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EMPLOYMENT and PAY ROLLS

DETAILED REPORT DECEMBER 1947

United States Department of Labor Bureau of Labor Statistics

ESTIMATES OF EMPLOYMENT - NEW SERIES

In this detailed report the Bureau presents a new series of productionworker estimates for the individual industries listed below. The new estimates, adjusted to benchmark data through 1945 from the Bureau of Employment Security of the Federal Security Agency, correct the downward bias which has accumulated since 1939 and are, therefore, more representative of the true levels of employment.

MANUFACTURING - Industries in the Electrical Machinery and the Chemicals and Allied Products Groups - The estimates and indexes for all industries in these two groups have been adjusted. Despite the lapse of several years without any adjustment to levels other than the 1939 Census of Manufactures, the changes are relatively small.

NONMANUFACTURING - Power Laundries and Cleaning and Dyeing Industries - The estimates and indexes for these two industries have been adjusted. Also, the employee definition has been changed from "wage earner" to "production worker" with the resultant exclusion of driver-salesmen.

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

U. S. Department of Labor Bureau of Labor Statistics

EMPLOYMENT AND PAY ROLLS

Detailed Report

December 1947

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

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

Industry division	1000	1947		1946		
industry division	Dec.	Nov. Oct. Dec.		Dec.	Nov.	
TOTAL	44,066	43,449	43,298	42,928	42,439	
Manufacturing	15,951	15,871	15,831	15,348	15,271	
Mining	898	897	895	874	883	
Contract construction	1,788	1,849	1,896	1,644	1,713	
Transportation and public utilities:	4,064	4,071	4,092	4,071	4,101	
Transportation	2,851	2,866	2,894	2,919	2,955	
Communication	719	713	707	691	. 687	
Other public utilities	494	492	491	461	459	
Trade	9,455	9,075	8,889	9,234	8,898	
Finance	1,591	1,588	1,586	1,546	1,543	
Service	4,688	4,670	4,662	4,573	4,555	
Government:	5,631	-5,428	5,447	5,638	5,475	
Federal	1,985	1,751	1,744	2,236	2,065	
State and local	3,646	3,677	3,703	3,402	3,410	

See explanatory notes, sections A - H.

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

Major industry group		1947		1946		
Major Histosory group	Dec.	Nov.	Oct.	Dec.	Nov.	
	40"					
ALL MANUFACTURING.	15,951	15,871	15,831	15,348	15,27	
	0	00			7 70	
Durable goods	8,055	7,986	7,925	7,731	7,72	
Iron and steel and their						
products	1,888	1,875	1,864	1,787	1,80	
Electrical machinery	759	758	749	771	76	
Machinery, except						
electrical	1,555	1,538	1,534	1,489	1,47	
Transportation equipment,						
except automobiles	584	571	543	600	59	
Automobiles	1,006	988	991	943	95	
Nonferrous metals and their	1.		į		į	
products	470	466	464	493	48	
Lumber and timber basic products	747	750	750	652	65	
Furniture and finished lumber						
products	543	538	531	504	49	
Stone, clay, and glass products	503	502	499	492	48	
Nondurable goods	7,896.	7,885	7,906	7,617	7,55	
Indiana de la posta	1,000.	1,000	1,,,,,,	1,021	1,77	
Textile-mill products and other				1.		
fiber manufactures	1,373	1,355	1,333	1,353	1,34	
Apparel and other finished textile	-,515	-,577	-,555	-,555	-,5.	
products	1,367	1,338	1,349	1,229	1,20	
Leather and leather products	415	411	408	403	39	
Food	1,605	1,644	1,705	1,548	1,54	
Tobacco manufactures	102	104	103	105	10	
Paper and allied products	474	470	467	465	46	
Printing, publishing, and allied				1		
industries	712	711	706	688	67	
Chemicals and allied products	763	759	755	732	72	
Products of petroleum and coal	233	235	233	221	22	
Rubber products	277	275	272	296	29	
Miscellaneous industries	575	583	575	577	57	

See explanatory notes, section A - H.

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

Area and branch	(as of f	ployment irst of m			Pay rolls tal for mo	
and the second	194	7	Dec.	194	7	Dec.
	Dec. 1/		1946	Dec. 1/	Nov. 1/	1946
Total (including areas outside United States)						per Bal
Total Federal Executive Defense agencies Post Office Dept. 2/ Other agencies Legislative Judicial Government corps.	2,229.2 2,189.5 894.9 667.9 626.7 7.0 3.5 29.2	1,966.3 905.2 429.8 631.3 7.1 3.5	2,572.0 1,176.6 715.4 680.0 6.8 3.1	507,795 208,931 133,921 164,943 2,457	98,666 151,448 2,457 1,191	\$581,890 572,642 269,854 137,277 165,511 2,166 1,190 5,892
Continental United States						4.40
Total Federal Executive Defense agencies Post Office Dept. 2/ Other agencies Legislative Judicial Government corps.	2,005.6 1,973.1 708.1 665.7 599.3 7.0 3.4 22.1	1,738.6 706.4 428.3 603.9 7.1	2,273.6 906.8 713.2 653.6 6.8 3.0	470,025 178,268 133,472 158,285 2,457 1,301	405,536 162,219 98,313 145,004 2,457	526,438 230,411 136,878 159,149 2,166 1,155
Washington, D. C.						
Total government District of Columbia	224.0	221.5	252.6	65,078		66,860
government Federal Executive Defense agencies Post Office Dept. 2/ Other agencies Legislative Judicial	18.1 205.9 198.3 64.7 10.1 123.5 7.0	18.4 203.1 195.4 64.5 7.3 123.6 7.1	78.4 11.0 138.2 6.8	60,534 57,859 17,625 3,097 37,137	55,186 52,534 16,110	4,189 62,671 60,298 20,205 2,507 37,586 2,166

^{1/} Data for Central Intelligence Agency are excluded for security reasons.

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

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

at a larger transfer

(In thousands)

Personnel and pay	19	47	December 1946	Average monthly per- sonnel and total annual pay		
	December	November		1943	1939	
Personnel, total as of first of month, including those on active duty and those on						
terminal leave	1,452	1,490	2,204	8,944	345	
Army	911	920	1,512	6,733	192	
Navy	433	459	562	1,744	124	
Marine Corps	89	92	108	311	19	
Coast Guard	19	19	22	156	10	
Men	1,435	1,473	2,176	8,833	1/	
Women	17	17	28	111	<u>ı</u> /	
Pay, total	\$292,746	\$303,705	\$757,647	\$11,173,186	\$331,523	
Army	176,403	180,913	495,634	8,143,833	155,482	
Navy	97,646	102,562	216,576	2,408,736	143,238	
Marine Corps	14,495	16,046	36,059	392,140	16,877	
Coast Guard	4,202	4,184	9,378	228,477	15,926	
Pay rolls	238,952	246,112	395,144	10,140,852	331,523	
Mustering-out pay	13,362	9,117	45,315	-	-	
Family allowances	23,827	23,127	33,165	1,032,334		
Leave payments	16,605	25,349	284,023	* -	-	
Cash	2,866	3,982	16,468			
Bonds	13,739	21,367	267,555	-	-	

.1/ Data not available.

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

Region and State		•	1947		1946	
		Nov.	Oct.	Sept.	Nov.	Oct.
No Collection	and other parties			7.		
New England			1.			
Maine	3*	112.5	113.1	114.7	117.1	117.
New Hampshire		83.9	82.9	82.1	81.6	79.
Vermont		39.8	-39.7	39.9	41.8	42.
Massachusetts		753.2	741.6	732.5	762.1	754.
Rhode Island						
		154.3	152.9	148.1	152.0	150.
Connecticut		416.0	414.3	411.1	416.1	410.
Middle Atlantic	7 19 1	1			1	1
New York		1,918.6	1,922.8	1,900.1	1,939.6	1,928.
New Jersey		757.4	751.4	749.2		
Pennsylvania					757.7	753.
remisyrvania		1,524.9	1,519.0	1,505.5	1,511.7	1,458.
East North Central		Whi.				
Ohio		1,247.3	1,244:7	1,244.0	1,238.3	1,230.
Indiana		555.0	561.0	580.0	538.4	538.
Illinois						
Michigan	74		1,257.0	1,249.0	1,229.6	1,203.
		1,018.8	1,021.8	1,023.3	1,041.6	1,033.
Wisconsin	1	434.1	432.7	444.2	420.1	412
est North Central						
Minnesota		199.9	199.0	209.9	200.2	196
Iowa		149.8	148.6	149.4	144.0	132
Missouri		366.8	362.6			
North Dakota				356.8	356.0	343
		7.1	7:0	7.0	6.5	6.
South Dakota		11.5	11.4	11.3	10.5	8.
Nebraska	, .	45.9		43.1	44.0	39.
Kansas		79.9	79.8	79.4	79.3	74
outh Atlantic						
Delaware		1.5 0	1,= 6.	48.2	1.5 0	1.5
		45.2	45.6		45.0	45.
Maryland Columbia		231.1	229.3	232.4	240.7	238
District of Columbia	Ť.;	17.4	17.5	17.5	17.0	16
Virginia		217.3	217.0	214.5	212.6	211
West Virginia		133.0	133.4	132.8	133.4	131
North Carolina		378.2	373.6	367.7	*367.0	363
South Carolina		197.6	194.8	192.3	186.7	183
Georgia		256.7	253:9	251.9	*263.6	*261
Florida		82.7	80.6	78.6	1	
		02.1	00.0	10.0	09.4	79
ast South Central		150				
Kentucky		130.7	130.3	128.2	127.4	122
Tennessee		253.0	253.8	251.8	248.6	245
Alabama 1/	1000	229.3	228.0	*224.3	221.6	215
Mississippi	SSIT No.	95.5	94.1	95.0	90.5	87
est South Central		1	1			
Arkansas		75.5	76.0	74.9	70.1	69
Louisiana		141.1	143.5	142.7	132.5	128
d Oklahoma		56.5	55.7	55.2	55.8	52
as Textas sfed.org/	100	347.7	339.9	337.8	328.9	316
I Reserve Bank of St. Louis		1 3 50 5	STATE OF STA		1	3

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

_	2 Gt 1.			1947		19	+6
. Region an	Region and State		Nov.	Oct.	Sept.	Nov.	Oct.
Mountain	18.			- 1.07			:
Montana			18.7	119.1	18.1	*18.1	*18.0
Idaho			19.9	20.4	19.3	21.9	21.7
Wyoming	. 4		7.2	7.1	6.8	7.0	6.7
Colorado			60.4	60.6	57.9	58.7	56.9
New Mexico	3	•	10.3	10.2	10.1	10.2	10.3
Arizona			13.0	12.6	12.7	13.5	12.7
Utah			27.3	29.4	30.1	25.4	26.2
Nevada	•		3.7	3.7	3.7	3.5	3.4
9-25-2			1				
Pacific							
Washington 1/			178.2	183.9	191.7	*168.8	*175.4
Oregon	17.		112.2	117.2	122.2	118.4	122.2
California			716.8	736.3	744.1	*705.4	*725.5
L-950"	8			!			

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

(In thousands)

State	State			1947	1946		
0.0			Nov.	Oct.	Sept.	Nov.	Oct.
Illinois	1	613	3,180	3,166	3,142	3,092	3,048
Massachusetts			1,743	1,725	1,707	1,735	1,723
Montana			137	137	137	133	133
New Jersey	369		1,580	1,573	1,574	1,569	1,561
New York			5,489	5,482	5,440	5,469	5,401
Pennsylvania			3,622	3,606	3,574	3,536	3,465
Texas			1,690	1,675	1,662	1,639	1,613
Wisconsin	13.5	4.00	982	981	998	950	941
1.161							

See explanatory notes, section H and I.

- * Revised data in all except the first two columns are identified by an asterisk for the first month of publication of such data.
- I/ Revisions have been made as follows in the data for earlier months:

 Alabama June, July, and August 1947 to 225.6, 222.1, and 223.1.

 Washington July, August, September, and December 1946 to 176.9, 177.3, 179.4

 and 166.0 respectively. January through May 1947 to 162.3, 166.1, 169.2,
 170.4, and 174.9.

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

Industry group and industry		1947		1946		
Industry group and industry	Dec.	Nov.	Oct.	Dec.	Nov	
ALL MANUFACTURING	12,960	12,881	12,850	12,514	12,449	
Durable goods	6,640	6,577	6,518	6,393	6,379	
Nondurable goods	6,320	6,304	6,332	6,121	6,070	
			,00	'		
Durable goods		•				
					120	
RON AND STEEL AND THEIR PRODUCTS	1,605	1,592	1,583	1,521	1,535	
lost formance stool souther and						
Blast furnaces, steel works, and	107 5	1.00 0	1.00 0	1.00	1.00	
rolling mills	497.8			467.0		
ray-iron and semisteel castings	83.9			84.4		
Malleable-iron castings	27.8			24.2		
teel castings	49.4					
ast-iron pipe fittings	21.3					
in cans and other tinware	47.0			41.5	41.	
lire drawn from purchased rods	31.0			29.9	29.	
/irework 1/	41.7		40.0	40.5	40.	
utlery and edge tools	24.6	24.4	24.2	27.7	27.	
cols (except edge tools, machine	1					
tools, files, and saws)	25.5	25.0	24.6	26.8	26.	
lardware	51.7					
'lumbers' supplies	29.5				and the second second	
toves, oil burners, and heating	1			-,	-7.	
equipment not elsewhere classified	67.4	68.0	67.7	60.8	62.	
Steam and hot-water heating	1		01.1	00.0	02.	
apparatus and steam fittings	46.1	45.6	45.7	51.0	51.	
stamped and enameled were and	1	47.0	47.1	51.0	51.	
galvanizing	86.6	86.2	9E E	0), -	. 00	
abricated structural and	00.0	00.4	85.5	84.5	83.	
ornamental metalwork	50.7	50	FO 0			
트립트 - Toleron - March - Toleron - March - Mar	59.7	59.5	59.0	57.1	56.	
etal doors, sash, frames, molding, and trim	1 30 -				2.45	
	10.7			10.1		
olts, nuts, washers, and rivets	21.1			21.2		
orgings, iron and steel	27.6	27.2	27.1	26.7	26.	
rought pipe, welded and heavy-	1					
riveted	14.4	14.0	13.6	13.2	13.	
crew-machine products and wood						
screws	26.4		26.1	29.3		
teel barrels, kegs, and drums	6.0		5.9	6.1	6.	
irearms	14.5	14.2	14.1	14.0		
ECTRICAL MACHINERY 2/	585	584	577	. 597	590	
lectrical equipment	280.0	200 -	200			
Radios and phonographs	382.2			375.4		
	104.3					
Communication equipment	98.2	97.5	95.6	110.5	109.	

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

Industry group and industry	٠.		1947		1946		
	٠,	Dec.	Nov.	Oct.	Dec.	Nov.	
MACHINERY, EXCEPT ELECTRICAL		1,210	1,194	1,190	1,161	1,150	
Machinery and machine-shop products		376.8	376.1	377.8	379.6	377.7	
Engines and turbines		43.8					
Tractors		59.3					
Agricultural machinery, excluding		77.5	7	,,,-	7	75.	
tractors		53.7	51.4	51.1	44.8	43.5	
Machine tools	•	50.5					
Machine-tool accessories	:	42.5					
Textile machinery							
		39.9					
Pumps and pumping equipment		55.0					
Typewriters		25.4	24.8	24.4	22.3	22.2	
Cash registers, adding, and							
calculating machines		44.4	43.4	42.4	37.3	36.1	
Washing machines, wringers, and							
driers, domestic		16.1	15.5	15.1	12.5	12.6	
Sewing machines, domestic and							
industrial		13.1	12.8	12.4	10.7	10.	
Refrigerators and refrigeration			7				
equipment		80.2	78.8	78.6	65.2	64.2	
THE CONTROL WITH CONTROL			,	10.0	٠,	04.0	
TRANSPORTATION EQUIPMENT, EXCEPT							
AUTOMOBILES		457	446	420	1.72	464	
NO CONODITION		471	440	420	473	404	
Locomotives		06 -	06.0				
		26.5	26.0				
Cars, electric- and steam-railroad		56.9	56.8	55.2	50.8	50.	
Aircraft and parts, excluding							
aircraft engines		136.0	136.2			146.	
Aircraft engines		25.9	25.9	26.2	29.0	29.3	
Shipbuilding and boatbuilding		125.7	117.6	100.2	142.8	133.8	
Motorcycles, bicycles, and parts		14.7	14.4	14.1	12.1		
AUTOMOBILES		813	797	795	774	778	
NONFERROUS METALS AND THEIR PRODUCTS		402	399	397	426	422	
A V							
Smelting and refining, primary, of							
nonferrous metals		39.3	39.1	39.2	40.2	39.3	
Alloying; and rolling and drawing						٠,٠.	
of nonferrous metals, except.		52.5	52.1	52.3	62.8	62.0	
aluminum	. '		,	72.5	02.0	02.,	
Clocks and watches	7 . 3	27.9	28.0	27.7	28.2	28.5	
Jewelry (precious metals) and		21.7	20.0	-1.1	20.2	20.	
jewelers' findings		17.9	19.0	17 0	100		
Silverware and plated ware			18.2	17.8			
Lighting equipment		17.5	17.2				
Aluminum manufactures	Sign I	29.1	29.0	29.6		and the same of th	
	,	44.0	43.0	42.5	51.3	50.9	
Sheet-metal work, not elsewhere					7 H H		
classified		26.0	25.9	25.7	26.9	27.2	

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

Industry group and industry		1947		1 19	946
Times at y broup and times at y	Dec.	Nov.	Oct.	Dec.	Nov.
LUMBER AND TIMBER BASIC PRODUCTS 2/	678	680	681	592	599
Sawmills and logging camps	544.4	547.3	550.2	472.8	479.5
Planing and plywood mills	133.6			119.3	
FURNITURE AND FINISHED LUMBER					0.005300
PRODUCTS 2/	457	453	446	425	419
Mattresses and bedsprings	36.0	35.9		30.6	
Furniture	246.8			227.2	
Wooden boxes, other than cigar	34.8	35.3		34.3	
Caskets and other morticians' goods	19.8			19.6	
Wood preserving	16.8				
Wood, turned and shaped	32.8	32.5	31.6	31.9	30.7
STONE, CLAY, AND GLASS PRODUCTS 2/	433	432	429	424	422
Glass and glassware	119.7	120.1	120.0	122.4	122.
Glass products made from	100	306	100		- Litter
purchased glass	12.8	12.6		12.9	
Cement	36.6	36.8		35.2	
Brick, tile, and terra cotta	76.3	75.8		69.3	
Pottery and related products	57.6	57.2		55.0	
Gypsum	6.5	6.5	6.4	6.2	6.
Wallboard, plaster (except gypsum), and mineral wool	12.7	12.7	12.3	11.1	11.
Lime	9.4			8.9	
Marble, granite, slate, and other	7.4	3.7	9.1	0.9	9.
products	18.3	18.5	18.4	17.2	17
Abrasives	16.8			17.3	
Asbestos products	21.7	21.3	:	20.1	•
	۵۰۱	21.3	21.3	21.7	21.
Nondurable goods					C. 1745
PEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES 2/	1,256	1,238	1,217	1,242	1,230
Cotton manufactures, except smallwares	500.0	536.0	500.0		
Cotton smallwares	523.2			516.3	
	14.3		13.7	16.0	
Silk and rayon goods	108.5	106.9	105.7	106.9	105.
Woolen and worsted manufactures,					3.75
except dyeing and finishing	177.3			181.7	
Hosiery	138.4	•		135.9	
Knitted cloth	11.5	11.5	11.2	12.5	
Knitted outerwear and knitted gloves	31.4			36.4	
Knitted underwear	48.8	47.8	46.9	41.3	40.
Dyeing and finishing textiles,	07.0	0	0	01	0-
including woolen and worsted	87.0			84.3	and the second second
Carpets and rugs, wool	35.4			29.5	
Hats, fur-felt	13.8			13.8	
Jute goods, except felts	3.7	3.0	3.0	4,1	The second secon
	1 16.5	16.1	15.4	17.2	17.

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

Industry group and industry APPAREL AND OTHER FINISHED TEXTILE PRODUCTS 2/ Men's clothing, not elsewhere classified Shirts, collars, and nightwear Underwear and neckwear, men's Work shirts Women's clothing, not elsewhere classified Corsets and allied garments Millinery Handkerchiefs Curtains, draperies, and bedspreads Housefurnishings, other than curtains, etc. Textile bags LEATHER AND LEATHER PRODUCTS 2/ Leather Boot and shoe cut stock and findings Boots and shoes Leather gloves and mittens Trunks and suitcases FOOD 2/ Slaughtering and meat packing Butter Condensed and evaporated milk Ice oream Flour Feeds, prepared	Dec.	Nov.	Oct.	-	
		TION.		Dec.	Nov.
PRODUCTS 2/	1,199	1,171	1,181	1,079	1,063
Men's clothing, not elsewhere					
classified	310.5			282.7	
	82.4			70.5	
	18.4			18.8	
	15.7	15.5	15.8	15.9	15.4
	hero e	Les 2	1.60 0	1.21. 1.	1000
	470.5				
	19.6				
	23.1		•		
	5.2				
Housefurnishings, other than	32.2		1		
	30.6		31.6		
Textile bags	28.6	28.4	28.1	. 29.8	28.9
EATHER AND LEATHER PRODUCTS 2/	373	369	366	362	357
Leather	46.9	46.9	46.9	45.4	43.3
	19.8	19.8	19.6	20.6	20.7
	231.3	227.5	225.8	221.7	218.6
Leather gloves and mittens	13.1	13.2			
	14.1	14.7	14.4	14.7	14.8
'OOD 2/	1,165	1,197	1,259	1,139	1,141
Slaughtering and meat packing	203.7				
Butter	32.9				
Condensed and evaporated milk	18.6				
	24.9	26.3	27.8		
	39.4		39.8		
	29.1				
Cereal preparations	12.1			13.7	
Baking	220.8		224.5		
Sugar refining, cane	20.0	:			
Sugar, beet	20.9	1			
Confectionery	79.1	34.3			
Beverages, nonalcoholic	69.7		1		
Malt liquors Canning and preserving	148.9			1	
	1 30	1			
POBACCO MANUFACTURES	88	90	89	92	91
Cigarettes	34.2				
Cigars	40.2	42.2	41.6	42.9	42.
Tobacco (chewing and smoking) and snuff	7.3	7.2	7.3	7.8	8.0

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http://seer.explanatory notes, sections A, C, and G.

Federal Reserve Bank of St. Louis

12.
Table 6.- Estimated Number of Production Workers in Manufacturing Industries - Cont'd (In thousands)

Paper and pulp Paper goods, other Envelopes Paper bags Paper boxes RINTING, PUBLISHING, AND ALLIED INDUSTRIES 2/ Newspapers and periodicals Printing; book and job Lithographing Bookbinding HEMICALS AND ALLIED PRODUCTS 2/ Paints, varnishes, and colors Drugs, medicines, and insecticides Perfumes and cosmetics Soap Rayon and allied products Chemicals, not elsewhere classified		1947		1946		
THEORY OF STATE THE POLY	Dec.	Nov.	Oct.	Dec.	Nov.	
PAPER AND ALLIED PRODUCTS 2/	390	387	385	387	383	
Paper and pulp	199.6	197.6	196.9	191.8	190.0	
Paper goods, other	59.1	58.8	58.6	58.0	57.9	
Envelopes	12.4	12.4	12.2	12.0	11.8	
Paper bags	18.2	17.9	17.9	19.7	19.2	
Paper boxes	99.8	99.1	98.1	104.3	103.2	
PRINTING, PUBLISHING, AND ALLIED	436	435	433	420	415	
INDUSTRIES Z	1.50	1.55	1.55	100	-	
Newspapers and periodicals	145.6	145.1	144.6	136.7		
Printing; book and job	182.8	182.0	180.7	178.0	176.5	
Lithographing	32.9	33.0	32.6	32.7	32.5	
Bookbinding	38.3	38.7	38.5	36.9	36.1	
CHEMICALS AND ALLIED PRODUCTS 2/	579	577	573	555	550	
Paints, varnishes, and colors	50.6	50.2	49.9	48.4	47.	
	65.9	66.4	67.1	68.9	68.1	
	12.9	13.9	13.5	14.6	15.9	
	25.6	25.8	25.3	22.1	21.	
	63.5	63.1	62.9	60.6	61.0	
					1 3/2	
	198.1	196.4	195.0	190.5	185.	
Explosives and safety fuses	21.9	21.7	21.4	19.4	19.	
Compressed and liquefied gases	9.9	9.7	9.7	8.8	8.	
Ammunition, small-arms	7.4	7.2	7.2	6.6	6.	
Fireworks	2.8	2.9	2.9	3.5	3.	
Cottonseed oil	24.4	24.5		22.3		
Fertilizers	28.0	26.7	26.8	26.5	25.	
PRODUCTS OF PETROLEUM AND COAL 2/	162	163	162	155	155	
Petroleum refining	109.9	109.7	109.7	107.2	106.	
Coke and byproducts	29.9	30.0	29.6	26.9		
Paving materials	2.7	3.4	3.4	2.3	2.	
Roofing materials	18.3	18.5	18.4	17.3	17.	

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

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

(In thousands)

Industry group and industry	7	1947		194	6
Times of group that like by	Dec.	Nov.	Oct.	Dec.	Nov.
RUBBER PRODUCTS 2/	225	223	220	242	240
Rubber tires and inner tubes Rubber boots and shoes Rubber goods, other	114.8 22.5 87.7	115.1 22.0 86.1	114.4 21.7 84.0	129.0 23.0 89.9	129.2 22.4 88.8
MISCELLANEOUS INDUSTRIES 2/	447	454	447	448	445
Instruments (professional and scientific), and fire-control equipment	28.1	27.8	28.0	28.4	27.0
Photographic apparatus Optical instruments and ophthalmic	40.3	39.9	38.7	35.4	35.3
goods Pianos, organs, and parts	28.0	27.6	27.5	13.3	30.0
Games, toys, and dolls Buttons	38.5 13.4	43.4	42.3 12.1	33.8	35.0
Fire extinguishers	2.7	2.7	2.8	3 0	3.0

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

- Revisions have been made as follows in the data for earlier months: Wirework July 1947 to 38.6.
- Estimates for the individual industries comprising the major industry group have been adjusted to levels indicated by data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. More recently adjusted data for the individual industries comprising the major industry group indicated below supersede data shown in publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Textile-mill products and other fiber manufactures Products of petroleum and coal Electrical machinery Chemicals and allied products	December 1947 January 1948 February 1948 February 1948	January 1948 February 1948 March 1948 March 1948

independent of the April 2001 of the

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

(In thousands)

Industry group and industry	T		1947		19	
industry group and industry		Dec.	Nov.	Oct.	Dec.	Nov.
MINING: 2/			-			
Coal:						
Anthracite		67.2	67.0	67.0	68.7	68.
Bituminous coal		337	335	333	326	334
Metal:		77.9	77.5	77.1	76.0	75.
Iron	- 1	28.6	29.2	29.6	26.6	
Copper	1	25.1	24.5			
Lead and zinc	1	14.0	13.8	13.4	16.1	15.
Gold and silver		0.8	7.7	7.6	7.6	7.
Miscellaneous		2.3	2.3	2.2	2.4	2.
						1
TRANSPORTATION AND PUBLIC UTILITIES:	9	1.00			25.0	
Class I steam railways 3/ Street railways and busses 4/ Telephone Telegraph 5/		249 620 36.7	1,340 249 614 36.6		1,353 252 586 40.4	1,382 253 583 40.
Electric light and power		269	268	267	252	250
SERVICE:		7				
Hotels (year-round) Power laundries 2/6/ Cleaning and dyeing 2/6/		381 237 91.0	378 238 92.6	380 241 95.6	384 246 94.0	388 244 95•
			- 181		Me Aggds.	1

See explanatory notes, section G.

1/ Includes all employees unless otherwise noted.

Includes production and related workers only.

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

4/ Includes private and municipal street railway companies and affiliated,

subsidiary, or successor trolley-bus and motor-bus companies.

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

messengers.

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

Table 8. - Indexes of Production-Werker Employment and Weekly Pay Rolls in No. afacturing Industries (1939 Average = 100)

	Emp.	loymen			P		l inde	
Industry group and industry		1947		1945		1947		1946
7.5	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.
ALL MANUFACTURING	158.2	157.2	156.9	152.8	356.6	345.0	341.6	306.
Durable goods Nondurable goods				177.0 133.6			379.3 304.7	
Durable goods								
TRON AND STEEL AND THEIR PRODUCTS	161.9	160.6	159.7	153.4	341.2	333.4	327.6	276
Blast furnaces, steel works,								
and rolling mills				120.2			248.4	
Gray-iron and semisteel castings 1							320.2	
Malleable-iron castings		150.7					354.8	
Steel castings		163.1					333.0	
Cast-iron pipe and fittings 1				116.2	317.7	299,6	300.8	259
Tin cans and other tinware				130.5			327.3	
Wire drawn from purchased rods	141.3	139.6	139.0	135.9	275.7	266.0	263.9	239
Wirework 1/	137.1	131.2	131.7	133.4			285.1	
Cutlery and edge tools				179.8			367.1	
Tools (except edge tools, machine						0, 0		
tools, files, and saws)	166.7	163.6	160.7	175.0	374.7	357.5	347.7	360
Hardware				139.0			316.8	
Plumbers' supplies				120.8			242.4	
Stoves, oil burners, and					1	٠.٠٠		2,20
heating equipment not					1			
elsewhere classified	146 1	11/7 2	716 8	131.7	330 0	277 0	327.9	261
Steam and hot-water heating	140.1	12	-40.0	1070	330.9	2+1.5	3-1.9	204
apparatus and steam fittings	152 2	150 6	150 6	168.3	3100	330 0	277 7	27.0
Stamped and enameled ware							317.7	
and galvanizing	155.8	155.1	153.9	152.2	371.4	356.9	351.2	320
Fabricated structural and						14 17		
ornamental metalwork	168.2	167.6	166.1	1.60.8	354.2	345.2	342.9	293
Metal doors, sash, frames,								
molding, and trim	138.6	136.2	134.0	130.2	308.0	293.6	286.0	257
Bolts, nuts, washers, and rivets				148.3				
Forgings, iron and steel				173.9			381.8	
Wrought pipe, welded and		.,,,,			1	31	3-2.0	1000
heavy-riveted	172.6	167.1	162.7	158.0	372.8	349.9	337.9	285
Screw-machine products and		,		1	15,400	3.7.7	331.7	
wood screws	155.8	154.5	154.5	173.0	347.9	331.7	334.2	351
Steel barrels, kegs, and drums				100.1			236.7	
Firearms				280.6			615.4	
ELECTRICAL MACHINERY 2/	225.8	225.4	222.7	230.6	472.1	463.1	456.0	430
Electrical equipment	209.2	208.2	206.5	205.5	434.3	423.9	417.8	374
Radios and phonographs	238.2	241.7	237.0	253.6	1542.9			
Communication equipment	302.7	300.3	294.6		604.6			
zed for FRASER	20-1	300.5	-71.0	3.0.0	1004.0	771.00	104.)	1034

Federal Reserve Bank of St. Louis

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

	Emp]	Loymen	inde	xes	Pa	y-roll	inde	xes
Industry group and industry		1947		1946		1947		1946
	Dec.	Nov.	Oct.		Dec.	Nov.	Oct.	Dec.
MACHINERY, EXCEPT ELECTRICAL	229.0	225.9	225.1	219.6	470.2	450.4	448.9	399.9
	1	1 .7						
Machinery and machine-shop				1. /.	A			
· products · · · · · · · · · · · · · · · · · · ·	186.3	185.9	186.7	187.6	388.7	374.3	373.6	346.7
Engines and turbines				244.5	518.5	515.0	493.4	500.8
Tractors				174.2	341.3	331.8	328.5	271.
Agricultural machinery,								
excluding tractors	193.1	184.8	183.6	161.0	409.1	376.6	394.4	291.
Machine tools				165.3			253.9	
Machine-tool accessories	168.7	167.7	167.3	204.8			294.6	
Textile machinery				161.4			376.4	
Pumps and pumping equipment				243.1	486.8			
Typewriters				137.2			337.5	
	12000	175.2	1,0.0	731.6	303.7	372.0	221.7	210.
Cash registers, adding, and	205 6	220 7	275 5	189.3	482.6	1,56 5	liho 5	21.7
calculating machines	220.0	220.1	217.7	109.3	402.0	450.5	449.7	341.
Washing machines, wringers,	0750	000 0	000 3	766 0	1.00 5	1.1.0.0	1.01. 6	206
end driers, domestic	1572.5	208.0	202.3	166.8	403.7	442.9	424.6	300.
Sewing machines, domestic	1-7-						-00	
and industrial	167.3	163.2	157.9	136.2	392.2	376.3	364.8	273.
Refrigerators and refrigeration							771	6.
equipment	228.0	224.2	223.4	185.6	458.2	427.8	440.4	306.
TO A MICHARD AND AND THE STATE OF THE STATE	1							100
TRANSPORTATION EQUIPMENT,	207 0	001 0	061. 0	000 0	500 5	-1.6 1.	F20 0	
EXCEPT AUTOMOBILES	201.0	201.0	204.0	298.2	1290.5	240.4	532.2	217.
Locomotives	409.4	402.0	400.5	418.8	878.6	863.1	870.1	876.
Cars, electric- and steam-	1	1			10,000		1, 2	185
railroad	9. 150	227:1	205 0	007 0	500 h	E02 E	1.02 6	1.00
	1521.0	231.4	227.2	207.2	522.4	203.2	493.0	400.
Aircraft and parts, excluding	21.00	21.2 0	225 1	20. 0	1000	11.	1100	(00
aircraft engines				364.8			663.8	
Aircraft engines				326.2			499.9	
Shipbuilding and boatbuilding				206.2			289.9	
Motorcycles, bicycles, and parts	210.1	207.0	201.8	173.6	448.2	441.3	430.8	346.
AUTOMOBILES	202.1	198.2	197.7	192.3	419.8	388.1	378.5	328.
MONTHER DAYS MEMAT C AND MITTER						3	3100	1
NONFERROUS METALS AND THEIR				-0-0		4.5	200	200
PRODUCTS	175.4	173.9	173.3	185.8	367.0	357.9	353.2	356.
Smelting and refining, primary,							12.	
of nonferrous metals	112.3	141.5	141.0	145.4	30h 0	205 7	291.9	271
Alloying; and rolling and	142.3		141.9	177.4	254.5	297.1	291.9	211.
drawing of nonferrous	1					, ,		
metals, except aluminum	125 2	121 2	121 7	161.7	067 1	250.7	057.0	202
Clocks and watches							257.0	
Jewelry (precious metals)	1721.1	131.0	130.1	139.1	320.0	347.7	315.7	300.
	100 0	205.0	700 0		000 -	-/		
and jewelers' findings				123.9			254.9	
Silverware and plated ware				125.5	346.7			
Lighting equipment					287.2			
Aluminum manufactures	187.0	182.5	180.5	217.7	358.7	346.4	340.7	384.
· Sheet-metal work, not elsewhere					1	14. Teleg	1000	1 43
classified	138.7	138:3	137.3	143.7	304.2	290.2	292.8	281.
of for FRASER	Carlo San			N. F.	1 7 2 - 7	114 13	13 430	10.500
Seestle middenatory notes, sections A, I Reserve Bank of St. Louis	, C, F,	and G						-

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

	Emp.		t inde		Pay		indexes	
Industry group and industry		1947		1946		1947		1946
	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.
LUMBER AND TIMBER BASIC PRODUCTS 2/	161.3	161.7	162.1	140.8	390.2	388.6	387.6	290.6
Sawmills and logging camps Planing and plywood mills				150.7 150.9			425.2 381.2	
FURNITURE AND FINISHED LUMBER PRODUCTS 2/	139.2	138.2	136.1	129.6	333.9	322.1	318.5	279.
Mattresses and bedsprings Furniture Wooden boxes, other than cigar Caskets and other morticians'	138.7	136.9 124.6	134.1 127.1	149.3 127.7 121.1	334.3 312.1	323.2 301.9	378.7 315.0 308.8	273. 279.
goods Wood preserving Wood, turned and shaped	134.1	137.9	142.4	141.0 134.0 129.9	350.6	355.6	281.4 384.2 287.8	326.
STONE, CLAY, AND GLASS PRODUCTS 2/	147.6	147.1	146.0	144.4	320.4	316.3	313.6	281.
Glass and glassware Glass products made from				171.5			351,2	
purchased glass Cement Brick, tile, and terra cotta Pottery and related products Gypsum	150.5 131.4 170.3	151.0 130.6 169.0	151.1 130.2 166.0	129.3 144.6 119.4 162.5 124.8	285.2 301.9 354.4	294.0 296.7 349.8	264.0 294.7 300.2 342.7 278.1	247. 245. 299.
Wallboard, plaster (except gypsum), and mineral wool Lime Marble, granite, slate, and	156.5	156.4	151.2 95.8	136.8 93.6	384.6 258.0	3 81. 5 259.5	368.4 258.9	300. 219.
other products Abrasives Asbestos products Nondurable goods	217.6	213.7	213.8	93.6 260.0 136.4	462.1	418.2	183.5 408.0 305.6	459.
TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES 2/	100.8	108 2	106 h	108.6	294.1	280.8	261, 0	253
Cotton manufactures, except								
smallwares Cotton smallwares Silk and rayon goods	101.7	98.6	97.2	123.4 113.6 84.4	232.9	215.1	329.1 213.6 227.6	241.
Woolen and worsted manufactures, except dyeing and finishing Hosiery					294.4			
Knitted cloth Knitted outerwear and knitted	99.9	99.4	97.1	108,2	231.6	221.7	214.4	225.
gloves Knitted underwear Dyeing and finishing textiles,	120.0	117.5	115.3	122.3	306.9	295.4	237.0 282.8	234.
including woolen and worsted Carpets and rugs, wool Hats, fur-felt Jute goods, except felts Cordage and twine	130.9 89.7 80.6	127.1 88.5 79:4	124.4 88.4 79.5	119.4 109.1 89.5 108.2 134.6	297.5 311.6 202.1 175.4 320.0	297.6 181.9 170:1	288.7 185.9 168.7	226. 209. 250.

http: See explanatory notes, sections A, C, F, and G. Federal Reserve Bank of St. Louis

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

and the state of t	Emp.	oyment	index	ces	P	ay-rol	l inde	xes
Industry group and industry		1947		1946		1947		194
	Dec.	Nov.			Dec.		Oct.	
ADDADUT AND ORNER STATOMED		36.						
APPAREL AND OTHER FINISHED	151 0	71.0 2	110 6	126 6	21,2 2	210 6	226 0	202
TEXTILE PRODUCTS 2/	151.9	148.3	149.0	130.0	343.3	319.0	330.0	292.
Men's clothing, not elsewhere	and T	el.				137 3		
classified	135.2	134.7	133.6	123.1	309.5	301.5	303.5	278.
Shirts, collars, and nightwear	111 1	109.7	107 2	05 3	283 5	266 0	258 9	230
Underwear and neckwear, men's	108 8	106.5	102 2	111 1	301.0	202.0	280 2	280
Work shirts	111	106.5	110.1	170 8	257 5	252 1	262 0	280
Women's clothing, not elsewhere	111.4	109.4	775.7	112.0	471.0	273.1	202.0	200.
	761. 1	700 0	367 =	11.1. 0	255 0	270 2	21.0 5	206
classified		158.0						
Corsets and allied garments		103.3						
Millinery		83.2						
Handkerchiefs	101.4	102.2	100.9	91.1	251.0	260.4	251.4	220.
Curtains, draperies, and								
bedspreads	181.3	180.9	173.7	151.6	424.7	422.2	412.1	330.
Housefurnishings, other than								TALIEL
curtains, etc.		268.7						
Textile bags	226.8	225.3	222.6	236.1	492.9	484.8	472.6	464.
LEATHER AND LEATHER PRODUCTS 2/	707 1	106.4	105 6	701 1	21.7 8	025 1	221 0	01.0
LEATHER AND LEATHER PRODUCTS 2	101.4	100.4	105.0	104.4	241.0	237.4	234.9	210.
Leather	.93.6	93.7	93.7	90.7	202.3	199.8	199.1	174.
Boot and shoe cut stock and								
findings	99.4	99.0	98.1	103.0	202.6	190.3	189.6	191.
Boots and shoes		98.5						
Leather gloves and mittens		131.8						
Trunks and suitcases		177.1						
FO OD 2/	136.4	140.1	147.3	133.3	298.9	300.6	309.6	263
					1	-		
Slaughtering and meat packing	150.8	142.0	135.5	133.0	338.9	317.4	271.7	252
Butter	163.6	168.2	172.9	172.7	342.2	346.0	353.4	325
Condensed and evaporated milk	170.6	179.7	188.9	174.7	364.0	377.8	402.5	337
Ice cream	141.4	149.1	157.8	137.9	258.5	269.9	288.5	245
Flour	141.9	143.1	143.3	140.5	319.4	336.9	336.4	303
Feeds, prepared	168.4	165.3	167.7	155.9	381.4	346.9	358.6	302
Cereal preparations		153.7						
Baking		118.1						
Sugar refining, cane		131.1						
Sugar, beet		225.5						
Confectionery								
		142.7						
Beverages, nonalcoholic		143.8						
Malt liquors		181.3						
Canning and preserving	. 99.1	114.4	159.8	129.6	250.2	1265.7	437.9	302
TOBACCO MANUFACTURES	94.4	96.5	.95.1	98.3	219.8	216.3	214.5	222
Cigarettes	124 5	124.0	121 7	125 0	267 0	253 3	252 8	251
Cigars	70.0	82.9	87 7	81, 2	1200 0	105 8	100 6	1206
Tobacco (chewing and smoking)	19.0	02.9	07.1	04.3	190.0	197.0	190.0	200
	70 1	70 0	70 1	0- 1	260 0	1261	1	1,00
zed for FRASER	19.4	78.9	17.4	07.4	109.8	104.0	112.7	TOD

Federal Reserve Bank of St. Louis

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

	E	mploym	ent in	dexes	P	ay-rol	l inde	
Industry group and industry		1947		1946		1947		1946
	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.
PAPER AND ALLIED PRODUCTS 2/	146.9	145.7	145.0	145.7	327.5	319.6	314.4	284.5
Paper and pulp	144.8	143.4	142.9	139.2	327.3	319.9	317.3	272.7
Paper goods, other				153.6		327.4		
Envelopes	142.6	142.5	140.6	137.7		281.5		
Paper bags				176.9		347.4		
Paper boxes	143.9	143.0	141.5	150.4	323.2	315.7	304.2	294.5
PRINTING, PUBLISHING, AND ALLIED								
INDUSTRIES 2/	133.0	132.8	132.0	127.9	258.0	252.3	247.9	223.9
Newspapers and periodicals	122.7	122.2	121.8	115.2	229.8	224.0	221.6	189.7
Printing; book and job				139.5		279.3		
Lithographing				124.7	237.1	236.1	226.2	216.
Bookbinding				143.1		325.1		
CHENTONIC AND ALLTED TRADUCTION Of	007 0	000 1	100 0	702 0	1.71. 0	407.5	107.0	257
CHEMICALS AND ALLIED PRODUCTS 2/	201.0	200.1	199.0	193.8	414.9	407.5	401.0	321.
Paints, varnishes, and colors	178.9	177.7	176.5	171-4	329.8	327.4	318.6	284.
Drugs, medicines, and	-				1			
insecticides	239.2	241.3	243.7	250.3	488.5	489.9	499.1	447.
Perfumes and cosmetics				140.3		265.3	250.1	257.
Soap				144.6		371.0		
Rayon and allied products				125.5		260.5		
Chemicals, not elsewhere								
classified	283.3	280.9	278.9	272.6	555.8	540.8	529.8	483.
Explosives and safety fuses				266.3		566.2		
Compressed and liquefied gases				222.2		458.0		
Ammunition, small-arms				155.0		398.0		
Fireworks				297.7		721.9		
Cottonseed oil				146.3		448.7		
Fertilizers				140.8		362.5		
PRODUCTS OF PETROLEUM AND COAL 2/	152.9	153.5	153.3	146.1	308.2	304.5	297.0	250,
Petroleum refining	150.1	149.8	149.8	146.4	293.4	288.9	279.7	247.
Coke and byproducts 1/				124.0		292.7		
Paving materials				92,9	227	268.8	291.6	178.
Roofing materials				214.1	535-7	526.4	523.1	425.
		,	1.					
A STATE OF THE PARTY OF THE PAR					1			

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

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

the state of the s	Em	oloyme	at ind	exes	Pa	y-roll	indexe	36	
Industry group and industry	40.10	1947		1946		1947		1946	
	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.	
RUBBER PRODUCTS 2/	186.1	184.5	182.0	200.1	396.5	383.3	375.6	392.2	
Rubber tires and inner tubes Rubber boots and shoes Rubber goods, other	151.4	147.9	146.1	237.9 154.8 173.4	367.1	322.4	398.0 331.7 352.3	318.0	
MISCELLANEOUS INDUSTRIES 2/	182.7	185.6	182.9	183.2	396.6	393.7	384.4	363.	
Instruments (professional and scientific), and fire-control equipment	248.1	246.1	247.4	251.3	499.2	480.8	478.9	456.	
Photographic apparatus Optical instruments and				200.2			405.1		
ophthalmic goods				257.1			443.5		
Pianos, organs, and parts Games, toys, and dolls	201.3	226.9	221.4	177.0	469.5	525.9	518.7 245.8	389.	
Buttons Fire extinguishers				130.2			555.4		

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

- Provisions have been made as follows in the indexes for earlier months:

 Gray-iron and semisteel castings September 1947 pay roll to 317.8.

 Cast-iron pipe and fittings July, August, and September 1947 pay roll to 288.8, 278.1, and 288.8.

 Wirework July 1947 employment to 127.1; pay roll to 261.5.

 Coke and byproducts August 1947 pay roll to 280.0.
- 2/ Indexes for the individual industries comprising the major industry group have been adjusted to levels indicated by data through 1945 made available by the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. More recently adjusted data for the individual industries comprising the major industry group indicated below supersede data shown in publications dated prior to:

Major industry group	Mimeographed release	Monthly Labor Review
Textile-mill products and other fiber manufactures	December 1947	January 1948
Products of petroleum and coal Electrical machinery	January 1948 February 1948	February 1948 March 1948
Chemicals and allied products	February 1948	Merch 1948

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

(1939 Average = 100)

	finp.	Loymen	t inde		Pay-roll index				
Industry group and industry		1947		1946		1947		1946	
	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.	
MINING:									
Coal: Anthracite Bituminous coal Metal: Iron Copper Lead and zinc Gold and silver Miscellaneous	91.0 88.3 141.9 105.1 90.0 32.3 57.4	90.5 87.8 145.1 102.8 88.9 31.1 57.1	89.9 87.4 147.0 102.0 86.2 30.7 55.7	83.0 88.1 86.2 132.4 97.8 103.4 30.7 59.6	290.2 184.3 291.5 234.8 218.4 56.0	199.1 275.2 180.4 300.4 222.9 208.0 53.2 105.1	275.2 178.1 303.0 220.8 197.7 51.3 102.3	258.3 159.3 239.7 192.2 220.1 49.8 93.3	
Quarrying and nonmetallic Crude petroleum production 1/				99.7		250.2 179.0			
TRANSPORTATION AND PUBLIC UTILITIE	3:								
Class I steam railways 2/ Street railways and busses Telephone Telegraph Electric light and power	128.5 195.0 97.6	128.7 193.3 97.2	128.8 191.6 98.1	136.9 130.1 184.6 107.4 103.0	314.5	3/ 223.6 321.7 206.8 187.6	314.2	264.5	
TRADE: 4/	1								
Wholesale Retail Food General merchandise Apparel Furniture and housefurnishings Automotive Lumber and building materials	130.4 117.4 176.1 136.7 97.4 109.9	119.8 116.1 143.6 124.0 92.4	115.8 115.0 131.5 119.4 89.5	114.4 126.5 111.9 171.0 135.5 90.4 100.2	237.1 221.5 312.5 248.8 192.9 204.2	213.6 216.5 220.0 251.1 222.7 177.3 198.6 233.5	207.1 213.8 225.2 213.5 167.6 193.8	212.2 3 194.6 2 277.2 5 230.2 5 165.7 8 178.8	
SERVICE:									
Hotels (year-round) 5/ Power laundries 6/ Cleaning and dyeing 6/	120.9	121.3	1.23.1	119.1 125.5 161.6	233.6	228.6 226.8 293.8	232.3	3 227.7	

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

Source: Interstate Commerce Commission.Not available.

/ Includes nonsupervisory workers and working supervisors only.

^{1/} Does not include well drilling or rig building.

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

^{6/} See footnote 6, table 7.

EXPLANATORY NOTES

- Sec. A. Revisions of Employment Estimates The employment estimates shown in this report for the industry divisions (e.g., mining, manufacturing, etc.) and industry groups (e.g., iron and steel, electrical machinery, etc.) have been adjusted to levels indicated by benchmark data through 1945 and supersede data shown in mimeographed releases dated prior to April 1947 and in the Monthly Labor Review dated prior to May 1947.
- Sec. B. Sources of Benchmark Data The chief purpose of recent revisions. published in the February 1947 DETAILED REPORT, was to adjust the levels of employment estimates to benchmark data through 1945. In preparing estimates for private employment prior to 1939, the various industrial censuses taken by the Bureau of the Census were used as sources of benchmark data. Data obtained from unemployment compensation agencies and the Bureau of Old Age and Survivors Insurance are the main bases for 1945 benchmarks. Benchmarks for State and local government are based on data compiled by the Bureau of the Census, while most of the data on Federal Government employment is made available by the U. S. Civil Service Commission. The Interstate Commerce Commission is the source for railroads, and the U. S. Maritime Commission for water transportation.
- Sec. C. Scope of Employment Revisions Recent revisions also include a new type of estimate for employment in construction based upon establishment reports. This estimate is more consistent with the estimating procedure used for other industry divisions. In addition, federal force account construction employment has been transferred from the construction segment to government.

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

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

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

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

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

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

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

- Sec. E. Comparability With Other Types of Employment Data The Bureau of Labor Statistics employment estimates are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report of the Labor Force. The Bureau of Labor Statistics estimates of employment in nonagricultural establishments differ from the Monthly Report of the Labor Force total nonagricultural employment estimates in several important respects. For example: (1) The Bureau of Labor Statistics estimates cover all full- and part-time wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month, in Federal establishments during the pay period ending just before the first of the month, and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once; (2) Proprietors, self-employed persons, domestic servants, and unpaid family workers are excluded.
- Sec. F. Pay-Roll Indexes Cooperating establishments are instructed to report pay rolls of production or nonsupervisory workers prior to deduction for old age and unemployment insurance, withholding taxes, bonds, and union dues. Pay for sick leave, holidays, and vacations taken is included. Respondents are instructed to exclude pay for vacations not taken as well as cash estimates of any payments in kind. Bonuses, unless earned and paid regularly each pay period, are also excluded.

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

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

Approximate Coverage of BLS Employment and Pay-Roll Sample

y*		함마하다. 그리아니는 이번 개념되었다. 그리아 그리아 하다. 그는 그렇게 얼마나 됐다.
Industry division	: Number of : establishments	: Employees or production workers : Number : Percent of total
		Committee of the Commit
Manufacturing	33,200	7,438,000 58
Mining	2,700	396,000 61
Contract construction	12,500	335,000 18
Public utilities	7,200	877,000 76
Trade:		
Wholesale	11,800	333,000 20
Retail	38,600	1,069,000 25
Service:		
Hotels (year-round)	1,200	142,000 37
Power laundries and		
cleaning and dyeing	1,600	71,000 20
	make but and	Control of the particular and the particular control of the particular

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

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

Cooperating State Agencies

Arizona - Employment Security Commission, Phoenix.

California - Division of Labor Statistics and Research, San Francisco 2.

Connecticut - Employment Security Division, Hartford 15.

Delaware - Federal Reserve Bank of Philadelphia, Philadelphia 1.

Florida - Industrial Commission, Tallahasses.

Georgia - Employment Security Administration, Atlanta 3.

Illinois - Dept. of Labor, Division of Unemployment Compensation, Chicago 54.

Indiana - Employment Security Division, Indianapolis 12.

Kansas - State Labor Department, Topeka.

Louisiana - Louisiana State University, Bureau of Business Research, Baton Rouge 3.

Maine - Unemployment Compensation Commission, Augusta.

Maryland - Dept. of Labor and Industry, Baltimore 2.

Massachusetts - Dept. of Labor and Industries, State House, Boston 33.

Michigan - Dept. of Labor and Industry, Lansing 13.

Minnesota - Division of Employment and Security, St. Paul 1.

Missouri - Division of Employment Security, Jefferson City.

Montana - Unemployment Compensation Commission of Montana, Helena.

Nevada - Employment Security Department, Carson City.

New Jersey - Dept. of Labor, Trenton 8.

New York - Dept. of Labor, Div. of Placement and Unemployment Insurance, New York 17.

North Carolina - Dept. of Labor, Raleigh.

Oklahoma - Employment Security Commission, Oklahoma City 2.

Pennsylvania - Federal Reserve Bank of Philadelphia, Philadelphia 1. (Manufacturing)
Dept. of Labor and Industry, Harrisburg. (Nonmanufacturing)

Rhode Island - Dept. of Labor, Division of Census and Statistics, Providence 2.

Tennessee - Dept. of Employment Security, Nashville 3.

Texas - University of Texas, Bureau of Business Research, Austin 12.

Utah - Dept. of Employment Security, Salt Lake City 13.

Vermont - Unemployment Compensation Commission, Montpelier.

Virginia - Dept. of Labor and Industry, Div. of Research and Statistics, Richmond 21.

Washington - Office of Unemployment Compensation and Placement, Olympia.

Wisconsin - Industrial Commission of Wisconsin, Madison 3.

BLS Regional Offices

New England - Regional Director, U. S. Bureau of Labor Statistics, Old South Bldg., 294 Washington St., Boston 8, Massachusetts (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)

North Atlantic - Regional Director, U. S. Bureau of Labor Statistics, 1000 Parcel Post Bldg., 341 Ninth Avenue, New York 1, New York (Delaware, Pennsylvania, New Jersey, New York)

North Central - Regional Director, U. S. Bureau of Labor Statistics, 312 National War Agencies Bldg., 226 W. Jackson Blvd., Chicago 6, Illinois (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota, Wisconsin)

Southern - Regional Director, U. S. Bureau of Labor Statistics, 6th Floor Silvey
Bldg., 114 Marietta Street, N.W., Atlanta 3, Georgia (Alabama,
Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina,
Oklahoma, South Carolina, Tennessee, Texas)

Pacific-Rocky Mountain - Regional Director, U. S. Bureau of Labor Statistics, 546 Federal Office Bldg., San Francisco 2, California (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming)

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

GLOSSARY

- Continental United States Covers only the 48 States and the District of Columbia.
- Contract construction Covers only firms engaged in the construction business on a contract basis for others. Force account construction workers, i.e., hired directly by and on the pay rolls of Federal, State, and local government, public utilities, and private establishments, are excluded.
- Defense Agencies Covers civilian employees of the National Military Establishment,

 Maritime Commission, National Advisory Committee for Aeronautics, The Panama
 Canal, Philippine Alien Property Administration, Philippine War Damage
 Commission, Office of Selective Service Records, War Assets Administration,
 Office of Defense Transportation, Office of Scientific Research and Development, National Security Resources Board.
- Family Allowances Represents the Government's contribution; the amount contributed by the personnel is included under pay rolls.
- Federal Government-Executive branch Includes U. S. Navy Yards, Federal arsenals, and force-account construction. Fourth-class postmasters are included under the executive branch in table 3, but are excluded from the government data shown in table 1. Employment shown here for the executive branch differs from data published by the U. S. Civil Service Commission in the following respects: (1) Substitute rural mail carriers are excluded here; (2) seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission are excluded here; (3) the Panama Railroad Company is shown here under Government corporations but is included under the executive branch by the Civil Service Commission; (4) employment collected and published by the Civil Service Commission as of the last day of the month, is here presented as of the first day of the next month.
- Finance Covers establishments operating in the fields of finance, insurance, and real estate; excludes the Federal Reserve District Banks and the mixed ownership banks of the Farm Credit Administration.
- Government Covers Federal, State, and local governmental establishments performing legislative, executive, and judicial functions, as well as all government-cwned and operated establishments and institutions (arsenals, navy yards, hospitals, Federal Reserve banks, etc.) and government force-account construction. The data shown in table 1 exclude fourth-class postmasters because they presumably have other major jobs.
- Government corporations Covers only three corporations: The Panama Railroad

 Company, the Federal Reserve banks, and the mixed-ownership banks of the

 Farm Credit Administration. All other corporations are included under the

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

- Leave payments Payments were authorized by P. L. 704 of the 79th Congress and P. L. 254 of the 80th Congress to enlisted personnel who were discharged prior to September 1, 1946 for accrued and unused leave and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds represents face value; interest will be paid in addition to the face value at the time the bonds are cashed. Terminal leave payments to persons discharged after September 1, 1946 are excluded from leave payments shown but are included in pay rolls.
- Manufacturing Covers only privately owned establishments; governmental manufacturing operations such as arsenals and navy yards are excluded.
- Military pay rolls Covers personnel on active duty or on terminal leave. Coast Guard pay rolls and Army pay rolls for 1943 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel count. Pay rolls for the Navy proper and Coast Guard include cash payments for clothing-allowance balances in January, April, July, and October. Starting October 1946 pay rolls include lump sum payments for terminal leave authorized by Public Law 350 of the 80th Congress.
 - Mining Covers establishments engaged in the extraction from the earth of organic and inorganic minerals which occur in nature as solids, liquids, or gases; includes various contract services required in mining operations, such as removal of overburden, tunnelling and shafting, and the drilling of acidizing of cil wells; also includes ore dressing, beneficiating, and concentration.
 - Nonagricultural establishments Governmental or private business establishments;

 (1) that are physically located within continental United States; and (2)

 whose principal activity can be classified under one of the following
 industry divisions--mining, contract construction, manufacturing, transportation and public utilities, wholesale and retail trade, finance,
 service, or government.
 - Pay rolls Private pay rolls represent pay rolls of production and related workers (or nonsupervisory employees and working supervisors) before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues, but after deductions for damaged work. Includes pay for sick leave, holidays, and vacations taken. Excludes cash payments for vacations not taken, retroactive pay not earned during period reported, value of payments in kind, and bonuses, unless earned and paid regularly each pay period. In mining industries further deductions are made for explosives or other supplies furnished by the company. In coal mining portal-to-portal pay is included. Federal civilian pay rolls are for all employees before deductions for income tax, retirement, and bonds.
- Production and related workers Includes working foremen and all nonsupervisory workers (including lead men and traines) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxilliary production for plant's own use (e.g., power plant) and record-keeping and other services closely associated with the above production operations. Excludes supervisory employees (above the working foreman level) and their clerical staffs, routemen, salesmen, and other groups of nonproduction workers defined below under wage and salary workers.

- Service Covers establishments primarily engaged in rendering services to individuals and business firms. Excludes automobile repair services, government owned and operated hospitals, museums, etc., and domestic service.
- Trade Covers establishments engaged in wholesale trade, i.e., selling merchandise to retailers, and in retail trade, i.e., selling merchandise for personal or household consumption, and rendering services incidental to the sale of goods. Includes auto repair services.
- Transportation and public utilities Covers only privately owned and operated enterprises engaged in providing all types of transportation and related services; telephone, telegraph and other communication services; or providing electricity, gas, steam, water, or sanitary services. Government owned and operated establishments are included under government.
- Wage and salary workers In addition to production and related workers as defined above, includes workers engaged in the following activities: executive, purchasing, finance, accounting, legal, personnel (including cafeterias, medical, etc.), professional and technical activities, sales, salesdelivery, advertising, credit, collection, and in installation and servicing of own products, routine office functions, factory supervision (above the working foreman level), and other workers not included as production workers. Also includes employees on the establishment pay roll engaged in new construction and major additions or alterations to the plant who are utilized as a separate work force (force-account construction workers).

Wage earner - See production workers.

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