,307
Street railways and busses <u>4/</u>	253	253	254	249	247
Telephone	605	506	404	545	532
Telegraph <u>5/</u>	38.5	38.7	39.3	42.2	42.7
Electric light and power	263	258	256	244	241
SERVICE:					
Hotels (year-round)	385	382	379	387	387
Power laundries <u>2/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>
Cleaning and dyeing <u>2/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>	<u>6/</u>

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 change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947		1946		1947		1946	
	June	May	Apr.	June	June	May	Apr.	June
ALL MANUFACTURING	151.3	150.6	152.9	141.9	319.4	312.2	310.7	262.8
Durable goods	179.5	178.0	180.8	162.4	365.4	353.8	349.9	289.1
Nondurable goods	129.1	129.1	130.9	125.7	274.4	271.6	272.3	237.0
<u>Durable Goods</u>								
IRON AND STEEL AND THEIR PRODUCTS	157.1	156.8	158.0	141.5	315.0	306.7	297.5	240.3
Blast furnaces, steel works, and rolling mills	128.0	126.4	125.3	116.6	247.0	236.2	219.8	182.0
Gray-iron and semisteel castings	146.0	146.7	148.1	133.9	326.3	325.8	317.6	264.2
Malleable-iron castings	146.9	143.2	142.1	131.4	329.2	324.7	313.4	260.9
Steel castings	161.6	164.4	164.3	169.0	319.5	316.6	308.9	292.3
Cast-iron pipe and fittings	123.7	124.2	120.5	97.8	310.7	309.7	281.7	194.2
Tin cans and other tinware	133.4	131.7	132.0	132.0	263.7	250.4	248.5	234.7
Wire drawn from purchased rods	120.1	119.6	139.6	130.1	220.7	219.3	247.6	209.1
Wirework	130.3	129.0	136.4	112.7	270.3	255.5	270.5	210.7
Cutlery and edge tools	151.4	165.8	175.2	165.5	350.0	370.4	383.2	351.8
Tools (except edge tools, machine tools, files, and saws)	164.6	161.6	174.0	165.0	347.7	340.0	361.4	316.9
Hardware	138.9	140.5	141.3	126.6	304.8	306.3	301.2	241.5
Plumbers' supplies	118.5	121.8	124.9	104.1	232.7	230.1	238.3	175.5
Stoves, oil burners, and heating equipment not elsewhere classified	136.2	136.6	136.1	112.6	283.1	279.4	276.8	206.3
Steam and hot-water heating apparatus and steam fittings	158.6	161.4	166.5	152.4	324.0	315.6	327.0	271.2
Stamped and enameled ware and galvanizing	148.9	150.9	152.8	131.4	325.8	329.1	323.5	252.1
Fabricated structural and ornamental metalwork	165.3	166.1	165.9	143.4	325.5	315.2	307.2	241.0
Metal doors, sash, frames, molding, and trim	120.3	117.1	126.8	99.9	249.0	247.9	254.3	175.3
Bolts, nuts, washers, and rivets	148.1	150.0	151.4	121.9	303.7	302.3	289.5	202.3
Forgings, iron and steel	176.7	174.0	177.7	168.6	359.9	346.2	350.3	284.9
Wrought pipe, welded and heavy-riveted	151.5	160.3	162.4	134.0	300.5	302.7	290.5	229.0
Screw-machine products and wood screws	163.7	165.6	171.9	160.5	345.5	346.1	355.5	305.1
Steel barrels, kegs, and drums	100.7	104.1	104.6	90.4	251.2	251.4	249.8	190.3
Firearms <u>1/</u>	283.3	282.8	287.0	252.7	616.9	604.5	594.6	494.3
ELECTRICAL MACHINERY	221.5	213.8	218.7	201.2	432.6	407.1	396.6	347.9
Electrical equipment	174.1	170.3	172.7	153.2	343.8	327.8	317.0	257.5
Radios and phonographs	188.1	196.9	205.4	176.6	390.1	413.0	409.1	329.0
Communication equipment	251.9	210.7	220.3	266.9	445.0	349.3	350.0	476.0

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

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947			1946	1947			1946
	June	May	Apr.	June	June	May	Apr.	June
MACHINERY, EXCEPT ELECTRICAL	224.2	225.9	226.6	198.6	434.6	429.5	423.0	342.0
Machinery and machine-shop products	188.7	189.6	190.8	171.8	367.9	362.6	357.6	296.4
Engines and turbines	231.3	238.3	240.6	218.5	502.7	502.2	495.4	415.5
Tractors	180.4	176.1	176.0	157.6	309.4	302.0	288.3	236.4
Agricultural machinery, excluding tractors	184.9	180.6	177.9	146.1	371.9	344.3	333.2	248.1
Machine tools	145.9	150.5	156.1	161.9	262.6	263.6	269.7	270.4
Machine-tool accessories	178.4	183.4	190.0	188.5	305.4	311.6	320.4	304.8
Textile machinery	176.1	175.3	172.6	146.5	367.1	363.7	351.8	265.5
Pumps and pumping equipment	242.0	243.3	245.8	225.5	494.4	490.7	485.2	416.1
Typewriters	111.7	146.7	144.4	113.7	233.5	309.1	295.4	212.7
Cash registers, adding and calculating machines	191.6	206.9	205.7	167.9	394.2	417.3	415.5	309.0
Washing machines, wringers and driers, domestic	198.6	193.9	190.1	144.0	404.2	392.7	377.5	238.7
Sewing machines, domestic and industrial	149.5	147.6	146.7	121.2	319.4	300.8	296.0	226.1
Refrigerators and refrigeration equipment	222.6	211.4	207.4	163.3	427.5	394.5	387.9	263.2
TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES	291.8	293.7	300.8	301.6	560.3	561.3	565.3	557.5
Locomotives	376.0	367.4	388.0	409.1	774.7	757.0	705.4	840.2
Cars, electric- and steam-railroad	223.9	224.9	226.6	174.3	471.1	465.2	457.7	325.2
Aircraft and parts, excluding aircraft engines	337.4	348.4	357.6	316.3	621.5	639.2	657.2	585.5
Aircraft engines	302.5	303.4	315.8	292.3	481.5	477.0	487.6	469.4
Shipbuilding and boatbuilding	203.5	202.7	207.8	264.6	396.4	395.6	399.1	483.4
Motorcycles, bicycles, and parts	190.5	183.6	184.0	147.1	381.8	363.1	349.0	250.2
AUTOMOBILES	196.2	186.5	200.5	172.3	355.9	329.0	343.4	259.9
NONFERROUS METALS AND THEIR PRODUCTS	175.1	179.6	184.8	164.9	346.2	349.0	354.0	298.6
Smelting and refining, primary, of nonferrous metals	143.9	143.2	147.6	107.5	292.4	285.4	282.7	190.8
Alloying and rolling and drawing of nonferrous metals except aluminum	147.2	154.0	158.8	147.3	279.7	283.4	294.6	268.6
Clocks and watches	134.6	135.9	138.0	131.6	299.5	296.0	299.1	259.1
Jewelry (precious metals) and jewelers' findings	114.1	115.8	118.9	118.7	212.4	215.4	220.2	218.9
Silverware and plated ware	130.8	130.6	130.2	114.3	290.4	287.4	284.1	221.9
Lighting equipment	152.0	154.7	158.0	137.0	289.4	295.5	283.6	233.3
Aluminum manufactures	181.6	196.1	207.8	202.4	327.0	348.1	369.1	335.9
Sheet-metal work, not elsewhere classified	135.5	135.5	138.2	132.1	282.0	278.7	274.6	249.5
See explanatory notes, sections A, C, F, and G.								

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947		1946		1947		1946	
	June	May	Apr.	June	June	May	Apr.	June
LUMBER AND TIMBER BASIC PRODUCTS	158.2	154.8	149.1	131.6	374.9	351.4	323.4	261.9
Sawmills and logging camps <u>2/</u>	171.0	167.5	160.3	142.6	411.9	384.5	350.5	286.3
Planing and plywood mills <u>2/</u>	162.6	159.4	157.7	134.2	366.5	350.5	333.9	254.5
FURNITURE AND FINISHED LUMBER PRODUCTS	129.8	129.5	131.8	119.1	290.4	285.1	286.8	233.3
Mattresses and bedsprings <u>2/</u>	145.7	145.2	144.8	128.9	291.6	282.0	281.7	233.5
Furniture <u>2/</u>	127.6	127.0	128.9	117.9	284.7	278.9	282.2	229.9
Wooden boxes, other than cigar <u>2/</u>	127.7	128.3	128.9	113.9	315.8	304.0	298.4	237.9
Caskets and other morticians' goods <u>2/</u>	138.1	138.8	140.6	125.8	275.8	278.0	273.5	226.2
Wood preserving <u>2/</u>	148.0	144.7	144.6	122.4	389.1	385.9	370.3	275.2
Wood, turned and shaped <u>2/</u>	122.6	124.0	136.2	121.5	271.9	274.5	289.6	243.9
STONE, CLAY, AND GLASS PRODUCTS	144.0	142.6	146.0	135.6	298.2	286.9	288.8	241.4
Glass and glassware <u>2/</u>	168.6	171.1	172.2	167.2	341.1	333.0	334.7	279.1
Glass products made from purchased glass <u>2/</u>	124.3	127.6	132.8	118.8	259.5	259.4	262.5	217.6
Cement <u>2/</u>	144.4	121.3	145.5	134.4	276.9	201.0	248.1	215.5
Brick, tile, and terra cotta <u>2/</u>	125.8	124.3	124.5	112.9	278.9	276.4	257.0	213.0
Pottery and related products <u>2/</u>	164.1	165.6	166.0	149.3	322.4	323.8	317.1	260.4
Gypsum <u>2/</u>	123.6	115.2	119.6	104.2	244.8	228.4	230.6	191.3
Wallboard, plaster (except gypsum), and mineral wool <u>2/</u>	137.3	135.9	132.8	128.9	332.5	320.0	310.4	255.5
Lime <u>2/</u>	98.6	99.3	97.6	91.5	237.8	232.5	231.5	196.9
Marble, granite, slate, and other products <u>2/</u>	87.8	88.6	96.2	89.6	152.9	155.8	166.7	144.6
Abrasives <u>2/</u>	242.2	250.4	253.7	241.0	413.8	440.6	442.6	399.1
Asbestos products <u>2/</u>	132.7	131.3	132.5	120.6	314.2	299.8	301.4	250.6
Nondurable Goods								
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES	103.1	104.6	106.9	104.1	242.5	248.3	255.4	217.2
Cotton manufactures, except smallwares	114.5	116.2	118.1	113.0	293.5	303.2	314.8	248.2
Cotton smallwares	92.8	98.8	102.8	105.9	195.8	212.6	221.5	207.0
Silk and rayon goods	75.8	76.7	78.4	76.6	194.3	200.4	200.9	166.8
Woolen and worsted manufactures, except dyeing and finishing	98.3	99.2	102.7	107.3	240.2	240.5	248.3	238.5
Hosiery	67.9	70.4	73.6	71.9	130.8	139.6	145.9	133.0
Knitted cloth	83.5	85.4	89.9	102.5	176.5	180.4	188.7	213.2
Knitted outerwear and knitted gloves	86.2	91.3	97.5	111.2	182.8	195.6	209.7	235.5
Knitted underwear	98.5	97.4	98.4	91.6	232.4	232.1	228.3	189.7
Dyeing and finishing textiles, including woolen and worsted	95.7	96.7	97.8	95.2	211.4	211.2	215.2	184.5
Carpets and rugs, wool	111.2	110.4	109.5	93.7	236.3	231.3	226.5	169.5
Hats, fur-felt	76.9	75.3	70.7	75.7	163.3	153.3	145.4	160.0
Jute goods, except felts	104.6	106.8	106.1	108.1	244.7	256.0	247.2	224.5
Cordage and twine	113.9	116.4	119.8	126.5	244.4	255.4	270.2	246.1

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

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947			1946	1947			1946
	June	May	Apr.	June	June	May	Apr.	June
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS <u>2/</u>	131.7	131.4	135.0	128.3	274.9	272.1	279.8	258.6
Men's clothing, not elsewhere classified	123.9	122.2	123.5	113.6	273.0	270.5	267.1	230.3
Shirts, collars, and nightwear	100.5	98.9	99.1	86.7	229.8	228.8	227.3	180.9
Underwear and neckwear, men's	99.2	102.4	105.9	97.8	248.3	249.9	256.8	224.6
Work shirts	99.6	104.8	111.0	107.4	228.7	242.3	257.7	225.3
Women's clothing, not elsewhere classified	135.9	136.0	142.4	139.4	264.1	260.3	277.7	283.2
Corsets and allied garments	93.1	93.8	93.9	86.1	199.8	198.6	197.8	166.6
Millinery	78.9	78.9	86.4	77.6	128.3	118.9	137.7	120.9
Handkerchiefs	90.3	93.1	94.8	81.1	205.9	221.7	212.2	169.1
Curtains, draperies, and bedspreads	126.9	124.7	125.7	152.1	253.9	257.4	252.9	327.0
Housefurnishings, other than curtains, etc.	256.2	262.0	259.4	249.3	553.4	560.8	530.1	461.2
Textile bags	214.6	220.6	224.3	212.9	422.4	427.8	449.9	387.6
LEATHER AND LEATHER PRODUCTS	99.8	99.4	103.0	103.8	211.5	207.0	214.6	204.9
Leather <u>2/</u>	91.0	91.6	92.6	91.0	185.2	183.7	183.7	163.2
Boot and shoe cut stock and findings <u>2/</u>	90.1	91.7	97.3	102.7	172.9	170.0	179.2	186.7
Boots and shoes <u>2/</u>	92.9	92.1	95.6	95.4	201.7	197.0	205.3	196.2
Leather gloves and mittens <u>2/</u>	120.9	120.3	123.2	143.1	226.6	221.9	227.1	274.8
Trunks and suitcases <u>2/</u>	147.0	145.8	158.6	168.2	298.1	281.6	312.7	314.7
FOOD	130.3	126.0	125.0	120.9	267.8	252.8	243.1	208.2
Slaughtering and meat packing	121.1	118.9	115.7	106.5	241.2	231.9	211.6	167.4
Butter	142.3	139.1	132.5	145.6	293.1	274.3	257.2	257.9
Condensed and evaporated milk	162.1	154.5	148.2	162.1	354.7	330.5	308.5	311.3
Ice cream	140.7	127.9	117.9	126.3	250.2	221.3	203.8	203.6
Flour	119.0	116.1	121.3	108.7	264.2	240.4	252.6	190.9
Feeds, prepared	146.1	139.3	142.3	135.0	306.4	285.0	283.0	230.7
Cereal preparations	127.6	124.4	137.5	133.2	253.9	242.7	260.1	238.6
Baking	107.2	106.5	107.2	101.5	203.9	199.7	195.4	168.8
Sugar refining, cane	115.3	111.6	108.0	100.5	250.7	206.2	216.0	162.4
Sugar, beet	55.8	50.8	44.0	45.2	106.7	89.8	79.6	70.6
Confectionery	106.5	109.9	114.1	94.8	226.4	229.1	230.9	180.4
Beverages, nonalcoholic	126.1	117.4	112.0	117.1	210.9	190.3	178.9	172.1
Malt liquors	162.5	154.2	149.9	141.1	296.4	268.3	251.8	210.1
Canning and preserving	67.9	59.4	59.4	82.8	163.8	143.4	139.6	181.9
TOBACCO MANUFACTURES	90.2	88.4	87.5	92.1	194.8	182.8	181.6	184.1
Cigarettes	121.5	119.8	119.8	122.6	239.6	220.9	218.4	217.8
Cigars	74.7	72.7	71.8	77.0	168.0	163.9	160.3	167.8
Tobacco (chewing and smoking) and snuff	74.1	73.2	71.2	79.3	147.7	125.7	139.4	135.7

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

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947			1946	1947			1946
	June	May	Apr.	June	June	May	Apr.	June
PAPER AND ALLIED PRODUCTS	143.6	143.7	145.0	138.8	299.6	292.6	290.9	247.0
Paper and pulp	125.7	125.0	124.6	121.9	270.0	259.0	254.8	216.7
Paper goods, other	125.1	125.2	126.1	123.4	244.9	250.1	247.6	218.1
Envelopes	124.6	125.8	125.9	120.4	241.9	240.2	238.8	210.4
Paper bags	130.8	134.3	139.5	128.9	271.9	270.4	274.9	233.9
Paper boxes	123.4	125.1	129.7	125.2	250.3	249.9	256.9	225.5
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES	129.1	128.6	128.5	119.9	235.9	234.2	230.7	191.3
Newspapers and periodicals <u>2/</u>	119.7	119.0	117.9	109.4	210.0	209.3	202.1	162.0
Printing, book and job <u>2/</u>	137.8	137.2	138.1	130.1	258.1	255.4	255.2	215.8
Lithographing <u>2/</u>	123.3	124.6	124.5	116.4	216.6	216.1	219.9	186.2
Bookbinding <u>2/</u>	145.6	145.3	144.7	131.4	324.7	320.2	312.5	267.1
CHEMICALS AND ALLIED PRODUCTS	187.9	194.8	196.2	181.3	373.3	381.5	378.3	313.0
Paints, varnishes, and colors	131.6	132.9	132.7	125.3	233.9	234.1	231.7	199.7
Drugs, medicines, and insecticides	190.9	194.4	196.7	187.5	354.6	358.7	359.8	305.8
Perfumes and cosmetics	89.9	89.3	93.5	116.8	168.9	166.1	171.3	186.5
Soap	115.1	112.2	112.4	103.5	229.5	217.2	215.9	172.8
Rayon and allied products	103.6	121.3	120.8	121.0	205.3	239.0	239.2	198.3
Chemicals, not elsewhere classified	182.1	180.3	180.1	169.0	338.9	334.9	329.5	283.0
Explosives and safety fuses	190.9	191.8	192.1	168.7	341.1	333.8	310.6	265.9
Compressed and liquefied gases	157.1	153.9	152.6	146.2	285.0	289.4	265.9	239.4
Ammunition, small-arms	163.4	161.7	157.6	178.0	358.9	351.7	336.4	331.3
Fireworks	247.6	253.5	243.8	282.9	685.3	686.6	715.6	708.5
Cottonseed oil	65.2	72.3	85.3	59.4	169.0	184.7	208.8	126.8
Fertilizers	114.4	136.3	146.2	107.2	301.8	365.0	381.0	249.7
PRODUCTS OF PETROLEUM AND COAL	150.8	149.3	145.4	144.5	286.2	275.7	265.2	242.5
Petroleum refining	139.2	137.9	134.0	136.1	253.8	243.8	236.8	223.3
Coke and byproducts	123.2	121.4	119.2	113.9	256.2	248.0	230.6	194.7
Paving materials	73.8	77.1	76.3	85.4	159.0	147.6	144.2	168.3
Roofing materials	157.9	155.3	152.7	146.7	339.5	336.3	323.4	277.0

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

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

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947			1946	1947			1946
	June	May	Apr.	June	June	May	Apr.	June
RUBBER PRODUCTS	180.4	184.2	193.5	182.9	363.4	371.2	383.9	331.4
Rubber tires and inner tubes	185.8	188.7	195.0	195.8	341.3	349.0	357.2	318.3
Rubber boots and shoes	121.3	129.7	134.8	122.2	269.5	282.0	283.7	244.8
Rubber goods, other	130.0	132.9	143.4	132.3	271.5	276.6	296.6	255.2
MISCELLANEOUS INDUSTRIES	174.4	176.3	179.8	170.8	355.4	356.6	361.0	318.4
Instruments (professional and scientific), and fire-control equipment	178.1	175.6	180.3	196.7	337.2	317.0	327.5	339.4
Photographic apparatus	151.3	149.2	147.6	141.6	280.7	275.2	271.4	233.3
Optical instruments and ophthalmic goods	173.7	177.6	179.9	183.0	331.2	331.2	324.2	314.2
Pianos, organs, and parts	139.8	139.1	139.7	118.0	298.3	300.2	293.8	220.4
Games, toys, and dolls	130.9	127.5	127.4	112.0	281.1	277.6	275.0	222.7
Buttons	74.7	78.2	82.8	93.5	162.4	167.7	178.4	203.0
Fire extinguishers	206.7	203.6	210.7	200.0	420.0	396.9	380.5	406.4

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

1/ Revisions have been made as follows in the indexes for earlier months:
Firearms - January and February 1947 pay roll to 573.5 and 584.2.

2/ Indexes for the individual industries comprising the major industry group or industry noted have been adjusted to levels indicated by final 1945 data 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 releases dated prior to:

Group	Mimeographed releases	Monthly Labor Review
Furniture and finished lumber products	June 1947	July 1947
Lumber and timber basic products	July 1947	August 1947
Leather and leather products	July 1947	August 1947
Stone, clay, and glass products	August 1947	September 1947
Printing, publishing, and allied industries	August 1947	September 1947

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

(1939 Average = 100)

Industry group and industry	Employment indexes				Pay-roll indexes			
	1947			1946	1947			1946
	June	May	Apr.	June	June	May	Apr.	June
MINING:								
Coal:								
Anthracite	80.3	81.1	80.1	79.0	194.6	186.3	155.5	182.7
Bituminous coal	88.7	88.1	83.0	89.6	252.3	244.6	189.8	243.8
Metal	90.7	89.4	89.6	74.4	181.5	172.1	164.7	126.9
Iron	147.2	143.8	141.3	132.8	309.4	284.7	254.1	239.5
Copper	102.8	100.2	101.5	61.8	213.0	201.8	197.3	106.8
Lead and zinc	102.9	102.9	104.4	54.7	228.1	223.3	224.7	180.5
Gold and silver	30.6	31.4	31.9	28.8	49.5	49.3	50.5	41.6
Miscellaneous	58.0	56.5	57.0	58.4	100.3	95.8	92.1	95.5
Quarrying and nonmetallic	105.7	104.3	103.1	98.9	251.3	241.7	233.2	207.7
Crude petroleum production <u>1/</u>	95.5	93.3	92.6	94.2	175.3	163.4	162.3	147.1
TRANSPORTATION AND PUBLIC UTILITIES:								
Class I steam railways <u>2/</u>	139.3	138.2	136.1	134.7	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>
Street railways and busses	130.4	130.7	130.9	128.7	222.1	220.0	218.8	199.5
Telephone	190.4	159.2	127.2	171.7	292.5	202.9	136.1	259.9
Telegraph	102.3	102.8	104.5	112.1	218.8	226.9	239.3	174.9
Electric light and power	107.5	105.7	104.8	99.9	177.5	168.2	166.5	148.4
TRADE:								
Wholesale	110.5	109.7	110.5	106.9	198.0	191.4	190.8	172.6
Retail	111.4	111.3	111.5	107.2	201.2	195.1	192.9	171.3
Food	113.7	113.9	113.7	103.5	212.1	206.0	202.8	170.0
General merchandise	120.5	121.2	122.9	121.0	217.4	212.3	210.4	188.8
Apparel	114.9	114.3	114.7	114.3	207.2	200.8	200.7	186.9
Furniture and housefurnishings	85.1	84.6	84.6	77.6	156.6	151.1	148.1	126.6
Automotive	100.6	99.4	98.7	91.3	184.3	177.7	175.2	152.9
Lumber and building materials	119.5	117.6	116.3	109.4	219.7	210.2	204.0	177.2
SERVICE:								
Hotels (year-round) <u>4/</u>	119.4	118.4	117.5	120.0	226.4	221.1	219.4	205.4
Power laundries	112.2	110.2	109.1	112.3	211.1	203.8	200.5	190.9
Cleaning and dyeing	127.7	123.7	121.5	131.6	241.9	231.5	221.7	236.6

See explanatory notes, sections F and G.

1/ Does not include well drilling or rig building.

2/ Source: Interstate Commerce Commission.

3/ Not available.

4/ Money payments only; additional value of board, room, uniforms, and tips, not included.

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 final 1945 benchmark data 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, is to adjust the levels of employment estimates to 1945 benchmark data. In preparing estimates for 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, although there are some important exceptions. Benchmarks for State and local government, for example, are based on data compiled by the Bureau of the Census, while data on Federal Government employment are 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. For railroads, 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 non-manufacturing 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 cooperative 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 nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th 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. The approximate number of establishments, and workers covered, for each of the industry divisions are shown below.

Approximate Coverage of BLS Employment
and Pay Rolls Sample

Industry Division	Number of Establishments	Employees or production workers	
		Number	Percent of Total
Manufacturing	33,000	7,500,000	60
Mining	2,700	354,000	40
Public Utilities	7,000	832,000	75
Wholesale Trade	11,400	326,000	20
Retail Trade	45,000	1,300,000	25
Hotels (year-round)	1,300	137,000	35
Power laundries and cleaning and dyeing	1,700	74,000	20

Sec. H. Coverage of Employment Estimates - The employment estimates shown in Tables 1, 2, 3, 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. Production worker estimates as shown in Tables 6 and 8 are limited to working foremen and all nonsupervisory workers except administrative, office, and sales personnel.

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 Table 1). Because of these recent revisions the state estimates for manufacturing are not consistent with the unrevised data shown 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 by state, are available upon request to the cooperating state agency or the appropriate Bureau of Labor Statistics regional office.

Cooperating State Agencies

Arizona - Employment Security Commission, P. O. Box 111, Phoenix.
California - Division of Labor Statistics and Research, San Francisco 2.
Connecticut - Employment Security Division, Hartford 15.
Delaware - Federal Reserve Bank of Philadelphia, 925 Chestnut Street, Philadelphia 1.
Florida - Florida Industrial Commission, Tallahassee.
Illinois - Dept. of Labor, Division of Statistics and Research, Chicago 6.
Indiana - Employment Security Division, Indianapolis 12.
Kansas - Kansas State Labor Department, Topeka.
Louisiana - Bureau of Business Research, College of Commerce, Louisiana State University, Baton Rouge 3.
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 - Division of Employment and Security, St. Paul 1.
Montana - Unemployment Compensation Commission of Montana, Helena.
Nevada - Employment Security Department, Carson City.
New Jersey - Dept. of Labor, Trenton 8.
New York - Division of Research, Statistics and Publications, New York State Dept. of Labor, Albany 1.
North Carolina - North Carolina Dept. of Labor, Raleigh.
Oklahoma - Oklahoma Employment Security Commission, American National Bldg., Oklahoma City 2.
Pennsylvania - Federal Reserve Bank of Philadelphia, 925 Chestnut Street, Philadelphia 1.
Rhode Island - Dept. of Labor, Division of Census and Statistics, Providence 2.
Texas - Bureau of Business Research, University of Texas, Austin 12.
Utah - Dept. of Employment Security, Salt Lake City 13.
Virginia - Division of Research and Statistics, State Dept. of Labor and Industry, Richmond 21.
Washington - Office of Unemployment Compensation and Placement, P.O. Box 367, Olympia.
Wisconsin - Industrial Commission of Wisconsin, Madison 3.

BLS Regional Offices

Region I - Regional Director, U.S. Bureau of Labor Statistics, Old South Bldg., 294 Washington St., Boston 8, Massachusetts (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont.)
Region II - Regional Director, U.S. Bureau of Labor Statistics, 1000 Parcel Post Bldg., 341 Ninth Avenue, New York 1, New York (Delaware, District of Columbia, Maryland, Pennsylvania, New York, New Jersey.)
Region V - Regional Director, U.S. Bureau of Labor Statistics, 6th Floor Silvey Bldg., 114 Marietta St., N.W., Atlanta 3, Georgia (Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia.)
Region IX - Regional Director, U.S. Bureau of Labor Statistics, 312 National War Agencies Bldg., 226 W. Jackson Blvd., Chicago 6, Illinois (Illinois, Indiana, Ohio, Kentucky, Michigan, Minnesota, Nebraska, Iowa, North Dakota, South Dakota, West Virginia, Wisconsin.)
Region XIII - 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.)

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 governments, public utilities, and private establishments, are excluded.

Defense Agencies - Covers the National military establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, Office of Temporary Controls, Philippine Alien Property Administration, Philippine War Damage Commission, Price Decontrol Board, Office of Selective Service Records, War Assets Administration, Office of Defense Transportation, Office of Scientific Research and Development.

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. 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 1st 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, administrative, and judicial functions, as well as all government owned and operated establishments and institutions (arsenals, navy yards, hospitals, Federal Reserve District Banks, etc.) and government force account construction.

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 pay roll for 1939.

Leave payments - Payments authorized by Public Law 704 of the 79th Congress to enlisted personnel who were discharged prior to September 1946 for accrued and unused leave and to present officers and enlisted personnel 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. The payment of present personnel while on terminal leave is included in the pay rolls.

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

Military pay rolls - For the Navy and Marine Corps and for the current months for the Army, pay rolls are computed on the basis of the average personnel count for the month, including enlisted persons on terminal leave beginning September 1946, and excluding the retired and the inactive reserves. Pay rolls for the Coast Guard and for earlier years for the Army represent actual expenditures.

Mining - Covers establishments engaged in the extraction from the earth of organic and inorganic minerals which occur in nature as solids, liquids, or gases, including various contract services required in mining operations, such as removal of overburden, tunnelling and shafting, and the drilling or 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 - Represent pay rolls of production and related workers 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.

Production 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, product 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, roulemen, 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 excluded.

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.