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EMPLOYMENT AND PAY ROLLS

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CONTENTS

Survey of employment and pay rolls, July 1941:	Page
Total nonagricultural employment.....	1
Manufacturing industries.....	3
Nonmanufacturing industries.....	5
Regional changes in nonagricultural employment.....	6
Hours and earnings.....	11
Public employment.....	16
Detailed tables for July 1941:	
Industrial and business employment.....	18
Public employment.....	36

Tables

TABLE 1.—Estimates of total nonagricultural employment.....	1
TABLE 2.—Employment in 18 selected private defense industries, compared with manufacturing employment, January 1939 through July 1941.....	3
TABLE 3.—Employment in 18 selected defense industries, July 1941.....	4
TABLE 4.—Estimated number of employees in nonagricultural establishments, by States.....	8
TABLE 5.—Indexes of employment in manufacturing industries, by metropolitan area.....	10
TABLE 6.—Wage-rate changes reported by manufacturing and nonmanufacturing establishments during month ending July 15, 1941.....	13
TABLE 7.—Summary of employment and pay rolls in regular Federal services and on construction projects financed wholly or partially from Federal funds, July 1941.....	17
TABLE 8.—Employment, pay rolls, hours, and earnings in manufacturing and nonmanufacturing industries, July 1941.....	23
TABLE 9.—Employment, pay rolls, hours, and earnings in manufacturing and nonmanufacturing industries, May through July 1941.....	28
TABLE 10.—Indexes of employment and pay rolls in 55 additional manufacturing industries.....	34
TABLE 11.—Indexes of employment and pay rolls in selected manufacturing and nonmanufacturing industries, July 1940 to July 1941.....	35
TABLE 12.—Employment and pay rolls for the executive service of the United States Government, July 1941.....	36
TABLE 13.—Employment and pay rolls on projects financed from Public Works Administration funds, July 1941.....	37
TABLE 14.—Employment and pay rolls on low-rent housing projects operated by the United States Housing Authority, July 1941.....	38

	Page
TABLE 15.—Employment and pay rolls on work relief projects of the Work Projects Administration, July 1941.....	38
TABLE 16.—Average employment and pay rolls on projects operated by the Work Projects Administration, by type of project, June 1941.....	39
TABLE 17.—Employment and pay rolls on National Youth Administration projects, July and June 1941.....	39
TABLE 18.—Employment and pay rolls in the Civilian Conservation Corps, July 1941.....	40
TABLE 19.—Employment and pay rolls on projects financed by the Reconstruction Finance Corporation, by type of project, July 1941.....	40
TABLE 20.—Employment and pay rolls on construction projects financed from regular Federal appropriations, by type of project, July 1941.....	41
TABLE 21.—Employment and pay rolls on construction and maintenance of State roads, July 1941, June 1941, and July 1940....	41

Employment and Pay Rolls

SURVEY OF EMPLOYMENT AND PAY ROLLS, JULY 1941

Total Nonagricultural Employment

MORE than 380,000 additional workers found employment in non-agricultural establishments in July, and total civil nonagricultural employment reached a new all-time peak of 39,241,000. This total represented an increase of 3,787,000 workers since July 1940 and exceeded the level of July 1929 by 2,200,000.

The greater part of the increase in employment between June and July, as shown in table 1, occurred in manufacturing plants and reflected a further acceleration of the production of defense materials. All major groups showed increases in employment between June and July except trade, where a decline of about half the usual seasonal amount occurred in retail stores.

TABLE 1.—*Estimates of Total Nonagricultural Employment*
[In thousands]

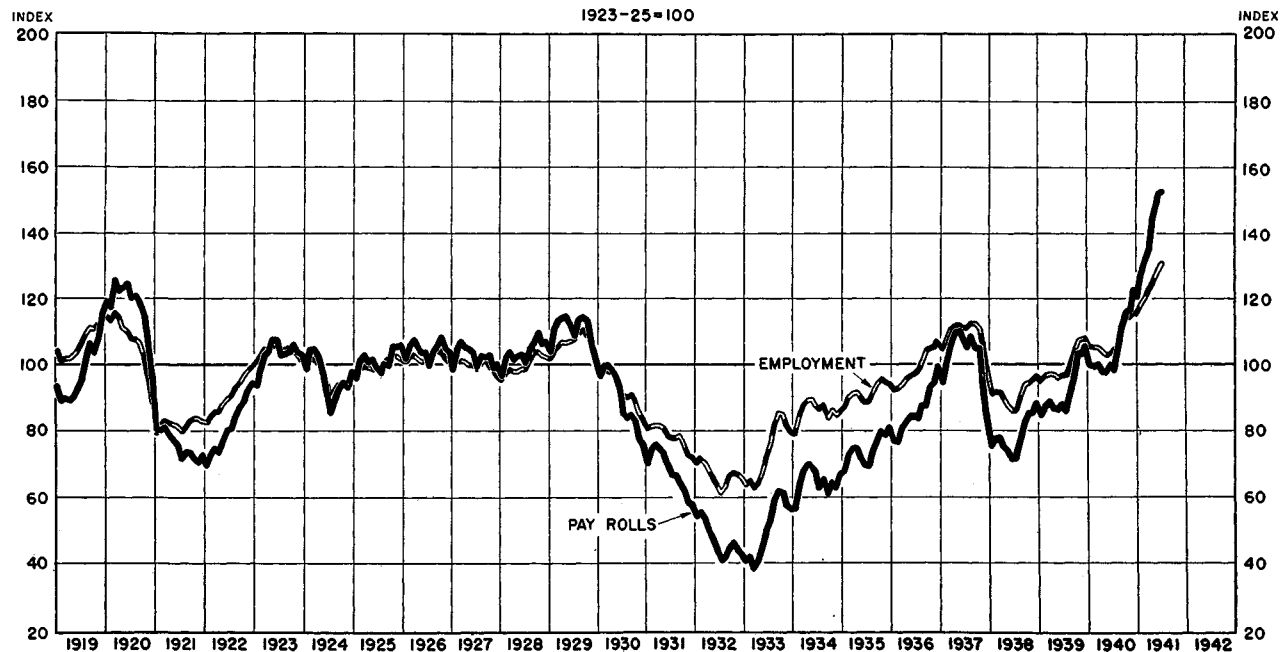
Industry	July 1941 (preliminary)	June 1941	Change June to July 1941	July 1940	Change July 1940 to July 1941
Total civil nonagricultural employment ¹	39, 241	38, 858	+383	35, 454	+3, 787
Employees in nonagricultural establishments ²	33, 098	32, 715	+383	29, 311	+3, 787
Manufacturing.....	11, 985	11, 775	+210	9, 832	+2, 153
Mining.....	887	876	+11	837	+50
Construction.....	1, 877	1, 816	+61	1, 378	+499
Transportation and public utilities.....	3, 293	3, 239	+54	3, 059	+234
Trade.....	6, 503	6, 530	-27	6, 159	+344
Finance, service, and miscellaneous.....	4, 391	4, 353	+38	4, 218	+173
Federal, State, and local government.....	4, 182	4, 126	+56	3, 828	+354
Military and naval forces (not included above).....	1, 857	1, 740	+117	516	+1, 341

¹ Excludes military and naval forces, as well as employees on W. P. A. and N. Y. A. projects, and enrollees in C. C. C. camps.

² Excludes also proprietors, firm members, self-employed persons, casual workers, and domestic servants.

Substantial employment gains since July 1940 were shown by all major industrial groups. The largest employment increase took place in manufacturing, where 2,150,000 additional workers had secured jobs since July 1940. Construction employment increased by 500,000; trade showed a rise of 344,000 workers; and the transportation and

EMPLOYMENT AND PAY ROLLS ALL MANUFACTURING INDUSTRIES



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ADJUSTED TO 1939 CENSUS OF MANUFACTURERS

public utilities group reported a gain of 234,000 employees. Approximately 335,000 more civilian workers were employed by Federal, State, and local Government services than in the corresponding month of the preceding year.

Manufacturing Industries

The defense program is causing a rapid change in the industrial distribution of manufacturing employment. Between June 1940, when the defense effort was inaugurated, and July 1941 employment in 18 private defense industries which handle a major part of the direct defense production orders increased by approximately 910,000 wage earners, or 56 percent, as compared with an increase of 27 percent in total manufacturing employment (see accompanying chart). During the same period durable-goods employment rose 38 percent to reach a total of 5,310,000, while employment in nondurable-goods manufacturing rose only 16 percent to a total of 4,999,000.

TABLE 2.—Employment in 18 Selected Private Defense Industries, Compared With Manufacturing Employment, January 1939 Through July 1941

[Index numbers 1939=100]

Year and month	All manufacturing	18 defense industries combined	Durable goods	Nondurable goods
<i>1939</i>				
January.....	94.6	90.7	93.2	95.6
February.....	96.2	92.3	94.5	97.5
March.....	97.1	93.5	95.5	98.3
April.....	97.0	94.5	96.4	97.4
May.....	96.0	94.8	95.6	96.2
June.....	96.5	95.7	96.5	96.5
July.....	96.7	96.1	94.8	98.2
August.....	99.6	97.3	95.9	102.5
September.....	103.8	101.2	102.4	104.9
October.....	107.4	110.2	109.5	105.7
November.....	107.6	115.6	111.8	104.2
December.....	107.9	118.1	113.9	103.1
Average..	100.0	100.0	100.0	100.0
<i>1940</i>				
January.....	105.1	117.6	110.9	100.5
February.....	105.1	117.0	109.9	101.2
March.....	104.5	116.0	109.8	100.3
April.....	103.3	115.5	109.4	98.5
May.....	102.6	116.6	109.9	96.7
June.....	103.2	119.9	110.6	97.3
July.....	103.3	123.3	109.0	98.7
August.....	107.5	127.7	113.5	102.8
September.....	111.5	131.7	119.9	104.8
October.....	113.9	136.6	125.0	105.2
November.....	114.8	141.2	128.0	104.2
December.....	116.3	146.5	130.4	105.2
Average..	107.6	125.8	115.5	101.3
<i>1941</i>				
January.....	115.6	151.3	131.1	103.2
February.....	117.9	156.6	134.1	105.1
March.....	120.0	161.4	137.1	106.5
April.....	122.7	167.9	141.5	107.9
May.....	125.0	174.1	145.5	108.8
June.....	127.9	181.0	149.7	110.8
July.....	130.7	187.8	152.8	113.3

Approximately half of the aggregate gain in the 18 private defense manufacturing industries occurred in 3 basic durable-goods industries: Blast furnaces, steel works, and rolling mills; foundry and machine-shop products; and electrical machinery. The most pronounced percentage gains took place in industries producing finished war products, such as aircraft, aero engines, munitions, and shipbuilding.

Between June and July 1941, private shipbuilding expanded employment by 20,100 wage earners as new yards in Portland, Oreg.; South Portland, Maine; Los Angeles and Richmond, Calif.; Wilmington, N. C., and at several Gulf coast locations began ship construction. The aircraft industry continued to employ new workers at an increasing rate. During the second quarter of 1941 that industry added to its labor force an average of 10,000 wage earners monthly but this increase was accelerated during July to 15,300 workers as new plant facilities were put into production, notably by Martin, Consolidated, Douglas, Lockheed, and Curtiss-Wright. The industry expected to show even greater employment increases in the fall of 1941 as a result of the heavy-bomber program. Aero-engine employment also expanded sharply in July as some of the major automotive companies tooled up for engine production. Significant gains from June to July were also noted in foundries and machine shops (14,300); blast furnaces, steel works, and rolling mills (13,000); electrical machinery (11,300); and machine tools (2,100).

TABLE 3.—*Employment in 18 Selected Defense Industries, July 1941*

Industry	Index (1939=100)	Percentage change since—	
	July 1941	June 1941	June 1940
18 selected defense industries ¹ ..	187.8	+3.8	+56.5
Blast furnaces, steel works, and rolling mills.....	144.3	+2.3	+28.7
Foundry and machine-shop products.....	167.8	+2.6	+47.8
Electrical machinery, apparatus, and supplies..	181.8	+3.2	+58.4
Smelting and refining—copper, lead, and zinc..	130.1	+ .9	+17.8
Brass, bronze, and copper products..	167.6	+ .2	+49.2
Aluminum manufactures.....	151.9	+2.3	+28.3
Machine tools.....	229.3	+2.2	+51.1
Machine-tool accessories.....	229.1	+3.1	+70.1
Abrasives.....	184.3	+1.7	+59.2
Screw-machine products..	179.9	+3.6	+71.6
Aircraft and parts (exclusive of aero engines)..	514.0	+8.1	+149.9
Aero engines.....	646.1	+10.6	+140.4
Shipbuilding.....	300.7	+10.3	+126.6
Optical goods.....	168.1	+1.1	+42.1
Instruments.....	192.2	+3.6	+69.6

¹ Figures are not published for firearms, ammunition, or explosives, although data for these industries are included in the aggregate for the 18 selected defense industries.

Two important specialty industries, aluminum ware and die castings, reported substantial declines in employment in July 1941 owing to inability to secure materials because of priority rulings. Other

industries in which significant shortages of materials were reported, and priority unemployment was imminent, were silk and rayon, hardware, electrical household appliances, plumbing supplies, heating equipment, radios and parts, nonferrous metals, and cork products. Employment in the automobile industry declined by approximately 30,000 workers in July as the 1941 model year came to a close. The decline this year was less than the usual seasonal amount as many plants continued 1941 production through July.

Nonmanufacturing Industries

Employment in anthracite mines showed virtually no change from June to July, but pay rolls fell 32 percent as a result of the stoppage of work during the first week of July, due largely to vacations granted in accordance with the terms of the new union contract. Employment in bituminous-coal mines increased contraseasonally while pay rolls declined slightly because of vacation and holiday observance. In metal mines employment remained stable, while pay rolls fell 8.5 percent, partly as a result of the observance of the Fourth of July week end. Employment in quarries and nonmetallic mines increased slightly, while pay rolls remained at the June level. In the crude-petroleum production industry employment remained virtually unchanged, while pay rolls advanced 3.2 percent.

Telephone and telegraph firms in July reported further advances in employment (2.7 percent) and pay rolls (3.2 percent), which carried them to the highest levels in more than 10 years. In electric light and power, employment and pay rolls from June to July advanced 1.5 percent and 2.0 percent, respectively. Employment and pay rolls in street railways and busses showed little change during the month.

Wholesale trade employment and pay rolls in July remained at the June level. Retail stores showed declines of approximately one-half the usual seasonal amount, the usual summer slackening in department-store and apparel-store sales being partly offset by gains among automotive and lumber and building-material dealers.

Year-round hotels, which have shown a gradual upward trend in employment and pay rolls since the beginning of the defense program, reported a less-than-seasonal decline from June to July while the gains in employment and pay rolls in laundries raised employment and pay rolls in that group to the highest levels in 10 years. Dyeing and cleaning plants showed less-than-seasonal recessions in employment and pay rolls, and employment and pay rolls declined slightly in brokerage firms. Insurance companies experienced slight gains in both employment and pay rolls.

Employment in the private building construction industry increased 3.4 percent from June to July and corresponding weekly pay rolls

rose 4.3 percent. These gains were slightly greater than the average July gains of preceding years. From July 1940 to July 1941, there was an increase of 18.8 percent in employment and 31.3 percent in pay rolls.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment gain of 2.7 percent between June and July, the total number employed in July being 1,187,205. Corresponding pay-roll figures for July were not available when this report was prepared. For June they were \$187,864,756, an increase of \$1,931,879 since May.

Regional Changes in Nonagricultural Employment

The industrial East North Central region continued to lead in nonagricultural employment gains over the year. From July 1940 to July 1941 over 1,120,000 workers found employment in this area. Other regional increases during the year were as follows: Middle Atlantic, 810,000; South Atlantic, 530,000; New England, 450,000; Pacific, 360,000; West North Central, 210,000; West South Central, 190,000; East South Central, 180,000; and Mountain States, 60,000.

Percentage changes in employment in nonagricultural establishments from July 1940 to July 1941 in the various States are shown in the accompanying map and in table 4. States in which the largest percentage increases occurred over the year were Indiana, Virginia, Rhode Island, Connecticut, and Michigan. The smallest percentage increases took place in Montana, North Dakota, and South Dakota.

The defense program has brought about marked changes in the employment structure of many communities located in various parts of the country. Many metropolitan areas have experienced substantial employment gains as a result of expansion in plants devoting their entire capacity to the filling of primary defense contracts. Gains in other areas have resulted from subcontracts for materials, supplies, and parts, while still other localities have been affected indirectly as suppliers of basic raw materials used in defense production.

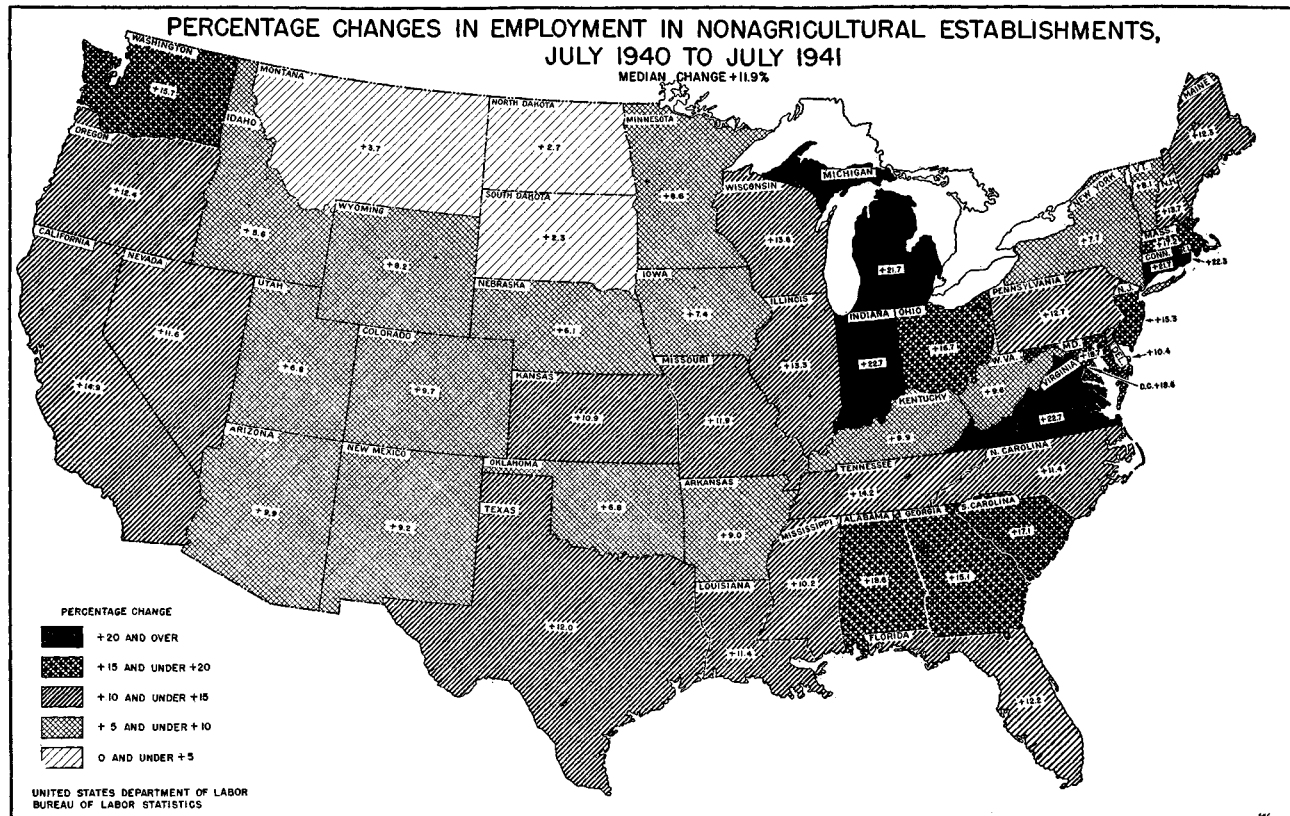


TABLE 4.—*Estimated Number of Employees in Nonagricultural Establishments, by States*

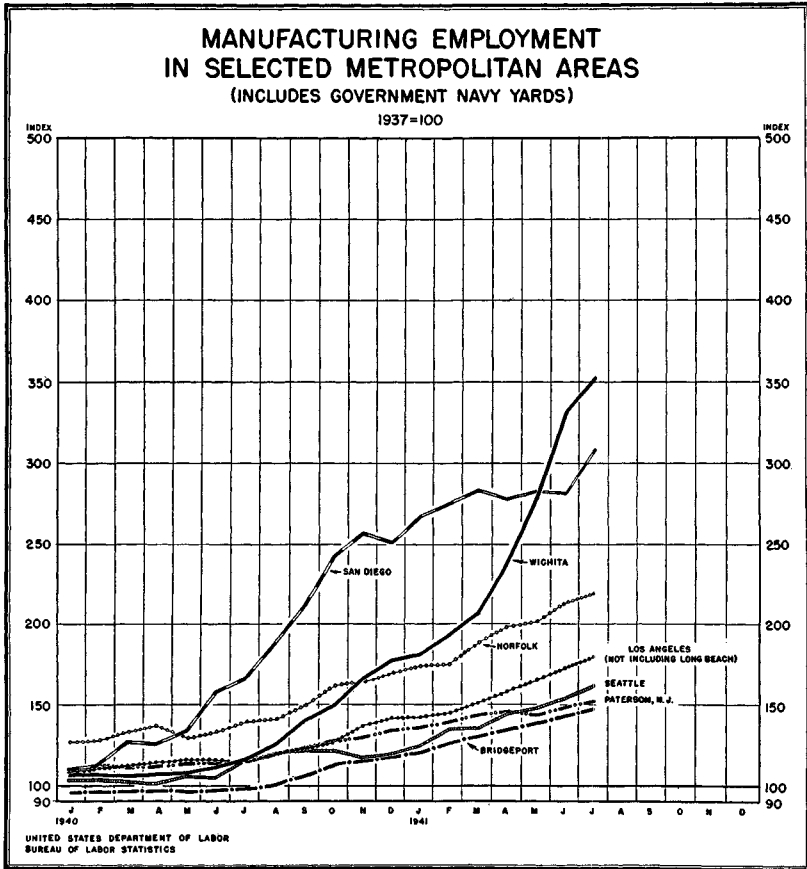
[Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]

[Numbers in thousands]

Geographic division and State	July 1941 (preliminary)	June 1941	Change June to July 1941		July 1940	Change July 1940 to July 1941	
			Number	Percentage		Number	Percentage
New England.....	2,943	2,899	+44	+1.4	2,497	+446	+17.8
Maine.....	217	210	+7	+3.4	193	+24	+12.3
New Hampshire.....	152	147	+5	+3.3	134	+18	+13.7
Vermont.....	82	79	+3	+9	74	+8	+8.1
Massachusetts.....	1,527	1,508	+19	+1.3	1,303	+224	+17.2
Rhode Island.....	273	270	+3	+1.1	224	+49	+22.3
Connecticut.....	692	685	+7	+1.0	569	+123	+21.7
Middle Atlantic.....	8,423	8,354	+69	+8	7,615	+807	+10.6
New York.....	4,136	4,112	+24	+6	3,839	+297	+7.7
New Jersey.....	1,315	1,296	+19	+1.4	1,140	+175	+15.3
Pennsylvania.....	2,971	2,946	+25	+8	2,636	+335	+12.7
East North Central.....	7,793	7,724	+69	+9	6,666	+1,127	+16.9
Ohio.....	2,042	2,016	+26	+1.3	1,750	+292	+16.7
Indiana.....	929	924	+5	+5	757	+172	+22.7
Illinois.....	2,524	2,503	+21	+8	2,227	+297	+13.3
Michigan.....	1,561	1,573	-12	-8	1,283	+278	+21.7
Wisconsin.....	737	708	+29	+4.1	649	+88	+13.6
West North Central.....	2,559	2,530	+29	+1.2	2,346	+213	+9.1
Minnesota.....	578	564	+14	+2.6	533	+45	+8.6
Iowa.....	430	424	+6	+1.5	400	+30	+7.4
Missouri.....	848	844	+4	+5	758	+90	+11.9
North Dakota.....	79	78	+1	+2.1	77	+2	+2.7
South Dakota.....	86	85	+1	+1.6	84	+2	+2.3
Nebraska.....	213	211	+2	+1.1	201	+12	+6.1
Kansas.....	325	324	+1	+3	293	+32	+10.9
South Atlantic.....	3,924	3,906	+18	+4	3,393	+531	+15.7
Delaware.....	79	79	0	+1	72	+7	+10.4
Maryland.....	602	598	+4	+7	507	+95	+18.7
District of Columbia.....	408	405	+3	+6	344	+64	+18.6
Virginia.....	595	585	+10	+1.8	485	+110	+22.7
West Virginia.....	404	401	+3	+7	368	+36	+9.6
North Carolina.....	624	625	-1	-2	560	+64	+11.4
South Carolina.....	320	316	+4	+1.1	273	+47	+17.1
Georgia.....	530	531	-1	-2	461	+69	+15.1
Florida.....	362	368	-6	-1.7	323	+39	+12.2
East South Central.....	1,496	1,473	+23	+1.7	1,321	+177	+13.5
Kentucky.....	388	385	+3	+8	356	+32	+8.9
Tennessee.....	491	482	+9	+1.8	430	+61	+14.2
Alabama.....	424	414	+10	+2.4	358	+66	+18.6
Mississippi.....	195	192	+3	+1.6	177	+18	+10.2
West South Central.....	1,992	1,968	+24	+1.2	1,798	+194	+10.8
Arkansas.....	192	188	+4	+2.0	176	+16	+9.0
Louisiana.....	393	395	-2	-4	353	+40	+11.4
Oklahoma.....	306	301	+5	+1.7	286	+20	+6.8
Texas.....	1,101	1,084	+17	+1.6	983	+118	+12.0
Mountain.....	851	825	+26	+3.3	789	+62	+7.9
Montana.....	119	117	+2	+2.2	115	+4	+3.7
Idaho.....	91	89	+2	+2.1	86	+5	+5.6
Wyoming.....	58	57	+1	+2.9	54	+4	+8.2
Colorado.....	246	235	+11	+4.7	224	+22	+9.7
New Mexico.....	79	77	+2	+2.7	72	+7	+9.2
Arizona.....	95	96	-1	-6	87	+8	+9.9
Utah.....	125	117	+8	+6.8	117	+8	+6.8
Nevada.....	38	37	+1	+2.8	34	+4	+11.6
Pacific.....	2,762	2,683	+79	+2.9	2,405	+357	+14.8
Washington.....	493	474	+19	+3.8	426	+67	+15.7
Oregon.....	275	277	-2	-7	244	+31	+12.4
California.....	1,994	1,932	+62	+3.2	1,735	+259	+14.9

The accompanying chart shows recent trends of factory employment in cities which have been particularly affected by the defense

program. The spectacular rise in employment in Wichita and San Diego reflects the growth of aircraft plants located in those areas. Norfolk, Va., has experienced a marked expansion in both Government and private shipyards. Los Angeles is a leading aircraft center, but has also shown significant employment gains in shipbuilding and in the aluminum industry. Seattle has reported gains in both aircraft and shipbuilding employment. The employment



rise in Paterson, N. J., has followed principally from expansion in the aero-engine industry, while gains in Bridgeport, Conn., can be attributed to expansions in the ammunition; aircraft; brass, bronze, and copper products; and machine-tool industries.

Indexes of factory wage-earner employment for 93 metropolitan areas for the months of June 1941 and July 1941, together with percentage changes from June to July 1941 and from July 1940 to July 1941 are shown in table 5.

TABLE 5.—*Indexes of Employment in Manufacturing Industries, by Metropolitan Area*¹

(12-month average 1937=100)

Metropolitan area	Employment index		Percentage change, June to July 1941	Employment index, July 1940	Percentage change, July 1940 to July 1941
	July 1941	June 1941			
Akron, Ohio.....	112.0	109.3	+2.5	81.9	+36.8
Albany, N. Y. ¹	111.0	107.1	+3.6	86.3	+28.6
Atlanta, Ga.....	103.6	108.1	-4.2	88.6	+16.9
Baltimore, Md.....	149.4	142.8	+4.6	112.4	+32.9
Birmingham, Ala.....	132.9	131.5	+1.1	103.0	+29.0
Boston, Mass. ¹	136.3	133.1	+2.4	101.5	+34.3
Cambridge, Mass.....	105.0	102.4	+2.5	83.9	+25.1
Lynn, Mass.....	170.5	158.3	+7.7	98.4	+73.3
Somerville, Mass.....	91.9	103.1	-10.9	94.5	-2.8
Boston city and outside ¹	138.1	135.2	+2.1	104.0	+32.8
Bridgeport, Conn.....	147.2	142.6	+3.2	96.9	+51.9
Buffalo, N. Y.....	140.9	139.0	+1.4	102.4	+37.6
Canton, Ohio.....	139.7	136.2	+2.6	92.6	+50.9
Chattanooga, Tenn.....	119.3	118.0	+1.1	96.2	+24.0
Chicago, Ill.....	126.8	122.5	+3.5	98.3	+29.0
Gary, Ind.....	123.3	121.9	+1.1	111.4	+10.7
Chicago city and outside.....	127.0	122.6	+3.6	97.5	+30.3
Cincinnati, Ohio.....	116.9	114.9	+1.7	91.5	+27.8
Cleveland, Ohio.....	131.9	129.2	+2.1	95.0	+38.8
Columbus, Ohio.....	128.2	123.9	+3.5	92.3	+38.9
Dallas, Tex.....	132.6	127.0	+4.4	101.8	+30.3
Dayton, Ohio.....	113.5	113.6	-1	86.5	+31.2
Denver, Colo.....	117.8	115.0	+2.4	97.0	+21.4
Des Moines, Iowa.....	116.4	117.2	-7	108.4	+7.4
Detroit, Mich.....	92.5	96.9	-4.5	64.3	+43.9
Duluth, Minn.....	84.5	82.6	+2.3	71.9	+17.5
El Paso, Tex.....	98.1	96.7	+1.4	89.9	+9.1
Erie, Pa.....	148.2	144.3	+2.7	100.3	+47.8
Evansville, Ind.....	94.2	98.7	-4.6	83.1	+13.4
Flint, Mich.....	93.5	96.4	-3.0	51.4	+81.9
Fort Wayne, Ind.....	119.3	118.1	+1.0	77.4	+54.1
Fort Worth, Tex.....	105.6	105.3	+3	86.7	+21.8
Grand Rapids, Mich.....	134.4	136.9	-1.8	93.4	+43.9
Hartford, Conn.....	146.1	142.6	+2.5	102.7	+42.3
Houston, Tex.....	114.6	108.6	+5.5	98.1	+16.8
Indianapolis, Ind.....	136.1	133.9	+1.6	104.8	+29.9
Jacksonville, Fla.....	135.5	134.9	+4	108.2	+25.2
Kansas City, Mo.....	112.4	109.9	+2.3	92.3	+21.8
Kansas City, Kans.....	99.9	100.8	-9	93.9	+6.4
Kansas City, Mo., and outside.....	117.2	113.4	+3.4	91.7	+27.8
Knoxville, Tenn.....	116.4	100.3	+16.1	87.0	+33.8
Los Angeles, Calif.....	177.3	168.8	+5.0	113.1	+56.8
Long Beach, Calif.....	125.2	119.8	+4.5	90.3	+38.6
Los Angeles city and outside.....	178.7	170.1	+5.1	113.7	+57.2
Louisville, Ky.....	115.9	113.9	+1.8	95.4	+21.5
Lowell, Mass.....	111.8	109.5	+2.1	89.2	+25.3
Memphis, Tenn.....	118.4	116.2	+1.9	87.3	+35.6
Miami, Fla.....	84.8	93.7	-9.5	73.4	+15.5
Milwaukee, Wis.....	116.8	116.5	+3	86.1	+35.7
Minneapolis-Saint Paul.....	118.7	115.1	+3.1	90.5	+31.2
Saint Paul, Minn.....	126.2	121.4	+4.0	87.4	+44.4
Minneapolis city and outside.....	114.8	111.8	+2.7	92.2	+24.5
Nashville, Tenn.....	108.6	106.0	+2.5	87.1	+24.7
New Haven, Conn.....	138.7	137.3	+1.0	94.0	+47.6
New Orleans, La.....	132.4	128.5	+3.0	92.9	+42.5
New York City and northeastern New Jersey ¹	127.8	126.5	+1.0	99.8	+28.1
Newark, N. J.....	133.4	132.2	+9	101.9	+30.9
Jersey City, N. J.....	114.6	112.0	+2.3	98.3	+16.6
Patterson, N. J.....	151.9	148.3	+2.4	114.5	+32.7
Elizabeth, N. J.....	133.0	130.1	+2.2	98.6	+34.9
Yonkers, N. Y.....	114.1	112.3	+1.6	91.2	+25.1
New York City and outside ¹	128.1	126.0	+1.7	99.4	+28.9

See footnotes at end of table.

TABLE 5.—*Indexes of Employment in Manufacturing Industries, by Metropolitan Area*¹—
Continued

[12-month average 1937=100]

Metropolitan area	Employment index		Percentage change, June to July 1941	Employment index, July 1940	Percentage change, July 1940 to July 1941
	July 1941	June 1941			
Norfolk, Va. ²	219.1	212.6	+3.1	140.9	+55.5
Oklahoma City, Okla.....	106.9	104.2	+2.6	93.0	+14.9
Omaha, Nebr.....	111.3	107.3	+3.7	92.5	+20.3
Peoria, Ill.....	111.1	111.3	— .2	87.8	+26.5
Philadelphia, Pa. ²	120.7	118.2	+2.1	93.6	+29.0
Camden, N. J.....	140.5	138.7	+1.3	122.8	+14.4
Philadelphia city and outside ²	119.1	116.6	+2.1	91.2	+30.6
Pittsburgh, Pa.....	122.5	120.0	+2.1	97.5	+25.6
Portland, Oreg.....	126.2	123.8	— 2.8	91.1	+38.5
Providence, R. I. ²	121.6	120.9	+ .6	96.7	+25.7
Fall River, Mass.....	112.5	112.9	— .4	102.9	+9.3
New Bedford, Mass.....	100.3	98.9	+1.4	72.1	+39.1
Providence city and outside ²	128.6	127.8	+ .6	101.1	+27.2
Reading, Pa.....	77.4	76.3	+1.4	67.3	+15.0
Richmond, Va.....	114.8	112.4	+2.1	102.6	+11.9
Rochester, N. Y.....	119.2	115.6	+3.1	97.2	+22.6
Saint Louis, Mo.....	118.6	116.7	+1.6	93.3	+27.1
Salt Lake City, Utah.....	95.7	94.2	+1.6	78.7	+21.6
San Antonio, Tex.....	113.1	111.1	+1.8	107.0	+5.7
San Diego, Calif.....	308.0	279.1	+10.4	165.6	+86.0
San Francisco, Calif. ²	144.4	129.0	+11.9	94.1	+53.5
Oakland, Calif.....	160.9	122.8	+31.0	98.5	+63.4
San Francisco city and outside ²	140.5	130.5	+7.7	93.0	+51.1
Scranton, Pa.....	99.3	99.3	0	86.3	+15.1
Seattle, Wash.....	161.9	152.4	+6.2	115.7	+39.9
South Bend, Ind.....	136.9	137.2	— .2	76.7	+78.5
Spokane, Wash.....	105.9	106.0	— .1	102.5	+3.3
Springfield, Mass. ²	128.1	124.4	+3.0	92.9	+37.9
Syracuse, N. Y.....	130.5	130.0	+ .4	98.3	+32.8
Tacoma, Wash.....	109.6	104.7	+4.7	100.2	+9.4
Tampa, Fla.....	123.5	125.2	— 1.4	97.3	+26.9
Toledo, Ohio.....	98.7	99.2	— .5	73.0	+35.2
Trenton, N. J.....	133.3	137.1	+2.8	109.0	+22.3
Tulsa, Okla.....	115.2	107.6	+7.1	90.7	+27.0
Utica, N. Y.....	133.9	131.2	+2.1	94.2	+42.1
Washington, D. C. ²	154.6	149.0	+3.8	108.6	+42.4
Wichita, Kans.....	351.8	330.6	+6.4	116.0	+203.3
Wilmington, Del.....	129.9	128.8	+ .9	94.1	+38.0
Worcester, Mass.....	119.5	118.0	+1.3	96.1	+24.3
Youngstown, Ohio.....	115.9	110.2	+5.2	91.7	+26.4

¹ These indexes have been adjusted to levels indicated by the 1939 Census of Manufactures, and are not comparable to those previously published. The revised indexes for previous months are available upon request. The metropolitan areas covered are in each case as defined in the 1930 Census of Population. In cases where cities of 100,000 population or over are located within metropolitan areas, those cities are also shown separately.

For areas in which Government arsenals or navy yards are located, the scope of the indexes has been widened to include those as well as private manufacturing establishments. In those areas, and in others where there are large plants important to the defense program the data have been weighted to reflect more accurately local employment conditions.

² Includes employment in Government navy yards and arsenals.

Hours and Earnings

Hourly earnings of wage earners in manufacturing industries in July rose to a new high level, but weekly earnings declined slightly as many industries reported a reduction in hours because of the Fourth of July holiday. Wage-rate increases were reported for a substantial but smaller number of workers during July than in the preceding 3 months.

Strategic defense industries continued extensive overtime, 31 of the 43 durable-goods industries regularly tabulated averaging more than 40 hours per week per wage earner. Three defense industries operated in excess of 50 hours per week per wage earner in July: Firearms (51.8 hours), machine tools (50.9 hours), and machine-tool accessories (51.8 hours). Other important defense industries operated at the following levels: Instruments—professional, scientific, and commercial (47.3); screw-machine products (47.2); aircraft (44.7); shipbuilding (44.3); explosives (42.8); brass, bronze, and copper products (44.2); ammunition (41.3); optical goods (40.9); aluminum (40.8); and smelting and refining—copper, lead, and zinc (39.4).

Wage-rate increases (see table 6) during the month ending July 15 1941, averaging 8.5 percent for nearly 500,000 wage earners, were reported by 1,421 manufacturing plants out of a reporting sample of 33,520 establishments employing 7,400,000 workers. Substantial numbers of workers were affected in the following industries: Cotton goods (109,081); shipbuilding (57,792); electrical machinery (22,652); brass, bronze, and copper products (22,412); foundry and machine-shop products (17,431); engines, turbines, etc. (17,079); aircraft (14,897); refrigerating and refrigerating apparatus (13,646); agricultural implements (12,835); and boots and shoes (11,500). As the Bureau's survey does not cover all establishments, and as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring during the period.

Average hourly earnings in manufacturing industries rose to 74.4 cents in July, an increase of 0.7 percent over June 1941 and of 12.0 percent over July 1940. A considerable number of industries reported reductions in hourly earnings between June and July owing to a decline in overtime payments, but all 90 of the industries covered showed increases over July 1940. Average hours worked per wage earner for all manufacturing combined declined from 41.3 in June to 40.3 in July, or 2.4 percent. Factory workers, however, were averaging 8.3 percent longer hours in July 1941 than in July 1940. Weekly earnings of full-time and part-time workers averaged \$31.20, a decrease of 1.7 percent from June to July, but an increase of 22.9 percent above July 1940.

As a result of the concentration of the defense production among the durable-goods industries, the expansion in hours and earnings of wage earners over the year interval was considerably greater in the durable- than in the nondurable-goods industries. Average hours in July 1941 in durable goods were 9.7 percent above the July 1940 level while nondurable goods showed an increase of 6.4 percent. Hourly earnings in durable goods in July advanced 14.1 percent over the year as compared with 7.2 percent for the nondurable-goods group. As a

result of these increases, weekly earnings in the durable-goods group (\$35.80) were 26.5 percent above July 1940, while in nondurable goods (\$25.15) they increased 14.9 percent.

Among the nonmanufacturing industries surveyed, anthracite and bituminous-coal mines showed declines in weekly earnings from June to July as the miners received vacations in the first week of July in accordance with the new union agreements. The decline was less pronounced in bituminous-coal mining because those miners received a \$20 payment for the vacation period, while the anthracite miners are to receive vacation allowances in December. Average weekly earnings in metalliferous mining declined 8.3 percent as hours were reduced, but the level of weekly earnings was 10.6 percent higher than a year earlier. Weekly earnings in quarrying and nonmetallic mining declined during the month but were 16.3 percent above the level of July 1940, reflecting increases in both average hours worked and average hourly earnings. In wholesale and retail trade establishments the higher level of weekly earnings as compared with last year was largely due to increased commissions.

TABLE 6.—Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending July 15, 1941^{1 2}

Group and industry	Establishments		Employees		Average percent- age change in wage rates of employees hav- ing in- creases
	Total number covered	Number reporting increases	Total number covered	Number having increases	
All manufacturing	33, 520	1, 421	7, 405, 902	489, 915	8. 5
Durable.....	12, 747	516	4, 056, 823	259, 534	9. 2
Nondurable.....	20, 773	905	3, 349, 079	230, 381	7. 8
Iron and steel and their products, not including machinery	2, 567	113	1, 067, 871	21, 898	7. 5
Blast furnaces, steel works, and rolling mills....	304	10	549, 310	3, 202	7. 1
Cast-iron pipe.....	72	6	20, 366	1, 432	8. 3
Cutlery (not including silver and plated cut- lery) and edge tools.....	113	5	16, 015	1, 084	7. 4
Forgings, iron and steel.....	97	8	19, 500	1, 972	10. 0
Hardware.....	156	7	42, 040	1, 084	6. 6
Plumbers' supplies.....	112	5	29, 215	715	5. 2
Stamped and enameled ware.....	245	12	53, 264	3, 211	7. 3
Stoves.....	244	11	42, 912	1, 632	7. 4
Structural and ornamental metalwork.....	297	12	35, 627	524	9. 9
Tin cans and other tinware.....	135	6	38, 659	1, 192	9. 0
Tools (not including edge tools, machine tools, files, and saws).....	134	3	20, 432	389	7. 6
Wirework.....	162	5	29, 861	253	7. 3
Screw-machine products....	83	9	18, 236	711	9. 8
Wiredrawing.....	46	3	17, 538	1, 223	6. 5

¹ Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," and in the various industry groups.

² No decreases reported.

TABLE 6.—*Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending July 15, 1941—Continued*

Group and industry	Establishments		Employees		Average percent- age change in wage rates of employ- ees hav- ing in- creases.
	Total number covered	Number reporting increases	Total number covered	Number having increases	
Machinery, not including transportation equipment.	3, 859	158	1, 201, 727	102, 859	8. 9
Agricultural implements (including tractors).....	110	3	70, 446	12, 835	3. 4
Cash registers, adding machines, and calculat- ing machines.....	33	3	24, 115	528	8. 3
Electrical machinery, apparatus, and supplies.....	590	35	331, 407	22, 652	10. 4
Engines, turbines, water wheels, and wind- mills.....	69	6	87, 266	17, 079	6. 1
Foundry and machine-shop products.....	2, 282	83	390, 363	17, 431	11. 7
Machine tools.....	202	6	94, 971	7, 448	10. 2
Radios and phonographs.....	80	5	56, 114	8, 851	10. 0
Machine-tool accessories.....	97	3	17, 743	388	7. 4
Pumps.....	108	5	26, 799	1, 021	5. 5
Refrigerating and refrigerating apparatus.....	56	3	34, 795	13, 646	10. 5
Transportation equipment.	832	42	924, 072	78, 254	11. 0
Aircraft.....	109	8	201, 938	14, 897	11. 9
Automobiles.....	418	12	451, 111	5, 210	9. 6
Shipbuilding.....	192	19	201, 110	57, 792	10. 9
Nonferrous metals and their products.	1, 083	50	254, 694	28, 491	7. 3
Brass, bronze, and copper products.....	341	27	101, 351	22, 412	6. 7
Smelting and refining—copper, lead, and zinc.....	56	9	33, 717	4, 233	9. 3
Sheet-metal work.....	132	6	8, 038	610	11. 1
Lumber and allied products.	2, 816	103	372, 860	17, 166	8. 2
Furniture.....	715	29	114, 557	4, 175	8. 6
Lumber:					
Millwork.....	585	26	44, 282	2, 291	8. 3
Sawmills.....	751	20	143, 561	5, 782	8. 3
Caskets and morticians' goods.....	106	5	5, 908	169	10. 0
Wood, turned and shaped.....	88	3	6, 856	232	9. 8
Wooden boxes, other than cigar.....	139	4	15, 234	784	5. 5
Mattresses and bedsprings.....	192	6	12, 831	2, 056	5. 5
Stone, clay, and glass products.	1, 590	50	235, 599	10, 866	8. 4
Brick, tile, and terra cotta.....	520	20	46, 503	2, 002	12. 6
Cement.....	130	3	23, 238	714	10. 2
Marble, granite, slate, and other products.....	247	5	6, 227	120	5. 1
Pottery.....	130	7	33, 696	1, 455	7. 4
Asbestos products.....	22	3	10, 724	864	4. 4
Concrete products.....	103	3	3, 290	89	14. 3
Wallboard and plaster, except gypsum.....	23	3	7, 032	1, 907	7. 0
Textiles and their products.	6, 480	440	1, 379, 861	150, 436	7. 5
Fabrics.....	3, 451	357	1, 034, 325	138, 396	7. 3
Cotton goods.....	801	204	425, 870	109, 081	6. 9
Cotton small wares.....	128	10	15, 005	1, 018	12. 7
Dyeing and finishing textiles.....	229	19	61, 680	4, 231	8. 3
Hosiery.....	317	3	99, 454	879	6. 9
Knitted outerwear.....	226	9	19, 303	623	9. 6
Knit cloth.....	75	7	7, 165	1, 097	8. 7
Silk and rayon goods.....	403	53	78, 975	9, 739	8. 8
Woolen and worsted goods.....	405	13	166, 373	3, 988	8. 9
Cordage and twine.....	61	7	13, 497	2, 097	6. 8
Housefurnishings, other.....	69	5	6, 877	210	7. 1
Wearing apparel.....	3, 029	83	345, 536	12, 040	9. 5
Clothing, men's.....	1, 131	47	153, 984	4, 539	9. 9
Clothing, women's.....	1, 155	16	88, 568	1, 412	8. 2
Corsets and allied garments.....	65	5	12, 118	1, 562	11. 8
Shirts and collars.....	267	12	55, 747	3, 880	9. 0
Leather and its manufactures.	1, 085	47	255, 524	15, 220	6. 1
Boots and shoes.....	515	28	180, 641	11, 500	6. 3
Leather.....	179	8	40, 259	3, 136	5. 4
Boot and shoe cut stock and findings.....	127	8	10, 938	444	5. 0

TABLE 6.—*Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending July 15, 1941—Continued*

Group and industry	Establishments		Employees		Average percent- age change in wage rates of employ- ees hav- ing in- creases
	Total number covered	Number reporting increases	Total number covered	Number having increases	
Food and kindred products..	5,243	111	528,030	13,470	10.0
Baking	1,000	14	80,583	777	8.3
Beverages	602	9	45,864	522	9.9
Butter	318	3	6,339	208	4.1
Canning and preserving ..	1,044	18	130,239	3,916	12.4
Confectionery	292	10	36,436	1,771	8.1
Flour	332	15	15,194	714	10.1
Slaughtering and meat packing..	332	8	122,249	929	7.2
Sugar, beet	79	3	4,663	474	10.0
Condensed and evaporated milk..	110	3	7,022	250	7.6
Feeds, prepared	106	11	4,372	658	7.9
Tobacco manufactures ..	227	4	71,820	1,837	7.4
Paper and printing ..	4,017	146	398,685	18,575	7.9
Boxes, paper	666	56	49,773	3,923	10.2
Paper and pulp	436	22	140,058	9,003	6.5
Printing and publishing:					
Book and job	1,616	32	84,416	1,435	7.9
Newspapers and periodicals ..	736	7	62,697	506	5.7
Paper bags	27	3	7,262	645	7.6
Envelopes	64	3	7,179	152	9.7
Paper goods, not elsewhere classified..	142	6	20,313	814	11.0
Bookbinding	91	8	9,179	1,687	8.9
Lithographing	77	4	7,932	359	8.3
Chemical, petroleum, and coal products..	2,387	108	385,400	12,047	8.9
Chemicals	247	21	79,279	3,588	8.7
Druggists' preparations ..	93	10	13,330	431	11.8
Fertilizers	313	4	11,607	111	12.4
Paints and varnishes	515	24	25,443	782	8.0
Petroleum refining	185	4	77,384	483	6.7
Compressed and liquefied gases..	73	7	3,844	209	7.9
Perfumes and cosmetics ..	52	9	6,010	1,551	11.5
Rubber products	249	7	139,712	5,136	8.4
Rubber goods, other..	194	5	50,056	1,785	9.2
Miscellaneous	1,086	42	190,047	13,659	9.6
Fabricated plastic and wood-pulp products..	73	3	19,530	1,222	7.6
Instruments—professional, scientific, and com- mercial	68	6	26,480	6,594	11.2
Optical goods	32	3	18,231	813	8.0
All nonmanufacturing (except building construc- tion)	*94,110	338	3,056,000	40,318	7.7
Anthracite mining	*80	12	59,100	116	10.0
Bituminous-coal mining ..	*1,100	18	243,900	3,486	7.8
Metalliferous mining	*390	13	75,500	2,848	6.3
Quarrying and nonmetallic mining ..	*1,090	27	41,000	1,028	8.9
Crude-petroleum production ..	*470	6	38,300	90	6.2
Telephone and telegraph ..	*9,540	3	322,100	707	5.2
Natural gas	*710	3	25,000	147	9.1
Electric light and power ..	*2,850	44	253,300	3,356	5.2
Manufactured gas	*160	4	35,400	1,780	6.0
Street railways and busses ..	*350	55	132,400	1,628	8.4
Trade:					
Wholesale	*14,940	71	341,700	2,584	9.5
Retail	*54,120	53	1,083,400	2,439	7.6
Hotels	*1,990	7	148,100	850	6.1
Laundries	*1,310	11	88,900	854	9.6
Brokerage	*1,310	7	18,000	36	10.1

* Approximate—based on previous month's sample.

Public Employment

Increasing at the rate of approximately 40,500 per month during the first year of the defense emergency, employment on construction projects financed from appropriations to regular Federal agencies rose to 873,000 in the month ending July 15. Employment on building construction projects increased fifteenfold over the year period while the number of men at work on heavy engineering projects rose from 140 in July 1940 to almost 9,000 in July 1941. Employment on the construction of naval vessels more than doubled during the year. On the construction of cargo vessels the number of men at work rose from 26,000 to 40,000. Total pay-roll disbursements on construction projects financed from regular funds were \$121,148,000 in the month ending July 15.

With a large part of defense housing being financed by appropriations to regular Federal agencies, employment on housing projects under the United States Housing Authority program showed a decline of 4,000 during the month ending July 15.

Employment on construction projects financed by the Reconstruction Finance Corporation increased sixfold from July 1940 to July 1941. Increased activity on construction work essential to the defense program was largely responsible for the gain.

Increasing employment in other fields and on vital defense projects lightened the relief load considerably during the year. In July approximately 1,055,000 persons were employed on work relief projects financed from Work Projects Administration funds. This figure represents a decrease of about 700,000 over the year period. Two-thirds of workers remaining on work relief were employed on defense projects. Pay-roll disbursements on these projects totaled \$68,200,000.

Because of the completion of the school year in June only 2,300 students were employed on the student-work program of the National Youth Administration in July. Employment on the out-of-school work program was curtailed to 323,000.

Employment in camps of the Civilian Conservation Corps showed a loss of 24,000 in July. Of the 210,000 on the pay roll, 178,300 were enrollees; 1,400, educational advisers; 100, nurses; and 30,200, supervisory and technical employees. Total pay rolls of \$10,388,000 were \$890,000 less than in June.

Increased employment was reported in all of the regular services of the Federal Government. Of the 1,392,000 employees in the executive service, 185,000 were working in the District of Columbia and 1,207,000 outside the District. Force-account employees (employees on the pay roll of the United States Government who are engaged on construction projects, and whose period of employment

terminates as the project is completed) constituted 12 percent of the total number of employees in the executive service. Increased employment was reported in the War, Navy, and Post Office Departments and the Tennessee Valley Authority while decreases were reported in the Federal Security and Federal Works Agencies.

The seasonal increase of activity on State-financed road projects in July resulted in an employment gain of 6,000. Of the 202,000 men on the pay roll, 65,000 were engaged in the construction of new roads and 137,000 in maintenance.

A summary of employment and pay-roll data in the regular Federal services and on projects financed wholly or partially from Federal funds is given in table 7.

TABLE 7.—Summary of Employment and Pay Rolls in Regular Federal Services and on Construction Projects Financed Wholly or Partially from Federal Funds, July 1941

[Preliminary figures]

Class	Employment			Pay rolls		
	July 1941	June 1941	Percentage change	July 1941	June 1941	Percentage change
Federal services:						
Executive	1,391,689	1,370,110	+1.6	\$205,977,306	\$205,581,047	+0.2
Judicial	2,637	2,526	+4.4	647,810	644,557	+0.5
Legislative	6,142	6,132	+0.2	1,334,763	1,336,535	-.1
Military	1,857,442	1,740,058	+6.7	122,384,486	105,021,351	+16.5
Construction projects:						
Financed by regular Federal appropriations	872,663	820,110	+6.4	121,148,189	111,482,646	+8.7
Defense	653,779	615,695	+6.2	98,908,072	91,385,025	+8.2
Other	218,884	204,415	+7.1	22,240,117	20,097,621	+10.7
U. S. H. A. low-rent housing	36,543	40,958	-10.8	3,849,428	4,247,710	-9.4
Defense	2,765	5,082	-45.6	290,522	503,929	-42.3
Other	33,778	35,876	-5.8	3,558,906	3,743,781	-4.9
Financed by P. W. A. ¹	7,456	9,507	-21.6	807,747	1,056,578	-23.6
Financed by R. F. C. ²	13,398	10,935	+22.5	1,908,303	1,522,123	+25.4
Defense	10,719	8,572	+25.0	1,587,160	1,232,888	+28.7
Other	2,679	2,363	+13.4	321,143	289,235	+11.0
Work Projects Administration projects:						
Defense	1,055,012	1,419,017	-25.7	68,200,000	81,546,281	-16.4
Other	357,593	420,965	-15.1	(4)	(4)	-----
National Youth Administration:	697,419	998,052	-30.1	(4)	(4)	-----
Student work program	2,309	358,004	-99.4	12,375	2,602,449	-99.5
Out-of-school work program	322,736	392,514	-17.8	7,163,747	8,112,719	-11.7
Civilian Conservation Corps	210,121	235,024	-10.6	10,388,164	11,277,971	-7.9

¹ Includes force-account and supervisory and technical employees shown under other classifications to the extent of 196,080 employees and pay-roll disbursements of \$29,267,610 for July 1941, and 190,120 employees and pay-roll disbursements of \$27,526,403 for June 1941.

² Data covering P. W. A. projects financed from National Industrial Recovery Act funds, Emergency Relief Appropriation Acts of 1935, 1936, 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 3,446 wage earners and \$358,713 pay roll for July 1941; 3,327 wage earners and \$363,935 pay roll for June 1941; covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 3,758 wage earners and \$437,254 pay roll for July 1941 financed from funds provided by the Public Works Administration Appropriation Act of 1938.

³ Includes 467 employees and pay-roll disbursements of \$93,869 for July 1941; 351 employees and pay-roll disbursements of \$69,073 for June 1941; on projects financed by the R.F.C. Mortgage Co.

⁴ Pay-roll data not available.

DETAILED TABLES, JULY 1941

Industrial and Business Employment

MONTHLY reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission. They are presented in the foregoing summary.

The indexes of factory employment and pay rolls relate to wage earners only. Those shown in tables 8 and 9 are based on the 3-year average 1923–25 as 100. For all manufacturing industries combined, the durable-goods group, the nondurable-goods group, and aluminum manufactures, they have been adjusted to preliminary 1939 census figures and for automobiles to the 1933 census. The indexes for all other groups and industries have been adjusted to 1937 census data except for the aircraft industry and the transportation equipment group, which have been adjusted on the basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics in August 1940. The over-all manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

Indexes for 55 of the 67 manufacturing industries recently added to the monthly survey are shown in table 10. These indexes are based on 1939 as 100.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and nonmetallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 Census of Retail Distribution and are weighted

by lines of trade. For the public utilities they have been adjusted to the 1937 Census of Electrical Industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in tables 8 and 9 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a slightly smaller number of reporting firms. As the size and composition of the reporting sample vary somewhat from month to month, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from July 1940 are computed from chain indexes based on the month-to-month percentage changes.

EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND AVERAGE EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in July 1941 are shown in table 8. Percentage changes from June 1941 and July 1940 are also given.

The employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for May, June, and July 1941, where available, are presented in table 9. The May and June figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports. Indexes of employment and pay rolls are given in table 10 for 55 of the 67 newly added manufacturing industries for the months of May, June, and July 1941. These indexes are based on 1939 as 100 and are available in mimeographed form for the period from January 1939 to January 1941, inclusive.

In table 11 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-

goods groups of manufacturing industries, and for each of 13 non-manufacturing industries, by months, from July 1940 to July 1941, inclusive. The indexes for all manufacturing industries combined, the durable-goods group, and the nondurable-goods group have been adjusted to preliminary 1939 census figures. Comparable indexes for all available months and years back to January 1919 are given in tables 9, 10, and 11 of the December 1940 issue of this pamphlet. The chart on page 2 indicates the trend of factory employment and pay rolls from January 1919 to July 1941.

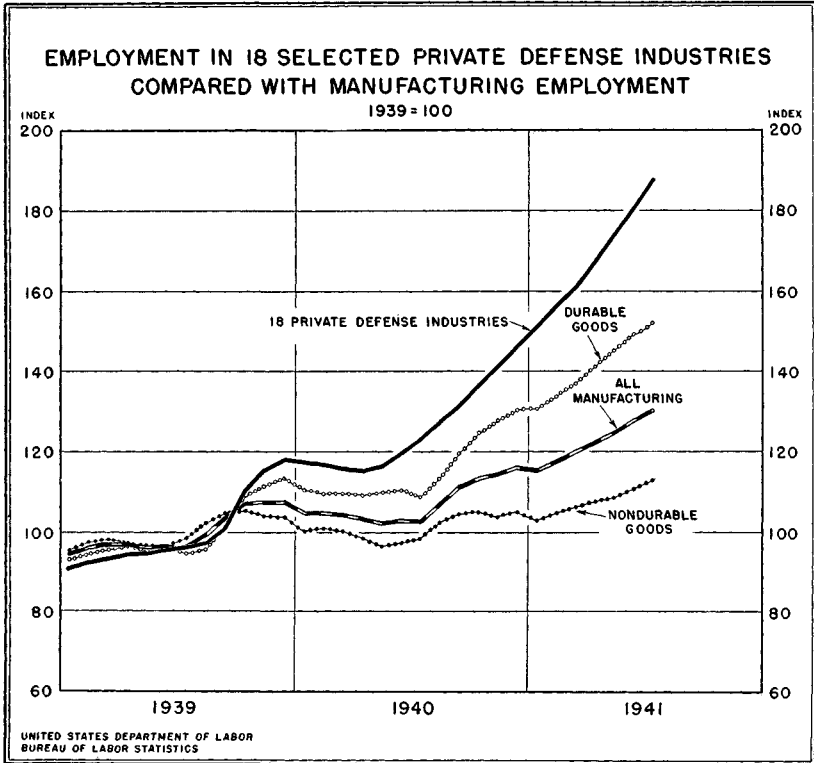
Use of average hourly earnings in "escalator" clauses.—Average hourly earnings of wage earners, such as those shown in table 8, have been compiled regularly by the Bureau of Labor Statistics since 1932. These averages are published for the use of those who wish either to compare the average earnings of wage earners in different industries, or to study the changes in average earnings over a period of time.

Certain characteristics of the average earnings should be indicated. The average of the actual earnings of wage earners as a group may change from one period to another for either of two reasons: (1) By reason of changes in the wages paid or (2) by reason of changes in the composition of the group of wage earners actually at work in different periods. As an example of the latter cause of change, it is evident that if, from one month to the next, the number of wage earners employed in a high-wage industry increases proportionally more than employment generally has increased, the average of actual earnings for the group as a whole will increase. This increase might take place even though there were no changes whatsoever in the earnings of any wage earner in any one of the establishments. It is apparent, therefore, that the Bureau's averages reflect both changes in the actual hourly rates paid as well as changes in the composition of the wage earners in the group. The averages contained in table 8 for all manufacturing, for durable goods, for nondurable goods, and for the various subgroups of industries, such as "iron and steel and their products," reflects both types of influence upon hourly earnings; and they measure the average of the actual earnings of the wage earners actually at work in each respective period.

To an increasing extent, use is being made of these average hourly earnings figures in so-called "escalator" clauses in Government contracts. These are designed to protect contractors from losses that might arise from general wage increases over which they could exercise no control. A number of contracts extending over many months have been written recently with clauses that provide for increased payments to the contractor in case of increases in the average of the hourly earnings in the durable-goods industries.

It should be pointed out that the characteristics of the Bureau's average hourly earnings figures, as described above, make it desirable

to use these averages for other than their designed purpose with a certain degree of caution. The purpose for which they were compiled limits their usefulness, especially in July and August, as a measure of change in labor rates. In these months the averages usually show a seasonal movement unrelated to rates of pay. For example, the average hourly earnings figure in the durable-goods industries dropped from 73.2 cents in June 1940 to 72.7 cents in July 1940. This did not represent a general decline in wages but only reflected a sharp reduction in employment in the automobile



industry at the close of the model year. This industry is a high-wage industry in which the average hourly earnings are about 95 cents an hour. Between June 1940 and July 1940 employment in the automobile industry dropped from 104.9 to 82.3. This relative decline, of a purely seasonable character, in the number of highly paid automobile workers was very largely responsible for the decline of half a cent noted in the average hourly earnings in durable-goods industries.

By way of illustration of the problem involved it would be possible to construct an index of earnings that was unrelated to changes in

the relative occupational composition of the group workers actually at work. For example, giving the averages for the several industries the same weights in July and August that they had in June and considering only the influence of changes in average earnings in each industry, we find no change in the rate of earnings from June 1940 to July 1940 and approximately the same percentage change as is shown by the published figures from July 1940 to August 1940. This means that from June to August 1940, the published figures show a slight decline over this 3-month interval whereas the series computed with constant weights shows a small gain.

It is not within the province of the Bureau to indicate the type of average that was contemplated by the contracting parties in the contracts already drawn; least of all can the method of compiling an average be changed. It is obvious, however, that in incorporating any statistical series in legal documents careful consideration should be given to the purpose for which the figures were originally compiled and to their relevance to some new purpose. The officials of the Bureau are at the disposal of all those who wish to apply any of the Bureau's series to administrative problems. Carefully interpreted and applied, these data have a present usefulness far greater than was imagined in the past. Their appropriate adaptation to new uses involves on the one hand a careful consideration by the Bureau of the purposes of the contracting parties; on the other, consultation with the Bureau to discover whether the new figures as they stand meet the purposes in mind.

TABLE 8.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July 1941*

MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment			Pay rolls			Average weekly earnings ¹			Average hours worked per week ¹			Average hourly earnings ¹		
	Index July 1941	Percentage change from—		Index July 1941	Percentage change from—		July 1941	Percentage change from—		July 1941	Percentage change from—		July 1941	Percentage change from—	
		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940
All manufacturing ²	130.6	+2.2	+26.6	152.8	+0.5	+55.6	\$31.20	-1.7	+22.9	40.3	-2.4	+8.3	Cents 74.4	+0.7	+12.0
Durable goods ²	137.9	+2.1	+40.1	172.6	- .7	+77.2	35.80	-2.6	+28.5	41.5	-3.6	+9.7	82.6	+ .4	+14.1
Nondurable goods ²	123.7	+2.2	+14.7	130.6	+2.2	+31.8	25.15	0	+14.9	39.0	-1.0	+6.4	65.7	+1.1	+7.2
<i>Durable goods</i>															
Iron and steel and their products, not including machinery	138.3	+1.6	+30.2	168.9	-1.0	+59.9	35.46	-2.6	+22.8	39.9	-4.8	+7.1	86.2	- .2	+11.7
Blast furnaces, steel works, and rolling mills	147.2	+2.3	+23.7	181.5	+ .9	+56.2	38.99	-1.3	+26.3	38.7	-5.4	+6.1	96.3	- .1	+13.7
Bolts, nuts, washers and rivets	167.4	+1.1	+53.3	224.3	-9.7	+101.0	32.14	-10.6	+31.1	41.6	-8.8	+17.9	77.2	-2.0	+11.1
Cast-iron pipe	97.6	+ .8	+24.8	112.2	-2.1	+49.8	27.45	-2.8	+20.0	40.4	-3.3	+6.0	67.7	+ .9	+13.3
Cutlery (not including silver and plated cutlery) and edge tools	123.6	+2.7	+25.1	134.9	-3.1	+48.8	28.65	-5.6	+19.0	42.0	-4.4	+6.9	69.1	-1.4	+11.1
Forgings, iron and steel	107.2	+2.9	+58.2	157.1	-4.0	+102.1	38.84	-6.7	+27.8	43.9	-6.5	+11.5	88.6	- .2	+14.5
Hardware	114.2	-3.5	+37.7	136.8	-8.9	+59.6	29.51	-5.6	+15.8	40.5	-4.7	+8.3	73.0	- .9	+7.1
Plumbers' supplies ³	101.7	- .8	+20.5	101.6	-4.4	+33.6	28.89	-3.7	+10.9	38.9	-3.7	+2.6	74.2	- (4)	+7.9
Stamped and enameled ware	222.0	+ .8	+45.2	272.1	-2.5	+63.2	28.61	-3.2	+12.4	39.9	-4.0	+4.1	71.6	+ .8	+7.3
Steam and hot-water heating apparatus and steam fittings	119.0	+4.2	+41.3	137.5	- .2	+76.2	34.65	-4.3	+24.6	43.4	-2.8	+10.0	80.1	-1.7	+13.2
Stoves	116.6	+ .6	+27.0	122.0	-2.2	+50.1	29.61	-2.8	+18.3	40.3	-2.7	+6.9	73.0	- .2	+9.4
Structural and ornamental metalwork	107.3	+1.7	+41.1	112.1	-6.7	+65.9	33.74	-8.2	+17.5	41.2	-6.7	+6.6	82.2	-1.6	+10.6
Tin cans and other tinware	138.8	+5.2	+31.2	171.3	+5.0	+51.0	27.59	- .2	+15.1	42.0	- .2	+7.4	66.4	+ .7	+7.5
Tools (not including edge tools, machine tools, files, and saws)	139.8	+1.1	+48.8	172.6	-4.7	+88.3	31.29	-5.7	+26.5	43.3	-7.2	+10.8	72.9	+2.2	+15.0
Wirework	213.2	-1.3	+56.8	271.6	-4.5	+93.3	30.85	-3.2	+23.3	42.0	-2.4	+12.4	73.5	- .7	+9.5

See footnotes at end of table.

TABLE 8.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July 1941—Continued

MANUFACTURING—Continued

Industry	Employment			Pay rolls			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index July 1941	Percentage change from—		Index July 1941	Percentage change from—		July 1941	Percentage change from—		July 1941	Percentage change from—		July 1941	Percentage change from—	
		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940
Durable goods—Continued															
Machinery, not including transportation equipment	172.6	+2.7	+48.7	233.3	+1.3	+85.7	\$37.51	-1.3	+25.0	44.6	-2.0	+10.2	Cents 83.6	+4	+012.9
Agricultural implements (including tractors)	171.4	-.2	+31.3	228.4	-2.1	+53.5	36.62	-1.8	+16.8	41.2	-2.1	+5.7	89.0	+5	+10.6
Cash registers, adding machines, and calculating machines	167.5	+3.0	+29.3	214.0	-1.0	+57.8	39.87	-3.9	+22.1	43.9	-3.0	+10.5	91.6	-.9	+11.4
Electrical machinery, apparatus, and supplies	163.6	+3.2	+57.6	231.9	+3.5	+96.4	37.34	+4	+24.6	43.5	-.8	+9.5	85.5	+1.1	+13.2
Engines, turbines, water wheels, and wind-mills	297.8	+4.3	+77.8	497.7	+4.5	+123.6	44.34	+3	+25.8	46.5	-.1	+6.9	95.2	+3	+17.7
Foundry and machine-shop products	143.3	+2.6	+46.2	177.8	-.8	+84.7	36.61	-3.3	+26.3	44.6	-3.3	+11.8	81.7	-.2	+12.7
Machine tools ⁵	346.0	+2.2	+47.4	534.7	+1.0	+73.7	42.80	-1.2	+17.9	50.9	-2.1	+6.9	84.1	+1.0	+10.2
Radios and phonographs	188.7	+4.4	+31.6	218.7	+9.1	+57.9	28.30	+4.5	+20.0	41.2	+4	+6.9	69.3	+4.0	+12.4
Textile machinery and parts	106.3	+2.5	+38.1	132.7	+1.7	+80.9	34.31	-.8	+31.0	46.5	-.5	+18.4	74.2	-.3	+10.6
Typewriters and parts	153.1	+3.3	+33.9	217.2	+4.7	+85.7	34.77	+1.3	+38.8	46.4	+1.4	+20.6	74.9	-(*)	+15.0
Transportation equipment ⁶	179.2	+8	+79.7	229.9	-4.0	+132.5	40.67	-4.8	+29.3	41.2	-5.8	+14.3	98.8	+1.2	+12.2
Aircraft ⁶	7,280.0	+8.1	+131.4	9,077.7	+10.5	+190.5	36.48	+2.3	+18.8	44.7	-.5	+6.5	82.0	+2.7	+10.7
Automobiles ⁷	127.3	-5.6	+54.6	160.1	-15.1	+98.9	41.13	-10.1	+28.6	38.8	-10.2	+13.8	106.4	+1	+12.9
Cars, electric- and steam-railroad	89.5	+4.6	+77.1	90.9	-.7	+113.1	32.41	-5.1	+20.3	39.0	-4.6	+9.6	83.2	-.5	+9.1
Locomotives	75.7	+11.2	+143.5	102.5	+12.8	+227.4	41.49	+1.5	+34.4	46.3	-.4	+18.2	89.6	+1.9	+13.7
Shipbuilding	368.9	+10.3	+116.8	571.0	+14.7	+105.2	45.59	+4.0	+36.1	44.3	-1.9	+13.5	101.6	+6.8	+19.2
Nonferrous metals and their products	143.5	+1.1	+34.1	174.1	-.3	+84.4	33.82	-1.4	+22.5	42.0	-2.4	+7.8	80.3	+1.1	+14.3
Aluminum manufactures ⁸	233.7	+2.3	+25.3	319.8	-.4	+59.4	34.17	-2.7	+27.3	40.8	-3.2	+11.8	83.7	+6	+13.8
Brass, bronze, and copper products	189.7	+2	+46.4	263.9	+6	+80.5	38.55	+4	+23.3	44.2	-1.2	+7.7	87.8	+1.8	+15.0
Clocks and watches and time-recording devices	118.3	+1.1	+31.4	138.4	-6.4	+51.9	25.83	-7.5	+15.7	38.5	-9.1	+2.6	67.1	+1.8	+13.1
Jewelry	111.7	+4.6	+19.8	105.2	+3.8	+38.8	25.24	-.7	+15.8	41.5	+3	+9.0	60.7	-.3	+8.3
Lighting equipment ⁹	116.4	+2.1	+51.6	117.8	+3	+82.9	31.52	-1.7	+20.7	40.5	-2.0	+6.5	77.3	+2	+13.4
Silverware and plated ware	83.4	-.7	+31.7	87.4	-6.9	+69.7	30.43	-6.3	+28.8	42.1	-4.5	+15.0	73.1	-1.9	+13.0
Smelting and refining—copper, lead and zinc	102.7	+9	+15.5	116.7	+1	+34.4	32.00	-.8	+16.4	39.4	-2.7	+2.7	81.3	+1.9	+13.5
Lumber and allied products	79.7	+3.6	+16.9	85.6	+1.9	+41.0	23.23	-1.6	+20.7	39.9	-2.6	+7.9	57.7	+9	+11.8
Furniture	105.6	+1.7	+20.4	110.1	+1	+48.2	24.68	-1.6	+23.2	41.4	-2.4	+11.2	60.1	+8	+11.4
Lumber:															
Millwork	75.7	+4.5	+21.0	68.3	+1.7	+40.1	24.74	-2.7	+15.7	41.7	-2.3	+6.1	59.3	-.3	+9.3
Sawmills ⁵	70.2	+4.4	+14.0	73.6	+3.3	+36.7	21.61	-1.3	+19.9	38.6	-2.7	+6.2	55.9	+1.4	+12.9

Stone, clay, and glass products.....	99.6	+2.6	+20.9	99.1	-1.1	+39.4	26.94	-3.6	+15.3	37.4	-3.6	+4.7	72.0	+4	+8.3
Brick, tile, and terra cotta.....	77.6	+3.0	+21.1	73.8	+2.8	+42.4	24.70	-1.1	+17.6	38.4	-1.2	+3.9	64.7	+8	+14.5
Cement.....	82.4	+4.1	+14.5	90.6	+1.2	+32.3	31.00	-2.8	+15.6	40.2	-3.6	+6.5	77.1	+8	+8.5
Glass.....	127.9	+1.9	+23.9	147.1	-4.1	+39.8	28.19	-5.9	+13.0	36.1	-6.1	+7.0	78.2	-(4)	+5.1
Marble, granite, slate, and other products..	45.3	-5	-4.7	34.9	+8	+2.0	26.90	+1.3	+7.0	36.6	-1	+4.3	73.3	+1.2	+1.8
Pottery.....	116.7	+2.0	+33.7	114.9	-2.8	+61.9	24.90	-4.7	+21.1	36.5	-4.7	+5.9	68.3	+4	+9.8
<i>Nondurable goods</i>															
Textiles and their products.....	113.2	+5	+19.8	113.6	+2.0	+46.2	20.57	+1.5	+22.1	37.4	-1.7	+10.8	55.0	+2.8	+9.6
Fabrics.....	107.0	+8	+21.6	113.3	+1.5	+48.3	20.46	+8	+22.0	38.5	-1.6	+10.7	53.4	+2.3	+10.1
Carpets and rugs..	89.0	-1.0	+25.7	89.5	-8	+65.8	27.77	+2	+31.9	39.2	-3	+23.5	70.9	+4	+6.7
Cotton goods.....	109.1	+5	+23.9	122.9	+2.4	+57.0	18.26	+1.8	+26.6	38.8	-2.2	+11.5	47.1	+4.2	+13.8
Cotton small wares.....	105.2	+1.4	+42.0	120.6	+3.7	+74.1	22.29	+2.3	+22.5	40.9	-1.5	+10.6	54.6	+3.8	+10.6
Dyeing and finishing textiles..	139.0	-2	+19.7	134.3	+8	+41.4	23.43	+1.0	+18.0	38.2	-6	+5.8	60.8	+1.7	+11.7
Hats, fur-felt ⁵	83.6	+1.1	+8	91.4	+6.6	+16.6	29.97	+5.4	+15.6	38.0	+5.4	+5.3	80.5	+7	+9.5
Hosiery.....	143.4	+5	+9.3	159.9	+1.1	+23.8	19.93	+6	+13.2	36.3	-6	+12.5	55.2	+1.3	+6
Knitted outerwear..	80.8	+1.8	+22.2	75.0	+2	+39.5	19.29	-1.6	+14.0	37.9	-2.4	+5.7	50.3	+5	+7.1
Knitted underwear..	85.7	+8.2	+18.4	91.0	+9.9	+44.5	17.89	+1.6	+22.3	38.8	+1.1	+13.3	46.1	+7	+6.2
Knitted cloth.....	159.7	-3	+17.1	152.4	-3	+30.2	21.74	0	+11.2	39.6	-1.1	+1.6	53.9	+1.3	+7.5
Silk and rayon goods.....	69.3	+1	+14.6	64.0	-1	+37.4	19.00	-2	+19.8	37.3	-3.5	+8.6	50.3	+3.4	+10.3
Woolen and worsted goods..	109.0	+1.0	+30.9	116.8	-1	+58.1	24.75	-1.1	+20.9	39.5	-1.3	+8.9	62.8	+2	+10.9
Wearing apparel.....	122.3	+3	+16.6	107.3	+3.1	+41.7	20.88	+2.7	+21.5	35.4	-1.8	+10.8	58.2	+3.9	+8.9
Clothing, men's.....	121.9	+1.5	+18.1	109.4	+2.0	+42.6	22.82	+4	+20.2	35.6	-1.8	+10.3	63.8	+1.9	+9.1
Clothing, women's.....	159.8	+7	+16.4	127.8	+7.5	+43.0	21.43	+6.8	+23.1	35.0	-1.7	+9.8	58.4	+7.5	+10.7
Corsets and allied garments..	115.1	-2.4	+12.4	131.6	-5.2	+31.9	19.01	-2.8	+17.4	37.9	-2.8	+10.6	50.1	+9	+6.7
Men's furnishings..	126.2	+3.6	+15.0	137.3	+4.7	+40.6	16.07	+1.1	+22.5	34.9	-3.2	+9.9	44.7	+3.4	+11.9
Millinery.....	57.5	-8.5	+5.4	39.6	-6.7	+8.4	21.05	+1.9	+2.9	27.6	-3.5	-5.5	71.7	+4.8	+10.7
Shirts and collars ⁵	129.2	-2.2	+16.8	131.0	-3.5	+49.3	16.11	-1.3	+27.8	36.9	-1.2	+16.2	43.8	+2	+7.4
Leather and its manufactures.....	101.0	+3.0	+10.3	103.3	+6.3	+35.2	23.64	+3.2	+22.7	38.7	+3	+9.3	60.9	+1.8	+11.6
Boots and shoes..	98.1	+3.3	+8.1	98.8	+7.5	+32.4	22.53	+4.1	+22.7	38.4	+8	+9.1	58.4	+1.9	+11.6
Leather.....	95.5	+1.7	+19.2	109.4	+2.7	+44.1	23.64	+1.0	+20.9	40.3	-1.4	+9.9	71.1	+1.5	+9.3
Food and kindred products.....	144.5	+7.0	+6.7	152.4	+5.6	+16.1	26.61	-1.3	+8.8	41.1	+5	+3.0	66.1	-1.6	+6.1
Baking.....	150.2	-1.3	+2.1	153.1	-9	+7.7	28.26	+4	+5.4	42.1	-5	+1.3	67.4	+1.0	+4.5
Beverages.....	323.6	+4.5	+7.8	421.6	+7.7	+19.5	38.15	+3.1	+10.8	42.2	+2.1	+6.6	91.3	+1.1	+4.0
Butter.....	112.6	-1.1	+7.7	103.8	-7	+15.5	24.06	+3	+7.1	46.8	-2	+2.2	50.8	+4	+5.6
Canning and preserving..	210.1	+54.6	+17.3	213.4	+59.8	+46.1	19.38	+3.4	+24.6	38.9	+6.2	+7.2	50.4	-2.7	+15.0
Confectionery.....	83.2	+3.4	+13.0	84.5	-1.2	+22.0	19.61	-4.5	+7.9	35.6	-6.5	-8	54.6	+(4)	+7.2
Flour.....	80.1	+2.8	-(4)	82.4	+4.2	+8.8	27.61	+1.4	+8.8	43.3	+4	+4.5	63.7	+1.0	+4.2
Ice cream.....	95.9	+4.1	+4.1	84.9	+2.8	+8.7	29.99	-1.2	+4.5	46.7	-6	+2.2	64.2	-3	+2.4
Slaughtering and meat packing..	118.5	-1.6	+6.6	139.3	+1.1	+18.5	30.62	+2.7	+11.1	41.5	+2.9	+3.4	73.7	-1	+7.3
Sugar, beet.....	51.5	+7.1	-10.7	56.6	-1.0	+2.0	28.47	-7.5	+14.4	37.3	-6.3	+5.1	78.3	-1.2	+8.2
Sugar refining, cane.....	93.1	-5.5	-7.9	87.0	-10.5	-4.9	26.47	-5.2	+3.2	39.3	-5.8	-1	67.4	+7	+3.4
Tobacco manufactures.....	65.4	-2	+4.8	69.8	-6	+12.0	19.45	-5	+6.9	37.3	-1.0	+2.1	52.3	+7	+5.5
Chewing and smoking tobacco and snuff..	52.0	-2	-7.2	67.9	+1.3	+2.1	21.06	+1.4	+10.5	36.4	+1	+3.0	58.0	+1.1	+6.6
Cigars and cigarettes..	67.0	-3	+6.0	69.9	-8	+13.2	19.16	-6	+6.8	37.4	-1.1	+1.4	51.7	+6	+6.0

See footnotes at end of table.

TABLE 8.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July 1941—Continued*

MANUFACTURING—Continued

Industry	Employment			Pay rolls			Average weekly earnings ¹			Average hours worked per week			Average hourly earnings		
	Index July 1941	Percentage change from--		Index July 1941	Percentage change from--		July 1941	Percentage change from--		July 1941	Percentage change from--		July 1941	Percentage change from--	
		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940		June 1941	July 1940
Nondurable goods—Continued													Cents		
Paper and printing.....	123.0	+1.2	+7.2	128.7	+0.1	+15.7	\$31.70	-1.1	+7.9	39.6	-1.3	+3.0	82.5	— ⁽⁴⁾	+4.4
Boxes, paper.....	138.8	+2.7	+19.7	173.7	+1.9	+36.0	25.12	- .8	+13.7	41.2	-2.3	+5.4	61.4	+1.3	+8.1
Paper and pulp.....	126.0	+1.1	+7.6	156.9	- .5	+24.2	30.49	-1.6	+15.5	42.0	-3.0	+3.2	72.7	+1.3	+11.8
Printing and publishing:															
Book and job.....	105.4	+3.6	+6.4	98.4	+3.8	+13.5	32.24	+ .2	+6.7	39.9	+ .6	+3.7	82.0	- .8	+2.4
Newspapers and periodicals.....	114.8	-2.2	+1.2	109.8	-3.3	+3.5	38.93	-1.1	+2.3	35.6	-1.0	- .3	106.8	+ .1	+2.3
Chemical, petroleum, and coal products...	138.3	+1.8	+16.7	175.2	+2.4	+31.7	33.82	+ .6	+12.9	40.0	-1.0	+3.9	83.8	+1.6	+8.1
Petroleum refining.....	127.4	+1.7	+3.6	157.2	+ .3	+15.1	38.26	-1.4	+11.1	37.4	-1.9	+5.9	103.0	+ .7	+5.6
Other than petroleum refining.....	140.9	+1.9	+20.0	180.7	+3.0	+37.0	32.27	+1.0	+14.1	40.8	- .8	+2.9	77.7	+1.9	+10.6
Chemicals.....	175.8	+2.2	+25.2	239.7	+3.0	+43.4	36.38	+ .9	+14.5	41.0	-1.7	+2.3	88.6	+2.3	+11.7
Cottonseed—oil, cake, and meal.....	63.4	-4.3	+39.8	60.0	-3.8	+38.3	15.23	+ .5	-1.2	40.0	-1.2	-4.9	36.4	+1.8	+4.4
Druggists' preparations.....	128.7	+1.0	+13.5	162.8	+8.6	+30.7	28.33	+7.5	+15.1	41.5	+1.4	+3.2	64.5	+3.0	+8.1
Explosives*.....	(⁹)	(⁹)	(⁹)	(⁹)	(⁹)	(⁹)	38.48	+ .5	+11.9	42.8	- .6	+4.5	89.9	+1.1	+7.1
Fertilizers.....	91.0	-1.6	+14.1	90.5	-3.4	+29.9	18.20	- .1	+13.2	36.6	-1.8	+3.7	49.7	+1.7	+9.1
Paints and varnishes.....	145.5	+ .5	+16.8	173.2	-2.6	+30.8	32.69	-3.0	+12.0	41.8	-3.8	+4.1	78.3	+ .1	+7.7
Rayon and allied products.....	324.4	- .8	+5.7	368.6	+1.7	+17.1	29.06	+2.5	+10.8	39.8	+1.5	+3.0	72.9	+1.1	+7.6
Soap.....	101.4	+8.7	+24.8	140.6	+8.9	+40.7	32.65	+ .2	+13.5	41.2	+ .2	+1.9	79.3	+(⁵)	+11.3
Rubber products.....	111.4	+ .6	+33.4	135.7	-3.9	+59.3	33.13	-4.5	+19.4	39.2	-5.2	+10.1	84.5	+ .9	+8.1
Rubber boots and shoes.....	79.3	+1.4	+46.9	94.2	-4.2	+84.2	27.31	-5.5	+25.5	40.1	-7.1	+11.9	68.2	+1.5	+11.9
Rubber tires and inner tubes.....	87.4	+1.3	+26.1	118.4	-3.3	+53.0	39.54	-4.5	+21.3	37.8	-5.3	+11.8	104.8	+1.0	+7.8
Rubber goods, other.....	189.2	- .5	+37.3	214.2	-4.7	+62.8	27.52	-4.3	+18.6	40.4	-4.5	+7.3	68.5	+ .2	+10.0

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:															
Anthracite ^{10 11}	49.3	+0.1	-2.4	34.8	-31.9	-4.7	23.25	-32.0	-2.3	23.2	-31.7	-12.1	99.8	-0.4	+7.7
Bituminous ^{5 10}	90.3	+2.4	+6.3	104.4	-2.6	+38.9	30.91	-5.0	+30.6	28.7	-9.9	+8.3	102.8	+ .2	+14.1
Metalliferous mining ¹²	78.7	- .2	+10.9	78.1	-8.5	+22.7	31.24	-8.3	+10.6	39.4	-7.6	+ .6	79.6	- .7	+10.0
Quarrying and nonmetallic mining.....	52.8	+1.8	+9.7	55.4	- .4	+27.5	26.62	-2.1	+16.3	41.7	-2.5	+4.3	63.9	+ .6	+11.2
Crude-petroleum production.....	61.8	+ .1	-3.1	61.8	+3.2	+4.6	36.81	+3.0	+7.9	38.4	+3.5	+ .1	93.3	- .1	+7.1

Public utilities:																	
Telephone and telegraph ^{13 14}	88.6	+2.7	+12.4	116.5	+3.2	+15.1	32.16	+5	+2.4	40.7	+1.3	+3.0	79.5	-8	-7		
Electric light and power ^{13 14}	94.9	+1.5	+2.8	113.7	+2.0	+7.4	36.04	+6	+4.5	39.7	+8	+(*)	92.9	-(*)	+4.3		
Street railways and busses ^{13 14 15}	69.4	+5	+1.4	76.0	-3	+8.6	35.64	-8	+7.0	45.8	-4.0	+1.2	76.5	+2.7	+5.9		
Trade:																	
Wholesale ^{13 16}	93.9	+1	+5.3	88.1	-3	+12.6	32.04	-3	+7.0	41.0	-1.1	+5	79.0	+8	+6.9		
Retail ^{12 14}	96.7	-1.1	+8.5	94.1	-1.2	+13.9	22.49	0	+5.0	42.7	-3	-8	57.5	+5	+5.4		
Food ¹⁴	108.8	+3	+5.0	105.4	+1.3	+9.8	24.85	+1.0	+4.5	43.1	+1.2	-1.4	55.3	+5	+5.3		
General merchandising ^{13 14}	100.9	-4.0	+11.7	97.5	-2.6	+16.1	19.06	+1.5	+3.9	38.8	+2	+1.0	48.7	+1.3	+1.4		
Apparel ¹⁴	81.2	-10.1	+8.1	78.7	-8.1	+11.2	22.44	+2.2	+2.8	38.3	+8	-7	58.7	+2.1	+5.0		
Furniture ¹⁴	78.5	-1.0	+4.1	75.9	-2.4	+14.0	29.96	-1.4	+9.5	43.9	-1.3	-2	72.3	-2.3	+4.7		
Automotive ¹⁴	94.8	+1.0	+9.2	99.2	-3.4	+20.5	30.85	-4.4	+10.3	47.1	-2.0	-1.5	67.2	-2.1	+12.4		
Lumber ¹⁴	81.3	+1.6	+7.5	82.4	+1.7	+14.6	25.28	+1	+6.6	42.9	-8	-8	67.3	+1.2	+8.0		
Hotels (year-round) ^{10 13 17}	94.0	-1.1	+4.1	87.2	-2	+8.3	16.01	+1.0	+4.1	46.4	+1.4	-4	34.2	0	+1.9		
Laundries ¹⁰	115.5	+3.2	+12.7	106.4	+3.8	+18.2	19.20	+6	+4.9	43.6	-1	+1.5	44.1	+4	+3.3		
Dyeing and cleaning ¹⁰	121.1	-1.3	+12.0	96.2	-2.2	+20.3	22.05	-1.0	+7.4	43.8	-2.0	+3.4	51.1	+1.1	+2.9		
Brokerage ^{13 15}	(*)	-4	-15.1	(*)	-2	-10.4	39.41	+2	+5.6	(*)	(*)	(*)	(*)	(*)	(*)		
Insurance ¹³	(*)	+1.0	+1.5	(*)	+4	+4.2	37.44	-6	+2.7	(*)	(*)	(*)	(*)	(*)	(*)		
Building construction	(*)	+3.4	+18.8	(*)	+4.3	+31.3	35.38	+9	+10.5	35.4	+6	+4.5	100.0	+3	+5.8		

¹ Mimeographed sheets giving averages by years, 1932 to 1939, inclusive, and by months, January 1938 to August 1940, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

² See tables 9, 10, and 11 in the December 1940 issue of EMPLOYMENT AND PAY ROLLS for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-goods groups.

³ See table 7 in the April 1941 issue of EMPLOYMENT AND PAY ROLLS for revised figures from January 1940 to March 1941.

⁴ Less than 1/10 of 1 percent.

⁵ Revisions have been made in the following industries as indicated:

Machine tools—April average weekly hours and average hourly earnings to 51.0 hours, 80.6 cents; April employment and pay-roll indexes to 316.7 and 471.5.

Lighting equipment—February, March, and April average weekly and hourly earnings to \$29, \$29.05, \$28.81 and 71.7, 71.4, 72.3 cents; February, March, and April employment and pay-roll indexes to 111.4, 112.0, 113.4 and 104.9, 105.5, 105.7.

Sawmills—February, March, and April average weekly earnings to \$19.89; \$20.32, and \$21.02, February average weekly hours and average hourly earnings to 38.5 hours, 51.7 cents.

Hats, fur-felt—January, February, March, and April average weekly earnings and hours to \$27.12, \$29.26, \$29.10, \$22.50, and 36.2, 38.4, 38.5, 29.1 hours; November and December 1940, January, February, March, and April 1941 average hourly earnings to \$3.0, 75.3, 75.5, 77.2, 76.7, 75.6 cents; January, February, March, and April employment and pay-roll indexes to 83.0, 84.3, 85.2, and 81.7, 89.4, 89.9, 66.0.

Shirts and collars—January, February, March, and April average weekly earnings to \$13.86, \$14.86, \$15.04, \$15.42; February average weekly hours to 35.8; January and February average hourly earnings to 42.0 and 41.5 cents; January, February, March, and April employment and pay-roll indexes to 118.8, 126.0, 128.3, 130.8 and 104.3, 117.8, 121.9, 127.1.

Bituminous-coal mining—April 1941 average weekly earnings to \$17.63.

⁶ Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of EMPLOYMENT AND PAY ROLLS.

⁷ The indexes for "Automobiles" have been adjusted to 1933 census figures, but not to later census figures because of problems involving integrated industries.

⁸ See table 8 in March 1941 EMPLOYMENT AND PAY ROLLS pamphlet for revised figures from January 1935 to February 1941.

⁹ Not available.

¹⁰ Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this pamphlet.

¹¹ See table 7 of October 1940 EMPLOYMENT AND PAY ROLLS for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

¹² See table 7 of February 1941 pamphlet for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

¹³ Average weekly earnings, hourly earnings, and hours not comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

¹⁴ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940, with but 1 exception, retail furniture, which has been revised since publication of July 1940 pamphlet back to January 1936. Comparable series for earlier months available upon request.

¹⁵ Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

¹⁶ Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of EMPLOYMENT AND PAY ROLLS.

¹⁷ Cash payments only; additional value of board, room, and tips not included.

¹⁸ See footnote 18 in table 9 for revised average weekly earnings in the brokerage industry from January 1939 through January 1941.

* See corresponding footnote on page 33.

TABLE 9.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, May through July 1941*

MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings ¹			Average hours worked per week ¹			Average hourly earnings ¹		
	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941
All manufacturing²	130.6	127.8	124.9	152.8	152.1	144.1	\$31.20	\$31.85	\$30.78	40.3	41.3	40.8	Cents 74.4	Cents 73.8	Cents 72.6
Durable goods ²	137.9	135.1	131.3	172.6	173.8	163.1	35.80	36.90	35.57	41.5	43.1	42.5	82.6	82.2	80.6
Nondurable goods ²	123.7	121.0	118.8	130.6	127.8	122.9	25.15	25.09	24.48	39.0	39.4	38.9	65.7	65.0	64.1
<i>Durable goods</i>															
Iron and steel and their products, not including machinery	138.3	136.1	132.9	166.9	168.6	160.9	35.46	36.38	35.71	39.9	42.0	41.5	86.2	86.3	85.8
Blast furnaces, steel works, and rolling mills	147.2	144.0	140.6	181.5	179.9	172.7	38.99	39.46	38.98	38.7	41.0	40.4	96.3	96.4	96.7
Bolts, nuts, washers and rivets	167.4	165.6	161.1	224.3	248.4	233.7	32.14	36.02	34.92	41.6	45.8	45.1	77.2	78.7	77.5
Cast-iron pipe	97.6	96.9	94.4	112.2	114.6	110.3	27.45	28.25	27.93	40.4	41.9	41.7	67.7	67.0	66.6
Cutlery (not including silver and plated cutlery) and edge tools	123.6	120.4	118.5	134.9	139.2	134.3	28.65	30.32	29.73	42.0	43.9	43.4	69.1	69.9	69.4
Forgings, iron and steel	107.2	104.3	102.1	157.1	163.7	152.3	38.84	41.63	39.62	43.9	47.0	46.0	88.6	88.8	86.4
Hardware	114.2	118.3	116.7	136.8	150.2	141.5	29.51	31.26	29.89	40.5	42.5	42.3	73.0	73.7	70.7
Plumbers' supplies ³	101.7	102.4	102.1	101.6	106.3	104.9	28.89	29.90	29.64	38.9	40.4	40.6	74.2	74.0	73.0
Stamped and enameled ware	222.0	220.2	218.0	272.1	279.0	265.0	28.61	29.67	28.51	39.9	41.7	40.5	71.6	71.2	70.5
Steam and hot-water heating apparatus and steam fittings	119.0	114.1	112.1	137.5	137.8	128.6	34.65	36.32	34.63	43.4	44.8	44.0	80.1	81.2	78.8
Stoves	116.6	115.9	113.4	122.0	124.7	119.3	29.61	30.33	29.66	40.3	41.5	41.2	73.0	73.1	72.1
Structural and ornamental metalwork	107.3	105.5	102.3	112.1	120.1	113.8	33.74	36.98	36.13	41.2	44.4	44.0	82.2	83.6	82.5
Tin cans and other tinware	138.8	132.0	120.5	171.3	163.2	146.4	27.59	27.70	27.27	42.0	42.1	42.1	66.4	66.0	65.2
Tools (not including edge tools, machine tools, files, and saws)	139.8	138.2	135.5	172.6	181.0	171.7	31.29	33.07	32.01	43.3	46.8	46.1	72.9	71.3	70.0
Wirework	213.2	216.1	213.3	271.6	284.5	276.5	30.85	31.88	31.32	42.0	42.9	42.9	73.5	74.3	73.1
Machinery, not including transportation equipment	172.6	168.0	162.5	233.3	230.2	217.2	37.51	38.00	37.17	44.6	45.6	45.4	83.6	83.2	81.8
Agricultural implements (including tractors)	171.4	171.8	170.7	228.4	233.3	229.0	36.62	37.32	36.88	41.2	42.1	41.8	89.0	88.6	88.6
Cash registers, adding machines, and calculating machines	167.5	162.6	151.3	214.0	216.2	196.0	39.87	41.34	40.28	43.9	45.3	45.9	91.6	92.4	88.8
Electrical machinery, apparatus, and supplies	163.6	158.5	154.0	231.9	223.9	215.3	37.34	37.21	36.68	43.5	43.9	44.4	85.5	84.5	82.9
Engines, turbines, water wheels, and windmills	297.8	285.5	271.5	497.7	476.0	444.1	44.34	44.23	43.39	46.5	46.7	46.5	95.2	94.9	93.6
Foundry and machine-shop products	143.3	139.7	134.9	177.8	179.1	166.2	36.61	37.76	36.51	44.6	46.0	45.4	81.7	81.9	80.3

Machine tools ⁴	346.0	338.5	327.4	534.7	529.3	507.2	42.80	43.22	42.79	50.9	52.0	52.1	84.1	83.1	82.2
Radios and phonographs.....	188.7	180.7	173.7	218.7	200.4	191.5	28.30	27.09	27.02	41.2	40.9	41.0	69.3	66.4	66.1
Textile machinery and parts.....	106.3	103.8	101.3	132.7	130.5	124.3	34.31	34.84	33.72	46.5	46.8	46.4	74.2	74.5	72.8
Typewriters and parts.....	153.1	148.3	143.5	217.2	207.5	189.6	34.77	34.31	32.40	46.4	45.8	45.3	74.9	74.9	71.6
Transportation equipment ⁵.....	179.2	177.8	171.7	229.9	239.6	216.6	40.67	42.69	39.90	41.2	43.8	42.4	98.8	97.6	94.5
Aircraft ⁶	7,280.0	6,733.8	6,305.1	9,077.7	8,212.1	7,745.1	36.48	35.63	35.84	44.7	45.0	45.4	82.0	79.7	79.4
Automobiles ⁶	127.3	134.8	134.1	160.1	188.4	170.6	41.13	45.70	41.56	38.8	43.0	41.0	106.4	106.3	101.4
Cars, electric and steam-railroad.....	89.5	85.6	79.5	90.9	91.6	84.2	32.41	34.16	33.71	39.0	40.9	41.0	83.2	83.6	82.3
Locomotives.....	75.7	68.1	65.1	102.5	90.8	79.9	41.49	40.87	37.53	46.3	46.5	44.4	89.6	87.9	84.6
Shipbuilding.....	368.9	334.5	308.1	571.0	497.9	429.2	45.59	43.72	40.87	44.3	45.2	43.8	101.6	95.1	92.8
Nonferrous metal and their products.....	143.5	141.9	139.9	174.1	174.6	166.7	33.82	34.30	33.12	42.0	43.1	42.8	80.3	79.4	77.6
Aluminum manufactures ⁷	253.7	228.4	233.5	319.8	321.1	322.0	34.17	35.09	34.36	40.8	42.2	42.5	83.7	83.1	80.8
Brass, bronze, and copper products.....	189.7	189.5	184.3	263.9	262.4	246.6	38.55	38.42	37.10	44.2	44.7	44.5	87.8	86.2	83.4
Clocks and watches and time-recording devices.....	118.3	117.0	115.9	138.4	147.9	143.4	25.83	27.93	27.36	38.5	42.4	42.2	67.1	65.9	64.8
Jewelry.....	111.7	106.8	104.4	105.2	101.4	97.7	25.24	25.51	25.08	41.5	41.3	40.9	60.7	61.2	60.7
Lighting equipment ⁴	116.4	114.1	112.2	117.8	117.4	110.3	31.52	31.87	30.39	40.5	41.3	41.3	77.3	77.2	73.7
Silverware and plated ware.....	83.4	83.9	82.9	87.4	93.8	90.8	30.43	32.32	31.64	42.1	44.0	45.1	73.1	74.4	70.8
Smelting and refining—copper, lead, and zinc.....	102.7	101.8	101.7	116.7	116.6	111.7	32.00	32.28	30.94	39.4	40.5	39.2	81.3	79.8	78.9
Lumber and allied products.....	79.7	76.9	74.7	85.6	84.0	78.0	33.23	33.58	32.57	39.9	40.9	40.1	57.7	57.0	55.6
Furniture.....	105.6	103.8	100.1	110.1	110.0	102.7	24.68	25.12	24.35	41.4	42.4	42.0	60.1	59.7	58.4
Lumber.....															
Millwork.....	75.7	72.5	70.0	68.3	67.2	62.4	24.74	25.24	24.29	41.7	42.5	42.2	59.3	59.4	57.5
Sawmills ⁴	70.2	67.2	65.7	73.6	71.3	66.0	21.61	21.89	20.74	38.6	39.7	38.6	55.9	55.2	53.7
Stone, clay, and glass products.....	99.6	97.1	95.6	99.1	100.2	97.8	26.94	28.03	27.64	37.4	38.6	38.5	73.0	71.7	71.0
Brick, tile, and terra cotta.....	77.6	74.7	72.7	73.8	71.8	69.1	24.70	24.97	24.58	38.4	38.8	38.4	64.7	64.2	63.9
Cement.....	82.4	79.2	78.0	90.6	89.5	85.2	31.00	31.93	30.71	40.2	41.6	40.6	77.1	76.7	75.7
Glass.....	127.9	125.5	124.0	147.1	153.5	150.3	28.19	29.91	29.53	36.1	38.5	37.8	78.2	78.0	76.9
Marble, granite, slate, and other products.....	45.3	45.5	46.6	34.9	34.6	38.7	26.90	26.55	29.06	36.6	36.6	39.2	73.3	72.4	73.8
Pottery.....	116.7	114.4	112.5	114.9	118.2	113.6	24.90	26.06	25.58	36.5	38.1	38.1	68.3	68.1	67.0
<i>Nondurable goods</i>															
Textiles and their products.....	113.2	112.6	112.5	113.6	111.4	110.4	20.57	20.33	20.13	37.4	38.1	37.9	55.0	53.4	53.0
Fabrics.....	107.0	106.2	105.1	113.3	111.6	109.3	20.46	20.28	20.09	38.5	39.1	38.8	53.4	52.2	52.0
Carpets and rugs.....	89.0	89.9	89.2	89.5	90.2	89.6	27.77	27.71	27.78	39.2	39.3	39.3	70.9	70.6	70.7
Cotton goods.....	109.1	108.5	106.3	122.9	120.0	116.9	18.26	17.87	17.83	38.8	39.6	39.5	47.1	45.1	45.1
Cotton small wares.....	105.2	103.7	102.6	120.6	116.2	114.1	22.29	21.75	21.70	40.9	41.5	41.5	54.6	52.5	52.5
Dyeing and finishing textiles.....	139.0	139.3	141.2	134.3	133.2	133.9	23.43	23.21	23.06	38.2	38.3	38.6	60.8	59.9	59.4
Hats, fur-felt ⁴	83.6	82.7	80.7	91.4	85.8	76.8	29.97	28.60	26.25	38.0	36.1	34.1	80.5	80.2	77.1
Hosiery.....	143.4	142.7	143.0	150.9	158.1	158.1	19.93	19.70	19.64	36.3	36.2	35.8	55.2	54.5	54.8
Knitted underwear.....	80.8	79.4	76.8	75.0	74.9	72.1	19.29	19.55	19.36	37.9	38.8	38.7	50.3	49.9	49.8
Knitted underwear.....	85.7	79.3	82.3	91.0	82.8	84.6	17.89	17.61	17.21	38.8	38.5	38.0	46.1	45.7	45.1
Knitted cloth.....	159.7	160.1	154.7	152.4	152.9	149.2	21.74	21.74	21.79	39.6	40.2	40.4	53.9	53.2	53.3
Silk and rayon goods.....	69.3	69.3	68.6	64.0	64.1	62.5	19.00	18.95	18.67	37.3	38.6	38.4	50.3	48.8	48.1
Woolen and worsted goods.....	109.0	107.9	106.8	116.8	116.9	113.3	24.75	25.10	24.58	39.5	40.1	39.7	62.8	62.8	62.1

See footnotes at end of table.

TABLE 9.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, May through July 1941—Continued*

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941
<i>Nondurable goods—Continued</i>															
Textiles and their products—Continued.													<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Wearing apparel.....	122.3	121.9	124.2	107.3	104.1	105.9	\$20.88	\$20.48	\$20.22	35.4	36.0	36.2	58.2	55.9	55.0
Clothing, men's.....	121.9	120.0	118.8	109.4	107.3	101.2	22.82	22.77	21.66	35.6	36.3	35.9	63.8	62.9	60.1
Clothing, women's.....	159.8	158.6	165.4	127.8	118.9	131.7	21.43	20.14	21.37	35.0	35.7	36.7	58.4	54.3	54.6
Corsets and allied garments..	115.1	118.0	118.1	131.6	138.7	136.6	19.01	19.49	19.12	37.9	38.8	38.7	50.1	49.6	48.8
Men's furnishings.....	126.2	121.8	122.0	137.3	131.1	129.9	16.07	15.89	15.85	34.9	36.1	36.5	44.7	43.3	42.7
Millinery.....	57.5	62.8	75.7	39.6	42.5	51.0	21.05	20.66	20.59	27.6	28.6	28.6	71.7	68.4	66.6
Shirts and collars.....	129.2	132.0	131.9	131.0	135.7	130.7	16.11	16.29	15.74	36.9	37.3	37.0	43.8	43.7	42.9
Leather and its manufactures.....	101.0	98.1	95.5	103.3	97.2	91.0	23.64	22.97	22.09	38.7	38.7	37.5	60.9	59.9	59.0
Boots and shoes.....	98.1	94.9	93.0	98.8	91.9	86.7	22.53	21.66	20.89	38.4	38.2	36.9	58.4	57.3	56.7
Leather.....	95.5	93.9	89.6	109.4	106.6	97.6	28.64	28.52	27.29	40.3	40.8	40.1	71.1	70.1	68.1
Food and kindred products.....	144.5	135.0	127.4	152.4	144.3	134.7	26.61	27.07	26.68	41.1	41.0	40.3	66.1	67.2	67.0
Baking.....	150.2	152.2	149.0	153.1	154.4	148.4	28.26	28.21	27.56	42.1	42.5	41.8	67.4	66.5	65.9
Beverages.....	323.6	309.6	293.0	421.6	391.3	362.4	38.15	36.99	36.19	42.2	41.4	40.7	91.3	90.2	89.8
Butter.....	112.6	113.8	109.6	103.8	104.6	97.4	24.06	23.98	23.15	46.8	46.9	45.9	50.8	50.6	49.5
Canning and preserving..	210.1	135.9	99.9	213.4	133.5	91.1	19.38	18.75	17.44	38.9	36.6	34.3	50.4	51.9	51.7
Confectionery.....	83.2	80.4	81.0	84.5	85.5	83.7	19.61	20.50	19.91	35.6	38.1	37.6	54.6	54.6	53.1
Flour.....	80.1	77.9	76.5	82.4	79.1	75.3	27.61	27.22	26.44	43.3	43.2	42.0	63.7	63.1	62.6
Ice cream.....	95.9	92.1	86.9	84.9	82.6	75.1	29.99	30.65	29.28	46.7	46.7	45.4	64.2	64.4	63.9
Slaughtering and meat packing..	118.5	120.3	116.8	139.3	137.8	133.1	30.62	29.79	29.55	41.5	40.4	40.5	73.7	73.8	73.1
Sugar, beet.....	51.5	48.1	47.4	56.6	57.2	53.8	28.47	30.71	29.35	37.3	39.8	39.5	78.3	79.0	77.2
Sugar refining, cane.....	93.1	98.6	102.5	87.0	97.1	90.0	26.47	27.91	24.89	39.3	41.7	38.2	67.4	66.9	65.2
Tobacco manufactures.....	65.4	65.5	64.9	69.8	70.2	67.1	19.45	19.48	18.82	37.3	37.6	36.9	52.3	51.7	50.9
Chewing and smoking tobacco and snuff..	52.0	52.1	52.8	67.9	67.1	66.9	21.06	20.76	20.45	36.4	36.4	36.4	58.0	57.4	56.4
Cigars and cigarettes.....	67.0	67.2	66.4	69.9	70.4	67.0	19.16	19.25	18.52	37.4	37.8	36.9	51.7	51.3	50.3
Paper and printing.....	123.0	121.6	120.8	128.7	128.6	124.9	31.70	32.01	31.13	39.6	40.1	40.0	82.5	82.6	81.1
Boxes, paper.....	138.8	135.1	129.7	173.7	170.4	159.2	25.12	25.31	24.55	41.2	42.3	41.8	61.4	60.5	59.2
Paper and pulp.....	126.0	124.6	122.7	156.9	157.7	145.6	30.49	30.97	29.07	42.0	43.3	43.0	72.7	71.6	67.6
Printing and publishing:															
Book and job.....	105.4	101.7	103.2	98.4	94.8	95.7	32.24	32.30	32.01	39.9	39.7	39.7	82.0	82.6	81.9
Newspapers and periodicals.....	114.8	117.4	117.6	109.8	113.6	114.0	38.93	39.39	39.51	35.6	35.8	36.2	106.8	106.9	106.6
Chemical, petroleum, and coal products.....	138.3	135.8	134.3	175.2	171.1	163.6	33.82	33.61	32.41	40.0	40.5	39.8	83.8	82.4	80.6
Petroleum refining.....	127.4	125.2	122.0	157.2	156.7	146.3	38.26	38.74	37.14	37.4	38.2	37.0	103.0	102.0	100.8
Other than petroleum refining.....	140.9	138.3	137.3	180.7	175.5	168.9	32.27	31.73	30.78	40.8	41.2	40.7	77.7	76.1	74.4
Chemicals.....	175.8	172.1	166.8	239.7	232.6	221.8	36.38	36.00	35.48	41.0	41.7	41.1	88.6	86.4	86.3
Cottonseed—oil, cake, and meal..	63.4	66.3	72.1	60.0	62.4	66.3	15.23	15.17	14.73	40.0	40.4	40.3	36.4	35.9	35.0
Druggists' preparations.....	128.7	127.4	125.2	162.8	149.9	142.8	28.33	26.43	25.49	41.5	41.0	39.4	64.5	62.7	61.5

Explosives*.....	(8)	(9)	(9)	(8)	(8)	(9)	38.48	38.31	37.02	42.8	43.0	42.0	89.9	89.1	88.2
Fertilizers.....	91.0	92.5	127.1	90.5	93.7	127.4	18.20	18.15	17.99	36.6	37.4	38.5	49.7	48.5	46.8
Paints and varnishes.....	145.5	144.8	141.4	173.2	177.8	170.4	32.69	33.81	33.05	41.8	43.4	43.0	78.3	78.0	77.0
Rayon and allied products.....	324.4	327.0	323.5	308.6	362.4	356.2	29.06	28.35	28.16	39.8	39.3	39.5	72.9	72.2	71.2
Soap.....	101.4	93.3	92.2	140.6	129.0	126.7	32.65	32.58	32.13	41.2	41.1	40.7	79.3	79.3	78.9
Rubber products.....	111.4	110.7	106.4	135.7	141.2	128.7	33.13	34.69	32.82	39.2	41.4	40.3	84.5	83.6	81.6
Rubber boots and shoes.....	79.3	78.2	74.9	94.2	98.4	88.3	27.31	28.91	27.11	40.0	43.0	41.2	68.2	67.2	65.8
Rubber tires and inner tubes.....	87.4	86.3	83.3	118.4	122.4	111.1	39.54	41.41	38.88	37.8	39.9	38.6	104.8	103.7	100.8
Rubber goods, other.....	189.2	190.1	181.7	214.2	224.9	207.2	27.52	28.61	27.56	40.4	42.3	41.7	68.5	68.0	66.6

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:															
Anthracite * 10.....	49.3	49.2	48.6	34.8	51.2	33.4	23.25	34.20	22.59	23.2	34.0	22.9	99.8	100.2	94.5
Bituminous * 9.....	90.3	88.1	87.9	104.4	107.2	103.4	30.91	32.37	31.31	28.7	31.7	30.9	102.8	102.3	100.5
Metalliferous mining 11.....	78.7	78.9	77.1	78.1	85.3	81.5	31.24	34.07	33.28	39.4	42.7	41.8	79.6	80.2	79.9
Quarrying and nonmetallic mining.....	52.8	51.9	51.0	55.4	55.7	53.2	26.62	27.19	26.30	41.7	42.8	42.5	63.9	63.5	61.7
Crude-petroleum production.....	61.8	61.7	60.4	61.8	59.9	58.8	36.81	35.72	35.59	38.4	37.1	38.0	93.3	93.4	91.1
Public utilities:															
Telephone and telegraph 12 13.....	88.6	86.3	84.6	116.5	113.0	110.5	32.16	32.02	31.91	40.7	40.2	40.3	79.5	80.2	79.7
Electric light and power 12 13.....	94.9	93.5	92.2	113.7	111.4	109.6	36.64	36.44	36.32	39.7	39.3	40.2	92.9	92.9	90.7
Street railways and busses 12 13 14.....	69.4	69.1	68.9	76.0	76.2	72.7	35.64	35.91	34.36	45.8	47.7	46.4	76.5	74.5	73.0
Trade:															
Wholesale 12 13.....	93.9	93.8	92.2	88.1	88.2	84.6	32.04	32.14	31.90	41.0	41.4	41.2	79.0	78.4	78.1
Retail 12 13.....	96.7	97.8	96.1	94.1	95.2	91.5	22.49	22.31	21.94	42.7	42.8	42.4	57.5	57.2	56.4
Food 13.....	108.8	108.5	107.5	105.4	104.0	100.7	24.85	24.61	23.95	43.1	42.6	42.4	55.3	55.1	54.1
General merchandising 12 13.....	100.9	105.1	102.5	97.5	100.1	96.0	19.06	18.75	18.55	38.8	38.7	38.4	48.7	48.0	47.6
Apparel 13.....	81.2	90.3	90.5	78.7	85.6	84.5	22.44	21.95	21.47	38.3	38.0	37.7	58.7	57.6	56.9
Furniture 13.....	78.5	79.3	78.7	75.9	77.8	75.7	29.96	30.59	29.99	43.9	44.4	44.3	72.3	74.0	72.6
Automotive 13.....	94.8	93.9	92.3	99.2	102.7	99.9	30.85	32.31	32.44	47.1	48.0	47.2	67.2	68.7	69.3
Lumber 13.....	81.3	80.0	77.0	82.4	81.0	76.5	28.28	28.26	27.85	42.9	43.2	43.0	67.3	66.4	65.3

See footnotes at end of table.

TABLE 9.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, May through July 1941—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941
Hotels (year-round) ⁵ 12 16	94.0	95.0	96.3	87.2	87.4	87.9	\$16.01	\$15.86	\$15.77	46.4	45.8	45.4	Cents 34.2	Cents 34.2	Cents 34.1
Laundries ⁹	115.5	112.0	108.3	106.4	102.5	98.7	19.20	19.09	19.02	43.6	43.7	43.7	44.1	43.9	43.7
Dyeing and cleaning ⁹	121.1	122.7	120.6	96.2	98.4	96.1	22.05	22.27	22.04	43.8	44.7	44.7	51.1	50.6	50.2
Brokerage ^{12 17 18}	-0.4	-0.9	-1.6	-0.2	+0.1	-1.3	39.41	39.32	38.58	(8)	(8)	(8)	(8)	(8)	(8)
Insurance ^{12 17}	+1.0	+1.3	+2.2	+4	+8	+7	37.44	37.65	37.55	(8)	(8)	(8)	(8)	(8)	(8)
Building construction ¹⁷	+3.4	+3.3	+5.4	+4.3	+4.2	+8.0	35.38	35.15	34.87	35.4	35.3	35.1	100.0	99.7	99.3

¹ Mimeographed sheets giving averages by years, 1932 to 1939, inclusive, and by months, January 1938 to August 1940, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

² See tables 9, 10, and 11 in the December 1940 issue of EMPLOYMENT AND PAY ROLLS for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-goods groups.

³ See table 7 in the April 1941 issue of EMPLOYMENT AND PAY ROLLS for revised figures from January 1940 to March 1941.

⁴ Revisions have been made in the following industries as indicated:

Machine tools—April average weekly hours and average hourly earnings to 51.0 hours, 80.6 cents; April employment and pay-roll indexes to 316.7 and 471.5.

Lighting equipment—February, March and April average weekly and hourly earnings to \$29, \$29.05, \$28.81 and 71.7, 71.7, 72.3 cents; February, March, and April employment and pay-roll indexes to 111.4, 112.0, 113.4 and 104.9, 105.5, 105.7.

Sawmills—February, March, and April average weekly earnings to \$19.89, \$20.32 and \$21.02, February average weekly hours and average hourly earnings to 38.5 hours, 51.7 cents.

Hats, fur-felt—January, February, March, and April average weekly earnings and hours to \$27.12, \$29.26, \$29.10, \$22.50, and 36.2, 38.4, 38.5, 29.1 hours; November and December 1940, January, February, March, and April 1941 average hourly earnings to 73.0, 75.3, 75.5, 77.2, 76.7, 75.6 cents; January, February, March,

which has been revised since publication of July 1940 pamphlet back to January 1936. Comparable series for earlier months available upon request.

¹⁴ Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

¹⁵ Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of EMPLOYMENT AND PAY ROLLS.

¹⁶ Cash payments only; additional value of board, room, and tips not included.

¹⁷ Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

¹⁸ Average weekly earnings in brokerage from January 1939 through January 1941 revised as follows:

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1939	Dol. 35.93	Dol. 36.27	Dol. 36.50	Dol. 36.45	Dol. 36.69	Dol. 36.29	Dol. 36.36	Dol. 35.91	Dol. 36.84	Dol. 37.22	Dol. 37.00	Dol. 37.99	Dol. 36.63
1940	37.62	37.62	37.49	48.29	37.95	37.27	36.88	35.76	36.54	37.70	37.55	38.86	37.46
1941	38.25												

and April employment and pay-roll indexes to 83.0, 84.3, 85.2, 80.9 and 81.7, 89.4, 89.9, 66.0.

Shirts and collars—January, February, March, and April average weekly earnings to \$13.86, \$14.86, \$15.04, \$15.42; February average weekly hours to 35.8; January and February average hourly earnings to 42.0 and 41.5 cents; January, February, March, and April employment and pay-roll indexes to 118.8, 126.0, 128.3, 130.8 and 104.3, 117.8, 121.9, 127.1.

Bituminous-coal mining—April 1941 average weekly earnings to \$17.63.

⁸ Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of EMPLOYMENT AND PAY ROLLS.

⁹ The indexes for "Automobiles" have been adjusted to 1933 census figures, but not to later census figures because of problems involving integrated industries.

⁷ See table 8 in March 1941 EMPLOYMENT AND PAY ROLLS pamphlet for revised figures from January 1935 to February 1941.

¹⁰ Not available.

⁹ Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this pamphlet.

¹⁰ See table 7 of October 1940 EMPLOYMENT AND PAY ROLLS for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

¹¹ See table 7 of February 1941 pamphlet for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

¹² Average weekly earnings, hourly earnings, and hours not comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

¹³ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in pamphlets prior to January 1940 or in the MONTHLY LABOR REVIEW prior to April 1940, with but 1 exception, retail furniture, *Average hours and earnings in explosives revised as follows:

Year and month	Average weekly earnings	Average weekly hours	Average hourly earnings
<i>1940</i>			<i>Cents</i>
October.....	\$34.53	40.0	86.4
November....	34.31	39.4	87.2
December....	34.47	39.5	87.4
Average....	33.50	39.6	84.7
<i>1941</i>			
January....	33.36	38.8	86.0
February....	33.66	39.5	85.1
March....	33.86	39.7	85.2
April....	35.80	40.9	87.6

TABLE 10.—Indexes of Employment and Pay Rolls in 55 Additional Manufacturing Industries

[12-month average 1939=100]

Industry	Employment			Pay rolls		
	July 1941	June 1941	May 1941	July 1941	June 1941	May 1941
Iron and steel group:						
Metal doors and shutters.....	138.6	133.9	128.8	191.0	170.3	142.7
Firearms.....	(1)	(1)	(1)	(1)	(1)	(1)
Screw-machine products.....	197.9	191.1	184.7	263.1	263.5	249.5
Wire drawing ²	137.0	136.7	137.2	170.5	169.8	168.1
Wrought pipe not made in rolling mills.....	156.3	156.5	156.2	184.7	200.2	201.4
Steel barrels, kegs, and drums ²	139.0	133.2	128.8	175.4	181.9	168.9
Machinery group:						
Machine-tool accessories.....	229.1	222.1	211.3	299.8	278.4	276.4
Pumps.....	188.6	183.4	173.9	261.4	268.0	243.1
Refrigerators and refrigerating apparatus ²	152.6	154.8	154.6	181.1	186.1	191.7
Sewing machines ²	129.7	128.2	125.3	190.2	194.1	178.1
Washing machines, wringers, and driers.....	138.7	139.1	137.5	174.5	180.0	173.0
Transportation equipment group:						
Motorcycles, bicycles, and parts ²	171.2	166.9	158.0	208.3	204.9	182.8
Nonferrous metals group:						
Sheet-metal work ²	147.2	142.9	141.3	182.0	179.9	170.9
Smelting and refining of scrap metal ²	147.0	142.1	138.1	172.5	167.6	161.7
Lumber group:						
Caskets and morticians goods ²	101.8	100.3	101.5	110.6	108.5	110.3
Wood preserving.....	120.6	121.8	122.4	149.7	152.9	149.6
Wood, turned and shaped.....	125.6	117.8	117.4	141.9	138.2	134.9
Wooden boxes, other than cigar.....	126.3	126.9	121.6	158.2	161.4	149.5
Mattresses and bedsprings.....	128.0	123.7	119.1	155.7	146.2	135.7
Stone, clay, and glass products group:						
Abrasive wheels.....	184.3	181.3	178.1	220.1	224.2	219.8
Asbestos products.....	132.1	137.3	126.8	160.5	171.4	158.3
Lime ²	123.7	124.1	125.6	151.9	153.1	157.7
Gypsum.....	105.6	120.6	117.1	126.6	145.0	135.7
Glass products made from purchased glass.....	141.1	140.8	144.6	156.1	157.0	160.9
Wallboard and plaster, except gypsum.....	138.0	133.6	127.9	165.0	156.2	148.9
Textiles:						
Textile bags.....	111.8	111.2	110.3	130.1	124.4	120.4
Cordage and twine.....	136.4	133.6	129.2	179.8	171.6	161.1
Curtains, draperies, and bedspreads ²	103.9	99.1	101.0	128.2	115.3	115.9
Housefurnishings, other.....	135.2	147.6	143.0	158.4	168.7	159.8
Jute goods, except felt.....	128.4	126.1	120.1	162.4	159.5	151.4
Handkerchiefs.....	106.2	103.3	103.2	122.0	119.6	120.0
Leather group:						
Boot and shoe cut stock and findings.....	108.6	106.3	103.7	131.1	127.4	115.2
Leather gloves and mittens.....	143.8	141.3	135.7	184.0	179.0	172.1
Trunks and suitcases.....	159.0	150.6	142.1	147.7	148.3	138.4
Food group:						
Cereal preparations.....	121.4	109.8	106.1	137.1	125.5	118.7
Condensed and evaporated milk.....	126.0	124.8	119.8	143.0	146.7	134.9
Feeds, prepared.....	114.6	109.6	106.9	139.5	127.0	117.7
Paper and printing group:						
Paper bags.....	123.6	120.8	118.5	147.1	146.7	138.7
Envelopes.....	116.9	115.5	113.8	128.3	128.4	125.3
Paper goods, not elsewhere classified.....	123.1	121.1	118.8	138.5	137.1	129.0
Bookbinding.....	110.8	92.3	106.7	134.1	110.7	119.6
Lithographing.....	105.4	104.2	100.2	114.0	113.1	110.5
Chemical, petroleum, and coal products group:						
Ammunition.....	(1)	(1)	(1)	(1)	(1)	(1)
Compressed and liquefied gases.....	141.3	139.5	138.1	177.2	179.0	180.1
Perfumes and cosmetics.....	100.9	98.1	95.8	113.0	100.5	99.2
Coke-oven products.....	125.7	122.1	120.8	147.7	145.7	141.5
Paving materials.....	131.3	117.6	117.9	160.2	139.6	130.7
Roofing materials.....	132.9	128.8	124.7	169.8	165.4	149.3
Miscellaneous group:						
Chemical fire extinguishers.....	275.9	257.7	240.7	380.9	357.6	330.2
Buttons.....	112.6	112.4	114.8	135.5	139.3	138.2
Instruments—professional, scientific, and commercial.....	192.2	185.5	175.8	246.4	231.1	218.5
Optical goods.....	168.1	166.3	160.1	198.1	196.4	182.5
Photographic apparatus.....	123.9	120.4	115.6	149.1	154.3	135.3
Pianos, organs, and parts.....	123.2	121.5	121.1	137.6	133.2	131.2
Toys, games, and playground equipment.....	136.0	134.7	122.2	145.3	145.8	127.0

¹ Not available.² Revisions of employment and pay-roll indexes in the following industries have been made as indicated: Wire, not made in rolling mills—January, February, and March employment and pay-roll indexes to 126.5, 130.6, 133.0 and 141.2, 146.9, 154.0.

Steel barrels, kegs and drums—March employment and pay-roll indexes to 108.4 and 127.1.

Refrigerators and refrigerating apparatus—March employment and pay-roll indexes to 148.2 and 174.0.

Sewing machines—January employment and pay-roll indexes to 112.1 and 127.5.

Motorcycles, bicycles and parts—January employment and pay-roll indexes to 117.1 and 120.0.

Sheet-metal work—January pay-roll index to 146.0.

Smelting and refining of scrap metal—February pay-roll index to 146.7.

Caskets and morticians goods—January, February, and March employment indexes to 100.2, 102.3, 102.9; February and March pay-roll indexes to 110.6 and 110.8.

Lime—January, February, March employment and pay-roll indexes to 107.8, 108.9, 111.7, and 120.1, 116.9, 120.7.

Curtains, draperies and bedspreads—January, February employment and pay-roll indexes to 95.0, 103.9, and 102.5 116 %.

TABLE 11.—*Indexes of Employment and Pay Rolls in Selected Manufacturing¹ and Nonmanufacturing² Industries, July 1940 to July 1941*

Industry	1940							1941						
	A.v.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Employment														
<i>Manufacturing</i>														
All industries...	107.5	103.2	107.4	111.4	113.8	114.7	116.2	115.5	117.8	119.9	122.6	124.9	127.8	130.6
Durable goods ³	104.3	98.4	102.4	108.2	112.8	115.5	117.7	118.3	121.0	123.7	127.7	131.3	135.1	137.9
Nondurable goods ⁴	110.6	107.8	112.2	114.4	114.8	113.8	114.8	112.7	114.7	116.3	117.8	118.8	121.0	123.7
<i>Nonmanufacturing</i>														
Anthracite mining ⁵	50.7	50.5	49.9	49.8	49.4	50.4	50.8	50.3	50.6	50.2	48.7	48.6	49.2	49.3
Bituminous-coal mining ⁶	88.0	84.9	86.6	87.7	89.2	89.8	90.1	90.2	90.6	91.1	23.5	87.9	88.1	90.3
Metalliferous mining ⁶	69.9	71.0	71.5	72.5	72.6	72.5	72.2	72.5	73.4	74.3	77.2	77.1	78.9	78.7
Quarrying and nonmetallic mining.....	45.3	48.1	48.5	48.9	48.8	47.2	45.4	41.7	42.4	44.2	48.2	51.0	51.9	52.8
Crude-petroleum production.....	62.9	63.7	63.6	63.0	62.4	61.3	60.7	60.3	60.4	60.2	60.1	60.4	61.7	61.8
Telephone and telegraph ⁷	77.9	78.8	79.0	78.9	79.1	79.2	79.7	80.4	80.9	81.8	83.2	84.6	86.3	88.6
Electric light and power ⁷	91.1	92.2	93.0	92.7	92.3	91.8	91.3	90.5	90.1	90.3	91.3	92.2	93.5	94.9
Street railways and busses ⁷	68.5	68.4	68.4	68.5	68.7	68.7	68.4	68.3	68.0	68.2	68.3	68.9	69.1	69.4
Wholesale trade.....	90.4	89.2	90.1	90.9	91.0	91.8	92.5	91.2	91.4	91.8	92.4	92.2	93.8	93.9
Retail trade ⁷	92.3	89.1	88.7	92.8	94.3	96.3	108.1	90.5	90.7	92.5	97.8	96.1	97.8	96.7
Year-round hotels ⁸	92.0	90.3	90.3	91.6	93.4	92.3	92.6	92.9	93.9	94.2	95.2	96.3	95.0	94.0
Laundries ⁸	99.5	102.5	102.8	101.9	100.2	99.7	100.3	101.4	101.1	102.5	104.9	108.3	112.0	115.5
Dyeing and cleaning ⁸	104.7	108.2	106.7	110.0	109.4	106.0	103.3	101.0	101.4	104.4	117.2	120.6	122.7	121.1
Pay rolls														
<i>Manufacturing</i>														
All industries...	105.4	98.2	105.5	111.6	116.2	116.4	122.4	120.7	126.8	131.2	134.7	144.1	152.1	152.8
Durable goods ³	107.8	97.4	106.5	115.1	123.4	125.1	131.7	132.0	139.3	144.6	149.9	163.1	173.8	172.6
Nondurable goods ⁴	102.7	99.1	104.4	107.7	108.1	106.6	112.1	108.1	112.9	116.3	117.7	122.9	127.8	130.6
<i>Nonmanufacturing</i>														
Anthracite mining ⁵	38.5	36.5	33.1	39.3	32.3	37.6	42.7	38.5	45.2	42.4	24.3	33.4	51.2	34.8
Bituminous-coal mining ⁶	81.2	75.2	82.5	83.2	83.6	84.5	91.4	87.8	90.8	93.4	15.5	103.4	107.2	104.4
Metalliferous mining ⁶	66.7	63.6	68.5	69.5	71.3	69.8	72.8	70.4	71.8	72.7	78.9	81.5	85.3	78.1
Quarrying and nonmetallic mining.....	40.5	43.5	45.2	46.2	46.7	42.3	42.4	36.9	38.2	40.3	47.0	53.2	55.7	55.4
Crude-petroleum production.....	58.2	59.1	59.0	58.2	57.6	56.8	55.9	55.7	57.3	56.1	57.8	58.8	59.9	61.8
Telephone and telegraph ⁷	100.2	101.3	100.4	101.8	102.2	103.2	103.5	103.9	104.3	106.4	107.3	110.5	113.0	116.5
Electric light and power ⁷	104.8	105.8	108.1	105.8	107.0	106.9	106.0	105.1	105.4	106.1	107.6	109.6	111.4	113.7
Street railways and busses ⁷	70.4	70.0	70.4	71.5	70.7	70.3	73.1	70.7	71.0	72.5	72.0	72.7	76.2	76.0
Wholesale trade.....	79.0	78.3	78.7	81.1	80.2	80.7	83.4	80.5	81.4	82.0	83.4	84.6	88.4	88.1
Retail trade ⁷	84.2	82.6	81.5	85.1	85.8	87.1	97.3	83.7	84.6	86.2	91.7	91.5	95.2	94.1
Year-round hotels ⁸	82.4	80.5	80.7	81.8	84.2	83.6	84.1	84.1	86.1	85.7	87.1	87.9	87.4	87.2
Laundries ⁸	87.7	90.0	90.5	89.9	88.0	87.2	89.2	89.8	89.7	90.9	95.8	98.7	102.5	106.4
Dyeing and cleaning ⁸	78.2	80.0	78.9	85.6	82.4	77.8	75.8	73.3	74.4	77.2	97.8	96.1	98.4	96.2

¹ 3-year average 1923-25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 EMPLOYMENT AND PAY ROLLS for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

² 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of EMPLOYMENT AND PAY ROLLS, or in February 1935 and subsequent issues of MONTHLY LABOR REVIEW. For other nonmanufacturing indexes see notes 5, 6, and 7.

³ Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

⁴ Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

⁵ Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of this pamphlet. See also table 7 of October 1940 pamphlet for revised figures for anthracite mining February 1940 to September 1940.

⁶ See table 7 of February 1941 pamphlet for revised indexes January 1938 to January 1941.

⁷ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in EMPLOYMENT AND PAY ROLLS pamphlets prior to January 1940 or in MONTHLY LABOR REVIEW prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.

⁸ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

⁹ Revised.

Public Employment

Employment created by the Federal Government includes employment financed from both regular and emergency appropriations.

EXECUTIVE SERVICE OF THE FEDERAL GOVERNMENT

Statistics of employment and pay rolls for the executive service of the Federal Government in June and July 1941 are given in table 12.

TABLE 12.—Employment and Pay Rolls for the Executive Service of the United States Government, July 1941¹

[Subject to revision]

Class	Employment			Pay rolls		
	July 1941	June 1941	Percentage change	July 1941	July 1941	Percentage change
Entire service: Total.....	1,391,689	1,370,110	+1.6	\$205,977,306	\$205,581,047	+0.2
Regular appropriation.....	1,203,371	1,167,162	+3.1	178,152,006	176,632,657	+ .9
Emergency appropriation..	24,486	48,206	-49.2	3,407,055	6,711,406	-49.2
Force-account.....	163,832	154,742	+5.9	24,418,245	22,236,984	+9.8
Inside the District of Columbia: Total.....	185,182	184,236	+ .5	28,524,770	30,601,662	-6.8
Regular appropriation.....	171,425	167,672	+2.3	26,063,693	27,739,709	-6.0
Emergency appropriation..	3,558	7,845	-54.6	482,691	1,216,424	-60.3
Force-account.....	10,199	8,719	+17.0	1,978,386	1,645,529	+20.2
Outside the District of Columbia: Total.....	1,206,507	1,185,874	+1.7	177,452,536	174,979,385	+1.4
Regular appropriation.....	1,031,946	999,490	+3.2	152,088,313	148,892,948	+2.1
Emergency appropriation..	20,928	40,361	-48.1	2,924,364	5,494,982	-46.8
Force-account.....	153,633	146,023	+5.2	22,439,859	20,591,455	+9.0

¹ Data relate to the last pay period of the month.

CONSTRUCTION PROJECTS FINANCED BY THE PUBLIC WORKS ADMINISTRATION

Details concerning employment, pay rolls, and man-hours worked during July on construction projects financed from Public Works Administration funds are given in table 13, by type of project.

TABLE 13.—Employment and Pay Rolls on Projects Financed from Public Works Administration Funds, July 1941 ¹

[Subject to revision]

Type of project	Employment		Monthly pay rolls	Man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum ²	Weekly average				
All programs..	7,456	6,351	\$807,747	910,668	\$0.887	\$1,247,860
Federal projects financed from National Industrial Recovery Act and Public Works Administration Appropriation Act 1938 funds						
All projects..	1,047	986	\$116,247	144,158	\$0.806	\$185,785
Airport construction (exclusive of buildings).....	129	129	12,748	19,063	.669	7,361
Building construction.....	186	168	21,525	20,812	1.034	117,477
Public roads ⁴	(9)	60	2,482	6,716	.370	5,000
Reclamation.....	612	575	76,356	94,665	.807	49,184
River, harbor, and flood control.....	36	36	932	1,286	.725	96
Streets and roads.....	15	9	567	685	.840	6,656
Water and sewerage.....	7	7	1,556	784	1.985	7
Miscellaneous.....	2	2	81	147	.551	4
Non-Federal projects financed from National Industrial Recovery Act, Emergency Relief Appropriation Act 1935, 1936, and 1937, and Public Works Administration Act 1938 funds						
All projects..	6,409	5,365	\$691,500	766,510	\$0.902	\$1,062,075
Building construction..	952	713	105,246	73,706	1.428	129,010
Electrification.....	311	287	53,885	38,187	1.411	36,071
Heavy engineering.....	4,268	3,623	460,661	578,624	.796	851,233
Railroad construction....	51	51	120	248	.484	0
Reclamation.....	81	40	4,981	5,048	.987	8,052
Streets and roads.....	163	145	12,928	10,972	1.178	2,714
Water and sewerage.....	562	485	51,000	57,046	.894	34,995
Miscellaneous..	21	21	2,679	2,679	1.000	0

¹ Data are for the month ending on the 15th.

² Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

³ Includes weekly average for public roads.

⁴ Under the jurisdiction of Public Roads Administration.

⁵ Not available; weekly average included in total for all projects.

UNITED STATES HOUSING AUTHORITY

Table 14 shows data concerning employment, pay rolls, and man-hours worked in July 1941 on low-rent projects of the United States Housing Authority.

TABLE 14.—Employment and Pay Rolls on Low-Rent Housing Projects Operated by the United States Housing Authority, July 1941

[Subject to revision]

Geographic division	Employment		Monthly pay rolls	Man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum	Weekly average				
All divisions.....	36,543	31,213	\$3,849,428	4,016,493	\$0.958	\$4,818,811
New England.....	3,711	3,225	461,908	426,498	1.083	877,489
Middle Atlantic.....	4,684	4,012	661,798	500,115	1.323	847,385
East North Central.....	6,639	5,749	882,716	748,814	1.179	1,015,212
West North Central.....	468	439	47,721	39,543	1.207	76,529
South Atlantic.....	9,292	7,891	879,207	1,023,840	.859	870,007
East South Central.....	2,258	1,881	160,837	231,854	.694	161,559
West South Central.....	4,944	4,173	415,550	518,601	.801	576,278
Mountain.....	472	437	28,770	28,406	1.013	33,386
Pacific.....	1,676	1,361	222,554	183,118	1.215	289,616
Outside continental United States..	2,399	2,045	88,367	315,704	.280	71,350

WORK PROJECTS ADMINISTRATION PROGRAM

A record of employment, pay rolls, and man-hours worked in July on work-relief projects of the Work Projects Administration is shown in table 15.

TABLE 15.—Employment and Pay Rolls on Work Relief Projects of the Work Projects Administration, July 1941

[Subject to revision]

Type	Employment ¹	Pay rolls	Man-hours worked	Average earnings per hour
All W. P. A. projects.....	1,055,012	\$68,200,000	147,200,000	\$0.463
Projects operated by W. P. A.....	1,041,123	67,400,000	145,400,000	.464
Projects operated by other Federal agencies.....	13,889	800,000	1,800,000	.444

¹ Employment represents the average of weekly counts made as of each Wednesday during the calendar month.

Data on employment, pay rolls, and man-hours worked in July on each type of project operated by the Work Projects Administration were not available when this report was prepared. The figures for June are presented in table 16.

TABLE 16.—Average Employment and Pay Rolls on Projects Operated by the Work Projects Administration, by Type of Project, June 1941

[Subject to revision]

Type of project	Employment ¹	Pay rolls	Man-hours worked	Average earnings per hour
All projects.....	1,369,728	\$79,222,498	172,559,357	\$0.459
Conservation.....	31,551	1,747,149	3,913,385	.446
Highways, roads, and streets.....	536,362	24,633,353	58,530,639	.421
Community service programs, excluding sewing.....	273,575	18,052,534	35,644,239	.506
Public buildings ²	114,845	8,932,865	18,119,980	.493
Publicly owned or operated utilities.....	126,203	7,712,295	16,233,049	.475
Recreational facilities ³	71,936	3,125,112	6,233,412	.501
Sanitation.....	18,930	764,376	1,856,552	.412
Sewing.....	108,194	4,985,582	12,241,089	.407
Airports and airways.....	17,668	4,343,699	10,193,631	.426
Not elsewhere classified—Total.....	70,464	4,925,533	9,593,381	.513
National defense vocational training.....	35,959	1,980,348	4,365,605	.454
Other.....	34,505	2,945,185	5,227,776	.563

¹ Data for "All projects" and for "National defense vocational training" represent the average of the weekly counts made as of each Wednesday during the calendar month; data for all other types are estimated on the basis of employment on June 25, 1941.

² Separate data for housing projects are not available.

³ Exclusive of buildings.

NATIONAL YOUTH ADMINISTRATION

Employment and pay rolls on the National Youth Administration projects for June and July 1941 are shown in table 17.

TABLE 17.—Employment and Pay Rolls on National Youth Administration Projects, July and June 1941

[Subject to revision]

Type of project	Employment		Pay rolls	
	July	June	July	June
Total.....	325,045	750,518	\$7,176,122	\$10,715,168
Student work program.....	2,309	358,004	12,375	2,602,449
Out-of-school work program.....	322,736	392,514	7,163,747	8,112,719

CIVILIAN CONSERVATION CORPS

Employment and pay rolls in the Civilian Conservation Corps in June and July 1941 are presented in table 18.

TABLE 18.—Employment and Pay Rolls in the Civilian Conservation Corps, July 1941 ¹
[Subject to revision]

Group	Employment		Pay rolls	
	July 1941	June 1941	July 1941	June 1941
All groups.....	210, 121	235, 024	\$10, 388, 164	\$11, 277, 971
Enrolled personnel ²	178, 296	199, 646	5, 603, 997	5, 988, 552
Nurses ³	124	125	17, 313	17, 349
Educational advisers ³	1, 392	1, 476	244, 314	257, 384
Supervisory and technical ³	30, 309	33, 777	4, 522, 540	5, 014, 686

¹ Employment figure is an average of counts of enrolled personnel taken at 10-day intervals, and number employed on last day of month for other groups.

² July data include 3,249 enrollees and pay roll of \$60,711 outside continental United States; in June the corresponding figures were 3,166 enrollees and pay roll of \$61,506.

³ Included in executive service, table 12.

CONSTRUCTION PROJECTS FINANCED BY THE RECONSTRUCTION FINANCE CORPORATION

Statistics of employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation in July are presented in table 19, by type of project.

TABLE 19.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Type of Project, July 1941 ¹
[Subject to revision]

Type of project	Employment ²	Monthly pay rolls	Man-hours worked during month	Average earnings per hour	Value of material orders placed during month
All projects..	13, 398	\$1, 908, 303	1, 762, 708	\$1. 083	\$7, 111, 944
Building construction ³ ..	12, 750	1, 865, 024	1, 716, 975	1. 086	\$7, 027, 032
Streets and roads.....	412	6, 913	10, 624	. 651
Water and sewerage.....	155	27, 435	27, 899	. 983	78, 812
Heavy engineering.....	81	8, 931	7, 210	1. 239	6, 100

¹ Data are for the month ending on the 15th.

² Maximum number employed during any 1 week of the month by each contractor.

³ Includes 467 employees; pay-roll disbursements of \$93,869; 73,899 man-hours worked; and material orders placed of \$33,837 on projects financed by RFC Mortgage Co.

CONSTRUCTION PROJECTS FINANCED FROM REGULAR FEDERAL APPROPRIATIONS

Data concerning employment, pay rolls, and man-hours worked on construction projects financed from regular Federal appropriations during July 1941 are given in table 20, by type of project.

TABLE 20.—Employment and Pay Rolls on Construction Projects Financed from Regular Federal Appropriations, by Type of Project, July 1941¹

[Subject to revision]

Type of project	Employment		Monthly pay rolls	Man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum ²	Weekly average				
All projects...	3 872, 663	797, 294	\$121, 148, 189	135, 617, 465	\$0. 893	\$203, 484, 140
Airport construction...	59, 996	54, 987	8, 435, 957	9, 490, 936	. 889	11, 716, 752
Building construction:						
Residential.....	68, 095	58, 806	7, 363, 244	8, 360, 224	. 881	8, 866, 924
Nonresidential...	335, 854	295, 070	48, 862, 601	49, 552, 870	. 986	59, 232, 107
Electrification:						
Rural Electrification Administration projects ⁴	11, 036	9, 048	612, 426	1, 142, 083	. 536	3, 347, 221
Other than R. E. A. projects...	823	691	105, 158	96, 333	1. 092	98, 448
Heavy engineering...	8, 678	8, 678	433, 118	802, 762	. 540	431, 804
Public roads ⁵	(6)	86, 436	9, 271, 125	13, 647, 938	. 679	12, 990, 893
Reclamation.....	30, 275	29, 509	4, 450, 706	4, 909, 600	. 907	9, 879, 401
River, harbor, and flood control:						
Dredging, dikes, revetments, etc.	33, 949	30, 204	3, 623, 432	4, 951, 591	. 732	5, 761, 588
Locks and dams.....	7, 709	7, 082	940, 672	1, 184, 470	. 794	2, 114, 768
Ship construction:						
Naval vessels.....	168, 250	160, 528	30, 364, 501	32, 780, 502	. 926	74, 466, 681
Other than naval vessels...	39, 603	35, 198	5, 637, 564	6, 062, 681	. 930	12, 069, 245
Streets and roads.....	2, 419	2, 103	213, 825	291, 004	. 735	422, 116
Water and sewerage...	1, 902	1, 771	217, 806	286, 681	. 760	600, 492
Miscellaneous.....	17, 638	17, 183	616, 054	2, 057, 790	. 299	1, 485, 700

¹ Data are for the month ending on the 15th.

² Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

³ Includes weekly average for public-road projects.

⁴ Financed by Rural Electrification Administration loans.

⁵ Under the jurisdiction of the Public Roads Administration.

⁶ Not available; weekly average included in the total for all projects.

STATE-ROADS PROJECTS

A record of employment and pay-roll disbursements on the construction and maintenance of roads financed wholly from State or local funds in July 1941, compared with June 1941, and July 1940, is presented in table 21.

TABLE 21.—Employment and Pay Rolls on Construction and Maintenance of State Roads, July 1941, June 1941, and July 1940¹

[Subject to revision]

Item	Employment ²			Pay rolls		
	July 1941	June 1941	July 1940	July 1941	June 1941	July 1940
Total.....	202, 158	196, 655	197, 950	\$16, 758, 517	\$14, 596, 069	\$14, 696, 498
New roads.....	65, 507	61, 759	61, 705	4, 924, 578	4, 231, 809	3, 984, 957
Maintenance.....	136, 651	134, 896	136, 245	11, 833, 939	10, 364, 260	10, 711, 541

¹ Projects financed wholly from State or local funds.

² Average number working during month.

