

3

## Colleges and the economy

This section analyzes the key role Ontario college graduates play in the province’s economic success.

In addition to policies to maintain and build skills in the current recession, Ontario must plan for the recovery through comprehensive strategies and policies to address an emerging skills shortage before it constrains the recovery. These strategies include: improving labour market mobility and credential recognition, producing the tradespersons needed for sustained growth, raising participation of under-represented groups in postsecondary education and training and boosting adult re-skilling.

Within this framework, Ontario’s colleges will continue to play a pivotal role in building and strengthening the skills and knowledge of the province’s workforce.

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## 1.0 Summary/highlights

While their fundamentals are better than most countries, Canada and Ontario have not escaped the global recession. The recovery could start in late 2009 but it is unlikely that unemployment will drop significantly before late 2010.

If Ontario's recession is similar to that of the early 1990s, unemployment will rise by 300,000, and unemployment of youth without postsecondary credentials will rise to over 20 per cent. As new hiring drops, the duration of unemployment will lengthen: 200,000 more will be unemployed for three months or longer, 400,000 will drop out from the labour force, and many more will be on welfare.

Sources: Statistics Canada Tables 282-0001, 282-0003 and 282-0047 and Colleges Ontario

To get past our current economic crisis, governments must ensure that Ontarians have efficient capital markets that attract capital, and efficient labour markets based on strengthening skills.

Fortunately, Canada and Ontario are starting from a strong base. By world standards, the Canadian financial sector is very sound. Ontario now has a higher share of advanced degrees (e.g., MA, PhD) than the U.S. and an identical share of bachelor's degrees for those aged 25 to 44. Notably, Ontario has an exceptional share of those aged 25 to 44 who have college diplomas or trades certificates: 34 per cent compared to 10 per cent in the U.S. Both the federal and provincial governments are taking significant steps to maintain and improve their lead in financial markets and skills.

The longer-run crisis will be skills. When the recovery comes, the skills shortage will impact small businesses first:

- One-quarter of their employees are soon-to-be scarce young workers, whose numbers will decline by 2013 due to demographic changes (compared to one-tenth of large business employees)

Sources: Statistics Canada Table 282-0076 and Colleges Ontario.

- They will not be able to hire the skilled tradespersons they need – 70 per cent of tradespersons work in small

businesses and more than 80,000 tradespersons own their own businesses.

Source: Colleges Ontario, based on a Statistics Canada special tabulatory

Ontario needs to stay ahead of emerging countries that are now effectively competing for high-skill jobs. That means investing in innovative workplaces and complex technologies that demand adaptability and multi-professional teamwork from an ever-increasing number of high-skilled occupations.

Even though today's learners will have many jobs in their lifetimes, there are no comprehensive strategies/policies in Ontario to ensure they are re-skilled for tomorrow's rapidly changing workplace. For example:

- As business is forced to shrink to its 'core strengths' in a competitive environment – one of the casualties is training, despite tax incentives. A rebalancing of the relationships between employers, the postsecondary system and governments is needed
- Adults with low skills have only one-sixth the training as those with postsecondary education.

Ensuring Canada and Ontario maintain and build on the skills advantage is a challenge facing both the federal and provincial governments. Ontario public colleges will continue to play a central role in strengthening the knowledge and skills of Ontario's population; this will contribute to the transformation of the province's labour force. College graduates have had exceptional success in the workplace – nine in 10 find jobs within six months of graduating and colleges have developed an unparalleled relationship with 40,000 employers throughout Ontario.

## 2.0 The global recession

Dramatic changes in financial markets played a large part in the recent global economic boom, which lifted 200 million worldwide out of severe poverty. Central banks worked together to tame inflation, and countries such as China and India became more significant players in world trade and financial markets. Together, they supported business investment and a faster-growing world economy.

Application of computer-based technological change enabled an explosion, especially in the U.S., of more complex financial products resulting in huge efficiencies and lower costs throughout the financial sector. In Canada, we also witnessed a dramatic rate of change. From 1980 to 2007, the TSX value of annual trading rose 16 times as fast as nominal GDP and the Toronto Real Estate Board total value of sales rose 4.4 times as fast as nominal GDP.

Sources: Colleges Ontario, TSX and Toronto Real Estate Board

With the benefit of hindsight, it is clear that many asset markets overshot the mark – increases continued long after they were sustainable, and risk management systems were overwhelmed by so many new financial instruments.

The financial meltdown quickly spread to the real economy. Businesses have cut back investments and laid off workers. Consumers are spending less due to concerns about unemployment, losing their homes, and the dramatic drop in the value of their assets, investments and pension plans.

Ontario's output will be lower in 2009 than 2008, and unemployment will be higher. The recovery could start in late 2009, but it is unlikely that the unemployment rate will drop significantly before late 2010.

If the depth and severity of Ontario's recession is similar to the early 1990s, unemployment could rise by 300,000. Since one-third of young adults are working at temporary jobs, they will be laid off first. Without much hope of a replacement job, unemployment of youth without postsecondary credentials could rise to more than 20 per cent. As new hiring drops, the duration of unemployment will lengthen: 100,000 more could be unemployed for three months or longer, 200,000 could drop out from the labour force, and many more could be on welfare. These numbers may be worse if Ontario's recession is deeper than currently anticipated.

## 3.0 Planning for the recovery

### 3.1 Building on Canada's advantage: Exceptional financial management

Until now, Canada has been fortunate. It has had a privileged position, first in the boom and now in the meltdown. Prior to the recession, the Canadian economy benefited from increasing exports to the U.S., lower interest rates, and a huge boost from investments in oil and resource production.

Canada is benefiting from strong financial regulation and years of balancing both federal and provincial budgets. In 2008, the World Economic Forum ranked Canada's banking system the healthiest in the world. America's ranked 40<sup>th</sup>, Britain's 44<sup>th</sup>. While Canadian governments will have large deficits, they will be much smaller (relative to the size of the budget) than those of other countries such as the U.S. and Japan.

Both the federal and Ontario governments recognize that further actions are needed. Without doubt, other countries will improve their financial regulation and capital markets. The recent federal budget announced plans to improve access to credit, strengthen mortgage markets, and create a national securities commission. The Ontario budget has announced that the province's retail sales tax will be merged into the GST, and corporate income taxes will be reduced to improve competitiveness. Ontario has also announced plans to reform pension plans.

Unfortunately, in recent years Ontario has faced more challenges from globalization than other provinces have faced. While output and employment continued to increase, and unemployment has been relatively low, Ontario's per capita economic growth has lagged that of the rest of Canada and the U.S., and Ontario now receives equalization.

Canada, and especially Ontario, risk being locked into a slow U.S. recovery while other major countries eclipse them. It will take great skill to design and implement the policies needed to maintain and strengthen our competitive advantages.

The next sections will examine Ontario's current skills situation, the challenges we face as our competitors strengthen their skills base, and the actions required for Ontario to maintain its skills advantage.

### 3.2 Building on Ontario's advantage: An exceptional skills base

Canada is fortunate to have a very high skills base – one of the highest postsecondary completion rates in the world.

Ontario's emphasis on skills has paid off: job growth since 1990 has been higher in Ontario than in the U.S., and it is closely linked with Ontario's rapid increase in postsecondary graduates (Figure 1).

In comparison to the U.S., Ontario now has a higher share of advanced degrees (e.g., MA, PhD) and an identical share of

bachelor's degrees for those aged 25 to 44 (Figure 2). More significant is the number of Ontarians aged 25 to 44 who have college diplomas or trades certificates: 34 per cent compared to 10 per cent (Figure 2).

In most industries, Ontario employers have a skills advantage over their U.S. competitors and have access to essentially the same number of university graduates but to far more college graduates, with an education designed to meet their requirements (Figure 3).

The fact that college and university graduates tend to populate different sectors of the economy ensures that employees have the precise skills for assured and competent job performance (Figure 4).

A very high proportion of university graduates are found in the public sector. Universities support long-term growth through extensive theoretical research across the sciences and humanities. They provide each new generation of educators with the new concepts they need to adapt school and postsecondary classrooms to economic and social changes. In both the public and private sectors, they play a central advanced economic role by developing and responding to business regulation (e.g., accounting and auditing, law, land-use planning and development).

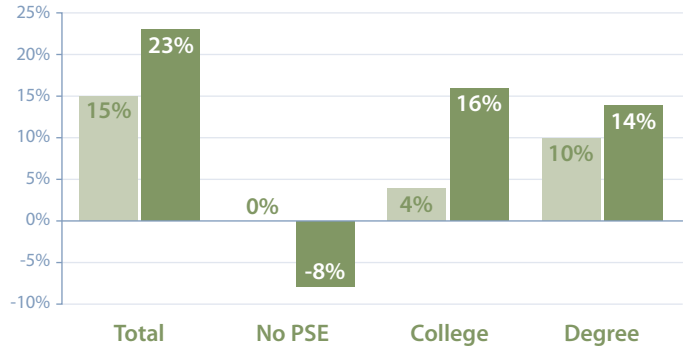
Ontario's college graduates play a critical role in export industries (manufacturing, resources and tourism), electric power generation and transmission, real estate and insurance, infrastructure, health care and early childhood education. Their success in the workplace has provided Ontario with critical economic advantages compared to the U.S.:

- A private sector that has shifted to industries with higher skills than in the U.S.
- A higher Ontario employment rate. University and college/trades graduates are far more likely to be working than those without postsecondary education (PSE) credentials in both Ontario and in the U.S. With proportionately more college graduates in Ontario, a higher proportion of the overall Ontario population is working.

One can conclude from the exceptionally high employment rate of college graduates, and from the high level of skills required by Ontario employers, that Ontario can continue to

**Figure 1**

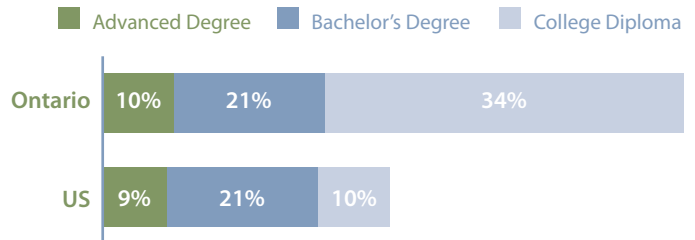
**Ontario job and skills growth exceeds U.S. (1990-2005)\***



\* Sources: Statistics Canada 282-0004; and U.S. Census "Years of school completed by Persons 16 years old and over, March 1991, and "Educational Attainment of Employed Civilians 18 to 64, 2005".

**Figure 2**

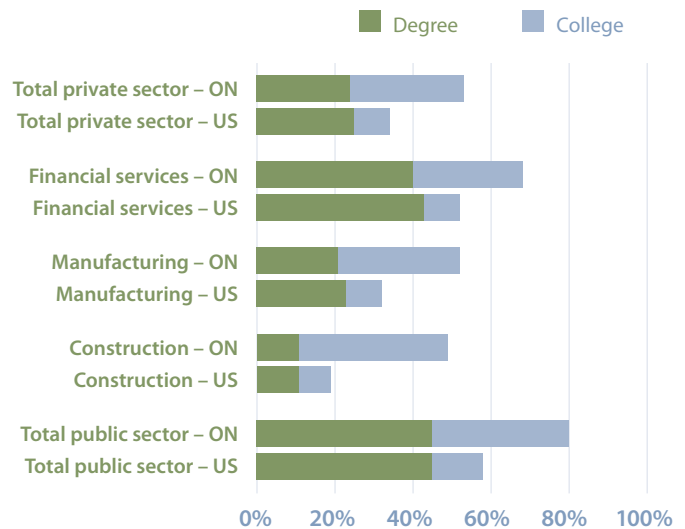
**Ontarians have higher PSE completion than Americans (age 25-44)**



Sources: Statistics Canada 282-0004 (2006) and U.S. Census Bureau, Current Population Survey, 2006.

**Figure 3**

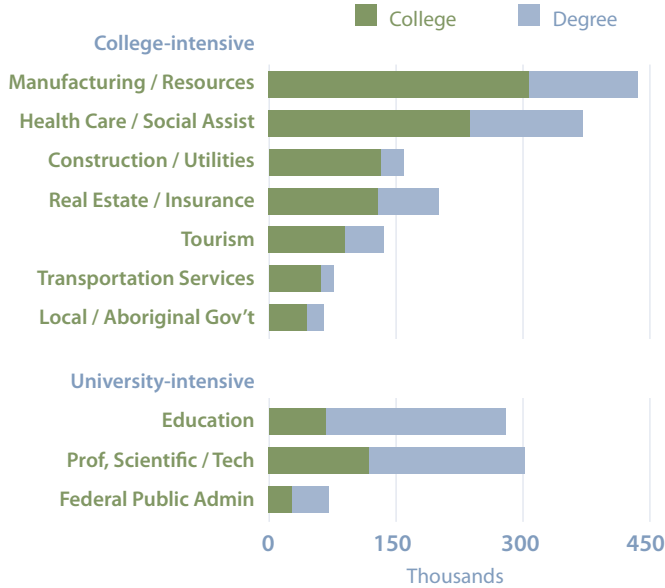
**Ontario employers have same proportion of degrees, far more college graduates than U.S.**



Sources: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement, Educational Attainment of Employed Civilians 18 to 64 Years, by Industry. Statistics Canada, special tabulation, 2006.

**Figure 4**

**College vs university sector intensity\***



\* Number of jobs in Ontario, 2001. Sources: Statistics Canada Census 2001 and Colleges Ontario.

expand its skill base and create more skilled jobs. Indeed, 56 per cent of manufacturing CEOs favour increasing support for Canada's community colleges. And a Canadian Federation of Independent Business (CFIB) survey of small businesses found that businesses facing labour shortages required the skills of college graduates over university graduates by a six-to-one ratio.

**3.3 Responding to higher skills in Asia and Europe**

Ontario and other economies have been shifting to higher-skills industries because low-skilled jobs are being eliminated by technological change and low-wage competition from emerging economies. The International Monetary Fund estimated that, "The effective global labour force has risen fourfold over the past two decades." Ben Bernanke, chair of the U.S. Federal Reserve Board, added: "There are no historical antecedents for this development."

These emerging countries are now leapfrogging over infrastructure barriers that inhibit them from becoming more technologically advanced. Asia now has twice as many Internet users as North America. India is adding over six million cell phones every month – equal to Ontario's total workforce – and they are used primarily to enhance business productivity. As the World Bank says, "The capacity to harness

these technologies has enabled countries to quickly advance up the technology ladder" (World Bank 07).

China now provides 25 per cent of U.S. high-tech imports vs. Canada's five per cent. Samsung (Korea) has 40,000 researchers compared to 60,000 for all businesses in Ontario; it introduced 30,000 new products in 2002 alone. The U.S. National Science Board ranks Canada 12th behind China and South Korea in 'technological competitiveness.'

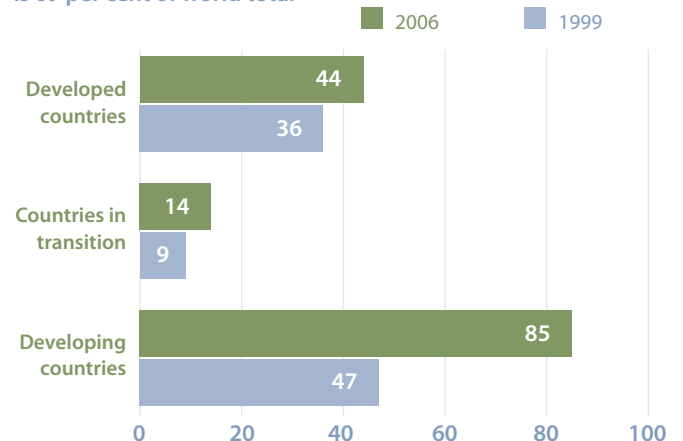
Emerging countries are now effectively competing for the high-skill jobs Ontarians thought would be theirs by default. Postsecondary enrolment in developing and transitional countries is now 100 million, or 69 per cent of the world's total, and rising (Figure 5):

- "The number of graduates at all levels of higher education in China has approximately quadrupled in the last six years... Skilled labour supply in China now equals around 40 per cent of that in all OECD countries" (Whalley, CIGI, 2008)
- "India plans to set up 30 universities and 6,000 model schools and is considering ways to establish a college in each of its 340 districts to improve the quality of education and add to the pool of skilled workforce..." (Bloomberg News, 2007. India is expected to become the leading skilled labour surplus economy in the world. Kumar, et al. CIGI, 2007)
- Korea's 25 to 34 year olds have the same postsecondary completion rate as Canadians, although its rate for 45 to 54 year olds is less than half of Canada's.

Source: OECD, Education at a Glance, 2008

**Figure 5**

**Tertiary enrolment in developing and transition economies is 69 per cent of world total\***



\* Millions of postsecondary students Source: EFA Global Monitoring Report 2009, Table 9A, p.338. UNESCO.

## 4.0 The growing importance of skills for the recovery

The emphasis has been on capital markets, because of the nature of the crisis. But skills are becoming a much more important factor in economic growth. Statistics Canada reports: “Investment in human capital, such as education and skills training, is three times as important to economic growth over the long run as investment in physical capital.”

The Bank of Canada’s emphasis has shifted from capacity utilization to labour markets over the past couple of decades: “The Bank uses the information from variables that can be observed, such as the labour participation rate, population growth, productivity growth, and wage and price inflation, to generate a conventional estimate of potential output, and projects future growth on the basis of trends in these measures” [Bank of Canada Monetary Report, October 2008]. For example, with an aging population, the Bank projects that a smaller share of the population will be working, limiting how quickly the economy can grow.

As employers decentralize, strip out managers, require more employee initiative, and strengthen delegation and accountability, employee assured competence becomes increasingly important for business success. And as governments set new reporting and performance standards, there will be rising pressure to ensure that employees meet defined competence standards. For example, students in Ontario college business programs can now begin or complete industry-approved certificates in over 25 areas.

## 5.0 Addressing the skills shortage before it constrains the recovery

The Conference Board reported, and members of Ontario’s Workforce Shortage Coalition confirmed, that Ontario will face a skills shortage of 364,000 by 2025. Unless Ontario can increase workforce participation rates and ensure that workers have the skills to fully contribute to the economy, growth in per capita output and income will slow dramatically.

The skills shortage is essentially the same as the gap found by the Ontario Ministry of Finance between its ‘base growth’ forecast to 2025 and its ‘high growth’ scenario. This means that if Ontario sets in place policies for high growth, it must ensure it includes policies to attract 360,000 more skilled people into the workforce. The Ministry of Finance’s high-growth scenario has other benefits: seven per cent higher output per worker, and about \$2 billion more a year to spend on health care.

When the recovery begins, the skills shortage will impact small businesses first. One-quarter of their employees are soon-to-be scarce young workers (compared to one-tenth of large business employees). Small- and medium-sized enterprises (SMEs) employ 94 per cent of young workers. Half of accommodation and food service workers are young, as are 40 per cent of those working in information and culture and more than one-third of those in retail.

Sources: Statistics Canada Table 282-0076 and Colleges Ontario

It is a sector already plagued by limited access to capital, and concerns about productivity and innovation. And now, in the race for skilled employees, small businesses will be at a serious

Figure 6

Conference Board: By 2025, Ontario could face a shortfall of 364,000 workers



Sources: The Conference Board of Canada, Statistics Canada.

disadvantage – unless they adopt innovative strategies to find and develop ‘overlooked’ candidates.

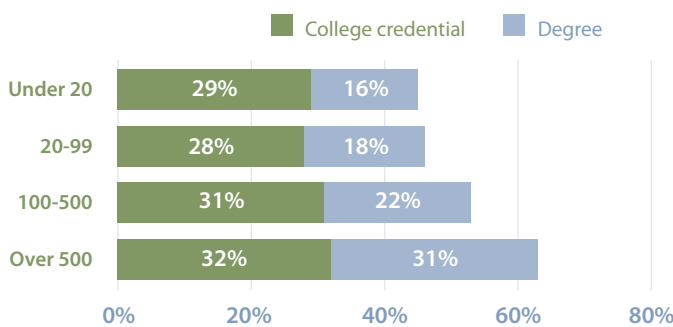
One reason for the challenges faced by small business is educational. Forty per cent of small business owners do not have postsecondary credentials. Half their employees do not have postsecondary credentials, compared to one-third for large firms.

Sources: Statistics Canada special tabulation and Colleges Ontario

SMEs cannot afford to ‘bet the company’ on transforming theoretical ideas into higher customer-driven revenue. Instead, as Baldwin and Gu (Statistics Canada) point out, “productivity growth... is affected by small, incremental changes in a host of factors that occur on the plant floor and other parts of a firm. These include new production techniques, changes in plant size and changes in organization, as well as other factors that are associated with acquiring and creating new knowledge.”

Figure 7

College graduates provide a strong edge for small and medium enterprises (SMEs)\*



Sources: Statistics Canada, 2001 Census special tabulation and Colleges Ontario.  
\*Private sector employers, excluding professional and scientific services.

### 5.1 Labour market mobility

While a declining employment rate is a national challenge, the provinces have to take the greatest action to expand workforce participation.

Most provinces have now ended mandatory retirement, and all have agreed to amend the Agreement on Internal Trade to enhance labour mobility. The plan is to recognize, across all jurisdictions, any worker certified for an occupation by a regulatory authority of any Canadian province or territory.

They have further agreed to develop a common framework to recognize foreign credentials by September 2009 and to identify new ways to provide effective and complementary responses to workers and the unemployed.

Improving the mobility of skilled labour is a priority in several jurisdictions. Europe, in particular, is dramatically improving skills mobility with a common labour market that will soon extend to all 27 countries in the European Union. Moreover, 45 European countries are responding to the skills threat from emerging economies through radical improvements to the process for transferring postsecondary credits.

Immigration is also an important mechanism to address skills shortages but Canada now faces significant hurdles. It will be tougher for Canada to persuade skilled individuals to leave booming economies in Asia or Europe to come to Canada. As foreign economies recover and ramp up, their domestic requirements for skilled workers will ramp up faster – to modernize plants, to design and build strategic infrastructure, industrial and commercial facilities and to staff up in education and health care. Indeed, Rudyard Griffiths, co-founder of the Dominion Institute, says: “The astonishing fact [is] that 40 per cent of professional male immigrants leave Canada permanently within 10 years.”

### 5.2 Producing the tradespersons needed for sustained growth

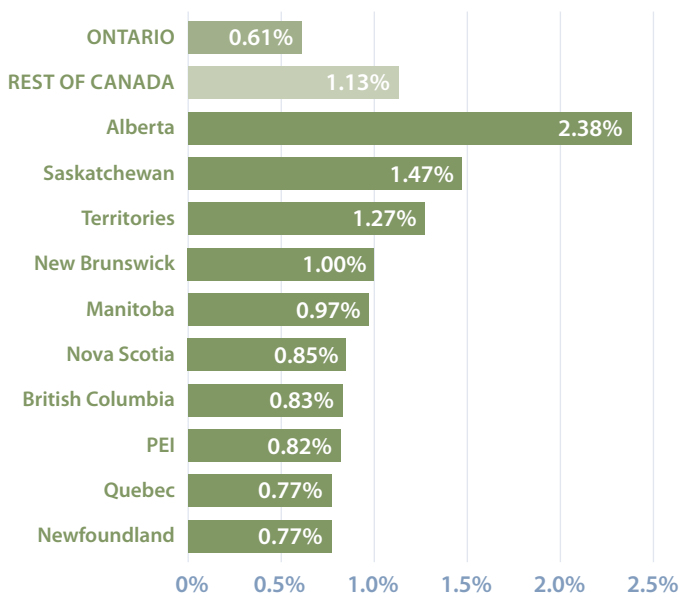
Ontario is not producing the certified skilled tradespersons it needs for sustained recovery and strong longer-term growth.

The province is producing 46 per cent fewer tradespersons (relative to population – Figure 8) than the rest of Canada, fewer than in any other province or territory. According to the provincial auditor general, Ontario’s in-school training programs are shorter than in any other province.

With an average starting age of 27, and over 30,000 new apprentices being trained by colleges annually, apprenticeship has become Ontario’s largest adult education program. However, most apprentices fail to complete the at-work portion of their programs (Figure 9), few women and people from under-represented groups participate, and there are very few ladder opportunities, even to similar trades.

**Figure 8**

**Ontario produces far fewer tradespersons per capita than does the rest of Canada\***



\* Per cent of adults, aged 30-34 (2005)  
Sources: Statistics Canada, Tables 477-0052 and 051-0001.

This is especially a concern for small business (83,800 skilled tradespersons run their own businesses and 70 per cent of skilled tradespersons work in businesses employing fewer than 100), manufacturing (100,000 tradespersons work in manufacturing), construction, mining and forest industries, tourism and the public sector (e.g. municipalities).

Sources: Statistics Canada special tabulation and Colleges Ontario

Indeed, only one-sixth of employers with tradespersons are now involved in apprenticeship.

Source: Canadian Apprenticeship Forum

Previous recessions have resulted in major reductions in apprenticeship registrations:

- Employers hire and retain fewer apprentices during periods of slowdown
- Apprentices are less likely to be able to get the full range of work experience required to fully complete their training
- Laid off (or layoff-threatened) apprentices may give up on their training.

The government has taken an important step to encourage employers to retain their apprentices by doubling its tax credit and extending it to four years. In addition, it should create immediate flexibility in designing the in-school programs to help apprentices and employers get through the recession. For the medium term, it should create the vision for the best trades program in Canada, set targets to supply the skilled tradespersons Ontario needs for sustained growth, and establish a new management and funding framework that realigns responsibilities between employers, government and colleges.

**5.3 Improving participation of under-represented groups in postsecondary education and training**

In the past three decades, the single most important impact on Ontario's employment, output and per capita income has been the increasing participation of women – 962,000 more are working than would have been the case if their employment rate had remained unchanged.

Sources: Statistics Canada Table 282-0002 and Colleges Ontario

**Figure 9**

**A small minority of apprentices become certified tradespersons**



Sources: MTCU new registrations and 2006/2007 completions, Statistics Canada, table 477-0052..



There are still challenges to be addressed in fully integrating women into the workforce but these relate primarily to responsibilities and pay, and less with encouraging more women to start working. To avoid the coming decline in the number of available workers, it will be essential to reach out to new under-represented groups.

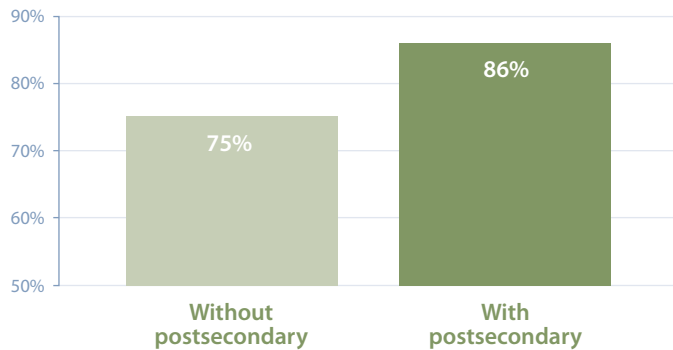
Those without postsecondary credentials and in under-represented groups (e.g., persons with disabilities, mature adults, aboriginals, immigrants) have employment rates well below those of Ontarians with postsecondary credentials. Moreover, those in under-represented groups without postsecondary credentials are far more likely to be unemployed (Figures 10-14).

Ontario has taken a critical step in launching Second Career, which funds long-term EI recipients who take one- to two-year college programs to improve their success in the workforce. Over time, similar programs must be made

available to other groups, such as those on workers' compensation, and those not working because they do not have the skills to compete for a job.

**Figure 10**

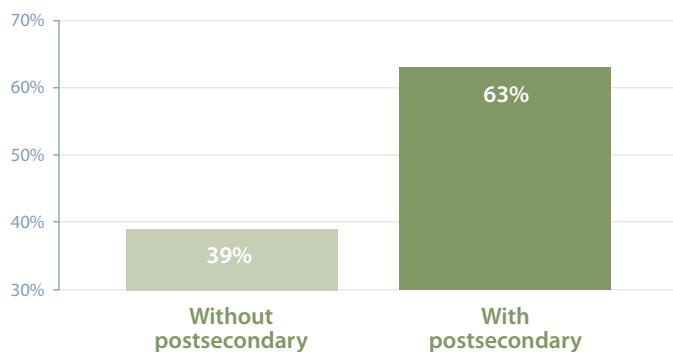
Ontario employment rate age 25-44, 2006



Sources: Statistics Canada 282-0004, Colleges Ontario.

**Figure 11**

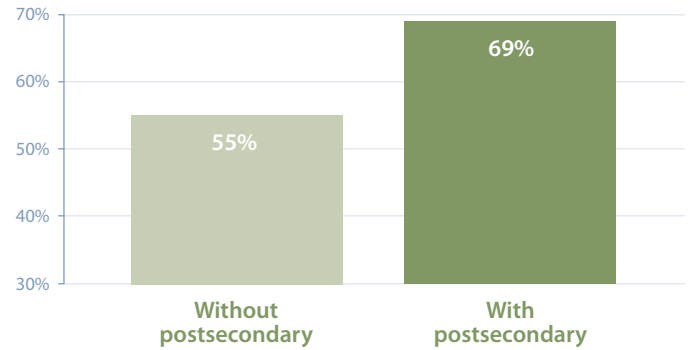
Ontario employment rate: persons with disabilities\*



\* 2001, ages 25-54  
Sources: Statistics Canada: 282-0004 and special tabulation (PALS).

**Figure 12**

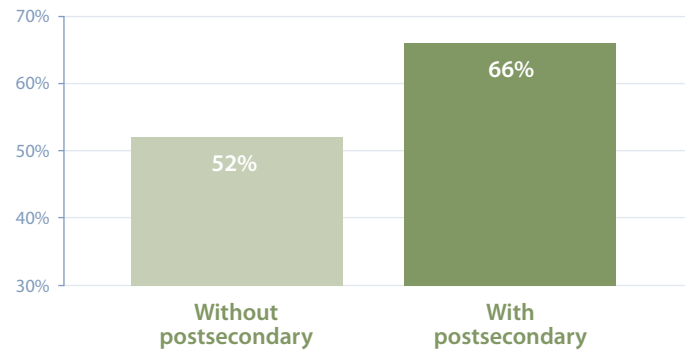
Ontario employment rate: recent immigrants to Canada\*



\* Ontario 2007, immigrants 0 to 5 years in Canada, ages 25-54.  
Sources: Statistics Canada labour force special tabulation, Colleges Ontario.

**Figure 13**

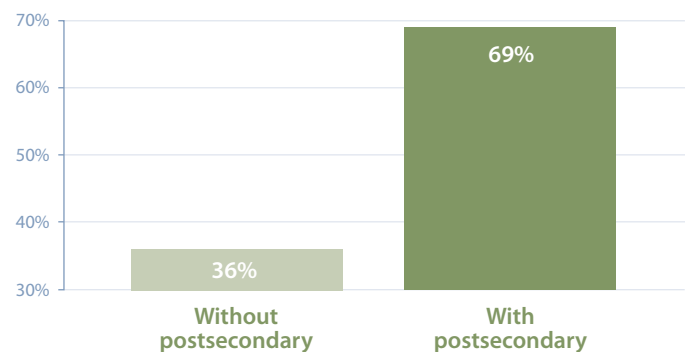
Ontario employment rate: mature adults\*



\* 2007, ages 55-64.  
Sources: Statistics Canada: 282-0004, Colleges Ontario.

**Figure 14**

Canadian employment rate – aboriginals\*



\* 2001, Canada, ages 15+  
Sources: CCLS Research Report N°. 2007-04 and Colleges Ontario.

## 5.4 Boosting adult re-skilling

Today's learner will have several jobs, but there is no system in Ontario to ensure they are re-skilled for tomorrow's rapidly changing workplace. Canadian data show that only 29 per cent of workers participate in adult education, compared to about 45 per cent in leading jurisdictions such as Denmark, Sweden, the U.S. and Finland.

Canada has a very poor record in job-related training for those with low skills. Those with little education have only one-sixth the job-related training as those with postsecondary education. In comparison, the OECD gap is only threefold, and those with little education get two-thirds more job-related training than comparable Ontarians (Figure 15).

Moreover, in a competitive economy, fewer companies can afford to pay for the development of transferable skills that encourage other companies, industries and jurisdictions to hire away their credentialed workers:

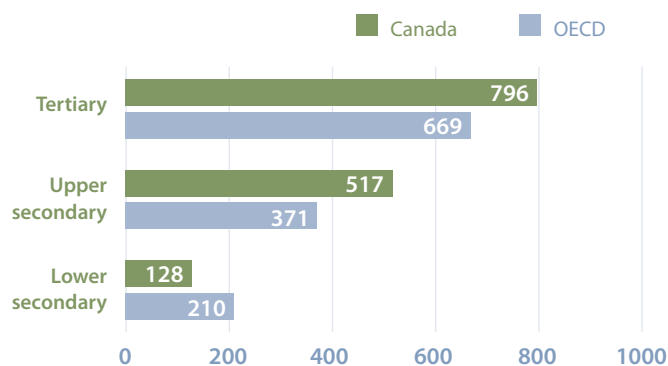
- Since 1990, spending on corporate training in the U.S. decreased by 45 per cent (compared to GDP). Half of what is spent is spent on managers or government-required training
- Canadian per-employee corporate training spending has dropped by 17 per cent over the past decade. Spending is half the U.S. level, and half the funds are spent on managers.

The challenge is greater for small businesses, which employ 69 per cent of those without postsecondary credentials. As a result, "workers employed in large firms are almost twice as likely to participate in training as workers in small companies" (Allan Bailey, *Connecting the Dots...Linking Training Investment to Business Outcomes and the Economy*, Canadian Council on Learning, April 2007, p5.).

Ontario's new Second Career program is designed to help 20,000 individuals gain a college-level credential to make a strong, lifelong change in their employability and expected earnings. This is an excellent beginning to a new approach to adult education – an approach that seeks to provide less skilled Ontarians with the educational and career opportunities that were previously only available to those who already had postsecondary credentials.

Figure 15

Canadian lifetime hours of job-related training skewed to higher education workers



\* Expected hours in non-formal job-related education and training between the ages of 25 and 64. (2002 for Canada, 2003 for the OECD average)  
Source: OEDC Education at a Glance, 2008, Table C5.1a, p. 407-8.

## 6.0 Colleges: Evolving to support Ontario's advantage

Every economic organization must occupy a unique niche in the economy if it is to survive and grow. Over the past 40 years, Ontario's college graduates have become a unique internationally competitive advantage for the province.

College graduates have had exceptional success in the workplace – nine in 10 find jobs within six months of graduating. And colleges have developed an unparalleled relationship with employers, 40,000 of whom hire college graduates and students for co-op and field positions annually. Of these, close to 10,000 participate on college program advisory committees. This success is reflected through:

- A strong Ontario skills advantage for private sector employers
- Ontario private sector employers shifting to higher skill requirements
- A higher Ontario employment rate.

Nevertheless, the competitive landscape for Ontario's employers has changed fundamentally over the past 40 years, and in this world recession is changing yet again. Employers must become relentlessly innovative if they are to survive and prosper.

Colleges, too, must change if they are to provide a competitive advantage to their partners and students over the next decades. In the short term, colleges may need to cope with higher numbers of students than expected, more difficulty in helping their graduates find jobs, and constrained resources as governments run deficits for several years.

Colleges are also preparing for the recovery and the long term. As the population ages, they are working to attract more mature students, as well as increase the share of high school students who go on to college. Active participation in Second Career, and the recent surge in winter enrolments, are initial opportunities to test the extent to which colleges might attract additional mature students through more frequent intakes, continuous studies and more flexible learning alternatives.

As the pressure on employers to innovate intensifies, it will be desirable for colleges to support their changing requirements. Ensuring graduates are ready for innovative, productive workplaces is likely to require:

- Strengthening communications with close to 10,000 employers on program advisory committees to respond even more quickly to the need for curriculum enhancements
- More advanced technology and new teaching approaches in the classroom such as simulations, diagnostics, visual imaging, remote participation through synchronous and non-synchronous online programming.

While Ontario needs to broaden its focus from research to innovation, only about two per cent of Ontario employers do any research. In comparison, China has tripled its spending on postsecondary education in the past decade and has attracted over 600 foreign corporations to set up applied R&D facilities.

Ontario needs to help more employers learn to talk innovation, to walk innovation, so that they can start running the marathon that international competition has become.

With new funding announced in the 2009 Ontario Budget, colleges can help SMEs to better solve immediate problems and meet specific real-time needs in the marketplace through practical, applied, market-driven R&D and commercialization, technology transfer and implementation expertise.

Finally, there is an opportunity for the postsecondary sector to become a major exporter, as is the case in the U.S., U.K. and Australia. Canada would need to see international education as an industry as these other countries do. For instance, the federal Australian government contributes approximately \$100 million to market Australian secondary and postsecondary education around the world. The U.K. has recruitment centres in numerous major cities throughout the world and ensures that a U.K. immigration person is on site to process study permit applications on the spot at all international recruitment fairs.

