Canadian Apprenticeship Forum
Forum canadien sur l'apprentissage

Accessing and Completing Apprenticeship Training in Canada

PERCEPTIONS OF BARRIERS

A consultation report
January 2004

Canada

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Acknowledgements

The completion of this report would not have been possible without the cooperation of countless individuals who contributed their time to discuss challenges and opportunities within the apprenticeship community. The Steering Committee for this study expresses its appreciation to these individuals and organizations for their input and support.

Special thanks and appreciation is expressed to Human Resources and Skills Development Canada for its financial support and contribution to the study. Recognition should be also given to the Board of Directors of the Canadian Apprenticeship Forum – Forum canadien sur l'apprentissage (CAF-FCA) for their efforts in spearheading this initiative.

Finally, thanks to the comprehensive research and analysis conducted by the Canadian Labour and Business Centre (CLBC), and their associated consultants.

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Canada Funded by the Government of Canada's Sector Council Program.

The opinions and interpretations in this publication do not necessarily reflect those of the Government of Canada.

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Executive Summary

The Canadian Apprenticeship Forum – Forum canadien sur l'apprentissage (CAF-FCA) is comprised of representatives from:

- Business
- Labour
- Education
- Persons with disabilities
- Women
- Visible minorities
- Aboriginal people
- Interprovincial Alliance of Apprenticeship Board Chairs
- Canadian Council of Directors of Apprenticeship
- Human Resources and Skills Development Canada (formerly Human Resources Development Canada)

CAF-FCA promotes apprenticeship as an effective training and education system that contributes to the development of a skilled labour force, and provides a mechanism for key stakeholders to support apprenticeship-delivery systems across Canada.

The CAF-FCA Board of Directors notes that, while a substantial amount of research and analysis on barriers to industry training and apprenticeship has taken place in the past two decades, a comprehensive research project on this topic has not been carried out. To address the absence of meaningful study on these barriers, the CAF-FCA contracted the Canadian Labour and Business Centre (CLBC) to research issues relating to barriers to apprenticeship and communicate the results of this study with key stakeholders.

The objectives of the study were to:

- Identify and explore the perspectives of individuals, unions, employers, governments and educators concerning the barriers to accessing, maintaining and completing apprenticeships.
- Determine which barriers are systemic and which may be specific to certain groups.
- Engage the apprenticeship community in a consultative process to discuss the findings and examine recommendations.

The findings identified within this report are presented to engage the apprenticeship community and stimulate discussion about perceptions regarding accessibility and barriers to apprenticeship in Canada. The findings do not reflect the views and opinions of CAF-FCA; rather, they reflect the perceptions of barriers as captured by the pan-Canadian research.

Readers should bear in mind two important considerations related to the interpretation of the perceptions contained in the report's findings. First, the report often draws generalized conclusions or observations based on a broad, nationwide overview of issues and practices. However, in some jurisdictions, specific circumstances may vary from the generalized observations presented in the report.

Second, readers may note that some of the barriers identified in this report are not peculiar to apprenticeship but are equally evident for other forms of training and education. The barriers described in this report are based on information gathered in the specific context of apprenticeship, and it is the applicability of these barriers to apprenticeship that is the focus of this report.

The methodology used in this report focuses heavily on secondary research. This research was supported by primary-research activities in the form of stakeholder interviews and focus-group discussions. This consultation report represents the accumulation of significant amounts of qualitative data. A more detailed description of this methodology is contained in the introduction section of the report.

In conducting its work, the research team was moved by the sometimes-difficult experiences related by apprentices, tradespersons and members of individual equity groups. The energy and imagination with which many stakeholders and jurisdictions have overcome many barriers is clearly visible. These efforts complement and support the strong commitment demonstrated by all stakeholder groups to support apprenticeship and make it better.

While perceptions of barriers exist, substantial work is currently being undertaken within the apprenticeship community to address them. It is hoped this consultation report will be used as a catalyst to stimulate discussion and agreement about key activities and opportunities to address perceived barriers.

It is anticipated that this document will become a broad consultative tool to examine and discuss these perceptions further. The consultative process will be aimed at engaging the apprenticeship community in an effort to develop additional recommendations and solutions to overcome barriers.

Approach

Researchers sought to complement existing literature, work and initiatives about barriers to apprenticeship opportunities by filling in knowledge gaps and probe more qualitatively into what is known at a broad level. The project's literature review consisted of an examination of more than 200 documents; a majority of those were entered into a searchable database. Interviews were conducted with more than 50 apprenticeship stakeholders and an additional 10 focus groups were held in six locations across Canada. This approach reflected the researchers requirement to explore in greater depth the barriers faced by particular constituencies.

The team identified a group of generic barriers that seemed to affect apprentices, unions and employers. These barriers constitute a fundamental set of obstacles that are experienced in different ways by members of particular groups. These groups include women, Aboriginal people, persons with disabilities, visible minorities and immigrants. Immigrants, who constitute a growing percentage of Canada's labour force, were included, because they face specific barriers associated with their immigrant status.

These generic barriers have been grouped into nine categories, each reflecting a particular aspect of supply or demand conditions for apprenticeship:

1. **Negative attitudes** to apprenticeship and a poor image of trades
2. A **lack of information** and awareness of apprenticeship
3. Difficulties with **unwelcoming workplaces** or training environments
4. **Costs of apprenticeship** to individuals, employers and unions
5. Concerns over the **impacts of economic factors** on work and apprenticeship continuation
6. Concerns about the **lack of resources** to support apprenticeship
7. Concerns about apprentices' **basic and essential skills**
8. Shortcomings of **workplace-based and technical training**
9. Issues regarding **regulations** governing apprenticeship

Negative attitudes to apprenticeship

The negative attitudes of youth, students and parents towards apprenticeship have resulted in a negative image of trades. Trades are often perceived as second-class or dead-end careers with little potential for advancement. For young people, a lack of early exposure to trades affects their awareness of career options involving trades. For young women in particular, socialization and gender stereotyping of occupations further affects attitudes. For Aboriginal people, cultural, educational and social factors combine to make apprenticeship a low-profile, second-best career option. The absence of role models was cited as a particular factor affecting the attitudes about trades of young women, Aboriginal people and members of visible-minority groups.

Employer attitudes to apprenticeship are perceived to be a major and fundamental barrier. A perceived lack of a training culture and poor human-resource planning on the part of many employers were seen to contribute to this barrier. These attitudes result in an absence of positions for apprentices and a relatively low level of support for apprenticeship training.

Lack of information and awareness

The lack of awareness about trades represents another important generic barrier. The poor image of trades may derive from this lack of awareness, but it also reflects a societal focus on university and the trades' failure to promote themselves. In addition, career information is lacking in many occupational areas, and a poor orientation to trades on the part of young people and other key groups may also exist. For instance, a lack of initiatives promoting apprenticeships to women was identified as a significant barrier. For Aboriginal youth, negative or indifferent parental influences, the lack of role models, and inadequate career planning and counselling all account for a lack of awareness about apprenticeship and trades careers.

A shortage of effective high school trades work-experience and industrial arts programs, as well as the tendency of guidance counsellors to promote university-based careers, represent significant educational barriers to apprenticeship. A lack of clearly defined career paths to allow individuals to move between school programs and the apprenticeship system has also been identified as an obstacle. Furthermore, the research team identified the role of parents and family as crucial in determining young people's career choices.

Difficulties with unwelcoming workplaces

Discrimination, and unwelcome and sexist behaviour in the workplace also make it difficult for women to find careers in trades. Safety and security issues are supplemental barriers faced by women. Stereotyping and discrimination also represent significant barriers for members of visible-minority groups, recent immigrants and Aboriginal people.

Persons with disabilities also face numerous challenges in their quest for apprenticeship training and, ultimately, employment. Physical and personal barriers in the workplace and training are such that physical adaptation of the workplace remains the principal obstacle to on-the-job

training for members of this group. These barriers compound the isolation and discrimination faced by persons with disabilities both in training and the workplace. Resistance from other workers, and employers' hiring and selection practices are other important issues to be considered.

The high cost of apprenticeship

Employers, individuals and unions perceive the cost of apprenticeship as another major barrier. For some employers, particularly in small businesses, it is unclear whether the benefits of apprenticeship outweigh the costs, and the cost of apprentice supervision and wages is a particular concern.

Labour representatives noted that many apprentices in their twenties or older face financial and family pressures, forcing some to drop out. For apprentices, the cost of tools, tuition fees, and the income interruption encountered during required periods of technical training all add up to a substantial financial burden. Women face additional childcare costs, while Aboriginal people in remote communities encounter both the financial and psychological costs of moving away from home for classroom training. Unions bear costs when they subsidize members' training expenses or manage training trust funds and trade schools.

Concerns about the impacts of economic factors on jobs

During economic downturns, reduced demand in overall work can lead to fewer opportunities for apprentices or, worse, to an interruption in or termination of an apprenticeship. Some employers noted that seniority provisions in collective agreements may interfere with their ability to manage apprenticeship—and training programs generally—and can interrupt apprenticeship. These factors may make it difficult for apprentices to find employers, and pose a particular barrier for Aboriginal people and others in rural and remote communities. For labour respondents, in particular, a lack of job opportunities for apprentices was a key concern.

Lack of resources

The inadequacy of provincial and territorial apprenticeship resources was identified as another generic barrier. For some, this inadequacy has resulted in a lack of enforcement of apprenticeship standards and regulations; for others, it has meant that activities related to promoting apprenticeship and recruiting participants have been somewhat neglected. Along the same lines, provincial education and training-system representatives pointed to the relative lack of funding for apprenticeship training as the most important barrier preventing these representatives from fulfilling their apprenticeship role. Similar resource constraints inhibited the ability of communities and community agencies to support the apprenticeships of members of particular groups, such as Aboriginal people, immigrants, women and visible minorities.

Other barriers affected members of specific equity groups. For immigrants, difficulty entering and advancing in apprenticeships, and the lack of tools to assess and recognize prior learning, all point to difficulties in having their skills and credentials recognized. A lack of counselling and access to trade-specific information before they arrive in Canada added to the difficulties that immigrants experience. For Aboriginal people who may have worked in a trade without receiving formal recognition, an absence of prior-learning assessment resources may pose a barrier to entering formal apprenticeships.

Concerns about apprentices' basic and essential skills

Employers, as well as some labour and Aboriginal spokespersons, expressed strong concerns about the personal attributes and characteristics of many apprenticeship candidates. Other respondents agreed that young people may lack the

proper academic preparation at the high-school level and, consequently, these youths bring inadequate essential skills, including mathematics and literacy, to their apprenticeship training. These skills barriers were often cited with respect to Aboriginal people. Some would-be apprentices may also lack self-esteem, confidence and the network of contacts required to approach employers. For immigrants, barriers include a lack of language and literacy skills, and little familiarity with equipment and materials used locally. Employers may also lack systematic assessment tools to evaluate would-be apprentices' attitudes, aptitudes and general "fit" in a specific trade.

Shortcomings of workplace-based and technical training

Concern is evident among employers and labour groups that, in many trades, apprentices receive only limited exposure to a wide range of tasks. Some employers have argued for more modularized training. Labour leaders, however, pointed out that this emphasis could weaken the skill-certification process. Some see block-release training as a serious problem, since it can promote inflexibility in training arrangements and make it difficult to schedule and carry out normal operations, especially for small employers. The lack of training locations represents another barrier, particularly in rural or remote communities, where both Aboriginal people and others may be most affected. For women, childcare responsibilities often affect their ability to relocate to take technical training.

Representatives of both employers and unions mentioned that technical content of training curriculum, currency of equipment used in training, and instructors' knowledge of current styles and practices often lag behind technical and other changes in trade-specific skills. In addition, reliance on traditional written tests, rather than practical demonstrations of skills, was criticized by some respondents.

Issues regarding regulations and standards

The ratio of journeypersons to apprentices is perceived by some to be a barrier for individuals entering into apprenticeships. Current ratios may limit employers' ability to bring in as many apprentices as required. Smaller businesses may be particularly affected by fixed ratios if these ratios are too high, although employers' and labour representatives' opinions differ on the question of the appropriate ratio. There is some agreement that relaxing ratios during economic downturns would have minimal impact on the number of apprentices, at least in the short term.

The fear of externally dictated training rules and regulations, and the perceived lack of jurisdictional consistency across the country, speaks to some of the regulatory barriers identified. In fact, a number of stakeholders believe apprenticeship training is governed by too many rules and too much red tape, while some employers feared that apprenticeship regulations intrude on the internal workings of companies. The absence of national standards or core curricula in many trades represents a hindrance to large employers operating in several jurisdictions, making it difficult to develop a consistent training approach and set

of standards. Finally, in the opinion of some respondents, a lack of compulsory certification in some trades has created a disincentive to create apprenticeships.

Moving forward – the challenges

Addressing the perceived barriers identified by researchers poses an opportunity for all apprenticeship stakeholders to consider measures that:

- Change perceptions and attitudes about apprenticeship and trades;
- Increase efforts within secondary school systems to support and promote the trades, through counselling, information, programs and enhanced teacher awareness;
- Develop within the workplace cultures that are more inclusive and welcoming of women, Aboriginal people and other equity groups;
- Address the costs that apprenticeship stakeholders encounter to initiate apprenticeship programs, as well as costs faced by apprentices who pursue these programs;
- Mitigate the impact of economic factors that can lead to a lack of work, and an interruption or termination of apprenticeships;
- Reassess, within jurisdictions, the adequacy of resources devoted to apprenticeship;
- Understand and promote essential skills (numeracy, literacy, computer use) that individuals must have to enhance their chances of success in apprenticeship programs;
- Provide accessible technical training arrangements, and up-to-date training curricula and equipment;
- Seek to harmonize, across jurisdictions, rules, regulations and standards affecting apprenticeship and trades.

1. Introduction

Skill shortages, declining birthrates, an aging workforce, and increasing global competitiveness in Canada are all combining to create an environment in which human resources are the country's number-one comparative advantage—or weakness, if Canadians do not respond to this challenge. For this reason, skill shortages and the need to be innovative in how we develop and utilize human resources have become top public-policy and private-sector concerns in Canada.

Increased investments in industry training and apprenticeship have been identified as part of the solution to the skills dilemma. Workers in the skilled trades, in particular, have been identified as essential to building and maintaining Canada's place in the knowledge-based economy. An adequate supply of skilled trades workers is the key to keeping Canada economically strong and socially sound.[1] The Conference Board of Canada reports that Canadian employers spent significantly less on formal training per employee than employers in the U.S., Europe, Asia and the Pacific region.[2] These conclusions are echoed in other surveys, including Statistics Canada's Workplace and Employee Survey (WES).

To achieve more significant outcomes on adult job-related learning and employer-sponsored training, including apprenticeship, Canadian training stakeholders must address the obstacles and barriers to skills development. While a substantial amount of analysis and research on barriers and access to training has been undertaken over the last two decades in Canada and elsewhere, a recent comprehensive pan-Canadian research project on barriers to apprenticeship has not been undertaken.

In this broad context, the Canadian Apprenticeship Forum – Forum canadien sur l'apprentissage (CAF-FCA), is a multi-partite organization that includes representatives of business, labour, the Inter-Provincial Alliance of Apprenticeship Board Chairs (IPA), educators, persons with disabilities, women, members of visible minorities, Aboriginal people, the Canadian Council of Directors of Apprenticeship (CCDA), and Human Resources and Skills Development Canada (formerly Human Resources Development Canada), has two key parts in its mandate.

CAF-FCA promotes apprenticeship as an effective training and education system that contributes to the development of a skilled labour force, and provides a mechanism for key stakeholders to support apprenticeship-delivery systems across Canada.

CAF-FCA has identified the issue of accessibility and barriers to apprenticeship as an area of key concern. The issue has become increasingly important in the current context of Canadian economic, demographic and public-policy developments. Reflecting these priorities, CAF-FCA contracted the Canadian Labour and Business Centre (CLBC) to research accessibility and barriers to apprenticeship in a comprehensive and effective way, and to consult broadly with the apprenticeship community. This report presents the findings of this research—a synopsis of a range of perceptions relative to the barriers.

1 Government of Canada (HRDC). *Knowledge Matters – Skills and Learning for Canadians*. Ottawa: HRDC, February 2002.
2 Stephanie Harris-Lalonde. *Training and Development Outlook 2001: Beyond the Basics – Organizational Learning in Canada*. Ottawa: The Conference Board of Canada, 2001.

2. Methodology

2.1 Objectives

The overall purpose of the project is "the research and communication of key findings regarding the perceived barriers to accessing and completing apprenticeship programs as they affect all segments of the population" in Canada. The project's primary objectives were to:

- Identify and explore the perspectives of individuals, unions, employers, governments and educators concerning the barriers to accessing, maintaining and completing apprenticeships.
- Determine which barriers are systemic and which may be specific to certain groups.
- Engage the apprenticeship community in a consultative process to discuss the findings and examine recommendations.

In addition, the project sought to identify practices to overcome barriers, and to develop a strategy to support CAF-FCA in disseminating the findings and identifying areas for action.

2.2 Research Activities

The study sought to build on extensive existing literature, work and initiatives related to apprenticeship accessibility and barriers. Having captured this literature, the study added a primary-research component to fill in knowledge gaps and probe more qualitatively in particular areas.

In the process, the research team found it helpful to construct a conceptual framework for the apprenticeship process, which would allow the primary and secondary research to proceed in a systematic and comprehensive fashion. The framework constituted a common point of reference in the research questions, and provided a uniform means to organize research protocols for interviews and focus groups.

For individuals, unions and employers, the conceptual framework divided the apprenticeship process into four phases, each of which reflected a key step in the progress from awareness of apprenticeship to successful completion of apprenticeship programs. The four phases, which applied to individuals, unions and employers, were as follows:

Individuals	Employers
1. Becoming aware of, and interested in, apprenticeships as a career step	1. Becoming aware of, and interested in, apprenticeships as a source of skills
2. Accessing and entering apprenticeships	2. Offering apprenticeships
3. Participating in apprenticeships	3. Maintaining apprentices on staff
4. Successful completion of apprenticeships	4. Successful completion of apprenticeships

Individuals, unions and employers encountered particular types of barriers most strongly in certain phases of apprenticeship, although many types of barriers were encountered in more than one apprenticeship phase.

The specific research activities undertaken in the project included the following:

1. ***An initial set of interviews with CAF-FCA Board members*** who represented key constituencies (governments, labour, business, equity groups and educational institutions). These interviews sought to clarify and validate the key questions on which the research should focus.
2. ***A comprehensive review of existing literature and data*** on barriers and access to apprenticeship in Canada. The review also drew on key international literature pertinent to the Canadian context. Over 200 documents were reviewed, with some 115 entered into a database.
3. To fill in the information gaps identified by the literature review, the study undertook a ***series of thirty-five telephone interviews and an additional ten focus groups***. These interviews and focus groups captured perspectives on barriers to apprenticeship of a wide variety of stakeholders, including:
   - Employer and sector-council representatives;
   - Labour representatives and union trainers;
   - High school counsellors;
   - Community colleges and private trainers;
   - Equity groups (women, persons with disabilities, Aboriginal people, visible minorities and immigrants);
   - Apprentices;
   - Journeypersons;
   - Youth, students and parents;
   - CCDA members from provincial and territorial governments;
   - Government of Canada; and
   - Academics.

The perspectives of ex-apprentices (those who did not *complete* an apprenticeship) were gathered primarily through secondary sources. For a number of reasons, including concerns regarding privacy and access to information, it was not possible to identify and contact ex-apprentices who might have served as potential interviewees.

2.3 Report Organization and Citation of References

This report discusses common generic barriers that were identified by employers, labour representatives and individual respondents. Generic barriers are those that affect the apprenticeship community in general and are distinguished from more group-specific barriers—those barriers reflecting the particular circumstances or characteristics of individual employers or members of under-represented groups, such as youth, Aboriginal people, women, persons with disabilities, immigrants and visible minorities. This section is followed by a discussion of the group-specific barriers that affect these particular groups, and then by a discussion of specific barriers encountered by employers and unions.

These sections are followed by a presentation of the perspectives of education and government on aspects of the apprenticeship system that prevent each group from playing their roles more effectively.

The report draws directly on both the literature reviewed during the project and the interviews and focus groups conducted. References to the literature are included in brackets containing the author's name and the year of the publication. The full reference can be found in the bibliography included in Appendix 1. Points that reflect the discussions of individual interviews are indicated by the following bracketed symbol (✧), while those points deriving from multiple interviews or focus groups are indicated by (✧✧).

3. Perceptions of Barriers to Apprenticeship

As indicated, the CAF-FCA has identified the issue of accessibility and barriers to apprenticeship as an area of key concern. The issue has become increasingly important in the current context of Canadian economic, demographic and public-policy developments. This report presents research findings as a synopsis of a range of perceptions relative to the barriers. These findings are presented to engage the apprenticeship community into thinking about ways to address the barriers.

During the Accessibility and Removal of Barriers Project, the research team explored the perspectives of individuals, unions, employers, government representatives and educators concerning the barriers to initiating, maintaining and successfully completing apprenticeships. The research included the views of members of equity groups, women, Aboriginal people, persons with disabilities, visible minorities and immigrants. Immigrants, who comprise a growing percentage of Canada's labour force, were included, because they face specific barriers associated with their immigrant status.

In reviewing responses, researchers were struck by the similarity in the barriers identified by respondents. In many cases, several groups cited the same barrier, although it was described in different terms and often took a different form for members of individual apprenticeship groups. As a result, the research identified a group of nine generic barriers listed below:

1. Negative attitudes to apprenticeship, and a poor image of the trades by young people, parents and employers.
2. A lack of information and awareness of apprenticeship, often reinforced by a lack of support for trades among schoolteachers and guidance counsellors, and within school curricula.
3. Some apprentices, particularly women, Aboriginal people, members of visible-minority groups, recent immigrants, and persons with disabilities, face a number of barriers that can create an unwelcoming workplace or training environment.
4. The high costs of apprenticeship for individuals, unions and employers, including wage and supervision costs for employers and rising tuition and tool costs, and the income interruption caused by block release for individuals.
5. Strong concerns among employers, unions and individuals over the impacts of economic factors that can lead to a lack of work hours and interruptions or possibly terminations of apprenticeships.
6. Concerns regarding the lack of resources to support apprenticeship, including those of jurisdictions, schools, communities and agencies providing services to communities or groups of individuals.
7. Concerns, particularly on the part of employers, about apprentices' basic and essential skills.
8. Shortcomings of workplace-based and technical training; for example, inflexible block release arrangements, a lack of flexible technical-training options, a lack of mentorship programs, and journeypersons unprepared for roles as trainers and mentors.

9. Regulations governing apprenticeship, such as inflexible journeyperson/apprenticeship ratios and licensing requirements, and the absence of national standards or core curricula in some trades.

Following the presentation of each of the nine generic barriers, the report presents additional dimensions to these barriers as they are experienced by a number of specific ***groups that have been traditionally under-represented*** in the trades and apprenticeship system: ***women, Aboriginal people, visible minorities, recent immigrants and persons with disabilities***. Research conducted for this study has revealed that members of these groups face a number of common barriers:

- A lack of career-related information targeted to their specific concerns and circumstances;
- Harassment and isolation in the workplace and in some classroom training sites;
- Discriminatory hiring practices;
- Skills gaps, particularly in the areas of literacy and numeracy;
- Resource constraints on community associations that provide valuable support and labour-market integration services to members of these groups; and
- Economic disadvantages and social exclusion, both of which can act as foundational barriers in the apprenticeship system.

Research into the experience of these groups with apprenticeship also revealed a number of commonalities that are worth mentioning in the interest of understanding the nature of the barriers encountered by these groups.

1. It is important to bear in mind that the barriers faced by members of under-represented groups are ***additional barriers***. Members of these groups face the generic barriers that all apprentices face, as well as barriers commonly encountered by members of their own group.
2. Some individuals ***may face barriers from more than one*** of these under-represented groups. For example, a woman from a visible-minority group will face barriers commonly experienced by women, as well as barriers faced by visible minorities.
3. In some cases, apprenticeship-specific barriers perceived by under-represented groups are ***complex and interdependent with deeper and more subtly pervasive barriers***. For example, to understand the nature of *gender-specific barriers to apprenticeship*, it is essential to understand the sex-typing of occupational choices in children and young adults, such as preconceptions about "woman's work" versus "man's work". Similarly, the many barriers to apprenticeship faced by members of visible – minority groups are strongly linked to broader and more pervasive barriers related to historical patterns of social and economic disadvantage.

Readers should bear in mind two important considerations related to the interpretation of the report's findings. First, the report often draws generalized conclusions or observations based on a broad, pan-Canadian overview of issues and practices. However, in some jurisdictions, circumstances may vary from the generalized observation presented in the report.

Second, readers may note that certain barriers identified in this report are not necessarily peculiar to apprenticeship but hold true for other forms of training or education. The barriers described in this report are based on information gathered in the specific context of apprenticeship, and it is their applicability to apprenticeship that is the focus of this report.

It should be noted that, in conducting its work, the research team was moved by the difficult experiences related by apprentices, tradespersons and members of individual equity groups. The energy and imagination with which many stakeholders and jurisdictions were overcoming many of the barriers, including generic barriers, was clearly visible. These efforts complemented and supported the very strong commitment to apprenticeship demonstrated by all stakeholder groups—to support apprenticeship and find ways to make it better.

1 Negative attitudes to apprenticeship and a poor image of the trades on the part of young people, parents, and employers

A. GENERIC BARRIERS FACED BY YOUTH, STUDENTS AND PARENTS

Negative attitudes of youth to apprenticeship, and a negative image of the trades

Employers, unions and young people themselves noted the ***negative attitudes of youth and students to the trades***, which make it extremely difficult for employers in many trades to attract apprentices (CARS Council, 1999; Angus Reid Group, 1998; MacCulloch and Henley, 2002, ✧✧). Government stakeholders tended to concur, asserting that, "the main challenge is the image of the trades. The image is essentially negative and affects all occupations and in every region of the country" (✧). Respondents described these attitudes in a variety of different ways, citing themes such as:

- Perceptions that trades are essentially seasonal occupations involving hardship (✧);
- "Some parents and students are scared of apprenticeship because of its 'labouring' work stereotype" (✧✧);
- A perception that trades are for less academically inclined students, or are dirty, dangerous or not challenging (Convergence Management Consultants, 1996, ✧);
- Perceptions among young people that trades do not require a high degree of skill or aptitude ("Labour Pains," 1997). Youth have many preconceptions about trades, including the degree of intelligence needed to perform them, income levels (seen as low), poor career potential, precarious job stability, poor mobility, cost of training, and the mix of classroom and workplace experience (Macdonald and Associates, 1998);
- Students have narrow, stereotypical views of science, and even more restricted knowledge of the widening range of technologies. Their views of trades are even more constrained, with the exception of students who had a family member or family friend in the trades (Hypatia Project, 2002);
- Perceptions of some industries as undesirable from a career perspective (CARS, 1999; Information Development and Training Inc, 2001).

As one provincial government report noted,

> "At age 16, those who drop out will have little in the way of an educational credential. For those who stay in school ... there appears to be an overemphasis on the preparation for and the value of university education as compared to other alternatives. Further, there is some indication that students who opt for non-university related programs are viewed to somehow have failed."
>
> (Select Standing Committee on Education in British Columbia, 2002)

A number of respondents drew attention to the ***role that early exposure and socialization plays in affecting children's propensity to be interested in trades, technologies and sciences***.

Respondents also noted that ***trades were perceived as "second-class" careers or "dead-ends," with little career-advancement potential*** (Convergence Management Consultants, 1996, ✧✧). Alternatively, trades were seen as jobs for underachievers (GPC International, 2001). An Ontario survey found that only four percent of respondents identified the skilled trades when asked to identify the best career for young people today (Angus Reid Group 1998).

These attitudinal issues reach an extreme in certain sectors, where ***a sizable proportion of employees may not hold their own trades in high esteem*** and could be inclined to discourage others to join them (CARS, 1999). Labour representatives summed up these views by contrasting Canadian perspectives, which downplayed the status of the trades, against those prevailing in many European countries, where the trades enjoyed high prestige (✧✧). ***Some labour spokespersons also expressed concern about Canadian immigration regulations***, under which tradespersons receive less recognition than immigrants with university educations. This circumstance may send a message that trades are less valued in Canada (✧).

Parents' negative attitudes to trades and apprenticeship are a strong influence on the attitudes of young people.

One of the most powerful influences on young people's career interests and choice is their parents and, more broadly, their families. Some studies suggest that the role of parents and peers in influencing career choices is particularly important, compared to that of guidance counsellors. This view was reinforced by key interviews and focus groups during this study (SPR Associates, 2002, ✧✧). In a Quebec study regarding carpentry and allied trades, family and friends were major factors promoting entry into these trades (Prism Economics and Analysis, 2000A).

Parents, however, do not proactively encourage youth to look at trades careers, preferring their children to attend university (Convergence Management Consultants Ltd., 1996 GPC International 2001). One interviewee put it very strongly: "Parents see apprenticeship as a sentence to a life of poverty" (✧). Another report observed:

> "It also appears that many parents view opportunities in technical and trades programs as fine for someone else's child. Yet only about 80% of students graduate from secondary school. Also, only about 30% of the secondary school graduates attend colleges and universities and only about 19% of them obtain a degree … What is required are both increased technical and trades options for learners and more effective means to convince learners of the need for them to continue their education."
>
> (Select Standing Committee on Education in British Columbia, 2002)

Overall, the view was that, in cases where parents and peers view apprenticeship as "second class", this perception acts as a strong deterrent to young people entertaining the idea of apprenticeship. To illustrate this point, one survey (CARS Council, 1999) discovered the following parental perceptions or concerns about trades and apprenticeship:

- Difficulty in finding apprenticeship placement;
- Perception that industries look for people well into their twenties;
- Cost of tools during apprenticeship;
- Poor remuneration and treatment of apprentices;
- Physical demands of the job are excessive after the age of 40 or 45;
- "Dead end" image to certain industries; and
- Work has become more mundane as workplaces become more automated and computerized.

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

Deeply entrenched attitudes in families, schools, and society regarding what jobs constitute "man's work" and "woman's work" have a pervasively negative influence on women who might otherwise form an interest in the skilled trades and actively pursue this interest. One of the most commonly reiterated barriers to women is the "sex-typing" of occupational streams; in simpler terms, this term refers to prevailing societal and individual attitudes as to what constitutes "men's work" and "women's work" (Kerka, 1999; SPR, 2002; WITT-Alberta, 2000; ✧✧). The notion that trades work is gendered—particularly for trades in which women have been traditionally under-represented—affects the attitudes of not only women who may be good apprenticeship candidates, but those of others who have an important influence on career and training decisions of young women.

These gendered perceptions of trades can result in the self "de-selection" of women from these occupations (Dancey, 2002) either because women are discouraged from seriously thinking about entering trades or they are steered away from educational choices that will lead them into trades. This perception may also result in an ***absence of support from family, peers, counsellors and teachers*** for women's interest in trades (WITT-Alberta, 2000).

It has been suggested that more research is needed into ***how vocational preferences are socialized*** among youth (Centre for the Study of Living Standards, 2001). Nevertheless, research conducted for this study has provided considerable detail into the dimensions of this problem.

Part of the problem lies in the traditional upbringing of girls who model themselves on their parents expectations. This role modelling is further reinforced by the patterns of learning in education institutions where female students tend not to participate in science- and math-related courses that lead to training in trade and technology occupations (CLMPC, 1990). At the same time, these same attitudes and expectations about gender-appropriate occupations are inculcated equally strongly in boys and young men, reinforcing resistance in the workplace on the part of female tradespersons' future male co-workers.

Generally speaking, a lack of support from spouses or parents can diminish the prospects of women's successful access to or completion of apprenticeships. Some parents still view apprenticeship in non-traditional trades for women as defying social acceptability (SaskWITT, 2001; ✧✧). Some male spouses also remain attached to notions that they are families' primary "bread winners", and may be reticent to support their partners' pursuit of economic independence through training (SaskWITT, 2001; ✧).

Aboriginal People

Image of the trades

For those Aboriginal people who are aware of apprenticeship and the trades, they regard these options as a last choice relative to university and college programs. As will be discussed later in this report, while apprenticeship as a learning system is often viewed as being consistent with Aboriginal learning methods, some respondents also felt that the rules surrounding apprenticeship sometimes posed a problem for Aboriginal learners (✧). One study for the Government of Manitoba pointed to Aboriginal individuals or communities being "virtually non-existent" in marketing apprenticeship, reinforcing an exclusionary image of the trades (Cook Consulting, 2001). The study found that the image of the trades as a "second-class" career opportunity, as well as the continuation of gender-based stigma, also affect the image of trades among Aboriginal people.

Taking Pulse suggested that some Aboriginal parents might not place a high value on education, and provide little encouragement to their children

in their career pursuits (National Aboriginal Achievement Foundation, 2002). Focus-group participants similarly commented on the importance of family support to developing an awareness of and an interest in pursuing a trades-oriented career path. (✧✧).

Fear of apprenticeship contract

Some Aboriginal parents are suspicious of the apprenticeship "indentureship" process, and do not trust what they are told by non-Aboriginals (CLFDB, 1999). Research has found that, because of cultural differences and mistrust toward the unfamiliar apprenticeship model, some Aboriginal people may fear entering an apprenticeship contract or agreement, and need support to understand and complete such documentation (✧✧).

Relocation

Relocation is often necessary to complete apprenticeship training. The fact that many young Aboriginal people in rural areas or on reserves are strongly tied to their communities may be a barrier to entering apprenticeships. Since local employment opportunities may be minimal, apprenticeship may cause Aboriginal youth to leave their communities and relocate for on-the-job or in-school training (✧✧). Relocation can be a disincentive to the formation of a strong interest in apprenticeship on the part of Aboriginal youth and their parents. Aboriginal parents in rural or remote First Nations communities, naturally, may be less inclined to promote careers that mean their children have to relocate for employment and training (✧).

Visible Minorities

Parental influence can be particularly strong within certain ethnic families. In one study, the attitudinal bias against non-university career direction was particularly strong within the Asian community. At the same time, the same focus groups revealed that parents often had little information about non-university training options (Jothen, 2002). In a student focus group conducted for this study, participants on an academic path—all of whom were members of visible minorities with immigrant parents—spoke about the tremendous pressure applied by their parents in favour of them attending university (✧✧). One such student indicated that he did not give the trades a second thought, and that his parents "wanted for me what they didn't have" (✧).

Persons with Disabilities

It is possible that persons with disabilities may have a psychological barrier to face in their appreciation of the trades and apprenticeship. Young persons with disabilities lack role models or examples of individuals who have succeeded in apprenticable trades, limiting their interest in these occupations (✧). For one interviewee, persons with disabilities may have the perception that work in technological occupations presents less physical and accessibility barriers, explaining why these people are moving into these occupations at the expense of the trades.

Employers' hiring and selection practices

A British Columbia study [WoodLINKS (2002)] that looked at means to improve access to trades for persons with disabilities identified a range of concerns shared by employers in the forest-products sector over the hiring of persons with disabilities. Most notable were concerns about mobility (given the physical demand of the work) and the type of work that can be done; concerns regarding the need for increased management or supervision time; fear that medical costs will rise and productivity will fall; and a lack of information on adaptation requirements and the skills persons with disabilities can bring to workplaces.

The research found a relative absence of information on the apprenticeship experiences of persons with disabilities. The available literature in this area did not permit a detailed differentiation of barriers faced by persons with different types of disabilities. The majority of the findings from the literature and interviews relate either to disabilities in general or to physical disabilities.

C. EMPLOYER ATTITUDES TOWARD APPRENTICESHIP

Many employers are unaware of the value of apprenticeship, and ascribe little importance to apprenticeship as a means of meeting skill needs. This attitude means that apprentices often face problems in finding employers willing to make an apprenticeship commitment.

Many employers and labour representatives pointed to ***employer attitudes to apprenticeship as a major and fundamental barrier***, which resulted, in many sectors and regions, in an absence of positions for apprentices, and relatively low support for the use of this training mechanism. In turn, these employer attitudes could be linked directly to basic awareness issues (Starr Group, 2002), including:

A lack of information on the potential value of apprenticeship to meet employers' skill needs (ITAC, 2001; ✧✧), sometimes expressed as "What's in it for me?" A perception exists among some employers that apprentices may increase overall costs and reduce productivity, or that the overall quality of work may suffer (Fayek et al., 2002).

A lack of employer understanding of their roles and responsibilities as part of an apprenticeship contract.

A lack of practical information on apprenticeship regulations and procedures on how to establish an apprenticeship, or on local resources available to support this process (MacCulloch et al, 2002).

Some employers resist formally engaging apprentices for fear of losing staffing flexibility (✧).

A bias toward academic credentials and a lack of value for the trades (Kaminura et al, 1998, ✧).

At the same time, some employers felt that there is perhaps an overemphasis on training—including apprenticeships—at the expense of other organizational strategies to increase employee flexibility, resulting in training programs that are too long or too complex (✧). One difficulty associated with apprenticeship is making the proper human-resource diagnosis and acknowledging that training is not the answer to all workplace issues. Some managers may not have a realistic assessment of what training, including apprenticeship, can and cannot do (✧).

2 A lack of information and awareness of apprenticeships, often reinforced by a lack of support for trades among school teachers and guidance counsellors, and within school curricula

A. GENERIC BARRIERS

Lack of awareness and information on the trades, and career planning that includes the trades.

Barriers related to young people's image of and attitudes toward the trades are further reinforced by a lack of information available to youth about career paths in the trades and about apprenticeship options and process. In part, this attitude reflects ***society's focus on university education, as well as the trades' failure to promote themselves through career information*** (Macdonald and Associates, 1998; Viswanathan, 2002; Select Standing Committee on Education, 2002; Information Development and Training Inc., 2001). Many key government informants also pointed out this lack of awareness, information and interest, and argued that it applies broadly to schools, families and society in general (✧✧).

In a related fashion, for interested individuals, it is often difficult to identify employers who might be a potential sponsor of apprenticeship training, because so much recruitment depends on informal contacts. It is perceived that personal contacts such as family and friends may be one of the means by which some trades-related jobs and apprenticeships are accessed. Those without the contacts, therefore, may have a very difficult time finding employers to hire them.

These deficits are compounded by a lack of clearly articulated career paths to enable individuals to move between secondary school programs and the apprenticeship stream (Economic Council of Canada, 1992). Students are simply unaware of the steps they can take to enter into apprenticeship—including how to find an employer—despite numerous information campaigns and products targeted at providing information on trades and apprenticeship (✧). Students also often lack the knowledge, skills and confidence to find employers to apprentice with, or the techniques to find jobs (CLFDB, 1994, Zimmerman, 2001).

The ***lack of personal contacts between tradespersons and potential apprentices*** represents an additional barrier. Focus-group participants pointed to poor linkages between schools and employers, and to employers and tradespeople having little contact with schools, which they visited only rarely (✧).

The ***complexity of the apprenticeship process itself can be confusing*** for apprentices and employers alike. Young people have difficulty finding out about how to pursue an apprenticeship, which some respondents felt was more of a problem than with other educational programs (✧✧). As a result, young people may need a contact or family member to help them get into an apprenticeship (Convergence Management Consultants Ltd., 1996; MacCulloch and Henley, 2002). One key informant also pointed out that requirements for applying for financial assistance can be equally confusing to young apprentices (✧).

Focus groups involving rural youth, high school students and parents all validated the fact that awareness and information on apprenticeship and trades careers are lacking (✧✧). One participant stated: "Schools need to advertise more about trades and apprenticeship; these are not 'pushed' much in high school; counsellors provide little information about it" (✧). This perspective differed little from an earlier Canadian Labour Force Development Board report (CLFDB, 1997), which highlighted the importance of marketing and promotion as part of the solution to address apprenticeship awareness and image issues.

Many sector studies also tended to confirm the fact that ***students, teachers, counsellors and parents lack awareness and information about various industries, particularly those regarding trades and technical careers*** (Convergence Management Consultants Ltd., 1996; CARS, 1999). Generally, the public, including most age, gender and educational groups, shows a low level of awareness of the trades in general and little knowledge of the full spectrum of jobs that comprise the trades (GPC International, 2001).

These views were also confirmed by key informant interviews and focus groups. One stakeholder indicated young people, especially equity group members, ***often do not see apprenticeship as a career path that can lead to self-employment*** (✧). These interviewees did not know what is involved, what the pay is (relative to careers for university graduates), and how quickly they can achieve a good-paying job with no student loans to pay back. Another interviewee reinforced this lack of awareness, suggesting that youth are unaware of the steps they can take to enter apprenticeship (✧). Many students have a perception that candidates need contacts or relatives to enter the trades.

Key informants cited particular examples:

- In the view of one informant, apprenticeship is not effectively promoted by government or colleges—the latter preferring to promote other programs over the trades. Governments are sometimes viewed as invisible when it comes to promotion. The interviewee noted that it is essential for government apprenticeship representatives to maintain good contacts with industrial arts teachers. This individual recalled instances in which government representatives had not maintained such contacts, or were in some cases completely unknown to industrial arts teachers in their area.
- A second informant spoke of visiting a rural school where approximately 20 percent of students go to university: "Yet in the school entrance hall, there were three or four glossy career posters, which all focused on university careers. There was nothing about the trades or work-related programs. This was not atypical but rather symbolic" (✧).

Key informants and focus-group participants suggested that ***young people need to be connected to potential career options and information early on, at around the Grade 9 level*** (✧✧). One interviewee maintained that, despite numerous information products of excellent quality in circulation, and numerous information campaigns, information is still not getting across to potential apprentices (✧). Some interviewees noted, in particular, the lack of personal contact between actual tradespeople and potential apprentices (✧✧).

A number of labour representatives also noted the strong leadership role the federal government, as the largest purchaser of construction, could play to ensure that contractors on federal projects give strong priority to apprenticeship (✧). Other labour spokespersons saw an opportunity for public-sector unions, whose members include many tradespersons, to promote apprenticeship for their members.

Secondary school teachers and guidance counsellors often do not prepare students to consider apprenticeships, reflecting their own lack of awareness of the trades.

Most studies perceived educators as another key "influencer" group in terms of youth awareness, interest, and participation in trades careers and apprenticeship—particularly secondary school teachers and career or guidance counsellors. This conclusion, however, was not universal. One

study (Sweet and Gallagher, 1997) found that government agencies and school counsellors are not perceived to be a useful source of advice or information. A second study (Prism Economics and Analysis, 2000) concluded that high school counselling was largely irrelevant in prompting entry into carpentry and allied trades.

Several studies, and many interviews, found that teachers, as graduates of academic programs themselves, are unlikely to promote particular industries and their skilled trades (Convergence Management Consultants Ltd., 1996; ✧✧). ***Interviewees felt that the attitude of many guidance counsellors towards apprenticeship is often very negative, reflecting a lack of knowledge*** of the complexity of the work involved and the level of difficulty associated with the material being taught (✧✧). For example, one specific study (CARS Council, 1999) found that teachers and counsellors held the following views towards the automotive trades:

- Working environment is not suitable for young women
- Too difficult to access apprenticeship without a college diploma
- Working conditions not suitable for youths (low wages, layoffs)
- Need for constant retraining might represent a disincentive to youth
- Mechanics perceived as dishonest and untrustworthy
- Initial jobs would involve repetitive and mundane work

Interviewees were concerned that ***guidance counsellors may send their schools' academically weaker students to industrial arts programs and apprenticeship programs***, which are actually highly challenging, both academically and technically. This attitude reflects an inadequate understanding within high schools of the technological aspects of many trades (GPC International, 2001). As a result, students in these courses are often seen as "second class" (✧✧).

Some key informants encouraged counsellors to use mechanisms and support materials to their full advantage to give students an idea of what trades are available, and where apprenticeships can lead (✧✧). These respondents suggest that guidance counsellors need to use such tools to make up for their own lack of expertise in trades fields and their frequent preoccupation with students' social or psychological problems (✧✧).

In the view of some educators, the lack of coordination between guidance counsellors and provincial apprenticeship authorities has resulted in a wide variation in the amount of information guidance counsellors have at their disposal to promote apprenticeship; given the turnover of guidance counsellors in some provinces, there is all the more need to better promote the tools and materials developed by the provinces (Vachon, 2000). One government respondent similarly lamented the lack of contact between high schools and front-line government representatives; the same respondent, however, emphasized that the representatives' caseloads are heavy and their overall number is small (✧).

Other jurisdictional representatives identified a lack of major communications about apprenticeship and trades careers (✧✧). One of them maintained: "We don't have a coordinated, national communications and marketing strategy that would allow us to reach the aforementioned groups and change the mindset" (✧).

In many cases, negative perceptions of the trades among students are strongly reinforced within schools.

Despite examples of successful practices across the country, education systems ***include many barriers to young people learning about, choosing and participating in apprenticeship and trades-related programs***. In many cases, these barriers relate to school structures and curricula, although one ***jurisdictional representative believed there was also resistance from certain segments of the education system***—particularly at the high school level—to promote apprenticeship, as it is perceived to compete with the more desirable university career track. This representative suggested one solution might be to ensure participants end up with both a trade certificate and a high school diploma (✧).

Primary research found ***a general lack of career, exploratory, and trades and apprenticeship programs*** (Zimmerman, 2001, ✧). Even where these programs exist, students in these programs do not always understand their status under the apprenticeship system (McCulloch and Henley, 2002).

A key informant indicated that, in some provinces, the ***"de-streaming" of high school curricula removed the general or vocational streams, which had provided students with practical industrial or trades-related skills*** (such as dexterity, and an ability to use a range of tools) and experience that could help them pursue apprenticeships (✧). Furthermore, one interviewee suggested that, in some jurisdictions, students in an academic stream that lacks an industrial arts program might not get a chance to test their aptitudes in these skills areas. This restriction has interfered with the flow of potential apprentices (Information Development and Training Inc, 2001, ✧).

Finally, ***many unions noted their efforts to try to counter the negative perceptions of the trades through job fairs, career days and trade shows.*** These events were costly exercises and difficult to maintain on an ongoing basis. Some labour representatives also indicated that they had encountered difficulty gaining access to schools (✧).

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

The lack of trades-career encouragement from educators is particularly important to young women. One study (WITT-Alberta, 2000) showed how female students received little encouragement from teachers to pursue trades. The study also pointed to a lack of career counselling and guidance for women, and a perception that trades are for more academically challenged students in the school system. The study, however, indicated that these findings are improving somewhat but only due to the efforts of individual teachers. A second study (Zimmerman, 2001) found a wide variation in the amount of information guidance counsellors possess. While provinces have a number of tools and materials that can be used within schools, these tools must be marketed to guidance counsellors on a proactive, ongoing basis because of the constant turnover of these counsellors.

Women do not have the same access as men to the informal networks that are often the gateways to opportunity in the skilled trades. In the case of men, informal networks, sometimes based

on family ties, may have traditionally been an important point of access into apprenticeship. Women tend to have limited access to such networks (SPR Associates, 2002A; WITT-Alberta, 2000; Madsen, 1999; ✧✧). As a result, women face a number of barriers that many men do not face:

- Little early exposure to the trades, and mechanical and technical work
- No involvement with family businesses that involve the trades
- Little encouragement from informal mentors to develop an interest in the trades
- Lack of information about where to apply for apprenticeships, and seldom approached by informal family contacts (✧✧)
- Lack of foundational skills and aptitudes normally acquired by men through father-son relationships (SPR Associates, 2002)

Despite some success stories, most initiatives aimed at increasing the participation of women in apprenticeship and the trades have not succeeded. While taking note of initiatives aimed at generally raising the profile of apprenticeship and the trades, many commentators have noted that initiatives aimed at promoting apprenticeship to women have not succeeded in raising their numbers in apprenticeship programs.

Of course, there are notable exceptions to this general observation, such as the many projects undertaken by various chapters of Women in Trade and Technology (WITT). But overall, there is an impression that women are not receiving the right sort of information or communication about the trades and apprenticeship (✧✧). Such assistance would include opportunities to take exploratory or pre-employment courses to foster or develop an interest in the trades, and learn crucial coping skills that might allow women to thrive in non-traditional occupations (SaskWITT, 2001; WITT-Alberta, 2000; ✧✧).

Specifically, it has been noted that *passive* approaches to raising women's interest in the trades are not an effective promotional strategy. Rather, key agents in apprenticeship must make a concerted effort to *actively* recruit women if they hope to dismantle the pervasive background barriers that prevent women from entering the trades (Dancey, 2002; Grzetic, 1998; ✧✧).

The presence of strong role models——such as women who teach or work in the non-traditional trades—is perhaps one of the strongest remedies to deeply ingrained societal attitudes about gendered work (Madsen, 1999; SPR Associates, 2002; WITT-Alberta, 2000; ✧✧). Female role models are convincingly able to relate to girls and young women on a number of issues, encouraging them to develop their mathematical, scientific and technical interests, providing advice and support about entering the non-traditional workplace, and dealing with difficult co-workers or non-supportive family members (SPR Associates, 2002). As a result, women who have been positively influenced by role models are more likely to believe that math, science and engineering careers are compatible with family and marriage responsibilities.

The departure of role models can be an interrupting factor. In one instance, when a training program for women had drawn to a close, many of its female participants withdrew from their apprenticeships, because their role models had disappeared. Having also lost a valuable support system, these women were left on their own to deal with harassment and other issues of discrimination in the workplace (✧).

To be sure, many women have succeeded in apprenticeship and entered productive careers in the trades thanks to the positive influence and support they received from male role models (WITT-Alberta, 2000; ✧). On the whole, however, these cases are not numerous, and it would seem that the lack of female role models in the trades might be a significant barrier to the more extensive inclusion of women in the apprenticeship and trades system.

Aboriginal People

A lack of awareness of the range of trades careers, and a lack of understanding of how apprenticeship works, are barriers to Aboriginal interest and participation in apprenticeship (CLFDB, 1999; CLFDB, 1995; Cook Consulting, 2001; ✧✧). This barrier was particularly apparent among Aboriginal people who had little first-hand knowledge or experience related to trades training and apprenticeships (✧✧).

Aboriginal parents have not been exposed to apprenticeship and the trades, and may not have the necessary information to promote this career path to their children. This barrier is reinforced by the fact that many Aboriginal parents may have negative attitudes about the trades, which in turn discourages their children from pursuing an apprenticeship (CLFDB, 1999).

Weak career planning and career counselling inside and outside First Nations is a barrier to a trades career for Aboriginal people (✧✧). One key informant felt that individual apprentices need to develop and maintain a personal commitment to their trade, and that this can come, in part, from the knowledge that the trade has been chosen from among other options and is a clear goal that constitutes the best career step (✧). This attitude can be reinforced by the advice and support of family, mentors and others. Good "front-end" counselling and assessment processes can identify, select and encourage those individuals with the necessary commitment to pursue a trade (✧).

This barrier was also supported by secondary research, which identified barriers to success in employment, such as the lack of information about diverse careers, the lack of a central place offering career information, and the lack of a network established to deal with career development (National Aboriginal Achievement Foundation, 2002).

Finally, the lack of career information about the trades is exacerbated by Aboriginal students' tendency not to obtain early exposure to apprenticeship or other career exploration opportunities in the trades.

Many individuals and studies stressed the need for more Aboriginal role models in apprenticeship (CLFDB, 1995; Cook Consulting, 2001). Due to a relatively "thin" job base in many remote communities, Aboriginal youth in these regions may never, or only infrequently, see a variety of tradespersons. Aboriginal adults in remote communities may be hired by non-Aboriginal (external) contractors as labourers, but these workers do not build up any expertise over time. While skilled at what they do, they may lack the full range of skills required to complete an apprenticeship. As a result, they do not become tradesperson role models (✧). The lack of role models also influences the inclination of Aboriginal parents to promote apprenticeship to their children.

Finding employers is more challenging for Aboriginal people on reserve or in remote communities. Aboriginal people are often unaware of how to go about pursuing an apprenticeship with larger local employers. They may lack the awareness of the role that unions can play in pursuing an apprenticeship, or appropriate employers may simply not exist in their communities (✧).

Aboriginal people may find it more difficult to approach employers to find an apprenticeship, particularly employers from outside their communities (CLFDB, 1999). In part, this barrier is tied to low self-confidence among some young Aboriginal people, as well as cultural differences between these youths and employer contacts. Consistent with the lack of career planning and exploratory experience among Aboriginal people is the fact that they are more likely to lack the basic job-search skills, as well as the confidence to approach employers. In one key informant's opinion, Aboriginal people may not be inclined to be "self-promoters" nor have the job-search skills to find work opportunities. As a result, these individuals may miss these opportunities (✧).

Lack of industry recruiting

Some key informants indicated that employers and industries have not actively recruited Aboriginal people into apprenticeships (✧✧). One industry key informant, however, identified the opposite challenge; he spoke of a lack of "equity" applicants in general in his industry: "Employers simply don't get a lot of candidates applying for apprenticeship with them" (✧).

It is interesting to note that recruiting Aboriginal people into apprenticeships, and addressing related barriers, was not explicitly identified as priorities or strategies in most industry-sector-specific studies and reports reviewed for this report.

Visible Minorities

It has been observed that individuals from visible-minority groups often lack access to different types of information. These barriers can include:

- Lack of familiarity with the trades (CFLDB, 1995; ✧)
- Lack of access to information about apprenticeship training requirements, employability and labour-market information (Gordon, 2002; CCMA, 2003)
- Lack of information about laddering programs to assist youth from under-represented groups (✧)
- The makeup of career and guidance counsellors does not reflect the diversity of the population; barriers faced by visible-minority groups, therefore, are not always well understood by counselors and key information providers (CLFDB, 1995)

As a result of patterns of economic and social exclusion, members of certain minority groups lack access to family and social networks they perceive represent an entry point into apprenticeship and the trades for other Canadians (✧). In trades where minority groups have been traditionally underrepresented, new apprentices may lack a network of contacts within the system, and are therefore excluded from the social channels that enable them to gain exposure to the trades and find employers willing to act as apprenticeship sponsors (CLFDB, 1995; ✧). More overtly, it is perceived that the existence of strong family networks is often conducive to hiring opportunities. This barrier only helps reinforce the exclusion of groups that do not have access to such networks (✧).

Recent Immigrants

The inadequacy of career counselling and information about the trades and technical training opportunities, while already a problem for most youth, exacerbates many of the additional barriers faced by immigrant youth (Jothen, 2002; CLFDB, 1995).

This problem has many dimensions. It is clear that immigrant parents, as well as their children, lack information about the skilled trades and opportunities to train to become skilled tradespersons (✧✧). This barrier may serve to reinforce ***biases within some immigrant families against non-university educational choices*** and career orientations (Jothen, 2002; ✧). At the same time, in some cases there is strong parental support for better career counselling related to the trades (Jothen, 2002). This attitude may reflect the fact that trades and apprenticeship are not consistently and actively promoted to immigrant communities (✧).

Some school counsellors and immigrant-service agencies, however, play an active role in providing students with the required information or point them in the right direction. These efforts, however, may again be underserved by the quality of targeted information immigrants or the children of recent immigrants receive (✧✧).

Recent immigrants may also have difficulty accessing other types of information, which may be a result of their relative inexperience with apprenticeship training and employment systems in Canada. These types of barriers include:

- A lack of information about government or regulatory issues, in particular Employment Insurance (EI) and related provisions that affect apprentices (✧)
- Information about the duration and requirements of apprenticeship programs (✧)
- Difficulty in navigating bureaucracies and dealing with paperwork (✧)
- A lack of information about foreign-credentials recognition services and resources (✧)

Recent immigrants often lack social networks with employers and friends, because they may not have been living in Canada long enough to establish such contacts. This circumstance may act as a barrier to employment and apprentice sponsorship opportunities (CREHS & Skills for Change, 2001; ✧✧).

As noted elsewhere, it is perceived that a great many Canadian-born apprentices find employers through family or social networks that can connect them with the trades; these networks have been formed over the course of many years, if not generations. In addition, employers and unions may often hire apprentices through either traditional sources for training candidates or the use of informal word of mouth (CLFDB, 1995). Immigrants who find themselves outside of these networks may encounter problems in finding employers to take them on as apprentices.

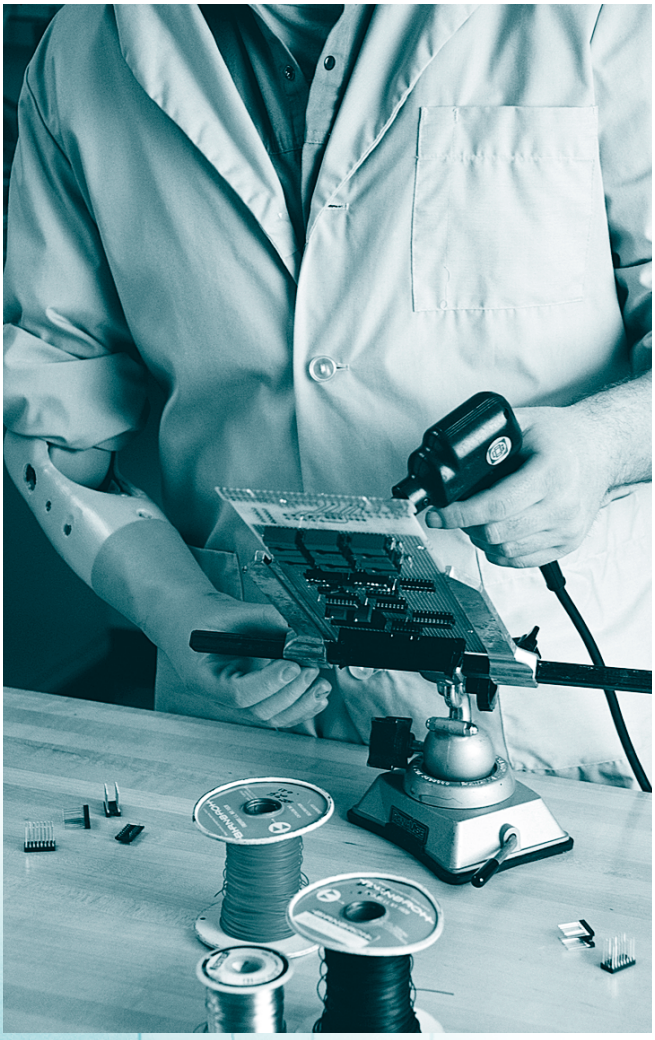
Persons with Disabilities

Persons with disabilities need help in building bridges with potential employers in order to manage the transition from training (or education) to work.

Key informants spoke of school/career counsellors as having little knowledge about the ***special workplace-adaptation needs of persons with disabilities***, about available resources, and about adaptation possibilities. Apprenticeship is not well promoted to youth with disabilities and, therefore, it is not even considered an option (✧✧). One key informant offered the following barriers to trades careers among persons with disabilities (✧):

- The lack of support to enable persons with disabilities make the transition from training to employment
- The social isolation of persons with disabilities (it is essential to prepare employers and other employees before job entry, and it is important to have resource people perform this preparatory work ahead of time)
- Awareness, information in schools and costs of adapting workplaces

At the same time, service providers in the disabilities employment sector often have little knowledge of the apprenticeship system and, more generally, of the trades (WoodLINKS, 2002). These providers may also not understand the skills required for certain occupations or the types of support employers require to cover the costs of workplace accommodations and wage subsidies.



3 Some apprentices, particularly women, Aboriginal people, members of visible-minority groups, recent immigrants, and persons with disabilities, face a number of barriers that can create an unwelcoming workplace or training environment for them

Research suggests that apprenticeship retention and completion rates for women, Aboriginal people, visible minorities and persons with disabilities remain persistently low. For women, apprenticeship retention has not changed significantly despite increases in the number of new female apprentices (Sweet & Lin, 1999; O'Hara and Evers, 1996; ✧). In the case of Aboriginal people, apprenticeship-participation rates have remained low despite numerous attempts to integrate them into the trades (O'Hara and Evers, 1996). Members of visible-minority groups, by some accounts, appear to be entering apprenticeship in greater numbers, but they do not appear to be staying (✧✧). Finally, persons with disabilities also appear to have low levels of apprenticeship participation and retention (O'Hara and Evers, 1996).

The workplace environment can be unwelcoming and intimidating for young, new entrants into the workforce, particularly in industrial and construction settings. One study on apprentice retention (Industry-Education Council of Hamilton, 2001) cited a lack of respect and verbal abuse by employers, poor working conditions, and unsteady or insufficient work hours as key factors in young apprentices' propensity to stay with employers. Some focus-group participants also referred to this issue, commenting that many worksites and employers are not "friendly" to youth and apprentices (✧✧).

Such experiences are particularly in evidence in the case of groups of individuals that have been traditionally under-represented in the apprenticeship and trades system, and ***may help to explain why so many women, Aboriginal people, visible minorities, recent immigrants, and persons with disabilities do not appear to be staying in apprenticeships***. Individuals from these groups are known to face unwelcoming behaviour that can take a number of forms:

- Negative perceptions of their abilities based on stereotypes
- Discrimination in hiring processes
- Discrimination, isolation and harassment in workplaces, apprenticeship classrooms and training sites

Women

With a few notable exceptions, discrimination and stereotyping in hiring practices, classrooms and workplaces is perceived to continue to pose significant barriers to women entering the trades (CLMPC, 1990; SPR Associates, 2002A; Grzetic, 1998; ✧✧). These barriers include:

- Discriminatory hiring practices (Grzetic, 1998)
- Stereotyped perceptions of women's abilities (Grzetic, 1998; ✧✧)
- Isolation or segregation of women in male-dominated worksites (SPR Associates, 2002A; ✧)
- Unequal pay for similar jobs performed by male co-workers
- Sexual harassment (✧✧)

In one study, a considerable proportion of tradeswomen reported having experienced discrimination or sexist treatment on job sites

(Madsen, 1999). Research indicates that this problem may have comparable dimensions in other regions and across most of the non-traditional trades, remaining a widespread barrier for women.[3]

Barriers to hiring

In some cases, employers view the hiring of women as a risk rather than an opportunity *(✧)*. This barrier stems in part from perceptions that women may represent a risky investment, because they may interrupt their apprenticeship to take maternity leave or attend to family responsibilities (SPR Associates, 2002A; ✧), or female apprentices place onerous demands on workplace conditions, such as complaining about inadequate facilities or language used on worksites (Grzetic, 1998).

There is a perception that different hiring standards are being used to evaluate male and female candidates (Grzetic, 1998). For example, familiarity and interest with the trades, manual dexterity, physical ability and mechanical aptitude are areas in which some employers explicitly query women. These same employers, however, assume male applicants possess these characteristics (SPR Associates, 2002A; ✧).

In some cases, employers may make assumptions about future candidates on the basis of their limited experience with past female candidates (WITT-Alberta, 2000; ✧). In one notable example, the hiring of machinist tradeswomen was believed to have completely stopped, because one machinist became pregnant and went on leave (✧). In some limited cases, women have been known to benefit from positive discrimination. As a result, positive experiences with only one or two tradeswomen have led to large local hiring sweeps of women in particular trades (✧). Nevertheless, such outcomes may be based on stereotypes.

Apprenticeship programs and school classrooms

Gender role expectations and stereotypes may be strongly reinforced in schools by teachers and counsellors (WITT-Alberta, 2000; SPR Associates, 2002A; ✧). In some cases, girls and young women are not encouraged to develop an academic interest in mathematical and technical subjects. It is worth emphasizing, however, that this trend is not always the result of active attempts to steer girls and young women from entering these streams. Rather, these teachers and counsellors simply do not consider these options for young women.

At the same time, guidance counsellors may also have a ***tendency to channel students into "gender-appropriate" occupations or careers*** (SPR Associates, 2002). The absence of female industrial-arts teachers and counsellors with strong exposure to the world of trades only helps to reinforce these tendencies within school systems (✧✧). Moreover, it appears that attempts to provide guidance, advice, school-to-work placements and other trades-promotion activity ultimately fails to expose young women to work in the non-traditional trades because of the tenacity of formed attitudes about gendered work, and a lack of knowledge about how to deal with the vocational needs of non-traditional students (SPR Associates, 2002A; Kerka, 1999).

Despite these problems, improvements have been noted. One interviewee felt that the current generation of boys and young men are far more likely to be raised with a greater sense of tolerance and open-mindedness. These characteristics result in young men not viewing the presence of women in the trades' classrooms as a threat (✧).

For women who have managed to steer clear from such dissuasions, the path towards the trades remains challenging. Women who have formed a strong interest in the trades and technical occupations may face further barriers, because they may be directed or channelled

[3] Whether these problems are equally severe in all trades is unclear. According to some sources, women working in some construction jobs have cited fewer barriers and negative experiences compared to women working in mining, heavy-equipment operation, and electrical and mechanical trades (Madsen, 1999). Conversely, other studies suggest that the experience of women in construction is not substantially different from the experiences of women working in other trades (Sweet and Gallagher, 1997).

towards areas of the trades that are deemed to be more appropriate for women. For example, Grzetic (1998) noted that women may often be directed toward the electrical trades rather than plumbing on the premise that women do not like "dirty work" and prefer the "cleaner" electrical trades. Similarly, carpentry may be considered more appropriate than mechanics.

Unwelcoming behaviour on the part of classmates or even instructors has also been known to happen. This behaviour may take the form of sexist language or the isolation of female students in classrooms (✧✧).

In some cases, women have felt that their shortcomings or mistakes are used to judge them as inferior or less capable than men. On the other hand, male classmates are often not "written off" for making the same mistakes (SaskWITT, 2001; ✧).

Barriers at worksites

Barriers experienced at worksites are commonly mentioned:

- A lack of diversity training among co-workers, including clarity regarding the issue of employment equity (WITT-NN, 1999)
- Social isolation or a lack of acceptance or inclusion from male co-workers (WITT-Alberta, 2000; ✧)
- Lack of management leadership in setting an appropriate tone in terms of acceptance of women in male-dominated workplaces (WITT-Alberta, 2000)
- Harassment (Sweet and Gallagher, 1997; Madsen, 1999; WITT-Alberta, 2000; Grzetic, 1998; ✧✧) and a lack of recourse or employer commitment to redress harassment and inappropriate behaviour (Grzetic, 1998)
- Unfair expectations (women have to work harder to prove their competence to employers and co-workers (Madsen, 1999; Grzetic, 1998; ✧)
- Isolation and damaging comments from other women employed in the same company but in non-trades (usually clerical) positions (Grzetic, 1998)

Despite these experiences, marginal improvements have been noted in some workplaces. In some cases, male apprentices or tradespersons felt that the presence of women had a positive effect on workplaces (Madsen, 1999). Some employers have also been supportive in helping women access training programs, even going as far as to assist in the development of training programs for women (Grzetic, 1998).

While attitudes and behaviours in unionized workplaces may be as unwelcoming as non-unionized workplaces, female workers, nevertheless, may enjoy better equity protection in unionized workplaces. Harassment, isolation and discrimination can be as much a feature of unionized workplaces as non-unionized (✧). In fact, some unionized workplaces operate without clearly articulated gender-equity policies. When they do, the hiring of female apprentices or tradesperson, at times, is merely viewed as a fulfillment of quota obligations (Grzetic, 1998; Women in Resource Development Committee, 2002).

Nevertheless, interviews with key informants also suggest that the retention rate of apprentices and tradeswomen at unionized sites is better than in non-unionized sites. Even when the day-to-day behaviour of male union colleagues is discriminatory, apprenticed women or tradeswomen may often enjoy better protection, equal wages, and support from their unions during disputes (✧).

An unsatisfactory work/life balance may be a strong barrier for women interested in working in the trades; responsibilities as primary caregivers can be a very common reason for women discontinuing employment or training (Sweet and Gallagher, 1997; O'Hara and Evers, 1996). ***Women's roles as primary caregivers can also impose significant barriers to mobility***. In particular, extensive travel to remote worksites or after-hours requirements for training may limit the choice of trades work or training (Grzetic, 1998; SPR Associates, 2002A; CLFDB, 1995; Women in Resource Development Committee, 2002; ✧). At the same time, decisions by women to continue with training or work can cause feelings of guilt and anxiety about taking time away from children (SaskWITT, 2001).

These problems are further compounded by the unavailability of adequate childcare facilities at many workplaces, particularly remote ones. This factor alone can be a significant barrier to apprenticeship (WITT-NN, 1999; Grzetic, 1998; CLMPC, 1990). Similarly, the absence of flexible work arrangements that can accommodate the needs of primary caregivers, such as part-time and flextime work, can act as barrier (Grzetic, 1998; WITT-Alberta, 2000).

Safety and security, particularly in remote work locations or camps, are paramount issues for many women entering or working in non-traditional trades. The lack of separate dormitories and washing facilities, poor lighting, the distance of sleeping quarters from common areas, and other factors can often aggravate the already isolated circumstances of women (WITT-NN, 1999; Madsen, 1999; ✧).

Aboriginal People

Some research indicated that discrimination in hiring exists among employers, making it more difficult for Aboriginal people to find apprenticeship opportunities (McDonald Human Resources, 1994; Cook Consulting, 2001). This barrier was also raised by key informants and some focus-group participants (✧✧).

Some key informants and focus-group participants spoke of systemic discrimination towards Aboriginal people seeking apprenticeships, especially for Aboriginal women (✧✧). Aboriginal women in the trades face a double barrier combining cultural and gender-specific challenges (✧✧).

Several interviewees and focus-group participants pointed to personal examples of Aboriginal apprentices receiving ***more menial tasks and low-end jobs,*** particularly in the first year of an apprenticeship (✧✧). These key informants and focus groups believed employers and educators held ***lower expectations*** for Aboriginal people (✧✧).

In a study of the Manitoba construction industry, researchers identified an inadequate use of Aboriginal apprentices and a lack of cross-cultural training for employers and non-Aboriginal workers (Information Development and Training Inc., 2001). One focus-group participant stated:

> "Employers and unions need to be educated to counter stereotypes about Aboriginal people, to convince people to hire Aboriginal people. Let's face it, there is a lot of racism in companies and government." (✧)

Visible Minorities

Stereotyping and discrimination based on ethnic origin or race continue to exist. Many members of visible-minority groups face such problems in hiring practices and workplaces (CLMPC, 1990; CLFDB, 1995). This problem is multi-faceted, and its negative consequences are manifested in a number of different ways.

Preconceived notions about the racially- or culturally-based capabilities, competencies and disposition of visible minorities can have a highly stressful impact on apprentices from visible-minority groups, and may put pressure on such individuals to leave their employment or training. To the extent that these preconceived notions fuel discriminatory behaviour, they are important causes of barriers to access to apprenticeship for members of visible-minority groups.

For example, one source noted that there is a growing negative perception that all black youth—particularly males—are "at risk," and, therefore, conform to certain behavioural patterns that preclude them from being identified as suitable candidates for apprenticeship positions (CCMA, 2003).

Discriminatory hiring practices often revolve around the stipulation of artificial or arbitrary job requirements as a means of screening-out undesirable candidates. In one account, some employers stipulate access to vehicles for jobs where no such vehicle is needed (✧). This stipulation may be made on the supposition that visible-minority groups tend to be more economically disadvantaged and, therefore, would not meet this criterion. In certain provinces, it is perceived that employers use language requirements as a pretext to weed out candidates from visible-minority groups (✧).

Discrimination in the workplace continues to be a problem that seriously undermines the retention and success of visible-minority apprentices. In some cases, discrimination is manifested by visible-minority members being hired as apprentices but relegated to perform menial chores (✧).

While this unwelcoming behaviour is often attributed to co-workers and immediate supervisors, one key informant argued that it is always within an employer's power to put a stop to racist or discriminatory behaviour in workplaces: the threat of discipline or dismissal can be a powerful tool for change (✧).

Responsibility for discriminatory attitudes does not rest solely with employers or co-workers. In the view of some respondents, government apprenticeship administrators—front-line apprenticeship representatives who have direct contact with apprentices—may have also participated in perpetuating or facilitating exclusionary or discriminatory practices (✧). While this problem does not appear to be endemic, it can represent a significant barrier since these administrators, when dealing with apprentices from visible-minority groups, may be viewed as representing the entire apprenticeship system.

Recent Immigrants

Recent immigrants are often the target of discriminatory behaviour in various aspects of the apprenticeship and trades system, a situation that is made worse by a lack of understanding about the different barriers that immigrants face. This attitude represents a significant barrier to entry or completion of an apprenticeship for recent immigrants (CLFDB, 1995; ✧✧).

A lack of understanding may sometimes be reflected in the attitudes of counsellors and apprenticeship case officers. Although these attitudes may arise from negative views on the part of these individuals, they may also stem from a lack of adequate information or insight into the cultural, economic, educational and informational barriers that recent immigrants face (✧).

The predominance of individuals from the same cultural or ethnic group in a particular shop or worksite may be a challenging and sometimes unwelcoming environment for immigrants if they do not belong to that same group. Some immigrants noted that the hiring process for openings in such work environments might be biased in favour of particular nationalities, cultures or ethnicities (✧).

Persons with Disabilities

The isolation and discrimination faced by persons with disabilities in training and workplaces is well recognized. Gordon (2002) cited a lack of awareness and sensitivity of employers and co-workers to barriers faced by members of this group, and societal bias as significant obstacles to their workplace integration. Workplace managers do not always communicate with other workers to assist in the integration of workers with disabilities (✧). Furthermore, employers and co-workers sometimes believe that persons with disabilities should be doing more work in certain areas of workplaces to compensate for the fact that they might be doing less work in other areas.

One respondent from the construction industry indicated that resistance from other workers might exist even when tools can be adapted. The social isolation of persons with disabilities is often a consequence of such resistance, making the preparation of employers and other employees an essential condition for success before apprentices or employees with disabilities begin their work (✧).

4 High costs of apprenticeship to individuals, unions and employers, including wage and supervision costs for employers—especially small employers, rising tuition and tool costs, and the income interruption caused by block release for individuals

A. GENERIC BARRIERS

High costs of apprenticeship to individuals, employers and unions can dissuade employers from offering apprenticeships.

Employers' concerns about costs and lost investments may mean that apprentices face a barrier in finding employers willing to make an apprenticeship commitment (CLMPC, 1990; CME-NS, 2002; ITAC, 2001). This barrier is likely caused by the notion that employers often bear the largest cost of training but are unable to reap the full benefits of these costs due to employee mobility (Gunderson, 2001). Another interviewee suggested some employers are not likely to make long-term investments in apprentices, nor do they seek to take broad training roles: "Employers want a quick solution and they fear losing the apprentice after they've obtained their certification" (✧). These fears are perhaps all the more evident in seasonal or cyclical industries, (Gunderson, 2001) or in industries that may be negatively affected by technological changes or global market forces (in non-compulsory trades, this may also result in cyclical and marked swings in the demand for training) (✧).

For many employers—particularly those in small or medium-sized companies—the costs of apprenticeship may outweigh the benefits (Fayek et al, 2002). ***There is also a lack of evidence to convince employers to invest in apprenticeship (✧✧).*** In particular, there is a lack of reliable research on the return on investment (ROI) of apprenticeship. While the costs of apprenticeship can be identified relatively clearly (Kunin and Associates, 2002), the benefits are more difficult to quantify. For a number of employers, therefore, "cost concerns" may limit the hiring of apprentices (ITAC, 2001; Even et al, 2002).

The cost of supervision and the rising costs of tuition for technical training were also of concern to various respondents (✧✧). The time required by employees to train or supervise apprentices is time taken from their primary work, which represents a cost to organizations. One study estimated that the costs of apprenticeship were highest in the first year when apprentices were least productive and needed the most supervision. As a result, the study concluded that losing apprentices after the first year implied a particularly large loss for employers (R J Sparks, 2002). Nevertheless, from a policy standpoint, there is a lack of knowledge about who bears what proportion of the total costs of apprenticeship (✧).

In some unionized shops, collective agreements have resulted in particularly high wages for apprentices (Kunin and Associates, 2002). Generally, at least one government representative maintained that many employers associate apprenticeship with "getting saddled with organized labour" and a system of training that is over-regulated and inflexible (✧). Another interviewee pointed to unionized environments, where employers are restricted in taking on apprentices because of collective-agreement restrictions regarding seniority (✧).

For smaller employers, these cost concerns were particularly acute. One study noted that, in construction, smaller subcontractors conduct the bulk of apprenticeship training. Since these subcontractors must also compete on cost terms for contractors' business, cost pressures constrain

their ability to absorb training costs (Smith, 2003). Other studies drew similar conclusions about the particular impacts of cost on small employers in the case of machinists and auto mechanics (Kunin and Associates, 2002; CARS, 1999; R J Sparks, 2002).

In this context, a number of labour representatives and some employers criticized the ***practices of some employers who tend to keep apprentices in less-advanced stages of apprenticeship, restricted to particular tasks, or prolong the apprenticeship to postpone having to pay journeyperson rates***. Other employers release their higher-paid, fourth-year apprentices to hire junior, lower-paid apprentices, thinking they are saving money but forgetting the investments they have lost (✧). This trend culminates in apprentices being used, in the words of several spokespersons, as ***"cheap labour"***.[4]

For similar reasons, some employers resist sending apprentices on block release, effectively "plateauing" apprentices at a certain level and wage because of the difficulty in maintaining production—or supporting its associated costs—while apprentices were away for training (✧). One respondent reported that co-workers are sometimes reluctant to see their colleagues go on training—particularly during peak activity—since the perception is that this training will increase their workload (✧). Such resistance can be seen as a barrier to increasing the demand for the classroom-training portion of apprenticeship.

For employers, "poaching" remains an important barrier to hiring apprentices.

For employers, the risk of having apprentices hired by other employers—a practice known as "poaching"—can be a strong disincentive to further investment of resources in training. Poaching effectively deprives employers of their return on investment.

For apprentices, particularly those with family responsibilities, a wide range of individual cost items (travel, income interruption for block release and tools) can make apprenticeships difficult to pursue.

There was not always agreement on the extent to which the cost of apprenticeship represents a major barrier. One respondent, for example, argued that, contrary to conventional wisdom, apprentices are relatively well off financially among all post-secondary students (✧). Others countered this contention by noting that, in most jurisdictions, apprentices, unlike other post-secondary students, are not eligible for student loans (✧).

Specific costs facing apprentices include:

- ***Tuition fees for school-based training sessions*** have recently been implemented or increased in several provinces (✧).
- ***Apprentices that take technical training may face travel and accommodation costs, particularly if these apprentices live in remote communities.*** A lack of individual tax incentives for travel and accommodation means that individuals from remote locations may be penalized (✧).
- ***The high cost of tools*** (PEI Apprenticeship Training Board, 2001; CARS, 1999). Heavy-equipment technicians, for example, must spend some $8,000 on tools in the first two years of their apprenticeship (CSLS, 2001). While changes in federal tax regulations and loans for tools in some provincial jurisdictions have reduced the financial burden in some trades, several interviewees cited this factor as a continuing barrier in a number of trades (✧✧).
- ***Block release for technical training can cause income interruptions.*** For example, six weeks of reduced income while on training can pose

[4] Focus groups held with members of visible minorities and recent immigrants also identified "being used as cheap labour" as a significant barrier. In one focus group, this particular barrier was held to be ***more decisive and troublesome*** than the barriers (discrimination, harassment, lack of prior-learning/credentials recognition supports) that applied to them as specific groups.

a significant problem for many apprentices (✧).[5] This barrier was ranked first in a survey of a group of PEI-based apprentices (PEI Apprenticeship Training Board, 2001). For young apprentices, the situation is made worse by the fact that they face higher unemployment rates, making it more difficult to cover up-front costs associated with apprenticeship training (CSLS, 2001). Block-release requirements also represent a significant barrier to employers who must often find replacements to their apprentices who go on block releases for training (✧).

- While EI waiting periods are satisfied after the first term of an apprenticeship, ***delays in receiving EI payments constitute a significant financial barrier,*** particularly for apprentices with family responsibilities (✧). Some labour representatives felt that the funding for apprenticeship support should not come from EI but from more flexible sources.
- ***The fees charged for examinations*** are an additional cost item.

Labour respondents noted that apprentices are very often in their late twenties or older with family responsibilities. This circumstance ***heightens the impact of the financial costs of apprenticeship, and has been identified as a serious barrier to entering and completing apprenticeships. In fact, family and financial obligations may also force apprentices to drop their apprenticeship*** training and start working full time (✧). These obligations may also make apprentices less inclined to move to where new jobs or projects might be but more inclined to leave a trade for another occupation (PEI Apprenticeship Training Board, 2001).

Unions often face costs associated with apprenticeship.

Some unions reported that they had provided income support to their apprentice members either through tuition support, assistance with travel costs, or other subsidies. This support, however, was clearly seen as a stop-gap measure in the absence of a much more focused attention by governments and others to the financial barriers currently in place (✧). Unions also reported other significant apprenticeship-related costs, particularly when they establish training trust funds or operate trades training schools.

One implication of these cost issues is that ***apprentices may be willing to enter into trades work without entering or completing apprenticeships*** (Prism Economics and Analysis, 2000). In the latter case, apprentices with a number of years of apprenticeship experience often command respectable wages that, combined with employers' willingness to hire them on the spot, makes it attractive to drop out of their apprenticeship.

For similar reasons, apprentices in some non-regulated trades may perceive no benefit from writing their final exams, which can constitute a direct barrier to successfully completing their apprenticeship. In these trades, individuals may complete up to the last year of their apprenticeships; but they will not write the exams since they feel they have a better chance of being employed, because they are cheaper than a certified journeyperson but just as competent (✧).

[5] Apprentices *can* and *do* receive Employment Insurance income while on block release provided they meet eligibility requirements. Nevertheless, some respondents felt that EI payments represent a significant reduction of income.

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

In their role as primary caregivers, women—particularly single mothers—face a number of financial barriers that, without adequate financial-support mechanisms, can prevent them from continuing with their apprenticeship training (Madsen, 1999; O'Hara and Evers, 1996). ***Current restrictions associated with Employment Insurance legislation may have created additional barriers for women*** who want to upgrade their education, particularly if they are single mothers or receiving social assistance (Grzetic, 1998). Some commentators, for example, have identified features of the EI program that may have an impact on women in economically vulnerable situations. These features include cutbacks to community-based training programs, eligibility regulations concerning minimum number of work hours, the length of time needed to become assessed and rated for EI-eligible training, and potential disqualification from social assistance of people receiving EI or training on a full-time basis (✧).

Aboriginal People

Key informants and focus groups identified the lack of funding for apprenticeship and preparatory training within First Nations as a barrier (✧✧). The cost of training, including tuition fees, textbooks and materials, and travel and living costs, present key barriers to participating in the technical training of an apprenticeship. ***The cost of relocation,*** in both human and financial terms, is perhaps the biggest cost for Aboriginal people who must move to pursue an apprenticeship. Having to relocate to pursue apprenticeships or technical training represents tremendous personal and financial hardship, prompting one interviewee to underline the importance of flexible delivery of training, and flexibility in the hours and breadth of experience required in apprenticeship regulations (✧).

These barriers were identified by key informants and focus groups, as well as reflected widely in research literature (CLFDB, 1995; CLFDB, 1999; Cook Consulting, 2001; National Aboriginal Achievement Foundation, 2002; ✧✧). These sources of research also confirmed that the cost barrier was more prevalent for Aboriginal people in northern regions of Canada.

Visible Minorities

Many of the barriers encountered by members of visible-minority groups are tied to persistent economic and social disadvantages that have limited the development of young people from these groups within the apprenticeship and trades system. A significant number of members of visible-minority groups may have low levels of education, literacy problems, and limited familiarity with the trades (CLFDB, 1995; Gordon, 2002; ✧✧). While these problems are familiar as generic barriers to apprenticeship (they are widely applicable to many apprentices irrespective of their background), these barriers are, in the case of visible-minority groups, ***strongly tied to persistent economic and social disadvantages*** that generally affect particular visible-minority communities as a whole (✧✧).

Systemic poverty and social marginalization have serious consequences for the development of young people from these communities. A historical lack of access to educational, informational and financial resources has a significant impact on learning and employment opportunities (✧). The absence of supports, therefore, goes hand in hand with high dropout rates, low literacy levels, a lack of important skills (mathematics most importantly), and high unemployment (✧). These persistent patterns may affect large parts of whole communities, and may also have attendant repercussions on the self-confidence and optimism of individuals from visible-minority groups, particularly youth. In turn, these repercussions have an impact on access to apprenticeship and training.

Unattended, this state of affairs risks becoming worse. While youth literacy and basic skills show little sign of improvement in some communities, the educational and skill requirements for certain trades have become increasingly complex, particularly in emerging sectors and professions (✧).

Recent Immigrants

The high incidence of poverty within certain immigrant communities poses numerous problems for members of these communities who seek to access or complete apprenticeships (Jothen, 2002; ✧). As with other individuals from low-income groups, a lack of funds creates other barriers. Poverty may lead to lower educational outcomes, including a lack of basic literacy skills, an inability to pay program costs for apprenticeship, purchase tools and equipment, and pay for transportation and other resources required in job searches. For recent immigrants with dependents, the option of remaining in "survival" jobs may often be far more feasible than leaving employment to undertake block training (✧).

5 Strong concerns among employers, unions and individuals over the impacts of economic factors that lead to a lack of work hours and thus interruption or termination of apprenticeships

A. GENERIC BARRIERS

Employers, union representatives and individuals shared strong concerns over the impact of economic factors that lead to a lack of work hours and thus interruption or termination of apprenticeships.

Demand for apprentices tends to be "pro-cyclical", or it increases with growth in economic activity (Gunderson, 2001). On the other hand, cyclical economic factors may lead to a lack of work hours and thus interruption or termination of apprenticeships. In the view of some respondents, regions of Canada that experience slow growth give a lower priority to apprentices than regions with higher levels of growth (✧✧).

Employment instability can derail apprenticeship success throughout apprenticeship programs. Many employers establish apprenticeship programs only to find that they must lay off apprentices due to a lack of work. Since technical training typically is not co-ordinated with these layoffs, apprentices usually become unemployed. Once apprentices are laid off, there is no guarantee that they will return; employers often have to start training all over again with new apprentices. This situation can become most serious in recessions, when large numbers of apprentices may be the first to be laid off but are unavailable to resume their apprenticeships when the economy picks up again. In an effort to counter this, some unions reported experiments in which apprentices were indentured to unions (rather than employers). Unions then ensure continuity of employment (✧).

Some apprentices complained about unsteady or insufficient work hours and a lack of substantive job responsibilities (Industry-Education Council of Hamilton, 2001). Lack of stable work was cited as an important factor in apprentice drop out; in the 1994/95 National Apprenticed Trades Survey, apprentices who discontinued their training reported that the unavailability of work was a significant barrier to completing their apprenticeship (O'Hara and Evers, 1995; Weiermair, 1997).

As a result of this instability, employers and labour representatives in several sectors noted that employers are unwilling to make long-term commitments to apprenticeship programs. For labour respondents in particular, a lack of job opportunities for apprentices was a key concern. Some employers, especially in construction, manufacturing and automotive service, were uncertain whether they would be able to provide sufficient work to meet the multi-year, on-the-job training commitments required under apprenticeships. As a result, these employers were unable to attract apprentices seeking such a commitment (Even et al, 2002; Information Development and Training Inc., 2001; CME-NS, 2002; Prism Economics and Analysis, 2000; ✧✧).

American data corroborate such occurrences. A pilot project from the U.S. suggests that the most serious limitation to expanding youth apprenticeship was commitment from employers (Hamilton and Hamilton, 1999). Other Canadian data indicate that a lack of employment opportunities for apprentices is a barrier, even in situations of labour shortages (Gordon, 2002).

Construction (especially residential) respondents added that the ***seasonality of their industry further affected their ability to guarantee sufficient employment*** to meet these responsibilities, although this seasonality was tempered by the use of modular construction techniques. Respondents in the hospitality industry shared similar concerns (Gunderson, 2001; ✧✧).

Smaller employers reported these difficulties as well, as did employers in rural and remote locations. This view was also supported by government representatives who felt that, by virtue of the economic conditions and the lack of economies of scale, small businesses simply cannot offer a large number of apprenticeships, and find it difficult to employ adequate numbers of journeypersons (✧).

Some employers noted that seniority provisions in collective agreements may interfere with the ability of employers to manage their apprenticeship programs and interrupt apprenticeships during employment downturns.

Some unionized employers felt that seniority provisions may impede employers' ability to select apprenticeship candidates on the basis of aptitude, motivation, ability or academic qualifications. These provisions may result in apprentices who are older, more expensive in terms of wages and benefits, and perhaps less able to cope with a school environment (Kunin and Associates, 2002; Robertson, 2002; ✧).

While ***apprentices are often the first to be laid off when business conditions are slow, it was also stressed that this problem may be more likely in workplaces governed by job seniority provisions*** (Nova Scotia Labour Market Development Secretariat, 1999). Lay-offs may interrupt training, and may lead apprentices to leave their training if the layoffs are prolonged, resulting in the loss of employer and apprentice investment (✧✧). One respondent, however, noted that this problem is less of an issue than it was in the early 1980s (✧).

Labour respondents shared these concerns. A number of labour representatives pointed out that an aging workforce in many trades makes it vital that succession issues be dealt with as pragmatically as possible (✧✧).

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Aboriginal People

Rural and First Nations communities with smaller businesses have difficulty in recruiting skilled workers. Furthermore, few journeypersons in these communities makes it more difficult for companies and First Nations to qualify to hire and train apprentices. Even if small firms have one or a few journeypersons, these firms are limited in the number of apprentices they can take on because of journeyperson-to-apprentice ratio regulations. The smaller number of journeypersons in rural and First Nations communities means this barrier can be more of a problem for Aboriginal people (CLFDB, 1999; Cook Consulting, 2001; ✧✧).

Some studies (CLFDB, 1995) and key informants perceive that collective agreements may be an impediment to Aboriginal people entering apprenticeships (✧✧). Collective-agreement provisions on seniority give preference to workers with more seniority, enabling these workers to take available apprenticeship spaces. These provisions also mean apprentices with less seniority are laid off first.

Some key informants also perceive that unions have not actively recruited Aboriginal people into their trades and industries (✧✧). One interviewee suggested that, in trades in which union hiring halls supply the tradespersons, seniority provisions often place apprentices—Aboriginal and otherwise—at the bottom of hiring lists. He maintained that unions have resisted allowing Aboriginal apprentices to circumvent seniority in order to find work (✧). This barrier was also touched upon as part of a national consultation on innovation:

> "It was suggested that Aboriginal people should be positioned as a solution to Canada's skilled trades shortages. Participants stressed that labour union buy-in is essential to changing attitudes around issues, such as seniority, that may block access to apprenticeships and other skill development opportunities" (Industry Canada & HRDC, 2002, p. 27).

6 Concerns about the lack of resources to support apprenticeship, including resources in jurisdictions, secondary schools, communities and agencies providing services to communities or groups of individuals

A. GENERIC BARRIERS

Respondents voiced concerns about the adequacy of resources to support apprenticeship, including resources in jurisdictions, communities and community-support agencies.

In the view of many educators, the negative bias toward the trades and technical training may be responsible for the relative lack of funding for apprenticeship training. It is perceived that apprenticeship support in secondary schools is weak because of traditional attitudes and practices on the part of educators and parents who would rather support university careers for their students and children (Information Development and Training Inc, 2001; Kaminura et al., 1998). ***A lack of financial resources and competing priorities may result in new secondary schools being built without the infrastructure*** required for teachers dedicated to delivering courses that might prepare students for apprenticeship. Put another way, the ***lack of a culture of apprenticeship*** has meant that, provincially and federally, public funding for apprenticeship is still primarily directed to post-secondary institutions (Viswanathan, 2002).

The lack of adequate secondary school supports takes many forms (✧✧). Since youth lack ongoing support during high school, respondents suggested that resources were needed to "case manage" interested individuals through high school, keep contact with them on a personal basis, and keep the trades alive as a career option. A number of interviewees maintained that introducing trades to students late in high school is too late (✧✧). Coordinating bodies that help students become involved in apprenticeship can play a key role in overcoming this barrier.

Student and parent focus groups also identified a number of related resource barriers in the school system and the broader apprenticeship system:

- There are not enough qualified trades teachers at the high school and college levels.
- Students involved in apprenticeship talked about the importance of effective communication among apprentices, employers and governments.
- Students involved in apprenticeship and career-preparation programs spoke of the challenge of work experience within the fixed school daily timetable.
- Parents believed that many schools lack equipment and facilities to offer trades programs. For schools that have equipment, the programs are often out of date and do not keep up with equipment used on the job site.
- Students in alternative schools and private schools receive less exposure to trades and apprenticeship.
- Parents perceived a lack of overt school board and administration "championing" and support for trades and apprenticeship (✧✧).

Secondary literature also pointed to a lack of high-school career and trades programs, and access to apprenticeship programs. For example, CLFDB (1994) cited the ***need for new school-to-work transition models, particularly in new apprenticeable occupations***—a conclusion supported by other research (Information Development and Training Inc., 2001).

For college apprenticeship, lack of funding is seen as a significant institutional problem (CSLS, 2001). In some jurisdictions, government funding

does not cover the full cost of technical training and institutions lose money on every apprentice; training budgets have not kept pace with the growth in registration (MacCulloch and Henley, 2002). In one province, recent changes in education policy have resulted in the cost of apprenticeship programs increasing dramatically (✧). As a result, ***demand for such programs is vulnerable to labour market conditions.***

Employers in some jurisdictions also felt that more resources were required to support various aspects of apprenticeship, including activities related to promoting apprenticeship and recruiting participants (CME-NS, 2002; MacCulloch and Henley, 2002; ✧✧). Similarly, some individuals noted that resources in the apprenticeship system might be too scarce. As a result, growth in demand for new apprenticeships may not be met (MacCulloch and Henley, 2002). More broadly, marked regional variation in apprentices' satisfaction with apprenticeship training was also observed (Prism Economics and Analysis, 2000A).

For respondents in one jurisdiction, the prevalence of poaching was closely tied to adequacy of provincial and territorial apprenticeship resources. Specifically, jurisdictions may lack sufficient staff and resources to enforce apprenticeship regulations, particularly apprentice/journeyperson ratios in rural areas (✧✧). In automotive service and collision repair, for example, spokespersons noted that, in some jurisdictions, employers hire far more apprentices than permitted under the ratios. These employers maintain these apprentice staffs by poaching apprentices from other employers for slightly higher wages. Since this wage is still below that of journeypersons, employers are able to maintain a competitive position in the industry, with work done not by journeypersons but by apprentices. ***Without adequate enforcement, this situation will not be redressed. As a result, a minority of employers are left to support the formal apprenticeship system.***

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

Organizations seeking to promote women in the trades also reported important resource concerns at community levels. Resource constraints, for example, affected the capacity of local Women in Technology and Trades (WITT) organizations to promote particular training programs, provide training supports to women, and establish training centres of their own (✧).

Aboriginal People

Focus-group participants commented on the lack of schools' capacity to promote apprenticeship and the shortage of trades programs, equipment, curriculum and teachers (✧✧). This barrier is a particular concern with regard to First Nations schools in northern regions and rural areas of Canada. In one focus group, researchers heard how, in smaller communities, many schools only go up to Grade 9, because there are so few students. Students in these communities have to relocate to continue their secondary education (✧✧).

In most jurisdictions, only school boards funded by the province or territory are eligible for secondary-school apprenticeship funding. Aboriginal youth may miss out on such programs, because First Nations schools are funded by the federal government (✧).

Aboriginal students tend to have fewer opportunities to participate in high-school pre-employment or training programs, which provide valuable work experience and the opportunity to acquire basic work skills. A number of key informants and focus-group participants identified the lack of exploratory and pre-apprenticeship training, and work-experience opportunities as a barrier to Aboriginal people entering apprenticeships (✧✧). One study concluded that preparatory courses were either not available or unable to accommodate the needs of equity-group members interested in obtaining the skills necessary to apply for apprenticeships (CLFDB, 1995).

Link to First Nations communities

Focus groups, key informants and research literature (CLFDB, 1999) stress that Aboriginal apprenticeship opportunities should be linked to First Nations' community and economic needs and planning. It was suggested that the needs of rural and remote First Nations communities be assessed and apprenticeships tied to such needs (✧✧).

A variety of different support mechanisms is lacking for Aboriginal people to pursue apprenticeships. In fact, few programs exist to provide continuing support from the apprenticeship stage through to eventual certification (McDonald Human Resources, 1994). These mechanisms include mentors, community supports, academic upgrading opportunities, tutors and counselling. Supports are particularly crucial for young Aboriginal people who have to relocate from small communities or reserves to cities or larger centres to pursue the in-school portions of their apprenticeships. The absence of supports can constitute a significant barrier for Aboriginal people. As one respondent noted:

"When these young people find themselves in a city with other apprentices, many of whom are much older, the support becomes more important. Workplace or classroom teasing may lead some, who are unprepared for it, to abandon their apprenticeship. Aboriginal people who have grown up in an urban setting have fewer difficulties here" (✧).

Current government programs are said to lack the support services that Aboriginal people often need to upgrade their high school math, sciences and English skills (✧✧). Difficulties in dealing with the apprenticeship system, including the need for assistance in completing documentation, have also been identified as a barrier (Cook Consulting, 2001). Aboriginal Human Resource Development Agreement agencies may fund some academic upgrading tied to apprenticeship, but they cannot afford to fund all required pre-apprenticeship upgrading. Furthermore, there are relatively few resources and schools that offer general academic upgrading, particularly in rural areas (✧).

Focus-group participants and key informants indicated that colleges and post-secondary training institutions need to offer more support to Aboriginal apprentices in helping them acquire learning skills, prepare for exams, and access upgrading programs (✧✧). One focus-group participant stated, "If you don't pass a College Prep program, you have to start all over again rather than just redo areas where one failed" (✧).

The lack of supports can have severe consequences. One Manitoba community college study found a much lower graduation rate and a much higher non-completion rate among Aboriginal students (Cook Consulting, 2001). This research pointed to factors such as culture shock, relocation problems, loneliness, lack of funds, size and complexity of college campuses, inadequate academic background and lack of confidence as causing differences in performance.

Visible Minorities

Despite wide recognition that community agencies representing visible-minority groups play an important role in supporting visible-minority apprentices, these agencies have seen their capacity to act decline substantially as a result of continued erosion of funding.

Numerous sources confirm that community organizations representing particular ethno-cultural groups play an essential role in addressing some of the barriers to apprenticeship faced by members of visible minorities (CCMA, 2003; ✧✧). Such groups provide a wide array of services designed to prepare visible minorities for apprenticeship, including:

- Basic skills, literacy and pre-apprenticeship training (including skills or learning assessment)
- Workplace-preparedness training to help members of visible-minority groups, particularly youth, cope with problems such as discrimination and racism
- Dispute-mediation among apprentices, unions and employers
- Representing the interests of visible-minority groups and raising awareness about the barriers these groups face
- Promoting equity in workplaces and hiring practices

(CCMA, 2003; McDonald Human Resources, 1994; ✧✧)

Although these activities are widely recognized and celebrated as making a significant contribution to enhancing the training and employment opportunities of visible minority groups, ***many community groups representing visible minorities face a number of barriers that have limited the scope of their activity***. Curtailment of these groups' activities narrows the pathways to apprenticeship for the individuals they represent, individuals whose particular barriers require additional supports.

Several informants and sources confirm that many such groups have suffered from a substantial decline in public funding for their budgeted activities (McDonald Human Resources, 1994; ✧✧). While this problem was noted in Ontario and Quebec, similar funding constraints have been attributed to federal, provincial/territorial and municipal governments (✧✧). Expansion of these programs, and their closer integration with the formal apprenticeship system, are key to addressing the barriers to apprenticeship faced by members of visible minority groups. In some instances, the capacity of these groups may have declined significantly (✧).

Recent Immigrants

Recent immigrants often require additional supports to continue apprenticeships and enter a trade. However, resources available to many immigrant-serving agencies are insufficient to provide these supports.

Recent immigrants non-employment needs are usually well served by community-based immigrant-serving agencies or settlement agencies. Immigrants also receive help from colleges with education support (✧). Often, however, and for a variety of reasons, settlement and immigrant-serving agencies do not provide support services for actual or potential immigrant apprentices or tradespersons (Jothen, 2002).

Immigrants often find themselves "left on their own," particularly when it comes to finding employers to sponsor their apprenticeship, or managing the training-to-work transition (✧). While this barrier is not unfamiliar to many other apprentices, language barriers and the lack of family and social networks can compound this barrier for immigrant apprentices.

In addition, immigrants may continue to face language-related barriers throughout the course of their apprenticeship training, which suggests that they may not have access to ESL supports or the financial resources to purchase this training (CREHS & Skills for Change, 2001). This instruction is often delivered by community organizations that support immigrants. These institutions, however, currently lack the necessary funding to provide these services (Jothen, 2002).

At the same time, it should be noted that the degree of severity associated with this barrier might vary from one region or city to another. Support structures in large urban centres that welcome the majority of new immigrants—Toronto, Vancouver and Montreal—are more readily available than in smaller centres (✧).

Persons with Disabilities

Funding constraints remain a significant barrier to the integration and adaptation of persons with disabilities into work and training environments (✧). The lack of funding extends to the area of support for special pedagogical aids (✧).

Service providers addressing the employment needs of persons with disabilities are often overloaded with casework, which makes it difficult for them to do extensive follow up with individuals who have been placed with employers or trainers (✧). School and career counsellors, for their part, tend to have little knowledge about the special workplace-adaptation needs of persons with disabilities, available resources, and adaptation possibilities (✧).

This lack of awareness can be explained, in part, by the absence of a critical mass of members of this group engaged in apprenticeship.

Women

Organizations seeking to promote women in the trades also reported important resource issues at the community level. Resource constraints, for example, affected the capacity of local Women in Technology and Trades (WITT) organizations to promote particular training programs, provide training supports to women, or establish training centres of their own (✧).

7 Concerns, particularly on the part of employers, about apprentices' basic and essential skills

A. GENERIC BARRIERS

Employers and others expressed strong concerns about apprentices' basic and essential skills, as well as other personal and attitudinal attributes.

Employers in virtually every sector covered in the study expressed strong concerns about the personal attributes and characteristics of many apprentice candidates (Even et al, 2002; ✧). Many employers noted candidates' ***inadequate essential skills, including literacy and mathematics.*** Others expressed concern regarding candidates' ***poor work ethic, interest in learning, workplace discipline and confidence*** (Smith, 2003; ✧✧). Some labour representatives and Aboriginal spokespersons expressed similar concerns (✧✧).

Several employers commented on the importance of "soft" skills in their trade (for example, interpersonal and customer relations in automotive service, and teamwork in manufacturing), and noted that new apprentices often lacked these skills. For other employers, apprentices had not given trades serious thought, held unrealistic expectations of trades' requirements and rewards, and underestimated required skills, aptitudes and technological knowledge ("Labour Pains," 1997; ✧).

Educators and some government representatives corroborated the views of employers, noting that low levels of apprentices' educational attainment, literacy and basic skills remain significant barriers, even as the skills and knowledge requirements for certain trades are on the rise (PEI Apprenticeship Training Board, 2001; CLFDB, 1994; ✧✧).

Of particular note is the fact that the math and physics being taught are geared more toward a university education than the trades (✧✧). One key informant noted how carpenters need more geometry training than is typically offered in mainstream programs (✧). Focus-group participants called for better access to practical technical math curricula for apprentices (✧✧). In addition, apprentices who appear to have had difficulties with their previous basic schooling may be more likely to fail their apprenticeship training (Weiermair, 1997).

Even when apprentices write their exams, barriers to successful completion arise. ***Although written tests are often used as a means to certify on-the-job learning (✧), apprentices may fail these tests, because they do not possess necessary levels of literacy.*** Examinations for trades such as refrigeration and electrical are particularly difficult. Labour representatives stressed the need for a stronger emphasis on the practical demonstration of skills at this critical point in apprenticeship.

A number of employers noted that they lack systematic assessment tools to evaluate would-be apprentices' attitudes, aptitudes and general "fit" in the trades. Small businesses, in particular, lack these tools or awareness of them.

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

A lack of adequately developed math and science/technical skills represents an important barrier to apprenticeship for many women. This barrier consists of a *lack of proper academic preparation*, which is partially a result of the automatic streaming of men and women into different career or educational choices, and also a consequence of inadequate promotion and career information targeted to women (WITT-Alberta, 2000; Sweet and Gallagher, 1997).

Aboriginal People

One of the barriers most strongly confirmed in research literature, focus groups and by stakeholders is the relatively ***low level of education and academic preparation*** among Aboriginal people. One key informant summarized this barrier:

> "First Nations have only been allowed into the educational mainstream since the 1970s. The last two decades have focused on addressing basic education dropout rates, literacy and life skills—the bare essentials. Now we are starting to focus on apprenticeship and technical and entrepreneurial/management skills" (✧).

While Aboriginal educational attainment is increasing in Canada, low secondary school graduation rates remains a major hurdle for Aboriginal people pursuing apprenticeship. Many Aboriginal students have not completed requisite math, science and technology, and English courses (CLFDB, 1999; Cook Consulting, 2001). One focus-group participant stated, "50 to 60 percent of even those (Aboriginal students) who graduate cannot read or write; hence, they have to spend three or four years upgrading at the college before they can enter a career program or trade" (✧).

A cultural bias in pre-admission testing for trades programs may also exist. Aboriginal candidates often do not know if they have the aptitudes and basic skills needed for apprenticeships (CLFDB, 1999). Similarly, there ***may be a lack of cultural sensitivity in the apprenticeship-certification process and exams*** (CLFDB, 1999). Young Aboriginal people often lack sufficient skills in English or French to take certification exams. Sometimes, translators are needed and exams are given orally (✧).

Learning skills and life skills

"Learning to learn" is an important skill for preparation and entry into apprenticeships. Aboriginal people, however, often have not completed basic education programs (✧✧). In addition, research (CLFDB, 1999; Cook Consulting, 2001; National Aboriginal Achievement Foundation, 2002) has identified acquisition of certain life and learning skills as a significant barrier for Aboriginal people (✧✧). As one focus-group participant stated: "A lack of life skills and real-world experience is prevalent; people need the basics—budgeting, paying rent, living on one's own—to function as an apprentice" (✧).

As a consequence, Aboriginal people may be affected by low education and preparedness on one hand, and by prejudices and stereotypes from employers and society as a whole on the other hand (Cook Consulting, 2001).

Visible Minorities

Minority groups lack programs that teach the life skills that allow them to address a comprehensive range of issues connected to their entry into the workplace:[6]

- Pre-trades training
- Work and time management
- Safety and workers' compensation issues
- Computer literacy and awareness
- Dealing with racism and prejudice (✧✧)

In addition, many such programs, while effective at carrying out their stated mission, tend to have

[6] The lack of life-skills programs can also be a significant barrier to members of other under-represented groups such as Aboriginal people and women.

a front-end emphasis. There are few programs that provide sustained support through the term of an apprenticeship (McDonald Human Resources, 1994; ✧). Consequently, many apprenticeship-integration programs may be unable to address barriers encountered by minority groups in the latter phases of their apprenticeship.

Recent Immigrants

Recent immigrants face a number of barriers related to learning, including a lack of literacy and communication skills, inadequate ESL supports, and a lack of familiarity with local materials and equipment.

A lack of language and literacy skills is recognized as a significant barrier to immigrants in various phases of the apprenticeship process (O'Neill & Gish, 2001; CREHS & Skills for Change, 2001; ✧✧). While constituting a barrier to many apprentices, recent immigrants often face general communication barriers in addition to barriers posed by a lack of command of English or French (Gouvernement du Québec, Ministère de l'Éducation, 2002; ✧).

Immigrants may also encounter barriers related to their insufficient grasp of both *general* and *technical* language skills (CLFDB, 1995; Jothen, 2001). This barrier can be continuous, in that it may affect recent immigrants' performance at various stages of their apprenticeships.

For a recent immigrant *still in the process of training for apprenticeship*, the challenge of acquiring technical language skills presents an additional learning task, one for which adequate supports do not exist. In certain trades, such as automotive service and repair, the quantity of new technical information published every year by automakers is considerable (one automaker alone produces some 60,000 pages per year) (✧).

With respect to completing apprenticeships, passing Certificate of Qualification examinations to become tradespersons can be a significant challenge for apprentices who face language and literacy barriers (CREHS & Skills for Change, 2001). These difficulties are reflected in the fact that new immigrants, if they lack the additional educational supports, face higher failure rates (✧).

Inadequate exposure to the types of equipment or materials used in a Canadian trade context also poses a barrier (Atlin & Pond-White, 2000). This barrier arises when recent immigrants undergo foreign skills and credentials recognition and during actual training.

8 Shortcomings of workplace-based and technical training; for example, inflexible block release arrangements, lack of flexible technical training options, lack of mentorship programs, and journeypersons unprepared for roles as trainers and mentors

A. GENERIC BARRIERS

Inflexible block release arrangements can cause financial hardship for both apprentices and employers; greater flexibility in technical training is required.

From the perspective of employers, unions and individuals, a strong case was made that ***block release training may be too rigid for some apprentices***. Labour spokespersons, in particular, noted that extended periods of block release were less suited to the changing characteristics of workplaces than they had been when this training approach was first adopted (✧✧).

A large number of respondents in many sectors noted that a ***fixed block release period for off-the-job training may pose serious problems for employers in scheduling and carrying out their work*** (Nova Scotia Labour Market Development Secretariat, 1999; ✧✧). Losing apprentices for five or six weeks meant that employers had to find ways to complete apprentices' tasks in their absence (Starr Group et al, 2002). For other employees, these absences lead to overtime or other arrangements that add both cost and irritation (Kunin and Associates, 2002). For organizations that adhere to just-in-time production methods, apprenticeship in these circumstances is more difficult to accommodate. Employers also noted that, ***during block release periods, apprentices suffered income losses,*** which would be particularly burdensome for apprentices with family responsibilities, making it more difficult for apprentices to continue their training (✧✧).

Many respondents from a variety of trades suggested that ***flexible technical training arrangements would make it much easier for both employers and apprentices to manage their responsibilities***. This arrangement would benefit small businesses in particular. For these businesses, apprentices often represent a significant portion of trades staff. Small businesses, therefore, feel the loss of apprentices to block release most acutely (✧). Scheduling training in evenings, on weekends, or once per week was a suggestion made by virtually all sectors (Kunin and Associates, 2002; Information Development and Training Inc., 2001).

A number of respondents pointed to the potential use of distance education and Internet-based technical training (✧✧). While such delivery is increasingly used in a number of trades, a number of disadvantages are associated with this strategy. Some respondents noted that this kind of course delivery was not available in all trades. Others felt that, in remote communities where the Internet is still not available, such delivery was not feasible. Still others indicated that following an Internet-based training program requires a degree of self-motivation not possessed by all apprentices. Concerns were also expressed that evening-based training may not provide enough time for apprentices to absorb the material they receive (Information Development and Training Inc., 2001).

The absence of articulation arrangements, through which journeypersons receive credits towards technician and technologists programs, stands out as particularly inflexible aspect of the apprenticeship system. Similar linkages in the reverse direction—technology to apprenticeship—may also be lacking. One study sharply contrasted Canada's lack of linkages to the

strong linkages that exist in the German apprenticeship system (O'Grady, 1997). Several manufacturers, however, have recognized the need to deal with this problem and have established, in partnership with local community colleges, programs that provide graduates with both journeyperson and technician certification (✧).

Journeypersons are not well prepared for roles as trainers or mentors.

Many employers, labour representatives and some government representatives stressed the important role played by journeypersons in ensuring the quality of on-the-job training for apprentices. One labour spokesperson described mentorship as a means of transferring "head-to-hand" experience, which affects the quality of apprentices' work and their overall value to employers (✧).

Journeypersons, however, are not well prepared for their role as trainers or mentors (CSLS, 1997; CARS, 1999). In most cases, journeypersons receive no additional pay or recognition when they provide training, which affects the priority they place on this activity (✧✧).

Journeypersons may not be sufficiently aware of their roles and responsibilities. While they may be well versed in providing feedback within the context of normal production activities, they are less comfortable with the evaluation process embodied in apprenticeship logbooks. They may also have difficulty dealing with apprentices' values, habits, demands and mindsets (Balleux, 1997; ✧✧).

Employer respondents stressed the importance of finding ways to improve this aspect of journeypersons' roles, such as courses to achieve certification as trainers (Nova Scotia Labour Market Development Secretariat, 1999; ✧✧). One informant suggested introducing financial incentives to journeypersons to encourage them to develop these instruction skills (✧).

Technical curricula, equipment and instructors' knowledge may be outdated, reducing the relevance and usefulness of apprenticeship training.

Employers and labour representatives in several sectors pointed out that technological and other types of changes quickly alter the skills required within trades. These changes have implications on the content and relevance of technical training, as well as formal skills required in the trades. One study noted a five- to ten-year lag between the emergence of a new skill and the time apprentices become trained in this skill (O'Grady, 1997).

There was a sense among some respondents, including those in automotive service, manufacturing, baking and hairstylist, that the ***technical content of training curriculum and the currency of equipment used in training often lag changes in industry training requirements to the point where this content and equipment may become out of date*** (Even et al, 2002; Smith, 2003; ✧✧). ***Instructors' knowledge of current styles and practices may face a similar lag*** as a result of a lack of professional development activity or opportunity. Some labour representatives also expressed the concern that some colleges under-invest in the equipment required to keep curricula current.

Along the same lines, there is a perception that instructors tend to teach courses in a traditional fashion (within a given time frame rather than using a modularized or competency-based approach). A heavy reliance on written testing was also criticized in the context of some provincial apprenticeship systems (Robertson, 2002). A reliance on tradespersons to deliver on-the-job technical training tends to produce instruction modelled on their training.

These barriers may be tied to a fundamental lack of coordination among workplace-training stakeholders and between workplace and in-class training stakeholders (✧). This absence of coordination often results in improper alignment between what is taught in workplaces and skills learned in classrooms (✧), and difficulty in adopting a uniform accreditation program.

Some respondents also questioned the composition of college advisory committees. Respondents believed that these committees do not accurately reflect the trades and add little value. Some employers expressed concerns over the usefulness of training and the support they receive from training institutions, and provincial and territorial apprenticeship administrators. In some jurisdictions, employers and unions called for greater industry involvement in setting curricula, hiring teachers, and influencing standards (TIANS, 2002; Prism Economics, 2000A).

Schools have sometimes been blamed for paying insufficient attention to trades and apprenticeship. This seeming lack of concern has translated into a lack of qualified teachers (Metalcutting Industry Coordinating Committee, 2002) with advanced formal qualification (Economic Council of Canada, 1992). In particular, ***qualified instructors are difficult to find or recruit in rural or remote locations***.

These concerns, however, were not universally shared. In the construction sector in British Columbia, for example, one employer survey found "average to high" levels of satisfaction with curricula, currency of apprentices' knowledge, and access to technical training (BCCA, 1997).

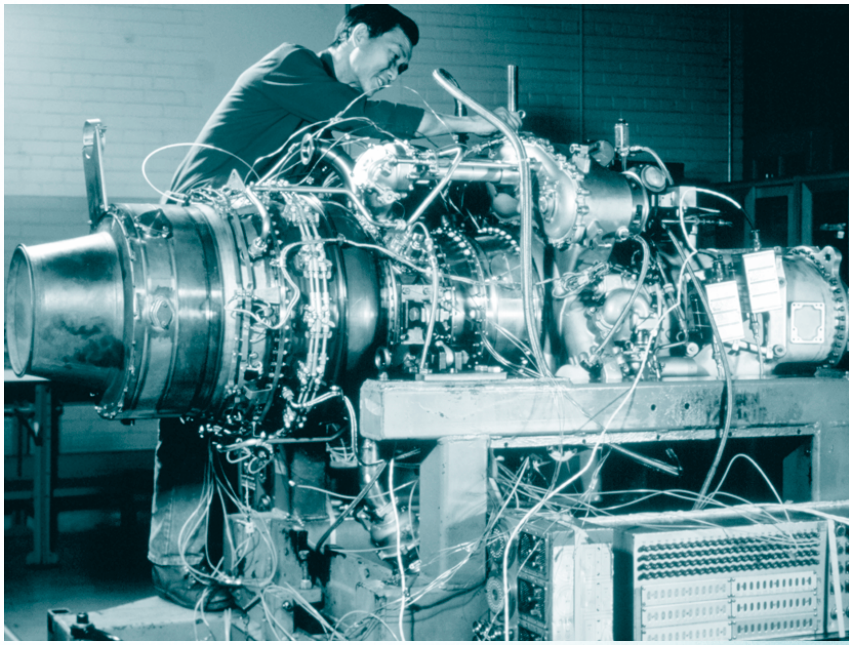
Technical training locations are often not available, particularly in rural or remote areas.

Some employers in manufacturing and construction, as well as a number of labour respondents and individual apprentices, pointed to ***the lack of locations for the technical component of apprentices' training***. This barrier added transportation or accommodation costs to direct training costs, and placed an additional burden on both employers and apprentices (Starr Group et al, 2002; ✧✧). Employers and apprentices in remote areas also favoured more flexible training options (British Columbia Construction Association, 1997; Nova Scotia Apprenticeship Training Division, 2000), while some labour spokespersons suggested that, in certain cases, instructors should come to students (✧).

In addition, delivery of in-class portions of apprenticeship training to participants living in remote locations has been identified as a major barrier (✧). Alternative methods of training delivery have been used, but these methods have met with limited success due to high costs (✧).

Many jurisdictions lack adequate capacity for Prior Learning Assessment and Recognition.

Employers and unions in a number of sectors (renovation/residential, baking, automotive service and collision repair) (✧✧) perceived ***a weak capacity in many jurisdictions and training institutions to assess and recognize the prior learning of apprentices***. This weakness meant that, regardless of previous relevant experience, new apprentices have to "start at the beginning", which could dissuade them from entering apprenticeships.



B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Women

Some sources believe that the apprenticeship-training model is based on an implicit pedagogy that takes men's learning patterns for granted. This model, therefore, is not suitable for female apprentices. Male apprenticeship instructors are often ill prepared to respond to the kinaesthetic approach (simultaneous combination of theoretical and practical learning) some women take to learning new material (Sweet and Gallagher, 1997; ✧). While this attitude could be offset by active recruitment of female trade instructors, it might also suggest that male instructors should be given support to diversify their teaching methods (✧).

Given educational barriers to female apprentices, some women may lack the academic or certificate qualifications they need. A ***lack of prior-learning assessment and recognition resources*** serves to maintain barriers for women who have strong competencies and aptitudes suitable for the trades (WITT-NN, 1999; Sweet and Gallagher, 1997).

Aboriginal People

Training in centralized locations represents a significant barrier to apprenticeship, particularly for people living on reserves or in rural communities. Research literature, focus-group participants and key informants all called for trades training within First Nations communities, and career-promotion materials within First Nations schools (CLFDB, 1999; Cook Consulting, 2001; ✧✧). Furthermore, rural and Aboriginal youth in remote regions experience significant barriers as a result of having to relocate to participate in training.

Equally problematic is the lack of sufficient employers and jobs in many remote communities (✧✧). According to one stakeholder, "First Nations people that live out in Ross River (300 miles from Whitehorse) want the skills to make a living in their community, but training is not close enough to home. This is a problem for non-First Nations people in remote communities as well, but they tend to be more mobile" (✧✧).

A lack of culturally sensitive prior-learning assessment and recognition has been identified as a problem for Aboriginal people. Anecdotally, key informants indicated there are many Aboriginal tradespersons who have never entered or completed apprenticeships, or who have not successfully passed certification exams (✧✧). Some members of First Nations communities may undergo enough training to be hired onto housing crews on their reserves. They may build up considerable experience over time, but they do not receive any formal accreditation. As a result, they may experience difficulties if they seek to have that work recognized toward apprenticeships (✧✧).

One key informant felt that the culture of apprenticeship does not match Aboriginal culture; and that changing apprenticeship culture is bound to be difficult and require time (✧). One key informant's words are paraphrased below:

> Aboriginal people may be interested in trades but see it as a "white man's game", very regulated and bureaucratic, in contrast to the more holistic and intuitive approaches they may have (✧).

On a similar point, the in-school portion of training can be an intimidating and unwelcoming environment for Aboriginal people—particularly Aboriginal people from rural First Nations communities—because technical and on-the-job training formats are not structured in familiar ways (CLFDB, 1999).

Another Aboriginal key informant, however, did not share the view that "apprenticeship is culturally insensitive to Aboriginal values and ways of life," stating instead that apprenticeship as a learning style actually fits well with traditional Aboriginal learning methods. The interviewee contended that employers and Aboriginal apprentices should be exposed to each other's culture and expectations (✧).

Visible Minorities

In *Toward an Integrated Labour Market Framework: A Consultation with Nova Scotia's Labour Market Partners*, the Nova Scotia Labour Market Development Secretariat (1999) found that young black men in Nova Scotia, many of whom possess trades-related skills, do not have access to formal skills assessment and recognition services.

Recent Immigrants

While immigrants' lack of language facility has been cited as a key barrier to their labour-force integration, ***the quality, availability and comprehensiveness of prior-skills and credentials recognition*** further complicates this integration. This barrier is most evident in apprenticeable trades (CLFDB, 1995). This problem is further compounded by the lack of standardized and readily available information for employers regarding foreign qualifications (Jothen, 2002).

The inadequacy of foreign-credentials and skills-recognition services as a barrier for entry or advanced standing in apprenticeship surfaces in two ways. First, ***immigrants may be prevented from entering into an apprenticeship, because they cannot produce the required documentation*** regarding their foreign educational credentials (Gordon, 2002; ✧✧). In some cases, immigrants may possess a post-secondary certificate but are unable to produce their high school certificates. Depending on specific entrance requirements required by employers or trade unions, the lack of a secondary school diploma can be sufficient to bar immigrants from being admitted to apprenticeships, even if they can produce a recognized post-secondary credential (✧). This situation is a particular problem for older, qualified immigrants and refugees, for whom it may be impossible to obtain documentation of their secondary school education.

Second, ***recent immigrants who manage to enter into an apprenticeship are often unable to receive any credentials or prior-learning recognition*** that may at least qualify them to gain advanced standing. Although less decisive than non-admittance into programs, this barrier may potentially deter immigrants who may be unable or unwilling to commit the years necessary to complete full apprenticeships (✧✧).

Training practices in some countries may not traditionally lead to formal certification, despite the fact that they impart high levels of competency in trades-related work. This circumstance may be particularly true in the case of immigrants from developing countries. According to Atlin and Pond-White (2000):

> Inherent in the north-south divide is the reality that, in many of the countries producing large numbers of today's immigrants, there are more businesses operating with under-resourced and less sophisticated machine and technological infrastructures than found in Canada … Skilled and experienced people with highly-developed abilities and aptitudes for spatial-perception, logic, troubleshooting and problem solving may have little formal documentation of their experience or training.

The absence of prior-learning and assessment tools in Canada, therefore, may prevent many competent individuals with high trades-relevant competencies from entering the trades or becoming apprentices.

A significant potential problem exists with the way information regarding skilled trades is disseminated to prospective immigrants in their countries of origin (Viswanathan, 2002; ✧✧). Immigrants are admitted by immigration officers on the basis of credentials or qualifications earned in their home country. At the same time, foreign-trained workers with experience in the trades are often not counselled before they leave their home countries about potential problems they may encounter with their qualifications once in Canada. Upon arrival in Canada, immigrants are frequently frustrated to discover they are not eligible to practice as tradespersons.

Many immigrants take jobs for which they are over-qualified or have nothing to do with their training and experience. The longer these individuals remain outside of training or work in their field, the more significant their skills erosion (Gordon, 2002).

Finally, the lack of prior-learning and credentials recognition may often be the reason why recent immigrants enter apprenticeships. As such, the traditional apprenticeship model may be entirely inappropriate to their labour-market integration needs (Atlin and Pond-White, 2000). ***The prospect of having to "start from scratch" is a point of serious concern for foreign-trained workers*** (Atlin & Pond-White, 2000; ✧✧). Starting over can be especially frustrating for immigrants who have spent years in their countries of origin already working in their trade. For immigrants with families to support, the prospect of having to spend several years retraining may not be viable because of financial barriers (Gordon, 2002).

From an administrative or regulatory point of view, the lack of consistency across provincial apprenticeship offices in the assessment and recognition of foreign qualifications reflects differing levels of experience. ***In centres other than the large cities that typically receive most immigrants to Canada, apprenticeship offices may not have the necessary experience in assessing various forms of foreign qualifications*** (CREHS & Skills for Change, 2001).

Persons with Disabilities

Physical adaptation of worksites remains the principal obstacle to on-the-job training (✧). In addition, employers do not have ready access to funding and other means for adapting workplaces (✧).

A significant number of persons with disabilities simply cannot undertake full-time classroom training, precluding them from undertaking traditional apprenticeship training (✧). Persons with certain types of physical disabilities may also be limited in the type of apprenticeship they can participate in, particularly in construction-related trades (✧).

A range of other barriers has been identified. In some professional training schools, part of the funding is tied to the number of graduates. As such, these schools might be less inclined to accept or encourage participation by persons with disabilities, creating an additional barrier (✧). Furthermore, problems associated with distance from training centres are compounded for persons whose movement is restricted as a result of disabilities (✧).

9 Issues regarding regulations governing apprenticeship, such as inflexible journeyperson/apprenticeship ratios and licensing requirements, and the absence of national standards or core curricula in many trades

A. GENERIC BARRIERS

The regulatory and policy structure of the apprenticeship system is such that a number of apprentices, employers, educators and other key stakeholders may have difficulty pursuing or offering apprenticeship training.

Changes in provincial government regulations and policies governing apprenticeship may have resulted in greater difficulties for the education system in providing and supporting apprenticeship training. For instance, inflexible entry standards in certain trades can be a barrier. Since these standards are set by apprenticeship administrations, schools have no control over them (✧).

Cumbersome provincial registration requirements for apprenticeship make it more difficult to register into apprenticeship than to enter secondary and post-secondary studies (✧). One government interviewee stated there was ***"too many rules and too much red tape"*** in apprenticeship. In his jurisdiction, apprentice registration involves 19 steps, compared to the ten steps in full-time post-secondary programs (✧). He called for the streamlining and simplification of apprenticeship regulations and processes.

For certain occupations, such as technologists, the apprenticeship system and the post-secondary education system operate in separate channels, with little opportunity for trainees or graduates from one channel to have their qualifications recognized in the other (O'Grady, 1997). Given the difficulty they experience in having their training officially recognized, this separation reduces the incentive for apprentices to complete their apprenticeship.

Specific characteristics of the apprenticeship system, including perceived inflexibilities, were also identified as barriers by a number of government interviewees (✧✧). One interviewee questioned whether apprenticeship as a system could become more flexible: "It is pretty rigid—from routes to certification, through various levels, and the delivery of technical training" (✧). Ultimately, a more flexible system will be needed to address identified barriers.

One government representative believes there is a lack of broad-based thinking within the apprenticeship administration system. In this respondent's view, apprenticeship is tied heavily to the building trades, which look down upon other trades. This representative contends that, regardless of who may be at fault for the existence of barriers, provincial jurisdictions and the CCDA are ultimately responsible for the barriers found in the apprenticeship system (✧).

Journeyperson-apprentice ratios can reduce opportunities for apprenticeships.

In the view of many employer informants, ***employers' ability to hire as many new apprentices as possible is limited by an inflexible ratio of journeypersons to apprentices*** (Even et al, 2002; Nova Scotia Labour Market Development Secretariat, 1999; Smith, 2003; ✧✧). This barrier is perceived to contribute to skill shortages by limiting new entry into trades. It may also impede employers' staffing efforts by not enabling them to allow for some degree of attrition among apprentices (Gunderson, 2001). The importance of this barrier may vary significantly from province to province: in some jurisdictions, it may be relatively easy for employers to have the ratios amended.

The apprentice-journeyperson ratio was noted as a barrier in a number of sectors, including residential/renovation construction, automotive service and manufacturing. ***Employer respondents stated that they would prefer ratios to vary according to the needs and characteristics of specific trades.***

Small businesses face specific difficulties. In some cases, regulations on apprentice-journeyperson ratios implied that employers must have a minimum number of journeypersons on staff in order to be able to hire an apprentice. ***As a result, businesses with fewer than the minimum number of journeypersons may be unable to hire apprentices at all*** (Gunderson, 2001; Starr Group et al, 2002; ✧).

To maximize the flexibility of their workforces, ***smaller businesses may also have training needs that stress multi-skilling,*** which can affect their propensity to hire apprentices. (CME-NS, 2002) Some labour respondents noted that additional constraints on apprenticeship could arise on construction sites, specifically where tradespersons are treated as sub-contractors rather than employees. As such, these workers are not included in the employment base for the purposes of calculating ratios.

Labour respondents offered a number of qualifications to these views. They pointed out that the journeyperson-apprentice ratio becomes a relevant barrier only when employers are actually willing to hire new apprentices. The reluctance of many employers to hire apprentices in the first place may make a moot issue of appropriate ratios. Some labour respondents also affirmed that, in many cases, it is quite easy for employers to have ratios amended. Employer concerns about journeyperson/apprenticeship ratios, therefore, may indicate problems concerning the adequacy of information about how these ratios are applied rather than problems with their inflexibility.

In specific instances, employers and labour representatives differ on an appropriate journeyperson/apprentice ratio. Nevertheless, both groups agreed that relaxing ratios during economic downturns would have a minimal impact on the number of apprentices in the short term (ITAC, 2001). One study concluded that planning apprenticeship requirements and setting ratios accordingly was the best solution, as opposed to high ratios, which would lead to "too many apprentices chasing too few apprenticeship opportunities" (O'Grady, 1997).

Unions and employers differed in their views of the impact of externally dictated training rules and regulations.

Union respondents, for the most part, viewed training rules and regulations as a framework to maintain skill levels within the trades. These respondents believe that regulations protect qualifications, while voluntary approaches risked diminishing them (✧).

In contrast, employers believe apprenticeship regulations are an unwelcome intrusion into the internal working of their companies. By and large, employers do not want to be told how to train their employees. In fact, employers very often resist apprenticeships, because they oblige employers to follow externally dictated rules and regulations, which they regard as inflexible and ill suited to their needs (ITAC, 2001; ✧).

One example of rules that caused concern to some employers was the duration of apprenticeship programs. Some employers see these rules as unnecessarily long for some categories of apprentices. Low completion rates may be explained by the fact that apprentices' lives change over time and new circumstances may force apprentices to quit (✧).

One observer commented that safety regulations that govern certain trades are too restrictive since they require trade certificates to be renewed every year. Such a requirement can create a burden on both employees and employers (✧).

Furthermore, apprenticeship trades and programs have not been able to expand easily into emerging industries and occupations, such as the service sector (✧✧). One interviewee believed that too few trades were being offered through formal apprenticeship streams: "This province has seen the number of apprenticeable trades dwindle from

60–65 to around 40–45—compared with the German system, which registers over 300 apprenticeable trades" (✧).

Other stakeholders suggested there is a strong need to adapt and update occupations that are eligible for apprenticeship, particularly in high technology (✧). One key informant from the software industry commented on a perceived high degree of inflexibility in terms of welcoming new industries and trades into Canada's apprenticeship systems (✧). In parallel, some high school students on an academic path indicated that they would participate in apprenticeship if it existed in fields of study in which they were interested, such as accounting and engineering (✧✧).

The apprenticeship wage structure is a disincentive for increasing apprentice productivity. In some occupations, apprentice wages are set as a percentage of journeypersons' wages and indexed according to hours worked. However, nothing in principle prevents employers from paying a higher wage to reward higher productivity. To the extent that employers do not pay higher wages to reflect superior productivity, apprentices may feel that there is no incentive for them to increase their level of effort and development.

Finally, some stakeholders and focus-group participants identified entry standards to apprenticeship in certain trades as a barrier.

A perceived lack of jurisdictional consistency across Canada makes it difficult for employers and individuals to pursue apprenticeships.

Employer and labour representatives, as well as individuals, perceive a lack of consistency and jurisdictional harmony in provincial and territorial approaches to apprenticeship. This perceived absence of consistency often makes it difficult for apprentices and employers to understand rules, regulations and requirements. One government representative stated that it is frustrating for both "unions and large employers operating in more than one region" to have to deal with as many different sets of regulations and ways of doing things as there are jurisdictions (✧).

For instance, the length of apprenticeship programs and the number of required training hours per year can vary substantially across jurisdictions (Prism Economics and Analysis, 2000). This inconsistency also applies to the nature and availability of trade qualification examinations.

For large employers operating in several jurisdictions, this lack of consistency may frustrate the development of organization-wide approaches and sets of apprenticeship standards (✧).

Three examples illustrate the dimension of these concerns:

- ***Outside of the Red Seal trades system, there is an absence of core curricula in many trades. Within the Red Seal trades, where core curricula do exist, apprentices may still encounter problems, because different jurisdictions may not offer curricula in the same sequences. These factors may make it difficult for apprentices to move geographically to pursue their training.*** In cases where apprentices must move to maintain their work hours in seasonal or cyclical industries, these apprentices may lose some accumulated credits (✧), which would interrupt or even terminate their apprenticeships (✧✧). In some cases, this difficulty was perceived among different training institutions within the same jurisdiction, which made it difficult for apprentices to move from one college to another to pursue their training.
- National sector councils and other sectoral bodies have actively developed national standards in many occupations; yet some employers believe that, in a number of cases, these ***national standards have not been reflected in provincial trades standards (✧✧).*** This circumstance increased the risk that sectoral organizations might develop apprentice-like programs outside the formal apprenticeship system but still tied to national standards. Without stronger efforts to link all standards, the use of provincial and territorial programs might be limited.

- One organization, seeking to promote a national-level apprenticeship initiative in a non-traditional area, found itself dealing with many jurisdictions with differing rules and responses. Depending on the jurisdiction, the amount of time it takes to designate new trades ranged from months to years. ***The task of mounting a nation-wide apprenticeship initiative was made extremely difficult. As a result, only a limited number of jurisdictions agreed to participate.*** In fact, one organization perceived a resistance on the part of some apprenticeship authorities to considering apprenticeship in non-traditional areas (✧✧).

Employers and labour representatives hold different views of modular training and task rotation.

A number of employers argued for more modularized training in specific jurisdictions or trades (BCCA, 1997; CSLS, 2001; Even et al, 2002). In some sectors and occupations, the absence of such a competency-based apprenticeship program was cited as a barrier (✧). ***One government representative also pointed to a lack of accreditation on a "modular or partial basis"*** as a barrier for many employers, and suggested that competency-based accreditation is a system to move towards (✧). In one study, more modularized training was found to provide individuals and employers greater flexibility in training schedules, something that can be helpful in slow times or during layoffs (CSLS, 2001).

However, labour representatives, in many cases, expressed concerns about modularization, noting that this approach could weaken the skills-certification process to the detriment of apprentices and employees but to the benefit of employers. Labour concerns revolved around a potential "devaluing" of training, which could leave trainees with a limited number of skill sets and reduced portability of these skills. Many labour respondents believe recent regulatory changes in some jurisdictions had reinforced this tendency, weakening rather than strengthening regulated trades.

At the same time, a widespread concern is evident among employers and labour representatives that, in many trades, apprentices receive limited exposure to a wide range of tasks, which reduces their skill breadth. This factor was often associated with sectors in which there were a large number of small, specialized employers, each of whom could provide apprentices with only a portion of the wider experience required for full qualification in the trades. These types of employers included those in machine trades, construction and automotive service (Kunin and Associates, 2002; Fayek et al, 2002; O'Grady, 1997; Prism Economics, 2000; CARS, 1999). For many respondents, arrangements for task and employer rotation were needed to provide broad experience. On this point, some labour respondents expressed concern that some employers might deliberately restrict the activities that apprentices are allowed to perform, keeping them at relatively low wage rates.

Employer respondents from the residential and renovation sector noted a tendency for contractors and subcontractors in the sector to specialize in certain aspects of construction, which meant that employer rotation was necessary for apprentices to receive full exposure to a trade. These respondents pointed out that this circumstance could be difficult for a group of small employers to arrange and manage. If a suitable arrangement does not occur, apprentices have no certificate to show for their time.

In the strong view of spokespersons for residential and renovation industry employers, workers should be able to receive formal recognition (certification) for the experience and training they receive in part of a trade working with one employer. This recognition would attract more workers and employers into apprenticeship and the trades, and encourage apprentices to stay in their trade. It would also enable apprentices to specialize in a specific aspect of a trade, if they wished, taking even further training in that aspect of the trade rather than having to move around among employers to round out their training (✧✧). A strong view was evident within the sector that the "all-or-nothing" aspect of trades certification does not reflect the way work

is organized and performed in that sector (Gunderson, 2001; ✧). This absence of progressive credentials was also commented on in other jurisdictions (✧).

B. BARRIERS EXPERIENCED BY SPECIFIC GROUPS

Aboriginal People

Focus-group participants and key informants pointed to the inflexibility in government-administrated training, employment and apprenticeship programs. One provincial study identified an insufficient understanding of the socio-economic realities of Aboriginal communities among provincial government apprenticeship staff (Cook Consulting, 2001). The study suggested that this lack of understanding could perpetuate a culture of ignorance and a lack of responsiveness to the barriers affecting Aboriginal communities.

According to a number of respondents, "band politics" may play a role in determining which First Nations members are offered training and employment opportunities, and the funding necessary to pursue these opportunities (✧✧).

The departure of Aboriginal people from their reserves to pursue apprenticeships can affect their access to housing because of First Nations and government policies (✧✧). If apprentices do not train and work close to home, they may lose their housing benefits. It was not clear whether this was because of federal government or First Nations policies. A focus-group participant spoke of a "flat-rate rent system" used in First Nations communities that charges renters 25 percent of their income. This system serves as a disincentive to apprentices, who earn increasingly higher wages with each year of apprenticeship.

Obtaining enough hours in a broad range of work experience can pose a significant challenge to Aboriginal people. Research literature (CLFDB, 1999; Cook Consulting, 2001) and focus groups (✧✧) demonstrated that acquiring an appropriate number of on-the-job hours each year is a barrier, particularly for Aboriginal people in small First Nations communities and those living in rural and remote areas. One focus group claimed that it is particularly difficult for Aboriginal people in specialty trades to acquire enough hours within their communities. As such, these apprentices must move to work enough hours to complete their apprenticeships (✧✧).

Aboriginal people in rural and remote communities experience difficultly acquiring work experience in a broad range of areas of specific trades, which can cause apprentices to take longer than the usual three to five years to complete apprenticeships (CLFDB, 1999; Cook Consulting, 2001; ✧✧). In addition, successful Aboriginal graduates may not have the opportunity to work in their trade in their home community if local demand is low. Tradespersons can be held in lower esteem by their communities than if they were university-educated (✧).

Recent Immigrants

A number of barriers exist related to the apprenticeship and trades licensing system as they affect recent immigrants. These barriers include:

- Administrative barriers that arise through process delays are particularly frustrating for immigrants with limited English-language skills (Jothen, 2002).
- Temporary licensing alone has not enabled newcomers, who sought help with community agencies, to re-establish themselves in their trades (Atlin & Pond-White, 2000).
- A lack of perceived urgency. (The "system" is not taking this issue very seriously, and is not realizing the urgency to streamline and modify its practices to accommodate recent immigrants, particularly in light of future labour shortages.) (✧)

4. Moving Forward — The Challenges

Researchers conducted interviews and focus groups with a wide variety of apprenticeship stakeholder groups, and supplemented this study with an extensive literature review. Compilation of stakeholder views into an orderly set of perceptions regarding apprenticeship barriers did not occur until later in the study. At that point, the overall perceptions of individuals, employers, labour representatives, educators and individual groups were summarized and organized.

It was noteworthy, therefore, that the research team found the respondents commonly perceive a broad array of generic barriers. Moreover, groups such as women, Aboriginal people, immigrants, visible minorities and persons with disabilities all encountered these generic barriers, often with a particular intensity or from a particular perspective that reflected their circumstances. Similarly, small businesses, especially in rural or remote areas, experienced more difficulties with many of these barriers than their larger counterparts.

Emergence of a generally perceived set of generic barriers was significant. Researchers strongly suggest that these nine barriers constitute a core group of accessibility issues across different constituency groups:

1. Negative attitudes to apprenticeship and a poor image of trades
2. A lack of information and awareness of apprenticeship
3. Difficulties with unwelcoming workplaces or training environments
4. Costs of apprenticeship to individuals, employers and unions
5. Concerns over the impacts of economic factors on work and continuation of apprenticeship
6. Concerns about the lack of resources to support apprenticeship
7. Concerns about apprentices' basic and essential skills
8. Shortcomings of workplace-based and technical training
9. Issues regarding regulations governing apprenticeship

Addressing the perceived barriers identified by researchers poses an opportunity for all apprenticeship stakeholders to consider measures that:

- Change perceptions and attitudes to apprenticeship and trades.

  While the CAF-FCA/Skills Compétences Canada *Promoting Skilled Trades and Apprenticeship* project will address perceptions of the trades among various demographic groups, it will be essential for governments and trades spokespersons to actively participate in this and other complementary activities.

- Increase efforts within secondary schools to support and promote the trades through counselling, information, programs and enhanced teacher awareness.

Young people must be connected more strongly to career options in the trades, not only through changes in curricula and teacher awareness, but also through a wide array of specific initiatives, which include the use of role models or mentors and programs to strengthen the interface between high school and apprenticeship.

- Develop cultures within workplaces that are more tolerant and welcoming of women, Aboriginal people and other equity groups.

  Diversity training at the workplace level and flexible work arrangements to accommodate child care are among the initiatives to be explored in this area; but they must be accompanied by a commitment from employers, unions, and others that discrimination and harassment are not to be tolerated.

- Address the costs encountered in initiating apprenticeship programs, as well as costs faced by apprentices in pursuing apprenticeship programs.

  The wide array of cost-related issues must receive attention. In addition, there is a need for research that provides compelling evidence of the positive return on investment in apprenticeship to persuade employers and others of the benefits of apprenticeship as a skills-development measure. Cost and other issues facing small employers require particular attention.

- Mitigate the impact of economic factors that can lead to a lack of work and interruption or termination of apprenticeships.

  Rotation of apprentices among employers, geographical mobility of apprentices, more flexible scheduling of technical training periods, and addressing the impacts of union seniority provisions on apprentice layoffs are examples of approaches that depend on the collaboration of many apprenticeship stakeholders.

- Reassess the adequacy of resources devoted to apprenticeship.

  Addressing resource questions may imply a more fundamental review of education and training priorities in some jurisdictions. For specific groups such as Aboriginal people, immigrants, women and visible minorities, an assessment regarding the lack of resources for communities and community agencies to support apprenticeship may need to be addressed.

- Provide the essential skills (numeracy, literacy, computer use and other "softer" skills) that individuals must have to enhance their chances of success in apprenticeship programs.

  While primary responsibility on this issue rests with schools, there is a role for other agencies in providing life skills to groups such as Aboriginal people and visible minorities, and language/literacy skills to recent immigrants.

- Provide flexible and accessible technical-training arrangements, and current training curricula and equipment.

  This very broad issue includes not only questions regarding the location, currency, and scheduling of technical training, but also the state of training support structures such as journeypersons' roles as trainers/mentors and inadequate prior-learning or foreign-credentials assessment and recognition, which can pose problems for particular groups. Addressing these issues will require concerted and co-ordinated efforts from jurisdictions and education/training institutions.

- Seek to harmonize rules, regulations and standards affecting apprenticeship and trades across Canada.

  Employers and union representatives expressed different views on journeyperson/apprentice ratios, modular training, and other aspects of apprenticeship regulation. They strongly agreed, however, that jurisdictions must actively collaborate in strengthening the consistency of regulations across jurisdictions in order to render the apprenticeship system flexible and less cumbersome, and facilitate mobility of both apprentices and tradespersons.

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