ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING BOARD

1996/97 ANNUAL REPORT

Alberta Apprenticeship
Excellence Through
Training and Experience

Alberta
APPRENTICESHIP AND INDUSTRY
TRAINING BOARD

APPRENTICESHIP AND INDUSTRY
TRAINING BOARD

10th floor, Commerce Place
10155 - 102 Street
Edmonton, Alberta
Canada T5J 4L5

Telephone 403/427-8765
Fax 403/422-7376
aitboard@aecd.gov.ab.ca

October 1997

Honourable Clint Dunford
Minister
Advanced Education and Career Development
229 Legislature Building
10800 - 97 Avenue
Edmonton, Alberta
T5K 2B6

Dear Mr. Dunford:

I am pleased to forward the fifth annual report of the Alberta Apprenticeship and Industry Training Board to you. This report covers the Board's operations for the period from April 1, 1996 to March 31, 1997, and presents a statistical overview of the Alberta apprenticeship and industry training system.

Respectfully submitted,

Jake Thygesen
Chairman
Alberta Apprenticeship and Industry Training Board

Contents

Message from the Board Chairman

- **Creating a Renewed Vision for Apprenticeship and Industry Training System in Alberta**

The Government of Alberta made a commitment in 1992 when it revised the legislation concerning the Alberta apprenticeship and industry training system, that within five years it would review those changes and make any necessary adjustments. In keeping with this commitment, the Alberta Apprenticeship and Industry Training Board, in partnership with the Department of Advanced Education and Career Development, undertook a series of consultations to develop a renewed vision for apprenticeship and industry training, and to ensure that this system continues to remain responsive, affordable, accessible and accountable.

- **Working with Partners**

At a time when Alberta's economy is expanding and the way work is done is undergoing significant changes, the Board made great strides in responding to industry's changing skill and training requirements by approving a number of significant innovations. The Board also developed several new ways for Albertans to gain access to training and certification. The Board formed new partnerships to actively promote apprenticeship to Albertans as a viable educational and career alternative. Finally, the Board, in cooperation with the department, developed and implemented a series of key performance indicators to objectively measure progress toward the goals it set for apprenticeship training - making the system more responsive, affordable, accessible and accountable.

The Alberta Apprenticeship and Industry Training Board Members

Jakob T. (Jake) Thygesen - Board Chairman
(see page 16)

Lawrence W. Bates
(see page 16)

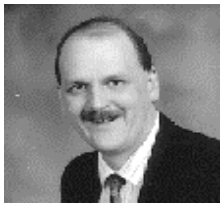
Brian G. Bickley
(see page 19)

John Briegel
(see page 18)

William A. (Bill) Bussing
(see page 17)

Betty Cochrane*
(see page 21)

James (Jim) Courtney
(see page 17)



Markus Jenni
(see page 20)

A. McLean (Mac) Millar
(see page 20)

Melvin (Mel) Raffard
(see page 17)

Rose Simpson
(see page 20)

Douglas Smith
(see page 18)

Jack Strause
(see page 18)

Ronald (Ron) Townsend
(see page 19)

* Betty Cochrane served as a Board member until December 31, 1996.

NOTE: Biographies of the Alberta Apprenticeship and Industry Training Board Members can be found starting on page 16.

Major Board Initiatives

Working toward a new vision for the Alberta Apprenticeship and Industry Training System

➢ **Developing a renewed vision for Alberta's Apprenticeship and Industry Training System**

In 1992, when the *Apprenticeship and Industry Training Act* came into effect, the Government made a commitment to continue consulting with Albertans on the apprenticeship and industry training system. During the 1996-97 fiscal year, the Alberta Apprenticeship and Industry Training Board, in partnership with the Department of Advanced Education and Career Development, undertook an extensive consultation with Albertans to honour this commitment.

- Focus groups were formed, consisting of industry stakeholders, apprentices and trainees, representatives from public institutions, and department staff. Participants discussed the challenges facing apprenticeship and industry training today, and offered their advice on ways to ensure a quality training system in the future.
- A discussion paper, incorporating input from the focus groups and others, was widely distributed. The Board invited the recipients to provide their comments. The paper was also a topic for discussion at the annual *Minister's Forum on Adult Learning*. The Board received 1,400 responses. A document, titled: *Keeping You Informed*, was provided to the public as feedback.
- The responses to the discussion paper will serve as a basis for recommendations about a vision for the future of the apprenticeship and industry training in Alberta. These recommendations will be forwarded to the Minister of Advanced Education and Career Development for his consideration.

Responding to Industry's Changing Skill and Training Requirements

➢ **Responding to changing skill and training requirements**

The Board recognizes that, as changes occur in the world of work and the labour market, so do employers' skill requirements and employees' training needs. During the 1996-97 fiscal year, the Board undertook a number of initiatives to respond to these changing employer and apprentice needs.

Designating Occupations for Industry Training Purposes

- The Board responds to proposals from industry regarding new training initiatives. Two such proposals were made by industry groups who requested the development of training programs in the warehousing and construction craft labourer occupations. On the Board's recommendation, the Minister designated the Warehousing occupation in June 1996 and Construction Craft Labourer occupation in October 1996. Both occupations are designated under the *Apprenticeship and Industry Training Act*.

Supporting a New Training Initiative in an Existing Trade

- Manufacturing plays an important role in Alberta's diversified economy. Trained and skilled Tool and Die Makers contribute significantly to this growing industrial sector. However, while the trade is designated, Alberta does not presently have a formal apprenticeship training program for this trade. To assess industry's need for skilled Tool and Die Makers, the Board commissioned an industry survey on tool and die making in Alberta. Based on positive survey results, the Board is working with industry to determine their needs. The Tool and Die Maker Provincial Apprenticeship Committee (PAC) will develop options for the Board's consideration so that a cost-effective training program can be developed for the Tool and Die Maker trade.

Facilitating the Creation of Craft Areas within an Existing Trade

The Board, in consultation with the PAC, considered a proposal from industry to redesign the Heavy Equipment Technician trade into three craft areas (off-road equipment, trucks and buses, and truck-trailers) for training and certification purposes, while continuing to offer the current program. The Board distributed information about the proposed changes to all affected employers throughout the province. Since this is a large-enrollment trade, the Board commissioned studies to determine the degree of industry support for these changes. Based upon the positive results received as well as from associated consultations, the Board instructed the Heavy Equipment Technician PAC to proceed with redesigning the training and certification in this trade.

Changing the Content of Formal Instruction in the Trades and Occupations

- The Board and the Provincial Apprenticeship Committees are actively working to keep course content current with emerging skill requirements. The Board, on the recommendation of the respective PACs, approved the updating of course content for the following trades: Cabinetmaker, Crane and Hoisting Equipment Operator - Boom Truck, Ironworker including Metal Building Systems Erector, Millwright, Partsman, Power Lineman, Power System Electrician, and Sprinkler System Installer. In addition, in the interest of achieving cost-efficiencies in the classroom, the Board approved recommendations from the Electrician and Power System Electrician PACs that training modules used in the Electrician trade also be used in the Power System Electrician trade in situations where there is significant overlap between the course contents of both trades.

- In consultation with the respective Occupational Training Committees, the Board approved the course content for the Construction Craft Labourer and Warehousing occupations.

Improving Training Standards

- The Board adopted and is now actively promoting a more effective way of keeping comprehensive on-the-job training records for apprentices through the use of *Blue Books*. The *Blue Book*, which is an updated and enhanced version of the traditional record book, provides clear guidance to the apprentice and the employer alike on exactly what competencies are required of the apprentice while on the job and what must be evaluated. In consultation with the respective PACs, the Board approved the adoption of a *Blue Book* for the Ironworker, Machinist, and Sprinkler System Installer trades. This brings the total number of trades using *Blue Books* to 14. The PACs for the Baker, Cabinetmaker, Motorcycle Mechanic, and Transport Refrigeration Mechanic trades as well as the Occupational Training Committee for the Gas Utility Operator occupation have also endorsed the concept of the *Blue Book*. With these additions, 23 trades and occupations are now working towards developing *Blue Books*.

Maintaining a Responsive and Affordable Training System

➢ **Strengthening Partnerships with Industry, Government, and Training Institutions**

To maintain a responsive and affordable training system, the Board further enhanced the training partnerships with industry, government, and the training institutions. The Board also supported and encouraged innovations that would enhance training while achieving operational cost-efficiencies.

Enhancing Industry-Government Partnerships

- The Board continued to strengthen its ties with government at two levels. At the provincial level, the Board contributed to the development of Alberta government policy by participating in the work of the *Advisory Group on Business Involvement in Education* which was established to advise the Education Minister's MLA Task Force on Education. The Board also participated in Advanced Education and Career Development's *Minister's Forum on Adult Learning*, where a session was devoted to a discussion about a renewed vision of Alberta apprenticeship and industry training. At the national level, the Board Chairman, along with his counterparts from other provinces and the territories, attended the twice-yearly meetings of the Canadian Council of Directors of Apprenticeship.

Enhancing Training Partnerships with Industry

- The Board encourages employers to register and train apprentices and employ certified journeymen. As an ongoing promotional initiative, the Board continued to work with large Alberta employers and employer associations concerning this message. Chief executive officers from some of Alberta's largest firms were invited to attend Board meetings as guests. In addition, Board members made presentations about the Alberta apprenticeship and industry training system to the boards and members of numerous employer and employee associations, including the Alberta Construction Association, the Canadian Association of Petroleum Producers, the Construction Owners Association of Alberta, the Alberta Wall and Ceiling Bureau, the Alberta Building Trades Council, the Alberta Motor Dealers Association, and the Canadian Construction Association. These efforts have heightened the awareness of and provided a new appreciation for the apprenticeship and industry training system in some critical sectors of industry. These meetings also created significant new linkages with influential industry representatives.

- The Board participated in award ceremonies that honoured Alberta's top apprentices and the employers who support apprenticeship and industry training. Members participated in the Skills Canada/Alberta Competitions and Awards, the Alberta Construction Association Apprenticeship Awards, and the Apprenticeship Graduation Ceremonies of various publicly funded institutions which offer formal instruction to apprentices.

- The Board also sponsors its own apprentice awards ceremony. The Alberta Apprenticeship and Industry Training Board's *Top Apprentice Awards Program*, piloted successfully in 1995, has been established as a yearly Board event. Awards are presented to Alberta's top apprentices in each trade. The purpose of the awards is to honour the achievements of apprentices, promote awareness of apprenticeship and industry training, and recognize employers who participate.

- The Board continued to invite Presiding Officers from the Provincial Apprenticeship Committees to attend Board meetings as guests. This initiative facilitates intra-industry communication and permits the Board and PACs to have a better exchange of information.

- To ensure the viability and cost-effective operation of formal instruction classes in the smaller trades, the Board is working with the PACs to ensure that initiatives are implemented to promote increased industry support and participation in the apprenticeship and industry training system.

Enhancing Relationships with Alberta Training Institutions

- To strengthen relationships with Alberta colleges and technical institutes which offer formal instruction to apprentices, the Board undertook a number of initiatives to ensure this vital component of the training system remains affordable and responsive.

- The Board holds its monthly meetings at the Northern Alberta Institute of Technology (NAIT), where one-half of Alberta's apprentices receive their formal instruction. The choice of this location enables Board members to tour selected training facilities, and provides them an opportunity to meet the instructors and apprentices.

- Senior officials from the technical institutes and colleges attend Board meetings to serve as advisors to the Board on matters pertaining to formal instruction. In addition, guest observers from the colleges are invited to meet the Board members on a regular

basis and apprise them of training activities and issues in their institutions.

- The Board Chairman and the Executive Director of Apprenticeship and Industry Training continue to visit Alberta training institutions to meet their Board members, senior officials and apprenticeship training staff, and to tour the facilities. In the 1996-97 year, visits were made to Keyano College, Southern Alberta Institute of Technology (SAIT), Medicine Hat College, Lethbridge Community College, Fairview College, and Olds College.
- The Board encourages training institutions to have graduation ceremonies for apprentices who are completing formal instruction in their trade. A number of institutions have been doing this for some time, and others have begun this practice in the past fiscal year. SAIT, Red Deer College, Fairview College, and Lakeland College are among those that currently offer such a ceremony for apprentices.

➢ **Enhancing the Effectiveness and Efficiency of the Apprenticeship and Industry Training System**

Supporting Training Curriculum Development

- The Board believes that apprenticeship and industry training can both enhance and attain cost-efficiencies by developing and using standardized, modular curriculum materials. By doing so, these learning modules can be used to train apprentices in different trades who receive similar training, as now occurs in some of the electrical, automotive, and pipe trades. This innovation reduces the curriculum development activities required of instructors and allows the institutions to focus their efforts on delivering the training in more creative and effective ways. Current examples of more creative and effective delivery methods include providing distance or mobile delivery of trades training, and providing apprentices an opportunity to pursue front-end self-study before coming to class.

Enhancing Access to Training and Certification

➢ **Encouraging Participation in the Trades**

Many Albertans have little knowledge about the Alberta apprenticeship and industry training system, the career opportunities that exist in the trades and occupations, or the requirement that people must be certified to work in certain trades. To broaden Albertans' awareness and to encourage participation in the trades, the Board undertook a number of promotional and developmental initiatives.

Promoting Apprenticeship and Industry Training

- The Board and Department worked jointly with *Alberta Report* as well as a number of industry and institutional partners to publish an "advertorial" in the June, 1997 issue of the magazine. A full colour 8-page supplement to the magazine explained how the whole system works and promoted apprenticeship and industry training as a viable educational and career opportunity for Albertans. The article also explained the need for employers to get more involved in the province's apprenticeship system.
- The Board continues to maintain its speaker's bureau. Board members volunteered their time and efforts to make presentations before associations, community groups, and high school students and administrators. Board members are often interviewed by the news media about apprenticeship training and about various careers in the trades.

Establishing the Qualification Certificate Program

- The Board implemented the *Qualification Certificate Program* to provide an opportunity for individuals who have the necessary experience, to demonstrate that they can meet the industry established standards for working in a designated trade without requiring further formal apprenticeship training .
- Individuals can now have their prior learning assessed to determine if their work experience, knowledge and skills meet these standards, and if they are eligible to obtain an Alberta Qualification Certificate.
- This initiative also provides Alberta employers a means for dealing with shortages of certified trades persons when the economy accelerates.

Accrediting Other Training Programs

- In an effort to enhance access to certification in the trades, the Board encourages Provincial Apprenticeship and Occupational Training Committees to accredit institutional training programs that are equivalent to training provided in apprenticeship and industry training. Over 50 such programs have been accredited.
- To promote this initiative, the Board developed policies governing the accreditation of pre-employment, technician and technology training programs for those people who want accreditation towards formal training in the designated trades or occupations,

and it established an Accreditation Registry of such formally recognized programs.

Continuing Support for the Registered Apprenticeship Program

- The Board is a strong supporter of the Registered Apprenticeship Program (RAP) which, with assistance from Alberta Education, is taking hold in Alberta high schools. Under this initiative, high school students obtain work experience in a trade while receiving credit towards both a high school diploma and a journeyman certificate. At the end of March, 1997, over 470 students had participated or were participating in RAP. Of this number, 200 were attending high school; the others had graduated and are now in full-time training in the trade of their choice.

Continuing support for CAREERS: The Next Generation Foundation

- The Board continues to support *CAREERS: The Next Generation Foundation* which is based on a public/private sector partnership and was established to create better school-to-work transitions for Alberta youth, and a skilled and motivated workforce for Alberta businesses. The aim of this Foundation is to encourage industry-school partnerships as a means of increasing enrollments in the trades and technologies and creating more work-experience opportunities for graduating high school students.

Initiatives to Increase Accountability for the Training System in Alberta

➢ **Encouraging Continued Excellence through Performance Measurement**

The Board recognizes that all partners in the Alberta apprenticeship and industry training system must be accountable for the results of their activities. For this reason, the Board, in cooperation with the Department, established and implemented a number of Key Performance Measures.

Formal Instruction - Cost per Apprentice

- This indicator measures the average annual cost of providing the formal instruction component of apprenticeship training.

- Apprentices normally attend school for one eight-week block of training per year, and are employed and gaining work-related experience as registered apprentices the remainder of the time.
- The average cost to provide such formal instruction for each apprentice who attended school in 1995-96 was $3,282.
- These figures are based upon data provided by training institutions for 1995-96.

Total Formal Instruction Cost to Produce an Apprenticeship Graduate (a Journeyman)

- This indicator reflects the average cost of providing an apprentice all periods of formal instruction that are prescribed for apprentices to qualify for journeyman certification. More than 70% of the apprentices who attended school in the 1996/97 fiscal year received formal instruction in trades which require four periods of instruction to qualify for journeyman certification. More than 27% of apprentices participate in trades requiring only three periods of training.
- The average total cost to provide formal instruction per graduate journeyman was $12,138.
- These figures are based upon data provided by training institutions for 1995-96.

Yearly Training Completion Ratio

- This is an indicator of the percentage of all first-year apprenticeship completers who go on to complete the rest of their program, consisting of both formal instruction and work experience, within two years of the date they were expected to complete their apprenticeship program.
- "First year apprenticeship completers" is defined as those who have completed all their formal instruction and work experience requirements for the first year of their apprenticeship program.
- Seventy-three percent of first-year apprenticeship completers went on to complete the rest of their program within two years (i.e. by 1997) of their expected program completion date.

- This figure is based upon 1996-97 data provided by the Department of Advanced Education and Career Development.

Employers' Satisfaction with the Alberta Apprenticeship and Industry Training System

- A major survey, measuring employers' satisfaction with Alberta apprenticeship and industry training, will be undertaken in late 1997 and early 1998. Results of this survey will be reported in the next annual report.

Apprentices' Satisfaction with their Apprenticeship Training

- This indicator reflects the satisfaction level of all Alberta apprenticeship training system graduates who completed their training between August, 1995 and July, 1996.
- Ninety-seven percent of all graduate apprentices were fully or somewhat satisfied with the overall quality of their work experience while in the apprenticeship program. Ninety-eight percent were fully or somewhat satisfied with the overall quality of their in-school training.
- Based on their experiences with apprenticeship training, 92% of the 1995/96 graduates still would become an apprentice.
- These data were obtained through an extensive graduate survey undertaken in early 1997.

Responsiveness to the skill requirements of the Alberta economy

- A survey of Alberta employers, to be completed in early 1998, will provide data on this Key Performance Indicator. Results from this survey will be published in the next annual report.

The Board and the Apprenticeship and Industry Training System

➢ Apprenticeship and Industry Training System Mission

The mission of the apprenticeship and industry training system is to ensure that training in the trades and occupations is current and relevant to the needs of employers, apprentices and occupational trainees, and that the delivery system has the expertise and flexibility to continue to meet industry's needs.

➢ The Board's Mandate

To support this Mission, the Alberta Apprenticeship and Industry Training Board provides advice to the Minister of Advanced Education and Career Development on all matters relating to the training and certification of persons in designated trades and occupations, and on the needs of the Alberta labour market.

Other specific functions of the Board include:

- Reviewing requests for designation or re-designation of trades and occupations
- Recognizing apprenticeship and student work experience programs, as well as other training and work experience programs, as defined under the *Apprenticeship and Industry Training Act*
- Appointing members to local and provincial apprenticeship committees, and to provisional and occupational training committees
- Monitoring activities of provincial apprenticeship committees
- Developing policies for recognizing training programs as being equivalent to those provided under the Act
- Developing regulations, with the approval of the Minister, regarding designated trades and designated occupations

➢ Board Membership

The Board consists of:

- A chairman
- Four members representing employers in designated trades
- Four members representing employees in designated trades
- Two members representing employers in non-trade occupations
- Two members representing employees in non-trade occupations

A Vice-chairman position, which is filled by a Board member on a rotational basis.

➢ **The Board's Standing Committees**

The Board has four standing committees to expedite its work:

- The *Nominations Review Committee*, which, with the assistance of the Department, reviews applications and provides recommendations to the Minister in respect to the appointment of Board members.
- The *Labour Market Issues and Board Operations Committee*, which monitors labour market activity and identifies related industry training needs and opportunities, and addresses operational activities of the Board.
- The *Industry Standards Committee*, which formulates policies and standards which meet emerging requirements of the apprenticeship and industry training system.
- The *Provincial and Local Apprenticeship Committees Nominations Committee*, which monitors the operations of the apprenticeship and industry training advisory network and reviews nominations for membership to it.

➢ **Apprenticeship and Industry Training Advisory Network**

In carrying out its responsibilities, the Board draws upon the advice and assistance of an industry-based advisory network. This network consists of provincial apprenticeship committees for each of the designated trades. In those regions where substantial apprenticeship training is taking place, local apprenticeship committees may also exist. In addition, there are occupational training committees for each of the designated occupations.

- Provincial apprenticeship committees regularly review and update the requirements and standards for the training and certification standards of persons in their trade, and advise the Board on these matters.
- Local apprenticeship committees monitor the training progress of apprentices in their trade and provide recommendations to the provincial apprenticeship committees on matters relating to apprenticeship training and certification.
- Occupational training committees review standards for the training of persons in specific occupations, and advise the Board on these matters.
- To address the employers' and employees' interests and needs, the Board appoints an equal number of employer and employee representatives to each committee.

- **Department Support**

The *Apprenticeship and Industry Training Division* of Alberta Advanced Education and Career Development provides technical, research, and general administrative support to the Board and the apprenticeship and industry training system as a whole. It also facilitates apprenticeship training and certification through its registration, counselling, examination and scheduling services.

Biographies of the Board Members

Current Members of the Board

➢ **Chairman**

JAKOB T. (JAKE) THYGESEN

Mr. Thygesen is the Chairman of the Board. His term continues until December 31, 1997.

Mr. Thygesen holds trade certificates in the Plumber and Gasfitter trades. Currently retired from active business, he has been involved in the construction industry for most of his adult life. Since completing his apprenticeship, he worked for Fuller and Knowles Inc. and eventually became its board chairman.

He has also participated in various other organizations. These include past chairmanships of the Canadian Construction Association (CCA), the Alberta Construction Association and the Trade Contractors Section of the CCA, and a founding member of the Canadian Labour Force Development Board (CLFDB). He also served on the National Task Force on Apprenticeship, which preceded the CLFDB.

For his many years of leadership and dedicated services to associations and groups, both inside and outside the construction industry, coupled with his many years of work in that industry, Mr. Thygesen has been awarded two prestigious awards: the Robert Stollery Award by the Canadian Construction Association in 1997 and the Claude Alston Memorial Award by the Edmonton Construction Association in 1992.

Mr. Thygesen's community involvement includes participation with the Knights of Columbus, foundation chairman and member on Board of Governors of the Newman Theological College in Edmonton, and past president of the South Edmonton Rotary Club.

➢ **Representing Employers in Designated Trades**

LAWRENCE W. BATES

Mr. Bates' term on the Board continues until December 31, 1999.

Mr. Bates has 30 years of experience in the automotive industry. He is currently president of Stadium Nissan Inc., Calgary. In the past, he worked for General Motors of Canada as a mechanical training instructor, district service manager and supervisor of customer services. He also worked for Jack Carter Chev Olds Cadillac in Calgary as service

manager, lease department manager and new vehicles sales manager.

Mr. Bates is currently a director of the Calgary Better Business Bureau, vice chairman of the Nissan Canada Advisory Board, and a member of both the Calgary Chamber of Commerce and the Rotary Club of Calgary. He is past director of the Motor Dealers Association of Alberta, past president of the Calgary Motor Dealers Association, and past chairman of the Nissan Dealer Performance Group and of the Calgary International Auto and Truck Show.

WILLIAM A. (BILL) BUSSING

Mr. Bussing's term on the Board continues until December 31, 1999.

Mr. Bussing holds a degree in Electrical Engineering and a Master's degree in Economics. He is also a Registered Professional Engineer with and a member of A.P.E.G.G.A. He has 25 years of experience in the construction industry, primarily in relation to electrical work, instrumentation and general construction. He is currently general manager, electrical and automation services for Flint Canada Inc.

Mr. Bussing is currently active in a number of industry organizations including the Merit Contractors Association, Alberta Construction Association and the Construction Owners Association of Alberta. He is past president of the Edmonton chapter and former board member of the Electrical Contractors Association of Alberta.

JAMES (JIM) COURTNEY

Mr. Courtney's term on the Board continues until December 31, 1997.

Mr. Courtney holds trade certificates in the Welder, Machinist and Tool and Die Maker trades. He is president of Courtney Berg Industries. He is also on the board of directors of the Prairie Implement Manufacturers Association.

MELVIN (MEL) RAFFARD

Mr. Raffard's term on the Board continues until December 31, 1998.

Mr. Raffard holds a trade certificate in the Power Systems Electrician trade. He is also a graduate of the Royal Canadian Electrical Mechanical Engineers school in Kingston, Ontario as both an Electrical Technician and an Infrared Technician. He has 32 years of

experience in the electrical industry.

Mr. Raffard is currently employed as operations manager for Eltec Inc. He has served on the Provincial Apprenticeship Committee for the Power Systems Electrician trade as both an employee and employer representative. He is also a long-standing member of the Metering Section of the Canadian Electrical Association.

- **Representing Employees in Designated Trades**

JOHN BRIEGEL

Mr. Briegel's term on the Board continues until December 31, 1997.

Mr. Briegel holds an Electrician trade certificate and a Master Electrician Certificate. He has over 30 years of experience in the electrical industry and is currently business manager of Local Union 254, International Brotherhood of Electrical Workers; president of the Southern Alberta Building and Construction Trades Council; and secretary-treasurer of the Alberta Provincial Building Trades Council.

Mr. Briegel is a past member of both the Provincial and Local Apprenticeship Committees for the Electrician trade in Alberta and is a former secretary of the Joint Education Committee of the Electrical Industry Trust Fund of Southern Alberta.

DOUGLAS SMITH

Mr. Smith's term on the Board continues to December 31, 1999.

Mr. Smith holds trade certificates in the Machinist and Millwright trades and a certificate in Engineering Technology. He has over 30 years of experience in industry. He is currently employed at NOVA Corporation, where he is team leader in the Facilities Maintenance Department. In the past, he worked in manufacturing and maintenance engineering in southern Africa and for Acro Machine and Fabrication as a machinist and general foreman. He has also instructed for the Mechanical Engineering Department, Southern Alberta Institute of Technology.

JACK STRAUSE

Mr. Strause's term on the Board continues until December 31, 1997.

Mr. Strause holds a trade certificate with an Interprovincial Red Seal in the Sheet Metal Worker trade. He has 26 years of sheet metal-related experience in the construction

industry.

Mr. Strause is a past president of both the Edmonton Association of Sheet Metal and Air Conditioning Contractors and the Sheet Metal Contractors Association of Alberta. He was also a provincial finalist at the Canadian Sheet Metal Competition.

RONALD (RON) TOWNSEND

Mr. Townsend's term on the Board continues until December 31, 1997.

Mr. Townsend has 25 years of experience in the delivery and administration of apprentice and journeyman training. He is currently the training coordinator with the United Association of Journeyman and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada, Local Union 488. He also administers the Edmonton Pipe Trades Educational Trust Fund and coordinates the activities of the Edmonton Pipe Trades Joint Apprenticeship Training Fund. As an Alberta certified Steamfitter-Pipefitter, his past work experience has provided him with opportunities to work as a piping foreman and superintendent, a pipe trades instructor at the Northern Alberta Institute of Technology, and a training coordinator with the Occupational Health and Safety Inspection Branch of Alberta Labour.

In addition, Mr. Townsend is a labour representative on the Minister's Occupational Health and Safety Council, chairman of the board of the Metal Fabricating Health and Safety Association, and president of the Western Apprenticeship Coordinators' Association (Alberta). He is also active on the Executive of Skills Canada-Alberta and the Alberta Congress Board.

- **Representing Employers in Non-trades Occupations**

BRIAN G. BICKLEY

Mr. Bickley's term on the Board continues until December 31, 1999.

Mr. Bickley holds certificates in Industrial Instrumentation, Watchmaking and Adult Continuing Education. Mr. Bickley has 30 years of experience in industry. He is currently employed by Syncrude Canada Ltd. as industrial relations manager. Previously during his employment with Syncrude, he held positions as instrument supervisor, shutdown manager and maintenance manager. Prior to joining Syncrude, he was employed by the Steel Company of Canada and Texaco.

A. McLEAN (MAC) MILLAR

Mr. Millar's term on the Board continues until December 31, 1997.

He holds both a degree in Mechanical Sciences from Cambridge University and a diploma in Business Management from Brunel University in London, England. Mr. Millar currently works as a consultant in engineering and in real estate. Previously, he was involved in cement and concrete manufacturing as well as directing vehicle and mobile equipment maintenance operations for the City of Calgary.

- **Representing Employees in Non-trades Occupations**

MARKUS JENNI

Mr. Jenni's term on the Board continues until December 31, 1998.

Mr. Jenni holds a trade certificate in the Cook trade. He is currently the executive chef for the Crowne Plaza Chateau Lacombe Hotel, Edmonton. His past experiences involved working as a cook and chef for various hotels and resorts in Switzerland. He was also chef, and later banquet chef, at Montreal's Queen Elizabeth Hotel as well as executive chef for the Hilton Hotels.

Mr. Jenni is currently examiner for the Certified Chef de Cuisine course at the Canadian Culinary Institute. He has also held positions as education chairman for the local branch of the Canadian Federation of Chefs de Cuisine and as a board member of the Alberta Tourism Education Council (ATEC).

Mr. Jenni has also been involved in culinary competitions across Canada, the United States and Europe which have earned him several gold and silver medals. He is a past member of the Team Alberta at the Culinary Olympics and was manager of this team for the 1992 Culinary Olympics.

ROSE SIMPSON

Mrs. Simpson's term on the Board continues until December 31, 1998.

Mrs. Simpson holds a trade certificate with an Interprovincial Red Seal in the Carpenter trade as well as a certificate in Building Technology and a Level 1 Building Inspection

Diploma Certificate. She currently runs her own contracting business.

Past Member of the Board

BETTY COCHRANE

Ms. Cochrane represented employers in the designated trades on the Board until December 31, 1996.

She holds a trade certificate in the Partsman trade. She has had 13 years of employment in the lumber manufacturing industry and five years in the freight/manufacturing industry. She is currently self-employed in the high technology field.

Apprenticeship Output Statistics

CHART 1

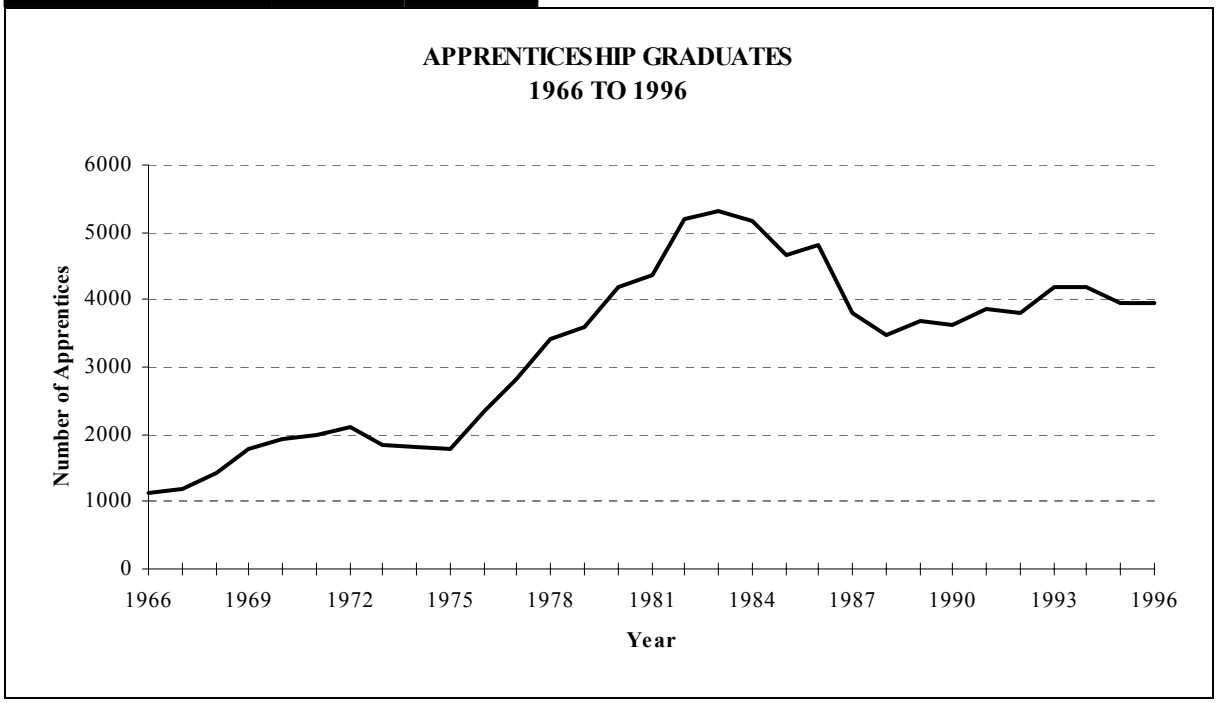


TABLE 1

Selected Apprenticeship Statistics, 1996

TRADE	TOTAL REGISTERED APPRENTICES ON DECEMBER 31, 1996	NEW APPRENTICES REGISTERED DURING 1996 (Note 1)	APPRENTICESHIP CANCELLATIONS DURING 1996	APPRENTICESHIP GRADUATIONS DURING 1996
AGRICULTURAL MECHANIC	101	51	14	31
APPLIANCE SERVICEMAN	90	21	9	18
AUTO BODY TECHNICIAN	537	143	54	76
AUTOMOTIVE SERVICE TECHNICIAN	2,043	614	188	300
BAKER	299	97	31	35
BOILERMAKER	116	50	14	14
BRICKLAYER	59	11	18	17
CABINETMAKER	373	89	46	48
CARPENTER	1,744	507	248	209
COMMUNICATION ELECTRICIAN	114	27	10	13
CONCRETE FINISHER	77	21	8	19
COOK	1,204	416	136	157
CRANE & HOISTING EQUIPMENT OPERATO	657	278	71	79
ELECTRICAL REWIND MECHANIC	52	20	5	11
ELECTRICIAN	2,825	712	222	404
ELECTRONIC TECHNICIAN	110	27	8	14
ELEVATOR CONSTRUCTOR	22	11	0	1
FLOORCOVERING INSTALLER	68	23	16	19
GASFITTER (First Class)	206	86	15	46
GASFITTER (Second Class)	2	3	0	247
GLASSWORKER	88	14	11	15
HAIRSTYLIST	1,450	826	211	515
HEAVY EQUIPMENT TECHNICIAN	1,951	594	117	279
INSTRUMENT MECHANIC	901	194	78	104
INSULATOR	234	36	50	21
IRONWORKER	84	28	6	10
---METAL BUILDING SYSTEMS ERECTOR	82	175	10	10
LANDSCAPE GARDENER	295	74	45	34
LATHER-INTERIOR SYSTEMS MECHANIC	48	13	22	7
LOCKSMITH	93	23	3	15
MACHINIST	618	196	37	76
MILLWRIGHT	968	307	60	149
MOTORCYCLE MECHANIC	82	25	10	19
PAINTER AND DECORATOR	160	49	21	25
PARTSMAN	557	197	63	76
PLUMBER	1,080	294	132	176
POWER LINEMAN	100	23	13	27
POWER SYSTEM ELECTRICIAN	33	9	7	10
PRINTING & GRAPHIC ARTS CRAFTSMAN	100	15	29	13
RECREATION VEHICLE MECHANIC	71	34	13	20
REFRIGERATION & AIR CONDITIONING ME	361	93	11	35
ROOFER	98	21	28	13
SAWFILER	42	20	7	7
SHEET METAL WORKER	548	154	84	42
SPRINKLER SYSTEMS INSTALLER	95	26	14	12
STEAMFITTER-PIPEFITTER	782	226	88	73
STRUCTURAL STEEL & PLATE FITTER	136	48	9	14
TILESETTER	25	5	6	7
TRANSPORT REFRIGERATION MECHANIC	32	4	6	1
WATER WELL DRILLER	45	18	1	8
WELDER	2,978	975	180	376
TOTAL	**24,836**	**7,923**	**2,485**	**3,947**

Note1: For the purposes of this report, new apprentices registered in 1996 includes first time ever registrants, apprentices registered in a second or multiple trades, and re-instated apprentices.

TABLE 2

Total, Average, and Percentage Change in Apprenticeship Registrations, by Trade and Year, 1992 to 1996

TRADE	1992	1993	1994	1995	1996	1992-96 Average	1992-96 % Change
AGRICULTURAL MECHANIC	38	55	70	97	101	72	166%
APPLIANCE SERVICEMAN	82	79	99	95	90	89	10%
AUTO BODY TECHNICIAN	671	585	512	525	537	566	-20%
AUTOMOTIVE SERVICE TECHNICIAN	2,271	2,108	1,914	1,922	2,043	2,052	-10%
BAKER	207	208	240	267	299	244	44%
BOILERMAKER	104	116	98	94	116	106	12%
BRICKLAYER	83	84	77	83	59	77	-29%
CABINETMAKER	385	376	361	379	373	375	-3%
CARPENTER	1,863	1,828	1,719	1,695	1,744	1,770	-6%
COMMUNICATIONS ELECTRICIAN	124	99	88	110	114	107	-8%
CONCRETE FINISHER	4	4	53	83	77	44	1825%
COOK	930	998	986	1,085	1,204	1,041	29%
CRANE & HOISTING EQUIP. OPERATOR	135	172	371	530	657	373	387%
ELECTRICAL REWIND MECHANIC	59	59	49	50	52	54	-12%
ELECTRICIAN	2,873	2,805	2,796	2,748	2,825	2,809	-2%
ELECTRONICS TECHNICIAN	132	129	118	105	110	119	-17%
ELEVATOR CONSTRUCTOR	N/A	N/A	3	12	22	N/A	N/A
FLOORCOVERING INSTALLER	75	77	73	80	68	75	-9%
GASFITTER	145	144	149	182	208	166	43%
GLASSWORKER	139	116	100	102	88	109	-37%
HAIRSTYLIST	1,074	1,132	1,175	1,347	1,450	1,236	35%
HEAVY EQUIPMENT TECHNICIAN	1,538	1,424	1,481	1,756	1,951	1,630	27%
INSTRUMENT MECHANIC	1,000	988	940	890	901	944	-10%
INSULATOR	244	300	274	270	234	264	-4%
IRONWORKER	66	80	72	244	166	126	152%
LANDSCAPE GARDENER	306	315	286	300	295	300	-4%
LATHER/INTERIOR SYSTEMS MECHANIC	58	49	53	63	48	54	-17%
LOCKSMITH	N/A	16	61	88	93	N/A	N/A
MACHINIST	402	362	428	535	618	469	54%
MILLWRIGHT	803	736	767	870	968	829	21%
MOTORCYCLE MECHANIC	68	72	76	86	82	77	21%
PAINTER & DECORATOR	119	150	152	159	160	148	34%
PARTSMAN	564	491	460	500	557	514	-1%
PLUMBER	1,196	1,230	1,155	1,110	1,080	1,154	-10%
POWER LINEMAN	241	206	146	120	100	163	-59%
POWER SYSTEM ELECTRICIAN	85	62	48	41	33	54	-61%
PRINTING & GRAPHIC ARTS CRAFTSMAN	229	184	151	127	100	158	-56%
RECREATION VEHICLE MECHANIC	55	67	78	72	71	69	29%
REFRIGERATION & A.C. MECHANIC	277	300	309	314	361	312	30%
ROOFER	90	106	105	118	98	103	9%
SAWFILER	21	20	30	36	42	30	100%
SHEET METAL WORKER	517	553	500	524	548	528	6%
SPRINKLER SYSTEMS INSTALLER	86	92	98	97	95	94	10%
STEAMFITTER- PIPEFITTER	519	554	646	718	782	644	51%
STRUCTURAL STEEL & PLATE	70	69	84	112	136	94	94%
TILESETTER	44	34	35	33	25	34	-43%
TRANSPORT REFRIGERATION MECHANIC	16	19	27	35	32	26	100%
WATER WELL DRILLER	34	32	31	37	45	36	32%
WELDER	1,769	1,714	2,002	2,560	2,978	2,205	68%
TOTAL	**21,811**	**21,399**	**21,546**	**23,406**	**24,836**	**22,600**	**14%**

TABLE 3

Trade/Occupation Certificates Issued in 1996

TRADE/OCCUPATION	JOURNEYMAN AND OCCUPATION CERTIFICATES TO COMPLETING APPRENTICES AND TRAINEES	EQUIVALENCY DOCUMENTS (See Note 2)	RED SEAL CERTIFICATES ISSUED TO COMPLETING APPRENTICES	EXTENDED RED SEAL PROGRAM CERTIFICATES (See Note 3)
AGRICULTURAL MECHANIC	30	1	2	
APPLIANCE SERVICEMAN	18	1		
AUTO BODY TECHNICIAN	79	4	63	
AUTOMOTIVE SERVICE TECHNICIAN	308	25	266	10
BAKER	33	1	12	4
BOILERMAKER	16		13	
BRICKLAYER	16		14	
CABINETMAKER	49		46	
CARPENTER	212	2	136	3
CEMENT FINISHER	19			
COMMUNICATION ELECTRICIAN	13	6		
COOK	158	6	153	8
CRANE AND HOISTING OPERATOR				
---MOBILE CRANE	15	2	2	10
---BOOM TRUCK	64	2		
ELECTRICAL REWIND MECHANIC	11			
ELECTRICIAN	417	14	341	13
ELECTRONIC TECHNICIAN	13	2	8	2
ELEVATOR CONSTRUCTOR	1	1		
FLOORCOVERING INSTALLER	19		21	
GASFITTER	47	3		
GASFITTER (SECOND CLASS)	247	2		
GLASSWORKER	16		18	
HAIRSTYLIST	557	56	381	54
HEAVY EQUIPMENT TECHNICIAN	277	15	187	7
INSTRUMENT MECHANIC	114	3	95	5
INSULATOR	18		3	1
IRONWORKER	10	1	16	6
---METAL BUILDING SYSTEMS ERECTOR	8			
LANDSCAPE GARDENER	34			
LATHER-INTERIOR SYSTEMS MECHANIC	6			
LOCKSMITH	15			
MACHINIST	75	2	72	3
MILLWRIGHT	160	8	150	7
MOTORCYCLE MECHANIC	18		22	6
PAINTER AND DECORATOR	26		24	4
PARTSMAN	81		22	4
PLUMBER	180	6	163	5
POWER LINEMAN	27	2	25	2
POWER SYSTEM ELECTRICIAN	10			
PRINTING & GRAPHIC ARTS	10			
---BINDERY II	3			
RECREATION VEHICLE MECHANIC	2			
REFRIGERATION & AIR CONDITIONING MEC	39	6	34	
ROOFER	13		12	
SAWFILER	7			
SHEET METAL WORKER	43		36	

Continued...

TABLE 3 Continued...

Trade/Occupation Certificates Issued in 1996

TRADE/OCCUPATION	JOURNEYMAN AND OCCUPATION CERTIFICATES TO COMPLETING APPRENTICES AND TRAINEES	EQUIVALENCY DOCUMENTS (See Note 2)	RED SEAL CERTIFICATES ISSUED TO COMPLETING APPRENTICES	EXTENDED RED SEAL PROGRAM CERTIFICATES (See Note 3)
SPRINKLER SYSTEMS INSTALLER	12	1	12	2
STEAMFITTER-PIPEFITTER	75	1	71	1
STRUCTURAL STEEL & PLATE FITTER	12	2	19	1
TILESETTER	7			
TOOL AND DIE MAKER	0			
TRANSPORT REFRIGERATION MECHANIC	1			
WATER WELL DRILLER	7			
WELDER	382	20	382	16
TOTAL JOURNEYMAN CERTIFICATES	**4,030**	**195**	**2,821**	**174**
GAS UTILITY OPERATOR OCCUPATION	21			
PLASTERER OCCUPATION				
TOTAL OCCUPATIONAL CERTIFICATES	**21**			
TOTALS - ALL CERTIFICATES	**4,051**	**195**	**2,821**	**174**

Note 1: Three thousand nine hundred forty-seven (3,947) apprentices completed all their work experience and technical training requirements in 1996 and were therefore classified as "Apprentice Graduates" in Table 1. Journeyman certificates processed and issued to completing apprentices in 1996, however, totalled 4,043 since some of the certificates issued were to apprentices who had completed all their work experience and technical training requirements in the previous year.

Note 2: One hundred ninety-five (195) Equivalency Documents were issued in 1996. Alberta Equivalency Documents are issued to recognize a certificate or document as being equivalent to a trade certificate granted under the Alberta Apprenticeship and Industry Training Act when the skills and knowledge upon which that certificate or document is based have been deemed to be equivalent to those of an Alberta certified journeyman in that trade (i.e.: individuals having completed an apprenticeship program in another country).

Note 3: One hundred seventy-four (174) Extended Interprovincial Red Seals were issued in 1996 to individuals who achieved journeyman status through certification only (i.e. without completion of an apprenticeship) or to individuals who had passed the interprovincial examination in Alberta rather than in their own province.

CHART 2

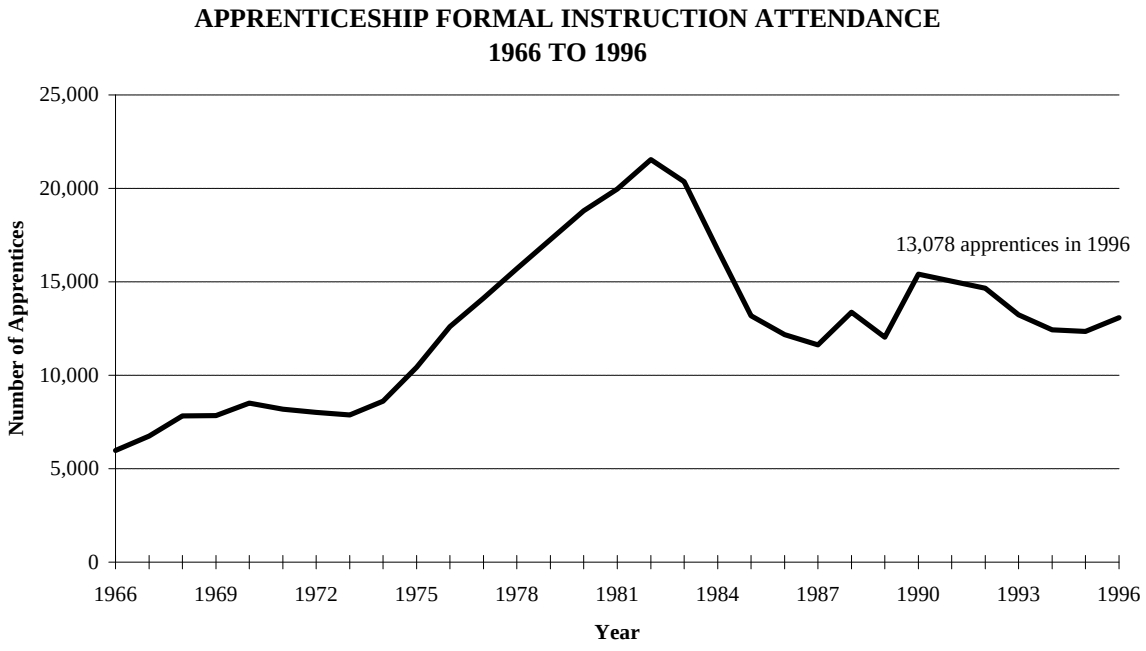
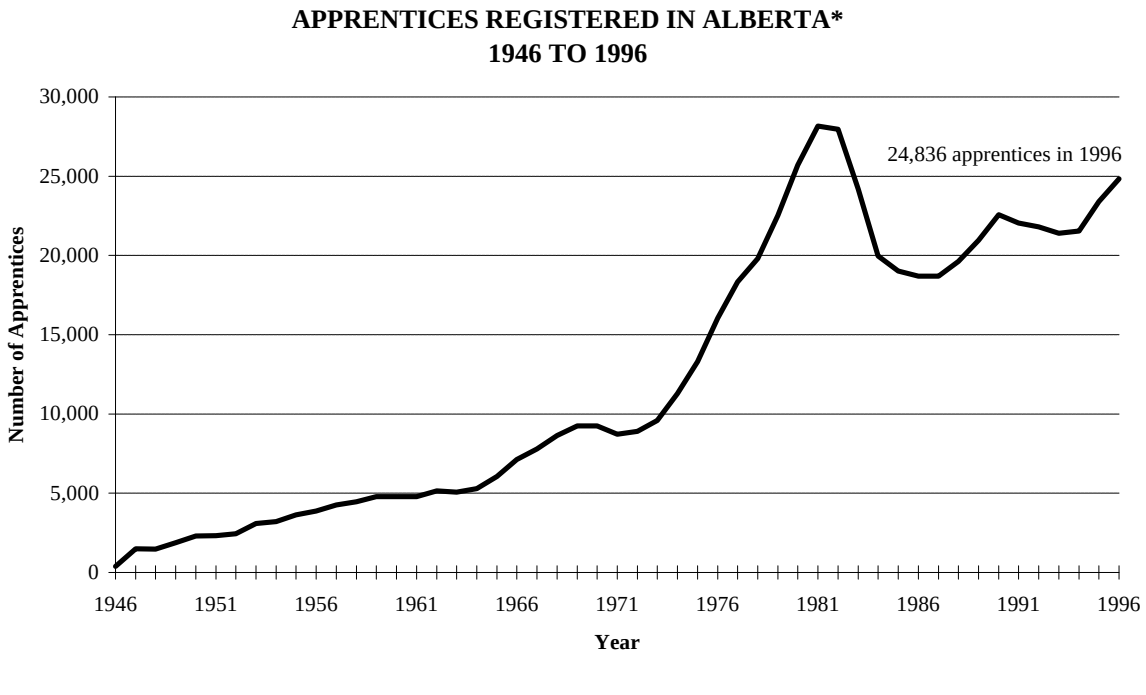


CHART 3



* **Note:** While "an Act respecting the Training of Apprentices" was passed in Alberta in 1944, apprenticeship registration statistics in Alberta are only available from 1946.

TABLE 4

Apprenticeship Formal Instruction Attendance by Trade and Period (or Year) of Training - 1996**

TRADE	1st Year	2nd Year	3rd Year	4th Year	TOTAL ATTENDANCE
AGRICULTURAL MECHANIC	41	30	N/A	N/A	71
APPLIANCE SERVICEMAN	15	22	20	N/A	57
AUTOBODY TECHNICIAN	93	43	77	N/A	213
AUTOMOTIVE SERVICE TECHNICIAN	320	298	292	321	1,231
BAKER	55	51	32	N/A	138
BOILERMAKER (See Note 3)	44	0	22	22	88
BRICKLAYER	10	10	8	N/A	28
CABINETMAKER	63	53	65	35	216
CARPENTER	255	234	224	189	902
COMMUNICATION ELECTRICIAN	16	5	7	13	41
CONCRETE FINISHER	24	23	N/A	N/A	47
COOK	200	154	132	N/A	486
CRANE AND HOISTING EQUIPMENT OPERATO	111	N/A*	12	N/A	123
ELECTRICAL REWIND MECHANIC	8	0	11	19	38
ELECTRICIAN	444	446	487	447	1,824
ELECTRONIC TECHNICIAN	9	16	18	21	64
FLOORCOVERING INSTALLER	17	30	N/A	N/A	47
GASFITTER	29	N/A*	56	N/A	85
GLASSWORKER	14	24	6	0	44
HAIRSTYLIST	51	83	N/A	N/A	134
HEAVY EQUIPMENT TECHNICIAN	322	308	291	253	1,174
INSTRUMENT MECHANIC	80	87	90	104	361
INSULATOR	36	40	39	N/A	115
IRONWORKER	8	12	21	N/A	41
---METAL BUILDING SYSTEMS ERECTOR	272	N/A	N/A	N/A	272
LANDSCAPE GARDENER	55	48	48	41	192
LATHER-INTERIOR SYSTEMS MECHANIC	8	5	0	N/A	13
LOCKSMITH (See Note 4)	7	5	11	15	38
MACHINIST	97	119	81	58	355
MILLWRIGHT	178	140	153	136	607
MOTORCYCLE MECHANIC	20	0	8	19	47
PAINTER AND DECORATOR	12	26	42	N/A	80
PARTSMAN	105	120	50	N/A	275
PLUMBER	174	148	221	200	743
POWER LINEMAN	34	0	23	N/A	57
POWER SYSTEM ELECTRICIAN	0	0	7	15	22
PRINTING & GRAPHIC ARTS CRAFTSMAN	6	0	14	8	28
PRINTING & GRAPHIC ARTS BINDERY	2	0	0	0	2
RECREATION VEHICLE MECHANIC	21	16	7	N/A	44
REFRIGERATION & AIR CONDITIONING MECH	42	57	51	55	205
ROOFER	7	16	15	N/A	38
SAWFILER	13	9	5	4	31
SHEET METAL WORKER	103	48	53	63	267
SPRINKLER SYSTEMS INSTALLER	12	13	15	N/A	40
STEAMFITTER-PIPEFITTER	121	86	108	95	410
STRUCTURAL STEEL & PLATE FITTER	22	0	21	N/A	43
TILESETTER	0	0	0	N/A	0
TRANSPORT REFRIGERATION MECHANIC	14	0	9	N/A	23
WATER WELL DRILLER	12	11	N/A	N/A	23
WELDER	642	569	444	N/A	1,655
TOTAL (See Note 5)	**4,244**	**3,405**	**3,296**	**2,133**	**13,078**

Note 1: "N/A" indicates completion of the program at the end of the previous period of training.

Note 2: "N/A*" indicates no formal instruction is required in the period indicated according to the approved curriculum for that trade.

Note 3: As of 1995/96, the number of formal instruction levels in the Boilermaker trade increased from three to four by including an "Entry Level" of formal instruction in the first period of the program.

Note 4: Locksmith formal instruction was offered for the first time in the 1995/96 school year.

Note 5: The 13,078 apprentices who attended formal instruction represent approximately 53% of registered apprentices in the system as of December 31, 1996. The remaining 47% include those who completed all their formal instruction requirements and were working on acquiring the required on-the-job training, those who registered as new apprentices after class scheduling process had been completed, and those who were not able to attend for various personal reasons.

**** These statistics cover the time period from January 1 to December 31, 1996 - a calendar year. Since a school year is from August 1 to July 31 the following year, the calendar year statistic may vary from the school year statistic.

TABLE 5

Formal Instruction Attendance By Institution and Period of Training - 1996**

	1st Year	2nd Year	3rd Year	4th Year	Total
Delmar (See Note 1)	20	37	N/A	N/A	57
Fairview College	197	160	151	98	606
Keyano College	104	92	85	47	328
Lakeland College	120	152	93	63	428
Lethbridge Community College	133	127	123	67	450
Marvel (See Note 1)	31	46	N/A	N/A	77
Medicine Hat	69	82	52	36	239
Northern Alberta Institute of Technology	2,020	1,426	1,563	1,026	6,035
Olds College	96	78	69	53	296
Red Deer College	256	217	207	153	833
Southern Alberta Institute of Technology	1,179	979	942	586	3,686
Employer Trained (See Note 2)	6	0	6	0	12
British Columbia Institute of Technology (See Note	13	9	5	4	31
TOTALS	**4,244**	**3,405**	**3,296**	**2,133**	**13,078**

Note 1: The Delmar and Marvel schools train Hairstylists. The Hairstylist trade is a two-year apprenticeship program.

Note 2: Trans Alta Utilities is accredited to provide apprenticeship technical training for its Power Lineman apprentices.

Note 3: British Columbia Institute of Technology trains Sawfilers.

**** These statistics cover the time period from January 1 to December 31, 1996 - a calendar year. Since a school year is from August 1 to July 31 the following year, the calendar year statistic may vary from the school year statistic.

TABLE 6

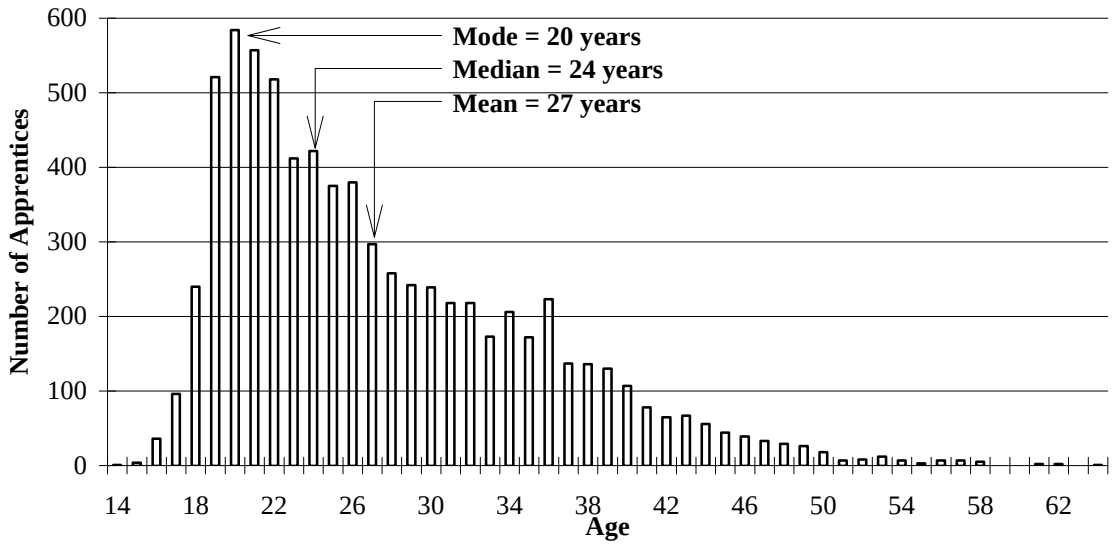
Apprenticeship Registrations, Graduations and School Attendance by Career Development Centre (CDC) Location - 1996

	Total Registrations	New Apprentices	Apprentice Graduates	School Attendance
Calgary CDC	4,077	1,285	656	2,294
Calgary South CDC	1,954	709	348	932
Lethbridge CDC	1,034	347	188	551
Medicine Hat CDC	825	268	150	441
Red Deer CDC	1,908	634	366	1,022
SOUTH REGION TOTAL	**9,798**	**3,243**	**1,708**	**5,240**
Bonnyville CDC	601	226	74	299
Edmonton CDC	9,168	2,791	1,448	4,677
Fort McMurray CDC	999	309	137	495
Grande Prairie CDC	1,076	339	145	601
Hinton CDC	833	272	123	461
Peace River CDC	766	239	94	349
Slave Lake CDC	410	102	57	207
Vermilion CDC	757	249	136	441
NORTH REGION TOTAL	**14,610**	**4,527**	**2,214**	**7,530**
ACCESS INITIATIVES	48	6	15	26
CENTRAL OFFICE (See Note 1)	332	133	4	254
INTERPROVINCIAL/INTERNATIONAL APPRENTICES (See Note 2)	48	14	6	28
TOTALS	**24,836**	**7,923**	**3,947**	**13,078**

Note 1: Alberta provides training for apprentices from other provinces and the territories where the trade is designated but they are unable to provide formal instruction due to small apprentice registration numbers. Alberta does not issue those persons a certificate.

Note 2: Alberta registers apprentices and provides formal instruction to persons and firms in jurisdictions where no program exists. Alberta issues a certificate upon completion of the program.

CHART 4



* Mean - defined as the sum of the ages of all apprentices divided by the total number of apprentices involved.

** Median - defined as the middle age category with an equal number of apprentices younger and older than this group.

*** Mode - defined as the largest age category or most frequent age of apprentices.

CHART 5

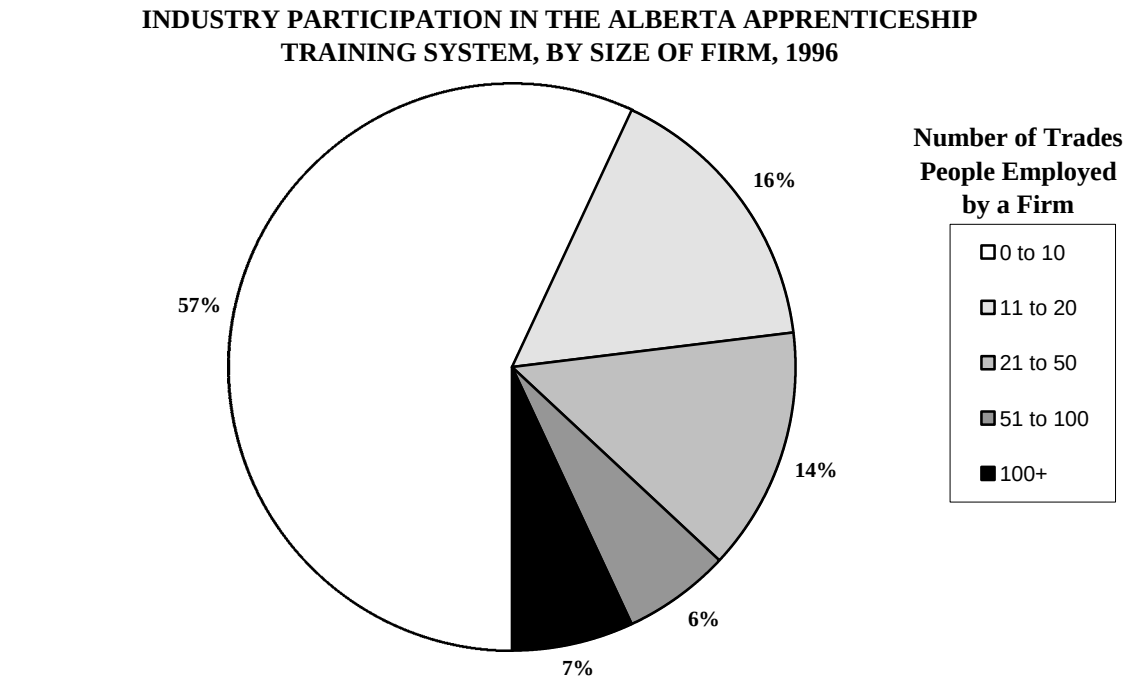


TABLE 7

Industry Advisory Network Meetings, By Trade, 1996

TRADE	Provincial Apprenticeship Committees	Provincial Apprenticeship Sub-Committees	Totals Provincial Apprenticeship Committees	Totals Local Apprenticeship Committees	Totals All Committees
AGRICULTURAL MECHANIC	0	1	1	N/A	1
APPLIANCE SERVICEMAN	0	2	2	1	3
AUTOBODY TECHNICIAN	0	2	2	3	5
AUTOMOTIVE SERVICE TECHNICIAN	0	3	3	6	9
BAKER	1	4	5	2	7
BOILERMAKER	0	1	1	0	1
BRICKLAYER	0	1	1	2	3
CABINETMAKER	1	3	4	3	7
CARPENTER	0	1	1	4	5
COMMUNICATION ELECTRICIAN	0	1	1	0	1
CONCRETE FINISHER	0	2	2	0	2
COOK	1	4	5	3	8
CRANE & HOISTING EQUIPMENT OPERATOR	0	2	2	3	5
ELECTRICAL REWIND MECHANIC	1	4	5	2	7
ELECTRICIAN	0	2	2	6	8
ELECTRONIC TECHNICIAN	1	4	5	0	5
ELEVATOR CONSTRUCTOR	1	1	2	N/A	2
FLOORCOVERING INSTALLER	0	2	2	1	3
GASFITTER	0	1	1	2	3
GLASSWORKER	0	1	1	2	3
HAIRSTYLIST	1	2	3	9	12
HEAVY EQUIPMENT TECHNICIAN	0	6	6	5	11
INSTRUMENT MECHANIC	0	2	2	2	4
INSULATOR	0	2	2	1	3
IRONWORKER	1	5	6	2	8
LANDSCAPE GARDENER	0	0	0	0	0
LATHER-INTERIOR SYSTEMS MECHANIC	0	1	1	0	1
LOCKSMITH	0	3	3	1	4
MACHINIST	1	3	4	2	6
MILLWRIGHT	0	2	2	3	5
MOTORCYCLE MECHANIC	0	0	0	2	2
PAINTER AND DECORATOR	1	0	1	3	4
PARTSMAN	1	1	2	4	6
PLUMBER	0	1	1	2	3
POWER LINEMAN	1	3	4	5	9
POWER SYSTEM ELECTRICIAN	0	1	1	2	3
PRINTING & GRAPHIC ARTS CRAFTSMAN	1	0	1	1	2
RECREATION VEHICLE MECHANIC	0	3	3	4	7
REFRIGERATION & AIR CONDITIONING MECHANIC	1	1	2	3	5
ROOFER	1	4	5	2	7
SAWFILER	1	0	1	N/A	1
SHEET METAL WORKER	1	2	3	6	9
SPRINKLER SYSTEMS INSTALLER	1	0	1	0	1
STEAMFITTER-PIPEFITTER	1	0	1	2	3
STRUCTURAL STEEL & PLATE FITTER	0	2	2	0	2
TILESETTER	1	3	4	1	5
TRANSPORT REFRIGERATION MECHANIC	0	0	0	N/A	0
WATER WELL DRILLER	0	0	0	N/A	0
WELDER	0	1	1	1	2
TOTALS	**20**	**90**	**110**	**103**	**213**

Notes:

"N/A" refers to trades where Local Apprenticeship Committees do not exist.