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Occupational Employment in Transportation, Communications, Utilities, and Trade



U.S. Department of Labor
Bureau of Labor Statistics
April 1982

Bulletin 2116

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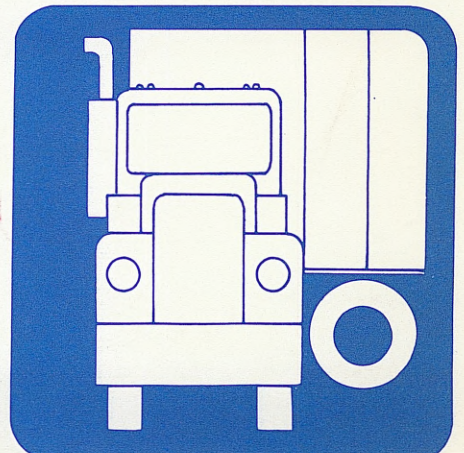
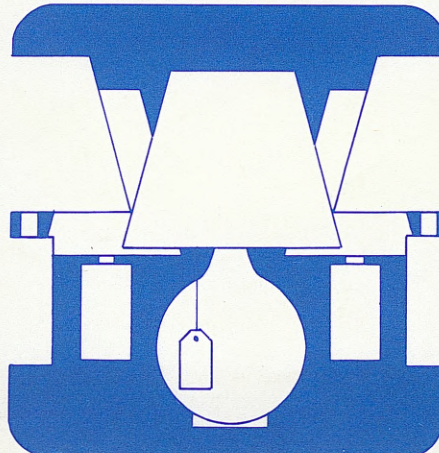
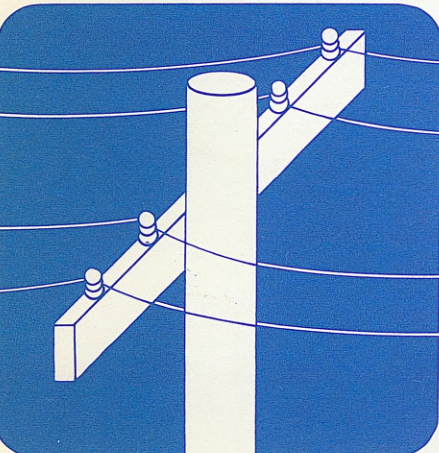
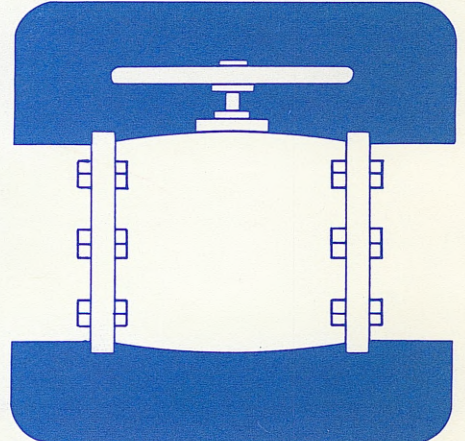
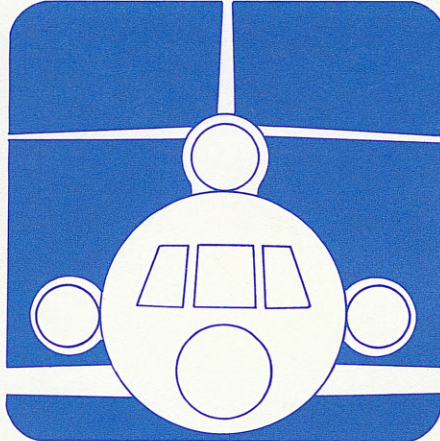
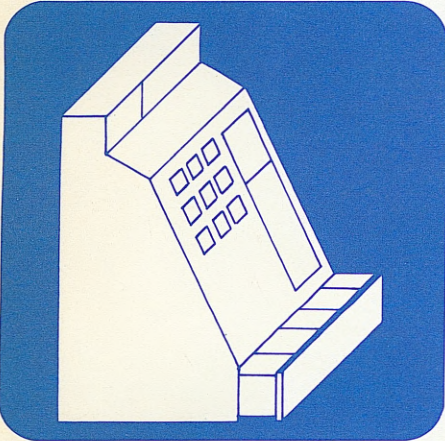
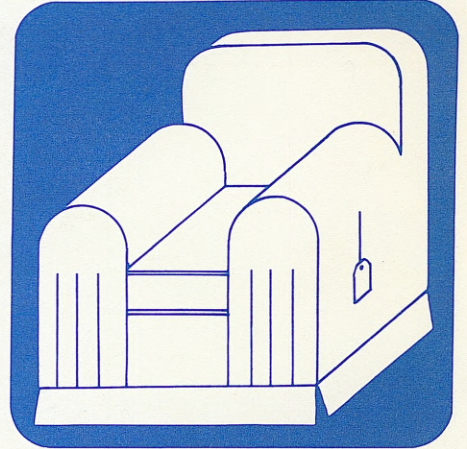
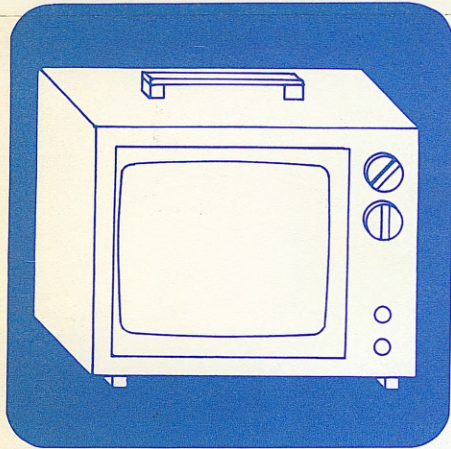
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Occupational Employment in Transportation, Communications, Utilities, and Trade



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April 1982

Bulletin 2116

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Preface

This bulletin provides data from a 1979 survey of occupational employment in the transportation, communications, utilities, and wholesale and retail trade industries. Results of the 1977 survey of manufacturing industries and the 1978 survey of selected nonmanufacturing industries can be found in Bulletin 2057, *Occupational Employment in Manufacturing Industries, 1977*, and Bulletin 2088, *Occupational Employment in Selected Nonmanufacturing Industries*.

This periodic survey is part of a Federal-State cooperative program of occupational employment statistics (OES). The OES program also includes preparation of the National/State Industry-Occupational Matrix—a set of tables showing employment cross-classified by occupation and industry for the Nation and each State. In addition, the program includes Federal assistance to State employment security agencies in developing projections of occupational employment for States and areas.

The OES program provides information for many data users, including individuals and organizations engaged in planning vocational educational programs, training programs supported by the Comprehensive Employment and Training Act, and higher education. OES data also are used to prepare information for career counseling, for job placement activities performed at State employment security offices, and for personnel planning and market research conducted by private enterprises.

This bulletin was prepared in the Office of Employment Structure and Trends, Division of Occupational and Administrative Statistics, by Wanda L. Bland and Barbara L. Keitt under the direction of Thomas C. Shirk. John Shew and Warren Macurdy provided statistical and data processing support.

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Introduction

The Occupational Employment Statistics (OES) survey is designed to collect data on occupational employment of wage and salary workers by industry in non-agricultural establishments. The Bureau of Labor Statistics provides the procedures and technical assistance for the survey, State employment security agencies collect the data, and the Employment and Training Administration provides administrative support. In 1979, 45 States (including the District of Columbia) participated in the survey. BLS conducted a supplemental survey in 1979, with the financial aid of the National Science Foundation, to collect data in nonparticipating States and to develop national estimates.

This bulletin presents national data only. Data on occupational employment in each of the participating States are available from the State employment security agencies (appendix B).

Survey procedures

The survey is conducted over a 3-year cycle; manufacturing industries are surveyed in one year and non-manufacturing industries in the other two years. Data are collected from a sample of establishments primarily by mail; telephone followups and personal visits are made when an establishment response is critical to the survey. The survey is based on a probability sample, stratified by industry and size of employment, designed to represent the total or "universe" of establishments covered by the survey. Data are requested for the pay period including the 12th of the reference month, which is standard for all Federal agencies collecting employment data. For the 1979 survey, the reference month was April, May, or June (appendix A).

For the 1979 survey, 28 separate questionnaires were used, each having detailed occupations related specifically to a particular industry's activity. For example, "security checker" was surveyed in only one industry, air transportation. Cross-industry estimates, therefore, cannot be developed for most detailed occupations because not all detailed occupations were included on every survey questionnaire. This bulletin presents cross-industry data for major occupational groups.

Occupational and industrial classification

The OES classification system combines two widely used systems—the *Dictionary of Occupational Titles* (DOT) and the system used for the 1970 Census of

Population. Occupational titles and descriptions in the survey are based primarily on the *Dictionary of Occupational Titles*.¹ The DOT was used to develop the definitions of detailed occupations because it is the most detailed classification available. Summary categories and residual groups generally follow the categories used in the 1970 census. "Crosswalks" have been developed between the two systems so that users may integrate OES data with data from sources using the Census classification.

The industrial classification system is that described in the 1972 edition of the *Standard Industrial Classification Manual*,² whereby reporting establishments are classified into industries on the basis of major product or activity.

Concepts

An *establishment* is an economic unit which produces goods or services. Generally, it is at a single physical location and is engaged predominantly in one type of economic activity. Where a single physical location encompasses two or more distinct activities, these are treated as separate establishments if separate payroll records are available and certain other criteria are met.

Employment includes full- and part-time workers; workers on paid vacations or other types of leave; workers on unpaid short-term absences (i.e., illness, bad weather, temporary layoff, jury duty); salaried officers, executives, and staff of incorporated firms; employees temporarily assigned to other units; and employees for whom that unit is their permanent (home) duty station, regardless of whether the unit prepares their paycheck. Excluded from coverage are proprietors (owners and partners of unincorporated firms), self-employed, unpaid family workers, and workers on extended leave (i.e., pensioners and members of the Armed Forces).

Occupation refers to the occupation in which employees are working rather than the occupation for which they may have been trained. For example, an employee trained as an engineer but working as a drafter is reported as a drafter.

¹ *Dictionary of Occupational Titles*, fourth edition (U.S. Employment Service, U.S. Department of Labor, 1977.)

² *Standard Industrial Classification Manual* (Office of Management and Budget, Executive Office of the President, 1972), as amended in *Supplement*, 1977.

Working supervisors (those spending 20 percent or more of their time at work similar to that done by workers under their supervision) are reported in the occupation most closely related to their work.

Part-time workers, learners, and apprentices are reported in the occupation in which they ordinarily work.

Multiple jobholders (employees who work in two or more occupations) are reported in the occupation that requires the highest level of skill or in the occupation where the most time is spent if there is no measurable difference in skill requirements.

A more detailed statement describing the survey is presented in appendix A.

Data presented

This bulletin presents occupational employment for 2-digit SIC industries, except SIC 48 which is at the 3-digit SIC level.³ Data are presented for each industry under the following headings: Employment, percent of total employment, relative error, and percent of establishments reporting the occupation.

Employment is based upon survey results adjusted to reflect total industry employment. The percent of total employment refers to total employment in the industry. Relative error measures the level of confidence to be placed on each estimate. The percent of establishments reporting a particular occupation indicates the frequency of occurrence of the occupation.

Occupations with fewer than 50 workers or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are not shown separately but are included in the appropriate residual categories.

Employment is rounded to the nearest ten. The relative error and the percent of respondents reporting the occupation are rounded to the nearest whole percent. The percent of total employment was computed from rounded employment data.

³ Additional occupational employment data at the more detailed 3-digit SIC level are available upon request from the Office of Employment Structure and Trends. Definitions for all occupations surveyed are also available upon request.

Summary

In 1979, 24.9 million workers were employed in the transportation, communications, utilities, and trade industries covered by this survey, or 28 percent of all nonagricultural wage and salary workers in the Nation. As shown in table 1, almost 82 percent of the workers surveyed were employed in wholesale and retail trade. Of the 20.3 million persons working in the trade industries, 74 percent worked in retail trade.

Workers were classified by occupation into seven major occupational groups: Managers and officers; professional workers; technical workers; service workers; operating, maintenance, construction, repair, material handling, and powerplant workers; clerical workers; and sales workers. Tables 2 and 3 present the distribution of employment in the various industries surveyed.

The following section discusses these seven occupational groups and presents charts illustrating their distribution among the surveyed industries.

Subsequent sections deal with the major industry groups—transportation, communications, utilities, and wholesale and retail trade—and discuss employment in each by major occupational group. These sections also present occupational employment data by industry segment (two-digit SIC).

Managers and officers

Persons holding positions as managers and officers are primarily concerned with the policymaking, planning, organizing, staffing, directing, and controlling activities common to many types of organizations. Also included are persons who, to some extent, may engage in the same activities as the workers they supervise, but who also plan, organize, control, and coordinate activities, and who may be responsible for such matters as finance. Occupations included in this group are plant, office, and sales managers, and corporate officers such as president, secretary, and treasurer.

Managers and officers in the transportation, communications, utilities, and trade industries totaled 2.3 million, or 9 percent of all employees in these industries in 1979. Chart 1 illustrates the distribution of managers and officers among the industries surveyed. The largest proportions were in eating and drinking places and in wholesale firms selling durable goods.

Professional workers

Persons employed in professional positions usually deal with the theoretical or practical aspects of fields

such as science, engineering, technical work, art, education, medicine, law, and business relations. Most of these occupations require substantial educational preparation, usually at the university level. The largest professional occupation surveyed was accountant and/or auditor, followed by personnel and labor relations specialists.

In 1979, about 914,000 professional workers were employed by the transportation, communications, utilities, and trade industries, or 3.7 percent of total employment in these industries. Chart 2 illustrates the distribution of professional workers among the industries surveyed. The largest concentrations of these workers were in miscellaneous retail stores and in wholesale firms selling durable goods.

Technical workers

Technical occupations require theoretical knowledge of fundamental scientific, engineering, mathematical, computer programming, or draft design principles comparable to that acquired through study at technical schools and junior colleges, through other formal post-high school training less extensive than a 4-year college course, or through equivalent on-the-job training or experience. The following are examples of the various technical occupations surveyed: Pharmacy helper, airplane pilot, surveyor, and broadcast technician.

Even though there are such diverse occupations in these industries, technical workers totaled only 291,000, or 1 percent of the employment in the industries surveyed. Chart 3 illustrates the distribution of technical workers among these industries. The durable goods segment of the wholesale trade industry employed 36 percent of all technical workers in the industries surveyed. Air transportation and communications also ranked high in the employment of technical workers, with 57,000 and 48,000 employees, respectively.

Service workers

Persons employed in this occupational group perform services for individuals or establishments. Service workers protect individuals and property, prepare and serve food and beverages, and clean interiors and equipment of buildings, offices, stores, and similar places.

Service workers ranked third among the seven occupational groups, with 4.8 million or 19 percent of total employment in the industries surveyed. As chart 4 illustrates, 85 percent of all service workers covered by

the survey were employed in eating and drinking places. No other single industry accounted for as much as 5 percent of service worker employment.

Operating, maintenance, construction, repair, material handling, and powerplant workers

Persons employed in this occupational group include all skilled, semiskilled, and unskilled workers performing machine and manual tasks involving production, maintenance, construction, repair, material handling, and powerplant operations. Examples of occupations in this group are: Bus driver, electrician, pipelayer, and watchmaker.

This occupational group, the largest of the seven major groups for the industries combined, included 6.7 million workers, over one-fourth of total employment in the industries surveyed. As chart 5 illustrates, the largest concentration of these employees, 1 million or almost 15 percent, was in motor freight transportation and warehousing. However, the seven retail trade industries combined accounted for just over 40 percent of total employment surveyed in operating, maintenance, construction, repair, material handling, and powerplant occupations.

Clerical workers

Persons holding jobs in this occupational group are either plant clerical workers or office clerical workers. Plant clerical workers plan, coordinate, or expedite production and the flow of work. These workers are also involved in the clerical aspects of receiving, storing,

issuing, or shipping of materials, merchandise, supplies, or equipment. Office clerical workers are involved in preparing, transcribing, transferring, systematizing, and preserving written communications and records, as well as collecting accounts and distributing information. The largest clerical occupation surveyed was cashier; general office clerk and stock clerk (stockroom, warehouse, or storage yard) ranked second and third, respectively.

Clerical workers ranked second among the seven occupational groups, with 5.4 million or 22 percent of total employment in the industries surveyed. As chart 6 illustrates, the largest concentration of clerical workers, almost 919,000 or 17 percent, were employed in the durable goods segment of the wholesale trade industry. Retail food stores followed with 14 percent.

Sales workers

Sales workers include sales representatives and sales clerks. Sales representatives (also called sales agents or sales associates) require specific knowledge of the commodity or service being sold. Sales clerks sell any of a large variety of goods or services and usually only require familiarity with the pricing of those goods and services.

There were 4.5 million sales workers employed in the transportation, communications, utilities, and trade industries in 1979, or 18 percent of the total employment in these industries. As chart 7 illustrates, wholesale and retail trade accounted for almost all of the sales workers in the surveyed industries. General merchandise stores employed the largest number—1 million.

Table 1. Employment in transportation, communications, utilities, and wholesale and retail trade, 1979

Industry	Employment	Percent distribution
Total	24,901,190	100.0
Transportation	2,467,290	9.9
Local and suburban transit and interurban highway passenger transportation	262,570	1.1
Motor freight transportation and warehousing	1,351,960	5.4
Water transportation	207,560	.8
Air transportation	443,910	1.8
Pipe lines, except natural gas	20,310	.1
Transportation services	180,980	.7
Communications	1,316,460	5.3
Telephone, telegraph, and selected communication services	1,128,470	4.5
Radio and television broadcasting	187,990	.8
Utilities	796,460	3.2
Electric, gas, steam, water, and sanitary services	796,460	3.2
Wholesale and retail trade	20,320,980	81.6
Wholesale trade	5,245,250	21.1
Wholesale trade--durable goods	3,115,850	12.5
Wholesale trade--nondurable goods	2,129,400	8.6
Retail trade	15,075,730	60.5
Building materials, hardware, garden supply, and mobile home dealers	645,760	2.6
General merchandise stores	2,205,580	8.9
Food stores	2,278,610	9.2
Automotive dealers and gasoline service stations	1,835,350	7.4
Apparel and accessory stores	933,750	3.7
Furniture, home furnishings, and equipment stores	610,810	2.5
Eating and drinking places	4,706,190	18.9
Miscellaneous retail	1,859,680	7.5

Table 2. Employment in transportation, communications, utilities, and wholesale and retail trade by major occupational group, 1979

Industry	Managers and officers	Professional workers	Technical workers	Service workers	Operating, maintenance, construction, repair, material handling, and power-plant workers	Clerical workers	Sales workers
Total	2,308,510	914,090	290,660	4,760,730	6,730,560	5,400,320	4,496,320
Local and suburban transit and interurban highway passenger transportation	13,520	1,470	7,380	4,780	205,260	29,210	950
Motor freight transportation and warehousing	92,640	10,880	1,240	13,550	999,560	212,000	22,090
Water transportation	26,390	5,320	2,190	9,040	137,700	23,730	3,190
Air transportation	29,430	13,980	57,010	67,920	118,370	151,880	5,320
Pipe lines, except natural gas	1,770	1,980	1,380	10	13,200	1,970	-
Transportation services	32,210	47,930	540	4,980	27,840	58,850	8,630
Telephone, telegraph, and selected communication services	109,330	52,950	30,800	13,290	383,550	515,780	22,770
Radio and television broadcasting	32,000	81,710	16,920	3,000	2,000	30,490	21,870
Electric, gas, steam, water, and sanitary services	61,560	66,480	41,740	16,930	403,100	200,590	6,060
Wholesale trade—durable goods	287,660	161,450	104,830	36,570	919,780	918,590	686,970
Wholesale trade—nondurable goods ..	192,210	73,620	10,670	50,680	792,370	598,780	411,070
Building materials, hardware, garden supply, and mobile home dealers	76,580	18,550	830	8,170	213,140	143,820	184,670
General merchandise stores	159,150	69,470	4,870	144,600	243,230	563,370	1,020,890
Food stores	187,540	39,790	530	194,530	734,860	778,230	343,130
Automotive dealers and gasoline service stations	261,540	22,470	1,230	51,280	925,660	277,860	295,310
Apparel and accessory stores	129,190	25,670	290	14,280	87,580	134,760	541,980
Furniture, home furnishings, and equipment stores	82,120	26,030	1,220	13,470	170,450	127,240	190,280
Eating and drinking places	323,560	28,760	560	4,048,250	31,680	220,200	53,180
Miscellaneous retail	210,110	165,580	6,430	65,400	321,230	412,970	677,960

- Data not available.

Table 3. Percent distribution of employment in transportation, communications, utilities, and wholesale and retail trade by major occupational group, 1979

Industry	All occupations	Managers and officers	Professional workers	Technical workers	Service workers	Operating, maintenance, construction, repair, material handling, and power-plant workers	Clerical workers	Sales workers
Total	100.0	9.3	3.7	1.2	19.1	27.0	21.7	18.1
Local and suburban transit and interurban highway passenger transportation	100.0	5.1	.6	2.8	1.8	78.2	11.1	.4
Motor freight transportation and warehousing	100.0	6.9	.8	.1	1.0	73.9	15.7	1.6
Water transportation	100.0	12.7	2.6	1.1	4.4	66.3	11.4	1.5
Air transportation	100.0	6.6	3.1	12.8	15.3	26.7	34.2	1.2
Pipe lines, except natural gas	100.0	8.7	9.7	6.8	(¹)	65.0	9.7	-
Transportation services	100.0	17.8	26.5	.3	2.8	15.4	32.5	4.8
Telephone, telegraph, and selected communication services	100.0	9.7	4.7	2.7	1.2	34.0	45.7	2.0
Radio and television broadcasting	100.0	17.0	43.5	9.0	1.6	1.1	16.2	11.6
Electric, gas, steam, water, and sanitary services	100.0	7.7	8.3	5.2	2.1	50.6	25.2	.8
Wholesale trade—durable goods	100.0	9.2	5.2	3.4	1.2	29.5	29.5	22.0
Wholesale trade—nondurable goods ..	100.0	9.0	3.5	.5	2.4	37.2	28.1	19.3
Building materials, hardware, garden supply, and mobile home dealers	100.0	11.9	2.9	.1	1.3	33.0	22.3	28.6
General merchandise stores	100.0	7.2	3.1	.2	6.6	11.0	25.5	46.3
Food stores	100.0	8.2	1.7	(¹)	8.5	32.3	34.2	15.1
Automotive dealers and gasoline service stations	100.0	14.3	1.2	.1	2.8	50.4	15.1	16.1
Apparel and accessory stores	100.0	13.8	2.7	(¹)	1.5	9.4	14.4	58.0
Furniture, home furnishings, and equipment stores	100.0	13.4	4.3	.2	2.2	27.9	20.8	31.2
Eating and drinking places	100.0	6.9	.6	(¹)	86.0	.7	4.7	1.1
Miscellaneous retail	100.0	11.3	8.9	.3	3.5	17.3	22.2	36.5

¹ Rounded to zero.

Data not available.

Chart 1. Managers and officers

Distribution by industry in transportation, communications, utilities, and trade, 1979

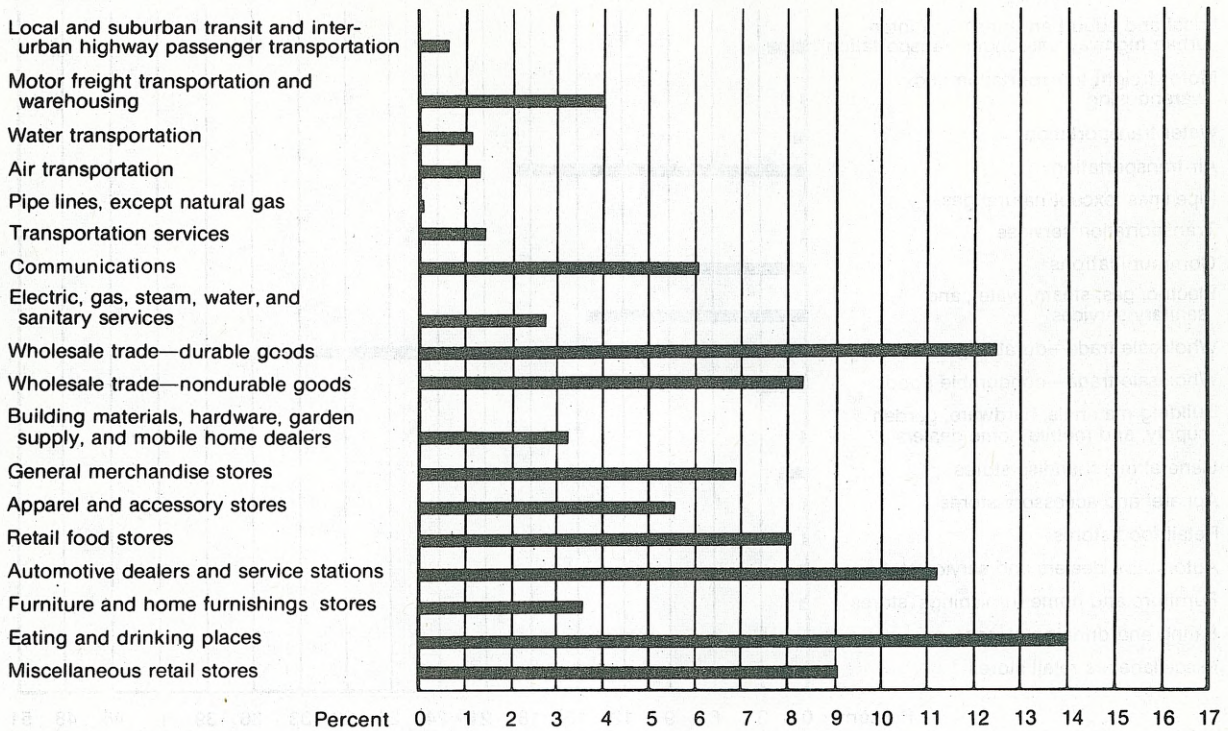


Chart 2. Professional workers

Distribution by industry in transportation, communications, utilities, and trade, 1979

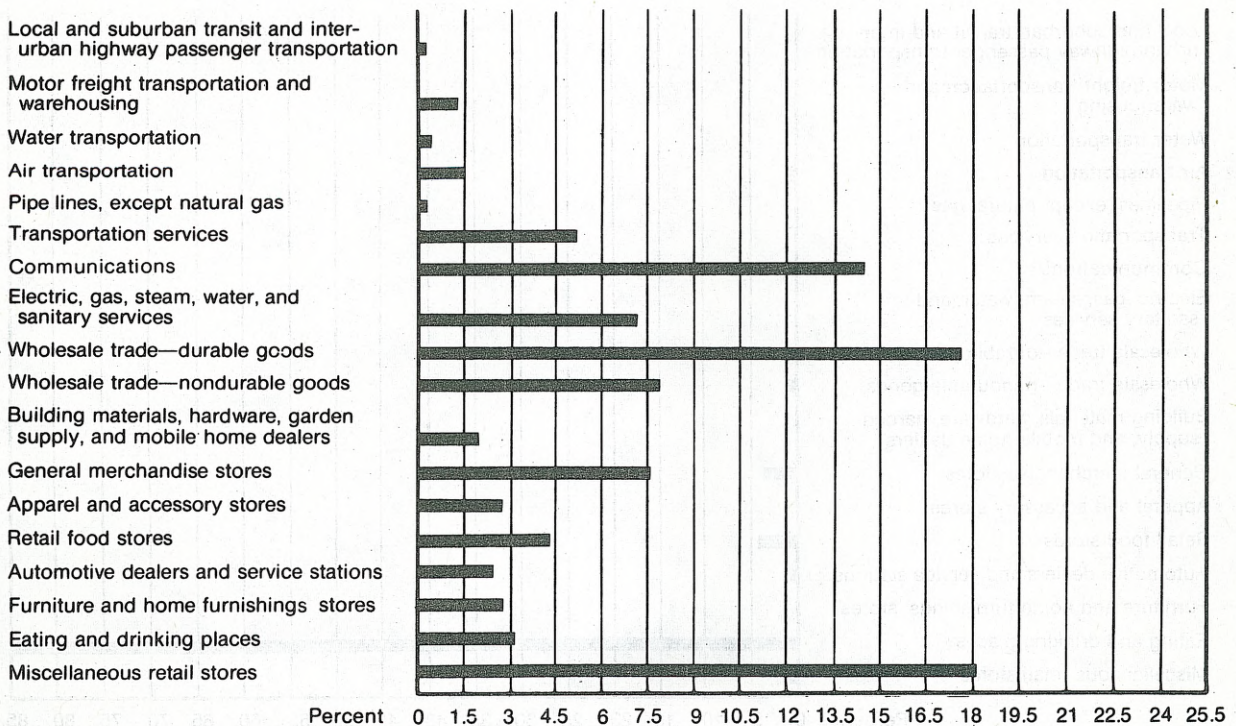


Chart 3. Technical workers

Distribution by industry in transportation, communications, utilities, and trade, 1979

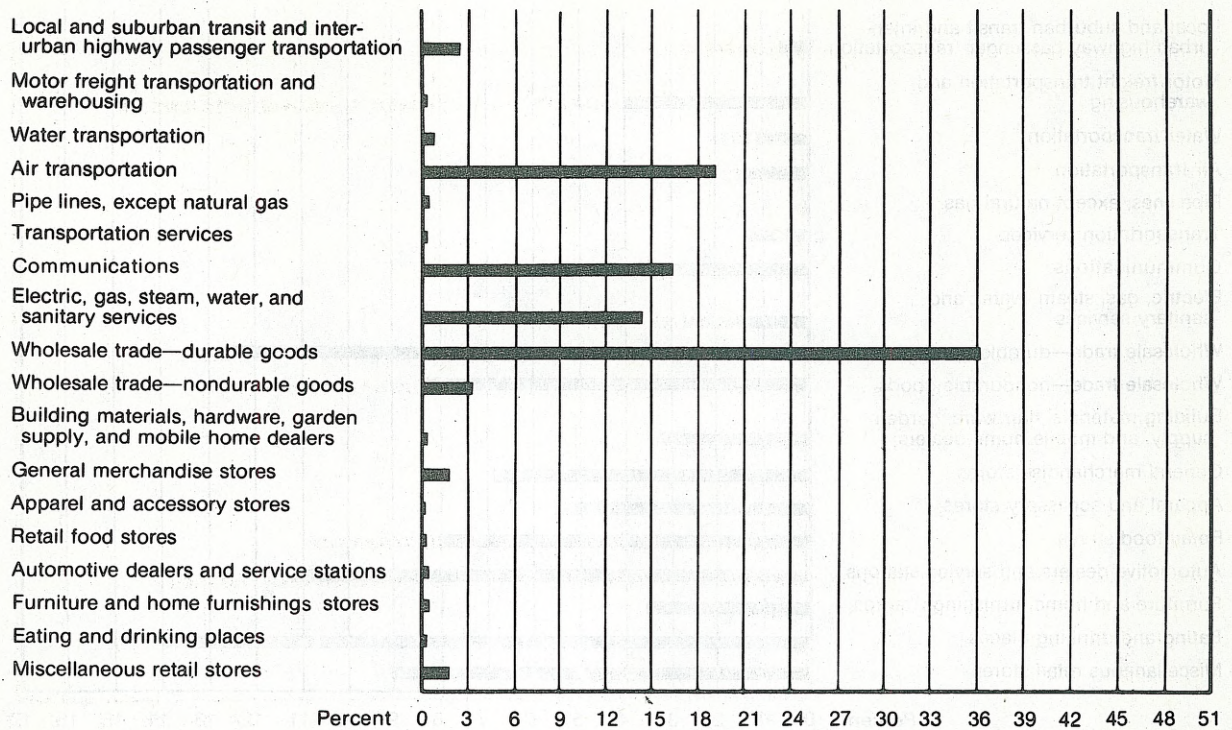


Chart 4. Service workers

Distribution by industry in transportation, communications, utilities, and trade, 1979

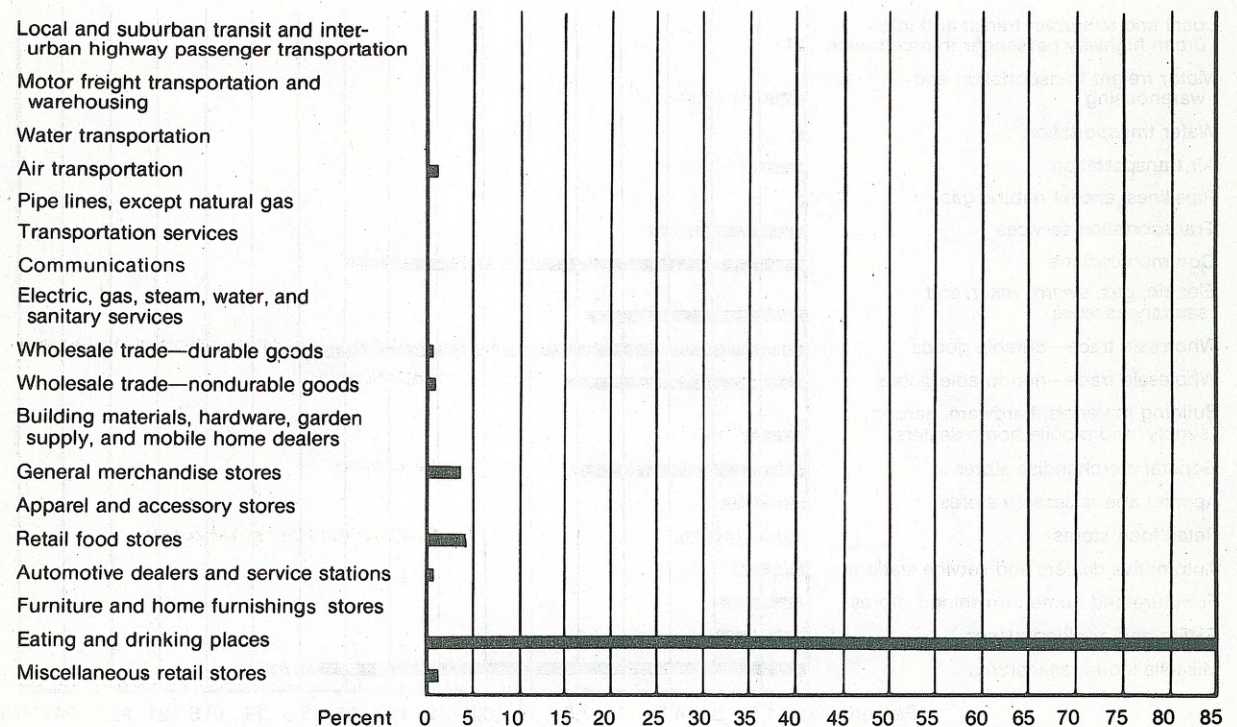


Chart 5. Operating, maintenance, construction, repair, material handling, and powerplant workers

Distribution by industry in transportation, communications, utilities, and trade, 1979

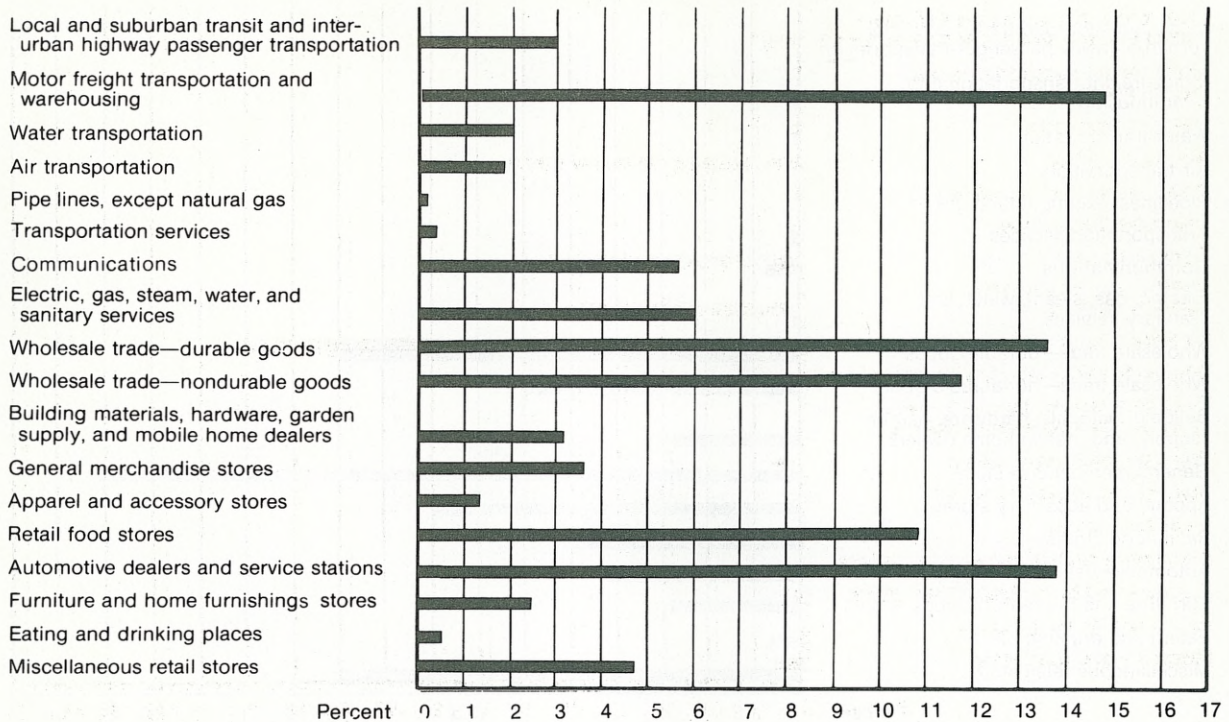


Chart 6. Clerical workers

Distribution by industry in transportation, communications, utilities, and trade, 1979

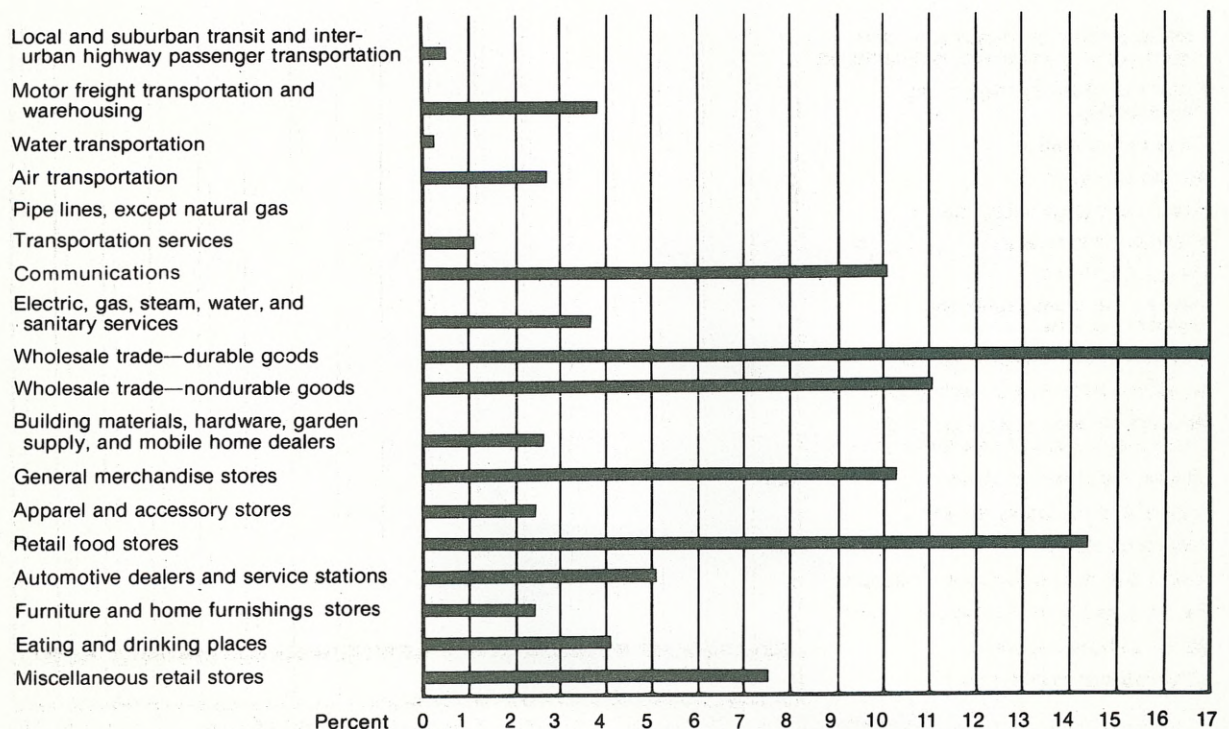
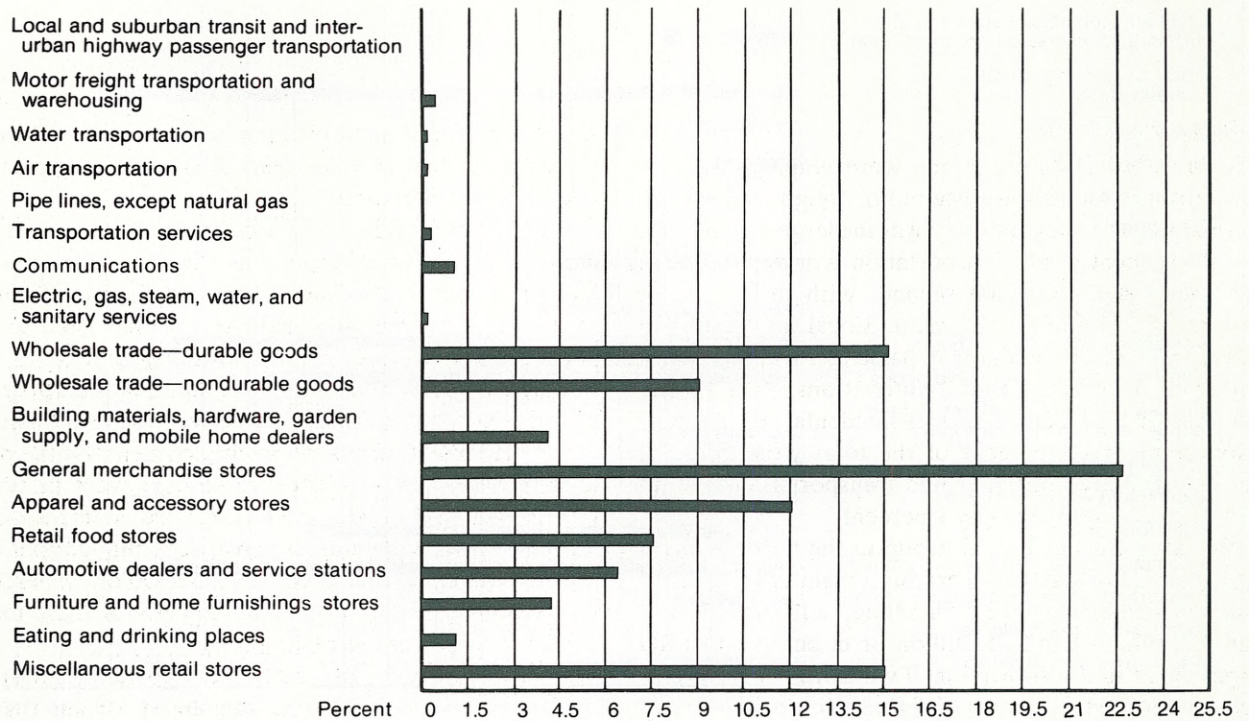


Chart 7. Sales workers

Distribution by industry in transportation, communications, utilities, and trade, 1979



Transportation

Summary

In 1979, 2.5 million persons were employed in the transportation industries. The motor freight transportation and warehousing industry was the largest employer, with 55 percent of all transportation workers (table 4). Air transportation ranked second, with 18 percent of total transportation employment. Local and suburban transit and interurban highway passenger transportation employed 11 percent, and water transportation accounted for 8 percent. Services incidental to transportation employed 7 percent of the total work force in this industry division; pipe line transportation (except natural gas) employed only 1 percent.

The largest occupational group in the transportation industries consisted of operating, maintenance, construction, repair, material handling, and powerplant workers, who totaled 1.5 million or 61 percent of total employment in transportation. Two-thirds of these employees worked in motor freight transportation and warehousing.

Clerical workers, the second largest occupational group in these industries, totaling 478,000, accounted for 19 percent of employment in transportation. Motor freight transportation and warehousing employed the largest number of these workers, with 212,000 or 44 percent of all clerical workers in transportation.

Managers and officers, totaling 196,000, were the third largest occupational group, with 8 percent of transportation employment. Motor freight transportation and

warehousing also employed the largest number of these workers—93,000 or 47 percent of all managers and officers in transportation.

Employees working in service occupations accounted for 4 percent of total employment in the transportation industries. Service workers were employed primarily by the air transportation industry, with 68,000 or 68 percent of all service workers in transportation.

Professional and technical occupations, employing 82,000 and 70,000 workers, respectively, each accounted for 3 percent of transportation employment. Of the professional workers, 48,000 or 59 percent were in occupations which provide services related to transportation, such as travel guide or travel accommodations appraiser. Of the technical workers, 57,000 or 82 percent were in air transportation. The majority of these technical workers were airplane pilots.

Sales occupations, the smallest occupational group in the transportation industries, accounted for less than 2 percent of transportation employment. Motor freight transportation and warehousing employed more than half of the sales workers in transportation, primarily as traffic agents.

Local and suburban transit and interurban highway passenger transportation

Establishments in this industry include firms which provide transportation of passengers by bus, taxi, rail,

Table 4. Transportation industries: Percent distribution of employment in major occupational groups by industry, 1979

Industry	Total	Managers and officers	Professional workers	Technical workers	Service workers	Operating, maintenance, construction, repair, material handling, and powerplant workers	Clerical workers	Sales workers
Total	2,467,290	195,960	81,560	69,740	100,280	1,501,930	477,640	40,180
Percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Local and suburban transit and interurban highway passenger transportation	10.64	6.90	1.80	10.58	4.77	13.67	6.12	2.36
Motor freight transportation and warehousing	54.80	47.27	13.34	1.78	13.51	66.55	44.38	54.98
Water transportation	8.41	13.47	6.52	3.14	9.01	9.17	4.97	7.94
Air transportation	17.99	15.02	17.14	81.75	67.73	7.88	31.80	13.24
Pipe lines, except natural gas82	.90	2.43	1.98	.01	.88	.41	-
Transportation services	7.34	16.44	58.77	.77	4.97	1.85	12.32	21.48

- Data not available.

or subway within a single municipality, between neighboring municipalities, or between a municipality and its surrounding locale, as well as establishments which supply transportation to local scenic features. (Interurban rail service is not included.) The industry also includes firms which supply terminal and maintenance services.

Of the 263,000 workers employed in this industry in 1979, more than 78 percent were in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 5). The largest concentration of these workers was in the school bus industry. Clerical workers accounted for 11 percent of total industry employment; more than one-third of these were in the taxicab industry. Managers and officers ranked third among the occupational groups, with 14,000 or 5 percent of the industry employment. Professional and technical workers accounted for only 3 percent of the industry work force, with 9,000 employees. The remaining 2 percent of the industry's workers were in service and sales occupations.

As the following tabulation indicates, bus driver was, by far, the most populous occupation in the industry, with 122,320 workers. More than half of these were school bus drivers. Taxi drivers also ranked high, with 16 percent of industry employment.

	<i>Employment</i>	<i>Percent of industry employment</i>
School bus driver	65,260	24.9
Bus driver, except school bus	57,060	21.7
Taxi driver	41,480	15.8
Vehicle, service, or work dispatcher	9,230	3.5
Automobile mechanic	8,880	3.4

Motor freight transportation and warehousing

This industry is composed of establishments which furnish local or long-distance trucking, or those engaged in the storage of farm products, furniture or other household goods, or commercial goods of any nature. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included. (Establishments engaged in field warehousing or storing natural gas are excluded).

Local and long-distance trucking accounted for 93 percent of employment in this industry; public warehousing, 6 percent; and terminal and maintenance facilities for trucking, only 0.5 percent.

As shown in table 6, 74 percent of all workers in the motor freight transportation and warehousing industry were in operating, maintenance, construction, repair, material handling, and powerplant occupations. Over 608,000, or 60 percent of these, were truck drivers, three-fourths of whom drove tractor-trailers. Clerical workers accounted for 16 percent of industry employment. The two largest clerical occupations were gen-

eral office clerks (46,000) and vehicle, service, or work dispatchers (31,000). The remaining industry employment consisted of managers and officers, with 7 percent of the work force; sales workers, with 2 percent; service workers, with 1 percent; and professional and technical workers, with less than 1 percent each.

The five largest occupations in the motor freight transportation and warehousing industry, in order of predominance, are shown in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Tractor-trailer truck driver	455,940	33.7
Manager or officer	92,640	6.9
Truck driver, heavy	92,520	6.8
Delivery or route worker ...	76,910	5.7
Truck driver helper	64,480	4.8

Water transportation

This industry comprises establishments conducting freight and passenger transportation on the open seas or inland waterways, and those which furnish incidental services such as lighterage, canal operation, and towing. Also included are excursion boats, sightseeing boats, and water taxis. Charter and party fishing boats are not included.

Of the 208,000 workers in this industry in 1979, two-thirds were in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 7). Marine cargo handling, canal operation, and miscellaneous water transportation services employed the large majority of these workers. Managers and officers ranked second in industry employment with 13 percent of the industry's workers, while clerical workers accounted for 11 percent. Service workers accounted for 4 percent of the employment; professional workers, 3 percent; sales workers, 2 percent; and technical workers, only 1 percent.

The five most populous occupations in the water transportation industry are shown in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Ordinary seaman	16,260	7.8
Captain, water vessel	10,560	5.1
Able seaman	9,130	4.4
Ship engineer	7,240	3.5
Food service workers	5,150	2.5

Air transportation

This industry consists of establishments which primarily furnish foreign and domestic air transportation, but also includes establishments which operate airports and flying fields, and those which perform terminal services.

In 1979, air transportation employed 444,000 workers, or 18 percent of all workers in the transportation industries. Companies holding certificates of public convenience and necessity under the Civil Aeronautics Act accounted for 84 percent of the workers in air transportation; those which operate and maintain airports and flying fields and/or service, repair, and store aircraft accounted for 11 percent, and noncertificated air carriers, 5 percent.

Clerical occupations accounted for the largest number of workers, 152,000, or one-third of the employment in air transportation. Most of these were reservation agents, ticket agents, or transportation agents (see table 8 for further detail). Over one-fourth of the employees in air transportation were in operating, maintenance, construction, repair, material handling, and powerplant occupations. Almost half of the workers in this occupational group were aircraft mechanics. Service occupations accounted for 15 percent of air transportation employment. Of all service workers, flight attendant was the largest occupation. Technical workers were the fourth largest occupational group in air transportation. Eighty-three percent of all technical workers in this industry were airplane pilots. Managers and officers, professional workers, and sales workers accounted for 11 percent of all workers in the industry.

The following tabulation ranks the five largest occupations in the air transportation industry:

	<i>Employment</i>	<i>Percent of industry employment</i>
Flight attendant	54,230	12.2
Aircraft mechanic	52,280	11.8
Reservation agent	48,680	11.0
Airplane pilot	47,290	10.7
Ticket agent	37,490	8.5

Pipe lines, except natural gas

This industry comprises establishments which provide the pipe line transportation of petroleum and other commodities (except natural gas), and includes establishments which produce and refine petroleum, but separately report pipe line operations.

Of the 20,000 workers in this industry in 1979, nearly two-thirds were in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 9). Professional workers, the second largest occupational group, accounted for 10 percent of pipe line transportation employment. More than half of the professional workers in the industry were engineers. Workers in clerical occupations were almost as large a group as professionals. Almost all of these worked in office clerical positions. The remaining industry employment consisted primarily of managers and officers, with 9 percent of the employment; and technical workers, with 7 percent.

The five largest occupations in this industry are listed in the tabulation below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Pipeliner	2,770	13.6
Gager	2,640	13.0
Main line station engineer ..	1,900	9.4
Manager or officer	1,770	8.7
Electrician	1,530	7.5

Transportation services

This industry includes establishments which furnish services incidental to transportation, such as the arrangement of passenger and freight transportation, and forwarding and packing services.

In 1979, this industry employed 181,000 persons or only 7 percent of total employment in transportation. Sixty-three percent of the workers in this industry primarily furnish travel information, act as agents in arranging tours and transporting passengers, or act as independent agents for transportation establishments. Also included are persons arranging for the transportation of freight and cargo. However, workers in establishments which transport goods from shippers to receivers for a fee covering the entire transportation, and in turn use services of other transportation establishments for delivery, account for 25 percent of the employment in transportation services. Ten percent of the workers in this industry are employed in establishments which provide miscellaneous services incidental to transportation, such as packing and crating goods for shipment, and the operation of highway bridges, tunnels, and toll roads. The remaining 2 percent are employed in establishments which provide for the rental of railroad cars to transport passengers and/or freight.

Clerical occupations accounted for the largest number of workers in the transportation services industry, with nearly one-third of industry employment. Professional workers ranked second, with 26 percent. Of these workers, almost all were travel agents or travel accommodations appraisers (table 10). Managers and officers ranked third among the occupational groups, with 18 percent of the industry employment. Operating, maintenance, construction, repair, material handling, and powerplant occupations accounted for 15 percent of the industry work force, and sales, service, and technical occupations constituted the remaining 8 percent.

The five most populous occupations in transportation services are shown in the tabulation below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Travel agent or travel accommodations appraiser	44,900	24.8
Manager or officer	32,210	17.8
General office clerk	15,330	8.5
Hand bookkeeper	5,900	3.3
Secretary	5,350	3.0

Table 5. Local and suburban transit and interurban highway passenger transportation: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(SIC 41)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	262,570	100.00	--	--
Managers and officers	13,520	5.15	n.a.	73
Professional occupations	1,470	.56	n.a.	n.a.
Accountant and/or auditor	1,140	.43	6	12
All other professional workers	330	.13	n.a.	n.a.
Technical occupations	7,380	2.81	n.a.	n.a.
Emergency medical technician	7,270	2.77	9	8
All other technicians	110	.04	n.a.	n.a.
Service occupations	4,780	1.82	n.a.	n.a.
Janitor, porter, and/or cleaner	1,850	.70	7	11
Guard and/or doorkeeper	150	.06	14	1
All other service workers	2,780	1.06	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	205,260	78.17	n.a.	n.a.
Mechanics and repairers, total	14,440	5.50	n.a.	n.a.
Mechanic, automotive	8,880	3.38	3	35
Body repairer, automotive	1,260	.48	6	9
Diesel mechanic	4,220	1.61	4	11
All other mechanics and repairers	80	.03	n.a.	n.a.
Truck driver	760	.29	29	2
Baggage handler	1,270	.48	13	2
Bus driver	57,060	21.73	2	26
Cleaner, vehicle	4,500	1.71	3	19
Delivery and/or route worker	70	.03	39	(³)
Supervisor, nonworking	2,000	.76	4	14
Maintenance repairer, general utility	70	.03	14	(³)
Helper, trades	1,690	.64	6	9
Taxi driver	41,480	15.80	2	25
Service station attendant, fuel pump attendant, and/or lubricator	1,450	.55	6	8
Chauffeur	6,880	2.62	12	6
Bus driver, school	65,260	24.85	2	24
Ambulance driver and/or attendant	7,460	2.84	9	10
All other skilled craft and kindred workers	160	.06	n.a.	n.a.
All other operatives and semiskilled workers	200	.08	n.a.	n.a.
All other laborers and unskilled workers	510	.19	n.a.	n.a.
Clerical occupations	29,210	11.12	n.a.	n.a.
Clerical workers, office	17,260	6.57	n.a.	n.a.
Office machine operators	70	.03	n.a.	n.a.
Accounting clerk	230	.09	11	2
Bookkeeper, hand	570	.22	8	6
Cashier	450	.17	8	4
Claim adjuster	30	.01	19	(³)
General clerk, office	5,170	1.97	3	31
Information clerk	1,620	.62	7	8
Payroll and/or timekeeping clerk	1,260	.48	5	16
Receptionist	60	.02	22	1
Secretary	1,790	.68	5	18
Switchboard operator	1,610	.61	12	8
Switchboard operator and/or receptionist	180	.07	20	1
Ticket agent	3,700	1.41	8	11
Typist	80	.03	20	(³)
All other office clerical workers	440	.17	n.a.	n.a.
Clerical workers, plant	11,950	4.55	n.a.	n.a.
Shipping and/or receiving clerk	620	.24	14	3
Stock clerk, stockroom, warehouse, or storage yard	600	.23	8	6
Taxi or bus meter reader	370	.14	20	2
Dispatcher, vehicle, service or work	9,230	3.52	3	41
Police, fire and ambulance dispatcher	1,090	.42	11	7
All other plant clerical workers	40	.02	n.a.	n.a.

See footnotes at end of table.

Table 5. Local and suburban transit and interurban highway passenger transportation: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(SIC 41)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Sales occupations	950	0.36	n.a.	n.a.
Traffic agent	830	.32	8	6
All other sales agents, sales associates, and/or sales representatives	100	.04	n.a.	n.a.
All other sales workers	20	.01	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 6. Motor freight transportation and warehousing: Employment, relative error, and percent of establishments reporting selected occupations, May 1979

(SIC 42)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	1,351,960	100.00	--	--
Managers and officers	92,640	6.85	n.a.	84
Professional occupations	10,880	.80	n.a.	n.a.
Engineers	570	.04	42	2
Purchasing agent and/or buyer	720	.05	15	4
Accountant and/or auditor	6,960	.51	9	14
Personnel and labor relations specialist	1,600	.12	19	6
All other professional workers	1,030	.08	n.a.	n.a.
Technical occupations	1,240	.09	n.a.	n.a.
Computer programmer	1,020	.08	41	4
All other technicians	220	.02	n.a.	n.a.
Service occupations	13,550	1.00	n.a.	n.a.
Janitor, porter, and/or cleaner	9,370	.69	11	20
Guard and/or doorkeeper	2,630	.19	13	5
Food service workers	280	.02	n.a.	n.a.
All other service workers	1,270	.09	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	999,560	73.93	n.a.	n.a.
Mechanics and repairers, total	64,280	4.75	n.a.	n.a.
Mechanic, automotive	15,660	1.16	9	17
Body repairer, automotive	1,340	.10	38	3
Diesel mechanic	43,720	3.23	7	31
Mechanic, maintenance	1,380	.10	33	2
Refrigeration mechanic and/or air conditioning mechanic	640	.05	31	2
All other mechanics and repairers	1,540	.11	n.a.	n.a.
Truck driver, heavy	92,520	6.84	7	22
Truck driver, light	59,820	4.42	12	17
Tractor trailer truck driver	455,940	33.72	2	57
Carpenter	160	.01	35	1
Cleaner, vehicle	2,580	.19	30	4
Crane, derrick, and/or hoist operator	2,900	.21	19	2
Delivery and/or route worker	76,910	5.69	8	14
Supervisor, nonworking	23,450	1.73	12	29
Industrial truck operator	23,260	1.72	9	17
Inspector	300	.02	29	1
Maintenance repairer, general utility	2,210	.16	18	5
Helper, trades	860	.06	30	2
Order filler	3,760	.28	12	2
Painter, automotive	250	.02	46	1
Refuse collector	14,000	1.04	14	3
Stationary engineer	210	.02	22	1
Welder and/or flamecutter	1,250	.09	31	2
Service station attendant, fuel pump attendant, and/or lubricator	2,620	.19	24	5
Tire changer	1,560	.12	18	6
Truck driver helper	64,480	4.77	8	18
Locker plant attendant	4,330	.32	16	3
All other skilled craft and kindred workers	4,430	.33	n.a.	n.a.
All other operatives and semiskilled workers	5,350	.40	n.a.	n.a.
All other laborers and unskilled workers	92,130	6.81	n.a.	n.a.
Clerical occupations	212,000	15.68	n.a.	n.a.
Clerical workers, office	128,380	9.50	n.a.	n.a.
Bookkeeping and/or billing machine operator	9,880	.73	8	16
Computer operator	1,760	.13	15	6
Keypunch operator	2,400	.18	26	5
All other office machine operators	880	.07	n.a.	n.a.
Accounting clerk	4,240	.31	24	9
Bookkeeper, hand	14,050	1.04	5	23
Adjustment clerk	4,570	.34	23	10
Cashier	2,340	.17	19	8
File clerk	2,280	.17	26	7
General clerk, office	46,400	3.43	7	48

See footnotes at end of table.

Table 6. Motor freight transportation and warehousing: Employment, relative error, and percent of establishments reporting selected occupations, May 1979—Continued

(SIC 42)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Payroll and/or timekeeping clerk	2,800	0.21	14	13
Personnel clerk	910	.07	28	5
Receptionist	470	.03	22	3
Secretary	18,340	1.36	6	32
Switchboard operator	740	.05	49	4
Switchboard operator and/or receptionist	1,420	.11	10	9
Typist	4,410	.33	44	8
Clerical supervisor, office or plant	4,130	.31	27	9
All other office clerical workers	6,360	.47	n.a.	n.a.
Clerical workers, plant	83,620	6.19	n.a.	n.a.
Shipping packer	14,340	1.06	33	9
Shipping and/or receiving clerk	9,660	.71	24	11
Stock clerk, stockroom, warehouse, or storage yard	14,360	1.06	24	14
Dispatcher, vehicle, service or work	30,780	2.28	6	36
Manifest clerk	1,320	.10	25	4
Freight rate clerk	9,350	.69	7	18
All other plant clerical workers	3,810	.28	n.a.	n.a.
Sales occupations	22,090	1.63	n.a.	n.a.
Crating and moving estimator	6,610	.49	9	8
Traffic agent	10,050	.74	10	14
All other sales agents, sales associates, and/or sales representatives	4,900	.36	n.a.	n.a.
Sales clerk	530	.04	42	1

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.
n.a. Not available.

Table 7. Water transportation: Employment, relative error, and percent of establishments reporting selected occupations, April 1979

(Sic 44)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	207,560	100.00	--	--
Managers and officers	26,390	12.71	n.a.	n.a.
Captain, water vessel	10,560	5.09	5	34
Pilot, ship	3,650	1.76	10	13
All other managers and officers	12,180	5.87	3	75
Professional occupations	5,320	2.56	n.a.	n.a.
Engineers, total	1,420	.68	n.a.	n.a.
Marine engineer	820	.40	10	11
Mechanical engineer	330	.16	17	3
All other engineers	270	.13	n.a.	n.a.
Systems analyst, electronic data processing	240	.12	22	2
Purchasing agent and/or buyer	680	.33	11	14
Accountant and/or auditor	1,490	.72	8	19
Personnel and labor relations specialist	420	.20	8	8
All other professional workers	1,070	.52	n.a.	n.a.
Technical occupations	2,190	1.06	n.a.	n.a.
Computer programmer	230	.11	14	4
Engineering technicians, total	670	.32	n.a.	n.a.
Surveyor	540	.26	36	1
All other engineering technicians	130	.06	n.a.	n.a.
Radio operator	810	.39	11	6
All other technicians	480	.23	n.a.	n.a.
Service occupations	9,040	4.36	n.a.	n.a.
Janitor, porter, and/or cleaner	1,050	.51	17	9
Guard and/or doorkeeper	790	.38	14	7
Food service workers	5,150	2.48	9	16
Supervisor, nonworking--service only	490	.24	19	3
Ship steward	1,060	.51	22	3
All other service workers	500	.24	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	137,700	66.34	n.a.	n.a.
Mechanics and repairers, total	7,850	3.78	n.a.	n.a.
Mechanic, automotive	990	.48	17	6
Diesel mechanic	930	.45	13	7
Engineering equipment mechanic	130	.06	25	2
Marine mechanic and/or repairer	3,810	1.84	10	24
Mechanic, maintenance	1,340	.65	37	4
All other mechanics and repairers	650	.31	n.a.	n.a.
Truck driver	1,120	.54	22	7
Carpenter	680	.33	16	9
Crane, derrick, and/or hoist operator	2,880	1.39	18	12
Delivery and/or route worker	240	.12	37	2
Electrician	650	.31	20	5
Firer, marine	900	.43	22	1
Supervisor, nonworking	3,140	1.51	17	19
Rigger	1,140	.55	17	6
Industrial truck operator	4,400	2.12	12	9
Instrument repairer	60	.03	40	(³)
Maintenance repairer, general utility	1,440	.69	15	11
Helper, trades	1,270	.61	16	7
Marine service station attendant	800	.39	21	6
Oiler	2,070	1.00	13	8
Painter, maintenance	410	.20	25	5
Plumber and/or pipefitter	200	.10	32	1
Stationary boiler firer	40	.02	43	(³)
Welder and/or flamecutter	1,890	.91	17	9
Plastic boat patcher	280	.13	43	4
Boatswain	1,680	.81	12	6
Able seaman	9,130	4.40	12	10
Ordinary seaman	16,260	7.83	4	31
Signaller	360	.17	23	2
Ship engineer	7,240	3.49	9	13
Motorboat operator	760	.37	26	3
All other skilled craft and kindred workers	1,440	.69	n.a.	n.a.

See footnotes at end of table.

Table 7. Water transportation: Employment, relative error, and percent of establishments reporting selected occupations, April 1979—Continued

(Sic 44)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
All other operatives and semiskilled workers	5,120	2.47	n.a.	n.a.
All other laborers and unskilled workers	64,250	30.95	n.a.	n.a.
Clerical occupations	23,730	11.43	n.a.	n.a.
Clerical workers, office	19,580	9.43	n.a.	n.a.
Bookkeeping and/or billing machine operator	290	.14	35	5
Computer operator	290	.14	11	5
Keypunch operator	390	.19	12	4
Peripheral EDP equipment operator	70	.03	37	1
All other office machine operators	220	.11	n.a.	n.a.
Stenographer	430	.21	18	4
Accounting clerk	1,910	.92	9	17
Bookkeeper, hand	1,000	.48	10	20
Cashier	620	.30	28	6
File clerk	350	.17	13	5
General clerk, office	3,930	1.89	12	26
Payroll and/or timekeeping clerk	820	.40	7	18
Personnel clerk	240	.12	12	5
Receptionist	260	.13	15	6
Secretary	3,240	1.56	7	32
Switchboard operator	210	.10	13	4
Switchboard operator and/or receptionist	400	.19	8	12
Ticket agent	560	.27	42	2
Typist	1,230	.59	9	12
Clerical supervisor, office or plant	930	.45	12	10
All other office clerical workers	2,190	1.06	n.a.	n.a.
Clerical workers, plant	4,150	2.00	n.a.	n.a.
Production clerk and/or coordinator	200	.10	18	3
Shipping packer	1,140	.55	34	3
Shipping and/or receiving clerk	1,100	.53	23	6
Stock clerk, stockroom, warehouse, or storage yard	580	.28	13	8
All other plant clerical workers	1,130	.54	n.a.	n.a.
Sales occupations	3,190	1.54	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	2,570	1.24	11	18
Sales clerk	620	.30	26	6

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 8. Air transportation: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 45)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	443,910	100.00	--	--
Managers and officers	29,430	6.63	n.a.	88
Professional occupations	13,980	3.15	n.a.	n.a.
Engineers, total	1,830	.41	n.a.	n.a.
Aeronautical engineer	1,200	.27	32	1
Electrical and/or electronic engineer	210	.05	35	1
Industrial engineer	220	.05	25	1
All other engineers	200	.05	n.a.	n.a.
Natural and/or mathematical scientist	340	.08	19	1
Systems analyst, electronic data processing	1,140	.26	22	3
Teacher and/or instructor, vocational education or training	3,690	.83	10	19
Purchasing agent and/or buyer	820	.18	15	9
Accountant and/or auditor	2,350	.53	24	13
Lawyer	120	.03	28	1
Personnel and labor relations specialist	550	.12	16	6
Public relations practitioner	300	.07	28	4
All other professional workers	2,840	.64	n.a.	n.a.
Technical occupations	57,010	12.84	n.a.	n.a.
Computer programmer	1,230	.28	22	3
Engineering technicians, total	1,200	.27	n.a.	n.a.
Electrical and/or electronic technicians	960	.22	33	3
All other engineering technicians	240	.05	n.a.	n.a.
Flight engineer	5,700	1.28	15	4
Airplane pilot	47,290	10.65	6	41
Radio operator	520	.12	30	4
All other technicians	1,070	.24	n.a.	n.a.
Service occupations	67,920	15.30	n.a.	n.a.
Janitor, porter, and/or cleaner	3,040	.68	12	16
Guard and/or doorkeeper	620	.14	21	3
Food service workers	3,670	.83	22	3
Flight attendant	54,230	12.22	3	6
Supervisor, nonworking--service only	2,980	.67	11	8
Baggage porter, transportation	2,350	.53	16	5
All other service workers	1,030	.23	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	118,370	26.67	n.a.	n.a.
Mechanics and repairers, total	58,360	13.15	n.a.	n.a.
Mechanic, aircraft	52,280	11.78	3	58
Mechanic, automotive	2,070	.47	9	10
Mechanic, maintenance	470	.11	19	3
Radio mechanic	1,050	.24	16	4
Refrigeration mechanic and/or air conditioning mechanic	230	.05	35	1
Electronic mechanic	1,690	.38	18	4
All other mechanics and repairers	570	.13	n.a.	n.a.
Truck driver	2,010	.45	16	7
Baggage handler	6,260	1.41	27	4
Carpenter	80	.02	27	1
Cleaner, vehicle	6,170	1.39	9	11
Delivery and/or route worker	440	.10	44	2
Electrician	230	.05	25	1
Supervisor, nonworking	6,540	1.47	12	19
Industrial truck operator	360	.08	23	1
Machinist	920	.21	32	1
Maintenance repairer, general utility	1,120	.25	19	5
Helper, trades	430	.10	17	2
Painter, maintenance	180	.04	31	1
Stationary engineer	80	.02	34	(³)
Welder and/or flamecutter	310	.07	29	2
Line service attendant	29,780	6.71	9	41
Aircraft painter	500	.11	17	2
All other skilled craft and kindred workers	1,260	.28	n.a.	n.a.
All other operatives and semiskilled workers	1,280	.29	n.a.	n.a.
All other laborers and unskilled workers	2,060	.46	n.a.	n.a.

See footnotes at end of table.

Table 8. Air transportation: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 45)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical occupations	151,880	34.21	n.a.	n.a.
Clerical workers, office	120,850	27.22	n.a.	n.a.
Bookkeeping and/or billing machine operator	100	.02	24	2
Computer operator	990	.22	22	3
Keypunch operator	1,430	.32	22	3
Peripheral EDP equipment operator	390	.09	20	1
All other office machine operators	390	.09	n.a.	n.a.
Stenographer	740	.17	20	4
Accounting clerk	4,600	1.04	17	15
Reservation agent	48,680	10.97	12	13
Bookkeeper, hand	380	.09	18	6
Adjustment clerk	590	.13	24	3
Cashier	240	.05	21	3
File clerk	390	.09	18	3
General clerk, office	3,280	.74	15	20
Payroll and/or timekeeping clerk	1,050	.24	9	16
Personnel clerk	320	.07	15	4
Receptionist	540	.12	17	8
Secretary	11,340	2.55	17	49
Switchboard operator	330	.07	20	2
Switchboard operator and/or receptionist	260	.06	20	5
Ticket agent	37,490	8.45	8	28
Typist	1,420	.32	13	8
Clerical supervisor, office or plant	4,470	1.01	14	9
All other office clerical workers	1,430	.32	n.a.	n.a.
Clerical workers, plant	31,030	6.99	n.a.	n.a.
Stock clerk, stockroom, warehouse, or storage yard	4,810	1.08	14	13
Airplane dispatcher	2,660	.60	13	14
Crew scheduler	1,200	.27	10	4
Transportation agent	20,970	4.72	12	22
All other plant clerical workers	1,390	.31	n.a.	n.a.
Sales occupations	5,320	1.20	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	4,280	.96	30	21
All other sales workers	1,040	.23	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Table 9. Pipe lines, except natural gas: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 46)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	20,310	100.00	--	--
Managers and officers	1,770	8.71	n.a.	70
Professional occupations	1,980	9.75	n.a.	n.a.
Engineers, total	1,070	5.27	n.a.	n.a.
Electrical and/or electronic engineer	380	1.87	21	17
Mechanical engineer	490	2.41	23	23
All other engineers	200	.98	n.a.	n.a.
Physical scientists	50	.25	n.a.	n.a.
Purchasing agent and/or buyer	60	.30	21	9
Accountant and/or auditor	420	2.07	19	11
Personnel and labor relations specialist	120	.59	43	9
Right of way agent	80	.39	21	10
All other professional workers	180	.89	n.a.	n.a.
Technical occupations	1,380	6.79	n.a.	n.a.
Computer programmer	50	.25	38	3
Engineering technicians, total	1,200	5.91	36	61
Drafter	180	.89	25	14
Electrical and/or electronic technicians	1,020	5.02	11	48
Airplane pilot	70	.34	22	5
All other technicians	60	.30	n.a.	n.a.
Service occupations	10	.05	n.a.	n.a.
Service workers	10	.05	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations. ³	13,200	64.99	n.a.	n.a.
Mechanics and repairers, total	490	2.41	53	37
Diesel mechanic	70	.34	42	5
Mechanic, maintenance	420	2.07	11	32
Truck driver	690	3.40	23	23
Relay dispatcher	760	3.74	15	21
Electrician	340	1.67	27	16
Supervisor, nonworking	1,530	7.53	7	70
Gager	2,640	13.00	9	54
Heavy equipment operator	60	.30	23	7
Maintenance repairer, general utility	630	3.10	13	32
Main line station engineer	1,900	9.35	15	50
Stationary engineer	100	.49	32	4
Welder and/or flamecutter	290	1.43	13	27
Field mechanical meter tester	320	1.58	16	23
Pipeliner	2,770	13.64	8	62
All other skilled craft and kindred workers	70	.34	n.a.	n.a.
All other operatives and semiskilled workers	180	.89	n.a.	n.a.
All other laborers and unskilled workers	430	2.12	n.a.	n.a.
Clerical occupations	1,970	9.70	n.a.	n.a.
Clerical workers, office	1,930	9.50	n.a.	n.a.
Accounting clerk	360	1.77	19	14
General clerk, office	670	3.30	14	33
Secretary	520	2.56	14	27
Typist	120	.59	19	13
Clerical supervisor, office or plant	110	.54	27	8
All other office clerical workers	150	.74	n.a.	n.a.
Clerical workers, plant	40	.20	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Includes pipeline, transportation, petroleum, and extraction workers.

n.a. Not available.

Table 10. Transportation services: Employment, relative error, and percent of establishments reporting selected occupations, April 1979

(Sic 47)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	180,980	100.00	--	--
Managers and officers	32,210	17.80	n.a.	89
Professional occupations	47,930	26.48	n.a.	n.a.
Engineers	200	.11	24	1
Systems analyst, electronic data processing	150	.08	25	1
Purchasing agent and/or buyer	250	.14	14	2
Accountant and/or auditor	1,230	.68	9	6
Personnel and labor relations specialist	170	.09	13	2
Travel agent and/or travel accommodations appraiser	44,900	24.81	2	57
All other professional workers	1,030	.57	n.a.	n.a.
Technical occupations	540	.30	n.a.	n.a.
Computer programmer	290	.16	16	2
Engineering technician	60	.03	30	(³)
All other technicians	190	.10	n.a.	n.a.
Service occupations	4,980	2.75	n.a.	n.a.
Janitor, porter, and/or cleaner	460	.25	15	3
Guard and/or doorkeeper	280	.15	20	1
Food service workers	150	.08	50	(³)
Supervisor, nonworking--service only	160	.09	22	1
Guide, travel	2,480	1.37	12	4
Guide, sightseeing or establishment	600	.33	26	1
All other service workers	850	.47	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	27,840	15.38	n.a.	n.a.
Mechanics and repairers, total	780	.43	n.a.	n.a.
Mechanic, automotive	310	.17	16	2
Mechanic, maintenance	50	.03	34	(³)
All other mechanics and repairers	420	.23	n.a.	n.a.
Truck driver	4,200	2.32	9	6
Carpenter	150	.08	28	(³)
Crater	720	.40	17	1
Delivery and/or route worker	2,600	1.44	12	4
Electrician	60	.03	32	(³)
Supervisor, nonworking	1,040	.57	9	4
Industrial truck operator	2,320	1.28	14	3
Maintenance repairer, general utility	410	.23	18	2
Helper, trades	600	.33	25	1
Painter, maintenance	100	.06	30	1
Welder and/or flamecutter	1,160	.64	18	1
All other skilled craft and kindred workers	1,390	.77	n.a.	n.a.
All other operatives and semiskilled workers	1,930	1.07	n.a.	n.a.
All other laborers and unskilled workers	10,380	5.74	n.a.	n.a.
Clerical occupations	58,850	32.52	n.a.	n.a.
Clerical workers, office	52,270	28.88	n.a.	n.a.
Bookkeeping and/or billing machine operator	2,000	1.11	6	10
Computer operator	530	.29	9	3
Keypunch operator	830	.46	12	3
Peripheral EDP equipment operator	200	.11	19	1
All other office machine operators	340	.19	n.a.	n.a.
Stenographer	740	.41	10	4
Accounting clerk	2,820	1.56	6	9
Bookkeeper, hand	5,900	3.26	3	35
Cashier	860	.48	18	3
File clerk	750	.41	8	5
General clerk, office	15,330	8.47	4	31
Order clerk	890	.49	13	2
Payroll and/or timekeeping clerk	320	.18	8	4
Personnel clerk	130	.07	11	2
Receptionist	2,220	1.23	7	14
Secretary	5,350	2.96	4	27
Switchboard operator	250	.14	18	2
Switchboard operator and/or receptionist	560	.31	6	6

See footnotes at end of table.

Table 10. Transportation services: Employment, relative error, and percent of establishments reporting selected occupations, April 1979—Continued

(Sic 47)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Messenger	1,320	0.73	8	7
Typist	4,820	2.66	6	14
Clerical supervisor, office or plant	1,700	.94	7	7
All other office clerical workers	4,410	2.44	n.a.	n.a.
Clerical workers, plant	6,580	3.64	n.a.	n.a.
Shipping packer	2,020	1.12	14	3
Shipping and/or receiving clerk	1,600	.88	11	5
Weigher, recordkeeping	190	.10	21	1
Stock clerk, stockroom, warehouse, or storage yard	1,000	.55	16	3
Dispatcher, vehicle, service or work	890	.49	13	4
All other plant clerical workers	880	.49	n.a.	n.a.
Sales occupations	8,630	4.77	n.a.	n.a.
Crating and moving estimator	450	.25	21	2
Traffic agent	4,570	2.53	6	13
All other sales agents, sales associates, and/or sales representatives	3,230	1.78	n.a.	n.a.
Sales clerk	380	.21	25	1

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Communications

Summary

In 1979, 1.3 million persons were employed in the communications industries. Telephone, telegraph, and selected communication services employed 1.1 million, or 86 percent of these workers. The remaining 14 percent were in radio and television broadcasting.

Clerical occupations accounted for 41 percent of communications employment. Central office telephone operators made up nearly one-fifth of these.

Operating, maintenance, construction, repair, material handling, and powerplant workers accounted for 29 percent of communications employment. Almost all of these workers were employed in telephone, telegraph, and selected communication services.

The third largest occupational group was managers and officers, constituting 11 percent of communications employment. More than three-fourths of all managers and officers were employed in telephone, telegraph, and selected communications services.

Professional occupations accounted for 10 percent of the employment in communications. Radio and television broadcasting employed 82,000, or 61 percent of the professional workers in these industries. The largest professional occupation in communications was electrical or electronic engineer, with 27,000 persons.

Technical workers accounted for 4 percent of communications employment, with 48,000 persons. Most of these were engineering technicians.

Sales workers accounted for 3 percent of communications employment, with 45,000 persons. Sales employment was divided fairly evenly between the two communications industries.

Service workers constituted the smallest occupational group, accounting for just over 1 percent of communications employment. The telephone, telegraph, and selected communication services industry employed most of these workers.

Telephone, telegraph, and selected communication services

This industry includes establishments which furnish telephone or telegraphic services between two or more parties. These services can be domestic, international, marine, or aeronautical. The industry also includes home rental of cablevision service, transradio press service, and operation of radar stations.

Clerical occupations dominated the industry, with 516,000 workers or 46 percent of the employment (table 11). Next in importance, with just over one-third of

the employment, were the workers in operating, maintenance, construction, repair, material handling, and powerplant occupations. The third largest group of workers was managers and officers, with 10 percent of the industry employment. Professional workers accounted for 5 percent; workers employed in technical occupations, 3 percent; sales workers, 2 percent; and service workers, 1 percent.

The five largest occupations in telephone, telegraph, and selected communication services are shown in the tabulation below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Manager or officer	109,330	9.7
Central office operator	107,920	9.6
Installer-repairer or section maintainer	71,800	6.4
Customer service representative	65,330	5.8
Station installer	58,270	5.2

Radio and television broadcasting

In establishments which provide radio and television broadcasting services, professional workers constituted the largest occupational group, with 43 percent of the industry employment (table 12). The second largest group, with 17 percent of industry employment, was managers and officers. Workers in clerical occupations were almost as large a group, with 16 percent. Sales occupations accounted for 12 percent. Almost all of these workers were employed as sales representatives, sales agents, or sales associates. Technical workers accounted for 9 percent of industry employment. Almost three-fourths of these were broadcast technicians. Service workers made up 2 percent of this industry's employment. The smallest occupational group consisted of operating, maintenance, construction, repair, material handling, and powerplant workers.

The following tabulation lists the five largest occupations in the radio and television broadcasting industry:

	<i>Employment</i>	<i>Percent of industry employment</i>
Announcer, radio and television	38,180	20.3
Manager or officer	32,000	17.0
Sales representative, sales agent, or sales associate	21,690	11.5
Broadcast technician	12,160	6.5
Electrical or electronic engineer	8,060	4.3

Table 11. Telephone, telegraph, and selected communication services: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 481, 482, 489)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	1,128,470	100.00	--	100
Managers and officers	109,330	9.69	n.a.	87
Professional occupations	52,950	4.69	n.a.	n.a.
Engineers, total	29,460	2.61	n.a.	n.a.
Civil engineer	780	.07	14	4
Electrical and/or electronic engineer	18,580	1.65	8	27
Industrial engineer	2,480	.22	22	3
Mechanical engineer	770	.07	24	2
All other engineers	6,850	.61	n.a.	n.a.
Mathematical scientist	400	.04	31	2
Economist	120	.01	31	1
Systems analyst, business	2,940	.26	15	4
Systems analyst, scientific and technical	810	.07	24	2
Purchasing agent and/or buyer	560	.05	12	6
Accountant and/or auditor	5,900	.52	9	12
Writer and/or editor	690	.06	13	4
Lawyer	420	.04	13	3
Librarian, professional	390	.03	34	2
Personnel and labor relations specialist	5,110	.45	10	13
Public relations practitioner	1,100	.10	10	7
Right of way agent	380	.03	17	3
All other professional workers	4,670	.41	n.a.	n.a.
Technical occupations	30,800	2.73	n.a.	n.a.
Computer programmer, business	3,280	.29	14	4
Computer programmer, scientific and technical	400	.04	27	1
Engineering technicians, total	25,610	2.27	n.a.	n.a.
Drafter	5,000	.44	8	15
Electrical and/or electronic technicians	15,760	1.40	9	33
All other engineering technicians	4,850	.43	n.a.	n.a.
Radio operator	740	.07	36	2
All other technicians	770	.07	n.a.	n.a.
Service occupations	13,290	1.18	n.a.	n.a.
Janitor, porter, and/or cleaner	10,200	.90	8	31
Guard and/or doorkeeper	260	.02	27	1
Food service workers	500	.04	20	1
Supervisor, nonworking--service only	1,710	.15	14	6
All other service workers	620	.05	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	383,550	33.99	n.a.	n.a.
Mechanics and repairers, total	16,100	1.43	n.a.	n.a.
Mechanic, automotive	3,400	.30	10	11
Mechanic, maintenance	270	.02	26	1
Radio mechanic	4,970	.44	16	5
Electronic mechanic	6,820	.60	21	2
All other mechanics and repairers	640	.06	n.a.	n.a.
Truck driver	890	.08	23	3
Automatic maintainer	3,140	.28	17	3
Cable installer	6,780	.60	10	9
Cable repairer	9,940	.88	9	11
Cable splicer	36,240	3.21	1	36
Central office repairer	49,910	4.42	2	39
Cleaner, vehicle	550	.05	14	3
Delivery and/or route worker	1,630	.14	14	5
Supervisor, nonworking	49,860	4.42	1	33
Frame wiper	13,010	1.15	9	19
Utilities ground worker	500	.04	25	1
Industrial truck operator	680	.06	19	1
Inspector	410	.04	18	2
Installer repairer and/or section maintainer	71,800	6.36	2	49
Line installer repairer	23,760	2.11	5	48
Maintenance repairer, general utility	1,750	.16	12	6
Helper, trades	310	.03	27	1
Station installer	58,270	5.16	1	30
Stationary engineer	2,060	.18	12	7
Instrument shop repairer	1,040	.09	12	4
Telegraph equipment maintainer	3,270	.29	18	6

See footnotes at end of table.

Table 11. Telephone, telegraph, and selected communication services: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 481, 482, 489)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Telegraph plant maintainer	2,510	0.22	18	4
Teletype installer	2,160	.19	16	3
Test desk trouble locator	19,020	1.69	9	24
All other skilled craft and kindred workers	5,030	.45	n.a.	n.a.
All other operatives and semiskilled workers	1,610	.14	n.a.	n.a.
All other laborers and unskilled workers	1,320	.12	n.a.	n.a.
Clerical occupations	515,780	45.71	n.a.	n.a.
Clerical workers, office	458,860	40.66	n.a.	n.a.
Bookkeeping and/or billing machine operator	920	.08	24	2
Computer operator	4,950	.44	10	8
Keypunch operator	3,960	.35	9	9
Peripheral EDP equipment operator	1,070	.09	14	4
All other office machine operators	1,860	.16	n.a.	n.a.
Stenographer	7,050	.62	8	12
Accounting clerk	16,610	1.47	8	15
Bookkeeper, hand	4,340	.38	8	26
Cashier	6,780	.60	6	36
Collector	2,650	.23	12	11
File clerk	3,720	.33	19	5
General clerk, office	50,780	4.50	1	26
Mail clerk	2,490	.22	8	10
Payroll and/or timekeeping clerk	2,200	.19	11	8
Personnel clerk	2,740	.24	11	9
Private branch service advisor	2,240	.20	11	9
Receptionist	440	.04	14	4
Secretary	13,810	1.22	7	48
Service observer	3,070	.27	9	10
Service clerk	13,480	1.19	12	11
Statistical clerk	15,370	1.36	9	16
Switchboard operator	1,010	.09	26	5
Switchboard operator and/or receptionist	410	.04	17	4
Telegraph office counter clerk	880	.08	36	2
Typist	16,320	1.45	9	28
Clerical supervisor, office or plant	31,960	2.83	3	22
Directory assistance operator	37,320	3.31	1	9
Telegraph operator	4,060	.36	20	6
Central office operator	107,920	9.56	1	23
Customer service representative	65,330	5.79	1	29
All other office clerical workers	33,120	2.93	n.a.	n.a.
Clerical workers, plant	56,920	5.04	n.a.	n.a.
Production clerk and/or coordinator	19,380	1.72	7	22
Shipping and/or receiving clerk	1,830	.16	11	6
Stock clerk, stockroom, warehouse, or storage yard	7,620	.68	7	23
Dispatcher, vehicle, service or work	9,270	.82	8	17
All other plant clerical workers	18,820	1.67	n.a.	n.a.
Sales occupations	22,770	2.02	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	20,670	1.83	6	26
Sales clerk	2,100	.19	15	9

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A. n.a. Not available.

Table 12. Radio and television broadcasting: Employment, relative error, and percent of establishments reporting selected occupations, May 1979

(Sic 483)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	187,990	100.00	--	--
Managers and officers	32,000	17.02	n.a.	98
Professional occupations	81,710	43.47	n.a.	n.a.
Engineers, total	8,540	4.54	n.a.	n.a.
Electrical and/or electronic engineer	8,060	4.29	9	63
All other engineers	480	.26	n.a.	n.a.
Systems analyst, electronic data processing	320	.17	36	1
Photographer	2,690	1.43	6	15
Television camera operator	3,820	2.03	7	18
Purchasing agent and/or buyer	60	.03	25	1
Accountant and/or auditor	1,030	.55	20	9
Announcer, radio and television	38,180	20.31	2	93
Broadcast news analyst	7,620	4.05	5	48
Commercial artist	1,320	.70	8	18
Writer and/or editor	4,670	2.48	7	38
Film editor	1,510	.80	8	15
Lawyer	190	.10	35	1
Librarian, professional	300	.16	18	4
Personnel and labor relations specialist	210	.11	23	3
Public relations practitioner	670	.36	9	10
Reporter and/or correspondent	5,660	3.01	6	28
Technical director	2,410	1.28	8	15
All other professional workers	2,510	1.34	n.a.	n.a.
Technical occupations	16,920	9.00	n.a.	n.a.
Computer programmer	590	.31	26	2
Engineering technicians, total	16,030	8.53	n.a.	n.a.
Electrical and/or electronic technicians	1,600	.85	20	10
Sound recording and reproduction technician	690	.37	16	7
Video recording engineer	870	.46	24	5
Broadcast technician	12,160	6.47	6	30
Light technician	340	.18	20	3
All other engineering technicians	370	.20	n.a.	n.a.
All other technicians	300	.16	n.a.	n.a.
Service occupations	3,000	1.60	n.a.	n.a.
Janitor, porter, and/or cleaner	2,590	1.38	7	35
Guard and/or doorkeeper	180	.10	28	1
Food service workers	50	.03	19	1
Supervisor, nonworking-service only	60	.03	45	(³)
All other service workers	120	.06	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	2,000	1.06	n.a.	n.a.
Mechanics and repairers, total	360	.19	n.a.	n.a.
Radio mechanic	250	.13	24	2
All other mechanics and repairers	110	.06	n.a.	n.a.
Carpenter	180	.10	23	1
Delivery and/or route worker	40	.02	26	1
Electrician	120	.06	44	(³)
Supervisor, nonworking	120	.06	45	1
Maintenance repairer, general utility	230	.12	17	3
All other skilled craft and kindred workers	420	.22	n.a.	n.a.
All other operatives and semiskilled workers	290	.15	n.a.	n.a.
All other laborers and unskilled workers	240	.13	n.a.	n.a.
Clerical occupations	30,490	16.22	n.a.	n.a.
Clerical workers, office	29,880	15.89	n.a.	n.a.
Bookkeeping and/or billing machine operator	1,550	.82	10	18
Computer operator	300	.16	20	4
Keypunch operator	370	.20	29	2
Peripheral EDP equipment operator	80	.04	31	1
All other office machine operators	270	.14	n.a.	n.a.
Stenographer	70	.04	25	1
Accounting clerk	870	.46	9	11
Bookkeeper, hand	3,120	1.66	7	40
Cashier	60	.03	27	1
File clerk	220	.12	27	2
General clerk, office	1,190	.63	11	6

See footnotes at end of table.

Table 12. Radio and television broadcasting: Employment, relative error, and percent of establishments reporting selected occupations, May 1979—Continued

(Sic 483)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Order clerk	80	0.04	20	1
Payroll and/or timekeeping clerk	500	.27	14	9
Personnel clerk	90	.05	21	2
Receptionist	2,190	1.16	7	33
Secretary	7,800	4.15	10	49
Switchboard operator	550	.29	25	2
Switchboard operator and/or receptionist	880	.47	5	13
Script clerk	300	.16	15	3
Traffic clerk	6,180	3.29	3	61
Typist	1,300	.69	13	15
Clerical supervisor, office or plant	490	.26	39	3
All other office clerical workers	1,420	.76	n.a.	n.a.
Clerical workers, plant	610	.32	n.a.	n.a.
Production clerk and/or coordinator	270	.14	21	2
Shipping packer	60	.03	36	1
Shipping and/or receiving clerk	160	.09	15	3
Stock clerk, stockroom, warehouse, or storage yard	60	.03	23	1
All other plant clerical workers	60	.03	n.a.	n.a.
Sales occupations	21,870	11.63	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	21,690	11.54	2	86
Sales clerk	180	.10	25	1

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Utilities

This group of industries consists of establishments which provide utility and sanitary services to the public. Such establishments generate, transmit, or distribute electricity, gas, or steam; and may also provide related transportation, communication, and refrigeration services. Other types of services include water supply and irrigation systems, and sanitation systems which collect and dispose of garbage, sewage, and other wastes.

In 1979, employment in utilities totaled 796,000. Forty-six percent of the jobholders in utilities worked in electric services. Establishments providing combination electric, gas, and other utility services ranked second, with 24 percent of the employment. Establishments which produce and distribute gas accounted for 21 percent, and sanitary services, 6 percent. The remaining employment was distributed among water supply and irrigation systems, with 3 percent, and the steam supply industry, with less than 1 percent.

About half of the employment in utilities consisted of workers in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 13). Fifteen percent of these were mechanics and repairers.

Clerical occupations accounted for one-fourth of industry employment. The majority of these workers were in office occupations; the two most populous were general office clerk and customer service representative.

Professional workers, totaling 66,000 or 8 percent of utilities employment, were the third largest occupational group. Engineers accounted for almost half of the professional employees in this industry. Electrical or electronic engineer was the largest professional occupation.

Managers and officers, totaling 62,000, were almost as large a group as professional workers. Over two-fifths were employed in electric services.

Technical workers made up 5 percent of industry employment, with 42,000 persons. The largest technical occupation was electrical or electronic technician.

Service occupations accounted for 2 percent of industry employment, with 17,000 workers. Janitors, porters, and cleaners made up more than half of these.

Sales workers constituted the smallest occupational group, accounting for 1 percent of utilities employment. Gas production and distribution employed 42 percent of the industry's sales workers.

The following tabulation lists the five most populous occupations in utilities:

	<i>Employment</i>	<i>Percent of industry employment</i>
Manager or officer	61,560	7.7
Line installer-repairer	56,510	7.1
General office clerk	35,810	4.5
Supervisor, nonworking	34,890	4.4
Utilities meter reader	26,360	3.3

Table 13. Electric, gas, steam, water, and sanitary services: Employment, relative error, and percent of establishments reporting selected occupations, April 1979

(Sic 49)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	796,460	100.00	--	--
Managers and officers	61,560	7.73	n.a.	86
Professional occupations	66,480	8.35	n.a.	n.a.
Engineers, total	30,480	3.83	n.a.	n.a.
Chemical engineer	730	.09	10	4
Civil engineer	2,280	.29	7	9
Electrical and/or electronic engineer	14,580	1.83	5	20
Industrial engineer	1,550	.19	10	5
Mechanical engineer	5,080	.64	7	9
Nuclear engineer	1,120	.14	10	2
All other engineers	5,140	.65	n.a.	n.a.
Natural and/or mathematical scientist	1,450	.18	8	5
Systems analyst, electronic data processing	3,480	.44	6	7
Purchasing agent and/or buyer	2,230	.28	6	11
Accountant and/or auditor	10,820	1.36	4	23
Lawyer	940	.12	7	5
Personnel and labor relations specialist	3,480	.44	5	12
Right of way agent	1,970	.25	6	10
Home economist	750	.09	10	6
All other professional workers	10,880	1.37	n.a.	n.a.
Technical occupations	41,740	5.24	n.a.	n.a.
Computer programmer	3,440	.43	6	8
Engineering technicians, total	32,600	4.09	n.a.	n.a.
Drafter	6,550	.82	5	16
Electrical and/or electronic technicians	10,670	1.34	6	17
Surveyor	1,270	.16	9	7
Estimator and drafter, utilities	5,530	.69	8	11
All other engineering technicians	8,580	1.08	n.a.	n.a.
Science technicians	1,350	.17	10	4
All other technicians	4,350	.55	n.a.	n.a.
Service occupations	16,930	2.13	n.a.	n.a.
Janitor, porter, and/or cleaner	9,580	1.20	4	31
Guard and/or doorkeeper	2,020	.25	7	5
Food service workers	390	.05	16	2
Supervisor, nonworking--service only	3,130	.39	17	6
All other service workers	1,810	.23	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	403,100	50.61	n.a.	n.a.
Mechanics and repairers, total	60,430	7.59	n.a.	n.a.
Mechanic, automotive	8,880	1.11	4	26
Diesel mechanic	740	.09	15	3
Electric meter installer	9,940	1.25	5	15
Engineering equipment mechanic	1,860	.23	12	3
Hydroelectric machinery mechanic, powerhouse repairer, and/or gas plant repairer	10,400	1.31	9	9
Mechanic, maintenance	5,520	.69	13	7
Power transformer repairer	1,460	.18	9	4
Treatment plant mechanic	810	.10	15	3
Household appliance installer	12,430	1.56	8	12
Water meter installer	380	.05	8	2
All other mechanics and repairers	8,010	1.01	n.a.	n.a.
Truck driver	17,410	2.19	3	30
Cable splicer	4,670	.59	10	5
Carpenter	1,280	.16	21	3
Control room operator	7,230	.91	9	8
Corrosion control fitter	1,520	.19	10	7
Crane, derrick, and/or hoist operator	1,400	.18	9	4
Delivery and/or route worker	690	.09	23	3
Diesel plant operator	370	.05	22	1
Electrician	16,160	2.03	5	18
Auxiliary equipment operator	7,910	.99	8	9
Supervisor, nonworking	34,890	4.38	3	46
Gas compressor operator	2,570	.32	15	4

See footnotes at end of table.

Table 13. Electric, gas, steam, water, and sanitary services: Employment, relative error, and percent of establishments reporting selected occupations, April 1979—Continued

(Sic 49)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Gas dispatcher	1,560	0.20	12	6
Gas pumping station operator	1,800	.23	16	3
Utilities ground worker	9,450	1.19	7	18
Heavy equipment operator	11,060	1.39	5	28
Rigger	290	.04	17	1
Industrial truck operator	950	.12	14	3
Inspector	5,630	.71	6	12
Instrument repairer	8,300	1.04	7	18
Line installer repairer	56,510	7.10	4	29
Machinist	3,140	.39	7	6
Maintenance repairer, general utility	16,130	2.03	7	28
Helper, trades	14,820	1.86	5	24
Oiler	1,350	.17	19	2
Painter, maintenance	620	.08	11	4
Pipelayer	2,250	.28	12	5
Pipe wrapping machine operator	140	.02	40	1
Plumber and/or pipefitter	12,320	1.55	7	12
Power reactor operator	980	.12	18	1
Refuse collector	12,700	1.59	4	14
Sewage plant operator	980	.12	14	3
Stationary boiler firer	1,000	.13	14	2
Stationary engineer	2,160	.27	21	3
Street light repairer and servicer	830	.10	15	3
Substation operator	4,220	.53	7	5
Switchboard operator, generating plant	2,530	.32	12	3
Power line trouble shooter	7,310	.92	7	12
Turbine operator	2,510	.32	11	3
Watershed tender	300	.04	41	1
Water treatment plant operator	1,740	.22	9	8
Pump station operator, waterworks	590	.07	10	2
Welder and/or flamecutter	6,290	.79	5	17
Surveyor helper	960	.12	10	5
Load dispatcher	3,340	.42	8	6
Tree trimmer	2,180	.27	13	4
All other skilled craft and kindred workers	17,220	2.16	n.a.	n.a.
All other operatives and semiskilled workers	16,940	2.13	n.a.	n.a.
All other laborers and unskilled workers	15,470	1.94	n.a.	n.a.
Clerical occupations	200,590	25.19	n.a.	n.a.
Clerical workers, office	156,510	19.65	n.a.	n.a.
Bookkeeping and/or billing machine operator	2,700	.34	9	16
Computer operator	2,220	.28	6	9
Keypunch operator	3,280	.41	5	11
Peripheral EDP equipment operator	1,400	.18	11	3
All other office machine operators	2,030	.25	n.a.	n.a.
Stenographer	7,010	.88	4	15
Accounting clerk	11,550	1.45	5	28
Bookkeeper, hand	4,280	.54	6	23
Cashier	7,130	.90	6	30
Collector	5,420	.68	6	13
File clerk	2,770	.35	8	7
General clerk, office	35,810	4.50	4	55
Order clerk	1,000	.13	10	5
Payroll and/or timekeeping clerk	1,780	.22	5	12
Personnel clerk	1,340	.17	7	7
Receptionist	530	.07	12	5
Secretary	15,160	1.90	4	43
Switchboard operator	1,390	.17	7	9
Switchboard operator and/or receptionist	870	.11	8	10
Typist	6,830	.86	6	17
Clerical supervisor, office or plant	11,190	1.40	7	18
Customer service representative	20,940	2.63	4	22
All other office clerical workers	9,880	1.24	n.a.	n.a.
Clerical workers, plant	44,080	5.53	n.a.	n.a.
Utilities meter reader	26,360	3.31	3	44
Shipping and/or receiving clerk	1,280	.16	8	6

See footnotes at end of table.

Table 13. Electric, gas, steam, water, and sanitary services: Employment, relative error, and percent of establishments reporting selected occupations, April 1979—Continued

(Sic 49)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, plant				
Stock clerk, stockroom, warehouse, or storage yard	9,520	1.20	4	32
Dispatcher, vehicle, service or work	4,470	.56	5	19
All other plant clerical workers	2,450	.31	n.a.	n.a.
Sales occupations	6,060	.76	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	5,810	.73	6	19
Sales clerk	250	.03	18	1

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A. n.a. Not available.

Wholesale Trade

Summary

This group of industries consists of establishments or places of business which are principally engaged in selling large quantities of goods to retailers; to industrial, commercial, institutional, farm, or professional business users; or to other wholesalers; or which act as agents or brokers in buying merchandise for, or selling merchandise to, such persons or companies. In addition to selling, functions frequently performed by wholesale establishments include maintaining inventories of goods; extending credit; physically assembling, sorting, and grading goods in large lots; delivery; refrigeration; and various types of promotion.

Employment in wholesale trade in 1979 totaled 5.2 million. The durable goods segment of wholesale trade accounted for nearly three-fifths of the employment in the industry group, with 3.1 million workers. Nondurable goods establishments employed the remaining 2.1 million workers.

The 1.7 million workers in operating, maintenance, construction, repair, material handling, and powerplant occupations accounted for one-third of wholesale trade employment (table 14). Delivery or route worker was the largest of these occupations, with 237,000 persons.

Clerical workers accounted for 29 percent of industry employment, with 1.5 million workers. Two-thirds of these were office clerical workers. General office clerk was the largest occupation, with 286,000 persons.

The third largest occupational group consisted of sales workers, with 1.1 million or 21 percent of wholesale trade employment. Of these, 89 percent were sales representatives, sales agents, or sales associates; more than half were employed in nontechnical jobs.

Managers and officers accounted for 9 percent of industry employment, with 480,000 persons. "Wholesale managers," totaling 202,000, constituted 42 percent of these; "merchandise managers" constituted 32 percent.

Professional occupations made up 5 percent of total employment in wholesale trade. One-third of these professionals were wholesale trade buyers.

Technical workers accounted for only 2 percent of total employment. Nearly three-fourths of all technicians in wholesale trade were electrical or electronic technicians.

Service workers were the smallest occupational group. Of the 87,000 workers in this group, three-fifths were janitors, porters, or cleaners.

Durable goods

This industry group comprises establishments primarily engaged in the wholesale distribution of the following kinds of merchandise: Motor vehicles and automotive parts and supplies; furniture and home furnishings; lumber and other construction materials; sporting, recreational, photographic, and hobby goods, toys and supplies; metals and minerals, except petroleum; electrical goods; hardware, plumbing and heating equipment and supplies; machinery, equipment, and supplies; and miscellaneous durable goods.

In 1979, employment in the durable goods segment of wholesale trade totaled 3.1 million. The three largest industries in this segment, constituting 68 percent of total employment, were: Machinery, equipment, and supplies, with 1.3 million workers; motor vehicles and automotive parts and supplies, with 449,000; and electrical goods, with 405,000.

Thirty percent of the employees were in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 15). Of these, more than one-fourth were mechanics and repairers. Workers in clerical occupations were almost as large a group as operatives, with 919,000 or nearly 30 percent of the employment. Most of these worked in office clerical occupations. Sales workers accounted for 22 percent of wholesale durable goods employment. Technical sales representatives, sales agents, and sales associates made up 45 percent of these. Managers and officers constituted 9 percent of total employment; professionals, 5 percent; and technical workers, 3 percent. The smallest group was service workers, with only 1 percent.

The tabulation below lists the five most populous occupations in the durable goods segment of wholesale trade:

	<i>Employment</i>	<i>Percent of industry employment</i>
Technical sales representative, sales agent, or sales associate	307,090	9.9
Nontechnical sales representative, sales agent, or sales associate	299,800	9.6
General office clerk	182,810	5.9
Stock clerk (stockroom, warehouse, or storage yard)	136,440	4.4
Order filler	112,500	3.6

Nondurable goods

This industry group comprises establishments primarily engaged in the wholesale distribution of the following kinds of merchandise: Paper and paper products; drugs, drug proprietaries, and druggists' sundries; apparel, piece goods, and notions; groceries and related products; farm-product raw materials; chemicals and allied products; petroleum and petroleum products, beer, wine, and distilled alcoholic beverages; and miscellaneous nondurable goods.

In 1979, employment in the nondurable goods segment of wholesale trade totaled 2.1 million. The three largest industries, with nearly three-fifths of the employment, were: Groceries and related products, with 650,000 workers; miscellaneous nondurable goods (tobacco, paints, farm supplies, etc.), with 385,000; and petroleum and petroleum products, with 229,000.

The largest concentration of workers, 37 percent, was in operating, maintenance, construction, repair, material handling, and powerplant occupations (table 16). Clerical occupations, accounting for 28 percent of the workers, made up the second largest occupational

group. Two-thirds of these worked in office clerical occupations. Sales workers made up 19 percent of wholesale nondurable goods employment, with 411,000 workers. The majority of these were sales representatives, sales agents, or sales associates. Managers and officers accounted for 9 percent of employment; professional workers, 3 percent; and service workers, 2 percent. Almost half of the service workers were butchers or meat cutters. The smallest occupational group consisted of technical workers.

The five largest occupations in the nondurable goods segment of wholesale trade are listed in the tabulation below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Nontechnical sales representative, sales agent, or sales associate	262,380	12.3
Delivery or route worker ...	180,050	8.5
Truck driver	134,630	6.3
Technical sales representative, sales agent, or sales associate	105,290	4.9
General office clerk	103,400	4.9

Table 14. Wholesale trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 50, 51)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	5,245,260	100.00	--	--
Managers and officers	479,880	9.15	n.a.	n.a.
Manager, merchandise	152,810	2.91	2	38
Manager, store	3,410	.07	16	1
Manager, automobile service department	590	.01	31	(³)
Manager, automobile parts department	940	.02	29	(³)
Manager, wholesale	201,730	3.85	2	52
All other managers and officers	120,400	2.30	n.a.	n.a.
Professional occupations	235,040	4.48	n.a.	n.a.
Engineers, total	42,580	.81	n.a.	n.a.
Chemical engineer	2,790	.05	19	1
Electrical and/or electronic engineer	17,200	.33	17	2
Mechanical engineer	19,430	.37	10	3
All other engineers	3,160	.06	n.a.	n.a.
Chemist	800	.02	26	(³)
Systems analyst, electronic data processing	24,150	.46	9	4
Purchasing agent and/or buyer	1,580	.03	17	1
Retail and/or wholesale trade buyer	72,250	1.38	3	21
Accountant and/or auditor	61,150	1.17	3	21
Commercial artist	1,910	.04	18	1
Writer and/or editor	640	.01	40	(³)
Lawyer	610	.01	21	(³)
Personnel and labor relations specialist	1,660	.03	16	1
Public relations practitioner	1,510	.03	32	(³)
Designer	5,040	.10	11	1
All other professional workers	21,160	.40	n.a.	n.a.
Technical occupations	115,520	2.20	n.a.	n.a.
Computer programmer	15,600	.30	7	5
Engineering technicians, total	91,410	1.74	n.a.	n.a.
Drafter	4,220	.08	15	1
Electrical and/or electronic technicians	85,990	1.64	8	4
All other engineering technicians	1,200	.02	n.a.	n.a.
Science technicians	1,590	.03	27	(³)
All other technicians	6,920	.13	n.a.	n.a.
Service occupations	87,270	1.66	n.a.	n.a.
Janitor, porter, and/or cleaner	51,750	.99	10	14
Guard and/or doorkeeper	2,100	.04	23	1
Baker, bread and/or pastry	630	.01	46	(³)
Butcher and/or meat cutter	23,800	.45	14	1
Waiter/waitress	550	.01	46	(³)
Pantry, sandwich and/or coffee maker	660	.01	45	(³)
All other food service workers	3,940	.08	n.a.	n.a.
All other service workers	3,840	.07	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	1,712,140	32.64	n.a.	n.a.
Mechanics and repairers, total	270,400	5.16	n.a.	n.a.
Mechanic, automotive	78,740	1.50	7	9
Body repairer, automotive	2,270	.04	34	(³)
Camera repairer and/or motion picture camera repairer	740	.01	38	(³)
Diesel mechanic	54,920	1.05	10	4
Farm equipment mechanic	14,870	.28	13	1
Engineering equipment mechanic	36,560	.70	12	2
Mechanic, maintenance	4,910	.09	29	(³)
Office machine servicer and/or cash register servicer	41,470	.79	11	2
Refrigeration mechanic and/or air conditioning mechanic	4,250	.08	19	1
Television servicer and repairer, radio repairer and/or tape recorder repairer	1,010	.02	39	(³)
Coin machine servicer and/or vending machine repairer	740	.01	48	(³)
Gas and electric appliance repairer	2,180	.04	45	(³)
All other mechanics and repairers	27,740	.53	n.a.	n.a.
Truck driver	232,310	4.43	2	32
Cabinetmaker	1,250	.02	33	(³)

See footnotes at end of table.

Table 14. Wholesale trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 50, 51)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Carpet cutter and/or carpet layer	540	0.01	49	(³)
Carpenter	5,770	.11	18	(³)
Delivery and/or route worker	237,250	4.52	3	24
Merchandise displayer and window trimmer	890	.02	25	(³)
Electrician	2,190	.04	48	(³)
Supervisor, nonworking	90,460	1.72	3	23
Glazier	3,470	.07	19	(³)
Industrial truck operator	55,460	1.06	6	10
Instrument repairer	800	.02	47	(³)
Jeweler and/or silversmith	1,800	.03	29	(³)
Machinist	8,460	.16	15	1
Maintenance repairer, general utility	76,880	1.47	7	14
Helper, trades	4,650	.09	30	(³)
Oil burner installer and servicer	2,040	.04	22	(³)
Musical instrument repairer	580	.01	47	(³)
Order filler	217,830	4.15	3	24
Painter, maintenance	650	.01	40	(³)
Plumber and/or pipefitter	3,760	.07	31	(³)
Production packager, hand or machine	26,390	.50	23	1
Sewing machine operator, regular equipment-garment	2,700	.05	28	(³)
Sewing machine operator, special equipment and/or automatic equipment-garment	620	.01	33	(³)
Sewing machine operator, regular equipment-nongarment	1,070	.02	42	(³)
Sewing machine operator, special equipment and/or automatic equipment-nongarment	670	.01	41	(³)
Sheet metal worker	3,160	.06	24	(³)
Tire fabricator and/or repairer	2,110	.04	30	(³)
Welder and/or flamecutter	9,040	.17	17	1
Furniture assembler and installer	870	.02	33	(³)
Service station attendant, fuel pump attendant, and/or lubricator	38,560	.74	6	3
Tire changer	2,860	.05	28	(³)
Sales floor stock clerk	1,920	.04	26	(³)
Baker	2,020	.04	40	(³)
Wood machinist	650	.01	38	(³)
Conveyor operator or tender	14,240	.27	11	2
All other skilled craft and kindred workers	39,020	.74	n.a.	n.a.
All other operatives and semiskilled workers	107,710	2.05	n.a.	n.a.
All other laborers and unskilled workers	241,090	4.60	n.a.	n.a.
Clerical occupations	1,517,360	28.93	n.a.	n.a.
Clerical workers, office	1,036,320	19.76	n.a.	n.a.
Bookkeeping and/or billing machine operator	57,260	1.09	3	18
Computer operator	6,340	.12	11	2
Keypunch operator	35,790	.68	5	10
Peripheral EDP equipment operator	640	.01	34	(³)
All other office machine operators	1,830	.03	n.a.	n.a.
Accounting clerk	89,560	1.71	3	22
Bookkeeper, hand	114,420	2.18	2	35
Adjustment clerk	1,000	.02	26	(³)
Cashier	35,940	.69	8	9
Collector	1,060	.02	34	(³)
File clerk	1,510	.03	18	(³)
General clerk, office	286,220	5.46	2	45
Credit authorizer	1,500	.03	20	1
Order clerk	118,000	2.25	4	19
Payroll and/or timekeeping clerk	720	.01	20	(³)
Personnel clerk	540	.01	21	(³)
Procurement clerk	1,460	.03	31	(³)
Credit reference clerk	960	.02	31	(³)
Receptionist	17,800	.34	4	7
Secretary	150,800	2.87	2	33
Service clerk	1,430	.03	49	(³)
Switchboard operator	6,540	.12	11	3
Switchboard operator and/or receptionist	29,280	.56	3	15
Typist	49,690	.95	4	13

See footnotes at end of table.

Table 14. Wholesale trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 50, 51)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Clerical supervisor, office or plant	9,080	0.17	10	2
All other office clerical workers	16,950	.32	n.a.	n.a.
Clerical workers, plant	481,040	9.17	n.a.	n.a.
Shipping packer	126,860	2.42	4	16
Shipping and/or receiving clerk	115,050	2.19	3	26
Weigher, recordkeeping	12,600	.24	7	4
Stock clerk, stockroom, warehouse, or storage yard	219,670	4.19	3	31
Dispatcher, vehicle, service or work	1,720	.03	19	1
Marking clerk	1,640	.03	25	(³)
All other plant clerical workers	3,500	.07	n.a.	n.a.
Sales occupations	1,098,050	20.93	n.a.	n.a.
Technical sales representative, sales agent and/or associate	412,380	7.86	2	28
Non-technical sales representative, sales agent and/or associate	562,190	10.72	2	45
Sales clerk	116,270	2.22	4	15
Demonstrator	1,780	.03	43	(³)
Sales clerk supervisor	670	.01	24	(³)
All other sales workers	4,760	.09	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 15. Wholesale trade--durable goods: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 50)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	3,115,850	100.00	--	--
Managers and officers	287,660	9.23	n.a.	n.a.
Manager, merchandise	91,930	2.95	3	39
Manager, store	1,440	.05	24	1
Manager, automobile service department	580	.02	31	(³)
Manager, automobile parts department	790	.03	33	(³)
Manager, wholesale	118,110	3.79	3	53
All other managers and officers	74,810	2.40	n.a.	n.a.
Professional occupations	161,450	5.18	n.a.	n.a.
Engineers, total	37,350	1.20	n.a.	n.a.
Chemical engineer	1,290	.04	34	(³)
Electrical and/or electronic engineer	16,700	.54	18	3
Mechanical engineer	17,520	.56	11	4
All other engineers	1,840	.06	n.a.	n.a.
Systems analyst, electronic data processing	20,620	.66	11	5
Purchasing agent and/or buyer	1,090	.03	21	1
Retail and/or wholesale trade buyer	46,510	1.49	3	24
Accountant and/or auditor	37,350	1.20	4	22
Commercial artist	570	.02	41	(³)
Lawyer	340	.01	26	(³)
Personnel and labor relations specialist	880	.03	25	1
Public relations practitioner	1,060	.03	44	(³)
Designer	2,300	.07	19	1
All other professional workers	13,380	.43	n.a.	n.a.
Technical occupations	104,830	3.36	n.a.	n.a.
Computer programmer	10,140	.33	10	6
Engineering technicians, total	89,870	2.88	n.a.	n.a.
Drafter	4,040	.13	16	1
Electrical and/or electronic technicians	84,990	2.73	8	6
All other engineering technicians	840	.03	n.a.	n.a.
Science technicians	310	.01	n.a.	n.a.
All other technicians	4,510	.14	n.a.	n.a.
Service occupations	36,570	1.17	n.a.	n.a.
Janitor, porter, and/or cleaner	33,610	1.08	15	14
Guard and/or doorkeeper	1,200	.04	38	1
Food service workers	1,060	.03	n.a.	n.a.
All other service workers	700	.02	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	919,780	29.52	n.a.	n.a.
Mechanics and repairers, total	252,850	8.11	n.a.	n.a.
Mechanic, automotive	69,300	2.22	8	10
Body repairer, automotive	2,240	.07	34	(³)
Camera repairer and/or motion picture camera repairer	740	.02	38	(³)
Diesel mechanic	51,560	1.65	10	5
Farm equipment mechanic	14,570	.47	14	1
Engineering equipment mechanic	36,290	1.16	12	3
Mechanic, maintenance	4,280	.14	33	(³)
Office machine servicer and/or cash register servicer	40,700	1.31	11	3
Refrigeration mechanic and/or air conditioning mechanic	4,060	.13	20	1
Television servicer and repairer, radio repairer and/or tape recorder repairer	1,000	.03	39	(³)
All other mechanics and repairers	28,110	.90	n.a.	n.a.
Truck driver	97,690	3.14	3	30
Cabinetmaker	1,220	.04	34	(³)
Carpet cutter and/or carpet layer	540	.02	49	(³)
Carpenter	2,920	.09	27	1
Delivery and/or route worker	57,200	1.84	5	17
Electrician	2,140	.07	49	(³)
Supervisor, nonworking	56,040	1.80	3	25
Glazier	3,310	.11	20	(³)
Industrial truck operator	26,620	.85	9	9

See footnotes at end of table.

Table 15. Wholesale trade--durable goods: Employment, relative error, and percent of establishments reporting selected occupations, June 1979--Continued

(Sic 50)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Instrument repairer	800	0.03	48	(³)
Jeweler and/or silversmith	1,800	.06	29	(³)
Machinist	8,140	.26	16	1
Maintenance repairer, general utility	52,310	1.68	10	13
Helper, trades	3,620	.12	36	1
Musical instrument repairer	580	.02	47	(³)
Order filler	112,500	3.61	4	24
Painter, maintenance	580	.02	43	(³)
Plumber and/or pipefitter	3,660	.12	31	(³)
Production packager, hand or machine	3,780	.12	42	(³)
Sheet metal worker	3,140	.10	24	1
Tire fabricator and/or repairer	1,740	.06	36	(³)
Welder and/or flamecutter	9,000	.29	17	2
Furniture assembler and installer	790	.03	36	(³)
Service station attendant, fuel pump attendant, and/or lubricator	5,130	.16	18	1
Tire changer	2,650	.09	30	(³)
Sales floor stock clerk	350	.01	50	(³)
Wood machinist	650	.02	38	(³)
Conveyor operator or tender	4,510	.14	17	1
All other skilled craft and kindred workers	33,030	1.06	n.a.	n.a.
All other operatives and semiskilled workers	77,380	2.48	n.a.	n.a.
All other laborers and unskilled workers	93,110	2.99	n.a.	n.a.
Clerical occupations	918,590	29.48	n.a.	n.a.
Clerical workers, office	643,820	20.66	n.a.	n.a.
Bookkeeping and/or billing machine operator	33,640	1.08	4	19
Computer operator	3,360	.11	18	2
Keypunch operator	20,260	.65	8	10
Peripheral EDP equipment operator	440	.01	48	(³)
All other office machine operators	1,120	.04	n.a.	n.a.
Stenographer	350	.01	36	(³)
Accounting clerk	54,020	1.73	5	23
Bookkeeper, hand	64,300	2.06	2	34
Adjustment clerk	530	.02	40	(³)
Cashier	15,440	.50	9	8
Collector	840	.03	42	(³)
File clerk	1,040	.03	24	(³)
General clerk, office	182,810	5.87	3	47
Credit authorizer	1,010	.03	28	1
Order clerk	79,010	2.54	5	21
Payroll and/or timekeeping clerk	320	.01	29	(³)
Credit reference clerk	560	.02	44	(³)
Receptionist	11,470	.37	6	8
Secretary	97,980	3.14	3	36
Switchboard operator	4,230	.14	16	4
Switchboard operator and/or receptionist	20,900	.67	4	18
Typist	33,100	1.06	5	15
Clerical supervisor, office or plant	4,600	.15	14	3
All other office clerical workers	12,490	.40	n.a.	n.a.
Clerical workers, plant	274,770	8.82	n.a.	n.a.
Shipping packer	58,140	1.87	5	17
Shipping and/or receiving clerk	72,780	2.34	4	29
Weigher, recordkeeping	3,770	.12	13	3
Stock clerk, stockroom, warehouse, or storage yard	136,440	4.38	4	36
Dispatcher, vehicle, service or work	920	.03	32	1
Marking clerk	480	.02	46	(³)
All other plant clerical workers	2,240	.07	n.a.	n.a.
Sales occupations	686,970	22.05	n.a.	n.a.
Technical sales representative, sales agent and/or associate	307,090	9.86	3	37
Non-technical sales representative, sales agent and/or associate	299,800	9.62	3	45

See footnotes at end of table.

Table 15. Wholesale trade--durable goods: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 50)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Sales occupations—Continued				
Sales clerk	75,860	2.43	6	17
All other sales workers	4,220	.14	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 16. Wholesale trade--nondurable goods: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 51)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	2,129,400	100.00	--	--
Managers and officers	192,210	9.03	n.a.	n.a.
Manager, merchandise	60,880	2.86	2	38
Manager, store	1,960	.09	22	1
Manager, wholesale	83,620	3.93	2	51
All other managers and officers	45,750	2.15	n.a.	n.a.
Professional occupations	73,620	3.46	n.a.	n.a.
Engineers, total	5,240	.25	n.a.	n.a.
Chemical engineer	1,500	.07	19	1
Electrical and/or electronic engineer	500	.02	25	(³)
Mechanical engineer	1,910	.09	12	1
All other engineers	1,330	.06	n.a.	n.a.
Chemist	720	.03	28	(³)
Life scientist	470	.02	29	(³)
Systems analyst, electronic data processing	3,530	.17	11	4
Purchasing agent and/or buyer	490	.02	25	(³)
Retail and/or wholesale trade buyer	25,740	1.21	5	18
Accountant and/or auditor	23,800	1.12	4	20
Commercial artist	1,340	.06	18	1
Writer and/or editor	280	.01	43	(³)
Lawyer	270	.01	34	(³)
Personnel and labor relations specialist	790	.04	21	1
Public relations practitioner	450	.02	33	(³)
Designer	2,740	.13	11	1
All other professional workers	7,760	.36	n.a.	n.a.
Technical occupations	10,670	.50	n.a.	n.a.
Computer programmer	5,460	.26	10	5
Engineering technicians, total	1,530	.07	n.a.	n.a.
Electrical and/or electronic technicians	1,000	.05	19	1
All other engineering technicians	530	.02	n.a.	n.a.
Science technicians	1,270	.06	21	(³)
All other technicians	2,410	.11	n.a.	n.a.
Service occupations	50,680	2.38	n.a.	n.a.
Janitor, porter, and/or cleaner	18,130	.85	6	14
Guard and/or doorkeeper	890	.04	21	1
Baker, bread and/or pastry	620	.03	47	(³)
Butcher and/or meat cutter	23,500	1.10	14	3
Waiter/waitress	500	.02	46	(³)
Cook, short order and/or specialty fast foods	420	.02	41	(³)
Pantry, sandwich and/or coffee maker	640	.03	46	(³)
All other food service workers	2,840	.13	n.a.	n.a.
All other service workers	3,140	.15	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	792,370	37.21	n.a.	n.a.
Mechanics and repairers, total	17,560	.82	n.a.	n.a.
Mechanic, automotive	9,430	.44	7	7
Diesel mechanic	3,370	.16	13	2
Engineering equipment mechanic	270	.01	31	(³)
Mechanic, maintenance	640	.03	26	(³)
Office machine servicer and/or cash register servicer	770	.04	21	(³)
Coin machine servicer and/or vending machine repairer	460	.02	40	(³)
All other mechanics and repairers	2,620	.12	n.a.	n.a.
Truck driver	134,630	6.32	3	34
Carpenter	2,840	.13	25	(³)
Delivery and/or route worker	180,050	8.46	3	32
Merchandise displayer and window trimmer	620	.03	34	(³)
Supervisor, nonworking	34,420	1.62	4	20
Industrial truck operator	28,850	1.35	7	11
Machinist	330	.02	44	(³)
Maintenance repairer, general utility	24,570	1.15	5	15
Helper, trades	1,040	.05	38	(³)
Oil burner installer and servicer	1,920	.09	22	1

See footnotes at end of table.

Table 16. Wholesale trade--nondurable goods: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 51)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Order filler	105,330	4.95	4	23
Production packager, hand or machine	22,610	1.06	26	2
Custom sewer	280	.01	40	(³)
Sewing machine operator, regular equipment-garment	2,520	.12	20	(³)
Sewing machine operator, special equipment and/or automatic equipment-garment	530	.02	34	(³)
Sewing machine operator, regular equipment-nongarment	400	.02	37	(³)
Tire fabricator and/or repairer	370	.02	46	(³)
Service station attendant, fuel pump attendant, and/or lubricator	33,430	1.57	6	6
Sales floor stock clerk	1,570	.07	30	(³)
Baker	2,020	.09	40	(³)
Conveyor operator or tender	9,730	.46	15	3
All other skilled craft and kindred workers	6,520	.31	n.a.	n.a.
All other operatives and semiskilled workers	32,260	1.51	n.a.	n.a.
All other laborers and unskilled workers	147,970	6.95	n.a.	n.a.
Clerical occupations	598,780	28.12	n.a.	n.a.
Clerical workers, office	392,520	18.43	n.a.	n.a.
Bookkeeping and/or billing machine operator	23,620	1.11	4	17
Computer operator	2,980	.14	12	2
Keypunch operator	15,530	.73	5	10
All other office machine operators	910	.04	n.a.	n.a.
Accounting clerk	35,540	1.67	4	21
Bookkeeper, hand	50,120	2.35	2	35
Adjustment clerk	480	.02	34	(³)
Cashier	20,510	.96	12	11
Collector	220	.01	32	(³)
File clerk	470	.02	21	(³)
General clerk, office	103,400	4.86	3	42
Credit authorizer	490	.02	17	(³)
Order clerk	38,980	1.83	4	16
Payroll and/or timekeeping clerk	410	.02	27	(³)
Personnel clerk	250	.01	30	(³)
Procurement clerk	1,140	.05	38	(³)
Credit reference clerk	400	.02	43	(³)
Receptionist	6,340	.30	6	7
Secretary	52,820	2.48	3	30
Service clerk	370	.02	48	(³)
Switchboard operator	2,310	.11	9	3
Switchboard operator and/or receptionist	8,380	.39	4	12
Typist	16,590	.78	5	11
Clerical supervisor, office or plant	4,480	.21	14	2
All other office clerical workers	5,780	.27	n.a.	n.a.
Clerical workers, plant	206,260	9.69	n.a.	n.a.
Shipping packer	68,720	3.23	7	15
Shipping and/or receiving clerk	42,260	1.98	5	23
Weigher, recordkeeping	8,830	.41	8	6
Stock clerk, stockroom, warehouse, or storage yard	83,230	3.91	4	26
Dispatcher, vehicle, service or work	810	.04	20	1
Marking clerk	1,160	.05	30	(³)
All other plant clerical workers	1,250	.06	n.a.	n.a.
Sales occupations	411,070	19.30	n.a.	n.a.
Technical sales representative, sales agent and/or associate	105,290	4.94	4	18
Non-technical sales representative, sales agent and/or associate	262,380	12.32	3	44
Sales clerk	40,400	1.90	5	12
Sales clerk supervisor	400	.02	27	(³)
All other sales workers	2,600	.12	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Retail Trade

Summary

This group of industries includes establishments or places of business which sell merchandise for personal or household consumption, but also render services incidental to the sale of those goods.

Employment in retail trade in 1979 totaled 15.1 million—17 percent of total nonagricultural wage and salary employment in the Nation and three-fifths of the employment in the industries discussed in this bulletin.

Among the various types of establishments in retail trade, eating and drinking places employed the most workers, 4.7 million or 31 percent (table 17). Food stores ranked second with 2.3 million or 15 percent. Employment in general merchandise stores was almost as large—2.2 million workers. Two types of establishments each accounted for 12 percent of retail employment: Miscellaneous retail stores, with about 1.9 million workers; and automotive dealers and gasoline service stations, with 1.8 million. No other industry accounted for more than 6 percent of retail employment.

Service workers, with 30 percent of total retail employment, constituted the largest occupational group (table 18). Eating and drinking places employed 89 percent of these workers. The largest occupation in this group was waiter or waitress, numbering 1.3 million. This job was the third largest in retail trade.

Sales occupations made up the second largest occupational group in retail trade, with 22 percent of employment. General merchandise stores employed almost one-third of all retail sales workers. Sales clerk was the largest occupation, and accounted for 15 percent of total retail employment.

Ranking third of the seven major groups, with 18 percent of employment, were operating, maintenance, construction, repair, material handling, and powerplant occupations. Of the 2.7 million operatives in retail trade, more than one-third were employed by automotive dealers and gasoline service stations. The largest occupation in this major group was sales floor stock clerk.

Clerical workers, numbering 2.7 million, or 18 percent of industry employment, constituted the fourth largest occupational group. Cashier was the largest occupation in this major group, with 1.2 million, and ranked second of all jobs in retail trade.

Managers and officers accounted for 9 percent of retail trade employment. More than half were store managers.

Professional workers made up only 3 percent of total employment in retail trade. Retail trade buyer and pharmacist were the largest professional occupations in this industry group.

The smallest occupational group consisted of 16,000 technical workers—less than 1 percent of retail trade employment.

Table 17. Retail trade: Percent distribution of employment in major occupational groups by industry, 1979

Industry	Total	Managers and officers	Professional workers	Technical workers	Service workers	Operating, maintenance, construction, repair, material handling, and powerplant workers	Clerical workers	Sales workers
Total	15,075,730	1,429,790	396,320	15,960	4,539,980	2,727,830	2,658,450	3,307,400
Percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Building materials, hardware, and garden supply stores, and mobile home dealers	4.28	5.36	4.68	5.20	.18	7.81	5.41	5.58
General merchandise stores	14.63	11.13	17.53	30.51	3.19	8.92	21.19	30.87
Food stores	15.11	13.12	10.04	3.32	4.28	26.94	29.27	10.37
Automotive dealers and gasoline service stations	12.17	18.29	5.67	7.71	1.13	33.93	10.45	8.93
Apparel and accessory stores	6.19	9.04	6.48	1.82	.31	3.21	5.07	16.39
Furniture, home furnishings, and equipment stores	4.05	5.74	6.57	7.64	.30	6.25	4.79	5.75
Eating and drinking places	31.22	22.63	7.26	3.51	89.17	1.16	8.28	1.61
Miscellaneous retail	12.34	14.70	41.78	40.29	1.44	11.78	15.53	20.50

Building materials, hardware, and garden supply stores, and mobile home dealers

This industry comprises establishments selling lumber and other building materials; paint, glass, and wallpaper; hardware; nursery stock; lawn and garden supplies; and mobile homes.

Employment in this industry in 1979 totaled 646,000. Establishments primarily selling lumber, or lumber and a general line of building materials, accounted for 54 percent of total employment, with 348,000 workers. Hardware stores employed 23 percent, with 151,000 workers. Paint, glass, and wallpaper stores employed 10 percent; retail nurseries and lawn and garden supply stores, 8 percent; and establishments selling new and used mobile homes, 5 percent.

The 213,000 workers in operating, maintenance, construction, repair, material handling, and powerplant occupations accounted for one-third of industry employment (table 19). Ranking second, with 29 percent of total employment, were sales occupations. Clerical occupations ranked third of the seven occupational groups, with 22 percent of industry employment. Managers and officers accounted for 12 percent. Of the remaining 4 percent of industry employment, professional workers made up 3 percent; service workers, 1 percent; and technical workers, less than 1 percent.

The five largest occupations in building materials, hardware, and garden supply stores, and mobile home dealerships are listed in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Sales clerk	95,450	14.8
Nontechnical sales representative, sales agent, or associate	68,990	10.7
Store manager	56,980	8.8
Truck driver	40,780	6.3
Stock clerk (stockroom, warehouse, or storage yard)	30,810	4.8

General merchandise stores

This industry comprises establishments engaging in the retail sale of several lines of goods: Apparel and accessories, furniture and home furnishings, dry goods, small wares, hardware, and food.

In 1979, employment in these stores totaled 2.2 million. Department stores employed 1.8 million, just over four-fifths of the employment in this industry. Variety stores accounted for 13 percent, with 276,000 workers. Miscellaneous general merchandise stores usually employing less than 25 employees made up the remaining 6 percent of industry employment.

The largest occupational group in this industry was

sales workers, with 1 million persons or 46 percent of total industry employment. Clerical workers ranked second with 563,000 or 26 percent. The majority of these worked in office clerical occupations. Operating, maintenance, construction, repair, material handling, and powerplant occupations employed 11 percent. Managers and officers ranked fourth, with 159,000 sales representative or 7 percent of total employment. Service workers were almost as large a group, with 145,000. Professional workers accounted for 3 percent of industry employment, numbering 69,000. The smallest occupational group consisted of 5,000 technical workers, less than 1 percent of employment in the industry.

The five most populous occupations in general merchandise stores, in order of predominance, are listed in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Sales clerk	827,550	37.5
Cashier	141,750	6.4
Nontechnical sales agent, or associate	131,780	6.0
Sales floor stock clerk	90,430	4.1
Store manager	61,200	2.8

Food stores

This industry consists of establishments selling food for home preparation and consumption.

Employment in food stores in 1979 totaled 2.3 million. Grocery stores employed 2 million or 87 percent of all food store workers. Retail bakeries accounted for 6 percent. Meat and seafood markets, including freezer provisioners and stores selling dairy products, each accounted for 2 percent of food store employment. The remaining 3 percent was distributed among miscellaneous food stores (those engaged in the retail sale of specialized foods such as coffee, tea, spices, etc.), with 28,000 workers; candy, nut, and confectionery stores, with 22,000; and fruit stores and vegetable markets, with 20,000.

Clerical occupations accounted for about one-third of total employment in food stores (table 21). Nearly four-fifths of these workers were cashiers—the industry's largest occupation. Operating, maintenance, construction, repair, material handling, and powerplant workers constituted another one-third of food store employment. The third largest occupational group, with 15 percent of employment, were sales workers, numbering 343,000. Service occupations ranked fourth with 9 percent, or 195,000 workers. Seventy percent of these were butchers or meat cutters. Managers and officers accounted for 8 percent of industry employment, totaling 188,000, and professional workers accounted for 2 percent. The smallest occupational group consisted of 530 technical workers.

The five largest occupations in food stores are listed in the tabulation below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Cashier	612,080	26.9
Sales floor stock clerk	344,610	15.1
Sales clerk	340,040	14.9
Bagger	220,860	9.7
Store manager	160,150	7.0

Automotive dealers and gasoline service stations

This industry comprises establishments engaged in the retail sale of new and used automobiles, boats, recreational and utility trailers, and motorcycles; also other automotive vehicles such as dunebuggies, snowmobiles, and go-carts; and new automobile parts and accessories. Gasoline service stations are also included.

Employment in this industry in 1979 totaled 1.8 million. Persons working in dealerships selling new and used motor vehicles numbered 851,000, or 46 percent of industry employment. Gasoline service stations accounted for 564,000 or 31 percent. Fifteen percent held jobs in auto and home supply stores, selling products such as tires, batteries, radios, and television sets. The remaining 8 percent were in establishments selling used motor vehicles, with 40,000 workers; motorcycle dealerships, with 33,000; recreational and utility trailer dealers, employing 19,000; and miscellaneous automotive dealers, with 12,000 workers.

Half of the workers in this industry were employed in operating, maintenance, construction, repair, material handling, and powerplant occupations, totaling 926,000 (table 22). More than two-fifths of these worked as mechanics and repairers. Sales workers ranked second, with 16 percent of total employment. Clerical workers constituted the third largest group, with 15 percent of employment. The majority of these worked in office clerical occupations. The ranking fourth were managers and officers, with 14 percent of industry employment. The remaining 4 percent consisted of 51,000 workers in service occupations, 22,000 professional workers, and 1,000 technical workers.

The five most populous occupations in automotive dealerships and gasoline service stations are listed below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Service station attendant, fuel pump attendant, or lubricator	316,460	17.2
Automotive mechanic	313,720	17.1
Nontechnical sales representative, sales agent, or associate	211,340	11.5
Store manager	160,090	8.7
Cashier	62,010	3.4

Apparel and accessory stores

This industry includes establishments engaged in the retail sale of new clothing, shoes, hats, underwear, and related articles for personal wear and adornment. Furriers and custom tailors carrying stocks of materials are also included.

Employment in apparel and accessory stores totaled 934,000 in 1979. Women's ready-to-wear stores accounted for 38 percent of industry employment, with 350,000 workers. Shoe stores ranked second, with 180,000 or 19 percent. Family clothing stores accounted for 18 percent, and men's and boys' clothing and furnishings stores, 15 percent. Establishments selling miscellaneous apparel and accessories, such as bathing suits, sports apparel, and uniforms, employed 4 percent. The remaining employment in retail apparel stores consisted of: Children's and infants' wear stores, with 3 percent; women's apparel and accessory stores, also with 3 percent; and furriers and fur shops, with less than 1 percent.

Sales workers, totaling 542,000, made up the largest occupational group, with 58 percent of industry employment (table 23). Clerical workers accounted for 14 percent of employment in retail apparel stores. Managers and officers were almost as large a group, totaling 129,000. Operating, maintenance, construction, repair, material handling, and powerplant occupations, with 88,000 or 9 percent, ranked fourth. Professionals in this industry, totaling 26,000, represented 3 percent of employment; service workers, 2 percent. Technical workers were the smallest occupational group.

The five largest occupations in apparel and accessory stores, in order of predominance, are listed below:

	<i>Employment</i>	<i>Percent of industry employment</i>
Sales clerk	396,010	42.4
Nontechnical sales representative, sales agent, or associate	132,530	14.2
Store manager	104,450	11.2
Cashier	40,470	4.3
Sales floor stock clerk	36,890	4.0

Furniture, home furnishings, and equipment stores

This industry comprises establishments which sell furniture, floor coverings, draperies, housewares, stoves, refrigerators, and other household electrical and gas appliances.

In 1979, employment in this industry totaled 611,000. Furniture, home furnishings, and equipment stores (except appliances) accounted for three-fifths of industry employment, with 374,000 workers. Radio, television, stereo, and music stores accounted for one-quarter, and household appliance stores, 15 percent.

Workers in sales occupations, numbering 190,000, constituted the largest occupational group, with 31 percent of industry employment (table 24). Three of these occupations were among the largest in the industry. Operating, maintenance, construction, repair, material handling, and powerplant workers ranked second in employment, with 170,000 or 28 percent. Clerical workers, totaling 127,000, accounted for 21 percent of total employment. Managers and officers, with 13 percent, ranked fourth. Professional occupations accounted for 4 percent of industry employment, with 26,000 workers—nearly half were designers. Service workers accounted for 2 percent. The smallest occupational group was technical workers.

The five most populous occupations in this industry are listed in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Nontechnical sales representative, sales agent, or associate	88,560	14.5
Store manager	64,910	10.6
Sales clerk	57,630	9.4
Technical sales representative, sales agent, or associate.....	43,250	7.1
Delivery or route worker ...	37,380	6.1

Eating and drinking places

This industry comprises establishments engaged in the sale of prepared foods and drinks for consumption on the premises; and lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption. Restaurants and lunch counters operated by hotels and department stores are excluded.

In 1979, employment in eating and drinking places totaled 4.7 million. This industry employed the largest number of workers in retail trade.

There were more than 4 million service workers in this industry, representing 86 percent of total employment. Four of the largest occupations in the industry were in this occupational group, accounting for nearly half of total employment in eating and drinking places (table 25). Managers and officers, totaling 324,000, were the second largest occupational group, with 7 percent of employment. Clerical workers ranked third with 220,000 or 5 percent. Most of these were cashiers. The other four major occupational groups combined accounted for only 2 percent of employment in eating and drinking places.

The following tabulation lists the five most populous occupations in eating and drinking places:

	<i>Employment</i>	<i>Percent of total employment</i>
Waiter/waitress	1,298,910	27.6
Kitchen helper	385,590	8.2
Short order or specialty fast foods cook	363,590	7.7
Restaurant, coffee shop, or liquor establishment manager	271,170	5.8
Restaurant cook	255,820	5.4

Miscellaneous retail stores

This industry comprises establishments engaged in the retail sale of miscellaneous goods, other than those previously discussed. Drug stores, liquor stores, used merchandise stores, nonstore retailers, fuel and ice dealers, miscellaneous shopping goods stores, florists, etc., are included.

Employment in this industry in 1979 totaled 1.9 million. Miscellaneous shopping goods stores (book stores; jewelry stores; hobby, toy, and game shops; sporting goods stores; etc.) accounted for 30 percent of employment, with 554,000 workers. Drug stores employed 493,000 or 27 percent. Nonstore retailers, such as mail order houses and automatic merchandising machine operators, accounted for 15 percent, with 272,000 workers. Other retail stores (florists, cosmetic stores, cigar stores and stands, etc.) employed nearly 14 percent, and liquor stores, 7 percent. Fuel and ice dealers accounted for 5 percent, and used merchandise stores, 3 percent.

Sales workers constituted the largest occupational group in this industry, 678,000 or 36 percent of total industry employment (table 26). Clerical occupations accounted for 413,000 or 22 percent. Ranking third were operating, maintenance, construction, repair, material handling, and powerplant workers, with 17 percent of industry employment. Managers and officers accounted for 11 percent, and professional workers, 9 percent. Almost half of the professional workers were pharmacists. Service workers made up only 4 percent, and technical workers less than 1 percent, of total employment.

The five largest occupations in miscellaneous retail stores, in order of predominance, are shown in the following tabulation:

	<i>Employment</i>	<i>Percent of industry employment</i>
Sales clerk	489,150	26.3
Store manager	152,520	8.2
Cashier	146,360	7.9
Nontechnical sales representative, sales agent, or associate	139,710	7.5
Delivery or route worker ...	93,970	5.1

Table 18. Retail trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 52-59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	15,075,630	100.00	--	--
Managers and officers	1,429,780	9.48	n.a.	n.a.
Director, food and beverage and/or catering manager	35,360	.23	7	1
Manager, merchandise	105,190	.70	2	14
Manager, store	761,260	5.05	1	68
Manager, automobile service department	50,110	.33	2	5
Manager, automobile parts department	39,620	.26	2	5
Manager, restaurant, coffee shop, or liquor establishment	272,520	1.81	2	5
All other managers and officers	165,720	1.10	n.a.	n.a.
Professional occupations	396,320	2.63	n.a.	n.a.
Retail and/or wholesale trade buyer	145,350	.96	2	13
Accountant and/or auditor	42,570	.28	3	6
Commercial artist	5,630	.04	7	1
Writer and/or editor	1,620	.01	23	(³)
Musician, instrumental	18,180	.12	16	(³)
Personnel and labor relations specialist	8,480	.06	5	1
Pharmacist	81,210	.54	2	4
Designer	60,100	.40	3	3
All other professional workers	33,180	.22	n.a.	n.a.
Technical occupations	15,920	.11	n.a.	n.a.
Computer programmer	2,870	.02	20	(³)
Engineering technician	2,700	.02	n.a.	n.a.
Pharmacy helper	3,280	.02	17	(³)
All other technicians	7,070	.05	n.a.	n.a.
Service occupations	4,539,940	30.11	n.a.	n.a.
Janitor, porter, and/or cleaner	252,040	1.67	2	17
Guard and/or doorkeeper	28,160	.19	11	1
Baker, bread and/or pastry	22,360	.15	10	1
Bartender	238,360	1.58	4	3
Dining room attendant, bartender helper, or cafeteria attendant	191,190	1.27	5	2
Butcher and/or meat cutter	137,670	.91	2	4
Host/hostess, restaurant, lounge or coffee shop	92,300	.61	5	2
Kitchen helper	405,150	2.69	3	4
Waiter/waitress	1,343,820	8.91	1	6
Counter attendant, lunchroom, coffee shop, or cafeteria	235,140	1.56	6	2
Cook, short order and/or specialty fast foods	380,000	2.52	4	4
Cook, restaurant	262,730	1.74	3	4
Food preparation and service worker, fast food restaurant	779,650	5.17	2	2
Pantry, sandwich and/or coffee maker	55,310	.37	8	1
All other food service workers	19,110	.13	n.a.	n.a.
Cosmetologist and/or hairstylist	12,800	.08	6	(³)
Supervisor, nonworking--service only	41,680	.28	7	2
Fitting room checker	8,780	.06	5	1
Store detective	18,100	.12	4	1
All other service workers	15,590	.10	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	2,727,830	18.09	n.a.	n.a.
Mechanics and repairers, total	531,440	3.53	n.a.	n.a.
Mechanic, automotive	339,780	2.25	1	11
Body repairer, automotive	54,760	.36	3	2
Bicycle repairer	5,740	.04	14	(³)
Diesel mechanic	12,110	.08	14	(³)
Farm equipment mechanic	2,330	.02	15	(³)
Marine mechanic and/or repairer	3,570	.02	8	(³)
Mechanic, maintenance	6,110	.04	7	(³)
Office machine servicer and/or cash register servicer	3,960	.03	15	(³)
Refrigeration mechanic and/or air conditioning mechanic	6,350	.04	7	1

See footnotes at end of table.

Table 18. Retail trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 52-59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Television servicer and repairer, radio repairer and/or tape recorder repairer	21,070	0.14	5	2
Coin machine servicer and/or vending machine repairer	14,420	.10	8	1
Motorboat mechanic	5,920	.04	6	1
Gas and electric appliance repairer	25,790	.17	6	2
All other mechanics and repairers	29,530	.20	n.a.	n.a.
Truck driver	108,070	.72	2	9
Automobile repair service estimator	10,220	.07	5	1
Cabinetmaker	12,410	.08	10	(³)
Carpet cutter and/or carpet layer	15,390	.10	7	1
Carpenter	22,920	.15	8	1
Cleaner, vehicle	52,980	.35	3	3
Delivery and/or route worker	199,740	1.32	2	14
Merchandise displayer and window trimmer	15,990	.11	3	2
Supervisor, nonworking	39,190	.26	3	5
Glazier	13,360	.09	9	1
Industrial truck operator	15,680	.10	6	1
Jeweler and/or silversmith	8,590	.06	9	1
Maintenance repairer, general utility	16,130	.11	5	2
Helper, trades	18,360	.12	6	1
Oil burner installer and servicer	12,160	.08	5	1
Musical instrument repairer	4,280	.03	9	(³)
Order filler	27,540	.18	5	1
Painter, automotive	11,480	.08	6	1
Plumber and/or pipefitter	2,040	.01	16	(³)
Production packager, hand or machine	58,570	.39	5	2
Custom sewer	4,820	.03	9	(³)
Sewing machine operator, regular equipment-garment	1,550	.01	25	(³)
Sewing machine operator, regular equipment-nongarment	4,130	.03	16	(³)
Sewing machine operator, special equipment and/or automatic equipment-nongarment	6,120	.04	13	(³)
Alteration tailor	40,700	.27	3	4
Tire fabricator and/or repairer	7,690	.05	13	(³)
Watchmaker	4,650	.03	9	1
Furniture assembler and installer	7,710	.05	8	1
Bagger	222,490	1.48	2	3
Service station attendant, fuel pump attendant, and/or lubricator	324,140	2.15	2	6
Tire changer	54,810	.36	4	3
Optician, dispensing and/or optical mechanic	9,260	.06	11	(³)
Household appliance installer	8,870	.06	6	1
Sales floor stock clerk	562,980	3.73	2	15
Furniture finisher	5,940	.04	8	1
Furniture upholsterer	2,100	.01	17	(³)
Baker	45,160	.30	4	2
Cake decorator	1,890	.01	14	(³)
Doughnut maker and/or doughnut machine operator	18,080	.12	6	1
Wood machinist	9,340	.06	10	1
Ceiling tile installer and/or floor layer	3,360	.02	17	(³)
Mobile home repairer	5,860	.04	6	1
Mobile home set-up operator	7,110	.05	5	1
Picture framer	3,010	.02	17	(³)
All other skilled craft and kindred workers	26,640	.18	n.a.	n.a.
All other operatives and semiskilled workers	50,230	.33	n.a.	n.a.
All other laborers and unskilled workers	92,650	.61	n.a.	n.a.
Clerical occupations	2,658,430	17.63	n.a.	n.a.
Clerical workers, office	2,230,620	14.80	n.a.	n.a.
Bookkeeping and/or billing machine operator	16,390	.11	5	3
Computer operator	4,660	.03	10	1
Keypunch operator	14,440	.10	6	1
Peripheral EDP equipment operator	2,560	.02	13	(³)
All other office machine operators	6,240	.04	n.a.	n.a.
Accounting clerk	72,910	.48	3	7

See footnotes at end of table.

Table 18. Retail trade: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 52-59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Bookkeeper, hand	279,260	1.85	1	32
Adjustment clerk	17,650	.12	5	1
Cashier	1,192,390	7.91	1	26
Collector	7,990	.05	10	1
File clerk	6,560	.04	17	(³)
General clerk, office	286,100	1.90	2	24
Credit authorizer	17,910	.12	8	1
Order clerk	38,880	.26	5	2
Payroll and/or timekeeping clerk	6,700	.04	5	1
Personnel clerk	5,210	.03	5	1
Credit reference clerk	3,250	.02	9	(³)
Receptionist	11,980	.08	6	2
Secretary	78,430	.52	3	11
Service clerk	21,320	.14	7	1
Switchboard operator	16,370	.11	3	2
Switchboard operator and/or receptionist	13,580	.09	3	3
Typist	17,920	.12	6	2
Clerical supervisor, office or plant	25,920	.17	5	2
All other office clerical workers	66,000	.44	n.a.	n.a.
Clerical workers, plant	427,810	2.84	n.a.	n.a.
Shipping packer	20,200	.13	7	1
Shipping and/or receiving clerk	70,700	.47	2	9
Stock clerk, stockroom, warehouse, or storage yard	291,110	1.93	2	16
Marking clerk	41,120	.27	4	2
All other plant clerical workers	4,680	.03	n.a.	n.a.
Sales occupations	3,307,410	21.94	n.a.	n.a.
Technical sales representative, sales agent and/or associate	176,820	1.17	2	9
Non-technical sales representative, sales agent and/or associate	775,540	5.14	1	26
Sales clerk	2,301,610	15.27	1	44
Sales clerk supervisor	37,860	.25	5	1
All other sales workers	15,580	.10	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 19. Building materials, hardware, garden supply stores, and mobile home dealers: Employment relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 52)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	645,760	100.00	--	--
Managers and officers	76,580	11.86	n.a.	n.a.
Manager, merchandise	13,880	2.15	4	27
Manager, store	56,980	8.82	2	75
Manager, wholesale	110	.02	46	(³)
All other managers and officers	5,610	.87	n.a.	n.a.
Professional occupations	18,550	2.87	n.a.	n.a.
Retail and/or wholesale trade buyer	11,670	1.81	6	19
Accountant and/or auditor	5,100	.79	10	11
Designer	680	.11	32	1
All other professional workers	1,100	.17	n.a.	n.a.
Technical occupations	830	.13	n.a.	n.a.
Drafter	670	.10	18	1
All other technicians	160	.02	n.a.	n.a.
Service occupations	8,170	1.27	n.a.	n.a.
Janitor, porter, and/or cleaner	7,140	1.11	19	14
Guard and/or doorkeeper	410	.06	34	1
Food service workers	140	.02	n.a.	n.a.
All other service workers	480	.07	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	213,140	33.01	n.a.	n.a.
Mechanics and repairers, total	10,580	1.64	n.a.	n.a.
Mechanic, automotive	3,880	.60	10	5
Farm equipment mechanic	2,190	.34	15	2
Locksmith	320	.05	46	(³)
Refrigeration mechanic and/or air conditioning mechanic	660	.10	24	1
Gas and electric appliance repairer	110	.02	50	(³)
All other mechanics and repairers	3,420	.53	n.a.	n.a.
Truck driver	40,780	6.32	4	27
Cabinetmaker	840	.13	41	(³)
Carpet cutter and/or carpet layer	250	.04	45	(³)
Carpenter	18,800	2.91	9	8
Delivery and/or route worker	15,440	2.39	7	14
Electrician	290	.04	29	(³)
Supervisor, nonworking	6,350	.98	6	11
Glazier	13,170	2.04	9	6
Industrial truck operator	10,810	1.67	6	11
Maintenance repairer, general utility	4,790	.74	10	7
Order filler	1,460	.23	28	(³)
Painter, maintenance	1,060	.16	34	1
Plumber and/or pipefitter	1,460	.23	20	1
Sheet metal worker	650	.10	49	(³)
Sales floor stock clerk	30,490	4.72	10	25
Wood machinist	8,630	1.34	9	5
Variety saw operator	190	.03	43	(³)
Woodworking machine operator	220	.03	49	(³)
Mobile home repairer	2,960	.46	9	5
Mobile home set-up operator	6,590	1.02	5	6
All other skilled craft and kindred workers	2,210	.34	n.a.	n.a.
All other operatives and semiskilled workers	12,240	1.90	n.a.	n.a.
All other laborers and unskilled workers	22,880	3.54	n.a.	n.a.
Clerical occupations	143,820	22.27	n.a.	n.a.
Clerical workers, office	102,830	15.92	n.a.	n.a.
Bookkeeping and/or billing machine operator	170	.03	42	(³)
Computer operator	140	.02	24	1
All other office machine operators	290	.04	n.a.	n.a.
Bookkeeper, hand	28,450	4.41	3	50
Cashier	30,630	4.74	13	21
General clerk, office	29,960	4.64	4	36
Credit authorizer	70	.01	36	(³)
Order clerk	260	.04	35	(³)
Receptionist	100	.02	46	(³)

See footnotes at end of table.

Table 19. Building materials, hardware, garden supply stores, and mobile home dealers: Employment relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 52)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Secretary	10,360	1.60	5	20
Switchboard operator and/or receptionist	80	.01	23	(³)
Typist	70	.01	28	(³)
Clerical supervisor, office or plant	330	.05	26	1
All other office clerical workers	1,920	.30	n.a.	n.a.
Clerical workers, plant	40,990	6.35	n.a.	n.a.
Shipping packer	70	.01	40	(³)
Shipping and/or receiving clerk	9,810	1.52	6	16
Stock clerk, stockroom, warehouse, or storage yard	30,810	4.77	8	23
Dispatcher, vehicle, service or work	120	.02	38	(³)
All other plant clerical workers	180	.03	n.a.	n.a.
Sales occupations	184,670	28.60	n.a.	n.a.
Technical sales representative, sales agent and/or associate	19,680	3.05	6	17
Non-technical sales representative, sales agent and/or associate	68,990	10.68	8	41
Sales clerk	95,450	14.78	5	45
Sales clerk supervisor	350	.05	21	(³)
All other sales workers	200	.03	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 20. General merchandise stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 53)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	2,205,580	100.00	--	--
Managers and officers	159,150	7.22	n.a.	n.a.
Manager, merchandise	28,000	1.27	5	38
Fashion coordinator	290	.01	17	1
Manager, store	61,200	2.77	2	86
Manager, automobile service department	1,620	.07	6	5
Manager, automobile parts department	750	.03	7	4
Manager, restaurant, coffee shop, or liquor establishment	960	.04	8	4
All other managers and officers	66,330	3.01	n.a.	n.a.
Professional occupations	69,470	3.15	n.a.	n.a.
Engineers	520	.02	n.a.	n.a.
Systems analyst, electronic data processing	510	.02	27	1
Retail and/or wholesale trade buyer	40,440	1.83	6	21
Accountant and/or auditor	3,910	.18	8	7
Commercial artist	3,820	.17	7	7
Writer and/or editor	1,180	.05	30	2
Lawyer	270	.01	45	(³)
Personnel and labor relations specialist	7,380	.33	5	19
Pharmacist	1,460	.07	17	2
Public relations practitioner	240	.01	28	1
Designer	2,530	.11	16	5
All other professional workers	7,210	.33	n.a.	n.a.
Technical occupations	4,870	.22	n.a.	n.a.
Computer programmer	1,420	.06	37	1
Drafter	260	.01	38	(³)
All other technicians	3,190	.14	n.a.	n.a.
Service occupations	144,600	6.56	n.a.	n.a.
Janitor, porter, and/or cleaner	39,200	1.78	3	43
Guard and/or doorkeeper	7,650	.35	7	10
Dining room attendant, bartender helper, or cafeteria attendant	910	.04	13	1
Butcher and/or meat cutter	800	.04	23	1
Host/hostess, restaurant, lounge or coffee shop	380	.02	16	1
Kitchen helper	7,960	.36	8	9
Waiter/waitress	21,030	.95	5	12
Counter attendant, lunchroom, coffee shop, or cafeteria	12,440	.56	5	12
Cook, short order and/or specialty fast foods	6,310	.29	6	10
Cook, restaurant	3,810	.17	7	8
Food preparation and service worker, fast food restaurant	570	.03	30	(³)
Pantry, sandwich and/or coffee maker	280	.01	20	1
All other food service workers	580	.03	n.a.	n.a.
Cosmetologist and/or hairstylist	11,730	.53	6	6
Supervisor, nonworking-service only	3,620	.16	10	9
Fitting room checker	8,630	.39	5	11
Store detective	16,840	.76	4	21
All other service workers	1,860	.08	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	243,230	11.03	n.a.	n.a.
Mechanics and repairers, total	45,950	2.08	n.a.	n.a.
Mechanic, automotive	13,910	.63	5	13
Bicycle repairer	530	.02	12	2
Mechanic, maintenance	5,000	.23	8	5
Television servicer and repairer, radio repairer and/or tape recorder repairer	910	.04	34	1
Gas and electric appliance repairer	9,790	.44	14	4
All other mechanics and repairers	15,810	.72	n.a.	n.a.
Truck driver	6,320	.29	7	10
Carpenter	690	.03	18	1
Delivery and/or route worker	3,390	.15	11	6
Merchandise displayer and window trimmer	10,540	.48	4	21
Electrician	320	.01	22	1

See footnotes at end of table.

Table 20. General merchandise stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 53)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Supervisor, nonworking	8,790	0.40	7	13
Industrial truck operator	2,750	.12	15	2
Maintenance repairer, general utility	3,400	.15	9	7
Order filler	4,950	.22	12	4
Painter, maintenance	250	.01	18	1
Production packager, hand or machine	1,360	.06	20	1
Custom sewer	3,390	.15	9	6
Sewing machine operator, special equipment and/or automatic equipment-nongarment	320	.01	35	(³)
Stationary engineer	610	.03	14	1
Alteration tailor	8,230	.37	4	16
Watchmaker	300	.01	17	1
Service station attendant, fuel pump attendant, and/or lubricator	3,470	.16	8	6
Tire changer	11,600	.53	7	11
Household appliance installer	1,360	.06	15	2
Sales floor stock clerk	90,430	4.10	5	37
Furniture finisher	840	.04	15	2
All other skilled craft and kindred workers	10,030	.45	n.a.	n.a.
All other operatives and semiskilled workers	6,820	.31	n.a.	n.a.
All other laborers and unskilled workers	17,120	.78	n.a.	n.a.
Clerical occupations	563,370	25.54	n.a.	n.a.
Clerical workers, office	432,110	19.59	n.a.	n.a.
Bookkeeping and/or billing machine operator	3,460	.16	19	4
Computer operator	1,470	.07	16	2
Keypunch operator	6,120	.28	8	5
Peripheral EDP equipment operator	1,880	.09	15	3
All other office machine operators	4,290	.19	n.a.	n.a.
Accounting clerk	18,520	.84	6	16
Bookkeeper, hand	15,670	.71	4	32
Adjustment clerk	15,300	.69	5	14
Cashier	141,750	6.43	3	61
Collector	5,920	.27	13	6
File clerk	4,630	.21	23	4
General clerk, office	54,270	2.46	6	38
Credit authorizer	16,250	.74	8	12
Order clerk	16,050	.73	7	12
Payroll and/or timekeeping clerk	5,320	.24	6	16
Personnel clerk	4,710	.21	4	16
Procurement clerk	900	.04	38	(³)
Credit reference clerk	2,480	.11	11	2
Receptionist	540	.02	33	1
Secretary	14,060	.64	10	20
Service clerk	19,420	.88	8	11
Switchboard operator	10,610	.48	3	19
Typist	4,980	.23	15	6
Clerical supervisor, office or plant	16,000	.73	7	17
All other office clerical workers	47,510	2.15	n.a.	n.a.
Clerical workers, plant	131,260	5.95	n.a.	n.a.
Shipping packer	12,210	.55	9	12
Shipping and/or receiving clerk	22,180	1.01	4	33
Stock clerk, stockroom, warehouse, or storage yard	60,940	2.76	4	38
Dispatcher, vehicle, service or work	300	.01	13	1
Marking clerk	34,010	1.54	5	20
All other plant clerical workers	1,620	.07	n.a.	n.a.
Sales occupations	1,020,890	46.29	n.a.	n.a.
Technical sales representative, sales agent and/or associate	16,860	.76	8	10
Non-technical sales representative, sales agent and/or associate	131,780	5.97	3	24
Sales clerk	827,550	37.52	1	83
Demonstrator	340	.02	16	1
Sales clerk supervisor	34,500	1.56	5	16
All other sales workers	9,860	.45	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated employment and percent of total employment; relative standard errors

percent of industry employment, or with a relative error greater than estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Table 21. Food stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 54)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	2,278,610	100.00	--	--
Managers and officers	187,540	8.23	n.a.	n.a.
Manager, merchandise	1,900	.08	29	1
Manager, store	160,150	7.03	2	78
All other managers and officers	25,490	1.12	n.a.	n.a.
Professional occupations	39,790	1.75	n.a.	n.a.
Retail and/or wholesale trade buyer	34,980	1.54	5	20
Accountant and/or auditor	930	.04	20	1
Personnel and labor relations specialist	270	.01	24	(³)
Pharmacist	1,240	.05	26	1
All other professional workers	2,370	.10	n.a.	n.a.
Technical occupations	530	.02	n.a.	n.a.
Computer programmer	320	.01	26	(³)
All other technicians	210	.01	n.a.	n.a.
Service occupations	194,530	8.54	n.a.	n.a.
Janitor, porter, and/or cleaner	31,060	1.36	4	24
Guard and/or doorkeeper	1,590	.07	17	1
Baker, bread and/or pastry	380	.02	44	(³)
Butcher and/or meat cutter	135,820	5.96	2	42
Kitchen helper	1,980	.09	27	1
Waiter/waitress	4,890	.21	21	2
Counter attendant, lunchroom, coffee shop, or cafeteria	3,610	.16	21	1
Cook, short order and/or specialty fast foods	3,280	.14	20	2
Cook, restaurant	1,420	.06	24	1
Food preparation and service worker, fast food restaurant	1,820	.08	33	1
Pantry, sandwich and/or coffee maker	2,180	.10	23	1
All other food service workers	4,840	.21	n.a.	n.a.
Supervisor, nonworking-service only	510	.02	31	(³)
Store detective	510	.02	30	1
All other service workers	640	.03	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	734,860	32.25	n.a.	n.a.
Mechanics and repairers, total	1,700	.07	n.a.	n.a.
Mechanic, automotive	610	.03	23	(³)
Refrigeration mechanic and/or air conditioning mechanic	410	.02	25	(³)
All other mechanics and repairers	680	.03	n.a.	n.a.
Truck driver	12,500	.55	9	7
Delivery and/or route worker	13,220	.58	7	9
Supervisor, nonworking	2,480	.11	15	1
Industrial truck operator	1,220	.05	26	(³)
Maintenance repairer, general utility	1,080	.05	16	1
Order filler	940	.04	43	(³)
Production packager, hand or machine	53,290	2.34	4	23
Bagger	220,860	9.69	2	28
Service station attendant, fuel pump attendant, and/or lubricator	680	.03	48	1
Sales floor stock clerk	344,610	15.12	2	42
Baker	44,990	1.97	4	22
Cake decorator	1,830	.08	14	2
Doughnut maker and/or doughnut machine operator	18,040	.79	6	14
All other skilled craft and kindred workers	1,100	.05	n.a.	n.a.
All other operatives and semiskilled workers	3,520	.15	n.a.	n.a.
All other laborers and unskilled workers	12,800	.56	n.a.	n.a.
Clerical occupations	778,230	34.15	n.a.	n.a.
Clerical workers, office	696,590	30.57	n.a.	n.a.
Computer operator	510	.02	18	1
Keypunch operator	490	.02	25	(³)
All other office machine operators	330	.01	n.a.	n.a.
Accounting clerk	2,120	.09	24	1

See footnotes at end of table.

Table 21. Food stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 54)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Bookkeeper, hand	32,140	1.41	3	31
Adjustment clerk	580	.03	40	(³)
Cashier	612,080	26.86	1	56
General clerk, office	34,980	1.54	6	17
Order clerk	540	.02	47	(³)
Secretary	9,530	.42	7	11
Clerical supervisor, office or plant	1,170	.05	19	1
All other office clerical workers	2,120	.09	n.a.	n.a.
Clerical workers, plant	81,640	3.58	n.a.	n.a.
Shipping and/or receiving clerk	480	.02	23	1
Stock clerk, stockroom, warehouse, or storage yard	80,060	3.51	5	17
All other plant clerical workers	1,100	.05	n.a.	n.a.
Sales occupations	343,130	15.06	n.a.	n.a.
Sales representative, sales agent, and/or sales associate	310	.01	n.a.	n.a.
Non-technical sales representative, sales agent and/or associate	2,230	.10	34	1
Sales clerk	340,040	14.92	2	66
All other sales workers	550	.02	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 22. Automotive dealers and gasoline service stations: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 55)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	1,835,350	100.00	--	--
Managers and officers	261,540	14.25	n.a.	n.a.
Manager, merchandise	240	.01	46	(³)
Manager, store	160,090	8.72	2	69
Manager, automobile service department	48,380	2.64	2	31
Manager, automobile parts department	38,800	2.11	2	27
All other managers and officers	14,030	.76	n.a.	n.a.
Professional occupations	22,470	1.22	n.a.	n.a.
Retail and/or wholesale trade buyer	370	.02	24	(³)
Accountant and/or auditor	20,720	1.13	3	16
All other professional workers	1,380	.08	n.a.	n.a.
Technical occupations	1,230	.07	n.a.	n.a.
Service occupations	51,280	2.79	n.a.	n.a.
Janitor, porter, and/or cleaner	29,010	1.58	3	15
Guard and/or doorkeeper	330	.02	30	(³)
Kitchen helper	6,400	.35	20	1
Waiter/waitress	11,280	.61	17	1
Cook, short order and/or specialty fast foods	830	.05	40	(³)
Cook, restaurant	1,130	.06	42	(³)
All other food service workers	980	.05	n.a.	n.a.
All other service workers	1,320	.07	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	925,660	50.44	n.a.	n.a.
Mechanics and repairers, total	394,720	21.51	n.a.	n.a.
Mechanic, aircraft	1,360	.07	10	1
Mechanic, automotive	313,720	17.09	1	55
Body repairer, automotive	54,460	2.97	3	14
Diesel mechanic	11,820	.64	14	3
Marine mechanic and/or repairer	3,540	.19	8	2
Mechanic, maintenance	220	.01	37	(³)
Motorboat mechanic	5,810	.32	6	4
All other mechanics and repairers	3,790	.21	n.a.	n.a.
Truck driver	20,340	1.11	7	8
Automobile repair service estimator	10,200	.56	5	6
Carpenter	190	.01	40	(³)
Cleaner, vehicle	52,860	2.88	3	21
Delivery and/or route worker	18,150	.99	6	11
Supervisor, nonworking	15,640	.85	4	11
Machinist	960	.05	24	1
Maintenance repairer, general utility	710	.04	33	1
Helper, trades	16,090	.88	5	8
Marine service station attendant	430	.02	29	(³)
Painter, automotive	11,450	.62	6	6
Tire fabricator and/or repairer	7,450	.41	13	3
Service station attendant, fuel pump attendant, and/or lubricator	316,460	17.24	2	33
Tire changer	42,900	2.34	5	12
Mobile home repairer	2,900	.16	8	3
Mobile home set-up operator	520	.03	22	(³)
All other skilled craft and kindred workers	1,680	.09	n.a.	n.a.
All other operatives and semiskilled workers	5,220	.28	n.a.	n.a.
All other laborers and unskilled workers	6,790	.37	n.a.	n.a.
Clerical occupations	277,860	15.14	n.a.	n.a.
Clerical workers, office	232,630	12.67	n.a.	n.a.
Bookkeeping and/or billing machine operator	190	.01	45	(³)
Computer operator	460	.03	30	1
Keypunch operator	300	.02	23	(³)
Accounting clerk	21,100	1.15	4	14
Bookkeeper, hand	61,140	3.33	2	39
Cashier	62,010	3.38	6	20
Collector	350	.02	28	(³)
General clerk, office	56,710	3.09	3	29
Order clerk	280	.02	46	(³)

See footnotes at end of table.

Table 22. Automotive dealers and gasoline service stations: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 55)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, office				
Receptionist	2,640	0.14	10	3
Secretary	12,070	.66	5	12
Service clerk	940	.05	19	1
Switchboard operator	2,750	.15	8	3
Switchboard operator and/or receptionist	8,870	.48	4	8
Typist	220	.01	44	(³)
All other office clerical workers	2,600	.14	n.a.	n.a.
Clerical workers, plant	45,230	2.46	n.a.	n.a.
Shipping and/or receiving clerk	240	.01	37	(³)
Stock clerk, stockroom, warehouse, or storage yard	44,480	2.42	3	20
Dispatcher, vehicle, service or work	340	.02	22	(³)
All other plant clerical workers	170	.01	n.a.	n.a.
Sales occupations	295,310	16.09	n.a.	n.a.
Technical sales representative, sales agent and/or associate	39,760	2.17	5	10
Non-technical sales representative, sales agent and/or associate	211,340	11.51	2	41
Sales clerk	43,660	2.38	5	14
All other sales workers	550	.03	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 23. Apparel and accessory stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 56)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	933,750	100.00	--	--
Managers and officers	129,190	13.84	n.a.	n.a.
Manager, merchandise	15,960	1.71	4	19
Manager, store	104,450	11.19	1	84
All other managers and officers	8,780	.94	n.a.	n.a.
Professional occupations	25,670	2.75	n.a.	n.a.
Retail and/or wholesale trade buyer	23,020	2.47	3	20
Accountant and/or auditor	660	.07	22	1
Commercial artist	330	.04	15	(³)
Personnel and labor relations specialist	180	.02	20	(³)
Designer	240	.03	34	(³)
Furrier	230	.02	23	(³)
All other professional workers	1,010	.11	n.a.	n.a.
Technical occupations	290	.03	n.a.	n.a.
Computer programmer	210	.02	18	(³)
All other technicians	80	.01	n.a.	n.a.
Service occupations	14,280	1.53	n.a.	n.a.
Janitor, porter, and/or cleaner	11,530	1.23	4	14
Guard and/or doorkeeper	600	.06	20	1
Waiter/waitress	330	.04	35	(³)
All other food service workers	180	.02	n.a.	n.a.
Cosmetologist and/or hairstylist	500	.05	37	(³)
Fitting room checker	150	.02	32	(³)
Store detective	430	.05	25	(³)
All other service workers	560	.06	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	87,580	9.38	n.a.	n.a.
Truck driver	1,520	.16	10	2
Delivery and/or route worker	1,610	.17	9	3
Merchandise displayer and window trimmer	5,040	.54	5	7
Supervisor, nonworking	160	.02	30	(³)
Maintenance repairer, general utility	2,690	.29	9	3
Production packager, hand or machine	140	.01	37	(³)
Custom sewer	1,160	.12	23	1
Sewing machine operator, regular equipment- garment	1,200	.13	29	(³)
Sewing machine operator, special equipment and/or automatic equipment-garment	290	.03	34	(³)
Alteration tailor	32,370	3.47	3	21
Custom tailor	720	.08	35	(³)
Sales floor stock clerk	36,890	3.95	6	15
All other skilled craft and kindred workers	1,010	.11	n.a.	n.a.
All other operatives and semiskilled workers	1,450	.16	n.a.	n.a.
All other laborers and unskilled workers	1,330	.14	n.a.	n.a.
Clerical occupations	134,760	14.43	n.a.	n.a.
Clerical workers, office	101,550	10.88	n.a.	n.a.
Computer operator	300	.03	20	(³)
Keypunch operator	500	.05	16	(³)
All other office machine operators	260	.03	n.a.	n.a.
Accounting clerk	800	.09	13	1
Bookkeeper, hand	21,720	2.33	3	28
Cashier	40,470	4.33	3	23
Collector	150	.02	22	(³)
General clerk, office	25,210	2.70	4	18
Credit authorizer	290	.03	18	(³)
Order clerk	2,360	.25	12	2
Payroll and/or timekeeping clerk	140	.01	17	(³)
Credit reference clerk	170	.02	21	(³)
Secretary	5,430	.58	6	7
Switchboard operator	170	.02	14	(³)
Typist	2,230	.24	9	3
Clerical supervisor, office or plant	380	.04	15	(³)
All other office clerical workers	970	.10	n.a.	n.a.

See footnotes at end of table.

Table 23. Apparel and accessory stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 56)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical workers, plant	33,210	3.56	n.a.	n.a.
Shipping packer	200	.02	41	(³)
Shipping and/or receiving clerk	11,270	1.21	6	11
Stock clerk, stockroom, warehouse, or storage yard	20,570	2.20	6	11
Marking clerk	1,010	.11	22	(³)
All other plant clerical workers	160	.02	n.a.	n.a.
Sales occupations	541,980	58.04	n.a.	n.a.
Technical sales representative, sales agent and/or associate	11,340	1.21	10	3
Non-technical sales representative, sales agent and/or associate	132,530	14.19	3	29
Sales clerk	396,010	42.41	1	69
Sales clerk supervisor	1,910	.20	17	1
All other sales workers	190	.02	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Table 24. Furniture, home furnishings, and equipment stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 57)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	610,810	100.00	--	--
Managers and officers	82,120	13.44	n.a.	n.a.
Manager, merchandise	11,170	1.83	4	20
Manager, store	64,910	10.63	1	77
All other managers and officers	6,040	.99	n.a.	n.a.
Professional occupations	26,030	4.26	n.a.	n.a.
Engineers	80	.01	n.a.	n.a.
Retail and/or wholesale trade buyer	9,790	1.60	5	17
Accountant and/or auditor	170	.03	23	1
Commercial artist	320	.05	25	1
Personnel and labor relations specialist	70	.01	30	(³)
Public relations practitioner	60	.01	41	(³)
Designer	12,700	2.08	7	10
All other professional workers	2,840	.46	n.a.	n.a.
Technical occupations	1,220	.20	n.a.	n.a.
Computer programmer	90	.01	27	(³)
Engineering technicians, total	830	.14	94	(³)
Drafter	170	.03	49	(³)
Electrical and/or electronic technicians	660	.11	45	(³)
All other technicians	300	.05	n.a.	n.a.
Service occupations	13,470	2.21	n.a.	n.a.
Janitor, porter, and/or cleaner	10,620	1.74	4	18
Guard and/or doorkeeper	120	.02	37	(³)
Food service workers	2,450	.40	n.a.	n.a.
All other service workers	280	.05	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	170,450	27.91	n.a.	n.a.
Mechanics and repairers, total	34,030	5.57	n.a.	n.a.
Refrigeration mechanic and/or air conditioning mechanic	4,790	.78	8	6
Television servicer and repairer, radio repairer and/or tape recorder repairer	19,710	3.23	5	17
Gas and electric appliance repairer	7,930	1.30	6	10
All other mechanics and repairers	1,600	.26	n.a.	n.a.
Truck driver	6,500	1.06	7	8
Cabinetmaker	11,430	1.87	11	3
Carpet cutter and/or carpet layer	14,940	2.45	8	7
Carpenter	2,590	.42	17	2
Delivery and/or route worker	37,380	6.12	3	31
Merchandise displayer and window trimmer	200	.03	23	(³)
Electrician	360	.06	36	(³)
Supervisor, nonworking	2,570	.42	7	6
Industrial truck operator	90	.01	34	(³)
Maintenance repairer, general utility	190	.03	34	(³)
Helper, trades	370	.06	34	(³)
Musical instrument repairer	4,250	.70	9	4
Order filler	120	.02	33	(³)
Plumber and/or pipefitter	140	.02	49	(³)
Sewing machine operator, regular equipment-nongarment	3,180	.52	17	2
Sewing machine operator, special equipment and/or automatic equipment-nongarment	5,520	.90	14	2
Furniture assembler and installer	7,200	1.18	8	7
Drapery and upholstery measurer	200	.03	49	(³)
Drapery hanger	920	.15	20	1
Household appliance installer	7,200	1.18	7	9
Sales floor stock clerk	10,860	1.78	6	10
Furniture finisher	4,180	.68	8	7
Furniture upholsterer	1,760	.29	19	2
Ceiling tile installer and/or floor layer	3,150	.52	17	2
Picture framer	1,270	.21	24	(³)
All other skilled craft and kindred workers	1,230	.20	n.a.	n.a.
All other operatives and semiskilled workers	3,460	.57	n.a.	n.a.
All other laborers and unskilled workers	5,160	.84	n.a.	n.a.

See footnotes at end of table.

Table 24. Furniture, home furnishings, and equipment stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 57)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Clerical occupations	127,240	20.83	n.a.	n.a.
Clerical workers, office	95,840	15.69	n.a.	n.a.
Computer operator	280	.05	19	1
Keypunch operator	380	.06	12	1
All other office machine operators	140	.02	n.a.	n.a.
Accounting clerk	8,480	1.39	4	15
Bookkeeper, hand	22,850	3.74	3	38
Adjustment clerk	170	.03	28	(³)
Cashier	11,130	1.82	5	12
Collector	950	.16	18	1
General clerk, office	29,780	4.88	3	33
Credit authorizer	430	.07	22	1
Order clerk	290	.05	29	(³)
Credit reference clerk	230	.04	21	(³)
Receptionist	2,440	.40	9	5
Secretary	8,060	1.32	5	15
Service clerk	200	.03	20	(³)
Switchboard operator	900	.15	9	2
Switchboard operator and/or receptionist	1,690	.28	8	4
Clerical supervisor, office or plant	6,400	1.05	6	10
All other office clerical workers	1,040	.17	n.a.	n.a.
Clerical workers, plant	31,400	5.14	n.a.	n.a.
Shipping packer	4,020	.66	9	5
Shipping and/or receiving clerk	8,610	1.41	5	14
Stock clerk, stockroom, warehouse, or storage yard	18,610	3.05	4	18
Dispatcher, vehicle, service or work	80	.01	19	(³)
All other plant clerical workers	80	.01	n.a.	n.a.
Sales occupations	190,280	31.15	n.a.	n.a.
Technical sales representative, sales agent and/or associate	43,250	7.08	4	19
Non-technical sales representative, sales agent and/or associate	88,560	14.50	2	44
Sales clerk	57,630	9.44	4	25
Demonstrator	120	.02	44	(³)
Sales clerk supervisor	230	.04	23	(³)
All other sales workers	490	.08	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.

n.a. Not available.

Table 25. Eating and drinking places: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 58)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	4,706,190	100.00	--	--
Managers and officers	323,560	6.88	n.a.	n.a.
Director, food and beverage and/or catering manager	35,130	.75	7	14
Manager, restaurant, coffee shop, or liquor establishment	271,170	5.76	2	69
All other managers and officers	17,260	.37	n.a.	n.a.
Professional occupations	28,760	.61	n.a.	n.a.
Musician, instrumental	18,090	.38	16	4
All other professional workers	10,670	.23	n.a.	n.a.
Technical occupations	560	.01	n.a.	n.a.
Service occupations	4,048,250	86.02	n.a.	n.a.
Janitor, porter, and/or cleaner	105,390	2.24	5	30
Guard and/or doorkeeper	16,090	.34	18	4
Baker, bread and/or pastry	21,690	.46	10	8
Bartender	236,400	5.02	4	37
Dining room attendant, bartender helper, or cafeteria attendant	189,580	4.03	5	24
Butcher and/or meat cutter	940	.02	48	1
Host/hostess, restaurant, lounge or coffee shop	91,390	1.94	5	25
Kitchen helper	385,590	8.19	3	48
Waiter/waitress	1,298,910	27.60	1	64
Counter attendant, lunchroom, coffee shop, or cafeteria	205,530	4.37	7	14
Cook, short order and/or specialty fast foods	363,430	7.72	4	36
Cook, restaurant	255,820	5.44	4	41
Food preparation and service worker, fast food restaurant	770,640	16.38	2	24
Pantry, sandwich and/or coffee maker	51,020	1.08	9	13
All other food service workers	11,930	.25	n.a.	n.a.
Supervisor, nonworking--service only	36,970	.79	7	14
All other service workers	6,930	.15	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	31,680	.67	n.a.	n.a.
Mechanic and/or repairer	1,050	.02	n.a.	n.a.
Delivery and/or route worker	16,570	.35	19	4
Maintenance repairer, general utility	1,890	.04	23	2
All other skilled craft and kindred workers	1,490	.03	n.a.	n.a.
All other operatives and semiskilled workers	5,220	.11	n.a.	n.a.
All other laborers and unskilled workers	5,460	.12	n.a.	n.a.
Clerical occupations	220,200	4.68	n.a.	n.a.
Clerical workers, office	218,170	4.64	n.a.	n.a.
Office machine operators	900	.02	n.a.	n.a.
Bookkeeper, hand	55,960	1.19	4	28
Cashier	147,960	3.14	6	27
General clerk, office	3,890	.08	32	2
Secretary	2,740	.06	34	3
All other office clerical workers	6,720	.14	n.a.	n.a.
Clerical workers, plant	2,030	.04	n.a.	n.a.
Stock clerk, stockroom, warehouse, or storage yard	1,620	.03	28	1
All other plant clerical workers	410	.01	n.a.	n.a.
Sales occupations	53,180	1.13	n.a.	n.a.
Sales clerk	52,110	1.11	15	5
All other sales workers	1,070	.02	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A. n.a. Not available.

Table 26. Miscellaneous retail stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979

(Sic 59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Total	1,859,680	100.00	--	--
Managers and officers	210,110	11.30	n.a.	n.a.
Manager, merchandise	33,970	1.83	3	17
Manager, store	152,520	8.20	1	64
Manager, restaurant, coffee shop, or liquor establishment	290	.02	35	(³)
All other managers and officers	23,330	1.25	n.a.	n.a.
Professional occupations	165,580	8.90	n.a.	n.a.
Retail and/or wholesale trade buyer	24,870	1.34	4	11
Accountant and/or auditor	10,160	.55	5	7
Commercial artist	960	.05	22	(³)
Writer and/or editor	340	.02	32	(³)
Optometrist	1,160	.06	20	(³)
Personnel and labor relations specialist	300	.02	21	(³)
Pharmacist	78,340	4.21	2	16
Public relations practitioner	340	.02	24	(³)
Designer	43,600	2.34	4	8
All other professional workers	5,510	.30	n.a.	n.a.
Technical occupations	6,430	.35	n.a.	n.a.
Computer programmer	540	.03	24	(³)
Engineering technician	370	.02	n.a.	n.a.
Pharmacy helper	3,140	.17	18	1
All other technicians	2,380	.13	n.a.	n.a.
Service occupations	65,400	3.52	n.a.	n.a.
Janitor, porter, and/or cleaner	18,090	.97	5	10
Guard and/or doorkeeper	1,380	.07	18	(³)
Bartender	1,710	.09	19	(³)
Dining room attendant, bartender helper, or cafeteria attendant	260	.01	36	(³)
Host/hostess, restaurant, lounge or coffee shop	430	.02	23	(³)
Kitchen helper	1,000	.05	23	(³)
Waiter/waitress	7,300	.39	15	1
Counter attendant, lunchroom, coffee shop, or cafeteria	13,240	.71	9	2
Cook, short order and/or specialty fast foods	6,140	.33	10	2
Cook, restaurant	320	.02	32	(³)
Food preparation and service worker, fast food restaurant	6,440	.35	11	1
Pantry, sandwich and/or coffee maker	1,800	.10	17	(³)
All other food service workers	2,320	.12	n.a.	n.a.
Cosmetologist and/or hairstylist	560	.03	31	(³)
Supervisor, nonworking--service only	510	.03	18	(³)
All other service workers	3,900	.21	n.a.	n.a.
Operating, maintenance, construction, repair, material handling, and powerplant occupations	321,230	17.27	n.a.	n.a.
Mechanics and repairers, total	43,350	2.33	n.a.	n.a.
Mechanic, automotive	7,330	.39	8	4
Body repairer, automotive	290	.02	43	(³)
Bicycle repairer	5,110	.27	15	1
Camera repairer and/or motion picture camera repairer	300	.02	40	(³)
Gunsmith	260	.01	40	(³)
Mechanic, maintenance	640	.03	21	(³)
Office machine servicer and/or cash register servicer	3,910	.21	15	1
Refrigeration mechanic and/or air conditioning mechanic	200	.01	33	(³)
Coin machine servicer and/or vending machine repairer	13,780	.74	8	3
Gas and electric appliance repairer	7,840	.42	7	4
All other mechanics and repairers	3,690	.20	n.a.	n.a.
Truck driver	19,630	1.06	4	8
Carpenter	260	.01	27	(³)
Delivery and/or route worker	93,970	5.05	3	23

See footnotes at end of table.

Table 26. Miscellaneous retail stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Operating, maintenance, construction, repair, material handling, and powerplant occupations				
Supervisor, nonworking	2,300	0.12	9	1
Industrial truck operator	690	.04	32	(³)
Jeweler and/or silversmith	8,420	.45	9	2
Maintenance repairer, general utility	1,390	.07	14	1
Helper, trades	200	.01	44	(³)
Oil burner installer and servicer	12,050	.65	5	4
Order filler	19,800	1.06	6	4
Plumber and/or pipefitter	310	.02	37	(³)
Production packager, hand or machine	1,740	.09	23	(³)
Sewing machine operator, regular equipment-garment	340	.02	46	(³)
Sewing machine operator, special equipment and/or automatic equipment-garment	470	.03	27	(³)
Sewing machine operator, regular equipment-nongarment	470	.03	48	(³)
Watchmaker	4,340	.23	10	2
Welder and/or flamecutter	540	.03	31	(³)
Furniture assembler and installer	360	.02	32	(³)
Service station attendant, fuel pump attendant, and/or lubricator	2,050	.11	14	1
Optician, dispensing and/or optical mechanic	9,220	.50	11	1
Sales floor stock clerk	49,540	2.66	4	12
Furniture finisher	660	.04	29	(³)
Hand stone carver	570	.03	37	(³)
Picture framer	1,430	.08	26	(³)
All other skilled craft and kindred workers	7,180	.39	n.a.	n.a.
All other operatives and semiskilled workers	14,960	.80	n.a.	n.a.
All other laborers and unskilled workers	24,990	1.34	n.a.	n.a.
Clerical occupations	412,970	22.21	n.a.	n.a.
Clerical workers, office	350,930	18.87	n.a.	n.a.
Bookkeeping and/or billing machine operator	12,390	.67	4	9
Computer operator	1,120	.06	13	(³)
Keypunch operator	6,060	.33	8	2
Peripheral EDP equipment operator	340	.02	41	(³)
All other office machine operators	1,440	.08	n.a.	n.a.
Accounting clerk	19,150	1.03	4	9
Bookkeeper, hand	41,340	2.22	2	24
Adjustment clerk	1,430	.08	22	(³)
Cashier	146,360	7.87	3	19
Collector	520	.03	22	(³)
File clerk	1,650	.09	28	(³)
General clerk, office	51,290	2.76	3	19
Credit authorizer	740	.04	21	(³)
Order clerk	19,100	1.03	7	5
Payroll and/or timekeeping clerk	560	.03	20	(³)
Credit reference clerk	230	.01	43	(³)
Receptionist	5,580	.30	8	3
Secretary	16,190	.87	4	9
Service clerk	700	.04	15	(³)
Switchboard operator	1,680	.09	13	1
Switchboard operator and/or receptionist	2,620	.14	8	3
Typist	9,970	.54	7	4
Clerical supervisor, office or plant	1,220	.07	14	1
All other office clerical workers	9,250	.50	n.a.	n.a.
Clerical workers, plant	62,040	3.34	n.a.	n.a.
Shipping packer	2,930	.16	18	(³)
Shipping and/or receiving clerk	17,880	.96	5	8
Stock clerk, stockroom, warehouse, or storage yard	34,020	1.83	5	11
Dispatcher, vehicle, service or work	550	.03	12	1
Marking clerk	5,980	.32	8	2
All other plant clerical workers	680	.04	n.a.	n.a.

See footnotes at end of table.

Table 26. Miscellaneous retail stores: Employment, relative error, and percent of establishments reporting selected occupations, June 1979—Continued

(Sic 59)

Occupation	Employment ¹	Percent of total employment	Relative error (in percentage) ²	Percent of establishments reporting the occupation
Sales occupations	677,960	36.46	n.a.	n.a.
Technical sales representative, sales agent and/or associate	45,600	2.45	5	8
Non-technical sales representative, sales agent and/or associate	139,710	7.51	3	19
Sales clerk	489,150	26.30	2	49
Sales clerk supervisor	440	.02	36	(³)
All other sales workers	3,060	.16	n.a.	n.a.

¹ Estimates of fewer than 50 workers, or with less than 0.01 percent of industry employment, or with a relative error greater than 50 are generally not shown separately since such estimates are considered unreliable. Estimates that are not shown have been counted in the appropriate "All other" categories.

² The relative standard errors apply equally to data on estimated

employment and percent of total employment; relative standard errors estimated at the level of 2 chances out of 3. For further information on sampling variability and other types of errors, see appendix A.

³ Rounded to zero.
n.a. Not available.

Appendix A. Survey Methods and Reliability of Estimates

Scope of survey

The survey covered private nonmanufacturing establishments in Standard Industrial Classification (SIC) codes 41, 42, 44-49, and 50-59. The reference date of the survey was the week that included April 12, May 12, or June 12, 1979, depending on the SIC of the sampled unit as shown below:

SIC	Reference date
41.....	June 12
42.....	May 12
44.....	April 12
45.....	June 12
46.....	June 12
47.....	April 12
48 (except 483).....	June 12
483.....	May 12
49.....	April 12
50-59.....	June 12

The survey covered all 50 States and the District of Columbia.

Method of collection

Survey schedules were mailed to most sample establishments; personal visits were made to some larger companies. Two additional mailings were sent to nonrespondents at approximately 6-week intervals. Nonrespondents considered critical to the survey (due to size) were followed up by telephone or personal visit.

Sampling procedure

The sampling frame for this survey was the list of units (excluding government units) in the specified SIC's as reported to State unemployment insurance agencies. Because each cooperating State selected its own sample, the reference date of the sampling frame varied depending on when the last updates to the frame were made and when sampling took place. The reference date for the frame used for sampling in the six supplemental States was the first quarter of 1978.

The universe was stratified into SIC and size classes. The size classes were determined by employment as follows:

Size class	Employees
1	0-3
2	4-9
3	10-19
4	20-49
5	50-99
6	100-249
7	250-499
8	500-999
9	1,000 and over

Reporting units with 0-3 employees were not sampled in all States, but units with 4-9 employees were given larger weights to represent the employment in the smaller size class. Reporting units with 250 or more employees were included in the sample with certainty. Sample sizes intended to produce State estimates with target relative errors of 10 to 15 percent at one standard deviation were developed for the noncertainty size classes. This was done for groups of SIC's based on averages of occupational rates and coefficients of variation (CV's) from the previous survey for a set of typical occupations. This SIC sample size was allocated to the size classes in proportion to size class employment. The sample was selected systematically with equal probability within each State/SIC/size class cell.

States were given the option of two target relative errors in designing their samples. Some States varied the target relative error by SIC. This was done to allow reductions in sample size for cost reasons.

The sample size for the six supplemental States was developed by first determining the sample size required for national estimates in each two-digit SIC with a target relative error of 10 percent at one standard deviation. This was done by averaging CV's and occupational rates for a set of occupations from the previous survey. Establishments with 1,000 or more employees were included with certainty. This national SIC sample size was then allocated to the noncooperating State/size class cells in proportion to employment.

The above allocations resulted in a total initial sample size for all States of 267,300 reporting units.

Response

There were 239,869 final eligible units in the sample (i.e., excluding establishments that were out of business, out of scope, etc.). Usable responses were obtained

from 170,105 units, producing a response rate of 70.9 percent based on units and 64.2 percent based on weighted employment. Subsequent to the national estimates, States received additional data to prepare State estimates. Response rates in most States were significantly higher than the response rate used to develop national estimates.

Estimation

A weight was determined for each sample unit from which a usable response was received. Each weight was composed of two factors. The first factor was the inverse of the probability of selection. The second was the nonresponse adjustment factor, used to correct for questionnaires that were not returned or not usable. For each of the three-digit SIC/State/size class sampling cells, a nonresponse factor was calculated that was equal to:

Weighted sample employment of all eligible units in sample

Weighted sample employment of all responding eligible units

Sample employment was taken from the sampling frame. If the factor in a cell was greater than a predetermined maximum factor, which increased as the number of respondents in a cell increased, the cell was collapsed with other homogeneous cells within the SIC until the factor for the combined cells was not greater than the appropriate maximum factor. If the collapsing procedure terminated (i.e., no more cells were available for collapse) before satisfying the above constraint, then the appropriate maximum factor was used. For size classes 1-6, homogeneous cells were determined to be other *size* cells within the SIC and State. For size classes 7-9, homogeneous cells were determined to be other *State* cells within the SIC and size class. The weight for each establishment was the product of the two factors.

A combined ratio estimate of occupational employment was used to develop the national estimates. The auxiliary variable used was total employment. The estimating formula is:

$$\hat{p} = \sum_i \left[\frac{\sum_j \sum_k w_{ijk} P_{ijk}}{\sum_j \sum_k w_{ijk} e_{ijk}} \cdot M_i \right]$$

Where: \hat{p} = 2-digit industry occupational employment estimate
 i = 3-digit industry within a 2-digit industry
 j = size class
 k = establishment
 w_{ijk} = weight after nonresponse adjustment in i-th industry, j-th size class and k-th establishment

P_{ijk} = occupational employment in i-th industry, j-th size class and k-th establishment
 e_{ijk} = total employment in i-th industry, j-th size class and k-th establishment
 M_i = population total employment in i-th industry

The population value of total employment (M_i) was obtained from the BLS monthly survey of nonagricultural establishments.

The standard form for the sampling variance for a combined ratio estimate is:

$$V(\hat{p}) = \sum_i \sum_j \frac{N_{ij}^2 (1-f_{ij})}{n_{ij}} \cdot A_{ij}$$

$$A_{ij} = S_{p_{ij}}^2 + R_i^2 S_{e_{ij}}^2 - 2R_i K_{ij} S_{p_{ij}} S_{e_{ij}}$$

Where: $V(\hat{p})$ = variance of \hat{p}
 i = 3-digit industry within a 2-digit industry
 j = size class
 N_{ij} = total number of units in the i-th industry and j-th size class
 f_{ij} = sampling fraction in the i-th industry and j-th size class
 n_{ij} = number of sample units in the i-th industry and j-th size class
 $S_{p_{ij}}$ = standard deviation of p within the i-th industry and j-th size class
 $S_{e_{ij}}$ = standard deviation of e within the i-th industry and j-th size class
 K_{ij} = correlation coefficient between p and e within the i-th industry and j-th size class.

The variances for the occupational estimates were estimated from the following formula:

$$\text{Var}(\hat{P}) = \sum_i \sum_j T_{ij} V_{ij}^2$$

$$T_{ij} = [B_{ij}] \cdot [D_{ij}] \cdot [F_{ij}]^2$$

$$B_{ij} = (M_{ij} - e_{ij}) / (M_{ij})$$

$$D_{ij} = (G_{ij}) / (H_{ij})$$

$$G_{ij} = \left(\sum_k w_{ijk}^2 \right) \left(\sum_k w_{ijk} \right)$$

$$H_{ij} = \left(\sum_k w_{ijk} \right)^2 - \left(\sum_k w_{ijk}^2 \right)$$

$$F_{ij} = (M_i) / \left(\sum_j \sum_k w_{ijk} e_{ijk} \right)$$

$$V_{ij}^2 = \sum_k w_{ijk} \cdot L_{ijk}^2$$

$$L_{ijk} = (P_{ijk} - R_i e_{ijk}) - (\bar{P}_{ij} - R_i \bar{e}_{ij})$$

Where: M_{ij} = benchmark total employment in the i-th industry and j-th size class

$$R_i = \left(\sum_j \sum_k w_{ijk} P_{ijk} \right) / \left(\sum_j \sum_k w_{ijk} e_{ijk} \right)$$

$$e_{ij} = \sum_k e_{ijk}$$

All other terms are as defined above. This formula is almost a computational form of the standard formula given above. One simplifying assumption has been made:

$$w_{ijk} = C_{ij} \text{ for all } k \text{ in a given } ij \text{ cell}$$

That is, the weights are equal to a constant C within a given three-digit industry/size class cell. At this time, the total effect of this assumption on the variance estimates has not been measured.

Reliability of estimates

Estimates developed from the sample may differ from the results of a complete survey of all the establishments in the sampled lists. Two types of errors, sampling and nonsampling, are possible in an estimate based on a sample survey. Sampling error occurs because observations are made only on a sample, not on the entire population. Nonsampling error can be attributed to many sources, e.g., inability to obtain information about all cases in the sample; differences in the respondents' interpretation of questions; inability of respondents to provide correct information; errors in recording, coding, or processing the data; errors in estimating values for missing data; and failure to represent all units in the population.

The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same sample design. Estimates derived from the different samples would differ from each other; the difference between a sample estimate and the average of all possible sample estimates is called the sampling deviation. The standard or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples. The relative standard error is defined as the standard error of the estimate divided by the value being estimated; the variance is defined as the standard error squared.

The sample estimate and an estimate of its standard error enable one to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples that could be obtained from the sample design for the survey.

To illustrate, if all possible samples were selected, and if each of these were surveyed under essentially the same

conditions and an estimate and its estimated sample error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below to one standard error above the derived estimate would include the average value of all possible samples. This interval is called a 68-percent confidence interval.
2. Approximately 90 percent of the intervals from 1.6 standard errors below to 1.6 standard errors above the derived estimate would include the average of all possible samples. This interval is called a 90-percent confidence interval.
3. Approximately 95 percent of the intervals from two standard errors below to two standard errors above the derived estimate would include the average of all possible samples. This interval is called a 95-percent confidence interval.
4. Almost all intervals from three standard errors below to three standard errors above the derived estimate would include the average of all possible samples.

An inference that the complete coverage value would be within the indicated ranges would be correct in approximately the relative frequencies shown.

For example, suppose an estimated total is shown as 5,000 with an associated relative error of 2 percent. Then the standard error is 100 (2 percent of 5,000) and there is a 68-percent chance that the average of all possible sample totals would be between 4,900 and 5,100, and it is almost certain that the average of all possible sample totals would be between 4,700 and 5,300.

The relative errors provided primarily indicate the magnitude of the sampling error, but do not measure biases in the data due to nonsampling error. Efforts were made to reduce the biases due to errors in recording, coding, and processing the data. The adjustment made for nonrespondents assumed that the characteristics of the nonrespondents were the same as those of the respondents at a given level. To the extent this is not true, bias is introduced in the data. The magnitude of these biases is not known.

Particular care should be exercised in the interpretation of small estimates, estimates based on a small number of cases, or small differences between estimates because the sampling errors are relatively large and the magnitude of the biases is unknown.

Appendix B. OES Survey Data Available from State Agencies

State data on occupational employment in transportation, communications, utilities, and trade are available as indicated in the following table. These

reports may be obtained from the State employment security agencies listed on the inside back cover of this publication.

Table B-1. OES survey data available by State and year

State	1973 ¹	1976	1979	State	1973 ¹	1976	1979
Alabama	x	x	x	Mississippi	x	x	x
Alaska	x	x	x	Missouri	x	x	x
Arizona		x	x	Nevada	x	x	x
Arkansas		x	x	New Hampshire			x
California			x	New Jersey	x	x	x
Colorado	x	x	x	New Mexico			x
Connecticut		x	x	New York		x	x
Delaware	x	x	x	North Carolina	x	x	x
District of Columbia	x	x	x	North Dakota		x	x
Florida	x	x	x	Oklahoma	x	x	x
Georgia		x	x	Oregon	x	x	x
Hawaii			x	Pennsylvania		x	x
Idaho		x	x	Rhode Island			x
Illinois			x	South Carolina		x	x
Indiana	x	x	(²)	South Dakota			x
Iowa			x	Tennessee	x	x	x
Kentucky		x	x	Texas		x	x
Louisiana			x	Utah	x	x	x
Maine	x	x	x	Virginia	x	x	x
Maryland	x	x	x	West Virginia	x	x	x
Massachusetts	x	x	x	Wisconsin	x	x	x
Michigan			x	Wyoming			x
Minnesota	x		x				

¹ Covered wholesale and retail trade only.

² Report in progress.

U.S. Department of Labor Bureau of Labor Statistics

REGION I - BOSTON

John Fitzgerald Kennedy Federal Bldg.
Government Center - Room 1603 A
Boston, Mass. 02203

REGION II - NEW YORK

1515 Broadway—Suite 3400
New York, N.Y. 10036

REGION III - PHILADELPHIA

3535 Market Street
P.O. Box 13309
Philadelphia, Pa. 19101

REGION IV - ATLANTA

1371 Peachtree Street, N.E.
Atlanta, Ga. 30367

REGION V - CHICAGO

230 S. Dearborn Street
Chicago, Ill. 60604

REGION VI - DALLAS

555 Griffin Sq., 2nd Fl.
Dallas Tex, 75202

REGIONS VII & VIII - KANSAS CITY

911 Walnut Street
Kansas City, Mo. 64106

REGION IX - X - SAN FRANCISCO

450 Golden Gate Avenue, Box 36017
San Francisco, Calif. 94102

State Agencies Cooperating In the OES Program

BLS

Region

IV ALABAMA	-Department of Industrial Relations, Industrial Relations Building, Room 427, Montgomery 36130
X ALASKA	-Department of Labor, Employment Security Division, P.O. Box 1149, Juneau 99802
IX ARIZONA	-Department of Economic Security, Labor Market Information, P.O. Box 6123, Phoenix 85005
VI ARKANSAS	-Department of Labor, Employment Security Division, P.O. Box 2981, Little Rock 72203
IX CALIFORNIA	-Employment Development Department, P.O. Box 1679, Sacramento 95808
VIII COLORADO	-Department of Labor, Division of Employment and Training, 251 East 12th Avenue, Denver 80203
I CONNECTICUT	-Labor Department, Employment Security Division, 200 Folly Brook Boulevard, Wethersfield 06109
III DELAWARE	-Department of Labor, University Plaza Office Complex, Bldg. D, Chapman Rd., Route 273, Newark 19713
III DIST. OF COL.	-D.C. Department of Labor, Division of Labor Market Information, Research, and Analysis, 605 G Street, N.W., Washington 20001
IV FLORIDA	-Department of Labor and Employment Security, Caldwell Bldg., Tallahassee 32301
IV GEORGIA	-Department of Labor, Labor Information Systems, 254 Washington Street, S.W., Atlanta 30334
IX HAWAII	-Department of Labor and Industrial Relations, P.O. Box 3680, Honolulu 96811
X IDAHO	-Department of Employment, Research and Analysis Division, P.O. Box 35, Boise 83707
V ILLINOIS	-Bureau of Employment Security, Research and Analysis Division, 910 South Michigan Avenue, 12th Floor, Chicago 60605
V INDIANA	-Employment Security Division, 10 North Senate Avenue, Indianapolis 46204
IV KENTUCKY	-Department of Human Resources, 275 E, Main Street, 2nd Floor West, Frankfort 40621
VI LOUISIANA	-Department of Labor, P.O. Box 44094, Capitol Station, Baton Rouge 70804
I MAINE	-Department of Manpower Affairs, Employment Security Commission, 20 Union Street, Augusta 04330
III MARYLAND	-Department of Human Resources, 1100 North Eutaw Street, Baltimore 21201
I MASSACHUSETTS	-Division of Employment Security, Research and Statistics Division, Charles F. Hurley Bldg., Boston 02114
V MICHIGAN	-Employment Security Commission, Research and Statistics Division, 7310 Woodward Avenue, Detroit 48202
V MINNESOTA	-Department of Economic Security, Research and Statistical Services Office, 390 North Robert Street, St. Paul 55101
IV MISSISSIPPI	-Employment Security Commission, P.O. Box 1699, Jackson 39205
VII MISSOURI	-Department of Labor and Industrial Relations, Division of Employment Security, P.O. Box 59, Jefferson City 65101
IX NEVADA	-Employment Security Department, Employment Security Research Division, 500 E. Third Street, Carson City 89713
I NEW HAMPSHIRE	-Department of Employment Security, 32 South Main Street, Concord 03301
II NEW JERSEY	-Department of Labor and Industry, Division of Planning and Research, OES Survey, P.O. Box 359, Trenton 08625
VI NEW MEXICO	-Department of Human Services, Employment Service Division, P.O. Box 1928, Albuquerque 87103
II NEW YORK	-N.Y. State Department of Labor, Division of Research and Statistics, State Campus—Building 12, Albany 12201
IV NORTH CAROLINA	-Employment Security Commission, P.O. Box 25903, Raleigh 27611
VIII NORTH DAKOTA	-Employment Security Bureau, P.O. Box 1537, Bismarck 58505
VI OKLAHOMA	-Employment Security Commission, Research and Planning, Room 310, Will Rogers Memorial Office Building, Oklahoma City 73105
X OREGON	-Department of Human Resources, Employment Division, 875 Union Street, N.E., Salem 97130
III PENNSYLVANIA	-Department of Labor and Industry, Research and Statistics Division, Seventh and Forster Streets, Harrisburg 17121
I RHODE ISLAND	-Department of Employment Security, 24 Mason Street, Providence 02903
IV SOUTH CAROLINA	-Employment Security Commission, P.O. Box 995, Columbia 29202
VIII SOUTH DAKOTA	-Department of Labor, Research and Statistics Division, 607 North Fourth Street, Aberdeen 57401
IV TENNESSEE	-Department of Employment Security, Room 519, Cordell Hull Office Building, Nashville 37219
VI TEXAS	-Employment Commission, TEC Building, 15th and Congress Avenue, Austin 78778
VIII UTAH	-Department of Employment Security, P.O. Box 11249, Salt Lake City 84147
III VIRGINIA	-Employment Commission, Manpower Research Division, P.O. Box 1358, Richmond 23211
III WEST VIRGINIA	-Department of Employment Security, State Office Building, 112 California Avenue, Charleston 25305
V WISCONSIN	-Department of Industry, Labor, and Human Relations, 201, East Washington Avenue, Madison 53707
VIII WYOMING	-Employment Security Commission, Reports and Analysis Section, P.O. Box 2760, Casper 82601