



Backgrounder

August 2004

This paper and other materials related to the campaign,
“Skilled Trades: A Career You Can Build On.” may be found online at:

www.careersintrades.ca

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1.0 EXECUTIVE SUMMARY

1.1 The Problem – Skilled Tradesperson Shortage

Government and private-sector studies show that Canada is beginning to feel the effects of a shortage of skilled trades, with the degree of the shortage varying by region and trade. Between 1991 and 2001, there was a 3.8% decline in the number of people working in skilled trade occupations and a similar decline is predicted over the next decade. Almost 50% of businesses surveyed in 2003 said a shortage of qualified labour was one of the most important issues facing them. Moreover, 56% of firms said they were forced to hire people even though they were not suitable and almost 30% said they had foregone business opportunities.

While not universal, analysis of many demographic factors indicates the potential for skills shortages in a wide range of sectors. By 2020, it is estimated that Canada could be short about 1 million workers due to the decreasing fertility rates and an ageing population. In fact, the first baby-boomers are due to reach retirement age by 2012. In 2015, almost half the workforce - 48%- will be between the ages of 45 to 64.

While demographic factors are a main cause of the skills shortage, current misconceptions exist that perpetuate the public's negative perceptions of skilled trades. The perception still exists among youth and their influencers that skilled trades involve hard physical labour, are dirty, less intellectually challenging, and provide less opportunity. For example, a recent survey for the Canadian Apprenticeship Forum—Forum canadien sur l'apprentissage (CAF-FCA), conducted by Ipsos-Reid, showed that 47% of youth and 41% of parents hold the view that many skilled trades are physically demanding. Although most skilled trades involve some level of physical labour, the increasing use of machines and technology now makes it possible for those without great physical strength to succeed in the trades. Careers in skilled trades also provide a good salary and those with trades certifications often earn a higher salary than the average Canadian. A trade certification can also open the door to higher paying supervisory jobs or entrepreneurial opportunities.

Existing negative attitudes towards skilled trades among youth are often compounded by that of their parents and educators. While 60% of parents say that they would be likely or very likely to recommend a career in the skilled trades to their children, 59% of young people say that their parents have **not** encouraged them to consider skilled trades. Furthermore, 72% of young people say their school guidance counsellors have **not** encouraged skilled trades as an option and that 37% of young people aged 13-24 said their schools did not have information readily available about careers in skilled trades.

The future supply of skilled tradespeople is also at risk since university has become a first-choice post-secondary education option for 67% of young people aged 13-24 and 55% of adults, ahead of college and apprenticeship or trades programs. Forty-two percent of young people aged 13-24 said they would be unlikely to even consider a career in the skilled trades.

While many initiatives are being undertaken by various stakeholders across the country to promote skilled trades within Canada, there is no national umbrella campaign that addresses the need to change current negative attitudes and promote skilled trades as a first career choice among young Canadians.

1.2 Addressing the Problem - The Campaign

In January 2003, the federal government announced funding of \$12 million for a multi-year campaign designed to “develop and promote career options in the skilled trades.” The campaign has two key objectives: to reposition skilled trades from its current negative perception toward a more positive position, and eventually, as a first choice career option in the minds of Canadian youth and their influencers, such as parents and educators; and, to further encourage employers to create, expand and sustain career opportunities in the skilled trades for young Canadians.

The first phase of the campaign, now completed, began in June 2003 and involved an examination of over 100 studies and reports and more than 200 marketing campaigns and programs from national, provincial/regional organizations, provincial government apprenticeship programs, sector councils, industry, and career development organizations. The objective of this research was to identify the severity of the skills shortage, its root causes, and the current activities and programs that exist to address these issues.

The second phase, which began in January 2004, involved the development of various campaign elements to build public awareness about the benefits of a career in the skilled trades, and the benefits to employers of apprenticeship programs.

This phase features an advertising and public awareness campaign based on the theme of “Skilled Trades: A Career You Can Build On.” It involves television, radio, cinema and print ads as well as targeted collateral material and a website (www.careersintrades.ca) that provides further information to youth, parents, educators and employers. Information will also target specific equity seeking groups including women, people with disabilities, visible minorities, and aboriginals.

To support the advertising, various initiatives will also be implemented at a local level to reach target audiences within their own communities. One key initiative

is a regional strategy that involves on-going consultations with regional organizations to identify best practises within their jurisdiction and ways to collaborate efforts to raise the profile of careers in skilled trades in their region. A partnership program has also been developed in order to engage a broad diversity of organizations (public/private, national/regional) to extend the reach and frequency of the campaign's key messages.

Since employers are vital to providing apprenticeship training, the campaign will target this audience by providing information on the benefits of hiring apprentices and the importance of apprenticeship training to their long-term viability. Employers will be reached through advertisements within trade publication, attendance at business events, meetings and conferences which will effectively engage them to provide apprenticeship opportunities.

A skilled trade "Champions" program will also be put in place to engage people from various sectors, regions and backgrounds to provide real-life stories and experiences on why careers in trades and hiring apprentices are positive choices. These Champions will be one part of the campaign's proactive media relations program which will focus on national, regional, and trade specific media to raise the level of awareness towards the skilled trade crisis and elevate the profile of skilled trade careers in Canada.

The campaign is managed by the Canadian Apprenticeship Forum – Forum canadien sur l'apprentissage (CAF-FCA) and Skills/Compétences Canada (S/CC), in partnership with Human Resources and Skills Development Canada (HRSDC) and has been developed through the direction of a steering committee made up of a national collaboration of educators, business, equity-seeking groups, labour, government, and associated skilled trade organizations throughout Canada.

1.3 About Skilled Trades

Skilled trades offer good pay, opportunity and respect. With more than 200 trades in Canada, there is a skilled trade for every interest and aptitude. Trade occupations fall within the following four main sectors: **transportation**, which includes such occupations as aviation technician, automotive painter, fuel/electrical systems technician and automotive service technician; **construction**, which ranges from heavy equipment operator, to electrician, to welder, to carpenter, to painter/decorator and others; **service**, which encompasses chefs, horticulturists, information technology support analysts and florists; and **manufacturing**, which includes industrial electricians, precision metal fabricators, tool and die makers and water well drillers.

Although wages rates among the trades vary, more than 20 different trades can provide earnings substantially above average. According to the 2001 census, a

trades certification provided an income level 3.1% above the average for all educational levels. In several trades, earnings are well above the national average. For example, tool and die makers earn about 23% more than the average and electricians 16.5% above average.

An assortment of skill sets can be found in the multitude of skilled trades careers including creative thinking, analytical and problem solving skills, a strong mathematical aptitude, and attention to detail to name a few.

In order to provide greater mobility for skilled workers, the Red Seal Program was established that allows qualified trades persons to practice the trade in any province or territory in Canada where the trade is designated without having to write further examinations. To date, there are forty-five trades included in the Red Seal Program on a national basis.

Skilled trades command respect and are personally rewarding because people in Canada depend on them. They touch almost every aspect of our lives, from the homes we live in, to the cars we drive and the food we eat.

1.4 Value of Apprenticeship Training

Apprenticeship training is an effective post-secondary education choice that provides hands-on experience with classroom learning. On average, 80% of the apprentice's two to five years of training is spent in the workplace, and the rest is spent at an educational training institution. Apprenticeship training provides the opportunity to “earn while you learn” and decreases the debt load while obtaining a post-secondary education. When compared to bachelor graduates in the year 2000, apprentices are able to combine training and work while bachelor graduates leave school with an average debt of \$19,500.

In 2001, 217,560 apprentices were registered across the country, a 32% increase from the low of 164,570 in 1995. As well, while the number of women registered in skilled trades has significantly increased, their involvement in the trades only represents nine percent of the work force.

1.5 The Employer Benefits of Supporting Apprentices

A necessary component of apprenticeship training is the participation of employers in providing apprenticeship opportunities. Training apprentices gives employers an opportunity to train future employees to meet their business needs and ensure that they have qualified labour to meet future needs. Furthermore, employers gain a competitive advantage by having well-trained and appreciative employees who are aware of current techniques in their industry. In an Alberta

survey, 77% of employers of registered apprentices say that hiring apprentices helps their bottom line and improves their competitive advantage.

Employers with apprenticeship programs are making sure that as their certified tradespeople retire, they have newly trained people to take their place. An apprenticeship program means employers have qualified workers now and in the future. They don't have to worry whether someone else is going to train their workers for them; rather, they can train them to the standards they need and expect.

Apprenticeship is an attractive, cost-effective way to develop highly skilled and productive employees. Training apprentices enhances business performance, profitability and competitiveness. Some of the business benefits include: increased control over product quality; less waste and lower unit costs as a result of trained, productive staff; and, increases in a companies competitive edge by bringing up-to-date skills and new technologies into their business environment.

1.6 Conclusion

Unless Canada's skills shortage is alleviated, the country's economic opportunities will narrow. Improving the perception of skilled trades making it a first-choice career option will allow more Canadians to realize the opportunities that exist for those who take up such a career can help bridge the gap between the skills shortage and the training deficit. The "Skilled Trades: A Career You Can Build On" campaign will raise the awareness of skilled trades within Canada and work to change the perceptions and attitudes of young people, their parents and guidance counsellors towards these occupations. It will also encourage employers to bring on more apprentices providing them with information about the benefits of apprenticeship.

2.0 INTRODUCTION

2.1 The Current Skilled Tradesperson Shortage

Nearly half of businesses say that a shortage of qualified labour is one of their most important issues.

- Government and private-sector studies show that Canada is starting to see a shortage of skilled trades workers:
 - extent of shortage varies between region and trades.
 - problem will soon worsen if not addressed.
- Canadian Federation of Independent Business (CFIB) findings:
 - 48.7% of members say qualified labour shortage is one their most significant problems (2003).¹
 - 64.4% reported that they have problems finding employees with the necessary skills, experience, and education (2002).²
 - 56% of firms say they are forced to hire people not suited for the job.
 - 29.7% say they lose business opportunities as a result of skilled labour shortages
 - 67% maintain that more students should be encouraged to consider skilled trades.

2.2 The Future Skills Shortage

By 2020, Canada could be short about 1 million workers.

- Labour force growth is slowing, and the skills shortage problem worsening, due to demographics and other factors.
- Shortage will be felt in all sectors but skilled trades could be especially hard hit unless more Canadians enter the field.
- The Conference Board of Canada forecasts that Canada could be short about 1 million workers by 2020 because:
 - Birth rates in Canada are well below the replacement rate, so, without immigration, population will decline.
 - Population is aging.
 - The first baby-boomers reach retirement by 2012.
 - In 2015, 48% of the workforce will be between 45 to 64 years of age.

¹ Canadian Federation of Independent Business, *Our Members' Opinions #52*, Toronto, January-June 2003, Q5. Available at: www.cfib.ca/research/surveys/results/omo52.pdf.

² Canadian Federation of Independent Business, *Availability of Labour and Training Survey*, Toronto, Sept. 28-Nov15 2002. Available at: www.cfib.ca/research/surveys/results/labour-survey-results-e.pdf.

“The average age of journeymen in Canada is over 48 years old. That means that in the next seven to 10 years, there’s going to be almost a 100-per-cent turnover in those skilled workers. We have to start training our young people now and change attitudes.”

Ken Georgetti, Canadian Labour Congress leader.

‘Labour Chief Predicts Skills “Crisis”, The Ottawa Citizen, August 19, 2000.

- Immigration alone will not solve Canada’s national skills shortage since:
 - Most immigrants settle in Toronto, Montreal and Vancouver, which does nothing to help deal with potential shortages in other regions of the country.
 - Unlike their predecessors, 41% of working-age immigrants have university degrees while only 8% have skills certifications.
 - Language and cultural barriers may make it more challenging for immigrants to integrate into the Canadian workforce.

NOTE: SEE "APPENDIX 1: DEMOGRAPHIC TRENDS" FOR MORE DETAILED INFORMATION.

3.0 CAUSES OF THE PROBLEM

3.1 Attitudes Toward Skilled Trades

"Skilled trades are still a second or third career choice for most young people."

- The recruitment of young people into skilled trades is hampered by the generally low opinion that Canadians have of these occupations.
- Although recent promotional activities and news coverage have improved attitudes to some extent, skilled trades continues to be a second or third career choice for most young people. A February/March 2004 CAF-FCA and S/CC survey conducted by Ipsos-Reid found that:
 - University was the first choice of 67% of 13-24 year olds and 55% of adults
 - 42% of those in the 13-24 age bracket said they would be unlikely to consider a career in the skilled trades, while 26% said they would likely consider it.
 - The actions of parents concerning their children's career futures are not consistent with their stated beliefs. While 60% of parents said they would be likely or very likely to recommend a career in the skilled trades to their children, 59% of young people say their parents have not encouraged them to consider the field.

- 72% of young people maintain that their school guidance counsellors have not encouraged a career in the trades.
- Students have strong doubts about the merits of the skilled trades option, due in part to a negative perception of the field amongst their peers.
- 37% of 13-24 year olds said their schools did not have readily available information on skilled trades, while 35% said their schools did provide such information.

3.2 University: The Panacea Myth

Bachelor graduates leave school with an average debt of \$19,500.

- Although university is not the best choice for many high school graduates, it has nevertheless become the post-secondary institution of choice for most Canadian students³ (See Figure 1)

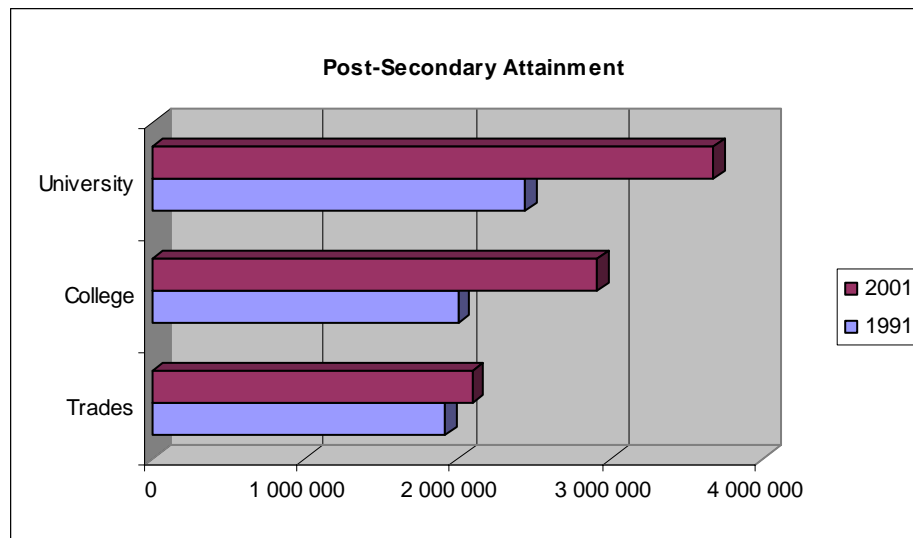


Figure 1: Post-Secondary Choices⁴

Trades have not kept pace with the rate of growth of college and university attainments in the past decade

- 23% of students in the 2000/01 high school graduating class did not get their diplomas.⁵ Of these, about half had a B average.⁶ There is a strong possibility

³ The number of Canadians aged 25 to 64 with a university degree grew by 50% in the decade ending 2001, to 23% in 2001 from 17% in 1991. Among Canadians aged 25 to 34, 28% had degrees. (Statistics Canada, *Education indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003*, Tables D6.1, D6.5. Available at: www.statcan.ca/english/freepub/81-582-XIE/2003001/educ.htm.)

⁴ Source: Statistics Canada, *Education indicators*, Table D6.2.

⁵ The Daily, *Secondary school graduations: 2000-01*, Statistics Canada, Ottawa, Nov. 18 2003. Available at: www.statcan.ca/Daily/English/031118/d031118d.htm.

that many of these students may have completed high school if career paths other than university been set before them.

- A university degree is seen as a financially lucrative investment and a prerequisite for success. This is deceiving. Discounting professionals such as doctors, dentists and lawyers, earnings for Bachelor graduates is quite modest:
- Males who graduated with bachelors in fine arts and humanities in 1990 reported incomes of \$32,400 in 1995.
- Those with a general bachelor's degree with no specialization reported 1995 incomes of \$37,800.⁷
- Median annual earnings for bachelor graduates in the 2000 graduating class were \$39,000.⁸
- The average income for a skilled tradesperson in 2001 was \$32,743.⁹
- Bachelor graduates from the Class of 2000 left school with an average debt of \$19,500; 14% reported debts of more than \$25,000.¹⁰ Skilled trades apprentices are able to combine training and work, and therefore finish their training with limited or no debt.
- The Conference Board of Canada reports that, while attending university implies future benefits in terms of earnings and job prospects, those benefits apply only to those who actually graduate. Students who drop out before acquiring a degree actually have higher unemployment rates than high school graduates who did not attend university.¹¹

3.3 The Post-Secondary Education Reality

About half of young people take no post-secondary training at all.

- A quarter of 15-29 year olds go to university and a quarter go to college or take trades training. The rest, about 50% of the population in this age bracket, go into the work force where they compete for jobs that generally require more skills than they possess.¹²
- By age 20, 2 in 10 high school graduates have not started any post-secondary education.¹³

⁶ The Daily, *Secondary school graduations*, p. 103.

⁷ Ross Finnie, Early Labour Market Outcomes of Canadian University Graduates by Discipline, Statistics Canada, March 2002, Catalogue Number 11F0019MIE-No. 164. The range was similar for women graduates but earnings were generally lower.

⁸ The Daily, *National Graduates Survey: Student Debt*, Apr. 26, 2004. Available at: www.statcan.ca/Daily/English/040426/d040426a.htm.

⁹ Statistics Canada, *Education indicators in Canada*, Table E2.5.

¹⁰ The Daily, *National Graduates Survey: Student Debt*, op cit.

¹¹ Conference Board, *Performance and Potential 2002-03*, p. 124.

¹² Ibid.

¹³ The Daily, *Paths to post-secondary education among 20-year-olds*, Statistics Canada, Ottawa, July 4 2003. Available at: www.statcan.ca/Daily/English/030704/d030704a.htm.

- The reality is that there is a significantly large group of individuals who do not obtain post-secondary education and are ill-prepared for the world of work.¹⁴
- About 70% of today's jobs require some form of post-secondary education,¹⁵ skilled trades being one of those career options. A greater emphasis on skilled trades as a first-choice career option could help many individuals find a more rewarding and successful career path.
- The prospects for those without post-secondary education are bleak:
 - The unemployment rate for 25-29 year-olds in this category is 43% higher than for college and university graduates.
 - For those who do manage to find a job, earnings are low: about two-thirds of what a college graduate would make (see Figure 2).

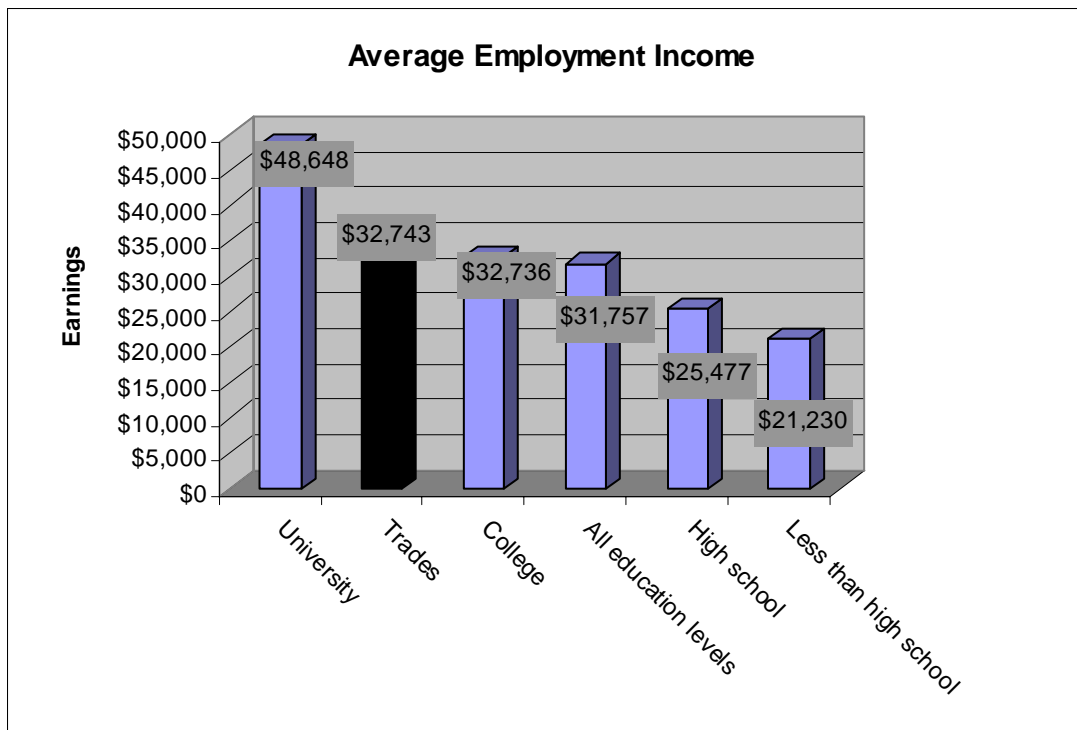


Figure 2: Average Employment Earnings by Education¹⁶

¹⁵ Human Resources Development Canada, *Knowledge Matters: Skills and Learning for Canadians 2002*, Ottawa, p. 8. Available at: www11.sdc.gc.ca/sl-ca/doc/knowledge.pdf.

¹⁶ Source: Statistics Canada, *Education indicators in Canada*, op.cit. Data from the 2001 Census.

"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. It is also appears that many parents view opportunities in technical and trades programs as fine for someone else's child."

-- *Report of the B.C. Select Standing Committee on Education, 2002*¹⁷

4.0 SKILLED TRADE FACTS

A trades certification provided an income level 3.1% above the average for all educational levels.

- While Canadians are now more likely to think of careers in the skilled trades as requiring creative skills, 47% of young people and 41% of parents believe that such jobs also involve hard physical labour.¹⁸
- Although there is some physical labour in skilled trade careers, there is also the use of specialized equipment has reduced or replaced some of the physical work. In many trades, the requirement for intellectual skills is as high as it is for many white-collar jobs.
- Today, there are more than 200 designated trades in Canada, with a skilled trade for nearly every aptitude and taste. (See list, Appendix 8.2)
- A trades certification provided an income level 3.1% above the average for all educational levels¹⁹. Some trades are especially attractive financially:
 - Tool and die makers earn 23% more than the average.
 - Machinists can earn wages 6% above the average.
 - Electricians earn 16.5% above average.²⁰
 - Of the 34 trades listed in 8.3 Appendix 3: 21 pay salaries above the national average.
- The unemployment rate for those with college or trades training is lower than average for all education levels and is on par with that of university graduates (see Figure 3). Of the trades listed in Appendix 3, 82% have fair to good employment prospects to 2007 and 56% are predicted to have better than average unemployment rates.

¹⁷ Available at: <http://www.leg.bc.ca/cmt/37thparl/session-3/edu/reports/EducationReport2002.htm>
Select Standing Committee.

¹⁸ Ipsos Reid, *Benchmark Study: Promoting Skilled Trades and Apprenticeship 2004*, March 2004.

¹⁹ Statistics Canada, Education indicators in Canada, op cit.

²⁰ Wage data is from the Government of Canada's Job Futures website, www.jobfutures.ca.

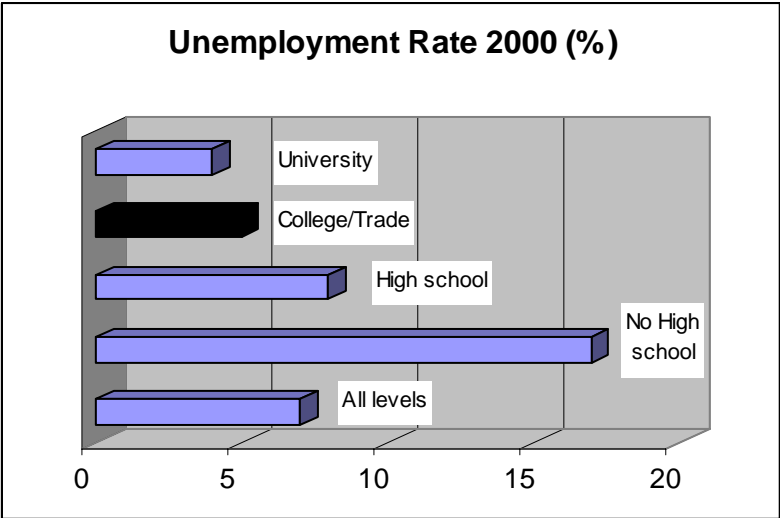


Figure 3: Educational Attainment and Unemployment: 25-29 year olds²¹

²¹ Source: Statistics Canada, *Education indicators in Canada*, op. cit. Data from the 2001 Census.

5.0 SOLUTIONS

5.1 The “Skilled Trades: A Career You Can Build On” Campaign

The campaign has two objectives: to change public perception of skilled trades and encourage employers to hire and retain more apprentices.

5.1.1 Background

- January 2003: \$12 million, 4-year campaign announced by the federal government:
 - To develop and promote skilled trades as a first-choice career option.
 - Part of the government’s Innovation and Learning Strategy to ensure that Canadians have the career skills to succeed.
 - Managed by the Canadian Apprenticeship Forum – Forum canadien sur l’apprentissage (CAF-FCA) and Skills/Compétences Canada (S/CC) with funding support from Human Resources and Skills Development Canada (HRSDC).

5.1.2 Campaign Objectives

1. Change the perception of skilled trades by Canadian youth, their parents and other key influencers.
2. Encourage employers to hire and retain more apprentices.

“We need to make young people, and their parents, more aware of the benefits of choosing a career in the trades. The campaign will move us towards the day when an apprenticeship program leading to certification as a tradesperson is a first-choice career option in the minds of young people, as well as those who influence these decisions.”

“Deciding to enter a skilled trade can lead young people into rewarding and satisfying careers that will serve them well throughout their lives.”

“The income and lifestyle prospects are very good and there is also the possibility of self-employment or other entrepreneurial opportunities.”

Keith Lancaster
Executive Director, CAF-FCA

5.1.3 Campaign Phases

1. **Phase I:** Research to determine other skilled trades promotional programs. This phase, now completed revealed that many of the other efforts focused on specific groups and did little to change perceptions about the trades in general across Canada.

2. **Phase II:** Starting in 2004, an advertising campaign built around the theme “Skilled Trades: A Career You Can Build On”. This phase involves television, radio, cinema, print and website advertising aimed at young people aged 13 to 18, their parents, teachers and guidance counsellors. Examples of the advertising can be found at www.careersintrades.ca.

5.1.4 Phase II – The Campaign

- Focus on youth and their influences, such as parents and educators.
- Provide information to employers to encourage them to create more opportunities for apprentices. These activities will be promoted in trade publications and through presentations to business and sector groups. An Employer Toolkit will provide information on the benefits of apprenticeship, and how to set up and sustain apprenticeship training.
- Customized information will be provided to women, people with disabilities, visible minorities and aboriginals to encourage them to consider careers in the skilled trades.
- Partnerships will be developed with key stakeholder groups in the public and private sectors - employers, industry and labour groups, educational institutions, governments, and equity groups.
- Complementary activities required to raise the profile of skilled trades in existing regional programs will be determined.

5.1.5 Complementary Activities

- The CAF-FCA website, www.apprenticetrades.ca, provides comprehensive, Canada-wide apprenticeship information for the public.
- S/CC has run skilled trades career campaigns, including the “Skills Work” program implemented by Skills Ontario, and the “It Takes Skills” campaign implemented by the national S/CC office.
- A number of the 29 national industry-specific human resources sector²² councils are promoting careers in their particular industries – e.g. “Careers in Oil and Gas” from the Petroleum Services Association of Canada; “CARS Youth” from the Canadian Automotive Repair and Service Council.
- 2004: federal funding of \$37.3 million for 31 sector council projects²³ to address skill shortage issues. “Workers, employers, educators and governments must all contribute to making skills training and upgrading more responsive to changing labour market needs and workplace priorities,” Joe Volpe, the minister of human resources and skills development, said.
- Various provincial and territorial efforts to promote trades careers; e.g.:
 - Emploi Québec’s “Chapeau, les filles”

²² A listing of these councils can be found at www.councils.org

²³ Human Resources and Skills Development Canada, “Government of Canada provides over \$37 million in funding for Sector Council projects,” News release, March 16, 2004. Available at: www.rhdcc.gc.ca/en/cs/comm/hrsd/news/2004/040316.shtml.

- Alberta's "Careers: The Next Generation."
- Community activities aimed at particular groups: i.e.:
 - The Alberta Aboriginal Apprenticeship Project.²⁴
- Provincial, national and international Skills Competitions (in Canada organized by provincial S/CC branches and their local partners) - raise skilled trades' profile. Calgary will host the WorldSkills Competition in 2009.

6.0 THE POST-SECONDARY APPRENTICESHIP OPTION

Apprentices earn a salary while learning so they can keep their debt load down.

6.1 What is Apprenticeship

- An effective form of post-secondary education that leads to certification as a tradesperson.
- Combines on-the-job training (typically about 80% of the total) with in-school instruction.
- Over 200 apprenticeship programs are available in Canada.
- Regulated by provincial and territorial governments,
- Requires training commitment of 2-5 years by the apprentice and the employer, depending on the province and the trade.
- Certification of qualification is awarded to an apprentice who successfully completes the in-school and on-the job training and passes the provincial/territorial apprenticeship exam.²⁵
- In 45 trades certified under the Red Seal program, journeypersons who have passed inter-provincial exams are allowed to work across Canada.

6.2. How Apprenticeship Works

- Apprentices must find an employer, register as an apprentice and pay tuition fees for in-school training. Some support is provided by provinces/territories to support apprentices through their training. Some employers, unions or other sponsors may also reimburse their apprentices for the tuition cost. Apprentices may be eligible for employment insurance benefits while attending classes.
- Each province or territory has the authority to designate a trade as one that requires apprenticeship training. Employers and unions can also petition to have new trades registered. In some cases, certification is required to practice the trade; in others, training is voluntary.²⁶

²⁴ See www.thinktrades.com/about.htm.

²⁵ www.apprenticetrades.ca

²⁶ Human Resources and Skills Development Canada, *Red Seal Program*, Ottawa, www.red-seal.ca/english/redseal_e.shtml, is administered by the Canadian Council of Directors of Apprenticeship, which brings together directors of apprenticeship from each province and territory with representative of

- The provincial/territorial government pays for a large portion of the expense and is responsible for supporting both the apprentice and employer throughout the apprenticeship process. Because apprentices earn a salary while receiving hands-on training from an experienced journeyman, they can minimize their debt load.
- Employers or sponsors (such as an employer association, a union, or a joint apprenticeship committee) enter into a **formal apprenticeship agreement** with the apprentice and the province/territory. Employers are then responsible for paying wages (generally set at a portion of the wages of a journeyman), recording the amount of on-the-job training, and providing documentation to the provincial/territorial government for the certification process.

6.3 Extent of Apprenticeships in Canada

- Apprenticeship registrations naturally follow the business cycle - when the economy is strong, employers are willing to bring on extra staff and so the number of apprenticeships increases.
- In 2001, 217,560 apprentices were registered across Canada, a 32% increase from the low of 164,570 in 1995.²⁷ Although the number of women registered continues to rise, they still represented only 9% of apprentices in 2001.²⁸
- Despite the rise in registration, the number of apprentices who continue to become certified journeymen is staying roughly constant:
 - In 2001, 18,260 apprentices completed their training, about the same as in each year since 1977.²⁹

6.4 Apprenticeship Challenges

- Apprentices do not always complete their training, especially for trades in which certification is voluntary, because of:
 - Personal economic difficulties. The delay in starting an apprenticeship program (see below) may present obstacles to completion, as older workers are more likely to have family obligations that could make it more difficult for them to cover the costs of finishing their apprenticeship.
 - Employee/employer relationship problems

HRSDC (see 8.4 Appendix 4: Red Seal Trades).The federal government's Jobs, Workers, Training & Careers website also has information on apprenticeships at:
www.jobsetc.ca/category_drilldown.jsp?category_id=48&crumb=12&crumb=42.

²⁷ Human Resources and Development Canada, *Backgrounder: Apprenticeship in Canada*. Available at: www.hrdc-drhc.gc.ca/common/news/dept/030121.shtml#102.

²⁸ The Daily, *Registered Apprenticeship Training Programs: 2001*, Statistics Canada, Ottawa, Nov. 20 2003. Available at: www.statcan.ca/Daily/English/031120/d031120b.htm.

²⁹ Andrew Sharpe, *Apprenticeship in Canada: A Training System Under Siege*, Centre for the Study of Living Standards, Ottawa, Dec. 16 1999. p.18, Available at: www.csls.ca/reports/apprent.pdf.

- Perception problems with skilled trades in general - largely due to the popularity of university and other options, fewer young people are choosing apprenticeships as a form of post-secondary training.
 - In 1991, 15.7% of apprentices were under 23 years of age. By 1996, only 11.5% were in that age group.
 - The number of apprentices aged 23-30 also fell in the same period, from 51.5% to 44.7%.
 - The average age of a newly registered apprentices rose from 29.1 to 30.9 in that period with the average of new registrants being 28 (1996).³⁰ This suggests that many people choose skilled trades after unsuccessfully experimenting with other options.
- Despite their concerns about skills shortages, many employers are reluctant to create or fully support apprenticeship programs. They often regard apprenticeship training as expensive and many fear that, once trained, journeyed employees will go elsewhere.
- There is a general lack of information about apprenticeship programs and a belief that schools do not provide adequate preparation for the trades.³¹

6.5 Apprenticeship Benefits Everyone

- Employers can train apprentices to meet today's and future business needs.
- Employers gain a competitive advantage by having well-trained, up-to-date and appreciative employees. In an Alberta survey, 77% of employers of registered apprentices say that hiring apprentices helps their bottom line and improves their competitive advantage.³²

7.0 CONCLUSION

Making skilled trades a first-choice career option can help bridge the gap.

Too many Canadian students finish school without the training they need to compete in a job market that puts an ever-increasing premium on knowledge and fully developed skills. Currently, Canada will face a skilled tradespeople shortage due to the combined effects of negative perceptions, declining birth rates and the expected retirement of many tradespeople within the next few decades. A long-term result of this shortage may be the narrowing of the country's economic

³⁰ Andrew Sharpe, *Apprenticeship in Canada: A Training System Under Siege*, p. 16-18.

³¹ *Ibid*, p. 36-42

³² [/www.apprenticetrades.ca/EN/displayContent/default.asp?userAction=LOADARTICLE&txtArticleID=1023](http://www.apprenticetrades.ca/EN/displayContent/default.asp?userAction=LOADARTICLE&txtArticleID=1023).

opportunities in an increasingly competitive, global marketplace. The shortage may only get worse if not addressed immediately.

The “Skilled Trades: A Career You Can Build On” campaign is an important step in increasing the awareness of skilled trades as an attractive career option that provides respect, opportunity and good pay. This social marketing campaign will complement other grass-root initiatives to begin to change the attitudes and perceptions towards skilled trades among youth and their influencers and to encourage youth to consider skilled trades as a first-choice career option that can provide a successful future. The campaign will also focus on educating employers about the value of hiring and retaining apprentices to ensure that those attracted to a career in the skilled trades will receive the on-the-job training that is necessary to acquire certification in their chosen trade.

This campaign is built on the common foundation and goals of many regional, provincial and national stakeholders. It is cognizant of the importance of the collaboration and integrated effort that is required to reach each audience effectively. Once there is a shift in the perception of skilled trades among youth, parents and educators, these careers will earn the respect they deserve and apprenticeship training will become a valued post-secondary choice, creating a workforce that is highly skilled and balanced. Employers will benefit from hiring apprentices and investing in the long-term success of their business and overall success of Canada’s economic stability and growth.

8.0 APPENDICES

8.1 Appendix 1: Demographic Trends

8.1.1 Slowing Population Growth

- Canada's natural population growth (without immigration) has slowed over the final two decades of the 20th century due to a steady decline in fertility and birth rates. In 2002, the birth rate fell to 10.5 live births for every 1,000 Canadians. That was the lowest level since the collection of such national statistics began in 1921.³³
- From 1979 to 1999, fertility rates for Canadian women aged 20 to 24 fell nearly 40%; rates for those aged 25 to 29 dropped about 25%.³⁴ In 2001, Canadian fertility rates hit a record low of 1.49. The rate in 2002 was 1.5³⁵, well below the replacement rate of 2.1. At rates less than 2.1, populations will grow smaller unless augmented by immigration.

8.1.2 Immigration

- In 2002, Canada admitted about 230,000 immigrants.³⁶
- Immigration levels have varied widely over the past 20 years, from 84,000 in 1985 to 257,000 in 1993.³⁷

“Even taking an optimistic view of immigration and assuming that levels increase to 236,000 by 2010 and 285,000 by 2020, there will not be enough immigrants to offset the lasting effects of lower fertility rates and an ageing population.”³⁸
– Conference Board of Canada (2003)

- Immigration will not solve Canada's national skilled tradesperson shortage because:
 - They often have problems transferring their qualifications.
 - Many have language difficulties.
 - About 75% of immigrants who arrived from 1991 to 2001 settled in Toronto, Montreal and Vancouver³⁹ and so did not contribute to alleviating the trades shortage in other regions.

³³ Alison Dunfield, “Birth Rate Falls to Historic Low,” *Globe and Mail*, Apr. 19, 2004. Available at: www.globeandmail.com/servlet/story/RTGAM.20040419.wbaby0419/BNStory/National/.

³⁴ The Daily, *Trends in Canadian and American fertility*, Statistics Canada, Ottawa, Jul 3 3, 2002. Available at: www.statcan.ca/Daily/English/020703/d020703a.htm. Fertility rates measure the number of children women aged 15 to 49 will have over their lifetime.

³⁵ Ibid.

³⁶ Citizenship and Immigration Canada, *Canada Welcomes Close To 230,000 New Permanent Residents In 2002*, Ottawa, Apr. 30, 2003. Available at: www.cic.gc.ca/english/press/03/0312-pre.html.

³⁷ Conference Board, *Performance and Potential 2000-2001*, p. 52.

³⁸ Conference Board, *Performance and Potential 2000-2001*, p. 53.

³⁹ The Monitor, *Immigrants in Canada: Census 2001 Highlights*, Citizenship and Immigration Canada, Ottawa, Summer 2003. Available at: www.cic.gc.ca/english/monitor/issue02/06-feature.html.

- While previous waves of immigration included many skilled tradespeople, only 8% of today's immigrants have skills certification.⁴⁰ (41% of working-age immigrants now have university degrees).
- Canada is in competition for immigrants with skilled trades qualifications with the United States, Australia and other countries that face demographic challenges similar to our own.

8.1.3 Ageing Population

- Canada's first baby-boomers will reach 65 by 2012. By 2020, most will be in retirement.
- In 2015, 48% of the workforce will be between 45 to 64.⁴¹ By 2020, it is expected that 17.9% of the population will be 65 or over, compared to 12.5% in 1999.
- By 2026, Statistics Canada expects that more than half the population will be over 43.⁴² The problem could be compounded if the retirement age continues to fall - in the 1970s, the average retirement age was 65; by 1998, it was 62.⁴³
- The ageing problem is already evident in some sectors today:
 - In the steel industry, 45% of all tradespeople are expected to retire by 2006.⁴⁴
 - In the natural resources sector in 2001, 35% of the workforce was aged 45 and older and 9% (28,100 workers) were 55 and older. In the 15-year period starting in 2001, the industry may have to replace more than 105,000 retiring workers.⁴⁵
 - In the construction industry, 104,400 workers—12%—were aged 55 and older.
 - In manufacturing, 10%—229,600—were 55 and over.
 - In 2002, a third of private sector managers surveyed by the Canadian Labour and Business Centre expected that 10-25% of their workforce would retire over the next five years.⁴⁶

⁴⁰ The Monitor, *Immigrants in Canada*.

⁴¹ Human Resources Development Canada, *Backgrounder: Piloting new approaches for older worker employment*, Ottawa, March 13 2003.

⁴² The Daily, *Population Projections*, Statistics Canada, Ottawa, Mar. 13, 2001. Available at: www.statcan.ca/Daily/English/010313/d010313a.htm.

⁴³ Conference Board, *Performance and Potential 2002-03*, p. 120.

⁴⁴ Conference Board, *Performance and Potential 2000-2001*, p. 58.

⁴⁵ Canadian Labour and Business Centre, *Demographic Profile of the Natural Resources Sector*, Ottawa, Sept. 1 2001, p.2. Available at: www.clbc.ca/research_and_reports/archive/archive09010104.asp.

⁴⁶ Canadian Labour and Business Centre, *Viewpoints*. August 2002, p.7. Available at: www.clbc.ca/research_and_reports/archive/archive08010201.asp.

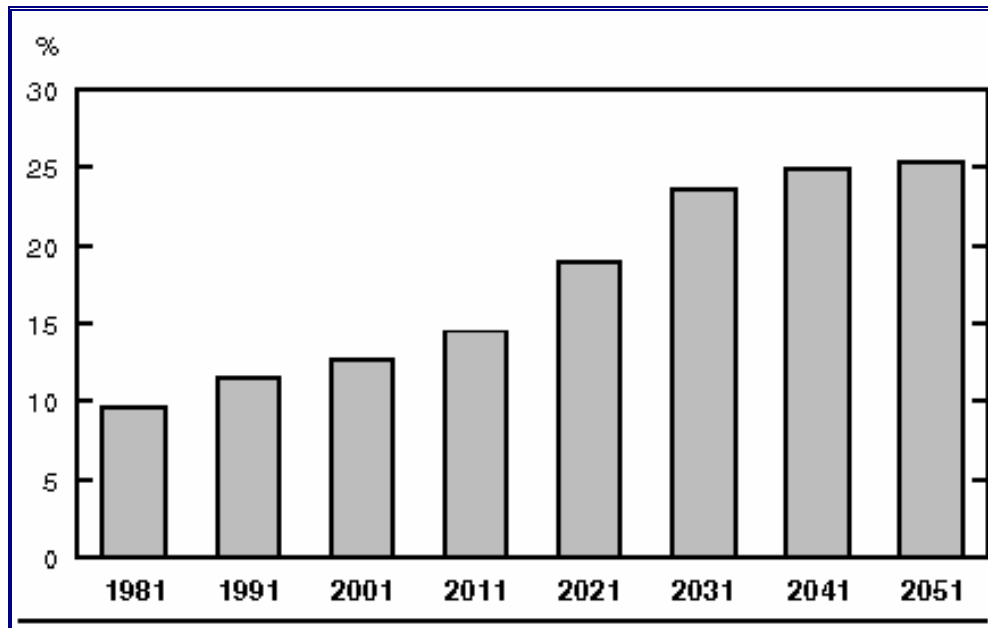


Figure 4: Canada's Ageing Population — Proportion of Population Aged 65-plus⁴⁷

8.1.4 Female Labour Force Participation

- Helping counter labour force reduction due to low birth rates is the increase in the participation of women in work outside of the home.
- By 2010, female participation rates are expected to peak as they approach that of men's participation rate.

8.1.5 Slower Labour Force Growth

By 2020, Canada could be short about 1 million workers.⁴⁸

- As a result of demographic trends, Canada faces a long-term reduction in labour force growth.
 - As the boomers retire, they will have a huge effect on the labour force participation rate.
 - Participation rates will peak in 2007 and then start to fall.
 - By 2015, the participation rate will be about 63%,⁴⁹ down from 67.5% in 2003.⁵⁰

⁴⁷ Source: *Population Projections*, Statistics Canada.

⁴⁸ Conference Board, *Performance and Potential 2000-2001*, p 61.

⁴⁹ Bob Dugan and Benoit Robidoux, *Demographic Shifts and Labour Force Participation Rates in Canada*, Canadian Business Economics, Volume 7, Number 2, May 1999, p. 49. Available at: www.csls.ca/journals/simp/simp04.pdf.

⁵⁰ Statistics Canada, *Labour force and participation rates 1999-2003*, Ottawa. Available at: www.statcan.ca/english/Pgdb/labor05.htm.

Background: Skilled Trades: A Career You Can Build On.

- Labour force growth will be around 0.4% from 2016 to 2020, compared to an average compound rate of 1.7% from 1996-2000.⁵¹
- By 2020, Canada could be short about 1 million workers.⁵²

Note: A declining participation rate means the economy will have less room to grow before generating inflation. It will also exert downward pressure on GDP growth.⁵³

⁵¹ Conference Board, *Performance and Potential 2000-2001*, p.55.

⁵² Conference Board, *Performance and Potential 2000-2001*, p 61.

⁵³ Dugan and Robidoux, *Demographic Shifts*, p. 42.

8.2 Appendix 2: Ellis Chart Trade Occupations⁵⁴

The following chart lists trades regulated by provincial and territorial legislation that have provided for formal training and certification. The presence of certain trades varies across the country, depending on the market needs within each region. The Ellis Chart compiles all Canadian trades and compares apprenticeship training programs across Canada. It is produced by Human Resources and Skills Development Canada in partnership with the Canadian Council of Directors of Apprenticeship.

Ellis Chart Trades

1. Aircraft Maintenance Engineer
2. Aircraft Painter
3. Aircraft Structural Technician
4. Appliance Service Technician
5. Arboriculturist
6. Arborist
7. Asphalt Plant Operator
8. Assistant Cook
9. Auto Body Repairer
10. Automotive Electrical Technician
11. Automotive Glass Technician
12. Automotive Machinist
13. Automotive Painter
14. Automotive Radiator Manufacturer and Repairer
15. Automotive Repairer
16. Automotive Service Technician
17. Automotive Service Technician (Fuel and Electronics Systems)
18. Automotive Service Technician (Steering, Suspension and Brakes)
19. Automotive Service Technician (Transmission)
20. Automotive Upholsterer

Ellis Chart Trades

21. Automotive Wheel Alignment, Brake and Frame Straightening Tech
22. Baker
23. Baker (Patisserie)
24. Barber
25. Blaster
26. Boatbuilder
27. Boilermaker
28. Bricklayer
29. Cabinetmaker
30. Cable Splicer
31. Carpenter
32. Cement Finisher
33. Cement Mason
34. Cladder
35. Communications Electrician (Construction Craft)
36. Communications Electrician (Network Craft)
37. Community Antenna Television Technician
38. Concrete Plant Operator
39. Construction Electrician
40. Construction Lineman
41. Construction Millwright
42. Cook
43. Diesel Engine Machinist
44. Diesel Engine Mechanic
45. Diesel Fuel Injection Mechanic
46. Distribution Construction Lineman
47. Distribution System Operator
48. Drywall Installer and Finisher
49. Electrical Equipment Operator - Crane
50. Electrical Equipment Operator - Derrick
51. Electrical Equipment Operator - Gantry Crane
52. Electrical Equipment Operator - Shovel
53. Electrical Mechanic (Electrical Utility)
54. Electrical Rewind Mechanic
55. Electrician (Domestic and Rural)
56. Electrologist
57. Electronics Assembler

⁵⁴ Source: www.ellischart.ca.

Ellis Chart Trades

- 58. Electronics Communications Technician
- 59. Electronics Technician
- 60. Electronics Technician (Consumer Products)
- 61. Elevator Constructor and Mechanic
- 62. Elevator Mechanic (Non-Construction)
- 63. Embalmer
- 64. Engineering Assistant
- 65. Esthetician
- 66. Farm Equipment Mechanic
- 67. Film Projectionist
- 68. Firefighter
- 69. Floor Covering Installer
- 70. Florist
- 71. Food and Beverage Server
- 72. Forest Worker (Arboriculturist - Non Urban)
- 73. Forest Worker (Faller - Mixed or Deciduous Forests)
- 74. Forklift Mechanic
- 75. Funeral Director
- 76. Gasfitter - First Class
- 77. Gasfitter - Second Class
- 78. Glazier
- 79. Graphic Arts - Bindery
- 80. Graphic Arts - Bookbinder 2
- 81. Graphic Arts - Compositor
- 82. Graphic Arts - Electronic Pre-Press (Advanced)
- 83. Graphic Arts - Lithographic Press Feeder
- 84. Graphic Arts - Pre-Press
- 85. Graphic Arts - Press
- 86. Guest Services Representative
- 87. Hairstylist
- 88. Hardwood Floorlayer
- 89. Heat Treatment Technician
- 90. Heavy Duty Equipment Mechanic
- 91. Heavy Equipment Operator
- 92. Hoist Operator
- 93. Hoist Operator (Boom Truck 'A')
- 94. Hoist Operator (Boom Truck 'B')
- 95. Hoist Operator (Boom Truck 'C')

Ellis Chart Trades

- 96. Hoist Operator (Conventional Crane)
- 97. Hoist Operator (Hydraulic Crane)
- 98. Hoist Operator (Mobile Crane 8-15 Tons)
- 99. Hoist Operator (Tower Crane)
- 100. Horticulturist (Landscape-Greenskeeper)
- 101. Horticulturist (Nursery, Greenhouse)
- 102. Housing Maintainer
- 103. Hydraulic Service Mechanic
- 104. Inboard/Outboard Mechanic
- 105. Industrial Electrician
- 106. Industrial Engines and Equipment Partsperson
- 107. Industrial Instrument Mechanic
- 108. Industrial Mechanic (Millwright)
- 109. Industrial Sewing Machine Mechanic
- 110. Industrial Warehouseperson
- 111. Industrial Woodworker
- 112. Insulator (Heat and Frost)
- 113. Ironworker (Generalist)
- 114. Ironworker (Metal Building Systems Erector)
- 115. Ironworker (Reinforcing Rebar)
- 116. Jeweller and Goldsmith
- 117. Junior Baker
- 118. Lather
- 119. Lather (Interior Systems Mechanic)
- 120. Locksmith
- 121. Machine-Fitter
- 122. Machinist
- 123. Machinist (C.N.C.)
- 124. Marine Electrician
- 125. Marine Engineer
- 126. Marine Engine Mechanic
- 127. Marine Fitter

Ellis Chart Trades	
128.	Marine Repair Technician
129.	Meat Cutter
130.	Mechanical Systems Testing and Balancing Technician
131.	Meter Technician
132.	Milk Production Labourer
133.	Mine Electrician
134.	Mine Mechanic
135.	Miner
136.	Mobile Crane Operator
137.	Motion Picture and Theatre - Assistant Location Manager
138.	Motion Picture and Theatre - Costumer (Film)
139.	Motion Picture and Theatre - Entertainment Rigger
140.	Motion Picture and Theatre - First Assistant Make-Up Artist
141.	Motion Picture and Theatre – Grip
142.	Motion Picture and Theatre - Lighting Technician - Stage
143.	Motion Picture and Theatre - Script Supervisor
144.	Motion Picture and Theatre - Second Assistant Picture Editor
145.	Motion Picture and Theatre - Set Dresser
146.	Motion Picture and Theatre - Third Assistant Director
147.	Motorcycle Mechanic
148.	Motor Vehicle Body Repairer (Metal and Paint)
149.	Motor Vehicle Repair (Service Station Mechanic)
150.	Mould Maker
151.	Nail Technician
152.	Oil Burner Mechanic
153.	Operator/Area Dispatcher
154.	Painter and Decorator
155.	Painter and Decorator – Industrial

Ellis Chart Trades	
156.	Partsperson
157.	Pattern
158.	Piledriver and Bridgeworker
159.	Planermill Maintenance Technician 1
160.	Planermill Maintenance Technician 2
161.	Plasterer
162.	Plumber
163.	Plumber - Maintenance and Repair (Non-Construction)
164.	Pork Production Technician
165.	Powerline Technician
166.	Power System Electrician
167.	Power System Operator
168.	Production Equipment Mechanic
169.	Production Line Welder
170.	Railcar Mechanic
171.	Recreation Vehicle Mechanic
172.	Refrigeration and Air Conditioning Mechanic
173.	Refrigeration and Air Conditioning Mechanic (Non-Construction)
174.	Refrigeration and Air Conditioning Mechanic (Residential)
175.	Residential Steep Roofer
176.	Restoration Stone Mason
177.	River Control Operator
178.	Roofer
179.	Sawfitter/Filer
180.	Saw Fitter/Filer
181.	Secretary
182.	Security Alarms Installer
183.	Service Station Attendant
184.	Sheet Metal Worker
185.	Sheet Metal Worker (Manufacturing)
186.	Shipfitter
187.	Ship's Plater
188.	Shipwright
189.	Skin Care Technician

Ellis Chart Trades

- 190. Small Engine and Equipment Mechanic
- 191. Sprinkler System Installer
- 192. Sprinkler System Installer (Non-Construction)
- 193. Staker/Detailer
- 194. Stationary Engineer (1st Class)
- 195. Stationary Engineer (2nd Class)
- 196. Stationary Engineer (3rd Class)
- 197. Stationary Engineer (4th Class)
- 198. Stationary Engineer 'A' - Refrigeration Plant Operator
- 199. Stationary Engineer 'B' - Refrigeration Plant Operator
- 200. Steamfitter/Pipefitter
- 201. Steamfitter/Pipefitter (Non-Construction)
- 202. Steel Fabricator/(Fitter)
- 203. Stone Mason
- 204. Survey Technician
- 205. Survey Technologist
- 206. Switchboard Operator (Power Generating Station)
- 207. Telecontrol Technologist
- 208. Tiler
- 209. Tire Repairer
- 210. Tool and Die Maker
- 211. Transport Refrigeration Mechanic
- 212. Truck and Transport Mechanic
- 213. Truck-Trailer Repairer
- 214. Upholsterer
- 215. Water Well Driller
- 216. Welder
- 217. Welder 'B'
- 218. Welder 'C'

8.3 Appendix 3: Wages, Prospects and Participation of Women⁵⁵

Trade (NOC #) ⁵⁶	Average Hourly Wages (National Average in All Occupations: \$16.91)	Percentage of Women (National Average in all Occupations: 46%)	Unemployment Rate (2001 National Average in all Occupations: 5%)
Construction Managers (0711)	\$26.76	7% - same since 1994	2%
Computer Programmers (2163)	\$23.50	25% - same since 1994	4%
Industrial Electricians (7242)	\$22.98	0% - same since 1994	4%
Contractors and Supervisors, Trades and Related Workers (721)	\$22.00	5% - same since 1994	3%
Aircraft Mechanics and Aircraft Inspectors (7315)	\$21.71	3% - same since 1994.	1%
Electrical Trades and telecommunications occupations (724)	\$21.30	3% - same since 1994	5%
Metal Forming, Shaping and Erecting Trades (726)	\$20.87	1% - same since 1994	12%
Tool and Die Makers (7232)	\$20.86	3% - same since 1994	3%
Plumbers, Pipefitters and Gas Fitters (725)	\$20.49	1% - same since 1994	7%
Machinery and Transportation Equipment Mechanics (except motor vehicle) (731), including refrigeration and air conditioning mechanics	\$20.44	1% - same since 1994	4%
Drafting Technologists and Technicians (2253)	\$19.88	19% - same since 1994	4%
Electricians (except industrial and power systems (7241)	\$19.70	2% - same since 1994	7%

⁵⁵ Source: www.jobfutures.ca.

⁵⁶ NOC refers to the National Occupation Classification system. For a description, see: www1.on.hrdc-drhc.gc.ca/ojf/ojf.jsp?lang=e§ion=JobDefinitions&noc=0000.

Backgrounder: Skilled Trades: A Career You Can Build On.

Trade	Average Hourly Wages	Percentage of Women	Unemployment Rate
(NOC #)⁵⁶	(National Average in All Occupations: \$16.91)	(National Average in all Occupations: 46%)	(2001 National Average in all Occupations: 5%)
Technical occupations in life sciences, Including, Landscape Designers, Landscape Architectural Technologists and Technicians (222)	\$19.42	30% - risen significantly since 1994	7%
Masonry and Plastering Trades (728)	\$19.31	1% - same since 1994	11%
Heavy-Duty Equipment Mechanics (7312)	\$19.30	1% - same since 1994	3%
Electronic Service Technician - Household and Business Products (2242)	\$18.59	13% - risen significantly since 1994	4%
Machinists and Machining and Tooling Inspectors (7231)	\$18.00	4% - same since 1994	4%
Graphic Designers and Illustrators (5241)	\$17.68	44% - same since 1994	4%
Heavy Equipment Operator (742)	\$17.52	2% - same since 1994	12%
Welders and Related Machine Operators (9510)	\$17.33	4% - same since 1994	7%
Carpenters (7271)	\$16.97	2% - same since 1994	11%
Photographers, Graphics Arts Technicians, and technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts (522)	\$16.78	26% - same since 1994	8%
Machining Tool Operators (9511)	\$16.54	11% - same since 1994	5%
Other Mechanics, including small engine mechanics (733)	\$16.16	3% - same since 1994	4%
Automotive Service Technician (732)	\$16.12	2% - same since 1994.	4%
Managers in food service and accommodations (063)	\$14.55	45% - same since 1994	3%
Cabinetmakers (7272)	\$14.53	5% - same since 1994	6%
Chefs (6241)	\$13.19	16% - same since 1994	6%

Backgrounder: Skilled Trades: A Career You Can Build On.

Trade (NOC #) ⁵⁶	Average Hourly Wages (National Average in All Occupations: \$16.91)	Percentage of Women (National Average in all Occupations: 46%)	Unemployment Rate (2001 National Average in all Occupations: 5%)
Technical occupations in personal services – Hairstylists, Barbers, Funeral Directors and Embalmers (627)	\$10.94	82% - same since 1994	2%
Tailors, Dressmakers, Furriers and Milliners (7342)	\$10.70	88% - risen significantly since 1994	6%
Bakers (6252)	\$10.45	55% - risen significantly since 1994.	6%
Other occupations in personal service, including aestheticians (648)	\$10.25	87% - same since 1994	3%
Occupations in food and beverage service (645)	\$9.52	78% - same since 1994	7%
Cook (6242)	\$9.29	46% - same since 1994	8%

8.4 Appendix 4: Red Seal Trades⁵⁷

There are 45 Red Seal Trades registered in Canada. The Red Seal program was introduced in 1958 to provide mobility for skilled workers across Canada. The program is managed by the Red Seal Secretariat.

Contact Information:

CCDA Executive Secretary
Human Resources Development Canada
Red Seal Secretariat
Place du Portage
Phase IV, 5th Floor
Ottawa/Hull K1A 0J9
Telephone: (819) 953-7442
Fax: (819) 994-0202
Website: www.red-seal.ca/

The following is a list of the Red Seal trades:

1. Appliance Service Technician
2. Automotive Painter
3. Automotive Service Technician
4. Baker
5. Boilermaker
6. Bricklayer
7. Cabinetmaker
8. Carpenter
9. Concrete Finisher
10. Construction Electrician
11. Cook
12. Electric Motor System Technician
13. Electronics Technician (Consumer Products)
14. Farm Equipment Mechanic
16. Glazier
17. Hairstylist
18. Heavy Duty Equipment Technician
19. Industrial Electrician
20. Industrial Instrument Mechanic
21. Industrial Mechanic (Millwright)
22. Insulator (Heat and Frost)
23. Ironworker (Generalist)
24. Lather (Interior Systems Mechanic)
25. Machinist
26. Metal Fabricator (Fitter)
27. Mobile Crane Operator
28. Motor Vehicle Body Repairer (Metal and Paint)
29. Motorcycle Mechanic
30. Oil Burner Mechanic

⁵⁷ Source: <http://www.red-seal.ca>.

31. Painter and Decorator
32. Partsperson
33. Plumber
34. Powerline Technician
35. Recreation Vehicle Service Technician
36. Refrigeration and Air Conditioning Mechanic
37. Roofer
38. Sheet Metal Worker
39. Sprinkler System Installer
40. Steamfitter-Pipefitter
41. Tool and Die Maker
42. Truck and Transport Mechanic
43. Transport Trailer Technician
44. Welder
45. Tile setter

8.5 Appendix 5: National CAF-FCA and Provincial Directors of Apprenticeship

The following are national CAF-FCA contacts and provincial and territorial government departments responsible for apprenticeship programs:

CANADIAN APPRENTICESHIP FORUM (CAF-FCA)

Keith Lancaster, Executive Director
116 Albert Street, Suite 812
Ottawa, Ontario K1P 5G3
Phone: (613) 235-4004 ext. 203
Fax: (613) 235-7117
Email: keith_lancaster@caf-fca.org
Website: <http://caf-fca.org/>

NEWFOUNDLAND AND LABRADOR

Director
Department of Youth Services &
Post Secondary Education
P.O. Box 8700, 3rd Floor
Confederation Building, West Block
Prince Philip Drive
St. John's, Newfoundland A1B 4J6
Telephone: (709) 729-4750
Fax: (709) 729-3669
Website: www.gov.nf.ca/youth/

PRINCE EDWARD ISLAND

Manager of Apprenticeship
Department of Education
Continuing Education and Training
P.O. Box 2000
Charlottetown, P.E.I. C1A 7N8
Telephone: (902)368-4460
Fax: (902) 368-6144
Website: www.apprenticeship.pe.ca/

NOVA SCOTIA

Director
Apprenticeship Training Division
Department of Education
P.O. Box 578
Halifax, Nova Scotia B3J 2S9
Telephone: (902) 424-5651
Toll Free (Nova Scotia only) (800) 494-5651
Fax: (902) 424-0717
Website: www.apprenticeship.ednet.ns.ca/

NEW BRUNSWICK

Director
Apprenticeship & Occupational Development
470 York Street
First Floor, Room 100, Chestnut Complex
Fredericton, New Brunswick E3B 5H1
Telephone: (506) 453-2260
Fax: (506) 453-5317
Website: www.AOC-ACP.gnb.ca/

QUEBEC

Director of Apprenticeship
Emploi-Québec
Tour de la Place Victoria
800, rue du Square Victoria, 28e étage
Montréal, Québec H4Z 1B7
Telephone: (514) 864-2458
Fax: (514) 873-2189
Website: <http://emploiuebec.net/anglais/index.htm>

ONTARIO

Director
Workplace Support Services Branch
Ministry of Training, Colleges and Universities
17th Floor - Mowat Block
900 Bay Street
Toronto, Ontario M7A 1L2
Telephone: (416) 326-5605
Fax: (416) 325-6162
Website: www.edu.gov.on.ca

MANITOBA

Executive Director
Advanced Education and Training
Apprenticeship Branch
1010 - 401 York Avenue
Winnipeg, Manitoba R3C 0P8
Telephone: (204) 945-3337
Toll free in Manitoba 1-877-97TRADE
(1-877-978-7233)
Fax: (204) 948-2539
Website: <http://www.edu.gov.mb.ca/aet/apprent/index.htm>

SASKATCHEWAN

Director
Apprenticeship and Trade Certification Commission
2140 Hamilton Street
Regina, Saskatchewan S4P 3V7
Telephone: (306) 787-2444
Fax: (306) 787-5105
Website: www.sasknetwork.gov.sk.ca

ALBERTA

Executive Director
Apprenticeship and Industry Training
7th Floor, Commerce Place
10155 - 102 Street
Edmonton, Alberta T5J 4L5
Telephone: (780) 427-8765
Fax: (780) 422-2420
Website: www.tradesecrets.org

BRITISH COLUMBIA

Chief Executive Officer
Industry Training Authority
1223 – 13351 Commerce Parkway
Richmond, British Columbia V6V 2X7
Telephone: (604) 214-8700
Fax: (604) 214-8701
Website: www.itabc.ca

NUNAVUT

Director
Adult Learning and Post Secondary Services
Box 390
Arviat, Nunavut X0C 0E0
Telephone: (867) 857-3050
Fax: (867) 857-3090
Website: www.gov.nu.ca/education/eng/index.htm

NORTHWEST TERRITORIES

Director of College and Career Development
Department of Education, Culture & Employment Programs
Government of the Northwest Territories
Box 1320
Yellowknife, Northwest Territories X1A 2L9
Telephone: (867)873-7552
Fax: (867) 873-0200
Website: www.learnnet.nt.ca

YUKON

Assistant Deputy Minister
Department of Education
Government of the Yukon Territory
P.O. Box 2703
Whitehorse, Yukon Y1A 2C6
Telephone: (867) 667-5298 /
Toll Free (Yukon only): 1-800-661-0408
Fax: (867) 667-8555
Website: www.education.gov.yk.ca/

8.6 Appendix 6: Skills Canada Offices

Skills/Compétences Canada (National Office)

205-260 Saint Raymond Boulevard
Gatineau QC J9A 3G7
Tel.: (819) 771-7545
Fax: (819) 771-5575
Toll Free: 1-877-754-5226
E-mail: skillscanada@skillscanada.com
Website: www.competencescanada.ca

Skills Canada British Columbia

300-3665 Kingsway
Vancouver, BC V5R 5W2
Tel.: (604) 430-2204
Fax: (604) 435-8181
Email: bc@skillscanada.com
Website: www.skillscanada.bc.ca

Skills Alberta

11th Floor, 10035 - 102 Ave.
Edmonton, AB T5J 0E5
Tel.: (780) 493-2630 (general reception)
Fax: (780) 423-4758
E-mail: alberta@skillscanada.com
Website: www.skillsalberta.com

Skills Canada Saskatchewan

202-2222 13th Avenue
Regina, SK S4P 3M7
Tel.: (306) 352-5999
Toll Free: 1-800-394-3899
Fax: (306) 757-7880
E-mail: cpura@sifdb.com
Website: www.skillscanadasask.com

Skills Canada Manitoba

31-1313 Border Street
Winnipeg, MB R3H 0X4
Tel.: (204) 927-0250
Fax: (204) 927-0258
E-mail: manitoba@skillscanada.com
Website: www.skillscanada.mb.ca

Skills Canada Ontario

102-630 Riverbend Drive
Kitchener, ON N2K 3S2
Tel.: (519) 749-9899
Fax: (519) 749-6322
Email: ontario@skillscanada.com
Website: www.skillsontario.com

Skills Québec

211-125 des Commissaires West
Québec, QC G1K 1M7
Tel.: (418) 646-3534
Fax: (418) 643-6336
E-mail: info@competencesquebec.com
Website: www.competencesquebec.com

Skills Canada New Brunswick

527 Beaverbrook Court, Suite 426
Fredericton, NB E3B 1X6
Tel.: (506) 457-2762
Fax: (506) 453-5317
E-mail: newbrunswick@skillscanada.com
Website: www.skillscanada.nb.ca

Skills Canada Nova Scotia

2021 Brunswick Street
P.O. Box 578
Halifax, NS B3J 2S9
Tel.: (902) 424-6457
Fax: (902) 424-0717
Email: novascotia@skillscanada.com
Website: skillsns.ednet.ns.ca

Skills Canada P.E.I.

Holland College
Royalty Centre
40 Enman Crescent
Charlottetown, PE C1E 1E6
Tel.: (902) 566-9352
Fax: (902) 566-9323
Email: pei@skillscanada.com
Website: www.skillscanada.pe.ca

Skills Canada Newfoundland and Labrador

P.O. Box 8561
St. John's, NL A1B 3P2
Tel.: (709) 739-4172
Fax: (709) 739-4198
Email: newfoundland@skillscanada.com
Website: www.skillscanada-nfld.com

Skills Canada Yukon

5110-5th Avenue, Unit 4
Whitehorse, YT Y1A 1L4
Tel.: (867) 668-2701
Fax: (867) 668-2704
Email: yukon@skillscanada.com
Website: www.skillsyukon.com

Skills Canada Northwest Territories and Nunavut

4509 Franklin Avenue
P.O. Box 1403
Yellowknife, NT X1A 2P1
Tel.: (867) 873-8743
Fax: (867) 873-8197
E-mail: nwt@skillscanada.com
Website: skillscanadanwt.org

8.7 Appendix 7: Sector Councils

The Alliance of Sector Councils (TASC)

Gary Greenman, Executive Director
340 MacLaren Street, Suite 100
Ottawa, Ontario, K2P 0M6
Phone: (613) 565-3637
Fax: (613) 231-6853
Email: ggreenman@councils.org
Site Web: <http://www.councils.org>

Aboriginal Human Resources Development Council of Canada (AHRDCC)

Kelly Lendsay, President
606 Spadina Crescent East, Suite 820
Saskatoon, Saskatchewan, S7K 3H1
Phone: (306) 956-5360
Fax: (306) 956-5361
Email: kelly@ahrdcc.com
Website: <http://www.ahrdcc.com>

Apparel Human Resources Council (AHRC)

Jean Rivard, Executive Director
9310 boulevard St-Laurent, blvd, Suite 1114
Montréal, Québec, H2N 1N4
Phone: (514) 388-7779
Fax: (514) 388-6926
Email: jrivard@apparel-hrc.org
Website: <http://www.apparel-hrc.org>

Biotechnology Human Resource Council (BHRC)

Claire Thifault, Executive Director
116 Lisgar Street, Suite 401
Ottawa, Ontario, K2P 0C2
Phone: (613) 235-1402
Fax: (613) 233-7541
Email: claire@bhrc.ca
Website: <http://www.bhrc.ca>

Canadian Aquaculture Industry Alliance (CAIA)

Fatema Chhil, Chair, CAIA HR Standing Committee
75 Albert, #907
Ottawa, Ontario, K1P 5E7
Phone: (613) 239-0612
Fax: (613) 239-0619
Email: chhilcaia@aquaculture.ca
Website: <http://www.aquaculture.ca>

Canadian Automotive Repair and Service Council (CARS)

Dan Bell, President
9120 Leslie Street, Unit 6
Richmond Hill, Ontario, L4B 3J9
Phone: (905) 709-1010
Fax: (905) 709-1013
Email: dbell@cars-council.ca
Website: <http://www.cars-council.ca>

Canadian Aviation Maintenance Council (CAMC)

Steve Dick, Executive Director & CEO
955 Green Valley Crescent, Suite 155
Ottawa, Ontario, K2C 3V4
Phone: (613) 727-8272
Fax: (613) 727-7018
Email: sdick@camc.ca
Website: <http://www.camc.ca>

Canadian Council for Human Resources in the Environment Industry (CCHREI)

Grant Trump, President & CEO
700 - 4th Avenue SW, Suite 1450
Calgary, Alberta, T2P 3J4
Phone: (403) 233-0748
Fax: (403) 269-9544
Email: gtrump@cchrei.ca
Website: <http://www.cchrei.ca>

Canadian Council of Professional Engineers (CCPE)

Deborah Wolfe, Director Education, Outreach & Research
180 Elgin Street, Suite 1100
Ottawa, Ontario, K2P 2K3
Phone: (613) 232-2474
Fax: (613) 230-5759
Email: deborah.wolfe@ccpe.ca
Website: <http://www.ccpe.ca>

Canadian Council of Professional Fish Harvesters (CCPFH)

Pierre Verreault, Coordinator, Human Resources Projects
102 Bank Street, Suite 202
Ottawa, Ontario, K1P 5N4
Phone: (613) 235-3474
Fax: (613) 231-4313
Email: pverreault@ccpfh-ccpp.org
Website: <http://www.ccpfh-ccpp.org>

Canadian Council of Technicians and Technologists (CCTT)

Jim Facette, Executive Director
285 McLeod Street
Ottawa, Ontario, K2P 1A1
Phone: (613) 238-8123
Fax: (613) 238-8822
Email: jfacette@cctt.ca
Website: <http://www.cctt.ca>

Canadian Equipment Industry Training Committee (CEITC)

Nancy Ellen Leu, Executive Vice President, CAED
4531 Southclark Place
Ottawa, Ontario, K1T 3V2
Phone: (613) 822-8861
Fax: (613) 822-8862
Email: nleu@caed.org
Website: <http://www.caed.org/ceitc/index.html>

Canadian Plastics Sector Council (CPSC)

Charles Brimley, Executive Director
190 Colonnade Road, Unit 201
Ottawa, Ontario, K2E 7J5
Phone: (613) 231-4470
Fax: (613) 231-3775
Email: info@cpsc-ccsp.ca
Website: <http://www.cpsc-ccsp.ca>

Canadian Professional Logistics Institute (CPLI)

Victor Deyglio, President
160 John Street, Suite 200
Toronto, Ontario, M5V 2E5
Phone: (416) 363-3005
Fax: (416) 363-5598
Email: vdeyglio@loginstitute.ca
Website: <http://www.loginstitute.ca/>

Canadian Steel Trade and Employment Congress (CSTEC)

Doug MacPherson, Executive Director
234 Eglinton Avenue East, 5th Floor
Toronto, Ontario, M4P 1K7
Phone: (416) 480-1797
Fax: (416) 480-2986
Email: dmacpherson@cstec.ca
Website: <http://www.cstec.ca>

Canadian Technology Human Resources Board (CTHRB)

Bob Cook, Executive Director
201-251 Bank Street
Ottawa, Ontario, K2P 1X3
Phone: (613) 233-1955
Fax: (613) 233-3812
Email: bcook@cthrb.ca
Website: <http://www.cthrb.ca>

Canadian Tourism Human Resource Council (CTHRC)

Wendy Swedlove, President
340 MacLaren Street, Suite 100
Ottawa, Ontario, K2P 0M6
Phone: (613) 231-6949
Fax: (613) 231-6853
Email: wswedlove@cthrc.ca
Website: <http://www.cthrc.ca>

Canadian Trucking Human Resources Council (CTHRC)

Linda Gauthier, Executive Director
720 Belfast Road, Suite 203
Ottawa, Ontario, K1G 0Z5
Phone: (613) 244-4800
Fax: (613) 244-4535
Email: lgautier@cthrc.com
Website: <http://www.cthrc.com/>

Child Care Human Resources Sector Council (CCHRSC)

Diana Carter, Executive Director
323 Chapel Street, Third Floor
Ottawa, Ontario, K1N 7Z2
Phone: (613) 239-0572
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Email: diana.carter@ccsc-cssge.ca
Website: <http://ccsc-cssge.ca/>

Construction Sector Council (CSC)

George Gritziotis, Executive Director
220 Laurier Ave West, Suite 300
Ottawa, Ontario, K1P 5Z9
Phone: (613) 569-5552 ext. 222
Fax: (613) 569-1220
Email: griziotis@csc-ca.org
Website: <http://www.csc-ca.org>

Cultural Human Resources Council (CHRC)

Susan Annis, Executive Director
17 York Street, Suite 201
Ottawa, Ontario, K1N 9J6
Phone: (613) 562-1535
Fax: (613) 562-2982
Email: sannis@culturalhrc.ca
Website: <http://www.culturalhrc.ca>

Forum for International Trade Training (FITT)

Caroline Tompkins, President
30 Metcalfe Street, 4th Floor
Ottawa, Ontario, K1P 5L4
Phone: (613) 230-3553
Fax: (613) 230-6808
Email: caroline@fitt.ca
Website: <http://www.fitt.ca>

Installation, Maintenance and Repair Sector Council (formerly RISS) (IMR)

Joanna Muckle, Executive Director
160 John Street, Suite 201
Toronto, Ontario, M5V 2E5
Phone: (416) 241-3550
Fax: (416) 363-5598
Email: joanna.muckle@imrsectorcouncil.ca
Website: <http://www.imrsectorcouncil.ca>

Mining Industry Training and Adjustment Council-Canada (MITAC)

Paul Hébert, Interim Executive Director
470 Somerset Street West
Ottawa, Ontario, K1R 5J8
Phone: (613) 230-1413
Fax: (613) 230-0603
Email: phebert@mitac.ca
Website: <http://www.mitac.ca>

Motor Carrier Passenger Council of Canada (MCPCC)

Joan Crawford, Executive Director
8300 Yonge Street
Thornhill, Ontario, L4J 7R3
Phone: (905) 762-0414
Fax: (905) 762-0415
Email: joan.crawford@sympatico.ca
Website: <http://www.buscouncil.ca>

National Seafood Sector Council (NSSC)

Johanna Oehling, Executive Director
130 Albert Street Suite 910
Ottawa, Ontario, K1P 5G4
Phone: (613) 782-2391
Fax: (613) 782-2386
Email: joehling@nssc.ca
Website: <http://www.nssc.ca>

Petroleum Human Resources Council of Canada (PHRCC)

Cheryl Knight, Executive Director & CEO
800 – 6th Avenue S.W., Suite 1160
Calgary, Alberta, T2P 3G3
Phone: (403) 537-1230
Fax: (403) 537-1232
E-mail: cknight@petrohrsc.ca
Website: <http://www.petrohrsc.ca>

Software Human Resource Council (SHRC)

Paul Swinwood, President
30 Metcalfe Street, 4th Floor
Ottawa, Ontario, K1P 5L4
Phone: (613) 237-8551
Fax: (613) 230-3490
Email: p.swinwood@shrc.ca
Website: <http://www.shrc.ca>

Textiles Human Resources Council (THRC)

John Saliba, Executive Director
222 Somerset St. West, Suite 500
Ottawa, Ontario, K2P 2G3
Phone: (613) 230-7217
Fax: (613) 230-1270
Email: info@thrc-crhit.org
Website: <http://www.thrc-crhit.org>

Wood Manufacturing Council (WMC)

Richard Lipman, President
130 Albert Street, Suite 514
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Email: rlipman@wmc-cfb.ca
Website: <http://www.wmc-cfb.ca>

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9.2 Websites of Interest:

Alberta Aboriginal Apprenticeship Program

<http://www.thinktrades.com/default.htm>

Campaign Website: Skilled Trades: A Career You Can Build On

<http://www.careersintrades.ca>

Canadian Apprenticeship Forum

<http://www.caf-fca.org>

Provincial / Territorial Government Links:

<http://www.caf-fca.org/english/govt.asp>

Other Links of Interest:

<http://www.caf-fca.org/english/other.asp>

<http://www.apprenticetrades.ca>

Human Resources and Skills Development Canada

<http://www.hrsdc.gc.ca/en/home.shtml>

Job Futures: Canada's National Career and Education Planning Tool:

<http://www.jobfutures.ca>

Opportunity Knocks

<http://www.realm.net/opportunityknocks/toc-e.cfm>

(Realm is no longer published but as of March 31, 2004, the site was still available.)

Red Seal Program

<http://www.red-seals.ca>

Sector Councils

www.councils.org

Skills Canada

<http://www.skillscanada.com>

List of Provincial Affiliates:

<http://www.skillscanada.com/en/provterr/>

WorldSkills

<http://www.worldskills.org/site/public/?pageid=124>

WorldSkills Competition, Calgary 2009

http://www.worldskillscanada2009.com/default.asp?V_DOC_ID=891