

Pathways for Youth to the Labour Market: A Synthesis Report

Ron Saunders

Pathways to the Labour Market Series – No|9

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As this paper is a synthesis of findings of all of the studies in this project, I am indebted to the authors of all of the previous papers in the series. They are identified in the introductory section of the text.

I would also like to thank all participants in the roundtable held on April 30, 2008, to discuss a draft of this report.

Finally, a special thank you to Patrice de Broucker, my former colleague at CPRN, whose ideas and research very much influenced the shape of the *Pathways* project, and who, after his return to Statistics Canada, continued to contribute as co-author of one of the studies and as an advisor on the others.

Any errors of interpretation are the responsibility of the author.

Foreword

Young Canadians are looking for more choice when it comes to learning options – before and during their careers. That was a strong message coming out of CPRN’s Youth Dialogue in November 2005. Young people told us that post-secondary education (PSE) should be available to everyone – whether it is university, college or trades programs. And they told us that there should be a variety of well-supported learning opportunities.

Our two-year project *Pathways for Youth to the Labour Market*, which has been examining the ways young people navigate from high school through to the labour market, is nearing completion. We have published eight studies over the course of the project. Some have focused on a quantitative analysis of the learning paths being taken by our youth and the labour market outcomes associated with different paths. Others have involved qualitative analysis of government policies and career development practices in our schools, including case studies of promising programs.

This report, by CPRN’s Vice-President of Research, Ron Saunders, provides a synthesis of the findings of the *Pathways* series as well as other recent literature on the school-to-work transition. It also summarizes the policy implications of the research; sets out recommendations to improve young people’s ability to identify, select and navigate pathways that lead to rewarding and productive lives; and identifies areas where more research is needed.

I would like to thank Ron for his leadership of this program of research and all authors of the reports in the *Pathways* series for their contribution to improving our understanding of the paths that Canada’s youth are taking from school to the labour market and for their identification of policies and practices that can help young people find rewarding careers. I would also like to thank all sponsors of the series for their financial support for this research: Alberta Advanced Education and Technology; Alberta Education; Alberta Employment and Immigration; Gouvernement du Québec – Ministère de l’Éducation, du Loisir et du Sport; Max Bell Foundation; Ontario Ministry of Education; Ontario Ministry of Training, Colleges and Universities; RBC Foundation; Statistics Canada; the Canadian Council on Learning’s Work and Learning Knowledge Centre; the Policy Research Initiative; and an anonymous donor.

Sharon Manson Singer, PhD
September 2008

Executive Summary

In the spring of 2006, CPRN launched the project *Pathways for Youth to the Labour Market*. Its purposes were:

- to better understand the paths that young people take from high school through to regular participation in the labour market;
- to identify institutional and policy structures that appear to support or hinder young people's ability to find pathways that lead to sustained employment with decent pay, good working conditions and career potential;
- to examine attitudes and underlying values about the different pathways that are or could be available, how they are shaped and how they influence choices; and
- to develop policy options to improve the ability of young people to identify, select and navigate pathways that lead to rewarding careers.

Eight studies in CPRN's *Pathways* series have been completed and published. This report seeks to synthesize the findings of the *Pathways* series as well as other recent literature in this area.

Who Follows Which Path?

The possible learning paths that Canadian youth may follow are numerous, since there are not only different final destinations in terms of educational credentials but also different routes to a given destination. Among the findings regarding who takes which pathway are the following:

- Young women are less likely than young men to drop out of high school and more likely to go on to some type of post-secondary program prior to entering the labour force. They are also less likely to delay the start of a post-secondary program.
- Aboriginal youth are likely to leave the educational system with a much lower level of attainment than non-Aboriginal youth.
- Youth with parents who have a high level of education are more likely to participate in post-secondary education.
- Youth with very low marks in high school are much more likely than those with mid to high marks to drop out and not return. However, sizable numbers of students with decent marks are also dropping out.
- Working up to 20 hours per week in high school can be beneficial in terms of educational attainment. However, the effect of work on education becomes negative at more than 20 hours per week.
- Youth living in large cities are more likely to attend university than rural youth.
- Many of today's youth are not following straight-line paths from high school to a post-secondary program to a job, but rather take time off from studies at some point or switch programs.

The Early Labour Market Outcomes Associated with Different Pathways

Data on young people aged 22 to 24 who were not in school indicate that, not surprisingly, graduates of university, college and trades programs were more likely to be employed and to have earned significantly more, on average, than high school dropouts, “second chancers” (those who dropped out of high school but later went back to school) and those with only a high school diploma. However, more than a quarter of post-secondary education graduates earned less than the median for dropouts in December 2003, although this was likely partly a reflection of the limited opportunity for work experience among the former group.

Women had lower earnings than men, even after statistically controlling for hours of work, educational attainment and other variables.

University and college graduates who took indirect routes to their degree or diploma were not worse off five years later than those who chose direct routes, and in some ways were better off.

Skill Use in the Workplace

Data from the Workplace and Employee Survey suggest some mismatch between job requirements and educational attainment – many people have more education than they see as being needed in their job. This is particularly the case for those with college diplomas. Other survey data show that Canada has one of the highest rates of reported overqualification in the Organisation for Economic Co-operation and Development (OECD). The degree of overqualification in the Canadian labour market may be related to the persistence of a large low-wage sector in our economy.

While, on average, workers with post-secondary (especially university) credentials earn more than the median level of earnings in Canada, a sizable proportion of such workers have low earnings. For example, 18 percent of those with a university degree earn less than half the median.

Career Development Programs and Services

Career development programs and services can reduce dropout rates, increase aspirations and achievement, help people find jobs that match their talents and interests, help employers meet skill needs and generally improve the allocation of resources in the labour market. However, in Canada, there is limited awareness of the benefits of career development and no national career development strategy or standards for service quality or provision. Career development services for youth are highly decentralized. While this may foster innovation, most provincial governments are not doing enough to identify, sustain and spread effective practices. Moreover, career development services in Canada are neither coherent nor comprehensive in scope, although some provinces are beginning to develop career development service policies from kindergarten to adult education or from kindergarten to grade 12.

Career Pathways Programs in High Schools

Provinces are making an effort to revitalize the vocational curriculum in high schools and to strengthen partnerships between schools, post-secondary institutions and employers. There are examples of remarkable initiatives with promising results. In particular, co-operative programs that provide a clear connection between schooling and a future career seem to have good results. However, overall, the take-up of vocational options remains very limited. This may be due in part to attitudes about such pathways and in part to the fact that all provinces have promoted a decentralized “market” approach to vocational education and training, which relies on locally developed models to emerge. In most provinces, there has been limited coordination and unreliable funding.

Formal evaluations of both career development programs and career pathways curricula are scarce.

Policy Implications and Research Gaps

The key recommendations derived from an analysis of the findings of the *Pathways* project are the following:

- All provinces and territories should put in place a strategy for career planning services, for people of all ages.
- Provinces and territories should enable school boards to expand co-operative program offerings, in partnership with employers and unions.
- Governments and learning institutions should work to strengthen the bridges between different learning paths, so that students who start on one path but then change direction are able to get credit for the work accomplished. This means ensuring that there are good bridges not only between academic and vocational options in high school but also between community colleges and universities, while respecting the standards associated with a post-secondary degree.
- The learning system (and the system of financial aid for post-secondary education) should make it easy for people to participate at different stages of their lives.
- The provinces and territories should make a more systematic effort to identify successful practices and share results across Canada; they should provide the funding to sustain such practices locally and to facilitate their adoption across the province.
- To improve the rate at which young Canadians are able to find rewarding careers, we need action on the demand side of the economy, not just on the supply side. This issue is particularly acute in rural Canada.

More research is needed on the question of overqualification, on the trajectories of those who do not complete learning programs, on the factors that foster completion of post-secondary education and, especially, on the evaluation of career pathways initiatives, so that we can be better informed about which specific interventions are generating the best results.

Pathways for Youth to the Labour Market: A Synthesis Report

1. Introduction

It is never a good idea to waste human potential. At a time when population growth and labour force growth is slowing in Canada, it is particularly important to have policies and programs in place that enable all Canadians, especially Canada's youth, to fully realize their potential to contribute to the economy and to their communities. How can we efficiently and effectively ensure that our young people are fully able to develop and use their talents?

In the spring of 2006, CPRN launched the project *Pathways for Youth to the Labour Market*. Its purposes were:

- to better understand the paths that young people take from high school through to regular participation in the labour market;
- to identify institutional and policy structures that appear to support or hinder young people's ability to find pathways that lead to sustained employment with decent pay, good working conditions and career potential;
- to examine attitudes and underlying values about the different pathways that are or could be available, how they are shaped and how they influence choices; and
- to develop policy options to improve the ability of young people to identify, select and navigate pathways that lead to "success."

Eight studies in CPRN's *Pathways* series have been completed and published:

1. *Career Development Services for Canadian Youth: Access, Adequacy and Accountability*, by Donnalee Bell and Lynn Bezanson, July 2006.
2. *Pathways of Alberta Youth through the Post-Secondary System into the Labour Market, 1996-2003*, by Harvey Krahn and Julie Hudson, November 2006.
3. *Pathways for Youth to the Labour Market: An Overview of High School Initiatives*, by Alison Taylor, April 2007.
4. *Trading Up – High School and Beyond: Five Illustrative Canadian Case Studies*, by Mame McCrea Silva and Susan M. Phillips, May 2007.
5. *Education-to-Labour Market Pathways of Canadian Youth: Findings from the Youth in Transition Survey*, by Darcy Hango and Patrice de Broucker, November 2007.
6. *From School to the Labour Market in Québec: Analysis of Student Trajectories in Terms of Previous Learning Path and Early Labour Market Experience*, coordination by Jean-Claude Bousquet, February 2008.
7. *Implementing the School-to-Work Transition in Québec*, by Pierre Doray, Louise Ménard and Anissa Adouane, March 2008.
8. *Connecting Supply and Demand in Canada's Youth Labour Market*, by Richard Brisbois, Larry Orton and Ron Saunders, April 2008.

Each of these studies has been concerned with one or more of the four purposes outlined above. Some have focused on a quantitative analysis of the learning paths being taken by our youth and the labour market outcomes associated with different paths. Others have involved qualitative analysis of government policies and career development practices in our schools, including case studies of promising programs. Most have paid attention to the policy implications of these analyses.

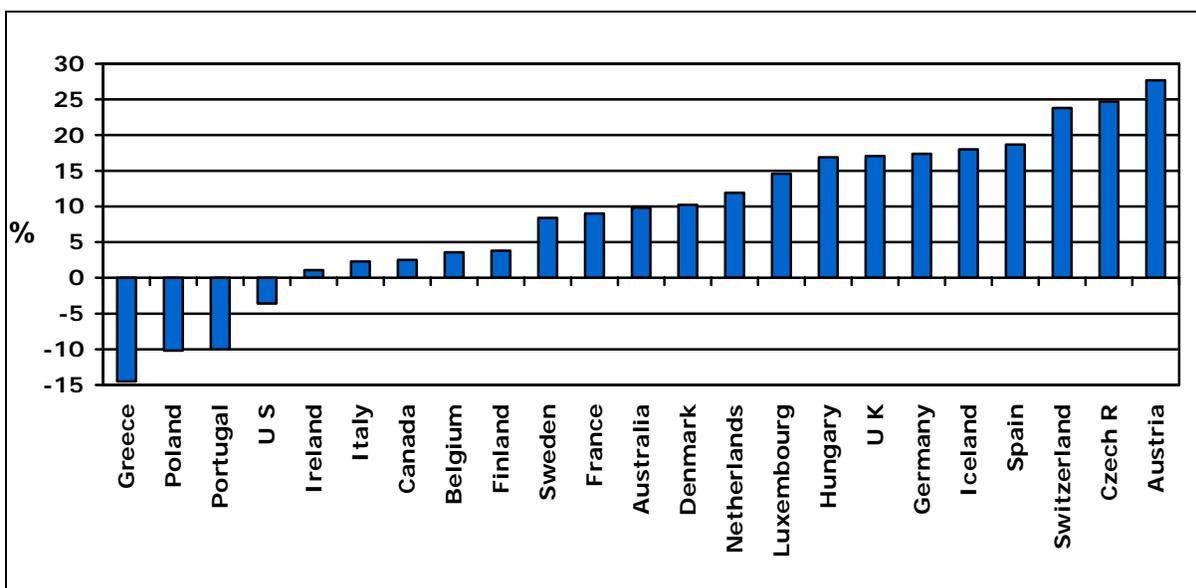
The project was motivated in part by some of the outcomes of CPRN's Youth Dialogue held in November 2005. One hundred and forty-four young Canadians aged 18 to 25 years, randomly selected, were invited to talk together about the kind of Canada they wanted, what choices and trade-offs they were prepared to make as citizens, and what they and others needed to do to make their vision happen. Dialogue participants talked about four issues: learning, work, health and the environment.

In their discussion of learning issues, young Canadians stressed the importance of valuing different learning paths to work, in addition to college and university, and of finding some balance to the reliance on academic performance. They also felt that they may not have had the appropriate information about all the options that were available to them either within high school or for post-high school studies. They called for more – and better presented – information on careers and educational options: “Education on career choices is important: should we not spread appropriate courses over two or three years rather than concentrate a career planning course in one year? This would allow young people to broaden their perspective on future job opportunities” (de Broucker, 2006). In particular, they wanted to see better information provided for vocational, trades and entrepreneurial paths and to have these pathways presented as real options to young people. Dialogue participants linked the provision of such options to the greater likelihood that more young people would complete their education and get good jobs without necessarily having to go to university.

Concerns about the learning options available to Canada's youth also emerged from studies by de Broucker in 2005 for CPRN and the Organisation for Economic Co-operation and Development (OECD) on the early labour market experience of young people with different levels of educational attainment (de Broucker, 2005a and b). His findings show that, while completing high school improves young Canadians' chances of finding employment, a high school diploma with no further credential does little to improve the chances of getting a *skilled* job in Canada, unlike the case in many other OECD countries.

The height of the bars in Figure 1 shows the difference within each OECD country in the proportion of people aged 20 to 24, who are not in school and are holding skilled jobs, between those who have completed high school (and have no higher credential) and those who have not completed high school. In Canada, completing high school makes almost no difference without the addition of a further credential.

Figure 1. Benefits of Completing High School for Access to Skilled Occupations



Source: Reproduced from de Broucker (2005b), Figure 18.

De Broucker (2005b) also finds that, while post-secondary education provides, on average, clear benefits in terms of employment rates and earnings, one-third of employed 25-to-29-year-olds with a post-secondary education diploma or degree in Canada and the United States have a low-skill job – the highest proportion among OECD countries.

These findings raise the question of whether there is scope for Canada to offer choices to its high school youth that could lead to a greater rate of high school completion (since that does matter for getting some kind of job and is a precondition for eligibility for post-secondary education) and would better prepare those who do not go on to post-secondary education for a job. While the high school dropout rate has been declining in Canada,¹ it is much higher than the average in some communities, is higher for young men than for young women and is very high among Aboriginal youth.

This report seeks to synthesize the findings of the eight previous publications in the *Pathways* series as well as of other recent literature on the issues examined in the *Pathways* project. Section 2 outlines what we have learned about the paths that young Canadians are currently following through school to the labour market. Section 3 examines evidence about outcomes such as employment and earnings associated with different paths. Section 4 looks at how well the skills and knowledge of young adults are used on the job. Section 5 reviews the supports and options available to young people as they make choices about learning and career paths and as they pursue different learning paths. Section 6 considers the role of employers in the school-to-work transition. The paper concludes by exploring the policy implications of this research and by identifying research gaps.

¹ Data from the Labour Force Survey indicate that, in the first quarter of 2007, the proportion of young adults who were not in education and had not successfully completed high school was 8.9 percent.

Hango and de Broucker (2007) start from this diagram in their analysis of pathways from education to the labour market, using data from the Youth in Transition Survey (YITS). They focus on youth who were 18 to 20 years old when first surveyed in 2000 and who were followed up regarding learning status and employment matters two and four years later (so that they were aged 22 to 24 in the second follow-up). Because of the scarcity of data for certain pathways, Hango and de Broucker collapsed the 20 CPRN paths into 10, according to the highest level of educational attainment and whether or not there was a break from studies after high school (“gappers” versus “non-gappers”). See the text box for descriptions of the 10 pathways.

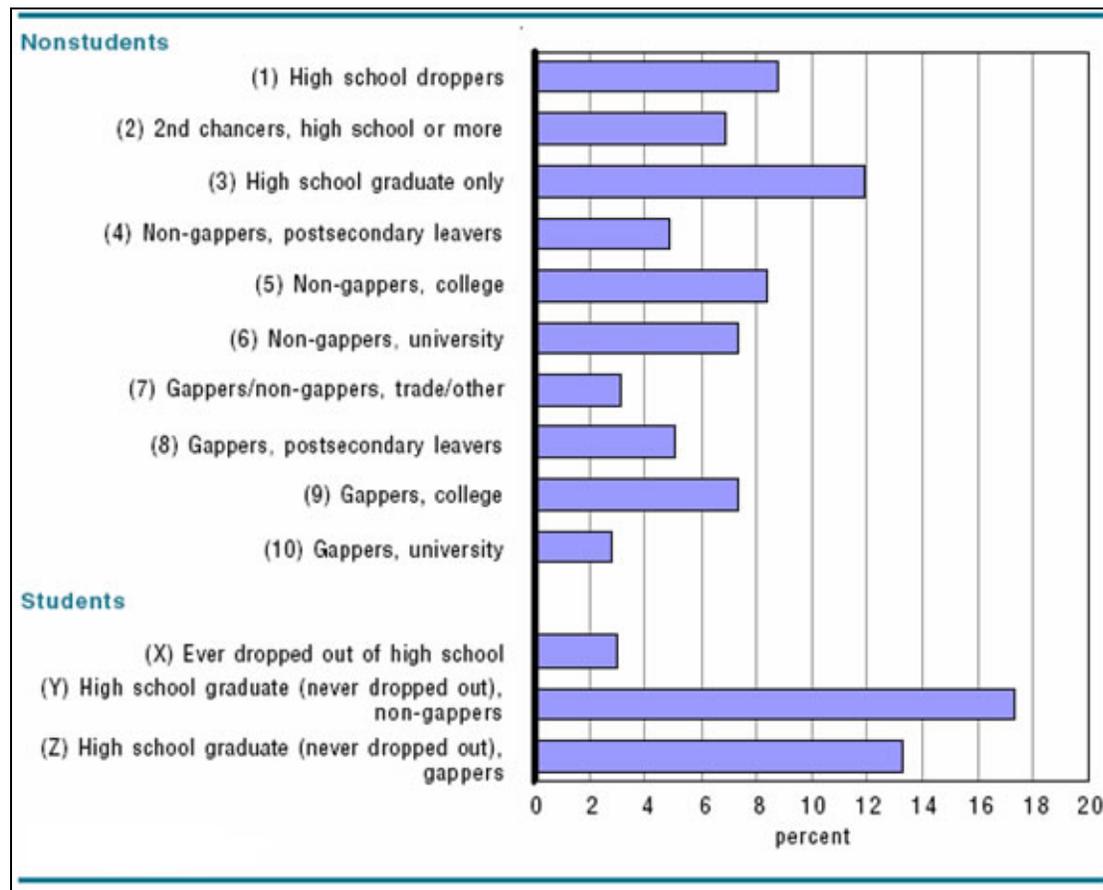
Hango and de Broucker’s 10 Pathways to the Labour Market

- **Path 1 – High school droppers:** Youth who had dropped out of high school and who, by December 2003, had never returned to obtain a high school diploma or any other type of training.
- **Path 2 – Second chancers, high school or more:** Individuals who had dropped out of high school but then went back to high school and/or received any type of post-secondary education training – can be thought of as a “second chance” in the education system.
- **Path 3 – High school graduate only:** Individuals who had obtained their high school diploma, but nothing more, prior to entering the labour force by December 2003.
- **Path 4 – Non-gappers, post-secondary leavers:** Youth who had started a post-secondary program, did not finish by December 2003 and were not enrolled in a program by this date.
- **Path 5 – Non-gappers, college:** Youth who had obtained a college diploma by December 2003 and were no longer enrolled in another program.
- **Path 6 – Non-gappers, university:** Youth who had obtained at least a university degree.
- **Path 7 – Gappers/non-gappers, trade/other:** Youth who had obtained a trade certificate or some other type of post-secondary degree or diploma, regardless of whether there was a gap between high school and the start of post-secondary studies.
- **Path 8 – Gappers, post-secondary leavers:** As with Path 4, includes youth who had started a post-secondary program but had not finished and were not enrolled as of December 2003.
- **Path 9 – Gappers, college:** Individuals who had received a college diploma.
- **Path 10 – Gappers, university:** Youth who had received at least a university degree as of December 2003.

Source: Hango and de Broucker (2007).

Figure 3 shows Hango and de Broucker’s findings regarding the proportion of survey respondents who took the various paths, as well as those still in school when followed up at ages 22 to 24.

Figure 3. Proportion of Youth Aged 18 to 24 Who Follow Particular School-to-Labour Market Pathways



Source: Reproduced from Hango and de Broucker (2007), Chart 1.1. using data from the Youth in Transition Survey.

Who Follows Which Path?

The most common pathway shown in Figure 3 is to have a high school diploma only (almost 12 percent of all respondents), but this reflects the splitting of the post-secondary paths into gappers and non-gappers. If these were combined, the paths leading to a college diploma would show the largest share. Moreover, as the bottom of the figure shows, many of the survey respondents were still in school at ages 22 to 24, so the numbers eventually completing a diploma or degree would be much greater than shown in the upper part of the figure.

Hango and de Broucker (2007) reported numerous interesting findings regarding the characteristics of people who follow different pathways:

- Young women are less likely than young men to follow the pathway of dropping out of high school and are more likely to go on to some type of post-secondary program prior to entering the labour force. They are also less likely than young men to delay the start of a post-secondary program.

- Aboriginal youth are likely to leave the educational system with a much lower level of attainment than non-Aboriginal youth.
- Having many siblings is associated with a greater risk of not finishing high school before entering the labour market, as is living in a single- or step-parent family.
- As other studies have documented, youth with parents who have a high level of education are more likely to participate in post-secondary education. Higher parental expectations are also associated with higher educational attainment.
- Marks matter. Youth with very low marks in high school are much more likely than those with mid to high marks to drop out and not return. Very high marks predict that the teen will go directly to a post-secondary program after high school rather than delaying. However, another study using YITS data (Statistics Canada, 2005) suggests that sizable numbers of students with decent marks are also dropping out. This study examined why people had dropped out of high school by age 17 in 2001. While, on average, dropouts reported much lower marks than other students at age 15, more than a third of those who dropped out by age 17 reported marks of 70 percent or higher at age 15, suggesting that they were doing well enough in school that they would have been expected to graduate.
- Working some hours in high school can be beneficial in terms of educational attainment, but working over 20 hours per week is associated with a greater risk of dropping out of high school and with delaying attendance at a post-secondary institution following high school.
- Early family responsibilities (having a child or entering a conjugal union as a teenager) increases the risk of dropping out of high school.

Similar findings about who follows which pathways are reported by Krahn and Hudson (2006), based on a seven-year longitudinal study of the Alberta high school graduating class of 1996 (which means their study does not include high school dropouts). Their key findings include the following:

- A very high proportion of high school graduates (88 percent) had enrolled in a post-secondary program at some point between 1996 and 2003. Sixty percent acquired at least one post-secondary education credential. One in three (32 percent) obtained a university degree, 15 percent acquired a community college diploma and 15 percent obtained a technical school diploma. Only four percent completed an apprenticeship program.
- Young women were more likely to choose university or a community college; young men were overrepresented in technical schools and apprenticeships.
- Youth living in large cities were more likely to attend university.²
- Youth with at least one parent holding a university degree were much more likely to obtain a degree themselves.
- Immigrant and visible minority youth were more likely than others to acquire a post-secondary credential. Aboriginal youth were severely under-represented in this regard.

² Similarly, Beckstead, Brown and Newbold (2008), using Census data, found that, in 2001, a young person from a large urban area was twice as likely to obtain a university degree as one from a rural region.

The findings regarding gender, parental education and Aboriginal status are clearly quite similar in the Alberta study to the results from the analysis of national survey data (YITS) by Hango and de Broucker (2007). Both studies also show that many of today's youth are not following straight-line paths from high school to a post-secondary program to a job. Krahn and Hudson (2006) found that, of the Alberta high school graduates they surveyed:

- 23 percent had returned for a second year of grade 12;
- 19 percent of those who entered a post-secondary program had transferred between institutions (often starting a degree program at community college and finishing at university – easier to do in Alberta than in some other provinces); and
- 14 percent of post-secondary education participants had dropped out of their program.

Hango and de Broucker show that large numbers of 22-to-24-year-olds were “gappers,” people who took at least six months away from studies after they completed high school before entering a post-secondary program.

Bousquet et al. (2008), in their analysis of the paths followed by students taking vocational programs in high school or technical programs in college in Québec, find that most of the graduates with secondary level vocational training followed paths that were either interrupted or non-linear (such as participating in higher-level education before taking a vocational program) or both.

Dubois (2007), reports that, in 2000 in Canada, only 36 percent of college graduates and 50 percent of university graduates had no previous post-secondary education (prior to entering the program from which they graduated) and had entered directly into their program after high school. In other words, delayed or non-linear paths were common.

3. The Labour Market Outcomes Associated with Different Pathways

So far, this report has reviewed evidence about the learning pathways followed by Canadian youth in recent years and the characteristics of people who follow the different paths. It is also important to examine the labour market outcomes associated with each path. Which paths are associated with moderate-to-high earnings, steady employment and higher job satisfaction?

Unfortunately, the longitudinal data that would help us analyze this question are scarce. The Hango and de Broucker (2007) study does look at early labour market outcomes in December 2003, when those surveyed were aged 22 to 24. However, that age limitation means that many had not completed their formal education, and others had only recently entered the labour force on a full-time basis. Among the findings (for those not in school in December 2003) are the following:

- Individuals who had delayed post-secondary attendance after high school but then had graduated from college or university were the most likely to be employed.
- High school dropouts, “second chancers” (those who dropped out of high school but later went back to school) and those who delayed entry into post-secondary education after completing high school and then did not complete their post-secondary education program were the least likely to be employed.

- The odds of employment and the level of earnings were higher for those who had worked more hours while in high school.
- University, college and trades graduates earned significantly more, *on average*, than high school dropouts, second chancers and those with a high school diploma only. However, more than a quarter of post-secondary education graduates earned less than the median for dropouts in December 2003, although this was likely partly a reflection of the limited opportunity for work experience among the former group.
- Women had lower earnings than men, earning almost 28 percent less than their working male counterparts.
- Young adults who changed province after high school witnessed an increase in earnings compared with youth who remained in the same province.

Krahn and Hudson (2006), in their study of Alberta high school graduates, looked at labour market outcomes when their study participants were about 25 years of age at the time of the final follow-up survey in 2003. A sizable minority was still in education, and many had only a few years of adult labour market experience. The key study findings about labour market outcomes included the following:

- Seventy-one percent of study participants were employed in a single job, 14 percent were in more than one job, six percent were unemployed and nine percent were out of the labour force.
- Most of the employed participants (63 percent), but particularly those with post-secondary credentials (70 percent or more), were working in managerial, professional or skilled occupations.
- Those with university or trades credentials earned considerably more than those without post-secondary credentials, other things being equal. (The premium on trades credentials may have something to do with the intensity of activity on the oil sands, even in 2003.) College credentials had not translated into higher earnings at the time of interview.
- Women were earning, on average, only two-thirds of what men were earning. Even after statistically controlling for hours of work, educational attainment and other variables, women earned much less than men. This corresponds to one of the findings of Hango and de Broucker (2007) using national data.
- Fifty-nine percent of study participants felt that high school had helped them meet their career objectives. Eighty-five percent of those with post-secondary credentials felt their post-secondary program helped with career objectives. Those who had pursued technical training or had completed professional university programs were the most positive in their assessments.
- Those who acquired a post-secondary credential were more likely to be satisfied with their job (66 percent) compared with those without a degree or diploma (56 percent).

Bousquet et al. (2008), focusing on vocational pathways, found that graduates of high school vocational programs or college technical programs in Québec had much better labour market outcomes, on average, than young people (aged 15 to 29) who did not complete high school and were not enrolled in education when surveyed.

- Graduates of high school vocational programs in Québec had an unemployment rate nine months after graduation that was about three percentage points lower than that for their age group overall. Graduates of college technical programs had a much lower unemployment rate than that for youth/young adults in Québec.
- Among the graduates of high school vocational programs who had a job, 78.5 percent said there was a link between their job and their training. For graduates of college technical programs, the figure was 81.3 percent.

Dubois (2007) looks at Canada-wide data from the National Graduates Survey to examine labour market outcomes in 2000 of those students who graduated from college and university in 1995 and obtained no further credential in the intervening years. In particular, she examines whether delaying entry into post-secondary education or taking a break from studies mid-program had an impact on employment and earnings after graduation from college or university. After controlling for other variables, she finds that:

- taking a break from studies improved the chances that (five years after graduation) a college or university graduate would be in the labour force;
- university graduates who delayed entry were less likely to be unemployed and more likely to be in the labour force;
- college graduates who delayed entry had a *lower* labour force participation rate; and
- college graduates who took a break mid-program had earnings that were seven percent higher than those who did not.

Dubois also found that the impacts of having had previous post-secondary studies (before entering the program from which the student graduated) were generally positive, except that there was a negative impact on the unemployment rate of university graduates.

Overall, Dubois (2007) concludes that graduates who took indirect routes to their degree or diploma were not worse off than those who chose direct routes, and in some ways were better off. The only negative impact that persisted over time was that those who delayed entry into college were less likely to be in the labour force. It is important to keep in mind, however, that the National Graduates Survey deals only with graduates. It is possible that those people who take indirect or delayed paths are less likely to complete their program – this element would not be captured by Dubois' study.

4. Skill Use and Skill Development in the Workplace

On average, it is clear that those with post-secondary credentials do better in terms of employment and earnings than those without such credentials. (We have also seen that, in Alberta, it is not only university graduates who do well, but also graduates of trades programs.) Nevertheless, a major public policy concern has emerged in recent years regarding the extent to which post-secondary graduates are able to fully use their skills and knowledge in the workplace and whether their jobs provide the opportunity for further skill development. If large numbers of people were not using their skills or not developing them further, that would suggest a waste of human potential, which would be particularly problematic at a time when employers are raising concerns about skill shortages. Presumably, we aim to have learning and labour market systems that not only foster a high level of learning but also find a good match between the skills and knowledge supplied to the labour market and the skills and knowledge required by employers.

Brisbois, Orton and Saunders (2008) look at data for 2003 from the Workplace and Employee Survey (WES) to examine these questions. Unfortunately, this survey excludes people who work directly for governments – public servants at all levels of government are not included. (However, employees of the broader public sector, such as schools and hospitals, are included.) The Workplace and Employee Survey includes data on the minimum level of education that workers perceive is required for their current job as well as the actual educational attainment of employees. Table 1 compares these figures.

The results suggest some mismatch between job requirements and educational attainment. The mismatch is particularly evident in the under 25 age group, where 40 percent had a post-secondary trade certificate, college diploma or some university (without a degree), but only 11 percent perceived this as being required by their jobs. The figures for a university degree are 5.2 percent and 2.4 percent, reflecting the youth of this group.

Brisbois, Orton and Saunders (2008) note that many people in the 15-to-24 age group will be in entry level jobs and will have had little opportunity to test their ability to find jobs that match their skills and knowledge. The key question is whether the mismatch between educational attainment and perceived education required for the job also holds in the older age groups.

Table 1. Actual Educational Attainment versus Perceived Minimum Education Required for the Job

Minimum Required	15 to 24		25 to 34		35 to 44		45 to 54		55+	
	Attained	Required								
Less than HS	19.4	19.3	7.0	5.7	8.3	7.0	10.8	5.9	19.8	8.1
High school graduate	22.2	33.6	15.2	30.2	20.8	35.1	22.0	34.6	19.3	29.4
Some post-secondary	13.0	X	11.2	5.1	10.2	5.0	9.4	5.1	7.9	5.0
Post-secondary trade certificate or college diploma *	40.2	10.5	41.8	23.9	41.9	22.4	39.0	21.2	34.2	18.8
University degree	5.2	2.4	24.9	18.0	18.8	16.9	18.8	18.1	18.8	18.1

Source: Workplace and Employee Survey (2003) – Employee Survey. Reproduced from Brisbois, Orton and Saunders (2008), Table 4.5.

Note: X: Cell count too small to be reliable.

* Includes those with some university but not a degree.

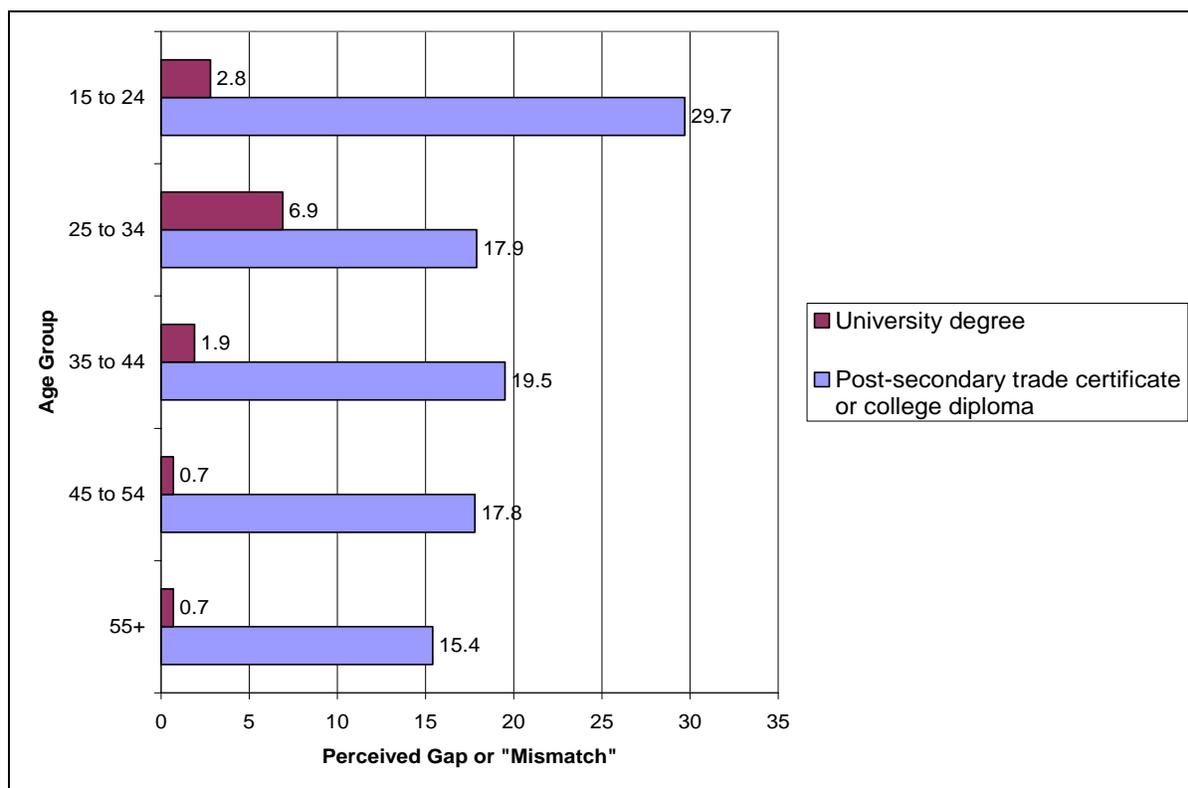
For those aged 25 to 34, 42 percent had a post-secondary trade certificate or college diploma, but only 24 percent saw this as necessary for their job. Twenty-five percent of those aged 25 to 34 had a university degree, but only 18 percent said that a university degree was the minimum education required in their work.³

Forty-two percent of workers aged 35 to 44 had a post-secondary trade certificate or college diploma; 22 percent of them saw this as needed in their jobs. However, the gap with respect to university education is narrow: 19 percent of workers aged 35 to 44 had a university degree; 17 percent of these workers perceived this to be required by their job. The pattern for those over 45 is similar to that for the 35-to-44 age group.

Figure 4 focuses on the size of the perceived overqualification – actual educational attainment minus perceived minimum job requirements – for degree holders and for those with post-secondary certificates or diplomas, by age category. It appears that we are underusing educational skills in all age groups, especially with regard to college education. A possible explanation for this greater qualifications gap among college diploma holders is that college graduates are less likely to be geographically mobile – university graduates may be more likely to move to find a good fit.

³ It is noteworthy that the total share of those aged 25 to 34 who say a degree, college diploma or trade certificate is needed on the job is only about 43 percent. This proportion is in contrast with the oft-cited figure from projections generated by the Canadian Occupational Projection System (COPS) that about two-thirds of new jobs require a post-secondary credential. This difference may reflect differences in the requirements of old and new jobs. It is also worth keeping in mind that the COPS projections refer to occupations *usually* requiring post-secondary education *or in management*, which means that the actual share of jobs requiring post-secondary education might be less than two-thirds.

Figure 4. Gap or “Mismatch” between Actual Educational Attainment and Perceived Minimum Education Required for the Job for Those with Post-Secondary Credentials



Source: Workplace and Employee Survey (2003) – Employee Survey.

It is important to keep in mind that the data we have from the Workplace and Employee Survey are for different cohorts. It would be helpful to have longitudinal research to track the extent to which, for a given cohort, the matching of skill use on the job to educational qualifications improves with age. It would also be helpful to have such data by field of study.

Brisbois (2003) compared overqualification in Canada with that in 16 other OECD countries, based on responses to the question “How well do you think your skills match the demands imposed on you by your job: the demands are too high, they match, the demands are too low, or don’t know?” He found that the percentage of workers under age 25 who felt overqualified (24 percent) was highest in Canada, followed by workers in the United States. As in most countries, the percentage in Canada feeling overqualified declined sharply with age, dropping in Canada in the 25-to-44 age group to 11.5 percent, under half that reported for the under 25 age group. However, the figure for the 25-to-44 age group was still relatively high among OECD countries – 3rd highest among the 17 countries examined.

Krahn and Hudson (2006) found that 31 percent of all employed respondents (about 25 years old) whom they surveyed in 2003 felt overqualified in their current job. This relatively high figure may be explained in part by the fact that their survey did not cover those who dropped out of high school.

Brisbois, Orton and Saunders (2008) point out that the degree of overqualification in the Canadian labour market may be related to the persistence of a large low-wage sector of our economy. (This could also explain why the rate of reported overqualification in North America is higher than in Europe.)⁴ They argue that, if we want to improve the extent to which high-level skills and knowledge are used in the Canadian labour market, we need to act not only on the supply side (facilitating participation in post-secondary education) but also on the demand side (encouraging a shift in demand toward highly skilled workers, which ought to be accompanied by more well-paid jobs).

The 2005 data from Statistics Canada's Survey of Labour and Income Dynamics (SLID) allow us to examine the distribution of annual earnings of Canadian workers (aged 25 to 64) by educational attainment and age category (see Figure 5). Data reported are for individuals who had reported income in 2005. The annual median earnings for the overall group in 2005 are \$33,000. Earnings are then distributed into five groups: less than half the median, between half the median and the median, between the median and 1.5 times the median, between 1.5 times the median and two times the median, and more than two times the median.

For the overall group (aged 25 to 64), a sizable proportion of individuals with higher educational credentials (trade-vocational, college diploma or university degree) have low earnings. For those with trade-vocational credentials, 26 percent earn less than half the median. For those with a college diploma, almost one quarter (23 percent) earn less than half the median. Although 32 percent of those with a university degree earn more than two times the median, 18 percent earn less than half the median.⁵ This is illustrated in Figure 5.

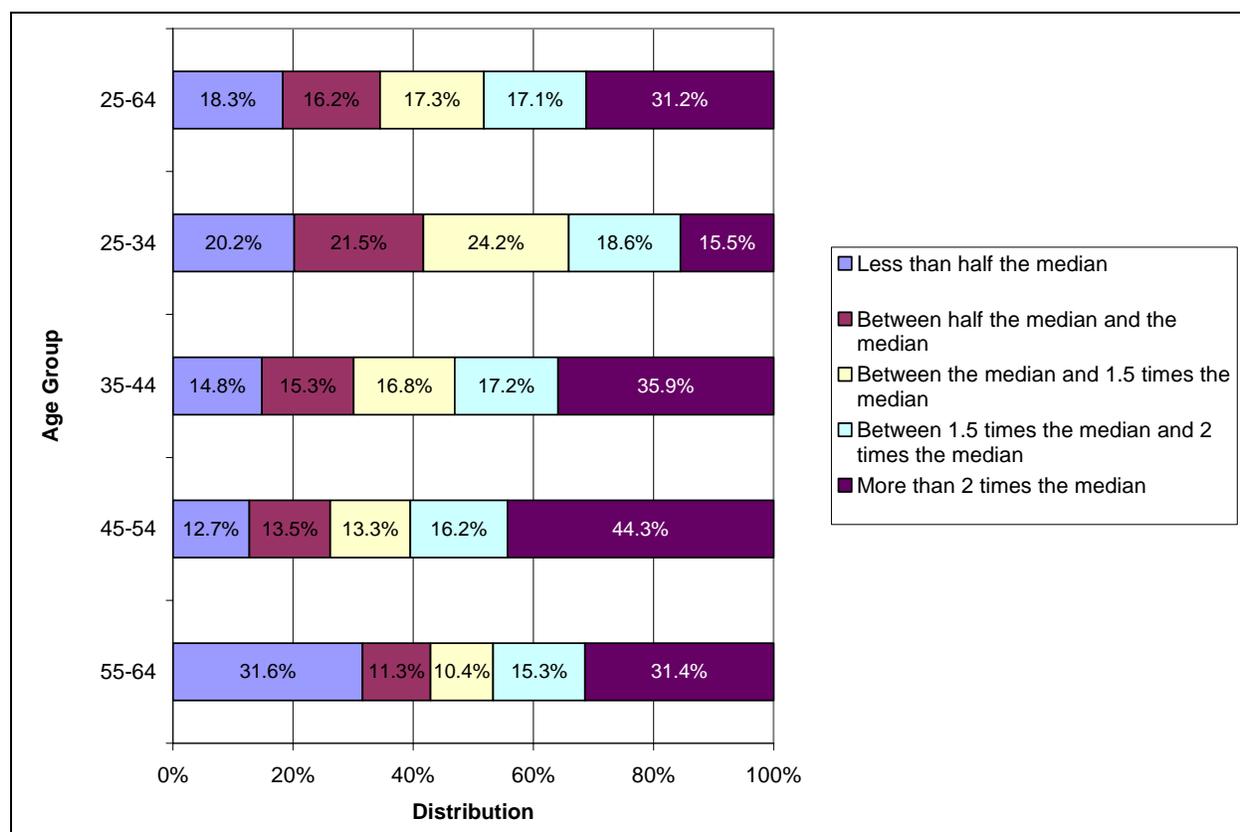
Clearly, a sizable share of those with post-secondary credentials has relatively low earnings, including more than one in six of those with university degrees. Together with the data on perceived overqualification and the findings of de Broucker (2006), cited above, regarding the high share of young adults with post-secondary credentials who are in low-skill jobs, there is reason for concern about the capacity of our labour market to provide rewarding careers for all who attain such credentials.

The Canadian Council on Learning (2007: 8) has come to a similar conclusion: "Canada must also examine why so many post-secondary education graduates are earning below their expected potential and determine whether their skill sets are being underutilized, thereby undermining potential gains in productivity for the country as a whole."

⁴ There is some evidence that overqualification is on the rise in Europe. Quintini and Martin (2006), in their study for the OECD, find that one in five working youth was overeducated in 2005, which is 1.5 percentage points higher than in 1995.

⁵ The data are also available by gender. The percentage of university degree holders earning below half the median is higher for women (22 percent) than for men (15 percent), which may reflect more part-time work among women.

Figure 5. Distribution of Annual Earnings of Canadian Workers with a University Degree, by Age, 2005



Source: Survey of Labour and Income Dynamics, 2005. Extracts from special tabulations provided by Statistics Canada.

It would be helpful to have more research on the implications of overqualification. Do overqualified workers demonstrate less job satisfaction and less productivity? Are these workers at medium or longer-term risk of lower economic security? Is overqualification leading to a potential devaluation of post-secondary education? Does it suggest that there are limits to the return on the large public investments in post-secondary education?

There is also reason to be concerned about opportunities for further skill development among employed workers in Canada. Goldenberg (2006) points out that employer investment in workplace learning in Canada is below that of many of our major competitors, including the United States.

Concerns about the demand side of the youth labour market are particularly acute in rural Canada. Looker and Naylor (2008) provide data from a longitudinal study in Nova Scotia indicating that rural youth who obtain a university degree (and especially those obtaining a graduate credential) are more likely to be living in an urban centre at age 29 than are other rural youth. Those who remain in rural communities are much less likely than other youth to have a full-time job. Corbett (2006: 297) notes the tension between the education imperative and the efforts of rural communities to retain their young people: “It is fairly clear that formal education is understood and experienced by most school-successful rural youth as a ticket to elsewhere and that formal education correlates powerfully with out-migration from rural communities.”

5. Supports and Options Available to Young People Making Choices about Learning and Career Paths

We have seen that young Canadians who obtain post-secondary credentials tend, *on average*, to do better than others in terms of future employment and earnings, but that a sizable share of post-secondary education graduates, including 18 percent of university graduates, has earnings below half of the median level and that many college graduates report being overqualified for their jobs. How well are young Canadians supported in making choices about learning and career paths? Are there policies and programs that could help more young Canadians to find rewarding careers?

This section of the paper reviews the evidence, largely qualitative, and the supports and options made available to Canada's youth regarding career pathways.

Labour Market Information and Occupational Projections

Clearly, to make sound choices about learning pathways, it helps to have good information about what programs are available (and at what cost)⁶ but also about what employers are looking for and what skills are expected to be in short supply. Education and training institutions also need such information to help plan their course offerings.

Canada is one of few countries that have a national occupational projection system, and it has received favourable reviews for the quality of the projections. However, Brisbois, Orton and Saunders (2008) point out that we lack information about how these projections are used. More research in that regard would be helpful.

There are limitations in what we can expect of occupational projections, particularly in terms of their reliability when looking at narrowly specified occupations or in looking at local, as opposed to national, trends.

Much of the labour market information available from the federal government is spread across several websites. There is no single, integrated, easy to use and youth-friendly national site for finding and using occupational projections and related education planning information.

Career Development Programs and Services

Career development supports refer to “information, programs and services that help people to make education-, training- and work-related choices and to manage learning and work and the transitions between them over their lifespans” (Bezanson et al., 2008: 3). This definition implies that career development is a lifelong process; it is not a one-time event, nor can it be adequately supported by a one-time guidance course in grade 12.

⁶ The ability to analyze information about the costs and benefits of learning programs, and the financial aid available to reduce costs, is clearly important to making sound decisions about learning pathways. Orton (2007) speaks to the importance of school curriculum that fosters financial literacy.

Bezanson et al. (2008) cite evidence that career development programs and services can reduce dropout rates, increase aspirations and achievement, help people find jobs that match their talents and interests, help employers meet skill needs, and generally improve the allocation of resources in the labour market. The OECD, in *Career Guidance and Public Policy: Bridging the Gap* (2004), has made the link between comprehensive, coherent career-development systems and the advancement of a country's labour market, social equity and learning goals.

Bell and Bezanson (2006), in a paper jointly published by CPRN and the Canadian Career Development Foundation, look at career development services available for youth and young adults in Canada, in school and out of school. Their key findings are as follows:

- In Canada, there is limited awareness of the benefits of career development and no national career development strategy or standards for service quality or provision. Career development services for youth are highly decentralized. They are neither coherent nor comprehensive in scope. Some provinces are beginning to develop career development service policies from kindergarten to adult education or from kindergarten to grade 12.
- Services for youth are offered in schools (primarily), public youth employment centres and non-profit youth employment centres. Youth (and adults) not in school have much less access to services. Service provision is primarily career information and support with immediate education and training decisions rather than career planning and preparation. Most respondents to a 1999 survey of youth access to career information reported finding it difficult to obtain what they needed to make an informed career decision.
- Data are scarce on the use of career services, especially by out-of-school youth.
- Decisions about the extent of and access to career services are often made at the school board or institution level and are vulnerable to shifts in government policy and funding allocation.
- Voluntary “Standards and Guidelines” have been developed by a network of career development practitioners. However, only Québec regulates the profession.
- A review of (limited, rarely longitudinal) research evidence suggests that career development programs can:
 - increase motivation to continue learning after high school;
 - reduce the number of school leavers in either high school or post-secondary institutions;⁷
 - increase career certainty and academic success;
 - build work readiness;
 - support the integration of labour market information;
 - change attitudes to increase career choice (e.g. encourage women to consider non-traditional occupations); and
 - increase focus on a career path when work experience is attached to some form of career development reflection.

⁷ Barr-Telford et al. (2003), looking at data from the Post-Secondary Education Participation Survey, found that approximately 70 percent of students who left post-secondary education before completion cited lack of fit as their main reason for leaving – the program didn't interest them or was not what they wanted, or they were unsure of what they wanted.

- Programs that involve multiple, holistic interventions (experiential learning, role models, career and labour market information, work experience, engagement of parents and employers) have very positive results.

Others have pointed to a concern that career counselling in high school focuses on academic pathways and so fails to adequately consider the career success that is possible through vocational paths, such as apprenticeship. The Canadian Apprenticeship Forum (2005) reports on a survey of youth aged 13 to 17. Only 14 percent of respondents indicated that their guidance counsellors had recommended apprenticeship as a career option.⁸ The Canadian Council on Learning (2008) notes: “When young people decide to pursue college or university studies, the pathway from application to enrolment and onward to completion is well marked. However, students who wish to pursue apprenticeship training are largely on their own.”

Some school boards have been working to change the delivery of career guidance so that it “values all destinations” and not just academic paths. The Halton District School Board in Ontario publishes “Pathways Planner” brochures, to help students plan their studies with this approach in mind. The brochures list six different sectors of work: arts, communications and recreation; business, hospitality, sales and service; health, natural and applied sciences; information technology; social sciences, government and human services; and trades, transport and industrial technologies. For each, it outlines the interests that may be pursued; the skills and abilities needed; the types of programs available through apprenticeship, college or university; and suggested elective courses in grades 9 to 12. The Halton District School Board also makes online pathways planning tools available to its students through the website www.myblueprint.ca (myBlueprint: Education Planner).

Another prominent example of a career development program that has had success meeting both social and economic goals is that of Career Trek in Winnipeg, which works with children identified as at-risk for poorer school outcomes starting at age 10 to help them understand the connection between school and future career opportunities.⁹ Forty percent of the participants are Aboriginal students. Career Trek works with post-secondary institutions to give participants exposure to many different learning and career pathways. Parents and other family members are also given an opportunity to participate in the program. “Teachers report that participants are more confident, more school-focussed, more involved in school activities. The number of Career Trek participants attending post-secondary education is above the provincial average” (Bell and Bezanson, 2006: 15.)

⁸ It appears that a minority of 15-year-olds in Canada seek career information from teachers or guidance counsellors. Gluszynski (2008), using data from the Youth in Transition Survey, finds that fewer than four in ten 15-year-olds in Canada had talked to a teacher to get career information, and just over three in ten had talked to a school counsellor to get such information.

⁹ Career Trek is also profiled by Bell and O’Reilly (2008). Their paper for the Canadian Council on Learning’s Work and Learning Knowledge Centre provides an inventory of innovative, effective or promising school-to-work policies, programs and practices in Canada.

Bell and Bezanson (2006) make the following recommendations to improve the access to and effectiveness of career development services for youth in Canada:

- Legislate student entitlement to career development services.
- Require that teacher education include a minimum of one course on career development.
- Begin career development by grade 6.¹⁰
- Establish an outcome-based accountability framework.
- Evaluate services systematically.
- Raise the profile of career development as an agenda issue for both the Council of Ministers of Education, Canada (CMEC), and the Forum of Labour Market Ministers (FLMM).

The extent to which youth have access to and actually access career-development services in Canada is unclear, but from the research available, it is evident that access is not adequate across the country. There are “pockets” of promising practices that respond to a variety of youth needs, but a system of coherent and comprehensive services for youth and young adults, whether in or out of school, does not exist.

There are some signs of progress. Alberta has a career development strategy designed to improve access to programs and to create an integrated career development system. Three government departments in Manitoba have developed a career development framework to respond to the recommendations of the OECD. Nova Scotia’s Skills and Learning Framework identifies career development as a priority. But most provinces do not have a coherent, comprehensive career development strategy. There is also insufficient effort among the provinces to learn from each other. Bezanson et al. (2008) report that the Forum of Labour Market Ministers has established the Career Development Services Working Group to identify and promote best practices, increase the knowledge base through research, facilitate access to career development services, raise the quality and effectiveness of these services, and strengthen networks. However, it includes labour market partners only, not educational or other stakeholder partners.

There is a scarcity of systematic evaluation of career development interventions. As Bezanson et al. (2008) point out, most research on career development programs is short-term and focused on immediate results. Longitudinal analysis is rare. The Canada Millennium Scholarship Foundation has been working to help fill this gap. For example, the “Future to Discover” project, launched in September 2004, is examining the effects of career development programs and/or financial incentives on the educational attainment of youth. The project is running in 30 high schools in New Brunswick and 21 in Manitoba (Canada Millennium Scholarship Foundation, 2008).

¹⁰ Some have suggested that even this is too late – attitudes and aspirations about learning and career options may already have hardened by grade 6.

The career development component, “Explore Your Horizons” includes four elements:

- Career Focusing: identifying occupational choices based on passions rather than skills (grade 10);
- Lasting Gifts: workshops where parents/guardians work with their teens to explore career options (grade 11);
- Future in Focus: helping students develop support networks, explore community engagement and learn how to address unexpected challenges (grade 12); and
- Post-Secondary Ambassadors: learning from the experience of students currently enrolled in a post-secondary program.

Students involved in this program, as well as those in a control group, are being tracked to investigate the impact of these interventions. When these results are available, it will be an important addition to what we know about the effectiveness of particular career development interventions.

Career Pathways Programs in High Schools

The early availability of high quality career development services is important to the ability of our youth to find rewarding careers. Perhaps even more fundamental is the availability of a variety of well-supported learning choices in high school, to meet the needs of students with different interests and different learning styles.

Taylor (2007) looks at institutional and policy structures regarding vocational education in our high schools, with a focus on British Columbia, Alberta, Ontario, and Newfoundland and Labrador. For comparative purposes, she also examines such programs in Australia, particularly in the State of Queensland.

Taylor addresses the following questions:

- How have the approaches and roles of different groups involved in school-to-work transition within secondary schools changed over time?
- To what extent is preparation for skilled work available in secondary schools?
- What initiatives/programs are available for youth not bound for college or university, and what proportion of youth are engaged in these?
- To what extent do provincial policies aim to help students identify feasible and rewarding career pathways and allow mobility between programs/pathways?

Taylor's key findings are as follows:

- All four provinces have placed increased emphasis on career planning in high school as part of the secondary school program.
- All provinces emphasize the need for local partnerships between schools, post-secondary institutions and employers. Ontario and Alberta have supported the development of provincial brokers to promote partnerships.
- British Columbia, Alberta and Ontario have established a high school apprenticeship program. They also provide opportunities for high school students to earn post-secondary credits. However, only a small proportion of the high school population participates in such opportunities.
- All provinces are struggling with the need to update technology curriculum and facilities and to hire qualified teachers.
- Few provinces collect information about program outcomes. This reinforces the concern identified by Bell and Bezanson (2006) with respect to career development interventions.

Taylor's most striking finding is that, despite recent efforts by provincial governments to give more attention to vocational options in high school, there is limited take-up. In her view, that is partly attributable to the fact that all provinces have promoted a decentralized "market" approach to vocational education and training, which relies on locally developed models to emerge. There has been limited coordination and unreliable funding.

The market approach to VET [vocational education and training] in Canada has the advantage of responsiveness to local needs and the disadvantage of a lack of central coordination, leading to fragmentation and potential inequities. The work required to develop and sustain effective partnerships is not adequately recognized and local initiatives come and go. While there is a necessary balance between central control and local autonomy, the preceding discussion suggests that governments could play a much more active role in ensuring the sustainability and effectiveness of VET (Taylor, 2007: 55).

Taylor also argues that, despite some progress, more attention is needed in Canada to links between vocational education in high schools, apprenticeship programs and post-secondary education, so that youth do not have avenues prematurely closed to them.

Doray, Ménard and Adouane (2008) analyze the development of vocational education in Québec. They document a series of efforts in Québec, beginning in the mid-1980s, to revitalize vocational and technical education in that province, for youth and for adults. This included the identification of competencies for various occupations, the revision of curriculum, and the creation of sectoral and regional bodies engaged in planning continuous learning as well as initial education.

Similar to Taylor (2007) in her findings for the four provinces she studied, Doray, Ménard and Adouane (2008) conclude that the take-up of the new vocational education and training measures in Québec has been uneven. Educational establishments have been slow to embrace co-operative education. This is seen to be partly as a result of scarce resources and partly due to a reliance on the voluntary effort of educational institutions to implement the reforms.

While Taylor and Doray et al. focus on the policy framework for vocational education and training, McCrea Silva and Phillips (2007) look at case studies of five school-based initiatives in three provinces: British Columbia, Alberta and Ontario. The types of initiatives they examine include apprenticeship and pre-apprenticeship programs; dual credits (earning high school and college credit at the same time); and work experience/internship programs, usually involving partnerships with community colleges and employers. Their research involves the review of program documents, direct observations of programs in operation, interviews with key personnel and analysis of quantitative and qualitative data.

McCrea Silva and Phillips find that these programs needed to deal with numerous issues, including culture, gender, arranging transportation, working across institutions where there is joint delivery and finding enough work placements during downturns in the local economy.

Although each of the programs is unique in how it serves its particular student population, McCrea Silva and Phillips find some commonalities in “what works” across the five initiatives. The programs that were most effective were characterized by:

- vision;
- sustained support from the district/school board;
- active partnerships and employer participation;
- flexible delivery options;
- active marketing and recruitment;
- career awareness curriculum that begins early; and
- articulation with post-secondary institutions.

While formal, longitudinal evaluations of these initiatives have not been undertaken, interviews with participants suggest benefits such as a reduced dropout rate, a head start on apprenticeship or college, improved employment prospects, an increase in participant self-esteem, more efficient use of resources (in school-college partnerships) and a greater supply of skilled workers to employers.

McCrea Silva and Phillips acknowledge that it is difficult to generalize from a small set of case studies. However, there were enough commonalities among the issues faced by these programs, despite differing legislation, funding and credentialing mechanisms and policies, that the authors are able to identify several recommendations for high school-based vocational initiatives, including the following:

- Career awareness development activities should be provided in the earlier grades to give students (and parents) the skills and knowledge needed to make informed choices when considering entry to trades training programs in high school.
- Government departments responsible for secondary and post-secondary education and training should work with each other and the community to ensure seamless transitions between institutions for students in vocational programs.

- All provinces should offer dual credit programs.
- Governments should encourage female students to participate in non-traditional career programs.
- Governments should provide incentives (e.g. wage subsidies, tax breaks, training allowances) to encourage local businesses to offer co-op placements for students in trades/vocational programs.
- The outcomes of career pathways programs should be systematically evaluated, and best practices should be identified and shared across the country.

Several of these recommendations echo those of Bell and Bezanson (2006), summarized earlier, in their study of career development services. Indeed, Bell and Bezanson suggest that there can be a symbiotic relationship between career development and co-operative education programs or volunteer activities in a workplace.

As previously noted, there are signs of a revitalization of vocational programs – or career pathways programs, more generally – in Canada’s high schools. Ontario’s new “Specialist High Skills Major” allows students to take courses focused on a career in a particular sector (e.g. hospitality and tourism, arts and culture, construction, manufacturing, and primary industries). Each major is a bundle of classroom courses, co-operative education credits and sector certifications. The aim is that, by September 2008, these options will be available in every school board in the province.¹¹

There are also signs of increased interest in apprenticeship programs: the annual number of new registrations in apprenticeship programs has been slowly increasing since the early 1990s (Skof, 2006, as cited in Canadian Council on Learning, 2006). However, the average age of newly registered apprentices remains fairly high, at 27.6, and the number of *completions* of apprenticeship programs had not risen as of 2003 (the last year for which data were available).

[G]enerating interest among potential apprentices is only useful to the extent that employers are willing to hire and sponsor apprentices. Therefore, efforts to encourage apprenticeship candidates – especially women and young people – to pursue training and careers in the trades, must also be accompanied by efforts to encourage employers to provide apprenticeship training (Canadian Council on Learning, 2006: 5).

A participant in the CPRN roundtable (held to discuss a draft of this report) noted that part of the problem regarding take-up of vocational options in high school is the lack of role models in the schools – teachers who pursued a trade or a college diploma rather than a university degree.

The next section of the paper explores the role of employers in helping young Canadians find pathways to a rewarding career.

¹¹ See www.edu.gov.on.ca/morestudentsuccess/.

6. The Role of Employers in the School-to-Work Transition

Brisbois, Orton and Saunders (2008) point out that employers have the potential to play an important role in the school-to-work transition, by helping students make more informed choices about their learning and career pathways. Employers can do this in many ways, such as:

- speaking at schools and post-secondary institutions about career opportunities;
- communicating to regional/sectoral labour market bodies and/or directly with schools and colleges about expected skill needs;
- mentoring young people; and
- offering co-op placements that give young people the opportunity for hands-on experience with an occupation while completing a high school, college, university or apprenticeship program.

Brisbois, Orton and Saunders (2008) report on key informant interviews with business people, researchers and school board officials about what kinds of initiatives are working well and how employer-school partnerships could be improved to help more students make effective school-to-work transitions. The advice provided by those interviewed includes the following:

- Co-operative programs work well when they provide a clear connection between schooling and a future career.¹²
- Dual credit programs can be very attractive to students unsure about post-secondary education. However, high school and college partnerships can lead to issues around who delivers what courses. Moreover, some high school students feel anxious attending classes in a college.
- Both employer support and government support are important. Resource limitations were the most common obstacles to school-employer partnerships.
 - Schools do not always have enough resources to upgrade facilities.
 - There are sometimes not enough spaces in companies for the number of students who want to participate in a co-operative or apprenticeship program.
 - School boards and ministries of education need to promote school-work partnerships and encourage employers to offer co-operative programs, apprenticeships, internships, mentoring and job shadowing to students. They should also engage employers in advisory boards on career programs.
- Schools should also reach out to unions to promote the awareness of career opportunities.
- Success in trades programs depends on the availability of qualified teachers and facilities. Even where the resources are available, it can be a challenge to get or keep trades teachers in high schools or colleges when they are in high-demand industries that can offer much higher salaries. This is compounded with the fact that, in certain areas of the country, a large

¹² The Canadian Council on Learning (2008) cites studies, mainly focusing on post-secondary students, showing that co-op students not only gain specific content-area knowledge, but also work-related communication and social skills. The Task Force on Transition into Employment (1994) that was established by the Canadian Labour Force Development Board recommended that co-operative education be the central component of the school-to-work transition system.

number of teachers will be retiring in the next few years. Some schools are actively involved in helping to fast-track tradespeople who want to get their teaching certificate.

- Most parents aspire to have their children go to university. Many are not interested in considering alternate school/career paths. Teachers and guidance counsellors are also sometimes unaware of program options and/or emphasize the university pathway to the neglect of other opportunities. (This echoes concerns documented by the Canadian Council on Learning [2008] as noted above.) School boards should improve the awareness of career options among students, parents, teachers and business.

There appears to have been little formal evaluation of employer-school partnerships, echoing the gap identified by Bell and Bezanson (2006) in their study of career development programs in Canada and by Taylor (2007) in her study of vocational programs in high schools. This serious gap is unlikely to be closed unless governments give it priority and build funding for evaluation into career pathways initiatives.

7. Policy Implications and Research Gaps

The key objective of the *Pathways* project has been to develop policy options to improve the ability of young people to identify, select and navigate pathways that lead to rewarding careers. With the slowing of labour force growth in Canada, it is more important than ever that we enable our youth to fully realize their potential to contribute to the economy and to their communities.

We have looked at the data on school-to-work pathways: who follows which paths and what are the early labour market outcomes associated with different pathways. It is clear that completing high school makes a big difference in finding a job, and it is, of course, a prerequisite to post-secondary education. Those with post-secondary credentials, especially (but not only) those with a university degree, typically earn more and have higher job satisfaction than those without such credentials. Governments, school boards, employers, unions and community organizations all have a role to play in offering curriculum choices and providing the information and planning skills that can enable more youth in Canada to identify and navigate a learning and career pathway that sees them complete high school, participate in some form of post-secondary education and find rewarding jobs.

While the evaluation literature on career development programs is not as rich as we would like, the available evidence does suggest that such curriculum can be helpful, especially if begun early (by middle school, if not earlier) and if it provides not just information, but the tools to develop career planning skills. We know from research on participation in post-secondary education that parental aspirations are an important influence on the child's learning achievement, which suggests that it is likely to be useful to involve parents in career development programs, especially in the early years of such interventions. Longitudinal studies of particular interventions, such as the Future to Discover project or the "Real Game" program for developing career planning skills,¹³ will help point the way on specific curriculum. ***All provinces and territories should put in place a strategy for career planning services, for people of all ages.***

¹³ For information about the Real Game modules, see www.realgame.com/canada.html.

The research also points to the importance of choice in the curriculum: case studies of efforts to revitalize vocational options in high school indicate that such programs have had success in reducing the high school dropout rate and increasing participation in post-secondary education. Dual credit programs, which offer high school and college credit at the same time, seem particularly promising in this regard. Co-operative programs have had success at both the high school and post-secondary levels. ***Co-operative program offerings should be expanded, in partnership with employers and unions.***

However, providing more learning options also runs the risk of prematurely streaming students. We do not want students who may have the potential and the aptitude to do well in university to be discouraged from following that path. In a recent review for the OECD of factors affecting the intergenerational transmission of disadvantage, d’Addio (2007) finds that early streaming of students seems to considerably reduce earnings mobility across generations. Taylor (2007: 56) asks a key question: “How can students be encouraged to make realistic career decisions without prematurely streaming them or locking them into particular educational and occupational choices?”

Part of the answer must involve building bridges between different learning paths and learning institutions, so that students who start on one path but then change directions are able to get credit for the work accomplished. This means ensuring that there are good bridges not only between academic and vocational options in high school but also between community colleges and universities, while respecting the standards associated with a post-secondary degree. Even with better career planning programs, many young Canadians will inevitably be uncertain about their own talents and interests, and what employers are looking for will inevitably be subject to change and uncertainty. And it is clear from the research cited above by Krahn and Hudson (2006), Hango and de Broucker (2007), and Dubois (2007) that non-linear learning pathways have become common. ***We should give young people lots of options and then help them change course when they need to do so.*** Some provincial governments already foster strong articulation arrangements among different providers of educational programs. All provinces should do so.¹⁴

As Brisbois, Orton and Saunders (2008) point out, we also need to recognize that young people will not have all the skills that they will eventually want or need when they complete formal schooling. Accepting the growing importance of lifelong learning means moving away from the idea that a person has to be all “schooled up” in youth. ***The learning system should invite people back in at different stages of their lives. This means that the institutions themselves, as well as the systems that support the institutions, need to be more flexible.***

We have seen that there are many examples of effective or at least promising career pathways programs in Canada. However, as Taylor (2007) and Doray, Ménard and Adouane (2008) have pointed out, these programs have relied on local initiative, so that, for example, take-up of vocational options remains limited when one looks at data at the provincial level. ***The provinces and territories should make a more systematic effort to identify successful practices, to provide the funding to sustain them locally and to facilitate their adoption across the province.***

¹⁴ Similarly, but going beyond the youth focus of this paper, Canada needs a coordinated system of prior learning assessment and recognition. As pointed out as early as 1994 by a task force of the Canadian Labour Force Development Board, assessment of both experiential and prior academic learning can avoid the wasteful underemployment of highly qualified people (Task Force on Transition into Employment, 1994).

Providing more choice of learning options, better bridges between pathways and comprehensive career development services that begin at an early age will help more young people to complete high school, participate in post-secondary education, navigate the labour market and find good jobs. They should also lead to better matches between students' talents and the skill needs of employers. However, the data on the persistence of a large low-wage sector in the labour market and the evidence that 18 percent of those aged 25 to 64 with university degrees earn less than half the median wage suggest that some talent will remain underused unless Canada is able to find a way to boost the share of jobs that are high-value-added and knowledge-intensive. In other words, to improve the rate at which young Canadians are able to find rewarding careers, we need action on the demand side of the economy, not just on the supply side.

While existing research points the way to reforms in policy and practice that can improve learning and career outcomes for Canada's youth, it is also clear that not nearly enough attention has been paid to systematic evaluation of the initiatives launched. There are exceptions, and some interesting longitudinal studies are in progress, but *it would be helpful to have a more consistent effort at formal evaluation of learning and career outcomes*. This takes resources, of course, and *governments should fund more evaluations, so that we can be better informed about which specific interventions are generating the best results*.

In addition to the lack of formal evaluation of career pathways programs, other research gaps exist. As noted earlier, it would be helpful to have longitudinal analysis of the overqualification issue: to what extent does the match for individuals between qualifications and skill use on the job improve over time? We also need to know more about the trajectories of those students who do not complete learning programs and the factors that foster the completion of post-secondary education.

In addition to these general directions for helping more young Canadians find pathways to rewarding careers, several specific ideas for change emerge from the *Pathways* project. Some have been documented in the studies already published. They include the following:

- *The federal government should evaluate the use – by students, schools and employers – of the labour market information it generates, particularly regarding occupational projections, with a view to ensuring that the data are used as extensively as possible.*
- *All provincial and territorial governments should develop a comprehensive strategy for career planning services that includes providing career planning activities in the school curriculum beginning no later than grade 6.* As Bell and O'Reilly (2008) have argued, while governments need to allow for programs to be tailored to local needs, this need must be balanced with a central policy that sets broad objectives and goals. Most provincial governments are not doing enough to identify, sustain and spread effective practices.
- *School-employer/union partnerships should be strengthened by:*
 - *providing the resources needed to expand co-operative and other programs that connect learning to the workplace*, so that all high school students have the opportunity to participate in work-related learning as part of their curriculum;
 - *improving the awareness of school-employer programs* among students, parents, teachers and business;

- *making the business case to employers and employer associations* – calling attention to the gains to be had by individual employers and their industries in terms of future recruitment; and
- *establishing committees/advisory boards for such programs* that involve all partners.
- *Governments should fund research and evaluation on career development services and career pathways programs*, with a view to identifying the most successful practices and then sharing them widely for local implementation.

It will take the commitment of governments, educators, employers, unions and others to put in place comprehensive career pathways programs and supports that can achieve the objective of improving the ability of young people in Canada to identify, select and navigate pathways that lead to rewarding careers.

In 1997 CPRN published *Youth and Work in Troubled Times: A Report on Canada in the 1990s*, by Richard Marquardt, which can be seen as a precursor to the *Pathways* project. Marquardt spoke to the need for a culture change to provide effective supports for our youth regarding the transition to work.

The role of the school in the preparation of young people for work is not its only function, but this role does deserve higher priority. This in turn demands responsive support from other institutions in the community, particularly from employers – private, public, and third sector. The demands of this task go far beyond the need for a new law, regulation, or program. It requires cultural change – that is, new ways of behaving, new priorities and attitudes, on the part of students, teachers, school authorities, employers, and other members of the communities in which young people are coming of age (Marquardt, 1997: 41-42).

We still need a culture change today if our youth are to fully realize their potential to contribute to the economy and to their communities.

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