# EMPLOYMENT and Payrolls

MONTHLY STATISTICAL REPORT

FEBRUARY 1952

Employment Trends
Industry Developments
Industry Statistics
State and Area Statistics
Payroll Data

UNITED STATES DEPARTMENT OF LABOR Maurice J. Tobin - Secretary

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## Publications on Employment Developments

available from

the Bureau of Labor Statistics

The Bureau of Labor Statistics program in the measurement and analysis of employment trends includes (1) the preparation of current monthly statistics on employment, labor turnover, and hours and earnings in major industries, States and areas; (2) the interpretation of these employment trends; (3) the analysis of long-term trends in employment in major occupations and industries; and (4) the preparation of estimates of manpower requirements for the defense mobilization program and estimates of prospective labor supply. Employment statistics are prepared in cooperation with State agencies.

Listed below and continued on the (inside) back cover are the major reports available to the public. Distribution is free unless otherwise noted. Requests for these publications specifying exact titles, should be addressed to the Bureau of Labor Statistics, U. S. Department of Labor, Washington 25, D. C.

- EMPLOYMENT AND PAYROLLS—Employment figures presented for approximately 250 individual industries, for 48 States and the District of Columbia and for selected areas, in varying industry detail. On a national basis only, data on employment of women in manufacturing industries available quarterly. Report also contains analysis of latest monthly employment trends and current and anticipated decelopments in selected industries. Press release, giving analysis of current trends in broad industry groups based on preliminary data, available approximately two weeks earlier. Both reports published monthly.
- HOURS AND EARNINGS—Average weekly earnings, average weekly hours, and average hourly earnings for approximately 275 industries, and for States and selected areas. Press release, giving analysis of current trends in broad industry groups based on preliminary data, available approximately two weeks earlier. Both reports published monthly.
- LABOR TURNOVER—Data on hiring, quits, layoffs, and discharges shown for 121 individual manufacturing and selected non-manufacturing industries. On a national basis only, data on women for selected industries available quarterly. Press release, giving analysis of current trends in broad industry groups based on preliminary data, available approximately two weeks earlier. Both reports published monthly.

These publications prepared by DIVISION OF MANPOWER AND EMPLOYMENT STATISTICS Seymour L. Wolfbein, Chief



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## FEBRUARY 1952

Change in Dating Procedure...

Beginning with this issue, the manner of dating the cover of "Employment and Payrolls" has been changed to conform with the customary practice of other Government publications.

The report will now carry on its cover the month in which the issue appears. Previously, the cover date matched the latest detailed data included.

Because of the advance in dating, there will be no "December" or "January" issue as such. The continuity of the statistical data, however, remains unbroken.

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# **Employment Trends**

#### Nonfarm Employment Up by 700,000 Over the Year

The number of workers on business and Government payrolls increased by 700,000 over the past year, to 46.0 million in mid-January 1952. However, production worker employment in manufacturing plants was down by 270,000 because of reduced output of consumer goods and construction materials. (See Tables A-C)

Between December and January, nonfarm employment dropped by 1.6 million, mainly because of post-Christmas layoffs of seasonal workers in retail stores and Federal post offices and decreased activity in construction and other outdoor industries.

Over the year, relatively sharp reductions in production worker employment were reported in manufacturing industries affected by the falling off in consumer demand from the record levels of early 1951 or by restrictions on nondefense uses of metal. Decreases of about 10 percent were recorded in the leather, lumber, textile, and furniture industries, and of about 5 percent in food, fabricated metals, apparel, paper, and stone, clay, and glass products. As a result, production worker employment in most of these industry groups this Jamuary was at or near a post-World War II low for the month.

On the other hand, the expanded defense production program brought significant employment gains—over 5 percent—in the ordnance, instruments, machinery, and transportation equipment industries. In transportation equipment, sharp employment increases over the year in aircraft plants and shipyards outweighed relatively large decreases in automobile plants.

The over-all decrease in factory production worker employment contrasts with a nearly equivalent gain of 240,000 in the number of nonproduction workers on manufacturing payrolls. In industries where output has been reduced, such as textiles, relatively little change has been reported in sales, office, technical, supervisory, and other overhead employment. In expanding defense-connected industries, such as aircraft and machinery, increased personnel needs for engineering, design, and construction of new facilities have required the addition of nonproduction workers at a more rapid rate than production workers.

Total Government employment—Federal, State, and local—rose by 420,000 between January 1951 and January 1952. About two-thirds of this increase resulted from large-scale hiring of civilian workers in expanding defense activities—including arsenals, navy

yards, and military bases. Employment in nondefense agencies of the Federal Government changed little over the year.

Contract construction employment declined by 200,000 between December and January. This reduction—about one and a half times the average decrease recorded for the season in the preceding five years—resulted partly from metals shortages and restrictions on nondefense building activity. However, construction employment, at 2.3 million, remained at an all-time high for the month.

Employment in retail and wholesale trade rose by 200,000, or 2 percent, over the year. General merchandise stores reported relatively large gains—about 4 percent—despite a marked decrease in the dollar volume of department store sales from the high levels of a year earlier, when consumer buying was stimulated by anticipated shortages and price increases.

#### Factory Layoffs Decline at Year's End

Layoffs of factory workers declined between November and December, from a rate of 17 per 1,000 employees to 14, in contrast to the increase usually reported at this season. As a result, layoffs in December 1951 were about equal to the relatively low rate of a year earlier. Because of production cutbacks in consumer goods industries, the layoff rate in each of the preceding five months had been significantly above the postwar average for the season.

Most industry groups reported over-the-month reductions in layoff rates, with the largest decreases in the textile and apparel industries, where, as a result of reduced consumer demand and inventory buildup, rates in recent months have been among the highest recorded for the season since the end of World War II.

Factory hiring declined between November and December, from 39 to 29 per 1,000 employees, reflecting the usual year-end slackening. However, hiring in December remained, for the sixth consecutive month, at one of the lowest rates reported for the season in over a decade. Over-the-year decreases in hiring were reported in nearly all metalworking industries, as a result of cutbacks in consumer durable goods output and a slower rate of employment expansion in defense-related industries. In contrast, hiring rates in the textile, apparel, and leather industry groups were higher this December than in December 1950.

The rate at which workers were quitting their jobs also declined seasonally between November and December, to 14 per 1,000 employees. Voluntary quits continued for the fourth consecutive month at one of the lowest rates reported for the season in over a decade. This reflects curtailed opportunities for job shifting because of the slackened demand for workers in many consumer goods industries and reduced hiring rates in defense-connected industries.

#### Factory Workweek Rises Above 41 Hours

The average workweek of production workers in manufacturing plants rose from 40.5 to 41.2 hours from mid-November to mid-December, 1951. Increases in factory hours are usually reported at this time of year because of holidays in early November, but; in a number of consumer goods industries, the gains were greater than seasonal.

Over-the-month gains of more than an hour were reported in the furniture, textile, and leather industries. These contrasted with the downtrend in average weekly hours in these and other consumer goods industries since the Spring of 1951, as a result of slackened consumer demand or restrictions on metal supplies. However, average weekly hours in nearly all consumer goods industries this December were still below the levels of a year earlier. As a result, the manufacturing workweek remained slightly below the December 1950 level, despite increased hours in defense-connected industries, which continued to schedule extensive overtime in December.

Over-the-year gains in hours were reported in the ordnance, machinery, electrical machinery, and transportation equipment industry groups as a result of expanded defense production. The average workweek of over 47 hours in the metalworking industry reflected continued heavy requirements for machine tools in the defense production program.

Average weekly earnings of production workers in manufacturing industries rose to \$67.36 in December, up by \$1.55 from November, primarily because of the longer workweek. Average weekly earnings this December were \$3.48, or over 5 percent, above the December 1950 level.

Gross hourly earnings—including overtime and other premium pay—of factory workers averaged \$1.64 in December—up by 1 cent over the month and nine cents from December 1950. This over—the—year increase resulted both from the larger proportion of factory workers in the higher—paid durable goods industries, and from cost—of—living and other wage—rate adjustments permitted under wage stabilization policy.

#### Manpower Goals for 1952-1953: 3-1/2 Million Increase Needed

Manpower needs for the defense program and for expected levels of civilian output will increase by an estimated 3-1/2 million over the next two years. This is a feasible goal, in terms of aggregate manpower supply, provided that intensive efforts are made to expand the labor force and to utilize all available workers.

This conclusion was derived from an analysis of the manpower outlook, "Projected Manpower Requirements and Supply, 1952-1953," recently released by the Bureau of Labor Statistics. 1/ The estimates of manpower requirements were based on present schedules for defense production and military recruitment and on the assumption that output for civilian use will be maintained at the highest levels consistent with the priority given to the defense program.

The pressures on manpower supply are expected to be greater in 1953 than in 1952. This year expanding manpower requirements for the defense program will be partly offset by reductions in nondefense employment resulting from curtailed supplies of metals for civilian uses. The expected net gain in manpower needs totals 1.5 million (including scheduled armed force buildup) for the period between fourth quarter 1951 and fourth quarter 1952.

With the number of unemployed workers averaging 1.7 million in the fourth quarter of 1951, equal to the minimum previously achieved in the postwar period, potential manpower gains from this source are relatively limited. However, we may expect some further decrease in unemployment—perhaps a 300,000 reduction during 1952—as employment opportunities are expanded.

To provide the additional manpower needed this year, the total labor force would have to be expanded by an estimated 1.2 million, to 67.7 million by the fourth quarter of 1952. This projected increase equals the gain achieved during 1951, and exceeds the "normal" annual increase by about 400,000.

In 1953, we may expect a sharp intensification of the pressures on labor supply. Increased capacity in steel and other metal producing industries should permit a significant easing of present limitations on the civilian metal goods industries and on nondefense construction and, with continued gains in consumer income, we may anticipate a pronounced recovery in labor demand for the production of civilian goods. This gain will be superimposed on peak levels of defense manpower requirements, which are expected to total nearly 12 million (including the armed forces), or about one-sixth of the projected total labor force at the end of 1953.

The projected increase in total manpower needs for 1953 may require recruitment of more than 1 million "extra" workers from reserve groups in the population, over and above the gains that may be forthcoming from further reductions in unemployment and "normal" labor force growth. The main sources of "extra" workers are housewives without young children and retired persons.

If needed, available manpower supplies could be stretched by lengthening the workweek, although extensive overtime already is being scheduled for a large segment of the factory workforce.

<sup>1/</sup> The complete study, Manpower Report No. 14, is available without charge, from the U. S. Department of Labor, Bureau of Labor Statistics, Washington 25, D. C.

# Table A: Employees in Nonagricultural Establishments, by Industry Division and Selected Groups

	1952		1951		Net ch	ange
Industry division and group	January	December	November	January	Dec. 1951 to Jan. 1952	Jan. 1951 to Jan. 1952
TOTAL	45,955	47 <b>,</b> 569	46 <b>,</b> 843	45 <b>,</b> 246	-1,614	+709
MANUFACTURING	15,755	15,908	15,902	15,784	- 153	<b>-</b> 29
MINING	911	917	920	<b>9</b> 32	- 6	<b>-</b> 21
Metal mining	108 367	107 368	106 369	105 403	+ 1	+ 3 <b>-</b> 36
quarrying	100	106	108	98	- 6	+ 2
CONTRACT CONSTRUCTION	2,319	2,519	2,627	2,281	- 200	+ 38
TRANSPORTATION AND PUBLIC UTILITIES	4,087	4,152	4 <b>,1</b> 63	4,072	<b>-</b> 65	+ 15
Transportation	2,841 696 550	2,897 703 552	2,910 701 552	2,858 668 546	- 56 - 7 - 2	- 17 + 28 + 4
TRADE	9,792	10,630	10,096	9,592	- 838	+200
Wholesale trade	2,631	2,650	2,650	2 <b>,</b> 587	- 19	+ 1,4
Retail trade	7,161 1,519 1,284	7,980 2,082 1,311	7,446 1,695 1,295	7,005 1,459 1,244	- 819 - 563 - 27	+156 + 60 + 40
dealers	754	768	759	743	- 14	+ 11
Apparel and accessories stores	527 3,077	649 3,170	577 3 <b>,</b> 120	523 3 <b>,</b> 036	<b>-</b> 122 <b>-</b> 93	+ 4 + 41
FINANCE	1,912	1,910	1,905	1,831	+ 2	+ 81
SERVICE	4,670	4,702	4 <b>,</b> 733	4 <b>,6</b> 66	- 32	+ 4
GOVERNMENT	6,509	6,831	6,497	6,088	<b>-</b> 322	+421
FederalState and Local	2,331 4,178	2,677 4,154	2,325 4,172	2,027 4,061	<b>-</b> 346 + 24	+304 +117

<sup>1/</sup> Preliminary.

Table B: Employees in Manufacturing Industry Groups

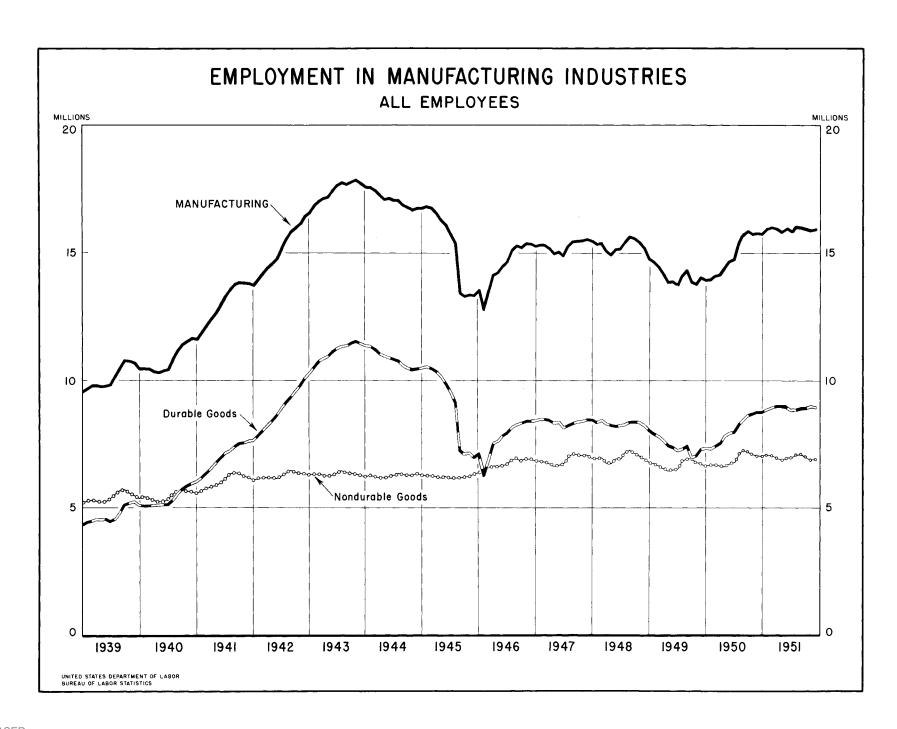
	1952		1951		Net cl	nang <b>ə</b>
Industry division and group	January <u>1</u> /	December	November	January	Dec. 1951 to Jan. 1952	Jan. 1951 to Jan. 1952
MANUFACTURING	15 <b>,</b> 755	15,908	15,902	15,784	<b>-</b> 153	<b>-</b> 29
DURABLE GOODS	8,951	8,996	8,988	8,742	<b>-</b> 45	+209
Ordnance and accessories Lumber and wood products	66,3	64,8	62,5	30.8	+ 1.5	+ 35.5
(except furniture)  Furniture and fixtures  Stone, clay, and glass products  Primary metal industries  Fabricated metal products	732 340 532 1,355	764 342 545 1,356	786 342 551 1,341	804 370 548 1,327	- 32 - 2 - 13 - 1	- 72 - 30 - 16 + 28
<pre>(except ordnance, machinery, and transportation equipment) Machinery (except electrical) Electrical machinery Transportation equipment Instruments and related products Miscellaneous manufacturing</pre>	982 1,647 967 1,563 313	988 1,640 964 1,557 314	983 1,626 956 1,560 312	1,016 1,528 924 1,425 280	- 6 + 7 + 3 + 6 - 1	- 34 +119 + 43 +138 + 33
industries	454	461	468	489	- 7	<b>-</b> 35
NONDURABLE GOODS	6,804	6,912	6,914	7,042	-108	<b>-</b> 238
Food and kindred products  Tobacco manufactures  Textile-mill products  Apparel and other finished	1,447 85 1,232	1,514 91 1,240	1,553 93 1,228	1,499 88 1,352	- 67 - 6 - 8	- 52 - 3 -120
textile products	1,131 479	1,146 483	1,122 486	1,190 496	<b>-</b> 15 <b>-</b> 4	- 59 - 17
industries	769 758 268 271 364	775 759 270 272 362	773 762 270 271 356	758 729 254 273 403	- 6 - 1 - 2 - 1 + 2	+ 11 + 29 + 14 - 2 - 39

<sup>&</sup>lt;sup>1</sup> Preliminary

Table C. Production Workers in Manufacturing Industry Groups

	1952		1951		Net cha	ange
Industry division and group	January <u>1</u> /	December	November	January	Dec. 1951 to Jan. 1952	Jan. 1951 to Jan. 1952
MANUFACTURING	12,750	12,906	12,907	13,018	<b>-</b> 156	<b>-</b> 268
DURABLE GOODS	7,275	7,323	7,324	7,256	- 48	+ 19
Ordnance and accessories Lumber and wood products	51.8	51.2	49.6	25•0	+ 0.6	+ 26.8
(except furniture)  Furniture and fixtures  Stone, clay, and glass products  Primary metal industries  Fabricated metal products	666 292 451 1,167	698 294 465 1 <b>,</b> 165	722 294 472 1 <b>,</b> 151	739 321 473 1,149	- 32 - 2 - 14 + 2	- 73 - 29 - 22 + 18
<pre>(except ordnance, machinery, and transportation equipment) Machinery (except electrical) Electrical machinery Transportation equipment Instruments and related products Miscellaneous manufacturing</pre>	801 1,273 726 1,244 230	807 1,270 724 1,238 231	804 1,255 717 1,242 230	847 1,192 711 1,175 211	- 6 + 3 + 2 + 6 - 1	- 46 + 81 + 15 + 69 + 19
industries	373	380	387	413	- 7	<b>-</b> 40
NONDURABLE GOODS	5,475	5 <b>,</b> 583	5,583	5,762	-108	<b>-</b> 287
Food and kindred products  Tobacco manufactures  Textile-mill products  Apparel and other finished	1,060 79 1,134	1,125 84 1,142	1,162 85 1,133	1,120 80 1,257	- 65 - 5 - 8	- 60 - 1 -123
textile products	1,015 403	1,029 409	1,004 410	1,070 423	- 14 - 6	<b>-</b> 55 <b>-</b> 20
Printing, publishing, and allied industries	514 536 194 215 325	519 538 197 217 323	518 541 198 216 316	510 526 190 222 364	5 2 3 2 + 2	+ 4 + 10 + 4 - 7 - 39

<sup>1</sup> Preliminary



#### INDUSTRIAL INORGANIC CHEMICALS

One of the Nation's most rapidly expanding industries is industrial inorganic chemicals. Employment has increased by 70 percent since 1939 and output of several of the industry's major products has more than doubled. Production of almost all inorganic chemicals is higher than World War II peaks.

Inorganic chemicals are those derived from nonliving matter, such as salt, sulfur, mineral ores, limestone, and water. Among the principal products are sulfuric, nitric, hydrochloric, and phosphoric acids, soda ash, caustic soda, chlorine, and ammonia. The average person is not aware of the millions of tons of these chemicals produced yearly, because most of them never reach the general public in the original form. Inorganic chemicals are used in almost every kind of manufacturing as raw materials and processing agents. They are basic ingredients in the manufacture of steel, glass, paper, plastics, and thousands of products in everyday use. They are essential materials in the manufacture of armaments and munitions. Nitric acid, for example, is used in the production of military explosives, and sulfuric acid is essential in the manufacture of aluminum.

#### Products Are Used Throughout Industry

Sulfuric acid is by far the most widely used industrial chemical. The fertilizer industry usually consumes about one-third of sulfuric acid production, petroleum refining 10 percent, and chemicals 20 percent. The remaining production is distributed throughout such a large range of industries that the consumption of sulfuric acid is sometimes regarded as a rough barometer of industrial activity.

Among the acids, <u>nitric acid</u> is second only to sulfuric in value and diversity of uses. Formerly produced by the action of sulfuric acid on Chilean nitrates, it is now made principally from synthetic ammonia. Nitric acid is a basic raw material in manufacturing military explosives. Other important uses are in the making of industrial explosives, fertilizers, plastics, paints, and solvents.

Although its production tonnage is only one-twentieth that of sulfuric acid, <u>hydrochloric acid</u> has numerous special uses, such as pickling steel for tinning; making chlorine compounds; activating oil wells; and manufacturing dyes, plastics, and other chemicals.

In volume produced, phosphoric acid ranks second only to sulfuric acid. It has an essential role in the rustproofing of steel and the manufacture of high grade fertilizer phosphates, cleansing agents, phosphates for the food industry, synthetic detergents, and ammoniated dentifrices.

In terms of volume, soda ash is the principal alkali. It is used primarily in the manufacture of glass (40%), chemicals and drugs (30%), and soap and cleanser manufacture (10%). The remaining production is used in the nonferrous metals industries, paper and pulp manufacture, the manufacture of textiles, and in water softening and petroleum refining.

Second in terms of volume, <u>caustic soda</u> is a stronger and more expensive alkali than soda ash. It is consumed chiefly in the manufacture of rayon (20%), chemicals (16%), and soap (13%), and in petroleum refining (12%).

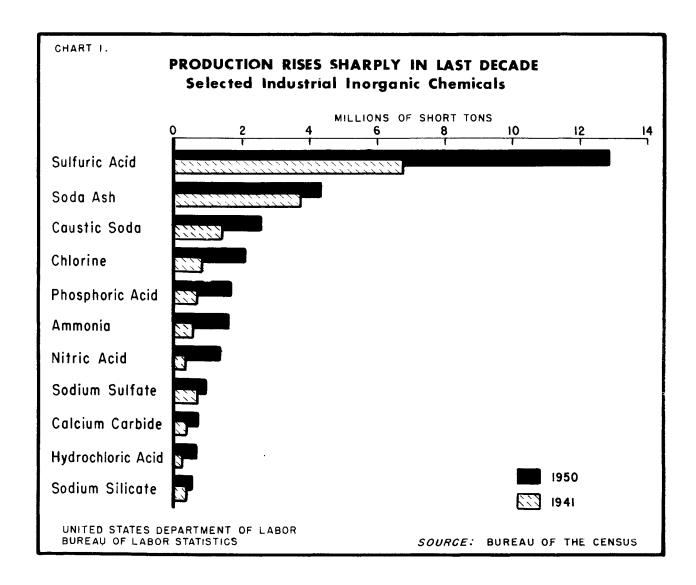
Sodium sulfate is used in the manufacture of kraft paper, window glass, in textile dyeing, nickel smelting, and medicine.

Sodium silicate is made by fusing sand and soda ash. Its uses are numerous: impregnating wood, fixing dyes, rendering cement and brick nonporous, and as a detergent and adhesive.

Calcium carbide is important mainly because, with water, it forms acetylene, which in turn is used in manufacturing many organic chemicals.

Most <u>nitrogen compounds</u> are now made from <u>synthetic ammonia</u> which is derived from nitrogen in the air. Formerly, they were made almost exclusively from minerals such as Chilean nitrates. The fertilizer industry is the principal user of nitrogen compounds. Other uses are in the manufacture of explosives, plastics, and fibers, and in the dye industry.

The most important use of <u>chlorine</u> is in the manufacture of such chemical products as antifreeze solutions, carbon tetrachloride, synthetic rubber, dry cleaning fluids, and ethyl gasoline (77%). The paper and pulp industry consumes about 11 percent, and sewage and sanitation 4 percent.



#### Production Increases Sharply

The manufacture of chemicals on a small scale was started in this country before the American Revolution, and began to develop into a major industry toward the end of the 19th century, when continuous processing was introduced to replace the old, small-quantity, batch methods. Technical "know-how" helped to produce more uniform products, and large-scale production came into being. Until the beginning of the first World War, the industrial chemicals industry was devoted almost entirely to the production of inorganic chemicals. Today, these products constitute about 75 percent of the tonnage and 23 percent of the value added by manufacture of industrial chemical production, and organic chemical manufacture accounts for the remainder.

Production of the major inorganic chemicals has increased greatly since 1939. The output of hydrochloric acid, chlorine, and ammonia by 1950 had increased by more than 4 times, and sulfuric acid and caustic soda output had doubled. Nitric acid, however, has shown the greatest increase, jumping from 168,000 tons produced in 1939 to 1,336,000 tons in 1950, nearly 8 times as much (see table 1). Chart 1 shows the production rise for the last decade.

Table 1.-- Production of Selected Industrial
Inorganic Chemicals
1939-50
(thousands of short tons)

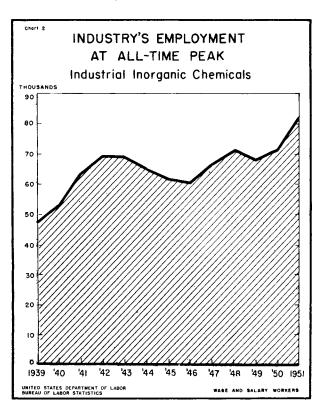
Chemicals	1939	1941	World War II peak year	1950
Sulfuric acid Nitric acid Phosphoric acid Hydrochloric acid Caustic soda Sodium sulfate Chlorine Calcium carbide Ammonia (synthetic	4,795 168 na 124 2,900 1,045 na na 514 na	6,770 347 663 228 3,724 1,429 752 386 800 370	9,522 (1945) 483 (1943) 731 (1945) 408 (1945) 4,718 (1944) 1,871 (1944) 866 (1944) 428 (1944) 1,262 (1944) 789 (1944)	13,029 1,336 1,641 619 4,329 2,510 931 486 2,084 671
anhydrous)	311	501	548 (1945)	1,566

Source: U. S. Bureau of the Census, Facts for Industry.

This country consumes most of its own chemical production, but foreign markets also are important. The United States took over leadership of chemical production from Germany after World War II and is now the biggest exporter in the world. The principal inorganic chemical exports in terms of dollar value are: anhydrous ammonia, calcium carbide, potassium hydroxide, sodium bensoate, sodium bicarbonate, and sodium silicate. The United States also imports a number of inorganic chemicals.

#### Employment Expands Less Than Production

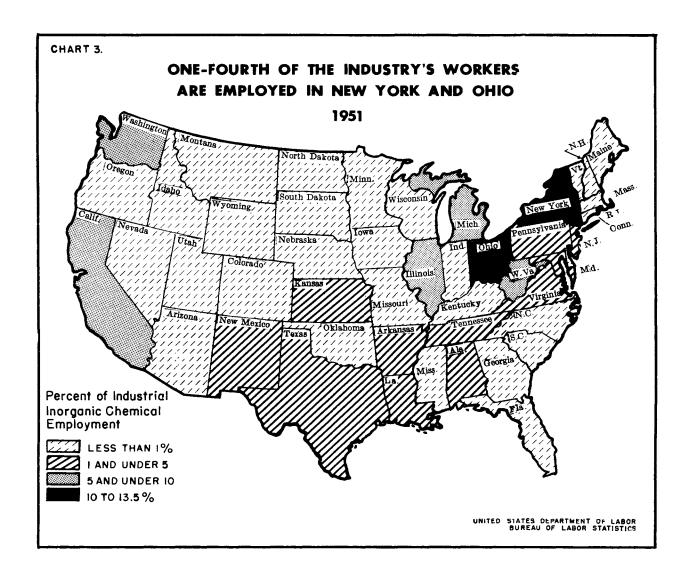
Employment in this industry has expanded less rapidly than production. It reached an all-time high of over 84,000 workers in December 1951, a rise of 77 percent since 1939 (see table 2). During World War II, em-



ployment rose sharply until October 1943 and then began to decline gradually, although production of major products was maintained or increased throughout the war years. By mid-1946, the manufacturing industries had converted to production of peacetime goods and were again using large quantities of chemicals. Employment began to rise and has increased continuously except for a slight decline in 1949. (See chart 2). Since the outbreak of hostilities in Korea, employment has increased about 13 percent.

Table 2.-- Average Employment in Industrial Inorganic Chemicals, 1939-51

Year .	All employees	Production workers
1939	47,600 53,000 63,500 69,600 69,400 65,400 61,900	33,800 38,300 47,500 53,800 55,300 52,600 49,000
1946	60,600 66,600 70,900 68,400 71,500 82,200 84,100	47,600 51,900 54,700 52,300 52,900 60,000 61,400



#### East North Central States Lead in Employment

The more than 400 plants making industrial inorganic chemicals are scattered throughout the Nation (see chart 3). They are usually located near the source of raw material in order to minimize transportation costs. There has been a gradual shift in the location of plants since 1939, but the East North Central region continues to employ the greatest number of workers. (See table 3). Employment in all regions increased between 1939 and 1951 with the Pacific Coast States registering the greatest gain, and replacing the South Atlantic as the third-ranking region in this industry.

Table 3.— Average Employment in Industrial Inorganic Chemicals, by Region, 1939-51

	19	139	1951		
Region	Number of production workers (000's)	Percentage	Number of production workers (000's)	Percentage	
Total	33.8	100.0	60.0	100.0	
Northeast East North Central West North Central South Atlantic East South Central West South Central	11.0 11.3 1.1 4.3 1.8 1.4	32.6 33.5 3.1 12.7 5.2 4.2 .8 7.9	12.1 17.2 1.4 9.5 3.0 5.0 1.6	20.2 28.6 2.3 15.9 5.0 8.2 2.8 17.0	

Employment is concentrated in large plants. Of the 412 establishments classified in the industry by the 1947 Census of Manufactures, 33 employed over 500 workers each and together accounted for more than 60 percent of the total employment. Almost 300 establishments had less than 100 employees, representing less than one-eighth of total employment.

Table 4. -- Employment in Industrial Inorganic Chemicals, by Size of Establishment, 1947

	Total	Establishments with an average of			
Item	10082	1-99 employees	100-499 employees	500 and over employees	
Number of establishments -	412	294	294	33	
Number of employees	65,347	7,635	17,200	39,522	

Source: 1947 Census of Manufactures.

This industry is noted for its ability to produce a huge volume of material with relatively few workers. Development of highly mechanized, continuous processes enables the plants to operate with a minimum of manual handling. Because of the large investment in plant and equipment, the industry was able to record the \$742 million in value added by manufacture in 1950, while employing only 71,500 workers. It ranks second only to the petroleum refining industry in average value added by manufacture per production worker.

#### Majority of Workers Operate or Maintain Processing Equipment

The types of jobs in a chemical plant depend more on how the products are made than on what the products are. Generally, mass production takes the form not of assembly lines, but of continuous or "automatic process" production. Operators of a wide variety of specialized equipment are required at various stages as the raw materials pass through both chemical and physical changes. Some of the chemical changes are oxidation, electrolysis, combustion, and neutralization. Among the physical changes, called "unit operations" are evaporation, drying, filtration, mixing, and crystallization.

Among the production workers, chemical operators comprise the largest occupational group. Their jobs consist of work with high pressure or vacuum equipment with which they control reaction time, temperature, and pressure. Other important processing occupations are those of stillmen, who operate distillation equipment; driers, who operate equipment which separates water from solids; batchmakers, who operate mixing machines; and millers, who operate pulverizing equipment. To keep the vast amount of equipment in working condition, the industry also employs many maintenance workers such as machinists, carpenters, pipefitters, and electricians.

#### Research Is Vitally Important

Research is especially important in the chemical industry. New products and new methods of production are constantly being sought and developed. Each year the leading companies allocate large amounts of money and man-hours to research and development work. Because of vigorous product competition, a company must be alert lest it be left behind technologically. Since new products are constantly being developed, a company could easily lose its leadership in a given field if a competitor introduced a superior product.

Due to the great interest in research and development work the industry employs an unusually large number of professional and research personnel. The National Academy of Science reports that in 1950 the inorganic and organic chemicals industries together employed 7,488 professional personnel, representing more than 10 percent of the total professional personnel employed in all branches of industrial research. In addition, these industries employ about 9 percent of the total technical personnel engaged in supporting research activities. The principal occupational groups in research are: chemists; chemical, mechanical, electrical, and other types of engineers; and research and laboratory technicians. Professional, administrative, and office personnel constitute about a fourth of the total employment in the industry.

#### Industry Offers Steady Employment and Higher-than-Average Earnings

Earnings, both hourly and weekly, are higher than the average in the nondurable goods industries (table 5). In December 1951, average hourly rates were almost a third higher than those in nondurable goods industries and an eighth higher than the average for all manufacturing.

Table 5.— Average Hours and Gross Earnings of Production Workers in Industrial Inorganic Chemicals and Nondurable Goods Industries, 1947-51

	Industrial	inorganic	chemicals	Nondurab	le goods i	ndustries
Year and month	Average	Average	Average	Average	Average	Average
	weekly	weekly	hourly	weekly	weekly	hourly
	earnings	hours	earnings	earnings	hours	earnings
1947	\$55.65	40.3	\$1.381	\$46.96	40.1	\$1.171
1948	62.13	40.9	1.519	50.61	39.6	1.278
1949	63.90	40.6	1.574	51.41	38.8	1.325
1950	67.89	40.9	1.660	54.71	39.7	1.378
1951	75.19	41.7	1.807	58.53	39.5	1.481
1951: December	76.63	41.2	1.860	60.45	39.9	1.515

There is considerable variation in straight-time hourly earnings among regions (table 6). In a survey of the industry made by the Bureau of Labor Statistics in 1949, the Southwest region reported the highest straight-time hourly earnings and the Southeastern region the lowest, as shown in the following table:

Table 6.— Average Straight-Time Hourly Earnings in Industrial Inorganic Chemicals, by Region
April 1949

Region	Median rate
United States	<b>\$1.5</b> 3
Middle Atlantic	1.45
Border States	1.46
Southeast	1.09
Great Lakes	1.55
Middle West	1.31
Southwest	1.62
Pacific	1.56

Source: U. S. Bureau of Labor Statistics, Wage Structure, Chemicals, 1949.

Injury rates in the industrial chemicals industry are less than the average rate in all manufacturing. (Table 7). The frequency of injury has been consistently lower than the average for manufacturing as a whole, and in recent years, the severity rate has dropped to less than the average for all manufacturing.

Table 7.-- Worker Injury Rates 1945-50

	Industrial chemicals		All marnifa	cturing	
Year	Frequency	Severity <sup>2</sup>	Frequency 1/	Severity 2/	
1945	16.0	2.3	<b>í8.</b> 6	1.6	
1946	15.6	1.9	19.9	1.6	
1947	13.1	2.0	18.8	1.4	
1948	10.9	2.2	17.2	1.5	
1949	8.4	1.0	14.5	1.4	
1950 <u>3</u> / -	9.5	1.0	14.7	1.2	

<sup>1/</sup> The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked.

<sup>2/</sup> The severity rate is the average number of days lost because of disabling work injuries, per 1,000 employee-hours worked.

<sup>3/</sup> Data for 1950 is for industrial inorganic chemicals. This separation is not available for previous years.

Workers in this industry have relatively steady jobs. There is little seasonal fluctuation and the rates of accessions and separations have been consistently lower than the rates in the nondurable goods. (See table 8). In this industry, the level of employment is not closely related to variations in output. Operators and maintenance workers must be on hand to tend the equipment whether or not the plant is producing at full capacity.

Table 8.— Labor Turn-Over Rates 1/1950-51

	Chemicals and al	llied products	Nondurable goods		
Year	Separation rate	Accession rate	Separation rate	Accession rate	
1950: Jan.	1.1	1.4	3.2	2.9	
Apr.	1.0	1.6	3.0	2.6	
July	1.6	2.7	2.7	4.2	
Oct.	2.6	3.5	3.9	4.2	
1951: Jan. Apr. July Oct. Dec. 2/	2.8	4.4	3.8	4.2	
	2.3	3.7	4.0	3.3	
	3.1	3.7	4.1	4.0	
	2.7	3.1	4.6	3.7	
	2.5	2.5	3.1	2.7	

<sup>1/</sup> Rates per 100 employees.

<sup>2/</sup> Preliminary

Most plants work around the clock, and differential pay is given to those on the second or third shift. Paid holidays, 2-week paid vacations, and time and a half for overtime are common provisions in most union contracts.

Table 9.-- Percentage Distribution of Production Workers in the Industrial Inorganic Chemicals Industry, by Shift

Shift	1946	1948
Total	100.0	100.0
lst shift	72.7	67.7
2nd shift	14.8	17.4
3rd shift	12.7	14.9

Less than 10 percent of the workers in the industry are women. Three-fourths of these work in office jobs. The women who work in the plants are employed mainly in the packaging and laboratory departments.

#### Employment Outlook Is Favorable

The industrial inorganic chemical industry supplies the basic chemicals for large segments of industry and agriculture. Booming industrial activity has created shortages of such chemicals as sulfuric acid, nitric acid, ammonia, and chlorine. To overcome these shortages, the industry is expanding its facilities and increasing production. Chlorine capacity, for example, is expected to be increased 50 percent by the end of 1953, sulfur output is scheduled to be increased 8 percent by 1953, and the goal for nitrogen production is an 80 percent increase by 1955. This expansion of production facilities indicates a continued long-term upward trend of both production and employment, although, as in the past, production probably will increase at a faster rate than employment.

#### WEAPONS

Employment in military weapons manufacturing has been increasing steadily since the first quarter of 1950.1 In March of that year, approximately 35,000 wage and salary workers were reported as engaged in the production of small arms, heavy guns, and fire control equipment. By September 1951, employment in plants reporting to the Bureau of Labor Statistics had risen to over 68,000 workers. Because military weapons are made in plants which do not report to the Bureau or as secondary products in other industries, the total number of employees engaged in weapons manufacture is greater than the above estimate indicates. In any event, present employment in weapons manufacturing is far below the World War II employment levels, which remained above 300,000 workers for about 3 years. Even at the peak of the current defense build-up (expected near the end of 1952), employment and production are expected to remain on a much more modest scale than the heights reached in World War II.

#### Employment Trends since World War II

The World War II employment high was reached in the fourth quarter of 1943. From that point, employment dropped rapidly until the end of the war. From V-J Day until after the outbreak of hostilities in Korea, weapons production was confined largely to the Army and Mavy arsenals. In peacetime the Government arsenals constitute a core of ordnance producing facilities operating on a "skeleton" basis. In the early stages of a mobilization, output of arsenals can be rapidly expanded while private firms, which must be converted to weapons production, have time to retool their plants and recruit and train the skilled working force necessary for military weapons production. Therefore, in the first 15 months after the outbreak of hostilities in Korea, private employment in the weapons industry increased only about 60 percent, whereas, during the same period, employment in Government arsenals producing military weapons jumped about 100 percent.

Military weapons manufacturing includes small arms, artillery, and fire-control equipment, but does not include radar equipment, atomic weapons, or ammunition. The gun and recoil mechanisms of tanks and self-propelled weapons carriers are included.

The Bureau of Labor Statistics does not publish separate employment figures for weapons manufacturing. However, the ordnance and accessories employment series includes estimates of workers engaged in weapons manufacture.

Table 1

# Indexes of Employment in Private and Government Weapons Plants Reporting to the Bureau of Labor Statistics, Selected Quarters, 1950-51

(2nd quarter 1950 = 100)

Quarter		Private r employment			
1950:	1st quarter	94.8 100.0 101.9 108.8	95.0 100.0 119.6 140.6		
1951:	1st quarter	127.4 139.1 163.0	177.7 191.7 199.9		

A breakdown of Government and non-Government employment in the industry for the first quarter 1949 reveals that almost two-thirds of all workers in weapons manufacturing were employed in Army or Navy arsenals. By the third quarter of 1951, employment in Government arsenals comprised a larger share of the total because it had risen more sharply than private employment, as table 1 indicates. In 1949, almost 70 percent of the workers employed by weapons manufacturers were engaged in small arms production. In the third quarter 1951, private plants still employed about half of the workers engaged in small arms production.

#### Production Trends

Between World Wars I and II and from 1946 to the outbreak of hostilities in Korea, the Army and Navy arsenals accounted for almost all military weapons production. In peacetime, the production of military weapons is small and the primary activities of the arsenals are research and development, improvement of present weapons, and the preservation of weapons plants with their complements of skilled ordnance workers. During an emergency, the immediate demand for military weapons is met by stepping up the output of the arsenals. While the Government plants are approaching peak output, private facilities have time to convert to weapons production.

Backed by years of ordnance manufacturing experience, arsenal engineers and technicians assist private contractors who may lack experience in the weapons field.

At the present time, large guns (20 mm. and over) are produced mainly in Government arsenals. During World War II, a wide variety of industries were called upon for big gun production including the automobile, agricultural implement, railroad equipment, and similar industries with facilities, production experience, and skilled workers necessary for heavy machine shop work. The expansion in small arms production is, for the most part, in plants normally producing similar products for civilian use. Fire control equipment is now being produced mainly in Government arsenals, but a few electrical and electronic equipment plants also are producing this equipment. Although the greatest volume of weapons output is not expected until the latter part of 1952, production on some major items has already leveled off or decreased.2

#### Location of Employment

The greater part of weapons industry employment is found in the northeastern section of the United States where heavy metalworking industries are located. Practically all small arms manufacturing is concentrated in Massachusetts and Connecticut, whereas large guns and fire-control equipment production is scattered throughout the Middle Atlantic and Great Lakes regions. In September 1951, employment in weapons manufacturing was largely confined to the States of New York, Pennsylvania, Massachusetts, Illinois, Connecticut, Indiana, and the District of Columbia.

#### Labor Force

The composition of the labor force varies considerably within the weapons industry. Small arms manufacture requires the smallest percentage of skilled workers because the volume of production is such that mass-production techniques can be utilized extensively. On the other hand, the manufacture of larger weapons requires many special skills not generally utilized outside the weapons industry. Lower production levels also limit the opportunities for mass-production methods. In a sample of Government arsenals, it was found that an estimated 55 percent of the workers in small arms manufacturing were semiskilled and unskilled and that less than 20 percent were skilled workers. Manufacture of larger guns requires that approximately 30 percent of the workforce be composed of skilled workers, that 45 percent be semiskilled or unskilled, and that about 25 percent be made up of professional, administrative, and clerical workers. The relatively high proportion of non-production workers found

<sup>2/</sup> Fourth Quarterly Report to the President by the Director of Defense Mobilization, January 1, 1952.

in these plants is a further indication of the dominant role played by the Government arsenals in weapons research and development.

Generally, the trend in weapons since World War II has been toward greater fire power, increased rapidity of fire, more extensive and complex fire control equipment, self-propelled gun carriages, and a wider variety of weapons. These factors will influence the occupational pattern of the industry because the more complex designs and higher precision requirements of the newer weapons demand a larger proportion of skilled workers.

The principal plant workers in the weapons industry are production machinists, machine tool operators, inspectors, and material handlers. All of the machinists and a large proportion of the machine tool operators and inspectors are skilled workers. As production increases, the proportion of skilled machinists and machine tool operators will decrease because many of these skilled workers will be used as "machine adjusters" or "set up men," making possible the employment of an increased number of semiskilled or unskilled workers to operate the machines.

The proportion of women varies with the type of weapon produced and with labor market conditions. In a Bureau of Labor Statistics survey made during World War II (August 1943), it was reported that women workers comprised over 38 percent of all workers in fire control production, 36 percent in the production of guns under 20 mm., and about 15 percent in guns larger than 20 mm. The smaller percentage of women workers employed in large gun production was due largely to the strenuous character of the work and the long training required for many jobs in the big gun plants.

In September 1951, the percentage of women workers in those private plants reporting to the Bureau of Labor Statistics was an estimated 5 percent of the labor force in small arms manufacture, 8 percent in large guns and mounts, and over 15 percent in the production of fire control equipment. The proportion of women is expected to increase when the tooling-up period is over and higher production levels permit employment of a larger proportion of semiskilled and unskilled workers. Many women gained considerable shop experience during World War II. Although some of these former workers may re-enter ordnance plants, younger women without experience will constitute a more important source of labor during the present emergency.

Many of the key occupations in the military weapons industry, such as those of engineers, tool and die makers, and machinists, are included in the United States Department of Labor's List of Critical Occupations. Several of the industry's production centers are located in labor shortage areas, such as Hartford, Conn., Rock Island, Ill., and in areas of balanced labor supply such as New Haven, Conn., and

Indianapolis, Ind. As the defense program expands, labor shortages are likely to develop in most centers of weapons production because the bulk of the industry is located in areas with large metalworking employment and where the keenest competition for labor is expected.

#### Trends in Hours and Earnings

Hours of production workers in the weapons industry rose sharply during 1951 in all types of production except small arms. Earnings for the weapons industry were not available separately, but are included in the report of ordnance and accessories.

Table 2

Hours and Earnings of Production
Workers in the Ordnance and
Accessories Industry, by
Nonths, 1951

Month	Average weekly earnings	Average weekly hours	Average hourly earnings
January	<b>\$</b> 69.55	42.0	\$1.656
February	70.88	42.8	1.656
March	73.01	43.1	1.694
April	70.97	42.7	1.662
May	72.29	42.9	1.685
Jume	71.02	42.4	1.675
July	73.36	43.1	1.702
August	72.66	43.2	1.682
September	76.47	44.2	1.730
October	75.16	43.8	1.716
November	74.91	43.4	1.726
December	76.80	44.6	1.722

#### Labor Turn-over

Both separation and accession rates in ordnance and accessories were lower than those in durable goods manufacturing during October and Movember 1951. Although no figures were available for the entire weapons segment, a study of a selected group of small arms manufacturing plants shows that accessions increased sharply after June 1950 following the general pattern for all durable goods manufacturing. The number of quits rose rapidly after the Korean outbreak and have remained at a relatively high rate since that time. Discharges, lay-offs, and miscellaneous separations have generally followed the pattern for all ranufacturing.



# Other Industries In Brief

#### **ENGINES AND TURBINES**

The employment trend in plants manufacturing engines and turbines has been marked by a steady advance during the past 2 years. Production worker employment in December 1951 reached 74,000, a gain of about 25,000 over the number employed at the beginning of 1950. In 1951 the average level of 68,600 production workers was the highest achieved since World War II and more than 25 percent greater than the 1950 average. Along with the rise in employment, the workweek has been extended. Average weekly hours of production workers have increased from 40.7 at the beginning of Korean hostilities in June 1950 to 43.8 in December 1951.

There are differences in the employment outlook for the two segments of this industry during the first half of 1952. Moderate gains in the work force are expected in establishments making gasoline, diesel, and other internal combustion engines for railroads, ships, electric power generation, pumps and other stationary uses. Producers of steam and hydraulic turbines, and steam engines are likely to maintain the same levels of employment reached at the close of 1951.

#### NONMETALLIC MINING AND QUARRYING

Employment in nonmetallic mining and quarrying has shown a steady rise since June 1950, except for a slight decline in the winter months. The December 1951 employment of 105,600 was 7 percent above December 1950 and 11 percent above December 1949. Average weekly hours, 43.6, were about the same as in December 1950, but were 1.2 hours above the December 1949 level.

This broad industrial group includes the mining or quarrying of such diverse materials as: dimension stone, crushed and broken stone, sand and gravel, cement rock, clay, refractory minerals, abrasives, and chemical and fertilizing minerals. Production of many of these materials is at record levels, owing to heavy demands in construction, chemicals manufacturing, and other industries.

#### PLASTICS MATERIALS

Retablishments making plastics materials reported a total of 21,800 workers in December 1951. Employment has varied only about 10 percent during the past 5 years, but output of plastics has more than doubled. Production has increased tenfold since 1939 compared with a threefold increase in employment.

Plastics, ence considered merely substitute materials with limited uses, have assumed a place of major importance in our industrial economy. Plastics materials production currently exceeds that of aluminum. About 125 plants make plastics materials and sell them to nearly 4,000 firms which manufacture plastics products. The main centers of employment are in the Middle and South Atlantic regions. Three-fourths or the workers are employed in large plants having ever 500 workers each. The average workweek in 1951 was 42.0 hours.

#### **Industry Data**

Table 1: Employees in Nonagricultural Establishments

By Industry Division

(In thousands)

Year and month	Total	Mining	Contract con- struction	Manufac- turing	Transporta- tion and public utilities	Trade	Finance	Service	Govern- ment
Annual average:									
1939	30,287	845	1, 150	10,078	2,912	6,612	1,382	3,321	3,987
1940	32,031	916	1,294	10,780	3,013	6,940	1,419	3,477	4, 192
1941	36,164	947	1,790	12,974	3,248	7,416	1,462	3,705	4,622
1942	39,697	983	2,170	15,051	3,433	7,333	1,440	3,857	5,431
1943	42,042	917	1,567	17,381	3,619	7,189	1,401	3,919	6,049
1944	41,480	883	1,094	17,111	3,798	7,260	1,374	3,934	6,026
1945	40,069	826	1,132	15,302	3,872	7,522	1,394	4,055	5,967
1946	41,412	852	1,661	14,461	4,023	8,602	1,586	4,621	5,607
1947	43,371	943	1,982	15,247	4,122	9,196	1,641	4,788	5,454
1948	44,201	981	2,165	15,286	4,151	9,491	1,716	4,799	5,613
1949	43,006	932	2,156	14,146	3,977	9,438	1,763	4,782	5,811
1950	44,124	904	2,318	14,884	4,010	9,524	1,812	4,761	5,910
<u>1950</u>									
0ct	45,898	939	2,631	15,827	4,132	9,752	1,821	4,757	6,039
Nov	45,873	938	2,571	15,765	4,123	9,896	1,820	4,723	6,037
Dec	46,595	937	2,403	15,789	4,125	10,443	1,828	4,694	6,376
1951									
Jan	45,246	932	2,281	15,784	4,072	9,592	1,831	4,666	6,088
Feb	45,390	930	2,228	15,978	4,082	9,554	1,839	4,657	6,122
Mar.	45.850	924	2,326	16,022	4,112	9.713	1,854	4,682	6,217
Apr	45,998	911	2,471	15,955	4,132	9,627	1,865	4,745	6,292
May	46,226	915	2,598	15,853	4,137	9,683	1.874	4.789	6,377
	46,567	927	2,686	15,956	4,161	9.732	1,893	4,835	6,377
July	46,432	906	2,754	15,813	4,176	9,667	1,908	4,852	6,356
Aug	46,724	922	2,809	16,008	4,190	9,641	1,914	4,839	6,401
Sept	46,956	917	2,768	16,039	4,178	9,781	1,898	4,831	6,544
0ct	46,902	917	2,761	15,965	4,166	9,893	1,898	4,770	6,532
Nov	46,843	920	2,627	15,902	4,163	10,096	1,905	4,733	6,497
Dec	47,569	917	2,519	15,908	4,152	10,630	1,910	4,702	6,831

See Explanatory Notes and Glossary for definitions.

## Industry Data

Table 2: Employees in Nonagricultural Establishments

By Industry Division and Group

(In thousands)

Industry division and drawn 1951 1950								
Industry division and group	Dec.	Nov.	Oct.	Dec.	Nov.			
TOTAL	47,569	46,843	46,902	46,595	45,873			
MINING	917	920	917	937	9 <b>3</b> 8			
Metal mining	106.5 67.1 368.3 269.3 105.6	67.1 <b>36</b> 9.2 <b>2</b> 69.6	67.2 367.0		74.3 404.3 254.8			
CONTRACT CONSTRUCTION	2,519	2,627	2,761	2,403	2,571			
NONBUILDING CONSTRUCTION	451	492	544	428	505			
Highway and street	180.1 270.6	207.3 285.0	234.5 309.6	164.0 263.8				
BUILDING CONSTRUCTION	2,068	2,135	2,217	1,975	2,066			
GENERAL CONTRACTORS	848	<b>8</b> 86	944	8 <b>3</b> 9	892			
SPECIAL-TRADE CONTRACTORS	1,220	1,249	1,273	1,136	1,174			
Plumbing and heating	306.7 168.6 159.7 585.2	176.3 156.8	182.9 155.3	132.8	147.4 138.7			
MANUFACTURING	15,908	15,902	15,965	15,789	15,765			
DURABLE GOODS	8,996 6,912	8,988 6,914	8,942 7,023	8,717 7,072	8,664 7,1 <b>0</b> 1			
TRANSPORTATION AND PUBLIC UTILITIES	4,152	4,163	4,166	4,125	4,123			
Transportation	2,897 1,416 1,243 140 651 690 85.6	2,910 1,428 1,258 140 649 693 84.7	2,915 1,440 1,271 141 641 693 84.1	2,908 1,460 1,277 145 622 681 74.6	2,911 1,465 1,292 145 617 684 74.2			
Communication Telephone Telegraph	703 654.3 47. <b>3</b>	701 652.9 46.8		670 620.3 48.6				

See Explanatory Notes and Glossary for definitions.

### Table 2: Employees in Nonagricultural Establishments

By Industry Division and Group - Continued

		1951	1950		
Industry division and group	Dec.	Nov.	Oct.	Dec.	Nov.
TRANSPORTATION AND PUBLIC UTILITIES (Continued)					
Other public utilities	527.0 234.0 118.6	234.6 118.6 174.3	236.2 118.4 174.1	117.2	548 523.5 233.2 117.6 172.7
TRADE	10,630	10,096	9,893	10,443	9,896
Wholesale trade	2,650	2,650	2,622	2,616	2,618
Retail trade  General merchandise stores  Food and liquor stores  Automotive and accessories dealers  Apparel and accessories stores  Other retail trade	2,082 1,311 768 649	7,446 1,695 1,295 759 577 3,120	7,271 1,550 1,281 748 561 3,131	7,827 2,052 1,264 753 642 3,116	7,278 1,654 1,242 746 565 3,071
FINANCE	1,910	1,905	1,898	1,828	1,820
Banks and trust companies	64.1	470 64.1 687 684	467 63.7 682 685	439 61.3 655 673	436 61.1 651 672
SERVICE	4,702	4,733	4,770	4,694	4,723
Hotels and lodging places	426	430	437	430	433
Laundries	1 .	356.8 156.9		353•3 146.8	353.1 149.2
Motion pictures	241	241	244	545	243
GOVERNMENT	6,831	6,497	6,532	6,376	6,037
Federal 1/State and local	2,677 4,154	2,325 4,172	2,322 4,210	2,333 4,043	1,980 4,057

<sup>1/</sup> Fourth class postmasters are excluded here but are included in Table 7.

## Industry Data

Table 3: All Employees and Production Workers in Mining and Manufacturing Industries

#### (In thousands)

	All employees				Production workers				
Industry group and industry	December 1951	November 1951	October 1951	December 1950	December 1951	November 1951	October 1951	December 1950	
MINING	917	920	917	93 <b>7</b>			_	-	
METAL MINING	106.5	<b>10</b> 5.8	104.3	104.4	93.8	93.1	91.8	92.7	
Iron mining	37•7 28•7 21•8	28.4	38.2 27.9 20.9	29.0	33.7 25.0 19.1	24.8	24.3	25.5	
ANTHRACITE	67.1	67.1	67.2	73.0	63.1	63 <b>.0</b>	63.2	68.5	
BITUMINOUS-COAL	368.3	369.2	367.0	404.8	344.4	344.5	343.0	38 <b>0.</b> 6	
CRUDE PETROLEUM AND NATURAL GAS PRODUCTION	269.3	269.6	268.7	256.7	_	-	_	_	
Petroleum and natural gas production (except contract services)	_			_	127.8	128.4	127.7	124.7	
NONMETALLIC MINING AND QUARRYING	105.6	108.1	109.3	98.3	91.9	94•3	95•5	86.0	
MANUFACTURING	15,908	15,902	15,965	15,789	12,906	12,907	12,997	<b>1</b> 3 <b>,0</b> 56	
DÜRABLE GOODS	8,996 6,912	8,988 6,914	8,942 <b>7,0</b> 23	8,717 7,072	7,323 5,583	7,324 5,583	7,296 5, <b>70</b> 1	7,254 5,802	
ORDNANCE AND ACCESSORIES	64.8	62.5	59.0	29.7	51.2	49.6	46.9	23.6	
FOOD AND KINDRED PRODUCTS	1,514	1,553	1,644	1,534	1,125	1,162	1,254	1,155	
Meat products  Dairy products  Canning and preserving  Grain-mill products  Bakery products  Sugar  Confectionery and related products.  Beverages  Miscellaneous food products	315.0 136.1 147.8 131.3 289.6 41.3 103.0 215.1 134.9	139.1 170.1 130.8	263.4 131.3 291.6 46.1 106.3	137.1 168.5 124.6 288.1 44.8	251.7 96.0 121.9 97.3 190.9 36.1 85.7 146.5	246.6 98.4 144.2 97.3 192.5 45.6 88.6 146.9	102.8 238.1 97.9 195.1 40.2 89.2	253.7 96.9 142.7 93.1 190.4 39.9 89.4 146.1 102.6	
TOBACCO MANUFACTURES	91	93	96	90	84	85	89	83	
Cigarettes Cigars Tobacco and snuff Tobacco stemming and redrying	26.8 41.8 11.8 10.9	11.9	42.0 11.7	42.3 12.0	10.2		39.8 10.2	40.2 10.5	
TEXTILE-MILL PRODUCTS	1,240	1,228	1,228	1,352	1,142	1,133	1,133	1,258	
Yarn and thread mills	161.4 579.8 231.8 88.6 50.1 128.6	86.7 49.1		633.9 254.0 93.3 62.4	211.6 78.3 42.3	76.6 41.4	546.2 208.5 74.9 41.6	233.9 83.3 54.9	

See Explanatory Notes and Glossary for definitions.

Table 3: All Employees and Production Workers in Mining and Manufacturing Industries - Continued

(In thousands)

	All employees				Production workers				
Industry group and industry	December 1951	November 1951	October 1951	December 1950	December 1951	November 1951	October 1951	December 1950	
APPAREL AND OTHER FINISHED TEXTILE									
PRODUCTS	1,146	1,122	1,138	1,184	1,029	1,004	1,019	1,064	
Men's and boys' suits and coats Men's and boys' furnishings and work	135.7	131.8	144.2	151.9	122.0	118.1	130.6	137.4	
clothing	254.8			269.5		232.2	237.5	251.2	
Women's outerwear	323.7	308.5		329.9		273.9	270.1	296.2	
Women's, children's under garments	99.6	99.8		106.6	1	90.1	89.8	96.1	
Millinery	20.7	19.0		21.4		16.6		18.9	
Children's outerwear	63.8			65.6		59•3	58.1	59.9	
Fur goods and miscellaneous apparel	99.6			92.2	88.4	<b>90.</b> 2	91.0	80.3	
Other fabricated textile products	148.5	145.9	145.2	146.5	125.8	123.3	123.3	124.4	
LUMBER AND WOOD PRODUCTS (EXCEPT						•			
FURNITURE)	764	786	803	817	698	722	740	754	
Logging camps and contractors	71.3	76.4	78.1	72.4	67.0	72.2	74.2	67.9	
Sawmills and planing mills	445.4	461.2		471.1		428.9		440.0	
Millwork, plywood, and prefabricated									
structural wood products	109.6	111.6	115.2	128.0	94.1	96.3	100.0	112.4	
Wooden containers	77.7	76.5		81.5	72.0	70.7	71.1	75.8	
Miscellaneous wood products	59.7		61.1		73.7	54.0	54.9	57.4	
FURNITURE AND FIXTURES	342	342	337	374	294	294	289	326	
Household furniture	235.2	235•2	1 1 229.8	266.5	206.3	206.4	201.2	238.4	
Other furniture and fixtures	1	106.5			87.7	87.5		87.1	
PAPER AND ALLIED PRODUCTS	483	486	488	1199	409	410	413	428	
<b>5.</b>	245.6	246.3	246.3	0.4.5	010 0	077 0	030.0	070.3	
Pulp, paper, and paperboard mills				244.5		211.8		212.3	
Paperboard containers and boxes	128.9 108.8	130.5 109.1		140.9		109.6 88.8	110.7	121.3	
Other paper and allied products	100.0	109.1	110.4	113.8	CO.0	00.0	90.2	94.5	
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES	775	773	769	765	519	518	517	518	
					0		0		
Newspapers	303.0			298.9		153.5	152.8	152.4	
Periodicals	55.9			53.1	35.3	35.1	35.5	35.0	
Books	51.5	51.2		48.6	36.4	36.4	36.7	36.7	
Commercial printing	207.8	207.2		207.4		169.5	168.9	171.1	
Lithographing	41.1	41.8		42.0		32.6	32.9	32.9	
Other printing and publishing	115.5	115.9	114.6	114.5	90.7	91.3	90.5	89.9	
CHEMICALS AND ALLIED PRODUCTS	<b>7</b> 59	762	763	724	538	541	54 <b>4</b>	524	
Industrial inorganic chemicals	84.1	84.0	83.7	77.6	61.4	61.4	61.2	57.1	
Industrial organic chemicals	230.5			213.9		172.7	172.1	161.9	
Drugs and medicines	109.0			101.3				67.4	
Paints, pigments, and fillers	74.7			73.8		1 2		48.3	
Fertilizers	32.3			32.9		24.8		26.5	
Vegetable and animal oils and fats	1		64.5	59.2				47.6	
. Colour comment of the way 1800.	166.5	167.4	166.2						

## **Industry Data**

Table 3: All Employees and Production Workers in Mining and Manufacturing Industries - Continued

(In thousands)

	Т		<del></del>		1			
Industry Annual of Laborator		All em	ployees			Production	on worker	s
Industry group and industry	Dec. 1951	Nov. 1951	0ct. 1951	Dec. 1950	Dec. 1951	Nov. 1951	0ct. 1951	Dec. 1950
PRODUCTS OF PETROLEUM'AND COAL	270	270	269	254	197	198	197	191
Petroleum refining	218.3 22.9 28.8	216.9 22.1 30.7	215.4 22.1 31.1	201.6 21.2 31.2	154.6 19.7 22.6	154.2 19.0 24.4	153.6 19.0 24.8	147.3 18.4 25.0
RUBBER PRODUCTS	272	271	269	272	217	216	215	555
Tires and inner tubes	120.3 31.1 120.2	119.2	115.0 31.1 122.9	116.1 29.1 127.0	94.8 25.5 96.4	94.0 25.6 96.8	89.8 25.5 99.4	92.1 23.9 105.7
LEATHER AND LEATHER PRODUCTS	362	356	359	398	323	316	320	359
Leather Footwear (except rubber) Other leather products	43.7 227.9 90.1	43.5 220.4 91.8	42.6 224.0 92.5	51.9 251.7 94.0	39.1 205.3 78.4	38.8 197.2 80.1	38.1 201.4 80.8	47.3 229.1 82.9
STONE, CLAY, AND GLASS PRODUCTS	545	551	559	548	465	472	479	474
Glass and glass products	141.7 42.8 91.9 55.6 100.0 112.6	143.1 43.1 93.1 56.3 101.5 113.9	146.7 43.3 93.2 56.8 103.1 115.4	144.6 42.4 87.2 60.8 98.2 114.3	123.1 36.7 83.2 49.9 83.8 88.1	124.6 37.0 84.4 50.6 85.4 89.5	128.2 37.1 84.7 51.1 87.0 91.0	127.7 36.3 79.4 55.1 83.5 91.6
PRIMARY METAL INDUSTRIES	1,356	1,341	1,349	1,318	1,165	1,151	1,160	1,142
Blast furnaces, steel works, and rolling mills	659.5 281.6 56.0	644.6 282.2 56.2 98.7	655.6 280.4 56.3 98.5	638.1 267.5 56.6	573.3 249.5 46.8	558.7 250.6 46.9 80.0	569.7 248.7 47.2 80.1	556.4 238.0 47.0 87.2
nonferrous metals Nonferrous foundries Other primary metal industries	110.6	108.6	108.3	109.6	91.9 124.5	90.0	90.8	93.9
FABRICATED METAL PRODUCTS (EXCEPT ORDNANCE, MACHINERY, AND TRANSPORTATION EQUIPMENT)	988	983	988	1,018	807	804	809	852
Tin cans and other tinware Cutlery, hand tools, and hardware Heating apparatus (except electric)	46.2 149.6	46.1 150.6	48.9 152.7	51.4 168.8	40.3 123.6	40.2 124.5	42.9 126.6	45.4 143.7
and plumbers' supplies	147.1 239.2	148.2 234.8	148.6 234.2	161.2 219.8	118.0 185.6	119.9 182.7	120.2 181.7	133.2 173.2
engraving Other fabricated metal products	171.6 234.6	168.8 234.6	170.1 233.2	186.6 230.3	144.1 195.4	141.c 195.0	142.9 19 <b>4.</b> 5	161.6 194.6

Table 3: All Employees and Production Workers in Mining and Manufacturing Industries - Continued

(In thousands)

		All emp	loyees			Productio	n workers	1
Industry group and industry .	December	November 1951	<b>0</b> ctober 1951	December 1950	December 1951	November 1951	October 1951	December
MACHINERY (EXCEPT ELECTRICAL)	1,640	1,626	1,611	1,492	1,270	1,255	1,242	1,163
Engines and turbines	98.9	98.1	95.1	81.3	74.0	73.1	70.2	61.9
Agricultural machinery and tractors	187.5	187.3	187.8	175.4	146.6	145.9	145.6	135.4
Construction and mining machinery Metalworking machinery	127.2 309.1	125 <b>.</b> 1 303 <b>.</b> 3	124.8 294.3	259.4	96 <b>.</b> 1 245 <b>.</b> 4	94.3 240.5	94.3 231.9	83.8 2 <b>0</b> 4.4
Special~industry machinery (except	307.1	J <b>O</b> J•J	C94.5	C)3•4	24704	240.)	23103	204.4
metalworking machinery)	192.8	195.8	196.7	183.4	146.6	148.2	148.9	140.5
General industry machinery	239.6	239.4	236.9	212.2	<b>173.</b> 3	172.4	171.3	154.5
Office and store machines and devices	107.8	107.9	107.2	99.2	90.5	90.8	90.4	83.2
Service-industry and household machines	166.3	160.4	161.0	182.6	128.5	122.6	123.5	147.9
Miscellaneous machinery parts	210.3	208.9	207.4	186.1	168.9	166.7	165.7	151.1
ELECTRICAL MACHINERY	964	956	944	936	724	717	707	724
Electrical generating, transmission,								
distribution, and industrial apparatus	374.9	370.7	369.1	349.5	270.7	266.6	265.0	257.2
Electrical equipment for vehicles	82.6	82.7	82.3	77.4	67.0	67.3	67.2	63.0
Communication equipment	361.3	357.2	346.0	355.9	270.2	266.5	257.5	278.3
Electrical appliances, lamps, and								
miscellaneous products	145.1	145.1	146.9	153.3	115.8	116.1	117.7	125.4
TRANSPORTATION EQUIPMENT	1,557	1,560	1,511	1,404	1,238	1,242	1,205	1,160
Automobiles	789.4	803.2	807.1	895.7	650.4	662.6	667.4	767.3
Aircraft and parts	552.6	539.6	496.2	339.1	406.3	395.4	362.1	251.9
Aircraft	372.2	364.0	339.8		274.7	267.8	248.7	170.0
Aircraft engines and parts	110.7	107.2	90.3	66.6	78.4	74.9	62.4	48.5
Aircraft propellers and parts	12.4	12.1	11.8	9.1	8.8	8.5	8.3	6.1
Other aircraft parts and equipment	57.3 125.3	56.3 126.6	54.3 118.9		109.0	44.2 110.7	42.7 103.7	27.3 78.7
Ship and boat building and repairing	111.3	113.1	106.2	77.8	96.6	98.8	92.5	66.3
Boat building and repairing	14.0	13.5	12.7	14.1	12.4	11.9	11.2	12.4
Railroad equipment	78.0	78.4	77.4	66.1	62.8	63.2	62.2	51.9
Other transportation equipment	11.8	11.8	11.5	13.1	9.8	9.8	9•7	11.2
INSTRUMENTS AND RELATED PRODUCTS	314	3 <b>1</b> 2	310	280	231	230	228	211
Ophthalmic goods	27.9	27.8	27.4	26.9	22.6	22.4	22.3	22.0
Photographic apparatus	63.2	62.6	62.3	55.5	44.6	44.3	44.2	40.9
Watches and clocks	35.2	35.0	35.0	33.9	29.8	29.6	29.5	28.9
Professional and scientific	30-0	30	30- 6	761.0	300.0	300.0	300 6	
instruments	187.8	187.0	185.6	164.0	133.9	133.2	132.3	119.2
${\tt MISCELLANEOUS\ MANUFACTURING\ INDUSTRIES.}$	461	468	471	500	38 <b>o</b>	387	390	424
Jewelry, silverware, and plated ware	46.3	47.0	47.6	57•5	37.6	38.1	38.6	41.2
Toys and sporting goods	64.8	69.4	72.1		55.2	59.7	62.4	66.7
Costume jewelry, buttons, notions	51.6	52.8	53.4		42.9	43.8	44.4	52.1
Other miscellaneous manufacturing	000 (	000.1	0000	205.0	01-1- 6	01:5 0	oli r	057
industries	298.6	298.4	297.8	305.2	244.6	245.3	241,∙6	257

Table 4: Production Workers in Selected Manufacturing Industries

Industry		1951		1950
Industry	Dec.	Nov.	Oct.	Dec.
FOOD AND KINDRED PRODUCTS:  Meat packing, wholesale.  Prepared meats  Concentrated milk  Ice cream and ices  Flour and meal  Cane-sugar refining.  Beet sugar  Confectionery products.  Malt liquors.  Distilled liquors, except brandy.	177.1	171.3	163.9	178.2
	34.4	34.0	33.9	34.3
	11.4	11.8	12.3	11.6
	17.6	18.0	19.4	17.8
	28.1	28.0	28.3	26.9
	13.5	13.9	11.9	14.1
	14.9	21.7	20.2	18.2
	66.1	68.1	68.4	68.9
	60.3	60.7	59.2	57.5
	22.2	21.7	23.8	24.3
TEXTILE-MILL PRODUCTS:  Yarn mills, wool (except carpet), cotton and silk systems  Cotton and rayon broad-woven fabrics  Woolen and worsted fabrics  Full-fashioned hosiery mills  Seamless hosiery mills  Knit underwear mills  Wool carpets, rugs, and carpet yarn  Fur-felt hats and hat bodies	103.7	103.5	104.3	112.6
	394.1	392.5	397.9	426.5
	89.5	88.3	84.9	107.1
	56.4	56.7	58.0	68.1
	52.4	51.6	49.7	57.7
	31.3	30.8	31.8	35.6
	28.7	27.5	27.7	39.6
	8.3	8.1	6.9	9.4
APPAREL AND OTHER FINISHED TEXTILE PRODUCTS:  Men's dress shirts and nightwear	78.7	78.8	79.0	86.0
	11.8	11.4	12.0	11.6
FURNITURE AND FIXTURES: Wood household furniture, except upholstered. Mattresses and bedsprings	105.0	104.7	102.4	128.5
	26.5	27.3	27.7	28.5
CHEMICALS AND ALLIED PRODUCTS:  Plastic materials.  Synthetic rubber.  Synthetic fibers.  Soap and glycerin.	21.8	22.0	22.1	21.5
	7.5	7.5	7.5	6.9
	51.9	53.3	53.6	56.5
	17.8	18.5	18.7	20.0
STONE, CLAY, AND GLASS PRODUCTS: Glass containers Pressed and blown glass, not elsewhere classified Brick and hollow tile Sewer pipe	36.6	36.9	40.1	41.2
	34.6	35.4	35.8	36.9
	27.3	28.2	28.4	28.7
	9.1	9.0	9.1	8.7

See Explanatory Notes, section G.

Table 4: Production Workers in Selected Manufacturing Industries - Continued

T-1 4		1951		1950
Industry	Dec.	Nov.	Oct.	Dec.
DO IMANY METAL INDUCTORS				
PRIMARY METAL INDUSTRIES:	າຮວ່າ	154.8	162.2	160 =
Gray-iron foundries	153.4	1 -	153.3	160.5
Malleable-iron foundries	27.5	28.0	28.0	25.6
Steel foundries	66.8	66.3	65.7	54.7
Primary copper, lead, and zinc	25.4	25.6	26.1	26.4
Primary aluminum	10.4	10.4	10.3	9.4
Iron and steel forgings	36.9	36.6	36.0	32.2
Wire drawing	43.6	43.8	43.7	43.4
FABRICATED METAL PRODUCTS (EXCEPT ORDNANCE, MACHINERY, AND TRANSPORTATION EQUIPMENT):				
Cutlery and edge tools	22.3	22.7	22.9	25.7
Hand tools, not elsewhere classified, files,				
hand saws, and saw blades	37.0	36.7	37.3	37.8
Hardware, not elsewhere classified	62.0	62.6	63.8	76.2
Metal plumbing fixtures and fittings	26.3	27.1	27.8	31.8
Oil burners, heating and cooking apparatus,				
not elsewhere classified	75.4	75.8	74.8	81.6
Structural and ornamental products	65.3	64.6	65.1	61.9
Boiler shop products	61.2	60.7	59.5	54.4
Metal stampings	104.3	102.6	103.4	120.8
MACHINERY (EXCEPT ELECTRICAL):				
Tractors	70.8	70.2	68.8	65.3
Farm machinery, except tractors	72.3	72.1	73.4	66.9
Machine tools	65.9	63.6	56.6	51.0
Metalworking machinery, not elsewhere				
classified	44.0	43.7	43.4	40.7
Cutting tools, jigs, fixtures, etc	95.4	94.5	93.1	79.7
Computing and related machines	42.5	42.4	42.2	38.9
Typewriters	22.4	22.5	22.4	20.6
Refrigeration machinery	88.5	83.4	83.4	104.1
Ball and roller bearings	50.5	50.2	49.8	43.6
Machine shops	48.0	47.3	47.2	42.4
ELECTRICAL MACHINERY:	169.4	166.7	160.2	190.3
Radios and related products	209.4	100.	100.2	±,,,,,
Telephone and telegraph equipment and				
communication equipment, not elsewhere	45.6	45.4	44.2	36.7
classified	47.0	77.7	77.6	ر. ا
TRANSPORTATION EQUIPMENT:	26.0	05.0	0	00.6
Locomotives and parts	26.8	27.0	25.7	23.6
Railroad and streetcars	37.1	37.4	38.1	29.3
MISCELLANEOUS MANUFACTURING INDUSTRIES:				
Silverware and plated ware	14.1	14.4	14.6	18.2
priverware and braned water	L		i	

## Employment and Payrolls

Table 5: Indexes of Production Worker Employment and Weekly Payrolls in Manufacturing Industries

(1939 Average = 100)

Period	Production-worker 1/	Production-worker 2/ pay-roll index
Annual average:		
1939	100.0	100.0
1940	107.5	113.6
1941	132.8	164.9
1942	156.9	241.5
1943	183.3	331.1
1944	178.3	343.7
1945	157.0	293.5
1946	147.8	271.7
1947	156.2	326.9
1948	155.2	351 <b>.4</b>
1949	141.6	325.3
1950	149.7	371.7
1950 October November	160.3 159.2 159.4	415.8 414.6 426.0
1951	350.0	lol o
January	158.9 161.0	424.0
February	161.0	430.0
March	160.0	435 <b>.</b> 0 433 <b>.</b> 2
April	158.6	433.2 428.4
MayJune	159.5	420.4 434.3
o une	1)9.7	434•3
July	157.3	422.8
August	159.5	429.4
September	159.8	437.8
October	158.7	434.2
November	157.6	433.9
December	157.5	444.1

<sup>1/</sup> Represents number of production and related workers in manufacturing expressed as a percentage of average monthly production worker employment in the 1939 period.

<sup>2/</sup> Represents production worker average weekly payroll expressed as percentage of average weekly payroll for the 1939 period. Aggregate weekly payroll for all manufacturing is derived by multiplying gross average weekly earnings by production worker employment.

Table 6: Employees in the Shipbuilding and Repairing Industry by Region 1/

Region		1951		19	50
Region	December	November	October	December	November
ALL REGIONS	241.2	242.7	234.8	<b>1</b> 67 <b>.</b> 1	160.2
PRIVATE	111.3	113.1	106.2	77.8	75•5
NAVY	129.9	129.6	128.6	89•3	84.7
NORTH ATLANTIC	112.3	111.8	108.4	77.2	74.4
Private Navy	54.2 58.1	53•6 58•2	50•7 57•7	38.9 38.3	38.2 36.2
SOUTH ATLANTIC	42.7	<b>42.</b> 5	41.9	30.1	29.2
Private	18.4 24.3	18.2 24.3	17.6 24.3	11.4 18.7	11.0 18.2
GULF:					
Private	13.5	16.3	13.9	11.5	11.7
PACIFIC	59•2	59.6	58.4	39•4	37.6
Private Navy	11.7 47.5	12.5 47.1	11.8 46.6	7.1 32.3	7•3 30.3
GREAT LAKES:					
Private	8.8	7.6	7.3	4.4	2.9
INLAND:					
Private	4.7	4.9	4.9	4.5	4.4

The North Atlantic region includes all yards bordering on the Atlantic in the following States: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

The South Atlantic region includes all yards bordering on the Atlantic in the following States: Georgia, Virginia, North Carolina, and South Carolina.

The Gulf region includes all yards bordering on the Gulf of Mexico in the following States: Alabama, Florida, Louisiana, Mississippi, and Texas.

The Pacific region includes all yards in California, Oregon, and Washington.

The Great Lakes region includes all yards bordering on the Great Lakes in the following States: Illinois, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.

The Inland region includes all other yards.

## Federal Government

Table 7: Federal Civilian Employment and Pay Rolls in All Areas and in Continental United States and Total Government Civilian Employment and Payrolls in the District of Columbia

	(as	Employ of first	yment of month	)		•	olls or month)	
Area and branch		1951		1950	<u> </u>	1951		1950
	Dec.	Nov.	Oct.	Dec.	Dec.	Nov.	Oct.	Dec.
ALL AREAS								
TOTAL FEDERAL	2,871.2	2,517.5	2,514.9	2,508.9	\$939,479	\$891,129	\$857,429	\$672,724
Executive 1/  Defense agencies 2/  Post Office Department 3/  Other agencies  Legislative  Judicial	2,858.8 1,293.0 847.7 718.1 8.4 4.0	2,505.4 1,288.5 496.2 720.7 8.2 3.9	2,502.8 1,279.4 495.7 727.7 8.2 3.9	2,496.9 995.9 811.8 689.2 8.1 3.9	267,414 260,901 3,529	885,714 423,827 187,003 274,884 3,589 1,826	851,725 402,013 169,963 279,749 3,445 2,259	667,988 275,681 185,732 206,575 3,207 1,529
CONTINENTAL UNITED STATES 4/								
TOTAL FEDERAL	2,696.1	2,344.0	2,341.5	2,352.8	891,040	840,879	818,307	634,578
Executive 1/  Defense agencies 2/  Post Office Department 3/  Other agencies  Legislative  Judicial	2,683.8 1,177.8 844.3 661.7 8.4 3.9	2,332.0 1,174.0 494.1 663.9 8.2 3.8	2,329.4 1,166.1 493.6 669.7 8.2 3.9	2,340.9 885.6 808.9 646.4 8.1 3.8	374,587 266,296 244,983 3,529	835,515 391,089 186,221 258,205 3,589 1,775	812,658 379,746 169,257 263,655 3,445 2,204	629,886 250,324 185,044 194,518 3,207 1,485
DISTRICT OF COMBIA								
TOTAL GOVERNMENT	278.5	273.5	274.0	256.2	108,024	111,480	119,319	85,285
D. C. GOVERNMENT TOTAL FEDERAL <u>5</u> /	20.6 257.9	20.7 252.8	20.3 253.7	20.3 235.9	6,238 101,786	6,491 104,989	6,264 113,055	5,558 79,727
Executive 1/  Defense agencies 2/  Post Office Department 3/  Other agencies  Legislative  Judicial.4	248.8 86.5 13.4 148.9 8.4	243.9 86.7 7.9 149.3 8.2	244.8 86.6 7.7 150.5 8.2	227.1 74.1 12.7 140.3 8.1	36,005 5,218 56,722	101,045 37,729 3,649 59,667 3,589 355	109,252 37,085 4,096 68,071 3,445 358	76,228 24,786 3,835 47,607 3,207 292

Includes all executive agencies (except the Central Intelligence Agency), Government corporations, Federal Reserve Banks, and mixed-ownership banks of the Farm Credit Administration. Civilian employment in navy yards, arsenals, hospitals, and on force-account construction is included in total for executive agencies.

<sup>2/</sup> Covers civilian employees of the Department of Defense (Secretary of Defense, Army, Navy, and Air Force), National Advisory Committee for Aeronautics, The Panama Canal, Selective Service System, National Securities Resources Board, and National Security Council.

 $<sup>\</sup>frac{3}{2}$  Includes Fourth Class Postmasters, excluded from Federal total in Table 2.

 $<sup>\</sup>frac{4}{}$  Includes the 48 States and the District of Columbia.

<sup>5/</sup> Includes all Federal civilian employment in Washington Standard Metropolitan area (District of Columbia, adjacent Maryland and Virginia counties).

Table 8: Employees in Nonagricultural Establishments by Industry Division, by State

	1	Total			Mining		Contra	ct Const	ruction
State	19	51	1950	19	51	1950		51	1950
	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.
	(-1 -	/						70.0	
Alabama	654.8	633.9	629.2	23.1	23.1	25.0	31.7	32.9	27.8
Arizona	187.6	183.6	172.5	12.1	12.0	11.4	13.9	13.6	14•C
Arkansas	315.8	313.2	312.0	6.4	6.4	7.0	55.5	25.0	19.2
California	3,552.1	3,500.4	3,390.2	35.3	35.4	34.0	219.5	228.5	227.2
Colorado	394•5	390.3	367.2	10.1	10.1	10.3	31.2	32.8	26.7
Connecticut	850.5	835.0	819.4	( <u>3</u> /)	( <u>3</u> /)	( <u>3</u> /)	43.1	45.0	41.2
Delaware									
District of Columbia 🛂	532.3	525.8	506.7	( <u>4/</u> ) 6.7	(4/) 6•7	(4/) 6•5	Str-6	25.9	26.1
Florida	754.9	726.2	6 والمباح				69.2	69.8	73.6
Georgia	871.4	863.8	834.0	4.5	4.5	4.4	45.5	47.2	42.5
T.1-L.	137.8	139.2	137.2	5.8	5.6	5.8	11.4	12.5	12.4
Idaho				42.8	42.6	47.7	146.8	153.9	134.4
Illinois	3,279.3	3,236.2	3,222.5	13.4	13.4	14.0	52.8	56.0	48.3
Indiana	1,295.7	1,279.6	1,294.9 618.4	3.1	3.3	3.4	34.3	38.2	31.6
Iowa	643.3 524.7	637.2	482.9	17.7	2•2 17•4	2•4 17•8	35.0	36 <b>.</b> 2	31.0
Kansas	204.1	518.8	402.9	1	58 <b>.</b> 3	60.6	))•0	JU•E	7100
Kentucky				57•7 27•8	27.8	25.2			
Louisiana	275.1	272.2	261.4	-6	•6	•7	13.1	14.3	10.C
Maine	756.6	756.9	726.2	2.6	2.9	2.2	53.5	56.2	52 <b>.</b> 7
Maryland	1						66.4	68 <b>.</b> 5	73•5
Massachusetts	1,833.7	1,799.7	1,826.7	(77/)	(4/)	(4√)	00.4	00.	1000
Michigan. 2	-								
Minnesota	842.3	835.3	830.4	16.8	17.3	16.4	40.5	44.2	41.4
Mississippi .2/		- ,,,-,			-,-,	- '	1		
Missouri	1.246.2	1,225.8	1,217.3	10.1	10.1	9.4	49.3	52.9	49.2
Montana	149.2	150.3	149.9	11.0	باه 10	11.2	8.6	10.5	9.8
Nebraska	339.5	335.2	327.1	(4/)	( <u>4</u> √)	(५/)	18.6	21.0	18.5
Nevada	59.5	59.0	55.7	3.2	3.2	` <b>2.</b> 9	5.1	4.9	4.4
New Hampshire	170.8	169.1	171.6	•3	•4	•3	6.6	7.2	7.3
New Jersey	1,705.4	1,682.9	1,689.9	4.0	4.0	3.8	87.6	88.0	84.4
New Mexico	163.5	161.0	157.4	13.4	13.2	11.2	14.6	15.0	17.2
					•				
New York . 2/	5,987.8	5,887.9	5,853.4	11.4	11.8	10.8	230.9	244.3	231.1
North Carolina . 2	1,001.7	985.7	972.2	3•5	3•5	3•4	72,2	71.0	55 <b>.1</b>
North Dakota	(5/)	( <u>5</u> /)	115.4	(5/)	(5/)	•8	(5/)	( <u>5</u> /)	8•2
Ohio									
Oklahoma	518.7	510.7	495•4	43.2	42.8	44.∙5	31.8	31.6	31.9
Oregon	447.8	453.8	447.5	1.2	1.3	1.2	24.5	25.6	27.3
Pennsylvania	3,771.3	3,728.8	3,737.1	173.4	173.6	185.8	159.7	174.9	150.0
Rhode Island	295.5	292.0	310.7	(4/)	(Ā∕)	( <u>¼</u> /)	16.6	16.7	16.7
South Carolina	511.6	500.1	479.1	1.2	1.2	1.2	46.8	43.9	25.2
South Dakota	124.5	124.9	125.9	2.0	2.0	2.6	6.4	8.1	7•5
Mawa a sa a a	750.0	71.0 7	764 1.	104	12.5	13.0	ZO J	41.5	42.3
Tennessee	759.8	748.3	756.4	12.4	114.4	104.8	39•4 166•6	170.0	156.0
Texas	2,164,0 213,0	2,128.7 211.0	2,041.7 202.0	114.9 13.9	13.7	13.5	10.3	12.0	13.6
Utah	100.2	98.8	99•7	1.2	1.2	1,1	1	3.6	4.5
Vermont	886.2						3.4	65 <b>.</b> 9	51.0
Virginia .1.		874.0	827 <b>.</b> 3	23.7	23.6	23.4	63.5		7 .
Washington	723.9	726.8	707•5	3.0	2.9	3.0	43.3	46.3	43.4
West Virginia	533.6	531.4	539•3	122.1	122.1	128.8	15.7	18.3	17.9
Wisconsin	1,070.4	1,057.8	1,060.9	3.6	3.7	<b>3•5</b>	50.4	52.2	47.2
Wyoming	80.3	81.0	80.8	9.7	9.6	9.8	5.0	5 <b>.2</b>	5.6
				1			1		

<sup>1/</sup> See footnote 5/, Table 7, for explanatory note on government.
2/ Revised series; not strictly comparable with previously published data.
3/ Mining combined with construction.

# State Data

Table 8: Employees in Nonagricultural Establishments by Industry Division. by State - Continued

	Ма	ınufacturi	ng	Trans.	and Publ:	ic Util.		Trade	
State	19	951	1950	1	951	1950	19	951	1950
	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.
Alabama	223.6	با•209	222.0	52.8	54.3	51.7	132.6	126.8	129.0
Arizona	19.6	22.0	16.7	20.3	20.1	20.0	47.7	45.2	45.5
Arkansas	76.1	77.3	79•2	32.0	31.9	32.3	79.0	75.6	77.6
	887.8	897.7	810.7	321.9	321.0	311.6	852.8	811.5	848.2
California	65.8	67.9	63.3	44.3	44.7	42.8	102.9	98.9	97.5
Colorado	429.4	424.9	410.3	42.6	42.2	41.7	146.2	137.5	141.8
Connecticut	50.5	50.6	48.3	42.0	42.2	41.01	140.2	191.09	141.0
elaware				21.0	<b>7</b> 0 0	20. 7	m n	96.5	98.1
istrict of Columbia	17.8	17.6 106.2	17.4	31.0	30.9	29•3 68•9	99.0	214.2	228.7
lorida	109.9	-	107.0	72.7	71.0		227.6		
Georgia	304.2	307.1	295.0	71.2	71.3	69.9	194.7	188.4	192.3
daho	20.9	23.3	22.3	17.2	17.1	17.0	37.4	36.4	35•9
llinois	1,216.1	1,213.0	1,210.7	298.1	299.8	299.1	726.0	703•7	719.3
Indiana	587.6	582.3	596.7	109.6	110.9	114.6	258.3	247.1	256.3
owa	171.4	170.9	154.1	62.2	62.9	61.9	177.8	172.2	174.1
ansas	127.5	127.0	101.6	64.1	64.7	62.6	129.7	125.6	124.5
entucky	153.9	147.8	154.4	60.6	60.2	58.8	131.9	121.9	123.5
ouisiana	1/4.1	145.3	140.8	80.6	80.2	79.5	155.5	148.3	159.0
aine	113.2	114.1	108.5	18.1	18.2	18.5	52.2	49.2	52.9
aryland	255.5	255.4	237.1	74.9	75.2	71.4	158.2	153.1	158.4
lassachusetts	728.3	726.7	742.5	126.3	126.5	127.0	393.7	372.9	390.4
add de constant and a second an		42001	14-07			, •-	)///	21-42	27
Michigan	( <u>5</u> /)	1,065.7	1,140.8						
linnesota	208.6	209.2	203.3	91.4	95.1	88.4	221.2	213.4	222.7
lississippi	93•5	93•9	93•6	26.8	26.9	27.1			
lissouri	378.1	374.6	364.9	130.7	129.3	126.6	323•7	315.6	325.1
Iontana	با 17-4	18.4	18.4	22.6	23.0	22.5	37 • 2	<b>36.</b> 6	37.0
iebraska	59•3	58.5	52•7	42.7	43•3	42.0	97•3	94•7	95•6
Vevada	3.7	3.6	3.4	8.9	9•0	8.6	12.7	12.3	11.6
Wew Hampshire	82.1	81.6	82.3	10.3	10.3	10.6	29.3	28.3	29.8
lew Jersey	761.6	761.7	767•9	142.3	141.0	با 137 ما	290.2	277•5	289.1
New Mexico	14.1	14•5	12.8	17.4	17.5	16.9	39.6	37•9	37.1
lew York	1,966,9	1.962.4	1,906.8	512.9	511.4	513.7	1,335,4	1,279.2	1,328.5
orth Carolina	430.9	431.2	439.3	60.6		57.2	200.7	190.3	191.0
orth Dakota	(5/)	( <u>5</u> 7)	6.5	(5/)	59•9 ( <u>5</u> /)	14.0	(5/)	$(\hat{5}/)$	38 <b>.1</b>
Ohio	1,280.5	1,273.8	1,270.7	(2)	(2//	22,60	(2)	122	<i>J</i> 0 <b>42</b>
oklahoma	77.5	77.7	68.1	50.3	50.6	49.7	باء 132	127.4	130.3
regon	135.1	با. 5بلا	136.4	47.5	47.6	47.9	108.6	105.3	107.4
ennsylvania	1,479.5	1,474.5	1,495.1	355.0	356.5	346.0	730.9	698.1	729.8
hode Island	146.5	140.7	155.1	15.1	15.2	15.4	55.6	52.6	56.9
South Carolina	217.8	216.9	217.8	27.3	27.5	26.9	97.5	91.7	93•5
South Dakota	11.5	11.8	11.4	10.7	10.9	10.8	36.7	36.4	38.9
Sa on Baroou		•			-		, .		•
Pennessee	251.5	250.7	256.1	60.6	60.7	59.6	181.1	169.8	176.1
Texas	414.0	411.6	376.4	230.1	228.8	224.0	590.1	567.5	565.3
tah	31.0	32.6	<b>30.</b> 5	22.5	22.5	21.6	51.4	47.8	47.8
ermont	<b>38.</b> 5	384	37∙3	8.6	8.7	8.8	18.2	17.5	18.6
irginia	5748 • S	249.3	237•5	84.48	85.6	80.1	197.8	187.3	189.1
ashington	184.1	189.6	178.1	66.3	67.7	65.6	171.4	166.9	173.3
est Virginia	137.2	139.0	138.6	54.0	54.3	5 <b>2.</b> 8	94.2	89.4	93•9
isconsin	453.4	453.1	450.5	75.6	75.4	77.1	230.3	222.3	231.3
yoming	6.1	6.6	6.3	15.6	15.6	15.5	16.9	17.4	17.1

Mining combined with service. Not available.

Table 8: Employees in Nonagricultural Establishments by Industry Division, by State - Continued

		Finance		8	Ser <b>vice</b>		Go	vernmen	t
State	19	51	1950	19	51	1950	195	1	1950
	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.	Dec.	Nov.	Dec.
Alabama	17.9	17.8	17.4	54.0	54.1	50 <b>•</b> 7	119.1	115.5	105.6
Arizona	6.4	6.2	5•7	28.7	27.7	23.2	38.9	36.8	36.0
Arkansas	7.9	7.8	7.9	35.9	35.9	33.6	56.3	53.3	55.2
California	154.4	153.6	148.ó	454.5	452.0	438.2	625.9	600.7	572.3
Colorado	14.9	14.8	13.9	47.4	47.1	43.8	77.9	74.0	68.9
Connecticut	38.0	38.1	37.3	79.6	79.9	77.4	71.6	67.4	69.7
Delaware	, , ,	J	21.42	1	1,747	7704	11.6	11.0	11.3
District of Columbia	23.8	23.5	22.5	57.6	57 <b>•</b> 9	57.1	278.5	273.5	256.2
Florida	31.8	31.6	30 <b>.</b> 8	108.6	103.5	105.9	128./4	123.2	123.2
Georgia	28.0	27.7	26.3	80.7	80.1	74.5	142.6	137.5	129.1
Idaho	3.7	3.7	3.7	14.3	14.2	14.2	27.1	26.4	25.9
Illinois	145.8	146.1	142.3	343.3	344.3	328.9	360.4	332.8	340.1
Indiana	36.0	35.9	34.2	89.3	90.1	89.6	148.7	143.9	141.3
Iowa	24.6	24.5	23.8	63.7	64.5	65.5	106.3	100.8	104.3
Kansas	17.0	17.1	16.3	47.9	47.9	47.0	85.8	82.9	82.1
Kentucky	15.7	15.7	15.0	60.2	60.7	56.8	91./4	87.9	88.6
Louisiana	21.5	21.4	19.3	65.9	67.8	67.9	99.9	96.0	95•7
Maine	6.8	6.6	6.8	23.4	23.9	8.55	47.7	45.3	41.2
Maryland	31.5	31.4	29.8	75.0	<b>7</b> 7.9	73.6	105.4	104.8	101.9
Massachusetts	83.8	83.3	79.5	191.7	193.1	189.7	243.5	228.7	224.1
Michigan							246.14	234.9	236.1
Minnesota	37 •4	37 <b>•</b> 5	36 <b>.</b> 2	97•3	97•7	96.5	129.1	120.9	125.6
Mississippi	7.6	7.6	7.8				70.8	67.8	68.4
Missouri	54.4	54.5	52.6	1740.5	141.2	136.0	159.7	147.6	153.5
Montana	4.2	4.2	3.9	18.8	18.8	18.7	29.4	28.4	28.4
Nebraska	16.2	16.2	15.9	38.2	38.4	38.2	67.1	63.0	64.1
Newada	1.2	1.2	1.2	12.6	12.9	12.0	12.1	11.9	11.6
New Hampshire	4.6	4.6	4.5	16.3	16.6	16.3	21.3	20.2	20.6
New Jersey	59.1	59.2	58.0	164.3	165.6	162.8	196.3	185.9	186.5
New Mexico	404	4.4	4.9	21.9	21.9	21.8	38.1	36.9	35.5
New York	403.9	401.0	395•9	777.0	782•5	761.3	749.4	695•3	705.4
North Carolina	23.0	23.1	21.7	86.3	<b>86.</b> 3	83.2	124.5	119.9	121.3
North Dakota	(5/)	( <u>5</u> /)	4•2	(5/)	(5/)	13.6	31.2	29.8	30.1
Ohio		1		_, _		4	337.9	319.0	317.6
Oklahoma	18.4	18.4	18.2	54.3	55.0	51.8	110.8	107.2	100.9
Oregon	15.0	15.2	15.0	46.7	47.2	45.6	69.2	66.2	66.7
Pennsylvania	120.3	120.6	116.6	351.0	351.9	348.7	401.5	378.7	365.0
Rhode Island	10.6	10.5	10.5	22.2	23.0	23•4	34.9	33.3	32.7
South Carolina	10.3	10.3	9•5	36.8	37.0	36.5	73.9	71.6	68.5
South Dakota	4.2	4.2	3•9	16.3	16.1	14.9	36.9	35.6	36.1
Tennessee	23.8	23.9	23.1	75.6	75•9	75•5	115.4	113.3	110.7
Texas	83.0	82.7	77.5	236.8	237.6	232.8	328.5	316.1	304.9
Utah	6.6	6.5	6.3	19.7	19.9	18.9	57.8	56.2	49.8
Vermont	2.8	2.9	2.8	11.3	11.2	10.9	16.2	15.3	15.7
Virginia	28.5	28.4	25.8	75.7	76.9	74.1	164.0	157.0	146.3
Washington	26.6	26.5	26.9	79.4	81.0	76.5	149.8	145.9	140.7
West Virginia	9.4	9.4	9.7	40.9	41.4	39 •4	60.1	57.5	58.2
Wisconsin	33.7	33.6	32.2	92•5	93.1	92.0	131.0	124.4	127.1
Wyoming	1.7	1.7	2.0	8.4	8.6	8.4	16.9	16.3	16.1

See Explanatory Notes and Glossary for definitions.

# Area Data

Table 9: Employees in Nonagricultural Establishments by Industry Division.

Selected Areas

Number of Employees			Number	of Emp	loyees		
Area	19	51	1950	Area	19	<del></del>	1950
	Dec.	Nov.	Dec.		Dec.		Dec.
ALABAMA	}			San Diego	1.0	h.c. =	27.0
Birmingham	1	7/1		Manufacturing	42.6	42.5	31.0
Mining	16.5	16.4	18.1	G., B.,			
Manufacturing	61.2	46.0	57.7	San Francisco-Oakland Manufacturing	173.8	176.7	171.3
ARIZONA				Manufacturi ing	110.0	±10•1	±1 ±. • J
Phoenix				San Jose			
Total	87.2	86.2	81.6	Manufacturing	21.8	23.5	18.7
Mining	.2	.2	•5				
Contract Construction	7.8	7.6	8.3	COLORADO			
Manufacturing	11.2	13.5	9.2	Denver			
Trans.and Pub.Util	9.4	9.3	9.3	Mining	1.0	1.0	1.0
Trade	25.7	24.2	24.8	Contract Construction	16.7	19.4	18.0
Finance	4.4	4.2	3.7	Manufacturing	43.5	43.3	40.5
Service	12.2	11.6	11.1	Trans.and Pub.Util	26.4	26.5	24.9
Government	16.3	15.6	15.0	Trade	62.7	59.8	58.5
_				Finance	10.3	10.3	9.6
Tucson							
Total	41.3	39.6	35.5	CONNECTICUT			
Mining	1.6	1.6	1.4	Bridgeport	770 =	336.6	130 5
Contract Construction	3.0	2.9	2.9	Total	119.5	116.9	112.5
Manufacturing	2.8	2.7	2.0	Contract Construction 1/	5.5	5.7	5.2
Trans.and Pub.Util	5.1	4.9	5.0	Manufacturing	68.2	67.7	63.5
Trade	9.3	8.9	8.8	Trans.and Pub.Util	5.1	5.1	4,9
Finance	1.2	1.2	1.1	Trade	20.3 2.2	18.8	19.3 2.2
Service	11.2	10.9	7•7 6.6	Finance	10.0	2.2 9.9	9.3
Government	7.1	6,5	0.0	Service	8.2	7.6	8.0
ARKANSAS						, ,	
Little Rock-				Hartford	_		_
N. Little Rock				Total	199.6	195.0	187.7
Total	68.2	66.8	65.6	Contract Construction 1/	9.2	9.4	9.8
Contract Construction	7.1	6.7	5.8	Manufacturing	81.6	80.3	71.2
Manufacturing	12.4	12.4	11.8	Trans.and Pub.Util	7.4	7.4	7.2
Trans.and Pub.Util	6.9	6.9	6.8	Trade	40.1	38.1	39.4
Trade	18.5	17.6	18.5	Finance	23.8	23.8	23.3
Finance	3.6	3.6	3.5	Service	19.7	19.7	19.3
Service 1/	8.8	8.8	8.8	Government	17.8	16.4	17.6
Government	11.1	10.9	10.5	Way Britain			
CATTEODNIA	[			New Britain Total	42.1	40.9	41.5
CALIFORNIA	İ			Contract Construction 1/	1.0	1.0	•9
Los Angeles	1663.2	1630.9	1580.5	Manufacturing	28.6	28.3	28.3
Total	15.4	15.3	15.0	Trans.and Pub.Util.	1.4	1.4	1.3
Mining	104.8	108.3	118.1		5.4	4.9	5.3
Manufacturing	518.0	512.3	458.7	TradeFinance	•5	•5	•5
Trans.and Pub.Util.	119.0	117.4	112.7	Service	2.5	2.5	2.4
Trans.and Puo.Util.	393.6	372.4	394.1	Government	2.7	2.4	2.7
Finance	74.3	74.3	73.4	GOACI TIMETIO	<b>←</b> • 1		<b>← • 1</b>
Service	232.0	231.2	219.2	New Haven			
Government	206.1	199.7	189.3	Total	117.9	115.9	114.9
GO. GI IIIIGII 0 * * * * * * * * * * * *	200.1	-//• (	±070J	Contract Construction 1/	5.8	5.9	5.8
Sacramento	1			Manufacturing.	45.5	45.3	43.8
Manufacturing.	8.9	8.8	8.0	Trans.and Pub.Util.	12.8	13.0	13.5
Manaracom mig	0.9	0.0	٠.٠	120000000000000000000000000000000000000			-3•2

Table 9: Employees in Nonagricultural Establishments by Industry Division.

Selected Areas - Continued

Amas	Number	of Empl	Loyees	1	Numbe	r of Emp	loyees
Area	19	51	1950	Area	19	51	1950
	Dec.	Nov.	Dec.		Dec.	Nov.	Dec.
CONNECTICUT-Continued				Tampa-St. Petersburg 2/			
New Haven-Continued				Total	115.7	110.7	113.7
Trade	22.2	21.6	21.7	Contract Construction	11.7	11.8	11.9
Finance	5.0	5.0	4.9	Manufacturing	22.0	21.0	22.3
Service	17.8	17.9	17.4	Trans.and Pub.Util	10.7	10.6	10.0
Government	8.8	7.3	7.9	Trade	38.2	35.2	37.7
	-	, , ,	,	Finance	4.4	4.4	4.4
Stamford				Service 1/	15.1	14.6	14.6
Total	48.1	47.4	46.2	Government	13.8	13.2	12.9
Contract Construction 1/	3.6	3.6	3.2				
Manufacturing	21.8	21.8	21.2				
Trans.and Pub.Util	2.6	2.6	2.5	GEORGIA			
Trade	9.1	8.6	8.5	Atlanta			
Finance	1.4	1.4	1.3	Total	279.1	277.3	268.3
Service	6.1	6.1	5.8	Contract Construction	16.6	17.4	17.2
Government	3•5	3.5	<b>3.7</b>	Manufacturing	71.2	71.4	62.2
				Trans.and Pub.Util	31.3	31.3	29.9
Waterbury				Trade	78.6	76.9	77.6
Total	69.5	68.8	67.5	Finance	17.3	17.2	16.3
Contract Construction 1/	2.3	2.4	2.3	Service 1/	32.1	31.9	32.9
Manufacturing	44.8	44.9	43.9	Government	32.0	31.2	32.2
Trans.and Pub.Util	2.8	2.7	2.6		ļ		
Trade	9.4	9.0	9.1	Savannah	•		
Finance	1.1	1.1	1.1	Total	48.4	47.2	46.3
Service	4.3	4.3	4.0	Contract Construction	3.6	3.4	2.6
Government	4.8	4.5	4.5	Manufacturing	14.6	14.4	13.7
				Trans.and Pub.Util	7.2	7.4	7.4
DISTRICT OF COLUMBIA				Trade	11.5	10.6	11.3
Washington				Finance	1.5	1.5	1.3
Total	621.6	615.3	595•4	Service <u>1</u> /	5.2	5.2	5 <b>.0</b>
Contract Construction	38.3	40.1	42.2	Government	4.8	4.7	5.0
Manufacturing	26.4	26.0	23.9				
Trans.and Pub.Util	41.6	41.6	39•7				
Trade	124.2	121.2	122.9	ILLINOIS	1		
Finance	3 <b>0.8</b>	30.5	29.2	Davenport-Rock Island-			
Service <u>1</u> /	72.1	72.7	71.6	Moline	l		
Government	288.2	283.2	265.9	Manufacturing	43.2	43.0	38.7
FLORIDA				Peoria			
Jacksonville 2/				Manufacturing	49.9	48.8	47.2
Manufacturing	17.4	19.0	15.4				
Trans.and Pub.Util	<b>15.</b> 5	14.4	<b>15.2</b>	Rockford			
Trade	32.3	31.2	32.0	Manufacturing	38.8	38.8	39.5
Finance	5.8	5.8	5•9				
Service <u>1</u> /	11.7	11.7	11.5	INDIANA			
Government	14.6	14.6	13.3	Evansville		_	
, 1				Total	61.1	58.0	62.4
Miami 2/				Manufacturing	29.9	27.0	30.0
Manufacturing	16.6	15.8	15.9	Nonmanufacturing	31.2	31.1	32.4
Trans.and Pub.Util	24.0	23.2	21.6				
Trade	55.1	50.3	54.9	Fort Wayne	_	_	
Finance	8.6	8.6	8.6	Total	81.2	80.7	79.9
Service <u>1</u> /	34.8	3 <b>0.</b> 8	32.1	Manufacturing	42.9	43.0	42.0
Government	17.3	16.7	17.4	Nonmanufacturing	38.3	37.6	38.0

# Area Data

Table 9: Employees in Nonagricultural Establishments by Industry Division,
Selected Areas - Continued

Area	Number of Employees				Number of Employees			
	1951		1950	Area	1951		1950	
	Dec.	Nov.	Dec.		Dec.	Nov.	Dec.	
INDIANA-Continued Indianapolis Total	276.6	274.8	268.2	MARYLAND Baltimore Total	538 <b>.9</b>	536.8	512.5	
Contract Construction Manufacturing	11.0 112.6	11.7 113.7	12.2 108.7	Mining Contract Construction	.4 38.4	.6 39.6	34.4	
Trans.and Pub.Util	26.1 65.6	26.0 62.7	25.0 63.9	Manufacturing Trans.and Pub.Util	196.1 56.0	195.7 56.3	180.4 53.4	
FinanceOther Nonmanufacturing.	14.1 47.2	14.0 46.6	13.3 45.1	TradeFinanceService	111.9 24.5 54.8	108.1 24.4 55.5	23.1 53.5	
IOWA				Government	56.8	56.6	56.0	
Des Moines Manufacturing	20.7	21.0	17.9	MASSACHUSETTS Boston Manufacturing	304.8	305.5	295.3	
KANSAS Topeka Total Mining	43.6 .2	43.2 .2	40.5 .2	Fall River Manufacturing	29.2	29.6	31.3	
Contract Construction  Manufacturing  Trans.and Pub.Util	2.6 5.2 8.2	2.8 5.1 8.2	2.1 6.4 7.2	New Bedford Manufacturing	33.0	33.8	35.6	
Trade Finance Service	10.0 2.0 4.6	9.5 2.0 4.6	9.1 1.9 4.4	Springfield-Holyoke Manufacturing	76.7	77•2	78.5	
Government	11.1	10.9	9.4	Worcester Manufacturing	54.9	55.0	54.8	
Wichita Total Mining. Contract Construction. Manufacturing. Trans.and Pub.Util. Trade. Finance. Service. Government.	113.6 1.8 5.7 52.6 7.2 25.1 3.8 10.0 7.6	112.4 1.9 6.1 52.1 7.2 24.0 3.8 9.9 7.6	90.9 1.7 5.3 33.5 6.8 23.4 3.7 9.6 7.1	MINNESOTA  Duluth Total Contract Construction Manufacturing Trans.and Pub.Util. Trade Finance Service 1/ Government	41.0 1.9 10.5 6.3 11.0 1.4 5.4 4.5	42.5 2.1 10.7 8.0 10.7 1.4 5.5 4.2	41.5 2.2 11.4 6.2 11.0 1.4 5.1	
LOUISIANA New Orleans Manufacturing	( <u>3</u> /)	51.4	49.3	Minneapolis Total Contract Construction Manufacturing Trans.and Pub.Util	266.5 15.2 72.3 26.2	261.4 15.7 72.6 26.0	266.8 15.4 71.2 26.4	
MAINE Portland Total Contract Construction Manufacturing	48.4 3.0 12.5	47.6 3.1 12.7	46.3 2.1 11.8	Trade  Finance  Service 1/  Government	80.4 17.2 28.8 26.5	77.2 17.3 29.0 23.6	82.1 16.5 28.9 26.4	
Trans.and Pub.Util. Trade Finance Service 1/ Government	5.3 13.8 2.5 7.8 3.5	5.3 12.7 2.5 7.9 3.4	5.5 13.7 2.4 7.4 3.4	St. Paul Total Contract Construction Manufacturing Trans.and Pub.Util	149.0 6.7 41.0 20.7	145.0 7.4 41.2 20.6	147.4 7.5 41.9 20.7	

Table 9: Employees in Nonagricultural Establishments by Industry Division.

Selected Areas - Continued

Area	Number of Employees				Number of Employees			
	1951		1950	Area	1951		1950	
	Dec.	Nov.	Dec.		Dec.	Nov.	Dec.	
MINNESOTA-Continued				NEW HAMPSHIRE				
· ·				Manchester				
St. Paul-Continued	38.0	36.0	38.2		40.5	39.9	40.9	
Trade	f	8.6		Total Contract Construction		1.6	1.6	
Finance	8.6		8.3		1.5 20.4		21.0	
Service 1/	15.2	15.0	14.4	Manufacturing		20.2		
Government	18.7	16.3	18.0	Trans.and Pub.Util	2.4	2.3	2.3	
				Trade	7.5	7.3	7.6	
MEGGEGGERA				Finance	1.7	1.7	1.6 4.2	
MISSISSIPPI				Service	4.3	4.2		
Jackson	1 = 13	10/1	0 1	Government	2.7	2.6	2.7	
Manufacturing	(3/)	( <u>3</u> /)	8.4					
				NEW JERSEY				
				Newark-Jersey City 5/		٥١ -	- () -	
MISSOURI				Manufacturing	362.8	364.2	364.2	
Kansas City								
Total	(3/)	( <u>3</u> /)	330.8	Paterson 5/	_	٠,		
Mining	(3/)	<b>(</b> 3/)	.9	Manufacturing	165.5	164.1	161.4	
Contract Construction	<u>(3/)</u>	(3/)	16.2	,				
Manufacturing	(3/)	<b>(</b> 3/)	95 <b>.1</b>	Perth Amboy 5/				
Trans.and Pub.Util	(3/)	<b>(</b> 3/)	41.5	Manufacturing	75.4	<b>7</b> 5•5	77.6	
Trade	(3/)	(3/)	97.2					
Finence	(3/)	<b>(</b> 3/)	19.2	Trenton				
Service	<b>(</b> 3/)	<b>(</b> 3/)	39.9	Manufacturing	42.7	42.6	45.8	
Government	(1) (1) (1) (1) (1) (1) (1) (1) (1)	() () () () () () () () () () () () () (	20.9					
	_							
St. Louis	(			NEW MEXICO				
Manufacturing	271.6	269.5	273.0	Albuquerque	_			
				Contract Construction	5.1	5.2	6 <b>.0</b>	
MONTANA				Manufacturing	7.3	7.2	5.7	
Great Falls		_		Trans.and Pub.Util	4.9	4.9	4.7	
Manufacturing	2.8	2.8	2.9	Trade	12.3	12.0	12.1	
Trans.and Pub.Util	2.4	2.5	2.4	Finance	2.5	2.5	2.5	
Trade	6.0	5 <b>.</b> 7	6.1	Service 1/	6.3	6.2	6.3	
Service 4/	3.1	3.1	3.1	_				
				NEW YORK				
NEBRASKA				Albany-Schenectady-Troy	_	_	_	
Omaha.				Manufacturing	89.3	89.2	82.1	
Total	( <u>3</u> /) ( <u>3</u> /)	142.6	143.0					
Contract Construction	<u>(3/)</u>	7.3	6.8	Binghamton				
Manufacturing	(3/,)	31.7	32.6	Manufacturing	40.1	40.2	37•5	
Trans.and Pub.Util	<u>(3/)</u>	24.1	21.9					
Trade	<u>(3/.)</u>	37.9	39.2	Buffalo	_			
Finance	( <u>3</u> /)	10.6	10.1	Mamufacturing	198.9	197.1	197.1	
Service <u>1</u> /	<u>(3/)</u>	17.2	16.8					
Government	(3/) (3/) (3/) (3/) (3/)	14.0	<b>1</b> 5.7	Elmira				
	•			Manufacturing	16.8	17.3	16.8	
NEVADA				Wo name and				
Reno				Nassau and				
Contract Construction	1.6	1.7	1.7	Suffolk Counties 5/		/		
Manufacturing 1/	1.5	1.6	1.5	Manufacturing	74.2	72.6	52.8	
Trans.and Pub. Util	3.0	3 <b>.1</b>	2.9					
Trade	5.6	5.5	5.3	New York-Northeastern				
	_	.6	.6	New Jersey	f			
Finance	.6 4.8	5.0	4.5	Manufacturing		1771.4		



Table 9: Employees in Nonagricultural Establishments by Industry Division,
Selected Areas - Continued

Area	Number of Employees				Number of Employees			
	1951		1950	Area	1951		1950	
	Dec.	Nov.	Dec.		Dec.	Nov.	Dec.	
NEW YORK-Continued New York City 2/5/ Contract Construction. Manufacturing Trade.	106.9 1038.5 884.7	113.9 1039.6 851.3	122.7 1013.0 885.2	OREGON Portland Contract Construction. Manufacturing Trans.and Pub.Util Trade	13.7 60.1 30.8 63.9	14.3 61.5 30.9 61.9	14.8 58.8 31.7 62.6	
Rochester Manufacturing	105.3	105.9	107.0	PENNSYLVANIA Allentown-Bethlehem- Easton				
Syracuse Manufacturing	60.2	59.8	59.2	Manufacturing	102.2	102.8	101.6	
Utica-Rome Manufacturing	<b>44.</b> 9	<b>##</b> •8	<b>46.</b> 6	Eric Manufacturing	46.8	47.4	50.0	
Westchester County 5/ Manufacturing	45.3	<b>44.</b> 8	<b>48.</b> 2	Harrisburg Manufacturing	34.9	34.9	33.8	
NORTH CAROLINA Charlotte				Lancaster Manufacturing	41.8	42.6	43.2	
Contract Construction.  Manufacturing  Trans.and Pub.Util.  Trade  Finance	12.9 22.3 11.1 26.2 4.6	12.3 22.2 10.9 23.8 4.6	9.1 22.8 10.1 23.7 4.3	Philadelphia Manufacturing	580.6	568.8	586.7	
OKLAHOMA Oklahoma City Total	135.5 5.4	134.4 5.4	126.2 6.1	Pittsburgh Mining Manufacturing Trans.and Pub.Util Finance	32.2 371.3 74.9 27.5	32.0 372.7 75.3 27.4	34.0 361.4 75.2 26.3	
Contract Construction  Manufacturing  Trans.and Pub.Util  Trade	10.4 15.8 11.4 37.4	10.0 15.9 11.7 36.4	11.3 14.5 10.9 37.0	Reading Manufacturing	53•2	52.9	55•9	
Finance Service Government	6.9 14.8 33.5	6.9 14.8 33.5	7.2 14.1 25.3	Scranton Manufacturing	28.6	29.0	30.3	
Tulsa Total	102.3	100.4	95.0	Wilkes Barre-Hazleton Manufacturing	38.4	38.1	38.3	
Mining Contract Construction Manufacturing	9.3 6.9 23.6	9.4 7.1 23.5	9.7 7.1 19.0	York Manufacturing	<b>##</b> *0	43.5	46.9	
Trans.and Pub.Util Trade	12.2 27.8 4.5 12.1	12.2 25.8 4.5 12.2	11.3 26.3 4.5 11.4	RHODE ISLAND Providence Total	293.3	289.0	303.9	
Government	5 <b>.9</b>	5.7	5.7	Contract Construction	14.7	14.8	14.7	

Table 9: Employees in Nonagricultural Establishments by Industry Division.

## Selected Areas - Continued

	Number of Employees				Number of Employees		
Area	195	1	1950	Area	195	1	1950
	Dec.	Nov.	Dec.		Dec	Hov.	Dec.
RHODE ISLAND-Continued Providence-Continued Manufacturing Trans.and Pub.Util Trade	149.7 13.6 53.5 10.5	149.1 13.6 50.5 10.5	161.3 14.0 53.9 10.4	Memphis-Continued Trade Finance Service Government	54.7 7.8 22.6 21.0	51.0 7.8 22.6 20.6	51.7 7.1 22.6 17.0
Service 1/	20.6 30.7	21.3 29.2 9.0	21.4 28.2	Mashville  Manufacturing  Trans.and Pub.Util.  Trade  Finance  Service  Government	33.8 11.8 25.4 6.2 13.9	34.2 11.7 24.4 6.3 14.0	34.4 11.2 26.0 5.9 14.2 13.0
Trans.and Pub.Util	3.9	4.0	4.2	UTAH Salt Lake City	13.9	1,.1	
Manufacturing  Greenville  Manufacturing.	7.6 28.1	7.7 27.8	7.7 28.3	Mining Contract Construction Manufacturing Trans.and Pub.Util. 6/	6.2 5.5 15.1 7.7 32.1	6.1 6.8 15.3 7.7 29.4	6.0 8.3 14.8 6.8 29.7
SOUTH DAKOTA Sioux Falls Manufacturing	5.1	5.2	4.9	Finance  VERMONT  Burlington  Manufacturing.	5.0	4.9 5.3	4.7 5.5
TENNESSEE Chattanooga Mining. Manufacturing. Trans.and Pub.Util. Trade. Finance. Service. Government.	.2 41.1 4.9 19.0 2.9 9.5 7.9	.2 41.1 4.9 17.7 2.9 9.6 7.8	.2 42.8 4.8 18.9 2.8 9.3 7.8	WASHINGTON Seattle Total Contract Construction Manufacturing Trans.and Pub.Util. Trade Finance Service 1/ Government	271.4 12.4 70.9 27.4 72.2 14.7 33.4 40.4	268.1 13.0 71.5 27.8 69.3 14.7 33.6 38.2	259.6 13.6 63.5 26.7 70.8 14.6 32.5 37.9
Knoxville Mining. Manufacturing. Trans.and Pub.Util. Trade. Finance. Service. Government.	2.6 41.1 7.2 23.5 3.5 9.5 13.0	2.6 41.5 7.0 21.8 3.6 9.5 12.9	2.7 39.9 7.4 24.7 3.7 9.1 12.5	Spokane Total Contract Construction Manufacturing Trans.and Pub.Util. Trade Finance Service 1/ Government	66.9 2.7 13.1 10.8 20.0 2.8 9.3 8.2	66.6 3.8 13.5 11.0 18.5 2.8 9.4 7.6	67.5 4.5 13.1 10.6 19.4 3.0 9.4 7.6
Mining Manufacturing Trans.and Pub.Util	.3 41.5 15.4	.4 41.8 15.4	.3 40.2 15.6	Tacoma Total Contract Construction	70.7 3.6	70.7 3.7	71.9 3.9



Table 9: Employees in Nonagricultural Establishments by Industry Division.

Selected Areas - Continued

Area	Number of Employees				Number of Employees			
	1951 •		1950	Area	1951		1950	
	Dec.	Nov.	Dec.		Dec.	Nov.	Dec.	
WASHINGTON-Continued Tacoma-Continued Manufacturing Trans.and Pub.Util Trade Finance Service 1/ Government	16.7 6.5 15.9 2.4 7.1 18.5	17.1 6.6 15.2 2.4 7.5 18.2	18.5 6.7 16.0 2.4 6.8 17.6	Charleston-Continued  Manufacturing Trans.and Pub.Util Trade Finance Service Government.	(3/) (3/) (3/) (3/) (3/)	28.1 9.2 17.2 2.8 6.9 8.9	26.9 9.0 17.2 2.7 7.1 8.6	
/EST VIRGINIA Charleston Total Mining Contract Construction	(3/) (3/) (3/)	97.8 21.1 3.8	99.2 22.8 5.1	WISCONSIN  Milwaukee  Manufacturing  Racine  Manufacturing	<b>196.</b> 8 24 <b>.</b> 5	195.8	193.8 2 <b>4.</b> 2	

See Explanatory Notes and Glossary for definitions.

- 1/ Includes mining.
- 2/ Revised series; not strictly comparable with previously published data.
- 3/ Not available.
- 4/ Includes mining and finance.
- 5/ Subarea of New York-Northeastern New Jersey.
- 6/ Excludes interstate railroads.

# **Explanatory Notes**

Section A. Purpose and Scope of the BLS Employment Statistics Program -

Employment statistics for nonfarm industries presented in this monthly Report are part of the broad program of the Bureau of Labor Statistics to provide timely, comprehensive, accurate and detailed information for the use of businessmen, government officials, legislators, labor unions, research workers and the general public. Current employment statistics furnish a basic indicator of changes in economic activity in various sectors of the economy and are widely used in following business developments and in making decisions in fields of marketing, personnel, plant location and government policy. The BLS employment statistics program, providing data used in making official indexes of production, productivity and national income, forms an important part of the Federal statistical system.

The BLS publishes monthly the national total of employees in nonagricultural establishments, giving totals by 8 major industrial groups: manufacturing, mining, contract construction, transportation and public utilities, trade, finance, service, and government. Series on "all employees" and "production and related workers" are presented for the durable goods and nondurable goods subdivisions of manufacturing, 21 major industry groups in manufacturing, over 100 separate manufacturing industries; all employees and production workers are presented also for selected mining industries. "All employees" only are published for over 40 industry groups in contract construction, transportation and public utilities, trade, finance, service, and government. Statistics on the number and proportion of women employees in manufacturing industries are published quarterly. In addition, the Bureau of Labor Statistics publishes monthly employment data by industry division for State and local areas, compiled by cooperating State agencies.

Current national, state, and area statistics are published monthly in the Employment and Payrolls Report. Employment data for thirteen months are presented in the Current Statistics Section of each issue of the Monthly Labor Review. Historical data are also presented in the BIS Handbook of Labor Statistics (1950 edition). Summary tables showing national data for prior months and years may be obtained by writing to the BIS Division of Manpower and Employment Statistics. Similar information is available for States and areas. A detailed explanation of the technique of preparing employment statistics is presented in the Monthly Labor Review, January 1950 and in BIS Bulletin No. 993, Techniques of Preparing Major BIS Statistical Series.

### Section B. Definition of Employment -

BLS employment statistics represent the number of persons employed in establishments in nonagricultural industries in the continental United States during a specified payroll period. Employment data for nongovernmental establishments refer to persons who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. Current data for Federal government establishments generally refer to persons who worked during, or received pay for, any part of the last pay period of the previous month; for state and local government, persons who received pay for any part of the pay period ending on, or immediately prior to, the last day of the current month.

Employed persons include those who are working full- or parttime, on a temporary or permanent basis. Persons on establishment
payrolls who are on paid sick-leave, paid holiday or paid vacation, or who
work during a part of a specified pay period and are unemployed or on
strike during the other part of the period are considered employed.

Persons on the payroll of more than one establishment during the pay
period are counted each time reported. On the other hand, persons who are
laid off or are on leave without pay, who are on strike for the entire pay
period, or who are hired but do not report to work during the pay period
are not considered employed. Since proprietors, self-employed persons,
and unpaid family workers do not have the status of "employee", they are
not covered by BLS reports. Persons working as farm workers or as domestic workers in households are not within the scope of data for nonagricultural establishments. Government employment statistics refer to civilian
employees only and hence exclude members of the Armed Forces.

#### Section C. Method of Preparing Employment Series -

The BIS prepares monthly employment figures from statistical reports voluntarily furnished by a group of establishments and from industry benchmark data, i.e. a complete count of employees generally compiled from establishment reports required in the administration of the unemployment insurance and old age and survivors insurance programs. Based on establishment reports, employment statistics are prepared for numerous industry classifications. Monthly employment data for each industry are collected and prepared from these sources according to the methods outlined in the following sections.

## Section D. Collection of Establishment Reports -

The BLS, with the cooperation of State agencies, collects current employment information for most industries by means of question-naires (BLS 790 Forms) mailed monthly to individual establishments. State agencies mail most of the forms and when returned, examine them for

## Section D. Collection of Establishment Reports (Continued) -

consistency, accuracy and completeness. States use the information to prepare State and area series and send the schedules to the BLS Division of Manpower and Employment Statistics for use in preparing the national series. Each questionnaire provides space for reporting data for December of the previous year and each month of the calendar year; the same form is returned each month to the reporting establishment to be completed. Definitions of terms are described in detail in the instructions on each form. This type of "shuttle" schedule is designed to assist firms to report consistently, accurately and with a minimum of cost. An establishment is defined as a single physical location, such as a factory, mine, or store where business is conducted. In the case of a company with several plants or establishments, the BLS endeavors to obtain separate reports from each business unit which maintains separate payroll records since each may be classified in a different industry.

### Section E. Coverage of Establishment Reports -

The Bureau of Labor Statistics obtains monthly reports from approximately 150,000 establishments, distributed by industry as shown by the table below. The table also shows the approximate proportion of total employment in each industry division covered by the group of establishments furnishing monthly employment data. The coverage for individual industries within the divisions may vary from the proportions shown.

# APPROXIMATE SIZE AND COVERAGE OF MONTHLY SAMPLE USED IN BLS EMPLOYMENT AND PAY-ROLL STATISTICS

	: Number	: Emplo	: Employees			
Division or industry	: of	:Number in	:Percent			
	:establishment	s: sample	of total			
Mining	3,300	502,000	55			
Contract construction	19,500	776,000	28			
Manufacturing	42,000	10,660,000	66			
Transportation and public utilities:	•					
Interstate railroads (ICC)		1,406,000	96			
Other transportation and public			-			
utilities (BLS)	13,000	1,341,000	49			
Trade	58,500	1,765,000	18			
Finance	9,200	639,000	23			
Service:		. •				
Hotels	1,300	139,000	29			
Laundries and cleaning and	, -	,	-			
dyeing plants	2,200	99,000	<b>1</b> 9			
Government:	·	,	-			
Federal (Civil Service Commission)		2,336,000	100			
State and local (Bureau of Census - quarterly)		2,645,000	65			

#### Section F. Classification of Establishments Reports -

To present meaningful tabulations of employment data, establishments are classified into industries on the basis of the principal product or activity determined from information on annual sales volume for a recent year. In the case of an establishment making more than one product, the entire employment of the plant is included under the industry indicated by the most important product. The titles and descriptions of industries presented in the 1945 Standard Industrial Classification Manual, Vol. I: (U. S. Bureau of the Budget, Washington, D. C.) are used for classifying reports from manufacturing establishments; the 1942 Industrial Classification Code, (U. S. Social Security Board) for reports from nonmanufacturing establishments.

#### Section G. Benchmark Data -

Basic sources of benchmark information are periodic tabulations of employment data, by industry, compiled by State agencies from reports of establishments covered under State unemployment insurance laws. Supplementary tabulations prepared by the U. S. Bureau of Old Age and Survivors Insurance are used for the group of establishments exempt from State unemployment insurance laws because of their small size. For industries not covered by either of the two programs, benchmarks are compiled from special establishment censuses: for example, for interstate railroads, from establishment data reported to the ICC; for State and local government, from data reported to the Bureau of the Census; for the Federal government, from agency data compiled by the Civil Service Commission. Establishments are classified into the same industrial groupings for benchmark purposes as they are for monthly reporting.

Because the industry data from unemployment insurance and OASI tabulations are not sufficiently detailed, the BLS has prepared for selected manufacturing industries special benchmarks based on data from the 1947 Census of Manufactures. Table 4 shows current data on production workers in these selected industries, based on Census benchmarks. Since there are important differences in the methods of preparing the two sets of benchmark data, monthly statistics derived from them are not strictly comparable. Hence, totals for industry groups (e.g. broadwoven fabric mills, iron and steel foundries) derived by adding the figures for the individual component industries shown in Table 4, differ from the industry group totals shown in Table 3, based on benchmarks from social insurance programs.

## Section H. Estimating Method -

The estimating procedure for industries for which data on both all employees and production and related workers are published (i.e.

## Section H. Estimating Method (Continued) -

manufacturing and selected mining industries) is outlined below; substantially the same method is used for industries for which only figures on either all employees or production workers are published.

The first step is to determine total production-worker employment in the industry in the benchmark period since neither of the social insurance programs furnishes benchmark data for production workers. The all employee benchmark figure is multiplied by the ratio of the number of production workers to all employees. The ratio is computed from establishment reports which show data for both items for the benchmark period. Thus, if 75 firms report in the benchmark period 25,000 production workers and an all employee total of 31,250, the production worker - all employee ratio would be .80, (25,000 divided by 31,250). If the all-employee benchmark is 50,000, the production-worker total in the benchmark period would be .80 times 50,000 or 40,000.

The second step is to compute the total production-worker employment in the month following the benchmark period. The production-worker total for the benchmark period is multiplied by the percent change over the month in production-worker employment in a group of establishments reporting in both months. Thus, if firms in the BLS sample report employment of 30,000 production workers in March and 31,200 in April, the percentage increase would be 4 percent (1,200 divided by 30,000). The production-worker total in April would be 104 percent of 40,000, the production-worker total in March, the benchmark month, or 41,600.

The third step is to compute the all-employee total for the industry in the month following the benchmark period. The production-worker total for the month is divided by the ratio of production workers to all employees. This ratio is computed from establishment reports for the month showing data for both items. Thus, if these firms in April report 24,000 production workers and a total of 29,600 employees, the ratio of production workers to all employees would be .81 (24,000 divided by 29,600). The all-employee total in April would be 51,358, (41,600 divided by .81).

Figures for subsequent months are computed by carrying forward the totals for the previous month according to the method described above. When annual benchmark data become available, the BLS employment figures for the benchmark period are compared with the total count. If differences are found, the BLS series are adjusted to agree with the benchmark count.

### Section I. Comparability with other Employment Estimates -

Data published by other government and private agencies differ from BIS employment statistics because of differences in definition, sources of information, and methods of collection, classification and estimation. BIS monthly figures are not comparable, for example, with the estimates of the Bureau of the Census Monthly Report on the Labor Force. Census data are obtained by personal interviews with individual members of a sample of households and are designed to provide information on the work status of the whole population, classified into broad social and economic groups. The BIS, on the other hand, obtains by mail questionnaire data on employees, based on payroll records of business units and prepares detailed statistics on the industrial and geographic distribution of employment and on hours of work and earnings.

Employment estimates derived by the Bureau of the Census from its quinquennial census and annual sample surveys of manufacturing establishments also differ from BLS employment statistics. Among the important reasons for disagreement are differences in industries covered, in the business units considered parts of an establishment, and in the industrial classification of establishments.

## Section J. Employment Statistics for States and Areas -

State and area employment statistics are collected and prepared by State agencies in cooperation with the Bureau of Labor Statistics. The names and addresses of these agencies are listed on the last page of the Report. State agencies use the same basic schedule as the Bureau of Labor Statistics in collecting employment statistics. State series are adjusted to benchmark data from State unemployment insurance agencies and the Bureau of Old Age and Survivors Insurance. Because some States have more recent benchmarks than others and use slightly varying methods of computation, the sum of the State figures differs from the official U. S. totals prepared by the Bureau of Labor Statistics. State and area data in greater industry detail and for earlier periods may be secured directly upon request to the appropriate State agency or to the Bureau of Labor Statistics.

# Glossary

- All Employees Includes production and related workers as defined below and workers engaged in the following activities: executive, purchasing, finance, accounting, legal, personnel (including cafeterias, medical, etc.,), professional and technical activities, sales, sales-delivery, advertising, credit collection, and in installation and servicing of own products, routine office functions, factory supervision (above the working foreman level). Also includes employees on the establishment payroll engaged in new construction and major additions or alterations to the plant who are utilized as a separate workforce (force-account construction workers).
- 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 payrolls of Federal, State, and local government, public utilities, and private establishments, are excluded from contract construction and included in the employment for such establishments.
- Durable Goods The durable goods subdivision includes the following major industry groups: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.
- **Finance** Covers establishments operating in the fields of finance, insurance, and real estate; excludes the Federal Reserve Banks and the mixed-ownership banks of the Farm Credit Administration which are included under Government.
- Government Covers Federal, State, and local government establishments performing legislative, executive, and judicial functions, including Government corporations, Government force—account construction, and such units as arsenals, navy yards, hospitals. Fourth—class postmasters are excluded from table 2; they are included, however, in table 7. State and local government employment excludes, as nominal employees, paid volunteer firemen and elected officials of small local units.
- Manufacturing Covers only private establishments; Government manufacturing operations such as arsenals and navy yards are excluded from manufacturing and included under Government.
- 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, tunneling and shafting, and the drilling or acidizing of oil wells; also includes ore dressing, beneficiating, and concentration.

- Nondurable Goods The nondurable goods subdivision includes the following major industry groups: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.
- Payrolls Private payrolls represent weekly payrolls of both full- and part-time production and related workers who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month, before deduction for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues; also, 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. Federal civilian payrolls are for the calendar month.
- Production and Related Workers Includes working foremen and all nonsupervisory workers (including lead men and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, products development, auxiliary production for plant's own use (e.g., power plant), and record-keeping and other services closely associated with the above production operations.
- Service Covers establishments primarily engaged in rendering services to individuals and business firms, including automobile repair services. Excludes domestic service workers. Nongovernment schools, hospitals, museums, etc., are included under Service; similar Government establishments are included under Government.
- *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 sales of goods. Similar Government establishments are included under Government.
- *Transportation and Public Utilities* Covers only private establishments engaged in providing all types of transportation and related services; telephone, telegraph, and other communication services; or providing electricity, gas, steam, water, or sanitary service. Similar Government establishments are included under Government.

# List of Cooperating State Agencies

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- Department of Industrial Relations, Montgomery 5.
ALABAMA
               - Unemployment Compensation Division, Employment Security Commission, Phoenix.
ARIZONA
               - Employment Security Division, Department of Labor, Little Rock.
ARK AN SAS
               - Division of Labor Statistics and Research, Department of Industrial Relations,
CALIFORNIA
                  San Francisco 1.
COLORADO
               - U. S. Bureau of Labor Statistics, Denver 2.
CONNECTICUT
               - Employment Security Division, Department of Labor, Hartford 15.
               - Federal Reserve Bank of Philadelphia, Philadelphia 1, Pennsylvania.
DELAWARE
DISTRICT OF
               - U. S. Employment Service for D. C., Washington 25.
 COLUMBIA
               - Unemployment Compensation Division, Industrial Commission, Tallahassee.
FLORIDA
GEORGIA
               - Employment Security Agency, Department of Labor, Atlanta 3.
IDAHO
               - Employment Security Agency, Boise.
ILLINOIS
               - Division of Placement and Unemployment Compensation, Department of Labor, Chicago 54.
INDIANA
               - Employment Security Division, Indianapolis 9.
               - Employment Security Commission, Des Moines 8.
AWOI
KANSAS
               - Employment Security Division, State Labor Department, Topeka.
               - Bureau of Employment Security, Department of Economic Security, Frankfort.
KENTUCKY
LOUISIANA
               - Division of Employment Security, Department of Labor, Baton Rouge 4.
               - Employment Security Commission, Augusta.
MAINE
MARYLAND
               - Department of Employment Security, Baltimore 1.
MASSACHUSETTS - Division of Statistics, Department of Labor and Industries, Boston 10.
MICHIGAN
               - Employment Security Commission, Detroit 2.
               - Division of Employment and Security, St. Paul 1.
MINNESOTA
               - Employment Security Commission, Jackson.
MISSISSIPPI
               - Division of Employment Security, Department of Labor and Industrial Relations,
MISSOURI
                  Jefferson City.
               - Unemployment Compensation Commission, Helena.
MON TAN A
               - Division of Employment Security, Department of Labor, Lincoln 1.
NEBRASKA
               - Employment Security Department, Carson City.
NEVADA
NEW HAMPSHIRE - Division of Employment Security, Department of Labor, Concord.
NEW JERSEY
               - Department of Labor and Industry, Trenton 8.
               - Employment Security Commission, Albuquerque.
NEW MEXICO
               - Bureau of Research and Statistics, Division of Placement and Unemployment Insurance,
NEW YORK
                  New York Department of Labor, 1440 Broadway, New York 18.
NORTH CAROLINA - Department of Labor, Raleigh.
NORTH DAKOTA - Unemployment Compensation Division, Bismarck.
               - Bureau of Unemployment Compensation, Columbus 16.
OHIO
               - Employment Security Commission, Oklahoma City 2.
OKLAHOMA
               - Unemployment Compensation Commission, Salem.
OREGON
PENNSYLVANIA
               - Federal Reserve Bank of Philadelphia, Philadelphia 1 (mfg.); Bureau of Research and
                  Information, Department of Labor and Industry, Harrisburg (nonmfg.).
              - Department of Labor, Providence 3.
RHODE ISLAND
SOUTH CAROLINA - Employment Security Commission, Columbia 1.
SOUTH DAKOTA
             - Employment Security Department, Aberdeen.
               - Department of Employment Security, Nashville 3.
TENNESSEE
               - Employment Commission, Austin 19.
TEXAS
               - Department of Employment Security, Industrial Commission, Salt Lake City 13.
HATU
VERMONT
               - Unemployment Compensation Commission, Montpelier.
               - Division of Research and Statistics, Department of Labor and Industry, Richmond 19.
VIRGINIA
               - Employment Security Department, Olympia.
WASHINGTON
WEST VIRGINIA - Department of Employment Security, Charleston 5.
WISCONSIN
               - Industrial Commission, Madison 3.
               - Employment Security Commission, Casper.
WYOMING
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# Other Publications on

# EMPLOYMENT DEVELOPMENTS

- STATE AND AREA DATA—EMPLOYMENT, HOURS, AND EARNINGS Data available for States and areas in varying industry detail since 1947.
- MANPOWER REPORTS Special studies of manpower problems in activities of importance to the defense effort. Reports numbered consecutively as issued. Those not listed are either out of date or restricted for security reasons.
- MANPOWER REPORT No. 3 The Nation's Scientific and Technical Manpower

  MANPOWER REPORT No. 8 Manpower Requirements of the Machine Tool Industry in the

  Current Mobilization Program
- MANPOWER REPORT No. 10 Manpower Requirements for the Merchant Marine
- MANPOWER REPORT No.11 Manpower Requirements in Metal Mining
- MANPOWER REPORT No.12 Defense Manpower Requirements in Electronics Production
- MANPOWER REPORT No.13 The Effects of Defense Program on Employment in Automobile Industry
- EMPLOYMENT AND SHIFT OPERATIONS IN METALWORKING INDUSTRIES Number of workers employed and their distribution by shift in selected metalworking industries.

  Prepared quarterly and available beginning with the third quarter of 1951.
- OCCUPATIONAL OUTLOOK HANDBOOK, 2d EDITION, Bulletin No. 998 of Bureau of Labor Statistics issued in cooperation with the Veterans Administration.

  575 pp. Available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at \$3.00 a copy. A comprehensive coverage of major occupations for use in guidance with reports on each of 433 occupations and industries including industrial, professional, "white-collar," and farming occupations in which most young people will find jobs. Trends and outlook are emphasized to depict the changing nature of occupational and industrial life, and to help in long-range educational and career planning. Occupation reports describe employment outlook, nature of work, industries and localities in which workers are employed, training and qualifications needed, earnings, working conditions, and sources of further information. This material is current as of late 1950. New editions of the Handbook will be issued from time to time.
- FACT BOOK ON MANPOWER, January 1951, 52 pp. Statistics on the population and labor force of the United States, on its industrial and occupational distribution, and on potential manpower resources under conditions of national emergency.
- SELECTED FACTS ON THE EMPLOYMENT AND ECONOMIC STATUS OF OLDER MEN AND WOMEN,

  January 1952, 32 pp. Basic data pertaining to older workers, including information on population and labor force trends, industrial and occupational characteristics, and on income and employment.
- TABLES OF WORKING LIFE, LENGTH OF WORKING LIFE FOR MEN, Bulletin No. 1001, August 1950, 74 pp. Tables comparing a man's life span with his work span. Also labor force entry rates, and separation rates due to death and retirement.