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ABSTRACT

This pamphlet lists the occupations discussed in the "Occupational Outlook Handbook" for which a high school education is preferred, but not essential. Occupational information is presented in a three-column format which includes job title, highlights of job qualifications and training, and employment opportunities and trends through 1985. Information on ninety jobs is presented under the following occupational groups: Foundry, machining, industrial production and related occupations, clerical, cleaning and related occupations, food service, personal service, private household service, protective and related services, sales, construction, merchant marine, railroad, driving, telephone craft, mechanics and repairers, social service, nursing, and design. (SH)

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Jobs for Which a High School Education Is Preferred, but Not Essential

U.S. Department of Labor
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Jobs for Which a High School Education Is Preferred, but Not Essential

Are you a high school dropout? If so, you are not alone. In 1974, about 3 out of every 10 workers did not complete high school for one reason or another. However, dropping out of high school does not mean dropping out of the job market. This pamphlet lists the occupations discussed in the *Occupational Outlook Handbook* for which a high school education is preferred, but not essential. But remember that the more education one acquires, the more choice of occupations one has.

The summaries which follow give only highlights of job qualifications and employment trends described in the *Handbook*. Special talents, aptitudes, and personal characteristics not specifically mentioned here may be necessary for many occupations. Also, remember that the comments in the "Employment Opportunities. . ." column reflect conditions foreseen over the 1974 to 1985 period for the entire Nation. As a result, the comments do not necessarily reflect employment opportunities in any single year or in any specific locality.

The 1976-77 edition of the *Occupational Outlook Handbook* contains the following information for more than 850 occupations:

- Nature of the work
- Places of employment
- Training, other qualifications, and advancement
- Employment outlook
- Earnings and working conditions
- Sources of additional information

The *Handbook* is published every 2 years by the U.S. Department of Labor's Bureau of Labor Statistics. Copies may be purchased for \$7 from any regional office of the Bureau of Labor Statistics. See back cover for addresses.

A list of reprints about jobs for which a high school education is preferred, but not essential appears at the end of this pamphlet. You may use the listing to order reprints. *The cost of each reprint is 35¢.*

Reprints of other occupations described in the *Occupational Outlook Handbook* also are available separately at 35¢ except reprint number 154 which is 45¢. A complete set of the 155 reprints may be purchased for \$55. For a free list of all reprints, write to:

U.S. Department of Labor
Bureau of Labor Statistics
Occupational Outlook Service
GAO Building
Washington, D.C. 20212



**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

**Industrial Production
and Related Occupations****Foundry Occupations**

Molders
(60,000)

A 4-year apprentice program is needed to become a journeyman molder. Molders' helpers and less skilled handmolders learn on the job. An 8th grade education is minimum requirement for apprenticeship, but many employers require additional education.

Little or no change in employment is expected, due to the trend to more machine molding, such as the sand slinging process, and other labor-saving innovations. However, hundreds of openings annually will be created by replacement needs.

Coremakers
(24,500)

A 4-year apprentice program is recommended training for coremakers. Less skilled handcoremaking and most machine-coremaking jobs are learned on the job.

Little or no change in employment is expected, as more cores are made by machine instead of by hand. Nevertheless, several hundred openings annually will be created by replacement needs.

Machining Occupations

Machine Tool Operators
(600,000)

Usually learn skills on the job. Courses in mathematics and blueprint reading useful.

Despite slower than average employment growth, many job opportunities should result from large replacement needs.

**Other Industrial Production
and Related Occupations**

Assemblers
(1,140,000)

Should be in good physical condition and have some aptitude for mechanical work. Most learn skills on the job.

Employment is expected to increase about as fast as the average for all occupations, due to growing demand for consumer products as well as industrial machinery and equipment. However, applicants may find limited opportunities during some years since employment is concentrated in durable goods industries which are highly sensitive to changes in business conditions and national defense needs.

Automobile Painters
(25,000)

Most learn on the job. A few learn through 3-year apprenticeship.

Employment is expected to increase about as fast as the average for all occupations, due to the growing number of motor vehicles damaged in traffic accidents. Best opportunities in metropolitan areas.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Blacksmiths
(9,000)

Most learn in shop; others through 3- or 4-year apprenticeship. Courses in metalworking, blueprint reading helpful.

Employment is expected to decline, as blacksmiths are being replaced by machines in forge shops and by welders. Some openings due to replacement needs.

Boilermaking
Occupations
(45,000)

Boilermakers often learn trade through 4-year apprenticeship; layout workers and fitters usually acquire skills on the job.

Employment is expected to increase faster than the average for all occupations, due to the construction of many new electric powerplants and the expansion of industries that use boilers such as chemicals, petroleum, steel, and shipbuilding.

Boiler Tenders
(90,000)

Some cities and States require license. Skills can be learned on the job as a helper.

Employment is expected to decline as more new boilers are equipped with automatic controls. However, a few thousand openings will arise annually due to replacement needs.

Electroplaters
(34,000)

Most learn skills on the job; some through 3- or 4-year apprenticeship.

Employment is expected to grow about as fast as the average for all occupations, due to the expansion of metalworking industries and the increased use of electroplating on metals and plastics.

Furniture Upholsterers
(34,000)

Skills learned on the job. High school courses in furniture making, textile fabrics, and upholstery repair helpful. Manual and finger dexterity important.

Employment is expected to grow at a slower rate than the average for all occupations, because furniture is being constructed of fewer upholstery materials and because of the trend toward buying new furniture instead of reupholstering the old.

Inspectors
(790,000)

Generally trained on the job. Some companies administer pre-employment tests.

Employment is expected to increase faster than the average for all occupations because of industrial expansion and the growing complexity of manufactured products.

Millwrights
(95,000)

Skills acquired through either apprenticeship (usually 4 years) or training on the job. Courses in science, mathematics, mechanical drawing, and machine shop practice useful.

Employment is expected to increase about as fast as the average for all occupations, as a result of the construction of new plants, improvements in existing plant layouts, and the building and maintenance of increasingly complex machinery.

Occupations (Employment 1974)	Qualifications and Training	Employment Opportunities and Trends to 1985
Motion Picture Projectionists (18,000)	Applicant must be at least 18. One to 2 years of apprenticeship usually required.	Employment is expected to grow more slowly than the average for all occupations because of laborsaving innovations in equipment and theater design. Applicants are likely to face keen competition.
Photographic Laboratory Occupations (50,000)	A few weeks to several years training on the job, depending on the particular specialty.	Employment is expected to increase faster than the average for all occupations, due to the increasing use of photography in business, government, and research and development activities, in addition to the growth of amateur photography.
Power Truck Operators (347,000)	Skills usually learned on the job. Some firms have training programs.	Employment is expected to increase about as fast as the average for all occupations, as more firms use power trucks in place of hand labor to move an increasing volume of materials.
Production Painters (125,000)	Most learn through training on the job.	Although employment is expected to grow about as fast as the average for all occupations, it will not keep pace with manufacturing output because of increased use of automatic sprayers and other laborsaving innovations.
Waste Water Treatment Plant Operators (62,000)	Most learn skills on the job. Mechanical aptitude important. Two-year programs in waste water technology are available.	Employment is expected to increase much faster than the average for all occupations, as a result of the construction of new treatment plants to process the growing amount of domestic and industrial waste water.
Welders (645,000)	Generally, several years of training on the job. Some less skilled jobs can be learned after a few weeks of training. High school or vocational school training in welding preferred.	Employment is expected to increase faster than the average for all occupations, due to the favorable outlook for metalworking industries and the greater use of welding. Very good opportunities, particularly for skilled welders in nuclear power plant, pipeline, and ship construction jobs.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Office Occupations**Clerical Occupations**

Cashiers
(1,111,000)

Applicant who has taken vocational education or business subjects preferred. Most training on the job.

Because of very high turnover and average employment growth in response to the increase in retail sales, thousands of job openings for cashiers are expected annually. However, future growth could be slowed by widespread adoption of automated checkout systems.

Postal Clerks
(293,000)

Must be 18 and pass written and physical examination.

Little or no change in employment is expected due to the modernization of post offices and the installation of new equipment which will increase efficiency of clerks. Thousands of openings annually due to replacement needs.

Shipping and Receiving
Clerks
(465,000)

Business subjects useful.

Employment is expected to grow about as fast as the average for all occupations, as business expansion results in an increased distribution of goods.

Stock Clerks
(490,000)

Applicant who is proficient in reading, writing, arithmetic, typing, and filing is preferred.

Employment is expected to grow about as fast as the average for all occupations, as business firms continue to expand. Competition is anticipated as many young people seek this work as a first job.

Service Occupations**Cleaning and Related Occupations**

Building Custodians
(1,900,000)

Most learn skills on the job. High school shop courses helpful.

Employment is expected to grow about as fast as the average for all occupations, as construction of office buildings, schools, and hospitals increases the demand for maintenance services. Many opportunities for part-time and evening work.

Hotel Housekeepers and
Assistants
(18,000)

Courses in hotel housekeeping, personnel management, budget preparation, and interior decoration helpful.

Although employment is expected to grow about as fast as the average for all occupations, competition is likely to be keen. Best opportunities in newly built hotels and motels.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Food Service Occupations

Bartenders
(233,000)

Twenty-one is generally the minimum age required by law for employment, but some employers require their bartenders to be at least 25.

Employment is expected to increase faster than the average for all occupations, as new restaurants, hotels, and bars open.

Cooks and Chefs
(955,000)

Skills usually learned on the job; courses in cooking schools an advantage for work in large hotels and restaurants. Some train as apprentices.

Employment is expected to increase faster than the average for all occupations. Most starting jobs in small restaurants and other eating places having simple food preparation.

Dining Room Attendants
and Dishwashers
(370,000)

Must obtain health certificate in many States. Arithmetical skills necessary for promotion.

Favorable opportunities due to average employment growth and high replacement needs, particularly among part-time workers.

Food Counter Workers
(350,000)

Arithmetical skills necessary. Must obtain health certificate in many States.

Favorable opportunities due to average employment growth and high replacement needs, particularly among part-time workers.

Meatcutters
(202,000)

Most acquire their skills either through apprenticeship or on the job. Many employers prefer high school diploma.

Although little or no change in employment is expected, thousands of openings annually will be created by replacement needs.

Waiters and Waitresses
(1,180,000)

Many employers prefer those with 2 or 3 years of high school. On-the-job training common. Arithmetical skills needed.

Favorable opportunities due to average employment growth and very high replacement needs, particularly among part-time workers. Keen competition for jobs in the best restaurants.

Personal Service Occupations

Bellhops and Bell
Captains
(17,000)

No specific education requirements, but completion of high school an advantage for promotion to other hotel jobs.

Employment is expected to grow more slowly than the average for all occupations, due to the growing popularity of economy motels. Best opportunities in motels, small hotels, and resort areas open only part of the year.

Private Household Service Occupations

Private Household
Workers
(1,200,000)

Ability to do general housework, cook, and care for children usually acquired at home. Training offered by Federal Government, State employment service, and local welfare departments.

Despite an expected decline in employment, good opportunities as demand is likely to continue to exceed supply. Low wages, the tedious nature of work, and the lack of advancement opportunities discourage many prospective employees.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Protective and Related Service Occupations

Guards
(475,000)

Employers seek those with experience in the military police or in State and local police departments. Applicant without a high school diploma is tested for reading and writing ability.

Employment is expected to grow more slowly than the average for all occupations, due to the increased use of remote cameras, alarm systems, and other electronic surveillance equipment. Most openings will be created by replacement needs. Best opportunities for those seeking night work.

Other Service Occupations

Mail Carriers
(267,000)

Generally trained on the job. Must be 18 and pass written and physical examination.

Although little or no change in employment is expected due to more efficient mail delivery, several thousand openings annually will result from replacement needs. Openings concentrated in metropolitan areas.

Sales Occupations

Automobile Parts
Counterworkers
(75,000)

Most learn skills on the job. High school mechanics courses helpful.

Employment is expected to increase faster than the average for all occupations, as more parts will be needed to repair the Nation's growing number of motor vehicles.

Gasoline Service
Station Attendants
(450,000)

Most learn on the job. Must have driver's license and ability to do simple arithmetic.

Employment is expected to grow over the next few years, although the trends toward cars with improved gas mileage and self-service gas stations might limit growth over the long run. Nevertheless, thousands of openings annually will be created by replacement needs.

Retail Trade
Salesworkers
(2,800,000)

Distributive education programs offering courses in retail selling helpful.

Employment is expected to grow about as fast as the average for all occupations, as the volume of sales rises and stores continue to remain open longer. Good opportunities for full-time, part-time, and temporary employment due to growth and high replacement needs.

Route Drivers
(190,000)

In most States, chauffeur's license needed.

Although little or no change in employment is expected, several thousand openings annually will result from replacement needs.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Construction Occupations

Asbestos and Insulation
Workers
(30,000)

Usually applicant must be at least 18 years old. Most learn through 4-year apprenticeship. Examination required on completion of apprenticeship program.

Employment is expected to grow much faster than the average for all occupations, in response to increased construction activity and the need for energy-saving insulation. Best opportunities in metropolitan areas where most insulation contractors are located.

Bricklayers and
Stonemasons
(165,000)

Usually applicant must be at least 17 years old. Work can be learned on the job, but 3-year apprenticeship recommended.

Employment is expected to grow about as fast as the average for all occupations, in response to increased construction activity and the expanding use of brick for decorative work. Little or no change is expected in the employment of stonemasons, due to the cost of stone relative to other materials.

Carpenters
(1,060,000)

Usually applicant must be at least 17. Some learn skills informally on the job, but 4-year apprenticeship recommended.

Plentiful job opportunities over the long run resulting from high replacement needs and average employment growth due to increased construction activity.

Cement Masons (Cement
and Concrete Finishers)
(90,000)

Usually applicant must be at least 18 years old. Work can be learned on the job, but 3-year apprenticeship recommended.

Favorable opportunities due to faster than average employment growth in response to increased construction activity and greater use of concrete.

Construction Laborers
(865,000)

On-the-job training or formal training programs, lasting 4 to 8 weeks. Usually must be at least 18 and in good physical condition.

Employment is expected to grow more slowly than the average for all occupations, because of the greater use of labor-saving equipment such as trenching machines and forklifts. However, many openings created by replacement needs.

Floor Covering Installers
(85,000)

Usually applicant must be at least 16. Many learn skills on the job, but apprenticeship recommended.

Employment is expected to increase about as fast as the average for all occupations, due to the more widespread use of resilient floor coverings and carpeting. Best opportunities for those who can install both carpeting and resilient flooring.

Lathers
(25,000)

Usually applicant must be at least 16 years old. A minimum 2-year apprenticeship recommended, though many learn trade informally.

Little or no change in employment is expected, as drywall materials are increasingly used in place of lath and plaster. Some openings annually due to replacement needs.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Painters and Paperhangers
(470,000)

Usually applicant must be at least 16. Many acquire skills informally on the job, but 3-year apprenticeship recommended.

Although employment of painters is expected to grow more slowly than the average for all occupations, many openings will result annually from high replacement needs. Despite average employment growth for paperhangers, stimulated by the rising popularity of wallpaper and vinyl wallcovering, fewer job opportunities than for painters because of the small size of the occupation.

Plasterers
(26,000)

Usually applicant must be at least 17. A 3- or 4-year apprenticeship is recommended. Many learn on the job.

Little change is expected in employment, as drywall materials are increasingly used in place of plaster. Several hundred openings annually due to replacement needs.

Plumbers and Pipefitters
(375,000)

Usually applicant must be at least 16. A 5-year apprenticeship recommended, but many learn on the job. Trade or correspondence courses can be useful.

Employment is expected to grow faster than the average for all occupations, due to increased construction activity and growth in areas which use extensive pipework such as chemical and petroleum refineries, coal gasification, and nuclear power plants. Also, the trend toward more air-conditioning, appliances, and disposal equipment will create additional demand for these workers.

Roofers
(90,000)

Applicant must be at least 18. Many learn informally on the job, but 3-year apprenticeship recommended.

Employment is expected to increase faster than the average for all occupations, due to increases in construction activity, roof repairs, and waterproofing.

Structural, Ornamental,
and Reinforcing Iron
Workers, Riggers, and
Machine Movers
(85,000)

Usually applicant must be at least 18. A 3-year apprenticeship recommended.

Employment in all ironworking occupations is expected to increase faster than the average for all occupations. The growing use of structural steel, ornamental panels, metal framing, and prestressed concrete should create additional jobs for structural, ornamental, and reinforcing iron workers, while the need to handle the increasing amount of heavy construction machinery will result in additional jobs for riggers and machine movers.

Occupations in Transportation Activities

Merchant Marine Occupations

Merchant Marine
Sailors
(20,000)

Although no education requirements exist, previous sea experience is a good background. Merchant Mariner's document from U.S. Coast Guard required.

Employment is expected to decline as more ships become equipped with labor-saving features. Keen competition for positions created by replacement needs.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Railroad Occupations

Brake Operators
(73,000)

Usually must pass physical examinations for eyesight, hearing, and stamina. Mechanical aptitude helpful.

Although employment is expected to decline due to technological innovations which increase efficiency of freight movement, some openings will result from replacement needs.

Conductors
(39,500)

Must have several years' experience as a brake operator and pass required examinations.

Employment is expected to grow more slowly than the average for all occupations, as a result of technological innovations which increase efficiency of freight movement. Most openings due to replacement needs.

Shop Trades
(75,000)

Apprenticeship lasting 3-4 years is recommended for shop trades. Many helpers and laborers are upgraded.

Employment is expected to decline as shop efficiency increases and as newer, more durable railroad cars replace older models.

Signal Department
Workers
(11,500)

Trained on the job. Courses in electronics and blueprint reading helpful.

Little or no change in employment is expected, due to the installation of new signal systems requiring less maintenance. However, some openings annually will result from replacement needs.

Station Agents
(7,600)

Positions are filled on a seniority basis by experienced telegraphers, telephoners, tower operators, and clerks.

Employment is expected to decline, as more customer orders and billing are handled by centrally located stations and as smaller stations are serviced by mobile agents.

Telegraphers,
Telephoners,
and Tower Operators
(11,000)

Most learn on the job. Usually must pass examinations on operating rules.

Employment is expected to decline, due to the wider use of automatic signaling and train control systems.

Track Workers
(57,000)

Most railroads prefer workers who can read, write, and do heavy work. Usually trained on the job for 2 years.

Little or no change in employment is expected, due to increased productivity of track workers and the installation of improved train control systems requiring less track. However, some openings annually due to replacement needs.

Driving Occupations

Local Transit Busdrivers
(71,000)

Applicant should be at least 21. Must be in good physical condition; chauffeur's license required in most States.

Although employment is expected to increase more slowly than the average for all occupations, many openings will result from replacement needs. Keen competition for available positions.

Occupations (Employment 1974)

Qualifications and Training

Employment Opportunities and Trends to 1985

Local Truckdrivers
(1,600,000)

Generally, must be at least 21. Must be in good physical condition and have a chauffeur's license.

Although employment is expected to increase more slowly than the average for all occupations, applicants are likely to find favorable opportunities. Thousands of openings annually due to replacement needs in this very large occupation.

Long Distance
Truckdrivers
(540,000)

Must be at least 21. Must be in good physical condition, have a valid driver's license, and a chauffeur's license. Many fleet operators have higher standards.

Employment is expected to grow more slowly than the average for all occupations, as a result of increased efficiency of freight movement. Keen competition for available openings.

Parking Attendants
(42,000)

Attendant must have a valid driver's license and be skilled in handling cars. Clerical and arithmetical skills are helpful in keeping records of claim tickets, computing parking charges, and making change.

Employment is expected to grow more slowly than the average for all occupations, as the trend to self-parking systems continues. Most job opportunities will be in large commercial parking lots in urban areas.

Taxicab Drivers
(92,000)

In general, must be over 21, have a chauffeur's license and special taxicab operator's license.

Although little or no change in employment is expected, applicants should find good opportunities due to high replacement needs.

Mechanics and Repairers

Telephone Craft Occupations

Central Office Craft
Occupations
(110,000)

Most train on the job. Knowledge of basic principles of electricity and electronics is desired.

Employment of frame wirers, trouble locators, and central office repairers is expected to increase about as fast as the average for all occupations in response to growing demand for telephone services.

Central Office Equipment
Installers
(30,000)

Trained on the job. Mechanical aptitude necessary.

Employment is expected to increase about as fast as the average for all occupations, because of the need to install equipment in thousands of new telephone central offices and to replace obsolete equipment.

Line Installers and
Cable Splicers
(55,000)

Companies provide classroom instruction and training on the job. Veterans who had telephone training in armed services given preference.

Little or no change in employment is expected, due to labor-saving technological developments. Some openings will arise annually as a result of replacement needs.

Telephone and PBX
Installers and Repairers
(115,000)

Telephone companies provide training courses.

The growing demand for telephones and private branch exchange (PBX) and central exchange (CENTREX) systems will result in employment growth, although it is expected to be slower than the average for all occupations.

**Occupations
(Employment 1974)**

**Qualifications
and Training**

**Employment Opportunities
and Trends to 1985**

Other Mechanics and Repairers

Air-Conditioning,
Refrigeration, and
Heating Mechanics
(200,000)

Most begin as helpers and learn on the job. Courses in mathematics, physics, electronics, and blueprint reading helpful.

Employment is expected to increase faster than the average for all occupations, with most openings for air-conditioning and refrigeration mechanics. Employment of furnace installers and gas burner mechanics should follow growth trends in new construction, while employment of oil burner mechanics should grow as heating systems are serviced more frequently in order to conserve oil.

Appliance Repairers
(135,000)

Mechanical ability necessary. Skills learned on the job. Courses in electricity, mathematics, and blueprint reading helpful.

Employment is expected to grow about as fast as the average for all occupations, in response to increases in population and income in addition to the introduction of new appliances and improvements in existing ones.

Automobile Body Repairers
(145,000)

Most learn skills on the job. A 3- or 4-year apprenticeship recommended. Should be in good physical condition.

Employment is expected to increase about as fast as the average for all occupations, as a result of the rising number of motor vehicles damaged in traffic accidents.

Automobile Mechanics
(735,000)

Most learn skills on the job, though a 3- or 4-year apprenticeship recommended.

Employment is expected to grow about as fast as the average for all occupations, as more automobiles will be equipped with pollution control devices, air-conditioning, and other features that increase maintenance requirements. Good opportunities because of this factor and high replacement needs.

Boat Motor Mechanics
(11,000)

Most learn skills on the job. Some factory-sponsored training programs available.

Employment is expected to increase faster than the average for all occupations, due to the growth in the number of boats, mini-bikes, and snowmobiles. Particularly favorable opportunities for those with a knowledge of electricity and electronics.

Bowling-Pin Machine
Mechanics
(5,000)

Usually trainee must be at least 16. Many learn through brief course in factory school followed by on-the-job training.

Employment is expected to grow more slowly than the average for all occupations, due to improvements in pin-setting machines. A limited number of openings will become available because of replacement needs.

**Occupations
(Employment 1974)****Qualifications
and Training****Employment Opportunities
and Trends to 1985**

Diesel Mechanics
(95,000)

Most train on the job. Some learn the trade through apprenticeship (usually 4 years.)

Employment is expected to grow faster than the average for all occupations, due to the expansion of industries which are major users of diesel engines and continued replacements of gasoline engines by diesel engines.

Electric Sign
Repairers
(9,000)

Employers prefer high school graduates with electrical and mechanical aptitudes. Most learn skills on the job, but some through electricians' apprenticeships.

Employment is expected to grow faster than the average for all occupations, in response to a rapid increase in the number of signs.

Farm Equipment
Mechanics
(60,000)

Many learn skills on the job; a few learn through apprenticeship.

Employment is expected to grow about as fast as the average for all occupations, as the increase in the size and complexity of farm equipment will lead to more maintenance requirements.

Industrial Machinery
Repairers
(500,000)

Most acquire skills informally on the job; some through apprenticeship.

Employment is expected to increase much faster than the average for all occupations, because of the growing amount of complex factory machinery requiring maintenance and repair.

Jewelers
(18,000)

Usually learned through either 3- or 4-year apprenticeship or training on the job.

Little or no employment change. While the demand for jewelry is growing, improved production methods will limit the need for new workers. For openings created by replacement needs, priority will be given to applicants who have completed technical school course in jewelry design, construction, and repair.

Locksmiths
(9,000)

Most learn trade on the job. Some locksmiths must be licensed.

Employment is expected to grow faster than the average for all occupations, as a result of a more security-conscious public. Particularly favorable opportunities for those who can install and service electronic security systems.

Maintenance Electricians
(280,000)

Skills learned either through apprenticeship (usually 4 years) or on the job. Courses in mathematics and basic science helpful.

Employment is expected to grow faster than the average for all occupations, due to the increased use of electrical and electronic equipment by industry.

Motorcycle Mechanics
(11,000)

Trainee learns trade on the job. Employers look especially for cycling enthusiast who has practical experience repairing motorcycles.

Employment is expected to increase much faster than the average for all occupations, in response to the growing numbers of motorcycles, minibikes, and snowmobiles. Most full-time opportunities in large dealerships located in the suburbs of metropolitan areas.

Occupations (Employment 1974)

Qualifications and Training

Employment Opportunities and Trends to 1985

Piano and Organ
Tuners and Repairers
(8,000)

Usually learned on the job. Formal training in electronics important for electronic organ technicians.

Little or no change in employment is expected, as the number of pianos and organs will be limited by competition from other forms of entertainment. However, some openings annually due to replacement needs.

Shoe Repairers
(30,000)

Most workers learn on the job. A few complete apprenticeships. Some vocational schools offer training.

Employment is expected to decline, largely because the number of people entering the trade has been insufficient to meet replacement needs. Good opportunities for experienced repairers who wish to open their own shops.

Truck Mechanics
and Bus Mechanics
(135,000)

Most learn on the job, but 4-year apprenticeship recommended.

Employment of truck mechanics is expected to grow faster than the average for all occupations, due to significant increases in the transportation of freight by trucks. Employment of bus mechanics, however, is expected to grow more slowly than the average.

Vending Machine
Mechanics
(24,000)

Skills usually learned on the job. Courses in electricity and machine repair helpful.

Slower than average employment increase. Some growth as additional machines are installed to meet the demands of an increasing population. However, most openings will result from replacement needs.

Watch Repairers
(17,000)

Usually no specific educational requirements. Training available in watch repair and vocational schools. Some learn skills on the job or through apprenticeship.

Employment is expected to grow at a lower rate than the average for all occupations, because many watches now made cost little more to replace than to repair. Nevertheless, good opportunities for graduates of watch repair schools.

Health Occupations

Nursing Occupations

Licensed Practical
Nurses
(495,000)

Usually must have completed at least 2 years of high school and a State-approved practical nursing course, and must have passed a licensing examination.

Very good opportunities as public and private health insurance plans expand and as licensed practical nurses assume duties previously performed by registered nurses.

Nursing Aides,
Orderlies, and
Attendants
(970,000)

Generally trained on the job, sometimes combined with classroom instruction.

Employment is expected to increase much faster than the average for all occupations. Although most openings will arise from replacement needs, many new openings will be in nursing homes, convalescent homes, and other long-term care facilities.

**Occupations
(Employment 1974)**

**Qualifications
and Training**

**Employment Opportunities
and Trends to 1985**

Social Service Occupations

Social Service Aides
(70,000)

Usually trained on the job. High school diploma is not required. Applicant should be able to get along with people, especially the disadvantaged.

Employment is expected to grow much faster than the average for all occupations, as social welfare programs expand and aides perform tasks formerly done by professional personnel. Good opportunities for part-time work.

Art, Design, and Communications-Related Occupations

Design Occupations

Floral Designers
(33,000)

Usually 2 years of on-the job training. High school business subjects helpful. Increasing numbers are being trained in vocational schools.

Good outlook for prospective floral designers as employment is expected to increase faster than the average for all occupations, in response to the growing demand for floral arrangements.

**Employment
Outlook for**

**Bulletin
No.**

**How
Many**

**Total
Cost**

Foundries Coremakers Molders Patternmakers	1875-2	_____	_____
Machining Occupations All-Round Machinists Instrument Makers (Mechanical) Machine Tool Operators Setup Workers (Machine Tools) Tool- and Die Makers	1875-3	_____	_____
Factory Production Occupations Assemblers Electroplaters Inspectors Power Truck Operators Production Painters	1875-5	_____	_____
Blacksmiths	1875-6	_____	_____
Boilermaking Occupations	1875-8	_____	_____
Furniture Upholsterers	1875-10	_____	_____
Motion Picture Projectionists	1875-11	_____	_____
Stationary Engineers, Boiler Tenders	1875-12	_____	_____
Waste Water Treatment Plant Operators	1875-13	_____	_____

Employment Outlook for	Bulletin No.	How Many	Total Cost
Welders	1875-14	_____	_____
Cashiers	1875-16	_____	_____
Shipping and Receiving Clerks, Stock Clerks	1875-20	_____	_____
Building Custodians	1875-35	_____	_____
Bartenders Cooks and Chefs Waiters and Waitresses	1875-37	_____	_____
Dining Room Attendants and Dishwashers Food Counter Workers	1875-38	_____	_____
Meatcutters	1875-39	_____	_____
Private Household Workers	1875-42	_____	_____
Guards	1875-45	_____	_____
Retail Trade Salesworkers	1875-53	_____	_____
Asbestos and Insulation Workers	1875-57	_____	_____
Bricklayers, Stonemasons, Marble Setters, Tile Setters, and Terrazzo Workers	1875-58	_____	_____
Carpenters, Painters and Paperhangers, Glaziers	1875-59	_____	_____
Cement Masons, Lathers, Plasterers	1875-60	_____	_____
Construction Laborers	1875-61	_____	_____
Elevator Constructors, Structural, Ornamental, and Reinforcing Iron Workers, Riggers and Machine Movers	1875-64	_____	_____
Floor Covering Installers	1875-65	_____	_____
Plumbers and Pipefitters	1875-67	_____	_____
Roofers, Sheet-Metal Workers	1875-68	_____	_____
Merchant Marine Merchant Marine Officers Merchant Marine Sailors	1875-70	_____	_____

Employment Outlook for	Bulletin No.	How Many	Total Cost
Railroads	1875-71	_____	_____
Brake Operators			
Conductors			
Locomotive Engineers			
Shop Trades			
Signal Department Workers			
Station Agents			
Telegraphers, Telephoners, and Tower Operators			
Track Workers			
Driving Occupations	1875-72	_____	_____
Intercity Busdrivers			
Local Transit Busdrivers			
Local Truckdrivers			
Long Distance Truckdrivers			
Route Drivers			
Taxicab Drivers			
Parking Attendants	1875-73	_____	_____
Telephone	1875-81	_____	_____
Telephone Craft Occupations			
Central Office Craft Occupations			
Central Office Equipment Installers			
Line Installers and Cable Splicers			
Telephone and PBX Installers and Repairers			
Telephone Operators			
Automobile Service Occupations	1875-82	_____	_____
Automobile Body Repairers			
Automobile Mechanics			
Truck and Bus Mechanics			
Automobile Service Advisers			
Automobile Parts Counter Workers			
Gasoline Service Station Attendants			
Automobile Painters			
Air-Conditioning, Refrigeration, and Heating Mechanics	1875-83	_____	_____
Appliance Repairers	1875-84	_____	_____
Boat-Motor Mechanics	1875-85	_____	_____
Motorcycle Mechanics			
Bowling-Pin-Machine Mechanics	1875-86	_____	_____
Diesel Mechanics	1875-88	_____	_____
Electric Sign Repairers	1875-89	_____	_____
Farm Equipment Mechanics	1875-90	_____	_____
Maintenance Electricians, Industrial Machinery Repairers, Millwrights	1875-91	_____	_____
Jewelers, Watch Repairers	1875-93	_____	_____

Employment Outlook for	Bulletin No.	How Many	Total Cost
Locksmiths	1875-94	_____	_____
Piano and Organ Tuners and Repairers	1875-95	_____	_____
Shoe Repairers	1875-96	_____	_____
Vending Machine Mechanics	1875-98	_____	_____
Nursing Occupations Registered Nurses Licensed Practical Nurses Nursing Aides, Orderlies, and Attendants	1875-106	_____	_____
Social Workers, Social Service Aides	1875-119	_____	_____
Floral Designers	1875-124	_____	_____
Photographers, Photographic Laboratory Workers	1875-128	_____	_____
Hotels Bellhops and Bell Captains Front Office Clerks Housekeepers and Assistants Managers and Assistants	1875-152	_____	_____
Post Office Postal Clerks Mail Clerks	1875-155	_____	_____

Orders for copies of this leaflet or for priced publications should be sent to any regional office of the Bureau of Labor Statistics, U.S. Department of Labor.

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