

The 1998-2008 job

by Jonathan W. Kelinson and Patricia Tate

The new millennium will bring change in employment opportunities to the U.S. labor market. People must plan their careers carefully and be aware of which occupations will be in demand in the future. Employment projections from the Bureau of Labor Statistics (BLS) provide important information for such long-term career planning.

The \$7.6-trillion economy of 1998 is projected to reach \$9.5 trillion by 2008. Employment in 2008 is expected to reach 160.8 million, an increase of 20.3 million—14 percent—above the 1998 level. The table beginning on page 8 shows the occupations that will benefit from this growth and those in which employment is projected to decline. For each of over 250 occupations, the table gives the current employment level, the projected percent and numerical change in employment, and a summary of job prospects for the 1998-2008 projections period.

The next few pages discuss factors that affect an occupation's employment outlook, note some of the assumptions used in making the projections, and point out general trends.

Why employment changes

The number of workers employed in an occupation depends largely on the demand for the goods or services those workers provide. Over the last decade, for example, increased use of computers has contributed to large numerical increases for computer systems analysts, engineers, programmers, and repairers.

However, even if the demand rises for goods and services provided by a group of workers, employment may not increase at all or may increase more slowly than demand because of changes in the ways goods are produced and services are provided. In fact, some changes in technology and business practices cause employment to decline. While the volume of paperwork is expected to increase dramatically, for example, the employment of word processors, typists, and data entry keyers will probably fall. This reflects the growing use of word-processing equipment that increases efficiency by allowing other workers to do their own typing.

Jonathan W. Kelinson and Patricia Tate are economists in the Office of Employment Projections, BLS, (202) 691-5688 and 691-5723, respectively.

The horizon leans forward,
Offering you space
To place new steps of change

—Maya Angelou, from her 1993 inaugural poem “On the Pulse of Morning”

BLS economists project changes in labor force participation rates and levels by age, sex, race, and ethnicity; total economic performance based on assumptions about future growth potential; and industry-level employment

based on economic performance, advances in technology, and detailed industry knowledge. The 1998-2008 occupational projections presented in this issue of the *Quarterly* are based on these projections extended to an estimate of the demand for workers employed in occupations in each industry.

Any projection of employment growth is clouded by uncertainty. Unforeseen changes in technology, shifts in the balance of trade, or major international political upheavals could radically alter future employment for individual occupations.

Employment through 2008

Between 1998 and 2008, employment will rise to 160.8 million from 140.5 million. This section gives a brief overview of projected employment change. It focuses on 10 clusters of occupations as they are classified in the *Occupational Outlook Handbook*:

- ◆ Executive, administrative, and managerial
- ◆ Professional and technical
- ◆ Marketing and sales
- ◆ Administrative support, including clerical
- ◆ Service
- ◆ Mechanics, installers, and repairers
- ◆ Construction trades
- ◆ Production
- ◆ Transportation and material moving
- ◆ Handlers, equipment cleaners, helpers, and laborers.

A particular occupation may not follow the trend projected for its group; therefore, you should refer to the table on pages 8 to 36 for the outlook for specific occupations. An index of individual occupations begins on page 37.

Executive, administrative, and managerial occupations. Workers in executive, administrative, and managerial occupations establish policies, make plans, determine staffing requirements, and direct the activities of businesses, government agencies, and other organizations. This group includes occupations such

outlook in brief

as construction manager, education administrator, and funeral director and mortician. It also includes management support occupations that provide technical assistance to managers. Some examples include accountant and auditor, budget analyst, and insurance underwriter.

Overall, employment of executive, administrative, and managerial occupations is expected to grow about as fast as the average for all occupations. However, because these workers are employed throughout the economy, differences in the rate of expansion for individual industries will produce varying rates of employment change for the managers and support workers in those industries. For example, employment of engineering, natural science, and computer and information systems managers will grow much faster than average, whereas the number of industrial production managers is expected to decline.

Because of strong competition for jobs in this group, applicants with previous work experience, specialized training, or graduate study may have an advantage. Computer skills will become essential as managers rely on computerized information systems to assist with the routine function of their organizations.

Professional and technical occupations. Professional and technical workers provide a variety of services and conduct research. This group includes engineers; architects, surveyors, and drafters; and social, recreational, and religious workers. It also includes professionals working in computer, mathematical, and operations research occupations; health diagnosing, assessment, and treating occupations; and communications, visual arts and design, and performing arts occupations.

Technical personnel usually program and operate technical equipment and assist engineers, scientists, physicians, and other professionals. Workers in these occupations include paralegals, health technologists and technicians, and engineering and science technicians.

Professional and technical occupations are expected to grow faster and gain more new jobs than any other occupational group. However, projected growth rates for individual occupations are as diverse as the jobs themselves, reflecting changes in demographics, business practices, and technology, among other factors. For example, population trends and increasing student enrollments will fuel an average increase in the overall employment of teachers, accounting for nearly one-fifth of all job growth among professional and technical occupations; increased demand for health and social services from a growing and aging population will spur rapid growth for physical therapists, occupational therapists, and human service workers and assistants. Paralegal will be one of the fastest growing occupations in the economy as lawyers increasingly rely on these workers to improve efficiency and cut the cost of legal services. Employment of computer systems analysts, engineers, and scientists is expected to double between 1998 and 2008 as organizations become increasingly dependent on advancing technologies and the workers who design and implement them.

Along with continued efforts to reduce costs, technology will adversely affect employment of other professional and technical workers. For example, employment of drafters is



expected to grow more slowly than average as use of computer-aided design (CAD) systems reduces the number of drafters required to create blueprints. Similarly, pharmacists should experience slower than average employment growth because of online sales and use of robotics.

Marketing and sales occupations. Workers in this group sell goods and services, purchase commodities and property for resale, and stimulate consumer interest. This group includes cashiers; demonstrators, product promoters, and models; and real estate agents and brokers.

Overall employment in this group is expected to grow as fast as average because of the increased demand for financial, travel, and other services. However, the rate of growth should be slower from 1998 to 2008 than during the previous decade because these workers are concentrated in wholesale and retail trade, industries that are expected to grow more slowly than in the past.

Nonetheless, some occupations will experience rapid growth. Securities, commodities, and financial services sales representative should grow much faster than average as investment increases and diversifies and financial institutions offer more complex services. Employment of services sales repre-

sentatives also should increase much faster than average as the health care and computer industries expand rapidly, requiring more workers to market and service their products. Faster than average employment growth is expected for counter and rental clerks because of increased demand for business and recreational services.

There is greater competition for jobs in higher paying marketing and sales occupations, such as securities, commodities, and financial services sales representative, than in lower paying ones, such as retail salesperson. Opportunities will be best for well trained, personable, and ambitious people who enjoy selling.

Administrative support occupations, including clerical. Workers in this group prepare and record memos, letters, and reports; collect accounts; gather and distribute information; operate office machines; and handle other administrative tasks. The group includes occupations such as information clerk, postal clerk and mail carrier, and secretary.

This occupational group will continue to employ the largest number of workers, although employment will grow more slowly than average. Despite the tremendous increase expected in the volume of clerical tasks, increased automation and other technological changes will cause a decline in some occupations, including word processor, typist, and data entry keyer; book-keeping, accounting, and auditing clerk; and communications equipment operator. In contrast, employment of teacher assistants should grow faster than average as schools increasingly



make use of these workers to cope with growing enrollments, including those of students in special education and students for whom English is a second language.

Rapid expansion of the services industries in which they work will drive faster than average growth in employment of receptionists. Similarly, the increasing population, economy, and volume of insurance sales will spur employment growth among adjusters, investigators, and collectors. Because many administrative support occupations are large and have relatively high turnover, opportunities should be plentiful for full- and part-time jobs, even in slowly growing occupations.

Service occupations. This group includes workers in five subgroups: Health; food preparation and beverage; personal; cleaning, buildings, and grounds; and protective services. Included among these workers are health service workers, such as dental and medical assistants, nursing and psychiatric aides, and physical and occupational therapy assistants and aides; chefs, cooks, and all other food preparation and beverage service workers; personal service workers, such as cosmetologists, flight attendants, and child-care and private household workers; janitors, landscaping occupations, and pest controllers; and protective service workers, including correctional officers, firefighters, and police officers.

Population and economic growth and changes in health care delivery will fuel average employment growth among service occupations as a whole over the next decade. Health services occupations—including medical assistant, dental assistant, and physical therapist assistant and aide, which are among the fastest growing occupations in the economy—are expected to grow faster than average overall. Such rapid growth reflects an increasing and aging population, technological advances in medicine, and the increasing use of support personnel who are cost-effective providers of health care.

Full- and part-time jobs are expected to be plentiful for food preparation and beverage service workers because of the group's large size and high turnover. Overall, employment growth will be average for these occupations.

Growth in personal service occupations will vary widely. Employment of home health and personal care aides should grow much faster than average because of the increase in the elderly population and advances in medical technology that make in-home treatment more effective. Employment of private household workers, on the other hand, will decline rapidly, as child-care and household cleaning service firms increasingly assume those duties.

Average employment growth is expected for cleaning, building, and grounds service occupations. Faster than average employment growth for landscaping and groundskeeping laborers and pest controllers will result from the public's increased use

of services these workers provide. Opportunities in cleaning occupations should stem from high turnover.

Employment of correctional officers is expected to rise much faster than average as correctional facilities expand. The public's growing concern for security will also lead to faster than average growth for guards, police officers, and private detectives. However, firefighters should experience slow growth as various public service providers continue to compete for funding.

Mechanics, installers, and repairers. Workers in this group adjust, maintain, and repair automobiles, industrial equipment, computers, and many other types of machinery. Occupations include telecommunications equipment mechanic, installer, and repairer; aircraft mechanic and service technician; and musical instrument repairer and tuner.

Overall, average growth is expected because of the continued importance of mechanical and electronic equipment throughout the economy, but projections vary by occupation. Computer, automated teller, and office machine repairer is expected to be the fastest growing occupation in this group, reflecting the increased use of these machines. In contrast, employment of electronic home entertainment equipment repairers, farm equipment mechanics, and millwrights is expected to decline because of labor-saving devices and improvements in reliability.

Construction trades occupations. Workers in this group construct, alter, and maintain buildings and other structures. Occupations include carpenter, electrician, and construction equipment operator.

Virtually all new jobs in this group will be in construction. An increase in the number of homes and industrial plants, the desire to alter or modernize existing structures, and the need to maintain and repair the Nation's infrastructure—highways, dams, and bridges—will result in a significant number of new jobs. However, overall employment is expected to grow more slowly than average as construction activity declines and the industry benefits from productivity gains and more efficient technologies. Employment of sheet metal workers and duct installers will grow fastest, boilermakers the slowest. Because the construction industry is sensitive to fluctuations in the Nation's economy, employment in construction occupations varies from one year to another. Many construction workers become unemployed during downturns in construction activity.

Production occupations. These workers set up, adjust, operate, and tend machinery and use handtools and hand-held power tools to make goods and assemble products. Occupations include prepress worker, machinist, assembler, jeweler, stationary engineer, butcher, apparel worker, and fisher.

Increases in imports, changing business practices, and auto-

mation—including robotics and advanced computer techniques—will result in little or no change in overall employment, but growth will vary by occupation. For example, shoe and leather workers and repairers will decline in employment because of imports, rising business costs, and use of new automation. However, electronic semiconductor processors should experience much faster than average employment growth, fueled by discovery of new uses for microchips and increased U.S. production.

Many production occupations are sensitive to the business cycle and competition from imports—textile machinery operators, for example. When factory orders decline, workers may face shortened workweeks, layoffs, and plant closings.

Transportation and material moving occupations. Operating the equipment used for moving people and materials is the principle activity of workers in this group. Occupations include busdriver, water transportation worker, and truckdriver. Overall employment is expected to grow about as fast as average, but prospects vary by occupation. The fastest growing occupations in this group are busdriver and taxi driver and chauffeur.

Employment of truckdrivers is also expected to increase as the economy requires more shipment of goods. An employment decline is expected for rail transportation occupations, reflecting improved efficiency and technological advances.

Handlers, equipment cleaners, helpers, and laborers. These workers perform routine tasks and assist skilled workers. Occupations include parking lot attendant, service station attendant, and helper in construction trades.

Overall employment in this group is expected to grow about as fast as the average for all occupations, although some occupations, such as machine feeder and offbearer and service station attendant, will show a decline. Many opportunities will arise from the need to replace workers who leave these high-turnover occupations. However, the number of openings will depend on the strength of the economy, particularly for construction laborer and other occupations in industries highly sensitive to changes in the business cycle.

Information in the “Brief”

“The job outlook in brief” provides thumbnail sketches of employment data for each occupa-

tion in the 2000-01 *Occupational Outlook Handbook*, on which it is based. Nearly all employment estimates are from the BLS industry-occupation matrix. Throughout this article, employment growth rates are compared to the average for all occupations. The box, “Key phrases in the ‘Brief,’” explains the terms and phrases used to describe projected employment change and competition jobseekers are likely to encounter.

For occupations with lengthy training and strict entry requirements, such as lawyer and physician, assessing the degree of competition can be accomplished with some accuracy. But most occupations have several routes of entry and flexible requirements, so the potential supply of workers is difficult to measure. For many occupations, therefore, no description of job opportunities or competition is given. Those descriptions that are given are based on information obtained from technical journals and other relevant literature, interviews with occupational experts, historical data, and the judgment of the analyst who studied the occupation.

Employment growth is only one source of job openings; another source is openings that result from the need to replace existing workers who transfer to other occupations or leave the labor force. In fact, BLS projects that more than half of all job openings over the 1998-2008 period will arise from replacement needs. As a result, even occupations with slower than average growth may offer many jobs for new workers. This is especially true of large occupations.

Beyond the “Brief”

“The job outlook in brief” is only a starting point for exploring economic projections or careers. BLS produces the projections as part of its employment projections program, which develops new sets of projections every 2 years. Besides occupational employment, BLS also projects industry output and employment, detailed labor force activity, and diverse measures of overall economic activity. This information is available in a variety of publications designed to meet different needs.

The winter 1999-2000 issue of the *Quarterly* provides a graphic presentation of highlights of the projections. The November 1999 issue of the *Monthly Labor Review* contains greater detail. *Employment Outlook: 1998-2008* (Bulletin 2522) presents



an overview of BLS projections of the labor force, the economy, industry employment, and occupational employment; detailed statistical tables for the major components of the projections; and key assumptions underlying projections of employment in detailed occupations and industries. The 2000-01 *Occupational Projections and Training Data* (Bulletin 2521) is a statistical supplement to the 2000-01 *Occupational Outlook Handbook* (Bulletin 2520) that contains current and projected employment estimates for over 500 occupations. It also presents information on occupational characteristics—such as separation rates, unemployment rates, job openings, earnings, and the most significant source of training—when such information is available.

The data and information in those publications also are accessible via the Office of Employment Projections website: <http://stats.bls.gov/emphome.htm>.

“The job outlook in brief” provides information in a format that allows easy comparison of job prospects in different occupations or groups of occupations. But employment prospects are not the only consideration when choosing a career; matching your goals and abilities to the type of work and the education required is another component. Where you want to live and how much money you want to earn also are important. Information like this appears in the *Occupational Outlook Handbook* and in a reprint of a fall 1998 *Quarterly* article, “Matching Yourself With the World of Work, 1998.” Both publications are less technical than the other BLS publications mentioned above.

The *Handbook* has been published for more than 50 years. It contains more detailed information about the outlook for each of the occupations mentioned in the “Brief” as well as information about the nature of the work, training and personal qualifications required, earnings, and other subjects. “Matching Yourself to the World of Work, 1998” is a tabular presentation similar in format to the “Brief.” Rather than focusing on outlook, however, it highlights significant job characteristics, including educational level required, working conditions, and interaction with data, people, and things.

Additional information on job growth is also available from State job service offices. The outlook for many occupations varies considerably among local job markets. For example, sections of the country with slow population growth may have less need for elementary school teachers than do regions with high growth. State job service offices, listed in the State government section of local telephone directories, provide information on local labor market conditions. Also, see the section on “Sources of Career Information” in the *Handbook*.

Ordering information

BLS publications are usually available in libraries, career centers, and the offices of school and employment counselors. They are sold by the Government Printing Office. Use the order card inside this issue of the *OOQ* or request publications on a separate sheet of paper. Send orders to:

Bureau of Labor Statistics Publication Sales Center
P.O. Box 2145
Chicago, IL 60690
Phone (312) 353-1880

Payment by check, money order, VISA, MasterCard, Discover/NOVUS, or GPO deposit account must accompany your order. Make check or money order payable to the Superintendent of Documents.

Key phrases in the “Brief”

Changing employment between 1998 and 2008

If the statement about growth reads. . .	Employment is projected to. . .
Much faster than average	Increase 36 percent or more
Faster than average	Increase 21 to 35 percent
Average	Increase 10 to 20 percent
More slowly than average or little or no change	Increase 0 to 9 percent
Decline	Decrease 1 percent or more

Opportunities and competition for jobs

If the statement about opportunities reads. . .	Job openings compared to jobseekers may be. . .
Very good or excellent	More numerous
Good or favorable	In rough balance
May face keen competition	Fewer

Reprints of this article will be sold by the Superintendent of Documents and are available from the Bureau of Labor Statistics Publication Sales Center, P.O. Box 2145, Chicago, IL 60690.



The 1998-2008 job outlook in brief

The names of the major occupational clusters are set in large type on top of large colored bars. The names of subgroups are set in smaller type on top of narrower colored bars. Names of occupations are in standard, boldface type.

All estimates of employment in 1998 and projected change in employment are based on the BLS Industry-Occupational Matrix, unless otherwise noted. This symbol ★ marks the occupations that are projected to grow the fastest or provide the most new jobs.

The column labeled "Employment prospects" compares the employment change for the occupation with that for total employment. When possible, it also indicates the amount of competition jobseekers can expect. The terms used for these comparisons are defined on page 7.



Executive, administrative, and managerial

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Accountants and auditors	1,080,000	11	122,000	Employment growth is expected to be average. Competition will remain keen for the most prestigious jobs in major accounting and business firms.
Administrative services and facility managers	364,000	18	66,000	Average employment growth is expected, with especially strong demand in management services and management consulting. Competition should remain keen because many competent, experienced workers seek managerial jobs.
Advertising, marketing, and public relations managers	485,000	23	112,000	Employment is expected to increase faster than average because of domestic and global competition. College graduates with experience, creativity, and strong communication and new media skills should have the best opportunities.
Budget analysts	59,000	14	8,100	Average employment growth is expected. Competition for jobs should remain keen; people with a master's degree and familiarity with financial software packages should have the best job prospects.
Construction and building inspectors	68,000	16	11,000	Employment growth is expected to be average. Opportunities will arise from the need to replace existing workers who leave the occupation. Job prospects should be best for people with construction experience and architectural training.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Construction managers	270,000	14	38,000	Average employment growth is expected. Workers with experience and a bachelor's degree in construction science, building science, or construction management should have the best job prospects.
Cost estimators	152,000	13	20,000	Employment growth is expected to be average. Job prospects in construction should be best for those with practical experience and a degree in engineering, construction management or construction science, or architectural drafting.
Education administrators	447,000	13	58,000	Average employment growth is expected. Keen competition for postsecondary education administrators is expected, with a more favorable outlook for primary and secondary education administrators.
Employment interviewers, private or public employment service	66,000	13	8,500	Employment growth is expected to be average, spurred by rapid growth of personnel supply firms, which employ most of these workers.
Engineering, natural science, and computer and information systems managers	326,000	43 ★	142,000	Employment is projected to increase much faster than average because of growth in both the occupations supervised by these workers and the industries that employ them. Growth is expected to be especially rapid for computer and information systems managers.
Farmers and farm managers	1,483,000	-12	-174,000	Employment is expected to decline, reflecting a long-term trend toward consolidation into fewer, larger farms. Aquaculture should provide some new jobs.
Financial managers	693,000	14	97,000	Employment growth is projected to be average. Bank mergers and use of technology will adversely affect bank branch managers, but the securities industry will hire more of these workers as the number and complexity of investments grow.
Funeral directors and morticians	28,000	16	4,400	Employment growth is expected to be average. A growing population, along with an increasing proportion of people over age 55, should spur demand for funeral services during the coming decade.
General managers and top executives	3,362,000	16	551,000 ★	Average employment growth is expected. Competition for top managerial jobs should remain intense because of the ample number of qualified applicants and relatively low turnover.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Government chief executives and legislators	80,000	3	2,200	Little or no change is expected. Few new governments are likely to form, and the number of these workers in existing governments rarely changes.
Health services managers	222,000	33	74,000	Employment is expected to grow faster than average, reflecting industry growth. Fastest growth will be in home health agencies, residential care facilities, and practitioners' offices and clinics.
Hotel managers and assistants	76,000	6	4,500	Employment is expected to grow more slowly than average because of industry consolidation. Job opportunities should be especially good for persons with college degrees in hotel or restaurant management.
Human resources, training, and labor relations specialists and managers	597,000	18	110,000	Average employment growth is expected. The job market is likely to remain competitive.
Industrial production managers	208,000	-1	-1,800	Employment is expected to decline. Applicants with bachelor's degrees in industrial engineering, management, or business administration should enjoy the best prospects.
Inspectors and compliance officers, except construction	176,000	11	19,000	Average growth is expected, reflecting continuing public demand for a safe environment and quality products overriding a desire for smaller government and fewer regulations.
Insurance underwriters	97,000	3	2,600	Slower than average employment growth is expected because of technology-related productivity gains. The best job prospects will be in the health insurance industry.
Loan officers and counselors	227,000	21	48,000	Employment growth is projected to be faster than average because of rising loan demand from a growing population, an expanding economy, and low interest rates.
Management analysts	344,000	28	98,000	Employment is expected to grow faster than average, with intense competition for jobs. Workers with a graduate degree and industry expertise should have the best prospects.
Property, real estate, and community association managers	315,000	14	43,000	Average employment growth is expected. Opportunities should be best for persons with college degrees in business administration, real estate, and related areas and for persons with professional designations.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Purchasing managers, buyers, and purchasing agents	547,000	7	38,000	Employment is expected to grow more slowly than average, in part because of industry consolidation. Jobseekers will have an advantage in wholesale or retail trade or in government if they have a bachelor's degree and in manufacturing if they have a degree plus experience and technical knowledge.
Restaurant and food service managers	518,000	18	92,000	Average employment growth is expected. Workers with an associate or bachelor's degree in restaurant and institutional food service management will have the best opportunities.



Professional and technical

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Air transportation-related				
Aircraft pilots and flight engineers	94,000	6	5,500	Slower than average employment growth is projected. Pilots should face keen competition because of the glamour, prestige, and high pay associated with the occupation. Flight engineers are no longer needed because of computerized flight management systems on new aircraft.
Air traffic controllers	30,000	2	700	Little or no change is expected because of technology-related productivity gains. Keen competition for jobs is expected to continue.
Engineers and engineering technicians				
Engineers²	1,462,000	20	290,000 ★	Average employment growth is projected. A favorable outlook is expected for those who keep their high-technology skills current. Strong demand will be driven by opportunities in research and development.
Aerospace engineers	53,000	9	4,600	Employment is expected to increase more slowly than average. Entrants will likely face competition for jobs because applicants should outnumber openings.
Chemical engineers	48,000	10	4,600	Average employment growth is expected. Opportunities should be best for those working with specialized chemicals. Competition should be keen as new graduates vie for a limited number of openings.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Civil engineers	195,000	21	41,000	Employment is expected to increase faster than average. A strong economy plus renewed concerns about infrastructure safety, capacity, and efficiency should spur demand for construction projects.
Electrical and electronics engineers	357,000	26	93,000	Employment is expected to increase faster than average. In business and engineering services firms, employment is expected to grow faster than average as these firms increasingly contract engineering services. Opportunities should be favorable for new college graduates.
Industrial engineers, except safety engineers	126,000	13	16,000	Average employment growth is expected. Demand for industrial engineers should be stimulated as firms stress productivity, efficiency, and quality.
Materials engineers	20,000	9	1,800	Employment is expected to increase more slowly than average. Job opportunities should be best for those working in the services industries.
Mechanical engineers	220,000	16	36,000	Average employment growth is projected. In business and engineering services firms, employment is expected to grow faster than average as these firms increasingly contract engineering services.
Mining engineers, including mine safety engineers	4,400	-13	-600	Employment is expected to decline. The continued pricing weakness of metals, minerals, and other mined commodities will make new domestic exploration uneconomical.
Nuclear engineers	12,000	6	700	Employment is expected to increase more slowly than average. However, the number of job openings should be adequate for the limited number of college-graduate jobseekers.
Petroleum engineers	12,000	-4	-400	Employment is expected to decline. Although job openings are expected to be limited in the United States, prospects should be better for those willing to travel abroad.
Engineering technicians	771,000	16	126,000	Employment growth is expected to be average. Competition will force companies to improve and update facilities and products more rapidly than in the past.
Architects, surveyors, and drafters				
Architects, except landscape and naval	99,000	19	19,000	Average employment growth is expected. Job prospects should be favorable for new graduates who have relevant computer skills.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Drafters	283,000	6	18,000	Employment is expected to grow more slowly than average as increasing CAD use results in productivity gains. Many job openings should occur as existing drafters leave the occupation.
Landscape architects	22,000	15	3,200	Employment growth is projected to be average. Opportunities should be relatively plentiful because of new Federal spending and because of the occupation's improving status among other design professionals.
Surveyors, cartographers, photogrammetrists, and surveying technicians	110,000	14	16,000	Average growth is projected overall. Surveying technicians are expected to have faster than average employment growth; surveyors, cartographers, and photogrammetrists should show little or no change.

■ Computer, mathematical, and operations research

Actuaries	16,000	7	1,100	Employment is expected to grow more slowly than average because of projected slower growth in some areas of the insurance industry.
Computer programmers	648,000	30	191,000	Employment is expected to grow faster than average, driven by rapid growth in the computer and data processing services industry. Prospects should be best for college graduates with strong technical experience and knowledge of several programming languages.
Computer systems analysts, engineers, and scientists	1,530,000	99 ★	1,522,000 ★	Much faster than average employment growth is expected. Growth will be driven by continuing expansion of new applications and increasing demand for computer services, data processing services, and computer support.
Mathematicians	14,000	-5	-800	Employment is expected to decline as fewer people hold the title of mathematician.
Operations research analysts	76,000	9	6,700	Slower than average employment growth is expected. Individuals with a master's degree or Ph.D. in management science or operations research should have the best job prospects.
Statisticians	17,000	2	400	Little or no change is expected. Job opportunities should remain favorable for people with statistical training, especially those who have an advanced degree.

■ Scientists and science technicians

Life scientists

Agricultural and food scientists	21,000	11	2,300	Average employment growth is projected. Employment increases in private firms, especially in those that conduct genetic research and that market globally, are expected to offset declines in the Federal Government.
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	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Biological and medical scientists	112,000	32	36,000	Faster than average employment growth is expected with increasing use of pharmaceuticals and importance of genetic research. Keen competition is expected for basic research positions in academia and industry.
Conservation scientists and foresters	39,000	18	7,000	Employment growth is expected to be average. Job prospects should be best in research and testing firms and in State and local government.
Physical scientists				
Atmospheric scientists	8,400	15	1,200	Average employment growth is expected. Private weather consulting firms and research and testing services are expected to provide the most new jobs.
Chemists	96,000	14	13,000	Employment growth is projected to be average, especially in research and testing services and the drug industry. Keen competition is expected for the relatively few job openings.
Geologists, geophysicists, and oceanographers	44,000	16	6,800	Average employment growth is expected. Demand will be greatest in environmental and engineering fields.
Physicists and astronomers	18,000	2	400	Little or no change is expected. Continuing reductions in defense-related research and overall cutbacks in Federal employment are expected to dampen demand for the basic research performed by these scientists.
Science technicians	227,000	7	16,000	Slower than average growth is expected. An increasing number of jobs are in biotechnology. An associate degree is becoming the minimum standard for occupational entry.
Legal				
Lawyers and judicial workers	752,000	16	119,000	Average employment growth is expected for lawyers. Employment of judges is expected to grow more slowly than average. Competition for jobs should be keen.
Paralegals and legal assistants	136,000	62 ★	84,000	Paralegals are projected to rank among the fastest growing occupations in the economy. Stiff competition for jobs should continue as the number of qualified applicants outpaces job growth.
Social scientists				
Economists and marketing research analysts	70,000	18	13,000	Employment growth is expected to be average. Opportunities for economists should be good because of the growing need for economic analyses. Demand for marketing research analysts should be strong.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Psychologists	166,000	11	19,000	Average employment growth is expected. Employment will grow fastest in outpatient mental health and substance abuse treatment clinics.
Urban and regional planners	35,000	17	6,100	Employment growth is expected to be average. The number of openings for consulting positions is expected to grow more rapidly in private industry than in government.
Social scientists, other	50,000	13	6,400	Average employment growth is expected overall. Opportunities are expected to be best in social service agencies, research and testing services, and management consulting firms.

■ Social and recreation workers

Human service workers and assistants	268,000	53 ★	141,000	Employment is projected to grow much faster than average because of high demand for social and human services. Opportunities are expected to be excellent, especially for applicants with appropriate postsecondary education.
Recreation workers	241,000	19	46,000	Average employment growth will be driven by increasing consumer spending on leisure activities. Competition is expected for career positions, but prospects are better for temporary or seasonal jobs.
Social workers	604,000	36 ★	218,000	Employment is expected to increase much faster than average. Need will be driven by an aging population and wider array of services.

■ Clergy

Protestant ministers	400,000 ³	(⁴)	(⁴)	Competition is expected to continue, reflecting slow growth of church membership and the large number of qualified candidates. Graduates of theological schools should have the best prospects.
Rabbis	5,000 ³	(⁴)	(⁴)	Job opportunities are expected to be favorable in all four major branches of Judaism, reflecting current unmet needs for rabbis and the need to replace those approaching retirement.
Roman Catholic priests	47,000 ³	(⁴)	(⁴)	Opportunities are expected to be favorable. The current shortage is expected to continue because of the low number of men becoming priests and the proportion of active priests reaching retirement.

■ Teachers and instructors, counselors, and library occupations

Adult and vocational education teachers	588,000	14	81,000	Average growth is expected as the demand for adult education programs continues to rise.
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	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Archivists, curators, museum technicians, and conservators	23,000	13	2,900	Average growth is expected. Qualified applicants outnumber job openings, creating keen competition for those jobs.
College and university faculty	865,000	23	195,000	Faster than average growth is expected because of rising enrollments. Applicants should outnumber job openings, creating keen competition for those jobs.
Counselors	182,000	25	46,000	Faster than average growth is expected. Employment prospects should be good as school districts reduce student-to-counselor ratios.
Instructors and coaches, sports and physical training	359,000	28	102,000	Faster than average growth for instructors and coaches is expected. Opportunities in the education industry will be good. Job prospects should be best for those with a bachelor's degree and experience.
Librarians	152,000	5	7,300	Slower than average growth is expected. Employment prospects are projected to be good for Master of Library Science graduates because their technical training qualifies them for both information services and librarian jobs.
Library technicians	72,000	18	13,000	Average employment growth is expected as technological advancements allow these workers to assume some duties formerly performed by librarians.
School teachers—Kindergarten, elementary, and secondary	3,364,000	16	552,000 ★	Average employment growth is projected overall, but employment of secondary school teachers is expected to increase faster than average. Opportunities vary by geographic area and subject specialty but should be plentiful for qualified entrants.
Special education teachers	406,000	34	137,000	Faster than average growth is expected as legislation increases the number of students eligible for special education programs and of services to persons with disabilities. Job opportunities should be good.
Health diagnosticians				
Chiropractors	46,000	23	11,000	Employment is expected to increase faster than average as consumer demand for alternative care grows. Job prospects should be good, especially for those establishing a practice in an area with a low concentration of chiropractors.
Dentists	160,000	3	5,000	Slower than average employment growth is expected. Most jobs will result from the need to replace the large number of dentists projected to retire.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Optometrists	38,000	11	4,000	Average employment growth is expected in response to the vision care needs of a growing and aging population. Opportunities should be best in retail optical stores and outpatient clinics.
Physicians	577,000	21	122,000	Faster than average employment growth is expected as the health services industry expands. Replacement needs are low because physicians usually remain in the profession until they retire.
Podiatrists	14,000	11	1,500	Employment growth is expected to be average. Competition for openings should be keen because the occupation is small and because most podiatrists remain in the occupation until they retire.
Veterinarians	57,000	25	14,000	Employment is expected to grow faster than average. Job prospects should be good because of increased spending on pets.

Health assessment and treating

Dietitians and nutritionists	54,000	19	10,000	Average employment growth is expected because of increased emphasis on disease prevention. Employment is expected to grow faster than average in nursing homes but to decline in hospitals.
Occupational therapists	73,000	34	25,000	Faster than average employment growth is expected because of increased demand from an aging population. Job prospects are expected to be best during the latter part of the projections period.
Pharmacists	185,000	7	14,000	Employment is expected to grow more slowly than average, limited by increasing use of robotics, technicians, and mail-order or online purchasing.
Physical therapists	120,000	34	41,000	Employment is expected to grow faster than average. Legislation affecting compensation will make job competition keen during the first half of the projections period.
Physician assistants	66,000	48 ★	32,000	Much faster than average employment growth is expected due to anticipated expansion of the health services industry and increasing use of mid-level practitioners. Job opportunities are expected to be excellent, particularly in understaffed areas such as rural and inner city hospitals and clinics.
Recreational therapists	39,000	13	5,200	Average employment growth is expected as providers seek cost-effective treatments. Opportunities should arise as the occupation moves into community-based work environments such as assisted-living and rehabilitation centers.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Registered nurses	2,079,000	22 ★	451,000 ★	Faster than average growth is expected because of industry growth and the need to replace existing workers who leave the occupation. Job opportunities will be plentiful in home health, long-term, and ambulatory care.
Respiratory therapists	86,000	43 ★	37,000	Employment is expected to grow much faster than average, driven by an increase in the incidence of cardiopulmonary and respiratory ailments because of growing middle-aged and elderly populations.
Speech-language pathologists and audiologists	105,000	38 ★	40,000	Much faster than average job growth is expected because of technological advances, an aging population, and an increase in services contracted by hospitals, managed care, and other health care providers. Job prospects should be good in education settings.
Health technologists and technicians				
Cardiovascular technologists and technicians	33,000	16	5,300	Overall employment growth is projected to be average. Employment of cardiology technologists is expected to grow much faster than average. Employment of EKG technicians is expected to decline as people in other occupations train for basic EKG procedures.
Clinical laboratory technologists and technicians	313,000	17	53,000	Employment growth is expected to be average. The need to replace retiring workers will create most openings, so competition will be keen.
Dental hygienists	143,000	41 ★	58,000	Much faster than average employment growth is expected, in part because hygienists increasingly will perform services previously performed by dentists.
Electroneurodiagnostic technologists	5,400	6	300	Employment is expected to grow more slowly than average, despite an increase in demand, because of productivity increases. Keen competition is expected.
Emergency medical technicians and paramedics	150,000	32	47,000	Employment is expected to grow faster than average. Much of the growth will occur with a change from volunteer to paid positions.
Health information technicians	92,000	44 ★	41,000	Employment is expected to grow much faster than average because of rapid growth in tests, treatments, and procedures available. Although most technicians will be employed in hospitals, job growth is projected to be faster in physicians' offices and clinics, nursing homes, and home health agencies.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Licensed practical nurses	692,000	20	136,000	Average employment growth is expected. Most new jobs will be in skilled nursing facilities.
Nuclear medicine technologists	14,000	12	1,600	Employment growth is expected to be average. Job prospects—though limited—should be best for persons trained in multiple disciplines.
Opticians, dispensing	71,000	14	9,800	Employment growth is expected to be average. However, there may be short-term employment decreases because this occupation is vulnerable to changes in the business cycle.
Pharmacy technicians and assistants	170,000	16	27,000	Average employment growth is expected. Opportunities should be best for those with formal training, experience, and certification.
Radiologic technologists	162,000	20	32,000	Employment growth is expected to be average. Job prospects should be best for persons trained in multiple disciplines. Most new jobs will be in physicians' offices.
Surgical technologists	54,000	42 ★	23,000	Employment is expected to increase much faster than average as the population ages and new technologies allow for more and varied surgeries. Job concentration will continue to be in hospitals, but growth is expected in physicians' offices and clinics, including ambulatory surgical centers.

Communications-related

Announcers	60,000	-4	-2,600	Employment is projected to decline because of automation and industry consolidation. Applicants are expected to greatly outnumber job openings in large markets, creating keen competition for those jobs.
Broadcast and sound technicians	37,000	6	2,200	Slower than average employment growth is projected because of automation and industry consolidation. Employment prospects should be good for technicians capable of installing new digital equipment.
News analysts, reporters, and correspondents	67,000	3	1,900	Little or no change is expected. Keen competition is expected for jobs in large markets because applicants will greatly outnumber openings.
Public relations specialists	122,000	24	30,000	Employment is expected to increase faster than average. Opportunities should be best for individuals who combine a bachelor's degree in journalism, public relations, advertising, or other communications-related subjects with relevant work experience.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Writers and editors, including technical writers	341,000	24	83,000	Employment is expected to increase faster than average. The growing number of magazines, electronic publications, and user guides and manuals is expected to continue, creating new opportunities for trained writers and editors.
Visual arts and design				
Designers	423,000	26	110,000	Employment is expected to increase faster than average. Industrial, interior, fashion, and other designers should expect competition for the most coveted jobs.
Photographers and camera operators	161,000	9	15,000	Overall employment is expected to grow more slowly than average. However, employment of camera operators is expected to grow faster than average with opportunities created by cable and satellite television systems.
Visual artists	308,000	26	79,000	Employment is expected to grow faster than average. Growth of the Internet is expected to provide additional opportunities for graphic designers and illustrators, and growth in demand for new or new media artworks is projected to generate demand for other visual artists.
Performing arts				
Actors, directors, and producers	160,000	24	38,000	Employment is expected to grow faster than average, but stiff competition will continue. As in the past, only the most talented will find regular employment.
Dancers and choreographers	29,000	14	3,900	Average employment growth is projected, with intense competition for jobs. Only the most talented will find regular employment.
Musicians, singers, and related workers	273,000	15	41,000	Employment growth of musicians is expected to be average, but competition for jobs remains keen. Those who know how to play several instruments and types of music should enjoy the best job prospects.



Marketing and sales

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Cashiers	3,198,000	17	556,000 ★	Average employment growth is expected. Because the occupation is large and turnover is high, the continuing need to replace existing workers will create a large number of openings.
Counter and rental clerks	469,000	23	108,000	Faster than average employment growth is expected because many jobs are located in fast-growing service industries. Part-time employment opportunities should be plentiful.
Demonstrators, product promoters, and models	92,000	32	30,000	Faster than average growth is expected for demonstrators and product promoters. Opportunities should be plentiful because of minimal formal training requirements and the prevalence of part-time work. However, models should expect keen competition because of the few available openings and the glamour associated with this occupation.
Insurance sales agents	387,000	2	8,500	Little or no change is expected because of growth in direct sales by insurance carriers. But numerous retirements over the next decade will result in excellent opportunities, especially for those with knowledge about multiple lines of insurance and financial products.
Manufacturers' and wholesale sales representatives	1,525,000	3	44,000	Slower than average employment growth is expected because of technology-related productivity gains. Opportunities should be best for sales engineers.
Real estate agents and brokers	347,000	10	34,000	Average growth is expected. Opportunities should be best for those with sales experience and a business degree.
Retail salespersons	4,582,000	12	565,000 ★	Average employment growth is expected. Opportunities, many of which are part time, are expected to arise from population growth and high turnover in the occupation.
Retail sales worker supervisors and managers	1,675,000	8	134,000	Employment growth is expected to be slower than average. Growth in large stores will be offset by consolidation of small ones. Opportunities for those without a college degree will be highly competitive.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Securities, commodities, and financial services sales representatives	303,000	41 ★	124,000	Employment is expected to grow much faster than average because of heightened public interest in investing in the stock market, particularly “baby boomers” saving for retirement.
Services sales representatives	841,000	51 ★	429,000 ★	Overall employment is expected to increase much faster than average, but job prospects should vary by industry. Mobile technology such as cell phones and laptop computers will aid worker productivity; many openings will be available because of high turnover in the occupation.
Travel agents	138,000	18	25,000	Average employment growth is expected. Postsecondary vocational school or college or university training is increasingly important.



Administrative support, including clerical

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Adjusters, investigators, and collectors	1,466,000	24	345,000 ★	Employment is expected to grow faster than average, reflecting both the personal contact required for investigative occupations and an increase in insurance claims. Bill and account collectors are projected to have faster than average growth because of rising consumer debt.
Bank tellers	560,000	-5	-31,000	Employment is expected to decline as the growing use of ATMs, direct deposit, and online banking decrease the need for bank tellers. However, job opportunities will be plentiful because of traditionally high turnover.
Communications equipment operators	297,000	-15	-46,000	Employment is expected to decline because of automated communications technologies and consolidations in the telecommunications industry.
Computer operators	251,000	-26	-64,000	Employment is expected to decline as computer operations become more automated. Opportunities should be best for operators familiar with a variety of operating systems who have kept up with changes in technology.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Court reporters, medical transcriptionists, and stenographers	110,000	10	11,000	Overall employment growth is projected to be average, as rapid growth among medical transcriptionists is offset by the decline among stenographers. Because of their relatively high salaries, court reporters should have keen competition; certified court reporters and medical transcriptionists should enjoy the best job prospects.
Information clerks	1,910,000	20	386,000 ★	Employment growth is expected to be average. Numerous job openings should arise for most types of information clerks.
Hotel, motel, and resort desk clerks	159,000	13	21,000	Average employment growth is expected. Job opportunities should be aided by high turnover, with opportunities for part-time work continuing to be plentiful.
Interviewing and new accounts clerks	239,000	19	46,000	Average employment growth is expected. Employment of hospital and physician admissions clerks and market research interviewers will grow faster than average. Employment growth of new accounts clerks in bank branches will be average despite little or no change in the banking industry.
Receptionists	1,293,000	24	305,000 ★	Employment is expected to grow faster than average because of rapid growth in services industries, where most receptionists are employed. Numerous openings should exist because of high turnover.
Reservation and transportation ticket agents and travel clerks	219,000	6	13,000	Employment is expected to grow more slowly than average because of technology's impact on productivity.
Loan clerks and credit authorizers, checkers, and clerks	254,000	7	17,000	Slower than average employment growth is expected. Automation is simplifying the loan and credit approval process, and consolidation has raised productivity in loan and credit servicing.
Mail clerks and messengers	247,000	9	23,000	Employment is expected to grow more slowly than average because of increased automation.
Material recording, scheduling, dispatching, and distributing occupations	3,957,000	5	203,000	Employment is expected to grow more slowly than average, reflecting increased automation.
Dispatchers	248,000	12	30,000	Average employment growth is expected. Dispatcher jobs are entry level and usually require no education beyond a high school diploma, but trainees usually receive informal training and develop skills on the job.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Shipping, receiving, and traffic clerks	774,000	5	36,000	Employment is expected to grow more slowly than average. Job opportunities will continue with increasing economic and trade activity and because certain tasks cannot be automated.
Stock clerks	2,331,000	6	131,000	Employment is projected to grow more slowly than average, but job prospects should be favorable. Stock clerks who handle jewelry, liquor, or drugs may need to be bonded.
Office and administrative support supervisors and managers	1,611,000	19	313,000 ★	Average employment growth is expected. Applicants for these jobs are likely to encounter keen competition.
Office clerks, general	3,021,000	15	463,000 ★	Employment growth is expected to be average. Plentiful job opportunities should stem from employment growth, the large size of the occupation, and high turnover.
Postal clerks and mail carriers	631,000	4	25,000	Employment is expected to grow more slowly than average because of increasing use of automated systems for mail handling and sorting.
Records processing occupations	3,731,000	1	44,000	Little or no change is expected, in part because of automation. Job opportunities should stem from high turnover in this very large occupation.
Billing clerks and billing machine operators	449,000	11	47,000	Employment growth is projected to be average for billing clerks because of continued demand for billing services, but employment is expected to decline for billing machine operators as computers replace billing machines. Many job openings should arise from high turnover.
Bookkeeping, accounting, and auditing clerks	2,078,000	-4	-81,000	Employment is expected to decline because of continued office automation and consolidation of various recordkeeping functions.
Brokerage clerks and statement clerks	92,000	20	18,000	Employment of brokerage clerks is expected to grow faster than average; employment of statement clerks is expected to decline. Brokerage clerks will be needed to process securities trades, but statement clerks' job of mailing bank statements is becoming automated.
File clerks	272,000	10	26,000	Employment growth is expected to be average. High turnover should produce ample job openings.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Human resources clerks, except payroll and timekeeping	142,000	2	2,900	Little or no change is expected, largely because of increasing computer use. Replacement needs will account for most job openings.
Library assistants and bookmobile drivers	127,000	16	21,000	Average employment growth is expected. Openings should be plentiful because turnover is relatively high.
Order clerks	362,000	5	17,000	Employment is expected to grow more slowly than average because of increased productivity due to automation. Many job openings, especially for positions requiring public contact, are expected because of high turnover.
Payroll and timekeeping clerks	172,000	-6	-11,000	Employment is expected to decline because of continued automation of payroll and timekeeping functions and the consolidation of clerical jobs.
Secretaries	3,195,000	2	63,000	Average growth is expected for the small proportion of medical and legal secretaries. However, employment of most other secretaries is expected to remain flat as a result of office automation.
Teacher assistants	1,192,000	31	375,000 ★	Faster than average employment growth is expected. School districts may use teacher assistants to reduce student-to-teacher ratios and to work with special education and immigrant enrollments. Job openings should be plentiful because turnover is relatively high.
Word processors, typists, and data entry keyers	894,000	-6	-54,000	Employment is projected to decline because of the proliferation of PC's and other equipment. However, the occupation's large size and high turnover should produce many job openings each year.



Service

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	

■ Cleaning, buildings, and grounds service

Janitors and cleaners and institutional cleaning supervisors	3,271,000	11	374,000 ★	Average employment growth is expected. Job openings should be plentiful because of the need to replace existing workers who leave this very large occupation.
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	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Landscaping, groundskeeping, nursery, greenhouse, and lawn service occupations	1,285,000	20	262,000 ★	Employment growth for landscaping and groundskeeping occupations is projected to be average. Growth will be driven by continued demand for installing and maintaining grounds.
Pest controllers	52,000	25	13,000	Employment is projected to increase faster than average. The public is expected to increase its use of professional pest control services, in part because of increased environmental and health concerns. Opportunities should be good.
Food preparation and beverage service				
Chefs, cooks, and other kitchen workers	3,306,000	13	442,000 ★	Average employment growth is expected. Job openings are expected to be plentiful because of high turnover.
Food and beverage service occupations	5,429,000	12	655,000 ★	Employment growth is projected to be average. Job openings are expected to be plentiful because of high turnover.
Health service				
Dental assistants	229,000	42 ★	97,000	Employment is expected to grow much faster than average. As their workloads increase, dentists are expected to hire more assistants to perform routine tasks.
Medical assistants	252,000	58 ★	146,000	Employment is expected to grow much faster than average, driven in part by an increasing number of group practices, clinics, and other health care facilities. Job prospects should be best for those with formal training or experience.
Nursing and psychiatric aides	1,461,000	23	332,000 ★	Faster than average employment growth is expected. Job prospects for nursing aides should be good because of fast growth and high turnover. Employment of psychiatric aides is expected to grow more slowly because of declines in hospital inpatient psychiatric treatment.
Occupational therapy assistants and aides	19,000	40 ★	7,400	Much faster than average growth is expected because of increasing demand from an aging population. Few openings are expected, but opportunities should be favorable during the latter part of the projections period.
Physical therapist assistants and aides	82,000	44 ★	36,000	Much faster than average growth is expected because of an increasingly active, aging population. Job opportunities should be favorable during the latter part of the projections period.



Employment, 1998 Employment change, 1998-2008
 Percent Number¹ Employment prospects

Personal service

Barbers, cosmetologists, and related workers	723,000	10	73,000	Average employment growth is expected, spurred by increasing population, incomes, and popularity of cosmetology services. However, employment of barbers will decline as students get the broader cosmetology license. Job opportunities should be plentiful.
Flight attendants	99,000	30	30,000	Employment is expected to grow faster than average as the number of airline passengers continues to increase. Applicants experienced in dealing with the public should have good employment prospects.
Home health and personal care aides	746,000	58 ★	433,000 ★	Much faster than average employment growth is expected, fueled by an aging population, advanced medical technology, and an increased use of home health care services.
Preschool teachers and child-care workers	1,250,000	26	328,000 ★	Faster than average employment growth is projected. The proportion of children in preschool and child care is expected to increase despite little change in the number of children under age 5.
Private household workers	928,000	-19	-178,000	Employment is expected to decline as contract service firms increase their share of the market. Job opportunities should be excellent because of high turnover.
Veterinary assistants and nonfarm animal caretakers	181,000	23	42,000	Employment is projected to grow faster than average. A growing pet industry and an increase in the number of veterinary school graduates should create good employment prospects.

Protective service

Correctional officers	383,000	39 ★	148,000	Much faster than average employment growth is projected to generate ample job opportunities.
Fire fighting occupations	314,000	6	20,000	Slower than average employment growth is expected because of competition for funding with other public service providers.
Guards	1,027,000	29	294,000 ★	Faster than average employment growth is expected. The occupation's large size and high turnover rate rank it among those providing the greatest number of job openings.
Police and detectives	764,000	27	205,000	Employment is expected to increase faster than average because of society's heightened concern about crime and security.



	Employment, 1998	Employment change, 1998-2008 Percent	Number ¹	Employment prospects
Private detectives and investigators	61,000	24	15,000	Employment is expected to grow faster than average. Competition is expected for job openings.



Mechanics, installers, and repairers

	Employment, 1998	Employment change, 1998-2008 Percent	Number ¹	Employment prospects
Electrical and electronic equipment mechanics, installers, and repairers				
Computer, automated teller, and office machine repairers	138,000	34	46,000	Employment is expected to grow faster than average. Growth of data processing equipment repairers will be much faster than average because of increasing reliance on computers.
Electronic home entertainment equipment repairers	36,000	-12	-4,300	Employment is expected to decline because it is often cheaper for consumers to replace equipment than to pay for repairs.
Electronics repairers, commercial and industrial equipment	72,000	13	9,100	Average employment growth is expected as the use of commercial and industrial electronic equipment becomes more widespread.
Telecommunications equipment mechanics, installers, and repairers	125,000	10	13,000	Overall employment growth is expected to be average. Radio mechanics and telephone station installers will see declines in employment; central office and PBX installers and repairers, however, will experience faster than average growth.
Other mechanics, installers, and repairers				
Aircraft mechanics and service technicians	133,000	10	14,000	Average employment growth is expected. Job prospects should be best with smaller commuter and regional airlines, at FAA repair stations, and in general aviation.
Automotive body repairers	227,000	16	36,000	Employment growth is expected to be average. Opportunities should be best for persons with formal training in automotive body repair and mechanics.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Automotive mechanics and service technicians	790,000	17	132,000	Average employment growth is expected. Persons with formal training will have an advantage in positions requiring knowledge of advanced electronic and diagnostic equipment.
Coin, vending, and amusement machine servicers and repairers	27,000	16	4,200	Average employment growth is expected. Opportunities should be best for those who have formal training in electronics and electrical repair.
Diesel mechanics and service technicians	255,000	10	25,000	Employment growth is expected to be average. Opportunities should be best for those with formal diesel mechanic training and experience in using electronic and diagnostic equipment.
Farm equipment mechanics	49,000	-5	-2,600	Employment is projected to decline. However, generalist training for this occupation enables mechanics to change occupations.
Heating, air-conditioning, and refrigeration mechanics and installers	286,000	17	48,000	Average employment growth is projected because of the drive to retrofit older buildings with energy-saving systems and because of construction in the South and Southwest.
Home appliance and power tool repairers	51,000	6	2,800	Employment is expected to increase more slowly than average. Employment will be tempered by the disposable nature of some inexpensive pieces of equipment.
Industrial machinery repairers	535,000	4	24,000	Employment is projected to grow more slowly than average. Applicants with broad skills in machine repair should have favorable job prospects.
Line installers and repairers	279,000	20	56,000	Average employment growth is expected overall. Although employment of electrical powerline installers and repairers will remain unchanged, employment of telephone and cable television line installers and repairers will grow faster than average.
Maintenance mechanics, general utility	1,232,000	8	95,000	Employment is expected to grow more slowly than average. As machinery becomes more advanced, the need for general mechanics will diminish.
Millwrights	82,000	-2	-1,500	Employment is projected to decline slightly. Skilled applicants will still be needed to maintain and repair existing machinery, dismantle old machinery, and install new equipment.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Mobile heavy equipment mechanics	106,000	9	9,900	Employment is expected to grow more slowly than average because of a lack of qualified entrants into the occupation. As equipment becomes more complex, opportunities will increase for specially trained mechanics.
Motorcycle, boat, and small-engine mechanics	52,000	5	2,500	Employment will grow more slowly than average. Growth will be tempered by the consumer preference for disposing of and replacing inexpensive items rather than having them repaired.
Musical instrument repairers and tuners	13,000	6	800	Employment growth will be slower than average. However, opportunities should be excellent for those who complete training in one of the few programs in instrument repair and tuning.



Construction trades

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Boilermakers	18,000	2	300	Little or no change is expected, in part because of the trend toward restoring and repairing boilers. Keen competition is expected for apprenticeships and job openings.
Bricklayers and stonemasons	157,000	12	19,000	Average employment growth is expected. Construction of new buildings, increased use of brick, and a need for trained workers should provide good job opportunities.
Carpenters	1,086,000	7	76,000	Employment is projected to grow more slowly than average because of slow growth in construction. Employment opportunities should be plentiful because of the need to replace existing workers who leave the occupation.
Carpet, floor, and tile installers and finishers	138,000	6	8,300	Employment is expected to grow more slowly than average because of slow growth in construction.
Cement masons, concrete finishers, and terrazzo workers	139,000	6	8,500	Employment is projected to grow more slowly than average despite the increased demand for concrete and terrazzo. Productivity gains are expected to diminish somewhat the increased demand for new workers.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Construction equipment operators	321,000	8	25,000	Employment is expected to increase more slowly than average because of slower growth in construction. Productivity increases are expected to moderate demand.
Drywall installers and finishers	163,000	7	12,000	Slower than average employment growth is expected because of slow growth in construction. Job openings should be plentiful, however, because of the need to replace existing workers who leave the occupation and because of high turnover.
Electricians	656,000	10	68,000	Average employment growth is expected because of increased demand for installing and maintaining electrical devices and wiring in buildings. Job opportunities for skilled electricians should be very good.
Elevator installers and repairers	30,000	12	3,600	Employment growth is expected to be average. High earnings and substantial training requirements are expected to limit turnover and the need to replace existing workers.
Glaziers	44,000	4	1,700	Slower than average employment growth is expected because of slow growth in construction.
Hazardous materials removal workers	38,000	19	7,300	Average employment growth is expected, driven by environmental and safety concerns from governments and communities. Prospects should be best for persons licensed in multiple disciplines.
Insulation workers	67,000	7	5,000	Slower than average employment growth is expected because of slow growth in construction. Job opportunities are expected to be plentiful because of high turnover and the need to replace existing workers who leave the occupation.
Painters and paperhangers	476,000	9	41,000	Slower than average employment growth is expected. However, high turnover should result in favorable job prospects.
Plasterers and stucco masons	40,000	17	6,900	Average employment growth is expected because of growing appreciation for the durability and attractiveness of troweled finishes and the need to repair plaster surfaces in older buildings.
Plumbers, pipefitters, and steamfitters	426,000	5	22,000	Slower than average employment growth is expected because laborsaving technologies offset much of the increasing demand for plumbing services.
Roofers	158,000	12	19,000	Average employment growth is expected. However, job openings should be plentiful because of high turnover.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Sheet metal workers and duct installers	122,000	26	32,000	Faster than average employment growth is expected, reflecting an increasing demand for sheetmetal. Opportunities should be good for individuals with apprenticeship training.
Structural and reinforcing metal workers	87,000	8	7,300	Slower than average employment growth is expected. Employment is expected to increase in rehabilitation and maintenance of older buildings, highways, and bridges but to slow in new industrial and commercial construction.



Production

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Assemblers				
Precision assemblers	422,000	5	20,000	Employment is expected to grow more slowly than average, reflecting increasing automation and the globalization of production.
Blue-collar worker supervisors				
	2,198,000	9	196,000	Employment is expected to grow more slowly than average overall, varying by industry. Employment will change little in manufacturing as companies become more productive. Growth will be faster than average in the expanding service sector.
Fishers and fishing vessel operators				
	51,000	-22	-11,000	Employment is expected to decline. Fishers who engage in electronic commerce have the best chances of surviving financially.
Food processing				
Butchers and meat, poultry, and fish cutters	359,000	5	19,000	Employment is expected to grow more slowly than average. Job growth will be concentrated among lower skilled meat, poultry, and fish cutters.



Employment, 1998 Employment change, 1998-2008
 Percent Number¹ Employment prospects

Forestry, conservation, and logging

120,000	-3	-3,800	Employment is expected to decline overall. Employment in timber cutting and logging occupations is expected to decline because of increased automation. Little or no change is expected for forest and conservation workers because of budgetary constraints.
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Inspectors, testers, and graders

689,000	-3	-22,000	Employment is expected to decline because of growth in automated inspection and the redistribution of quality control responsibilities from inspectors to production workers.
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Metalworking and plastics-working

Jewelers and precious stone and metal workers

30,000	-6	-1,800	Employment is expected to decline. However, employment opportunities should be excellent, reflecting current shortages in the occupation and the need to replace existing workers who leave the occupation.
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Machinists and numerical control machine tool programmers

434,000	6	27,000	Employment is expected to grow more slowly than average. Skilled machine operators are in demand, however, creating excellent job opportunities for skilled, experienced workers.
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Metalworking and plastics-working machine operators

1,509,000	3	53,000	Slower than average growth is projected, varying by occupation and industry. Those able to operate a number of different machines will enjoy better job prospects. Employment growth of plastics molding machine operators should be faster than average. Manual cutting and forming machine tool operators will experience employment declines.
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Tool and die makers

138,000	-2	-2,100	Employment is projected to decline because of automation and growing imports of tools and dies. But precision custom tooling will continue to be produced in the United States, creating a need for skilled, experienced workers. Job opportunities should be excellent because of numerous retirements in the next decade.
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Welders, cutters, and welding machine operators

477,000	8	37,000	Employment is expected to grow more slowly than average. Greater use of high-technology welding equipment will increase the demand for welding machine operators. Welders working in construction and in maintenance and repair should remain in demand.
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	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Plant and systems operators				
Electric power generating plant operators and power distributors and dispatchers	45,000	-2	-700	Employment is expected to decline slightly as the industry restructures because of deregulation and increasing competition.
Stationary engineers	31,000	-6	-1,800	Employment is expected to decline. Efficiency resulting from automated systems and computerized controls in new equipment is expected to reduce job opportunities.
Water and wastewater treatment plant operators	98,000	14	14,000	Average employment growth is expected. An increasing population and a growing economy are expected to increase demand for essential water and wastewater treatment services.
Printing				
Bindery workers	96,000	10	9,300	Employment growth is expected to be average. Most job openings will result from the need to replace existing workers who leave the occupation.
Prepress workers	152,000	-6	-9,400	Employment is expected to decline, with the use of computers for desktop publishing eliminating many jobs.
Printing press operators	253,000	0	1,200	Little or no change is expected. Operators of newer presses need basic computer skills.
Textile, apparel, and furnishings				
Apparel workers	729,000	-17	-124,000	Employment is expected to decline rapidly because of imports, offshore assembly, and technology related productivity gains. Most job losses will occur among sewing machine operators.
Shoe and leather workers and repairers	23,000	-18	-4,000	Employment is projected to continue declining. Imports, rising business costs, and the use of new automation will negatively impact employment.
Textile machinery operators	277,000	-19	-53,000	Employment is expected to decline because of weakened demand for textile products from domestic apparel producers.
Upholsterers	66,000	1	600	Little or no change is expected. However, opportunities for experienced upholsterers should be good because few young people enter the occupation and few shops offer training.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	

Woodworking

	372,000	-2	-6,900	Employment is expected to decline, although limited growth is expected among higher-skilled precision woodworkers. Many openings will arise from the need to replace existing woodworkers who leave the occupation.
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Miscellaneous production

Dental laboratory technicians	44,000	1	400	Little or no change is expected, in part because of fewer dental cavities and a decreased demand for full dentures.
Electronic semiconductor processors	63,000	45 ★	29,000	Employment is expected to grow much faster than average as researchers and engineers find new applications for microchips and as U.S. firms strive for preeminence in semiconductor production.
Ophthalmic laboratory technicians	23,000	5	1,100	Slower than average employment growth is expected overall because of automation. In manufacturing, employment is expected to increase slowly as firms invest in automated machinery. In retail trade, employment is expected to decline.
Painting and coating machine operators	171,000	9	15,000	Employment is expected to increase more slowly than average overall because of automation. Opportunities should be best for highly skilled transportation painters and automotive refinishers or those with a technical degree or certification.
Photographic process workers	63,000	-6	-4,000	Employment is projected to decline. The increased use of digital photography is expected to reduce demand for more traditional photographic processing workers.



Transportation and material moving

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	

Busdrivers	638,000	17	108,000	Employment growth is expected to be average. Most opportunities will be in large metropolitan areas.
Material moving equipment operators	808,000	9	74,000	Slower than average employment growth is projected. However, average growth is projected for excavation and loading machine operators.



	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
Rail transportation occupations	85,000	-11	-9,600	Employment is expected to decline. The attractive pay, tenure, and job security associated with these occupations result in few job openings.
Taxi drivers and chauffeurs	132,000	20	26,000	Average employment growth is expected. Opportunities should be best for persons who have good driving records, the ability to work flexible schedules, and strong entrepreneurial ambitions.
Truckdrivers	3,274,000	15	507,000 ★	Employment growth is expected to be average. Opportunities should be favorable overall, but competition is expected for the highest paying jobs.
Water transportation occupations	56,000	5	2,600	Employment is projected to grow more slowly than average. International standards for mariners should stem job loss to other countries.



Handlers, equipment cleaners, helpers, and laborers

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
	5,142,000	12	626,000 ★	Average employment growth is expected overall. Employment growth varies by occupation, depending on growth in both the industries employing these workers and the employment of skilled workers they assist.



Job opportunities in the Armed Forces

	Employment, 1998	Employment change, 1998-2008		Employment prospects
		Percent	Number ¹	
	1,238,000 ⁵	(⁶)	(⁶)	Opportunities should be good for qualified individuals in all branches of the Armed Forces. High school graduates and those with a college background will be sought as enlisted personnel. Officers will need at least a bachelor's degree and, in some cases, an advanced degree.

¹The numeric change is calculated from unrounded figures for current and projected employment.

²Total exceeds the sum of the individual estimates because not all branches of engineering are covered separately.

³Includes only those who served congregations.

⁴Estimates not available.

⁵Source: U.S. Department of Defense

⁶Projections not available from the Bureau of Labor Statistics.

Index to the 1998-2008 job outlook in brief

Accountants	8	Boat engine mechanics	30	Community association managers	10	Dispatchers	23
Accounting clerks	24	Boilermakers	30	Compliance officers, except construction	10	Dispensing opticians	19
Actors	20	Bookkeeping clerks	24	Computer and information systems managers	9	Distributing occupations	23
Actuaries	13	Bookmobile drivers	25	Computer repairers	28	Drafters	13
Adjusters (insurance)	22	Bricklayers	30	Computer operators	22	Drywall installers and finishers	31
Administrative services managers	8	Broadcast technicians	19	Computer programmers	13	Duct installers	32
Administrative support supervisors and managers	24	Brokerage clerks	24	Computer systems analysts, engineers, and scientists	13	Economists	14
Adult education teachers	15	Brokers, real estate	21	Concrete finishers	30	Editors	20
Advertising managers	8	Budget analysts	8	Conservation scientists	14	Education administrators	9
Aerospace engineers	11	Building inspectors	8	Conservators	16	Electric power generating plant operators and power distributors and dispatchers	34
Agents, insurance sales	21	Busdrivers	35	Construction equipment operators	31	Electrical and electronics engineers	12
Agents, real estate	21	Butchers	32	Construction inspectors	8	Electricians	31
Agricultural scientists	13	Buyers	11	Construction managers	9	Electroneurodiagnostic technologists	18
Air traffic controllers	11	Camera operators	20	Cooks and other kitchen workers	26	Electronic equipment repairers, industrial	28
Aircraft mechanics and service technicians	28	Cardiovascular technologists and technicians	18	Correctional officers	27	Electronic home entertainment equipment repairers	28
Amusement machine servicers and repairers	29	Carpenters	30	Correspondents, news	19	Electronic semiconductor processors	35
Animal caretakers, nonfarm	27	Carpet installers and finishers	30	Cosmetologists and related workers	27	Elementary school teachers	16
Announcers	19	Cartographers	13	Cost estimators	9	Elevator installers and repairers	31
Apparel workers	34	Cashiers	21	Counselors	16	Emergency medical technicians	18
Architects, except landscape and naval	12	Cement masons	30	Counter and rental clerks	21	Employment interviewers	9
Archivists	16	Chauffeurs	36	Court reporters	23	Engineering managers	9
Armed Forces	36	Chefs and other kitchen workers	26	Credit authorizers, checkers, and clerks	23	Engineering technicians	12
Artists, visual	20	Chemical engineers	11	Curators	16	Engineers	11
Assemblers, precision	32	Chemists	14	Cutters and welders	33	Engineers, computer	13
Astronomers	14	Child-care workers	27	Dancers	20	Engineers, stationary	34
Atmospheric scientists	14	Chiropractors	16	Data entry keyers	25	Equipment cleaners	36
Audiologists	18	Choreographers	20	Demonstrators (product)	21	Facility managers	8
Auditing clerks	24	Civil engineers	12	Dental assistants	26	Faculty, college and university	16
Auditors	8	Cleaners (building service)	25	Dental hygienists	18	Farm equipment mechanics	29
Automated teller machine repairers	28	Cleaners, equipment	36	Dental laboratory technicians	35	Farmers and farm managers	9
Automotive body repairers	28	Clinical laboratory technologists and technicians	18	Dentists	16	File clerks	24
Automotive mechanics and service technicians	29	Coaches, sports and physical training	16	Designers	20	Financial managers	9
Bank tellers	22	Coin machine servicers and repairers	29	Detectives, private	28	Financial services sales representatives	22
Barbers and related workers	27	Collectors (insurance)	22	Detectives (public)	27	Fire fighting occupations	27
Billing clerks and billing machine operators	24	College faculty	16	Die makers	33	Fish cutters	32
Bindery workers	34	Commercial and industrial electronic equipment repairers	28	Diesel mechanics and service technicians	29		
Biological scientists	14	Commodities and financial services sales representatives	22	Dietitians	17		
Blue-collar worker supervisors	32	Communications equipment operators	22	Directors, performing arts	20		

Fishers and fishing vessel operators	32	Human resources specialists and managers	10	Legislators	10	Musical instrument repairers and tuners	30
Flight attendants	27	Human service workers and assistants	15	Librarians	16	Musicians and related workers	20
Flight engineers	11	Industrial electronic equipment repairers	28	Library assistants	25	News analysts	19
Floor installers and finishers	30	Industrial engineers, except safety engineers	12	Library technicians	16	Nuclear engineers	12
Food scientists	13	Industrial machinery repairers	29	Licensed practical nurses	19	Nuclear medicine technologists	19
Food service managers	11	Industrial production managers	10	Line installers and repairers	29	Numerical control machine tool programmers	33
Foresters	14	Information clerks	23	Loan clerks	23	Nursery and landscaping occupations	26
Forestry, conservation, and logging	33	Information systems managers	9	Loan officers and counselors	10	Nurses, licensed practical	19
Funeral directors	9	Inspectors, construction	8	Logging	33	Nurses, registered	18
General managers and top executives	9	Inspectors, except construction	10	Machinists	33	Nursing aides	26
General office clerks	24	Inspectors (production)	33	Maintenance mechanics, general utility	29	Nutritionists	17
General utility maintenance mechanics	29	Institutional cleaning supervisors	25	Management analysts	10	Occupational therapists	17
Geologists and geophysicists	14	Instructors, sports and physical training	16	Managers, farm	9	Occupational therapy assistants and aides	26
Glaziers	31	Insulation workers	31	Managers, retail sales workers	21	Oceanographers	14
Government chief executives	10	Insurance sales agents	21	Manufacturers' representatives	21	Office clerks, general	24
Graders (production)	33	Insurance underwriters	10	Marketing managers	8	Office machine repairers	28
Groundskeeping and greenhouse occupations	26	Interviewing and new accounts clerks	23	Marketing research analysts	14	Office supervisors and managers	24
Guards	27	Investigators (insurance)	22	Material moving equipment operators	35	Operations research analysts	13
Handlers	36	Investigators, private	28	Material recording occupations	23	Ophthalmic laboratory technicians	35
Hazardous materials removal workers	31	Janitors	25	Materials engineers	12	Opticians, dispensing	19
Health information technicians	18	Jewelers	33	Mathematicians	13	Optometrists	17
Health services managers	10	Judicial workers	14	Meat cutters	32	Order clerks	25
Heating, air-conditioning, and refrigeration mechanics and installers	29	Kindergarten teachers	16	Mechanical engineers	12	Painters	31
Heavy equipment mechanics, mobile	30	Kitchen workers	26	Medical assistants	26	Painting and coating machine operators	35
Helpers	36	Laborers	36	Medical scientists	14	Paperhangers	31
Home appliance repairers	29	Labor relations specialists and managers	10	Medical transcriptionists	23	Paralegals	14
Home entertainment equipment repairers, electronic	28	Landscape architects	13	Messengers	23	Paramedics	18
Home health aides	27	Landscaping and lawn service occupations	26	Metalworking machine operators	33	Payroll clerks	25
Hotel desk clerks	23	Lawyers	14	Millwrights	29	Personal care aides	27
Hotel managers and assistants	10	Leather workers and repairers	34	Mining engineers	12	Pest controllers	26
Human resources clerks, except payroll and timekeeping	25	Legal assistants	14	Ministers, Protestant	15	Petroleum engineers	12
				Mobile heavy equipment mechanics	30	Pharmacists	17
				Models	21	Pharmacy technicians and assistants	19
				Morticians	9		
				Motel desk clerks	23		
				Motorcycle mechanics	30		
				Museum technicians	16		

Photogrammetrists	13	Rail transportation occupations	36	Small-engine mechanics	30	Transportation ticket agents	23
Photographers	20	Real estate agents and brokers	21	Social workers	15	Travel agents	22
Photographic process workers	35	Real estate managers	10	Sound technicians	19	Travel clerks	23
Physical therapists	17	Receiving clerks	24	Special education teachers	16	Truckdrivers	36
Physical therapist assistants and aides	26	Receptionists	23	Speech-language pathologists	18	Tuners, musical instrument	30
Physician assistants	17	Records processing occupations	24	Statement clerks	24	Typists	25
Physicians	17	Recreation workers	15	Stationary engineers	34	Underwriters, insurance	10
Physicists	14	Recreational therapists	17	Statisticians	13	University faculty	16
Pilots, aircraft	11	Refrigeration mechanics and installers	29	Steamfitters	31	Upholsterers	34
Pipefitters	31	Regional planners	15	Stenographers	23	Urban planners	15
Plasterers	31	Registered nurses	18	Stock clerks	24		
Plastics-working machine operators	33	Reinforcing metal workers	32	Stonemasons	30	Vending machine servicers and repairers	29
Plumbers	31	Rental clerks	21	Structural and reinforcing metal workers	32	Veterinarians	17
Podiatrists	17	Reporters	19	Stucco masons	31	Veterinary assistants	27
Police	27	Reservation agents	23	Supervisors, blue-collar worker	32	Visual artists	20
Postal clerks	24	Resort desk clerks	23	Supervisors, cleaning	25	Vocational education teachers	15
Poultry cutters	32	Respiratory therapists	18	Supervisors, office	24		
Power tool repairers	29	Restaurant and food service managers	11	Supervisors, retail sales worker	21	Water and wastewater treatment plant operators	34
Precious stone and metal workers	33	Retail sales worker supervisors and managers	21	Surgical technologists	19	Water transportation occupations	36
Precision assemblers	32	Retail salespersons	21	Surveyors and surveying technicians	13	Welders, cutters, and welding machine operators	33
Prepress workers	34	Roman Catholic priests	15	Systems analysts, computer	13	Wholesale sales representatives	21
Preschool teachers	27	Roofers	31	Taxi drivers	36	Woodworking	35
Priests, Roman Catholic	15	School teachers: Kindergarten, elementary, and secondary	16	Teacher assistants	25	Word processors	25
Printing press operators	34	Science managers, natural	9	Teachers	16	Writers, including technical writers	20
Private detectives and investigators	28	Science technicians	14	Telecommunications equipment mechanics, installers, and repairers	28		
Private household workers	27	Scientists, computer	13	Tellers, bank	22		
Producers, performing arts	20	Scientists, life	13	Terrazzo workers	30		
Programmers, computer	13	Scientists, physical	14	Testers (production)	33		
Programmers, tool	33	Scientists, social	14	Textile machinery operators	34		
Promoters (product)	21	Secondary school teachers	16	Tile installers and finishers	30		
Property managers	10	Secretaries	25	Timekeeping clerks	25		
Protestant ministers	15	Securities and financial services sales representatives	22	Tool and die makers	33		
Psychiatric aides	26	Services sales representatives	22	Tool programmers, numerical control machine	33		
Psychologists	15	Sheet metal workers	32	Tool repairers, power	29		
Public relations managers	8	Shipping clerks	24	Traffic clerks	24		
Public relations specialists	19	Shoe workers and repairers	34	Training specialists and managers	10		
Purchasing managers and agents	11	Singers and related workers	20				
Rabbis	15						
Radiologic technologists	19						