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ABSTRACT

This guide informs women about the apprenticeship system and how it operates, about apprenticeable occupations, and provides background on the problems that women sometimes encounter in seeking apprenticeships. In the first section, Women and Apprenticeship: An Overview, barriers to women in apprenticeship--such as sex discrimination, inadequate preparation, and age--are examined. Another section, on apprenticeable occupations, describes occupations in construction, manufacturing, service, and expanding opportunities for apprenticeship. A section on how to become an apprentice outlines the apprenticeship application process. Following this, the system itself is analyzed in terms of the role of federal and state apprenticeship agencies and committees, and the final section summarizes federal laws and regulations affecting apprenticeship. Addresses for the Women's Bureau Regional Office and for the Bureau of Apprenticeship and Training regional offices are appended. (LRA)

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A Woman's Guide to Apprenticeship



ED189395

U.S. Department of Labor
Ray Marshall, Secretary

Women's Bureau
Alexis M. Herman, Director

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U.S. DEPARTMENT OF HEALTH,
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Foreword

Apprenticeships in the skilled trades offer women excellent opportunities for employment in jobs that are both personally satisfying and well paid. The apprenticeship system provides the opportunity for learning to become a highly skilled worker while receiving wages during the training period. It is this combination of training and employment that makes apprenticeship an option we would like to make available to more women.

Women certainly need increased access to high paying jobs. The percentage of women who work outside the home grew from 42 to 50 percent between 1968 and 1978, and intermediate growth projections indicate it will increase to 57.1 percent by 1990. In the same 10 year period, the proportion women were of all family heads increased from 11 to 14 percent. Families headed by women accounted for 49 percent of all families in poverty in 1978. Because most jobs for which apprenticeship programs are available offer good incomes, apprenticeship is one good route out of poverty. We would like to see more women taking advantage of the apprenticeship system to learn skilled crafts that will insure economic security and provide personal job satisfaction.

We strongly encourage women to find out about the wide range of jobs that can be learned through apprenticeship and to take the steps necessary to qualify and apply for apprenticeship programs. We hope this publication will assist in that process.

A Woman's Guide to Apprenticeship was first printed in 1978 to inform women about the apprenticeship system and how it operates, to provide some background on the problems that women sometimes encounter in seeking apprenticeship opportunities, and to outline the apprenticeship application process. This edition has been expanded to place greater emphasis on providing women with more information about the kinds of jobs that are available and how to prepare successfully for the apprenticeship application process.

ALEXIS M. HERMAN
Director, Women's Bureau

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Women and Apprenticeship: An Overview

Apprenticeship is the process through which individuals learn to be skilled craft workers. Craft workers have been transferring skills from generation to generation for thousands of years. The importance of maintaining skilled workers in the society was recognized very early in the history of civilization. In fact, the Code of Hammurabi, which was written over 4,000 years ago, had provisions to insure that skilled artisans would teach their crafts to youth.

Since the middle ages, skills were traditionally passed on through a Master-apprentice system in which an apprentice was indentured to a "Master craftsman" for a specified number of years. The apprentice received food, clothing, and shelter in return for the work performed while learning the craft. When the period of indenture was over, the apprentice was recognized as a "journeyman" or fully skilled independent worker. This system was in use until after the industrial revolution created the need for a more structured system.

Today the apprenticeship process is a formal arrangement involving employers, unions, vocational and technical schools, and individuals who want to learn a skilled craft. Modern apprenticeship programs are a combination of on-the-job training at a worksite which is supervised by skilled journeyworkers, and related supplemental classroom instruction. The classroom instruction teaches apprentices the theoretical aspects of the trade through technical courses such as drafting, blueprint reading, mathematics, and sciences. Classes are usually held on weekends and/or evenings at vocational schools or trade or technical colleges, or through correspondence courses.

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Women as Skilled Craft Workers

Women have been working in skilled crafts in America since early Colonial times. In addition to the home-related crafts of sewing, spinning, and weaving which all women performed, a number of Colonial women worked as printers, saw and grist mill operators, furniture builders, eyeglass grinders, leather workers, barbers, and even undertakers. However, few women learned their skills as formal apprentices. Most work was done in small shops which were usually located in or near the home. Wives and daughters learned craft skills from husbands and brothers while working in the family business. Widows frequently were able to take over these businesses when their husbands died.

This active participation by women in skilled craft work took place primarily before paid work became separated from the home environment and occupations became closely linked to wages and sex roles. Since the last quarter of the 19th century, when a significant number of women began to work for wages, women have not been well represented among skilled craft workers. Individual women continued to demonstrate that women could indeed be good workers in highly skilled crafts, and large numbers of them proved it during America's involvement in two world wars.

In both world wars women worked at almost every kind of job available to keep industry going while the Nation's "manpower" was overseas. During World War II, 6.7 million women entered the labor force, with about 2.9 million working in the crafts and as operatives and nonfarm laborers. However, most of the women who worked in wartime jobs were phased out of their nontraditional work at the end of the war. Since then, only few women have had opportunities for skilled craft work

Current Status

In 1978, of the nearly 12½ million skilled blue-collar workers, over half a million (694,000) were women. About one-fourth of these women were in lower paid skilled jobs that are closely related to homemaking skills, such as upholsterers, bakers, tailors, decorators, and window dressers. The proportion of women in these occupations ranged from 23.7 percent (upholsterers) to 70.4 percent (decorators and window dressers). Among many higher paid skilled workers, such as carpenters, plumbers, electricians, and painters, the proportion of women

ranged from less than 1 percent to about 5 percent.

In 1978 women were apprenticed in about 200 of the 450 occupations recognized as apprenticeable by the Department of Labor. This was a marked improvement from a few years earlier when women were apprenticed in only 70 out of the 400 recognized apprenticeable jobs.

Among apprentices in registered programs, there were 6,738 women in June 1978, accounting for 2.6 percent of the total 262,348 registered. This is a significant increase from the number registered 5 years earlier. In 1973, 1,877 women constituted only .7 percent of the total 284,284 registered apprentices.

Ability, Interest, and Availability

That women are a very small proportion of skilled craft workers is due not to lack of ability to do the work but to lack of opportunity. When given the chance, women have proven that they are capable of performing most jobs that have been traditionally reserved for men.

Women's interest in and availability for skilled craft work has been demonstrated whenever the setting of goals and timetables for women has required employers to recruit and hire them. For example, when the city of Seattle, Washington, instituted a 12 percent hiring goal for women in city-financed construction projects in 1977, the goal was met in the first year, and raised to 15 percent in 1978. The 15 percent hiring goal is also being met.

The Maritime Administration experience at the Ingalls shipyard in Pascagoula, Mississippi, offers another example. After a hiring goal of 20 percent women in the shipbuilding trades was set, the number of blue-collar women at Ingalls increased from 89 in January 1971 to a peak of 2,426 in January 1978. In addition, although the total work force at Ingalls has been decreasing, the percentage that women are of that work force has increased. The 2,426 women working in 1978 represented 14.4 percent of the blue-collar work force, and while the number of women on the job in March 1979 had decreased to 1,767, the percentage they represented had increased to 15.1 percent.

The Alaska pipeline experience also serves as an example of women's interest in nontraditional blue-collar work when given an opportunity for employment. More than 2,500 women, or 11 percent of the work force, worked out "in the bush" under conditions no one would have thought a woman would accept. Although some had traditional jobs such as cooks, many worked as teamsters, operating



engineers, and laborers.

One final example of women's interest in skilled blue-collar work is the experience of the Women in Apprenticeship Program, formerly a part of Advocates for Women, in San Francisco. In the first 3 months of operation, the project had 375 applicants for skilled training or apprenticeship openings. Between January 1974 and mid-May 1979 approximately 7,000 women had applied for placement through the Women in Apprenticeship Program. That the program placed only 675 women in blue-collar construction jobs or apprenticeship training was certainly not due to a lack of interest on the part of women in the San Francisco Bay area but to reluctance on the part of employers to hire women.

Barriers to Women in Apprenticeship

Sex Discrimination

Although women have been interested in skilled craft work, a number of barriers have limited their participation in apprenticeship programs. Sex discrimination has been just as serious an obstacle to women seeking apprenticeship opportunities as it has been to women seeking employment in non-traditional professional, technical, and administrative occupations. Traditional ideas about appropriate roles and jobs for women, and myths about their physical and mental capabilities, serious attachment to the labor force, family responsibilities, and need for jobs that pay well have had the effect of limiting women's employment options to traditionally female jobs that are related to homemaking skills or supportive, secondary roles.

The Department of Labor's revised regulations on equal employment opportunity for women and minorities in apprenticeship and in the construction industry (see p. 22) should have a significant impact on reducing sex discrimination in apprenticeship programs. The Vocational Education Amendments of 1976 have already had some effect in terms of reducing sex discrimination and sex-role stereotyping in vocational education programs which prepare young people for apprenticeship programs and other skilled blue-collar work.

Inadequate Preparation

Some of the most serious barriers for women are related to lack of adequate preparation, which is in itself often the result of sex discrimination and sex

stereotyping that permeate our society. Many problems women encounter in getting hired for apprenticeable jobs are directly related to inadequate preparation. Very few girls take the vocational education courses in high school which help qualify them for apprenticeship. That girls do not take shop, mechanical drawing, and other vocational courses often is not, however, all their own fault. Until recently girls were prohibited from taking courses in mechanical drawing or industrial arts, and in some cases are still actively discouraged from doing so by their guidance counselors and vocational education teachers. In addition, few girls take the minimum math and science courses that would help qualify them for apprenticeship programs. That girls avoid the basic math and science courses in high school and thereby close off occupational options is due primarily to sex-role stereotyping and unrealistic counseling which ignores the fact that many women will spend from 25 to 35 years of their adult lives in the labor force.

Another significant gap in women's preparation for apprenticeship is unfamiliarity with tools, work procedures, terminology, and job duties associated with skilled craft jobs. Boys learn these things in vocational education courses in school, and/or informally by helping their fathers around the house. A number of apprenticeship outreach programs that recruit and place women in apprenticeship and skilled craft training are addressing these problems with pre-placement training in tool handling, terminology, and basic work procedures.

Physical fitness can also be a problem to women in the skilled trades. Skilled trades workers need to be in good physical condition to be able to stand, stoop, bend, handle tools, carry equipment, and work overhead or in cramped spaces. Women who are not physically active and have not strengthened their muscles through exercise have greater difficulty in managing the physical stress of some non-traditional skilled craft jobs.

Age Restrictions

Age is another barrier that has limited apprenticeship opportunities for both women and men in the skilled trades. In some construction trades the age limits for apprenticeship programs are as low as 24 to 27 years.

Studies have shown that most women enter apprenticeship after they have already had some experience in the work force, usually in low skill, low paid jobs. By the time women in their late twenties or early thirties discover that skilled trades offer

both opportunity and satisfaction, they are too old to apply.

Although maximum age limits for apprenticeship have been found to violate title VII of the Civil Rights Act if they lock out victims of prior discrimination, age remains a barrier. Even in California, where a State statute has made a maximum age illegal for several years, recruiting programs still have difficulty in placing women in programs if they are "too old." Fortunately, there has been some progress in moving away from excessively restrictive age limits. Laws against maximum age limitations have been passed in many States, and a number of unions have virtually eliminated age restrictions from their national apprenticeship standards.

In addition, a number of women have petitioned Joint Apprenticeship Committees (JAC's) or apprenticeship program operators, and have received exemptions from the age requirements. The Department of Labor's revised regulations on women in apprenticeship mentions waiving age restrictions as a form of affirmative action for women applicants. For this reason apprenticeship program operators have been recommending that women who are over the existing age limit apply for apprenticeship programs anyway to see if they can get an exemption.

Harassment

Harassment from male supervisors and coworkers has also been a difficult barrier to women who want to work in skilled trades. Women who choose to work in a male-dominated industry should anticipate the fact that virtually all new apprentices have tricks played on them and experience some name calling and ridicule as part of the initiation process. However, hazing activity that interferes with work, the opportunity to learn, or safety and health sometimes does occur. This type of harassment is prohibited under the Department of Labor's revised regulations on affirmative action for women and minorities in construction. In a number of cities, women who work in skilled craft jobs have formed local support groups to share their experiences and to learn how other women deal with on-the-job harassment.

All of these barriers—sex discrimination, inadequate preparation, age restrictions, and harassment—have contributed to limiting the number of women who apply for and are accepted into apprenticeship programs. However, all of them can be overcome and in many cases some have

been broken down through the combined efforts of individual women, representatives of women's organizations and government agencies, union members, educators, and employers who are committed to equal employment opportunity for women.

The Apprenticeship System

In the United States, the concept of formal structured apprenticeship programs was established through the National Apprenticeship Act of 1937. This act authorized and directed the Secretary of Labor to promote the concept of apprenticeship and to provide assistance in setting up programs for teaching skilled trades. The Bureau of Apprenticeship and Training (BAT) in the U.S. Department of Labor, with the State Apprenticeship Councils (SAC's), the Federal Committee on Apprenticeship (FCA), the Joint Apprenticeship Committees (JAC's), and employers, unions, and educators constitute our national apprenticeship system. BAT works with these groups to develop national standards for each trade, and registers programs that meet its requirements for apprenticeship training.

Training Programs

Apprenticeship programs are operated by employers working with unions when the workers are organized, or by employers alone when there is no union. Training of apprentices is always a joint effort requiring close cooperation between skilled journeyworkers who do the actual on-the-job training and management which is responsible for the efficient operation of the program. This cooperation usually takes the form of joint apprenticeship committees or union-management committees on apprenticeship, which are composed of representatives of trade or craft unions or employee associations and employers.

Generally, in service, manufacturing, transportation, and printing industries, there is one management-union/employee committee operating in each company or plant. That committee operates the program, determines the number of apprentices, recruits applicants, administers tests, and accepts apprentices into the program. In the construction industry, each trade has its own joint apprenticeship committee consisting of representatives of the union and employers who hire workers in that trade. The

joint apprenticeship committee interviews, tests, and accepts applicants for apprenticeship openings in the trade. Accepted applicants are placed on the JAC's waiting or hiring list in the order of their merit based on their qualifications and test scores, and employers select new apprentices from the list. The JAC's also supervise and evaluate apprentices' work experience, and certify them as journeyworkers when they successfully complete the training.

Apprenticeship Standards

Each apprenticeship program operates under a set of written standards which establish minimum qualifications, outline the work experience processes and the number of hours required for each, and set apprentice wage rates, length of training, and overall working conditions. Apprentices enter into a written apprenticeship agreement, sometimes called an indenture agreement, with the employer, the employer-employee association, or the joint apprenticeship committee. If the program is registered by the U.S. Department of Labor's Bureau of Apprenticeship and Training, or a recognized State apprenticeship agency, apprentices are given certificates by these agencies upon completion of the program. These certificates are evidence that the recipients have been thoroughly trained in all aspects of their craft.

Standards for apprenticeship training have been established by BAT to insure uniform and complete training of apprentices within each craft. To be approved and registered by BAT or an approved State apprenticeship agency, an apprenticeship program must meet these minimum standards:

- the starting age of an apprentice is not less than 16;
- there is full and fair opportunity to apply for apprenticeship;
- there is a schedule of work processes in which an apprentice is to receive training and experience on the job;
- the program includes organized instruction designed to provide apprentices with knowledge in technical subjects related to their trade (a minimum of 144 hours per year each year of the apprenticeship is recommended);
- there is a progressively increasing schedule of wages;
- proper supervision of on-the-job training with adequate facilities to train apprentices is insured;

- the apprentice's progress, both in job performance and related instruction, is evaluated periodically and appropriate records are maintained;
- there is employee-employer cooperation;
- successful completions are recognized; and
- there is no discrimination in any phase of selection, employment, or training.

Although many apprenticeship programs in this country are registered by the Bureau of Apprenticeship and Training, there are many others, particularly those operated by very large companies, that are not registered. Most of these programs also have written standards similar to the BAT standards which outline the apprentice's course of work and study, and the companies issue certificates to apprentices upon completion of training.

Advantages to Employers

One advantage to employers is that apprenticeship insures a supply of well-trained workers. The card that apprentices receive when they have completed their program certifies to employers that the card carrier is a highly skilled worker who has been trained in all skills required of the trade.

Another advantage to employers who hire apprentices in BAT registered programs is economic. The Davis-Bacon Act, which establishes prevailing wage rates for workers on federally assisted construction projects, permits employers who train apprentices to pay them less than the prevailing wage for skilled craft workers. Usually, an entry-level apprentice earns about 50 percent of the journeyworker wage, and receives increases about every 6 months. By the time apprentices are nearing the end of their programs, which generally last from 2 to 5 years, they are earning 95 percent of the journeyworker rate.

Advantages to Apprentices

The certification card is also, of course, an advantage to a craft worker seeking employment. Former apprentices have a wider range of employment opportunities than other skilled workers because they have been taught all aspects of work in their trade. They can move anywhere in the country and use their journeyworker card to prove their qualifications. The thoroughness of the training also improves craft workers' opportunities to advance to supervisory positions, because they understand

every part of the work operation.

Another advantage to apprentices is the fact that they have an opportunity to learn skills that will provide good earnings, and they are paid while they learn. (Most apprentice entry-level wages range from about \$4 to approximately \$6.50 an hour.) They are also assured that they will learn everything necessary to the craft, because the joint apprenticeship committee monitors the training to see that it meets the national standards.

Apprenticeable Occupations

An apprenticeable occupation is a skilled trade that possesses certain characteristics. The Bureau of Apprenticeship and Training uses the following criteria for recognizing occupations that are apprenticeable:

- It is customarily learned in a practical way through a structured, systematic program of on-the-job supervised training
- It is clearly identified and commonly recognized throughout an industry
- It involves manual, mechanical, or technical skills and knowledge that require a minimum of 2,000 hours of on-the-job work experience
- It requires related instruction to supplement the on-the-job training

The Department of Labor recognizes about 450 apprenticeable occupations. However, about 95 percent of all apprentices work in just 53 occupations, most of which are in three basic industries: construction, manufacturing, and service.

Construction

Construction craft workers are the largest group of skilled workers in the labor force. Workers in construction trades build, repair, and modernize homes and all kinds of buildings. They also work on highways, airports, bridges, and similar structures.

Construction work frequently requires prolonged standing, bending, stooping, and working in cramped quarters. Exposure to weather is common because most of the work is done outside, and many people like it for that reason. Construction work is also seasonal, and in some areas of the country, little work is done during the winter months. Nevertheless, annual earnings for workers in this

industry are among the highest for skilled workers.

Because construction work requires use of sharp tools in cluttered spaces, often on scaffolding, it is generally more dangerous than other work. Risks are reduced by following good safety practices.

Anyone considering apprenticeship in the construction industry should be in good physical condition, possess manual dexterity, mechanical aptitude, and have a good eye for alignment of materials. The equivalent of a high school education, including courses in mathematics, English, and the sciences is usually required.

Carpenters build all kinds of wood structures. They erect scaffolding; make forms to enclose concrete; install heavy timbers for docks and bridges; erect foundations, walls, and roofs of buildings; and install windows, doors, cabinets, and other items. Carpenters use rules, T-squares, hammers, saws, chisels, planes, nails, screws, bolts, and drills.

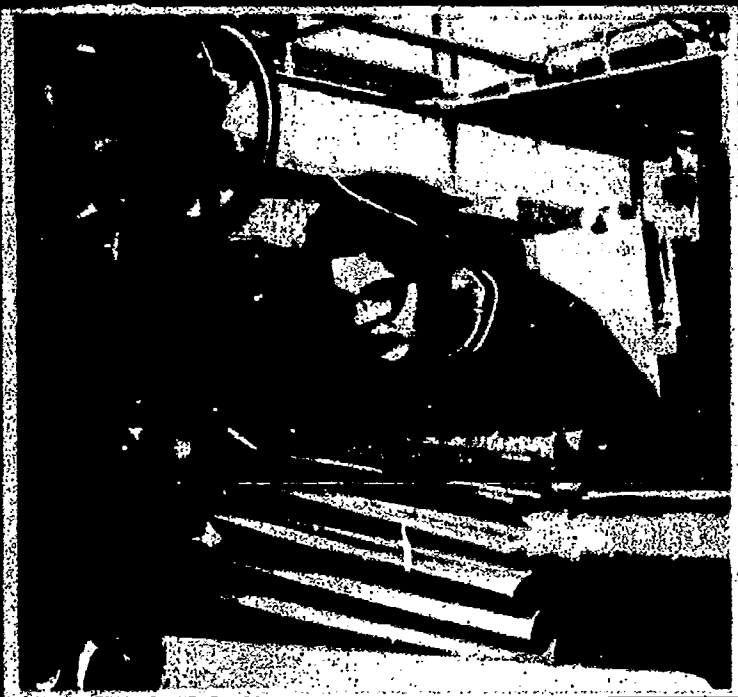
Plumbers install pipe systems that carry water, steam, air, or other liquids or gases. They also change and repair existing pipe systems, and install plumbing fixtures, appliances, and heating and refrigeration units. Plumbers use wrenches, drills, hammers, saws, and other hand tools as well as a variety of power tools to cut, thread, and bend pipes.

Painters and Decorators prepare building surfaces by sanding and scraping to remove old finishes and rough spots and otherwise smooth and seal the surface. Painters apply paint, varnish, and other finishes to decorate and protect building surfaces. Decorators (paperhangers) cover walls and ceilings of rooms with wallpaper or fabrics. These workers use brushes, rollers, spray guns, and sanders. They must know how to mix paint and match colors or match patterns.

Electricians assemble, install, and wire systems for heat, light, power, and air conditioning and refrigeration units. They also install electrical machinery and electronic equipment, using wirecutters, screwdrivers, pliers, knives, and hacksaws.

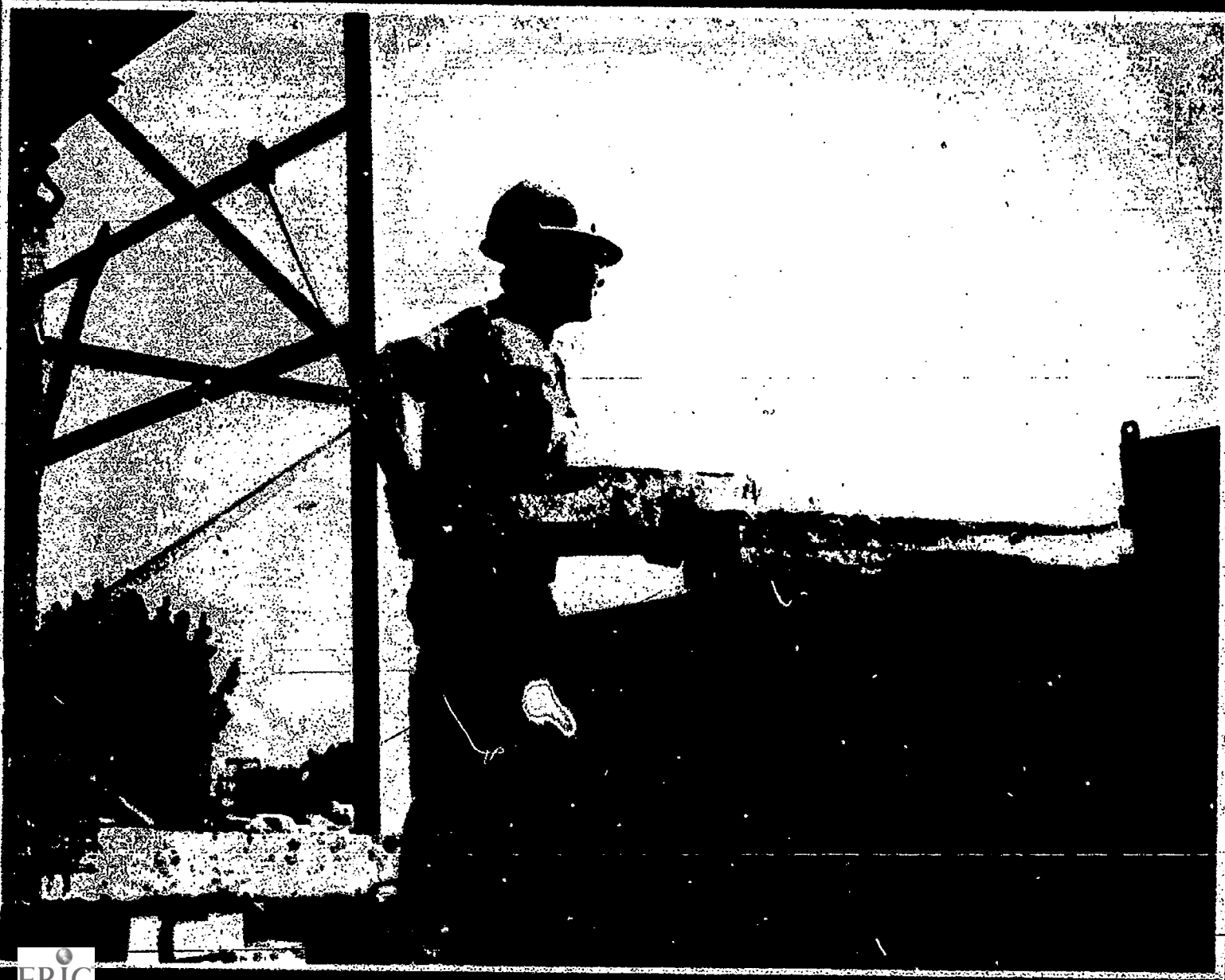
Floor Covering Installers install and replace carpet or resilient floor coverings such as tile, linoleum, and vinyl sheets. They smooth the floor, cut and match the materials, install padding, if any, and glue or tack the covering in place.

Operating Engineers or heavy equipment operators prepare the ground for roads, bridges, dams, or buildings. They operate bulldozers, cranes, trench excavators, paving machines, power shovels, and many other kinds of construction machinery.



Emergency Medical Services





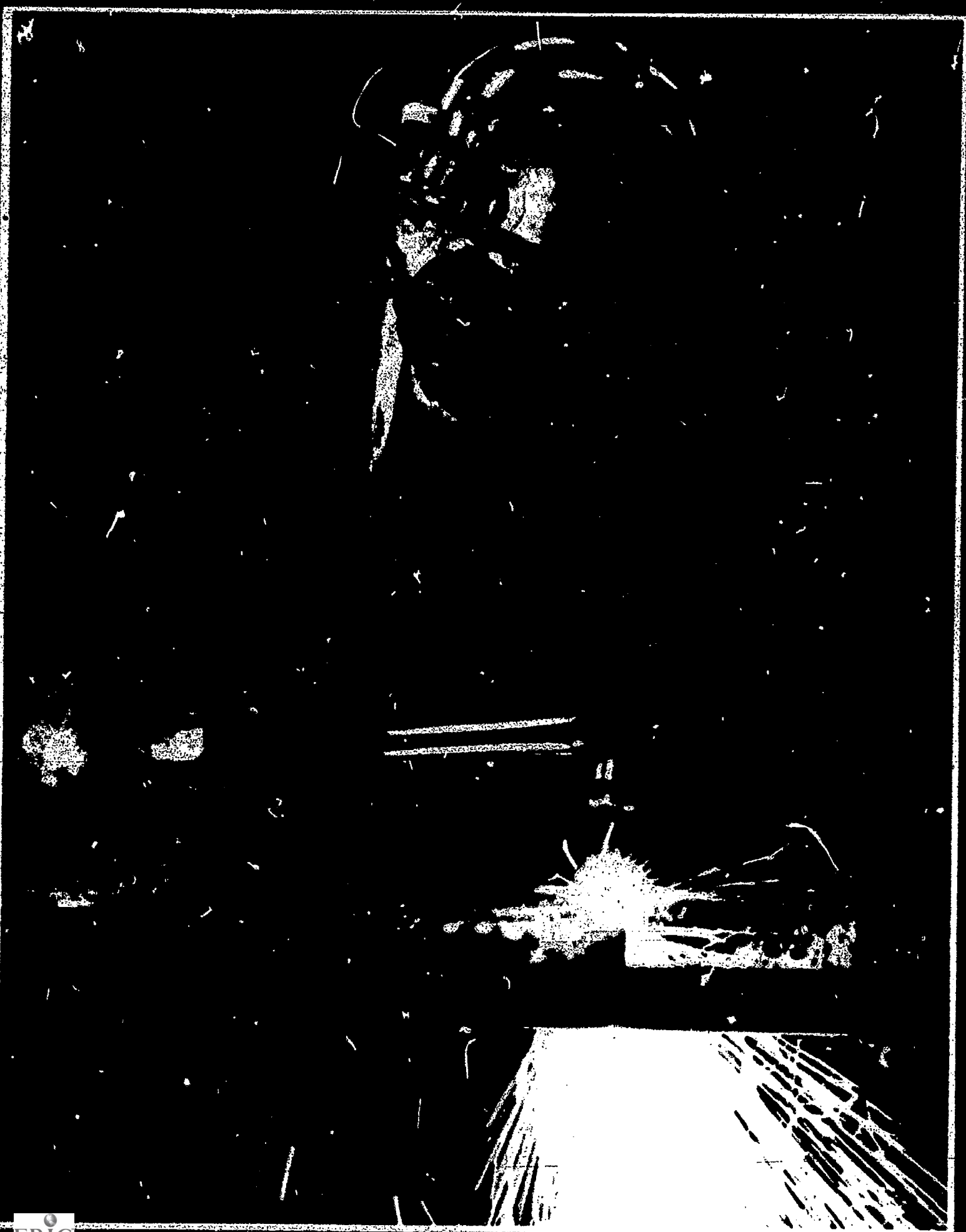


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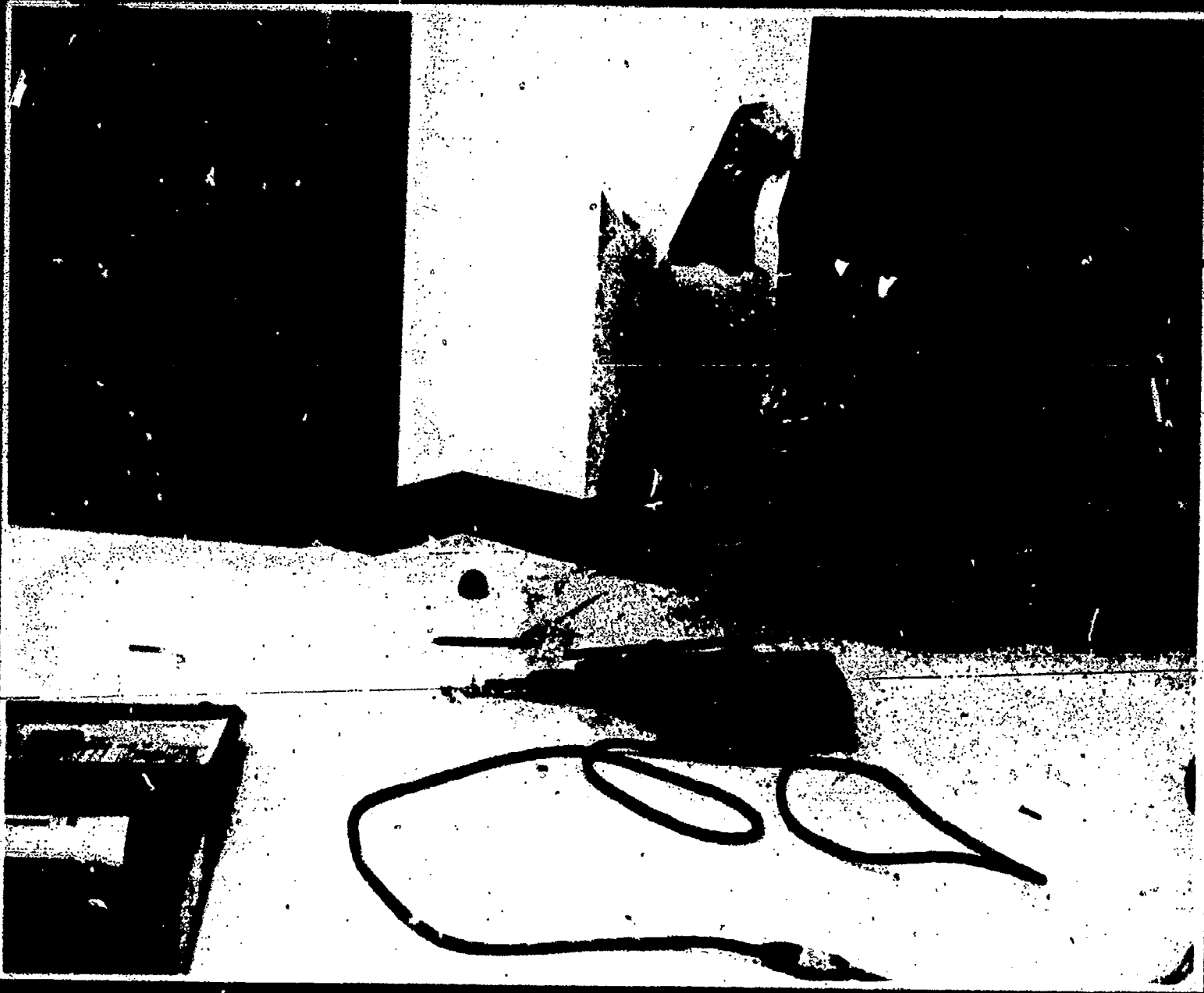


Electricity

Welder







Floor covering installer



Meat cutter



Manufacturing

Workers in manufacturing and industrial trades make almost all of the products we use. Foundry workers produce metal castings for appliances and machinery by pouring molten metal into molds.

Machinists shape metal with high precision tools that can shave metal parts to within a millionth of an inch. Other industrial craft workers install and maintain equipment and machinery.

Skilled workers in manufacturing trades work indoors. Although modern plants are clean, well lighted, and ventilated, workers may come in contact with dirt, grease, heat, and cramped working conditions, sometimes on ladders or scaffolds.

Most apprentices are hired from within the plant, so it may be necessary to take a job as a laborer or assembler and wait for an apprenticeship opening. Frequently, the plant operates several apprenticeship programs, so there may be options for several different kinds of trades.

The equivalent of a high school education is generally required. A basic college preparatory course with mathematics, physics, English, and chemistry is just as important as shop courses in blueprint reading and machining.

Machinists set up and operate most types of machines used to cut and shape metal, including boring, milling, drilling, and grinding machines and lathes. They read blueprints, select tools, plan and execute the cutting and finishing, and measure their work for accuracy.

Tool and Die Makers are highly skilled machinists who make tools, dies or molds, fixtures, and gauges which are used to mass produce metal parts or measure precision metal parts. They generally have a broader knowledge of machining operations, mathematics, and blueprint reading than all-round machinists.

Pattern Makers construct the patterns used in making molds for metal castings. Patterns may be made from metal, wood, plaster, gypsum, or cement. They use lathes, drill presses, shapers, milling machines, power hacksaws, and grinders as well as hand tools such as files and rasps.

Welders join pieces of materials, usually metal, by fusing or bonding them together to connect parts that go into the construction of automobiles, spacecraft, ships, appliances, bridges, construction equipment and many other things. Welding is done by heating metal until it melts, and using filler materials to give the weld greater strength.

Millwrights install industrial machinery. They

build foundations to hold machinery, and also dismantle it to move or remove it. They use wrenches, hammers, pliers, and metal cutting torches, as well as hoists, jacks, wood blocking, and other rigging devices. Frequently they must use measuring devices to insure that precision machinery is properly installed.

Maintenance Electricians keep electrical equipment in working order and install new equipment when necessary. They also inspect equipment for wear and possible breakdown and do preventive maintenance.

Molders (metal fabricators) make metal products by pouring molten metal into molds and letting it harden. In sand molding, workers pack and ram a specially prepared sand mixture around a pattern in a box called a flask. Then the pattern is filled with metal. This process can be done by machine and by hand.

Service

Service trades provide services for consumers, and include occupations such as barbers, auto mechanics, optical and dental technicians, bakers and cooks, and appliance repairers. Many service jobs do not pay as well as jobs in manufacturing and construction, but generally the working conditions are better, and there are greater opportunities to own a business. Many service occupations require the ability to interact well with other people. The equivalent of a high school education is required for most apprenticeship programs. Other useful courses depend on the trade.

Meat Cutters prepare meat, fish, and poultry for sale in retail food stores, restaurants, hotels, hospitals, and wholesale food outlets. They divide carcasses into roasts, steaks, chops, and other serving size pieces, using cutting and grinding tools that range from butcher knives to band saws and grinding machines.

Dental Laboratory Technicians make dentures, crowns, bridges, and other dental appliances, and the metal castings used to make these items. They use small hand tools, electric lathes and drills, high heat furnaces, and other kinds of specialized laboratory equipment.

Auto Body Repair Mechanics restore damaged vehicles by straightening bent frames, removing dents, welding torn metal, and replacing crushed parts. They use a variety of tools such as hydraulic jacks, metal cutting guns, and acetylene torches to align damaged frames, push out dents, fill in un-

even spaces, and sand and paint cars and small trucks.

Auto Mechanics repair mechanical parts of cars. They do preventive maintenance such as changing oil, adjusting carburetors, replacing spark plugs, as well as determining the cause of breakdowns and making the necessary repairs. They use screwdrivers, wrenches, and various types of specialized machinery and tools to fix problems related to transmissions, air conditioning units, brakes, carburetors, and radiators.

Barbers and Cosmetologists cut, style, shampoo, straighten, and color hair and give permanents. They may also provide scalp and facial massages, manicures, makeup analysis, and shaves. Many barbers and cosmetologists own their own businesses.

Chefs and Cooks prepare food in restaurants, hotels, schools, factories, hospitals, and private clubs. In small establishments, the cook usually prepares all the food with the help of a short order cook and one or two kitchen helpers. In large restaurants, a chef coordinates the activities of a number of kitchen helpers and several cooks who specialize in pastries, sauces, or frying. Chefs may

also help plan the menus and purchase the food supplies.

Radio and TV Repairers fix electronic products, primarily televisions and radios but also stereo components, tape recorders, intercoms, and public address systems. They check and test for the cause of the breakdown and make necessary repairs or adjustments, using screwdrivers, pliers, wirecutters, soldering irons, and other hand tools.

Expanding Opportunities for Apprenticeship

Opportunities for apprenticeship training have been expanding through efforts to extend the concept to new occupations. Apprenticeship has traditionally focused on skilled trades occupations related to construction and manufacturing. However, the concept of training workers through a formal system of on-the-job training and classroom instruction can be applied to a number of other occupations that require specific job skills. Apprenticeship training programs have been developed for many jobs that have been either self-taught through



trial and error, or learned through informal on-the-job training. The apprenticeship concept has been particularly successful in our expanding service industries. Programs have been developed to train auto mechanics, recreation and child care workers, small and large appliance repairers, and workers who service various types of mechanical and electronic equipment.

The apprenticeship system also has been used to train workers in newly developing industries, particularly in the health and environmental fields. In the health care industry, technicians are being trained to grind eyeglass and contact lenses and to make artificial eyes, to make and apply dental and orthodontic appliances, to make and fit prosthetic equipment, and to work in many kinds of highly specialized technical jobs in hospitals and medical laboratories.

In the emerging environmental control and energy fields, workers are being trained to treat water, air, and wastes; install and service environmental control systems; and work in a variety of technical jobs in the solar energy and petroleum industries.

How To Become an Apprentice

Choosing an Occupation

The first step in becoming an apprentice is choosing an occupation. The general characteristics of work in construction, manufacturing, and service industries, and some specific jobs in each are described in the preceding section "Apprenticeable Occupations." In general, construction jobs offer the opportunity to work outdoors and the variety of moving from job to job. Manufacturing and service jobs are generally indoors, and provide more job security than construction work. Many service jobs involve direct contact with the public.

Some of the factors which should be taken into consideration when choosing a trade are requirements for physical strength, overtime work, night shift work, and travel. Although most truly heavy work has been eliminated or significantly reduced in most nontraditional jobs, some jobs still require a degree of strength and physical fitness. A woman's physical condition, or her capability to get into good physical condition, should be taken into account if she is interested in a job that does require some physical strength.

Ability to work night or swing shifts may also be a consideration in choosing a number of occupations, particularly in manufacturing industries. Apprentices and newly certified journeymen are frequently required to work the less desirable shifts, leaving the better shifts to workers with seniority. If this might be a problem, a solution should be worked out before applying for the apprenticeship program. Overtime is another factor that should be considered. Some industries require overtime work on a regular basis, a situation which could cause difficulties unless adequate arrangements have been made. In the construction trades, jobs are often far away from the town or city in which the workers live, so reliable transportation is a necessity. If a car is not available there may be serious problems in getting to work.

One additional factor to be considered is whether there are any other women working in the trade in the area or on the jobsite. Experience has shown that women find working in skilled trades much easier when there are other women on the site. The biggest problem women apprentices face on the job is not the hardness of the work but the feeling of isolation that comes from being the only woman on the jobsite, and the harassment and teasing from male coworkers. Having other women on the site means there is someone to talk with and have lunch with, and several women on the site can reduce the amount of harassment. A woman who is a trailblazer by nature and can take the almost inevitable hazing by male coworkers might well be the first woman to work at a particular jobsite. But those who think it would be too hard to stand up to opposition would be better off in a trade where women have already broken through the barriers.

The next step in choosing a trade is finding out about the kinds of jobs that are available and what the work is like.

Sources of Information About Occupations and Programs

A good source of information about apprenticeable jobs is the *Occupational Outlook Handbook*, which is published every 2 years by the Bureau of Labor Statistics (BLS), U.S. Department of Labor. The handbook contains descriptions of job duties, educational and training requirements, salary range, and employment outlook for most apprenticeable occupations. Copies of the handbook are generally available at school guidance offices, school and public libraries, and State employment service or Job Service offices. BLS also publishes a

pamphlet, "Jobs for Which Apprenticeships Are Available," which lists occupations, length of training, and projected employment outlook. The pamphlet can be obtained from regional offices of the Bureau of Labor Statistics, listed in the telephone directory under the Department of Labor, under "U.S. Government" listings.

More detailed information about specific skilled crafts and trades can usually be obtained from employer associations and unions that represent workers in those jobs. Most of these organizations print booklets and other materials about their craft. In addition, the Bureau of Apprenticeship and Training publishes booklets containing the apprenticeship standards for each of the Department of Labor registered apprenticeship programs. Each set of apprenticeship standards contains detailed information about the kinds of work that will be performed and the courses that will be taken as part of the apprenticeship training, and are therefore an excellent source of information about job duties and work activities involved in the trade. The apprenticeship standards booklets are available from the BAT regional offices (listed in the appendix) and from area BAT offices listed in the telephone directory under "U.S. Government/U.S. Department of Labor." The regional and area BAT offices also have information about programs in their region, and can make referrals to State apprenticeship agencies and Apprenticeship Information Centers (AIC's). See the section on the Role of Federal and State Apprenticeship Agencies and Committees in this guide for more information about services provided by BAT, the State apprenticeship agencies, and AIC's.

Outreach Programs: Apprenticeship outreach programs are also an excellent source of information about skilled craft jobs and local apprenticeship programs. The Department of Labor funds a number of national contractors who operate apprenticeship outreach programs in most large cities across the country. The programs recruit and help prepare women and minorities for placement in apprenticeships and skilled trades training, particularly in the construction industry. These programs counsel applicants about apprenticeship opportunities, help prepare them for entrance examinations and interviews, and assist in assembling the documents required in the application package.

Outreach programs are run by the Recruitment and Training Program, Inc., the National Urban League, the Mexican American Opportunity Foundation, and the Human Resources Development Institute, which is the training arm of the AFL/CIO.

These Department of Labor contractors now have goals for recruiting and placing women in apprenticeship and construction jobs

The Employment and Training Administration has also funded outreach programs targeted specifically to women, either through its Office of National Programs or CETA (Comprehensive Employment and Training Act). Two programs that have been very successful in placing women in skilled blue-collar jobs are Better Jobs for Women, sponsored by the Denver YWCA, and Women in Apprenticeship, Inc., originally sponsored by Advocates for Women in San Francisco. Outreach programs designed for women are particularly effective in recruiting and preparing women for apprenticeship programs because they focus specifically on the kinds of problems women encounter in the application procedure as well as on the job.

For addresses of these and other programs that recruit and place women in apprenticeship jobs, write to the Women's Bureau for a copy of "Sources of Assistance in Recruiting Women for Apprenticeship Programs and Skilled Nontraditional Blue-Collar Work."

Other Sources of Information: Additional sources of information about apprenticeship opportunities are State employment service or Job Service offices, women's centers, and State and local commissions on the status of women. Employment or Job Service offices are located in every large city in the country and in many smaller ones as well. They often have information about apprenticeship openings, and frequently administer aptitude tests and offer counseling and referral services. Addresses are listed in the telephone directory under State government listings.

Women's centers are often located on college and university campuses, and are frequently sponsored by local women's organizations. These centers sometimes have information about local procedures for applying for apprenticeships and usually offer counseling, assertiveness training, interviewing, and resume writing skills courses. Some women's centers make employment referrals and job placements. State and local commissions on the status of women generally take an active interest in employment opportunities for women in their State, city, or county. They sometimes have information about apprenticeship opportunities and can usually make referrals to women's centers or other sources of assistance. Women's Bureau regional offices can provide the addresses of the commissions on the status of women in their regions.

Getting Ready

After determining which trades are most interesting and what qualifications are needed to be accepted in an apprenticeship program, the next step is to prepare for the application process. Copies of the transcripts of high school, vocational school, trade, technical, or college courses are usually required as part of the application package, as are high school diplomas or GED certificates and official copies of birth certificates. Letters of recommendation from employers and documentation of blue-collar work experience, whether paid or unpaid, will be helpful.

Anyone who is weak in basic mathematics and science, or who needs vocational or shop courses, should go back to school. Community and junior colleges as well as trade and vocational schools offer these courses for adults. For women who have never worked in a trade it is especially important to take some vocational or shop courses or to find a job working in their chosen trade if possible. It is a good idea to be sure the work will be enjoyable before a commitment to several years of training is made, and work experience also helps show prospective employers capability and interest in the job.

If a written test is part of the application process, those who have difficulties taking tests should try to find out what the test will be like and prepare for it. Employment service offices, Apprenticeship Information Centers, and apprenticeship outreach centers should have this information. Sometimes books which familiarize prospective test takers with the kinds of questions that will be asked are available in public libraries and at book stores.

Women who are not already in top physical condition should start a program of exercises to get in shape for any job that requires physical activity and endurance.

The Application Process

Construction Trades

In the construction trades the apprenticeship application process varies from city to city and from trade to trade. Apprenticeship programs are operated by joint apprenticeship committees, composed equally of union representatives and employers who hire workers in the particular trade. Each JAC sets up its own system for operating its apprenticeship program and for recruiting and selecting apprentices for the program.

Some programs take applications for apprentices all year long. More often, however, programs have set recruiting times, and open every year or every other year at the same time. Some open the program for new applications whenever there is a need for more apprentices. When a JAC opens the program for applications, it must notify the State employment service at least 30 days prior to the first day of application. Under the new equal opportunity in apprenticeship regulations, affirmative action steps suggested include similar notification of women's organizations, and publication of the recruitment effort in newspapers and women's newsletters, and posting of notices in public places.

Applications are generally accepted for 30, 60, or 90 days. During the open application period the applicant must file all information related to the application with the JAC. Some program sponsors will allow persons who meet requirements an additional 15 days for processing papers (such as obtaining high school transcripts or birth certificates), but it is much wiser to have these documents in hand ahead of time to avoid possible difficulties with the application. The materials required as part of the application package usually include a birth certificate, a high school transcript, a high school diploma or GED certificate, transcripts from vocational education schools, military discharge papers (if applicable), and letters of recommendation.

Qualifying Tests and Interviews: When applications are filed they are checked for all required materials. If all the minimum qualifications are met and all necessary documents are included in the application package, the applicant will be notified by the JAC, usually by mail, of the date, time, and site for the apprenticeship qualifying test, if such a test is required. Qualifying tests vary a great deal in both scope and duration. Frequently all that is required is an aptitude test which is administered by the AIC or employment service office. In other cases the qualifying test may last several hours or even several days and cover a wide variety of subjects. These tests are generally scored on a point basis, with 70 out of 100 a passing grade. The testing requirements and procedures are spelled out in detail in the apprenticeship standards established for each registered apprenticeship program. Applicants who pass the test are notified and asked to come for an interview with the JAC.

The interview or oral examination can be a crucial part of the application process. Members of the JAC interview all applicants and evaluate them on factors such as attitude, motivation, interest in their

particular trade, and willingness to accept direction. A neat appearance and courtesy are important, in addition to other interviewing skills, such as answering questions completely and providing the interviewers with information that will demonstrate interest, knowledge of the trade, and any related experience. The JAC's are looking for people who will make good dependable workers. It does not help applicants if they appear either fragile and submissive or overbearing and aggressive. They should be careful to maintain a balance.

After all the application papers are filed and the test and interview are completed, each applicant is rated on the basis of points. Points are given for test scores, the oral interview, education qualifications, letter recommendations, vocational education courses, and previous experience. Usually the list of eligibles is cut off at 70 on a scale based on 100. Apprentice program sponsors are required by law to retain the list of eligibles for 2 years. Applicants should keep the JAC informed about changes in address, as well as additional courses or experience which could raise their rank on the list of eligibles.

There are two general methods for entering construction apprenticeship programs: the "list trades" or "hiring hall" method and the "hunting license" method. In the hiring hall method, applicants are taken from the top of the list of eligibles as openings are available, and asked to report for formal acceptance into the apprenticeship program. At this time the applicants sign their apprenticeship or indenture agreements and become apprentices. Apprentices may be ordered to report either to the union hiring hall for assignment to jobs, or to vocational schools or to the JAC's training school to begin classroom work.

Each JAC program has an apprentice coordinator or representative whose job it is to make arrangements for employers to hire apprentices, and to see that there is a proper ratio of apprentices to journeymen at the jobsite. The JAC coordinator is a key figure in construction apprenticeship programs. The coordinator keeps track of apprentice jobs, work experience, supervisors reports, and records of classes and vocational education courses. One of the real difficulties of apprenticeship programs in construction trades in the past few years has been the high rate of unemployment in the construction industry. Apprentices may report to the hiring hall for weeks before getting an assignment to an employer. Many programs have set up special related training courses for apprentices during times

of particularly high unemployment.

In the hunting license method, applicants are given a blank letter of intent to hire, and must find an employer who participates in the apprenticeship program to hire them. This approach has advantages and disadvantages, depending on the applicants' contacts and ability to convince the employer that they will be good workers.

Manufacturing Trades

In manufacturing or shop trades, and in transportation, communications, and public utilities industries, apprenticeship programs are operated in the company plant, and applicants apply directly to the employer or the company personnel office. In many cases, the company has a number of different trades for which apprenticeship opportunities are available. Large industrial plants often have bargaining agreements with their unions which restrict new apprenticeship openings to workers already employed in the company's unskilled labor pool. This means that in order to have an opportunity to apply for an apprenticeship program in that company, the worker must then wait for an apprenticeship opening. However, if the employer cannot recruit enough apprentices from the unskilled labor pool, the bargaining agreement usually allows outside recruitment. These apprenticeship openings are sometimes listed with State employment service offices, vocational schools, or in the "help wanted" section of newspapers.

Service Trades

Service trades frequently use the same methods as construction and manufacturing industries to recruit and hire apprentices, but in some cases have developed application and hiring processes to meet the special needs of their occupation. Often apprenticeship programs in the service trades are operated by professional or trade associations in their own schools or in close cooperation with local community and junior colleges or trade and technical schools.

Probation Period

After being accepted in an apprenticeship program, all apprentices go through a probationary period, usually from 500 hours to about 6 months, during which time they can be asked to leave the program without cause. Lack of interest, bad attitude, poor attendance, tardiness, poor grades in

courses, and bad reports from supervisors could lead to being dropped from a program. This probation period is usually a hard time for all apprentices. They are not only trying to prove that they can perform well in the program, they are also subject to harassment from other workers on the jobsite—a kind of "freshman hazing" experience. For many women, the increased physical activity in construction and some manufacturing jobs is another burden. Women's outreach programs have found that rap sessions and meetings of women apprentices are useful in helping the women to keep up their morale, and in providing an opportunity to share experiences during this crucial period.

The Role of the Federal and State Apprenticeship Agencies and Committees

The **Bureau of Apprenticeship and Training** is an agency of the Employment and Training Administration, U.S. Department of Labor. With 10 regional offices and field representatives in every State and territory, BAT carries out the provisions of the National Apprenticeship Act which was passed in 1937 "to promote the furtherance of labor standards and apprenticeship."

State Apprenticeship Agencies recognized by the U.S. Department of Labor have been established in 29 States, the District of Columbia, Virgin Islands, and Puerto Rico. Each of these agencies obtains policy guidance from apprenticeship councils composed of employer, labor, and public representatives, and their work is carried on as an integral part of the National Apprenticeship System, in cooperation with the Bureau of Apprenticeship and Training.

Both State and Federal apprenticeship agencies function to promote and expand the concept of apprenticeship training and to assist in the development and improvement of apprenticeship programs. These agencies register programs that meet the basic standards approved by BAT to insure a degree of uniformity in training and compliance with labor laws. Both Federal and State agencies work

closely with employers, labor unions, and vocational schools to improve the quality of apprenticeship training. Neither BAT nor the State apprenticeship agencies conduct training programs, and they do not serve as recruiting or referral agencies for either applicants or employers.

As the national apprenticeship agency, BAT collects State and national data—the number of apprentices, the types of training they receive, retention and dropout rates, and other kinds of information, by minority group and sex. The SNAPS (State and National Apprenticeship System) data are based on 53 occupations in which 95 percent of all apprentices work. It is the most current and detailed statistical information available on apprentices and apprenticeship programs. However, it is important to remember that these data are collected from U.S. Department of Labor and State apprenticeship agency registered programs only, and therefore they do not include those apprentices who are being trained in programs that are not registered with the Department or the State apprenticeship agencies. In some States the number of apprentices in unregistered programs is quite large, and women working as apprentices in such skilled craft programs are not reflected in the SNAPS data.

The **Federal Committee on Apprenticeship** was chartered by Congress under the National Apprenticeship Act. The Committee has 25 members, appointed by the Secretary of Labor for 2-year terms. Ten members represent organized labor, 10 are from management, and 5 represent the public. In addition, there are three ex-officio members, the current president of the National Association of State and Territorial Apprenticeship Directors, a representative of the U.S. Office of Education, and the Assistant Secretary of Labor for Employment and Training. The Committee is chaired by a public member selected by the Secretary of Labor.

The FCA meets at least twice a year and advises the Secretary of Labor on apprenticeship and training policies, labor standards affecting apprenticeship, research needs, and other matters related to apprenticeship.

National Joint Apprenticeship Committees are composed of representatives of national employer associations and national and international labor organizations in each trade. The NJAC's develop standards that serve as guidelines for developing local apprenticeship programs for their individual trade. The National Joint Committees also stimulate local affiliates to develop and conduct programs and provide them with information on new techniques.

materials, changes in technology, and training methods. They usually employ national apprenticeship directors/coordinators whose responsibilities include assisting local joint apprenticeship committees.

Apprenticeship Information Centers are operated by State employment services in areas in which there is heavy demand for skilled craft workers. They provide information about available apprenticeship opportunities, counsel applicants about testing and screening procedures, and make referrals to employers, unions, and joint apprenticeship committees. AIC staff have detailed information about minimum qualifications for each of the apprenticeship programs registered in their area and knowledge about each program's application procedures, including where and when applicants should apply and what documents are required. However, AIC's are not available in all States. Interested individuals can contact the local employment service office to find out if there is an Apprenticeship Information Center in their State.

Federal Laws and Regulations Affecting Apprenticeship

Several Federal laws and regulations prohibit sex discrimination in apprenticeship and require affirmative action for women in areas of the labor force in which they are found to be underutilized. In addition, the Comprehensive Employment and Training Act, which also provides for apprenticeship training, includes nondiscrimination provisions in its legislation and in its technical assistance and EEO guidelines.

Title VII of the Civil Rights Act of 1964 prohibits discrimination in employment based on sex, as well as race, color, religion, or national origin, in hiring or firing; wages, fringe benefits; classifying, referring, assigning or promoting employees, extending or assigning facilities, training, retraining, or apprenticeship, or any other terms, conditions, or privileges of employment. As amended, title VII covers employers of 15 or more employees, employment agencies, labor organizations with 15 or more members, and labor-management apprenticeship programs. Indian tribes are totally exempt as employers.

Title VII is enforced by the Equal Employment

Opportunity Commission (EEOC), which has issued guidelines on discrimination because of sex. These guidelines bar hiring based on stereotyped characterizations of the sexes, classification or labeling of "men's jobs" and "women's jobs," advertising under male and female headings, or preference in the content of the advertising based on sex.

Executive Order 11246, as amended, prohibits discrimination based on sex, as well as on race, color, religion, or national origin, by Federal contractors or subcontractors who perform work under a Federal construction contract exceeding \$10,000. Coverage includes all facilities of the contractor, regardless of whether they are being used in the performance of the Federal contract.

The Office of Federal Contract Compliance Programs (OFCCP) of the U.S. Department of Labor sets policy and regulations for implementation of the Executive order. Revised Order No. 4 issued by OFCCP requires certain nonconstruction contractors with 50 or more employees to take affirmative action by setting goals and timetables for recruiting, hiring, training, and upgrading women and minorities where they have tended to cluster in low paying, dead end jobs.

Equal Employment Opportunity in Construction Regulations, issued in April 1978 by OFCCP, require certain Federal construction contractors or subcontractors to take specific affirmative action steps to insure the participation of women in construction work. These include:

- insuring and maintaining a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractors' employees are assigned to work;
- establishing and maintaining a current list of female and minority recruitment sources;
- developing on-the-job training opportunities or participating in training programs for the area, which expressly include women and minorities, and
- directing recruitment efforts to female, minority, and community organizations; schools with minority and female students; and minority and women's recruitment and training organizations which should be notified of openings at least 30 days prior to the acceptance of applications for apprenticeship or other training.

The regulations, which took effect on May 8, 1978, set goals of 3.1 percent for the first year, 5 percent for the second year, and 6.9 percent for the third year.

Equal Employment Opportunity in Apprenticeship Regulations, issued in May 1978 by the Department of Labor, contain new provisions governing the employment of women in apprenticeship. The revised regulations, which took effect on June 12, 1978, amended 29 CFR, Part 30, of April 8, 1971, which covers equal employment opportunity in apprenticeship. Sponsors of apprenticeship programs recognized by the Bureau of Apprenticeship and Training of the U.S. Department of Labor must take affirmative action to recruit and hire women for apprenticeship training. A goal of not less than 50 percent of the proportion of women in the labor force in the program sponsor's labor market area has been set for entry-level apprenticeship classes. This will result in a goal of 20-percent women in most parts of the country. Goals for classes beyond the entry level will be based on participation of women in the previous year's classes.

Under the amended regulations, apprenticeship program sponsors must adopt written affirmative action plans that include adequate provision for outreach and positive recruitment that would reasonably be expected to increase female and minority participation in apprenticeship. The written plan will set forth the specific affirmative action steps that the sponsor intends to take to increase partici-

pation of women and minorities in the program. Some of these actions might include:

- dissemination of general information about the nature of apprenticeship and specific information about the requirements for admission to the program, the availability of openings, and the sponsor's equal employment opportunity policy;
- dissemination of information about openings to the Department of Labor, local schools, employment service offices, women's centers, outreach programs and community organizations that can effectively reach women and minorities, and through local newspapers.
- participation in outreach and recruitment programs and pre-apprenticeship training programs designed to assist women and minorities gain admission to apprenticeship. If no such programs exist in the sponsor's area, programs, including those which prepare and encourage women to enter traditionally male programs, should be initiated by the sponsor;
- use of applicants from pre-apprenticeship and preparatory trade training programs, and
- waiver of maximum age requirements.





Appendix A

Bibliography on Women and Apprenticeship

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Apprenticeship and Other Blue Collar Job Opportunities for Women. 31 pp. 1978. Women's Educational Equity Communications Network. Available from: WEECN, 1855 Folsom Street, San Francisco, CA 94103, \$2.50.

"The Blue Collar Scholar: Vocational Schools," *Consumer Survival Kit.* 24 pp. March 1978. Available from: Maryland Center for Public Broadcasting, Owings Mills, MD 21117.

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Earning a Breadwinner's Wage: Nontraditional Jobs for Women on AFDC. 48 pp. 1978. Women's Enterprises. Available from: Women's Enterprises of Boston, 739 Boylston St., Boston, MA 02116, \$2.

Fortune Telling: A Program for Girls About Women, Work, and Nontraditional Occupations. 53 pp. 1977. Boston Young Women's Christian Association. Available from: Fortune Telling Coordinator, Boston YWCA, 140 Clarendon St., Boston, MA 02116, \$8.50.

Getting Ready for Work. 29 pp. 1978. Wider Opportunities for Women. Available from: WOW, 1649 K St., NW., Washington, DC 20006, \$3.50.

I Can Be Anything: Careers and Colleges for Young Women. 315 pp. Joyce Slayton Mitchell. 1978 revised ed., College Entrance Examination Board.

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Workers and Allies: Female Participation in the American Trade Union Movement. 96 pp. Judith O'Sullivan and Rosemary Gallick. 1978. Smithsonian Institution Press. Available from: U.S. Government Printing Office, Washington, DC 20402, \$2.

Working for You: A Guide to Employing Women in Non-Traditional Jobs. 28 pp. **Wider Opportunities for Women.** Available from: WOW, 1649 K Street NW., Washington, DC 20006, \$2.25.

Department of Labor Publications

Women's Bureau

(Single free copies available from national and regional offices. See Appendix B.)

Better Jobs for Women. Model of a Denver YWCA project originally funded by CETA to recruit and place women in skilled jobs training or apprenticeship programs. 60 pp. 1978.

Increasing Job Options for Women: A Conference Guide. "How-to" guide for planning and holding a

conference with employers, unions, women's groups, and individuals on nontraditional jobs for women. 32 pp. 1978.

New Regulations To Help Open Nontraditional Jobs to Women. Information leaflet on Department of Labor's new regulations on equal employment opportunity for minorities and women in the construction industry and in apprenticeship. 2 pp. 1978.

Nontraditional Occupations for Women. Model of the CETA-funded project of the same name sponsored by the Boston YWCA, which has trained women for skilled blue-collar jobs. 79 pp. 1978.

Sources of Assistance for Recruiting Women for Apprenticeship Programs and Skilled Nontraditional Blue-Collar Work. National, State, and local sources of information and programs, grouped by the Department of Labor's 10 regions. 1978.

Women in Nontraditional Employment: A selected list of publications, slides, and films. Directory of publications and audiovisuals about nontraditional jobs and affirmative action for women. 7 pp. 1978.

Working With Employers To Develop Jobs: A Workshop Model. "How-to" guide to planning and holding a workshop with employers to increase placement of women in nontraditional jobs. 20 pp. 1978.

Bureau of Apprenticeship and Training
(Free copies available from national and regional offices. See Appendix C.)

Apprenticeship Past and Present. Information about apprenticeship from historical and current perspectives. 28 pp. 1977.

Directory for Reaching Minority and Women's Groups. Names and addresses of national and local minority and women's organizations interested in employment issues. 284 pp. 1979.

The Federal Committee on Apprenticeship. Describes the purpose and functions of the Federal Committee on Apprenticeship. 13 pp. 1978.

The National Apprenticeship Program. Outlines the structure and purpose of the national apprenticeship system. (Under revision)

BAT also publishes national apprenticeship and training standards booklets for almost all federally registered apprenticeship programs. These booklets contain detailed information about minimum qualifications, duties, courses of instruction, and on-the-job-work schedules for each industry or trade.

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Appendix B

Women's Bureau Regional Offices

Region I

1700-C JFK Building
Boston, MA 02203
(Connecticut, Maine, Massachusetts
New Hampshire, Rhode Island, Vermont)

Region II

1515 Broadway-Room 3575
New York, NY 10036
(New Jersey, New York, Puerto Rico, Virgin
Islands)

Region III

15230 Gateway Building
3535 Market Street
Philadelphia, PA 19104
(Delaware, District of Columbia, Maryland, Pennsyl-
vania, Virginia, West Virginia)

Region IV

1371 Peachtree Street, NE, Room 737
Atlanta, GA 30309
(Alabama, Florida, Georgia, Kentucky, Mississippi,
North Carolina, South Carolina, Tennessee)

Region V

230 South Dearborn Street, 8th Floor
Chicago, IL 60604
(Illinois, Indiana, Michigan, Minnesota, Ohio, Wis-
consin)

Region VI

555 Griffin Square Building, Room 863
Griffin and Young Streets
Dallas, TX 75202
(Arkansas, Louisiana, New Mexico, Oklahoma,
Texas)

Region VII

2511 Federal Building
911 Walnut Street
Kansas City, MO 64106
(Iowa, Kansas, Missouri, Nebraska)

Region VIII

1432 Federal Building
1961 Stout Street
Denver, CO 80202
(Colorado, Montana, North Dakota, South Dakota,
Utah, Wyoming)

Region IX

11411 Federal Building
450 Golden Gate Avenue
San Francisco, CA 94102
(Arizona, California, Hawaii, Nevada)

Region X

3032 Federal Office Building
909 First Avenue
Seattle, WA 98174
(Alaska, Idaho, Oregon, Washington)

Appendix C

Bureau of Apprenticeship and Training Regional Offices

Region I

JFK Federal Building, Room 1001
Government Center
Boston, MA 02203
(Connecticut, Maine, Massachusetts, New Hamp-
shire, Rhode Island, Vermont)

Region II

1515 Broadway and 44th Street, Rm 3731
New York, NY 10036
(New Jersey, New York, Puerto Rico, Virgin
Islands)

Region III

Gateway Building
3535 Market Street
P O Box 8796
Philadelphia, PA 19101
(Delaware, Maryland, Pennsylvania, Virginia, West
Virginia)

Region IV

1371 Peachtree Street NE
Room 700
Atlanta, GA 30309
(Alabama, Florida, Georgia, Kentucky, Mississippi,
North Carolina, South Carolina, and Tennessee)

Region V

230 South Dearborn Street
7th Floor--Column #5
Chicago, IL 60604
(Illinois, Indiana, Michigan, Minnesota, Ohio, Wis-
consin)

Region VI

555 Griffin Square Building
 Griffin & Young Streets
 Room 858
 Dallas, TX 75202
 (Arkansas, Louisiana, New Mexico, Oklahoma,
 Texas)

Region VII

Federal Office Building, Room 1100
 911 Walnut Street
 Kansas City, MO 64106
 (Iowa, Kansas, Missouri, Nebraska)

Region VIII

U.S. Custom House, Room 476
 721 19th Street
 Denver, CO 80202
 (Colorado, Montana, North Dakota, South Dakota,
 Utah, Wyoming)

Region IX

Room 344
 211 Main Street
 San Francisco, CA 94105
 (Arizona, California, Hawaii, Nevada)

Region X

8014 Federal Office Building
 909 First Avenue
 Seattle, WA 98174
 (Alaska, Idaho, Oregon, Washington)

Appendix D

State Apprenticeship Agencies

Apprenticeship Services
 Department of Economic Security
 P.O. Box 6123
 Phoenix, AZ 85005

Division of Apprenticeship Standards
 Department of Industrial Relations
 Room 3230-455 Golden Gate Avenue
 San Francisco, CA 94102

Colorado Apprenticeship Council
 Division of Labor
 Room 314-1313 Sherman Street
 Denver, CO 80203

Apprentice Training Division
 Labor Department

200 Folly Brook Boulevard
 Westfield, CT 06109

D.C. Apprenticeship Council
 605 G Street, NW
 Washington, DC 20001

Apprenticeship and Training Council
 Department of Labor
 Division of Industrial Affairs
 6th Floor, State Office Building
 820 North French Street
 Wilmington, DE 19801

Bureau of Apprenticeship
 Division of Labor
 Florida Department of Labor and Employment
 Security
 1321 Executive Center Drive, East
 Tallahassee, FL 32301

Apprenticeship Division
 Department of Labor and Industrial Relations
 825 Mililani Street
 Honolulu, HI 96813

Apprenticeship Section
 Division of Labor-Management Relations and
 Employment Standards
 Kansas Department of Human Resources
 610 West 10th-2nd Floor
 Topeka, KS 66612

State Apprenticeship Council
 Kentucky Department of Labor,
 Division of Labor Standards
 1512 Crums Lane
 Louisville, KY 40216

Division of Apprenticeship
 Department of Labor
 1045 Land & Natural Resources Building
 P.O. Box 44094
 Baton Rouge, LA 70804

Bureau of Labor—State Office Building
 Maine Apprenticeship Council
 Augusta, ME 04333

Apprenticeship and Training
 Maryland Apprenticeship and Training Council—
 Room 1108
 Department of Labor and Industry
 203 East Baltimore Street
 Baltimore, MD 21202

Division of Apprentice Training
 Department of Labor and Industries

Leverett Saltonstall Building
100 Cambridge Street
Boston, MA 02202

Division of Voluntary Apprenticeship
Department of Labor and Industry
Space Center Bldg.-5th Floor
444 Lafayette Road
St. Paul, MN 55101

Apprenticeship Section
Division of Labor Standards
Department of Labor & Industry
Capitol Station
35 South Last Chance Gulch
Helena, MT 59601

Nevada Apprenticeship Council
Department of Labor—Capitol Complex
505 East King Street—Room 601
Carson City, NV 89710

Commissioner of Labor
New Hampshire Apprenticeship Council
Department of Labor
1 Pillsbury Street
Concord, NH 03301

New Mexico Apprenticeship Council
Labor and Industrial Commission
2340 Menaul, NE.—Suite 212
Albuquerque, NM 87107

Apprentice Training
Department of Labor
The Campus Bldg., #12—Room 428
Albany, NY 12240

Division of Apprenticeship Training
North Carolina Department of Labor
P.O. Box 27407
Raleigh, NC 27611

Ohio State Apprenticeship Council
Department of Industrial Relations
2323 West Fifth Avenue—Room 2250
Columbus, OH 43215

Apprenticeship and Training Division
State Office Bldg.—Room 466
1400 SW Fifth Avenue
Portland, OR 97201

Apprenticeship and Training
7th & Forester Streets
Department of Labor and Industry
Labor & Industry Bldg.—Room 1547
Harrisburg, PA 17120

Apprenticeship Division—P.O. Box 4452
Department of Labor
Right to Employment Administration
San Juan, PR 00936

Rhode Island Apprenticeship Council
Department of Labor—220 Elmwood Avenue
Providence, RI 02907

Utah Apprenticeship Council
28 East 2100 South
Chapman Plaza Bldg.—Suite 104
Salt Lake City, UT 84115

Vermont Apprenticeship Council
Department of Labor and Industry
120 State Street
Montpelier, VT 05602

Division of Apprenticeship Training
Department of Labor and Industry
205 North 4th, P.O. Box 12064
4th and Grace Streets
Mezzanine Floor
Richmond, VA 23241

Division of Apprenticeship and Training
Department of Labor
Christiansted, St. Croix
VI 00820

Apprenticeship & Training Division
Department of Labor and Industries
318 East 4th Avenue
Olympia, WA 98504

Division of Apprenticeship & Training
Department of Industry, Labor and Human Relations
P.O. Box 7946
Madison, WI 53707

Appendix E

Apprenticeship Information Centers

Alabama

1818 8th Avenue, North
Birmingham, AL 35203

Arizona

207 East McDowell
Phoenix, AZ 85004

California

161 West Venice Boulevard
Los Angeles, CA 90015

235 12th Street
Oakland, CA 94607

Colorado

251 E. 12th Avenue
Denver, CO 80203

Connecticut

100 Arch Street
New Britain, CT 06109

District of Columbia

555 Pennsylvania Avenue, NW
Washington, DC 20212

Georgia

One Peachtree St. NE
Atlanta, GA 30303

Illinois

150 N. Clinton Street
Chicago, IL 60606

Indiana

745 Washington Street
Gary, IN 47402

141 W. Georgia Street
Indianapolis, IN 46225

Kansas

512 W. 6th Street
Topeka, KS 66604

402 E. Second Street
Wichita, KS 67202

Massachusetts

189 Massachusetts Avenue
Boston, MA 02115

Maryland

1100 N. Eutaw Street
Baltimore, MD 21201

Michigan

7310 Woodward Avenue
Detroit, MI 48202

Minnesota

407 W. Superior Street
Duluth, MN 55802

309 Second Avenue South
Minneapolis, MN 55401

390 N. Robert Street
St. Paul, MN 55101

Missouri

1411 Main Street
Kansas City, MO 64105

505 Washington Avenue
St. Louis, MO 63101

New Jersey

1433 Bacharach Boulevard
Atlantic City, NJ 08401

32-40 N. Van Brunt Street
Englewood, NJ 07631

517 Federal Street
Camden, NJ 08101

1004 Broad Street
Newark, NJ 07102

65 Morris Street
New Brunswick, NJ 08903

370 Broadway
Paterson, NJ 07501

New York

488 Broadway
Albany, NY 12207

730 Fillmore Avenue
Buffalo, NY 14212

344 Fulton Avenue
Hempstead, NY 11550

255 W. 54th Street
New York, NY 10019

155 W. Main Street
Rochester, NY 14614

North Carolina

235 N. Edgeworth Street
Greensboro, NC 27402

Oregon

432 W. 11th Avenue
Eugene, OR 97424

1437 SW. Fourth Avenue
Portland, OR 97201

Pennsylvania

1709 S. Broad Street
Philadelphia, PA 19148

915 Pennsylvania Avenue
Pittsburgh, PA 15222

Rhode Island

40 Fountain Street
Providence, RI 02903

Tennessee

1295 Popular Avenue
Memphis, TN 38104

1802 Hayes Street
Nashville, TN 37203

Virginia

5145 E. Virginia Beach Boulevard
Norfolk, VA 23502

318 E. Cary Street
Richmond, VA 23219

Washington

1904 3rd Avenue
Seattle, WA 98101