

# **EMPLOYMENT and PAY ROLLS**

**DETAILED REPORT  
AUGUST 1947**

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

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

EMPLOYMENT AND PAY ROLLS

Detailed Report

August 1947

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.

2.

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

(In thousands)

Industry division	1947			1946	
	Aug.	July	June	Aug.	July
TOTAL	42,547	42,175	42,363	41,466	40,877
Manufacturing	15,537	15,209	15,328	14,876	14,526
Mining	895	864	893	886	873
Contract construction	1,890	1,847	1,768	1,713	1,627
Transportation and public utilities	4,145	4,140	4,115	4,103	4,051
Trade	8,571	8,558	8,582	8,402	8,337
Finance	1,602	1,590	1,567	1,554	1,549
Service	4,619	4,686	4,711	4,430	4,426
Federal, State, and local government	5,288	5,281	5,399	5,502	5,488

See explanatory notes, sections A - H

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

(In thousands)

Major industry group	1947			1946	
	Aug.	July	June	Aug.	July
ALL MANUFACTURING	15,537	15,209	15,328	14,876	14,526
<u>Durable goods</u>	7,781	7,694	7,863	7,486	7,307
Iron and steel and their products	1,854	1,826	1,839	1,751	1,704
Electrical machinery	733	729	746	713	695
Machinery, except electrical	1,516	1,494	1,528	1,411	1,385
Transportation equipment, except automobiles	514	517	583	607	618
Automobiles	949	970	967	925	894
Nonferrous metals and their products	459	452	467	471	457
Lumber and timber basic products	745	724	730	643	620
Furniture and finished lumber products	519	503	510	482	469
Stone, clay, and glass products	492	479	493	483	465
<u>Nondurable goods</u>	7,756	7,515	7,465	7,390	7,219
Textile-mill products and other fiber manufactures	1,287	1,273	1,293	1,296	1,281
Apparel and other finished textile products	1,283	1,196	1,195	1,170	1,121
Leather and leather products	401	390	387	395	396
Food	1,737	1,638	1,557	1,579	1,512
Tobacco manufactures	99	97	97	99	98
Paper and allied products	461	454	462	447	442
Printing, publishing, and allied industries	698	693	692	660	656
Chemicals and allied products	737	733	726	692	685
Products of petroleum and coal	235	235	231	223	221
Rubber products	269	265	272	274	264
Miscellaneous industries	549	541	553	555	543

See explanatory notes, sections A - H

4. 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		August 1946	1947		August 1946
	August	July		August	July	
<u>Total (including areas outside United States)</u>						
Total Federal .....	2,067.2	2,103.2	2,625.1	\$473,307	\$508,506	\$568,811
Executive .....	2,026.1	2,062.3	2,581.9	464,029	498,956	559,734
Defense agencies .....	923.1	936.6	1,470.6	207,330	220,406	291,914
Post Office Department .....	442.3	439.6	424.3	90,621	96,591	95,873
Other agencies .....	660.7	626.1	687.0	166,078	181,959	171,947
Legislative .....	7.2	7.2	6.8	2,421	2,483	2,158
Judicial .....	3.4	3.1	3.0	1,259	1,329	1,141
Government corporations .....	30.5	30.6	33.4	5,593	5,738	5,778
<u>Continental United States</u>						
Total Federal .....	1,815.9	1,848.5	2,249.1	433,245	465,272	531,587
Executive .....	1,782.4	1,815.2	2,213.5	424,594	456,356	523,242
Defense agencies .....	708.7	718.5	1,129.4	174,846	185,148	261,826
Post Office Department .....	440.8	438.1	422.9	90,313	96,260	95,572
Other agencies .....	632.9	658.6	661.2	159,435	174,948	165,844
Legislative .....	7.2	7.3	6.7	2,421	2,483	2,158
Judicial .....	3.3	3.0	3.0	1,223	1,292	1,106
Government corporations .....	23.0	23.0	25.9	5,007	5,141	5,081
<u>Washington, D. C.</u>						
Total government .....	223.7	230.3	259.5	60,767	65,091	65,659
District of Columbia government .....	17.8	17.6	17.4	3,184	3,382	3,007
Federal .....	205.9	212.7	242.1	57,583	61,709	62,652
Executive .....	198.1	204.8	234.8	54,963	59,016	60,294
Defense agencies .....	65.1	67.9	96.9	17,380	18,632	21,007
Post Office Department .....	7.3	7.1	7.6	2,207	2,296	2,262
Other agencies .....	125.7	129.8	140.3	35,376	38,088	37,025
Legislative .....	7.2	7.3	6.7	2,421	2,483	2,158
Judicial .....	.6	.6	.6	199	210	200

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

(In thousands)

Personnel and pay	1947		August 1946	Average monthly personnel and total annual pay	
	August	July		1943	1939
Personnel, total as of first of month including those on active duty and those on terminal leave .....	1,575	1,592	2,745	8,944	345
Army .....	972	990	1,815	6,733	192
Navy .....	492	491	765	1,744	124
Marine Corps .....	92	93	142	311	19
Coast Guard .....	19	18	23	156	10
Men .....	1,556	1,571	2,697	8,833	<u>1/</u>
Women .....	19	21	48	111	<u>1/</u>
Pay, total .....	\$334,551	\$338,134	\$542,920	\$11,173,186	\$331,523
Army .....	192,873	200,522	301,243	8,143,833	155,482
Navy .....	117,557	114,774	205,094	2,408,736	143,238
Marine Corps .....	17,899	16,332	30,812	392,140	16,877
Coast Guard .....	6,222	6,506	5,771	228,477	15,926
Pay rolls <u>2/</u> .....	250,015	259,172	397,383	10,140,852	331,523
Mustering-out pay .....	10,498	12,790	104,937	-	-
Family allowances .....	23,579	23,922	40,583	1,032,334	-
Leave payments .....	50,459	42,250	17	-	-
Cash .....	4,831	3,718	17	-	-
Bonds .....	45,628	38,532	-	-	-

1/ Data not available.2/ Includes cash payments for clothing-allowances balances to Navy proper and Coast Guard personnel in July.

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

Region and State	1947			1946	
	July	June	May	July	June
New England	1,480	1,513	1,525	1,495	1,512
Maine	111	108	108	116	114
New Hampshire	77.6	79.3	78.7	77.2	79.3
Vermont	39.2	39.4	39.4	40.6	40.5
Massachusetts	706	725	734	728	741
Rhode Island	141	147	148	142	145
Connecticut	405	414	417	391	392
Middle Atlantic	3,980	4,073	**	4,045	**
New York	*1,788	*1,841	**	1,867	**
New Jersey	720	745	727	733	736
Pennsylvania	1,472	1,487	1,494	1,445	1,424
East North Central	4,461	4,478	4,427	4,255	4,164
Ohio	1,232	1,244	1,239	1,172	1,161
Indiana	551	553	550	511	512
Illinois	1,229	1,238	1,232	1,166	1,160
Michigan	997	1,013	980	982	943
Wisconsin	452	430	426	424	388
West North Central	848	838	829	797	782
Minnesota	205	194	193	194	183
Iowa	147	146	145	136	136
Missouri	353	355	351	334	330
North Dakota	7.0	7.0	6.8	5.9	5.8
South Dakota	11.8	11.5	11.3	9.8	10.3
Nebraska	43.7	43.1	42.5	41.5	42.0
Kansas	80.7	81.0	79.5	76.1	74.8
South Atlantic	1,491	1,506	1,513	1,493	1,484
Delaware	45.2	45.4	45.4	45.4	44.7
Maryland	217	224	229	238	234
District of Columbia	17.4	17.2	17.1	16.1	16.1
Virginia	208	208	209	200	197
West Virginia	131	133	131	128	128
North Carolina	365	366	366	360	362
South Carolina	191	189	189	180	180
Georgia	240	246	250	252	245
Florida	76.0	77.1	76.6	73.9	76.8

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

Region and State	1947			1946	
	July	June	May	July	June
East South Central	680	683	682	657	643
Kentucky	122	124	124	125	123
Tennessee	246	245	246	240	235
Alabama	221	224	223	208	202
Mississippi	91.4	90.9	88.5	83.7	83.4
West South Central	602	602	585	558	556
Arkansas	71.9	71.5	71.4	65.6	65.5
Louisiana	141	139	137	132	133
Oklahoma	53.8	53.5	53.0	52.5	52.8
Texas	335	339	324	308	305
Mountain	157	151	147	146	135
Montana	18.4	17.8	17.1	16.5	15.7
Idaho	20.8	20.1	19.2	22.2	20.8
Wyoming	6.7	6.3	6.1	6.0	5.7
Colorado	55.9	54.6	53.8	52.6	50.0
New Mexico	10.1	9.9	10.0	10.5	10.1
Arizona	12.7	13.2	13.1	12.3	11.1
Utah	28.6	24.9	23.6	25.7	19.0
Nevada	4.0	3.8	3.6	3.2	3.0
Pacific	996	987	978	999	954
Washington	176	179	168	176	171
Oregon	117	119	117	121	118
California	703	689	693	701	665

See explanatory notes, section I.

\* Estimates for manufacturing are revised because of adjustment to more recent benchmark data made available under the Federal Security Agency program. Not comparable with data previously shown.

\*\* Not available.



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

Industry group and industry	1947			1946	
	Aug.	July	June	Aug.	July
ALL MANUFACTURING	12,596	12,276	12,404	12,101	11,767
Durable goods	6,394	6,309	6,488	6,160	5,984
Nondurable goods	6,202	5,967	5,916	5,941	5,783
Durable Goods					
IRON AND STEEL AND THEIR PRODUCTS	1,572	1,547	1,562	1,490	1,445
Blast furnaces, steel works, and rolling mills	502.9	498.1	497.0	480.0	469.5
Gray-iron and semisteel castings	84.1	83.7	85.3	81.6	80.7
Malleable-iron castings	26.4	25.1	26.5	24.1	23.6
Steel castings	48.6	47.6	48.7	50.2	50.2
Cast-iron pipe and fittings	20.5	20.2	20.4	16.9	18.3
Tin cans and other tinware	47.1	43.9	42.4	44.4	43.4
Wire drawn from purchased rods	30.5	30.3	30.7	29.1	28.7
Wirework	39.9	39.6	39.6	39.5	36.5
Cutlery and edge tools	23.1	21.3	23.3	25.7	25.4
Tools (except edge tools, machine tools, files, and saws)	24.1	23.7	25.2	25.6	24.3
Hardware	47.4	48.2	49.5	45.9	44.8
Plumbers' supplies	28.6	28.5	29.0	27.1	25.8
Stoves, oil burners, and heating equipment not elsewhere classified	64.4	61.7	63.0	56.8	54.0
Steam and hot-water heating apparatus and steam fittings	45.5	44.8	47.6	48.0	47.7
Stamped and enameled ware and galvanizing	83.2	81.4	82.7	79.0	75.4
Fabricated structural and ornamental metalwork	59.6	58.5	58.7	55.5	53.2
Metal doors, sash, frames, molding, and trim	10.1	9.4	9.3	9.8	8.8
Bolts, nuts, washers, and rivets	21.1	20.7	21.2	18.7	17.6
Forgings, iron and steel	26.9	26.6	27.2	26.3	25.5
Wrought pipe, welded and heavy-riveted	12.6	12.4	12.7	12.8	11.5
Screw-machine products and wood screws	26.2	26.7	27.7	27.7	26.8
Steel barrels, kegs, and drums	6.2	6.2	6.1	6.4	5.8
Firearms	13.6	14.3	14.2	14.0	13.3
ELECTRICAL MACHINERY	559	557	574	545	526
Electrical equipment	305.7	306.5	314.7	290.7	282.5
Radios and phonographs	80.3	77.6	81.8	82.8	76.7
Communication equipment	77.3	78.0	80.9	86.4	85.4

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

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

(In thousands)

Industry group and industry	1947			1946	
	Aug.	July	June	Aug.	July
<b>MACHINERY, EXCEPT ELECTRICAL</b>	1,174	1,152	1,185	1,092	1,066
Machinery and machine-shop products	376.0	373.3	381.8	356.6	351.5
Engines and turbines	43.3	43.0	43.1	44.9	43.5
Tractors	55.7	56.8	56.9	52.8	52.4
Agricultural machinery, excluding tractors	50.5	49.0	51.4	40.7	40.8
Machine tools	51.9	50.1	53.4	61.3	59.2
Machine-tool accessories	42.4	42.0	44.9	49.1	47.5
Textile machinery	35.9	36.1	38.7	32.7	31.7
Pumps and pumping equipment	55.7	56.4	58.6	56.9	54.6
Typewriters	25.3	16.2	18.1	19.4	18.2
Cash registers, adding and calculating machines	40.2	37.2	37.7	33.2	33.5
Washing machines, wringers and driers, domestic	14.7	14.5	14.8	11.5	10.3
Sewing machines, domestic and industrial	9.4	11.9	10.7	9.7	9.8
Refrigerators and refrigeration equipment	77.8	76.4	78.3	60.5	59.2
<b>TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES</b>	392	395	463	468	476
Locomotives	24.2	23.7	24.3	26.8	26.2
Cars, electric- and steam-railroad	54.1	55.1	54.9	46.6	45.5
Aircraft and parts, excluding aircraft engines	130.7	129.3	133.9	134.2	128.6
Aircraft engines	26.7	26.8	26.9	27.5	26.5
Shipbuilding and boatbuilding	84.0	87.3	140.4	158.3	173.9
Motorcycles, bicycles, and parts	13.4	13.0	13.3	10.6	10.4
<b>AUTOMOBILES</b>	770	785	789	755	725
<b>NONFERROUS METALS AND THEIR PRODUCTS</b>	392	385	401	406	392
Smelting and refining, primary, of nonferrous metals	39.4	40.4	40.1	36.9	35.4
Alloying and rolling and drawing of nonferrous metals except aluminum	53.0	53.8	57.1	61.1	59.5
Clocks and watches	26.9	24.5	27.3	27.5	26.1
Jewelry (precious metals) and jewelers' findings	16.6	16.0	16.5	17.4	16.7
Silverware and plated ware	16.2	15.5	15.9	14.2	13.7
Lighting equipment	29.4	30.5	31.1	30.1	29.1
Aluminum manufactures	41.9	39.7	42.8	49.4	48.6
Sheet-metal work, not elsewhere classified	25.7	25.0	25.4	26.2	25.0

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

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

(In thousands)

Industry group and industry	1947			1946	
	Aug.	July	June	Aug.	July
LUMBER AND TIMBER BASIC PRODUCTS <u>1/</u>	679	658	665	584	561
Sawmills and logging camps	551.5	531.3	534.7	472.5	454.1
Planing and plywood mills	127.6	126.5	128.6	111.6	107.1
FURNITURE AND FINISHED LUMBER PRODUCTS <u>1/</u>	433	419	426	405	392
Mattresses and bedsprings	31.5	28.5	29.9	28.7	27.1
Furniture	230.3	223.9	227.0	217.3	211.1
Wooden boxes, other than cigar	35.5	35.1	36.2	33.4	32.5
Caskets and other morticians' goods	19.0	18.9	19.2	17.2	17.2
Wood preserving	18.9	18.8	18.6	16.4	16.0
Wood, turned and shaped	31.5	30.2	30.2	30.2	28.8
STONE, CLAY, AND GLASS PRODUCTS <u>1/</u>	423	411	423	415	401
Glass and glassware	118.2	113.1	120.3	122.3	118.2
Glass products made from purchased glass	11.9	12.2	12.4	12.0	11.5
Cement	36.8	35.7	35.3	34.9	33.8
Brick, tile, and terra cotta	74.1	73.3	73.0	70.7	69.6
Pottery and related products	56.1	54.3	55.5	52.6	50.9
Gypsum	6.1	6.1	6.0	5.8	5.5
Wallboard, plaster (except gypsum), and mineral wool	11.8	11.5	11.2	10.9	8.8
Lime	9.1	9.2	9.3	8.9	8.8
Marble, granite, slate, and other products	18.4	16.8	16.5	17.3	16.9
Abrasives	15.9	17.0	18.7	19.1	18.8
Asbestos products	20.4	19.3	20.7	20.1	19.3
<u>Nondurable Goods</u>					
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES	1,172	1,158	1,179	1,189	1,175
Cotton manufactures, except smallwares	445.7	444.7	453.3	452.3	445.0
Cotton smallwares	11.8	11.8	12.4	14.1	13.7
Silk and rayon goods	90.3	88.9	90.6	92.6	90.9
Woolen and worsted manufactures, except dyeing and finishing	146.5	142.3	146.7	155.8	155.0
Hosiery	111.2	109.2	108.0	114.1	113.3
Knitted cloth	9.4	9.0	9.1	11.2	11.1
Knitted outerwear and knitted gloves	24.4	23.3	24.2	29.7	30.0
Knitted underwear	39.1	37.9	38.0	35.2	34.9
Dyeing and finishing textiles, including woolen and worsted	62.2	61.4	64.0	63.8	63.0
Carpets and rugs, wool	28.8	28.4	28.5	24.2	23.7
Hats, fur-felt	11.1	10.7	11.2	9.0	10.7
Jute goods, except felts	2.6	3.6	3.8	3.7	3.8
Cordage and twine	13.2	13.2	13.8	14.9	14.4

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

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

(In thousands)

Industry group and industry	1947			1946	
	Aug.	July	June	Aug.	July
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS <u>1/</u>	1,125	1,040	1,040	1,030	983
Men's clothing, not elsewhere classified	294.7	278.2	284.5	265.6	257.7
Shirts, collars, and nightwear	75.1	71.7	74.3	65.1	64.8
Underwear and neckwear, men's	16.5	15.3	16.8	16.9	15.9
Work shirts	15.2	14.0	14.4	14.8	15.0
Women's clothing, not elsewhere classified	440.9	401.8	389.1	402.1	371.1
Corsets and allied garments	17.5	16.9	17.7	15.7	15.4
Millinery	23.6	20.5	20.2	23.7	21.1
Handkerchiefs	4.6	4.2	4.6	4.2	4.0
Curtains, draperies, and bedspreads	27.8	23.6	22.5	27.7	27.4
Housefurnishings, other than curtains, etc.	29.5	26.6	28.6	29.3	27.8
Textile bags	27.2	26.8	27.1	27.0	28.3
LEATHER AND LEATHER PRODUCTS <u>1/</u>	360	349	346	356	357
Leather	46.0	45.4	45.5	44.3	44.0
Boot and shoe cut stock and findings	19.2	18.8	18.0	20.7	20.1
Boots and shoes	223.4	216.8	214.4	217.3	219.4
Leather gloves and mittens	12.8	11.9	12.1	14.0	14.2
Trunks and suitcases	12.8	11.7	12.2	14.8	14.4
FOOD	1,299	1,203	1,114	1,184	1,119
Slaughtering and meat packing	150.8	150.5	145.9	138.4	123.4
Butter	25.1	25.7	25.6	26.2	26.4
Condensed and evaporated milk	15.1	15.7	15.7	15.0	15.7
Ice cream	21.8	22.2	22.1	20.2	20.9
Flour	30.7	30.6	29.5	29.5	28.3
Feeds, prepared	23.2	23.0	22.6	22.4	21.7
Cereal preparations	10.6	10.2	9.5	10.1	9.5
Baking	252.1	250.8	247.4	236.9	234.0
Sugar refining, cane	16.6	16.6	16.3	14.0	14.2
Sugar, beet	8.7	6.7	5.9	6.8	4.7
Confectionery	54.8	50.3	53.0	48.7	46.0
Beverages, nonalcoholic	32.8	29.5	26.7	25.6	25.7
Malt liquors	62.9	61.3	58.6	52.4	52.0
Canning and preserving	206.7	145.5	91.3	206.5	183.9
TOBACCO MANUFACTURES	85	84	84	86	85
Cigarettes	32.9	32.9	33.3	33.6	33.6
Cigars	39.3	37.9	38.0	38.7	37.6
Tobacco (chewing and smoking) and snuff	7.0	6.9	6.8	7.7	7.6

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	
	Aug.	July	June	Aug.	July
PAPER AND ALLIED PRODUCTS <u>1/</u>	380	373	381	369	365
Paper and pulp	196.5	194.2	194.7	186.7	184.6
Paper goods, other	56.8	56.5	57.9	55.5	54.6
Envelopes	11.8	11.6	11.9	11.1	11.0
Paper bags	18.0	17.8	18.2	17.4	17.5
Paper boxes	95.6	92.6	97.0	97.8	96.0
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES <u>1/</u>	426	422	423	399	397
Newspapers and periodicals	143.4	142.2	142.0	131.1	130.1
Printing, book and job	175.7	176.4	175.8	168.6	169.2
Lithographing	32.6	31.5	32.4	31.1	30.8
Bookbinding	38.4	37.0	37.5	34.5	33.7
CHEMICALS AND ALLIED PRODUCTS	551	547	543	520	516
Paints, varnishes, and colors	36.2	35.9	37.0	35.9	35.6
Drugs, medicines, and insecticides	50.9	51.3	52.3	51.7	51.4
Perfumes and cosmetics	9.4	9.0	9.3	12.6	12.6
Soap	15.4	15.4	15.6	14.1	14.0
Rayon and allied products	58.0	58.0	50.0	57.3	57.0
Chemicals, not elsewhere classified	124.6	125.8	126.7	117.2	117.2
Explosives and safety fuses	13.8	12.8	13.8	12.6	12.3
Compressed and liquefied gases	6.3	6.2	6.3	5.9	5.8
Ammunition, small-arms	6.8	6.8	7.0	4.9	7.6
Fireworks	2.0	2.4	2.9	2.9	2.8
Cottonseed oil	10.9	9.7	9.9	10.8	8.4
Fertilizers	21.5	20.4	21.5	20.9	19.3
PRODUCTS OF PETROLEUM AND COAL	163	163	160	156	155
Petroleum refining	103.0	103.0	101.4	100.1	100.1
Coke and byproducts	27.1	27.1	26.7	25.8	25.6
Paving materials	2.3	1.9	1.8	2.2	2.1
Roofing materials	13.1	13.1	12.7	12.2	12.0

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	
	Aug.	July	June	Aug.	July
RUBBER PRODUCTS <u>1/</u>	216	212	219	223	214
Rubber tires and inner tubes	117.5	115.1	117.7	118.0	113.5
Rubber boots and shoes	18.8	20.0	21.4	20.9	20.3
Rubber goods, other	79.2	76.8	79.5	83.7	80.2
MISCELLANEOUS INDUSTRIES	425	416	427	429	417
Instruments (professional and scientific), and fire-control equipment	19.1	19.2	19.6	21.2	21.2
Photographic apparatus	26.5	26.7	26.1	25.4	25.2
Optical instruments and ophthalmic goods	19.1	19.4	20.2	21.2	21.1
Pianos, organs, and parts	9.9	10.4	10.6	9.4	9.1
Games, toys, and dolls	26.8	25.1	24.3	22.8	20.8
Buttons	7.9	7.5	8.2	10.6	10.1
Fire extinguishers	2.0	2.0	2.1	2.1	2.0

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

1/ Estimates for the individual industries comprising the major industry group 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 publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Stone, clay, and glass products	August 1947	September 1947
Printing, publishing, and allied industries	August 1947	September 1947
Paper and allied products	September 1947	October 1947
Rubber products	September 1947	October 1947

Table 7. - Estimated Employment in  
Selected Nonmanufacturing Industries  
(In thousands)

Industry group and industry <u>1/</u>	1947			1946	
	Aug.	July	June	Aug.	July
MINING: <u>2/</u>					
Coal:					
Anthracite	67.4	65.2	66.5	67.9	67.5
Bituminous coal	327	303	329	337	332
Metal	79.0	78.6	79.8	72.8	68.8
Iron	29.9	29.8	29.6	28.8	27.4
Copper	24.2	24.3	24.3	21.2	20.4
Lead and zinc	14.8	14.6	16.0	13.8	11.5
Gold and silver	7.8	7.7	7.6	7.2	7.0
Miscellaneous	2.3	2.3	2.3	2.5	2.5
TRANSPORTATION AND PUBLIC UTILITIES:					
Class I steam railways <u>3/</u>	1,382	1,383	1,375	1,371	1,350
Street railways and busses <u>4/</u>	253	254	253	252	250
Telephone	616	614	605	575	565
Telegraph <u>5/</u>	37.8	38.2	38.5	42.1	42.3
Electric light and power	269	267	263	249	247
SERVICE:					
Hotels (year-round)	379	384	385	385	384
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>
GOVERNMENT:					
Federal <u>7/</u>	1,796	1,828	1,886	2,230	2,248
State and local	3,492	3,453	3,513	3,272	3,240

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.

7/ Continental United States only. Excludes fourth-class postmasters.

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	
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
ALL MANUFACTURING	153.8	149.9	151.4	147.7	322.4	313.9	319.6	284.4
Durable goods	177.1	174.7	179.7	170.6	357.2	350.4	365.9	316.1
Non-durable goods	135.4	130.3	129.1	129.7	288.4	278.1	274.2	253.4
Durable Goods								
IRON AND STEEL AND THEIR PRODUCTS	158.5	156.1	157.5	150.2	314.4	304.4	316.1	265.9
Blast furnaces, steel works, and rolling mills	129.5	128.2	128.0	123.6	250.4	235.3	247.0	204.0
Gray-iron and semisteel castings	143.9	143.3	146.0	139.6	303.3	313.7	326.3	280.5
Malleable-iron castings	146.3	139.1	146.9	133.6	312.5	314.9	329.2	282.6
Steel castings	161.5	158.1	161.7	166.9	313.2	315.1	321.8	294.8
Cast-iron pipe and fittings	124.0	122.2	123.7	102.2	281.5	292.3	310.7	208.6
Tin cans and other tinware	148.1	138.1	133.4	139.9	331.1	294.7	263.7	272.1
Wire drawn from purchased rods	138.6	137.7	139.9	132.3	251.5	238.1	263.7	219.2
Wirework	131.4	130.4	130.3	130.1	268.8	270.8	270.3	256.5
Cutlery and edge tools	149.5	138.4	151.4	166.5	329.6	311.1	350.0	354.9
Tools (except edge tools, machine tools, files, and saws)	157.5	154.5	164.6	167.2	325.9	315.0	347.7	326.2
Hardware	133.0	135.2	138.9	128.7	287.9	296.6	304.8	257.3
Plumbers' supplies	115.9	115.5	117.8	110.0	220.7	231.2	231.7	191.0
Stoves, oil burners, and heating equipment not elsewhere classified	139.6	133.7	136.6	123.0	280.9	274.9	282.6	234.3
Steam and hot-water heating apparatus and steam fittings	150.0	147.8	157.2	158.2	289.2	295.9	321.0	289.6
Stamped and enameled ware and galvanizing	149.8	146.5	148.9	142.2	327.6	318.6	325.8	279.9
Fabricated structural and ornamental metalwork	167.8	164.8	165.3	156.1	335.5	317.0	325.5	271.7
Metal doors, sash, frames, molding, and trim	130.8	121.1	120.3	126.7	272.0	242.8	249.0	233.4
Bolts, nuts, washers, and rivets	147.7	144.4	148.1	130.6	291.3	281.5	303.7	227.7
Forgings, iron and steel	174.9	173.3	176.7	170.9	331.3	337.8	359.9	303.8
Wrought pipe, welded and heavy-riveted	150.7	148.1	151.5	153.4	291.3	297.7	300.5	270.7
Screw-machine products and wood screws	154.8	157.6	163.7	163.9	317.9	327.8	345.5	323.7
Steel barrels, kegs, and drums	101.5	102.2	100.7	106.0	251.6	251.6	251.2	227.4
Firearms	271.4	286.7	283.3	281.0	581.1	615.2	616.9	530.8
ELECTRICAL MACHINERY	215.6	215.0	221.5	210.5	420.3	422.3	432.6	378.9
Electrical equipment	169.1	169.6	174.1	160.8	330.4	333.0	343.8	283.3
Radios and phonographs	184.7	178.3	188.1	190.3	385.0	386.4	390.1	369.8
Communication equipment	240.8	243.0	251.9	269.0	438.5	437.0	445.0	483.4

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	
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
<b>MACHINERY, EXCEPT ELECTRICAL</b>	222.2	217.9	224.2	206.6	426.7	420.7	434.6	362.2
Machinery and machine-shop products	185.9	184.5	188.7	176.2	360.2	356.1	367.9	314.2
Engines and turbines	232.1	230.7	231.3	240.9	513.1	493.6	502.7	453.7
Tractors	178.0	181.7	181.9	168.7	303.1	312.9	310.2	256.5
Agricultural machinery, excluding tractors	181.6	176.3	184.9	146.4	370.1	361.5	371.9	252.9
Machine tools	141.6	136.8	145.9	167.5	250.8	239.9	262.6	281.4
Machine-tool accessories	168.5	166.8	178.4	195.3	279.8	281.8	305.4	316.3
Textile machinery	163.8	164.9	176.7	149.2	333.2	349.6	370.9	277.9
Pumps and pumping equipment	229.6	232.6	242.0	234.6	475.1	479.2	494.4	438.4
Typewriters	156.0	100.1	111.7	119.5	327.0	206.2	233.5	228.2
Cash registers, adding and calculating machines	204.3	188.8	191.6	168.9	420.7	386.5	394.2	292.8
Washing machines, wringers and driers, domestic	197.0	193.6	198.6	153.8	382.3	391.7	404.2	269.5
Sewing machines, domestic and industrial	119.3	151.4	136.1	123.2	251.7	327.8	297.4	238.9
Refrigerators and refrigeration equipment	221.2	217.4	222.6	172.1	404.1	422.1	427.5	288.2
<b>TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES</b>	247.2	248.9	291.8	294.7	482.1	483.0	560.3	553.1
Locomotives	373.3	366.0	376.0	414.0	806.6	757.2	774.7	826.8
Cars, electric- and steam-railroad	220.5	224.8	223.9	190.1	434.2	482.1	471.1	362.0
Aircraft and parts, excluding aircraft engines	329.3	326.0	337.4	338.3	637.6	622.4	621.5	640.8
Aircraft engines	299.9	301.1	302.5	309.3	518.6	485.1	481.5	498.3
Shipbuilding and boatbuilding	121.3	126.1	202.7	228.6	237.5	243.8	394.3	421.5
Motorcycles, bicycles, and parts	192.2	186.0	190.8	152.7	385.7	379.4	383.6	272.1
<b>AUTOMOBILES</b>	191.3	195.0	196.2	187.8	340.1	348.8	357.0	319.0
<b>NONFERROUS METALS AND THEIR PRODUCTS</b>	170.9	168.2	175.1	177.3	332.9	326.6	346.2	324.2
Smelting and refining, primary, of nonferrous metals	142.4	146.3	145.0	133.6	288.6	296.5	296.3	239.5
Alloying and rolling and drawing of nonferrous metals except aluminum	136.5	138.6	147.2	157.4	249.0	260.1	279.7	283.0
Clocks and watches	132.6	120.5	134.6	135.5	288.8	260.0	299.5	280.8
Jewelry (precious metals) and jewelers' findings	114.8	111.0	114.1	120.6	210.1	194.5	212.4	221.1
Silverware and plated ware	133.6	127.5	130.8	117.2	287.0	281.0	290.4	232.7
Lighting equipment	143.4	149.1	152.0	146.8	267.2	270.1	289.4	252.5
Aluminum manufactures	177.9	168.6	181.6	209.6	323.4	299.0	327.0	351.3
Sheet-metal work, not elsewhere classified	137.0	133.2	135.5	139.5	287.5	276.2	282.0	269.0

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	
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
LUMBER AND TIMBER BASIC PRODUCTS <u>1/</u>	161.5	156.5	158.2	139.0	387.3	359.8	374.9	284.0
Sawmills and logging camps	175.8	169.4	170.5	150.7	430.4	397.4	412.2	313.1
Planing and plywood mills	161.3	160.0	162.6	141.1	362.9	345.1	366.5	274.1
FURNITURE AND FINISHED LUMBER PRODUCTS <u>1/</u>	131.9	127.8	129.8	123.4	293.3	281.4	290.4	250.0
Mattresses and bedsprings	153.5	139.2	145.7	140.2	323.0	287.3	291.6	262.7
Furniture	129.4	125.9	127.6	122.2	284.7	274.4	284.7	246.7
Wooden boxes, other than cigar	125.4	123.8	127.6	118.0	305.4	301.8	313.4	260.3
Caskets and other morticians' goods	136.9	136.0	138.1	123.7	268.9	260.6	275.8	217.9
Wood preserving	150.6	149.4	147.9	130.5	408.0	392.7	391.2	300.1
Wood, turned and shaped	128.2	123.0	122.9	123.0	281.4	268.5	272.3	251.7
STONE, CLAY, AND GLASS PRODUCTS <u>1/</u>	144.0	140.2	144.0	141.6	299.7	285.9	298.2	260.1
Glass and glassware	165.7	158.5	168.6	171.4	334.1	312.8	341.1	294.3
Glass products made from purchased glass	118.9	122.1	124.3	119.8	245.9	246.9	259.5	227.4
Cement	151.1	146.5	145.0	143.4	297.0	283.5	278.9	243.1
Brick, tile, and terra cotta	127.7	126.3	125.8	121.8	284.9	276.4	278.9	239.7
Pottery and related products	165.9	160.4	164.1	155.6	330.4	308.6	322.4	275.4
Gypsum	123.5	124.2	121.7	117.6	260.4	260.2	243.6	226.9
Wallboard, plaster (except gypsum), and mineral wool	145.3	141.3	137.6	134.1	353.9	333.6	327.6	279.7
Lime	96.5	97.5	98.6	93.7	236.0	230.4	237.8	216.5
Marble, granite slate, and other products	99.4	90.5	88.9	93.4	176.4	156.7	155.3	154.8
Abrasives	205.6	220.0	242.2	246.5	352.2	386.0	413.8	406.2
Asbestos products	128.5	121.2	130.2	126.3	304.1	290.7	305.2	270.0
<u>Nondurable Goods</u>								
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES	102.5	101.2	103.1	104.0	239.8	237.5	242.5	229.4
Cotton manufactures, except smallwares	112.6	112.3	114.5	114.2	291.4	288.7	293.5	275.5
Cotton smallwares	88.9	88.9	92.8	105.8	186.4	191.4	195.8	220.3
Silk and rayon goods	75.3	74.2	75.6	77.2	195.8	190.8	193.8	181.4
Woolen and worsted manufactures, except dyeing and finishing	98.2	95.4	98.3	104.4	221.9	231.1	240.2	234.1
Hosiery	69.9	68.7	67.9	71.7	144.4	135.3	130.8	141.3
Knitted cloth	86.2	82.0	83.5	102.4	186.7	176.5	176.5	213.1
Knitted outerwear and knitted gloves	86.7	83.0	86.2	105.8	184.8	172.7	182.8	220.1
Knitted underwear	101.4	98.2	98.5	91.2	236.0	229.7	232.4	196.1
Dyeing and finishing textiles, including woolen and worsted	93.0	91.9	95.7	95.4	201.1	195.1	211.4	187.6
Carpets and rugs, wool	112.4	110.9	111.2	94.7	231.3	239.3	236.3	173.0
Hats, fur-felt	76.4	73.9	76.9	61.8	148.5	147.6	163.3	137.9
Jute goods, except felts	73.5	101.3	104.6	103.7	152.2	218.4	244.7	225.8
Cordage and twine	109.4	109.0	113.9	122.8	240.4	237.5	244.4	255.9
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
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS <u>1/</u>	142.5	131.7	131.7	130.5	303.2	278.9	274.9	272.5
Men's clothing, not elsewhere classified	128.3	121.1	123.9	115.7	264.8	260.0	248.3	236.4
Shirts, collars, and nightwear	101.6	96.9	100.5	88.1	225.5	219.3	229.0	185.3
Underwear and neckwear, men's	97.0	90.2	99.2	99.5	238.7	233.2	348.3	235.9
Work shirts	107.8	99.1	102.1	104.9	256.3	241.4	237.5	227.9
Women's clothing, not elsewhere classified	154.0	140.4	135.9	140.5	324.4	284.6	264.1	306.3
Corsets and allied garments	93.4	90.1	94.2	83.8	192.3	187.4	200.4	161.2
Millinery	92.6	80.4	79.3	92.7	170.8	146.9	128.4	166.2
Handkerchiefs	90.6	82.9	90.8	82.1	210.6	196.7	207.4	178.5
Curtains, draperies, and bedspreads	156.7	132.8	126.9	155.9	340.5	290.1	253.9	322.1
Housefurnishings, other than curtains, etc.	264.3	238.5	256.2	262.1	571.0	494.1	553.4	536.5
Textile bags	216.0	212.5	214.6	214.1	442.6	437.8	422.4	382.5
LEATHER AND LEATHER PRODUCTS <u>1/</u>	103.8	100.6	99.8	102.7	220.4	214.2	211.5	199.6
Leather	91.9	90.7	91.0	88.5	189.8	187.2	185.2	160.8
Boot and shoe cut stock and findings	96.3	94.4	90.1	103.5	189.8	182.4	172.9	194.0
Boots and shoes	96.7	93.9	92.9	94.1	209.9	204.8	201.7	188.1
Leather gloves and mittens	128.1	118.9	121.0	140.4	246.7	227.2	226.9	270.2
Trunks and suitcases	153.9	141.0	147.0	177.9	309.4	277.2	298.1	333.0
FOOD	152.0	140.8	130.3	138.6	313.9	290.8	267.8	254.3
Slaughtering and meat packing	125.1	124.9	121.1	114.8	249.6	260.2	241.2	202.3
Butter	139.7	143.4	142.3	145.8	291.9	289.7	293.1	265.0
Condensed and evaporated milk	155.9	161.8	162.1	154.9	332.3	351.4	354.7	293.2
Ice cream	138.7	141.6	140.7	128.8	257.5	256.3	250.2	215.7
Flour	123.8	123.6	119.0	118.9	296.2	284.4	264.2	238.6
Feeds, prepared	150.6	149.5	146.8	145.7	315.9	318.9	313.1	275.2
Cereal preparations	142.1	136.3	127.6	134.8	314.1	287.4	253.9	244.4
Baking	109.3	108.7	107.2	102.7	208.2	208.2	203.9	184.1
Sugar refining, cane	117.3	117.3	115.3	98.8	252.7	244.7	250.7	162.5
Sugar, beet	83.4	64.0	56.7	65.6	173.4	120.6	109.2	108.6
Confectionery	110.2	101.1	106.5	98.0	231.1	209.3	225.7	186.6
Beverages, nonalcoholic	154.2	138.6	125.8	120.6	275.3	239.2	210.6	185.0
Malt liquors	174.2	169.8	162.5	145.2	338.4	324.7	296.4	232.3
Canning and preserving	153.7	108.2	67.9	153.5	434.8	265.2	163.8	387.4
TOBACCO MANUFACTURES	91.6	89.8	90.2	91.7	203.0	200.0	194.8	186.2
Cigarettes	120.0	120.1	121.5	122.6	248.5	253.7	239.6	218.7
Cigars	77.3	74.5	74.7	76.1	173.5	163.4	168.0	167.4
Tobacco (chewing and smoking) and snuff	76.8	74.9	74.1	83.6	164.2	164.6	147.7	149.3

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
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
PAPER AND ALLIED PRODUCTS <u>1/</u>	143.0	140.7	143.4	139.2	300.6	298.7	298.0	256.5
Paper and pulp	142.6	140.9	141.3	135.5	311.0	309.6	302.1	252.7
Paper goods, other	150.4	149.7	153.6	147.2	291.5	296.0	301.8	259.6
Envelopes	136.0	132.7	136.6	127.7	258.8	250.7	265.2	222.2
Paper bags	161.8	160.5	164.0	156.6	342.2	343.2	340.9	290.1
Paper boxes	137.9	133.6	139.9	141.0	280.1	273.6	283.8	261.5
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES <u>1/</u>	129.8	128.8	129.1	121.6	235.5	233.6	235.9	198.1
Newspapers and periodicals	120.8	119.8	119.7	110.4	214.3	208.9	210.0	168.8
Printing, book and job	137.7	138.2	137.8	132.1	254.8	258.9	258.1	222.4
Lithographing	124.0	119.8	123.3	118.6	213.3	207.4	216.6	193.2
Bookbinding	148.9	143.6	145.6	133.9	313.5	299.2	324.7	269.8
CHEMICALS AND ALLIED PRODUCTS	191.1	189.8	188.5	180.5	383.6	378.7	373.3	320.0
Paints, varnishes, and colors	128.6	127.7	131.6	127.6	232.0	229.1	233.9	204.2
Drugs, medicines, and insecticides	185.6	187.2	190.9	188.7	362.5	347.6	354.6	313.7
Perfumes and cosmetics	90.3	87.1	89.9	121.4	163.6	159.3	168.9	191.8
Soap	113.5	113.1	114.7	103.8	234.9	223.3	233.2	171.7
Rayon and allied products	120.1	120.1	103.6	118.7	239.9	238.2	205.3	206.2
Chemicals, not elsewhere classified	179.2	180.8	182.1	168.5	336.8	341.8	338.9	288.0
Explosives and safety fuses	190.0	176.6	190.9	173.1	353.4	324.9	341.1	272.6
Compressed and liquefied gases	160.2	156.4	159.6	148.1	283.5	277.3	284.7	247.2
Ammunition, small-arms	158.7	159.4	163.4	115.6	349.7	355.7	358.9	201.4
Fireworks	175.2	205.3	247.6	254.7	441.6	528.1	685.3	623.1
Cottonseed oil	71.9	63.6	65.2	71.0	185.4	162.1	169.0	158.8
Fertilizers	114.6	108.6	114.4	111.5	304.6	288.0	301.8	275.4
PRODUCTS OF PETROLEUM AND COAL	154.1	153.7	150.8	147.4	297.2	295.6	286.2	253.1
Petroleum refining	141.5	141.4	139.2	137.4	262.2	265.4	253.8	228.7
Coke and byproducts	125.0	125.1	123.2	119.1	263.6	248.3	256.2	218.2
Paving materials	93.5	79.2	73.8	91.7	197.6	169.5	159.0	186.1
Roofing materials	162.7	163.1	157.9	151.0	363.7	357.7	339.5	292.0

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
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
RUBBER PRODUCTS <sup>1/</sup>	178.2	175.2	180.7	184.0	357.0	352.7	361.9	336.9
Rubber tires and inner tubes	216.6	212.3	217.0	217.5	397.0	393.8	396.1	356.4
Rubber boots and shoes	126.5	134.4	143.9	140.6	267.6	289.1	317.1	278.3
Rubber goods, other	152.8	148.0	153.2	161.5	318.9	304.9	320.1	321.7
MISCELLANEOUS INDUSTRIES	173.5	170.2	174.4	175.1	347.5	341.5	355.4	329.3
Instruments (professional and scientific), and fire-control equipment	172.3	173.3	177.6	191.3	325.1	323.1	335.1	330.4
Photographic apparatus	153.7	154.7	151.3	146.8	275.6	275.0	280.7	241.6
Optical instruments and ophthalmic goods	164.6	167.2	173.7	182.1	302.8	309.1	331.2	316.5
Pianos, organs, and parts	130.4	136.7	139.8	122.9	266.9	286.6	298.3	230.8
Games, toys, and dolls	143.6	134.7	130.4	122.1	306.5	292.6	282.9	252.1
Buttons	72.3	68.0	74.9	96.3	156.7	149.1	163.3	208.6
Fire extinguishers	196.8	203.0	206.7	209.1	414.6	427.9	420.0	405.8

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

<sup>1/</sup> Indexes for the individual industries comprising the major industry group 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 publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Stone, clay, and glass products	August 1947	September 1947
Printing, publishing and allied industries	August 1947	September 1947
Paper and allied products	September 1947	October 1947
Rubber products	September 1947	October 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
	Aug.	July	June	Aug.	Aug.	July	June	Aug.
MINING:								
Coal:								
Anthracite	81.4	78.7	80.3	82.0	209.3	171.8	194.6	193.3
Bituminous coal	88.1	81.8	88.7	90.8	267.0	194.9	252.3	241.0
Metal	89.5	89.1	90.4	82.5	179.4	171.9	181.8	145.2
Iron	148.3	148.0	147.2	139.3	305.3	295.4	309.4	253.5
Copper	101.7	101.8	101.8	88.8	217.0	209.6	214.1	164.1
Lead and zinc	95.1	93.8	102.9	89.0	207.8	198.0	228.1	172.1
Gold and silver	31.6	31.1	30.6	29.1	51.7	46.8	49.5	43.5
Miscellaneous	58.3	57.6	58.0	63.7	105.3	99.1	100.3	103.5
Quarrying and nonmetallic	106.3	106.0	105.7	103.2	259.6	251.2	251.3	225.1
Crude petroleum production <u>1/</u>	97.3	97.2	95.5	95.5	173.3	173.9	175.3	152.6
TRANSPORTATION AND PUBLIC UTILITIES:								
Class I steam railways <u>2/</u>	140.0	140.0	139.2	138.8	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>
Street railways and busses	130.7	130.9	130.4	130.2	225.2	222.1	222.1	211.2
Telephone	193.8	193.3	190.4	181.1	306.2	302.2	292.5	267.6
Telegraph	100.5	101.5	102.3	111.9	213.5	215.2	218.8	178.5
Electric light and power	110.2	109.3	107.5	101.9	182.9	178.4	177.5	152.4
TRADE: <u>4/</u>								
Wholesale	112.2	111.1	110.5	109.1	198.2	196.5	198.0	177.3
Retail	109.3	110.2	111.4	106.6	197.7	198.6	201.6	174.6
Food	111.5	113.0	113.7	103.6	212.2	213.8	212.1	177.2
General merchandise	115.7	116.7	120.6	117.4	212.0	214.1	218.9	188.1
Apparel	103.4	106.8	115.0	105.9	183.4	192.5	207.4	176.2
Furniture and housefurnishings	85.8	86.0	85.1	79.5	155.4	156.1	157.4	129.7
Automotive	105.1	104.2	100.6	94.4	188.5	184.8	184.3	160.1
Lumber and building materials	123.1	121.4	119.4	112.6	229.0	218.8	219.4	186.1
SERVICE:								
Hotels (year-round) <u>5/</u>	117.6	118.3	119.4	119.3	220.9	222.0	226.4	208.9
Power laundries	110.2	112.8	112.2	111.6	203.9	210.3	211.1	188.4
Cleaning and dyeing	117.4	123.4	127.7	124.5	208.9	228.2	241.9	216.9

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.

## 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 than would be obtained by the use of the sampling procedure employed for other 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 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 non-agricultural 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. Excluding the 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 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
Contract Construction	12,500	325,000	18
Public Utilities	7,000	832,000	75
Trade:			
Wholesale	11,400	326,000	20
Retail	45,000	1,300,000	25
Service:			
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 previously 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, 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, which were regularly published in this report, have been discontinued. The last month for which such data were published is May 1947 (in the June Detailed Report).

### 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.  
Georgia - Employment Security Administration, Atlanta 3.  
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 - Dept. of Placement and Unemployment Insurance, 342 Madison Avenue, New York 17.  
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. (Manufacturing)  
Dept. of Labor and Industry, Harrisburg. (Nonmanufacturing)  
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

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 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. Fourth-class postmasters are included under the executive branch in table 4, but are excluded from the government data in tables 1 and 7. 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 banks, etc.) and government force-account construction. The data in tables 1 and 7 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 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 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. 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 - Cover 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.

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 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 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.

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, 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.