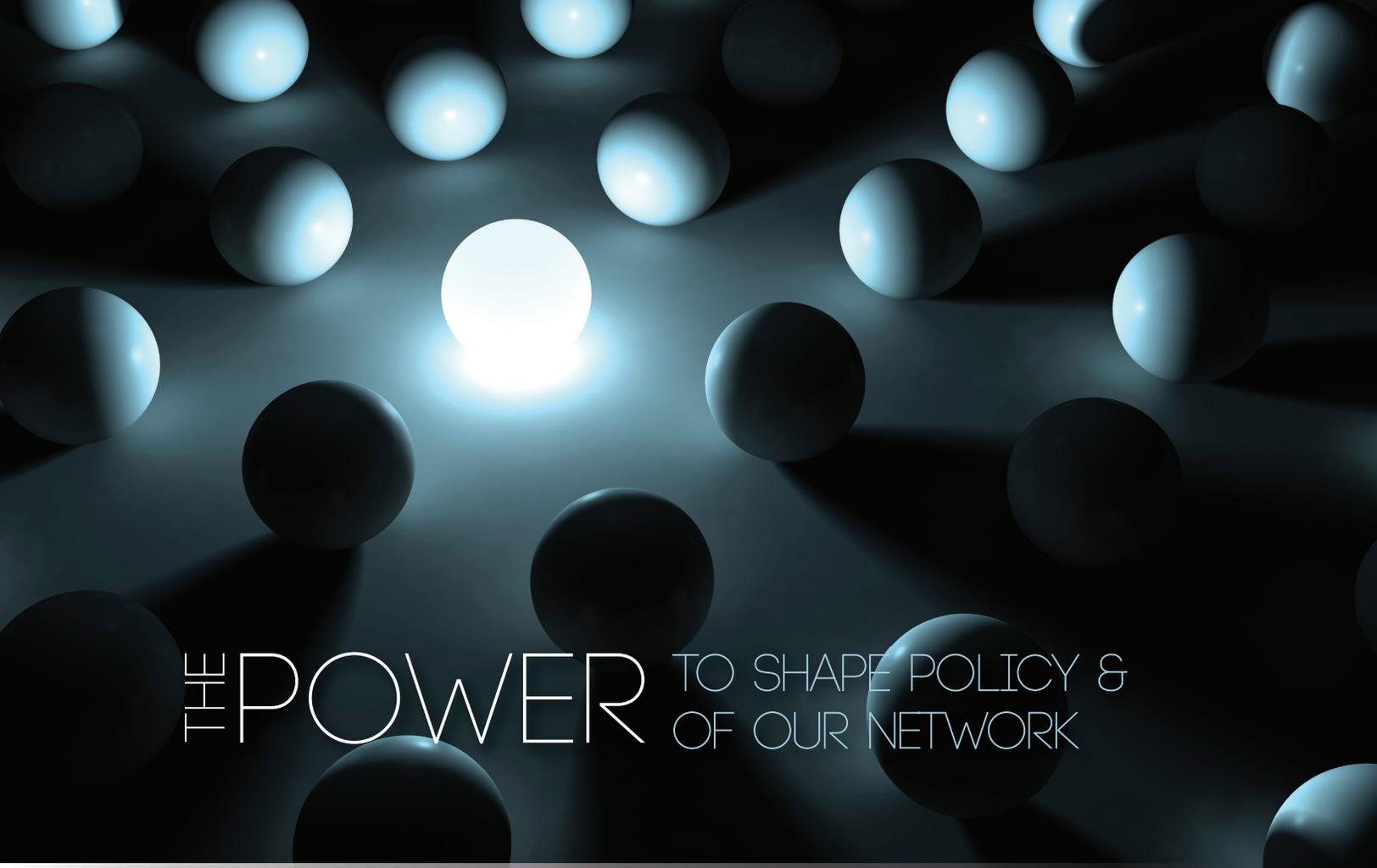




A BATTLE WE CAN'T AFFORD TO LOSE: GETTING YOUNG CANADIANS FROM EDUCATION TO EMPLOYMENT

October 2014





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ACKNOWLEDGMENTS

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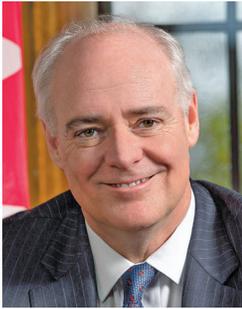
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PRESIDENT'S MESSAGE



As Canada comes to terms with its skills challenges and the numbers of unemployed and under-employed workers, employers, educators and governments are facing great uncertainty about whether we will have enough graduates in high-demand fields or with the skills most sought after.

If Canada is to successfully tackle its skills gap and ensure its economic growth, we have to give special attention to the largest cohort of labour force entrants each year: young people.

The skills issue facing youth is the focus of great concern. Canada's results in international education surveys have been mixed. Our highly-educated youth may still be falling short of the skills needed for our economy to succeed. Without action, this shortage is likely to increase in future as labour market needs continue to evolve.

Youth unemployment rates have also remained high in the post-recession period, prompting the House of Commons Standing Committee on Finance to study youth employment and table a report in June 2014.

Across the country, there is a growing understanding that closing the skills gap means better aligning our education and training systems to our labour market needs. It is a concern that led the federal Minister of Employment and Social Development, Jason Kenney, to organize a mission to Germany, Europe's strongest labour market where the "dual training" system enables post-secondary students to segue seamlessly into employment via apprenticeships across 350 occupations.

At a national skills summit in June 2014, a strong consensus emerged on the need for better labour market information to help youth connect to available jobs and for more responsiveness in the educational system to labour market needs. Three weeks after that summit, provincial-territorial education and labour market ministers jointly hosted a skills symposium with stakeholders to similarly probe improving education-employment linkages.

"We have to do a better job in preparing young people for the labour market," is a common refrain among key players on this topic.

For Canadian youth, it is essential the education or training they get is relevant to the job market they will enter. First, they need to know where the jobs will be. Second, they need to know what those jobs will be so they can plan their education and training accordingly. Third, they need education that is not just job training but equips them to be adaptable. Employers do not always provide clear and strong signals to youth. That needs to change, and this report explores how to improve it.

At every step of this discussion on youth, the Canadian Chamber of Commerce has been engaged with government and stakeholders. With our members in both the employer and educator communities, the Canadian Chamber brings a demand-meets-supply perspective to the need for better labour market information and improving connections between business and post-secondary education.

With this report, we investigate the state of key factors affecting youth's successful transition to employment in Canada:

1. Labour market information
2. Career decision-making
3. Work-integrated learning

Let us do our best to help young people make more informed decisions on their future education and the skills they need. Let us give them the best opportunities to find employment in Canada's dynamic economy.

A handwritten signature in black ink that reads "Perrin Beatty". The signature is written in a cursive, flowing style.

Hon. Perrin Beatty
President and CEO
The Canadian Chamber of Commerce

1. INTRODUCTION

Skills shortages¹ have regularly been identified as one of the top 10 barriers to competitiveness in Canada by the Canadian Chamber of Commerce, costing the Canadian economy billions in lost GDP annually.² There is now a rare consensus about skills needs and challenges in this country, across the demand and supply perspectives.³ An aging population will only exacerbate the problem in the coming years, especially for the most in-demand professions in the skilled trades and STEM-based occupations (where STEM refers to science, technology, engineering and math).

With this report the Canadian Chamber of Commerce focuses on the role of the education-to-employment transition in mitigating or aggravating the skills gaps. Specifically, this report addresses the ways in which all stakeholders, including government, employers, workers, education providers and students, will need to adapt and collaborate to improve the efficiency of the labour market.

While the supply side of talent is supported by a range of education and training entities – from universities to colleges to polytechnics to private training providers – this report will put the spotlight on publicly-funded institutions. Since most Canadian education is publicly funded and a public good, data and research are important to address the changing dynamics and outcomes of that public good. They also help publicly-funded post-secondary educational (PSE) institutions meet their diverse missions – either knowledge creation or employment.

Based on a review of recent Canadian research, we find a lack of labour market information (LMI), a mixed and often ad hoc approach to career guidance among secondary and post-secondary institutions and a valuable opportunity to develop connections between post-secondary education providers and employers, particularly through work-integrated learning and training programs.

Contrary to what we may believe, the essential skills that workers require to perform and thrive in the world of employment are seen to be lacking in Canada. Challenges with adult literacy are a concern, with an estimated four out of 10 adults lacking sufficient levels of literacy to be fully competent in most jobs.⁴ For Canadians aged 16 to 24, literacy rates have fallen below the OECD average.⁵ Meanwhile, Canada’s adult numeracy rates are also in decline⁶ and the level of math skills among 15-year-olds is disappointing, given the critical role of STEM education to in-demand professions, the skilled trades and the jobs of the future.⁷

We therefore identify the development of basic skills, literacy and numeracy, as well as technological literacy and problem solving, as a priority issue in improving the education-to-employment transition in Canada. These skills should act as foundations to enable people to benefit from further training, both in educational programs and in the workplace.

1 The OECD offers a definition of “skills shortages” as follows: “Skill shortages arise when employers are unable to recruit staff with the required skills in the accessible labour market and at the going rate of pay and working conditions due to a lack of an adequately qualified workforce. They can be defined in terms of unfilled and/or hard-to-fill vacancies.” As cited in the 2014 OECD questionnaire “Anticipating and Responding to Changing Skill Needs.”

2 Skills gaps cost Ontario’s economy up to \$24.3 billion in forgone GDP annually, as estimated in: Stuckey, James and Daniel Munro. *The Cost of Ontario’s Skills Gap*. The Conference Board of Canada. June 2013

3 The consensus on the skills gap is separate from the debate over labour shortages; the latter topic is explained in Philip Cross’s recent paper, *Do Labour Shortages Exist in Canada? Reconciling the Views of Employers and Economists*. Fraser Institute. 2014.

4 Conference Board of Canada. *How Canada Performs*. 2014. www.conferenceboard.ca/hcp/default.aspx

5 OECD. *Skills Outlook 2013: First Results from the Survey of Adult Skills*. 2013. p. 73 http://skills.oecd.org/OECD_Skills_Outlook_2013.pdf

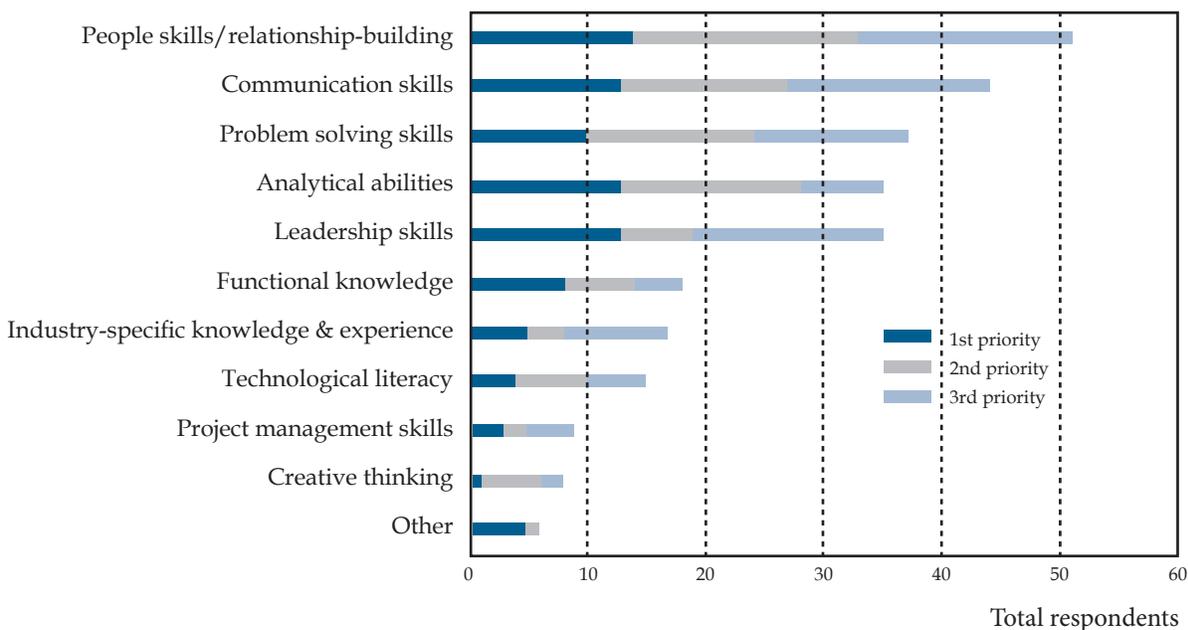
6 OECD. *Skills Outlook 2013: First Results from the Survey of Adult Skills*. 2013. http://skills.oecd.org/OECD_Skills_Outlook_2013.pdf

7 “Over the past nine years, the Canadian scores in mathematics have declined” according to the PISA (Programme for International Student Assessment) 2012 Highlights report for Canada available here: www.cmec.ca/docs/pisa2012/PISA2012_Highlights_EN_Web.pdf. PISA is the OECD international tests of the skills and knowledge of 15-year-old students.

There is a dearth of available data reflecting the supply of, and demand for, specific skills in Canada. Although educational attainment does not necessarily align with skills attainment, education credentials are often used as a proxy for job requirements. The distinction between qualifications and skills is crucial, according to Andreas Schleicher, Director of the OECD's Education and Skills Directorate. Speaking in Charlottetown, PEI, in July 2014, Schleicher told a conference of Canada's provincial and territorial education and labour market ministers that today's economy rewards workers "not for what they know, but for what they can do," because in today's labour market, qualifications are poor descriptors of workers' skills.⁸

Employers value general business skills, or so-called "soft skills" in new hires, specifically, skills in relationship-building, communications, problem-solving and analysis.⁹ Yet, there are concerns about the ability of today's high school students to develop those soft skills given the decline in Canada's scores in OECD surveys of 15 year-olds.

Soft skills are important in entry-level hiring



Source: Canadian Council of Chief Executives as presented in the OECD's *Economic Survey of Canada 2014*.

⁸ Schleicher, Andreas. Keynote speech. *Skills for the Future: Provincial and territorial education and labour market ministers*. Charlottetown, PEI, July 9, 2014.

⁹ OECD. *Economic Survey of Canada*. 2014. p. 118.



This trend does not bode well for the versatility and dynamism of Canada’s workforce as literacy and numeracy skills, along with soft workplace skills such as communications, are by nature transferable. Rick Miner therefore proposes that “all our educational programs should have both a content portion (specifics of what is being studied) and an essential skills component” to ensure graduates develop the skills necessary, not only for the jobs they are pursuing now but also for the jobs they may want to pursue later.¹⁰ A skills-oriented, as opposed to credential-oriented, approach to education would allow graduates to market themselves to employers more directly while allowing employers to evaluate potential hires more efficiently.

A survey of over 15,000 Canadian university graduates found that 51 per cent felt their undergraduate education contributed much or very much to their development of general employment-related skills and knowledge while 44 per cent claimed to have received equivalent preparation in specific employment-related skills and knowledge.¹¹ This disconnect between education and preparation for employment may help to explain why the average time it takes for Canadians to transition from high school graduation to full-time work is eight years, though post-secondary education (PSE) programs typically take two to four years.¹² Evidently, the transition from PSE to employment is not smooth for Canadian youth.

¹⁰ Miner, Rick. *The Great Canadian Skills Mismatch: People without jobs, jobs without people, and MORE*. Miner Management Consultants. March 2014. Available online at [www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf)

¹¹ Prairie Research Associates. *Canadian University Research Consortium 2012 Survey of Graduating Undergraduate Students*. June 2012.

¹² McDaniel, Susan A. et al. *Is the Math Sufficient? Aging Workforce and the Future Labour Market in Canada*. 2014.

2. OVERVIEW

This report identifies policy areas affecting skills gaps, both in Canada and globally, and provides a review of recent contributions to the policy debate. We find these policy areas reflect what is lacking in the Canadian education system and labour market:

1. **Labour market information (LMI):** This section examines Canada’s collection, interpretation and dissemination of data reflecting labour market conditions and projections.
2. **Career decision-making:** This section describes the factors and influences, both formal and informal, that shape Canadian students’ career interests and goals.
3. **Work-integrated learning (WIL):** This section addresses the various forms of education and training that occur in the workplace, such as co-op and internship programs, and the extent to which they are used or underused in Canada.
4. **National leadership and coordination:** This section examines the possible ways in which Canada could improve youth’s school-to-work transition to mitigate the skills gap, now and in the future.



3. LABOUR MARKET INFORMATION (LMI)

Summary

- Labour market information collection, presentation and dissemination are lacking in Canada
- Absence of data on skills shortages at the local and sectoral levels impedes political action by government and business
- Absence of data on the career outcomes of post-secondary students leaves prospective students in the dark
- Poor presentation and dissemination of data can lead to uninformed career guidance and decision-making among educators and students, respectively

Labour market information (LMI) is essential in guiding career decision-making, curricula design, employer recruitment strategies and education and employment policy-making at provincial and federal levels. In Canada, LMI currently brings more confusion than clarity as discrepancies in data collection and interpretation exist even within the federal government.

In a recent Institute for Research on Public Policy (IRPP) report, Don Drummond points out that while the 2013 and 2014 federal budgets observe a job vacancy rate of roughly four per cent, Statistics Canada estimates the same rate to be 1.3 per cent.¹³ In Drummond's view, "The difference is truly a game changer. Statistics Canada's result...points to a fairly limited mismatching. The budget result suggests there is a large skills mismatch problem, with the logical inference that there is a looming aggregate labour shortage."

TD Economics observes skills mismatching in some sectors and provinces and claims that insufficient LMI precludes reliable forecasting of labour market trends but does not predict an imminent skills shortage.¹⁴ Similarly, the Parliamentary Budget Officer noted pockets of labour market tightness at the regional and sectoral levels but no evidence of a national labour shortage in Canada in early 2014.¹⁵ Cliff Halliwell predicts labour supply and demand will balance in Canada over the long term, even as the baby boom generation retires.¹⁶

13 Drummond, Don. IRPP Insight. *Wanted: Good Canadian Labour Market Information*. June 2014. <http://irpp.org/wp-content/uploads/2014/06/insight-no6.pdf>

14 TD Economics. *Jobs in Canada: Where, What and For Whom?*. 22 October 2013. Available online at www.td.com/document/PDF/economics/special/JobsInCanada.pdf

15 Office of the Parliamentary Budget Officer. *Labour Market Assessment 2014*. Ottawa, March 25, 2014. Available online at: www.pbo-dpb.gc.ca/files/files/Labour_Note_EN.pdf

16 Halliwell, Cliff. IRPP Study no. 42. *No Shortage of Opportunity: Policy Ideas to Strengthen Canada's Labour Market in the Coming Decade*. November 2013. <http://irpp.org/wp-content/uploads/assets/research/competitiveness/no-shortage-of-opportunity/halliwell-no42.pdf>

In a more recent Fraser Institute paper, Philip Cross examines the opposing views of employers and economists over whether Canada has labour shortages. The disconnect can be explained in part because “economists look for evidence of shortages in data, which inevitably are backward looking,” whereas firms are looking to the future, “knowing they will soon have to replace their oldest workers with new sources of labour.”¹⁷ Confusion about the state of Canada’s labour market is due not only to conflicting analyses but to an absence of data. As TD Economics states, “When it comes to labour market information, we are currently operating in a data vacuum and flying in the fog without instruments.”¹⁸

For example, Statistics Canada cancelled the Workplace and Employment Survey in 2006. This survey was an important source of information on the frequency and outcomes of workplace training as well as workplace conditions.¹⁹ In early 2012, Statistics Canada instated a one-time workplace survey; the results of that survey have yet to be released. Information on the employment of post-secondary graduates is also hard to come by. The latest results of the National Graduates Survey, which tracks how graduates from the year 2009-2010 fared in the labour market as of 2013, are currently available only upon purchase and in raw data form. Students, in particular, need more than costly raw data if they are to use LMI to inform their career decision-making.

Improving labour market information is a necessary condition for identifying skills gaps across Canada, as all stakeholders in the school-to-work transition need clearer information about the kinds of skills graduates acquire and those employers require. Drummond recommends that Statistics Canada and the relevant department collect this information and for Employment and Social Development Canada (ESDC) to disseminate it in a way that allows all individuals easy and affordable access. He suggests the Forum of Labour Market Ministers should be the main co-ordinating body nationally, while others suggest creating a national arm’s-length LMI agency.²⁰ Similarly, Rick Miner has called for long-term funding for Statistics Canada to collect information on educational attainment and labour market dynamics via a reinstated long-form census and an updated Canadian Occupation Projection System (COPS).²¹

LMI is generally tied to the National Occupational Classification (NOC). Employers find NOC codes insufficient as the codes focus on occupations and credentials but not skills. It is skills that employers value; to tell an employer that an individual has a degree and a few years of experience does not come close to determining if she or he has appropriate skills for a specific job. The addition of a skills dictionary to the NOC would result in more relevant data.

17 Cross, Philip. *Do Labour Shortages Exist in Canada? Reconciling the Views of Employers and Economists*. Fraser Institute. 2014.

18 TD Economics. *Ibid.*

19 Drummond. *Wanted: Good Canadian Labour Market Information*. 2014.

20 For example, see the pre-budget 2015 submission of Polytechnics Canada.

21 Miner, Rick. Miner Management Consultants. *The Great Canadian Skills Mismatch: People without jobs, jobs without people, and MORE*. March 2014. [www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf)

New and improved LMI must be nuanced at regional and sectoral levels in order to be useful to job-seekers, employers and policy-makers. The federal government recently made a \$14 million investment to this end with the expansion of the job vacancy survey from 15,000 to 100,000 employers and the wage survey from 56,000 and 100,000 employers Canada-wide. More granular data will be necessary, however, if employers and job-seekers are to use LMI to inform their decisions on a local level. In addition, the information is unlikely to be useful unless it is freely accessible and intelligible to all stakeholders.

ESDC recently relaunched its Job Bank to include not only online job vacancy listings but also data on average wages by occupation, city or province as well as a tool that identifies the basic skills required in various fields. However, Job Bank lacks information on the supply and demand for particular jobs at the local level because Statistics Canada does not currently collect that information. The Job Bank's limited labour market forecasting is informed by out-of-date information and thus is of little use to students who are in the process of choosing a field of study.

Career Choice is a new online tool that ESDC is set to introduce soon. It will offer information on the benefits of various fields of study (including wage trends and employment rates) to help youth in making career decisions and pursuing the relevant education and training.

McKinsey points out that some countries are more successfully collecting, packaging and disseminating LMI to students and job-seekers.²² In 2012, the United Kingdom launched its National Career Service, which provides LMI and career advice both online and by phone through its hotline. The website contains up-to-date LMI by sector and region, including forecasting to the year 2020. It also provides guidance to students aged 13 to 16 as they select school courses and decide whether and where to pursue PSE. The service reports an 85 per cent satisfaction rate among its users, which number more than one million per year.

Australia offers another example, where the Department of Employment publishes reports across occupations and regions.²³ In addition, it releases a national report every six months with information on skills shortages at the state, territory and national level and a list of skills shortage rankings, where shortages are predicted five years out for some occupations.²⁴

22 McKinsey & Company. *Education to Employment: Designing a System that Works*. January 2013. <http://mckinseysociety.com/education-to-employment/report/>

23 See for example: <http://employment.gov.au/occupational-skill-shortages-information>

24 See Appendix 2 for Australia's list of skills shortage rankings: http://docs.employment.gov.au/system/files/doc/other/skillshortagesaustralia2013_14.pdf

4. CAREER DECISION-MAKING



Summary

- Career decision-making among secondary and post-secondary students is insufficiently informed by Labour Market Information, including labour market projections
- Career education lacks consistency nation-wide in terms of approach and funding
- Training, qualifications, resources and the positioning of career guidance counsellors vary between academic institutions
- Students are constrained in their career decision-making by cultural stigmas associated with skilled trades and vocational education
- Private sector engagement with education providers would enlighten students and educators as they consider career options

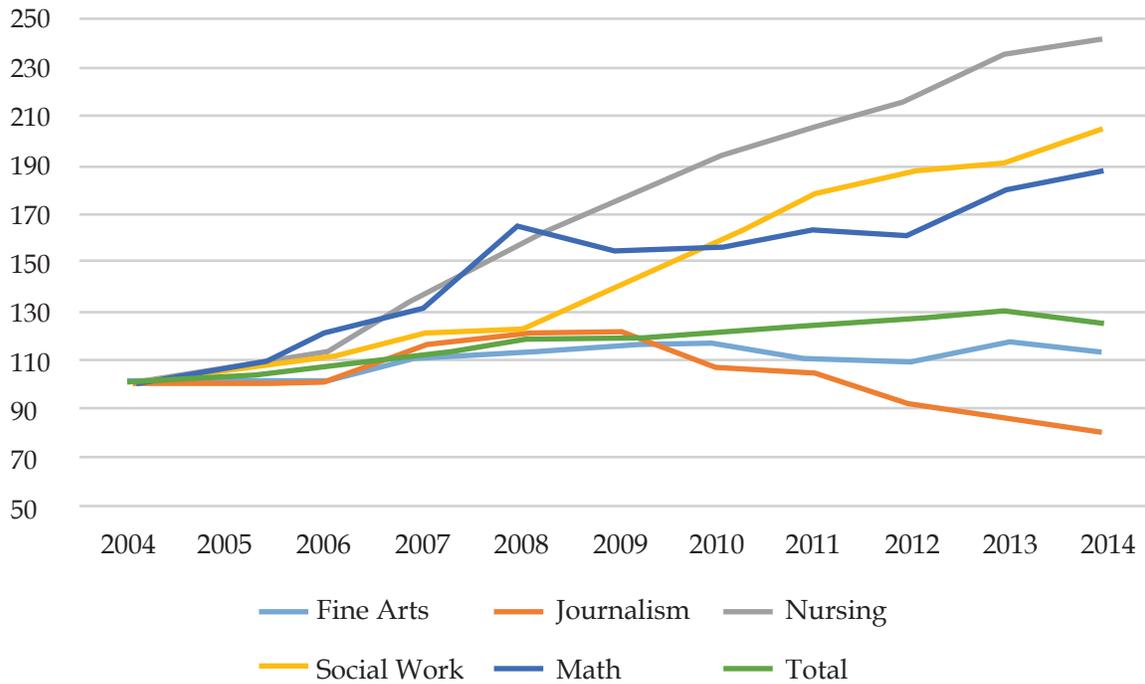
Thorough, relevant and accessible labour market information is important to career decision-making among middle school, secondary and post-secondary students and the parents, school counsellors, teachers and professors who guide them. How this information is communicated is equally important as students make decisions that will ultimately position them for life after education.

Alex Usher, President of Higher Education Strategy Associates, has pointed out that “over time, students do, in fact, respond to changes in labour market

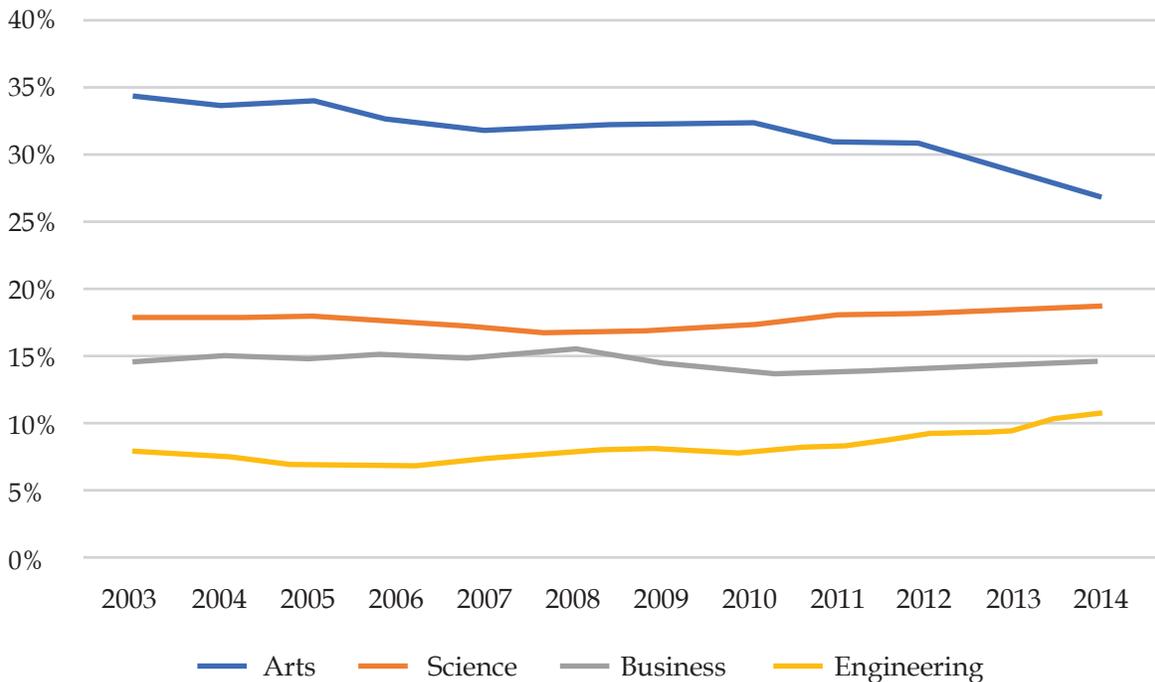
conditions.”²⁵ Since 2003, the share of applications to undergraduate arts programs in Ontario relative to all applications province-wide have fallen by 30 per cent, while the share of applications to engineering programs has risen by nearly 40 per cent. Since 2004, the numbers of applications to undergraduate nursing, engineering, and math programs in Ontario have risen by 150 per cent, 90 per cent and 81 per cent, respectively, while the number of applications to journalism programs has fallen by over 50 per cent since peaking in 2008.

²⁵ Usher, Alex. *Trends in Applications*. Higher Education Strategy Associates. 14 May 2014. <http://higherstrategy.com/trends-in-applications/>

Changes in application numbers, selected fields of study, Ontario, 2004-14, Indexed to 2004



Arts, science, business and engineering applications as percentage of total, Ontario, 2004-14



Source: Alex Usher, "Trends in Applications," Higher Education Strategy Associates, May 14, 2014.
<http://higheredstrategy.com/trends-in-applications/>

These trends lead us to conclude that high school students would (if they could) integrate new, more granular labour market information into their career decision-making processes. For example, information that provides a detailed picture of skills mismatching among provinces could incent young workers to migrate out-of-province in pursuit of employment. More robust labour market information may therefore help to address stagnant labour mobility rates in Canada.²⁶

Among Aboriginal youth in post-secondary education, many are studying in areas related to the public sector.²⁷ While this may reflect where Aboriginal peoples' employment is highest, it may be a worrying trend relative to their opportunities to participate in the broader labour market, especially in areas of high demand. Recent research by TD Economics suggests a need to promote a broader range of disciplines to Aboriginal youth, rather than the tight concentration in public-sector oriented fields.²⁸

Rick Miner argues that new and improved labour market information should inform "mandatory" career counselling for secondary school students, parents, teachers, guidance counsellors,

administrators and government and business representatives with the purpose of helping students understand the career prospects of various programs in both universities and colleges, as well as apprenticeship programs.²⁹ According to Miner, status quo career counselling by teachers, parents, administrators and guidance counsellors propagates an arbitrary "PSE hierarchy" in which university programs always outrank college programs, regardless of graduates' employment outcomes.

McKinsey argues that post-secondary institutions can join government in contributing to the information available by collecting and publishing data³⁰ on their graduates' job placements, income, and career trajectories.³¹ This could play an important role in informing current and prospective students' career decision-making by allowing them to contrast the labour market outcomes of college and university graduates.³² Transparency on the part of all post-secondary institutions may help to achieve the "parity of esteem" between vocational and university education that Minister of Employment and Social Development Jason Kenney called for earlier in 2014 by providing students with an objective yardstick for evaluating PSE options.

26 TD Economics. *Jobs in Canada: Where, What and For Whom?* October 22, 2013. Available online at www.td.com/document/PDF/economics/special/JobsInCanada.pdf

27 TD Economics. *Employment and Education Among Aboriginal Peoples*. October 7, 2013. p. 5.

28 Ibid.

29 Miner, Rick. *The Great Canadian Skills Mismatch: People without jobs, jobs without people, and MORE*. March 2014. Miner Management Consultants. Available online at [www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf)

30 McKinsey. *Education to Employment*. 2012.

31 It is costly to track career trajectories of graduates at the institutional level. Universities have recently collaborated to do a five-year follow-up survey of graduates to replace the discontinued National Graduates Survey. Universities are currently analyzing that data and working to find ways to disseminate results.

32 Many colleges and universities do produce data on employment and graduation rates. Part of the challenges is that college and university systems and the differing program mix at individual institutions make it difficult to directly compare the statistics. For example, Ontario colleges and universities have many years of data on both employment and graduation rates. Several provinces make this type of data available, but the data are not available centrally with the appropriate notes and context to make it as useful as possible.

Choices Students Make that Influence Their Future Careers



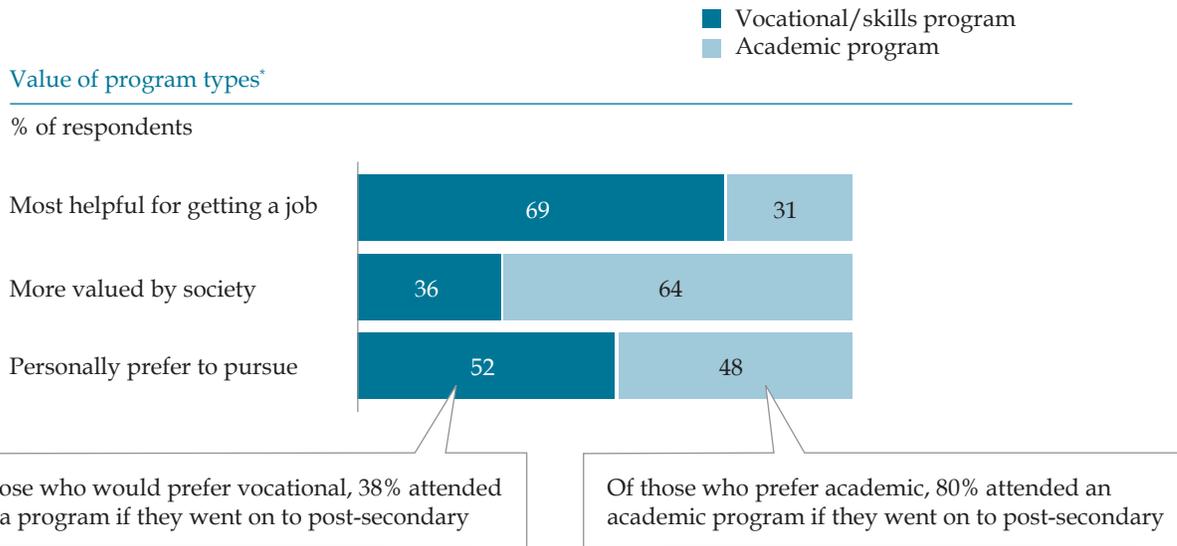
Source: Canadian Information Centre for International Credentials, Council of Ministers of Education, Canada. 2010.

Still, cultural biases against apprenticeship programs and skilled trades programs may be difficult to combat. In 2007, the Higher Education Quality Council of Ontario found that only six per cent of students and seven per cent of parents favoured vocational training over university education. Across Canada, secondary school students have access to youth apprenticeship programs whereby students can earn both income and school credit, yet

apprenticeship programs continue to carry a stigma among Canadian teachers, parents and students who view these programs as “easy credit for low academic achievers,” according to Neil Sandell.³³ The Millennium Scholarship Foundation believes that such biases contribute to low enrolment rates (below 20 per cent) in apprenticeship courses at the secondary school level.

33 Sandell, Neil. Atkinson Public Policy Fellowship Series. *Good Work Hunting: In Search of Answers for the Young and Jobless*. 2012.

The perception challenge of vocational education



* Now I would like to understand how you value different post-secondary education options. For each of the following statements, please tell me your opinion on which type of education-vocational/skills or academic-better applied.

Source: McKinsey survey, Aug-Sept 2012

A consistent approach to tracking and broadcasting post-secondary student employment outcomes could provide a standard basis for career counselling in secondary schools. As The Learning Partnership has pointed out, a lack of consistency in career education across Canada may allow under-trained and under-funded career educators to slip through the cracks.³⁴ Based on interviews with career educators and counsellors at secondary schools, Sandell reports that these teachers can be inadequately trained for career instruction.³⁵ According to other research, career educators across Canada are juggling activities such as administrative tasks along with their responsibilities as guidance counsellors.³⁶

The role of a career counsellor has not been adequately studied, but initial research by Lees and Dietsche points to an ill-defined, under-resourced

role operating in isolation from the system within academic institutions. A lack of investment in this role is illustrated by college student populations in Ontario outpacing the growth in number of counsellors by a rate of six to one.³⁷ Lees and Dietsche point out that as few as 18 per cent of students use the counselling services available and that the time spent by the counsellors on career counselling is down to just 16 per cent. The potential to use the career counsellor role as a multiplier within the organization is also underutilized, with 89 per cent of counsellors reporting that they never or rarely engage in staff or faculty training.

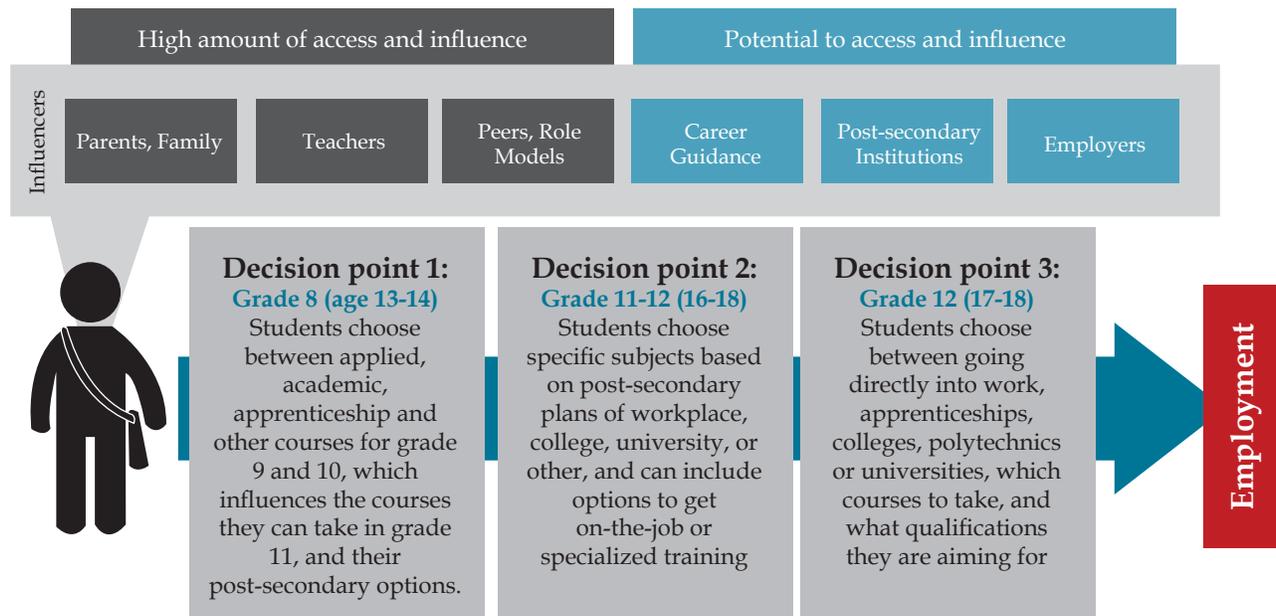
34 The Learning Partnership. *It's Their Future: A Pan-Canadian Study of Career Education*. November 2013. www.thelearningpartnership.ca/files/download/333d0409f3d6d42

35 Sandell. *Good Work Hunting*. 2012.

36 Canada Millennium Scholarship Foundation. *Pan-Canadian Study of Career Development Practices in K-12 Public Schools-Final Report*. 2009.

37 Lees, Jim, Dietsche, Peter. *An Analysis of Counselling Services in Ontario Colleges Initial Report*. October 2012.

Main Influencers and Decision Points for Students Ages 13-18 in Ontario



Source: People for Education, based on Ontario

Many have called for partnerships between education providers and employers in engaging students at both secondary and post-secondary education levels. The Canadian Association of Career Educators and Employers (CACEE) claims employers have curtailed their investments in on-campus recruiting at post-secondary institutions and calls on the private sector to reinvest in campus recruitment.³⁸ Coates and Miner argue that in order to disrupt the “student-driven, supply-side model” of post-secondary education, companies need to engage education providers more actively, informing students and educators of the skills the workforce demands.³⁹ The Higher Education Council of Ontario found in its survey of Ontario post-secondary graduates in 2012, students who participated in work-integrated learning (WIL) through programs

such as internships, co-ops and practicums gained clarification of their career interests and goals.⁴⁰

In Canada, the Social Research and Demonstration Corporation investigated the use of web-based technologies to help young people in making career choices.⁴¹ One site that is an example of this approach is the Alberta Learning Information Service (ALIS). ALIS hosts a variety of information, including CAREERInsight, a modular tool leading people through a career planning process, a job postings aggregator and some useful LMI, such as the average wages and salaries for over 500 occupations. The site contains individual sections designed specifically for high school students, PSE students, educators/ counsellors and job seekers, facilitating these stakeholders’ access to relevant information.

38 Canadian Association of Career Educators and Employers (CACEE). *Call for Action on Unemployment, Underemployment and Skills Shortages*. 25 June 2013. http://cacee.com/_Library/docs/Final_-_Call_for_Action_on_Unemployment_Underemployment_and_Skills_Shortages.pdf

39 Coates, Ken and Rick Miner. “Matching Jobs and People.” *Policy Options*. February 2013. <http://archive.irpp.org/po/archive/feb13/coates%20miner.pdf>

40 Sattler, Peggy and Julie Peters. Higher Education Quality Council of Ontario. *Work-Integrated Learning in Ontario's Postsecondary Sector; The Experience of Ontario Graduates*. 2013.

41 De Raaf, Shawn. Taylor, Shek-wai Hui. Vincent, Carole. Social Research and Demonstration Corporation. *Career Motion: How Web-based technologies can improve career choices for young people*. 2012.

5. WORK-INTEGRATED LEARNING (WIL)

Summary

- Work-integrated learning (WIL) includes co-op and internship programs, among other workplace training programs⁴²
- WIL benefits students by allowing them to gain experience before entering the workforce and contributing to their career education
- WIL facilitates the recruitment process for employers and is associated with productivity gains
- WIL is underused by university students, largely because universities have not institutionalized WIL the way colleges and polytechnics have
- Not enough employers, especially smaller firms and organizations, take sufficient advantage of WIL

Work-integrated learning (WIL) is the term used to refer to “the process whereby students come to learn from experiences in educational and practice settings.” Seven types of WIL are listed in a report issued by the Higher Education Quality Council of Ontario, cited here verbatim:

- **Apprenticeship:** Training that combines learning on the job with classroom instruction, leading to a certificate of apprenticeship
- **Field placement:** Practical experience in a real work setting
- **Mandatory professional practice:** Work hours needed to obtain a licence to practise or a professional designation, or to register with a regulatory college/professional association
- **Co-op:** Academic study that alternates with paid work experience developed and/or approved by the college/university
- **Internship:** Program-related experience in a professional work environment
- **Applied research projects:** Student projects to address specific business or industry problems
- **Service learning:** Student projects to address identified community needs or global issues⁴³

Business-education partnerships play a critical role not only in career education but in ensuring that students develop the skills and competencies necessary to succeed in their chosen career paths. The World Economic Forum (WEF) argues that apprenticeships and workplace training are key to addressing high youth unemployment rates, which

are in part due to young graduates’ lack of work experience as they enter the labour market. Whether or not they lead directly to full-time employment, paid internships and other forms of workplace training can provide youth with the experience and skills they can leverage to find other opportunities.⁴⁴

⁴² This report will not address the subject of unpaid internships.

⁴³ Sattler, Peggy and Julie Peters. *Work-Integrated Learning in Ontario’s Postsecondary Sector: The Experience of Ontario Graduates*. Higher Education Quality Council of Ontario, 2013.

⁴⁴ World Economic Forum. *Matching Skills and Labour Market Needs: Building Social Partnerships for Better Skills and Better Jobs*. January 2014. www3.weforum.org/docs/GAC/2014/WEF_GAC_Employment_MatchingSkillsLabourMarket_Report_2014.pdf

Transforming Students through the Co-op Experience

Engineering, business and computer science are the programs many of us associate with co-op programs. But how many of us would consider co-op placements for humanities students?

In fact, students in the humanities need the co-op experience as much, or possibly more, than students in disciplines where co-ops have historically been offered. That is the view of Norah McRae, who makes the case for humanities students in co-op placements.

McRae is the Executive Director of the Co-operative Education Program and Career Services at the University of Victoria. UVic is among the universities offering the most co-op programs in Canada. And they range from engineering and business to fine arts and the humanities.

With critical thinking, writing, research and communications skills, humanities students have the core capabilities that many employers say they need in the workplace, says McRae. She believes there are parts of the economy where this fit really works well; for example, in small non-profit or advocacy organizations or in publishing or communications and marketing firms.

The first step, however, is to address the perceptions students have of co-op programs. “There are those students who want to get a co-op placement and they try and they are successful, and it allows them to step into labour force more successfully,” says McRae.

“Then there are those who have said to themselves, ‘Who would hire me?’ They self-select themselves out of the program. And when they graduate, they struggle (in landing a job),” she adds.

Interestingly, UVic has Canada’s only common law school with a co-op program. Why offer co-op to law students? “Because not everyone who comes through law school wants to become a lawyer,” explains McRae. “A law co-op allows them to be exposed to different environments where law studies are used—government, non-profits groups, advocacy organizations—and they decide where they want to step into.”

Co-op is an educational model that enriches the education experience. It allows students to apply their theory in a workplace setting; it reinforces that learning and it builds capabilities that they don’t get in the classroom, says McRae. UVic partners with the Greater Victoria Chamber of Commerce and Camuson College to promote a simple message to the employer community: Hire co-op students—they are good for business.

“It can also be a launch pad for entrepreneurialism,” she explains. “Often (these graduates) have to create a job themselves. Students see what is possible through a co-op work term with small business. There are terrific opportunities to see how business works.”

Students creating jobs and companies is one the central drivers of “zone learning” at Ryerson University. In the zone or incubators, students experience a collaborative community where they work to solve industry problems or create new products. With on-site advice from faculty, industry experts and entrepreneurs, students have the space to create start-ups or work with business. It is a model that is growing within the university with five zones currently: Digital Media Zone; Centre for Urban Energy; Fashion Zone; Design Fabrication Zone; and Transmedia Zone. As Ryerson President Sheldon Levy has said, “Rather than students having to find a job, they are job creators.”

While “zone learning” is a new take on the education-work experience model, it demonstrates what is possible when young people apply knowledge in work environments.

As Judene Pretti, Director of the Centre for the Advancement of Co-operative Education at the University of Waterloo, notes: “A graduate from university may know what they can offer a company, but co-op students know what they can contribute and they can articulate that in interviews.”

Employers see the benefits too and act on them. “The vast majority of the new graduates we hire have co-op experience,” says Angela Morin, a workforce planning specialist on assignment to Dow Chemical Canada. “It really gives them a competitive advantage.”

Employers benefit as much as students or interns from these experiences. Employer participation in structured workplace training programs can enhance firm reputation and boost workplace morale.⁴⁵ More importantly, work-integrated learning is associated with increased firm productivity and more efficient and effective talent recruitment.⁴⁶

CIBC's Benjamin Tal has cited a worrying trend that "one in five youth not working today has never held a job. That is 40 per cent higher than the long-term average and just shy of the record high reached in the late 1990s."⁴⁷

The Higher Education Council of Ontario reports that just under half of Ontario university students participate in WIL such as co-ops, internships and practicums before graduation, while roughly 70 per cent of Ontario college students gain such experience over the course of their studies.⁴⁸ The Council

suggests that WIL at universities could be enhanced through the development of course materials that are more directly relevant to work environments.⁴⁹ The Council also argues for a higher degree of collaboration between PSE institutions, employers and students in establishing clear parameters for an internship to ensure it provides educational value.⁵⁰

45 Sterling, Ashley et al. Higher Education Quality Council of Ontario. *What is an Internship? An Inventory and Analysis of "Internship" Opportunities Available to Ontario Postsecondary Students*. July 2014. <http://heqco.ca/SiteCollectionDocuments/Internship%20ENG.pdf>

46 International Labour Organization (ILO). *Overview of Apprenticeship Systems and Issues*. November 2012. www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/genericdocument/wcms_190188.pdf

47 Tal, Benjamin. CIBC Economics. *Dimensions of Youth Unemployment in Canada*. June 20, 2013.

48 The college number is higher because college and polytechnic education is built on the idea of connecting education to employment, and applied education requires active engagement with employers. A university's primary motivation is knowledge creation, not job creation. Universities often provide broader education that prepares students more generally for the workforce. University programs cannot always be directly linked to specific career. University-based WIL pioneered in Canada in 1957 at the University of Waterloo.

49 Sattler and Peters. *Work-Integrated Learning in Ontario's Postsecondary Sector: The Experience of Ontario Graduates*. 2013.

50 Sterling, Ashley et al. Higher Education Quality Council of Ontario. *What is an Internship? An Inventory and Analysis of "Internship" Opportunities Available to Ontario Postsecondary Students*. July 2014.

Tapping the Talent Pipeline: Why Co-op Works for Employers

Consider it a four-month or eight-month long interview. Co-op students are primarily hired for employers' recruitment needs and the chance to see if the students might be a good fit for future positions.

For employers, there is the added bonus of the fresh ideas and enthusiasm that students bring with them from the classroom into the organization, says Angela Morin, a workforce planning specialist on assignment to Dow Chemical Canada. On a practical level, hiring managers have the chance to complete outstanding or special projects by employing students at lower cost than full-time employees.

In some cases, employers have to compete for students. Consider the example of Dow in Calgary. "It is a competitive market, with the oil and gas sector," says Morin. "We do compete for the same talent in engineering, so we have to stand out as a strong employer. We know applicants are interviewing at other companies."

Dow seeks co-op students from what it calls "strategic universities" where the quality of students has been high.

Once employers are sold on co-op, the challenge can be persuading them to hire first-year students. "It's fairly easy to convince business to hire students in their third and fourth work terms, but it is much harder in the first or second work term," says Pretti at UWaterloo.

Co-op connections also allow companies to deepen their relations with universities and colleges. IBM hires as many as 500 co-op students each year, mostly for positions in its Toronto and Ottawa labs. With an emphasis on "big data" research and its real-world benefits, IBM is also collaborating with several universities in southern Ontario on a platform for research collaboration and innovation. Expanding programs in data analytics and their skilled graduates is one of the reasons for this collaboration.

For Siemens Canada, connections with universities and colleges are allowing them to stretch the internship model in a new direction, bringing to Canada the best features of the German system. The company has created a new pilot program to offer more intensive, multi-year internships, recruiting second-year students in colleges and universities in Ontario and Alberta—namely at the Northern Alberta Institute of Technology, Mohawk College, McMaster University, the University of Waterloo and the University of Alberta.

Rick Miner suggests that all post-secondary educators should have funding earmarked for developing education and training programs that lead to jobs in emerging sectors. To expand WIL at universities while mitigating university graduates' need to enrol in college programs to find employment, Miner proposes integrated university/college programs with, for example, three years of university education and one year of applied training in college.⁵²

In order to expand WIL programs, post-secondary education providers need not only funds but also private-sector participants. As the World Economic Forum points out, "job-specific and work-based skills are difficult to learn other than on the job."⁵³ Recently, the federal government announced funding for 3,000 postgraduate internships in "high-demand fields" as part of its Youth Employment Strategy.⁵⁴ This funding will be available primarily for small- and medium-sized firms. It complements the funding of Mitacs, an organization that offers research internships in the private sector for graduate students and post-doctoral fellows

⁵² Note that applied research projects in colleges and polytechnics are a form of WIL.

⁵³ World Economic Forum. *Matching Skills and Labour Market Needs: Building Social Partnerships for Better Skills and Better Jobs*. January 2014. www3.weforum.org/docs/GAC/2014/WEF_GAC_Employment_MatchingSkillsLabourMarket_Report_2014.pdf

⁵⁴ Office of the Prime Minister. *News Release: Prime Minister Stephen Harper Announces Paid Internships in High Demand Fields*. May 2, 2014. www.pm.gc.ca/eng/news/2014/05/02/prime-minister-stephen-harper-announces-paid-internships-high-demand-fields

Complementary Credentials: the Role of Graduate Certificate Programs

While not entirely a new approach, adding skills with a certificate program is increasingly an option for post-secondary graduates to fine-tune themselves for employment.

Graduate certificate programs are mushrooming across Canada. They are responding to demand among undergraduates or recent graduates for additional credentials related to jobs in demand and they also offer upskilling for existing employees with post-secondary degrees.

“We’ve had tremendous growth in the certificate programs,” says Claude Brulé, Vice-President, Academic, at Algonquin College in Ottawa. In the past five years, the number of graduate certificate programs at Algonquin has grown by 60 per cent, with a doubling of the number of students from 800 to 1,600 per academic year.

Qualified applicants are out-stripping available spots in these programs at members of Polytechnics Canada.⁵¹ In 2012-13, over 23,000 applicants were turned away because member institutions were unable to accommodate them. In that year, about 11,300 students were enrolled full-time in their programs.

Graduate certificates are short-duration programs, usually one to two years if taken on a full-time basis, although many are offered on a part-time or even on an online basis. There is a strong emphasis on connecting students with industry experts and offering workplace experience, where feasible.

“The instructing cadre is professionals in the field, people who are current practitioners,” explains Brulé. “They have a foot in the industry and in the college and they bring the very latest to the classroom. That has great appeal to students.”

At the British Columbia Institute of Technology (BCIT), Dr. Barry Hogan, Dean, Academic Planning and Quality Assurance, says, “The typical student profile for these programs is a university degree graduate who has two to five years of work experience and has determined a more specific career path and needs these qualifications to enter that field.

“These programs give grads an edge by providing advanced education and skills in very specific disciplines,” adds Hogan. “It allows a bachelor of arts or science student to gain a significant expertise in a specific field, thereby enhancing their employability and career prospects.”

The programs require completion of a prior post-secondary credential, usually a university degree. For example, Algonquin College offers a one-year graduate certificate in international business management, where the admission requirement is a college diploma (minimum) or a university degree in business or a related area. Seneca College offers an eight-month graduate certificate in bio-informatics that requires a recognized degree or a three-year diploma in biotechnology or biology. That program was designed to meet the increased demand for trained bio-informatics professionals. BCIT currently has 21 advanced certificates and one graduate certificate, with several more in development.

Programs are selected and developed based on a combination of labour market demand and the institution’s programming strategy or mandate. BCIT considers both labour demand and supply, potential sources of students, stakeholder support and competitive analysis. “We are not interested in developing a program that has a saturated supply of labour, or if other post-secondary institutions are already satisfying the educational need,” says Hogan.

Upskilling opportunities are available at universities’ continuing education programs, which work with local employers on training programs. For example, the Faculty of Continuing Education at the University of Calgary offers programs and certificates designed with companies (often in the oil and gas sector) to enhance the skills of employees across a range of areas, from human resources to project management to finance, marketing and engineering certificates.

As Brulé notes, “Those extra skills and knowledge help (certificate) graduates differentiate their résumés from someone else’s.”

For many graduates, they can make the difference between finding a job versus getting on track to a career.

51 Polytechnics Canada members are: Algonquin College, British Columbia Institute of Technology, Conestoga College Institute of Technology and Advanced Learning, George Brown College, Humber Institute of Technology & Advanced Learning, Northern Alberta Institute of Technology, Red River College, SAIT Polytechnic, Seneca College, Sheridan College Institute of Technology and Advanced Learning, and Saskatchewan Polytechnic.

Employers Can Step up with Internships

Launching their careers is often the biggest challenge facing many recent graduates. “And one of the things missing for launching is related work experience,” says Kelly McDougald, Chair of Career Edge, and Managing Director at Knightsbridge Human Capital Solutions in Toronto.

Career Edge offers paid internships with leading organizations and SMEs. For 18 years, it has been an approach that works. Half of all interns are offered a full-time position with their host employer. “The other half end up launching their careers in a stream that is commensurate with their skills set and career aspirations,” says Naguib Gouda, President of Career Edge.

For employers, Career Edge lowers the risk and the cost of taking on interns. In fact, interns are employees of Career Edge during their placements with employers. And with 1,000 employers involved, mainly in the Greater Toronto Region, and 12,000 interns placed since 1996, “the proof is in the pudding,” says Gouda.

RBC is one of the founding members of Career Edge and values the diverse, skilled talent that is available through the organization, which is not a temp or employment agency but a not-for-profit, self-sustaining social enterprise. RBC sees value well beyond its own use and has extended support to make Career Edge interns available to small business clients on a subsidized basis.

“At the very least, employers get what they need for a project but more so, they contribute to helping individuals overcome the catch-22 cycle and get the work experience to launch their careers,” says Gouda.

Interns only get one shot at an internship through Career Edge because it has a long lineup of people who need help, says Gouda. “Interns know this is their one shot, so they usually work really hard to show they can do the job,” he says.

For small- and medium-sized business, the fact that Career Edge is the employer of the interns means the payroll and taxes are taken off the SMEs’ hands. The organization’s programs also help people with a self-declared disability who need some workplace accommodation as well as recent immigrants to Canada who may be highly credentialed but lack Canadian work experience.

Many of the positions are in finance, IT and HR. The value proposition for interns is experience, networking and mentorship. “If they experience that during their education, they likely won’t need Career Edge,” says Gouda. “We exist to help people launch their careers and help them overcome barriers.”

For young people, McDougald’s message is learn how to interview and network. “With meta search engines, it is not an issue of finding jobs but figuring out how to get through the door,” she says. “I call it ‘job search avoidance’ when you sit on the Internet all day. It’s about personal networking and the hidden job market.”



Several international examples of institutionalized WIL may be instructive for Canada. South Korea, like Canada, has a high university enrolment rate and a skills deficit in the trades. It introduced vocational training programs designed specifically to attract students who tend to be biased against manual and technical labour. In 2010, the Korean government began to convert existing colleges and trade schools into “Meister Schools,” vocational schools that have been rebranded to attract prestige. The Meister Schools have collaborated with universities to ensure vocational students can move directly to a university program upon graduation if they so choose.⁵⁵

Korea’s choice of the word “meister,” the German word for “craftsman,” to retitle its vocational schools is testament to the prestige of Germany’s apprenticeship programs. In an international study conducted by McKinsey, Germany was the only country of nine in which students viewed academic and vocational training as equally respectable.⁵⁶

The success of Germany’s model of vocational training can be attributed to its joint management by many stakeholders.⁵⁷ The federal Ministry of Economic Affairs and Technology in Germany regulates the programs by establishing apprenticeship durations and evaluation requirements for each profession⁵⁸; the Ministry of Education and Research sets core curricula of apprenticeship programs and supervises research and development projects relating to instruction, which are conducted by a Federal Institute for Vocational Training; states fund in-school training; participating companies pay for apprenticeship training; unions are involved in apprenticeship wage negotiations with the private sector; and economic chambers advise, monitor and assess participating firms to ensure compliance with the ministry’s standards. This multi-stakeholder model allows Germany to institutionalize WIL on a broad scale. The vast majority of this type of training takes place in vocational schools—effectively a part of the secondary school system for 16 to 18 year-olds. This differs significantly from the type of WIL experiences in post-secondary institutions.

How does Germany Do It?

With its low youth unemployment rate, Germany’s education system—and its “dual training” approach—gets plenty of attention in other nations, including ours.

Germany, similar to Canada, is a federation where education is a state (i.e. provincial/ territorial) responsibility. The difference is that Germany has chosen to co-operate on a national basis.

Granted, the German system requires a high degree of regulation that few other countries would embrace. Yet, with its powerful alignment across government, educators and employers, Germany’s system speaks to the value of cooperation and commitment among labour market actors.

There is national buy-in on the value of combining theory and practice in Germany’s education system. For stronger labour market outcomes, Canada would do well to emulate the shared purpose of Germany’s model.⁵⁹

55 McKinsey & Company. *Education to Employment: Designing a System that Works*. January 2013. <http://mckinseysociety.com/education-to-employment/report/>

56 Ibid.

57 World Economic Forum. *Matching Skills and Labour Market Needs: Building Social Partnerships for Better Skills and Better Jobs*. January 2014. www3.weforum.org/docs/GAC/2014/WEF_GAC_Employment_MatchingSkillsLabourMarket_Report_2014.pdf

58 In Germany, many more occupations—as many as 350—are apprenticeable than in Canada. These include occupations beyond the skilled trades, such as retail and finance roles.

59 See also: “Learning from success: What Canada can learn from Germany’s dual training system.” Canadian Chamber of Commerce. Blog. March 18, 2014. Available online here: www.chamber.ca/media/blog/140318-learning-from-success-what-canada-can-learn-from-germanys-dual-training-system/

In a survey of 2,700 employers across nine countries,⁶⁰ McKinsey found a significant gap between employers' and educators' perceptions of the competencies new hires possess and concluded that "the employers who engage the most, and the earliest, have the best outcomes." The Learning Partnership points out that some Canadian high schools have already successfully partnered with businesses to improve career education. There are a growing number of "try a trade" initiatives in high school systems.⁶¹ By allowing students to receive training in a skilled trade, a high-school facility encourages students to consider pursuing the trade, along with future opportunities for work-based learning.

Work-integrated learning has also been focused on the students, with little emphasis placed on the role it could play for educators. In Ontario, for example, teachers are incentivized through salary increases and promotions to engage in professional development throughout their careers. This process works through a series of credits awarded for obtaining additional qualifications; however, little emphasis is put on building a greater understanding of the public and private sector outside education. In the U.K., Heads, Teachers and Industry Ltd. (HTI), a registered charity, provides training courses that enable teachers to experience secondments in business.⁶² HTI is also active in promoting dialogue between education, business and government through a strategic forum called HTI Connect.

⁶⁰ These countries include India, Brazil, the United Kingdom, Germany, Mexico, the United States, Saudi Arabia, Turkey and Morocco.

⁶¹ For example, M.E. LaZerte High School in Edmonton houses a new welding fabrication facility, thanks to funding provided by both Edmonton Public Schools and the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada - Local Union 488, and the Alberta Pipe Trades College.

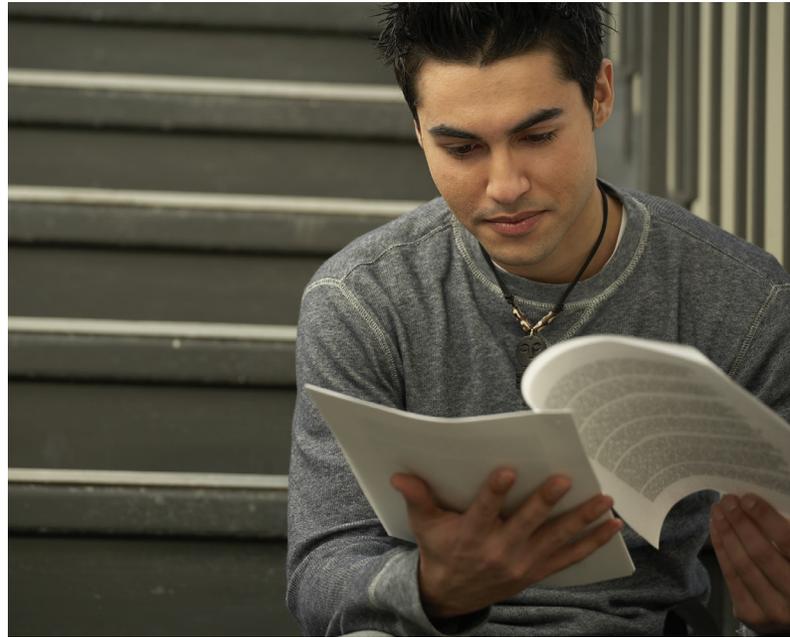
⁶² www.hti.org.uk/pdfs/pu/HTI_prospectus2012.pdf

6. NATIONAL LEADERSHIP AND COORDINATION

Since the education-to-employment transition in Canada involves a variety of stakeholders (provincial and territorial governments, post-secondary institutions, private training providers such as career colleges, students, employers, parents and secondary schools throughout the country), many have called on the federal government to coordinate efforts to improve labour market outcomes for youth. While the provinces and territories take principal responsibility for their education systems, the federal government can take the lead in expanding LMI, improving career decision-making and facilitating WIL and lifelong learning. The federal government has focused its youth “transition to work” efforts on helping youth at risk or with barriers to employment through the Youth Employment Strategy. The strategy supports paid internships for recent post-secondary graduates, among other initiatives.

There is a strong consensus among commentators that the responsibility to improve LMI falls on the federal government. As Tyler Meredith writes, “only government” can coordinate a national effort to address skills mismatching as only government “straddles all of [the] domains” involved, including LMI collection and dissemination, funding provision to WIL programs and the ability to incentivize both employers and workers.⁶³

The first two recommendations by the House of Commons Standing Committee on Finance concerning youth unemployment are for the federal government to provide improved LMI to secondary and post-secondary students.⁶⁴ Don Drummond is



more specific in his call on the federal government to take the lead by strengthening Statistics Canada’s capacity to expand LMI collection and by ensuring ESDC makes the information available to all Canadians via a “single portal” for LMI.⁶⁵ He also recommends the Forum of Labour Market Ministers play a coordinating role. Rick Miner similarly recommends that the federal government provide Statistics Canada with the funds necessary to reinstate the long-form census, establish new recurring labour force and labour market demand surveys and make LMI publicly available and free of charge.⁶⁶

⁶³ Meredith, Tyler. “Asking the Right Questions, Solving the Right Problems.” *Policy Options*. May-June 2014.

⁶⁴ House of Commons Standing Committee on Finance. *Youth Employment in Canada: Challenges and Potential Solutions*. June 2014. www.parl.gc.ca/HousePublications/Publication.

⁶⁵ Drummond, Don. “Wanted: Good Canadian Labour Market Information.” *IRPP Insight*. June 2014. <http://irpp.org/wp-content/uploads/2014/06/insight-no6.pdf>

⁶⁶ Miner, Rick. Miner Management Consultants. “The Great Canadian Skills Mismatch: People Without Jobs, Jobs Without People and MORE.” March 2014. [www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf)

Miner also argues that the federal government cannot improve students' career decision-making without taking an active role in the provincial and territorial education systems, claiming that "[to] assume all post-secondary institutions and their home provinces will routinely act in the best interests of Canada is both naïve and simplistic." Canada is the only G8 country that does not have a federal education ministry to argue that Canada needs a national strategy for education, according to Miner. He would have this national strategy include broad measures such as mandatory career counselling for high school students, parents, teachers and administrators across Canada.

The OECD has called on the Canadian government to take a more active role in promoting skills upgrading.⁶⁷ Specifically, the OECD argues that the federal government should help the provinces and territories harmonize education systems to facilitate credit transfers among post-secondary institutions, allowing more flexibility for workers interested in

relocating. The OECD also suggests that universities will need government funding to promote and accommodate increased enrollment in certain fields of study, such as STEM, that lead to employment in sectors with rising demand for labour.⁶⁸

The House of Commons Standing Committee on Finance agrees that the federal government should promote WIL in the science, technology, engineering, and mathematics fields by continuing to invest in internships (as it did in the 2014 budget) and by providing funds to expand apprenticeship and co-op programs. The Committee also argues that the federal government needs to conduct research to evaluate the effectiveness of methods of WIL such as internships. Similarly, the Higher Education Quality Council of Ontario believes government is responsible for ensuring the educational quality of internships, though the Council does not specify whether that responsibility should fall principally on the federal government or on the provinces and territories.⁶⁹

⁶⁷ OECD. *Economic Survey of Canada*. 2014.

⁶⁸ *Ibid.* p. 31

⁶⁹ Sterling, Ashley et al. "What is an Internship? An Inventory and Analysis of "Internship" Opportunities Available to Ontario Postsecondary Students". Higher Education Quality Council of Ontario. July 2014.

7. RECOMMENDATIONS

Government, education providers and businesses will need to work together much more closely to mitigate skills mismatching. The federal government should take the lead, coordinating provinces and territories in a national effort to reduce inefficiencies in the labour market while ensuring students have the fundamental skills necessary to enter the workforce.

Labour Market Information

Across the spectrum, from education to employment, Canadians lack robust labour market information. Students need a better understanding of the labour market as they decide whether to pursue PSE and their PSE options; parents and guidance counsellors need to ensure their influence on youth reflects current labour market conditions; secondary and post-secondary education providers need to tailor curricula to help students develop in-demand skills; employers need LMI to inform their recruitment and training programs, to know what is in the talent pipeline and whether to undertake the costly process of hiring foreign workers and to demonstrate the demand for changing PSE programs or curricula; and workers need to make strategic decisions as they navigate the labour market throughout their careers.

Actions should include:

- Mandate and fund a publicly accountable agency (whether it be Statistics Canada or a new arm's length LMI agency) to collect and prepare labour market data for public consumption, while charging the Forum of Labour Market Ministers with facilitating the coordination of data from key stakeholders, among other measures.

- Ensure LMI is detailed at the local level and reflects trends in skills requirements for occupations across a variety of sectors to maximize the information's usefulness to individual students, workers and employers. Specifically, government should expand the Job Vacancy Survey from the level of economic regions to the local/CMA level, wherever possible, reintroduce and upgrade the Workplace and Employee Survey, renew the Youth in Transition Survey and review and sustain the National Graduates Survey.
- Coordinate the dissemination of LMI to key stakeholders – in particular, youth and students – and post LMI in a freely available and easily digestible format.
- Promote the use of LMI as a career decision-making tool for students and workers.
- Require universities, colleges and polytechnics (i.e. publicly funded PSE institutions) to publicly disclose data on jobs placements of graduates and to distribute that information to current and prospective students.
- Create a mechanism to ensure data on student and learning outcomes available at the provincial level be made known at the national level and to ensure publicly funded education and training providers make their data on students, programs, outcomes and in-demand programs known through a nationally organized LMI entity.
- Incorporate skills as a level of detail within the National Occupational Classification (NOC) to facilitate communication and understanding between educators, students and employers.

Work-integrated Learning and Skills Development

Students who have engaged in work-integrated learning at the PSE-level report the experience clarified their career interests and influenced their career goals.⁷⁰ WIL also uniquely allows students to gain through the work experience the skills that employers expect new hires to bring to the job. Government, education-providers and employers should therefore work together to allow more students to reap the benefits of WIL. Educators, too, could benefit from greater exposure to business, in particular, as part of their professional development. Within the current system, the role of career counsellors should be more clearly defined and adapted to play a greater role in fostering links between academia and business.

Poor adult literacy and numeracy rates,⁷¹ along with declining numeracy and science performance among secondary school students,⁷² indicate that Canada needs to renew its efforts to provide students at all levels of education with basic skills. Meanwhile, graduates of university programs in the humanities have difficulty in marketing their skills to employers, while employers cannot easily recognize skill mastery among recent graduates.

Actions should include:

- Increase funding to co-op and internship programs offered through PSE institutions.
- Conduct research to illuminate the relationship between various types of WIL and firm productivity gains.
- Increase incentives, such as cooperative education tax credits and subsidy programs, to employers that partner with secondary and PSE institutions to provide WIL to students and graduates.
- Provincial/territorial consideration of mechanisms to improve education-business relationships, such as business secondments for educators.
- Provincial/territorial consideration of federal support to strengthen the guidance counsellor function and update guidance counsellors' knowledge of PSE and training systems.
- Develop ways to promote basic and workplace skill development into all curricula.
- Include summaries of skills mastery in student transcripts to allow for more effective signalling to employers.

70 Sattler, Peggy and Julie Peters. Higher Education Quality Council of Ontario. Work-Integrated Learning in Ontario's Postsecondary Sector; The Experience of Ontario Graduates. 2013.

71 Statistics Canada. Skills in Canada: First Results from the Programme for the International Assessment of Adult Competencies (PIAAC). 2013. www.statcan.gc.ca/pub/89-555-x/89-555-x2013001-eng.pdf

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For further information, please contact:

Sarah Anson-Cartwright | Director, Skills Policy | 613.238.4000 (236) | sanson-cartwright@chamber.ca

OTTAWA

420-360 Albert Street
Ottawa, ON
K1R 7X7

📞 613.238.4000
📠 613.238.7643

TORONTO

901-55 University Avenue
Toronto, ON
M5J 2H7

📞 416.868.6415
📠 416.868.0189

MONTREAL

709-1155 University Street
Montreal, QC
H3B 3A7

📞 514.866.4334
📠 514.866.7296

CALGARY

PO Box 38057
Calgary, AB
T3K 5G9

📞 403.271.0595
📠 403.226.6930

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