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A COOPERATIVE VOCATIONAL EDUCATION TEACHER-COORDINATOR'S
GUIDE TO APPRENTICE TRAINING

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Commissioner of Education

Prepared under the direction of the
Bureau of Occupational Programs
Division of Vocational Education
As a Grant From
The School-to-Work Linkage Project

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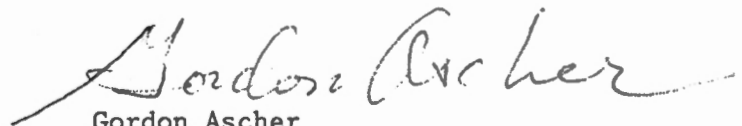
FOREWORD

The role of the cooperative vocational education teacher-coordinator today has broadened since its inception in the early 1960s. No longer can teacher-coordinator competency be measured only by the number of students placed in jobs.

Today, with increasing frequency, job placement does not guarantee job advancement and long-term economic security. There is no question that in this age of advancing technology, increased mechanization, dwindling economic resources and more job applicants than job openings, employers are becoming highly selective and are seeking those with the skills, attitudes, maturity and versatility needed to raise productivity levels and help them move into the 21st Century. The teacher-coordinators' effort, therefore, must not focus solely on assisting the vocationally oriented student to find an entry-level job while still in school, but must also emphasize lifetime occupational development.

"A Cooperative Vocational Education Teacher-Coordinator's Guide to Apprenticeship Training" is a publication of the New Jersey State Department of Education, Division of Vocational Education. The guide was requested by teacher-coordinators who need to learn more about training opportunities. While we understand that many teacher-coordinators have long been working in the field and are very knowledgeable about the career ladder offered through formal apprenticeship training, we believe a document which clearly presents the process and opportunities is long overdue.

This publication provides answers to questions about apprenticeship training. Combined with the skill and assistance of dedicated teacher-coordinators, it will assist educational institutions in New Jersey to meet their changing cooperative vocational education responsibilities. We are grateful to the many persons who contributed to this important effort.



Gordon Ascher
Assistant Commissioner of Education
Division of Vocational Education
June 1, 1983

PART I

APPRENTICESHIP: YESTERDAY AND TODAY

APPRENTICESHIP: YESTERDAY AND TODAY

It is predicted that by 1985 cooperative vocational education enrollments in this country will have reached the two million mark. Some of the enrollees will have entered a cooperative education program as a means of earning enough money to stay in school, others as a means of finding themselves, and still others as a means of learning an entry-level skill.

There is a seldom-considered option available--apprentice training--which is particularly valuable to this latter group of students who want more than "just a job." A cooperative vocational education teacher-coordinator has the potential for linking such valuable training to these highly motivated students.

Success of the linkage includes a basic knowledge of what apprentice training is, and what it can do to assist students in pursuing their career goals. This part of the guide will provide: historical information leading to the development of apprentice training as we know it today; an overview of present day apprenticeship; and a summary of the benefits of apprenticeship to both students and employers.

History of Apprenticeship

Apprenticeship is a custom that goes back to antiquity, when fathers handed down to their sons craft skills along with tribal lore. As far back as the Code of Hammurabi, there is evidence of the legal regulation of apprentices. Later, as economic life became more complex and jobs became more specialized, the practice of indenturing youth to craftsman began. Increased specialization also fostered the banding together of craftsmen into guilds, a practice in which modern trade unions find their roots.

During the Middle Ages, the control of apprenticeship gradually passed from the guilds to the State, and in 1562, the first public apprenticeship law was enacted in England. In America, the apprenticeship system began when children from England were indentured to the early settlers in the manner of the English guilds. Under the law, the master was required to teach the apprentice reading, writing and arithmetic, as well as the skills of a trade. For young people who could not afford to attend the private schools of the period, apprenticeship was the primary way to obtain a formal education.

The Industrial Revolution of the 19th Century caused the manual crafts to decline in prominence and largely destroyed the personal relationship between master and apprentice in some trade areas. In 1937, the 75th Congress enacted the Fitzgerald Act. This act established the Federal Bureau of Apprenticeship and Training and gave to the U.S. Secretary of Labor the responsibility of formulating and promoting labor standards necessary to safeguard the welfare of apprentices.

An Overview of Apprenticeship Today

Today's highly organized system of apprenticeship has been in operation since 1937. This system uses on-the-job training and related theory instruction to help a worker learn a skilled trade or technological occupation.

There are over 700 identified apprenticeable occupations at present with new ones being added as the need arises. They range from the age-old occupations such as horseshoer to the contemporary such as cable splicer, and from the familiar such as carpenter to the obscure such as orthotics technician.

No matter what the occupation, the federal government has established minimum basic training standards to enable an apprentice to develop the highest degree of skill possible and to protect the apprentice as an employed worker. Such standards include: a minimum age requirement; a formally approved, written agreement between sponsor and apprentice to learn a single, specific occupation; closely supervised on-the-job training; specified number of hours of related instruction; a specified time period for completion of training; a specified range of skill achievement; a graduated wage schedule based on training progress; and intensive safety instruction.

The federal government also has established regulations on non-discrimination in apprentice training programs, and each state now has an equal opportunity plan consistent with these regulations in order to encourage entrance of women, minorities and handicapped persons into apprentice training programs.

While some progress has been made in the last two decades, many individuals, especially women, still do not consider the apprenticeship route. At present, out of 9,916 registered apprentices in New Jersey, only 104, or not quite 1.05 percent, are women. One reason many women fail to investigate this type of training opportunity is the misconception that apprenticeships are limited to the construction trades. It is important to inform all students about the wide range of apprenticeship opportunities, especially those in emerging fields such as electronics, computers, and energy.

Special Benefits of Apprenticeship

These days, when unemployment soars in a highly competitive job market and even qualified persons are frustrated by not being able to find suitable jobs, apprentice training offers young people, still in school, a chance to earn money and work at a job, using the tools, machines, instruments and methods currently in use in that job. Many other "work/learn" type programs, including cooperative vocational education, also offer young persons the same chance. While all types of "work/learn" programs are similar in their "earning/learning" component, they are not similar in terms of benefits. Apprentice training programs clearly have the edge, being beneficial to both the student (apprentice) and the employer (sponsor).

One benefit the young person receives from apprentice training concerns career outcome. While all types of "work/learn" programs offer an opportunity to learn some aspects of an occupation, apprentice training offers an opportunity to gain a thorough knowledge of the entire occupation, not just a part of it. Upon the successful completion of an apprenticeship, the young person is a "certified" journeyman. This certification is very important to the worker, because it offers recognition as "qualified" throughout the industry, wherever the worker may go.

Another benefit concerns pay. While all types of "work/learn" programs give students a chance to simultaneously earn and learn, earnings are usually

little more than minimum wage. In addition, there is no guarantee of wage increases, even if the young person remains with the employer after graduation. Starting pay for those registered in an apprentice training program, is never less than minimum wage and in the building trades, is usually 50 to 60 percent of the journeyperson's going rate. Apprentices making satisfactory progress usually receive pay increases every six months. During the last six months of the training, apprentices earn between 85 and 90 percent of the journeyperson's wages.

Still another benefit concerns job security. While all types of "work/learn" programs assure students of a job while still in school, they all do not guarantee a job after graduation (though many conscientious cooperative vocational education students are eventually hired full-time by their training sponsors). Apprentice training programs assure apprentices, who are making satisfactory progress, employment throughout the term of their apprenticeship. The employer (sponsor), who has been training the young person for this extensive amount of time, almost always chooses to retain that person after the apprenticeship is completed, since the apprentice's value to the employer increases with his or her increasing skills. If the employer should have no work at the conclusion of the apprenticeship, the skilled worker, who by this time would be a certified journeyperson, has an excellent chance of being hired by another employer, since current statistics and future projections indicate that there are significantly more jobs available in the skilled trades and technologies than there are workers to fill them.

Apprentice training programs can be highly beneficial to the training employer, as well as the young person in training. For the employer, apprentice training can improve overall employer-employee relations, increase worker productivity, minimize the need for worker supervision, minimize the likelihood of high worker turnover and, in general, raise skill levels in business and industry.

PART II

PRACTICAL ASPECTS OF APPRENTICE TRAINING IN NEW JERSEY

PRACTICAL ASPECTS OF APPRENTICESHIP TRAINING IN NEW JERSEY

A general understanding of apprenticeship is beneficial in proceeding to a more specific understanding of the practical aspects of apprentice training in New Jersey.

The primary purpose of this part of the guide will be to provide a detailed operational description of New Jersey's apprentice training programs. Information on the minimum standards which must be met for admittance into such programs is also included in this section.

How Apprentice Training Programs Operate

In New Jersey, apprentice training programs operate under the auspices of the Bureau of Apprenticeship and Training (BAT), an agency of the United States Department of Labor, and the Division of Vocational Education, the state agency for New Jersey's Apprentice Training Programs. The Division approves the related curriculum which comprises individual programs. Those who train under apprenticeships, therefore, are dual participants in the National Apprenticeship Training Program and the New Jersey Apprenticeship Training Program.

Actual training is carried out by a "sponsor," in accordance with standards jointly developed by the sponsor and designated representatives from the BAT and the Vocational Division. A sponsor is an employer, including organizations, corporations or large companies, or individual small employers.

Before training starts, both apprentice and sponsor sign a written agreement which provides that the training and experience received be in accordance with both federal and state standards of apprenticeship (see Appendix for sample). Completion and filing of this agreement is aided by either the local apprentice coordinator, employed by a public vocational school district, or a local area training representative from the BAT.

Shortly thereafter, the employer will receive a "Certificate of Approval for Apprentice Training," which approves the employer as a recognized sponsor of apprentice training, and the employee will receive an "Apprentice Training Card," which identifies the individual as a bona fide apprentice with all accompanying rights and privileges (see Appendix for sample). Both employer and employee will also receive a copy of the signed, formal agreement along with a "Work Process," which is the apprentice's training program outlined in general terms. Sample "Work Processes" for each cooperative vocational education discipline are provided at the end of this section.

The training period for a registered in New Jersey is not less than 2,000 hours, with the average program running 4,000 to 8,000 hours. Apprentice training programs are comprised of both on-the-job training and related theory instruction. The importance of related instruction cannot be overemphasized, since it is through a carefully planned combination of on-the-job training and related theory instruction that a person becomes a master tradesperson or technician.

For a specified period each week, the apprentice receives a thorough understanding of the theoretical aspects of his or her work through related instruction. A minimum of 144 hours of such instruction for each year of an apprentice training program are required. (This instruction is most frequently organized into three-hour periods, twice a week, during a 26-week school year.) Related instruction is generally provided through a public vocational school program. In areas where there is no vocational program, instruction may be provided through a technical school, community college, in-plant training station or state-approved correspondence school. Adequate and safe equipment and facilities are furnished, and safety training for apprentices on the job and in related instruction is provided.

Detailed study and work records are kept, and the training progress of the apprentice is evaluated frequently.

A probation period (usually 30 days to six months) is part of all apprentice training programs. During the probation period, the apprenticeship agreement may be canceled by either apprentice or sponsor without stated cause. After the probation period, the agreement may be canceled by the sponsor for cause, or at the request of the apprentice.

In addition to receiving a "Certificate of Completion of Apprenticeship," an apprentice may be eligible to receive college credit hours upon completion of the training program. Such credit is available by evaluation through Thomas A. Edison College, New Jersey's college of external degree programs. Other colleges may also offer credit on an individual basis.

General Entrance Requirements

Requirements for entrance into an apprentice training program vary somewhat from sponsor-to-sponsor and from occupation-to-occupation. Generally, however, a potential candidate must meet the following minimum standards before being considered for an apprentice training slot:

Age:

- Attainment of the minimum legal working age, which is 16 for non-hazardous occupations and 18 for hazardous occupations.*

Education:

- A high school diploma or its equivalency. Some sponsors waive this requirement.*

* It must be noted that both the age requirement and the education requirement may be waived by the sponsor for students enrolled in an approved cooperative vocational education program. Qualified cooperative vocational education students may register in apprentice training programs prior to high school completion and prior to reaching the age of 18 (in hazardous occupations) through the School-to-Work Linkage Project, a program whose operation is discussed in the next part of this guide.

Aptitude:

- Aptitude appropriate to the occupation. Aptitude tests are sometimes administered, especially for those programs sponsored by organized labor, to measure a person's capacity to acquire proficiency with training.

Manual Dexterity:

- At least ordinary manual dexterity. Tests to determine manual dexterity are sometimes administered, especially for those programs involving the construction trades, since an apprentice must work with both hands and head.

Health:

- The ability to accomplish the physical requirements of the craft, trade or technological occupation. Exams are sometimes given to determine an applicant's physical condition.

Attitude:

- A willingness to abide by the rules and regulations of the sponsor. Interviews are usually given to determine an applicant's attitude.

Other:

- Probationary and/or other preliminary employment requirements. Union-sponsored and corporate-sponsored programs often set such requirements.

SAMPLES OF WORK PROCESSES FOR
EACH OF THE COOPERATIVE VOCATIONAL EDUCATION
OCCUPATIONAL DISCIPLINES

1. Agriculture, Agribusiness and Natural Resources
Floral Designer (619.360-014)
2. Health Occupations
Dental Technician (712.381-018)
3. Trade and Industry
Building Service-Maintenance Repairer (899.381-010)
4. Business and Office Occupations
Data Processing Technician (213.382-010)
5. Marketing and Distributive Education
Quality Assurance Inspector - Clothing & Textiles (168.287-014)
6. Home Economics and Consumer Education
Child Care Development Specialist (359.342-540)

WORK PROCESS
FLORAL DESIGNER
DOT 619.360-014
one year

This schedule is intended as a guide and may be varied from time to time as working conditions require.

	<u>HOURS</u>
1. Conditioning and handling of flowers	300
2. Basic Arrangements	200
3. Design concept, balance, color, texture and harmony	50
4. Salesmanship	25
5. Telephone Orders	25
6. Basic Bench Operations	100
7. Taping, stemming and wiring of flowers and greens	100
8. Making of bows	25
9. Designing a nosegay	50
10. Hospital, holiday, and novelty arrangements	100
11. Funeral arrangements	300
12. Casket heart and spray	200
13. Wedding designs and bouquets	300
14. Baskets	50
15. Silk and dried arrangements	100
16. Foliage and flowering plants	<u>75</u>
TOTAL HOURS 2,000	

The apprentice shall be trained in all safety practices related to the tasks performed within the apprentice training program.

WORK PROCESS
DENTAL TECHNICIAN
D.O.T. 712.381-018
6,000 hours

<u>Outline</u>	<u>Approximate Hours</u>
1. Use and Care of Equipment	500
a. Operation of gold casting machines	
b. Operation and care of burn-out ovens	
c. Operation and care of hand drills, motors and vibrators	
2. Plaster Work	1500
a. Mixing of different types of plasters	
b. Pouring molds of impressions	
3. Die Work	500
a. Preparing different types of tube impressions	
b. Grinding hardened dies to proper margins and placements into impressions	
4. Plastic Veneering	500
a. Carving different molds of teeth	
b. Investing wax molds into plaster molds	
c. Boiling out and cleaning of plastic molds	
d. Selecting and formulating basic shades, packing, curing and finishing of plastic teeth	
5. Gold - Primary work	500
a. Waxing, investing and burning out prepared wax forms	
b. Milting, casting and finishing of gold crowns	
6. Stationary Bridge Work	
a. Assemble cast gold abutments and add selected type of pontics	
b. Invest and solder selected type into one unit	
c. Finish and polish completed case	
7. Acrylic Work	1500
a. Take matrix of prepared die	
b. Formulate and adapt porcelain to matrix for completion of inlays and jackets	
c. Strip matrix and make final adaption to die	
8. Acrylic Bridgework	500
a. Construct platinum shells and bars for framework to be used in porcelain bridgework	
b. Carve and complete bridgework	
Total	6000

The Apprentice shall be trained in all safety practices relating to every operation.

WORK PROCESS
BUILDING SERVICE MAINTENANCE REPAIRER
DOT 899.381-010

1.	Use and care of tools used in the trade	100 hours
2.	Knowledge of parts used in the trade	400 hours
3.	Thermostat and controls repair and calibration	200 hours
4.	Building maintenance and repair	1,000 hours
5.	Safety	100 hours
6.	Power Machinery & Equipment	200 hours
7.	Heating & Cooling Systems - all types	1,000 hours
8.	Operation of refrigeration systems	500 hours
9.	Miscellaneous	500 hours
TOTAL HOURS		<u>4,000</u>

The apprentice shall be trained in all safety practices of each operation.

Note: This schedule is intended as a guide, and may be varied from time to time as working conditions require.

WORK PROCESS
DATA PROCESSING TECHNICIAN (OPERATIONS)
DOT 213.382-010
TERM OF APPRENTICESHIP - 2,000 hours

1.	Operate alphabetic & numeric key-punch machine.	600
2.	Converts alphabetic, numeric, and symbolic data into coded form on punch-cards or tapes.	300
3.	Proofreads typed copy (continuous).	
4.	Operates on-line or off-line peripheral machines.	200
5.	Brings up the system to operational. Loads batches, sets guides keys, and switches, produces reports.	300
6.	Labels storage, routes reports, keeps supervisors informed of malfunctions and system difficulties.	200
7.	Schedules work load to match needed production.	150
8.	Oversees reschedules, handles minor errors.	150
9.	Reprograms minor corrections, keeps down time records, initials accuracy of all reports.	100
	TOTAL HOURS	2,000

The apprentice shall be trained in all safety practices relating to every operation.

WORK PROCESS SCHEDULE
CHILD CARE DEVELOPMENT SPECIALIST
DOT Code: 359.342-540

	Approximate Hours
1. ORIENTATION	50
A. Safety Training	
(1) Procedures to ensure safety of the children	
(2) Physical plant and equipment including fire hazards and emergency equipment operation including evacuation procedures	
(3) Plumbing, sanitation, and electrical equipment	
(4) Catastrophic measures and warning systems	
(5) Toys and equipment inspection and reporting procedures	
2. HEALTH AND FIRST AID	500
A. Basic Red Cross First Aid program instruction	
B. Identification and proper procedures for minor injuries - abrasions, cuts, bruises, fall, etc., and reporting procedures	
C. Handicapped or incapacitated persons transportation and handling	
D. Medical and hospital facilities, emergency policies and liability	
E. Recognition, monitoring, and reporting symptoms of:	
(1) Communicable diseases	
(2) Conditions (abnormal) and maladies	
(3) Physical ailments	
F. Observation and identification of children with special needs	
(1) Description and observation of special needs	
(2) Appropriate techniques for working with special needs children	
(3) Reporting, referral, and recording procedures	
G. Policies and liability for procedures regarding treatment and/or medication	

- 3. ADMINISTRATION PROCEDURES AND POLICIES 50
 - A. Relationship of Day Care Center to:
 - (1) Sponsoring agency
 - (2) Federal, State and local regulations
 - (3) Other related community service agencies
 - B. Liability -- personal and organizational
 - C. Worker accountability and responsibility and reporting
 - D. Budgeting sources and program expenditure recordkeeping
 - E. Personnel policies and benefits
 - F. Administrative records and forms completion
- 4. CHILD NUTRITION AND HYGIENE 1000
 - A. Recognition, reporting and recording of symptoms of malnutrition, child neglect and abuse
 - (1) Observation and assistance with feeding the handicapped
 - (2) Food preparation and meal patterns and serving
 - (3) Table manners and personal hygiene instruction to children
 - B. Appropriate nutritional requirements for different age groups
 - (1) State standards
 - (2) U.S. Department of Agriculture standards Sanitation and cleanliness instruction and procedures
- 5. CHILD DEVELOPMENT OBSERVATION AND TRAINING 1000
 - A. Grouping of children
 - (1) Age group classification
 - (2) Activity ability grouping
 - (3) Leader/child ratio
 - B. Experience with developmental levels through instruction, observation, and performance recording techniques
 - (1) Physical development
 - (2) Social and emotional development
 - (3) Mental development
 - (4) Peer group relationships
 - (5) Authority relationships
 - (6) Behavior patterns
- 6. CHILD SUPERVISION 500
 - A. Learning process techniques
 - (1) Teacher directed activities
 - (2) Free play (supervised)
 - B. Discipline and guidance techniques

- 7. ACTIVITY SUPERVISION AND DIRECTION 500
 - A. Group activity supervision
 - (1) Smaller groups
 - (2) Entire group
 - B. Individual activity supervision
 - C. Child creativity recognition and activity supervision
 - D. Use of physical space and relation to appropriate activity supervision
- 8. CONSULTATION TECHNIQUES 400
 - A. Staff consultation
 - (1) Oral presentation
 - (2) Listening techniques
 - (3) Written report presentation
 - (4) Data collection, recording and presentation
 - B. Parent consultation
 - (1) Observation
 - (2) Data collection
 - (3) Listening techniques
 - (4) Behavior description and interpretation

The apprentice shall be trained in all safety practices relating to every operation.

WORK PROCESS
QUALITY ASSURANCE INSPECTOR
168.287-014
CLOTHING AND TEXTILES - TERM: 6,000 HOURS

	<u>HOURS</u>
I. INDOCTRINATION	90
A. Standards of Conduct	
B. Safety	
C. Organization of Mission Functions	
D. Organization Structure	
1. Rules	
2. Regulations	
E. Orientation to Quality Assurance Functions	
II. ASSIGNMENTS (ON-THE-JOB TRAINING)	
A. Planning The Job	650
1. Identifying Requirements	
2. Determine Equipment	
3. Determine Sample Size	
4. Prepare For Reports	
B. Use of Inspection Equipment	3,000
1. Safety Requirements	
2. Proper Usage	
3. Calibration of Equipment	
4. Environment For Usage of Equipment	
5. Techniques For Use of Equipment	
C. Use of Specifications	1,060
1. DLAM 8200.1, Appendix C	
2. Specification Interpretation	
D. Report Preparation	500
1. Collect and Record Data	
2. Review Data	
3. Analyze Data	
4. Test Report	
E. Corrective Action	200
1. Determine Level of Action	
2. Recommend Corrective Action	
3. Recommend Action Proposed	
4. Verify Action Taken	
5. Perform Necessary Follow-up Action	
F. Sampling Procedure	300
1. MIL-STD-105	
2. DLAM 8200.2	

3. Designated Sampling

- a. Ratios
- b. Skip Lot

G. Optional Assignments Pertinent to the Area of
Specialization Mutually Beneficial to the Development
of the Apprentice

200

TOTAL HOURS

6,000

PART III

LINKING APPRENTICE TRAINING TO COOPERATIVE VOCATIONAL EDUCATION

LINKING APPRENTICE TRAINING TO COOPERATIVE VOCATIONAL EDUCATION

Apprentice training programs and cooperative vocational education programs in terms of standards and requirements are astonishingly similar. Both have a minimum age requirement, a minimum wage requirement, a formally approved written training agreement, a supervised on-the-job training component, a specified number of hours of related instruction, a specified range of skill achievement and an intensive safety component. The only real major differences in terms of standards and requirements are the length of time the individual works and the length of time the individual receives instruction--the apprentice is a full-time worker and part-time student, while the cooperative vocational education student is a part-time worker and a full-time student.

Recognition of the similarities in the goals, standards and general entrance requirements of the two types of training programs is what prompted the Division of Vocational Education to devise a process which would join the two for the mutual benefit of both. Thus, early in 1979, the Division initiated a linkage program, whereby cooperative vocational education students could begin their apprenticeships while still in high school, thereby speeding up their skill development for employment in skilled trades or technological occupations.

This part of the guide will explain the operation of this linkage program. Information on the benefits derived from participating in this linkage program is also included.

School-to-Work-Linkage

In New Jersey, the program which links apprentice training to cooperative vocational education is called School-to-Work Linkage. This program, operated under the auspices of the Division of Vocational Education, uses features of both the standard apprenticeship program and cooperative vocational education for the benefit of students still in high school.

A high school senior, 16 years of age or older, registered in an approved cooperative vocational education program and employed in an apprenticeable occupation, can be registered as an apprentice with the support of an agreeing employer (sponsor).

While in high school, the student (called a student-learner) is supervised on the job by his or her teacher-coordinator, as well as other supervisors that the employer may assign. The student-learner's general-related and specific-related curriculum is provided by the teacher-coordinator, who evaluates the student's performance and academic progress on a regular basis.

After graduation, the individual assumes a full-time work schedule, as defined in the Apprenticeship Agreement, and proceeds to apprenticeship completion under the supervision of the employer (sponsor), with the help of a Bureau of Apprenticeship and Training and the local apprentice coordinator.

It should be noted that the potential for apprenticeship registration embraces all six cooperative vocational education disciplines (agriculture, agribusiness and natural resources education; business and office education; consumer and home economics education; health occupations; marketing and distributive education; and trade and industrial education). In an industrial society such as ours, the greatest percentage of possibilities for apprenticeships lie within the skilled trade and industrial occupations.

Benefits of Starting an Apprenticeship in High School

Registration as an apprentice while still in high school allows students to earn credits for high school graduation while simultaneously earning hours of on-the-job training that are applied to their apprenticeship. Appropriate credit is also awarded toward the required related technical instruction component of the apprenticeship. This arrangement shortens the time of apprenticeship, enabling the young person to reach journeyperson status at a much earlier age than the average apprentice. Early registration provides students assurance of continuing their training/ employment following graduation.

PART IV

ASSISTING STUDENTS WITH APPRENTICESHIP REGISTRATION

ASSISTING STUDENTS WITH APPRENTICESHIP REGISTRATION

Contrary to popular opinion, the teacher-coordinator does not have to know "someone" to register a cooperative vocational education student as an apprentice. Knowing "how" is the key.

This part of the guide will be to outline the steps necessary to initiate apprentice registration for qualified cooperative vocational education students.

Step 1: Identifying Potential Candidates

Once familiar with the preliminary information in this guide the first step should be to identify those cooperative vocational education students who have potential for entrance into apprentice training programs. A two-page document, called a "Student Profile," (see Appendix for sample), has been recently developed to aid in this identification process. This document represents an ordering and synthesis of the wealth of information in the student's permanent records, including information on vocational interests (either measured or simply stated by the student or parents), aptitudes, achievements and work attitudes.

As each profile is completed and reviewed, an interview with the prospective cooperative vocational education student is in order. During this interview apprentice training should be defined and its advantages and disadvantages should be explained. This interview, combined with the student profile, will assist in the placement of the student in a work/learn environment that holds the potential for apprentice training.

A variety of abilities, aptitudes and personal qualities should be looked for when making the determination. Has the student taken and done well in math, chemistry or physics, industrial arts or manual arts courses or does he or she like drawing or other creative activities? Does the student possess good oral as well as written communication skills? Is the student in good health? Does the student have a good attendance record and is he or she willing to abide by rules and regulations. Is the student ambitious and steadfast, staying at a task until it is completed? Is there evidence of manual dexterity, good memory, a talent for problem solving or an ability to recognize and match forms? In general, any student with the vocational aptitudes, academic competencies, work attitudes and career maturity necessary for craftsmanship should be considered a potential candidate for apprenticeship.

Step 2: Fine Tuning the Match

Having received a job commitment from a local employer with an opportunity for apprenticeship, the next step should be to fine tune the match between the student and the employer. This entails going back to the "Student Profile" to see if the student's qualifications meet the job's requirements. It also entails interviewing the student, once again, to help the student decide whether or not he or she can successfully work under the conditions accompanying the job, some of which may be hazardous, noisy, strenuous or otherwise uncomfortable for that particular student. If possible, this task should be completed early in September.

Step 3: Reinforcing the Apprenticeship Option

During the early part of the school year, reinforce the apprenticeship option with the student during your general related instruction classes. In the course of these classes, the apprentice training program should, once again, be defined, and the benefits to both student and employer (especially student) should be discussed and the responsibilities of all participants (especially student) should be clarified.

During the latter part of the school year, reinforce the apprenticeship option with the cooperating employer during the on-the-job training visits. In the course of these visits, the apprentice training program should once again be defined, the benefits to both student and employer (especially employer) should be discussed and the responsibilities of all participants should be clarified. What may have seemed unlikely in terms of an apprentice-sponsor match in the Fall may seem more and more possible as the year wears on and the student adjusts to the world of work and the employer adjusts to his role as teacher/trainer.

Step 4: Determining Interest and Commitment to Apprenticeship

After the student has worked on the job in an apprenticeable occupation for a reasonable period of time determine both the student's and employer's interest in, and commitment to, apprenticeship. This can be done by seeking out the answers to the following five questions:

1. Is the employer satisfied with the student?
2. Is the student satisfied with the specific occupation?
3. Will the employer offer the student a full-time job?
4. Will the student accept the job offer?
5. Do both parties want to enter into an apprenticeship agreement?

If the answer to all five questions is yes, you should explain, in detail, the "Apprenticeship Standards/Apprenticeship Agreement Joint Approval" to both the student and the employer and then offer your assistance in initiating this agreement.

Step 5: Initiating A Formal Apprenticeship Registration Agreement

Initiating a formal apprenticeship registration agreement is easy. Follow the A-Z instructions outlined below. A copy of this agreement appears on the following page. (Please note that completion of items #1-15 may require information from the cooperative vocational education student, while completion of items #16-28 may require information from the cooperating employer.)

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF APPRENTICESHIP AND TRAINING
ROOM 838-970 BROAD STREET
NEWARK, NEW JERSEY 07102

-26-

☐ New Program
☐ Reg.
☐ Rev.

☐ Vet
☐ Non Vet
☐ Student-Learner

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION
AND CAREER PREPARATION
225 WEST STATE STREET
TRENTON, NEW JERSEY 08625

APPRENTICESHIP STANDARDS/APPRENTICESHIP AGREEMENT JOINT APPROVAL

WORK PROCESSES MUST BE ATTACHED AS REQUIRED

PRIVACY ACT STATEMENT: The information requested herein is used for apprenticeship program statistical purposes and may not be otherwise disclosed without the express permission of the undersigned apprentice. Privacy Act of 1974 - L.L. 93-579. NJAC 6-3-20.

1. Social Security No.		2. Name	
3. Street Address		4. City	5. State
6. Zip Code		Telephone	
7. App. Municipal Code	8. Sex	9. Ethnic Group	W=White AA=Amer. Indian/Alaskan B=Black AP=Asian/Pacific Isle H=Hispanic
10. Vet. Status	Y/N	11. Military Def. Status	Y/N
12. Econ-Disadvantaged	Y/N	Date of Birth	
13. D.O.T. Code	14. Trade Occ. Title		
14A. Date Registered	15. Federal Registration No.		

I have read and understand the conditions of the apprenticeship standards/apprenticeship agreement.

The apprenticeship standards referred to herein are hereby incorporated in and made a part of this agreement.

16. Union Affiliated	Y/N	17. Sponsor Employer Name	County
18. Street Address	19. Telephone Number	Total Employees	
20. State	21. Zip Code	22. Empl. Municipal Code	23. S.I.C. Code Industry
24. Date of Project (Months)	25. Date Appren-tice Began	26. Prior Credit Empl.	
27. Public Vocational School Related Training		Y/N	

Number of Journeys _____ Ratio _____ Journeymen _____ Job Site ☐ Work Force ☐ Department ☐ Plant ☐
Wage Schedule (Construction wages must be expressed in percentage of journeyworker rate)
1st period \$ _____ or _____ % per _____ 8th period \$ _____ or _____ % per _____
2nd period \$ _____ or _____ % per _____ 9th period \$ _____ or _____ % per _____
3rd period \$ _____ or _____ % per _____ 10th period \$ _____ or _____ % per _____
4th period \$ _____ or _____ % per _____

Based on journeyworker rate of \$ _____ for a standard work week of _____ hours. Ratio of Overtime _____ Probationary period _____ months

I have read and understand the conditions of the apprenticeship standards/apprenticeship agreement.

Name and Title of Sponsor's Authorized Official
(Print)

Signature

Date

If Bargaining Agency (Print Name, Local Number)

Signature

Date

Provision for related instructions

Federal Representative		Date	
Registered with the Bureau of Apprenticeship and Training, United States Department of Labor, as incorporating the basic standards recommended by the Federal Committee of Apprenticeship.			
Registered By:		Date	
Bureau of Apprenticeship and Training United States Department of Labor			
State Representative		Date	
Approved by the New Jersey Department of Education, Division of Vocational Education and Career Preparation as incorporating the basic standards set forth in the State Plan for Vocational Education and Career Preparation.			
Approved By:		Date	
New Jersey Department of Education Division of Vocational Education and Career Preparation			
Distr:	Sponsor ☐	Apprentice ☐	State ☐
BAT-Nwk ☐	BAT-Fd ☐	Coord ☐	BAT-Reg ☐
Linkage ☐	Linkage ☐		
STATE USE:	36. Apprenticeship Co. L.E.A.	37. School Training Site Co. L.E.A.	38. Coop. Program Co. L.E.A.
39. Cooperative Linkage	Y/N		

Co-op Teacher Coordinator

Date

20. THE APPRENTICE AND APPRENTICESHIP AGREEMENT

An "apprentice" shall mean an employee of legal working age who meets the qualifications established by the sponsor (age, education, physical, residency requirements, etc., shall be attached if applicable), and who is employed under a written agreement which provides that training and experience received be in accordance with these Standards of Apprenticeship. The apprentice shall be registered with the Bureau of Apprenticeship and Training, U.S. Department of Labor and approved by the Division of Vocational Education and Career Preparation, New Jersey Department of Education, referred to hereafter as the Joint Agencies, as an apprentice and using the approved apprenticeship agreement form for these registrations. The apprentice agreement shall be signed by the sponsor, the apprentice and if the apprentice is a minor, by his parent or guardian.

21. EQUAL OPPORTUNITY PLEDGE

The recruitment, selection, employment and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 CFR, Part 30, as amended. Selection Procedures and Affirmative Action Plan attached, if applicable.

21.(a) Apprentices will be accorded equal opportunity in all phases of apprenticeship as stated above.

22. TERM OF APPRENTICESHIP, PROBATION PERIOD, CANCELLATION, WORK EXPERIENCE, WAGE SCHEDULE; LAYOFF; RATIO; ETC.

The term of apprenticeship shall be as stated on the attached trade schedule(s). Either party or agency may cancel the apprenticeship agreement by notifying the others. During the probationary period the apprenticeship agreement may be cancelled by either party without stated cause. After the probationary period, the agreement may be suspended or cancelled by sponsor for cause, or at the request of the apprentice. The registration and approval agencies and apprentice shall be notified in writing of all suspensions, cancellations, terminations, and completions of apprenticeship together, with reasons applicable. When conditions make it necessary, every attempt will be made to have apprentices laid off in the commensurate ratio of apprentices to skilled workers (journeypersons) in the craft. Any apprentice laid off under this section shall be given the opportunity to be re-employed before any new apprentices shall be employed. When the employer is unable to fulfill his obligation under the apprenticeship agreement the transfer of the employer's training obligation should be made to another employer under the same program with the consent of the apprentice and apprenticeship committee or program sponsor. The ratio of apprentices to journeypersons is determined by the sponsor in consultation with the Bureau of Apprenticeship and Training consistent with the proper supervision, training and continuation of employment. The entry wages of the progressively increasing schedule of wages shall not be less than the Federal or State minimum wage unless a higher wage is required by a collective bargaining agreement.

23. SUPERVISION OF APPRENTICES

The sponsor shall designate a qualified person who will be responsible for the supervision and training of apprentices in accordance with the attached work schedule. Adequate records shall be kept by the sponsor indicating the apprentice's progress as well as current status in the training program by conducting periodic reviews and evaluations in both on-the-job and related instruction.

24. DUTIES OF THE JOINT AGENCIES

The sponsor and apprentice may consult with the representatives of the Bureau of Apprenticeship and Training or the Division of Vocational Education and Career Preparation concerning interpretations of the provisions of these standards.

25. WORKING CONDITIONS

The sponsor agrees to familiarize himself with Federal, State and local laws or regulations which may affect the employment of apprentices under this agreement. Except for related instruction, the workday and workweek should be the same as that of the journeypersons in the trade.

26. RELATED INSTRUCTION

Supplemental related instruction is recognized as necessary to the development of competent journeypersons. The New Jersey State Department of Education, Division of Vocational Education and Career Preparation has the primary responsibility for providing and approving related instruction. This instruction constitutes a minimum of 144 hours for each year of apprenticeship. Exceptions must be approved by the Joint Agencies. Related instruction curriculums are on file.

27. CREDIT FOR PREVIOUS EXPERIENCE

The sponsor may give credit for previous trade experience. Commensurate wage rates shall reflect any advancement of credit. Related instruction credit will be evaluated by the New Jersey Department of Education, Division of Vocational Education and Career Preparation.

28. SAFETY PROVISIONS

Adequate and safe equipment and facilities for training and supervision, and safety training for apprentices on the job and in related instruction shall be furnished.

29. CERTIFICATE OF COMPLETION OF APPRENTICESHIP

Upon completion of apprenticeship, the sponsor will recommend that a Certificate of Completion of Apprenticeship be awarded to the apprentice. The Joint Agencies must verify completion of both parts of training prior to issuance of a Certificate of Completion, by the U.S. Department of Labor, Bureau of Apprenticeship and Training, and the New Jersey Department of Education, Division of Vocational Education and Career Preparation.

30. MODIFICATION OF STANDARDS

Any modification or changes in these standards will be submitted promptly to the Bureau of Apprenticeship and Training for approval of such modification or change. Apprentices employed before such modification shall not be affected without their consent.

31. ADJUSTMENT OF DIFFERENCES

In the event that differences arise as to the interpretation of these standards or the apprenticeship agreement which cannot be satisfactorily settled by the apprentice and the program sponsor, either party may request the advice and assistance of the Bureau of Apprenticeship and Training and/or the Division of Vocational Education and Career Preparation.

32. MAINTENANCE OF RECORDS

All apprenticeship records shall be maintained as required by the Bureau of Apprenticeship and Training or the Division of Vocational Education and Career Preparation, and other applicable laws.

33. MINIMUM QUALIFICATIONS

Minimum qualifications required by Sponsor for persons entering the apprenticeship program will be listed on attached sheet and may include age, education, physical status and residency.

34. Nothing in these standards shall be interpreted as being contrary to the present or subsequent bargaining agreement between an employer or union.

35. DEREGISTRATION

Deregistration of a program may be effected upon the voluntary action of the sponsor, by a request for cancellation of the registration, or upon reasonable cause, by the U.S. Department of Labor, Bureau of Apprenticeship and Training instituting formal deregistration proceedings as prescribed by Title 29 CFR 29.

- A. SECURE a copy of an official registration agreement entitled "Apprenticeship Standards/Apprenticeship Agreement Joint Approval" from your local apprentice coordinator or from your local area training representative (BAT).
- B. CHECK the box marked "Student-Learner" at the top of the form.
- C. COMPLETE
 - #1 - "Social Security No."
 - #2 - "Name"
 - #3 - "Street Address"
 - #4 - "City"
 - #5 - "Zip Code"
- D. LEAVE BLANK
 - #7 - "App. Municipal Code"
- E. COMPLETE
 - #8 - "Sex"
 - #9 - "Ethnic Group"
- F. FILL IN BOX MARKED "Telephone"
- G. LEAVE BLANK
 - #10 - "Vet Status"
 - #11 - "Military Def. Status"
 - #12 - "Econ-Disadvantaged"
- H. FILL IN BOX MARKED "Date of Birth"
- I. COMPLETE
 - #13 - "D.O.T. Code" (see Appendix)
 - #14 - "Trade Occ. Title" (see Appendix)
- J. LEAVE BLANK
 - #14A - "Date Registered"
 - #15 - "Federal Registration No."
- K. LEAVE BLANK line for student's signature and date
- L. COMPLETE
 - #16 - "Union Affiliated" (Y=Yes, N=no)
 - #17 - "Sponsor-Employer Name"
- M. FILL IN BOX MARKED "County"
- N. COMPLETE
 - #18 - "Street Address"
 - #19 - "City"
 - #20 - "State"
 - #21 - "Zip Code"
- O. FILL IN boxes marked "Telephone Number" and "Total Employees"
- P. LEAVE BLANK
 - #22 - "Empl. Municipal Code"
 - #23 - "S.I.C. Code-Industry Type"
 - #24 - "Length of Program (Months)"
 - #25 - "Date Apprentice Began"
 - #26 - "Prior Credit Employment"
 - #27 - "Prior Credit Related Training"
 - #28 - "Public Vocational School Related Training"

- Q. LEAVE BLANK all lines pertaining to ratio and wage schedule.
- R. PRINT the name and title of the Sponsor's authorized official (name of local contact person), but do not attempt to secure the official's signature.
- S. FILL IN the name of the student's vocational school on the line marked "Provision for Related Instruction."
- T. LEAVE BLANK lines requiring the signatures of Federal and State representatives.
- U. LEAVE BLANK boxes pertaining to distribution.
- V. LEAVE BLANK
 - #36 - "Apprentice Approver"
 - #37 - "School Training Site"
 - #38 - "Co-op Program"
 - #39 - "Cooperative Linkage"
- W. SIGN your name and FILL IN the date at the bottom of the agreement.
- X. MAKE two duplicate copies of the original agreement.
- Y. MAIL the original agreement to your local apprentice coordinator (see Part V - Local Apprentice Coordinators Offices) and MAIL one copy to the School-to-Work Linkage Project Office, Division of Vocational Education, CN 500, Trenton, New Jersey 08625.
- Z. FILE one copy in the student's folder.

Step 6: Expediting the Processing of an Apprenticeship Agreement

The length of time it takes to process an apprenticeship agreement (i.e., to register an apprentice) may be as short as six weeks or as long as eight months. To register a student by the time he or she graduates, it is necessary to intervene along the way.

In some instances, speedy registration is critical. One such instance is where a Cooperation Industrial Education (CIE) student, who is under the age of 18 and working in a hazardous occupation, will be graduating from a comprehensive high school in June without a vocational certificate. If such a student is not registered as an apprentice before graduating from high school, he or she will be removed from the job according to the requirements of the Fair Labor Standards and will not be allowed to return to the job until either reaching the age of 18 or becoming registered as an apprentice. Expediting the processing of an apprenticeship agreement is easy, if the route the agreement must travel before being fully registered is understood.

The first stop on the original agreement's journey will be at the office of the local apprentice coordinator. Hand delivery clearly has advantages over mail delivery. This stresses the importance of the need to expedite the registration. If for some reason hand delivery the agreement is not possible at least call the apprentice coordinator and alert him or her to the fact that the partially completed agreement is on its way and that it needed to be

processed in as short a period of time as possible. Upon receipt of the agreement, the apprentice coordinator will arrange for an appointment with both the student and the employer to work out a wage schedule and draft a work process. After securing the signatures of both the employer and the student, the apprentice coordinator will sign the original agreement and forward it to the appropriate area training representative (BAT).

The second stop on the original agreement's journey will be the BAT office in either Newark or Trenton depending on the county in which your school is located. To assure that the agreement reaches the BAT office as quickly as possible, offer to hand-deliver it after the apprentice coordinator completes his/her portion. Upon receipt of the original agreement, an area training representative (BAT) will recheck the apprentice coordinator's work for compliance with federal requirements. If the training site has been previously approved by the BAT, the area training representative will fill in the federal registration number and the date the employer was first registered. The representative will then sign the original agreement and forward it to the Division of Vocational Education. If, however, the training site has not been previously registered, there will be a delay at this point. The agreement will have to be forwarded to the BAT's Region II Office in New York. A phone call requesting that special attention be given to the registration, may be in order. After a training site inspection has been made, a "Certificate for Site Approval" will be mailed to the employer and the original agreement will be mailed back to the appropriate BAT office in Newark for forwarding to the Division of Vocational Education.

The third stop on the original agreement's journey will be at the Office of Apprentice Training within the Division of Vocational Education. After making sure that all the appropriate people have signed the original agreement (student, employer, teacher-coordinator, apprentice coordinator, and area training representative BAT), the Director will sign off on the agreement and prepare "A Certification for Approval for Apprentice Training" and a registration card for the student. The certificate and card, along with the sponsor and student copies of the completed agreement (including work process) will be forwarded to the local apprentice coordinator for distribution. The employer, in turn, will give the card and a copy of the agreement to the student. If time is running short, call the Director of Apprentice Training at the Division of Vocational Education and offer to hand deliver the documents to the apprentice coordinator and/or the sponsor and apprentice.

PART V

HELP WHEN IT'S NEEDED

HELP WHEN IT'S NEEDED

Securing an apprenticeship for a student is no accident. It is the result of careful research, preparation and follow through. It's also the result of knowing who to contact when help is needed.

This part of the guide will provide a listing of persons, places and publications that can aid both teacher-coordinator and student in the apprenticeship registration process.

High School Guidance Counselors

An essential component in matching a student to any suitable occupation is communication between teacher-coordinator and the school's guidance counselors. These individuals, because of their extensive training in test administration and interpretation, can help facilitate a better understanding of a student's vocational aptitudes, academic competencies, work attitudes and career maturity.

Contact the school's guidance counselors for the following kinds of help.

- . To gain assistance with interpreting information on the student's permanent record, including data and scores from ability tests, achievement tests, aptitude tests, interest inventories and personality inventories.
- . To secure a completed copy of the "Student Profile."

Local Apprentice Coordinator Offices

Apprentice coordinator offices, located in public vocational school districts throughout New Jersey, are staffed by knowledgeable individuals who have the responsibility of promoting and facilitating apprentice training in a specific geographic region. These apprentice coordinators are recognized by the state as final approvers of related instruction for all apprentices in their region.

Contact personnel from one of the following apprentice coordinator offices for these types of assistance:

- . To gain general information regarding apprentices training.
- . To arrange for a meeting with a prospective sponsor and a potential apprentice to discuss requirements and responsibilities.
- . To secure an apprenticeship agreement form and to receive technical assistance in completing and filing said form.
- . To expedite the processing of an apprenticeship registration agreement.

APPRENTICE COORDINATOR OFFICES

ATLANTIC COUNTY

Atlantic County Vocational School
Route #40
Mays Landing, NJ 08330
(609) 641-6562

BERGEN COUNTY

Bergen County Vocational School
200 Hackensack Avenue
Hackensack, NJ 07601
(201) 343-6000

BURLINGTON COUNTY

Burlington County Vocational School
Hawkins Road
Medford, NJ 08055
(609) 267-4226

CAMDEN COUNTY

Camden County Vocational School
Box 566-Berlin Cross-Keys Road
Sicklerville, NJ 08081
(609) 767-7000

CAPE MAY COUNTY

Cape May County Vocational School
Crest Haven Road
Cape May Court House, NJ 08210
(609) 465-3064

CUMBERLAND COUNTY

Cumberland County Vocational School
R.D. #8, Box 45
Bridgeton, NJ 08302
(609) 455-4000

ESSEX COUNTY

Essex County Vocational School
68 South Harrison Street
East Orange, NJ 07018
(201) 961-7901

GLOUCESTER COUNTY

Gloucester County Vocational School
Tanyard Road
Sewell, NJ 08080
(609) 468-1445

HUDSON COUNTY

Hudson County Vocational School
8511 Tonnelle Avenue
North Bergen, NJ 07047
(201) 854-3900

JERSEY CITY AREA (ONLY)

Snyder High School
239 Bergen Avenue
Jersey City, NJ 07305
(201) 547-4960

MERCER COUNTY

Mercer County Vocational School
1085 Old Trenton Road
Trenton, NJ 08690
(609) 586-5146

MIDDLESEX COUNTY

Middlesex County Vocational School
P.O. Box 220
East Brunswick, NJ 08816
(201) 257-3300

MONMOUTH COUNTY

Monmouth County Vocational School
2 Buck Lane
Marlboro, NJ 07746
(201) 431-7942

MORRIS COUNTY

Morris County Vocational School
400 East Main Street
Denville, NJ 07834
(201) 627-0114

OCEAN COUNTY

Ocean County Vocational School
Old Freehold & Bay Lea Road
Toms River, NJ 08753
(201) 349-8425

WARREN COUNTY

Warren County Vocational School
RD. #1, Box 168A
Washington, NJ 07882
(201) 689-0122

PASSAIC COUNTY

Passaic County Vocational School
45 Reinhardt Road
Wayne, NJ 07470
(201)490-6000

SALEM COUNTY

Salem County Vocational School
P.O. Box 350, RD. #2
Woodstown, NJ 08098
(609) 760-0102

SOMERSET COUNTY

Somerset County Vocational School
P.O. Box 6350, North Bridge Street
Bridgewater, NJ 08807
(201) 526-8900

SUSSEX COUNTY

Sussex County Vocational School
105 North Church Road
Sparta, NJ 07871
(201) 383-6700

UNION COUNTY

Union County Vocational School
1776 Raritan Road
Scotch Plains, NJ 07076
(201) 899-2000

ELIZABETH AREA (ONLY)

Thomas A. Edison Vocational-
Technical School
625 Summer Street
Elizabeth, NJ 07202
(201) 558-3000

Bureau of Apprenticeship and Training (U.S. Department of Labor)

Following is a list of the Offices of the Bureau of Apprenticeship and Training (BAT) in New Jersey. The BAT staff encourages the establishment of sound apprentice training programs, provides technical assistance to business, labor and industry in establishing such programs, and advises all apprentices and apprentice sponsors in New Jersey.

Contact an area training representative (BAT) for the following types of assistance:

- . To gain general information on apprentice training programs.
- . To arrange for a meeting with a prospective sponsor and a potential apprentice to discuss requirements and responsibilities.
- . To obtain an apprenticeship agreement form and to receive technical assistance for completing and filing the form.
- . To expedite the processing of an apprenticeship registration agreement.

BAT OFFICES

Bureau of Apprenticeship and Training
U.S. Department of Labor
Room 838 - Federal Building
970 Broad Street
Newark, New Jersey 07102
Phone: (201) 645-3880

Bureau of Apprenticeship and Training
Room 401
Federal Building - 402 East State Street
Trenton, New Jersey 08607
Phone: (609) 989-2209

The Division of Vocational Education

The Division of Vocational Education, an agency of the New Jersey State Department of Education, is located on the third floor of 225 West State Street in Trenton.

The Office of Apprentice Training within the Vocational Division, has the responsibility of approving the registration of all New Jersey apprentices in cooperation with the Bureau of Apprenticeship and Training (BAT) and, together with the BAT, verifying successful completion of all apprentice training programs. Contact Charles Kunkel, Industrial Technology Specialist, Office of Apprentice Training, at (609) 292-7490, for the following kinds of help:

- . To obtain information pertaining to state standards on apprenticeship.

- . To secure assistance in contacting local apprentice coordinators.
- . To gain help in resolving issues that cannot be resolved locally.

School-to-Work Linkage, a project within the Vocational Division has the responsibility of encouraging and facilitating apprentice registration for all eligible cooperative vocational education students in New Jersey. Contact Patricia Peacock, Industrial Technology Specialist, School-to-Work Linkage Project, at (609) 292-7490, for the following types of assistance.

- . To obtain information on securing apprenticeships for cooperative vocational education students.
- . To gain help in resolving problems concerning apprentice registration of cooperative vocational education students which cannot be resolved locally.
- . To answer questions pertaining to any part of this guide.
- . To assist in employer understanding of apprentice training as it relates to the cooperative training experience.

New Jersey Job Service

New Jersey Job Service has a computer-assisted system for job order development, information storage, distribution and control. The system provides job applicants and various personnel serving job applicants, with daily information concerning available jobs and training opportunities registered with the New Jersey State Employment Service. It is important that you maintain a close relationship with one of the local Job Service offices listed on the following pages in order to know job trends, occupational needs and manpower requirements in your area.

NEW JERSEY JOB SERVICE OFFICES

ATLANTIC COUNTY

1433 Bacharach Blvd.
Atlantic City, NJ 08401
(609) 441-3294

Rt. 30 & Elvins Ave.
Hammonton, NJ 08037

BERGEN COUNTY

40 Bennett Rd.
Englewood, NJ 07631
(201) 568-9840

50 Passaic St.
Hackensack, NJ 07601
(201) 487-6800

BURLINGTON COUNTY

57 High Street
Mount Holly, NJ 08060
(609) 267-0981

CAMDEN COUNTY

517 Federal Street
Camden, NJ 08103
(609) 729-0997

CAPE MAY COUNTY

3810 New Jersey Avenue
Wildwood, NJ 08260
(609) 729-0997

CUMBERLAND COUNTY

43 Cornwell Drive
Bridgeton, NJ 08302
(609) 455-6100

415 Landis Avenue
Vineland, NJ 08360

HUDSON COUNTY

87 Newkirk St.
Jersey City, NJ 07306
(201) 798-5627

MERCER COUNTY

223 N. Hermitage Avenue
Trenton, NJ 08625
(291) 292-0602

MIDDLESEX COUNTY

277 George Street
New Brunswick, NJ 08901
(201-545-6800

275 Hobart Street
Perth Amboy, NJ 08861
(201) 826-2900

121 Monmouth Street
Red Bank, NJ 07701
(201) 741-6623

MORRIS COUNTY

107 Bassett Hwy.
Dover, NJ 07801
(201) 361-9050

OCEAN COUNTY

111 W. Water St.
Toms River, NJ 08753
(201) 341-6330

PASSAIC COUNTY

25 Henry Street
Passaic, NJ 07055
(201) 779-1260

SALEM COUNTY

154 Salem-Woodstown Road
Salem, NJ 08079
(609) 935-70007

ESSEX COUNTY

80 Mulberry Street
Newark, NJ 07102
(201) 648-3599

Serving West Essex
(201) 648-3964

UNION COUNTY

319 No. Broad Street
Elizabeth, NJ 07208
(201) 648-4462

525 Madison Avenue
Plainfield, NJ 07060
(201) 499-5935

SOMERSET COUNTY

352 E. Main Street
Somerville, NJ 08876
(201) 725-2600

WARREN COUNTY

Hillcrest Shopping Mall
Phillipsburg, NJ 08865
(201) 859-0400

Local Labor Unions and Trade Associations

Local labor unions and trade associations can provide a list of test dates and specific requirements for entrance. Call to be placed on their mailing list.

For the labor unions located in a specific area, consult the yellow pages of the telephone book under the heading "Labor Orgnaizations." For the trade associations located in a specific area, consult the yellow pages of the telephone book either under the heading "Associations" or "Business and Trade Organizations."

If the phone book does not provide the desired information the Trenton or Newark phone directories from the local library can be consulted.

Publications

To obtain specific information on several hundred occupations and 35 major industries, including what the work is like, job prospects to 1990, personal qualifications, training and educational requirements, working conditions, earnings and chances for advancement, secure a copy of the Occupational Outlook Handbook from the U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212, by requesting Bulleting 2075, 1980. The cost for paper cover is \$8.00; cloth cover costs \$11.00.

To obtain information on all apprenticeable trades recognized in New Jersey, secure a copy of the National Apprenticeship Program Booklet from the U.S Department of Labor, Bureau of Apprenticeship and Training, 970 Broad Street, Federal Building, Room 838, Newark, New Jersey 07102. The publication is free.

To obtain information on state required licenses for employability, secure a copy of the Handbook of Occupations and Professions Licensed by New Jersey State Boards and Commissions from the New Jersey Department of Labor, Division of Research and Planning, John Fitch Plaza, Trenton, New Jersey 08625, by requesting RP-247 (RS-81). This publication also is free.

Concise definitions of occupational titles including the occupational code number, the industry designation, alternate titles and unrelated titles, if any, and task element statements, can be obtained in the Dictionary of Occupational Titles from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Purchase price is \$13.00.

APPENDIX

STUDENT PROFILE FOR PLACEMENT IN

____ CAE
____ CIE I

____ CIE II
____ CIE III

____ CHE
____ CHO

____ COE
____ MDE

Name _____

Address _____

Phone _____

Grade _____

Absenteeism/Tardiness:

Grade 9 _____/_____

Grade 10 _____/_____

Grade 11 _____/_____

Grade 12 _____/_____

Handicapped? _____

Classification: _____

Economically Disadvantaged? _____

Parent/Guardian:

Mother's Name _____

Place of Employment _____

Father's Name _____

Place of Employment _____

Has Co-op Placement been discussed with parents? _____

Comment: _____

Academic Coursework:

English Grades: 9 _____ 10 _____ 11 _____ 12 _____

Math Courses & Grades:

Additional related vocational courses & grades (i.e. business, vocational):

Year _____ Course _____ Grade _____

Year _____ Course _____ Grade _____

Year _____ Course _____ Grade _____

Year _____ Course _____ Grade _____

Year _____ Course _____ Grade _____

Potentially Restrictive Physical Conditions (ie: asthma, color blindness, etc.)

Standardized Achievement Test Scores:

Year _____ Test _____ Scores _____
Year _____ Test _____ Scores _____
Year _____ Test _____ Scores _____

Standardized Aptitude Test Scores:

Year _____ Test _____ Scores _____
Year _____ Test _____ Scores _____
Year _____ Test _____ Scores _____

Interest Inventories:

Year _____ Test _____ Careers/Clusters of high interest _____

Careers/Clusters of low interest _____

Vocational Aptitude Testing Scores:

Year _____ Test _____ Careers/Clusters of high aptitude:
Careers/Clusters of low aptitude _____

Student's stated plans for further post-secondary education: _____

Does the student wish to pursue apprenticeship training? _____ Yes _____ No

Date of Interview _____ Counselor's Signature _____

Parent's Signature _____ Student's Signature _____

Co-op Coordinator's Signature

OCCUPATIONS RECOGNIZED AS APPRENTICEABLE
by
THE BUREAU OF APPRENTICESHIP AND TRAINING

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TITLE	DOT CODE	TERM in YEARS
ACCORDIAN MAKER(musical inst.)	730.281-010	4
ACCOUSTICAL CARPENTER(const.)	860.381-010	4
ACTOR(amuse. & rec.)	150.047-010	2
AIR-CONDITIONING INSTALLER-SERVICER, WINDOW UNIT (any ind.)	637.261-010	3
AIR-CONDITIONING MECHANIC(auto. serv.) (Automotive Specialty Shops only)	620.281-010	1
AIRCRAFT-ARMAMENT MECHANIC(gov. serv.)	632.261-010	4
AIRCRAFT LAY-OUT WORKER(aircraft-aerospace mfg.)	693.381-010	4
AIRCRAFT MECHANIC, ARMAMENT(aircraft-aerospace mfg.)	806.381-010	4
AIRCRAFT MECHANIC, ELECTRICAL AND RADIO(aircraft- aerospace mfg.)	825.381-010	4
AIRCRAFT MECHANIC, PLUMBING AND HYDRAULICS(aircraft- aerospace mfg.)	862.381-010	4
AIRCRAFT-PHOTOGRAPHIC-EQUIPMENT MECHANIC(photo. app.)	714.281-010	4
AIRFRAME-AND-POWER PLANT MECHANIC(aircraft-aerospace mfg.; air trans.)	621.281-014	4
AIRPLANE COVERER(aircraft-aerospace mfg.; air trans.)	849.381-010	3
AIRPLANE WOODWORKER(aircraft-aerospace mfg.)	769.281-010	3
ALARM OPERATOR(gov. serv.)	379.162-010	1
ALTERATION TAILOR(gar.; per.serv.; ret.tr.)	785.261-010	2
ANIMAL TRAINER(amuse. & rec.)	159.224-010	2½
ARTIFICIAL-GLASS-EYE MAKER(optical goods)	713.261-010	5
ARTIFICIAL-PLASTIC-EYE MAKER(optical goods)	713.261-014	5
ASPHALT-PAVING MACHINE OPERATOR(const.)	853.663-010	3
ASSEMBLER, AIRCRAFT, POWER PLANT(aircraft-aerospace mfg.)	806.381-022	2
ASSEMBLER, AIRCRAFT, STRUCTURES AND SURFACES(aircraft- aerospace mfg.)	806.381-026	4
ASSEMBLER, ELECTRO-MECHANICAL(aircraft-aerospace mfg.)	806.381-030	4
ASSEMBLER-INSTALLER, GENERAL(aircraft-aerospace mfg.)	806.361-014	2
ASSEMBLER, METAL BUILDING(const.)	801.381-010	2
ASSEMBLY MECHANIC, EXPERIMENTAL AIRCRAFT(aircraft- aerospace mfg.)	806.381-038	4
ASSEMBLY TECHNICIAN(office machines)	633.261-010	2
AUDIO OPERATOR(radio & tv broad.)	194.262-010	2
AUDIO-VIDEO REPAIRER(any ind.)	729.281-010	2
AUGER PRESS OPERATOR, MANUAL CONTROL(brick & tile)	575.462-010	2
AUTOMATED EQUIPMENT ENGINEER-TECHNICIAN(mach. mfg.)	638.261-010	4
AUTOMATIC EQUIPMENT TECHNICIAN(tel. & tel.)	822.281-010	2
AUTOMOBILE-BODY REPAIRER(auto. serv.)	807.381-010	4
AUTOMOBILE MECHANIC(auto. serv.)	620.261-010	4
AUTOMOBILE-RADIATOR MECHANIC(auto. serv.) (Automotive Specialty Shops only)	620.331-010	2
AUTOMOBILE-REPAIR-SERVICE ESTIMATOR(auto. serv.)	620.261-018	4
AUTOMOBILE TESTER(auto. serv.)	620.261-014	4
AUTOMOBILE UPHOLSTERER(auto. serv.)	780.381-010	3
AUTOMOTIVE COOLING SYSTEM DIAGNOSTIC TECHNICIAN(auto. serv.)(Automotive Specialty Shops only)	620.261-580	2
AUTOMOTIVE-GENERATOR-AND-STARTER REPAIRER(auto. serv.)	721.281-010	2
AUTOMOTIVE MAINTENANCE EQUIPMENT SERVICER(any ind.)	620.281-018	4
AVIONICS TECHNICIAN(aircraft-aerospace mfg.; air trans.)	823.281-010	4

OCCUPATIONS RECOGNIZED AS APPRENTICEABLE
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TITLE	DOT CODE	TERM in YEARS
BAKER(bake. prod.)	526.381-010	3
BAKER(hotel & rest.)	313.381-010	3
BAKER, PIZZA(hotel & rest.)	313.381-014	1
BAKERY-MACHINE MECHANIC(bake. prod.)	629.281-010	3
BANK-NOTE DESIGNER(gov. serv.)	142.061-010	5
BARBER(per. serv.)	330.371-010	2
BATCH-AND-FURNACE OPERATOR(glass mfg.)	572.382-010	4
BATTERY REPAIRER(any ind.)	727.381-014	2
BEEKEEPER(agric.)	413.161-010	4
BENCH HAND(jewelry)	735.381-010	2
BEN-DAY ARTIST(print. & pub.)	970.681-010	6
BIOMEDICAL EQUIPMENT TECHNICIAN(inst. & app.; med. serv.)	719.261-010	4
BLACKSMITH(forging)	610.381-010	4
BLOCKER-AND-CUTTER, CONTACT LENS(optical goods)	716.681-010	1
BOATBUILDER, WOOD(ship & boat bldg. & rep.)	860.381-018	4
BOILERHOUSE MECHANIC(any ind.)	805.361-010	3
BOILERMAKER FITTER(boilermaking)	805.361-014	4
BOILERMAKER I(boilermaking)	805.261-014	4
BOILERMAKER II(boilermaking)	805.381-010	3
BOILER OPERATOR(any ind.)	950.342-010	4
BOOKBINDER(print. & pub.)	977.381-010	5
BOOTMAKER, HAND(rubber goods)	753.381-010	1
BRACELET AND BROCH MAKER(jewelry)	735.681-010	4
BRAKE REPAIRER(auto. serv.)	620.281-026	2
BRICKLAYER(brick & tile)	861.381-014	4
BRICKLAYER(const.)	861.381-018	3
BRICKLAYER, FIREBRICK AND REFRACTORY TILE(const.)	861.381-026	4
BRILLIANDER-LOPPER(jewelry)	770.261-010	3
BUTCHER, ALL AROUND(slaughter & meat packing)	525.381-014	3
BUTCHER, MEAT(hotel & rest.)	316.681-010	3
BUTTERMAKER(dairy prod.)	529.362-010	2
CABINETMAKER(woodworking)	660.280-010	4
CABLE INSTALLER-REPAIRER(light, heat, & power)	821.361-010	3
CABLE SPLICER(const.; light, heat, power; tel. & tel.)	829.361-010	4
CABLE TESTER(tel. & tel.)	822.361-010	4
CALIBRATION LABORATORY TECHNICIAN(aircraft-aerospace mfg.; electronics)	019.281-010	4
CAMERA REPAIRER(photographic app.)	714.281-014	2
CANAL-EQUIPMENT MECHANIC(waterworks)	899.281-010	2
CANDY MAKER(confec.)	529.361-014	3
CANVAS WORKER(canvas goods; ship & boat bldg. & rep.)	739.381-010	3
CAR REPAIRER(loco. & car bldg. & rep.)	622.381-014	4
CARBURETOR MECHANIC(auto. serv.)	620.281-034	4
CARD CUTTER, JACQUARD(narrow fabrics; textile)	683.582-010	4
CARD GRINDER(asbestos prod.; textile)	680.380-010	4
CARPENTER(const.)	860.381-022	4
CARPENTER, MAINTENANCE(any ind.)	860.281-010	4
CARPENTER, MOLD(brick & tile; conc. prod.)	860.381-034	6
CARPENTER, ROUGH(const.)	860.381-042	4
CARPENTER, SHIP(water trans.)	860.280-014	4
CARPET CUTTER(ret. tr.)	929.381-010	1
CARPET LAYER(ret. tr.)	864.381-010	3

OCCUPATIONS RECOGNIZED AS APPRENTICEABLE
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TITLE	DOT CODE	TERM in YEARS
CARTOONIST, MOTION PICTURE(motion pic.; radio & tv broad.)	141.081-010	3
CARVER, HAND(furn.; plan. mill)	761.281-010	4
CASH-REGISTER SERVICER(any ind.)	633.281-010	3
CASING-IN-LINE SETTER(print. & pub.)	653.360-010	4
CASKET ASSEMBLER(mort. goods)	739.481-010	6
CASTER(jewelry)	502.381-010	2
CASTER(nonfer. metal alloys)	502.482-010	2
CELL MAKER(chem.)	844.681-010	1
CEMENT MASON(const.)	844.364-010	2
CENTRAL-OFFICE INSTALLER(tel. & tel.)	822.361-014	4
CENTRAL-OFFICE REPAIRER(tel. & tel.)	822.281-014	4
CHASER(jewelry; silverware)	704.381-010	4
CHEESEMAKER(dairy prod.)	529.361-018	2
CHEMICAL-ENGINEERING TECHNICIAN	008.261-010	4
CHEMICAL LABORATORY TECHNICIAN(profess. & kind.)	022.261-010	4
CHEMICAL OPERATOR III(chem.)	559.382-018	3
CHIEF OF PARTY(profess. & kind.)	018.167-010	4
CHIEF OPERATOR(chem.)	558.260-010	3
CHILD CARE DEVELOPMENT SPECIALIST(any ind.)	359.342-010	2
CHIMNEY REPAIRER(const.)	899.364-010	1
CLARIFYING-PLANT OPERATOR(textile)	955.382-010	1
CLOTH DESIGNER(profess. & kind.)	142.061-014	4
COIN-MACHINE-SERVICE REPAIRER(coin mach.)	639.281-014	3
COLORIST, PHOTOGRAPHY(photoginish)	970.381-010	2
COMMERCIAL DESIGNER(profess. & kind.)	141.081-014	4
COMPLAINT INSPECTOR(light, heat, & power)	829.261-010	4
COMPOSINT-ROOM MACHINIST(print. & pub.)	627.261-010	6
COMPOSITOR(print. & pub.)	973.381-010	4
COMPUTER-PERIPHERAL-EQUIPMENT OPERATOR(clerical)	213.382-010	1
CONSTRUCTION-EQUIPMENT MECHANIC(const.)	620.261-022	4
CONTOUR WIRE SPECIALIST, DENTURE(med. serv.)	712.381-014	4
CONVEYOR-MAINTENANCE MECHANIC(any ind.)	630.381-010	2
COOK(any ind.)	315.361-010	2
COOK(hotel & rest.)	313.361-014	3
COOK, PASTRY(hotel & rest.)	313.381-026	3
COPPERSMITH(ship & boat bldg. & rep.)	862.281-010	4
COREMAKER(foundry)	518.381-014	4
CORK INSULATOR, REFRIGERATION PLANT(const.)	863.381-010	4
CORROSION-CONTROL FITTER(light,heat,&power; pipe lines)	820.361-010	4
COSMETOLOGIST(per. serv.)	332.271-010	2
CUSTOM TAILOR(garment.; per.serv.; ret. tr.)	785.261-014	4
CUTTER, FABRICS AND MATERIALS(aircraft-aerospace mfg.)	781.384-010	2
CYLINDER GRINDER(print. & pub.)	500.381-010	5
CYLINDER-PRESS OPERATOR(print. & pub.)	651.362-010	4
DAIRY EQUIPMENT REPAIRER(dairy prod.)	629.281-018	3
DECORATOR(any ind.)	298.381-010	4
DECORATOR(glass mfg.; glass prod.)	740.381-010	4
DENTAL ASSISTANT(med. serv.)	079.371-010	1
DENTAL CERAMIST(med. serv.)	712.281-010	2
DENTAL-EQUIPMENT INSTALLER-SERVICER(whole. tr.)	829.261-014	3
DENTAL LABORATORY TECHNICIAN(med. serv.)	712.381-018	3

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TITLE	DOT CODE	TERM in YEARS
DESIGN DRAFTER, ELECTROMECHANISMS(profess. & kind.)	017.261-014	4
DESIGNER AND PATTERNMAKER(boot & shoe)	788.281-010	2
DETAILER(profess. & kind.)	017.261-018	4
DIAMOND SELECTOR(jewelry)	770.281-010	4
DICTATING-TRANSCRIBING-MACHINE SERVICER(any ind.)	633.281-014	3
DIE DESIGNER(mach. shop)	007.161-010	4
DIE FINISHER(mach. shop)	601.381-010	4
DIE MAKER(jewelry)	601.381-014	4
DIE MAKER(paper goods)	739.381-018	4
DIE MAKER, BENCH STAMPING(mach. shop)	601.281-010	4
DIE MAKER, STAMPING(mach. shop)	601.280-010	3
DIE MAKER, TRIM(mach. shop)	601.280-014	4
DIE MAKER, WIRE DRAWING(mach. shop)	601.280-018	3
DIE POLISHER(wire)	601.381-018	1
DIESEL-ENGINE TESTER(engine & turbine)	625.261-010	4
DIESEL MECHANIC(any ind.)	625.281-010	4
DIE SETTER(forging) q	612.360-010	2
DIE SINKER(mach. shop)	601.280-022	4
DIETETIC INTERN(profess. & kind.)	077.167-010	2
DIRECTOR, FUNERAL(per. serv.)	187.167-030	2
DISPLAY DESIGNER(profess. & kind.)	142.051-010	4
DISPLAYER, MERCHANDISE(ret. tr.)	298.081-010	1
DOOR-CLOSER MECHANIC(any ind.)	630.381-014	3
DRAFTER, ARCHITECTURAL(profess. & kind.)	001.261-010	4
DRAFTER, AUTOMOTIVE DESIGN(auto. mfg.)	017.281-022	4
DRAFTER, AUTOMOTIVE DESIGN LAY-OUT(auto. mfg.)	017.281-026	4
DRAFTER, CARTOGRAPHIC(profess. & kind.)	018.261-010	4
DRAFTER, CIVIL(profess. & kind.)	005.281-010	4
DRAFTER, COMMERCIAL(profess. & kind.)	017.261-026	4
DRAFTER, DETAIL(profess. & kind.)	017.261-030	4
DRAFTER, ELECTRICAL(profess. & kind.)	003.281-010	4
DRAFTER, ELECTRONIC(profess. & kind.)	003.281-014	4
DRAFTER, HEATING AND VENTILATING(profess. & kind.)	017.261-034	4
DRAFTER, LANDSCAPE(profess. & kind.)	001.261-014	4
DRAFTER, MARINE(profess. & kind.)	014.281-010	4
DRAFTER, MECHANICAL(profess. & kind.)	007.281-010	4
DRAFTER, PLUMBING(profess. & kind.)	017.261-038	4
DRAFTER, STRUCTURAL(profess. & kind.)	005.281-014	3
DRAFTER, TOOL DESIGN(profess. & kind.)	007.261-022	4
DRAFTER, TOPOGRAPHICAL(profess. & kind.)	018.261-014	4
DRAGLINE OPERATOR(any ind.)	850.683-018	1
DREDGE OPERATOR(const.; mining & quarrying)	850.663-010	1
DRESSMAKER(any ind.)	785.361-010	4
DRILLING-MACHINE OPERATOR(mining & quarrying)	930.482-010	3
DRY CLEANER(clean.; dye. & press.)	362.382-014	3
DRY-WALL APPLICATOR(const.; mfd. bldgs.)	842.681-010	2
EDITOR, FILM(motion pic.; radio & tv broad.)	962.264-010	4
ELECTRICAL-APPLIANCE REPAIRER(any ind.)	723.381-010	3
ELECTRICAL-APPLIANCE SERVICER(any ind.)	827.261-010	3
ELECTRICAL-INSTRUMENT REPAIRER(any ind.)	729.281.014	4
ELECTRICAL REPAIRER(any ind.)	829.281-014	4

OCCUPATIONS RECOGNIZED AS APPRENTICEABLE
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TITLE	DOT CODE	TERM in YEARS
ELECTRICAL TECHNICIAN(profess. & kind.)	003.161-010	4
ELECTRIC-DISTRIBUTION CHECKER(const.; light, heat, & power)	824.281-014	2½
ELECTRICIAN(any ind.)	824.261-010	4
ELECTRICIAN(ship & boat bldg. & rep.)	825.381-030	4
ELECTRICIAN(water trans.)	825.281-014	4
ELECTRICIAN, AIRPLANE(aircraft-aerospace mfg.)	825.281-018	4
ELECTRICIAN, AUTOMOTIVE(auto. serv.)	825.281-022	2
ELECTRICIAN, LOCOMOTIVE(loco. & car bldg. & rep.)	825.281-026	4
ELECTRICIAN, POWERHOUSE(light, heat, & power)	820.261-014	4
ELECTRICIAN, RADIO(any ind.)	823.281-014	4
ELECTRICIAN, SUBSTATION(light, heat, & power)	820.261-018	3
ELECTRIC-METER INSTALLER I(light, heat, & power)	821.361-014	4
ELECTRIC-METER REPAIRER(light, heat, & power)	729.281-014	4
ELECTRIC-METER TESTER(light, heat, & power)	821.381-010	4
ELECTRIC-MOTOR-AND-GENERATOR ASSEMBLER(elec. equip.)	820.361-014	2
ELECTRIC-MOTOR ASSEMBLER AND TESTER(any ind.)	721.281-014	4
ELECTRIC-MOTOR REPAIRER(any ind.)	721.281-018	4
ELECTRIC-TOOL REPAIRER(any ind.)	729.281-022	4
ELECTRIC-TRACK-SWITCH MAINTAINER(r.r. trans.)	825.261-010	4
ELECTROMECHANICAL TECHNICIAN(inst. app.)	710.281-018	3
ELECTROMEDICAL-EQUIPMENT REPAIRER(any ind.)	729.281-030	2
ELECTRONIC-ORGAN TECHNICIAN(any ind.)	828.261-010	2
ELECTRONIC-PRODUCTION-LINE-MAINTENANCE MECHANIC. (electronics)	629.281-022	1
ELECTRONIC-SALES-AND-SERVICE TECHNICIAN(profess.& kind.)	828.251-010	4
ELECTRONICS MECHANIC(any ind.)	828.281-010	4
ELECTRONICS TECHNICIAN(profess. & kind.)	003.161-014	4
ELECTRONICS TESTER I(electronics)	726.281-014	3
ELECTRONICS UTILITY WORKER(electronics)	726.361-010	4
ELECTROTYPER(print. & pub.)	974.381-010	5
ELEVATING-GRADER OPERATOR(const.)	850.663-014	2
ELEVATOR CONSTRUCTOR(const.)	825.361-010	4
ELEVATOR REPAIRER(any ind.)	825.281-030	4
EMBALMER(per. serv.)	338.371-014	2
EMBOSSER(print. & pub.)	659.382-010	2
EMERGENCY MEDICAL TECHNICIAN(med. serv.)	079.374-010	3
ENGINEERING ASSISTANT, MECHANICAL EQUIPMENT(profess. & kind.)	007.161-018	4
ENGINEERING MODEL MAKER(inst. & app.)	600.260-010	4
ENGINE-LATHE SET-UP OPERATOR(mach. shop)	604.380-018	2½
ENGINE-LATHE SET-UP OPERATOR, TOOL(mach. shop)	604.280-010	2½
ENGINE REPAIRER, SERVICE(engine & turbine)	625.281-018	4
ENGINE TURNER(jewelry)	704.381-018	2½
ENGRAVER(glass prod.; mirror)	775.381-010	2
ENGRAVER I(print. & pub.)	979.381-010	5
ENGRAVER, BLOCK(print. & pub.)	979.281-014	4
ENGRAVER, HAND, HARD METALS(engraving)	704.381-026	4
ENGRAVER, HAND, SOFT METALS(engraving)	704.381-030	4
ENGRAVER, MACHINE(print. & pub.)	979.382-014	4
ENGRAVER, PANTOGRAPH I(engraving)	704.382-010	4
ENGRAVER, PICTURE(print. & pub.)	979.281-018	10
ENGRAVING-PRESS OPERATOR(print. & pub.)	651.382-010	3

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TITLE	DOT CODE	TERM in YEARS
ENVELOPE-FOLDING-MACHINE ADJUSTER(paper goods)	641.680-010	3
ENVIRONMENTAL-CONTROL SYSTEM INSTALLER-SERVICER(any ind.) (Residential & Light Commercial only)	637.261-014	3
EQUIPMENT INSTALLER(tel. & tel.)	822.381-010	4
ESTIMATOR AND DRAFTER(light, heat, & power)	019.261-014	4
ETCHER, HAND(print. & pub.)	971.261-010	5
ETCHER, PHOTENGRAVING(print. & pub.)	971.381-014	4
EXPERIMENTAL ASSEMBLER(any ind.)	739.381-026	2
EXPERIMENTAL MECHANIC(motor & bicycles)	600.260-014	4
EXTRUDER OPERATOR(fabric. plastics prod.; plastics mat.)	557.382-010	1
FABRICATOR-ASSEMBLER, METAL PRODUCTS(any ind.)	809.381-010	4
FARM EQUIPMENT MECHANIC I(agric. equip.)	624.281-010	3
FARM EQUIPMENT MECHANIC II(agric. equip.)	624.381-014	4
FASTENER TECHNOLOGIST(nut & bolt)	612.260-684	3
FIELD ENGINEER(radio & tv broad.)	193.262-018	4
FIELD ENGINEER(electronics)	828.261-014	2½
FILM DEVELOPER(motion pic.; photoginish)	976.382-018	3
FILM LABORATORY TECHNICIAN I(motion pic.)	976.381-010	3
FINISHER, DENTURE(med. serv.)	712.681-018	1
FIRE-CONTROL MECHANIC(gov. serv.)	632.261-014	2
FIRE FIGHTER(any ind.)	373.364-010	3
FIRE FIGHTER, CRASH, FIRE AND RESCUE(air trans.)	373.663-010	1
FIRE MEDIC(med. serv.)	373.364-014	3½
FIRER, KILN(pottery & porc.)	573.662-010	3
FITTER(mach. shop)	801.381-014	2
FITTER I(any ind.)	801.261-014	3
FIXTURE MAKER(light fix.)	600.380-010	2
FLOOR-COVERING LAYER(loco & car bldg. & rep.)	622.381-026	3
FLOOR LAYER(const.; ret. tr.)	864.481-010	3
FLORAL DESIGNER(ret. tr.)	142.081-010	1
FOLDING-MACHINE OPERATOR(print. & pub.)	653.382-010	2
FOLDING-MACHINE SETTER(print. & pub.)	653.360-014	4
FORGE-SHOP-MACHINE REPAIRER(forging)	626.261-010	3
FORGING-PRESS OPERATOR I(forging)	611.482-010	1
FORM BUILDER(aircraft-aerospace mfg.)	693.280-010	4
FORM BUILDER(const.)	860.381-046	2
FORMER, HAND(any ind.)	619.361-010	2
FORMING-MACHINE OPERATOR(glass mfg.)	575.382-014	4
FOUNDRY METALLURGIST(foundry)	011.061-010	4
FOURDRINIER-MACHINE TENDER(build. board; paper & pulp)	539.362-014	3
FOUR-SLIDE-MACHINE SETTER(any ind.)	616.380-010	2
FREEZER OPERATOR(dairy prod.)	529.482-010	1
FRETTED-INSTRUMENT REPAIRER(any ind.)	730.281-026	3
FRONT-END MECHANIC(auto. serv.)	620.281-038	4
FUEL-INJECTION SERVICER(any ind.)	625.281-022	2
FUR CUTTER(fur goods)	783.381-010	2
FUR DESIGNER(fur goods)	142.081-014	4
FUR FINISHER(fur goods)	783.381-014	2
FURNACE INSTALLER(light, heat, & power)	862.361-010	4
FURNACE-INSTALLER AND REPAIRER, HOT AIR(any ind.)	869.281-010	3
FURNACE OPERATOR(found.; iron & steel)	142.061-022	4

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TITLE	DOT CODE	TERM in YEARS
FURNITURE DESIGNER(furn.)	142.061-022	4
FURNITURE FINISHER(woodworking)	763.381-010	3
FURNITURE UPHOLSTERER(any ind.)	780.381-018	4
FURRIER(fur goods)	783.261-010	4
GAGER(petrol. prod.; petrol. refin.; pipe lines)	914.384-010	2
GANG SAWYER, STONE(stonework)	670.362-010	2
GAS-APPLIANCE SERVICER(any ind.)	637.261-018	3
GAS-ENGINE REPAIRER(any ind.)	625.281-026	4
GAS-MAIN FITTER(light, heat, & power)	862.361-014	4
GAS-METER MECHANIC I(light, heat, & power)	710.381-022	3
GAS-REGULATOR REPAIRER(light, heat, & power; petrol. refin.; pipe lines)	710.381-026	3
GEAR-CUTTING-MACHINE SET-UP OPERATOR(mach. shop)	602.380-010	3
GEAR-CUTTING-MACHINE SET-UP OPERATOR, TOOL,(mach.shop)	602.280-010	4
GEAR HOBBER, SET-UP OPERATOR(mach. shop)	602.382-010	4
GEM CUTTER(jewelry)	770.281-014	3
GEODETIC COMPUTER(profess. & kind.)	018.167-014	2
GLASS BENDER(signs)	772.381-010	4
GLASS BLOWER(glass mfg.)	772.681-010	3
GLASS BLOWER, LABORATORY APPARATUS(glass prod.; inst. & app.)	772.281-010	4
GLASS BLOWING-LATHE OPERATOR(glass prod.)	772.482-010	4
GLAZIER(const.)	865.381-010	3
GLAZIER, STAINED GLASS(glass prod.)	779.381-010	4
GRAPHIC DESIGNER(profess. & kind.)	141.061-018	2
GRINDER I(clovk & watch)	603.482-030	4
GRINDER OPERATOR, TOOL(mach. shop)	603.280-018	4
GRINDER SET-UP OPERATOR, UNIVERSAL(mach. shop)	603.280-030	4
GUNSMITH(any ind.)	632.281-010	4
HARNESS MAKER(leather prod.; ret. tr.)	783.381-018	3
HARPSICHORD MAKER(musical inst.)	730.281-034	2
HAT-BLOCK MAKER(woodworking)	661.381-010	3
HEAD SAWYER(sawmill)	667.662-010	3
HEAT-TRANSFER TECHNICIAN(profess. & kind.)	007.181-010	4
HEAT TREATER I(heat treat.)	504.382-014	4
HEAVY FORGER(forging)	612.361-010	4
HOME HEALTH TECHNICIAN(med. serv.)	079.224-600	1
HORSESHOER(agric.)	418.381-010	2½
HORTICULTURIST(profess. & kind.)	040.061-038	3
HYDRAULIC-PRESS SERVICER(ammunition)	626.381-018	2
HYDROELECTRIC-MACHINERY MECHANIC(light, heat, & power)	631.261-010	3
HYDROELECTRIC-STATION OPERATOR(light, heat, & power)	952.362-018	3
HYDROMETER CALIBRATOR(inst. & app.)	710.381-030	2
ILLUSTRATOR(profess. & kind.)	141.061-022	4
INDUSTRIAL DESIGNER(profess. & kind.)	142.061-026	4
INDUSTRIAL ENGINEERING TECHNICIAN(profess. & kind.)	012.267-010	4
INJECTION-MOLDING-MACHINE OPERATOR(fabric. plastics prod.)	556.382-014	1
INSPECTOR, MECHANICAL AND ELECTRICAL(inst. & app.)	710.381-038	4
INSPECTOR, QUALITY ASSURANCE(gov. serv.)	168.287-014	3
INSTRUMENTATION TECHNICIAN(profess. & kind.)	003.261-010	4
INSTRUMENT MAKER(any ind.)	600.280-010	4
INSTRUMENT MAKER AND REPAIRER(petrol. prod.)	600.280-014	5
INSTRUMENT MECHANIC(any ind.)	710.281-026	4

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INSTRUMENT MECHANIC, WEAPONS SYSTEM(inst. & app.)	711.281-014	4
INSTRUMENT REPAIRER(any ind.)	710.261-010	4
INSTRUMENT TECHNICIAN(light, heat, & power)	710.281-030	4
INSULATION WORKER(const.)	863.364-580	4
INTERIOR DESIGNER(profess. & kind.)	142.051-014	4
JACQUARD-LOOM WEAVER(textile)	683.662-010	4
JACQUARD-PLATE MAKER(knit goods)	685.381-010	1
JEWELER(jewelry)	700.281-010	2½
JIG BUILDER(wood. box)	761.381-014	2
JOB PRINTER(print. & pub.)	973.381-018	4
JOB SETTER(fabric. plastics prod.; mach. mfg.; mach.shop)	600.380-014	3
JOINER(ship & boat bldg. & rep.)	860.381-050	4
KILN OPERATOR(woodworking)	563.382-010	3
KNITTER MECHANIC(knit goods)	685.360-010	4
KNITTING MACHINE FIXER(hosiery; knit goods)	689.280-014	4
LABORATORY ASSISTANT(light, heat, & power)	029.361-018	3
LABORATORY TECHNICIAN(auto. mfg.)	019.381-010	1
LABORATORY TESTER(any ind.)	029.261-010	2
LANDSCAPE GARDNER(agric.)	408.161-010	4
LAND SURVEYOR(PROFESS. & kind.)	018.167-018	4
LAST-MODEL MAKER(last & rel. forms)	761.381-018	2
LATHER(const.)	842.361-010	3
LAUNDRY-MACHINE MECHANIC(laund.)	629.261-010	3
LAY-OUT TECHNICIAN(optical goods)	716.381-014	4
LAY-OUT WORKER I(any ind.)	809.281-010	4
LEAD BURNER(welding)	819.281-010	4
LEATHER-STAMPER(leather prod.)	781.381-018	1
LEGAL SECRETARY(clerical)	201.362-010	1
LETTERER(profess. & kind.)	970.661-014	2
LIGHT TECHNICIAN(motion pic.; radio & tv broad.)	962.362-014	4
LINE ERECTOR(const.; light, heat, & power)	821.361-018	3
LINE INSTALLER-REPAIRER(tel. & tel.)	822.381-014	4
LINE MAINTAINER(any ind.)	821.261-014	4
LINER(pottery & porc.)	740.681-010	3
LINE REPAIRER(light, heat, & power)	821.361-026	3
LINOTYPE OPERATOR(print. & pub.)	650.582-010	5
LITHOGRAPHIC PLATE MAKER(print. & pub.)	972.381-010	4
LITHOGRAPHIC-PRESS OPERATOR, TINWARE(tinware)	651.382-014	4
LOCKSMITH(any ind.)	709.281-010	4
LOCOMOTIVE ENGINEER(r.r. trans.)	910.363-014	4
LOFT WORKER(ship & boat bldg. & rep.)	661.281-010	4
LOGGING-EQUIPMENT MECHANIC(logging)	620.281-042	4
LOOM FIXER(asbestos prod.; narrow fabrics; textile)	683.260-018	3
MACHINE ASSEMBLER(mach. shop)	638.361-010	2
MACHINE BUILDER(mach. mfg.; mach. tool & access.)	600.281-022	2½
MACHINE FIXER(carpet & rug)	628.281-010	4
MACHINE FIXER(textile)	689.260-010	3
MACHINE OPERATOR I(any ind.)	616.360-018	1
MACHINE REPAIRER, MAINTENANCE(any ind.)	626.281-010	4
MACHINERY ERECTOR(engine & turbine; mach. mfg.)	638.261-014	4
MACHINE SETTER(any ind.)	616.360-022	4

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TITLE	DOT CODE	TERM in YEARS
MACHINE SETTER(clock & watch)	600.380-022	4
MACHINE SETTER(woodworking)	669.280-010	4
MACHINE SET-UP OPERATOR(elec. equip.; firearms; mach.shop)	600.380-018	2
MACHINE SET-UP OPERATOR, PAPER GOODS(paper goods)	649.380-010	4
MACHINE TRY-OUT SETTER(mach. tool & access.)	600.360-010	4
MACHINIST(mach. shop)	600.280-022	4
MACHINIST, AUTOMOTIVE(auto. serv.)	600.280-034	4
MACHINIST, EXPERIMENTAL(mach. shop)	600.280-038	4
MACHINIST, LINOTYPE(print. & pub.)	627.261-022	4
MACHINIST, MARINE ENGINE(ship & boat bldg. & rep.)	623.281-026	4
MACHINIST, MOTION-PICTURE EQUIPMENT(motion pic.; photo.app.)	714.281-018	2
MACHINIST, OUTSIDE(ship & boat bldg. & rep.)	623.281-030	4
MACHINIST, WOOD(woodworking)	669.380-014	4
MAINTENANCE MACHINIST(any ind.)	600.280-042	4
MAINTENANCE MECHANIC(any ind.)	638.281-014	4
MAINTENANCE MECHANIC(const.; petrol.prod.; pipe lines)	620.281-046	4
MAINTENANCE MECHANIC(grain & feed mill)	629.281-030	2
MAINTENANCE MECHANIC, COMPRESSED-GAS PLANT(comp. & liquefied gases)	630.261-010	4
MAINTENANCE MECHANIC, TELEPHONE(any ind.)	822.281-018	3½
MAINTENANCE REPAIRER, BUILDING(any ind.)	899.381-010	2
MAINTENANCE REPAIRER, FACTORY OR MILL(any ind.)	899.281-014	4
MARBLE SETTER(const.)	861.381-030	3
MARINE-SERVICES TECHNICIAN(ship & boat bldg. & rep.)	806.261-500	3
MATERIAL COORDINATOR(clerical)	221.167-014	2
MECHANIC, AIRCRAFT ACCESSORIES(aircraft-aerospace mfg.)	621.381-014	4
MECHANICAL-ENGINEERING TECHNICIAN(profess. & kind.)	007.161-026	3
MECHANICAL-UNIT REPAIRER(auto.serv.; loco.&car bldg.&rep.)	620.381-018	4
MECHANIC, ENDLESS TRACK VEHICLE(auto. serv.)	620.381-014	4
MECHANIC, FIELD AND SERVICE(aircraft-aerospace mfg.)	621.281-026	4
MECHANIC, INDUSTRIAL TRUCK(any ind.)	620.281-050	4
MEDICAL-APPARATUS MODEL MAKER(inst. & app.)	712.261-010	2
MEDICAL LABORATORY TECHNICIAN(med. serv.)	078.381-014	2
MEDICAL SECRETARY(med. serv.)	201.362-014	1
METAL FABRICATOR(any ind.)	619.360-014	4
METEOROLOGICAL EQUIPMENT REPAIRER(any ind.)	823.281-018	4
METEOROLOGIST(profess. & kind.)	025.062-010	3
METER REPAIRER(any ind.)	710.281-034	3
MILLER, WET PROCESS(corn prod.)	521.662-010	3
MILLING-MACHINE SET-UP OPERATOR I(mach. shop)	605.280-010	2½
MILLWRIGHT(any ind.)	638.281-018	4
MINE-CAR REPAIRER(mining & quarrying)	622.381-030	2
MINER I(mining & quarrying)	939.281-010	1½
MOCK-UP BUILDER(aircraft-aerospace mfg.)	693.381-014	4
MODEL-AND-MOLD MAKER(brick & tile)	777.381-014	2
MODEL-AND-MOLD MAKER, PLASTER(conc. prod.)	777.381-018	4
MODEL BUILDER(furn.)	709.381-014	2
MODEL MAKER(aircraft-aerospace mfg.)	693.361-010	4
MODEL MAKER(clock & watch)	693.380-010	4
MODEL MAKER(jewelry)	709.381-018	4
MODEL MAKER(pottery & porc.)	777.281-014	2
MODEL MAKER, FIREARMS(firearms)	600.260-018	4

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TITLE	DOT CODE	TERM in YEARS
MODEL MAKER, WOOD(any ind.)	661.380-010	4
MOLDER(foundry)	518.361-010	4
MOLDER, PATTERN (foundry)	693.381-022	2
MOLD MAKER(potter & porc.)	777.681-010	3
MOLD MAKER I(jewelry)	700.381-034	4
MOLD MAKER II(jewelry)	777.381-022	2
MOLD MAKER, DIE CASTING & PLASTIC MOLDING(mach. shop)	601.280-030	4
MOLD SETTER(fabric. plastics prod.; phonograph)	556.380-010	1
MONOTYPE-KEYBOARD OPERATOR(print. & pub.; type founding)	650.582-014	3
MONUMENT SETTER(const.)	861.361-014	4
MOSAIC WORKER(glass prod.; stat. & art goods)	779.381-014	3
MOTORBOAT MECHANIC(engine&turbine; ship&boat bldg. & rep.)	623.281-038	3
MOTORCYCLE REPAIRER(auto. serv.)	620.281-054	3
MOTOR-GRADER OPERATOR(const.)	850.663-022	3
MULTI-COMPETENT CLINICAL ASSISTANT(	078.362-540	2
MULTI-OPERATION-FORMING MACHINE SETTER(any ind.)	616.260-014	4
MULTI-OPERATION-MACHINE OPERATOR(any ind.)	612.462-010	3
NEON-SIGN SERVICER(signs)	824.281-018	5
NUMERICAL-CONTROL-MACHINE OPERATOR(mach. shop)	609.662-010	4
NURSE, LICENSED PRACTICAL(med. serv.)	079.374-015	1
OFFICE-MACHINE SERVICER(any ind.)	633.281-018	3
OFFSET-PLATE MAKER(print. & pub.)	971.381-018	4
OFFSET-PRESS OPERATOR I(print. & pub.)	651.482-010	4
OIL-BURNER-SERVICER-AND-INSTALLER(any ind.)	862.281-108	2
OIL-FIELD EQUIPMENT MECHANIC(petrol. prod.)	629.381-014	2
OPTICAL-INSTRUMENT ASSEMBLER(optical goods)	711.381-010	2
OPTICIAN(optical goods)	716.280-008	4
OPTICIAN(optical goods; ret. tr.)	716.280-014	5
OPTICIAN, DISPENSING I(ret. tr.)	713.361-014	4
OPTICIAN, DISPENSING II(ret. tr.)	299.474-010	2
OPTOMECHANICAL TECHNICIAN(optical goods; photo.app.)	007.161-030	4
ORDNANCE ARTIFICIER(gov. serv.)	632.261-018	3
ORNAMENTAL-IRON WORKER(const.)	809.381-022	3
ORNAMENTAL-METAL WORKER(fabric. metal prod.; n.e.c.)	619.260-008	4
ORTHODONTIC TECHNICIAN(med. serv.)	712.381-030	2
ORTHOPEDIC-BOOT-AND-SHOE DESIGNER AND MAKER(boot & shoe; per. protec.; med. dev.)	788.261-010	5
ORTHOTICS TECHNICIAN(per. protec.; med. dev.)	712.381-034	1
ORTHOTIST(per. protec.; med. dev.)	078.261-018	5
OUTBOARD-MOTOR MECHANIC(engine & turbine)	623.281-042	2
OUTSIDE PRODUCTION INSPECTOR(aircraft-aerospace mfg.)	806.281-046	4
OVERHAULER(textile)	628.261-010	2
PAINTER(const.)	840.381-010	3
PAINTER, HAND(any ind.)	970.381-022	3
PAINTER, SHIPYARD(ship & boat bldg. & rep.)	840.381-018	3
PAINTER, SIGN(any ind.)	970.381-026	4
PAINTER, TRANSPORTATION EQUIPMENT(aircraft-aerospace mfg.; air trans.; auto. serv.)	845.381-014	3
PANTOGRAPH-MACHINE SET-UP OPERATOR(mach. shop)	605.382-022	2
PAPERHANGER(const.)	841.381-010	2
PASTE-UP COPY-CAMERA OPERATOR(print. & pub.)	979.381-018	3

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TITLE	DOT CODE	TERM in YEARS
PATTERNMAKER(furn.; garment; textile prod.; n.e.c.)	781.381-026	3
PATTERNMAKER(spring)	693.281-014	4
PATTERNMAKER(stonework)	703.381-010	4
PATTERNMAKER, METAL(foundry)	600.280-050	5
PATTERNMAKER, METAL, BENCH(foundry)	693.281-018	5
PATTERNMAKER, PLASTER(aircraft-aerospace mfg.)	777.381-030	3½
PATTERNMAKER, PLASTICS(fabric. plastics prod.)	754.381-014	3
PATTERNMAKER, WOOD(foundry)	661.281-022	5
PHARMACIST ASSISTANT(mil. serv.)	074.381-010	1
PHOTOCOMPOSING-PERFORATOR-MACHINE OPERATOR(print. & pub.)	203.582-042	2
PHOTOENGRAVER(print. & pub.)	971.381-022	5
PHOTOENGRAVER, FINISHER(print. & pub.)	971.381-030	5
PHOTOENGRAVING PRINTER(print. & pub.)	971.381-034	5
PHOTOENGRAVING PROOFER(print. & pub.)	971.381-038	5
PHOTOGRAMMETRIST(profess. & kind.)	018.261-026	3
PHOTOGRAPHER, LITHOGRAPHIC(print. & pub.)	972.382-014	5
PHOTOGRAPHER, MOTION PICTURE(profess. & kind.)	143.062-022	3
PHOTOGRAPHER, PHOTOENGRAVING(electronics; print. & pub.)	971.382-014	6
PHOTOGRAPHER, STILL(profess. & kind.)	143.062-030	3
PHOTOGRAPHIC EQUIPMENT MAINTENANCE TECHNICIAN(photo.app.)	714.281-026	3
PHOTOGRAPHIC EQUIPMENT TECHNICIAN(photo. app.)	714.281-022	3
PHOTOGRAPHIC-PLATE MAKER(electronics)	714.381-018	4
PHOTOGRAPH RETOUCHER(photofinish)	970.281-018	3
PIANO TECHNICIAN(any ind.)	730.281-038	4
PIANO TUNER(any ind.)	730.361-010	3
PINSETTER ADJUSTER, AUTOMATIC(sports equip.)	829.381-010	3
PIPE COVERER AND INSULATOR(ship & boat bldg. & rep.)	863.381-014	4
PIPEFITTER(const.)	862.381-018	4
PIPEFITTER(ship & boat bldg. & rep.)	862.261-010	4
PIPE ORGAN BUILDER(musical inst.)	730.281-042	3
PIPE ORGAN TUNER AND REPAIRER(any ind.)	730.361-014	4
PLANT OPERATOR, FURNACE PROCESS(bone, carbon, lampblack)	559.362-026	4
PLASTERER(const.)	842.361-018	2
PLASTER-PATTERN CASTER(aircraft-aerospace mfg.; mach. tools and access.)	777.381-038	5
PLASTIC-FIXTURE BUILDER(mach. shop)	601.381-030	4
PLASTICS BENCH MECHANIC(aircraft-aerospace mfg.; fabric. plastics prod.)	754.381-018	2
PLASTIC TOOL MAKER(mach. shop)	601.381-026	4
PLATE FINISHER(print. & pub.)	659.360-010	6
PLATEN-PRESS OPERATOR(print. & pub.)	651.362-018	4
PLATER(electroplating)	500.380-010	3
PLUMBER(const.)	862.381-030	4
PNEUMATIC TESTER AND MECHANIC(aircraft-aerospace mfg.)	621.381-022	2½
PNEUMATIC-TOOL REPAIRER(any ind.)	630.281-010	4
PNEUMATIC-TUBE REPAIRER(any ind.)	630.281-014	2
PODIATRIC ASSISTANT(med. serv.)	079.374-018	2
PONY EDGER(sawmill)	667.682-050	2
POTTERY-MACHINE OPERATOR(pottery & porc.)	774.382-010	3
POWERHOUSE MECHANIC(light, heat, & power)	631.261-014	4
POWER-PLANT OPERATOR(light, heat, & power)	952.382-018	4

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TITLE	DOT CODE	TERM in YEARS
POWER-SAW MECHANIC(any ind.)	625.281-030	3
POWER-TRANSFORMER REPAIRER(light, heat, & power)	821.361-034	4
PRECISION ASSEMBLER(aircraft-aerospace mfg.; electronics)	828.381-014	3
PRECISION ASSEMBLER, BENCH(aircraft-aerospace mfg.)	706.681-010	2
PRECISION LENS GRINDER(optical goods)	716.382-018	4
PRESS OPERATOR, HEAVY DUTY(any ind.)	617.260-010	4
PRINTER, PLASTIC(coated fabric; fabric. plastics prod.)	651.382-026	4
PRINTER-SLOTTER OPERATOR(paper goods)	659.662-010	4
PRIVATE-BRANCH EXCHANGE INSTALLER(tel. & tel.)	822.381-018	4
PRIVATE-BRANCH EXCHANGE REPAIRER(tel. & tel.)	822.281-022	4
PROCESS ARTIST(print. & pub.)	972.281-010	5
PROGRAMER, BUSINESS(profess. & kind.)	020.162-014	2
PROGRAMER, ENGINEERING AND SCIENTIFIC(profess. & kind.)	020.167-022	4
PROJECTION PRINTER(photofinish)	976.381-018	4
PROOF-PRESS OPERATOR(print. & pub.)	651.582-010	5
PROOFSHEET CORRECTOR(print. & pub.)	973.381-030	4
PROP MAKER(amuse. & rec.; motion pic.)	962.281-010	4
PROPULSION-MOTOR-AND-GENERATOR REPAIRER(auto. serv.)	721.281-026	4
PROSPECTING DRILLER(petrol. prod.)	930.382-018	2
PROSTHETICS TECHNICIAN(per. protec. & med. serv.)	712.381-038	4
PROSTHETIST(per. protec. & med. dev.)	078.261-022	5
PROTECTIVE SIGNAL INSTALLER(bus. serv.)	822.361-018	4
PROTECTIVE SIGNAL REPAIRER(bus. serv.)	822.361-022	3
PUMP ERECTOR(const.)	637.281-010	2
PUMPER-GAGER(chem.; petrol. refin.; pipe lines)	914.382-014	3
PUMP SERVICER(any ind.)	630.281-018	3
PURIFICATION OPERATOR(chem.)	551.362-010	4
QUALITY CONTROL INSPECTOR(cut. & tools)	701.261-010	2
QUALITY CONTROL TECHNICIAN(profess. & kind.)	012.261-014	2
RADIOGRAPHER(any ind.)	199.361-010	4
RADIO MECHANIC(any ind.)	823.261-018	3
RADIO REPAIRER(any ind.)	720.281-010	4
RADIO STATION OPERATOR(aircraft-aerospace mfg.)	193.262-026	4
RECORDING ENGINEER(phonograph; radio & tv broad.)	194.362-010	2
RECOVERY OPERATOR(paper & pulp)	552.362-018	1
RECREATIONAL VEHICLE MECHANIC(trans. equip.)	620.281-087	4
REFRIGERATION MECHANIC(any ind.)	637.261-026	3
REFRIGERATION UNIT REPAIRER(refrig. equip.)	637.381-014	3
RELAY TECHNICIAN(light, heat, & power)	821.261-018	2
RELAY TESTER(light, heat, & power)	729.281-038	4
REPAIRER, HAND TOOLS(cut. & tools)	701.381-010	3½
REPAIRER, HEAVY(auto. mfg.)	620.381-022	2
REPAIRER I(chem.)	630.261-018	4
REPAIRER, WELDING EQUIPMENT(welding)	626.381-022	2
REPRODUCTION TECHNICIAN(any ind.)	976.361-010	1
RESEARCH MECHANIC(aircraft-aerospace mfg.)	002.280-010	4
RETICLE INSPECTOR(electronics; inst. & app.; optical goods)	719.361-010	7
RETOUCHER, PHOTOENGRAVING(print. & pub.)	970.381-030	5
RIGGER(any ind.)	921.260-010	2
RIGGER(ship & boat bldg. & rep.)	806.261-014	2
ROCKET-ENGINE-COMPONENT MECHANIC(aircraft-aerospace mfg.)	621.281-030	4

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TITLE	DOT CODE	TERM in YEARS
ROCKET-ENGINE MECHANIC(aircraft-aerospace mfg.)	693.281-026	4
ROLLER ENGRAVER, HAND(print. & pub.)	979.681-018	2
ROLL THREADER OPERATOR(nut & bolt)	619.462-010	1
ROOFER(const.)	866.381-010	3
ROTOGRAVURE-PRESS OPERATOR(print. & pub.)	651.362-026	4
RUBBERIZING MECHANIC(any ind.)	630.281-030	4
RUBBER STAMP MAKER(pen & pencil)	733.381-014	4
RUBBER TESTER(rubber goods; rubber tire & tube)	559.381-014	4
RUG CLEANER, HAND(clean. dye, & press.)	369.384-014	1
SADDLE MAKER(leather prod.)	783.381-026	2
SAFE-AND-VAULT SERVICE MECHANIC(bus.serv.;whole tr.)	869.381-022	4
SALESPERSON, PARTS(ret. tr.; whole. tr.)	279.357-062	2
SAMPLE-BODY BUILDER(auto. mfg.)	693.380-014	4
SAMPLE MAKER, APPLIANCES(elec. equip.)	600.280-054	4
SAMPLE STITCHER(garment)	785.361-018	4
SANDBLASTER, STONE(stonework)	673.382-010	3
SAW FILER(any ind.)	701.381-014	4
SAW MAKER(cut. & tools)	601.381-034	3
SCALE MECHANIC(any ind.)	633.281-026	4
SCREW-MACHINE OPERATOR, MULTIPLE SPINDLE(mach. shop)	604.382-010	4
SCREW-MACHINE OPERATOR, SINGLE SPINDLE(mach. shop)	604.382-014	3
SCREW-MACHINE SET-UP OPERATOR, PRODUCTION(mach. shop)	604.380-022	4
SCREW-MACHINE SET-UP OPERATOR, SINGLE SPINDLE (mach. shop)	604.280-018	3
SCRIPT SUPERVISOR(motion pic.; radio & tv broad.)	201.362-026	1½
SERVICE MECHANIC(auto. mfg.)	807.381-022	2
SEWING-MACHINE REPAIRER(any ind.)	639.281-018	3
SHEET-METAL WORKER(any ind.)	804.281-010	4
SHIPFITTER(ship & boat bldg. & rep.)	806.381-046	4
SHIPWRIGHT(ship & boat bldg. & rep.)	860.381-058	4
SHOEMAKER, CUSTOM(boot & shoe)	788.381-014	3
SHOE REPAIRER(per. serv.)	365.361-014	3
SHOP TAILOR(garment; ret. tr.)	785.361-022	4
SIDEROGRAPHER(print. & pub.)	979.381-030	5
SIGNAL MAINTAINER(r.r. trans.)	822.281-026	4
SIGN ERECTOR I(signs)	869.381-026	4
SIGN WRITER, HAND(any ind.)	970.281-022	
SILK-SCREEN CUTTER(any ind.)	979.681-022	3
SILVERSMITH(silverware)	700.281-022	3
SKETCH MAKER I(print. & pub.)	979.381-034	5
SKETCH MAKER II(print. & pub.)	972.381-018	4
SKIN FITTER(aircraft-aerospace mfg.; air trans.)	806.381-054	4
SMALL ENGINE MECHANIC(any ind.)	625.281-034	2
SOFT-TILE SETTER(const.; ret. tr.)	861.381-034	3
SOIL-CONSERVATION TECHNICIAN(gov. ser.)	040.261-580	3
SOLDERER(jewelry)	700.381-050	3
SOUND MIXER(motion pic.; phonograph; radio&tv broad.)	194.262-018	4
SOUND TECHNICIAN(any ind.)	829.281-022	3
SPINNER, HAND (any ind.)	619.362-018	3
SPRING COILING MACHINE SETTER(spring)	616.260-018	4
SPRING MAKER(spring)	616.280-010	4

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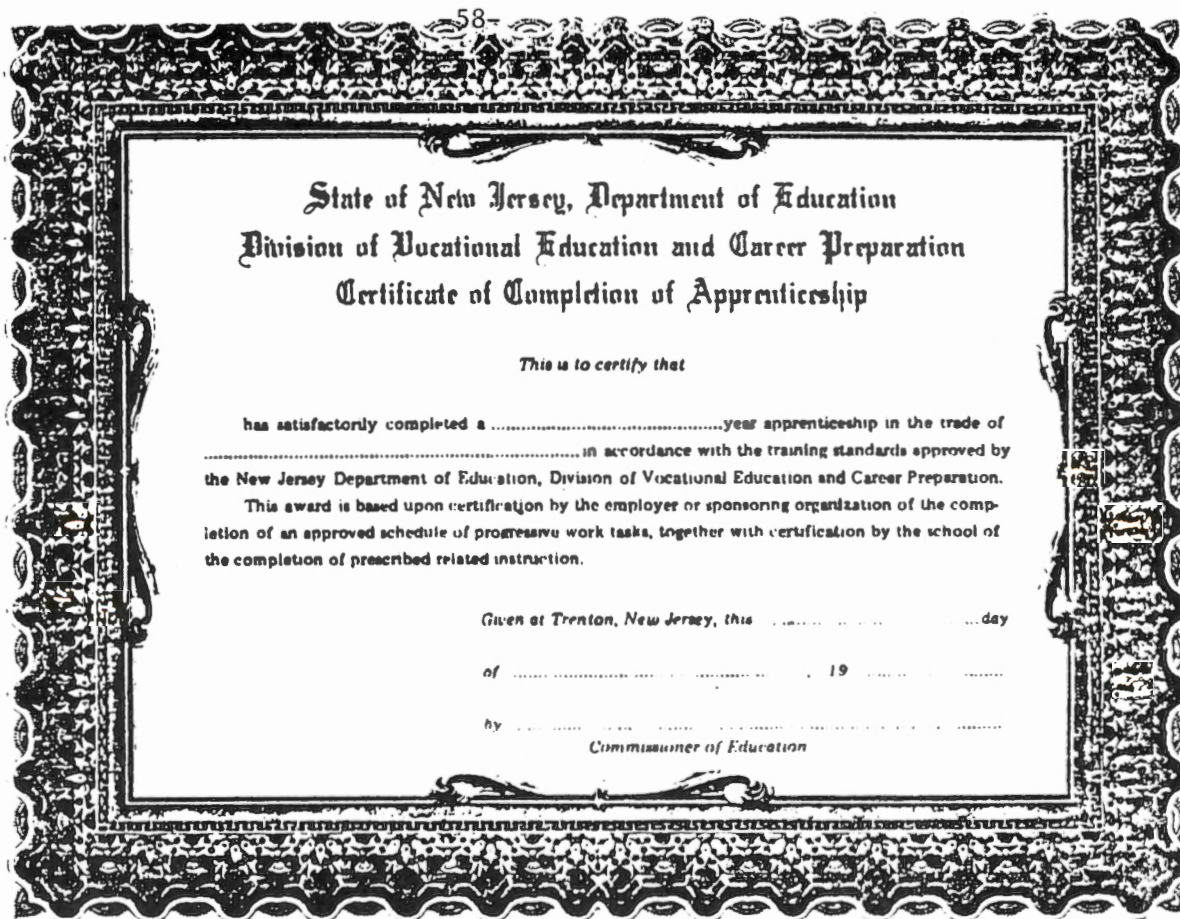
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TITLE	DOT CODE	TERM in YEARS
SPRING-MANUFACTURING SET-UP TECHNICIAN(clock & watch)	619.280-018	4
SPRING REPAIRER, HAND(auto. serv.)	619.380-018	4
STAINED GLASS ARTIST(profess. & kind.)	142.061-054	4
STATIONARY ENGINEER(any ind.)	950.382-026	4
STATION INSTALLER-AND-REPAIRER(tel. & tel.)	822.261-022	4
STEAM SERVICE INSPECTOR(light, heat, & power)	862.361-022	4
STEEL-DIE PRINTER(print. & pub.)	651.382-030	4
STENCIL CUTTER(loco. & car bldg. & rep.)	970.381-038	2
STEREOTYPYER(print. & pub.)	974.382-014	6
STOKER-ERECTOR-AND-SERVICER(any ind.)	637.281-014	4
STONE CARVER(stonework)	771.281-014	3
STONECUTTER, HAND(stonework)	771.381-014	3
STONE-LATHE OPERATOR(stonework)	674.662-010	3
STONEMASON(const.)	861.381-038	3
STONE POLISHER, MACHINE(stonework)	673.382-018	2
STONE SETTER(jewelry; optical goods)	700.381-054	4
STREET-LIGHT SERVICER(light, heat, & power)	824.381-010	4
STRIPPER(print. & pub.)	971.381-050	5
STRUCTURAL-STEEL WORKER(const.)	801.361-014	3
SUBSTATION OPERATOR(light, heat, & power)	952.362-026	4
SUPERCARGO(water trans.)	248.167-010	2
SURFACE-PLATE FINISHER(stonework)	775.281-010	2
SWITCHBOARD OPERATOR(light, heat, & power)	952.362-034	3
TANK SETTER(petrol. prod.)	801.361-022	2
TAP-AND-DIE MAKER TECHNICIAN(clock & watch)	601.280-034	4
TAPE-RECORDER REPAIRER(any ind.)	720.281-014	4
TAXIDERMIST(profess. & kind.)	199.261-010	3
TECHNICIAN, SUBMARINE CABLE EQUIPMENT(tel. & tel.)	822.281-034	2
TELEVISION-AND-RADIO REPAIRER(any ind.)	720.281-018	4
TELEVISION-CABLE INSTALLER(any ind.)	821.281-010	1
TEMPLATE MAKER(any ind.)	601.381-038	4
TEMPLATE MAKER, EXTRUSION DIE(mach. shop)	601.280-038	4
TERRAZZO WORKER(const.)	861.381-046	3
TEST ENGINE OPERATOR(petrol. refin.)	029.261-018	2
TESTING-AND-REGULATING TECHNICIAN(tel. & tel.)	822.261-026	4½
THERMOMETER TESTER(inst. & app.)	710.384-030	1
TILE SETTER(const.)	861.381-054	3
TINTER(paint & varnish)	550.381-014	2
TOOL-AND-DIE MAKER(mach. shop)	601.280-046	4
TOOL DESIGNER(profess. & kind.)	007.061-026	4
TOOL-DRAWING CHECKER(aircraft-aerospace mfg.)	007.167-022	4
TOOL GRINDER I(any ind.)	701.381-018	3
TOOL GRINDER OPERATOR(mach. shop)	603.280-038	4
TOOL-MACHINE SET-UP OPERATOR(mach. shop)	601.280-054	3
TOOL MAKER(mach. shop)	601.280-042	4
TOOL MAKER, BENCH(mach. shop)	601.281-026	4
TRACTOR MECHANIC(auto. serv.)	620.281-058	4
TRANSFORMER REPAIRER(any ind.)	724.381-018	4
TRANSMISSION MECHANIC(auto. serv.)		
(Automotive Specialty Shops only)	620.281-062	2
TREATMENT-PLANT MECHANIC(waterworks)	630.281-038	3

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TITLE	DOT CODE	TERM in YEARS
TREE SURGEON(agric.)	408.181-010	3
TROUBLE LOCATOR, TEST DESK(tel. & tel.)	822.361-030	2
TROUBLE SHOOTER II(light, heat, & power)	821.261-026	4
TRUCK-BODY BUILDER(auto. mfg.; auto. serv.)	807.281-010	4
TRUCK-CRANE OPERATOR(any ind.)	921.663-062	1
TRUCK DRIVER, HEAVY(any ind.)	905.663-014	1½
TUNE-UP MECHANIC(auto. serv.)	620.281-066	2
TURBINE OPERATOR(light, heat, & power)	952.362-042	4
TURRET-LATHE SET-UP OPERATOR, TOOL(mach. shop)	604.280-022	4
UPHOLSTERER, INSIDE(furn.)	780.681-010	3
VIOLIN MAKER, HAND(musical inst.)	730.281-046	4
WALLPAPER PRINTER I(wallpaper)	652.662-014	4
WARDROBE SUPERVISOR(amuse. & rec.)	346.361-010	2
WASTE-TREATMENT OPERATOR(chem.)	955.382-014	2
WASTEWATER-TREATMENT-PLANT OPERATOR(sanitary serv.)	955.362-010	2
WATCH REPAIRER(clock & watch)	715.281-010	4
WATER TREATMENT-PLANT OPERATOR(waterworks)	954.382-014	2
WEATHER OBSERVER(profess. & kind.)	025.267-014	2
WEB-PRESS OPERATOR(print. & pub.)	651.362-030	4
WELDER, ARC(welding)	810.384-014	4
WELDER, COMBINATION(welding)	819.384-010	3
WELDER-FITTER(welding)	819.361-010	4
WELDING-MACHINE OPERATOR, ARC.(welding)	810.382-010	3
WELL-DRILL OPERATOR(const.)	859.362-010	4
WIND-INSTRUMENT REPAIRER(any ind.)	730.281-054	4
WIND-TUNNEL MECHANIC(aircraft-aerospace mfg.)	827.381-014	4
WINE MAKER(vinous liquors)	183.161-014	2
WIRER(office mach.)	729.281-042	2
WIRE SAWYER(stonework)	677.462-014	2
WIRE WEAVER, CLOTH(wirework)	616.382-014	4
WOOD-TURNING-LATHE OPERATOR(woodworking)	664.382-014	1
X-RAY EQUIPMENT TESTER(any ind.)	729.281-046	2



SAMPLE CERTIFICATES



SAMPLE APPRENTICE REGISTRATION CARD

STATE OF NEW JERSEY -- DEPARTMENT OF EDUCATION TRENTON	
THIS IS TO CERTIFY THAT	

having entered into an approved agreement with the firm of	

located in _____, New Jersey, has been registered with New Jersey Department of Education, in conformity with the State Plan for Vocational Education, as a bona fide apprentice in the following trade	

Date of Registration _____	Registration Number _____
DATE APPRENTICESHIP _____	Assistant Commissioner of Education
SIGNATURE _____	NJDE 621-10 (4/78)