

# POST-SECONDARY EDUCATION IN CANADA

## *Strategies for Success*



# POST-SECONDARY EDUCATION IN CANADA:

The Canadian Council on Learning is an independent, not-for-profit corporation funded through an agreement with Human Resources and Social Development Canada. Its mandate is to promote and support evidence-based decisions about learning throughout all stages of life, from early childhood through to the senior years.

## FURTHER INFORMATION

This brochure is a reproduction of the executive summary from the Canadian Council on Learning's report, **Post-secondary Education in Canada: Strategies for Success**.

Ce sommaire est aussi disponible en français.

For more information about this report, including downloadable copies of the full report, please visit [www.ccl-cca.ca/pse](http://www.ccl-cca.ca/pse).

If you have any questions or comments about the report, or about our work at the Canadian Council on Learning, please send us an e-mail at [info@ccl-cca.ca](mailto:info@ccl-cca.ca).

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## OVERVIEW

In our 2006 report, *Canadian Post-secondary Education: A Positive Record – An Uncertain Future*, CCL soberly articulated the various reasons for which uncertainty clouds the future contributions that the post-secondary education sector may make to Canada’s economic and social goals. Despite the myriad strengths that PSE educators and institutions have demonstrated over many years, the absence of clear pan-Canadian goals, measures of achievement of goals and cohesion among the various facets of PSE led us to express deep reservations.

The mission of the Canadian Council on Learning is, in part, to describe our learning realities. If we have a remit to identify issues, equally we have a responsibility to report potential strategies for success. In last year’s account, we found that what we do not know can hurt us; that we must develop pan-Canadian information about PSE that can provide decision-makers the best tools available to determine policies. We also found that almost all other developed countries have built not only the national information systems required to optimize policy, but have also—in both unitary and federal states—provided themselves with some of the necessary national tools and mechanisms to adjust, to act and to succeed. Canada has not.

What are the strategies for success in Canadian PSE? This report, CCL’s second annual on the state of post-secondary education, only begins to provide answers about:

- the extent to which we are currently attaining pan-Canadian goals,
- the information required for making decisions to maximize benefits of PSE, and
- why and how a pan-Canadian PSE approach might be built, and what it would encompass.

We know that CCL is not alone in asking these questions. We are also aware that many others have valuable contributions to make to these answers. Working together, we must be able to establish conditions for the success in post-secondary education to which Canadians aspire.

Post-secondary education generally refers to academic, technical and vocational courses and programs beyond secondary school, including apprenticeships.

# POST-SECONDARY EDUCATION IN CANADA:

## ABOUT THIS REPORT

“The lifeblood of good policy is good information. Good information, in turn, requires accurate data carefully analysed. The collection of accurate and meaningful data, analysed to yield information useful for policy development, must be an important function of the proposed commission.”

—From the *Advantage New Brunswick* report, by the Commission on Post-Secondary Education in New Brunswick, September 2007

In 2006, the Canadian Council on Learning produced the first national overview of post-secondary education in Canada. The report, *Canadian Post-secondary Education: A Positive Record – An Uncertain Future*, identified eight goals and objectives derived from the strategic plans for PSE that had been developed by provinces and territories—and presented a series of indicators for each of the eight goals. It cautioned that serious challenges exist and must be resolved with urgency to keep Canada at the forefront educationally and economically. The report underlined that, in order for Canada to advance as a country, it is essential to:

- articulate a set of explicit, well-defined goals and objectives for the PSE sector at the national level;
- develop a clear set of indicators and measures to enable continuous assessment of performance and progress toward the defined goals and objectives; and
- establish mechanisms at the national level that accomplish the tasks in the preceding two points.

*Strategies for Success*, the second annual report from the Canadian Council on Learning on the post-secondary education sector in Canada, builds on the priorities identified last year.

Like the 2006 report, Part I of *Strategies for Success* examines the sector from a countrywide perspective, drawing on domestic and international statistics and indicators for the eight identified goals and objectives for PSE. While some modest gains have been made, Canadians can take little comfort from this year’s findings. For the most part, the available data indicate that Canada continues to lag other jurisdictions, many of which have undertaken concerted post-secondary agendas to improve their prosperity and international competitiveness.

Our country has fundamental data gaps. For example, Canada:

- does not have the information required to assess PSE capacity versus labour-market needs,
- has no useful picture of the country’s private providers of PSE (who they are, what they do, their capacity, their enrolment figures, what happens to their graduates),
- has very little information since 1999 about its community colleges regarding faculty, enrolment or capacity, and
- can provide only a limited picture of part-time faculty at our universities.

To remedy the incomplete picture of our PSE landscape, Part II of *Strategies for Success* proposes a comprehensive, pan-Canadian data strategy to provide the information needed to strengthen the country’s PSE sector (*Part II is summarized on page 15*). Countrywide collection of such information is the first step toward understanding how effectively PSE in Canada is meeting the needs of our learners and our society.

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Better information will help:

- learners to make the best educational choices to achieve their personal goals,
- post-secondary institutions to ensure they have the programs and capacity to meet student demand,
- employers to know if they will have the skilled employees they need to succeed, and
- governments to assess how to invest taxpayers' money most effectively.

Data are of no value unless put to use. Part III of *Strategies for Success* outlines how some of Canada's major trading partners are monitoring and reporting on the state of PSE in their countries (*Part III is summarized on page 18*). Many have established benchmarks and, in some cases, targets for tertiary education—to guide their investments in education and training, and to measure the impacts of these expenditures.

Any complacency about Canada's positive record in PSE is misplaced, given that many countries have developed:

- national strategies for collecting robust data,
- national goals for PSE, and
- benchmarks and targets with which to measure progress toward those goals.

That Canada's global competitors have developed such systematic approaches to optimize the benefits of PSE only heightens the urgency for practical steps to be taken within our borders.

It is in this context that Part IV of *Strategies for Success* proposes, as the section title suggests, working "Toward a Pan-Canadian Framework for PSE" (summarized on page 19). It examines how a more cohesive and systematic approach could assist in addressing specific challenges, including: quality assurance and accreditation; student mobility and credit transfer; and prior learning assessment and recognition (PLAR).

Canada's federal, provincial and territorial governments invested \$36 billion in post-secondary education in 2006–2007. Despite this significant expenditure, there are no pan-Canadian goals or objectives for the sector, or ways to assess how effectively this money is invested.

CCL recognizes that any pan-Canadian approach to post-secondary issues would always be complementary to the existing provincially delivered model and would respect institutional autonomy. *Strategies for Success* recommends building on and enhancing what already works.

**"[The Government of British Columbia] should initiate discussions with other governments with a view to obtaining agreement on the collection and reporting of nationally and internationally comparable standards and metrics for data collection and reporting."**

—Recommendation from *Campus 2020*, British Columbia, April 2007

Achieving agreement between federal, provincial and territorial governments on a pan-Canadian framework is not inconceivable. The federal government already collaborates with the provinces and territories in the provision of student financial assistance. It contributes a considerable amount to university R&D. It transfers significant amounts to the provinces and territories through the Canada Social Transfer. And, it supports learners and their families through tax measures so they can meet educational costs.

Bolstering PSE in the manner put forth by *Strategies for Success* will strongly position Canada and its citizens to achieve prosperity in the future. Realizing this vision in aid of our collective and individual well-being demands the will and energy to overcome impediments in creative ways. Failure to make progress is not an option.

# POST-SECONDARY EDUCATION IN CANADA:

## KEY FINDINGS

### PART I: Reporting Performance and Progress of PSE in Canada

#### A skilled and adaptable workforce

- There is unprecedented demand for post-secondary graduates in the job market. In the decade leading up to 2015, nearly 70% of the projected 1.7 million new jobs are expected to be in management or in occupations usually requiring post-secondary qualifications (university, college or apprenticeship training).
- The growing skills shortage in the labour market will be exacerbated in the coming decade due to numerous trends, including: low apprenticeship-completion rates; limited portability of skills qualifications (only 13% of trades are Red Seal); and a 50% decline over the last decade in the percentage of new immigrants holding skilled trade qualifications.
- One-quarter of university-degree holders earn less than the average high-school graduate.

#### Innovation, knowledge creation and knowledge transfer

- Canada's proportion of gross expenditures on R&D (GERD) to GDP ranked 15th among 39 OECD countries in 2005, the same position held by Canada in 2001.
- An international study of 11 OECD countries on degrees granted in technical areas shows that, despite Canada's high educational attainment, it ranked 10<sup>th</sup> in the share of science and engineering degrees as a percentage of new degrees and ninth in PhDs in science and engineering as a share of graduates.
- Currently, the field of scientific publications is dominated by scientists from the U.S., who produced 35% of publications in science and engineering between 1997 and 2001. Canada ranked sixth during this period, with 4.6% of total scientific publications.

- Canada lacks an independent body—operating at arm's length from PSE providers and their research services—that is charged with assessing the degree to which new knowledge generated by public universities is providing economic and social benefits to society.

#### Active, healthy citizenry

- Individuals with higher levels of education perceive themselves to be in better health.
- The OECD's 2006 *Society at a Glance* report found that, in general, the percentage of people reporting a high level of life satisfaction increases with the level of education.
- The percentage of people donating to charities and the average amount donated both rise with levels of education: 80% of those holding a PSE certificate or degree donated in 2004.

#### Quality PSE

- Canada is one of the few advanced countries to lack a national quality-assurance agency.
- The PSE sector is becoming increasingly complex, with the rise of private post-secondary institutions and the emergence of university colleges. There is a need to ensure that credentials earned will be recognized.
- Canada has no mechanism to track what happens to students (and the public investment in their education) once they leave a post-secondary institution. For example, there is no comprehensive, national information about students who drop out, change courses, change institutions, or move from university to college.
- A study on retention and attrition by the Canada Millennium Scholarship Foundation (CMSF) found that 20% to 25% of first-year students do not proceed to second year. An additional 20% to 30% leave PSE in subsequent years.

# Strategies for Success

## Access

- As of 2004, Canada's university attainment rate ranked fifth among OECD countries.
- Canada lacks a comprehensive assessment of the sector's capacity to meet the learning demands of students.
- Pan-Canadian mechanisms do not exist for credit transfer or prior learning assessment and recognition (PLAR).
- Demographic projections indicate that PSE's traditional age group (18–24) will peak in 2013 and decline over the following two decades.
- The most significant barriers to access are informational and motivational, which are related to perceptions about the costs and benefits of PSE. These barriers were cited by 44% as the reasons for not attending PSE.
- After being an early leader in the field of e-learning, Canada has been slower to incorporate online components into PSE programs. Canada lacks a national e-learning strategy.

## Access for under-represented groups

- The available data show a significant increase in PSE participation among Aboriginal people over the past 15-year period. Nonetheless, Aboriginal attendance and participation rates are still well below Canadian averages.
- Enrolments both for men and women at university are at all-time highs, but female students now account for about 58% of bachelor-degree program enrolment. Males now constitute a new under-represented group. In 2004, 61% of all undergraduate degrees were earned by women.
- Despite overall lower PSE participation rates for youth from lower-income families, the participation rate for youth attending college does not appear to be adversely affected by income. Youth from all quartiles have an equal propensity to attend college.

## Lifelong learning

- The PSE sector in Canada needs to improve how it responds to the requirements of non-traditional learners (e.g., older adults, recent immigrants, people with disabilities and Aboriginal people). Recognition of prior learning and acceptance of credentials earned in other provinces or countries would help increase access.
- Working Canadians' recurring need for education and training opportunities means that post-secondary institutions will have to forge stronger links with the workplace.
- The emergence of regional labour markets underscores the need to reduce barriers to learner and worker mobility.
- Other countries have been more successful than Canada in encouraging employer-supported training and lifelong learning.

## Affordable and sustainable PSE

- Learners' investments in post-secondary education are increasing more rapidly than the public rate of investment, indicating a shift in the financial burden toward the individual.
- Tuition fees, which are not learners' only costs associated with PSE, have increased at nearly four times the rate of inflation (as measured by the Consumer Price Index) from 1990–1991 to 2004–2005.
- The percentage of students requiring financial assistance has increased. The proportion of graduates who borrowed rose from 45% in 1995 to 56% in 2000 and 59% in 2006.
- Between 2003 and 2006, the percentage of college students who accumulated more than \$15,000 in debt increased from 17% to 29%.

# POST-SECONDARY EDUCATION IN CANADA:

## DETAILED FINDINGS

### PART I: Reporting Performance and Progress of PSE in Canada

#### A skilled and adaptable workforce

In the decade leading up to 2015, nearly 70% of the projected 1.7 million new jobs in Canada are expected to be in management or in occupations usually requiring post-secondary qualification (university, college or apprenticeship training). This reality, in combination with other factors (e.g., limited portability of credentials in skilled trades, low apprenticeship-completion rates, emerging regional labour markets, Canada's aging workforce and the declining participation of male students in PSE), is causing labour and skills shortages. It is crucial that the country's post-secondary sector be able to meet these challenges.

There are some encouraging signs:

- Since 1990, the percentage of the population holding a bachelor's degree has almost doubled.
- The percentage of the population, aged 15 and over, with master's and doctoral degrees has risen from 3.3% in 1990 to 6% in 2006.

Yet, the latest data indicate that there is room for improvement:

- Between 1991 and 2004, registrations in apprenticeship programs have increased by 38.8%. However, there has not been a corresponding increase in completion rates over the same period, despite shortages in some skilled trades.
- Just 13% of skilled trades in Canada are Red Seal—meaning that nearly nine of every 10 trade certifications are not recognized outside the jurisdiction in which they were earned.
- Unemployment rates for those with a university degree are significantly lower than for those with lesser educational qualifications. Over the last 15 years, unemployment rates for those with less than a high-school education have been three times higher than unemployment rates for those with a university degree.
- One-quarter of university-degree holders earn less than the average high-school graduate.

#### WHAT DOES THIS MEAN?

Although Canada has a positive record in PSE, the country is being rivalled by the concerted efforts undertaken by other countries to improve PSE performance and outcomes. Just three decades ago North Americans accounted for more than one-third of post-secondary students worldwide. Students from Canada and the U.S. now make up one-sixth of global enrolments.

As the information age matures, the resulting demographic, social and economic shifts require attention and action from the PSE sector in Canada. The increasing demand for an adaptable workforce, for example, demonstrates the need for better and stronger links between workplaces and post-secondary institutions (PSIs) in Canada.

Consequently, PSE must enhance its response to the needs of non-traditional learners, such as mature learners, recent immigrants, people with disabilities and Aboriginal people. This requirement would be heightened should economic conditions become less favourable and those who have abandoned PSE become unemployed. Failure to address the needs of non-traditional learners could result in skills gaps in Canada's labour market, especially in the trades sector, given the continuing low apprenticeship-completion rates and the lack of coordinated credit-transfer systems.

Canada must also examine why so many PSE graduates are earning below their expected potential and determine whether their skill sets are being underutilized, thereby undermining potential gains in productivity for the country as a whole.

## Innovation, knowledge creation and knowledge transfer

Knowledge creation and transfer are key drivers of a productive economy and prosperous society. In Canada, research and development (R&D) are carried out across multiple sectors, but particularly by the PSE sector. Canada relies more heavily on its post-secondary institutions for R&D than most OECD countries.

Among the positive recent trends:

- Support for university R&D in Canada has risen at twice the growth rate of R&D in the business sector over the past 10 years.
- Canada's total research personnel increased by 38% between 1994 and 2004.
- A comparison of Canadian and U.S. commercialization results suggests that Canadian universities compare favourably to their U.S. counterparts in invention disclosures, licence options and creation of spin-offs.

However, there continue to be troubling trends:

- Canada's proportion of gross expenditures on R&D (GERD) to GDP ranked 15th among 39 OECD countries in 2005, the same position held by Canada in 2001.
- An international study of 11 OECD countries on degrees granted in technical areas shows that, despite Canada's high educational attainment, it ranked 10<sup>th</sup> in the share of science and engineering degrees as a percentage of new degrees and ninth in science and engineering PhDs as a share of graduates.
- Despite comparing favourably to the U.S. in the number of licence options related to commercialization of R&D, Canadian universities generate only half the licence income of American institutions for similar investments.

- Canada lacks an independent body, operating at arm's length from PSE providers, that is charged with assessing the degree to which new knowledge generated by post-secondary institutions is creating economic and social benefits.

### WHAT DOES THIS MEAN?

In some regions of Canada, significant R&D takes place only in post-secondary institutions (PSIs). Canada's relatively high dependence on PSIs for research and development means that policy regarding their R&D function takes on greater importance than in partner OECD countries.

Since the results of R&D have a direct impact on productivity levels and the standard of living, there is a need to examine whether Canada has the highly qualified personnel required to meet the country's economic and technological needs. In addition, there is uncertainty about Canada's ability to replace the faculty expected to retire in the near future.

Decision-makers should also be interested in gaining more insight about the barriers that Canadian researchers may face in filing patents or in licensing their knowledge. For example, do barriers have any relationship with the tendency of Canada's universities to make investments in start-up companies, which are more risky than pursuing licensing arrangements?

Canada could strengthen its R&D activities by:

- developing a set of national targets related to expenditures on R&D, and
- charging an independent body to assess the degree to which new knowledge generated by post-secondary institutions is beneficial to the economy and society.

# POST-SECONDARY EDUCATION IN CANADA:

## Active, healthy citizenry

Healthy, productive and engaged citizens living in socially stable communities represent a competitive advantage in dynamic economies and societies. Similarly, internationally mobile, skilled workers choose communities that are safe and culturally vibrant, and which accommodate diversity.

There is growing evidence that educated citizens participate more actively in their communities and make greater contributions in activities such as volunteering and charitable giving. Higher levels of education also appear to increase tolerance for diversity and produce greater respect for local laws. As a consequence, the level of education among residents has a broad impact on a community's social success and stability.

Some evidence to support this:

- The percentage of people donating and the average amount donated both rise with levels of education: 80% of those holding a PSE certificate or degree donated to charities in 2004.
- Individuals with higher levels of education perceive themselves to be in better health.
- The OECD's 2006 *Society at a Glance* presents data on life satisfaction by level of education. In general, the percentage of people reporting a high level of life satisfaction increases with the level of education.

However, there is much that is not known. The current understanding of the relationships between PSE and its social outcomes rests on a relatively weak information base—data are either not available or not collected regularly enough to reflect trends.

The OECD is in the development phase of an extensive project on the social outcomes of learning, involving 13 member countries, including Canada. Once completed, this research will shed further light on the

relationship between tertiary education and the social and civic outcomes of education and learning. However, at present Canada does not collect the data that the OECD will require if the project proceeds as currently envisioned.

### WHAT DOES THIS MEAN?

Information and analysis on the social outcomes of post-secondary education are very limited in Canada, even though there is growing recognition of the social impacts of PSE. We do not have the information to determine the extent to which the content and experience of PSE provides the knowledge, values and competencies that lead to increased individual well-being, tolerance, and civic and social engagement.

## Quality PSE

If expenditures per student constituted the sole assessment of quality, Canada would, with the U.S., be leading the field. However, excellence depends on more than the level of spending; Canadians require a clear picture of quality within the PSE sector.

Complicating the picture is the proliferation of private providers and colleges awarding degrees, which is challenging the ability of employers to assess a job candidate's credentials and suitability for employment.

Most developed countries have established national organizations with mandates for quality assurance or accreditation of post-secondary institutions. Canada is one of the few countries in the world that has not.

Further challenges related to PSE quality in Canada:

- Despite a slight decrease in the ratio of full-time students to full-time professors from 19.8 in 2003–2004 to 19.6 in 2004–2005, this figure is still higher than the ratio of 15.6 in

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1993–1994. The higher ratio may erode the post-secondary experience for learners.

- The complexity of the sector is increasing, with the emergence of university colleges and private, degree-granting institutions. We have little information about these evolving institutions.
- There is a need for learner protection, to ensure that credentials earned are recognized.
- A study by the Canada Millennium Scholarship Foundation (CMSF) on retention and attrition found that 20% to 25% of first-year students do not proceed to second year. An additional 20% to 30% leave PSE in subsequent years.
- Canada has no mechanism to track what happens to students (and the public investment in their education) who abandon their PSE studies. For example, there is no comprehensive, national information about students who drop out, change courses, change institutions, or move from university to college.

## WHAT DOES THIS MEAN?

Without a quality-assurance agency for PSE and a comprehensive mechanism for tracking the learning and employment pathways of Canadians, it will continue to be difficult to measure how well the sector is delivering on the substantial investments of governments and learners.

The imperative of accountability and value for money is further intensified by the complexity and globalization of the PSE sector—teaching and learning are increasingly unhindered by borders. Such realities reinforce the importance of national quality assurance mechanisms.

## Access

Conversations about PSE access most commonly revolve around affordability. However, access hinges upon many other factors, such as perceptions about the costs and benefits of PSE, and the capacity of the sector to meet the needs of traditional and non-traditional learners.

With strong attainment and participation rates, Canada is considered by many to have one of the most accessible PSE sectors in the world. This is a testament to the high priority that Canadians and their governments place on education. Despite recessions, deficit crises and the budgetary demands of the health-care system, public expenditures on PSE, as a proportion of overall social spending, remained stable during the 1990s and increased slightly afterward.

Canada's above-average attainment and participation rates also owe much to the reach and strength of the networks of community colleges.

Access has been enhanced by the steady growth and expansion of private and public PSIs, and by significant improvements to government programs that provide financial assistance to students.

Despite these strengths, obstacles remain:

- A Canada Millennium Scholarship Foundation study found that informational and motivational factors outnumbered financial considerations for individuals who chose not to pursue PSE.
- Between 1990 and 2005, the participation rate of young people in any type of schooling increased from 28% to 41%. In 2006, this rate decreased to 39.9%, one of the few times Canada's educational participation rate decreased on a year-to-year basis. A drop in the percentage of students attending community colleges or CEGEPs over the last two years contributed to this decline.
- Canada lacks a comprehensive assessment of the sector's capacity to meet the learning demands of students.

# POST-SECONDARY EDUCATION IN CANADA:

- After being an early leader in the field of e-learning, Canada has been slower to incorporate online components into PSE programs. Canada lacks a national e-learning strategy.
- Pan-Canadian mechanisms do not exist for credit-transfer or prior learning assessment and recognition (PLAR).

## WHAT DOES THIS MEAN?

Learners are perennially concerned about the capacity of the PSE sector in Canada, asking “Will there be space for me?” They will get no assurances from the fact that Canada conducts neither a countrywide assessment of student demand nor of the sector’s capacity.

Barriers to access must not be viewed as solely financial. New data reveal that some qualified students are not attending PSE because of a lack of interest in and misperceptions about its benefits.

More concerted pan-Canadian action is required to enhance opportunities for lifelong learning, such as e-learning, credit transfer, and the recognition of prior and non-formal learning. Improvements to these areas could help the sector ensure efficient use of its capacity—with the number of traditional students expected to start dwindling around 2013.

## Access for under-represented groups

Canada must continue to improve access for qualified students from under-represented groups, such as students from low-income families, students with disabilities, male students, immigrants, older adults and Aboriginal people.

Progress has been achieved among some under-represented groups. For example, the participation and attainment rates for Aboriginal people have risen steadily since 1986, but are still well below the rates for non-Aboriginal Canadians.

The country’s networks of community colleges appear to be an equalizer. College students are proportionally represented across all income levels, while Canada’s universities have a disproportionately low number of students from lower income households.

Canada faces numerous challenges in achieving equality of access to PSE.

- The 2001 census showed that despite improvements in the high-school retention rates of Aboriginal youth, they are still much less likely to finish their high-school education than non-Aboriginal youth.
- Census 2001 also showed a significant increase in PSE participation among Aboriginal people over the past 15-year period. Nonetheless, Aboriginal attendance and participation rates are still well below Canadian averages.
- The most recent data available for rural youth show that dropout rates in Canada’s small towns and rural areas are about double the rates for metropolitan areas.
- Of the 27 OECD countries for which data were collected in 2004, Canada ranked 11th in the percentage of youth who are not in education and who are without upper-secondary education.
- The percentage of 20- to 24-year-olds without high school, not in education and unemployed is higher for men than for women.
- Data demonstrate that youth from families with an annual income of more than \$75,000 are almost twice as likely to attend university as those who come from families who earn less than \$25,000.

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- Enrolments both for men and women at university are at all-time highs, but female students now account for about 58% of bachelor-degree program enrolment. Males now constitute a new under-represented group. In 2004, 61% of all undergraduate degrees were earned by women.
- The proportion of immigrants holding a trade certificate declined from 9.7% in 1996 to 4.7% in 2005.

## WHAT DOES THIS MEAN?

Access is an important issue for learners from under-represented groups because of the variety of barriers they face in pursuing post-secondary studies. Despite some progress, inequalities remain, such as the non-completion of high school among Aboriginal youth, the gender gap in PSE participation and graduation rates, and lower access by low-income students to universities.

Although more Aboriginal students are participating in PSE than in the past, their participation rate is still well below the Canadian average. Many Aboriginal students are still reporting financial, academic and motivational barriers.

With regard to the gender gap, Canada has exchanged one problem for another. Women, who were in the minority on Canadian campuses not long ago, now represent the majority. Males now constitute a new under-represented group. Canada needs to examine why this gender gap is widening.

Canadians, whether born in the country or new to it, must be able to use their credentials and learning experience for employment or further education. This makes prior learning assessment and recognition (PLAR) an important issue for Canada, particularly in the absence of a countrywide approach to credential recognition.

## Lifelong learning

The rapidly evolving nature of employment has brought the imperatives of lifelong learning to the forefront. Today's knowledge-based economy requires working Canadians to renew and acquire skills on a continuous basis. However, the traditional PSE sector is not designed to respond to this new reality.

The OECD has reported that a lack of pan-Canadian coherence in delivering adult learning and training hampers the availability of lifelong learning opportunities. This fragmented approach means Canadians lack the information required to take up such opportunities.

In fact, this report has no new data available to update the indicators for lifelong learning.

However, CCL published a number of reports in 2007 that shed light on the learning challenges confronting adult Canadians (including *State of Learning in Canada: No Time for Complacency* and *Unlocking Canada's Potential: The State of Workplace and Adult Learning in Canada*).

The following list provides a sense of the significance of the challenges:

- More than four in 10 working-age Canadians cannot read, write, do arithmetic or solve problems at the level required to participate fully in today's economy.
- Canada's overall rate of literacy did not improve between 1994 and 2003, and the proportion of Canadians with high levels of literacy declined slightly.
- Most learning by adults takes place on the job, yet two-thirds of Canadians do not take part in any formal work-related learning activities.
- Barriers that prevent Canadian workers from participating in learning and training include a lack of resources devoted to training by businesses, labour and government, as well as individual attitudes.

# POST-SECONDARY EDUCATION IN CANADA:

- 1.5 million Canadians report having unmet learning and training needs.
- Canadian firms invest less in workplace training than those in most industrialized countries.

## WHAT DOES THIS MEAN?

The PSE sector in Canada must respond better to the growing requirement for ongoing learning.

In order to meet the demand for lifelong learning among working-age Canadians, post-secondary institutions will need to:

- take on a greater role in delivering adult education,
- improve links to employment opportunities, and
- explore ways to work with small and medium-size enterprises to provide adult learning.

Training must be made more readily available for those in most need (particularly unemployed adults with low literacy levels and recent immigrants).

Other countries have been more successful than Canada in encouraging employer-supported training and lifelong learning. Canada must act quickly or risk falling further behind.

## Affordable and sustainable PSE

Overall, Canada's investments in post-secondary are above the OECD average. Public expenditures on PSE accounted for 6.5% of overall social spending in Canada in 2006, roughly 1% higher than a decade earlier. As stated earlier, this continued support shows how strongly Canadians value PSE.

But governments are not the only investors in PSE.

- Tuition fees, which are not learners' only costs associated with PSE, have increased at nearly four times the rate of inflation (as measured by the Consumer Price Index) over the 15 years from 1990–1991 to 2004–2005.
- The percentage of students requiring financial assistance has increased. The number of graduates who borrowed rose significantly, from 45% in 1995 to 56% in 2000 and 59% in 2006.
- Between 2003 and 2006, the percentage of college students who accumulated more than \$15,000 in debt increased from 17% to 29%.
- Learners' investments in post-secondary education are increasing more rapidly than the public rate of investment, indicating a shift in the financial burden toward the individual.

## WHAT DOES THIS MEAN?

Although the cost of post-secondary education can be viewed as an investment in career and life opportunities, there is concern that high levels of debt may inhibit access to and persistence in PSE.

The rising costs and debt loads for learners in Canada reinforce the already negative perception that many qualified students, especially from low-income households, have about the affordability of PSE.

## PART II: Measuring What Canadians Value: A Pan-Canadian Data Strategy

In preparing the 2006 report, *Canadian Post-secondary Education: A Positive Record – An Uncertain Future*, CCL was constantly challenged by a lack of information. In many cases appropriate data were simply not available. When they were available, they were often not comparable, compiled or adequate.

These informational shortcomings hinder the ability to report on the state of PSE in Canada.

This year's report, *Strategies for Success*, proposes an approach for gathering and utilizing the information required for the PSE sector in Canada. Only with a solid base of information will we know whether the billions of dollars invested are being used most effectively.

In the absence of a strategy for data collection, the present condition—where nationwide, coherent, coordinated and comparable data are unobtainable—will continue to prevail. Canada's capacity to assess and improve its PSE sector will continue to be compromised, as will its ability to compare performance with other countries.

Part II of *Strategies for Success*, entitled "Measuring What Canadians Value: A Pan-Canadian Data Strategy," proposes a path for filling the country's PSE information gaps. It discusses in detail the types of information required to assess performance in eight identified goals for PSE. In addition, *Strategies for Success* outlines why, without a champion and a process to engage the various stakeholders, little progress on the data front should be expected.

Although CCL recognizes that significant discussions are required to develop a process for the implementation of the strategy, the issues are too important to await unanimity. Given that governments already possess many of the necessary levers to create and sustain a data strategy, CCL suggests that every effort be made now to address the three most pressing information issues.

They are:

- ongoing and adequate funding for the essential data instruments (see text box);
- comprehensive data on specific and salient issues in each of the eight goals identified by CCL for the PSE sector in Canada; and

### ESSENTIAL DATA INSTRUMENTS

The following surveys, administered by Statistics Canada, need stable and appropriate funding to provide regular, timely and relevant data that measure the strengths and weaknesses of the PSE sector in Canada:

- Access and Support to Education and Training Survey (ASETS)
- Longitudinal Survey of Immigrants to Canada (LSIC)
- National Apprenticeship Survey (NAS)
- National Graduate Survey (NGS)
- Program for International Assessment of Adult Competencies (PIAAC)
- Post-secondary Student Information System (PSIS)
- Registered Apprenticeship Information System (RAIS)
- Survey of Earned Doctorates (SED)
- University and College Academic Staff Survey (UCASS)
- Workplace Employee Survey (WES)
- Youth in Transition Survey (YITS—Statistics Canada)

# POST-SECONDARY EDUCATION IN CANADA:

- immediate implementation of a unique student identifier, and collection and reporting of faculty numbers for colleges, of data on adult education and of data on private providers.

Consideration of a broader strategy should proceed while at the same time addressing these immediate and achievable goals.

## Next Steps

In order to make progress toward a coherent base of PSE data, CCL has identified six issues that should be addressed.

### 1. *Effective coordination of the pan-Canadian data strategy*

Greater coordination and coherence among the various intervenors are required to ensure that priorities are set within the overarching data strategy, that priority activities are identified and funded and that results are delivered.

Within the federal government, Human Resources and Social Development Canada (HRSDC) has the broadest responsibility for learners, the PSE sector and labour-force issues. In addition, Industry Canada, with its responsibility for the innovation portfolio and coordination of the federal granting councils, will be an increasingly important partner in this venture.

### 2. *Public reporting*

Achievement of an effective pan-Canadian PSE data strategy requires regular public reporting and the active involvement of stakeholders.

The adequacy of the PSE information base should be kept in the public eye through regular public reports—a public form of external audit and evaluation. Stakeholders need to be involved to ensure that the PSE database reflects the public interest.

### 3. *Collective commitment to ensuring a return on increased investment in PSE*

In its 2007 budget, the federal government proposed an increase in the Canada Social Transfer (CST) of \$800 million per year, stating, “This increase will take effect in 2008–09, allowing discussions with provinces and territories on how best to make use of this new investment and ensure appropriate reporting and accountability to Canadians.”

For that reporting and accountability commitment to become a reality, the development and pursuit of a pan-Canadian PSE data strategy should be a central focus of those discussions among the federal, provincial and territorial governments.

### 4. *Creating an ongoing pan-Canadian forum*

The development and effective implementation of a pan-Canadian data strategy for PSE is a complex process and requires the active engagement of stakeholders—people and organizations with a professional, personal or financial stake in the PSE sector.

There is a need for an annual pan-Canadian forum for stakeholders to discuss the priorities of the PSE data strategy and system. This forum should include governments, educators, learners and employers. It should also involve the statistical experts and researchers who provide important insight into educational and contextual data—many of whom are already engaged in accountability and reporting activities.

Substantive engagement of stakeholders requires the opportunity to give serious consideration to complex material before it is considered at the pan-Canadian forum. In addition to public consultation on discussion documents and reports, a series of regional, thematic workshops (on issues such as adult and workplace learning) should be held to help achieve a consensus prior to the annual pan-Canadian forum.

## 5. Early action on priority issues

The process of engaging stakeholders and convening the necessary federal–provincial–territorial discussions is pivotal to ensuring a robust pan-Canadian data strategy. However, without immediate action on a number of the identified gaps, both in the information and the ‘info-structure’ required for an effective data strategy, Canada will continue to lag behind other nations in its capacity to assess and report on the performance and condition of its PSE sector.

In order not to lose current momentum—generated by the Canadian Council on Learning’s 2006 PSE report, the related provincial activities (e.g., B.C.’s *Campus 2020* report) and the federal government’s commitment to greater accountability—immediate action is advisable on a number of initiatives. Three data issues are seen as particularly urgent:

- The implementation of a **unique student identifier** that stays with the learner throughout his or her life. This will provide richer information about learners as they move from secondary school to PSE, between PSE institutions and the workplace, among PSE providers and across regions of Canada. Such an initiative is urgent and should be implemented by June 2009.
- A concerted and formalized approach to the introduction of a common dataset, including a data dictionary that is applied across the PSE sector and is compatible with international standards. This will require a mechanism for developing, maintaining and promoting **standardized specifications** for PSE activities and data elements, to enable reliable and comparable data collection and exchange among stakeholders. Such a mechanism could take the form of a formal assignment to the Canadian Education Statistics Council (CESC). Ideally, this would also be implemented by June 2009.
- The development of an information base on **adult learning** (including data from private providers). The lack of data on this aspect

of the PSE sector is unacceptable. HRSDC could play a leadership role and the Canadian Council on Learning’s two related knowledge centres (the Work and Learning Knowledge Centre, and the Adult Learning Knowledge Centre) could bring together many of the partners, providing a useful sounding board for the indicators that would supply evidence about the condition and performance of adult learning in Canada.

## 6. Resources to make it happen

There are inefficiencies in the current situation that can be addressed, in part, through improved coordination and common standards. However, this will not address the overall need for more effective measurement of the condition and performance of the PSE sector. A discussion concerning the resources required for the implementation of a pan-Canadian data strategy, and how these costs should be shared, is a vital next step.

## Who benefits?

The beneficiaries of a successful PSE data strategy would be:

- **Learners and their families**—who seek information on graduation rates, average costs and length of time to complete a particular field of study; who want assurance that their credentials will provide them with the knowledge, skills and abilities needed in the labour market and as citizens
- **Taxpayers**—who want accountability on the performance of the sector as a whole and assurance on the alignment of public expenditures with public benefits
- **Boards of Governors and institutional managers**—who require information on institutional performance, competitiveness and operational efficiency, usually in a comparative context
- **Employers**—who want assurance about the quality of PSE credentials and to know better what types of skills they can expect from PSE graduates in the years to come

# POST-SECONDARY EDUCATION IN CANADA:

- **Governments**—which need information on international and domestic comparability of performance, including learning outcomes, the social and economic return on their investments, and insights on how to refine policies and programs for better efficiency and effectiveness
- **Researchers**—who inform policy and practice by investigating the relationships between educational practices and their various social, economic and learning outcomes

## PART III: From Data to Benchmarks

Part II outlines the need for, and characteristics of, a pan-Canadian data strategy for PSE. As indicated in this strategy, the word data can have different meanings and serve different functions. These functions range from baseline information about the sector's characteristics to robust and telling indicators that allow for assessment of performance and progress over time, or in comparison to other jurisdictions. Finally, data can be used to set numerical targets to which jurisdictions attach priority for future attention.

Part III moves beyond the data strategy to explore the question of benchmarking. This requires close attention to the linkages between PSE and the wider social and economic goals being pursued in Canada.

In today's competitive, global economy, and in the current policy environment, which emphasizes accountability in publicly funded sectors of society, the move to measure outcomes has become fairly standard. Much effort has been devoted to designing, assembling and assessing data and indicators that shed light on who undertakes PSE, what they gain from it and, increasingly, how those benefits affect life after tertiary education.

Many other jurisdictions have established benchmarks. While the idea of benchmarks has been interpreted differently in different countries, they are generally understood to refer to system averages. The methodologies, terminology and results of these exercises vary

in their focus and intensity. There is considerable internal debate within governments and institutions regarding the appropriate balance when determining what to report on and with what degree of analysis and interpretation.

Part III of the report provides a brief overview of the initiatives to monitor and report on PSE in several other countries and jurisdictions. The intent is to identify some of the approaches, models and indicators that Canada could examine to determine the potential applicability or usefulness of such practices to the Canadian situation. This section supplements the conclusions reached in Part II and proposes that seven key areas serve as a foundation for discussing the development of a focused set of benchmarks and, potentially, targets, for Canada.

The seven areas that CCL has identified are:

- literacy levels
- math, science and technology graduates—undergraduate and graduate
- R&D personnel per 1,000 population
- graduation rates
- PSE attainment rates for population
- high-school completion rates
- adult participation in lifelong learning

These seven areas are offered as a starting point for consideration by researchers and policy and program experts across the country.

## PART IV: Toward a Pan-Canadian Framework for PSE

*Strategies for Success* opens with the assertion that many of Canada’s hopes for future prosperity are pinned on education, especially post-secondary education (PSE) in its broadest sense—which includes not only public universities and community colleges, but also private institutes, apprenticeships, workplace training and even the informal learning many adults engage in throughout their lives.

Recognizing the important social and economic contributions of PSE, many countries—even countries with federal systems of government—have developed coherent and cohesive information systems and strategies for tertiary education, to guide their planning and policy-making processes.

Canada has taken no such steps.

Despite the undoubted past achievements of the PSE sector in Canada and the many fine qualities of our post-secondary institutions and educators, without a more coordinated approach Canada is not only failing to maximize the effectiveness and efficiency of its PSE sector, but also risks falling behind countries that have national frameworks.

### The situation in other jurisdictions

The contrast between Canadian incoherence and the national outlook of other OECD countries is captured in the following table.

### International overview of PSE processes and system-wide structures

	MAJOR REVIEW IN LAST 5 YEARS	SYSTEM-WIDE GOALS AND OBJECTIVES	FUNDING ALIGNED WITH NATIONAL PRIORITIES	QUALITY ASSURANCE AGENCY(IES) IN PLACE	ONGOING MECHANISM FOR FEDERAL/STATE PLANNING	FEDERAL MINISTRY OF EDUCATION
AUSTRALIA	Yes	Yes	Yes	Yes	Yes	Yes
EU	Yes	Yes	N/A	Under development		
GERMANY	Yes	Yes	Yes	Process under development	Yes	Yes
U.S.	Yes	Under review	Limited federal money targeted	Yes	No	Yes
SWITZERLAND	Yes	Yes	*	Yes	Yes	Federal Office of Education
U.K.	Yes	Yes	Yes	Yes	N/A	N/A
N.Z.	Yes	Yes	Yes	Yes	N/A	N/A
CANADA	No	No	No	No	No The provinces and territories meet as the Council of Ministers of Education, Canada and the federal/provincial/territorial Forum of Labour Market Ministers meet regularly to share information	No Federal Human Resources Ministry funds labour market programs, research, literacy and other initiatives related to PSE

\*Available material not detailed enough to make conclusions at this time.

# POST-SECONDARY EDUCATION IN CANADA:

As this chart demonstrates, many federal systems have established explicit, transparent processes to enunciate specific nationwide goals and objectives, while recognizing the complexity of PSE and the individual roles of the various components within those systems. Almost all of the comparator countries have increased their focus on accountability issues and the need to provide an evidence-based analysis of performance, quality, progress and outcomes of their PSE sectors. In fact, most jurisdictions have put in place quality assurance bodies or agencies to design standards for quality and conduct ongoing, independent performance audits.

Setting and monitoring national goals and objectives involves the development of measures and indicators, as well as regular reporting on performance and progress toward achievement of the national goals. Accountability and benchmarking are not limited to PSE institutions, but encompass an overall assessment of a country's PSE sector, in its entirety, in meeting national targets.

## The situation in Canada

Part I of *Strategies for Success* identified a number of ways in which the effectiveness of Canada's PSE sector is undermined by a lack of coordination and cohesion:

- Unlike most developed countries, Canada lacks a national agency of quality assurance in the PSE sector.
  - The current linkages between post-secondary institutions and the labour market are insufficient, contributing to mismatches between demand and supply in the labour force.
  - Only 13% of trades have nationally recognized certification, causing barriers to workers' mobility across the country.
- There is no clear or comprehensive depiction of the composition of the PSE sector in Canada, despite the emergence of new hybrid degree-granting institutions and the proliferation of private PSIs.
  - Canada relies heavily on the R&D functions of its PSIs, but lacks a pan-Canadian mechanism to optimize the relationship between PSIs and the potential users of the knowledge they generate.
  - Canada does not have a collective mechanism to assess PSE requirements against demographic projections, such as the level of student demand versus PSI capacity across the country.
  - The field of lifelong learning remains a chief weakness in Canada. There are no pan-Canadian mechanisms to improve the sector's response to the needs of non-traditional learners and adult workers; for example, there are no pan-Canadian mechanisms for e-learning, credit transfer and prior learning assessment and recognition, among others.

What, then, is the way forward for Canada? How can we better align our structure with ambitions for PSE in our society?

Clearly, given the growing need for knowledge workers, PSE is more important than ever before. Most developed countries have implemented national strategies and national quality programs to ensure their PSE sectors respond to the demographic, economic and social imperatives of the 21st century. Unless Canada takes similar steps, it risks falling behind. Part IV of *Strategies for Success* is intended to spark a discussion on what should be included in a national framework and identifies who should be involved in that discussion. We also provide examples of three areas where a national framework is most urgently needed: quality assurance and accreditation; credit transfer; and prior learning assessment and recognition.

## It all started in 2006

The 2006 report prepared by the *Canadian Council on Learning*, entitled *Canadian Post-secondary Education: A Positive Record – An Uncertain Future*, examined the current strategic plans of provincial and territorial ministries of higher education and training, finding convergence toward some common goals for PSE flowing logically from all these plans. The report identified eight key goals, analysed current data with respect to those goals at the national level, and concluded that the absence of a national PSE focus, agenda or strategy potentially jeopardizes Canada's future prosperity.

The case for a pan-Canadian approach must be made in some detail and with some care. Certainly, some who support the notion that PSE is important to our future may question the conclusion that we require a national strategic approach. There is need for a dialogue as to why, how and who should and could actively advance a common, countrywide approach to post-secondary issues—in addition to the province-focussed approach that will naturally continue as a result of the way PSE is structured in this country.

With regard to process, the provincial focus has meant that Canada has never had a formal, structured, federal–provincial–territorial mechanism or forum for discussion of common or mutually interacting issues, goals and priorities. However, it should be noted that a number of cross-jurisdictional bodies and mechanisms have evolved, designed to bring together actors involved in several aspects of post-secondary education.

The question is whether the whole—represented by the combined efforts of the individual jurisdictions, plus the results of the various

cross-jurisdictional mechanisms—provides an adequate response to the challenges confronting Canada in a highly aggressive global marketplace and quickly changing world. Or is the status quo less than the sum of its parts, in light of the growing expectations and pressures that now face Canadian PSE? Those who argue that a more coherent, cohesive and comprehensive approach is required would take the latter position.

Another key question is whether Canada's future success can be ensured through the independent actions of individual jurisdictions, or whether there are some challenges that can be effectively addressed only by supplementing province-specific initiatives with pan-Canadian initiatives.

Part IV frames the discussion about a pan-Canadian approach by setting out three related, but distinct, issues:

- why a pan-Canadian framework is needed and useful
- what might constitute the components or characteristics of a pan-Canadian framework
- how—and by whom—those components or characteristics could be defined and implemented

This final section also sheds light on activities underway in several international jurisdictions, illustrating with concrete examples what can be done to advance post-secondary education—lessons Canada may be well-advised to heed in order not to slip further behind.

"Toward a Pan-Canadian Framework for PSE" concludes by examining some of the partners and mechanisms that could be involved in a national framework.

## CONCLUSION

### FUTURE DIRECTIONS

*Post-secondary Education in Canada: Strategies for Success is the second annual report on PSE published by the Canadian Council on Learning. Subsequent reports will update key data and analysis on participation, attainment, access, quality, results and benefits to build a baseline of information and track changes over time. CCL's third report, to be released in autumn 2008, will explore in greater detail key PSE priorities to enrich further the national dialogue on strategies for success.*

CCL's first annual report on PSE examined the sector from a countrywide perspective, something previously not attempted in Canada. It was necessarily descriptive, depicting current reality based on statistics and indicators gathered both domestically and internationally. The report concluded that—despite the multiple strengths that PSE educators and institutions have demonstrated over many years—the absence of explicit and clearly articulated pan-Canadian goals, measures to assess achievement of those goals and greater cohesion among the many facets of PSE, leaves Canada's future uncertain.

This second annual report on PSE describes the conditions required to move from challenges to solutions and proposes strategies for success. The two most significant conditions are captured in the parts relating to a PSE data strategy and working "Toward a Pan-Canadian Framework for PSE." The terms may appear subdued and technical, but their meanings are profound. Without a full set of relevant, pan-Canadian information, it will not be possible to build a PSE sector that is successful over the long term—despite the fact that all levels of government, individual Canadians and post-secondary institutions fully understand the imperative of excellence in tertiary education. All of these groups need reliable information and analysis in order to make enlightened decisions. The second condition involves taking the practical and measured steps required to establish a pan-Canadian approach to PSE. Canada's future depends on it.

Almost all other developed countries have built the national information systems required to optimize policy and have provided themselves with the necessary tools and mechanisms to adjust, to act and to succeed. Canada has not, but must.

The time has come for all partners in PSE to work collectively toward building coherent strategies, goals and information structures that will enable Canada's PSE sector and its learners to realize their full potential.

*Strategies for Success* makes it difficult to cast our collective gaze downward—away from the national PSE initiatives of other countries—and simply hope that our good, but fragmented, intentions will see us through. We need to chart our course, together, with solid evidence in hand.

It is easier to lead if you can clearly see the landscape, know where you stand and know where you are headed.

# Strategies for Success





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