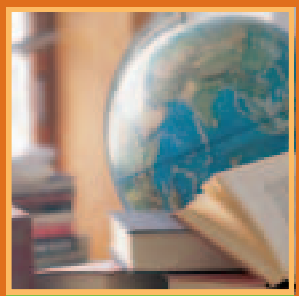
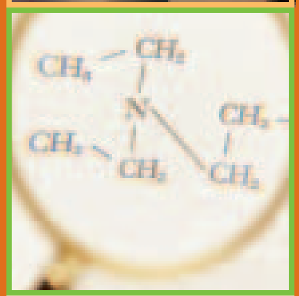
Education Indicators in Canada


Handbook for the Report of the Pan-Canadian Education Indicators Program 2007

PCEIP 2007

Council of Ministers of Education, Canada
Conseil des ministres de l'Éducation (Canada)

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Education Indicators in Canada

Handbook for the Report of the Pan-Canadian Education Indicators Program 2007

February 2008

Catalogue no. 81-582-GPE

ISBN 978-0-660-19809-5

Catalogue no. 81-582-GIE

ISBN 978-0-662-47984-0

Catalogue no. 81-582-GWE

ISBN 978-0-662-47985-7

Frequency: Occasional

Ottawa, Toronto

Également offert en français sous le titre *: Indicateurs de l'éducation au Canada. Manuel pour le Rapport du Programme d'indicateurs pancanadiens de l'éducation 2007.* (nº 81-582-GIF au catalogue).

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Library and Archives Canada Cataloguing in Publication Data

Education indicators in Canada : handbook for the report of the
Pan-Canadian Education Indicators Program, 2007.

Co-published by: Canadian Education Statistics Council.
Issued also in French under title: Indicateurs de l'éducation
au Canada : manuel pour le rapport du Programme d'indicateurs
pancanadiens de l'éducation, 2007.
Available also on Internet.
ISBN 978-0-660-19809-5 (paper)
ISBN 978-0-662-47984-0 (PDF)
ISBN 978-0-662-47985-7 (HTML)
CS81-582-GPE
CS81-582-GIE
CS81-582-GWE

1. Educational indicators – Canada. 2. Education – Canada – Statistics.
I. Statistics Canada. Culture, Tourism and the Centre for Education
Statistics. II. Canadian Education Statistics Council. III Pan-Canadian
Education Indicators Program. IV. Title.

LA412 E38 2008 370.971'021
C2008-988022-6

Table of contents

Table of contents

Acronyms

BTSD	basic training for skill development
CANSIM	Canadian Socio-economic Information Management System
CAUBO	Canadian Association of University Business Officers
CCSIS	Community College Student Information System
CEGEP	Collège d'enseignement général et professionnel
CES	Centre for Education Statistics
CESC	Canadian Education Statistics Council
CICIC	Canadian Information Centre for International Credentials
CIHR	Canadian Institutes of Health Research
CMA	census metropolitan area
CMEC	Council of Ministers of Education (Canada)
CV	coefficient of variation
EAG	Education at a Glance
ESESP	Elementary-Secondary Education Statistics Project
FINCOL	Financial Statistics of Community Colleges and Vocational Schools
FinPESS	Survey of Financial Statistics of Private Elementary and Secondary Schools
FIUC	Survey of Financial Information of Universities and Colleges
FOG	Follow-up Survey of Graduates
FTE	full-time equivalent
GERD	gross domestic expenditures on research and development
GDP	gross domestic product
GED	general education diploma
HRSDC	Human Resources and Social Development Canada
IALSS	International Adult Literacy and Skills Survey
ICT	information and communication technologies
INES	Indicators of Educational Systems
JRT	job readiness training
LFS	Labour Force Survey

LICO	low-income cutoff
NGS	National Graduates Survey
NLSC	National Longitudinal Survey of Children and Youth
OECD	Organisation for Economic Co-operation and Development
PCAP	Pan-Canadian Assessment Program.
PID	Public Institutions Division
PCEIP	Pan-Canadian Education Indicators Program
PISA	Programme for International Student Assessment
PPVT-R	Peabody Picture Vocabulary Test-Revised
PSIS	Postsecondary Student Information System
R&D	research and development
RAIS	Registered Apprenticeship Information System
SAIP	School Achievement Indicators Program
SCF	Survey of Consumer Finances
SCI	Survey of Colleges and Institutes
SIEID	Science, Innovation and Electronic Information Division
SHS	Survey of Household Spending
SLID	Survey of Labour and Income Dynamics
SSGS	Secondary School Graduates Survey
TLAC	Tuition and Living Accommodation Costs
TVOC	Trade/Vocational Enrolment Survey
UCASS	University and College Academic Staff Survey
USIS	University Student Information System
YITS	Youth in Transition Survey

Handbook for the Report of the Pan-Canadian Education Indicators Program 2007

Introduction

This new handbook, officially entitled *Education Indicators in Canada: Handbook for the Report of the Pan-Canadian Education Indicators Program 2007*, was developed to provide general descriptions for each indicator and indicator component in the 2007 Pan-Canadian Education Indicators Program (PCEIP). It complements the 2007 edition of *Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program*. These two publications share a common objective: to provide consistent and high-quality information on education in Canada. The up-to-date array of indicators helps support informed decision-making, policy formulation and program development throughout the country.

The 2007 PCEIP Report highlights the most recent available data for the PCEIP indicators in its now familiar format: brief analytical descriptions accompanied by easy-to-read charts and more detailed data tables. This new companion Handbook is a reference document that gives readers a broad understanding of each indicator, rather than the very specific methodological descriptions that would be necessary to reproduce the indicator using the raw data.

There are five broad indicator sets in PCEIP:

- A A portrait of the school-age population
- B Financing education systems
- C Elementary and secondary education
- D Postsecondary education
- E Transitions and outcomes.

The following information forms the main body of the Handbook, and is presented for each of the PCEIP indicators produced in 2007:

- A brief, general description.
- The major concepts and definitions used.
- An overview of the methodology, including interjurisdictional comparability as needed.
- A short review of any major data limitations.
- A list of the data sources used to produce the indicator.

The relevant data tables are cited for the reader's information; however, these tables appear, along with the analysis, in the 2007 PCEIP Report.

Four appendices conclude the Handbook. The first presents descriptions of the data sources used for the 2007 PCEIP indicator set. (Additional information on Statistics Canada surveys and publications is available free on its website at http://www.statcan.ca.) The second outlines revenue sources and components of expenditures for elementary-secondary education. A third appendix provides the basic reference statistics used for the 2007 PCEIP indicators. And the fourth and final appendix is a concordance table outlining the history of each indicator, beginning with the 1999 edition of *Education Indicators in Canada*.

A

Chapter A


A
B
C

A1

Population size

Tables A.1.1 and A.1.2

Indicator **A1** examines the evolution in the size of the Canadian pre-school and school-age population, and the population aged 25 to 29, presenting estimates and projections for these groups—for the total population (Table A.1.1) and the population with Aboriginal identity (Table A.1.2).

Concepts and definitions

- For this indicator, the **school-age population** includes all individuals aged 5 to 24, whether or not they are attending school. Estimates and projections are also provided for the pre-school-age population (aged 0 to 4), and the population aged 25 to 29. The following **age groups**, which align with the standard used by the Organisation for Economic Co-operation and Development (OECD) and Statistics Canada, have been adopted for PCEIP 2007: 5 to 14; 15 to 19; 20 to 24; and 25 to 29.

- **Aboriginal identity** refers to people who, on the Census of Population, reported identifying with at least one Aboriginal group (North American Indian, Métis or Inuit). Also included in the Aboriginal identity population counts are individuals who did not report an Aboriginal identity, but did report being a Registered or Treaty Indian, and/or Band of First Nation membership ("not included elsewhere" category). Registered Indian status refers to those who reported they were registered under the *Indian Act* . Treaty Indians are persons who are registered under the *Indian Act* and can prove descent from a Band that signed a treaty. The term "treaty Indian" is more widely used in the Prairie provinces.

  The term **North American Indian** is used for individuals who self-identify as such and broadly refers to people who consider themselves part of the First Nations in Canada, whether or not they have legal Indian status according to the *Indian Act*. **Métis** refers to people who are of mixed Aboriginal and non-Aboriginal ancestry and who self-identify as Métis. **Inuit** refers to people descended from Aboriginal people who historically inhabited the Arctic regions of Canada, Alaska, Greenland and Russia, and who self-identify with this group.

- The **medium-growth scenario for the total Canadian population** assumes that fertility and immigration remain at their current levels throughout the projection period. It also assumes that Ontario, Alberta and British Columbia gain population through interjurisdictional migrations and that all other jurisdictions lose population through interjurisdictional migrations.
- The **medium-growth scenario for the Aboriginal population** assumes that mortality will be declining, that migration trends will continue their course as observed during the second half of the 1990s, and that fertility will undergo a slow decline over the projected period.
- **Interjurisdictional migration** is the movement of population from one province or territory to another, involving a permanent change in residence. A person who takes up residence in another province/territory is an outmigrant with reference to the province/territory of origin and an in-migrant with respect to the province/territory of destination. Net migration is the difference between in- and out-migrants.

Methodology

- The total population figures for 2001 are post-censal estimates based on the 2001 Census counts adjusted for census net undercount and incompletely enumerated reserves, and projected to the July 1 reference date. The figures for 1991 and 1996 are based on those census years, also adjusted for net undercoverage. Population projections for 2006 and beyond were developed using the 2005 population estimates as base, and assumptions on the future course of fertility and mortality, as well as international and interjurisdictional in- and out-migrations (medium-growth scenario).
- The projections for the Aboriginal school-age population are based on those who, on the 2001 Census, declared that they had an Aboriginal identity and/or were Registered or Treaty Indians (as defined by the *Indian Act*) and/or were members of an Indian Band. There were 952,900 people with at least one Aboriginal identity; most of them (946,200) identified with only one Aboriginal group. A small number of people (less than 6,700) indicated more than one Aboriginal group. In addition, 23,400 people reported their status solely as Registered or Treaty Indian or as a member of an Indian Band. Together this resulted in a base population of 976,300 people. Before using this population as the base for projections, two modifications were made to the 2001 Census counts:

  First, it was necessary to assure that those persons who indicated that they belonged to more than one Aboriginal group were considered only once in the model, and that the 23,400 people who did not identify as Aboriginal were also included. This modification did not change the overall size of the census Aboriginal population (976,300), but introduced small changes to the size of the North American Indian population (635,700 instead of 608,800), the Métis population (295,100 versus 292,300) and the Inuit population (45,500 versus 45,100).

  Second, the census data were corrected for situations when the census did not count all those who should have been counted. The population living on reserves was adjusted to take into account incompletely enumerated reserves. In each census, on some Indian reserves and settlements, enumeration is not permitted or is interrupted before it can be completed. Estimates of the number of people not counted were made and added to the census number of persons living on reserves. Also, during each census enumeration, there are people who cannot be counted for various reasons (their dwelling was missed, they were not included on the census questionnaire, etc.) or who are counted more than once. Adjustment for these situations was made for the Aboriginal populations living on enumerated reserves and outside the reserves. These adjustments increased the size of the total Aboriginal population and that of specific groups.

- The projections for the Aboriginal population were prepared for individuals who, in the 2001 Census, identified with any of the following groups: the North American Indian population, the Métis or the Inuit. Geographical detail for each group is different and depends on the group's size. Separate projections were done for all three groups, for each of the 10 provinces and 3 territories.

Limitations

- The projection series in Tables A.1.1 and A.1.2 are based respectively on *Population projections for Canada, provinces and territories* (Catalogue No. 91-520) and *Projections of the Aboriginal Populations* (Catalogue No. 91-547). They should not be directly compared given substantial differences. The base population in the *Population projections for Canada, provinces and territories* is the estimated population in 2005 (Population estimates: Statistics Canada, Demography Division). The base population in the *Projections of the Aboriginal Populations* is the 2001 Census corrected for net undercoverage of Aboriginal people. The set of assumptions presented in either series were developed separately with different objectives. As a consequence, different results may appear when comparing the two series, especially for specific jurisdictions with a higher concentration of Aboriginal people or for various age groups. For the detailed differences between the assumptions for the selected scenarios readers should consult the original source documents (catalogue numbers cited above).
- Although commonly used for planning purposes, population projections should be interpreted with caution as they are based on assumptions about the future course of demographic components. For instance, fertility is the main determinant of the school-age population and it may not remain stable over the next 25 years as assumed.
- Projections at the jurisdictional level should be interpreted even more carefully because interjurisdictional migration, a component that is very volatile and difficult to forecast, has a major impact on population change in the provinces and territories.
- PCEIP reports separate Canada-level indicators for people who self-identify as North American Indian, Métis or Inuit. Although this grouping lends itself to more detailed analyses of the Aboriginal population in Canada than a broad pan-Canadian grouping, it does not capture the entire picture. For instance, the grouping does not differentiate between Aboriginal people living in urban versus rural or isolated communities, or between Aboriginal people residing on/off reserves and Aboriginal people from these diverse settings may have very different opportunities, needs and aspirations. Separate Aboriginal indicators for each of the 10 provinces and three territories are also reported; again, the variations within jurisdictions may not be captured completely.

- In 1991 and previous census years, Aboriginal persons were determined using the ethnic origin question, based primarily on the ancestry dimension. The Aboriginal identity question was asked for the first time in the 1996 Census. Data from the 1991 Census are thus not directly comparable with those from subsequent census years.

  Changes in Aboriginal participation in the census over time also result in comparability issues. In both 1996 and 2001, enumeration in some Indian reserves and settlements was not permitted or was interrupted before it could be completed.

  In recent years, the census has shown evidence of changes in the reporting of Aboriginal identity over time, a phenomenon called "ethnic mobility." A growing number of people who had not previously identified with an Aboriginal group have begun doing so. This has contributed to a substantial increase in the size of the Aboriginal population, especially in urban areas; therefore, caution should be exercised when analyzing trends for Aboriginal peoples based on previous census data.

  The projections for the population of Aboriginal children younger than age 15 are subject to high uncertainty as they are directly affected by future fertility and the transfer of Aboriginality from mother to child.

Data sources

- Census of Population, 1991, 1996 and 2001 (total Canadian population), Statistics Canada.
- Census of Population, 2001 (total Aboriginal population), Statistics Canada.
- Demography Division, Statistics Canada:

  For Table A.1.1

  1991 to 2005: Estimates of population, by age group and sex, Canada, provinces and territories;

  Population projections for Canada, provinces and territories, 2005 to 2031, Catalogue No. 91-520-XWE.

  For Table A.1.2

  Projections of the Aboriginal Populations, Canada, Provinces and Territories: Detailed Statistical Tables, 2001 to 2017, Catalogue No. 91-547-SCB, Scenario B.

A2

Cultural diversity

Tables A.2.1 through A.2.5

Indicator **A2** portrays the diversity of the school-age population in some of Canada's major census metropolitan areas (CMAs) in terms of immigrants (Table A.2.1), visible minorities (Table A.2.2), and languages spoken at home (Table A.2.3). It also traces shifts in the proportion of the school-age population with Aboriginal identity (Tables A.2.4 and A.2.5).

Concepts and definitions

- For this indicator, the **school-age population** refers to all individuals aged 5 to 24, whether or not they are attending school. The following **age groups**, which align with the standard used by the Organisation for Economic Co-operation and Development (OECD) and Statistics Canada, have been adopted for PCEIP 2007: 5 to 14; 15 to 19; 20 to 24; and 25 to 29.
- **Immigrants** refers to people who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some immigrants have resided in Canada for a number of years, while others have arrived recently. Does not include non-permanent residents who are defined as people from another country who had an employment authorization, a study authorization, or a Minister's permit, or who were refugee claimants at the time of the census and family members living here with them.
- As defined by the *Employment Equity Act*, **visible minorities** are "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." The following visible minority responses were indicated on the census, and respondents could mark more than one group: Chinese, South Asian, Black, Filipino, Latin American, Southeast Asian, Arab, West Asian, Japanese, Korean, multiple visible minority, visible minority not indicated elsewhere, and all others.
- **Home language** refers to the language spoken most often, or on a regular basis, at home by the individual at the time of the census. For this indicator, data are presented for people of school age whose home language is neither English nor French ("non-official home language").
- **Aboriginal identity** refers to people who, on the Census of Population, reported identifying with at least one Aboriginal group (North American Indian, Métis or Inuit). Also included in the Aboriginal identity population

counts are individuals who did not report an Aboriginal identity, but did report being a Registered or Treaty Indian, and/or Band of First Nation membership ("not included elsewhere category). Registered Indian status refers to those who reported they were registered under the *Indian Act*. Treaty Indians are persons who are registered under the *Indian Act* and can prove descent from a Band that signed a treaty. The term "treaty Indian" is more widely used in the Prairie provinces.

The term **North American Indian** is used for individuals who self-identify as such and broadly refers to people who consider themselves part of the First Nations in Canada, whether or not they have legal Indian status according to the *Indian Act*. **Métis** refers to people who are of mixed Aboriginal and non-Aboriginal ancestry and who self-identify as Métis. **Inuit** refers to people descended from Aboriginal people who historically inhabited the Arctic regions of Canada, Alaska, Greenland and Russia, and who self-identify with this group.

- A **census metropolitan area (CMA)** is a geographical unit consisting of one or more adjacent municipalities centered on a large urban area (known as the urban core) with a population count of at least 100,000. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the central urban area, as measured by commuting flows derived from census place of work data. Once an area becomes a CMA, it is retained as a CMA even if the population of its urban core declines below 100,000.

Methodology

- The proportion of the school-age population with particular characteristics is based on information reported in the Census of Population for immigrants, visible minorities, non-official home language (neither official language spoken at home), and Aboriginal identity.
- The proportion of the school-age population with characteristic y = (number of individuals aged 5 to 24 with characteristic y) / (number of individuals aged 5 to 24).
- For both 1996 and 2001 CMA data, the 2001 Census boundaries are applied.

Limitations

- PCEIP reports separate Canada-level indicators for people who self-identify as North American Indian, Métis or Inuit. Although this grouping lends itself to more detailed analyses of the Aboriginal population in Canada than a broad pan-Canadian grouping, it does not capture the entire picture. For instance, the grouping does not differentiate between Aboriginal people living in urban versus rural or isolated communities, or between Aboriginal people residing on/off reserves and Aboriginal people from these diverse settings may have very different opportunities, needs and aspirations. Separate Aboriginal indicators for each of the 10 provinces and three territories are also reported; again, the variations within jurisdictions may not be captured completely.
- In 1991 and previous census years, Aboriginal persons were determined using the ethnic origin question, based primarily on the ancestry dimension. The Aboriginal identity question was asked for the first time in the 1996 Census. Data from the 1991 Census are thus not directly comparable with those from subsequent census years.

Changes in Aboriginal participation in the census over time also result in comparability issues. In both 1996 and 2001, enumeration in some Indian reserves and settlements was not permitted or was interrupted before it could be completed.

In recent years, the census has shown evidence of changes in the reporting of Aboriginal identity over time, a phenomenon called “ethnic mobility.” A growing number of people who had not previously identified with an Aboriginal group have begun doing so. This has contributed to a substantial increase in the size of the Aboriginal population, especially in urban areas; therefore, caution should be exercised when analyzing trends for Aboriginal peoples based on data from different census years.

Census data re: the Aboriginal population are based on self-identification and therefore allow limited analysis of Aboriginal populations in Canada as they cannot be considered to be representative of the entire Aboriginal population.

- Until April 1, 1999, when Nunavut was officially created, data for this part of the North were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000.

Data source

- Census of Population, 1991, 1996 and 2001, Statistics Canada.


1+1=
2+2=4
3+3=6
4+4=8

A3

Low income

Tables A.3.1 and A.3.2

Indicator **A3** provides information on the proportion of the school-age population living in low-income circumstances, including the length of time families have been in such situations. This information is presented for the total school-age population (Tables A.3.1 and A.3.2).

Concepts and definitions

- For this indicator, the **school-age population** refers to all individuals aged 5 to 24, whether or not they are attending school. The following **age groups**, which align with the standard used by the Organisation for Economic Co-operation and Development (OECD) and Statistics Canada, have been adopted for PCEIP 2007: 5 to 14; 15 to 19; 20 to 24; and 25 to 29.
- Three **living situations** are presented for the population aged 5 to 24 in low-income circumstances: living with two parents, living with a lone parent, and not living with their parent(s). The distribution of this population by number of years in low income is categorized as follows: never in low income, up to one year in low income, and more than one year in low income.

  Parents captures biological and step-parents, as well as those who have adopted children. **Lone parent** refers to guardians and adults, regardless of marital status, without a partner but with children in their care.
- **Low income** is determined using Statistics Canada's **low-income cutoffs (LICOs)**, which indicate when a family may be in "straitened circumstances." This means that the family is likely to spend 20% more of its net income on basic items such as food, shelter and clothing than the average family, which leaves less money available for other expenses such as health, education, transportation and recreation. LICOs are calculated for families and communities of different sizes.

Methodology

- After-tax LICOs, which better reflect the income a family has to spend on basic and other items, were used to report the percentage of children living in low-income families and the distribution by number of years in low income (up to 6 years).

- LICOs are updated annually to reflect increases in the cost of living. They are also updated periodically to reflect changes in family spending patterns.
- Low-income rates are calculated for families with all members of an economic family having the same low-income status. An economic family is defined as a group of two or more persons related by blood, marriage, common-law or adoption, and living in the same dwelling.

Limitations

- There is no internationally accepted standard for measuring poverty, nor is there an official definition of poverty in Canada. LICOs provide one of many possible measures to monitor trends in the relative economic well-being of Canadian families.
- The Survey of Labour and Income Dynamics (SLID) was designed to follow individuals for six years; therefore, the income of a given family may be estimated for a maximum of six consecutive years using data from SLID.
- The feasibility of developing low income indicators for the Aboriginal population using SLID were explored. However, the Aboriginal identifier variable used in SLID is not comparable with that used in the census or in the Labour Force Survey (LFS). The identifier used in SLID is based on Aboriginal ancestry and Treaty/Registered Indian status, while the identifier used in the census and the LFS is based on Aboriginal self-identification. Moreover, the sample size of Aboriginal children aged 5 to 24 in low income in Canada is too small to support a breakdown by family characteristics and by province. And, most importantly, SLID is not recommended by subject matter experts in the Social and Aboriginal Statistics Division at Statistics Canada as a reliable source of information on the Aboriginal population.

Data sources

- Survey of Consumer Finances, 1990 and 1995, Statistics Canada.
- Survey of Labour and Income Dynamics, 2000 and 2004, Statistics Canada.

A4

Family background

Tables A.4.1 through A.4.4

Indicator **A4** examines the living arrangements of the school-age population and the working status of parents. Distributions are presented for the total school-age population (Tables A.4.1 and A.4.3) and the school-age population with Aboriginal identity (Tables A.4.2 and A.4.4).

Concepts and definitions

- For this indicator, the **school-age population** refers to all individuals aged 5 to 24, whether or not they are attending school. The following **age groups**, which align with the standard used by the Organisation for Economic Co-operation and Development (OECD) and Statistics Canada, have been adopted for PCEIP 2007: 5 to 14; 15 to 19; 20 to 24; and 25 to 29.
- The 5- to 24-year-old population was grouped into the following categories to reflect **living arrangements**: living with parents(s), which includes married parents, common-law parents, and lone parents; and not living with parents, which captures those individuals living as a spouse or lone parent, or who have other living arrangements.

  Parents captures biological and step-parents, as well as those who have adopted children. **Lone parent** refers to guardians and adults, regardless of marital status, without a partner but with children in their care. "Other living arrangements" includes people who live with "non-family" persons; that is, people living with relatives only, living with relatives and other persons, or living with non-relatives (at least two of these non-relatives must constitute a census family).
- Percentage distributions are presented for the 5-to-24 age group overall, and for the following **age groups**: 5 to 14, 15 to 19, and 20 to 24.
- The Census of Population definition of **family** refers to a married couple (with or without children of either or both spouses), a couple living common-law (with or without children of either or both partners) or a lone parent of any marital status, with at least one child living in the same dwelling. A couple living common-law may be of the opposite or same sex. "Children" in a census family include grandchildren living with their grandparent(s) but with no parent(s) present.

For the 2001 Census, several changes were made to the census family concept: two persons living in a same-sex common-law relationship, along with any of their children residing in the household, will be considered a census family. Children in a census family can have been previously married (as long as they are not currently living with a spouse or common-law partner); previously, they had to be never-married. A grandchild living in a three-generation household where the parent (middle generation) is never-married will, contrary to previous censuses, now be considered as a child in the census family of his or her parent, provided the grandchild is not living with his or her own spouse, common-law partner, or child. Traditionally, the census family usually consisted of the two older generations. A grandchild of another household member, where a middle-generation parent is not present, will now be considered as a child in the census family of his or her grandparent, provided the grandchild is not living with his or her own spouse, common-law partner, or child. Traditionally, such a grandchild would not be considered as the member of a census family.

- **Aboriginal identity** refers to people who, on the Census of Population, reported identifying with at least one Aboriginal group (North American Indian, Métis or Inuit). Also included in the Aboriginal identity population counts are individuals who did not report an Aboriginal identity, but did report being a Registered or Treaty Indian, and/or Band of First Nation membership ("not included elsewhere category). Registered Indian status refers to those who reported they were registered under the *Indian Act*. Treaty Indians are persons who are registered under the *Indian Act* and can prove descent from a Band that signed a treaty. The term "treaty Indian" is more widely used in the Prairie provinces.

  The term **North American Indian** is used for individuals who self-identify as such and broadly refers to people who consider themselves part of the First Nations in Canada, whether or not they have legal Indian status according to the *Indian Act*. **Métis** refers to people who are of mixed Aboriginal and non-Aboriginal ancestry and who self-identify as Métis. **Inuit** refers to people descended from Aboriginal people who historically inhabited the Arctic regions of Canada, Alaska, Greenland and Russia, and who self-identify with this group.

Methodology

- The percentage distribution of the school-age population, by age group and living arrangements, was examined for the total Canadian population (Tables A.4.1 and A.4.3), and for the school-age population with Aboriginal identity (Tables A.4.2 and A.4.4).
- To ensure the confidentiality of responses collected for the census, a random rounding process is used to alter the values reported for individual counts. As a result, when data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently and randomly rounded. However, apart from discrepancies due to simple rounding, the percentages were calculated to add up to 100%, as recommended by the census methodology group.

Limitations

- PCEIP reports separate Canada-level indicators for people who self-identify as North American Indian, Métis or Inuit. Although this grouping lends itself to more detailed analyses of the Aboriginal population in Canada than a broad pan-Canadian grouping, it does not capture the entire picture. For instance, the grouping does not differentiate between Aboriginal people living in urban versus rural or isolated communities, or between Aboriginal people residing on/off reserves and Aboriginal people from these diverse settings may have very different opportunities, needs and aspirations. Separate Aboriginal indicators for each of the 10 provinces and three territories are also reported; again, the variations within jurisdictions may not be captured completely.
- Data from the 1991 and 2001 Census were used to calculate distributions and to produce population counts for the general population. However, because1991 Census data for the population with Aboriginal identity are not directly comparable with information collected in 2001, data from the 1996 Census year were used.
- In 1991 and previous census years, Aboriginal persons were determined using the ethnic origin question, based primarily on the ancestry dimension. The Aboriginal identity question was asked for the first time in the 1996 Census. Data from the 1991 Census are thus not directly comparable with those from subsequent census years.

  Changes in Aboriginal participation in the census over time also result in comparability issues. In both 1996 and 2001, enumeration in some Indian reserves and settlements was not permitted or was interrupted before it could be completed.
- In recent years, the census has shown evidence of changes in the reporting of Aboriginal identity over time, a phenomenon called "ethnic mobility." A growing number of people who had not previously identified with an Aboriginal group have begun doing so. This has contributed to a substantial increase in the size of the Aboriginal population, especially in urban areas; therefore, caution should be exercised when analyzing trends for Aboriginal peoples based on previous census data.
- Census data re: the Aboriginal population are based on self-identification and allow for limited analysis of Aboriginal populations in Canada as they cannot be considered as representative of the entire Aboriginal population.
- In general, standard errors are not calculated for census estimates. Tables A.3.2 and A.3.4 provide numbers of Aboriginal individuals by living arrangements and work activity of parents. Some numbers at the jurisdictional level are very small and may be associated with relatively high standard errors. This is especially true for jurisdictions with small Aboriginal populations and these data should be interpreted with caution.

Data source

- Census of Population, 1991, 1996 and 2001, Statistics Canada.


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Chapter B

B


Aa Bb Cc Dd
Ff Gg Hh Ii
Kk Ll Mm

Total expenditure on education

B1

Tables B.1.1 through B.1.5

Indicator **B1** examines total combined public and private expenditure on education in Canada and its provinces and territories. These combined expenditures are presented with total amounts (Table B.1.1), indices of change (Table B.1.2), and percentage distributions (Table B.1.3), by level of education, between 1997/1998 and 2002/2003. Per capita expenditure on education and its index of change are also shown for Canada and its jurisdictions (Table B.1.4), as well as the total expenditure relative to GDP (Table B.1.5).

Concepts and definitions

- **Total expenditure** on education refers to the total combined public and private expenditures on education for Canada, or for a province/territory, in a given fiscal year.
- **Public expenditure** refers to spending on education by all levels of government, including:

  Direct purchases by governments of educational resources (e.g., direct payments of teachers' salaries by a central or regional education ministry/department, direct payments by a municipality to building contractors for construction of school buildings, procurement of textbooks by a jurisdiction or regional authority for subsequent distribution to local authorities or schools).

  Direct payments by government agencies to educational institutions that have the responsibility of purchasing educational resources themselves (e.g., government block grants to universities, which they use to compensate personnel, a government subsidy to a private school, and government payments under contract to a private firm undertaking educational research).

  Direct expenditure designated for capital projects (e.g., building expansions or construction, laboratory equipment in support of research and development).

  Public-to-private transfers (e.g., net transfers between different levels of government, financial aid in the form of government scholarships and grants, special public subsidies [for transport, medical expenses, studies abroad], family allowances or child allowances that are contingent on student status, student loans).

- **Private expenditures** refer to the expenditures by households or other private entities (commercial and not-for-profit), and they include:

  Fees paid to educational institutions (e.g., for tuition, registration, laboratory, lodging, meals and for other services provided to students by the institution). Statistics Canada's finance surveys are administrative surveys only and therefore do not include data on private educational expenditures paid to other entities for student lodging, course material, etc.

  Financial aid to students or households from private sources (e.g., scholarships from business firms and religious and other non-profit organizations).

  Direct payments by private entities to educational institutions (e.g., contributions or subsidies to vocational-technical schools, contracts let to universities for research or other services, grants to educational institutions from non-profit organizations, and charitable donations [other than from households]).

- The **index** shows the annual cumulative percentage changes in a variable from a given base year, expressed as an index with the base year equal to 100. The index value of 107 at the Canada level (Table B.1.4), for example, five years after the base year, indicates a 7% increase in per capita combined expenditure on education between 1997/1998 and 2002/2003.

- **Gross domestic product (GDP)** represents the total market value of a country's (or province's, or territory's) goods and services produced over the year.

Methodology

- The following six surveys have provided sources of data for Tables B.1.1 through B.1.5.

  (1) The Survey of Uniform Financial System of School Boards (SUFSB) is an annual survey conducted to determine how much is spent in relative detail by school boards by provincial/territorial total. The SUFSB also determines where the school boards receive funding. The survey is a census with a cross-sectional design, and covers all school boards in Canada. All figures are actual, except those for Nunavut, which have been estimated.

  (2) The Survey of Financial Statistics of Private Elementary and Secondary Schools (FinPESS) is an annual survey conducted to collect financial information on private schools, which is input for total elementary and secondary revenues and expenditures. The survey is a census with a cross-sectional design, and covers all private educational institutions in all provinces. The private component at the elementary and secondary levels has been estimated using the 2002/2003 private school enrolments and the Education Price Index and the 2000/2001 actual data.

  (3) The Survey of Federal Government Expenditures in Support of Education (FEDEX) is an annual survey conducted to determine, in detail, direct federal government financial support for education at all levels by department and by province/territory. The survey covers federal government programs having expenditures in support of education. This survey is a census with a cross-sectional design. All figures in this survey are actual and not estimated.

  (4) The Survey of Financial Information of Universities and Colleges (FIUC) is conducted annually to collect data on the revenues and expenditures of universities and degree-granting institutions in Canada. It covers all degree-granting universities and university-colleges in Canada. All figures in this survey are actual and not estimated.

(5) The Financial Statistics of Community Colleges and Vocational Schools (FINCOL) is an annual survey conducted to collect detailed revenue and expenditure data from community colleges and public trade-vocational schools. The survey covers all community colleges and public vocational institutions in the provinces and territories that offer educational programs at the postsecondary level and/or trade-vocational level. All figures in this survey are actual and not estimated.

(6) The Provincial Expenditures on Education in Reform and Correctional Institutions is an annual survey that is used to supplement data from the Provincial Public Accounts on provincial/territorial expenditures on education. The survey covers reform and correctional institutions in the provinces and territories. All figures in this survey are actual and not estimated.

- At the elementary-secondary level, public institutions have a small portion of funding from private sources, which is derived from year-to-year extrapolation.
- All amounts in these tables are given in 2001 constant dollars. Constant dollars are derived by applying a price deflator to convert expenditures displayed in a time series to a price level that existed at a certain point in time (the base year). Constant dollars eliminate the changes in the purchasing power of the dollar over time, resulting in a series that would exist if the dollar had a purchasing power equal to the purchasing power in the base year.
- Per capita expenditure in Table B.1.4 divides the spending on education in Canada, or in a province or territory, by the total population, to show how much is spent on education per person.
- Data shown at the Canada level include Canada's spending on education in foreign countries (e.g., Department of National Defence schools), and undistributed expenditures. The decline in expenditure in Newfoundland and Labrador was in fact a return to "normal" expenditure level after a significant but short-term funding increase in the mid-1990s, notably for the Atlantic Groundfish Strategy. Expenditures at the elementary-secondary level in Quebec include trade-vocational expenditures administered through the elementary-secondary system.
- Although the decrease in public and private expenditures on education in New Brunswick in 2000/2001, 2001/2002, and 2002/2003 reflects a change in employer contributions to teachers' pension plans, the actual data for 2000/2001, 2001/2002 and 2002/2003 for New Brunswick show an increase in expenditures for school district operations at the elementary/secondary level in all three years.
- Although there are no universities in the territories, there are expenditures at the university level including student aid as well as administrative expenditures. These expenditures are also included in the provincial data.
- Nunavut was created on April 1, 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000.

Limitations

- The measurements reported should be interpreted in the context of various inter-related supply-and-demand factors, including the demographic structure of the population, enrolment rates at different levels of education, and changes in the overall value of goods and services produced in the economy (GDP). The results cannot be used to compare provincial or territorial governments' funding commitment to education.

- Large year-over-year variations in public and private funding to school boards are caused by accounting adjustments to prior-year surpluses and/or deficits. This means that trends should be observed over a period of years rather than from one year to the next (Tables B.1.1 and B.1.2).
- For Nunavut in 1999/2000, the combined expenditures on education for trade-vocational schools (Table B.1.1) were slightly underestimated as tuition fees (part of private expenditures) for the trade-vocational portion were not reported for the only college in Nunavut in 1999/2000.
- There is no standard fiscal-year definition applied across the Canadian education system. At the elementary-secondary level, most local school boards use their respective school year-ends, but are converted to a calendar year (as of the end of December) by Statistics Canada. On the other hand, universities and colleges have different financial year-ends. Please note that all provincial public accounts use the same fiscal year, as of March 31.
- Although amounts are presented in constant dollars to provide a consistent picture over time, the impact of spending on education in any jurisdiction will be affected by several factors, including changes to the cost of living within jurisdictions.
- The following data are not included: private daycare programs since they are not considered in the educational system, and expenditures relating to private business colleges.

Data sources

For Table B.1.1:

- Survey of Uniform Financial System of School Boards, Statistics Canada.
- Survey of Financial Statistics of Private Elementary and Secondary Schools, Statistics Canada.
- Survey of Federal Government Expenditures in Support of Education, Statistics Canada.
- Survey of Financial Information of Universities and Colleges, Statistics Canada.
- Financial Statistics of Community Colleges and Vocational Schools, Statistics Canada.
- Provincial Expenditures on Education in Reform and Correctional Institutions, Statistics Canada.
- Provincial public accounts, Statistics Canada.

For Tables B.1.2 to B.1.4:

- Table B.1.1

For Table B.1.5:

- Table B.1.1; GDP: Appendix 3.

Public and private expenditure on education

B2

Public expenditures on education, health, social services, and non-social programs

Table B.2.1

Indicator **B2** considers total education expenditure in Canada, from both public and private sources. The first subset of this indicator examines public expenditures on education relative to the spending on other government programs; specifically, health, social services, and non-social programs (Table B.2.1). Expenditures are presented as dollar amounts (2001 constant dollars) and using percentage distributions, by program. The information spans the period from 1989/1990 to 2005/2006.

Concepts and definitions

- For this indicator, which is based on data from Public Institutions Division, **public expenditures** refer to expenditures by the federal, provincial/territorial and local levels of government. These expenditures are presented for elementary-secondary education, postsecondary education, other education, and total public expenditures for education, as compared with the public expenditures on health, social services, and non-social programs (Table B.2.1).

  Public expenditures on **other education** include spending on special retraining, which includes outlays made for the purpose of upgrading the skills of individuals, the purchase of on-the-job training for Employment Insurance recipients, subsidies to workers and persons available for work undergoing training, as well as spending on language training for newcomers and government employees, and spending that cannot otherwise be categorized.

  Health expenditures include hospital care, medical care, preventive care, and other health services.

  Public expenditures on **social services** refer to social assistance, Workers' Compensation benefits, employee pension plan benefits and changes in equity, veterans' benefits, motor vehicle accident compensation, and other social services.

  Non-social programs is a residual category that includes general government services; protection of persons and property; transportation and communication; resource conservation and industrial development; environment, recreation and culture; labour, employment and immigration; housing; foreign affairs and international assistance; regional planning and development; research establishments; general purpose transfers to other government subsectors; debt charges; and other expenditures.

Methodology

- Table B.2.1 is based on public accounts data from Statistics Canada's Public Institutions Division (PID). PID's statistical program was designed to measure and analyze the economic dimensions of Canada's public sector. The economic dimensions consist of revenues and expenditures, assets and liabilities, debt and employment-related statistics of public sector entities. The data from PID are in current dollars. Constant dollar conversion is performed by Culture, Tourism and the Centre for Education Statistics Division.
- Public expenditures on education (elementary-secondary, postsecondary, and other education) and other programs (health, social services, and non-social programs) (Table B.2.1) are presented in 2001 constant dollars and as percentage distributions, by program, from 1989/1990 to 2005/2006.
- Provincial governments support college- and university-related activities in a variety of ways. They provide direct operating, capital, and other special purpose grants to institutions, financial aid to students, and research funding to faculty members. In addition to these direct expenditures, jurisdictions maintain ministries/departments and agencies to administer their college- and university-related programs and to develop public policy. The cost of all these programs and activities represents the total provincial and territorial government expenditures on college- and university-related activity. The federal government also supports college- and university-related activities.

Interjurisdictional comparability

- The Financial Management System ensures interjurisdictional comparability by standardizing the classification of transactions and of balance sheet items and by applying a uniform definition of "government entity" across jurisdictions. The FMS also ensures inter-temporal comparability by applying a conceptual framework over long periods of time.
- All transfers between provinces or territories are netted out in order to avoid duplication. Inter-government sales of goods and services and inter-government interest payments are also eliminated on consolidation to avoid double counting.

Limitations

- PID standardizes individual government accounts to provide consistent and comparable statistics; therefore, these statistics may differ from the figures published in individual government financial statements, and differ slightly from other data for public expenditures.
- The comparisons across government programs (Table B.2.1) are not directly comparable with the data on public expenditures in education presented in other tables (Tables B.1.1 through B.1.5, Table B.2.2 and Table B.2.3).

Data source

- Public Institutions Division, Statistics Canada.

Public and private expenditure on education

Public expenditures on education

Tables B.2.2 and B.2.3

Indicator **B2** considers total education expenditure in Canada, from both public and private sources. This second subset of the indicator focuses on public expenditures on education, by level of education and jurisdiction, over time. The information is presented in 2001 constant dollars (Table B.2.2) and using indices of change (Table B.2.3).

Concepts and definitions

- **Public expenditures** refer to spending on education by all levels of government, including:

  Direct purchases of educational resources by governments (e.g., direct payments of teachers' salaries by a central or regional education ministry/department, direct payments by a municipality to building contractors for construction of school buildings, procurement of textbooks by a jurisdiction or regional authority for subsequent distribution to local authorities or schools).

  Direct payments by government agencies to educational institutions that have the responsibility of purchasing educational resources themselves (e.g., government block grants to universities, which they use to compensate personnel, a government subsidy to a private school, and government payments under contract to a private firm undertaking educational research).

  Direct expenditures designated for capital projects (e.g., building expansions or construction, laboratory equipment in support of research and development).

  Public-to-private transfers (e.g., net transfers between different levels of government, financial aid in the form of government scholarships and grants, special public subsidies [for transport, medical expenses, studies abroad], family allowances or child allowances that are contingent on student status, student loans).

- The following **levels of education** are used: pre-elementary, elementary-secondary; trade-vocational; college; university; all postsecondary; and all levels combined (Tables B.2.2 and B.2.3).

Pre-elementary programs refer to pre-Grade 1 programs offered by public, private, and federal schools, as well as schools for the visually and hearing impaired, generally targeting children 4 or 5 years of age. Junior and senior kindergarten programs in the formal education system are included, but early childhood programs outside the formal education system are not included.

Elementary-secondary education consists of 12 years of study (from Grade 1 to Grade 12); the only exception is Quebec where there are 6 years of elementary school and 5 years of secondary school.

Trade-vocational education refers to apprenticeship or other programs geared towards preparation for employment in an occupation or trade. More and more programs in the trade-vocational education are now requiring high school graduation. Programs vary in length from 2 to 5 years, depending on the trade.

College education refers to the education programs offered by a community college, CEGEP, school of nursing.

University level education typically offers 4-year undergraduate programs leading to bachelor's degrees. Advanced degrees include master's degrees, generally requiring 2 years of study after a first degree, and doctoral degrees, requiring 3 to 5 years of postgraduate study and research as well as a dissertation.

- **Constant dollars** are derived by applying a price deflator to convert expenditures displayed in a time series to a price level that existed at a certain point in time (the base year). Constant dollars eliminate the changes in the purchasing power of the dollar over time. The result is a series as it would exist if the dollar had a purchasing power equal to the purchasing power in the base year.
- **Indices of change** (Table B.2.3) represent annual cumulative percentage changes for public expenditures on education in the base year of 1997/1998, expressed as an index with the base year equal to 100.

Methodology

- This second subset of indicator B2 is based on data from the six surveys outlined in Indicator B1, and data from provincial public accounts.
- The data shown at the Canada level include Canada's spending on education in foreign countries (e.g., Department of National Defence schools), and undistributed expenditures.
- Expenditures at the elementary-secondary level in Quebec include trade-vocational expenditures administered through the elementary-secondary system.
- Although there are no universities in the territories, there are expenditures at the university level, including student aid as well as administrative expenditures. These expenditures are also included in the provincial data.

Interjurisdictional comparability

- All transfers between provinces or territories are netted out in order to avoid duplication.

Limitations

- Nunavut was created on April 1, 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000.

Data sources

- Survey of Uniform Financial System of School Boards, Statistics Canada.
- Survey of Financial Statistics of Private Elementary and Secondary Schools, Statistics Canada.
- Survey of Federal Government Expenditures in Support of Education, Statistics Canada.
- Survey of Financial Information of Universities and Colleges, Statistics Canada.
- Financial Statistics of Community Colleges and Vocational Schools, Statistics Canada.
- Provincial Expenditures on Education in Reform and Correctional Institutions, Statistics Canada.
- Provincial public accounts.

Public and private expenditure on education

Private expenditures on education

Tables B.2.4 through B.2.6

This third subset of Indicator **B2** (total education expenditure in Canada) presents information on private spending in Canada and jurisdictions, by level of education and as a percentage of total expenditures on education (Tables B.2.4 through B.2.6). The expenditure amounts are shown in 2001 constant dollars.

Concepts and definitions

- **Private expenditures** refer to spending by households or other private entities (commercial and not-for-profit), and include:

  Fees paid to educational institutions (e.g., for tuition, registration, laboratory, lodging, meals and for other services provided to students by the institution). Statistics Canada surveys only institutions and there is a lack of data on private educational expenditures paid to other entities for student lodging, course material, etc.

  Financial aid to students or households (e.g., scholarships from business firms and religious and other non-profit organizations);

  Direct payments by private entities to educational institutions (e.g., contributions or subsidies to vocational-technical schools, contracts let to universities for research or other services, grants to educational institutions from non-profit organizations, and charitable donations [other than from households]).

Methodology

- Total private expenditures on education (Table B.2.4) and indices of change in the expenditures (Table B.2.5), by level of education and jurisdiction, over time are presented. Private expenditures on education are also shown as percentage of total expenditures by level of education and jurisdiction between 1997/1998 and 2002/2003.
- Data are not included for private education programs for pre-junior kindergarten children for which there is no provincial regulation.

- The figures for trade-vocational and college education (Tables B.2.4, B.2.5 and B.2.6) are not included for expenditures relating to private business colleges.
- The only college in Nunavut started reporting tuition fees (part of private expenditures) for the trade-vocational portion in 2000/2001.
- Since the series for Nunavut starts in 1999/2000, the calculation for the Northwest Territories and Nunavut is for the period 1999/2000 to 2002/2003 only (1999/2000 = 100). In the case of Nunavut at the trade-vocational level, as the only college started reporting tuition fees (part of private expenditures) for the trade-vocational portion in 2000/2001, the index calculation is for the period 2000/2001 to 2002/2003 only (2000/2001 = 100).
- Large year-over-year variations in public and private funding to school boards are caused by accounting adjustments to prior-year surpluses and/or deficits. This means that trends should be observed over a period of years rather than from one year to the next.

Interjurisdictional comparability

- All transfers between provinces or territories are netted out in order to avoid duplication.

Limitations

- Nunavut was created on April 1, 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000.

Data sources

- Survey of Uniform Financial System of School Boards, Statistics Canada.
- Survey of Financial Statistics of Private Elementary and Secondary Schools, Statistics Canada.
- Survey of Financial Information of Universities and Colleges, Statistics Canada.
- Financial Statistics of Community Colleges and Vocational Schools, Statistics Canada.

Public and private expenditure on education

Average expenditures per household

Table B.2.7

This fourth subset of Indicator **B2** (total education expenditure in Canada) presents information on average expenditures on education per household and percentage of households incurring educational expenditures (Table B.2.7). Data are from the Survey of Household Spending.

Concepts and definitions

- **Household** refers to a person or a group of persons (other than foreign residents) who occupy a private dwelling and do not have a usual place of residence elsewhere in Canada.
- **Percentage of households incurring educational expenses** was calculated by dividing the number of households that incurred educational expenses by the total number of private households, then multiplying by 100. In 2004, 43% of households incurred expenditures on education (Table B.2.7).
- **Average education expenditure per household** was calculated by dividing the total amounts of household educational expenditure by the total number of private households that incurred such spending in a given calendar year. In other words, this measure reflects average spending on education only for the households that actually incurred such costs. For example, average educational expenditure per household was $2,484 in 2004 among the 43% of households that incurred such costs.

Methodology

- The Survey of Household Spending (SHS) is carried out annually across Canada in private households in the 10 provinces. Data for the territories are available for 1998, 1999 and every second year thereafter. The main purpose of the survey is to obtain detailed information about household spending during the reference year (previous calendar year). Table B.2.7 presents data for the provinces and at the Canada level (excluding the territories).

The following groups are excluded from the SHS: (1) those living on Indian reserves and crown lands; (2) official representatives of foreign countries living in Canada and their families; (3) members of religious and other communal colonies; (4) members of the Canadian Forces living in military camps; (5) people living in residences for senior citizens; and (6) people living full-time in institutions; e.g., inmates of penal institutions and chronic care patients living in hospitals and nursing homes.

For tuition fees, books, and supplies, the SHS asks about spending on kindergarten, nursery school, elementary and secondary education, and postsecondary education (e.g., university, trade, professional courses). The survey also asks households to provide the spending on other courses and lessons (e.g., music, dancing, sports, crafts), and other educational services (e.g., tutoring, rental of school books, equipment); driving lessons are excluded. The data include special and private schools, but exclude day care and lodging expenses.

The survey covers about 98% of the population in the 10 provinces. The SHS is a stratified, multi-stage sample selected from the Labour Force Survey (LFS) sampling frame. Sample selection comprises two main steps: the selection of clusters (small geographic areas) from the LFS frame and the selection of dwellings within these selected clusters. The sample size of the SHS is equal to over 21,000 households.

- **Household educational expenditures** (Table B.2.7) include the following four categories: supplies (all levels), textbooks (all levels), tuition (pre-elementary and elementary-secondary), and tuition (postsecondary). The first panel of the table shows the percentage of household that incurred expenditures on education, overall and in each of the four categories, while the second panel of the table includes average education expenditure per household for households incurring costs in a given category in the first panel.

Limitations

- The SHS data from part-year households are excluded from estimates of average household spending. Part-year households are composed entirely of persons who were members of other households for part of the reference year.
- In 1998, 1999, and every second year thereafter starting with 2001, SHS data for Canada include the territories. For the other years, Canada-level statistics include the 10 provinces only. On the other hand, data for territories are available for 1997 (coverage insufficient for inclusion in Canada-level statistics), 1998, 1999 and every second year thereafter starting with 2001.

Data source

- Survey of Household Spending, 2004, Statistics Canada.

Public and private expenditure on education

Average university tuition fees

Tables B.2.8 through B.2.11

This fifth subset of Indicator **B2** includes data on average undergraduate university tuition fees in 2001 constant dollars (Table B.2.8), as well as in current dollars (Table B.2.9), at the Canada level, by province, and over time. Average university tuition fees are presented by faculty, both in 2001 constant dollars (Table B.2.10) and in current dollars (Table B.2.11). All tables in this subset are based on the data from the Tuition and Living Accommodation Costs for Full-time Students at Canadian Degree-granting Institutions (TLAC).

Concepts and definitions

- **Undergraduate university tuition fees** refer to the undergraduate tuition fees charged to full-time Canadian students over the academic year; that is, September to April. The undergraduate faculties used in the calculations are Agriculture, Architecture, Arts, Commerce, Dentistry, Education, Engineering, Household Sciences, Law, Medicine, Music, and Science, as well as the faculties of Dentistry, Medicine, and Law, where students graduate with "first professional degrees." Tables B.2.10 and B.2.11 also present average tuition fees for graduate studies (Master's and doctorates). Excluded in all tuition tables are additional compulsory fees such as athletics, health services, student association, etc.
- **Constant dollars** are derived by applying a price deflator to convert expenditures displayed in a time series to a price level that existed at a certain point in time (the base year). Constant dollars eliminate the changes in the purchasing power of the dollar over time. The result is a series as it would exist if the dollar had a purchasing power equal to the purchasing power in the base year.

Methodology

- TLAC is an annual survey that was developed to collect student financial information (tuition fees and living accommodation costs) on all universities and degree-granting colleges in Canada.

- The target population of TLAC is all degree-granting institutions (universities and colleges) in Canada. The survey is a census with a cross-sectional design. Data are collected for all units of the target population, therefore no sampling is done.
- All surveys are subject to errors. Only non-sampling errors apply to this survey given that there was no sampling process used to produce the final results. Each year, data comparability is done for each university and college, and any major discrepancies are investigated with the respondent. Data are released publicly at the institutional level.
- Tuition fees were converted using 2001 constant dollars; specifically, 2001 calendar year constant dollars were applied to the other years (September to August academic year) in Tables B.2.8 and B.2.10. For Canada as a whole, the national CPI was used; for the provinces, provincial CPIs were used. It should be noted that in previous PCEIP reports, information was presented for the fiscal year (April to March), and the national CPI was only used to deflate the annual tuition fees.

Limitations

- Both in- and out-of-province students are included in the weighted average calculations; foreign students are not included.
- Compulsory fees are available for both undergraduate and graduate full-time Canadian students; foreign students are excluded.
- Data on lower and upper fees are available for single students with room only plan, meal only plan, room and meal package plan, married students with room for each university. However, it is not possible to derive a weighted average for the provincial level (or university level) since we do not know how many students are single or married and taking which meal and room plans.
- There is no information on accommodation costs for students living outside of residences.

Data source

- Survey of Tuition and Living Accommodation Costs for Full-time Students, Statistics Canada.

Public and private expenditure on education

University and university-college revenues

Table B.2.12

This sixth subset of Indicator **B2** presents the percentage distribution of university and university-college revenues, by source, at the Canada and provincial levels, for 1999/2000 and 2004/2005 (Table B.2.12).

Concepts and definitions

- **Private revenues at universities** refer to the revenue obtained from any source other than government, categorized as:

  Student fees: Payments obtained from students directly in the form of tuition and other fees.

  Non-government grants and contracts, donations and bequests: Financial support received by colleges and universities from donors, wills from grants and contracts from sources other than government, the latter provided with specific stipulations.

  Sales: Revenue from sales of services and products by the institution.

  Investment: Revenue from dividends, bonds, mortgages, short-term notes and bank interest.

  Miscellaneous revenue of colleges and universities: Commissions, royalties and fees from the use of institution-owned rights or properties, fees for services rendered, library and other similar fines, rentals, net gain or loss on the sale of fixed assets and any type of revenue not identified under other forms of revenue.

- **Government revenues at universities** refer to grants and contracts from government departments and agencies at federal, provincial and municipal level.

  The **federal portion** of income is mainly from the six major federal government agencies; that is, Social Sciences and Humanities research Council, Health Canada, Natural Sciences and Engineering Research Council, Canadian Institutes of Health Research, Canadian Foundation for Innovation (CFI), and Canadian Research Chairs. Also included are the grants and contacts from all other federal government departments and agencies.

Grants and contracts at the provincial level include (1) income from provincial government departments and agencies, including provincial CFI matching grants, and (2) provincial CFI matching income from the ministry responsible for the institution.

Income from other provinces includes grants from, and contracts with, provinces other than the province with jurisdiction.

Examples of **income from municipal government** include grants from urban transit, communication and parking authorities.

The last category is the **income from foreign nations, which** includes grants from the National Endowment for Humanities, National Institute of Health, and the National Science Foundation.

Methodology

- The data in Table B.2.12 are based on the Financial Information of Universities and Colleges Survey (FIUC), which was developed to provide financial information (income and expenditures) on all universities and degree-granting colleges in Canada. The survey is a census with a cross-sectional design, and the target population is all degree-granting institutions (universities and colleges) in Canada. Data are collected for all units of the target population, therefore no sampling is done.
- The collection process of the FIUC is made up of two separate questionnaires:
    a) Survey done in conjunction with the Canadian Association of University Business Officers (CAUBO): This questionnaire was designed and implemented by the CAUBO Finance Committee which is made up of financial administrators from six universities. They meet twice a year and any proposed changes to the questionnaire and guidelines are discussed and implemented by the Committee.
    b) Non-CAUBO questionnaire: This questionnaire is a carbon copy of the CAUBO questionnaire. Any change / modification to the CAUBO questionnaire and guidelines is applied to the non-CAUBO questionnaire.
- Ontario CAUBO universities report to its own collection authorities (Council of Finance Officers — Universities of Ontario (COFO)). This information is sent to Statistics Canada (STC) as a one large flat file. A mapping and integration process is then done to convert the COFO data into the CAUBO format database.
- The year 1999/2000 was selected in Table B.2.12 for comparison. The reason is that in 1999/2000, there was a break in the series as major changes were made to the CAUBO questionnaire and guidelines, thus affecting the historical comparability of the data. The years 1999/2000 and 2004/2005 are comparable as they are both on the same guideline definitions.
- University-colleges (Table B.2.12) are part of the universe coming from the "Financial information of Universities and Colleges" survey made by CAUBO and as such are considered universities.
- Each university and college returns its questionnaire with accompanying audited financial statements, thus ensuring data accuracy. Nevertheless, each year a data comparability review is done (percentage increases for major cells) for each university and college and any major discrepancies are investigated with the respondent resulting in changes, if any.

Limitations

- Non-CAUBO data are amalgamated with the CAUBO data at the provincial level. Data for non-CAUBO institutions are not released publicly at the institution level. They can only be released at the provincial level.

Data source

- Financial Information of Universities and Colleges Survey, Statistics Canada.

Public and private expenditure on education

University expenditures

Tables B.2.13 and B.2.14

This seventh and final indicator subset in Indicator **B2** includes university expenditures by source category for Canada and the provinces from 1999/2000 to 2004/2005. The indicator is presented with amounts in 2001 constant dollars (Table B.2.13) and percentage distributions (Table B.2.14).

Concepts and definitions

- **Capital expenditure** refers to the expenditure used to purchase assets intended to last longer than one year. It is also provides a measure of the value of capital acquired during the year in question, including debt servicing. These expenditures include spending for the construction, renovation or major repair of buildings and to replace or purchase new equipment.

- **Operating expenditure** refers to the expenditures that an institution purchases and consumes within a year and that the institution purchases on an ongoing basis. Examples of operating expenditures include costs directly attributable to instruction such as salaries, instructional aids, administrative support, teacher development, and costs for other educators such as counsellors. In this report, operating expenditures are categorized further into:

  Compensation of staff (educators and other staff) includes gross salaries (before deduction of taxes, contributions for retirement or health care plans, and other contributions or premiums for social insurance or other purposes), plus expenditure on retirement (actual or imputed expenditure by employers or third parties to finance retirement benefits for current educational personnel) and other non-salary compensation (fringe benefits).

  Statistics on compensation of university staff are categorized as follows: academic salaries paid to full- and part-time staff members engaged in instruction and research activities; other salaries and wages paid to other full- and part-time staff; and benefits such as pensions, group life insurance, medical and dental plans and other employee benefit plans.

Other operating expenditures: Covers all non-salary related items such as spending on tuition fees and books, spending attributable to research and development, utilities, school services under contract, building operations and maintenance staff and so on. Other non-salary costs include those related to the maintenance of buildings as well as supplementary costs such as lunch programs and transportation.

Methodology

- Operating expenditure in Tables B.2.13 and B.2.14 includes the following funds: general operating; special purpose and trust; sponsored research; and ancillary enterprises.
- Other salaries and wages (Tables B.2.13 and B.2.14) include payments to all full- and part-time non-instructional (support) staff including among others, technicians, teaching and research laboratory technicians, clerical and secretarial, professional and managerial, janitorial, trades and maintenance. Includes payments to individuals who may hold an academic rank, or equivalent thereto, but are engaged in activities other than instruction and research.
- Benefits (Tables B.2.13 and B.2.14) refers to the costs of institutions' contributions (with respect to salaries) for pensions (including payments for actuarial deficiencies and past service liability), group life insurance, salary continuance insurance, dental plans, Workers' Compensation, health taxes, tuition remission, Employment Insurance, and other costs of employee benefit programs.

Interjurisdictional comparability

- Inter-regional comparisons must recognize differences such as various sources of funding, fiscal year-ending dates varying from March 31st to June 30th, and variations in provincial policies and provincial funding responsibilities.

Limitations

- While considerable effort is made to ensure that universities and colleges are preparing information in accordance with the prescribed Guidelines to ensure comparability of the information at the aggregate level and ensure consistency and comparability over time in institutional reporting, major differences in operations and/or funding/accounting policies and/or differences in institutional interpretation/implementation of the Guidelines affect the comparability of the information over time and with other institutions.

Data source

- Survey of Financial Information of Universities and Colleges, Statistics Canada.

Student debt

B3

Tables B.3.1 and B.3.2

Indicator **B3** provides data on student debt from government-run student loan programs, for the classes of 1995 and 2000. Using data from the National Graduates Survey (NGS) and the Follow-up of Graduates Survey (FOG), the tables look at the percentage of students who borrowed and their average debt at graduation (Table B.3.1), as well as the incidence and repayment of government student loans among 2000 graduates who did not pursue further postsecondary education (Table B.3.2) in Canada and the provinces.

Concepts and definitions

- In the National Graduates Survey (NGS), **graduates** include those who graduated from: university programs leading to bachelors, masters or doctorate degrees or specialized certificates or diplomas; other postsecondary programs such as programs of a one-year duration or longer that normally require secondary school completion or its equivalent for admission in colleges of applied arts and technology, CEGEPs, community colleges, technical schools and similar institutions; and skilled trades programs, which are usually three months or more in duration. This indicator, however, covers only those from university with a bachelor's, master's, or doctorate degree or those from college.

  The NGS is conducted two years after graduation, while the Follow-up of Graduates Survey (FOG) is conducted five years after.

- **Government student loan programs** include all federal and provincial student lending resources; that is, programs under which provincial and federal governments provide loans to Canadians enrolled in full- or part-time postsecondary education, based on eligibility and need.

- The data in Table B.3.2 include only 2000 graduates who did not pursue **any further postsecondary education program; i.e.,** a program leading to a diploma, certificate or degree above the high school level that would take three or more months to complete when attending full-time.

Methodology

- Survey information collected from graduates on student loans includes the amounts owed to both federal and provincial student loan programs as well as the amount owed to other sources. Results presented refer to borrowing from government student loan programs only. Borrowing from private sources is not included.

  In Table B.3.1, the comparisons of average debt at graduation for both 1995 and 2000 graduates are expressed in 2000 dollars; this means that the amount of debt at graduation for 1995 graduates is converted to 2000 dollars using the Consumer Price Index.

- For PCEIP 2007, the data in Table B.3.1 capture all 1995 and 2000 graduates who borrowed from government student loan programs and who reported data two years after graduation. In PCEIP 2005, however, only those who did not pursue any further education after graduation were included because repayment data appeared in the same table. Graduates who had returned to school would not be required to make payments on their loans while studying.

  In PCEIP 2007 Table B.3.1, the calculation of the average debt at graduation for those who borrowed from government student loan programs includes graduates who had paid off government student loans completely at graduation, for both 1995 and 2000 graduates. In PCEIP 2005, graduates from the class of 1995 who had paid off their loans were included, but graduates from the class of 2000 who had paid off their loans were excluded.

- In PCEIP 2007 Table B.3.2, the incidence and repayment of government student loans among 2000 graduates are reported for those who incurred government student loans and who reported data at both collection points (two and five years after graduation).

  Only graduates who still owed at graduation, two years after, and five years after graduation, are reflected in the average debt numbers. Hence, Table B.3.2 excludes those who have already paid off their debts by calculating the average debt of only the population still owing at each time period.

Interjurisdictional comparability

- Provincial data refer to the province of study, which may differ from the province of residence two years after graduation. The Canada totals include data for the territories. Separate estimates for the territories were suppressed because of high sampling errors.

Limitations

- The following are not included among the 2000 graduates in the NGS (two years after graduation): graduates from other postsecondary programs such as programs of a one-year duration or longer that normally require secondary school completion or its equivalent for admission in colleges of applied arts and technology, CEGEPs, community colleges, technical schools and similar institutions; and skilled trades programs, which normally are three months or more in duration.

- For the 2000 graduates in FOG (five years after graduation), it was determined that due to conceptual and sample requirement issues, it would be beneficial for the aims of the project as a whole to not follow-up with the trade/vocational graduates who responded to the NGS. Therefore, the FOG 2000 sample comprises all NGS 2000 respondents whose reported variable indicated that they earned a college diploma or certificate, a bachelor's degree, a master's degree or a doctorate in 2000

Data sources

- National Graduates Survey, Follow-up of Graduates Survey, 1995 and 2000 graduates, Statistics Canada.

Chapter C

Elementary-secondary education 43

C

Early years and school readiness

C1

Tables C.1.1 and C.1.2

Indicator **C1** assesses the early years and school readiness of 4- and 5-year-old children by examining their health status (including any health limitations), participation in activities, exposure to reading and reading materials (Table C.1.1), and language scores/vocabulary skills (Table C.1.2).

Concepts and definitions

- The child's **general health** was classified as excellent, very good, good, fair, or poor; the categories were read to the adult respondents who answered on behalf of their children in the 2004/2005 National Longitudinal Survey of Children and Youth (NLSCY).
- Before being asked about any **health limitations** that affected the child's daily activities, the adult respondents were told that a "difficulty, condition or health problem is one that has lasted or is expected to last six months or more." This indicator considered the following: long-term bronchitis, long-term allergies, asthma, pain/discomfort, difficulty walking, difficulty being understood when speaking, difficulty hearing, and difficulty seeing.
- The percentage of children with **asthma** reflects those aged 4 or 5 who had received a diagnosis of asthma from a health care professional at some point, not just those who had had an asthma attack in the 12 months before the survey. **Pain or discomfort** reflects the "no" responses to a question asking if the child is "usually free of pain or discomfort?".
- **Regularly scheduled activities outside of school hours** refers to weekly participation in: sports that involved a coach or instructor; dance, gymnastics or martial arts; music, art or other non-sport activities; and clubs, groups or community programs.
- **Exposure to books** reflects some of the information obtained from questions about literacy, including how often a parent read aloud to the child or listened to the child read (or try to read). Respondents were also asked how often the child looked at books, magazines, comics, etc. on his/her own, or tried to read on his/her own.

- The **Peabody Picture Vocabulary Test-Revised (PPVT-R)** measures children's receptive vocabulary, which is the vocabulary that is understood by the child when he or she hears the words spoken. It is a normed test; that is, a child's performance is scored relative to that of an overall population of children at the same age level as the child. A wide range of scores represents an average level of ability, taking the age of the child into consideration. Scores below the lower threshold of this average range reflect a delayed receptive vocabulary, and scores above the higher threshold demonstrate an advanced receptive vocabulary.

Methodology

- This indicator is based on nationally representative data for 4- and 5-year-olds from cycle 6 of the NLSCY, conducted in 2004/2005. Data collection covered the reference period between September 27, 2004 and June 24, 2005. All samples were drawn from the Labour Force Survey's sample of respondent households.
- The information presented was obtained from the NLSCY child component; specifically, the questions on child health, activities (sports, lessons, clubs, etc.) and literacy. Responses were provided by the person most knowledgeable (PMK) about the child, which is usually the mother.
- The PPVT-R is scaled to an average of 100. The range of average receptive vocabulary measured by the PPVT-R covers scores from 85 to 115. A score below 85 is considered to indicate delayed receptive vocabulary; a score above 115, advanced. Scoring is adjusted to reflect the different abilities of 4- and 5-year-olds. English and French scores are normed separately and are not directly comparable.

Limitations

- The NLSCY relies on the perceptions of the adult most familiar with the child to report on the child's general health and development, and such reports may not always be entirely objective or accurate.
- Some possible sources of non-sampling errors in the NLSCY are: response errors due to sensitive questions, poor memory, translated questionnaires, approximate answers, and conditioning bias; non-response errors; and coverage errors.

Data source

- National Longitudinal Survey of Children and Youth, cycle 6, 2004/2005, Statistics Canada.

Elementary-secondary school: enrolments and educators

Tables C.2.1 through C.2.7

Information on enrolment in public schools at the elementary-secondary level (Table C.2.1), as well as on the number of educators (Table C.2.2), is captured in Indicator **C2** . A student–educator ratio, which measures the total human resources available to students, is also presented (Table C.2.3), along with some characteristics of the educator workforce (Tables C2.4 through C.2.7).

C2

Concepts and definitions

- **Public schools** are those established and operated by local school authorities pursuant to the public schools legislation of the province or territory. Also included in this category are Protestant and Roman Catholic separate schools and schools operated in Canada by National Defence within the framework of the public school systems.
- All data in this indicator are for public **elementary and secondary schools** only and do not include private schools, federal schools and schools for the visually and hearing impaired. Schools are classified as elementary if they provide Grade 6 and under or a majority of elementary grades, and secondary if they offer Grade 7 and over or a majority of secondary grades. **Federal schools** include schools administered directly by the federal government, overseas schools operated by the Department of National Defence for dependants of Canadian Forces personnel, and schools operated by Indian and Northern Affairs Canada or by band councils.
- **Full-time equivalent (FTE) enrolments** represent full-time elementary-secondary enrolments on September 30th (or as close as possible thereafter) of the school year, plus the sum of part-time enrolments according to their percentage of a full-time enrolment allocation (determined by the province or territory) (Table C.2.1).
- **Educators** includes all employees in the public school system (either school-based or school district-based) who are required to have teaching certification as a condition of their employment. This definition generally includes teaching staff, principals, vice-principals and professional non-teaching staff such as pedagogical consultants, guidance counsellors and special education teachers. It includes all educators in regular public schools, provincial reformatory or custodial schools, and of other students recognized and funded by a province or territory (correspondence or distance programs, private schools or independent schools financed by federal departments such as the Department of National Defence

and the Department of Indian and Northern Affairs are excluded). Substitute/ Supply teachers, temporary replacement teachers, teachers on leave, student assistants and teaching assistants are excluded. All teachers in regular programs for youth, adult upgrading programs and vocational programs for youth and adults are considered in this definition.

- **Full-time equivalent (FTE) educators** means the number of full-time educators on September 30th (or as close as possible thereafter) of the school year, plus the sum of part-time educators according to their percentage of a full-time employment allocation (determined by the province or territory) (Table C.2.2). For example, if a normal full-time work allocation is 10 months per year, an educator who works for 6 months of the year would be counted as 6/10 (0.6) of a full-time equivalent, or an employee who works part-time for 10 months at 60% of full-time would be 0.6 of an FTE. **Full-time educators (headcount)** (Table C.2.4) refers to the number of educators on September 30th (or as close as possible thereafter) of the school year who are responsible for providing services to the headcount enrolment students.

- The **labour force** comprises the portion of the civilian, non-institutional population 15 years of age and over who form the pool of available workers in Canada. To be considered a member of the labour force, an individual must be working either full- or part-time or be unemployed but actively looking for work. The age distribution of the full-time employed labour force is presented in Table C.2.5.

Methodology

- The Elementary-Secondary Education Statistics Project (ESESP) is a national survey that enables Statistics Canada to provide information on enrolments (including minority and second language programs), graduates, educators and finance of Canadian elementary-secondary public educational institutions. Annually, the department or ministry of education in each jurisdiction sends data pertaining to enrolments, graduates, educators and finance of the public elementary-secondary schools under their jurisdictions to Statistics Canada. ESESP is a census of all provinces and territories. The frame used is the list of all provinces and territories. It is an annual survey; the reference period is September (or as close as possible thereafter) of the school year.

  ESESP was first introduced in 2003, and it has replaced the following surveys: Elementary-Secondary School Enrolment Survey; Minority and Second Language Education; Secondary School Graduates Survey; and the Elementary-Secondary Education Staff Survey.

- The full-time equivalent (FTE) enrolment rate represents the time fraction spent in the classroom and for which students are funded. If this fraction is not known, an estimate should be used. For example, for junior kindergarten and kindergarten students taking a half-time program and where a half-time program is being funded, the FTE enrolment would be the headcount enrolment divided by two (0.5). If a student is only taking one-quarter of the usual course load and is funded on that basis, the FTE enrolment would be the headcount enrolment divided by 4, which is 0.25.

- The student–educator ratio (Table C.2.3) is calculated using full-time equivalent enrolment in Grades 1 to 12 (OAC in Ontario) and ungraded programs, plus pre-elementary full-time equivalent enrolment, divided by the full-time equivalent number of educators, both teaching and non-teaching.

- The Labour Force Survey data used to compare the age distribution of the overall full-time employed labour force with that of the full-time educator workforce is based on a monthly average from September to August (Table C.2.5).

Interjurisdictional comparability

- Until 2000/2001 in New Brunswick, Quebec and Manitoba, full-time equivalent enrolments (Table C.2.1) include those in adult programs and professional training under the authority of the school boards or districts. Certain jurisdictions include all students whether or not they are funded, while others include only funded students.
- In Ontario, data for full-time equivalent enrolments (Table C.2.1) and full-time equivalent educators (Table C.2.2) exclude publicly funded hospital and provincial schools, care, treatment and correctional facilities.
- Nunavut was created on April 1, 1999. Prior to that date, full-time equivalent enrolment/educator data for Nunavut were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000. As a result, the overall percentage change is calculated for the period 1999/2000 to 2004/2005 for the Northwest Territories and Nunavut. For all other jurisdictions, the overall percentage change is calculated for the 1997/1998-to-2004/2005 period.
- Data on the number/distribution of full-time educators by sex and age group are not available for Canada due to a lack of data from Prince Edward Island, Nova Scotia, Manitoba, and Yukon, Northwest Territories and Nunavut. Prince Edward Island, Nova Scotia, Manitoba and Yukon report combined full-time and part-time educator data only. Northwest Territories and Nunavut do not report headcount data on full-time, part-time educators or combined, only data on full-time equivalent educators. Data for females, all ages, includes a small number of cases for which age is not reported. Percentage distributions are based on educators for whom age is reported.
- The following points apply to data for Saskatchewan: (1) Educators in provincially funded schools (including "associated independent" and "historic" high schools) are included, but those in "independent" "First Nations" schools and postsecondary sites are excluded. (2) The counts vary year by year partly because the number of "associated independent" schools that receive provincial funding through agreements with school boards has changed over time. (3) Educators in Lloydminster serve students who live in Alberta and in Saskatchewan, but all of these educators are included in Saskatchewan's counts only (Tables C.2.2 and C.2.4). (4) Headcounts and FTEs include: classroom teachers, school administrators at the school level (but not at the higher level management) and pedagogical support.

Limitations

- The student–educator ratio should not be taken as a measure of classroom size. Average classroom size depends not only on the number of teachers and students, but also on the hours of instructional time per week, the per-teacher hours worked, and the division of time between classroom instruction and other activities. The number of educators in this indicator includes both teaching and non-teaching educators (such as school principals, librarians, guidance counsellors, etc.).

- Lack of Canada-level data for full-time educator headcounts, sex and age breakdowns and part-time educator headcounts is due to a lack of data from a few jurisdictions.

Data sources

- Elementary-Secondary Education Statistics Project, 1997/1998 to 2004/2005, Statistics Canada.
- Labour Force Survey, 2004/2005, Statistics Canada.

Secondary school graduation

C3

Table C.3.1

Indicator **C3** provides information on trends in high school graduation rates. Overall rates, along with comparisons of graduation rates at typical and after-typical ages of graduation, are presented for the 1997/1998 and 2002/2003 academic years (Table C.3.1). High school graduation rates have historically been used as a basic indicator of educational outcomes.

Concepts and definitions

- For this indicator, **graduates** are students who obtain a secondary school graduation certificate. This definition does not include those who complete high school outside the regular secondary school systems. Data on graduations from some secondary programs are not uniformly available across jurisdictions, and high school equivalency (General Educational Development or GED), adult basic upgrading and education, and education from adult day school, which take place outside regular secondary school programs are, in most instances, not included.
- **Typical age at graduation** is the age at which an individual completes high school if he/she starts at the prescribed age and experiences no repetition or interruption in schooling. The typical age of graduation is 18 for all jurisdictions except Quebec, where it is 17.
- **High school graduate** refers to completion of grade 12 in all jurisdictions except Quebec (Secondary V). High school graduate statistics are presented for the 1997/1998 and 2002/2003 academic years. In Quebec, graduates from adult and trade/vocational programs are included.

Methodology

- Data are from the Secondary School Graduates Survey (SSGS), which was discontinued after the 2002/2003 reference year. The SSGS was an administrative survey that collected aggregate counts from provincial/territorial departments/ministries of education who originally collected the data for their own purposes. Each October, the provinces and territories were asked to send graduate data by age and sex. The reference period was the academic year (September to June), including "late graduates" from the fall. Response was mandatory.
- Graduation rates are based on administrative data and are calculated by Statistics Canada based on data reported by ministries/departments of education/training, together with population estimates produced by the Demography Division at

Statistics Canada. The data reported are guided by the following standards, and the rates for individual jurisdictions are considered comparable.

> Overall graduation rate = (sum of graduates of all ages) / (sum of the population at the typical age of graduation).
>
> Typical-age graduation rate = (sum of graduates whose age is equal to or less than the typical age of graduation) / (sum of the population at the typical age of graduation).
>
> After-typical-age graduation rate = (sum of graduates whose age is greater than the typical age of graduation) / (sum of the population at the typical age of graduation).

It should be noted that the administrative data pertain to graduations from the regular school system only, and not the "second chance" programs. Hence, these rates are only a measure of after-typical-age graduations in the regular school system and reveal nothing about the level or trend in after-age-graduations in the "second chance" system.

Interjurisdictional comparability

- Both in-migration and out-migration may also affect graduation rates. As well, given that some jurisdictions use a different methodology than PCEIP, the provincial secondary school graduation rate figures presented in the 2007 PCEIP Report may differ somewhat from those reported by the jurisdictions themselves.
- Data on high school graduation rates for 2002/2003 are available for all provinces and territories except Ontario. Graduates in Ontario generally represent about 37% of all graduates in Canada. Because of the elimination of Grade 13 (OAC), two cohorts graduated in 2002/2003. These cohorts are not reflected in the Canadian average.
- All rates for Canada exclude Ontario, as well as Quebec, where secondary graduations include graduates from adult and trade/vocational programs.

Limitations

- When the SSGS was discontinued after the 2002/2003 reference year, the Elementary-Secondary Education Statistics Project (ESESP) took over data collection for high school graduation counts. However, data for subsequent reference years were not available for the 2007 PCEIP series of indicators because, at the time of the development of indicators, the jurisdictions had yet to agree upon the methodology for providing these counts. An agreement was reached in June 2007, enabling an update in the 2009 PCEIP Report.
- Administrative data tend to underestimate the true graduation rate because people who complete high school outside the regular secondary school systems are not included. Data on graduations from some secondary programs are not uniformly available across jurisdictions, and high school equivalency (General Educational Development or GED), adult basic upgrading and education, and graduation from adult day school, which all take place outside regular secondary school programs are, in most instances, not included. Administrative data refer only to those enrolled in the school system of the particular jurisdiction.

- The graduation counts are based on all "youth" graduates from regular programs. The exact definition of a "graduate" is not easily determined. This is partly attributable to a number of special equivalency programs offered by the provincial and territorial departments or ministries of education and the fact that there is no clear distinction between "youth" and "adult" graduates. Furthermore, school graduations are not always compiled by provincial/territorial departments/ministries of education; in some cases, data are not available.
- From 1997/1998 to 1999/2000 in Newfoundland and Labrador, high school graduation was based on school results only; there were no provincial examinations.

Data source

- Secondary School Graduates Survey, 1997/1998 and 2002/2003, Statistics Canada.

Student achievement

Programme for International Student Assessment (PISA)

C4

Tables C.4.1 through C.4.5

Indicator **C4** reports on student achievement in four key areas—reading, writing, mathematics, and science—and looks at changes in results over time. Performance was examined using results from two assessment programs: The Programme for International Student Assessment (PISA), an international program of the member countries of the Organisation for Economic Co-operation and Development (OECD), and the School Achievement Indicators Program (SAIP), an initiative of the provinces and territories conducted through the Council of Ministers of Education, Canada (CMEC).

This sub-indicator presents detailed information on the performance of 15-year-old students in Canada on the major PISA domains of mathematics (Table C.4.1) and reading (Table C.4.2) by looking at average scores and the distribution of students by proficiency levels. It also compares performance in mathematics (Table C.4.3), reading (Table C.4.4) and science (Table C.4.5) between 2000 and 2003.

Concepts and definitions

- The **Programme for International Student Assessment (PISA)** is a collaborative effort among OECD member countries to regularly assess youth outcomes, using common international tests, for three domains: **mathematical literacy, reading literacy,** and **scientific literacy.** In addition, PISA 2003 measured problem-solving skills (which are not reported on in PCEIP 2007), as a one-time domain. PISA defines reading, mathematics, and science not only in terms of mastery of the school curriculum, but also in terms of the knowledge and skills needed for full participation in society. PISA uses the term "literacy" to reflect the practical, or applied, aspects of learning.

  Mathematical literacy (also referred to as "mathematics"): An individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgments and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned and reflective citizen.

Reading literacy (also referred to as "reading"): An individual's capacity to understand, use and reflect on written texts, in order to achieve one's goals, to develop one's knowledge and potential and to participate in society.

Scientific literacy (also referred to as "science"): An individual's capacity to use scientific knowledge, to identify questions and to draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity.

- Information on two of the four **mathematics sub-domains** is presented for this indicator:

  Shape and space relates to spatial and geometric phenomena and relationships, drawing on the discipline of geometry. It requires looking for similarities and differences when analyzing the components of shapes, recognizing shapes in different representations and different dimensions, as well as understanding the properties of objects and their relative positions.

  Change and relationships involves mathematical manifestations of change as well as functional relationships and dependency among variables. It relates most closely to algebra. Mathematical relationships often take the shape of equations or inequalities, but relationships of a more general nature (e.g., equivalence, divisibility, inclusion) are also relevant. Relationships are given a variety of different representations, including symbolic, algebraic, graphical, tabular, and geometrical representations. Since different representations may serve different purposes and have different properties, translation between representations is often of key importance in dealing with situations and tasks.

Methodology

- PISA's target population comprises students who are 15 years of age and attending school in one of Canada's 10 provinces; the territories have not participated in PISA to date. The 2003 PISA assessment was administered in schools, during regular school hours, in April and May 2003. The 2000 assessment was administered in April and May of that year. Students of schools located on Indian reserves were excluded, as were students of schools for those with severe learning disabilities, schools for blind and deaf students, and students who were being home-schooled.
- While all three of the PISA domains are tested in each assessment, only one forms the major focus (or major domain) in each cycle: reading in 2000, mathematics in 2003, and science in 2006. Results for the science assessment are not reported in PCEIP 2007 as they had not been released at the time the publication was being prepared. Information on these results can be found at www.cmec.ca.
- Results for the major domains are available in a combined domain scale (which represents students' overall performance in that domain), as well as on the sub-domains that make up each overall scale. For the PCEIP 2007 report, it was decided that the focus would be on the overall performance of students for reading 2000 and mathematics 2003 (in other words, performance on the sub-domains for these two domains are not reported). As fewer items are tested as part of the minor domains, only single measures are available.
- In PISA, student performance is expressed as a number of points on a scale constructed so that the average score for the major domains for students in all participating countries was 500 and its standard deviation was 100. This means that about two-thirds of the students scored between 400 and 600. The OECD

average for the combined mathematics score was established using weighted data so that each OECD country contributed equally. As the anchoring of the scale was done for the combination of the four mathematics sub-domain scales, the average mean and standard deviation for the sub-domain scores differ from 500 and 100 score points.

- In PISA 2000, five levels were used in reporting **reading achievement**, to identify the most difficult test items a student could answer; therefore, a student at one level could be assumed to have the ability to answer questions at all lower levels. To help in interpretation, these levels were linked to specific score ranges on the original scale. The five levels are: Level 1 (score 335 to 407); Level 2 (408 to 480); Level 3 (481 to 552); Level 4 (553 to 626); and Level 5 (above 626).

  Students performing below Level 1 (total reading score below 335) are not able to routinely show the most basic type of knowledge and skills that PISA seeks to measure. Such students have serious difficulties in using reading literacy as a tool to advance their knowledge and skills in other areas. Placement at this level does not mean that these students have no literacy skills. Most of these students are able to correctly complete some of the PISA items. Their pattern of responses to the assessment is such that they would be expected to solve less than half of the tasks from a test composed of only Level 1 items.

- Six levels were used to assess **proficiency in mathematics**: Level 1 (score 359 to 420); Level 2 (421 to 482); Level 3 (483 to 544); Level 4 (545 to 606); Level 5 (607 to 668); and Level 6 (above 668).

  Students performing below Level 1 (mathematics score below 359) are not able to routinely show the most basic type of knowledge and skills that PISA seeks to measure. Such students have serious difficulties in using mathematical literacy as a tool to advance their knowledge and skills in other areas. Placement at this level does not mean that these students have no mathematics skills. Most of these students are able to correctly complete some of the PISA items. Their pattern of responses to the assessment is such that they would be expected to solve less than half of the tasks from a test composed of only Level 1 items.

- The 2003 confidence interval includes a linking error associated with the uncertainty that results from making comparisons with PISA 2000. Please refer to Annex 8 of the OECD (2004), *Learning for Tomorrow's World—First results from PISA 2003*, for an explanation of the methods used to establish the link between PISA 2000 and PISA 2003.

Limitations

- Looking at the relative performance of different groups of students on the same or comparable assessments at different time periods shows whether the level of achievement is changing. Obviously, scores on an assessment alone cannot be used to evaluate a school system, because many factors combine to produce the average scores. Nonetheless, these assessments are one of the indicators of overall performance.

- The average scores in the PISA assessments were computed from the scores of random samples of students from each country and not from the population of students in each country. Consequently, it cannot be said with certainty that a sample average has the same value as a population average that would have been obtained had all 15-year-old students been assessed. Additionally, a degree of error is associated with the scores describing student skills as these scores are estimated based on student responses to test items. When comparing scores among countries, provinces or population subgroups, the degree of error in each average should be considered in order to determine if averages are different from each other. Standard errors and confidence intervals may be used as the basis for performing these comparative statistical tests. The standard error can be used to construct a confidence interval, which provides a means of making inferences about the population means and proportions in a manner that reflects the uncertainty associated with sample estimates. A 95% confidence interval is used in this report and represents a range of plus or minus about two standard errors around the sample average.

- This indicator compares the performance of students in Canada in the PISA assessments in mathematics, reading, and science in 2003 with those in 2000 (Tables C.4.3, C.4.4 and C.4.5). Because of differences in the content areas covered by the PISA 2000 and 2003 assessments in mathematics, it is not appropriate to make this comparison in terms of the overall mathematics performance (as is done for reading and science). However, it is possible to compare change in the two sub-domains of mathematics-space and shape, and mathematics-change and relationships as these were included in both assessments.
- Since data are available for only two points in time, it is not possible to assess to what extent the observed differences are indicative of longer term trends.
- It is possible to compare results between PISA 2000 and PISA 2003 for reading, science, and the two mathematics sub-domains (shape and space, and change and relationships), but small differences should be interpreted with caution.
- Statistical significance is determined by mathematical formulas and considers issues such as sampling. Whether a difference in results has implications for education is a matter of interpretation; for example, a statistically significant difference may be quite small and have little effect. There are also situations where a difference that is perceived to have educational significance may not in fact have statistical significance.

  For more information about PISA concepts, definitions and methodology, consult the PISA section of the CMEC Web site, www.cmec.ca/pisa ,or the PISA Canada Web site, www.pisa.gc.ca.

Data source

- Programme for International Student Assessment, 2000 and 2003, Organisation for Economic Co-operation and Development/Statistics Canada.

Student achievement

School Achievement Indicators Program (SAIP)

Tables C.4.6 and C.4.7; text tables C.4.a and C.4.b

Indicator **C4** reports on student achievement in four key areas—reading, writing, mathematics, and science—and looks at changes in results over time. Performance was examined using results from two assessment programs: The Programme for International Student Assessment (PISA), an international program of the member countries of the Organisation for Economic Co-operation and Development (OECD), and the School Achievement Indicators Program (SAIP), an initiative of the provinces and territories conducted through the Council of Ministers of Education, Canada (CMEC).

This sub-indicator, based on data from SAIP, examines reading, mathematical and scientific literacy (Tables C.4.6 and C.4.7; also see text tables C.4.a and C.4.b).

Concepts and definitions

- On a pan-Canadian basis, student achievement has been reported through the **School Achievement Indicators Program (SAIP)**. The provinces and territories, through CMEC, developed SAIP to assess the performance of samples of 13- and 16-year-old students across Canada in the key subject areas of mathematics, reading, writing, and science. Three cycles of SAIP have been conducted. The SAIP assessment schedule has been as follows:

Mathematics	Reading and Writing	Science
1993	1994	1996 (written and practical)
1997	1998	1999 (written and practical)
2001	2002 (writing)	2004 (written)

The SAIP science assessment of 2004 was the last SAIP administered. Starting in 2007, the new Pan-Canadian Assessment Program (PCAP) is being introduced.

- The SAIP **mathematics assessment** had two domains: a content component and a problem-solving component. The content component was designed to test for knowledge of mathematics concepts in the areas of numbers and operations, data management and statistics, algebra and functions, and measurement and geometry; whereas the second component allowed for the demonstration of mathematics problem-solving skills.
- The SAIP writing assessment in 2002 was the third in a series of writing assessments. However, the results of this assessment cannot be compared with those from earlier assessments. In this assessment, students were given a specific real-life environmental dilemma and asked to write to generate public awareness about this dilemma. This was intended as a cross-curricular theme linking environmental, scientific, social and political information and issues relevant to both classrooms and local communities. The task design also included a brief reading response to stimulate engagement with the theme.
- The written component of the SAIP **science assessment** was designed to test students' knowledge of science concepts (physical sciences/chemistry, life science/biology, physical sciences/physics, and earth and space sciences), the nature of science, and the relationship of science to technology and societal issues. Questions also dealt with conceptual knowledge and understanding, procedural knowledge and skills, and the ability to use science to solve problems.

Methodology

- The target population for SAIP is students in the 10 provinces and 3 territories aged 13 and 16 (i.e., those students who had their 13th or 16th birthdays between September 1 and August 31 of the previous year).
- SAIP presents achievement results for Canada as a whole and for each participating province and territory. SAIP also provides results for the English and French school systems within a jurisdiction. Beginning with the 1999 science assessment, SAIP began to collect contextual information on student performance to help interpret and explain the achievement results (this background information is not reported on in PCEIP 2007).
- In all SAIP assessments, achievement results are described over five levels, representing a continuum of knowledge and skills acquired by students over the entire elementary and secondary school experience. Criteria for Level 1 were representative of knowledge and skills typically acquired during early elementary education, while Level 5 criteria were typical of those acquired by the most capable students taking specialized courses near the end of their secondary education. More detailed descriptions of the SAIP performance levels in relation to the subject of the assessment can be found in the SAIP reports, as well as the Handbook for Schools, which may be found on the CMEC Web site at www.cmec.ca.
- The questions in SAIP assessments are designed with the expectation that most 13-year-olds would achieve level 2 or higher, while most 16-year-olds would achieve level 3 or higher.
- In each assessment, both age groups write components of the same test. Thus direct comparisons between 13- and 16-year-olds can be made.

- For all SAIP assessments, development teams composed of representatives from provinces and territories have worked with CMEC staff to consult with all jurisdictions to establish a common framework and set of criteria for each subject area studied. These frameworks are intended to reflect the commonly accepted knowledge and skills students should acquire during their elementary and secondary education in Canada.
- A statistic called the "standard error" is used to express the degree of uncertainty in the scores for the sample compared with the population. Using the standard error, a confidence interval (CI) can be constructed. The CI is a range of scores within which it can be said, with a known probability (such as 95%), that the score for the full population is likely to fall. The 95% confidence interval used in this report represents a range of plus or minus about two standard errors around the average.

Limitations

- Looking at the relative performance of different groups of students on the same or comparable assessments at different time periods shows whether the level of achievement is changing. Obviously, scores on an assessment alone cannot be used to evaluate a school system, because many factors combine to produce the average scores. Nonetheless, these assessments are one of the indicators of overall performance.
- The SAIP assessments were not designed to measure achievement at the school or individual student levels.
- Statistical significance is determined by mathematical formulas and considers issues such as sampling. Whether a difference in results has implications for education is a matter of interpretation; for example, a statistically significant difference may be quite small and have little effect. There are also situations where a difference that is perceived to have educational significance may not in fact have statistical significance.
- Although mathematics has been assessed since 1993 in SAIP, only those assessments conducted in 1997 and 2001 are comparable because of significant changes that were made in the scoring methods and assessment design after the 1993 assessment.
- For the writing assessment, caution is advised when comparing achievement results based on assessment instruments prepared in different languages, despite the extensive efforts to ensure equivalence for the sake of equity and fairness for all students. Every language has unique features that are not readily equivalent and render comparisons between languages inherently difficult. On specific jurisdictional results, comparisons are made to the Canadian results by language. That is, the results for English jurisdictions are compared with the Canadian English results, and the French ones to the Canadian French average.
- Because SAIP assessments in all subject areas were generally designed to retain sufficient elements from one administration to the next, they allowed for comparisons of student achievement over time within each subject area. However, an important factor to consider when comparing assessments over time is the impact of changes in curriculum and in teaching practice over time. Generally, SAIP assessments in all subject areas are designed to retain sufficient elements from one administration to the next to allow longitudinal comparisons of student achievement while making certain modifications to reflect changes in educational policies and practices.

- The performance of students in Canada (and within each jurisdiction) was compared by looking at the proportion of students meeting or exceeding each level of performance in each jurisdiction and at the cumulative distributions of these proportions. Since the available scores were based on samples of students from each jurisdiction, it cannot be said with certainty that these scores are the same as those that would have been obtained had all 13- and 16-year-old students been tested.
- For more information about SAIP concepts, definitions and methodology, consult the PCAP (SAIP) http://www.cmec.ca/pcap/indexe.stm.

Data source

- Student Achievement Indicators Program (SAIP), 1996, 1997, 1999, 2001, 2002 and 2004, Council of Ministers of Education Canada:

  Writing, SAIP 2002;
  Mathematics, SAIP 1997 and 2001;
  Science, SAIP 1996, 1999 and 2004.

Information and communications technologies (ICT)

C5

Tables C.5.1 through C.5.5

Indicator **C5** presents data on computer use among students—at school and at home. Availability of computers and the Internet (Tables C.5.1 and C.5.2), frequency of use (Tables C.5.3 and C.5.5), and computers as learning aids (Table C.5.4) are explored.

Concepts and definitions

- Information on **computer accessibility and use** is available through the Program for International Student Assessment (PISA), which evaluates the performance and achievements of 15-year-old students.
- The **average number of student per computer**, or the **student–computer ratio**, is often used as a proxy to indicate the technology available to students. It refers to the total number of students enrolled in a school divided by the total number of computers in the school. This indicator uses data from PISA, which reports this ratio for schools in which 15-year-olds are enrolled.
- **Computer use at home/school** was categorized as: frequent—use computer most every day or a few times each week; infrequent—use computer between once a week and once a month or less than once a month; and never—computer never used.
- The **Organisation for Economic Co-operation and Development (OECD)** is a multidisciplinary international body made up of 30 member countries that offers a structure/forum for governments to consult and co-operate with each other to develop and refine economic and social policy. This indicator presents data from the Russian Federation and the following OECD countries: Australia, Belgium, Canada, Finland, France, Germany, Italy, Japan, Mexico, Sweden, Switzerland, the United Kingdom, and the United States. These countries are also OECD members: Austria, the Czech Republic, Denmark, Greece, Hungary, Iceland, Ireland, Korea, Luxembourg, the Netherlands, New Zealand, Norway, The Slovak Republic, Poland, Portugal, Spain, and Turkey.

Methodology

- The target population for PISA 2003 comprised 15-year-olds who were attending schools in one of Canada's 10 provinces; the territories have not participated in PISA to date. Students of schools located on Indian reserves were excluded, as were students of schools for those with severe learning disabilities, schools for blind and deaf students, and students who were being home-schooled. Forty-one countries participated in PISA 2003.
- In most countries, between 4,500 and 10,000 15-year-olds participated in PISA, for a total of over 250,000 students. In Canada, 30,000 students from 1,200 schools in the 10 provinces took part. This large Canadian sample was needed to produce reliable estimates for each province.
- The information for this indicator is from responses to the short PISA questionnaire that focused on information technology. The average number of students per school computer (student–computer ratio) was calculated by dividing the total number of students enrolled in the school divided by the total number of computers for the school in which 15-year-olds are enrolled.

Limitations

- Some data previously presented in Indicator C5 of PCEIP 2003 using PISA 2000 are not available from PISA 2003 as some of the questions were not repeated.

Data source

- Programme for International Student Assessment (PISA), 2003, Organisation for Economic Co-operation and Development/Statistics Canada.

Chapter D

D

Postsecondary enrolment

Registered apprentices

Tables D.1.1 through D.1.3

Indicator **D1** comprises three subsets on enrolment in postsecondary education. This first indicator subset presents information on the number of registered apprentices in Canada and its jurisdictions (Table D.1.1), including breakdowns by sex and major trade group (Table D.1.2), and by age group (Table D.1.3). Numbers and percentages are presented for 1994 and 2004.

D1

Concepts and definitions

- The enrolment information for **registered apprentices** is based on data provided by provincial/territorial apprenticeship branches and includes all individuals registered in an apprenticeship program, whether or not they had been enrolled in any formal classroom training during the year. This information is collected through the **Registered Apprenticeship Information System (RAIS)**, an annual survey that gathers information on individuals who receive training and those who obtain certification within a trade where apprenticeship training is being offered; specifically, the number of registered apprentices taking in-class and on-the-job training in trades that are either Red Seal or non-Red Seal and where apprenticeship training is either compulsory or voluntary. It also compiles data on the number of provincial and interprovincial certificates granted to apprentices or tradespersons.

  The RAIS also collects information on **tradespersons**; that is, individuals who receive a trade qualifier certificate in a trade for which apprenticeship is voluntary. This means that they did not register for or complete apprenticeship training, but succeeded in obtaining certification within that trade.

- This sub-indicator presents the number of registered apprentices, by sex, for the following **major trade groups**: building construction; electrical, electronics and related; food and service; industrial and related mechanical; metal fabricating; motor vehicle and heavy equipment; and other. The "other" group consists of miscellaneous trades and occupations not classified elsewhere. Many of the trades and occupations that have been newly established since the 1990s have been added to this group; for example, child and youth worker and early childhood educator, as well as set dresser and assistant cameraperson.

- The number/percentage of registered apprentices is provided for the following seven **age groups**: under 20; 20 to 24; 25 to 29; 30 to 34; 35 to 39; 40 to 44; 45 and over; and for those whose age was not reported.

Methodology

- The Registered Apprenticeship Information System (RAIS) survey is a census; that is, data are collected for all units of the target population and no sampling is done. Response is mandatory and data are collected directly from respondents and extracted from administrative files. The information is requested in individual record format and each record represents a registered apprentice. The reference period is the calendar year; the collection period is February through September of the year after the reference year.

Interjurisdictional comparability

- Beginning in 1997, Newfoundland and Labrador expanded its definition of registered apprentices to include students in pre-apprenticeship programs in community colleges and similar institutions.

Limitations

- Provincial and territorial governments coordinate apprenticeship programs in their jurisdiction. Most of the training time for an apprentice is spent on the job working with experienced tradespersons, usually over a period of three to four years. A portion of the apprenticeship program is spent in formal classroom instruction, typically offered in a college or vocational school. When this occurs, the training institute reports apprenticeship enrolments in the in-class portion only.
- To ensure the confidentiality of responses, a random rounding process is applied to the data. As a result, when the data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.
- Nunavut was created on April 1, 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. This creates a break in series for the Northwest Territories in 1999/2000.

Data source

- Registered Apprenticeship Information System, 1994 and 2004, Statistics Canada.

Postsecondary enrolment

Public colleges and institutes

Table D.1.4

This second subset of Indicator **D1** (enrolment in postsecondary education) provides data on full-time student enrolment at public colleges and institutes in Canada and at the provincial/territorial level (Table D.1.4). It also presents information on the percentage of female enrolment relative to the enrolment for both sexes. The data, which reflect headcounts, are reported by sex for the 2003/2004 and 2004/2005 academic years.

Concepts and definitions

- The information presented in this sub-indicator reflects **enrolment for publicly funded colleges and institutes** only. Universities are excluded. Colleges and institutes are institutions created under the authority of either a province's *Colleges Act* or equivalent, or under a *Societies Act* or equivalent, with education as a primary purpose. These institutions are created primarily to offer certificate, diploma, and transfer or continuing education and professional development programs of three years or less. They generally require high school completion for admissions.

- Public college and institute enrolment from the **Survey of Colleges and Institutes (SCI)** includes the following categories: (1) all students registered for programs that are eligible for academic credit in a diploma or certificate program or in a university transfer program, and students registered in co-op programs who are on a work assignment at the time of survey; (2) students registered for diplomas or certificates awarded by a professional body if such programs form part of the regular offerings of the institution; (3) students registered in pre-employment or pre-apprenticeship vocational programs designed to provide training for occupations in which the student has had little or no prior preparation; (4) students in registered apprenticeship programs leading to a journeyperson status in a number of designated trades that fall under that direction of a provincial department of labour (or its equivalent).

  Students registered in the following programs are excluded: (1) pre-vocational academic upgrading or basic training for skill development (BTSD) programs designed to upgrade the knowledge and skill for further training or employment; (2) language training programs consisting primarily of second language courses designed to give the student a basic understanding and working knowledge of English or French; (3) skill upgrading programs designed to instruct students in new occupational methods and techniques; (4) Job readiness training programs designed to increase the employability of students wanting to enter or re-enter the labour force; (5) orientation programs designed to guide students into trade or vocational occupations and provide them with job search skills; (6) Special training or other programs that do not fit into one of the predefined categories.

- **Headcount** refers to the number of students registered at the reporting institution.
- **Career programs** consist of certificate and diploma programs offered at community colleges and similar institutions. A secondary school completion or equivalent is the normal prerequisite for entry into the program. The length of the programs can range from one year to several years, with the one-year programs leading to a certificate and the longer ones to a diploma.
- **University transfer programs** at community colleges and university colleges provide a student with a standing equivalent to the first or second year of a university degree program with which one can apply for admission to subsequent senior years at a degree-granting institution.

Methodology

- The Survey of Colleges and Institutes (SCI) is a provisional survey, first conducted by Statistics Canada for the 2003/2004 reference year. In this survey, aggregate enrolment and graduate data (Table D.2.5) pertaining to publicly funded colleges and institutes are collected from the ministries and departments of education in Canada, who had originally collected these data for their own purposes. SCI data were used to provide the enrolment information for the 2003/2004 and 2004/2005 academic years.
- The SCI differs from other enrolment and graduate surveys conducted by Statistics Canada, such as the Postsecondary Student Information System (PSIS) and the surveys it replaced, as enrolment and graduate data are obtained from individual student records that are maintained by public colleges and institutes.
- The Postsecondary Student Information System (PSIS) is a census with a cross-sectional design and a longitudinal follow-up. Data are collected for all units of the target population, therefore no sampling is done. The target population is Canadian public postsecondary institutions (universities, community colleges and trade and vocational training centres). Each postsecondary institution (the "collection unit") provides Statistics Canada with data pertaining to their programs and their students.
- For jurisdictions that do not hold information on enrolments from public colleges and institutes in their databases, the data required are obtained directly from the colleges or are generated from the data originally submitted to PSIS.

Interjurisdictional comparability

- Except for Quebec and Manitoba, the SCI reporting period is September 1 to August 31. Quebec data are for the fall period; in Manitoba, the reporting period is July 1 to June 30.
- Full-time headcounts cannot be split by sex at the Canada level because of the lack of data for Saskatchewan. Because the sex is not known for a small number of enrolments in Newfoundland and Labrador and Prince Edward Island, the full-time/part-time status was estimated for these provinces. Manitoba's enrolment figures may include small numbers of students in adult upgrading, English as a second language, or other special training programs.

- Following a major change in policy, 2002/2003 was the last year for Grade 13 in Ontario. One immediate consequence of this change was the "double cohort" of students entering the postsecondary system in 2003/2004. The double cohort comprised the last graduating class from the old system with the extra year and the first graduating class from the new system.

Limitations

- There is no commonly accepted definition for the registration status of full-time students, and it is defined by the reporting postsecondary institutes.
- As the Survey of Colleges and Institutes is intended to be a provisional survey gathering generic data, the variables available for further describing enrolments in colleges and institutes are very limited. These limitations are also related to the type of information held by the ministries and departments of education on their databases.

Data sources

- Survey of Colleges and Institutes, Statistics Canada.
- Postsecondary Student Information System, Statistics Canada.
- Community College Student Information System, Statistics Canada.
- Trade/Vocational Enrolment Survey, Statistics Canada.

Postsecondary enrolment

Universities

Tables D.1.5 and D.1.6

This third subset of Indicator **D1**, which portrays postsecondary enrolment, provides data for the university level. Information is presented for Canada and the provinces, by sex and registration status (full- and part-time students) (Table D.1.5). The percentage of male enrolment relative to total full-time university enrolment, at the national and provincial levels, is also examined (Table D.1.6).

Concepts and definitions

- The figures on **university enrolment** are from the Postsecondary Student Information System (PSIS), an annual survey that provides detailed information on enrolments and graduates of Canadian postsecondary institutions.
- The numbers and percentages for university enrolment reflect the **academic year**, September 1 to August 31.
- **Registration status** captures full- and part-time students, as defined by the reporting institutions.

Methodology

- The Postsecondary Student Information System (PSIS) is a census with a cross-sectional design and a longitudinal follow-up. Data are collected for all units of the target population, therefore no sampling is done. The target population is Canadian public postsecondary institutions (universities, community colleges and trade and vocational training centres). Each postsecondary institution (the “collection unit”) provides Statistics Canada with data pertaining to their programs and their students.

  In 2000, PSIS began replacing several postsecondary surveys, including the University Student Information System (USIS), with a single survey offering common variables for all levels of postsecondary education. Upon full implementation, PSIS will capture annual enrolment and graduate information from all Canadian public postsecondary institutions.

Limitations

- There is no commonly accepted definition for the registration status of full-time and part-time students, and it is defined by the reporting postsecondary institutes.
- Following a major change in policy, 2002/2003 was the last year for Grade 13 in Ontario. One immediate consequence of this change was the "double cohort" of students entering the postsecondary system in 2003/2004. The **double cohort** comprised the last graduating class from the old system with the extra year and the first graduating class from the new system.
- To ensure the confidentiality of responses, a random rounding process is applied to the data (Tables D.1.5 and D.1.6). As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.

Data source

- Postsecondary Student Information System, Statistics Canada.

Postsecondary completions and graduation rates

Registered apprenticeship completions

Tables D.2.1 and D.2.2

Overall, Indicator D2 examines trends in postsecondary completions/graduations. This sub-indicator presents information on the number of individuals completing registered apprenticeship programs in Canada and its jurisdictions (Table D.2.1), including breakdowns by sex and major trade group (Table D.2.2).

Concepts and definitions

- The information on **registered apprenticeship completions** is based on data provided by provincial/territorial apprenticeship branches and covers registered apprentices who have completed their program and received either an interprovincial or provincial certificate. This information is collected the **Registered Apprenticeship Information System (RAIS)**, an annual survey that gathers information on individuals who receive training and those who obtain certification within a trade where apprenticeship training is being offered; specifically, the number of registered apprentices taking in-class and on-the-job training in trades that are either Red Seal or non-Red Seal and where apprenticeship training is either compulsory or voluntary. It also compiles data on the number of provincial and interprovincial certificates granted to apprentices or tradespersons.

  The **RAIS** also collects information on **tradespersons**; that is, individuals who receive a trade qualifier certificate in a trade for which apprenticeship is voluntary. This means that they did not register for or complete apprenticeship training, but succeeded in obtaining certification within that trade. However, data on such individuals who obtain certification without completing a registered apprenticeship program are not included in Tables D.2.1 and D.2.2.

- This sub-indicator presents the number of registered apprenticeship completions, by sex, for the following **major trade groups**: building construction; electrical, electronics and related; food and service; industrial and related mechanical; metal fabricating; motor vehicle and heavy equipment; and other. The "other" group consists of miscellaneous trades and occupations not classified elsewhere. Many of the trades and occupations that have been newly established since the 1990s have been added to this group; for example, child and youth worker and early childhood educator, as well as set dresser and assistant cameraperson.

Methodology

- The Registered Apprenticeship Information System (RAIS) survey is a census; that is, data are collected for all units of the target population and no sampling is done. Response is mandatory and data are collected directly from respondents and extracted from administrative files. The information is requested in individual record format and each record represents a registered apprentice. The reference period is the calendar year; the collection period is February through September of the year after the reference year.

Interjurisdictional comparability

- Beginning in 1997, Newfoundland and Labrador expanded its definition of registered apprentices to include students in pre-apprenticeship programs in community colleges and similar institutions.

Limitations

- To ensure the confidentiality of responses, a random rounding process is applied to the data. As a result, when the data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.
- Nunavut was created on April 1, 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. This creates a break in the series for the Northwest Territories in 1999/2000.
- In PCEIP, graduation rates are presented by level of postsecondary education with the exception of registered apprenticeship programs. This is because the graduation rates used relate the number of graduates at a specific level of study to the total population at the typical age of graduation; however, this cannot be applied to registered apprenticeship programs as there is no expected age at graduation for this level of study.

Data source

- Registered Apprenticeship Information System, 1994 and 2004, Statistics Canada.

Postsecondary completions and graduation rates

College diplomas/certificates and university degrees

Tables D.2.3 and D.2.4

Overall, Indicator D2 examines trends in postsecondary completions/graduations. This sub-indicator presents information on the number of college diplomas/certificates and university degrees granted, at the national level, from 1976 through 2004 (Table D.2.3). It also shows graduation rates for Canada and the provinces/territories, by level of postsecondary education, from 1991 through 2004 (Table D.2.4).

Concepts and definitions

- The data source for the number of **college diplomas and certificates** granted and **graduation rates from college programs** is the Community College Student Information System (CCSIS).

  Diplomas and certificates granted by colleges cover those granted for postsecondary programs of public community colleges and similar institutes. The types of program collected by the survey consist of career and university transfer/university level programs at community colleges, CEGEPs, technical institutes and university colleges. A secondary school completion or equivalent is the normal prerequisite for entry into the postsecondary programs covered by this survey. “Général” programs at Quebec institutions, the completion of which is a prerequisite for entry into universities, are included in this classification.

- The data sources for the number of **university degrees granted** and **graduation rates** for university-level programs are the University Student Information System (USIS), for 1976 to 1999, and the Postsecondary Student Information System (PSIS), from 2000 onwards. (PSIS was previously referred to as the Enhanced Student Information System.) The data cover university degrees from public universities in Canada.

- Information on the number of university degrees granted and graduation rates are broken down according to the following **levels of study**: bachelor’s and first professional degrees; master’s degrees; and earned doctorate degrees. The “total” category excludes university diplomas/certificates below or above the bachelor’s degree. This is different than what is shown in Table D.2.7, which shows the number of degrees, diplomas and certificates granted by universities.

Methodology

- Statistics Canada has been collecting enrolment and completions data from postsecondary institutions since the 1970s. The surveys used to collect these data were the University Student Information System (USIS), the Community College Student Information System (CCSIS) and the Trade/Vocational Enrolment Survey (TVOC). In 2000, Statistics Canada began to phase out and replace these surveys with PSIS, a single survey offering common variables for all levels of postsecondary institutions.

  PSIS is a census (as were USIS, CCSIS and TVOC) in that it extracts data from all the individual student files held for administrative purposes by postsecondary institutions.

- For college and university programs, graduation rates have been calculated by relating the number of graduates to the size of the population at a typical graduation age. The typical ages at graduation by program are: college – 21; bachelor's and first professional degrees – 22; master's degrees – 24; and earned doctorate degrees - 27.

  Graduation rates are based on jurisdiction of study and include foreign students. Canadian students who obtain a certificate/diploma from a foreign institution are excluded.

- The reference period for college diplomas and certificates is from August 1 of the previous year to July 31 of the current year.

- The reference period for university degrees is the day after the last day of the winter semester.

Interjurisdictional comparability

- College diplomas and certificates for British Columbia do not include bachelor's degrees granted by university colleges.

Limitations

- The graduation rates presented in PCEIP should not be confused with a graduation rate that shows graduates as a proportion of enrolment.

- Initial start-up problems with implementing PSIS among the institutions, along with delays at Statistics Canada in processing the college-level data collected by PSIS, has limited that data available for the 2007 PCEIP report. Hence, in Tables D.2.3 and D.2.4, no information beyond 1999 is presented.

- Data on college graduates from CCSIS should not be compared directly with more recent college completions data from the Survey of Colleges and Institutes (Table D.2.5) as there are differences in the coverage of graduations between these two surveys.

- To ensure the confidentiality of responses, a random rounding process is applied to the data. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded.

Data sources

- University Student Information System, Statistics Canada.
- Postsecondary Student Information System, Statistics Canada.
- Community College Information System, Statistics Canada.

Postsecondary completions and graduation rates

Recent college graduates, aggregate data

Table D.2.5

Overall, Indicator **D2** examines trends in postsecondary completions/graduations. This sub-indicator provides information on the number of students who graduated from public colleges and institutes in 2003/2004 and 2004/2005, by the type of credential granted and by sex (Table D.2.5). The source of these data is the Survey of Colleges and Institutes, a provisional survey of aggregate data conducted by the Centre for Education Statistics at Statistics Canada.

Concepts and definitions

- The information presented in this sub-indicator is based on data from the Survey of Colleges and Institutes and reflects **publicly funded colleges and institutes** only. Universities are excluded. Colleges and institutes are institutions created under the authority of either a province's *Colleges Act* or equivalent, or under a *Societies Act* or equivalent, with education as a primary purpose. These institutions are created primarily to offer certificate, diploma, and transfer or continuing education and professional development programs of three years or less. They generally require high school completion for admissions.
- **Graduates** represent those individuals who graduated or completed the requirements for certificates, diplomas or degrees between August 1 of the previous year and July 31 of the current year. Excluded are: graduates from private postsecondary education institutions, completers of continuing education programs (unless these lead to a certificate, diploma or applied degree), part-time trade course completers, persons who completed vocational programs lasting less than three months, persons who completed vocational programs other than in the skilled trades (e.g., basic training and skill development), persons who completed university transfer programs and completers of provincial apprenticeship programs. (These are captured by the Registered Apprenticeship Information System, based on information from provincial/territorial governments.)

Methodology

- The Survey of Colleges and Institutes (SCI) is a provisional survey, first conducted by Statistics Canada for the 2003/2004 reference year. In this survey, aggregate enrolment and graduate data pertaining to publicly-funded colleges and institutes are collected from the ministries and departments of education in Canada, who had originally collected these data for their own purposes.
- The SCI differs from other enrolment and graduates surveys conducted by Statistics Canada, such as the Postsecondary Student Information System (PSIS) and the surveys it replaced, as enrolment and graduate data are obtained from individual student records that are maintained by public colleges and institutes.
- For jurisdictions that do not hold information on graduates from public colleges and institutes in their databases, the data required are obtained directly from the colleges or are generated from the data originally submitted to the Postsecondary Student Information System.

Interjurisdictional comparability

- Except for Quebec and Manitoba, the SCI reporting period is September 1 to August 31. Quebec data are for the fall period; in Manitoba, the reporting period is July 1 to June 30.

Limitations

- Data on college graduates from the Survey of Colleges and Institutes should not be compared directly with past data from the Community College Student Information System (Tables D.2.3 and D.2.4) as there are differences in the coverage of graduates between these two surveys.
- As the SCI is intended to be a provisional survey gathering generic data, the variables available for further describing graduates from colleges and institutes are very limited. These limitations are also related to the type of information held by the ministries and departments of education on their databases.
- A historical time series of data on graduates of public colleges and institutes (from 1999 onwards) broken out by more detailed variables is dependent on the possibility of producing historical revisions to the college data that have been traditionally collected by Statistics Canada from individual student records using PSIS and the surveys that it has replaced.

Data sources

- Survey of Colleges and Institutes, Statistics Canada.
- Postsecondary Student Information System, Statistics Canada.
- Community College Student Information System, Statistics Canada.
- Trade/Vocational Enrolment Survey, Statistics Canada.

Postsecondary completions and graduation rates

University graduates by field of study

Tables D.2.6 through D.2.8

Overall, Indicator D2 examines trends in postsecondary completions/graduations. This sub-indicator examines the number of university credentials granted and graduation rates, by sex and by field of study (Tables D.2.6 through D.2.8). It is based on data from the Postsecondary Student Information System (PSIS).

Concepts and definitions

- Information on **university graduation rates** by sex and field of study (Table D.2.6) is broken down according to the following levels of study: bachelor's and first professional degrees; master's degrees; and earned doctorate degrees.
- PSIS classifies **field of study** data according to the Classification of Instructional Programs (CIP), the official classification used at Statistics Canada for the classification of program(s) of study. This sub-indicator presents university graduation rates and the number of university degree/diplomas/certificates granted by the following agglomerated CIP categories: education; visual and performing arts, and communications technologies; humanities; social and behavioural sciences and law; physical and life sciences, and technologies; mathematics, computer and information sciences; architecture, engineering and related technologies; agriculture, natural resources and conservation; business, management and public administration; health, parks, recreation and fitness; and other.

Methodology

- The Postsecondary Student Information System (PSIS) is a census with a cross-sectional design and a longitudinal follow-up. Data are collected for all units of the target population, therefore no sampling is done. The target population is Canadian public postsecondary institutions (universities, community colleges and trade and vocational training centres). Each postsecondary institution (the "collection unit") provides Statistics Canada with data pertaining to their programs and their students.

In 2000, PSIS began replacing several postsecondary surveys, including the University Student Information System (USIS), with a single survey offering common variables for all levels of postsecondary education. Upon full implementation, PSIS will capture annual enrolment and graduate information from all Canadian public postsecondary institutions.

- Graduation rates have been calculated by relating the number of graduates to the size of the population at a typical graduation age. The typical ages at graduation for university-level programs that have been used in this publication are: bachelor's and first professional degree – 22; master's degrees – 24; and earned doctorate degrees - 27.

  Graduation rates are based on jurisdiction of study and include foreign students. Canadian students who obtain a degree from a foreign institution are excluded.

- Table D.2.7 shows the number of degrees, diplomas, and certificates granted by universities. This is different than what is shown in Table D.2.4 and D.2.6, where university diplomas and certificates above or below the bachelor's level are excluded.
- The reference period for university degrees is the day after the last day of the winter semester.

Limitations

- The graduation rates presented in this publication should not be confused with a graduation rate that shows graduates as a proportion of enrolment.
- To ensure the confidentiality of responses, a random rounding process is applied to the data. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded.

Data source

- Postsecondary Student Information System, Statistics Canada.

University educators

Tables D.3.1 through D.3.4

Indicator **D3** presents information on university educators in Canada and the provinces. It outlines the number of full-time university educators, providing breakdowns by rank and by sex (Tables D.3.1). The male-female distribution of educators, by age, is also examined (Table D.3.2), as well as the age distribution of educators compared with that of the overall labour force (Table D.3.3). Average salaries, by rank and by sex, are also presented (Table D.3.4).

Concepts and definitions

- **Full-time university educators** refers to all full-time teaching staff employed in universities in Canada.

  Full-time includes:

  staff appointed on a full-time basis whose term of appointment is not less than 12 months (including any staff member on leave);

  new appointees hired on a full-time basis (i.e., whose term of contract is greater than 12 months) and who are at the institution for less than 12 months in the first year; and

  staff who were appointed to teach 12 months or more and at a later date entered into a formal agreement with the institution to work on a reduced load basis. This situation usually arises with staff members who are approaching retirement.

  Teaching staff refers to:

  all teachers within faculties, whether or not they hold an academic rank;

  academic staff in teaching hospitals;

  visiting academic staff in faculties; and

  research staff who have an academic rank and a salary scale similar to teaching staff.

  In Table D.3.4, the definition of full-time university educators is similar to that used in Tables D.3.1, D.3.2 and D.3.3, but excludes staff who are on unpaid leave, all religious and military personnel or similar staff paid according to salary scales lower than those applying to regular/lay staff and staff having a salary of zero or unreported.

D3

- The following **academic ranks** are used:

  Full professors, referring to the most senior rank;

  Associate professors, the mid-level rank (requirements vary considerably between institutions and departments); and

  Other, which generally refers to assistant professors, lecturers and instructors. The specific categories are:

  Assistant professors - an entry-level rank;

  Rank below assistant professors - the next rank directly below that of an assistant professor (usually lecturers);

  Rank below preceding -the remaining full-time teachers(usually instructors); and

  Other teaching staff - ungraded (i.e., have no rank) staff such as coaches, etc.

- **Gender gap** is defined as the average salary of female university educators as a percentage of the average of males.

Methodology

- The data on full-time university educators present a snapshot as of October 1.
- The percentage distribution of university educators by age and median age is based on educators for whom age is known.
- Salaries and salary scales of full-time teaching staff at Canadian universities are based on the annual rate of salary plus stipends. The data have been adjusted to 2001 constant dollars using the Consumer Price Index.
- Data on average salaries for Saskatchewan do not include the University of Saskatchewan.
- The Labour Force Survey data used to compare the age distribution of the overall full-time employed labour force with that of full-time university educators is based on a monthly average from September to August (Table D.3.3).

Limitations

- To ensure the confidentiality of responses, a random rounding process is applied to the data. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.

Data sources

- University and College Academic Staff Survey, Statistics Canada.
- Labour Force Survey, 2004/2005, Statistics Canada.

Research and development

Tables D.4.1 through D.4.5

Indicator **D4** presents information on research and development (R&D) conducted in universities in Canada, using data from 1991 through 2004. Total domestic expenditures on R&D as a percentage of GDP are examined from an international and national perspective (Tables D.4.1 and D.4.2), along with percentages of total R&D by sector (Table D.4.3). National and provincial expenditures on R&D are outlined (Table D.4.4), as are sources of funding (Table D.4.5).

Concepts and definitions

- The Organisation for Economic Co-operation and Development's (OECD's) *Frascati Manual*[1] indicates that **research and development** (R&D) is considered to be any creative work undertaken on a systematic basis in order to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. The central characteristic of R&D is an appreciable element of novelty and of uncertainty. New knowledge, products or processes are sought. The work is normally performed by, or under the supervision of, persons with postgraduate degrees in the natural sciences or engineering. An R&D project generally has three characteristics: a substantial element of uncertainty, novelty and innovation; a well-defined project design; a report on the procedures and results of the projects.

- **Total domestic expenditures on R&D** (Tables D.4.1 through D.4.3) represent the aggregate of the total R&D expenditures of the performing sectors (categorized as government, business enterprise, higher education, private non-profit organizations, and foreign). It includes R&D performed within a country and funded from abroad but excludes payments for R&D performed abroad.

  The definition of total domestic expenditures on R&D in a provincial/territorial context is similar to that provided above. The expenditures are assigned to the province or territory in which the performing establishment is located. Personnel may live in an adjoining province or territory (e.g., the National Capital Region) and materials and equipment may come from another province or territory or country; these factors must be taken into consideration when using this statistic as a provincial/territorial indicator of R&D activity.

- **Indirect costs of research** are those costs incurred by an institution by virtue of the fact that researchers conduct sponsored or intramural research with the support of the institution. They are expenditures that cannot be identified readily and specifically with a particular project, instructional or other activity of the

D4

institution; e.g., the costs of the office of research or intellectual property management services, departmental administration, utilities, physical plant operation and maintenance, library, laboratory furniture, and permanent equipment.

- **Source of funds for university R&D** are categorized as follows:

  Federal government, through the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC), the Canadian Institutes of Health Research (CIHR), the Canada Foundation for Innovation, and federal departments and agencies;

  Provincial governments, including municipal governments;

  Business enterprises, including donations, bequests and contracts from individuals and businesses;

  Private non-profit organizations, including donations, bequests, and contracts from foundations and not-for-profit organizations;

  Foreign sources - funding entities located abroad; and

  Universities, which fund their own R&D using two revenue streams:

  General university funds: These represent government transfers (or block grants) to universities that are used to support R&D activity. Although in essence these funds represent indirect government spending on R&D, for the purposes of pan-Canadian statistics they are allocated to university funding due to the difficulty of categorizing these funds as provincial or federal.

  Own revenue sources: This refers to self-generated revenue of universities from sources such as tuition fees, investment income, revenue from sales of services and products by the institution and license and patent incomes.

- **Sponsorship of university R&D** refers to university research that is supported either in the form of a grant or by means of a contract from a source external to the institution. Funding sources include government, business enterprises, and donors.

Methodology

- University expenditures on R&D (Table D.4.4) are estimated by the Science Innovation and Electronic Information Division (SIEID) of Statistics Canada. This estimation assumes that these expenditures are equal to the sum of:

  a) sponsored research, available from the Canadian Association of University Business Officers (CAUBO) survey;

  b) an estimate of indirect expenditures on sponsored research;

  c) a value for the fraction of faculty time devoted to research;

  d) an estimate of indirect expenditures related to faculty time on research; and

  e) teaching hospitals data not included in the CAUBO survey.

  A revised estimation procedure was implemented for the 1998/1999 data, with some revisions to faculty time coefficients on research in 1999/2000. (For more detail, see *Science Statistics*, Volume 30, No. 5 (Statistics Canada Catalogue no. 88-001-XIE2006005).

- The figures for total domestic expenditures on R&D (Tables D.4.1 through D.4.3) in Quebec and Ontario exclude expenditures for R&D performed by the federal government in the National Capital Region. This is a standard practice followed by Statistics Canada as not all expenditures made by an R&D unit are spent in the region of its physical location (e.g., supplies may be purchased from regions outside the unit's location). In the case of the National Capital Region, labour moves freely between Quebec and Ontario so that even wages and salaries paid by an R&D unit are partly spent outside the area of location. Further information on this approach, along with the values of these expenditures, is available in a Statistics Canada's working paper, "Estimates of Canadian Research and Development Expenditure (GERD), Canada, 1995 to 2006, and by Province 1995 to 2004" (Statistics Canada Catalogue no. 88F0006XIE2006009).

  The figures for Canada include federal government expenditures contributed in the National Capital Region.

- The one-time grant to universities awarded by the federal government to assist in indirect costs associated with research activities taking place at universities is included in the expenditures on R&D by the university sector ($203 million in 2001/2002 and $21 million in 2002/2003). In 2003/2004, the indirect costs grant for R&D in universities became an annual payment. The estimation system used to calculate indirect costs on sponsored research was adjusted to ensure that the source of this payment is the federal government.

- The R&D data are for universities and affiliated institutions including research hospitals. In 2002, there was an increase over previous years in the number of teaching hospitals for which data were reported to Statistics Canada. In 2002/2003, this reporting change is especially relevant in Quebec and British Columbia.

- Table D.4.1 and Chart D.4.1 compare Canada with all OECD countries. To facilitate the international discussion, subsequent comparisons make use of the G-7 and Sweden, Finland and Iceland—non-G-7 competitor countries to Canada that are leaders among the OECD countries in terms of the level of resources that they devote to R&D and thereby serve as useful reference points.

- The GDP Implicit Price Index is used to convert current R&D expenditures and sources of funds to constant (real) dollars, which differs from the Consumer Price Index (CPI) used in Chapter B. A GDP deflator is the appropriate deflator for economy-wide statistics because it accounts for the cost of goods for households, for government and for industry. CPI only accounts for a basket of goods that an average household might purchase and so is relevant to household expenditures data.

  The source of the GDP implicit price index is Statistics Canada's CANSIM Table 384-0036 (1997=100) (accessed October 2006). For PCEIP, this index was rebased to 2001=100 by dividing the series for Canada and the provinces by the 2001 factor. The year 2001 was chosen as the base year for constant (real) dollar conversion to preserve consistency between PCEIP tables and historical comparability. A different base year may be used for R&D data series that are published by other divisions at Statistics Canada.

- The values expressed in constant (real) dollars for the university R&D expenditures and for the sources of funds for university R&D expenditures at the Canada-level do not match the sum of the provincial values. This is because (constant) real series based on a chain Fisher calculation are geometric and therefore not additive. On May 31, 2001, the quarterly income and expenditure accounts adopted the Fisher index formula, chained quarterly, as the official measure of real gross domestic product in terms of expenditures. This formula was also adopted for the Provincial Accounts on October 31, 2002. Contact Income and Expenditure Accounts Division at Statistics Canada for more information.

Limitations

- One of the most important issues relating to R&D concerns its definition. There remains some ambiguity in defining precisely what constitutes R&D; for example, in a continuing project, determining the precise point at which the project passes the boundary of R&D and becomes exploitation of a process or product on which it may be said that the R&D stage has been completed. This ambiguity is perhaps less serious in internal time series, where it may be expected that the year-to-year application of the definition by the same reporting unit is at least consistent.
- The source for internationally comparative statistics on R&D is the OECD. OECD guidelines request that R&D in the entire postsecondary sector (defined as all universities, colleges of technology, and other institutes of postsecondary education, whatever their source of finance or legal status) be reported. However, data for Canada are limited to R&D activities in universities and affiliated institutions (including research hospitals) and degree-granting university colleges as data on R&D in colleges and similar institutions are not available.

  Although the OECD is working to improve the international reporting of R&D statistics, other comparability issues exist; therefore, it is important that the reader exercise caution in interpreting these statistics.

Data sources

- *Main Science and Technology Indicators*, 2006, No. 1, June 2006, Organisation for Economic Co-operation and Development.
- *Estimates of Canadian Research and Development Expenditures (GERD), Canada, 1995 to 2006, and by Province 1994 to 2004*, Catalogue No. 88F0006XIE2006009, Statistics Canada.
- Science and Technology Surveys Section, Science, Innovation and Electronic Information Division, Statistics Canada.
- *Total spending on research and development in Canada, 1990 to 2006, and provinces, 1990 to 2004*, Vol. 30, No. 7, Catalogue No. 88-0001XIE, Statistics Canada.
- CANSIM, Tables 358-0001, 384-0002, and 384-0036, Statistics Canada.

Endnote

1. The *Frascati Manual* is a document that lays out the methodology for collecting and using statistics about research and development in countries that are members of the OECD. For more information see www.oecd.org.

Literacy—proficiency scores and levels

Tables D.5.1 through D.5.7

Indicator **D5** is based on data from the International Adult Literacy and Skills Survey (IALSS), which measured Canadians' proficiency in literacy, numeracy and problem-solving. This indicator presents the skills distributions of the population in the provinces and territories (Table D.5.1), examining urban/rural status (Table D.5.2), age group and sex (Table D.5.3), educational attainment (Table D.5.4), and employment rates (Table D.5.5). This indicator also presents the literacy skills distribution of a sample of Aboriginal people living in urban Manitoba and urban Saskatchewan (Table D.5.6), in the Northwest Territories and the Yukon Territory, as well as the Inuit Population in Nunavut (Table D.5.7).

D5

Concepts and definitions

- In 2003, IALSS assessed **adult literacy** across four domains: **prose literacy** (the knowledge and skills needed to understand and use information from texts including editorials, news stories, brochures, and instruction manuals); **document literacy** (the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables and charts); **numeracy** (the knowledge and skills needed to effectively manage the mathematical demands of diverse situations); and **problem-solving** (goal-directed thinking and action in situations for which no routine solutions exist).
- In each of the four literacy domains, five levels are used to categorize **proficiency**. Level 1 denotes the lowest proficiency level; Level 5, the highest. Level 3 is generally considered the "desired" threshold of competence for being able to cope with the increasing skill demands of today's knowledge-based economy.
- When proficiency is examined by **age group**, the following categories are used: 16 to 25; 26 to 35; 36 to 45; 46 to 55; 56 to 65; and 66 and over.

- An **urban** area has a minimum population concentration of 1,000 persons and a population density of at least 400 persons per square kilometre, based on the current census population count. All territory outside urban areas is classified as **rural**.

- According to the standard Statistics Canada definition, the **employed** are people who have a job or business; the **unemployed** are those without work, available for work, and actively seeking work. Together the unemployed and the employed constitute the **labour force**. The **employment rate** for a particular group is the number of employed in that group expressed as a percentage of the population for that group.

- The following **educational attainment** categories are used: high school not completed; high school; trade-vocational; non-university postsecondary; and university.

- For IALSS, Aboriginal **identity** was measured by asking respondents if they were an Aboriginal person; that is North American Indian, Métis or Inuit.

- References made to the **non-Aboriginal population of Manitoba and Saskatchewan** includes respondents from urban and non-urban areas. The totals presented in Tables D.5.6 refer to the entire Manitoban or Saskatchewan population aged 16 and over.

Methodology

- More than 23,000 individuals aged 16 and over from across the 10 provinces and 3 territories participated in the 2003 IALSS. This number was sufficient to provide accurate estimates for all of Canada's jurisdictions. Moreover, the sample of Aboriginal people living in urban areas in Manitoba and Saskatchewan, and in selected communities in the territories, was large enough to provide estimates for those groups. Both Manitoba and Saskatchewan opted to increase the IALSS sample size in their provinces to allow creation of estimates for the relatively large urban Aboriginal populations.

- Results are reported along four scales—the two literacy scales (prose and document), a single numeracy scale, and a scale capturing problem-solving. The scores for each scale range from 0 to 500 points. To display the progression of complexity and difficulty, each scale was divided into levels. Both the literacy and numeracy scales used five levels: Level 1, the lowest level of proficiency (score 0 to 225); Level 2 (226 to 275); Level 3 (276 to 325); Level 4 (326 to 375); and Level 5, the highest level of proficiency (376 to 500). The scale for problem-solving used four levels: Level 1, the lowest (0 to 250); Level 2 (251 to 300); Level 3 (301 to 350); and Level 4, the highest (351 to 500).

Limitations

- The proficiency levels used for IALSS are useful in summarizing the results, but also have some limitations. First, the relatively small proportions of respondents who actually reach Level 5 do not always allow for accurate reporting. For this reason, whenever results are presented by proficiency level, Levels 4 and 5 are combined.

  Second, the average proficiency values were computed from the scores of random samples of respondents from each jurisdiction across Canada and not from the entire population in each jurisdiction. Consequently, it cannot be said with certainty that a sample average has the same value as a population average that would have been obtained had all residents been assessed. Additionally, a degree of error is associated with the scores describing a respondent's proficiency as these scores are estimates based on responses to a sample of test items. The standard error is used to express the degree of uncertainty associated with the sample error and the measurement error of the test.

- Although IALSS data are not representative of the total Aboriginal population in Canada, they do provide a unique opportunity to examine the literacy proficiency of a portion of the Aboriginal population in Canada.

Data sources

- International Adult Literacy and Skills Survey, 2003, Statistics Canada.
- Human Resources and Skills Development Canada and Statistics Canada. 2005. *Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey 2003*. Catalogue no. 89-617-XIE. Human Resources and Skills Development Canada and Statistics Canada. Ottawa.

Educational attainment

Tables D.6.1 through D.6.6

Indicator **D6** examines the level of educational attainment for the Canadian population aged 25 to 64 from a national and international perspective. Data are presented for Canada and the other OECD countries, and for the provinces and territories (Table D.6.1). Information is also presented for the population aged 25 to 64 with Aboriginal identity, by age group (Table D.6.2) and by sex (Table D.6.5), and for the off-reserve Aboriginal population from Western Canada (Table D.6.3). The indicator also uses census data to portray the distribution of the Canadian population by level of education and age group (Table D.6.4), and examines the levels by sex, presenting numbers, percentage changes, and percentage distributions (Table D.6.6), for Canada and its jurisdictions.

D6

Concepts and definitions

- Overall, this indicator focuses on the population aged 25 to 64, often considered to be the working age population. This **age** group is further categorized as 25 to 34, 35 to 44, 45 to 54, and 55 to 64 for some of the information presented (Tables D.6.2 and D.6.4).

- **Educational attainment** refers to the highest level of education completed; it is sometimes used as a proxy measure of human capital. The international comparisons (Table D.6.1) are based on the 2006 edition of the OECD's publication *Education at a Glance* (*EAG*). The following categories, which reflect the International Standard Classification of Education (ISCED 97) in *EAG* Table A 3.1a, are presented:

  Less than college: ISCED 0, 1, 2, 3, 4 (below tertiary-type B education);

  College: ISCED 5B (tertiary-type B education); and

  University: ISCED 5A/6 (tertiary-type A and advanced research programmes).

  Equivalent data on educational attainment for Canada are derived from the Labour Force Survey (LFS) and reflect the following definitions:

Less than college: no education or education below high school graduation; high school graduation or some postsecondary education (not completed); trade certificate or diploma from a vocational school or apprenticeship training;

College: non-university certificate or diploma from a community college, CEGEP, school of nursing and similar programs at this level; university certificate below bachelor's level; and

University: bachelor's degree; university degree or certificate above bachelor's degree.

- The **population distributions** for Canada and its jurisdictions (Tables D.6.2, D.6.4, D.6.5 and D.6.6) are presented for the following five levels of **educational attainment**, derived from the Census of Population:

  Less than high school: individuals having no education or education below high school graduation;

  High school: high school graduates and individuals who have some postsecondary education (not completed);

  Trade-vocational: graduates of trade-vocational programs;

  College: graduates of community colleges, CEGEPs, schools of nursing and similar programs at this level; and

  University: individuals with a university degree or certificate (below or above a bachelor's degree).

- The **Organisation for Economic Co-operation and Development (OECD)** is a multidisciplinary international body made up of 30 member countries that offers a structure/forum for governments to consult and co-operate with each other to develop and refine economic and social policy. The OECD is best known for its publications and statistics. The member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States (Table D.6.1).

- **Aboriginal identity** refers to people who, on the Census of Population, reported identifying with at least one Aboriginal group (North American Indian, Métis or Inuit) (Tables D.6.2 and D.6.5). Also included in the Aboriginal identity population counts are individuals who did not report an Aboriginal identity, but did report being a Registered or Treaty Indian, and/or Band of First Nation membership ("not included elsewhere" category). Registered Indian status refers to those who reported they were registered under the *Indian Act*. Treaty Indians are persons who are registered under the *Indian Act* and can prove descent from a Band that signed a treaty. The term "treaty Indian" is more widely used in the Prairie provinces.

  The term **North American Indian** is used for individuals who self-identify as such and broadly refers to people who consider themselves part of the First Nations in Canada, whether or not they have legal Indian status according to the *Indian Act*. **Métis** refers to people who are of mixed Aboriginal and non-Aboriginal ancestry who self-identify as Métis. **Inuit** refers to people descended from Aboriginal people who historically inhabited the Arctic regions of Canada, Alaska, Greenland and Russia, and who self-identify with this group.

- **Western Canada** comprises Manitoba, Saskatchewan, Alberta, and British Columbia (Table D.6.3).

Methodology

- Statistics Canada's monthly Labour Force Survey (LFS) is a major source of information on educational attainment. When the 2007 version of PCEIP was being prepared, the LFS contained four direct questions on education. Question ED_Q04 asked respondents for the highest degree, certificate or diploma obtained. Responses were categorized into the following levels of educational attainment: (1) no postsecondary degree, certificate or diploma; (2) trade certificate or diploma from vocational school or apprenticeship training; (3) non-university certificate or diploma from a community college, CEGEP, school of nursing, etc; (4) university certificate below bachelor's level; (5) bachelor's degree; (6) university degree or certificate above bachelor's degree.

- Tertiary-Type-A education and advanced research programs are categories of educational levels typically used in the OECD's publication *Education at a Glance (EAG)*. Tertiary-Type-A programs (ISCED 5A) have a minimum cumulative theoretical duration (at tertiary level) of three years' full-time equivalent, although they typically last four or more years. These programs are not exclusively offered at universities. Advanced research programs (ISCED 6, *EAG* 2006) lead directly to an advanced research qualification, e.g., a PhD. The theoretical duration of these programs is three years full-time in most countries (for a cumulative total of at least seven years full-time equivalent at the tertiary level), although the actual enrolment time is typically longer. The programs are devoted to advanced study and original research.. In Canada, tertiary-type-A is equivalent to a bachelor's degree, a university degree or a certificate above the bachelor degree level (PCEIP 2007 Table D.6.1).

  Tertiary-Type-B programs (ISCED 5B, *EAG* 2006) are typically shorter than those in the Type-A group, and they focus on practical, technical or occupational skills for direct entry into the labour market. Some theoretical foundations may be covered. They have a minimum duration of two years' full-time equivalent at the tertiary level. In Canada, tertiary-type-B education is equivalent to a non-university certificate or diploma from a community college, CEGEP, school of nursing or similar program at this level, and a university certificate below the bachelor degree level (PCEIP 2007 Table D.6.1).

- The Census of Population, like the LFS, provides detailed information on education, although the questions asked differ. In 2001, Question 30 asked about certificates, diplomas or degrees *ever* obtained, and the responses were categorized as: (1) no degree, certificate or diploma; (2) secondary (high) school graduation certificate or equivalent; (3) trades certificate or diploma; (4) other non-university certificate or diploma; (5) university certificate or diploma below bachelor level; (6) bachelor's degree; (7) university certificate or diploma above bachelor level; (8) degree in medicine, dentistry, veterinary medicine or optometry; (9) master's degree; (10) earned doctorate.

- The data on educational attainment for the Canadian jurisdictions in Table D.6.1 were aggregated using the 6 LFS levels. The categories used in Table D.6.2 were aggregated based on the 10 educational levels outlined in the census. "University certificate below bachelor's degree" was included in the "college" category for the LFS (Table D.6.1), but was included in the "university" category for the census (Table D.6.2).

- In Table D.6.1, the OECD averages for the “college” and “university” categories are not available since attainment at the tertiary level was not disaggregated for the following six member countries: the Czech Republic, Hungary, Italy, Poland, Portugal, and the United Kingdom. The 25% average for “college or university” is from Table A1.3a in the 2006 edition of *Education at a Glance*. The 75% average for the “less than college category,” which was calculated by Statistics Canada using the methodology recommended by the OECD, is a simple average of all 30 OECD member countries.
- The percentage of the population aged 25 to 64 who had attained a specific level of education was obtained by dividing the number of people aged 25 to 64 who had completed the given level of education by the total number of people aged 25 to 64, then multiplying by 100.
- Nunavut was created in April 1999. Prior to that date, data for Nunavut were included with data for the Northwest Territories. The data for Nunavut in 1996 were taken from the Northwest Territories based on the 2001 Census boundary for Nunavut.

Limitations

- Because the LFS questions on Aboriginal self-identification in all four provinces of Western Canada (Table D.6.3) were added to the survey in April 2004, the 2004 data are based on a nine-month average from April to December 2004. These data allow comparisons across the off-reserve Aboriginal population from Western Canada, but are not directly comparable with LFS-based data for the general population, or with census-based data for the Aboriginal population.
- The LFS information on educational attainment does not allow for a clear delineation between “postsecondary non-tertiary education” and “tertiary-type B education”. As a result, the LFS figure reported for “college” (tertiary type-B) is inflated.
- In 1996 and 2001, the census did not explicitly ask respondents to provide information on apprenticeship program completion. Therefore, it is unclear whether the “trades” data in Table D.6.2 have captured apprenticeship program completion. The LFS figures in Table D.6.1, however, include information on apprentice program completions in the “less than college” category.
- To ensure the confidentiality of responses collected for the census, a random rounding process is used to alter the values reported in individual cells. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently and randomly rounded. However, apart from discrepancies due to simple rounding, the percentages are calculated to add up to 100%, as recommended by census methodology.

Data sources

- Labour Force Survey, Statistics Canada.
- Census of Population, 1996 and 2001, Statistics Canada.
- *Education at a Glance*, 2006 edition, OECD Publishing, Organisation for Economic Co-operation and Development, Paris.

Chapter E

E

Transitions to postsecondary education

Participation in education

Tables E.1.1 and E.1.2

Indicator **E1** considers youth transitions from high school to postsecondary education. This first indicator subset uses data from the Labour Force Survey (LFS) to present participation rates in education for 15- to 29-year-olds in Canada and the provinces (Tables E.1.1 and E.1.2).

Concepts and definitions

- The LFS asks respondents about school attendance in the week before the survey, at a "school, college or university." For those who are students, information is collected on the type of school, and whether enrolment is full- or part-time, as designated by the educational establishment. For this indicator, the **participation rate** reflects the total enrolment at the primary/secondary, college, or university level as a percentage of the total population in each age group.
- **Age** is collected for every household member in the survey, and the information on labour market activity is collected for all persons aged 15 and over.

E1

Methodology

- The LFS is a monthly household survey of a sample of individuals who are representative of the civilian, non-institutionalized population 15 years of age or older. It is conducted nationwide, in both the provinces and the territories. Excluded from the survey's coverage: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces and the institutionalized population. These groups together represent an exclusion of approximately 2% of the population aged 15 and over. Canada-level LFS estimates are derived using the results of the LFS in the provinces. Territorial LFS results are not included in the Canada-level estimates, but are published separately.
- Participation rates are presented at the Canada level (excluding the territories) for single ages from 15 through to 29. Rates for the provinces are presented for three age groups: 15 to 19, 20 to 24, and 25 to 29. The LFS participation rate in education is based on a monthly average from September to April.

Limitations

- 'Other' types of education are excluded from the total in Tables E.1.1 and E.1.2 and are not included in the three levels: primary or secondary school; community college, junior college of CEGEP; and university. For the "kind of school" variable, 'Other - specify' is an option and includes: English as a second language or French language courses that do not qualify as high school, college or university education; police academies; computer and business skills programs other than those offered by colleges or universities; culinary, hairdressing or bartending schools; and special education that focuses on community living and life skills for students with special needs.
- It is unclear where trade certificate programs are placed in the "kind of school" variable. Trade schools could be coded to the 'community college, junior college or CEGEP group' or to 'Other- specify,' depending on how the respondent answers the question and the interviewer's interpretation of the answer.

Data source

- Labour Force Survey, 1995/1996 and 2005/2006, Statistics Canada.

Transitions to postsecondary education

Moving from high school to postsecondary education

Tables E.1.3 through E.1.5

Indicator **E1** considers youth transitions from high school to postsecondary education. The second part of this indicator is based on data from the Youth in Transition Survey (YITS). High school graduation in 1999 and 2003 is examined based on the two separate cohorts of 19-year-old youths that have been surveyed by YITS. The proportion of youth who move on to postsecondary education and their educational status by the time they reach their early to mid-twenties is also examined. Information is presented for Canada and the provinces.

Concepts and definitions

- This indicator is based on data from the **Youth in Transition Survey (YITS)**, a longitudinal survey developed by Human Resources and Social Development Canada and Statistics Canada. YITS surveys two cohorts of youth every two years for a period of time. One cohort entered the survey when they were 15-years-old in 1999 (referred to in YITS as cohort A); a second cohort began their participation in YITS when they were between the ages of 18 and 20 in 1999 (referred to in YITS as cohort B).[1] YITS will continue to survey these two cohorts until 2008 for the 18- to 20-year old cohort and until 2014 for the 15-year-old cohort. It is important to note that in each cycle, the cohorts have aged two years.

- **High school status** captures the following three groups: **high school continuers**—respondents who were continuing their studies at the high school level and who had not yet graduated as of the reference date; **high school graduates**—respondents who have completed the minimum requirements for a high school graduation certificate, diploma or equivalent are considered to have graduated; and **high school dropouts**—respondents who had not completed the high school graduation requirements, and were not attending high school as of the reference date.

- **Postsecondary education** is any education beyond the high school level, towards a diploma, certificate or degree that would take someone three months or more to complete. Trade programs offered through apprenticeship, vocational schools or private trade schools do not always require high school graduation. Such education is considered postsecondary.
- **Postsecondary education status** refers to a youth's overall postsecondary status as of the survey reference date:

  Postsecondary graduates—respondents who have graduated from a postsecondary institution (i.e., respondents who have completed the graduation requirements towards a diploma, certificate or degree); includes both graduate continuers and graduate non-continuers. A **postsecondary graduate continuer** refers to someone who had already graduated from a postsecondary institution and was attending an additional postsecondary program. A **postsecondary graduate non-continuer** is an individual who had graduated from a postsecondary institution and was not pursuing additional education in a postsecondary institution.

  Postsecondary continuers refer to individuals who were attending a postsecondary education institution but had not yet graduated.

  Postsecondary dropouts are those who had undertaken a postsecondary education but were no longer pursuing it and had never graduated from a postsecondary education institution.

  A **high school dropout, no postsecondary education** is an individual who had dropped out of high school and had never pursued a postsecondary education.

  High school graduate, no postsecondary education refers to a high school graduate who has never attempted postsecondary education.
- Individuals who had **some postsecondary education** (Table E.1.5) refer to those who had ever attended some form of postsecondary education without obtaining a certificate/diploma/degree.

Methodology

- The target population for the older YITS cohort (i.e., cohort B) comprises residents of the 10 provinces of Canada who were born in 1979 to 1981. These individuals were 18- to 20-years-old during 1999, the reference year for cycle 1, and were between the ages of 22 and 24 during 2003, the reference year for cycle 3.
- The sample design of cohort B was determined to a large degree by the sample design of the Labour Force Survey (LFS). As is the case with the LFS, this cohort excludes residents of Yukon, Nunavut, and the Northwest Territories, persons living on Indian Reserves, full-time members of the Canadian Forces and inmates of institutions. These groups together represent an exclusion of approximately 2% of the population aged 15 and over, in the LFS.
- The target population for cohort A comprises persons who were born in 1984 and in the 1999/2000 school year were attending any form of schooling in the provinces of Canada. These individuals were 15-years-old in 1999 (in cycle 1) and 19 years of age during 2003, the reference year for cycle 3. The sample for this cohort was school-based, with schools selected in the first stage of sampling, and students selected from these schools in the second stage of sampling. Schools in the northern territories and on Indian reserves were excluded. Some school- and student-level exclusions were made in the sampling. However, exclusions of all types represented in total, less than 5 % of the national desired target population.

- YITS is strictly a longitudinal survey. The initial samples of 15-year-olds and 18- to 20-year-olds selected at Cycle 1 will continue to be surveyed every two years for a number of cycles. As part of the YITS survey methodology, no attempts are made to top-up the samples from cycle-to-cycle to ensure a cross-sectional representation of these populations. Furthermore, YITS loses some of its existing sample with each survey cycle because non-respondents at a specific survey are not followed up for subsequent cycles of the survey.
- The implications of these factors for the two cohorts of 19-year olds examined in PCEIP 2007 (Table E.1.3) are as follows. For those who were 19-years-old in 1999 (i.e., a subset of cohort B), the data used are from the first cycle of YITS and are representative of Canadian youth who were 19 as of December 1999. For those who were 19-years-old in 2003 (cohort A), the data are used from the third cycle of YITS. In the first cycle, cohort A was representative of Canadian youth who were 15-years-old as of December 1999, but the results from the third cycle of cohort A may not be representative of 19-year-old Canadian youth in December 2003.
- Because cohort A and cohort B were sampled differently and because YITS loses some of its sample after cycle 1, a direct comparison of the educational profile of these two samples of 19-year-olds can only be made with caution.
- This indicator also examines the educational status of cohort B in 2003—the time when they were between the ages of 22 and 24. It is important to note that the statistics presented for the 22- to 24-year olds (Tables E.1.4 and E.1.5) are representative of individuals aged 18 to 20 by the end of 1999 who were residents in Canada.
- In Tables E.1.3 through E.1.5, as in all other tables in the 2007 PCEIP Report, the symbol "E" (use with caution) indicates a coefficient of variation (CV) between 16.6% and 33.3%.

Limitations

- A direct comparison of the educational profile of these two samples of 19-year-olds can only be made with caution (see methodology section for more details).
- The statistics presented for the 22- to 24-year olds (Tables E.1.4 and E.1.5) are representative of individuals aged 18 to 20 by the end of 1999 who were residents in Canada (see methodology section for more details).
- Some Canada totals (in Tables E.1.4 and E.1.5) include those respondents who lived in the territories at time of interview, but data for the territories are not shown separately as there are only a few cases.
- Indicators of data quality are provided in the tables. Estimated population characteristics with a coefficient of variation (CV) of 16.5% or less are considered to be of good quality; therefore, no special notation has been provided. Estimates with CVs in the range of 16.6% and 33.3%, indicating a higher level of measurement error, are marked with the letter E. As per Statistics Canada guidelines, they are accompanied by a warning to caution users about the higher levels of error associated with the estimates. As Statistics Canada guidelines recommend not to release estimates of unacceptable quality, estimates with CVs in excess of 33.3% are blocked out with the letter F. Typically, higher levels of measurement error are associated with the analysis of rare characteristics in a population subgroup or for any characteristic within small subgroups.

Data source

- Youth in Transition Survey, Cycle 1 and Cycle 3 (for cohort B) and Cycle 3 (for cohort A), Statistics Canada.

Endnote

1. The younger cohort also participated in the Programme for International Student Achievement (PISA) when they were 15 years old in Cycle 1. PISA is an international assessment run by the Organisation for Economic Co-operation and Development designed to assess the literacy skills of youth in reading, mathematics and science. PCEIP 2007 does not concern itself with the PISA findings for this cohort.

Transitions to the labour market

Students and work

Tables E.2.1 through E.2.4

Indicator **E2**, which covers the transition from postsecondary education to the labour market, has four subsets. The first indicator subset uses Labour Force Survey (LFS) data to look at the extent to which students aged 15 to 29 combine school and work (Tables E.2.1 and E.2.2) , and at the distribution of this population group by education level, labour force status and age group(s) (Tables E.2.3 and E.2.4).

Concepts and definitions

- The Labour Force Survey (LFS) asks respondents about school attendance in the week before the survey, at a "school, college or university," in addition to labour force participation information. Persons who are supplying services in the reference period, regardless of the quantity supplied, are classified as **employed,** while those who provide evidence that they are offering their labour services to the market (again regardless of quantity) are classified as **unemployed**. The remainder of the population, those neither currently supplying nor offering their labour services, are referred to as persons **not in the labour force.**
- **Employed** persons are those who: during the reference week, did any work at all at a job or business; that is, paid work in the context of an employer-employee relationship, or self-employment. It also includes unpaid family work, which is defined as unpaid work contributing directly to the operation of a farm, business or professional practice owned and operated by a related member of the same household; or had a job but were not at work due to factors such as own illness or disability, personal or family responsibilities, vacation, labour dispute or other reasons (excluding persons on layoff, between casual jobs, and those with a job to start at a future date).
- Given the concept of **unemployment** as the unutilized supply of labour, the operational definition of unemployment is based primarily on the activity of job search and the availability to take a job. In addition to being conceptually appropriate, job search activities can, in a household survey, be objectively and consistently measured over time. The definition of unemployed persons is therefore those who, during the reference week:

E2

(a) were on temporary layoff during the reference week with an expectation of recall and were available for work, or

(b) were without work, had actively looked for work in the past four weeks, and were available for work, or

(c) had a new job to start within four weeks from reference week, and were available for work.

Persons are regarded as available if they reported that they could have worked in the reference week if a suitable job had been offered (or recalled if on temporary layoff), or if the reason they could not take a job was of a temporary nature such as: own illness or disability, personal or family responsibilities; they already had a job to start in the near future; or they were on vacation (prior to 1997, those on vacation were not considered available). Full-time students currently attending school and looking for full-time work are not considered to be available for work during the reference week. They are assumed to be looking for a summer or co-op job or permanent job to start sometime in the future, and are therefore not part of the current labour supply.

- **Age** is collected for every household member in the survey, and the information on labour market activity is collected for all persons aged 15 and over. For this indicator, those aged 15 to 29 are examined.
- **Labour force status** designates the status of the respondent vis-à-vis the labour market: a member of the non-institutional population 15 years of age and over is either employed, unemployed, or not in the labour force.

Methodology

- Proportion of students working and distribution of the population by education level and labour force status data are presented at the Canada level for single ages from 15 through to 29, as well as a total 15 to 29 in Tables E.2.1 and E.2.3. Comparable data for the provinces are presented for three age groups: 15 to 19, 20 to 24, and 25 to 29, with a total 15 to 29 in Tables E.2.3 and E.2.4. The LFS participation rate in education is based on a monthly average from September to April.
- In Tables E.2.3 and E.2.4, education level and labour force status are broken up into: non-student not in the labour force, non-student unemployed, non-student employed, university employed, university not in the labour force, college employed, college not in the labour force, primary/secondary employed, primary/secondary not in the labour force and other.

  The other category includes unemployed students attending university, college, primary or secondary schools and students attending other kinds of schools.
- The concepts of employment and unemployment are derived from the theory of the supply of labour as a factor of production and are based on those endorsed by the International Labour Organisation (ILO). The production referred to is in turn defined as those goods and services included in the System of National Accounts. For this reason, unpaid housework and volunteer work are not counted as work by the survey.
- For the purposes of measuring job search as part of the identification of the unemployed, the LFS uses a four-week search period although the reference period for identifying the employed is that of one week. The justification for the difference is that delays inherent in job search (for example, periods spent awaiting the results of earlier job applications) require that the active element of looking

for work be measured over a period greater than one week if a comprehensive measure of job search is to be obtained.

Limitations

- Most industrialized countries, including Canada and the United States, subscribe to guidelines established by the International Labour Office for defining and measuring labour market status, including unemployment. However, the guidelines are, by design, rather imprecise, so that individual countries can interpret them within the context of their own labour markets. As a result, unemployment rates are not strictly comparable across all countries. The LFS has investigated in detail the measurement differences between the US and Canadian unemployment rates. The results show that measurement differences account for about a fifth of the gap between the US and Canada unemployment rates.

Data source

- Labour Force Survey, 1995/1996 and 2005/2006, Statistics Canada.

Transitions to the labour market

University/College graduates working full-time

Tables E.2.5 through E.2.7

As part of Indicator **E2** (the transition from postsecondary education to the labour market), this second subset examines full-time employment among postsecondary graduates. The National Graduates Survey and the Follow-up of Graduates Survey are used to present the percentages of 1995 and 2000 university/college graduates with full-time work two and five years after graduation, by level of education and province of study (Table E.2.5), and by sex and field of study (Tables E.2.6 and E.2.7).

Concepts and definitions

- Working **full-time** includes working at least 30 hours a week in a given job the week before the interview two and five years after graduation.
- **Graduates** from the postsecondary level are students who completed the requirements for degrees, diplomas or certificates from university, college or other postsecondary programs during the calendar year of their graduation. Only graduates from public postsecondary institutions are included.
- Full-time employment rates are presented for the following **fields of study** in which the graduate obtained his/her diploma, degree or certificate: personal improvement and leisure; education; visual and performing arts, and communications technologies; humanities; social and behavioural sciences, and law; business, management and public administration; physical and life sciences, and technologies; mathematics, computer and information sciences; architecture, engineering and related technologies; agriculture, natural resources and conservation; health, parks, recreation and fitness; personal, protective and transportation services; and other.

Methodology

- The data for this second subset of Indicator E2 are based on the National Graduates Survey (NGS) and the Follow-up Survey of Graduates (FOG). Each graduating class is interviewed twice: two years after graduation (NGS) and five years after graduation (FOG). The sample design was developed using a "funnel-shaped" approach, where only graduates that respond to the initial interview are traced for the follow-up interview.

- The NGS target population comprises graduates from Canadian public postsecondary education institutions (universities, colleges, trade schools) who graduated or completed the requirements for degrees, diplomas or certificates during the reference calendar year.
- To obtain the percentage of graduates working full-time, the number of university or college graduates working full-time was divided by the total number of university or college graduates and multiplied by 100.

Limitations

- Excluded from the National Graduates Survey (NGS) are: graduates from private postsecondary education institutions; completers of continuing-education programs (unless these led to a degree, diploma or certificate); part-time trade course completers; persons who completed vocational programs lasting less than three months; persons who completed vocational programs other than in the skilled trades (e.g. basic training and skill development); completers of provincial apprenticeship programs and those living outside of Canada or the United States at the time of the survey.

Data sources

- National Graduates Survey, Follow-up of Graduates Survey, 1995 and 2000 graduates, Statistics Canada.

Transitions to the labour market

Earnings two and five years after university/college graduation

Tables E.2.8 through E.2.11

This third subset of Indicator **E2** (the transition from postsecondary education to the labour market) presents data on earnings for 1995 and 2000 university/college graduates employed full-time. Median earnings and the distribution of earnings, both two and five years after graduation, are presented by level of education, province of study, sex, and field of study (Tables E.2.8 through E.2.11). The information was collected as part of the National Graduates Survey (NGS) and the Follow-up of Graduates Survey (FOG).

Concepts and definitions

- **Median earnings** are the estimated annual median earnings of the job held the week before the interview two and five years after graduation. The median earnings are presented for two **levels of education**: college and university graduates (Tables E.2.8 and E.2.9).
- Earnings are further broken down by the following **fields of study**: personal improvement and leisure; education; visual and performing arts, and communications technologies; humanities; social and behavioural sciences, and law; business, management and public administration; physical and life sciences, and technologies; mathematics, computer and information sciences; architecture, engineering and related technologies; agriculture, natural resources and conservation; health, parks recreation and fitness; personal, protective and transportation services; and other.
- **Percentile** refers to values that divide a set of observations into 100 equal parts.
- **Constant dollars** are derived by applying a price deflator to convert earnings or expenditures displayed in a time series to a price level that existed at a certain point in time (the base year). Constant dollars eliminate the changes in the purchasing power of the dollar over time. The result is a series as it would exist if the dollar had a purchasing power equal to the purchasing power in the base year.

Methodology

- The data for this third subset of Indicator E2 are based on the National Graduates Survey (NGS) and the Follow-up Survey of Graduates (FOG). Each graduating class is interviewed twice: two years after graduation (NGS) and five years after graduation (FOG). The sample design was developed using a "funnel-shaped" approach, where only graduates that respond to the initial interview are traced for the follow-up interview.
- The NGS target population comprises graduates from Canadian public postsecondary education institutions (universities, colleges, trade schools) who graduated or completed the requirements for degrees, diplomas or certificates during the reference calendar year.

Limitations

- The National Graduates Survey (NGS) does not include: graduates from private postsecondary education institutions; completers of continuing-education programs (unless these led to a degree, diploma or certificate); part-time trade course completers; persons who completed vocational programs lasting less than three months; persons who completed vocational programs other than in the skilled trades (e.g. basic training and skill development); completers of provincial apprenticeship programs and those living outside of Canada or the United States at the time of the survey.

Data sources

- National Graduates Survey, Follow-up of Graduates Survey, 1995 and 2000 graduates, Statistics Canada.

Transitions to the labour market

Mobility of university/college graduates

Tables E.2.12 and E.2.13

This fourth and final subset of Indicator **E2**, part of the transition from postsecondary education to the labour market, focuses on the migration characteristics of 1995 and 2000 university and college graduates—before enrolling and two years after graduation (Tables E.2.12 and E.2.13). This information, from the National Graduates Survey (NGS), is presented for Canada and the jurisdictions.

Concepts and definitions

- **The rate of out (in) migration to study** is defined as the number of graduates who left (entered) a jurisdiction to pursue studies, as a percentage of the number of graduates by jurisdiction of residence prior to enrolment. It is used as a measure of "**student mobility**".
- **The rate of out (in) migration after graduation** is defined as the number of graduates who left (entered) a jurisdiction two years after graduation, as a percentage of the number of graduates of the jurisdiction. It is used as a measure of "**graduate mobility**".
- **Net overall migration** is defined as the difference between the number of graduates per jurisdiction based on residence two years after graduation versus residence one year before enrolment, as a percentage of the number of graduates per jurisdiction based on residence on year before enrolment.
- The **residence before enrolling** is the province or territory of residence of respondents one year prior to enrolling in the program from which they graduated in the reference year.
- **Residence at graduation** is the province or territory of the institution from which respondents graduated in the reference year.
- **Residence two years after graduation** is the province or territory of residence of the respondents at the time of the interview, two years after graduation in the reference year.

- A **coefficient of variation (CV)** provides a measure of the reliability of the estimate, taking into account sampling variability. In order to estimate whether the difference between two values is statistically significant, the following formula can be applied to approximate a 95% confidence interval:

  $Y \pm 2\ (CV \times Y)/100$, where Y is the estimate

  This approximate confidence interval gives a range within which the true value in the population is likely to fall. If two confidence intervals do not overlap, then the difference between the two estimates is statistically significant. It should be noted that this formula is approximate because it estimates a confidence interval that is slightly higher than the 95% level of confidence.

Methodology

- The data for this fourth and final subset of Indicator E2 are based on the National Graduates Survey (NGS); each graduating class is interviewed two years after graduation. The sample design was developed using a "funnel-shaped" approach, where only graduates that respond to the initial interview are traced for the follow-up interview.
- The NGS target population comprises graduates from Canadian public postsecondary education institutions (universities, colleges, trade schools) who graduated or completed the requirements for degrees, diplomas or certificates during the reference calendar year.

Limitations

- Excluded from the National Graduates Survey (NGS) are: graduates from private postsecondary education institutions; completers of continuing-education programs (unless these led to a degree, diploma or certificate); part-time trade course completers; persons who completed vocational programs lasting less than three months; persons who completed vocational programs other than in the skilled trades (e.g. basic training and skill development); completers of provincial apprenticeship programs and those living outside of Canada or the United States at the time of the survey.

Data source

- National Graduates Survey, 1995 and 2000 graduates, Statistics Canada.

Labour market outcomes

Unemployment rates

Tables E.3.1 through E.3.3

This first indicator subset of Indicator **E3** presents recent and historical Labour Force Survey (LFS) data on unemployment rates by level of education. Information on trends at the Canada level covers the population aged 15 and over (Table E.3.1), and a 1996-versus-2006 comparison looks at 25- to 29-year-olds in Canada and the provinces (Table E.3.2). Recent data on employment rates among the off-reserve Aboriginal population in Western Canada are also presented (Table E.3.3).

Concepts and definitions

- According to the Labour Force Survey (LFS), the **unemployment rate** refers to the number of unemployed persons expressed as a percentage of the labour force. The unemployment rate for a particular group (level of education, for example) is the number unemployed in that group expressed as a percentage of the labour force for that group. **Unemployed** people are those who, during the LFS reference week, were available for work and were either on temporary layoff, had looked for work in the past four weeks, or had a job to start within the next four weeks.
- Unemployment rates are presented for the following **levels of education**: all levels; less than high school; high school graduate; college or trade; and university graduate.
- **Less than high school** includes individuals having no education or education below high school graduation. **High school graduate** includes high school graduates and individuals who have some postsecondary education (not completed). **College or trade** includes individuals with trade certificate or diploma from a vocational school or apprenticeship training; non-university certificate or diploma from a community college, CEGEP, school of nursing and similar programs at this level; university certificate below bachelor's level. Finally, **university graduate** includes individuals with bachelor's degree or university degree/certificate above bachelor's level.
- The **Aboriginal population** refers to those persons in Western Canada (Manitoba, Saskatchewan, Alberta, and British Columbia) who reported identifying with at least one Aboriginal group; i.e., North American Indian, Métis or Inuit. This LFS definition is based on the individual's own perception of his/her **Aboriginal identity**, similar to the concept used in the Census of Population.

Methodology

- The Labour Force Survey (LFS) unemployment rate is based on a monthly average from January to December. For the 2004 data in Table E.3.3 on the unemployment rate of the off-reserve Aboriginal identity population in Western Canada, the monthly average is from April to December.

- Starting in late 2003 in Alberta, and then in April 2004 for the rest of Western Canada, the LFS added questions to identify Aboriginal respondents living off-reserve with the goal of producing provincial labour market statistics on the Aboriginal population. In 2004, these questions were also asked in the territories, and, as of January 2007, it was extended to all provinces.

- The sample for the Yukon and Northwest Territories is designed to be representative of the working-age population of each territory. Nunavut, on the other hand, has been designed to cover 10 of the largest communities in the region, representing about 70% of all Nunavut residents 15 years of age and over.

  In order to obtain a representative sample of the target population for each territory, the sample for three consecutive months are added. For this reason, estimates for the North are only available as three-month moving averages.

- There are four levels of educational attainment in the PCEIP tables based on LFS data (Tables E.3.1 through E.3.3): less than high school; high school graduate; college or trade; and university graduate. The category of college or trade also includes apprenticeship training and university certificate below bachelor's level. University graduates include those with at least a bachelor's degree. By contrast, the PCEIP tables based on census data present college and trades as two separate levels (Tables E.3.4 and E.3.6). The category of university includes individuals with a university degree or certificate both below and above bachelor's level.

- The unemployment rates for the population aged 15 and over are presented for Canada, by level of education, from 1990 through to 2006. However, the LFS data for 1995 to 1998 have been revised and are slightly different from those previously published in the *Education indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2005*.

Limitations

- The Labour Force Survey (LFS) excludes: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces and the institutionalized population. These groups together represent an exclusion of approximately 2% of the population aged 15 and over. The territories are excluded from the Canada total because the Labour Force Surveys conducted in the North are extended pilot projects. Difficulties exist with respect to reaching small communities in the territories, and as a result even within the pilot projects there are areas of the territories that are excluded. As well, since the sample design, rotation pattern and reliability criteria are different from those in the ten provinces, estimates for the territories are not included with the provincial totals, but rather they are calculated and reported separately as a part of each of the extended projects.

  The LFS also excludes residents of institutions (for example, inmates of penal institutions and patients in hospitals or nursing homes who have resided in the institution for more than six months) for conceptual reasons; the LFS is designed to measure the labour force participation in the current labour market. Residents of institutions are for the most part not able to participate in the labour market and are not economically active. There would also be difficulties associated with the practical implications of sampling and interviewing residents of institutions (for example, access within prisons or interviewing people who are very ill) that would make their inclusion operationally problematic.

There would also be practical difficulties associated with sampling and interviewing full-time members of the armed forces, since many of these persons live in locations that are not accessible for the purposes of conducting the LFS, such as naval vessels, military camps and barracks. While not included in the LFS, the monthly numbers of employed full-time members of the Canadian Forces are available from other administrative sources, such as the Department of National Defence.

Indian reserves have historically been excluded from the LFS due to the serious challenges in contacting and interviewing potential respondents, with many of them living in remote locations not easily accessible to LFS interviewers given the short data collection period each month, and the large effort and cost associated with traveling to these locations.

Data source

- Labour Force Survey, 1990 through 2006, Statistics Canada.

Labour market outcomes

Earnings, Canada and international

Tables E.3.4 through E.3.6

This second indicator subset of Indicator **E3** explores the impact of educational attainment on earnings. Census data for the Canada level are used to examine the distribution of earners and average employment income (Tables E.3.4 and E.3.6). An international perspective presents the relative earnings of employed 25- to 64-year-olds in selected OECD countries (Table E.3.5).

Concepts and definitions

- **Earnings/Employment income** refers to total income received as wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income.
- The distribution of earnings by educational attainment is presented for the following **levels of earnings**: < $20,000; $20,000 to < $40,000; $40,000 to < $60,000; $80,000 to < $100,000; and $100,000 or more.
- **Educational attainment** measures an individual's highest level of completed schooling, and is sometimes used as a proxy for human capital. For comparisons using census data (Tables E.3.4 and E.3.6), it is classified as:

  less than high school - includes individuals having no education, or education below high school graduation;

  high school - includes high school graduates and individuals who have some postsecondary education (not completed);

  trades - graduates of trade-vocational programs;

  college - graduates of community colleges, CEGEP, schools of nursing and similar programs at this level); and

  university - includes individuals with a university degree or certificate (below or above bachelor's degree).
- For the purpose of international comparison, educational attainment (Table E.3.5) was categorized into: below high school, college, university, and college or university, while the category of high school and trade-vocational education was used as the benchmark for comparison. This is to reflect the educational attainment

classified according to the International Standard Classification of Education (ISCED 97) in Education at a Glance (OECD, 2006: 135) Table A.9.1a:

Below high school - ISCED 0, 1, 2 (below upper secondary education);

High school and trade-vocational education - ISCED 3, 4 (upper secondary and post-secondary non-tertiary education);

College - ISCED 5B (tertiary-type B education); and

University - ISCED 5A/6 (tertiary-type A and advanced research programmes).

- Average employment income by educational level is presented for the following 10 five-year **age groups**: 15 to 19; 20 to 24; 25 to 29; 30 to 34; 35 to 39; 40 to 44; 45 to 49; 50 to 54; 55 to 59; and 60 to 64. An overall figure is also presented.
- The **Organization for Economic Co-operation and Development (OECD)** is a multidisciplinary international body made up of 30 member countries that offers a structure/forum for governments to consult and co-operate with each other to develop and refine economic and social policy. This indicator presents data from 6 OECD countries: Canada, France, Germany, Italy, the United Kingdom and the United States.

Methodology

- Question 51 of the 2001 Census asked those who were 15 years of age and over (excluding institutional residents) about their income received during the calendar year of 2000 from the sources of paid employment (wages and salaries) and self employment (net farm income and net non-farm income from unincorporated business and/or professional practice). Earnings or employment income in Tables E.3.4 and E.3.6 refers to these two sources of income.
- The 2001 Census definition of average employment income refers to the weighted mean total employment income of individuals 15 years of age and over who reported income for 2000. Average income is calculated from unrounded data by dividing the aggregate income of a specified group of individuals (e.g., males 45 to 54 years of age) by the number of individuals with income in that group. Note that the words "mean" and "average" were used interchangeably in the text and tables in this indicator.
- For Table E.3.5, which uses data from the OECD, relative earnings from employment are defined as the mean earnings (income from work before taxes) of persons at a given level of educational attainment divided by the mean earnings of persons with high school or trade-vocational diplomas. This ratio is then multiplied by 100. The earnings estimates generally cover the full reporting year for all persons with earnings from employment during that period.

Limitations

- The source of Table E.3.5 is the 2006 *Education at Glance*. The data that Canada submits to the OECD are from the Survey of Labour and Income Dynamics (SLID). On the other hand, Tables E.3.4 and E.3.6 are based on the 2001 Census. With regard to the collection of information on the employment income, the two sources differed in terms of coverage and sample size.

- The target population of SLID consists of all persons living in Canada, but excludes the following groups of people: residents of the Yukon, the Northwest Territories and Nunavut, residents of institutions and persons living on Indian reserves, and military personnel living in barracks. Overall, these exclusions amount to less than 3% of the population. The samples of SLID are selected from the monthly Labour Force Survey and thus share the LFS sample design. The SLID samples are composed of two panels. Each panel consists of two LFS rotation groups and includes roughly 15,000 households. Demographic information was collected for every member of the household while data on employment income, education and labour were collected for persons aged 16 and over in the household.
- On the other hand, however, the 2001 Census provides complete coverage of the Canadian population, including households of diplomatic personnel and other Canadian government employees living outside Canada. It also includes persons living the three Territories. In most parts of Canada, every fifth household receives the long census form (2B), which contains the questions from which employment income data are derived. On Indian reserves and in northern and remote areas, all households receive the long census form to improve the precision of the data on populations that are considered too small to be sampled.

Data sources

- Census of Population, 2001, Statistics Canada.
- *Education at a Glance*, 2006 edition, (Table A.9.1a), OECD Publishing, Organisation for Economic Co-operation and Development, Paris.

Appendices

Appendix 1

Data sources used for PCEIP 2007

This following alphabetical list provides a brief overview of each data source used for the 2007 (fifth) edition of *Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program.* Most data are from Statistics Canada surveys or other Statistics Canada databases, publications or products. More information on these data sources can be obtained by contacting:

Contact:	Client Services, Centre for Education Statistics, Statistics Canada
Telephone:	1-800-307-3382 (toll free)
	(613) 951-7608
Fax:	(613) 951-4441
Email:	educationstats@statcan.ca

Data from the Organisation for Economic Co-operation and Development (OECD) and the Council of Ministers of Education, Canada (CMEC) have also been used for the 2007 PCEIP report; the contact information is included with the descriptions.

Census of Population

Census Operations Division, Statistics Canada

Objective: To provide, at a single point in time, a detailed portrait of the demographic, social, and economic conditions of the population, and on its housing units.

Target population: The entire Canadian population, defined as Canadian citizens (by birth or by naturalization), landed immigrants and non-permanent residents, together with family members who live with them. Non-permanent residents are people living in Canada who have a Minister's permit, a student or employment authorization, or who are claiming refugee status. The census does not count foreign residents (government representatives of another country attached to an embassy or other diplomatic body in Canada and their families, members of the Canadian Forces of another country stationed in Canada and their families, and persons temporarily visiting). The census also counts Canadian citizens and landed immigrants who are temporarily outside the country on Census Day. This includes federal and provincial government employees working outside Canada, Canadian embassy staff posted to other countries, members of the Canadian Forces stationed abroad, and all Canadian crew members of merchant vessels.

Frequency: Every five years; the most recent census was conducted in 2006, and the next census will be held in 2011.

Notes: 1991, 1996 and 2001 Census data were used for Tables A.2.1 through A.2.5 and A.4.1 through A.4.4.

In both 1996 and 2001, for some Indian reserves and settlements, enumeration was not permitted, or was interrupted before it could be completed. This resulted in 77 incompletely enumerated reserves and settlements (with an estimated population of 44,000) in 1996, and 30 incompletely enumerated reserves and settlements (with an estimated population of 30,000 to 35,000) in 2001. These people, most of whom were registered Indians, are not included in the data. Consequently, the impact of incomplete enumeration is greatest on data for North American Indians and for persons registered under the *Indian Act*. The impact of the missing data tends to be small for national-level and most provincial-level statistics, but it can be significant for some smaller areas.

The census is distributed both on- and off-reserve. Form 2D, the Northern and Reserves Questionnaire, specifically gathers information on all households in northern areas and on most Indian reserves, Indian settlements, Indian government districts and *terres réservées*. A list of the reserves that did not participate or for which the quality of the data was deemed unacceptable is provided in each census product.

Community College Student Information System (CCSIS)

Centre for Education Statistics, Statistics Canada

Objectives: This database, now inactive, provided enrolment and graduate statistics for postsecondary programs at community colleges. Various demographic and program-related characteristics of students and graduates were also available.

Target population: The Community College Student Information System (CCSIS) covered all students registered for programs eligible for academic credit in a postsecondary diploma, certificate, or university transfer/university level program in community colleges in the provinces and territories. A secondary school completion or equivalent was the normal prerequisite for entry into the postsecondary programs covered by this survey. The "général" program at Quebec institutions, the completion of which is a prerequisite for entry into universities, was included. Students registered in co-op programs who were on a work assignment at the time of the survey were included in the enrolment counts as were students registered for diplomas or certificates awarded by a professional body, if such programs formed part of the regular offerings of the institution.

Frequency: Annual, 1969/1970 through 1999/2000; inactive.

Notes: In 2000, the Postsecondary Student Information System (PSIS), formerly the Enhanced Student Information System (ESIS), began to replace CCSIS and other postsecondary enrolment and graduate surveys, offering common variables for all levels of postsecondary education. Although most institutions are already reporting under PSIS, some are still in the process of implementing this new system. During this transition period, these institutions are reporting their data via the surveys that PSIS is replacing, such as CCSIS. This has limited the data that are currently available, particularly at the college level.

Education at a Glance, 2006 and earlier

Organisation for Economic Co-operation and Development (OECD)

Education at a Glance – OECD Indicators is an annual OECD publication, first published in 1992. It contains data and analysis for over 30 indicators that provide insights into the functioning of education systems including the operation, evolution, and impact of education, and that reflect emerging issues on national policy agendas. The OECD indicators allow international comparisons that help countries see their systems in light of other countries' performances. More information is available on the OECD Web site, at www.oecd.org.

Elementary-Secondary Education Statistics Project (ESESP)

Centre for Education Statistics, Statistics Canada

Objectives: The Elementary-Secondary Education Statistics Project (ESESP) is a national survey that enables Statistics Canada to provide information on enrolments (including minority and second language programs), graduates, educators and finance of Canadian elementary-secondary public educational institutions. This information is used mainly to meet policy and planning needs in the field of elementary-secondary education.

Target population: Annually, the department or ministry of education in each jurisdiction sends data pertaining to enrolments, graduates, educators and finance of the public elementary-secondary schools under their jurisdictions to Statistics Canada. ESESP is a census of all provinces and territories. The frame used is the list of all provinces and territories.

Frequency: Annual; reference period – September (or as close as possible thereafter) of the school year.

Notes: Statistics Canada first introduced ESESP in 2003. The goal of this project is to collect elementary-secondary expenditure data. It has replaced the following surveys that were used for the collection of enrolment, graduate, and educator data:

- Elementary-Secondary School Enrolment Survey
- Minority and Second Language Education
- Secondary School Graduates Survey
- Elementary-Secondary Education Staff Survey.

Estimates of Canadian Research and Development Expenditures (GERD), Canada, 1995 to 2006, and by province 1995 to 2004

Statistics Canada Catalogue No. 88F0006XIE2006009

Science, Innovation and Electronic Information Division (SIEID), Statistics Canada

This publication presents the national gross domestic expenditures on research and development (GERD) from 1995 to 2006, as well as the provincial GERD from 1995 to 2004.

Financial Statistics of Community Colleges and Vocational Schools (FINCOL)

Centre for Education Statistics, Statistics Canada

Objectives: This survey collects financial information (income and expenditures) from non-degree-granting community colleges and public vocational schools.

Target population: All non-degree-granting community colleges and public vocational schools in the provinces and territories that offer educational programs at the postsecondary level and/or vocational level (private institutions that only offer courses at the vocational level however are not covered).

Frequency: Annual, since 1982.

International Adult Literacy and Skills Survey (IALSS)

Special Surveys Division, Statistics Canada

Objectives: The 2003 International Adult Literacy and Skills Survey (IALSS) is the Canadian component of the Adult Literacy and Life Skills Survey (ALL). The main purpose of the survey was to find out how well adults use printed information to function in society.

Target population: IALSS is a sample survey with a cross-sectional design, representing Canadian adults aged 16 and over not residing in institutions or on Indian reserves. In addition to provincial and territorial estimates, the survey was designed to provide reliable estimates for a variety of special target populations such as recent and established immigrants, francophones in New Brunswick, Manitoba and Ontario, anglophones in Quebec, urban Aboriginals in Manitoba and Saskatchewan, youth in Quebec and British Columbia, and Aboriginal residents in the three territories.

Frequency: Occasional.

Notes: In each of the seven participating countries, nationally representative samples of adults aged 16 to 65 were interviewed and tested at home, using the same psychometric test to measure prose and document literacy, as well as numeracy and problem-solving skills.

Labour Force Survey (LFS)

Labour Statistics Division, Statistics Canada

Objectives: To collect labour force information from the civilian, working-age population of Canada in order to provide estimates of the number and characteristics of the employed, unemployed, and persons not in the labour force. The data are used to publish monthly standard labour market indicators. Data are also collected on a wide range of variables concerning the respondents' household and family, and individual characteristics such as educational attainment and school attendance.

Target population: The LFS covers the civilian, non-institutionalized population 15 years of age and over. Persons living on Indian reserves, full-time members of the Canadian Forces and inmates of institutions (e.g., hospitals, prisons, and long-term care facilities) are excluded. Basic demographic information is also collected for all members of the selected household, regardless of age.

Frequency: Monthly; data are available from 1966.

Notes: The LFS was redesigned in 1976 and in 1997; however, most data are historically consistent. The 1997 redesign resulted primarily in the addition of new questions relating to labour conditions and a restructured question flow in order to take advantage of computer-assisted interviewing software. In addition, the 1990 LFS questionnaire introduced revised questions on the educational attainment variable and therefore these data are not directly comparable with those collected prior to 1990. Beginning with the 1990 survey, data on primary and secondary education reflects the highest grade completed rather than attended. A question on high school graduation was also added because, before 1990, no attempt was made to determine if respondents whose highest level was Grade 11 to 13 had actually graduated. Also with the 1990 questionnaire, any education that could be counted towards a degree, certificate or diploma from an educational institution is taken as postsecondary education. Prior to this revision, postsecondary education was limited to education that normally requires high school graduation (thereby failing to pick-up on much trade-vocational education as this does not always require high school education). Finally, the changes introduced with the 1990 questionnaire allow more information to be collected on the type of postsecondary education.

Starting in late 2003 in Alberta, and then in April 2004 for the rest of Western Canada, the LFS added questions to identify Aboriginal respondents living off-reserve. The Aboriginal identify questions were also asked in the territories in 2004. The question on Aboriginal identity was extended to all provinces in January 2007.

Indian reserves have historically been excluded from the LFS due to the serious challenges in contacting and interviewing potential respondents, with many of them living in remote locations not easily accessible to LFS interviewers given the short data collection period each month, and the large effort and cost associated with traveling to these locations.

Main Science and Technology Indicators

Organisation for Economic Co-operation and Development (OECD), 2006/1, Table 2

OECD Main Science and Technology Indicators: This biannual publication provides a set of indicators that reflect the level and structure of the efforts undertaken by OECD member countries and nine non-member economies (Argentina, China, Israel, Romania, Russian Federation [a member country as of 2007], Singapore, Slovenia, South Africa, Chinese-Taipei) in the field of science and technology. The indicators cover the resources devoted to R&D, patent families, technology balance of payments and international trade in highly R&D-intensive industries. Also presented are the underlying economic series used to calculate these indicators. Series are presented for a reference year and for the last six years for which data are available. More information is available on the OECD Web site www.oecd.org.

National Graduates Survey (NGS)

Centre for Education Statistics, Statistics Canada

Objectives: The National Graduates Survey (NGS) was designed to measure the labour market outcomes of graduates from Canadian public university, community college, and trade-vocational programs, two and five years after graduation.

Target population: Graduates from Canadian postsecondary education institutions (universities, colleges, trade schools) who graduated or completed the requirements for degrees, diplomas or certificates during the reference calendar year. Excluded are: graduates from private postsecondary education institutions; completers of continuing education programs (unless these led to a degree, diploma or certificate); part-time trade course completers; persons who completed vocational programs lasting less than three months; persons who completed vocational programs other than in the skilled trades (e.g., basic training and skill development); completers of provincial apprenticeship programs and those living outside of Canada or the United States at the time of the survey.

Frequency: Occasional.

Notes: Each graduating class is interviewed twice: two years after graduation (NGS) and five years after graduation (Follow-up of Graduates Survey, or FOG). To date, five graduating classes (1982, 1986, 1990, 1995 and 2000) have been surveyed two and five years after graduation:

National Longitudinal Survey of Children and Youth (NLSCY)

Special Surveys Division, Statistics Canada

Objectives: The National Longitudinal Survey of Children and Youth (NLSCY) was designed to follow the same group of children over several years to study their development and well-being from birth to early adulthood. The survey was developed to collect information about factors influencing a child's social, emotional and behavioural development and to monitor the impact of these factors on the child's development over time. The NLSCY covers a comprehensive range of topics including the health of children, information on their physical development, learning and behaviour, as well as data on their social environment (family, friends, schools and communities).

Target population: The non-institutionalized, civilian child population in Canada's 10 provinces. The children sampled by the NLSCY do not include people living on Indian reserves or Crown lands, residents of institutions, full-time members of the Canadian Forces, and residents of some remote regions.

Frequency: Biennial, starting in 1994/1995.

Notes: The NLSCY sample permits results to be reported for the general population of children aged 0 to 5 years in addition to the longitudinal results.

Population and demography

Demography Division, Statistics Canada

Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories. This estimates program is used in the calculation of demographic, social and economic indicators (fertility rates, mortality rates, nuptiality rates, divorce rates, unemployment rates, school enrolment rates, etc.) in which the population, or a part thereof, serves as the denominator. These data are used in calculation of weights for use in Statistics Canada's Surveys (Labour Force Survey, General Social Survey, Survey of Labour and Income Dynamics, etc.). They are also used in the determination of the annual level of immigration by the Government of Canada. In addition, the data are used as base population for Statistics Canada's population projections. Estimated population counts play a vital role under the "Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act" and the "Canada Student Loans Act" in determining the amounts of federal-provincial/territorial transfers.

Notes: Used for the 1991 to 2005 estimates of population in Table A.1.1, "Estimates and projections, population aged 0 to 29, Canada and jurisdictions, 1991 to 2031."

Population Projections for Canada, Provinces and Territories, 2005 to 2031 (Statistics Canada Catalogue No. 91-520-XWE, December 2005) by Alain Bélanger, Laurent Martel and Éric Caron-Malenfant. This report presents population projections for Canada, the provinces and territories for the period 2005 to 2056. Results are available for provinces and territories by age and sex to the year 2031 and for Canada as a whole to the year 2056. The components method was used. For each component of population growth, one or more assumptions were made regarding how that component would evolve in the future. These assumptions, when combined, form a number of projection scenarios. In all, there are three assumptions each on fertility, mortality and immigration and four assumptions on interprovincial migration; in combination, these assumptions generate 108 scenarios on the future course of population change. To keep the document a reasonable size, the results of only six scenarios are presented in detail. These six scenarios provide a range of high, medium and low population growth projections for the various provinces and territories.

Notes: Used for the 2006 to 2031 population projections in Table A1.1,."Estimates and projections, population aged 0 to 29, Canada and jurisdictions, 1991 to 2031."

Projections of the Aboriginal Populations, Canada, Provinces and Territories: Detailed Statistical Tables, 2001 to 2017 (Statistics Canada Catalogue No. 91-547-SCB) These statistical tables present annual data from 2001 to 2017 for the following Aboriginal groups: North American Indians, Métis, and Inuit, covering place of residence (reserve, census metropolitan area, urban non-census, metropolitan area, rural) and age groups and sex.

Notes: Used for the population projections of the Aboriginal populations in Table A1.2, "Estimates and projections, population aged 0 to 29 with Aboriginal identity, Canada and jurisdictions, 2001 to 2016."

Postsecondary Student Information System (PSIS)

Centre for Education Statistics, Statistics Canada

Objectives: The Postsecondary Student Information System (PSIS), formerly the Enhanced Student Information System (ESIS), is a national survey that enables Statistics Canada to provide detailed information on enrolments in and graduates of Canadian public postsecondary education institutions in order to meet policy and planning needs in the field of postsecondary education.

PSIS collects information pertaining to the programs and courses offered at an institution, as well as information regarding the students and the program(s) and courses in which they are registered, or from which they have graduated. PSIS was also designed to collect data on continuing education; this information is available from the cross-sectional files.

PSIS creates a unique longitudinal record for each postsecondary student in Canada that will, in turn, provide a history of flows taken by a student as he/she progresses through the education system. Upon commitment from all postsecondary education institutions, PSIS will become a means of following students throughout their academic careers in order to build a comprehensive picture of student flows; that is, their mobility and pathways within Canadian postsecondary education institutions. Mobility refers to geographic movement. Pathways refer to movement between fields of study, levels of education, and registration status (full-time and part-time).

Target population: The frame used is the list of Canadian public postsecondary institutions (universities, community colleges and trade and vocational training centres) compiled by the Centre for Education Statistics of Statistics Canada. Information is collected from Canadian postsecondary institutions (the collection units). Each institution sends data pertaining to their programs and their students. PSIS is a census of all students and graduates of all Canadian public postsecondary institutions.

Frequency: Annual.

Notes: In 2000, PSIS began to replace the University Student Information System, the Community College Student Information System, and the Trade/Vocational Enrolment Survey with a single survey offering common variables for all levels of postsecondary education. Historical enrolment and graduate data from the previous surveys have been converted using PSIS variable definitions and codesets to maintain the historical continuity of the statistical series. Although most institutions are already reporting under PSIS, some are still in the process of implementing this new system. During this transition period, these institutions are reporting their data via the surveys that PSIS is replacing. This has limited the data that are currently available, particularly at the college level.

Programme for International Student Assessment (PISA)

Organisation for Economic Co-operation and Development (OECD)

Objectives: The Programme for International Student Assessment (PISA) is a collaborative effort among OECD member countries that assesses youth outcomes in three domains—reading literacy, mathematical literacy, and scientific literacy—through common international tests. The PISA assessment is intended to go beyond the testing of school-based curriculum in order to assess to what degree students approaching the end of their compulsory education have mastered the knowledge and skills in each of the literacy domains that are essential for full participation in society. More specifically, PISA aims to answer the following questions:

- How well are young adults prepared to meet the challenges of the future?
- Are they able to analyze, reason and communicate their ideas effectively?
- Do they have the capacity to continue learning throughout life?
- Are some kinds of teaching and school organization more effective than others?

Target population: Individuals 15 years of age who were attending school in one of Canada's 10 provinces. Students of schools located on Indian reserves were excluded, as were students of schools for those with severe learning disabilities, schools for blind and deaf students, and students who were being home schooled. To date, the territories have chosen not to participate in PISA.

Frequency: Every three years with major testing domains as follows:

- 2000: reading
- 2003: mathematics
- 2006: science

Contact: Coordinator, Assessment

Council of Ministers of Education,Canada (CMEC)

Tel.: (416) 962-8100

See www.cmec.ca for more information.

Provincial Expenditures on Education in Reform and Correctional Institutions

Centre for Education Statistics, Statistics Canada

Objectives: The survey is used to supplement data collected from the Provincial Public Accounts on provincial/territorial expenditures on education, which are used in the determination of total consolidated expenditures on education in Canada and published in various Statistics Canada publications.

Target population: Reform and correctional institutions in the provinces and territories.

Frequency: Annual, since 1970/1971.

Public Institutions Division

Statistics Canada

Public Institutions Division's statistical program is designed to measure and analyze the economic dimensions of the public sector of Canada, including its profile.

The economic dimensions consist of revenues and expenditures, assets and liabilities, debt and employment-related statistics of public sector entities. In order to measure properly the public sector, the Division must maintain an up-to-date profile of the public sector universe. The public sector includes all entities such as government departments, establishments or funds, which political authorities at all levels use to implement their social and economic policies. Government business enterprises are also part of the public sector universe.

The public sector does not include supra-national bodies such as agencies of the United Nations or other international organizations that may exist and operate within Canada.

Registered Apprenticeship Information System (RAIS)

Centre for Education Statistics, Statistics Canada

Objectives: This survey gathers information on individuals who receive training and those who obtain certification within a trade where apprenticeship is being offered. RAIS compiles data on the number of registered apprentices taking in-class and on-the-job training in trades that are either Red Seal or non-Red Seal and where apprenticeship is either compulsory or voluntary. It also compiles data on the number of provincial and interprovincial certificates granted to apprentices or tradespersons.

Target population: The survey covers registered apprentices taking in-class and on-the-job training in trades that are either Red Seal or non-Red Seal and where apprenticeship training is either compulsory or voluntary. It also covers apprentices or tradespersons who are granted provincial and interprovincial certificates. In RAIS, a tradesperson is an individual who received training within a trade where apprenticeship training is voluntary and did not register for the apprenticeship training but succeeded in obtaining their certificate within that trade.

Frequency: Annual. Since 1991, individual record data have been collected; from 1980 to 1990, aggregate data by trades was collected.

School Achievement Indicators Program (SAIP)

Council of Ministers of Education, Canada (CMEC)

Objectives: The provinces and territories, through CMEC, developed the School Achievement Indicators Program (SAIP) to assess the performance of 13- and 16-year-old students in mathematics content and mathematics problem solving, reading and writing, and science. SAIP presented achievement results for Canada as a whole and for each participating province and territory. SAIP also provided results for the English and French school systems within a jurisdiction. Beginning with the 1999 science assessment, SAIP began to collect contextual information on student performance to help interpret and explain the achievement results.

Target population: Students in the 10 provinces and 3 territories aged 13 and 16 (i.e., those students who reached their 13th or 16th birthdays between September 1 and August 31 of the previous year).

Frequency: SAIP was a cyclical program of student assessment with the following schedule:

Mathematics	Reading and Writing	Science
1993	1994	1996
1997	1998	1999
2001	2002 (writing)	2004

Notes: The SAIP science assessment of 2004 was the last SAIP test administered. Starting in 2007, the new Pan-Canadian Assessment Program (PCAP) is being introduced.

Contact: Coordinator, Pan-Canadian Assessment Program

Council of Ministers of Education,

Canada (CMEC)

Tel.: (416) 962-8100

See www.cmec.ca for more information.

Science, Innovation and Electronic Information Division (SIEID), Science and Innovation Surveys Section

Statistics Canada

With support from government and industry partners, the Science, Innovation and Electronic Information Division (SIEID) focuses on the development of statistical measures and indicators that facilitate the analysis of the economic and social impacts of the following activities:

- science and technology activities
- industrial research and development
- human resources and intellectual property
- advanced technologies
- innovation
- biotechnology
- e-commerce
- telecommunications
- broadcasting
- information society, research and analysis

Secondary School Graduates Survey

Centre for Education Statistics, Statistics Canada

Objectives: This survey collected data on secondary school graduates, by age and sex, for youths in regular high school programs.

Target population: This survey collected data on all graduates of regular high school programs. Graduates from upgrading programs for out-of-school adults, sometimes leading to "equivalency" certification but in other cases leading to regular high school graduation certification, were not included. Youths younger than 20 years of age were defined as "regular high school" students.

Frequency: Annual; now inactive.

Notes: The survey was discontinued after the 2002/2003 reference year, when the Elementary-Secondary Education Statistics Project (ESESP) began collecting these data.

Survey of Colleges and Institutes

Centre for Education Statistics, Statistics Canada

Objectives: This program collects full-time aggregate public college and institute enrolment and graduate data.

Target population: The survey covers enrolment in publicly funded colleges and institutes only. Universities are excluded. Colleges and institutes are institutions created under the authority of either a province's Colleges Act or equivalent, or under a Societies Act or equivalent, with education as a primary purpose. These institutions offer certificate, diploma, and transfer or continuing education programs, as well as professional development programs.

Frequency: Annual (on a provisional basis). To date, data for the 2003/2004 and 2004/2005 reference years have been collected.

Notes: A longer time series of data on enrolment in public colleges and institutes is dependent on the possibility of producing historical revisions to the college data that have been traditionally collected by Statistics Canada from individual student records using PSIS and its precursors.

Survey of Consumer Finances (SCF)

Income Statistics Division, Statistics Canada

Objectives: The Survey of Consumer Finances (SCF) was conducted annually, through the 1997 reference year, to obtain work experience and income information from Canadian households. The SCF provided up-to-date information on the distribution and sources of income, before and after taxes, for families and individuals. It was the source for estimates of income and low income in the population.

Target population: All individuals aged 15 and over residing in households in the 10 provinces with income (i.e., earnings, investment income, government transfer payments, retirement income, or other income) during the reference year, excluding residents of the territories, Indian reserves and institutions (e.g., prisons, hospitals, and long-term care facilities), and full-time members of the Canadian Forces.

Frequency: Annual; inactive (ended with the 1997 reference year).

Notes: The SCF was replaced by the Survey of Labour and Income Dynamics (SLID) beginning with the 1998 reference year. Results from the two surveys have been compared in detail to assess the differences and the impact on time-series consistency. Essentially, the two surveys tell the same story with respect to low income and income distribution.

Survey of Federal Government Expenditures in Support of Education (FEDEX)

Centre for Education Statistics, Statistics Canada

Objectives: This survey collects data on direct federal government financial support for education at all levels by department and by province/territory. The result is a dataset on actual and estimated federal spending on education. These data are also used to reconcile financial data from other sources. For example, these data provide a basis for verification of grant data as reported by institutions and for the consolidation of education expenditures.

Target population: Federal government departments, agencies, commissions, boards and crown corporations that are part of the *Public Service Staff Relations Act* and the *Financial Administration Act*.

Frequency: Annual, beginning in 1982/1983.

Survey of Financial Information of Universities and Colleges (FIUC)

Centre for Education Statistics, Statistics Canada

Objectives: Detailed data are collected on the revenue and expenditures of universities and degree-granting institutions in Canada. This survey is similar to the Survey of Financial Statistics of Community Colleges and Vocational Schools, but the university survey includes information on research and development expenditures; in fact, it is the principal source of R&D expenditures estimates in the university sector as they are reported in Canada and reported internationally for Canada.

Target population: All degree-granting universities and university-colleges in Canada.

Frequency: Annual, since 1972/1973.

Survey of Financial Statistics of Private Elementary and Secondary Schools (FinPESS)

Centre for Education Statistics, Statistics Canada

Objectives: This survey collects financial data from private elementary and secondary schools in Canada; these data form part of total elementary and secondary revenues and expenditures. The data are also used to estimate private school expenditures for years when no survey is conducted.

Target population: Private elementary and secondary schools in the provinces and territories.

Frequency: Every three years including 2003/2004. Annual estimates are produced for the non-survey years.

Survey of Household Spending (SHS)

Income Statistics Division, Statistics Canada

Objective: Collects detailed information on spending in Canadian households, including expenditures, income, and changes in assets and debts between January 1 and December 31 of the reference year. Also gathers information about dwelling characteristics and the household equipment owned as of December 31 of the reference year. The Survey of Household Spending (SHS) is used as a data source for a number of Statistics Canada products, and to determine low-income cutoffs.

Target population: The SHS is carried out in private households of all sizes, for individuals or families. The following groups are excluded: individuals living on Indian reserves or Crown lands; official representatives of foreign countries living in Canada and their families; members of religious and other communal colonies; people living in residences for senior citizens; persons living full-time in institutions (e.g., inmates of penal institutions or chronic care patients living in hospitals and nursing homes); and members of the Canadian Forces living in military camps.

The population of the territories is included in the 1997, 1998, and 1999 reference years and every second year thereafter starting with 2001. In the territories, individuals living in very small communities (generally consisting of fewer than 100 households) or in unorganized areas are excluded from the target population.

Frequency: Annual, beginning with the 1997 reference year.

Notes: The SHS integrates most of the content found in the Family Expenditure Survey (FAMEX) and the Household Facilities and Equipment Survey. Many data from these two surveys are comparable with data from the SHS; however, some differences related to methodology, data quality and definitions must be considered before making comparisons. The last FAMEX survey covered the 1996 reference year.

Survey of Labour and Income Dynamics (SLID)

Income Statistics Division, Statistics Canada

Objectives: The Survey of Labour and Income Dynamics (SLID) is a longitudinal survey that follows the same individuals and households for six years, tracking their educational and labour market experiences, and changes in income and family dynamics. As changes in labour and income situations can be closely related to family and personal characteristics, SLID is designed to collect extensive information on areas such as socio-demographic background, education, family composition, activity limitation, and geographic mobility, and changes in these factors. Although SLID is first and foremost a longitudinal survey, it also generates cross-sectional data, including estimates of the number of people with a job or experiencing a period of unemployment at some time during the year, and annual wage distributions.

Target population: Individuals in the 10 provinces, excluding residents of institutions and persons living on Indian reserves. The labour and income questions are intended for people aged 16 to 69; for the longitudinal component, basic demographic information is also collected for people 15 years of age and under and those 69 and older.

Frequency: Annual, since 1993.

Notes: Starting with the 1998 reference year, SLID took over from the Survey of Consumer Finances (SCF) in producing the annual, or cross-sectional, income statistics, in addition to continuing the production of longitudinal data, which began with the first SLID survey in 1993.

Every few years, estimates produced by the combined program of SLID and the Survey of Consumer Finances (SCF) are revised. The 2003 revision is the result of three modifications: (1) all estimates, back to 1990, were adjusted to population projections based on the 2001 Census population counts; (2) starting with 1990 estimates, wages and salaries were benchmarked to the distribution of wages and salaries derived from the T4 statement of remuneration remittance file; and (3) the 1992-base low income cut-offs (LICOs) themselves have been revised, resulting from a revision of the 1992 Family Expenditure Survey. SLID and SCF estimates were revised from 1980. These changes have an impact on levels of low-income statistics.

Survey of Uniform Financial System–School Boards

Centre for Education Statistics, Statistics Canada

Objectives: This survey looks at the revenues and expenditures of school boards, aggregated at the jurisdictional level. Board revenues can be examined by sources of funds (e.g., local taxation), whereas expenditures can be examined by function (e.g., administration, instruction), and detailed classification (e.g., salaries and compensations, supplies and services).

Target population: All school boards in the provinces and territories.

Frequency: Annual.

Trade-Vocational Enrolment Survey (TVOC)

Objectives: This database gathered information on enrolments in trade/vocational training programs offered by community colleges and related institutions in Canada.

Target population: The survey captured information on all full-time students of trade-vocational and preparatory programs offered by community colleges and public trade-vocational schools in the provinces and territories.

Frequency: Annual through 1999/2000; now inactive.

Notes: Aggregate trade/vocational information are available from 1983/1984; individual micro-data were requested beginning in 1992/1993. The survey was discontinued after the 1999/2000 reference period (the academic year), when the Postsecondary Student Information System (PSIS) began collecting these data.

Tuition and Living Accommodation Costs for Full-time Students at Canadian Degree-granting Institutions, Survey of (TLAC)

Centre for Education Statistics, Statistics Canada

Objectives: The survey collects information on tuition fees and living accommodation costs at all universities and degree-granting colleges in Canada. The data are used to analyze and assess the cost students can incur while attending full-time, for future planning and setting of new rates, as well as assessing the effects of an increase in rates.

Target population: All degree-granting postsecondary institutions, i.e., universities and university-colleges in Canada.

Frequency: Annual.

University and College Academic Staff System (UCASS)

Centre for Education Statistics, Statistics Canada

Objectives: This database presents a national picture of the socio-economic characteristics of full-time teaching staff in degree-granting institutions.

Target population: Full-time teaching staff in degree-granting institutions who have a teaching assignment and are under contract for 12 months or more are covered. Administrative and support staff and librarians are excluded, as are staff solely engaged in research. Teaching and research assistants are also excluded.

Frequency: Annual.

University Student Information System (USIS)

Centre for Education Statistics, Statistics Canada

Objectives: This database, now inactive, was replaced by the Postsecondary Student Information System (PSIS) in 2000. It provided Canada-wide enrolment and graduate statistics from degree-granting universities and colleges. The data collected revealed a general profile of students and their programs, including sex, age, citizenship, geographic source of student, the level and field of study, type of attendance (full-time, part-time), and year of graduation.

Target population: The target population for the enrolment statistics was all students enrolled in degree-granting institutions in Canada in programs leading to a degree, diploma or certificate. This included students enrolled in courses as well as students who had completed their course requirements and who were engaged in thesis writing or research. Those students who were taking courses eligible for credit but who were not seeking a degree, diploma or certificate (e.g., auditors) were also included. The target population for the graduate statistics was all students who had received a degree, diploma, or certificate during the calendar year ending in December.

Frequency: Annual; inactive. Enrolment data are available from the 1972/1973 academic year to the 1999/2000 academic year. Graduate data are available from 1970 to 1999.

Notes: In 2000, the Postsecondary Student Information System (PSIS), formerly the Enhanced Student Information System (ESIS), began to replace USIS and other postsecondary enrolment and graduate surveys, offering common variables for all levels of postsecondary education. Although most institutions are already reporting under PSIS, some are still in the process of implementing this new system. During this transition period, these institutions are reporting their data via the surveys that PSIS is replacing, such as USIS. This has limited the data that are currently available, particularly at the university level.

Youth in Transition Survey (YITS)

Centre for Education Statistics, Statistics Canada

Objectives: To better understand the major transitions in the lives of youth, particularly their pathways from high school to postsecondary education and training, and the initial transition from schooling to the labour market. The Youth in Transition Survey (YITS) has several broad objectives:

- to examine key transitions in the lives of youth, such as the transition from high school to postsecondary schooling and the initial transition from schooling to the labour market;
- to better understand educational and labour market pathways and the factors influencing these pathways;
- to identify educational and occupational pathways that provide a smoother transition to the labour market;
- to examine the incidence, characteristics, factors and effects of leaving school;
- to understand the impact of school effects on educational and occupational outcomes;
- to examine the contribution of work experience programs, part-time jobs, and volunteer activities to skill development and transition to the labour market;
- to study the attitudes, behaviours, and skills of young people entering the labour market;
- to gain a better understanding of the determinants of postsecondary entry and postsecondary retention, including educational financing,
- to better understand the role of educational and labour market aspirations and expectations in investment in further education and career choice; and
- to explore the educational and occupational pathways of various sub-groups, particularly youth “at risk.”

Target population: Based on its longitudinal design, YITS surveys two cohorts of youth every two years. The target population for cohort B comprises residents of the 10 provinces of Canada who were born between 1979 and 1981. These individuals were 18- to 20-years-old during 1999, the reference year for cycle 1, and were 22 to 24 during 2003, the reference year for cycle 3.

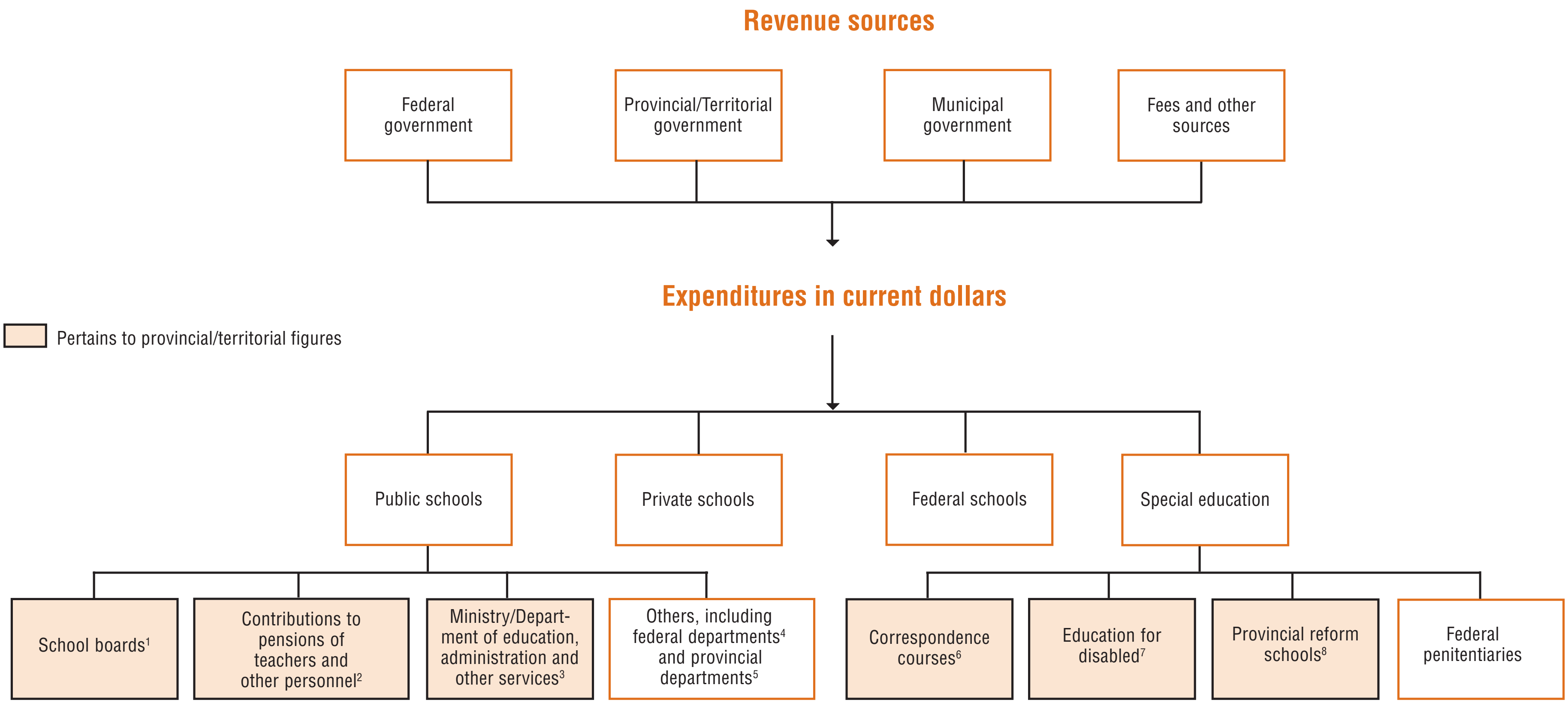
The target population for cohort A comprises persons who were born in 1984 and in the 1999/2000 school year were attending any form of schooling in the provinces of Canada. These individuals were 15-years-old in 1999 (in cycle 1) and 19 years of age during 2003, the reference year for cycle 3. The sample for cohort A was school-based, with schools selected in the first stage of sampling, and students selected from these schools in the second stage of sampling. Schools in the northern territories and on Indian reserves were excluded. Some school- and student-level exclusions were made in the sampling. However, exclusions of all types represented in total, less than 5 % of the national desired target population.

Frequency: Every two years.

Notes: The sample design for cohort B was determined to a large degree by the sample design of the Labour Force Survey (LFS). As is the case with the LFS, cohort B, excludes residents of Yukon, Nunavut, and the Northwest Territories, persons living on Indian Reserves, full-time members of the Canadian Forces and inmates of institutions. These groups together represent an exclusion of approximately 2% of the population aged 15 or over.

Figure 1

Revenue sources and components of expenditures for elementary and secondary education



1. Ministry/department of education: Adjustments have been made in most provinces/territories to standardize fiscal year ends.
2. Ministry/department of education (public accounts) and/ or “provincial/territorial estimates”.
3. Ministry/department of education. Adjustments or estimates are made in some provinces/territories where the elementary/secondary administration amount is not separated out in the public accounts or the provincial/territorial estimates.
4. For example, Department of National Defense and Indian and Northern Affairs schools.
5. Other than the departments of education.
6. In some provinces/territories, may include expenditures on correspondence courses incurred by other ministries/departments, not only ministry/department of education.
7. In some provinces/territories, may include expenditures on special courses for the disabled incurred by other ministries/departments, not only the ministry/department of education.
8. Information on reform schools is obtained by a survey sent to various ministries/departments of justice, correctional services, penitentiaries or other reform school related administrative bodies.

Appendix 3

Basic reference statistics

	Can.	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
	index (2001 calendar year = 100, 2002 calendar year = 100 for Nunavut)													
Consumer Price Index (calendar years)														
1999	**94.9**	96.1	93.6	94.8	95.2	95.4	94.3	95.0	94.5	94.4	96.5	95.9	96.7	…
2000	**97.5**	99.0	97.5	98.2	98.3	97.7	97.0	97.4	97.0	97.8	98.4	98.0	98.4	…
2001	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	…
2002	**102.2**	102.4	102.7	103.0	103.4	102.0	102.0	101.6	102.8	103.4	102.3	100.7	102.9	100.0
2003	**105.1**	105.4	106.4	106.5	106.9	104.6	104.8	103.4	105.2	108.0	104.5	102.6	105.4	100.2
2004	**107.0**	107.3	108.6	108.4	108.5	106.6	106.7	105.4	107.5	109.5	106.6	103.6	106.9	101.2

	Can.	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	index (2001 calendar year = 100)										
Consumer Price Index (academic years: September to August)[1]											
1991/1992	**85.4**	86.9	87.0	85.9	87.1	87.8	84.6	82.0	82.6	82.9	85.9
1992/1993	**87.0**	88.2	88.3	86.3	87.7	89.2	85.9	84.0	84.8	83.9	88.9
1993/1994	**87.6**	89.6	88.9	87.9	88.6	88.8	86.5	85.5	86.7	85.0	91.1
1994/1995	**88.9**	90.8	89.4	88.9	89.8	89.3	87.9	87.5	88.4	86.8	93.2
1995/1996	**90.4**	91.9	91.3	90.0	90.8	90.8	89.4	89.4	89.8	88.7	94.3
1996/1997	**92.0**	94.1	92.7	92.3	92.7	92.3	91.2	91.6	91.5	90.7	95.1
1997/1998	**93.0**	94.7	92.6	93.2	93.6	93.5	92.2	92.6	92.4	91.8	95.5
1998/1999	**94.2**	95.3	92.8	93.8	94.3	94.7	93.5	94.3	94.0	93.4	96.1
1999/2000	**96.6**	98.0	96.1	97.1	97.3	96.9	96.0	96.6	96.0	96.6	97.6
2000/2001	**99.5**	100.0	99.6	99.8	99.8	99.5	99.3	99.5	99.2	99.9	99.7
2001/2002	**101.1**	101.0	101.1	101.4	101.6	101.0	101.1	100.7	101.6	101.3	101.4
2002/2003	**104.4**	104.8	105.7	106.0	106.5	104.1	104.0	103.0	104.7	107.3	104.0
2003/2004	**106.2**	106.3	107.5	107.4	107.6	105.7	106.0	104.4	106.5	108.9	105.9
2004/2005	**108.5**	109.2	110.7	110.3	110.0	108.1	108.2	107.4	109.3	110.7	108.0
2005/2006	**111.2**	111.9	114.5	113.5	112.9	110.6	110.7	109.8	111.6	114.8	110.2

Basic reference statistics

	Can.	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
	in millions of dollars													
Gross domestic product (GDP)[2]														
1999	**982,441**	12,184	3,159	23,059	19,041	210,809	409,020	31,966	30,778	117,080	120,921	1,085	2,292	747
2000	**1,076,577**	13,922	3,366	24,658	20,085	224,928	440,759	34,057	33,828	144,789	131,333	1,190	2,515	834
2001	**1,108,048**	14,179	3,431	25,909	20,684	231,624	453,701	35,157	33,127	151,274	133,514	1,259	2,972	876
2002	**1,152,905**	16,457	3,701	27,082	21,169	241,448	477,763	36,559	34,343	150,594	138,193	1,254	3,033	951
2003	**1,213,408**	18,186	3,806	28,801	22,346	250,626	493,219	37,420	36,583	170,300	145,763	1,302	3,691	992
2004	**1,290,788**	19,473	4,027	29,859	23,487	262,988	517,608	39,825	40,021	188,865	157,540	1,404	4,245	1,073

	Can.	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	index (2001=100)										
Gross domestic product (GDP) implicit price index[3]											
1991	**85.8**	82.2	86.6	86.9	84.7	88.1	89.5	85.9	79.3	71.6	80.6
1995	**91.1**	86.1	88.2	90.9	92.3	92.6	93.2	91.2	90.6	76.4	92.2
2000	**98.9**	99.7	97.0	98.2	98.7	98.6	98.8	97.6	101.1	97.4	99.0
2001	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2002	**101.0**	99.7	102.3	100.3	98.0	101.8	102.1	102.3	103.8	97.3	100.1
2003	**104.3**	103.4	104.4	105.4	101.0	104.0	103.8	103.4	106.1	107.1	102.8
2004	**107.5**	112.4	107.3	108.1	102.5	106.8	106.0	107.2	112.7	112.3	106.6

… not applicable
1. This index was used in PCEIP 2007 university tuition fee tables. As there are no universities in the territories, the index is not calculated for the territories.
2. Based on CANSIM Table 384 - 0002.
3. The GDP implicit price index is used to deflate university research and development (R&D) expenditures and the source of funds of these expenditures for Canada and the provinces. The source of this index is Statistics Canada's CANSIM Table 384-0036 (1997=100). For PCEIP 2007, this index was rebased to 2001=100 by dividing the series for Canada and each province by the 2001 factor.

Appendix 4

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	2005	2003	1999
Table A.1.1 Estimates and projections, population aged 0 to 29, Canada and jurisdictions, 1991 to 2031	Table A1.1	Table A1.1	Table 2.1
Table A.1.2 Estimates and projections, population aged 0 to 29 with Aboriginal identity, Canada and jurisdictions, 2001 to 2016	N/A	N/A	N/A
Table A.2.1 Proportion of immigrants among the school-age population (ages 5 to 24), Canada and jurisdictions, in and out of census metropolitan areas (CMAs), 1991, 1996 and 2001	Table A2.1	Table A2.1	Tables 2.2 and 2.3
Table A.2.2 Proportion of visible minorities among the school-age population (ages 5 to 24), Canada and jurisdictions, in and out of census metropolitan areas (CMAs), 1991, 1996 and 2001	Table A2.2	Table A2.2	N/A
Table A.2.3 Proportion of the school-age population (ages 5 to 24) with non-official home language, Canada and jurisdictions, in and out of census metropolitan areas (CMAs), 1991, 1996 and 2001	Table A2.3	Table A2.3	N/A
Table A.2.4 Proportion of the population aged 5 to 24 with Aboriginal identity, Canada, in and out of census metropolitan areas (CMAs), 1996 and 2001	Table A2.4	Table A2.4	N/A
Table A.2.5 Proportion of the population aged 5 to 24 with Aboriginal identity, jurisdictions, in and out of census metropolitan areas (CMAs), 1996 and 2001	Table A2.4	Table A2.4	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table A.3.1 Percentage of the school-age population (ages 5 to 24) in low income, Canada and provinces, 1990, 1995, 2000 and 2004	Table A3.1	Table A4.1	Table 2.6
Table A.3.2 Distribution of the school-age population (ages 5 to 24), by number of years in low income between 1999 and 2004, Canada and provinces	Table A3.2	Table A4.2	N/A
Table A.4.1 Distribution of the school-age population, by age group and living arrangements, Canada and jurisdictions, 1991 and 2001	N/A	Table A3.1	N/A
Table A.4.2 Distribution of the school-age population, by age group and work activity of parents, Canada and jurisdictions, 1991 and 2001	N/A	Table A3.2	N/A
Table A.4.3 Distribution of the population aged 5 to 24 with Aboriginal identity, by age group and living arrangements, Canada and jurisdictions, 1996 and 2001	N/A	N/A	N/A
Table A.4.4 Distribution of the population aged 5 to 24 with Aboriginal identity, by age group and work activity of parents, Canada and jurisdictions, 1996 and 2001	N/A	N/A	N/A
Table B.1.1 Combined public and private expenditures on education, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (in millions of 2001 constant dollars)	Table B1.1	Table B1.1	Table 3.22
Table B.1.2 Indices of change in combined public and private expenditures on education, in 2001 constant dollars, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (1997/1998 = 100)	Table B1.2	Table B1.2	Table 3.22
Table B.1.3 Percentage distribution of combined public and private expenditures on education, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003	Table B1.3	Table B1.3	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table B.1.4 Combined public and private expenditures on education per capita and index of change, Canada and jurisdictions, 1997/1998 to 2002/2003 (in 2001 constant dollars)	Table B1.4	Table B1.5	Table 3.23
Table B.1.5 Combined public and private expenditures on education as a percentage of GDP and index of change, Canada and jurisdictions, 1999/2000 to 2002/2003	Table B1.5	Table B1.6	Table 3.24
Table B.2.1 Public expenditures on education, health, social services, and non-social programs, Canada, 1989/1990 to 2005/2006 (in 2001 constant dollars)	Table B2.3	Table B2.1	N/A
Table B.2.2 Public expenditures on education, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (in millions of 2001 constant dollars)	Table B2.1	Table B2.2	N/A
Table B.2.3 Indices of change in public expenditures on education, in 2001 constant dollars, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (1997/1998 = 100)	Table B2.2	Table B2.3	Table 3.22
Table B.2.4 Private expenditures on education, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (in millions of 2001 constant dollars)	Table B2.4	Table B2.4	N/A
Table B.2.5 Indices of change in private expenditures on education, in 2001 constant dollars, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003 (1997-1998 = 100)	Table B2.5	Table B2.5	N/A
Table B.2.6 Private expenditures as a percentage of total expenditures on education, by level of education, Canada and jurisdictions, 1997/1998 to 2002/2003	Table B2.6	Table B2.6	N/A
Table B.2.7 Percentage of households incurring education expenditures and average expenditure per household on education, Canada and provinces, 2004	Table B2.7	Table B2.7	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table B.2.8 Average undergraduate university tuition fees, Canada and provinces, 1991/1992 to 2005/2006 (in 2001 constant dollars)	Table B2.8	Table B2.8	Table 3.27
Table B.2.9 Average undergraduate university tuition fees, Canada and provinces, 2006/2007 (in current dollars)	N/A	N/A	N/A
Table B.2.10 Average university tuition fees by faculty, Canada, 1991/1992 to 2005/2006 (in 2001 constant dollars)	Table B2.9	Table B2.9	N/A
Table B.2.11 Average university tuition fees by faculty, Canada, 2006/2007 (in current dollars)	N/A	N/A	N/A
Table B.2.12 University and university-college revenues, by source, as a percentage of total revenue, Canada and provinces, 1999/2000 and 2004/2005	Table B2.10	Table B2.10	N/A
Table B.2.13 University expenditures, by resource category, Canada and provinces, 1999/2000 to 2004/2005 (in thousands of 2001 constant dollars)	N/A	Table B3.1	N/A
Table B.2.14 Percentage distribution of university expenditures, by resource category, Canada and provinces, 1999/2000 to 2004/2005	N/A	Table B3.2	Table 3.29
Table B.3.1 Percentage of graduates who borrowed from government student loan programs and average debt at graduation, 1995 and 2000 graduates, Canada and provinces	Table B3.1	Tables B4.1 and B4.2	Table 3.30
Table B.3.2 Incidence and repayment of government student loans among 2000 graduates who did not pursue any further postsecondary education program, Canada and provinces	Table 3.1	Table 4.2	N/A
Table C.1.1 Physical limitations, participation in out-of-school activities and exposure to books, 4- and 5-year-olds, by sex, Canada, 2004/2005	Table C1.1	Table C1.1	N/A
Table C.1.2 Peabody Picture Vocabulary Test (Revised) scores for 4- and 5-year-olds, by sex, Canada, 2004/2005	Table C1.2	Table C1.2	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table C.2.1 Full-time-equivalent enrolments in public elementary and secondary schools, Canada and jurisdictions, 1997/1998 to 2004/2005	Table C2.1	Table C2.1	N/A
Table C.2.2 Full-time-equivalent educators in public elementary and secondary schools, Canada and jurisdictions, 1997/1998 to 2004/2005	Table C2.2	Table C3.3	Table 3.3
Table C.2.3 Student-educator ratio in public elementary and secondary schools, Canada and jurisdictions, 1997/1998 to 2004/2005	Table C2.3	Table C3.2	Table 3.13
Table C.2.4 Full-time educators (headcount) in public elementary-secondary schools, number and percentage distribution by age and sex, Canada and jurisdictions, 2004/2005	N/A	Table C3.6	Table 3.7
Table C.2.5 Age distribution of full-time educators in public elementary-secondary schools and of full-time employed labour force, Canada and provinces, 2004/2005	N/A	Table C3.7	Table 3.7
Table C.2.6 Part-time educators (headcount) as a percentage of educators in public elementary-secondary schools, by sex, Canada and jurisdictions, 1997/1998 and 2004/2005	N/A	Table C3.4	Table 3.11
Table C.2.7 Males (headcount) as a percentage of educators in public elementary-secondary schools, Canada and jurisdictions, 1997/1998 and 2004/2005	N/A	Table C3.5	Table 3.4
Table C.3.1 High school graduation rates (from first educational program), by sex and age relative to typical age of graduation, Canada and jurisdictions, 1997/1998 and 2002/2003	N/A	Table C7.2	Table 4.8
Table C.4.1 Estimated average scores, standard errors and percentage distribution of 15-year-old students by mathematics proficiency on the PISA mathematics combined scale, Canada, provinces and selected countries, 2003	Table C4.1	Table C6.3	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table C.4.2 Estimated average scores, standard errors and percentage distribution of 15-year-old students by reading proficiency on the PISA combined reading literacy scale, Canada, provinces and selected countries, 2000	N/A	Table C6.1	N/A
Table C.4.3 Comparison of estimated average performance in mathematics for PISA 2003 and PISA 2000 assessments, Canada and provinces	Table C4.3	N/A	N/A
Table C.4.4 Comparison of estimated average performance in reading for PISA 2003 and PISA 2000 assessments, Canada and provinces	Table C4.4	N/A	N/A
Table C.4.5 Comparison of estimated average performance in science, PISA 2003 and PISA 2000 assessments, Canada and provinces	Table C4.5	N/A	N/A
Table C.4.6 Percentage of 13-year-old students at performance level 2 or above in SAIP assessments, Canada and jurisdictions	Tables C4.7 and C4.11	Tables C6.5 and C6.9	Table 4.1
Table C.4.7 Percentage of 16-year-old students at performance level 3 or above in SAIP assessments, Canada and jurisdictions	Tables C4.8 and C4.12	Tables C6.6 and C6.10	Table 4.2
Table C.4.a Performance of jurisdictions relative to Canada in SAIP assessments, showing percentage of 13-year-olds at level 2 or above	N/A	N/A	N/A
Table C.4.b Performance of jurisdictions relative to Canada in SAIP assessments, showing percentage of 16-year-olds at level 3 or above	N/A	N/A	N/A
Table C.5.1 Number of students per computer, proportion of home computers connected to the Internet, 15-year-old students, Canada, other countries and provinces, 2003	Table C3.1	Table C5.1	Table 3.31
Table C.5.2 Percentage of 15-year-old students who reported availablility of computers at home and at school, Canada, other countries and provinces, 2003	N/A	Table C5.2	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table C.5.3 Percentage of 15-year-old students who reported using computers at home and at school, by frequency of use, Canada, other countries and provinces, 2003	N/A	Table C5.3	N/A
Table C.5.4 Percentage of 15-year-old students who reported using computers to help them learn school material, by frequency of use, Canada, other countries and provinces, 2003	N/A	Table C5.4	N/A
Table C.5.5 Percentage of 15-year-old students who reported use of computers at school, by frequency of use and sex, Canada, other countries and provinces, 2003	N/A	Table C5.5	N/A
Table D.1.1 Number of registered apprentices, Canada and jurisdictions, 1994 and 2004	Table D1.1	Table D1.4	N/A
Table D.1.2 Number of registered apprentices, by sex and major trade group, Canada, 1994 and 2004	Table D1.2	Table D1.5	N/A
Table D.1.3 Number and percentage distribution of registered apprentices, by age group, Canada, 1994 and 2004	Table D1.3	Table D1.6	N/A
Table D.1.4 Public college and institute full-time enrolment (headcount), by sex, Canada and jurisdictions, 2003/2004 and 2004/2005	N/A	Table D1.9	Table 3.17
Table D.1.5 University enrolment, by sex and registration status, Canada and provinces, 1994/1995, 1999/2000 and 2004/2005	Table D1.4	Table D1.10	Table 3.18
Table D.1.6 Percentage of males relative to total full-time university enrolment, by registration status, Canada and provinces, 1994/1995 and 2004/2005	Table D1.5	Table D1.11	N/A
Table D.2.1 Number of registered apprenticeship completions, Canada and jurisdictions, 1994 and 2004	Table D5.1	Table D5.2	N/A
Table D.2.2 Number of registered apprenticeship completions, by sex and trade group, Canada, 1994 and 2004	Table D5.2	Table D5.3	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table D.2.3 Number of diplomas and degrees granted and graduation rates, by level of education, Canada, 1976 to 2004	Table D5.3	Table D5.4	Table 4.9
Table D.2.4 Graduation rates, by program level and jurisdiction of study, Canada and jurisdictions, 1991 to 2004	Table D5.4	Table D5.5	Table 4.10
Table D.2.5 Number of graduates from public colleges and institutes, by sex and type of credential, Canada and jurisdictions, 2003/2004 and 2004/2005	N/A	N/A	N/A
Table D.2.6 University graduation rates, by level of degree, sex and field of study, Canada, 1994 and 2004	Table D5.5	Table D5.7	Table 4.12
Table D.2.7 Number of university degrees/diplomas/certificates granted, by sex and field of study, Canada and provinces, 1994	Table D5.6	Table D5.8	Table 4.14
Table D.2.8 Number of university degrees/diplomas/certificates granted, by sex and field of study, Canada and provinces, 2004	Table D5.7	Table D5.9	Table 4.15
Table D.3.1 Number of full-time educators in universities, by rank and sex, Canada and provinces, 1994/1995 and 2004/2005	Table D3.1	Table D3.2	Table 3.9
Table D.3.2 Age distribution and median age of full-time university educators, by sex, Canada and provinces, 2004/2005	Table D3.2	Table D3.4	Table 3.9
Table D.3.3 Age distribution of full-time university educators and of full-time employed labour force, Canada and provinces, 2004/2005	Table D3.2	Table D3.4	Table 3.9
Table D.3.4 Number and salary of full-time educators in universities, by rank and sex, Canada and provinces, 1994/1995 and 2004/2005	Table D3.3	Table B3.4	Table 3.12
Table D.4.1 Total domestic expenditures on R&D as a percentage of GDP, Canada in relation to all OECD countries, 2004 (or latest available year)	Table D4.1	Table D4.1	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table D.4.2 Total domestic expenditures on R&D as a percentage of GDP, Canada and jurisdictions, G-7, and leading OECD countries, 1991, 1995, 2000, 2002, 2003 and 2004	Table D4.2	Table D4.2	N/A
Table D.4.3 Percentage of total R&D by sector, Canada and jurisdictions, G-7, leading OECD countries, 2004	Table D4.3	Table D4.3	N/A
Table D.4.4 Expenditures on R&D, and percentage change, Canada and provinces, 1991, 2000, 2002, 2003 and 2004 (in real 2001 dollars)	Table D4.4	Table D4.4	N/A
Table D.4.5 Sources of funds for university R&D expenditures in millions of real 2001 dollars and as a percentage of total funding, Canada and provinces, 1991, 1995, 2000, 2002, 2003 and 2004	Table D4.5	Table D4.6	N/A
Table D.5.1 Comparison of provinces and territories based on average proficiency scores, by literacy domain, population aged 16 and over, 2003	N/A	N/A	N/A
Table D.5.2 Literacy levels for prose proficiency, by urban/rural status, Canada and jurisdictions, population aged 16 and over, 2003	N/A	N/A	Table 4.5
Table D.5.3 Literacy levels for prose proficiency, by age group and sex, Canada and jurisdictions, population aged 16 and over, 2003	N/A	N/A	Table 4.5
Table D.5.4 Literacy levels for prose proficiency, by educational attainment, Canada and jurisdictions, population aged 16 and over, 2003	N/A	N/A	N/A
Table D.5.5 Employment rate, by literacy level for document proficiency, Canada and jurisdictions, population aged 16 to 65, 2003	N/A	N/A	N/A
Table D.5.6 Literacy levels for prose proficiency, Aboriginal (urban) and non-Aboriginal (urban and rural) populations aged 16 and over in Manitoba and Saskatchewan, 2003	N/A	N/A	Table 4.5

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table D.5.7 Literacy levels for prose proficiency, Aboriginal and non-Aboriginal populations aged 16 and over in Yukon, Northwest Territories and Nunavut, 2003	N/A	N/A	Table 4.5
Table D.6.1 Level of educational attainment in the population aged 25 to 64, OECD countries, Canada and jurisdictions, 2004	Table D6.1	Tables D6.1 and D6.4	Table 2.7
Table D.6.2 Distribution of the population aged 25 to 64 with Aboriginal identity, by level of educational attainment and age group, Canada and jurisdictions, 1996 and 2001	N/A	Table D6.7	Table 4.18
Table D.6.3 Level of educational attainment in the population aged 25 to 64, off-reserve Aboriginal population from Western Canada, 2004	N/A	N/A	N/A
Table D.6.4 Distribution of the population aged 25 to 64, by level of educational attainment and age group, Canada and jurisdictions, 1996 and 2001	N/A	Table D6.1	Table 4.20
Table D.6.5 Level of educational attainment in the population aged 25 to 64 with Aboriginal identity, by sex, Canada, 1996 and 2001	N/A	Table 6.7	Table 4.18
Table D.6.6 Level of educational attainment in the population aged 25 to 64, by sex, Canada, 1996 and 2001	N/A	Table D6.1	Table 4.20
Table E.1.1 Participation rate in education, by education level and age, Canada, 1995/1996 and 2005/2006	Table E1.1	Table E1.1	N/A
Table E.1.2 Participation rate in education, by education level and age group, Canada and provinces, 1995/1996 and 2005/2006	N/A	N/A	Table 3.19
Table E.1.3 Comparison of high school education status of two cohorts of 19-year-olds by sex, Canada and provinces, 1999 and 2003	N/A	N/A	N/A
Table E.1.4 Postsecondary education status of 22- to 24-year-olds who were no longer in high school, by sex, Canada and provinces, December 2003	N/A	N/A	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table E.1.5 Percentage of 18- to 20-year-old high school dropouts in 1999 who had graduated from high school, had some postsecondary education or graduated from a postsecondary education program by December 2003, by sex, Canada and provinces	N/A	N/A	N/A
Table E.2.1 Proportion of students who were also working, by education level and age, Canada, 1995/1996 and 2005/2006	Table E1.2	Table E1.2	N/A
Table E.2.2 Proportion of students who were also working, by education level and age group, Canada and provinces,1995/1996 and 2005/2006	N/A	N/A	N/A
Table E.2.3 Distribution of the population aged 15 to 29, by education level, labour force status and age, Canada, 2005/2006	Table E1.3	Table E1.3	N/A
Table E.2.4 Distribution of the population aged 15 to 29, by education level, labour force status and age group, Canada and provinces, 2005/2006	N/A	N/A	N/A
Table E.2.5 Percentage of 1995 and 2000 graduates working full-time, two and five years after graduation, by level of education and province of study	N/A	N/A	Table 5.9
Table E.2.6 Percentage of 1995 and 2000 university graduates working full-time, two and five years after graduation, by sex and field of study, Canada	N/A	N/A	Table 5.8
Table E.2.7 Percentage of 1995 and 2000 college graduates working full-time, two and five years after graduation, by sex and field of study, Canada	N/A	N/A	N/A
Table E.2.8 Median annual earnings of 1995 and 2000 graduates working full-time, two and five years after graduation, by level of education and province of study	N/A	N/A	Table 5.12
Table E.2.9 Distribution of annual earnings of 2000 graduates working full-time, two and five years after graduation, by sex, level of education and province of study	N/A	N/A	N/A

Concordance table of 2007 PCEIP tables with 2005, 2003 and 1999 PCEIP

2007	/2005	2003	1999
Table E.2.10 Median annual earnings of 1995 and 2000 college graduates working full-time, two and five years after graduation, by sex and field of study	N/A	N/A	Table 5.12
Table E.2.11 Median annual earnings of 1995 and 2000 university graduates working full-time, two and five years after graduation, by sex and field of study	N/A	N/A	Table 5.13
Table E.2.12 Migration characteristics of 1995 graduates in the period before enrolling and two years after graduation, Canada and jurisdictions	N/A	N/A	Table 5.16
Table E.2.13 Migration characteristics of 2000 graduates in the period before enrolling and two years after graduation, Canada and jurisdictions	N/A	N/A	Table 5.17
Table E.3.1 Unemployment rates of population aged 15 and over, by level of education, Canada, 1990 to 2006	Table E2.1	Table E2.2	Table 5.3
Table E.3.2 Unemployment rates of 25- to 29-year-olds, by educational attainment, Canada and provinces, 1996 and 2006	Table E2.2	Table E2.3	Table 5.4
Table E.3.3 Unemployment rates of population aged 15 and over, by level of education, off-reserve Aboriginal population from Western Canada, 2004 to 2006	N/A	N/A	N/A
Table E.3.4 Distribution of earners by educational attainment at different earnings levels, Canada, 2000	N/A	Table E2.6	N/A
Table E.3.5 Relative earnings of the 25- to 64-year-old population with income from employment, by level of educational attainment, selected OECD countries (high school and trade-vocational education = 100), 2002, 2003 and 2004	Table E2.3	Table E2.4	N/A
Table E.3.6 Average employment income, by age group and education level, Canada, 2000	Table E2.4	Table E2.5	N/A

Note: N/A = not applicable.

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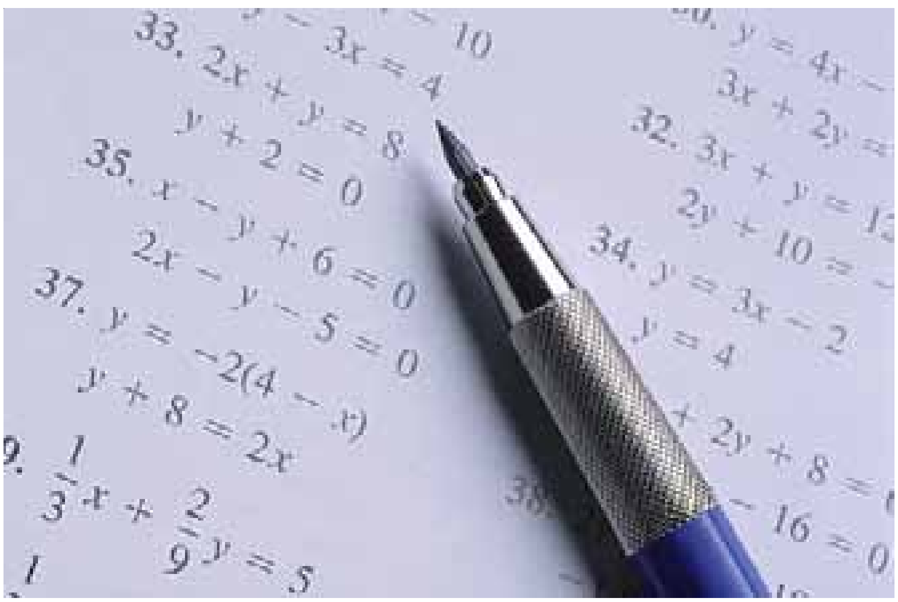
Note of appreciation to staff of the Centre for Education Statistics at Statistics Canada for their invaluable contribution to this report, and to staff of Dissemination Division and Translation Services at Statistics Canada.


33. 2x + y = 8
y + 2 = 0
35. x − y + 6 = 0
2x − y − 5 = 0
37. y = −2(4 − x)
y + 8 = 2x
34. y = 3x − 2
y = 4