

Legislative Audit Division

State of Montana



Report to the Legislature

June 1998

Performance Audit

Apprenticeship and Training Program

Department of Labor and Industry

This report contains information pertaining to the Apprenticeship and Training Program and includes recommendations for improvements to program operations. These recommendations address administration and distribution of educational grants. Issues for department and legislative consideration are also presented.

Direct comments/inquiries to:
Legislative Audit Division
Room 135, State Capitol
PO Box 201705
Helena MT 59620-1705

98P-06

PERFORMANCE AUDITS

Performance audits conducted by the Legislative Audit Division are designed to assess state government operations. From the audit work, a determination is made as to whether agencies and programs are accomplishing their purposes, and whether they can do so with greater efficiency and economy. In performing the audit work, the audit staff uses audit standards set forth by the United States General Accounting Office.

Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, statistics, economics, computer science, communications, and engineering.

Performance audits are performed at the request of the Legislative Audit Committee which is a bicameral and bipartisan standing committee of the Montana Legislature. The committee consists of six members of the Senate and six members of the House of Representatives.

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Tori Hunthausen, IT & Operations Manager



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Jim Pellegrini, Performance Audit
James Gillett, Financial-Compliance Audit

June 1998

The Legislative Audit Committee
of the Montana State Legislature:

We conducted a performance audit of the Apprenticeship and Training Program which is administered by the Department of Labor and Industry. This report provides information regarding the program and contains recommendations for improvement. A written response from the department is included at the end of the report.

We wish to express our appreciation to the Department of Labor and Industry, Apprenticeship and Training Program staff, for their cooperation and assistance.

Respectfully submitted,

Signature on File

Scott A. Seecat
Legislative Auditor

Legislative Audit Division

Performance Audit

Apprenticeship and Training Program

Department of Labor and Industry

Members of the audit staff involved in this audit were Lisa Blanford and Jim Nelson.

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Appointed and Administrative Officials

Department of Labor and Industry

Pat Haffey, Commissioner

Wendy J. Keating, Administrator, Job Service Division

Ingrid Danielson, Director, Program Management

Mark Maki, Supervisor, Apprenticeship and Training Program

Introduction

Apprenticeship is a form of skill training. Apprentices learn by working under the supervision of a mentor or master craft worker. The education acquired through work experience is supplemented with training provided through classroom instruction or correspondence course work. Apprenticeships usually last four years, but can range from one to five years. As apprentices gradually learn the mechanics of the trade, they receive higher pay and perform their work under less supervision. Completion of an apprenticeship program leads to journeyman status in a skilled trade.

In Montana, the apprenticeship system is administered by the Department of Labor and Industry. The primary purpose of the state's Apprenticeship and Training Program is to: 1) encourage employers to establish apprenticeship programs; 2) promote written apprenticeship agreements; and 3) oversee operation of those programs to ensure compliance with state, federal, and industry standards. There are currently 564 employer-sponsors and 896 apprentices registered with the department. Employer and apprentice participation in a registered apprenticeship system is voluntary.

Both employer-sponsors and apprentices benefit from participation in a registered apprenticeship program. Participating employers have a source of trained workers with experience specific to their particular business. Employers pay progressive wages based upon apprentice skill and experience level. In addition, apprentices are exempt from prevailing wage requirements on public works projects. Apprentices benefit from the program by receiving a broad education combining work experience with academic instruction, earning wages while they learn, and receiving regular pay raises as job skills progress. In addition, training costs are paid by the employer.

This audit report presents information pertaining to the Apprenticeship and Training Program and includes recommendations for improvements to program operations. These recommendations address administration and distribution of educational grants. Issues for department and legislative consideration are also presented.

Report Summary

Instructional Grant Program

Over the years, the legislature has provided federal and state special revenue funds to off-set some of the costs employers incur in providing apprentices with supplemental technical instruction. This is instruction provided in addition to on-the-job training. Educational costs are off-set through state grants. Grants are applied towards correspondence courses, apprentice instructor salaries, journeyman training, and administrative expenses incurred by the Office of Public Instruction. During fiscal year 1997-98, \$140,000 was appropriated to the Department of Labor and Industry for the instructional grant program. The actual apportionment and distribution of grants is performed by an ad hoc committee established by the department.

During the audit, we examined the administration and distribution of these state grants. Our review revealed two concerns. First, grant monies have been distributed and used for purposes outside the scope of the language contained in Chapter 357, Laws of 1997. During fiscal year 1997-98, 20 percent of the dollars authorized for the instructional grant program was used for journeyman upgrade training. This usage is not specifically authorized. Secondly, no formal guidelines for distribution of grants exist.

The primary reason these problems occurred is the Department of Labor and Industry allows the ad hoc committee to set the process for apportioning and distributing the grants. Since creation of this committee, department staff have not actively participated in the grant distribution program. Department oversight and direction has been limited. The department has a responsibility to ensure future grants are distributed in accordance with appropriation language. In order to accomplish this, the department should take a more active role in overseeing distribution of these grants. In addition, many of the concerns identified could be addressed by developing formal guidelines for use in determining grant eligibility, apportioning funds, and distributing grants.

Issues for Department Consideration

During our review of program operations, we also identified four areas for department consideration. We did not issue formal recommendations for the issues. First, the department should review the administrative arrangement they have with the Office of Public Instruction to determine if it is cost effective. In addition, since the responsibility for post-secondary vocational technical education has been shifted to the Board of Regents, the department should assess whether a more direct link between the apprenticeship system and post-secondary vocational technical education could be beneficial. The last issues for department consideration relate to the technical instruction provided to apprentices. We suggest the department explore other instructional methods which could provide a more interactive teaching environment for apprentices. The department should also review correspondence courses to ensure contents are still applicable.

Issues for Legislative Consideration

Audit work also resulted in identifying two funding-related areas for legislative consideration. Daily operations of the Apprenticeship and Training Program are funded through the Employment Security Account (ESA). Federal funding reductions for job service center programs and a subsequent increased reliance on the ESA to off-set the loss of federal funds contributed to a declining fund balance. This is forcing department programs which rely on ESA funds to compete against each other for funding. Future program funding could become an issue for legislative consideration as the Apprenticeship and Training Program competes for ESA dollars.

Educational costs are borne primarily by employers who sponsor apprentices. Over the years, the Legislature provided federal and state funds to off-set some of the costs employers incur in providing apprentices with supplemental technical instruction. These funds are distributed in the form of grants. Funding for the apprentice instructional grant program has come from many sources over the years. These funds originally came from federal Carl D. Perkins Vocational and Applied Technology Education Act. Recently, funds were allocated from building, electrical, and plumbing permit fees collected by the Department of Commerce. The apprenticeship instruction grant program does not have a permanent funding source and future funding will be an issue for legislative consideration.

Report Summary

Chapter I - Introduction

Introduction

The Legislative Audit Committee requested a performance audit of the Apprenticeship and Training Program which is administered by the Department of Labor and Industry. The Apprenticeship and Training Program is responsible for the development, registration, oversight, and administration of apprenticeship programs for a number of occupations in Montana.

Audit Objectives

This performance audit examined the department's apprenticeship program. The objectives of the performance audit were to:

1. Obtain a general understanding of the concept of training through registered apprenticeship and the role of the state in administering the program.
2. Explore the relationship between registered apprenticeship and the licensed trades.
3. Gain an understanding of the administrative responsibilities of the Department of Labor and Industry's Apprenticeship and Training Program including program activities.
4. Review program funding including the instructional grant program and examine controls related to grant administration.
5. Gain an understanding of federal standards which apprenticeship registration agencies must abide by and determine department compliance with those standards.
6. Identify external issues which impact the department's Apprenticeship and Training Program including economic factors, workforce dynamics, and program requirements which influence growth and regression.
7. Identify sources of trades-related instruction available in Montana and determine the level of interaction between training sources and the Apprenticeship and Training Program.

Chapter I - Introduction

Audit Scope and Methodology

The audit was conducted in accordance with governmental auditing standards for performance audits. We reviewed program operations from fiscal year 1987-88 to date.

Program Information

During initial audit work, we gained an understanding of the concept of apprenticeship and the roles of the parties involved with administering apprentice training. We interviewed state and federal government staff, apprentice sponsors and apprentices. We also contacted Joint Apprenticeship Training Committees and trade representatives. We examined records and management information and observed activities of program staff. In addition, we examined the working relationship between groups involved with apprenticeship. This included visits to apprentice working sites, and observation of classroom instructional training and apprenticeship committee meetings.

We examined Apprenticeship and Training Program administrative responsibilities and reviewed program funding for both operations and supplemental instruction grants. This included interviews and observations with program staff, discussions with Office of Public Instruction (OPI) staff and apprenticeship committee members, and review of program and OPI records. We also examined legislation and other historical records related to the apprenticeship program.

Funding for Operations

We reviewed a variety of records to gather information pertaining to funding for general program operations and grants for apprentice instruction. This included a review of past and present funding issues for the apprenticeship program. We discussed funding with department and program management and staff, Office of Public Instruction staff, and the department's Apprenticeship and Training Joint Planning and Advisory Committee. We also examine records specific to state grants which are provided to defray the costs of instruction incurred by employer-sponsors and Joint Apprenticeship and Training Advisory Committees.

Apprenticeship Standards

Audit work was done to identify standards which govern apprenticeship agreements and examine department adherence to those standards. This included discussions with staff from the U.S. Department of Labor, Bureau of Apprenticeship and Training and a review of related federal regulations. We also discussed program requirements with department staff and reviewed statutes and administrative rules. A review of department adherence to apprenticeship standards was accomplished by reviewing department records, program forms and apprenticeship agreements and comparing these against federal regulations and state statutes and rules.

Policy and Issues

We conducted work to identify policy issues which affect the program and to determine factors which influence program growth and regression. This included an examination of history of the apprenticeship training program and correlations to economic factors. We examined economic indicators published by the Department of Labor and Industry and by the Bureau of Business and Economic Research. We also discussed policy with federal and state apprenticeship program staff, employer-sponsors, apprenticeship committees, and trade groups. We examined department records and related studies.

Relationship to Other Training and Licensed Trades

We contacted trade unions and organizations, apprenticeship committees, federal and state apprenticeship program staff, and educators to ascertain sources of trades-related training in Montana and interaction between various groups and apprenticeship. We reviewed training curriculums and related reports addressing this subject. In order to explore the relationship between apprenticeship and licensed trades, we discussed this issue with apprentice program staff, licensing boards and staff, apprenticeship committees, and electrical and plumbing trade representatives. We also examined licensing laws and administrative rules for Montana and gathered information pertaining to licensing requirements of a sample of other states.

Chapter I - Introduction

Compliance

We examined compliance with statutes, administrative rules, and federal regulations relating to the administration of the Apprenticeship and Training Program. We found the department is complying with applicable statutes, rules, and federal regulations. We identified one area of non-compliance. The department has not distributed instruction-related state grants in accordance with appropriation language contained in the funding bill. These grants are intended to support apprenticeship related training. This issue is discussed in detail on page 33.

Area for Future Review

During our performance audit we identified an area we believe warrants future examination. This area is related to professional licensing and is outside the scope of authority of the Department of Labor and Industry. The following section discusses this area.

Electrical and Plumbing Licensure Requirements

Professional and Occupational Licensing Boards are responsible for enforcing licensing provisions related to various professions and occupations including electricians and plumbers. During our contact with licensing boards, we noted differences in licensing board interpretations of statutory experience requirements which are necessary to qualify for licensure.

The Board of Electricians and Board of Plumbers implemented different policies regarding what experience they will recognize which qualifies applicants for licensure. The Board of Electricians adopted a policy of recognizing practical work experience including experience gained while working in Montana without a license or participating in a registered apprenticeship program. On the other hand, the Board of Plumber's policy is to recognize only experience gained in a registered apprenticeship program or from working in another state.

Construction-related trade representatives, apprenticeship coordinators, and Department of Commerce staff also voiced concerns that some licensing provisions in Montana differ from those in many other states.

A future audit could examine how electrical and plumbing licensing requirements are developed and contrast these requirements to other states. In addition, interpretation of licensing requirements could also be examined. The enforcement of electrical and plumbing licensure

Chapter I - Introduction

requirements was also identified as an area for future review during the performance audit of Administration and Enforcement of State Building Codes in Montana (97P-01). Concerns related to investigation of alleged license violations were identified.

Chapter II - Understanding Apprenticeship

Introduction

This chapter provides an overview of apprenticeship and includes information explaining the roles of the U.S. Department of Labor, Montana Department of Labor and Industry, apprentice employer-sponsors, Joint Apprenticeship and Training Committees and apprentices. It also provides an explanation of program requirements and standards.

Overview of Apprenticeship

Apprenticeship is the oldest form of skill training. It is a skilled worker teaching their craft to other workers. Training lasts for a specific length of time, covers all aspects of the trade or profession, and includes both on-the-job and technical instruction. Apprentices learn by working under the supervision of a mentor or master craft worker. The education acquired through work experience is supplemented with training provided through classroom instruction or correspondence course work.

Picture 1

Apprenticeship Welder and Employer-Sponsor

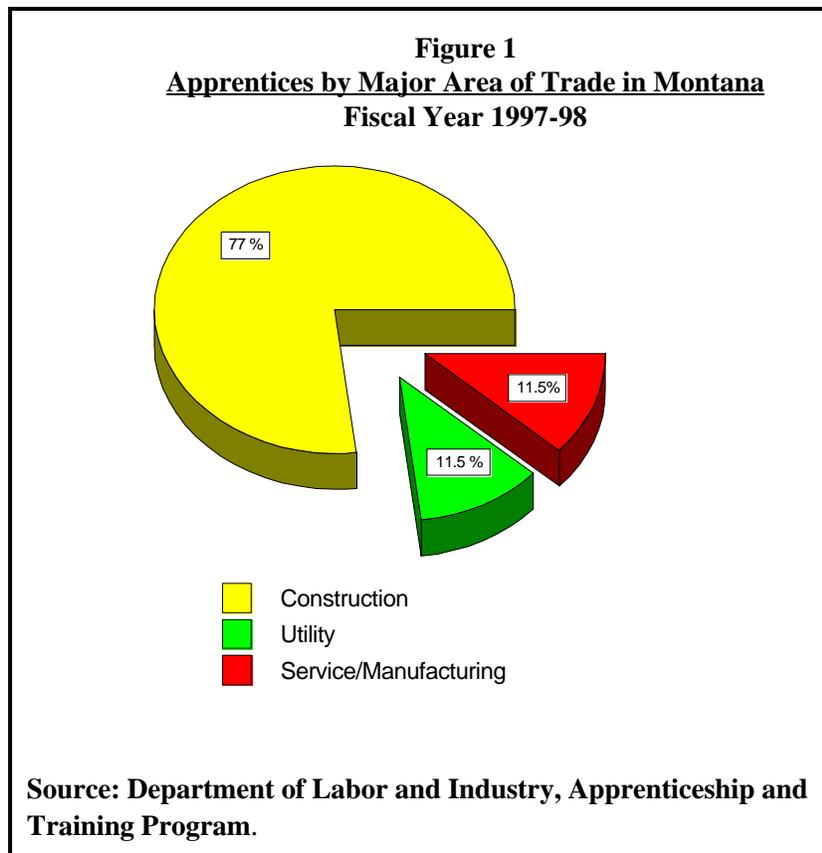


Source: Department of Labor and Industry, Apprenticeship and Training Program.

Chapter II - Understanding Apprenticeship

Apprenticeships usually last about four years, but can range from one to five years. As apprentices gradually learn the mechanics of the trade, they receive higher pay and perform their work under less supervision from a journeyman. Completion of apprenticeship leads to the attainment of journeyman status in a skilled trade.

Currently, the majority of apprentice programs in Montana are within the building and construction trades. The apprenticeship structure is used to train carpenters, cement masons, electricians, iron workers, plumbers, and roofers. However, apprenticeships also exist in occupations as diverse as fire fighting, computer operations, gemology, meat cutting, printing and graphics, and paralegal work. Figure 1 illustrates the percent of apprentices in the construction, utility, and service and manufacturing trades in Montana.



Chapter II - Understanding Apprenticeship

The dominance of construction and building trades in apprenticeship follows national trends. According to information provided by the U.S. Department of Labor, 67 percent of all apprentices are in 20 occupations, mostly in construction and metal trades. In Montana, the number of registered apprentices in construction-related trades has grown in response to the construction boom the state has experienced since 1991.

Parties Involved in Apprenticeship

There are three parties involved in an apprenticeship: the governmental registration agency, the employer-sponsor, and the apprentice. However, the nucleus of an apprenticeship is the relationship between the employer-sponsor and the apprentice. It is an employer - employee, teacher - student relationship.

Government's Role: Encourage and Oversee Apprenticeship

In order to encourage apprenticeship, Congress passed the National Apprenticeship Act of 1937. The purpose of the legislation was to: 1) formulate and promote labor standards necessary to safeguard the welfare of apprentices; 2) bring together employers and labor to formulate apprenticeship programs; and, 3) cooperate with state agencies in formulating and promoting standards of apprenticeship.

Federal and state governments share responsibility for administering apprenticeship. The U.S. Department of Labor encourages states to promote apprenticeship and administer apprenticeship programs locally. Governmental promotion of apprenticeship came to Montana in 1941 when the legislature passed "An Act for a System of Apprenticeship." Montana was one of the first states to establish an apprentice registration agency. An Apprenticeship Council was originally created to administer the program. The Council was abolished in 1971 and the Department of Labor and Industry became the primary entity to administer apprenticeship in Montana.

Nationwide, 27 states administer apprenticeship programs. The federal government administers apprenticeship in those states without a state-operated program. In order for a state to administer a federally approved apprenticeship program, it must conform with the U.S. Department of Labor's published standards and apply for federal recognition as an apprenticeship registration agency. These federal

Chapter II - Understanding Apprenticeship

standards outline general program administration. Upon demonstrating compliance, the Secretary of Labor formally recognizes the state and authorizes the state to register apprentice-ship programs that conform with those standards. The Department of Labor and Industry's program is federally recognized as "the apprenticeship registration agency" in Montana. Once a state program is approved by the Secretary of Labor, it operates independently.

The federal Bureau of Apprenticeship and Training (BAT) maintains a branch office in Montana. The bureau assists the state program by providing advise and consultation, and by registering and monitoring some apprenticeship programs. Both agencies estimate that 90 percent of the work involved in registering apprentice programs is conducted by the state's program.

Significance of Registered Apprenticeship

The terms "apprenticeship registration agency" and "registered apprentice" have unique implications.

- ▶ The Davis-Bacon Act contains labor standards applicable to contracts covering federally funded construction projects. These standards require workers in training status to be *registered apprentices*. A major incentive for construction contractors to use apprentices has been that registered apprentices can be paid less than the prevailing wage rate on federally funded construction projects covered by the Davis-Bacon Act.
- ▶ *Registered apprentices* working on state-funded construction projects can be paid less than state prevailing wages.
- ▶ The *apprenticeship registration agency* certifies veteran's participation in apprenticeship programs. Veterans in registered apprenticeship programs may be eligible for certain Veterans Administration benefits.
- ▶ Statutes governing licensure of electricians and plumbers require individuals working in the trade in a training capacity to be *registered apprentices*.
- ▶ One of the ways to become eligible for a license for sprinkler-fitters or fire alarm system installers is through completion of a *registered apprenticeship* program.

Chapter II - Understanding Apprenticeship

- ▶ Employers participating in *registered apprenticeship* may be eligible for state grants to defray educational expenses they incur.

Registered apprenticeship programs meet certain standards which provide for quality training and fair treatment of apprentices. Adherence to these standards provides incentives to employers and assists in attainment of journeyman status for employees.

Department of Labor and Industry Role

The primary purpose of the state's Apprenticeship and Training Program is to: 1) encourage employers to establish apprenticeship programs, 2) promote apprenticeship agreements, and 3) oversee operation of those programs to ensure compliance with state, federal, and industry standards. Program staff provide the following services to employers, workers, the public and educational community:

- ▶ Consulting and technical assistance to employers in setting up and registering apprentice training programs.
- ▶ Oversight service and monitoring of existing apprenticeship programs to ensure compliance with state, federal, and industry training standards and successful completion of apprentices.
- ▶ Maintain and review apprentice training standards to safe-guard the welfare of apprentices and to ensure the quality of the training.
- ▶ Provide information to the public about apprenticeship opportunities.
- ▶ Certify apprentices on public works projects.
- ▶ Function as Montana's authorized approval agency for Veterans Administration benefit purposes.
- ▶ Record and issue graduation certificates to individuals who successfully complete their apprenticeship training program.

Chapter II - Understanding Apprenticeship

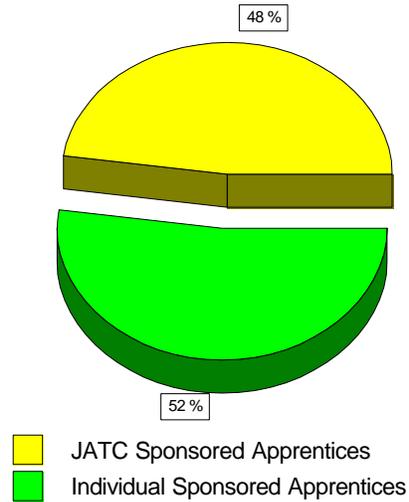
Employer Role: Sponsor and Teach

Registered apprenticeship is a voluntary training program. There are no federal or state mandates that employers must participate in apprenticeship programs. Apprenticeship is primarily a private sector activity. Employers, or employers together with employee organizations, act as sponsors of all registered apprenticeship programs. Apprenticeship programs are of two main types: 1) individual, and 2) joint. Individual programs are programs sponsored by employers not having a collective bargaining agreement with a union. An individual apprentice program can be sponsored by a single employer or a group of employers. They are called individual programs because an employer individually sponsors apprentices. The apprentice is indentured to the employer. The employer agrees to sponsor the apprentice and the apprentice agrees to work for the sponsor.

A joint program is sponsored by employers together with a union. Joint management-labor apprenticeship programs are commonly administered by a Joint Apprenticeship and Training Committee (JATC). Committee members represent both management and labor. The committee's role is to oversee apprentice training. Apprentices are sponsored by the JATC and are placed by the JATC with employers who are signatory to a collective bargaining agreement. Apprentices in joint programs are indentured to the JATC.

As of May 1998, there were 529 certified individual employer- sponsors and 35 programs jointly administered through JATCs in Montana. However, JATCs generally sponsor a large number of apprentices because they represent a number of employers. In Montana, the 35 JATC programs currently work with 317 employers. The scope of JATC programs is revealed in the number of registered apprentices they sponsor. The following figure illustrates the percent of registered apprentices sponsored by JATCs and by individual employers.

Figure 2
Percent of Apprentices Sponsored by JATCs and Individuals
As of May 11, 1998



Source: Department of Labor and Industry, Apprenticeship and Training Program.

Employers that choose to sponsor a program are expected to meet established program standards. Apprenticeship standards are established by the respective industry and are designed to provide an adequate training experience while safeguarding the welfare of the apprentice. Program standards are outlined on page 16. The costs of training apprentices are mainly supported by the private sector.

Apprentice Role: Learn

Once an employer agrees to sponsor an apprentice, the apprentice agrees to work for the sponsor and meet certain conditions. An apprentice entering a registered apprenticeship program agrees to complete supplemental technical instruction. Instruction is primarily offered through classroom settings and correspondence course work. Apprentices must also maintain detailed records of their work experiences on a daily basis.

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Registering An Apprenticeship Program

The apprenticeship program is *employer-demand driven*. Because the program is based on employer demand, persons interested in becoming a registered apprentice must find an employer-sponsor. The Apprenticeship and Training Program advises prospective apprentices to contact local employers, apprenticeship committees in their community, or a labor union office.

When an employer is interested in sponsoring an apprentice, Apprenticeship and Training Program staff supply general information and provide technical assistance. Program staff conduct preliminary work to ensure the employer or JATC can provide an environment conducive to apprenticeship.

An effective apprenticeship program requires a number of things. The employer or JATC must have enough work to keep the apprentice employed for the term of the apprenticeship contract. The apprenticeship term is usually four years. In addition, the scope of work performed by the employer must be broad enough to provide the apprentice with a well-rounded education. For example, an electrical contractor that performs only residential electrical work could not sponsor an inside wireman (journeyman electrician) apprentice because their scope of work does not include commercial or industrial wiring. Not all employers engage in a broad enough scope of work to adequately train an apprentice. In addition, employers must be willing to pay a fair and progressive wage and are responsible for costs of apprentice's supplemental technical instruction.

Employers or JATCs who are committed to the apprenticeship system and can provide the core requirements of apprenticeship must also agree to abide by the federal and state standards which govern apprenticeship.

Standards Governing Apprenticeship

Federal apprenticeship regulations established basic standards that apprenticeship programs must meet to be eligible for registration. The Montana Legislature adopted the concepts of these same standards through statute. Section 39-6-106, MCA, details the contents of apprenticeship agreements. Program requirements are also detailed in

Chapter II - Understanding Apprenticeship

the administrative rules adopted by the Department of Labor and Industry. The following table outlines the basic standards for registered apprenticeship.

Table 1
Basic Standards for Registered Apprenticeship

Apprenticeship Agreements Must Contain:

- Term of apprenticeship consistent with industry standards. Minimum term is 2,000 hours.
- Schedule of work processes at which the apprentice is to be taught and the amount of time to be spent at each process.
- Number of hours of supplemental technical instruction to be provided to an apprentice. The minimum is 144 hours per year.
- Minimum apprentice starting age can not be less than 16 years of age. Because of safety considerations, industry standards set a minimum age of 18 for some trades.
- Progressive schedule of wages based upon an apprentice's hours of experience and completion of supplemental technical instruction.
- Provision of a probationary period.
- The specification of the ratio of apprentices to journeymen.
- Credit for prior training or experience in the trade.
- Provision that the department services may be used to settle differences arising out of the apprenticeship agreement.
- Provision that if an employer is unable to fulfill his obligations under the agreement, the obligation may be transferred to another qualified employer.

Additional Guidelines:

- Statement of basic qualifications for apprenticeship which must be specific and equally applied to all apprentices.
- A full and fair opportunity exists to apply for apprenticeships.
- Proper supervision of on-the-job training.
- Safety training for apprentices.
- Apprentice progress, both in job performance and supplemental technical instruction, is periodically evaluated, and appropriate records are maintained.
- There is employee-employer cooperation.
- Successful apprenticeship completions are recognized.
- No discrimination exists in any phase of selection, employment, or training of apprentices.

Source: Compiled by the Legislative Audit Division.

Chapter II - Understanding Apprenticeship

A few of these requirements are the core of the apprenticeship system. The term of apprenticeship, schedule of work processes to be taught on-the-job, and supplemental technical instruction are set by industry practices. All registered apprentice programs adhere to these same industry standards ensuring apprentices in the same trade receive comparable education in any area of the country. The following examples explain some key components of apprenticeship.

Term: The term of an apprenticeship is set by industry practices for each of over 800 apprentice-able occupations. Terms range from one to five years and are specified as number of hours. For example, the apprentice term for a child care development specialist is 2,000 hours, a diesel mechanic 4,000 hours, and a taxidermist 6,000 hours.

Job Experience: A schedule of job experience exists for each apprentice-able occupation. The schedules are used to ensure apprentices receive an adequate and broad array of work experience. The schedules set minimum hours of experience to be gained in different areas specific to a trade. For example, the schedule of work experience for an inside wireman is 3,000 hours of residential wiring, 3,000 hours of commercial wiring, 1,000 hours of industrial wiring, and 1,000 hours of miscellaneous work such as high and low voltage signs, and using wiring diagrams.

Supplemental Instruction: Apprentices receive supplemental instruction in addition to work experience. Instruction is usually provided through classroom activities or correspondence courses. Industry practices also establish the amount and areas of instruction to be provided to apprentices. A minimum of 144 hours of instruction per year is required. The Apprenticeship and Training Program works with Montana's employers to identify and utilize various training sources. For example, apprentice electricians in rural areas without access to classroom instruction use correspondence courses provided by a technical college in North Dakota.

Chapter II - Understanding Apprenticeship

Apprenticeship Agreements

When an employer or sponsor and employee agree to enter into a registered apprentice relationship, there is a signed contract between the parties. This agreement governs the terms and conditions of employment and training, and serves to protect the rights of both parties. The written agreement is between an apprentice and either his employer, or a joint apprenticeship committee acting as agent for the employer(s). The agreement specifies the apprentice's terms of apprenticeship, wages they will receive, work processes they will be taught on-the-job, and instructions in regard to the supplemental technical classroom or correspondence course instruction. The requirements specific to minimum training, both on the job training and supplemental technical instruction, for apprentices are based on industry standards.

By signing this agreement, the employer-sponsor and apprentice agree to adhere to the standards and requirements contained therein. The agreement is formally approved and registered by the state's Apprenticeship and Training Program.

Program Monitoring

Once an apprenticeship program is registered and the agreement is in place, Apprenticeship and Training Program staff oversee and monitor apprenticeship programs to ensure continued compliance with state, federal, and industry standards. Program staff also monitor apprentice progress and provide assistance to ensure apprentices complete their apprenticeship.

Benefits of Apprenticeship Programs

Both employer-sponsors and apprentices can benefit from registered apprenticeship programs. Program benefits are listed in the following table.

Chapter II - Understanding Apprenticeship

Table 2
Benefits of Registered Apprenticeship

<u>Employer Benefits</u>	<u>Apprentice Benefits</u>
* source of trained workers	* paid employment while training for a career
* work experience specific to business	* training costs paid by employer
* pay progressive wages based on experience	* regular pay raises as job skills increase
* apprentices exempted from prevailing wage requirement on public projects	* broad education combining OJT and academic instruction
* grants to defray costs of supplemental instruction	* ability to compete more effectively in the job market upon completion
* less employee turnover	* economic opportunity
* improved labor relations	* improved success on passing licensing exams

Source: Apprenticeship and Training Program, Department of Labor and Industry.

Relationship Between Apprenticeship and the Licensed Trades

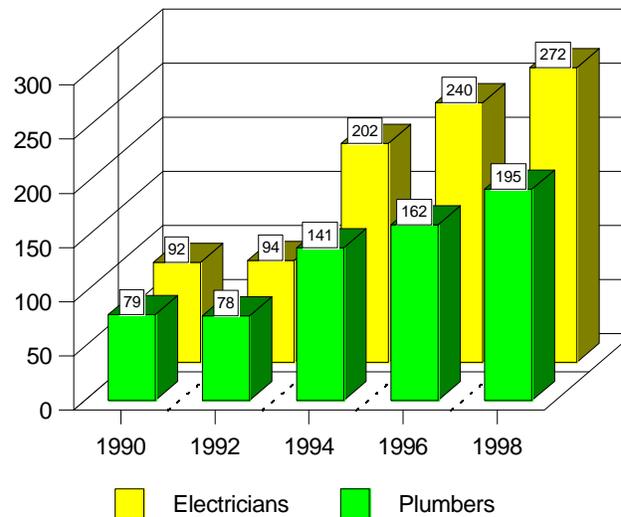
One of the audit objectives was to explore the relationship between registered apprenticeship and admission into the licensed trades. The Apprenticeship and Training Program gets business because of Montana's licensing laws. Registered apprenticeship is an avenue of entry into four licensed trades in Montana: electrician, plumber, sprinkler fitter, and fire alarm installer. Statutory licensing requirements establish registered apprenticeship as one means of entry into these trades. General interaction between the Apprenticeship and Training Program and professional licensing boards centers around providing the boards with routine notification of apprentice enrollments, completions and cancellations.

Chapter II - Understanding Apprenticeship

Training Electricians and Plumbers are Key Apprentice Programs

The training of electricians and plumbers are key programs within the Apprenticeship and Training Program. Electrical and plumbing apprentices currently account for 52 percent (467/896) of registered apprentices. According to the Department of Labor and Industry, since early 1991, Montana has experienced a steady increase in construction activity on a statewide basis. Continued growth in construction is expected through 2010. Due to this growth, there has been a shortage of licensed electricians and plumbers. Since registered apprenticeship is one avenue into these trades, the number of registered electrical and plumbing apprentices has experienced sharp growth. The following illustration reveals the number of electrical apprentices has almost tripled over the past eight years while the number of plumbing apprentices has more than doubled.

Figure 3
Number of Registered Apprentice Plumbers and Electricians
1990 through 1998



Source: Department of Labor and Industry, Apprenticeship and Training Program.

Chapter II - Understanding Apprenticeship

There are currently 272 registered electrical apprentices studying the electrical trade in Montana. This is one apprentice for every 8.9 licensed electricians in the state. For the plumbing trade, there is currently one apprentice for every 5.3 licensed plumbers in the state.

Registered Apprenticeship Used by Sprinkler Fitters and Fire Alarm Installers

In addition to the plumbing and electrical fields, sprinkler fitter and fire alarm system installers are also regulated by a licensing board. One of the allowable methods to qualify for an endorsement license to practice these trades is completion of a registered apprenticeship program in the trade. The estimated number of registered apprentices studying the sprinkler fitting and fire alarm installation trades is between 20 and 25.

Chapter III - Apprenticeship Program Administration

Introduction

This chapter presents information on general operational activities conducted by the Apprenticeship and Training Program of the Department of Labor and Industry. It includes statistical information about program usage and success. The chapter also discusses funding of program operations and examines the department's educational grant program. In addition, department adherence to standards which registration agencies must abide by is discussed.

Program Administration

Over the years apprenticeship has been administered from several divisions within the department. The Department of Labor and Industry was reorganized in 1993 and the Apprenticeship and Training Program was relocated to the Job Service Division. This placement of the program provides a more direct administrative link with other employment and training services provided by the department.

Staff Activities

Daily program operations are managed by the program's four staff members. Staff provide management assistance, technical guidance and oversight for all registered apprentice programs. Program staff work with a multitude of groups including prospective apprentice sponsors, current and past apprentice sponsors, apprenticeship committees, prospective and current apprentices, school officials and other training providers. Employers are not charged a fee for the services provided.

Staff activities include distributing program information. This is done through in-office and field visits, telephone calls, and distribution of written correspondence and informational materials. Activities also include inspection visits to sponsors of registered apprenticeship programs. During these visits, program compliance is reviewed, apprentice progression checked, and technical assistance provided. The two field representatives spend approximately 28 percent of their time in the field and travel about 25,000 miles annually. The following table depicts program staff activity during 1997.

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Table 3
Program Staff Activities
1997

Incoming Telephone Calls	6,065
Information Packets Distributed	248
Information Packets to Apprentices	76
Apprentice Requests for Information	155
Informational In-office Visits	169
Informational Field Visits	62
Travel Days	116
Sponsor Reinspection Visits	144

Source: Department of Labor and Industry, Apprenticeship and Training Program (Unaudited).

Program Activities

There are currently over 180 occupations recognized as apprentice-able in Montana. The Apprenticeship and Training Program currently has apprentices being trained in 60 of those trades. The other 120 apprentice-able trades do not currently have any registered apprentices. The perception of apprenticeship is that apprenticeships are available strictly in construction jobs. In fact, of the 180 apprentice-able occupations, only twelve are construction related. The majority of occupations are within the utility, manufacturing and service industries. However, in terms of numbers of apprentices enrolled in programs, the construction related fields sponsor the most apprentices. The following table depicts the ten occupations with the most registered apprentices currently enrolled in Montana apprenticeship programs. Seventy-seven percent of registered apprentices are in these ten occupations.

Table 4
Ten Occupations with the Most Apprentices
April 30, 1998

<u>Occupation</u>	<u># Apprentices</u>
Electrician	245
Plumber	195
Carpenter	53
Sheet Metal Worker	53
Structural Steel Iron Worker	36
Roofer	28
Electrician (Residential)	27
Lineman (Utility)	22
Boilermaker	17
Operating Engineer	17
Total	693

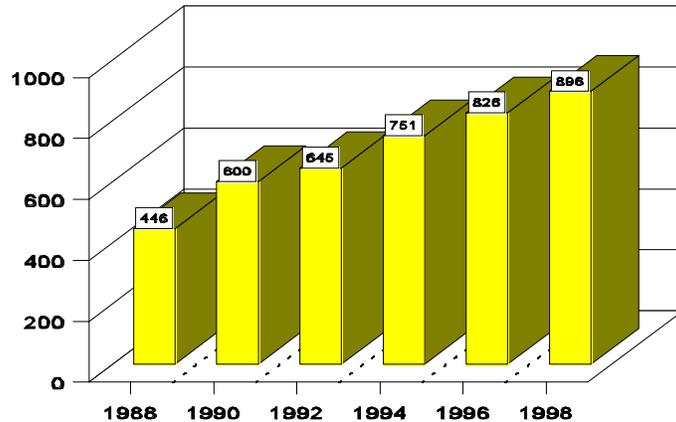
Note: Refer to the report Appendix #1 for a complete listing of registered apprentices by occupation.

Source: Department of Labor and Industry, Apprenticeship and Training Program.

The department's apprenticeship program has experienced steady growth. The number of registered apprentices in Montana has almost doubled during the last ten years. There are currently 896 apprentices enrolled in apprentice programs. Department staff registered 339 new apprentices during 1997. Figure 4 provides historical data regarding the number of registered apprentices.

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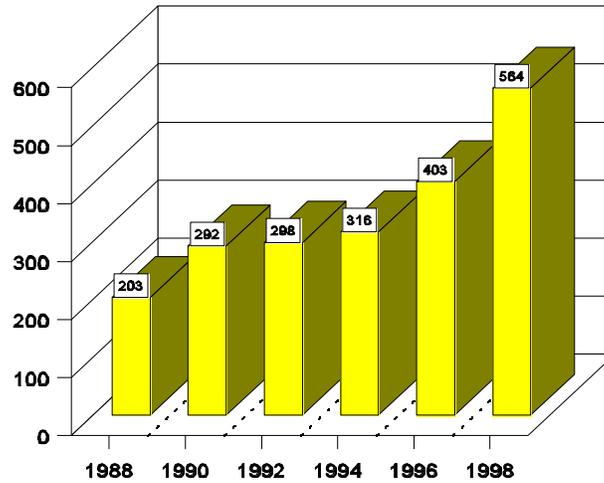
Figure 4
Number of Registered Apprentices
1988-98



Source: Department of Labor and Industry, Apprenticeship and Training Program.

Employer support of the apprenticeship system has also grown. Department staff certified 44 new program sponsors during 1997. There are currently 564 employer-sponsors certified through the department's program. Thirty-five of the active sponsors are JATCs and the remaining 529 are individual program sponsors. Certified sponsors have placed apprentices with 846 different employers. The following figure provides historical information regarding the number of employer-sponsors.

Figure 5
Number of Certified Employer-Sponsors
1988-98



Source: Department of Labor and Industry, Apprenticeship and Training Program.

Indicators of Program Results

In addition to the continued growth in the numbers of employer-sponsors and apprentices the department is registering, there are other indicators of program results. Program staff provide support and assistance to apprentices enrolled in programs in order to facilitate completion of the apprenticeship. Since 1991, the percentage of apprentices canceling their apprenticeship has varied between 18 and 10 percent. The cancellation rate has decreased over that period of time. The most common reasons for apprentices dropping out of the program are: better wages elsewhere, voluntarily quit, or moving out of the area. The cancellation rate is also impacted by Apprenticeship and Training Program staff activities such as program transfers. Program transfers occur when an apprentice changes from one apprentice-able occupation to another. This occurs most often when a residential wireman apprentice decides to apprentice as an inside wireman (journeyman

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electrician). Program staff must cancel the apprentice from the first apprenticeship program. This artificially increases the cancellation rate.

Another indicator of apprentice program results is an apprentice's ability to pass professional licensing exams for the electrical and plumbing trades. According to data provided by the Board of Electricians, 90 percent of apprentice electricians successfully pass the journeyman electrician exam compared to 61 percent of other participants. Data compiled by the Board of Plumbers reveals the exam pass rate for apprentice plumbers is 88 percent compared to 76 percent of non-apprentice participants. In addition to passing licensing exams, statutes require applicants for the exam to "pre-qualify." Persons who complete a registered apprenticeship program receive a certificate of completion. This certificate documents that statutory qualifications needed to take the licensing exam have been met. In comparison, it can be difficult for non-apprentice applicants for licensure to provide documentation which demonstrates they meet the statutory qualifications to take the licensing exams.

Economic Impact of Apprenticeship

Apprentices, unlike many people in learning situations, earn wages. Thus, even as they are learning, apprentices contribute to the state's economy. In 1996, apprentices enrolled in the department's apprenticeship program earned an average wage of \$13.14 per hour and an average annual wage of \$26,270. In comparison, 1996 per capita income in Montana was \$19,214. Apprentices completing the program can expect to earn higher wages as they attain journeyman status.

According to data compiled by the U.S. Bureau of the Census in 1996, 22 percent of Montana's high school graduates earned a college degree. Apprenticeship is a career training alternative because it offers opportunity to those who do not seek or complete post-secondary education. Apprenticeship affords another opportunity towards acquiring the skills needed to enter the labor force at better than average wages.

Chapter III - Apprenticeship Program Administration

Program Funding

One of the objectives of the audit was to obtain information on general program funding and to review funding of the instructional grant program including determining adequacy of controls related to grant program administration. The following sections discuss both funding for general program operations and the instructional grant program.

General Program Operations

Since 1990, the daily operations of the Apprenticeship and Training Program have been funded through the Employment Security Account (ESA). This account is funded from the unemployment insurance administrative tax which is a tax on wages subject to the unemployment tax paid by employers. Costs of operations include personnel services for a staff of 4 FTE, general operation expenses, travel, and administrative overhead. The following chart provides past program expenditures and current year budget.

Table 5
Apprenticeship and Training Program
Expenditures and Budget
Fiscal Years 1995-96 through 1997-98

<u>Category</u>	<u>Actual</u>		<u>Budgeted</u>
	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
Personal Services	\$ 157,897	\$ 175,644	\$ 164,447
Operating Expenses	57,746	53,034	53,200
Equipment & Intangible Assets	<u>1,263</u>	<u>1,049</u>	<u>1,000</u>
Total	\$ 216,906	\$ 229,727	\$ 218,647

Source: Compiled by the Legislative Audit Division from SBAS records.

Issue for Legislative Consideration

The Employment Security Account is a key funding source for several Department of Labor and Industry programs including operations of the Job Service Division, Employment Relations Division, Unemployment Insurance Division, and legal and centralized services. The Apprenticeship and Training Program is administratively attached to the

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Job Service Division. Operations related to the apprentice program will account for 4.4 percent of ESA funds expended during fiscal year 1997-98. The Apprenticeship and Training Program receives a small portion of ESA funds. Because apprenticeship is an employment training program, the department supports funding the Apprenticeship and Training Program through the employer-paid tax.

Conclusion: Program Funding May Be Future Issue

The fund balance in the ESA account is declining. Federal funding reductions for job service center programs and a subsequent increased reliance on the ESA to offset the loss of federal funds have contributed to the declining fund balance. The declining fund balance is forcing department programs which rely on ESA funds to compete against each other for funding. Future program funding could become an issue for legislative consideration as the Apprenticeship and Training Program competes for ESA dollars.

Instructional Grant Program

Over the years, the legislature has provided federal and state special revenue funds to off-set some of the costs employers incur in providing apprentices with supplemental technical instruction. This instruction is provided in addition to on-the-job training. Educational costs are off-set through state grants. Grants are applied towards correspondence courses, apprentice instructor salaries, journeyman upgrade training, and administrative expenses incurred by the Office of Public Instruction. The following table depicts the level of grants and distribution for the most recent three year period.

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Table 6
Apprenticeship Program Instructional Grants
Fiscal Years 1995-96 through 1997-98

Category	<u>Actual</u>		<u>Budgeted</u>
	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>
ND State College of Science	\$ 22,000	\$19,000	\$ 23,800
Apprentice Instructor Support	61,669	56,092	83,752
Upgrade Instruction	16,331	21,897	28,248
OPI Administration	<u>0</u>	<u>3,000</u>	<u>4,200</u>
Total	\$100,000	\$99,989	\$140,000

Source: Compiled by the Legislative Audit Division from SBAS records.

Use of Grants

Correspondence courses, or home study courses, are used to provide supplemental instruction to apprentices who don't have access to classroom-type instruction. These are mainly apprentices of individual employer sponsors and those located in rural areas of the state. The North Dakota State College of Science (NDSCS) is the provider for these courses. They provide course work for a wide variety of apprentice-able occupations. North Dakota State College of Science was selected as the provider through the request for proposal (RFP) process. Grant monies are used to defray part of the employer cost of purchasing these courses. Employers pay 100 percent of the cost of first year courses, and 60 percent of remaining years courses. The state grant pays for the remaining 40 percent. During fiscal year 1997-98, \$23,800 is allocated for correspondence courses. In addition to text books, the college also provides grading services as apprentices complete segments of each course. Upon completion of an entire course, apprentices must take validation tests which are supplied and graded by the college.

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Grants are also distributed to defray part of the cost of apprentice instructor support. Apprentice training organizations, primarily JATCs, utilize classroom settings and instructors to provide supplemental technical instruction to apprentices. Training organizations apply for grants to defray costs of instruction including: instructor salaries, instructional supplies, materials and equipment, and travel. Grants are distributed to approved applicants based upon the number of hours of training scheduled for the upcoming year. The organizations receive a set amount per hour of instruction. During fiscal year 1997-98, 11 organizations received grants totaling \$83,752 for apprentice instructor support. Ten of the grant recipients were JATCs. The other grant recipient was Blackfoot Community College which offers apprentice instruction programs for five different apprentice-able occupations. Refer to Appendix #2 for a complete listing of instructor support grant recipients.

Management-labor groups providing journeyman upgrade training also receive state grants to defray these educational costs. This training is provided to journeymen for courses in various subjects including: construction site safety, use of scaffolding, hazardous waste, traffic control, valve repair, first aid, and CPR. Grant distribution is also based upon number of hours of instruction to be provided. During fiscal year 1997-98, nine JATCs received grants for journeyman upgrade training. The grants totaled \$28,248. Appendix #2 contains a complete listing of journeyman upgrade grant recipients during fiscal year 1997-98.

The Office of Public Instruction (OPI) performs the administrative duties required with distributing the state grants including maintaining documentation and initiating transfer warrant claims. OPI receives a portion of the funds for administrative expenses. The following section discusses the results of our review of the department's grant program and contains recommendations for improvement.

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Grant Administration and Distribution

The instructional grant program is administered by several parties. OPI is responsible for administrative-type duties such as distributing grant applications and processing transfer warrant claims. The actual apportionment and distribution of grants is performed by an ad hoc committee - the Joint Planning and Advisory Committee - which is composed primarily of JATC members. Committee members also include two individual employer-sponsors, an OPI staff member, and a staff member from the Apprenticeship and Training Program. Committee members are appointed by Apprenticeship and Training Program management.

During the audit, we examined the administration and distribution of these state grants including a review of controls in place to ensure grants are properly distributed and used by grant recipients. Our review of records revealed two concerns.

First, grant monies have been distributed and used for purposes outside the scope of the appropriation language contained in Chapter 357, Laws of 1997. During fiscal year 1997-98, 20 percent (\$28,248) of the dollars authorized for the instructional grant program was used for journeyman upgrade training. This usage is not specifically authorized. Secondly, no formal guidelines for distribution of grants exist.

Violation of Appropriation

The appropriation language contained in Chapter 357, Laws of 1997, states, "The following money is appropriated from the fund balance of the state special revenue account...to the Department of Labor and Industry to fund apprenticeship instruction programs pursuant to 39-6-103" (emphasis added). The bill does not contain language authorizing the use of these funds for journeyman training, nor does appropriation language imply funds can be used for training anyone other than apprentices. In addition, a review of testimony did not reveal any evidence which would indicate funds could be used to train journeymen.

No formal guidelines exist for how grants are awarded and funds distributed. As a result, funds have been distributed for training purposes which do not appear to comply with use specified in the funding bill's appropriation language. In addition, records revealed some grant applicants were denied funds although it appears they should

Chapter III - Apprenticeship Program Administration

have been eligible given the appropriation language in Chapter 357. For example, an employer-sponsor submitted a grant proposal to defray the cost of sending a welding apprentice to a related course offered by MSU College of Technology. Documentation stated the application was denied because, "The primary intent for these funds is to provide partial reimbursement to Joint Apprenticeship Training Committees for instructor expenses."

In addition, the ad hoc committee has established some criteria for grant eligibility which appears to be exclusionary in nature. One such requirement is applicants must have established a training trust fund and been granted tax exempt status by the Internal Revenue Service.

These problems have occurred for a number of reasons. According to program management and staff, historically, the Department of Labor and Industry allowed the Joint Planning and Advisory Committee to set the process for apportioning and distributing the grants. This was an internal decision that occurred years ago. There is no language in the funding bill authorizing this committee. Since the creation of this ad hoc committee, department staff have not actively participated in the grant distribution program. Department oversight and direction has been limited.

Oversight and Guidelines Needed

Chapter 357, Laws of 1997, appropriates funds to the Department of Labor and Industry to be used to fund apprenticeship instruction. The department has a responsibility to ensure future grants are distributed in accordance with appropriation language. In order to accomplish this, the department should take a more active role in overseeing apportionment and distribution of these grants. In addition, many of the concerns identified could be addressed by developing formal guidelines for use in determining grant eligibility, apportioning funds, and distributing grants. If the department wishes to provide grants for purposes other than apprenticeship instruction programs, specific legislative authorization should be sought. In addition, if the department plans on delegating authority to the ad hoc committee in the future, it should formalize this arrangement through guidelines which detail membership, responsibilities, and duties.

Chapter III - Apprenticeship Program Administration

Recommendation #1

We recommend the Department of Labor and Industry:

- A. Ensure grants are distributed in accordance with appropriation language.**
- B. Develop formal guidelines for determining grant eligibility, apportioning funds, and distributing grants.**

Issue for Legislative Consideration

Funding for the apprentice instructional grant program has come from many sources over the years. These funds originally came from federal Carl D. Perkins Vocational and Applied Technology Education Act. After the loss of federal funding due to changes in federal legislation, funds have been allocated from various federal and state special revenue sources including unemployment insurance penalty and interest funds and the Employment Security Account. Most recently funds were allocated for the 1998-99 biennium from building, electrical, and plumbing permit fees collected by the Department of Commerce.

Conclusion: Grant Program Lacks Permanent Funding Source

The apprenticeship instruction grant program does not have a permanent funding source and future funding will be an issue for legislative consideration.

Other Issues for Department Consideration

During our review of program operations, we also identified three areas for department consideration: 1) the relationship with OPI and Board of Regents, 2) assessing methods of providing supplemental instruction to apprentices, and 3) ensuring correspondence course contents are still applicable. The following section discusses these issues.

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Relationship with OPI and Board of Regents

OPI has been responsible for the administrative duties associated with the distribution of apprentice instruction grants for many years. Historically, these administrative duties were conducted by OPI for two reasons: 1) responsibility for administering Carl D. Perkins funds, and 2) responsibility for administration of vocational technical education in Montana. Title 39, chapter 6, MCA, provides that instruction for apprentices shall be the responsibility of state and local boards responsible for vocational education and makes reference to OPI. However, OPI's role has changed and it is no longer statutorily responsible for post-secondary vocational technical education. Post-secondary vocational education is now the responsibility of the Board of Regents. In addition, apprentice instruction programs no longer receive Carl D. Perkins funds, so funds distributed for apprentice training are no longer administratively tied to OPI.

Conclusion: Review OPI Involvement

Since the role of OPI has changed since its initial involvement with apprenticeship instruction, the Department of Labor and Industry should review this administrative arrangement to determine if it is cost effective.

Conclusion: Assess Board of Regents Involvement

In addition, responsibility for post-secondary vocational technical education has been shifted to the Board of Regents. The department should address this change and assess whether a more direct link between the apprenticeship system and post-secondary vocational technical education could be beneficial.

Alternative Methods of Instruction

Correspondence courses provided by North Dakota State College of Science constitute one of the primary means of providing apprentices with supplemental technical instruction. Discussions with apprentices revealed correspondence course work can be very difficult to complete because self-study is not interactive in nature. When apprentices need assistance with subject matter, it can be very difficult to obtain. Discussions with Apprenticeship and Training Program staff revealed apprentices sponsored by individual employer programs tend to cancel their apprenticeship more often than JATC sponsored apprentices. Staff indicated this could be due in part to the reliance of individual programs on correspondence course work.

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Technology is available today which could provide a more inter-active teaching environment such as computers, video tapes and remote site satellite instruction. Interactive technical instruction could lead to a higher apprentice completion rate. In addition, perhaps arrangements could be made to offer existing classroom type instruction to apprentices relying primarily on correspondence courses.

Conclusion: Explore Other Instruction Methods

The Department of Labor and Industry should explore the availability and cost of other avenues of apprentice instruction.

Correspondence Courses May Not Be Current

Employer-sponsors, apprentices, and Apprenticeship and Training Program staff commented that some of the correspondence courses offered by North Dakota State College of Science may need to be upgraded. Staff indicated there has not been a comprehensive review of correspondence coursework for a number of years. For example, some of the courses include a review of building, electrical, plumbing and mechanical codes. These codes are written by several different sources and are periodically updated. Some correspondence courses do not incorporate codes currently enforced in Montana.

Conclusion: Review Contents of Correspondence Courses

The Department of Labor and Industry should review correspondence course work to ensure contents are still applicable.

Department Compliance with Federal Standards

One of the objectives of the audit was to gain an understanding of federal standards which apprenticeship registration agencies must abide by and determine department adherence to those standards. The following section discusses federal requirements and department compliance with those requirements.

In order for a state to administer an apprenticeship program, it must conform with the U.S. Department of Labor's published standards and apply for federal recognition as an apprenticeship registration agency. These federal standards outline general program administration. Standards are outlined in the Code of Federal Regulations and include:

- ▶ acceptable state apprenticeship law or executive order

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- ▶ acceptable composition of a state apprenticeship council
- ▶ acceptable state plan for equal employment opportunity in apprenticeship
- ▶ basic standards, criteria, and requirements for program registration and/or approval
- ▶ policies and operating procedures which include 10 basic requirements

Upon demonstrating compliance with federal requirements, the Secretary of Labor formally recognizes the state and authorizes the state to register apprenticeship programs that conform with those standards. The Department of Labor and Industry's program was formally recognized in 1977. Discussions with federal officials and documents provided by the U.S. Department of Labor, Apprenticeship and Training Bureau, indicate Montana's apprenticeship program continues to receive federal recognition and operates in substantial compliance with federal requirements. Although there is currently no state apprenticeship council, the U.S. Secretary of Labor has recognized and authorized Montana's program. Non-compliance with this requirement has not adversely affected federal recognition.

Failure to conform to federal regulations would result in a state losing recognition "for federal purposes." The wage exemption granted for apprentices on federally funded construction projects would be affected as would approval of veterans educational benefits for apprenticeship training. In addition, Montana's licensing laws require electricians and plumbers in training status must be registered apprentices.

***Conclusion: Department
Substantially Complies***

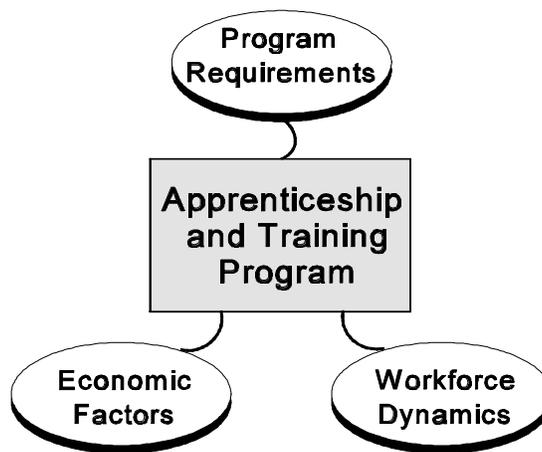
Based upon our review of documentation and discussions with federal and department officials, it appears the department is in substantial compliance with federal standards.

Chapter IV - Issues Impacting Program

Introduction

There are many issues which impact the Apprenticeship and Training Program. This chapter contains a discussion of external issues which impact this program. This includes a discussion of various economic factors, workforce dynamics, and program requirements which influence growth of the Apprenticeship and Training Program.

Figure 6
Issues Impacting Program



Source: Compiled by the Legislative Audit Division.

Factors Which Influence Program Growth

Because apprenticeship training programs are employer-demand based, in order for apprenticeship to expand, employers must provide openings and sponsor apprentices. Many factors can influence an employer's decision to sponsor apprentices. Some of these factors are based upon conditions in the economy and workforce. Other factors are based upon requirements for participation in registered apprenticeship programs.

Economic and Workforce Factors

The largest factor influencing the number of participants in the apprenticeship program is the condition of the economy. During times of good economic conditions, construction activity in the state is high. This coupled with low unemployment has employers searching for

Chapter IV - Issues Impacting Program

skilled workers. Because of this, there is a resurgence in apprenticeship training, especially in the construction-related trades. When economic conditions are favorable, employers have enough work to sponsor apprentices.

However, even with good economic conditions, employers indicated there are several factors which can make it difficult to sponsor apprentices. The historical "boom and bust" cycle of the construction business makes it difficult to attract workers into the skilled trades. Higher wages available in other states can also impact availability of workers. Large construction projects currently underway in the state make it difficult for rural-area employers to sponsor apprentices. When journeymen are attracted to these large construction projects, rural employers do not have enough journeymen on staff to teach apprentices. The cost of training workers makes some employers reluctant to sponsor apprentices.

Factors Which Are Program Requirements

Registered apprenticeship programs must adhere to basic program requirements. These requirements are detailed in federal regulations and also in state statute. There are two requirements that seem to cause more discussion than any others: apprentice wages and apprentice to journeyman ratios. We examined these issues to determine whether these requirements are barriers to apprenticeship program participation and what action the department has taken to mitigate any restrictive impacts.

Apprentice Wages

The Department of Labor and Industry adopted administrative rules governing the wage rate for apprentices. These rules are based upon federal regulations and state statutes requiring apprenticeship agreements contain a statement of progressively increasing wages to be paid to the apprentice consistent with the skill acquired. Federal regulations also specify the entry wage shall be not less than the minimum wage, unless a higher wage is required by other applicable federal or state law, respective regulations, or by collective bargaining agreement. According to program requirements, starting wages for apprentices are usually 40 percent of the journeyman rate for the particular occupation or trade and progress to 90 percent of journeyman rate during the final year of apprenticeship.

Chapter IV - Issues Impacting Program

Administrative rules establish the process for determining wage rates to be paid to apprentices in building construction trades. Historically, these wage requirements cause problems for some apprentice employer-sponsors. Employers in some areas of the state could not afford to pay the wages required by department policy. The wage requirement was a barrier to employers sponsoring apprentices.

In response to concerns expressed by the construction industry, in 1994, the department appointed a task force to study the issue and draft new administrative rules governing the establishment of base journey-level rates for apprentice wages in the construction trades. The goal of the task force was to examine the issue and determine if there was a more equitable means of establishing apprentice wages that would open apprentice opportunities for both rural and urban employers. The task force recommended that separate surveys be conducted to determine journeyman wages in rural and urban areas. A survey of journeyman wage rates paid by apprenticeship sponsors in rural areas is used to establish apprentice wages in these areas. The department divided the state into five geographical areas and apprentice wages in each of the state's rural areas are based upon this survey. Journeyman wages in the state's seven populated counties are surveyed separately as part of the department's Prevailing Wage Survey. These seven counties are: Cascade, Flathead, Gallatin, Lewis and Clark, Missoula, Silverbow and Yellowstone. Apprentices in these counties are paid a portion of the state prevailing wage for their occupation. The current process takes into account the economic differences between Montana's rural and populated areas. The new administrative rules took effect in January 1996.

***Conclusion: Process
Established to Mitigate
Barrier to Apprenticeship***

It appears the department's new procedure governing wage rates for apprentices appropriately responds to the concerns expressed by both urban and rural employers sponsoring apprentices. This action reduced the effect of apprentice wages as a barrier to apprenticeship program participation.

Chapter IV - Issues Impacting Program

Apprentice: Journeyman Ratios

There are guidelines governing the number of apprentices an employer may sponsor. These guidelines are known as apprentice to journeyman ratios. The requirements are set forth in federal regulations, state statute and administrative rule, and in apprenticeship agreements. Federal regulations list the numeric ratio as a requirement of registered apprenticeship. Title 29, Part 29, CFR, provides:

- ▶ the numeric ratio of apprentices to journeymen should be consistent with proper supervision, training, safety, and continuity of employment; and applicable provisions in collective bargaining agreements, except where such ratios are expressly prohibited by the collective bargaining agreements.

This is one of the standards states administering apprenticeship must adopt. The Legislature adopted this standard in section 39-6-106, MCA, which requires a provision for the specification of apprentice to journeymen ratio be contained in apprenticeship agreements. This section of the law also states:

- ▶ “The department will continue to honor and recognize ratio provisions as established in existing labor/management bargaining agreements or as established by an industry practice.”

Historically, the actual ratios of apprentices to journeymen have been set through collective bargaining agreements. The ratios established as part of these agreements are subsequently used by various industry groups as a standard for training apprentices. These ratio standards represent the recommendations of both employers and labor. According to federal and state officials, apprenticeship organizations, and labor-management groups, ratios are designed to allow for an adequate and safe training environment for apprentices and journeymen. Ratios vary but the majority of apprentice-able occupations use a one to three ratio. For example, a master electrician can sponsor one apprentice. If he wants to sponsor more apprentices, he must have three journeymen working in the business for every additional apprentice.

The apprentice to journeymen ratios for the electrical and plumbing trades have been viewed as barriers to apprenticeship program participation. Increased construction activity in Montana has contributed to a shortage of skilled labor, especially in the electrical and

Chapter IV - Issues Impacting Program

plumbing trades. As electrical and plumbing business expands, employers wanting to hire more employees must hire either licensed journeymen or registered apprentices in order to comply with Montana's licensing laws. Currently, the demand for licensed journeymen exceeds the supply and more employers are looking towards sponsoring a registered apprenticeship program to fill manpower needs. However, there are limits on how many apprentices an employer can sponsor, and an employer can not sponsor more apprentices than allowed by federal and state standards and collective bargaining agreements. Consequently, ratios have been a topic of frequent discussion.

During the 1997 legislative session, a bill was passed to change the industry established ratio for apprentice electricians. The bill proposed amending electrical licensing-related statutes to allow for a one to one ratio. The bill was vetoed by the Governor who cited concerns that such a change was unnecessary and would jeopardize training, worker safety, and the safety of customers. The Governor also noted the Department of Labor and Industry currently has a process whereby electricians (and other trades) can get an exemption from the ratio if they prove a labor shortage exists.

The Department of Labor and Industry recognizes the difficulties arising from the current shortage of skilled workers. In response, the department adopted administrative rules allowing the apprentice-journeyman ratio to be waived by the department for apprentice sponsors who demonstrate the need for a waiver. The employer-sponsor must prove: 1) there is a shortage of qualified workers, and 2) the ability to continue to provide adequate training for apprentices will not be jeopardized by the waiver.

Some electrical contractors voiced concerns over the process employers must follow to demonstrate a labor shortage and subsequent need for a ratio waiver. In response, the department established a task force in 1997 to review related requirements. The task force developed several options for changing the waiver requirements contained in administrative rules. The department in conjunction with the task force prepared a ballot-type document and distributed it to all registered

Chapter IV - Issues Impacting Program

electrical apprentice sponsors for consideration and input. The input and results will be tallied and changes made as needed and appropriate.

Department records indicate employer-sponsors are using the department's existing procedure to seek a waiver from the current ratio requirements. Waivers have been requested by electrical and plumbing businesses and ten waiver agreements are currently in effect. About 70 percent of the requests have originated from rural employers who tend to have a more difficult time attracting licensed journeyman electricians and plumbers.

Conclusion: Process Established to Mitigate Barrier to Apprenticeship

Apprentice to journeyman ratios are set by industry practices and collective bargaining agreements. While these ratios have the effect of limiting the number of apprentices participating in apprenticeship programs, they are intended to provide for adequate training of apprentices, ensure worker safety, and protect the welfare of the general public. The department is aware of the restrictive nature of the ratio requirement and developed procedures to address it. The department's policy of waiving the ratio for employers who can demonstrate the need due to labor shortage or other reasons reduced the effect of apprentice to journeyman ratios as a barrier to apprenticeship program participation.

Agency Response



DEPARTMENT OF LABOR AND INDUSTRY

COMMISSIONER'S OFFICE

MARC RACICOT, GOVERNOR

P.O. BOX 1728

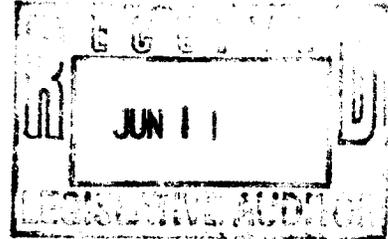
STATE OF MONTANA

TELEPHONE: (406) 444-3555
FAX: (406) 444-1394
TDD: (406) 444-0532

HELENA, MONTANA 59624-1728

June 11, 1998

Mr. Jim Pellegrini
Deputy Legislative Auditor
Office of the Legislative Auditor
P.O. Box 201705
Helena, Montana 59620-1705



Dear Mr. Pellegrini:

Enclosed please find the Department of Labor and Industry's response to the performance audit report of the Apprenticeship and Training Program.

We concur with the recommendation and have provided an action plan and anticipated time frame in our response.

Please feel free to contact me if you have any questions concerning the enclosed response.

Sincerely Yours,

A handwritten signature in cursive script that reads "Pat Haffey".

Pat Haffey, Commissioner
Department of Labor and Industry

c: Wendy Keating, Administrator, Job Service Division
Mark Maki, Supervisor, Apprenticeship and Training Program

MONTANA DEPARTMENT OF LABOR AND INDUSTRY
Apprenticeship and Training Program
Response to Performance Audit Report
June 1998

The Department of Labor and Industry response to the performance audit on the administration and operation of the Apprenticeship and Training Program is as follows:

A. Concur. The department will take all measures necessary to assure that the funds will be strictly used for apprenticeship training purposes. The advisory committee will be informed that apportionment of the funding must follow the exact language as stated by law. The department will review all suggested appropriations by the committee for adherence to the language stated in the law and deny any appropriations that do not fall within the scope of the law. This will be effective for the fiscal year 1998/99 and until sunset of the legislation.

B. Concur. The department will develop formal guidelines for determining grant eligibility, apportioning funds and distributing grants. In this regard, the department will take the following action:

1. If the department continues to use an advisory committee in the role of overseeing appropriation and distribution of the grants, guidelines defining responsibilities and duties will be developed.
2. The advisory committee will have a balanced representation of program sponsors from both Joint Apprenticeship Training Committee's (JATC) and independent programs. Committee suggestions will be reviewed by the department before any final action is taken.
3. Grant eligibility will be based on approved standards, evidence of a viable need for funding and historical usage of funds. All groups providing approved related and supplemental training to registered apprentices will be eligible.
4. The department will develop an equitable system that will allow for the funding to be more evenly divided for both JATC and independent-sponsored programs. Historical usage for funds, possible decrease in the independent sponsor's cost for correspondence course work, the number of apprentices in a program and curriculum development for the independent sponsors correspondence programs will be among the factors used for apportioning funds.
5. According to chapter 357, laws of 1997, the distribution of grants should be facilitated by the Department of Labor and Industry. Currently the Office of Public Instruction (OPI) is providing for the administration and distribution of the funding for 3% of the yearly funding. The department would be able to do the administration and distribution of the funds for the same or less amount. Due to the fact that budget authority has been given to OPI, the transfer for the administration of the funding would take place after June 30, 1999.
6. The above action steps, with exception of item five, will be implemented at the beginning and throughout fiscal year 1998/99.

Considerations

The department will investigate the possibility of developing linkage with the Board of Regents/post secondary educational system, other alternative forms of related instruction that could be utilized by the independent sponsors of apprenticeship, and will meet with the current provider, North Dakota State College of Science, in fiscal year 1998/1999 concerning curriculum upgrade.

Appendices

Appendix 1

Registered Apprentices by Occupation
April 30, 1998

Airframe and Power Plant	1	Machinist	4
Automobile Body Repairer	12	Maintenance Mechanic-Telephone	12
Automobile Mechanic	11	Material Coordinator	1
Baker	9	Meat Cutter	9
Boilermaker	17	Mechanic Industrial Truck	7
Bricklayer	14	Millwright	6
Butcher	1	Motorcycle Repairer	2
Carpenter	53	Office Machine Servicer	1
Central-Office Repair	5	Offset Press Operator	1
Chef	1	Operating Engineer	17
Construction Equipment Mechanic	1	Painter	4
Cook	1	Pipe Fitter-Any Industry	12
Diesel Mechanic	5	Pipe Fitter	11
Electrician-Substation	2	Plumber	195
Electrician-Maintenance	5	Powerhouse Mechanic	1
Electrician-Construction	245	Private Branch Installer (Telephone)	1
Electrician-Residential	27	Protective Signal Installer	7
Electronics-Mechanic	1	Refrigeration Mechanic	4
Environmental-Control-System-Installer	2	Respiratory Therapist	1
Farm Equipment Mechanic	6	Roofer	28
Fire Fighter	4	Salesperson Parts	5
Front End Mechanic	1	Saw Filer	2
Gas Main Fitter	1	Sheet Metal Worker	53
Glazier	1	Sign Erector	1
Hydroelectric Generator Operator/Maintenance	5	Station Installer and Repair	8
Jeweler	1	Structural Steel Ironworker	36
Line Erector-Construction	4	Tool Maker	1
Line Installer-Repairer	1	Web Press Operator	1
Line Maintainer	5	Welder-Combination	1
Lineman-Utility	22	Total Apprentices	896

Appendix 2

Instructional Grant Program - Grant Recipients Fiscal Year 1997-98

Apprentice Instruction Grants

<u>Recipient</u>	<u>Grant Amount</u>	<u># Apprentices To Be Taught</u>
Billings Contractors Council - Carpenters JATC	\$ 1,558	11
Billings Area Sheet Metal JATC	3,462	18
Billings Piping Industry JATC	4,371	14
Blackfoot Community College	9,348	66
Great Falls Sheet Metal Workers JATC	2,099	5
Montana Carpenters JATC	8,764	36
Montana Electrical JATC	16,359	107
Montana Ironworkers JATC	5,193	17
Montana Operating Engineers JATC	10,906	32
Montana Power Company JATC	16,509	15
Mountain States Line Contractors JATC	<u>5,183</u>	<u>15</u>
Total Apprentice Instruction Grants	\$83,752	336

Journey Worker Upgrade Grants

<u>Recipient</u>	<u>Grant Amount</u>
Billings Contractors Council - Carpenters JATC	\$ 4,154
Billings Area Sheet Metal JATC	811
Billings Piping Industry JATC	2,380
Laborers AGC Training Program	4,323
Montana Carpenters JATC	541
Montana Electrical JATC	5,951
Montana Ironworkers JATC	1,471
Montana Operating Engineers JATC	8,098
Mountain States Line Contractors JATC	<u>519</u>
Total Journey worker Upgrade Grants	\$28,248

Correspondence Course Grants

<u>Recipient</u>	<u>Grant Amount</u>	<u># Apprentices Benefitting</u>
ND State College of Science	\$23,800	461