# EDUCATION INDICATORS - 2004 edition



# EDUCATION INDICATORS - 2004 edition

Ministère de l'Éducation

Secteur de l'information et des communications

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### **Table of Contents**

		Page
Та	ble of Indicators	4
In	troduction	7
Qı	uébec's Education System: An Overview	13
1	Financial Resources Allocated to Education	16
2	Activities	50
3	Results-Educational Outcomes	72
4	Results-Evaluation of Learning	88
5	Results-Graduation	102
6	The Labour MarketTable of Contents	120
	atistical Appendix Ibles on enrollment, personnel, diplomas and schooling rates	133

### **Table of Indicators**

	Financial Resources Allocated	Activities	Results
	to Education		Educational Outcomes
Education System and Social Context	<ul> <li>1.1 Government Spending on Education in Québec p. 16</li> <li>1.2 Total Educational Spending in Relation to the GDP p. 18</li> <li>1.3 Total Educational Spending Per Capita p. 20</li> <li>1.4 Total Educational Spending per Student in Relation to Per Capita GDP p. 22</li> <li>1.5 Cost of Educating Graduates p. 24</li> </ul>	<ul><li>2.1 School Life Expectancy p. 50</li><li>2.2 Enrollment in Preschool Education p. 52</li></ul>	
Elementary and Secondary Education	<ul> <li>1.6 Total Spending on Elementary and Secondary Education in Relation to the GDP p. 26</li> <li>1.7 School Board Spending in Current and Constant Dollars p. 28</li> <li>1.8 School Board Spending per Student p. 30</li> <li>1.9 Student - Teacher Ratio in School Boards p. 32</li> <li>1.10 Average Salary of Teachers in School Boards p. 34</li> </ul>	<ul> <li>2.3 Enrollment in Secondary IV and V, General Education–Youth Sector p. 54</li> <li>2.4 Enrollment in Secondary Vocational Training–Youth and Adult Sectors p. 56</li> <li>2.5 Enrollment in Secondary General Education–Adult Sector p. 58</li> <li>2.6 Dropping Out of Secondary School p. 60</li> <li>2.7 Grade Repetition and Academic Delay–Youth Sector p. 62</li> </ul>	<ul> <li>3.1 Success in Secondary Cycle Two of General Education–Adult Sector p. 72</li> <li>3.2 Success in Secondary Vocational Training p. 74</li> </ul>
College	<ul> <li>1.11 CEGEP Spending p. 36</li> <li>1.12 Student-Teacher Ratio, Average Teacher Salary and Cost of Teachers per Student in CEGEPs p. 38</li> </ul>	<ul> <li>2.8 College Enrollment– Regular Education p. 64</li> <li>2.9 Immediate Transition From College to University p. 66</li> </ul>	<ul> <li>3.3 Success in Pre-University Programs in Regular College Education p. 76</li> <li>3.4 Success in Technical Programs in Regular College Education p. 78</li> <li>3.5 Duration of Studies in Regular College Education p. 80</li> </ul>
University	<ul> <li>1.13 Total University Spending in Relation to the GDP p. 40</li> <li>1.14 University Spending per Student p. 42</li> <li>1.15 The Salary Costs of University Professors p. 44</li> <li>1.16 Student Financial Assistance and Tuition Fees p. 46</li> <li>1.17 Funded and Sponsored Research in Universities p. 48</li> </ul>	2.10 University Enrollment p. 68 2.11 Training of Researchers p. 70	<ul> <li>3.6 Success and Duration of Studies in Bachelor's Programs</li></ul>

## Table of Indicators (cont.)

	Res	ults	The Labour Market
	Evaluation of Learning	Graduation	
Education System and Social Context		5.1 Highest Diploma or Degree Earnedp. 102	<ul> <li>6.1 Employment Trends by Level of Education</li></ul>
Elementary and Secondary Education	<ul> <li>4.1 Secondary School Examination Results, by Several Variables– Youth Sector p. 88</li> <li>4.2 Regional Disparities in Secondary School Examination Results– Youth Sector p. 90</li> <li>4.3 Secondary V French, Language of Instruction, Examination– Youth Sector p. 92</li> <li>4.4 Writing Achievement of 13-Year-Olds p. 94</li> <li>4.5 Writing Achievement of 16-Year-Olds p. 96</li> <li>4.6 Reading Achievement of 10-Year-Olds</li></ul>	<ul> <li>5.2 Graduation From Secondary School– Youth and Adult Sectorsp. 104</li> <li>5.3 Graduation From Secondary School: Regional Disparities– Youth and Adult Sectorsp. 106</li> <li>5.4 Graduation From Secondary Vocational Training– Youth and Adult Sectorsp. 108</li> <li>5.5 Graduation From Secondary School in Québec and OECD Countries, 2001p. 110</li> </ul>	6.4 Labour Market Integration of Secondary Vocational Training Graduatesp. 126
College	4.7 Ministerial Examination of College Frenchp. 100	5.6 Graduation From College p. 112	<ul> <li>6.5 Labour Market Integration of Graduates of College Technical Programsp. 128</li> <li>6.6 Labour Market Integration of University Graduates</li></ul>
University		<ul> <li>5.7 Graduation From University p. 114</li> <li>5.8 University Degrees by Field of Study p. 116</li> <li>5.9 Graduation From University in Québec and OECD Countries, 2001 p. 118</li> </ul>	

### Introduction

This edition of the *Education Indicators* deals with all levels of education, from kindergarten to university. Some indicators cover the education system as a whole, whereas others focus on a specific level. This year, the regular updates have been made as well as some changes to the sections on the labour market integration of university graduates and the performance of students on Canadian and international examinations. The results presented here are part of the School Achievement Indicators Program (SAIP) and the Progress in International Reading Literacy Study (PIRLS).

The purpose of publishing indicators is to ensure accountability by providing specific information on the resources allocated to education, the various activities pursued by the education system and the results obtained. The indicators are presented under a series of headings classifying recent and historical data that helps trace these developments over time. The 2004 edition contains 58 sections, compared with 56 in 2003. This year, 54 sections have been updated, while 4 are altogether new.

The development of education indicators in Québec is part of a larger movement. The Council of Ministers of Education, Canada (CMEC) has undertaken projects to develop indicators for Canada's provinces; the Organisation for Economic Co-operation and Development (OECD) has done the same for its member countries, and the United Nations Educational, Scientific and Cultural Organization (UNESCO) has also published a series of indicators on education throughout the world. Québec has been an active participant in this worldwide movement, having published the first edition of the Education Indicators in 1986. Examination of the indicators in this publication reveals a number of trends and developments that characterize Québec's education system. Some are explained briefly below. Additional information on these topics and others can be found further on in this booklet.

#### **Financial Resources Allocated to Education**

In 2001-2002, Québec's educational spending, including operating expenses, capital expenses of educational institutions and the administrative expenses of the Ministère de l'Éducation, was estimated at \$17.2 billion, or 7.5% of the gross domestic product (GDP). The share of the GDP allocated to education in the rest of Canada was estimated at 6.4%, and in the United States, at 7.4%. In 2003-2004, 25.1% of the Québec government's program spending was allocated to education.

Total spending amounted to \$2 322 per capita and was similar to that of the average for the rest of Canada. In 2001-2002, the breakdown of total spending by level of education was as follows: elementary and secondary education (school boards and subsidized private schools), 53%; college education (CEGEPs and subsidized private colleges), 12%; and university education, 23%. In addition, other spending, mainly for training funded by Human Resources Development Canada or by Emploi Québec, accounted for 12% of the total.

In 2002-2003, operating expenses in Québec school boards were estimated at \$8 billion, for a per-student average of \$7 425. Per-student spending in Québec school boards was 3.6% higher than in the rest of Canada; however, the student-teacher ratio was 14.5 in Québec, compared with 16.2 in the rest of Canada, whereas the average salary for teachers is relatively lower in Québec, that is, \$50 414 compared with \$57 570 in the rest of Canada.

Per-student operating expenses in CEGEPs were estimated at \$8 469 in 2002-2003, 53% (\$4 472) of which went to teachers. In 2001-2002, university per-student operating and capital expenses, not including funded research, were \$12 373, similar to the average for the rest of Canada (\$12 197). Overall university spending, however, represented a higher percentage of the GDP in Québec (1.75%) than in the rest of Canada (1.52%), mostly because of Québec's lower collective wealth (defined by the per capita GDP). An amount of \$1 044 million was allocated to university research in 2001-2002. The cost of university professors per student was \$4 998 in 2001-2002.

In 2002-2003, 130 183 persons benefited from Québec's Student Financial Assistance Program. A total of \$345.2 million was granted in the form of loans and \$292.4 million, in bursaries. Tuition fees averaged \$1 862 in Québec for full-time undergraduate studies, compared with \$4 644 in the rest of Canada.

## Student Retention from Elementary School to University

Student retention in Québec's education system for 2002-2003 is illustrated on the opposite page. The diagram represents the proportions of a cohort of young people who could expect to enroll and to obtain a diploma or degree in each level of education. The diagram shows that, in a generation

of 100 persons, 99 could be expected to reach the secondary level and 79 to obtain a first secondary school diploma, 38 to obtain a Diploma of College Studies (DCS), 27 to earn a bachelor's degree, 8 to be awarded a master's degree, and 1 to obtain a doctorate. Of the 79 students to obtain a secondary school diploma, 26 would do so in vocational training. However, the educational playing field was far from level for the sexes in 2002-2003: many more male students than female students (26% compared with 13%) could be expected to leave their studies before earning a diploma or degree. At the other extreme, in 2002, 34% of women would obtain at least a bachelor's degree, compared with only 21% of men.

Objectives for the educational success of a greater number of Quebeckers have been set for the year 2010: to have 85% of the students in a generation earn a secondary school diploma before the age of 20; 60%, a DCS; and 30%, a bachelor's degree. Women have already attained the objective set for earning a bachelor's degree.

Children who began elementary school in 2002-2003 can expect to be in school for 15.5 years (assuming that the success rates and retention rates prevailing in the education system in 2002-2003 do not change). Secondary school graduates will have been in school for 11.2 years, at an estimated cost of \$91 402 in 2001-2002; those obtaining a bachelor's degree will have studied for 17.2 years, at an estimated total cost of \$181 291.

### Staying in School and Obtaining a Diploma

The dropout issue is a major concern among educators. Numerous approaches have shed light on this phenomenon. Student Retention of 100 Quebeckers in the Education System, Based on Findings for 2002-2003



<sup>(</sup>a) This figure includes 10 general education graduates likely to obtain another diploma in vocational education.

<sup>(</sup>b) All diplomas earned in the youth sector are included, regardless of the age of the graduates.

<sup>(</sup>c) The most recent year for which data is available is 2001-2002.

<sup>(</sup>d) Students who enroll in university are not limited to those who hold a DCS.

<sup>(</sup>e) The most recent year for which data is available is 2002.

Educational success, defined here as obtaining a diploma, is measured differently for each level and sector of education. The proportion of 19-year-olds who left school without a secondary school diploma was 19.6% in 2002.

The proportion of students in other education sectors who obtained diplomas or degrees and the proportion who left school either temporarily or permanently were determined by observing the number of students who leave school each year. Thus, of the students in Secondary Cycle Two in the adult sector who guit their studies before the age of 20, 57% did so with a diploma, while 43% left school for at least two years. In secondary vocational training, of 100 students of all ages who were enrolled in programs leading to a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) and who left secondary school, 70 did so with a diploma. At the college level, 71% of students in preuniversity programs leading to a DCS obtained a diploma; in technical education, 60% of students obtained a DCS. At the university level, 67% of students leaving bachelor's programs did so with a degree. Of the students enrolled in master's and doctoral programs, 70% and 53% respectively, earned their degree.

### **Evaluation of Learning**

In the subjects for which uniform examinations were administered for the certification of studies by the Ministère de l'Éducation in June 2003, students in Secondary IV and V obtained an average mark of 73.3% and had a success rate of 84.5%. The male students' average was 72.4% and the female students', 74%. Students obtained an average final mark of 69.4% on the examination in Secondary V French, language of instruction, and 82.9% passed. In 2002-2003, 85.8% of college students passed the ministerial examination of college French, language of instruction.

Moreover, 13- and 16-year-old students in Québec distinguished themselves in the writing assessments held in the spring of 2002 as part of the School Achievement Indicators Program (SAIP) of the Council of Ministers of Education, Canada.

#### What Becomes of Graduates

When they finish school, graduates from secondary school, college and university have to make choices. Some decide to continue their education, while others set their sights on the labour market. In 2001-2002, at the end of their college studies, 77.7% of pre-university program graduates under the age of 25 went on to university the following year, compared with 20.8% of graduates from technical programs.

The unemployment rate in March 2003 was 11.7% for students who had graduated in 2000-2001 with a DVS, and 5.6% for students who had graduated from a college technical program. In 2003, the unemployment rate was 4.9% for graduates with a bachelor's degree and 4.6% for master's degree graduates.

Since 1990, the profile of the work force in Québec has changed significantly. In 2003, the increase in the number of jobs was more beneficial to those who had started but not completed postsecondary studies as well as to those who graduated from postsecondary or university studies. During the same period, the number of employed people who did not have a secondary school diploma dropped by 315 000 (or 34%).

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Readers seeking a more in-depth analysis or an up-to-date picture of the situation should consult the individual sections in the pages that follow. The Ministère de l'Éducation and the Conseil supérieur de l'éducation also produce and publish specialized studies on these topics. Finally, general information on the education system is available in the following publications:

- Basic Statistics on Education
- Annual management report of the Ministère de l'Éducation
- Annual Report on the State and Needs of Education, published by the Conseil supérieur de l'éducation
- Strategic Plan of the Ministère de l'Éducation

This information is also available on the Web site of the Ministère de l'Éducation at <a href="http://www.meq.gouv.qc.ca">http://www.meq.gouv.qc.ca</a>.

### **Québec's Education System: An Overview**

Québec's education system offers a wide range of educational programs and services from kindergarten to university.

#### **Elementary and Secondary Education**

Elementary school normally lasts six years; secondary school, five. Children are admitted to the first year of elementary school in the school year in which they will have turned 6 years of age by October 1. Kindergarten is not compulsory, but, as of the fall of 1997, almost all 5-year-olds attend full-time. School attendance is compulsory until the year in which students turn 16 years of age, which normally corresponds to Secondary IV.

Elementary education is offered in French, English or a Native language, and secondary education, in French or English. Students deemed eligible to study in English are chiefly those whose father or mother attended English elementary school in Canada. Public elementary and secondary education is provided by school boards. The school boards are managed by school commissioners, who are elected by residents in the territory under the school board's jurisdiction. The school boards hire the staff they need to provide educational services. In 2002-2003, the Québec government funded 78% of school board operating expenses, while local taxes accounted for 14% of school board revenues, and other sources provided the remaining 8%.

In July 1998, the number of school boards was reduced to 72, and they were organized along linguistic lines, except for three with special status. There are 60 French school

boards and 9 English school boards, with enrollments ranging from 800 to 76 900, for a median size of approximately 9 570 students. The special-status school boards serve French-speaking and English-speaking students in the Côte-Nord region (Commission scolaire du Littoral) and Native students in the Nord-du-Québec region (Cree School Board and Kativik School Board).

Elementary and secondary education is also provided by private institutions, some of which are subsidized by the Ministère de l'Éducation. The private school system accounts for 5% of elementary students and 17% of secondary students in the youth sector. About half of the operating expenses of subsidized private institutions are funded by the Québec government. Elementary and secondary education is also offered by some public institutions that are not part of the school board system but that fall under Québec or federal government jurisdiction; these institutions account for 0.3% of students.

Secondary school diplomas are awarded by the Minister of Education to students who fulfill the certification requirements set by the Minister. A Secondary School Diploma (SSD) generally leads to admission to college. A Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) generally leads to the labour market, but also allows admission to college. The harmonization of educational services offered in the youth sector and the adult sector is a feature of Québec's education system. Adult education leads to secondary school diplomas that are the same as or equivalent to those offered in the youth sector.

#### **College Education**

Students may enroll in college programs leading to a Diploma of College Studies (DCS) or in short technical programs leading to an Attestation of College Studies (ACS). College education theoretically consists of a two-year program for students enrolled in pre-university education or a three-year program for those in technical education; technical programs aim primarily at entry into the labour market, but also allow admission to certain disciplines in university.

Students may pursue their college studies in the language of instruction of their choice. Public college education is provided by CEGEPs (a French acronym that stands for general and technical college). CEGEPs are administered by boards composed of representatives from different interest groups, including members of the public, parents, students, staff members and college administrators. In 2002-2003, the Québec government funded 86% of CEGEP operating expenses. Private educational institutions served 11% of college students, and 55% of their expenses were funded by the government. College education is also available at a few institutions associated with ministries other than the Ministère de l'Éducation and by the Macdonald Campus of McGill University.

A DCS is awarded to a student by the Minister of Education following the recommendation of the institution attended. For shorter programs, other types of certification are awarded: the Certificat d'études collégiales (CEC-certificate of college studies), the Diplôme de perfectionnement de l'enseignement collégial (DPEC-diploma of advanced college studies) and the ACS. These are issued directly by the college. CECs and DPECs have been virtually phased out, as students stopped being admitted to programs leading to these types of certification in 1994.

#### **University Education**

Québec has English and French universities; students are free to attend a university of their choice. University education is divided into three levels of studies. The first leads to a bachelor's degree (generally after three years or, less frequently, four years in certain programs), the second to a master's degree, and the third to a doctoral degree. Universities also award certificates, diplomas and other forms of attestation to certify the successful completion of short programs. In 2002-2003, 54% of university expenses were subsidized by the Québec government.

### Ministère de l'Éducation

The Ministère de l'Éducation fulfills different functions for the various levels of education. For elementary, secondary and college education, the Ministère develops programs and determines objectives and often content or standards. In terms of labour relations, it negotiates and signs provincial agreements. In terms of financing, it establishes a standard framework and provides the largest share of resources. At the university level, it promotes the advancement of teaching and research by providing universities with the resources required for operation and development while respecting their autonomy and fostering collaboration among the various partners.

## The Education Reform and the Strategic Plan of the Ministère de l'Éducation

In the fall of 1996, following the Estates General on Education, the Ministère de l'Éducation announced the main guidelines

for the reform of the education system. Seven major lines of action were defined:

- Provide services for young children, in particular, by implementing full-time kindergarten.
- Teach the essential subjects throughout elementary and secondary school.
- Give more autonomy to schools.
- Support Montréal schools, given the particular challenges they are facing.
- Intensify the reform of vocational training and technical education.
- Consolidate and rationalize postsecondary education.
- Provide better access to continuing education.

Concrete changes have already taken place: in particular, kindergarten was made full-time for 5-year-olds in the fall of 1997. At the secondary level, the diversification of vocational training options has also been undertaken and will provide access to programs leading to a DVS after Secondary III and the implementation of programs leading to an Attestation of Vocational Education (AVE) that will prepare students who have completed Secondary II to practise a semiskilled occupation.

In addition, as part of the Ministère de l'Éducation's 2000-2003 strategic plan, educational institutions at the elementary, secondary and college level were required to develop and implement success plans, and universities, performance contracts, starting in 2000. As of December 2002, section 83 of the *Education Act* (R.S.Q., c. I-13.1) requires elementary and secondary educational institutions to inform the parents and the community served by the school of the services

provided by the school and to report on the level of quality of such services. Section 16.2 of the *General and Vocational Colleges Act* (c. C-29) requires colleges to distribute a document explaining the success plan to the students and the staff of the college. Finally, section 4.6 of *An Act respecting educational institutions at the university level* (c. E-14.1) requires a report on the performance contracts that indicates graduation rates, the average duration of studies, student supervision measures and research activity programs.

### **1.1 Government Spending on Education** in Québec

**S** pending on education in Québec was estimated at \$11.5 billion in 2003-2004, accounting for 25.1% of government program spending. Since the beginning of the 1990s, the portion of government program spending allocated to education has varied but, in general, it has been in decline.

Québec government program spending was slashed from \$36.3 billion to \$35.6 billion between 1992-1993 and 1997-1998 in an attempt to reduce the deficit. By 1998-1999, however, it was once again on the rise, reaching \$38.0 billion that year and \$45.8 billion in 2003-2004.

Table 1.1 presents Québec government program spending in the three major sectors: Education; Health and Social Services; and Employment, Social Solidarity and Family. Spending on other portfolios and programs are grouped together under "Other portfolios." The table makes it possible to compare changes in the portion of government spending allocated to education with those in the other major sectors.

A comparison of program spending in the major sectors during the period considered reveals significant changes in the portion of spending allocated to each sector. The portion allocated to Health and Social Services has increased significantly since 1992-1993, from 35.0% to 41.7% in 2003-2004, while the portion allocated to Employment, Social Solidarity and Family rose from 12.6% to 12.8% during the same period.

The portion of spending allocated to Employment, Social Solidarity and Family fluctuated during the period considered due to significant variations in economic conditions. The decrease in spending observed as of 1999-2000 is partly attributable to an upswing in economic conditions (fewer households benefiting from social assistance).

Education and Other Portfolios also saw a decrease in the portion of program spending allocated to them. Between 1992 and 1998, the portion of government program spending allocated to education dropped 3.4 percentage points, from 28.6% to 25.2%. This decrease was a result of budget cuts and strict cost-cutting measures in school boards, as well as a drop in student enrollment.

The portion of program spending allocated to education varied only slightly between 1998 and 2003, and was 25.1% in 2003-2004. While this proportion is very close to that observed in 1998-1999 (25.2%), it is important to note that the actual amount of financial resources allocated to education in 2003-2004 was \$11.5 billion, or \$1.9 billion more than in 1998-1999 (a 20% increase). That the portion of program spending allocated to education decreased only slightly during this period can be explained primarily by the fact that Health and Social Services saw a greater increase in spending between 1997-1998 and 2003-2004 than did education (\$6.2 billion, or 48%).

The \$1.9-billion increase in educational spending since 1998 can be partly explained by additional spending in education subsequent to the Québec and Youth Summit which took place in February 2000, the agreements between the Québec government and the unions, the gradual restructuring of salary scales, and support measures for educational institutions.

Government spending on education in Québec was estimated at \$11.5 billion in 2003-2004, \$1.9 billion more than in 1998-1999.

Table 1.1	
Québec gover	nment
program spen	nding,
by sector <sup>1</sup> (%	)

1992- 1993	1994- 1995	1996- 1997	1998- 1999	2001- 2002	2003- 2004 <sup>e</sup>
28.6	28.2	28.4	25.2	24.8	25.1
35.0	35.4	36.4	38.4	40.4	41.7
12.6	13.7	14.3	14.9	13.6	12.8
23.8	22.7	20.9	21.5	21.2	20.4
100.0	100.0	100.0	100.0	100.0	100.0
	1993 <b>28.6</b> 35.0 12.6 23.8	1993199528.628.235.035.412.613.723.822.7	19931995199728.628.228.435.035.436.412.613.714.323.822.720.9	199319951997199928.628.228.425.235.035.436.438.412.613.714.314.923.822.720.921.5	1993199519971999200228.628.228.425.224.835.035.436.438.440.412.613.714.314.913.623.822.720.921.521.2

e: Estimates

1. Data related to program spending is presented according to the 2003-2004 budgetary structure.



### **1.2 Total Educational Spending in Relation** to the GDP

In 2001-2002, Québec allocated 7.5% of its gross domestic product (GDP) to education,<sup>1</sup> compared with the Atlantic Provinces at 8.3%, Ontario at 5.9%, and Western Canada at 6.6%. The United States spent 7.4% of its GDP on education. When this indicator is considered, it is evident that Québec educational spending remains higher than the average for the other provinces and the United States.

During the 1980s, the share of the GDP earmarked for education in Québec dropped considerably, while it increased in the rest of Canada and the United States. The fact that Québec has moved closer to the North American average can largely be explained by the more restrictive measures adopted by the Québec government to control spending during that period. Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose in all regions of Canada and in the United States.

However, between 1993 and 2001, the share of the GDP spent on education decreased in all regions of Canada, in particular because of budget cuts. In Québec it dropped from 8.7% to 7.5%, and in the rest of Canada, from 7.6% to 6.4%. In the United States, however, it increased slightly and stood at 7.4% in 2001-2002.

If the share of the GDP allocated to education in Québec is compared with that allocated by the member countries of the Organisation for Economic Co-operation and Development (OECD) in 2000, Québec has the highest educational spending. This is primarily because teaching costs are relatively higher in Québec than the OECD average. The fact that postsecondary education is more developed in Québec than in the OECD countries also helps explain Québec's higher level of educational spending.<sup>2</sup>

To explain why Québec invested a greater share of its GDP in education than the rest of Canada in 2001-2002, the following four factors can be considered: per-student spending;

collective wealth (defined by the per capita GDP); the school attendance rate (the ratio of total school enrollment to the population between 5 and 24 years old); and the demographic factor (the ratio of the 5-24 age group to the total population). Per-student spending in Québec, which is comparable to the average for the rest of Canada, did not contribute significantly to the gap between the share of the GDP allocated to education in Québec and that allocated in the rest of Canada. The slightly higher school attendance rate in Québec helps explain why Québec invests a greater share of its GDP in education than the rest of Canada, but it is partially offset by the demographic factor (older population in Québec). The most important factor underlying the gap between Québec and the rest of Canada is Québec's lower per capita GDP. It is therefore Québec's lesser collective wealth that primarily explains why it invests relatively more in education.

There is, however, an important point to be made about the similarity between per-student spending in Québec and in the rest of Canada; it concerns differences in the cost of living. Since the cost of living is lower in Québec (about 15% lower than in Ontario, for example), this means that Québec's educational spending is that much greater.

In 2001-2002, the share of the GDP allocated to education was higher in Québec than in the rest of Canada as a whole, and in the United States. However, compared with the situation that prevailed in the early 1980s, the gap has narrowed.

<sup>1.</sup> In 2001-2002, Québec spent \$17.2 billion of its \$229.6-billion GDP on education. The concept of total spending used in this section is defined at the bottom of Table 1.2.

<sup>2.</sup> The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 2000.

#### Table 1.2

Total educational spending<sup>1</sup> in relation to the GDP: Québec, other regions of Canada, and the United States (%)

	1981- 1982	1989- 1990	1993- 1994	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Québec	9.3	7.3	8.7	7.6	7.5	7.5
Canada, excluding Québec	6.5	6.7	7.6	6.7	6.4	6.4
Atlantic Provinces Ontario Western Canada	10.5 6.5 5.7	9.3 6.2 6.6	9.8 7.4 7.1	8.6 6.2 6.9	8.3 5.9 6.6	8.3 5.9 6.6
Canada	7.1	6.8	7.9	6.9	6.6	6.6
United States	6.3	7.0	7.2	7.3	7.3	7.4

e: Estimates

1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).



Total educational spending in relation to the GDP: Québec, Canada excluding Québec, and the United States (%)



### 1.3 Total Educational Spending Per Capita

I n 2001-2002, total educational spending per capita<sup>1</sup> was estimated at \$2 322, in Québec, higher than in the Atlantic Provinces (\$2 238) and Ontario (\$2 212), but lower than in Western Canada (\$2 492). Graph 1.3 shows the relative change in total educational spending per capita for these regions between 1981 and 2001.

Table 1.3a shows the data on total spending per capita by level of education in 2001-2002.<sup>2</sup> These figures indicate the distribution of educational spending among the levels of education for the regions in question. The differences in total per capita spending observed between regions for a given level of education are explained in part by the organizational differences between the education systems. Thus, the fact that total per capita spending at the elementary and secondary levels is lower in Québec than in the rest of Canada (with the exception of the Atlantic Provinces) is explained in part by the shorter duration of studies in Québec (11 years in Québec, and normally 12 years in the rest of Canada). Conversely, total spending per capita at the college level is higher in Québec than in the rest of Canada, because of the unique characteristics of our college network (including the mandatory two years of college before entering university).<sup>3</sup>

Table 1.3b shows data on the direct sources of funds for total educational spending. These figures indicate that in Québec, provincial subsidies make up a large part of the financing for education (68.8%). This percentage is higher than in the Atlantic Provinces (66.7%), Ontario (49.5%) and Western Canada (54.3%).

In the other provinces, financing sources other than the government play a larger role for one or more of the following reasons: local funding is more significant, tuition fees are higher, or the educational institutions in the other regions are in a better position to obtain other sources of funding.<sup>4</sup> In 2001-2002, university students in Québec paid tuition fees that were 41% ( $$1\,842$ ) of the amount charged in Ontario ( $$4\,492$ ).<sup>5</sup> Furthermore, unlike in Québec, students in the other provinces enrolled at a level equivalent to college may be required to pay tuition fees. Thus, on average in 2001-2002, students enrolled full-time in programs leading to a diploma or certificate in a technical college in Ontario were required to pay \$1,752 in tuition fees, about \$200 in other compulsory fees and between \$800 and \$1,000 for textbooks and supplies.

In 2001-2002, total educational spending per capita in Québec was comparable to that of the rest of Canada.

5. See Section 1.16.

<sup>1.</sup> Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).

<sup>2.</sup> The "Other" category in Table 1.3a includes training financed by Human Resources Development Canada, federal spending on language courses, vocational training offered in federal and provincial correctional institutions, various federal and provincial training programs (for example, those offered by Emploi Québec) and expenses of private trade schools, art schools, music schools, etc. (as defined by Statistics Canada).

<sup>3.</sup> Regarding the organizational differences at the college level, see Section 1.4.

<sup>4.</sup> It must be noted, however, that there are comparatively more private schools in Québec than in the rest of Canada, and that tuition fees paid to the schools are included in the other sources of funding.

#### Table 1.3a

**Total educational** spending per capita: Québec and the other regions of Canada, 2001-2002<sup>e</sup> (\$)

	Elementary and secondary	College <sup>1</sup>	University	Other <sup>2</sup>	Total
Québec	1 222	287	545	268	2 322
Canada, excluding Québeo Atlantic Provinces Ontario Western Canada	t <b>1 353</b> 1 129 1 344 1 399	<b>138</b> 101 130 153	<b>556</b> 624 533 565	<b>293</b> 384 205 375	<b>2 340</b> 2 238 2 212 2 492
Canada	1 322	174	554	287	2 337

#### Table 1.3b

Direct sources of funds for total educational spending: Québec and the other regions of Canada, 2001-2002<sup>e</sup> (%)

	Provincial government	Federal government	Local government	Other sources	Total
Québec	68.8	8.3	6.1	16.8	100.0
Canada, excluding Québec	53.4	8.9	17.6	20.1	100.0
Atlantic Provinces	66.7	12.1	3.0	18.2	100.0
Ontario	49.5	6.9	21.7	21.9	100.0
Western Canada	54.3	10.0	16.7	19.0	100.0
Canada	57.0	8.8	14.9	19.3	100.0

Estimates e:

1. Regarding the organizational differences at the college level, see Section 1.4.

2. See Note 2 at the bottom of the text.

#### Graph 1.3

Total educational spending per capita: Québec, Ontario and Western Canada (in current dollars)



21

### **1.4 Total Educational Spending per Student** in Relation to Per Capita GDP

Total per-student spending is an indicator of financial investment in education, and the per capita gross domestic product (GDP) is an indicator of collective wealth. Relating the two provides an indicator of the relative financial investment in education, that is, per-student spending expressed as a percentage of the per capita GDP. To calculate this indicator, the concept of per-student spending is more inclusive than that used in other sections of this chapter.<sup>1</sup>

In 2001-2002, total per-student spending at the elementary and secondary levels (\$7492) was higher in Québec than in the Atlantic Provinces (\$6846), but lower than in Ontario (\$7552) and Western Canada (\$7835).<sup>2</sup>

Total per-student spending at the college level was higher in Québec (\$12 860) than in the Atlantic Provinces (\$11 372) and in Ontario (\$11 735), but lower than in Western Canada (\$14 211) in 2000-2001 (the most recent year for which data is available for this level). The comparisons of spending at the college level are provided as a reference only, since this level cannot truly be compared between provinces because of significant organizational differences. For example, in Québec, a Diploma of College Studies in preuniversity education is the usual requirement for admission to university, whereas in the other provinces, a secondary school diploma is generally sufficient. In Ontario, collegelevel technical programs are offered at colleges of applied arts and technology. In some cases, the programs offered can be compared, to a certain extent, with vocational training programs offered by Québec school boards. More often, they are comparable to the technical education programs offered by Québec CEGEPs. Furthermore, in some provinces in Western Canada (especially Alberta and British Columbia), students can do their first two years of university studies in a college, and then finish their studies at a university. Total per-student spending at the university level in 2001-2002 was slightly higher in Québec (\$17 828) than in Ontario (\$17 756), but lower than in the Atlantic Provinces (\$18 384) and in Western Canada (\$21 719).<sup>3</sup> The previously mentioned organizational differences partly explain the gaps observed between the regions.

Table 1.4b shows total per-student spending in relation to the per capita GDP. Factoring in collective wealth, as measured by the per capita GDP, reveals that Québec's collective financial investment in education remains higher than the average for the rest of Canada. The gaps with Ontario are particularly significant, because of the considerable difference in the provinces' collective wealth.

When collective wealth is factored in, Québec's collective investment in education remains higher than the average for the rest of Canada.

- 2. See Section 1.8 for a comparison of school board spending per student.
- 3. See Section 1.14 for a comparison of university spending per student.

<sup>1.</sup> Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada). Moreover, in the calculation of total per-student spending at the university level, funded research has been excluded. Also, in the calculation of per-student spending at the college and university levels, a standardized accounting of student enrollment for all the provinces based on the following convention has been used: part-time enrollments are converted into full-time equivalents by dividing them by 3.5, and they are then added to the full-time enrollments.

Table 1.	4a
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Total per-student educational spending: Québec and the other regions of Canada, 2001-2002<sup>e</sup> (2000-2001<sup>e</sup> for the college level) (\$)

#### Table 1.4b

Total per-student educational spending in relation to the per capita GDP: Québec and other regions of Canada, 2001-2002<sup>e</sup> (2000-2001<sup>e</sup> for the college level) (%)

	Elementary and secondary	College	University
Québec	7 492	12 860	17 828
<b>Canada, excluding Québec</b> Atlantic Provinces Ontario Western Canada	<b>7 636</b> 6 846 7 552 7 835	<b>12 828</b> 11 372 11 735 14 211	<b>19 464</b> 18 384 17 756 21 719
Canada	7 606	12 840	19 072
	Elementary and secondary	College	University
Québec	24.1	42.2	57.4
<b>Canada, excluding Québec</b> Atlantic Provinces Ontario Western Canada	<b>20.9</b> 25.5 20.2 20.8	<b>35.6</b> 43.5 31.6 38.3	<b>53.3</b> 68.4 47.6 57.6
Canada	21.6	37.0	54.2
- Estimatos			

e: Estimates

#### Graph 1.4

Total per-student educational spending in relation to the per capita GDP: Québec, Ontario and Western Canada, 2001-2002 (2000-2001 for the college level) (%)



### **1.5 Cost of Educating** Graduates

In 2001-2002, the total cost of a secondary school diplo-I ma was estimated at \$91 402, of a college-level preuniversity or technical diploma, at \$117 108 and \$146 715, respectively, and of a bachelor's degree, at \$181 291.

The concept of expenses used here includes operating expenses (excluding funded research), capital expenses of educational institutions, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of financial assistance to students, and other education expenses. For graduates with a Secondary School Diploma (SSD), the cost is based on all the years during which school was attended at the preschool, elementary (regular) and secondary (general) levels. For students graduating with a Diploma of College Studies (DCS) in pre-university education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (pre-university) levels. For students graduating with a DCS in technical education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (technical) levels. For graduates with a bachelor's degree, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general), college (pre-university) and undergraduate levels. To calculate the cost of educating a graduate, an estimate of the annual spending per student at each level of education in

2001-2002 was used,<sup>1</sup> as well as the average duration of studies completed by those who obtained the diploma or degree.<sup>2</sup> The expenses incurred by students leaving school without a diploma or degree were not taken into account.

As noted in Section 1.3, government subsidies make up a large part of the funding for education. However, the government also reaps a large portion of the benefits related to the earning of diplomas or degrees.

When we compare the income of two individuals with different levels of schooling, we usually observe that the person with the higher level of education is the one with the higher income (see Graph 1.5). This extra income benefits not only the person with the higher level of education, but society as well. In fact, through taxation, governments recover a large portion of the extra income earned by the individual with the higher level of education. There are, however, a number of other public benefits in addition to the supplementary tax income produced by an increase in the number of graduates. For example, people with a higher level of education cost less to society in terms of the use of certain public services.<sup>3</sup>

In 2001-2002, the total cost of a bachelor's degree was approximately \$180 000 in Québec.

<sup>1.</sup> Here, the university level encompasses undergraduate, graduate and doctoral studies. The cost of studies leading to a bachelor's degree is therefore slightly overestimated.

<sup>2.</sup> At the university level, one year of studies equals two full-time terms. A part-time term is counted as one third of a full-time term at the university level and one quarter at the college level. Also see Note 1 at the bottom of Table 1.5.

З. See Marius Demers, "The Return on Investment in Education," Education Statistics Bulletin 8 (Québec: Ministère de l'Éducation, Direction de la recherche, des statistiques et des indicateurs, February 1999). This document examines the profitability of investing in education and is available on the Internet at <http://www.meq.gouv.qc.ca>. For an analysis of the situation from the point of view of young people acquiring additional education, see Marius Demers, "Education Pays!," Education Statistics Bulletin 16 (June 2000).

Table 1	1.5
Cost of	f educating
gradua	ites,
2001-2	2002

	Average duration of studies <sup>1</sup> (years)	Cost of education $(\$)^e$
Secondary School Diploma	11.2	91 402
Diploma of College Studies Pre-university education Technical education	13.6 15.0	117 108 146 715
Bachelor's degree	17.2	181 291

e: Estimates

1. Preschool education is included in the cost but not in the average duration of studies indicated in the table, since it is not generally recognized as a year of academic pursuit. The real durations indicated in the table are longer than the theoretical durations for a number of reasons, including students having to retake a course after failing it and changes made to a program while students are enrolled in it.



### **1.6 Total Spending on Elementary and Secondary Education** in Relation to the GDP

In 2001-2002, it was estimated that 3.9% of Québec's gross domestic product (GDP) was spent on elementary and secondary education,<sup>1</sup> compared with the Atlantic Provinces at 4.2%, Ontario at 3.6%, and Western Canada at 3.7%. In the United States, the share of the GDP allocated to elementary and secondary education was estimated at 4.5%. Québec therefore spent a larger share of its GDP on elementary and secondary education than the average for the rest of Canada. It should also be kept in mind that the duration of elementary and secondary education in Québec is shorter.<sup>2</sup>

In 1981-1982, the gap between the share of the GDP allocated to elementary and secondary education in Québec and in the rest of Canada was very wide (1.7 percentage points, or 1.4 billion).

Between 1981 and 1989, the share of the GDP allocated to elementary and secondary education dropped from 6.0% to 4.4% in Québec, while it remained stable in the rest of Canada (as a whole) and rose in the United States. The gap of 1.7 percentage points recorded in 1981-1982 between Québec and the rest of Canada narrowed steadily in subsequent years and disappeared almost entirely in 1989-1990. That same year, the share of the GDP spent on elementary and secondary education in Québec was slightly higher than in the United States. The fact that Québec has now reached the North American average can be explained largely by the more restrictive measures adopted by the Québec government to control spending during that period.

Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose almost everywhere in Canada and the United States, such that, in 1993-1994, Québec spent 4.9% of its GDP on elementary and secondary education, that is, the same percentage as the rest of Canada, while the United States spent 4.3%.

Between 1993 and 1998, the share of the GDP spent on elementary and secondary education decreased in Québec and the other provinces, following budget cuts to school boards. In the United States, it remained essentially stable.

Since 1998-1999, in spite of a major reinvestment in education in Québec, the share of the GDP spent on education remained stable at 3.9%. This is due primarily to the fact that, despite a large increase in Québec's per-student spending, the per capita GDP also rose significantly. During this period, Québec's student enrollments also dropped slightly. Elsewhere in Canada, per-student spending rose at a slower rate than the per capita GDP and this in large part explains why the GDP allocated to elementary and secondary education decreased in the other provinces. In the United States, spending on elementary and secondary education accounted for 4.5% of the GDP in 2001-2002.

When the share of Québec's GDP spent on elementary and secondary education is compared with that of the member countries of the Organisation for Economic Co-operation and Development (OECD) in 2000, Québec ranked near the average for the OECD countries considered.<sup>3</sup>

In 2001-2002, Québec spent a larger share of its GDP on elementary and secondary education than the rest of Canada.

-

<sup>1.</sup> In 2001-2002, Québec spent \$9.0 billion of its \$229.6-billion GDP on public and private elementary and secondary education. The concept of total spending used in this section is defined at the bottom of Table 1.6.

<sup>2.</sup> The duration of elementary and secondary education is 11 years in Québec and normally 12 years in the other regions considered.

*<sup>3.</sup>* The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 2000.

#### Table 1.6 Spending on elementary and secondary education<sup>1</sup> in relation to the GDP: Québec, the other regions of Canada, and the United States (%)

	1981- 1982	1989- 1990	1993- 1994	1998- 1999	2000- 2001	2001- 2002 <sup>e</sup>
Québec	6.0	4.4	4.9	3.9	3.9	3.9
<b>Canada, excluding Québec</b> Atlantic Provinces Ontario Western Canada	<b>4.3</b> 6.9 4.4 3.7	<b>4.3</b> 5.7 4.3 4.1	<b>4.9</b> 5.6 5.1 4.4	<b>4.3</b> 4.9 4.3 4.2	<b>3.7</b> 4.2 3.6 3.6	<b>3.7</b> 4.2 3.6 3.7
Canada	4.7	4.3	4.9	4.2	3.7	3.8
United States	3.8	4.2	4.3	4.4	4.4	4.5

e: Estimates

1. These figures include the operating and capital expenses for public and private elementary and secondary education, the Ministère's administrative expenses (the portion attributable to elementary and secondary education), government contributions to employee pension plans and other education expenses (as defined by Statistics Canada).



### **1.7 School Board Spending in Current** and Constant Dollars

n 2002-2003, school board spending in Québec was estimatled at \$8.0 billion, student enrollments at approximately 1.1 million, and per-student spending in current dollars at \$7 425.1

Previous editions of the *Education Indicators* showed that during the 1970s, school board spending rose significantly in Québec in a context of high inflation. Spending can also be expressed in constant dollars, so as to factor in the rise in the price of goods and services used to provide educational services.<sup>2</sup> The figures show that spending in constant dollars remained relatively stable between 1976 and 1981, while enrollments declined by 17%. This resulted in a significant increase in real funds available per student. The following factors contributed to this rise: a lower student-teacher ratio, an increase in teacher gualifications recognized for salary purposes, and the higher cost of job security for teachers.

In the 1980s, a lower inflation rate, salary restrictions and generally more conservative budget policies considerably curbed the rapid rise in school board spending (in current and constant dollars).

In the early 1990s, per-student spending in constant dollars increased slightly, and then fell again so that in 1998-1999, it was slightly lower than in 1990-1991. The decrease observed between 1994 and 1998 can be explained by budget cutbacks and the application of cost-cutting measures in Québec school boards. The introduction of full-time kindergarten in 1997-1998 also contributed to the drop in perstudent spending.<sup>3</sup>

Between 1998 and 2002, there was a 25% increase in perstudent spending in current dollars and an 11% increase in constant dollars. These increases are primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers,<sup>4</sup> of the signing of a new collective agreement and of support measures for school boards (additional funding for child-care services,<sup>5</sup> implementation of the education reform, special education policy, professional development of teachers and hiring of technicians for the development of information technologies, support for economically disadvantaged areas, funding to reduce the fees charged to parents, etc.) and, in more general terms, of the amounts reinvested by the government in education.<sup>6</sup>

From 1998 to 2002, school board spending per student increased by 11% in constant dollars.

- 3. The introduction of full-time kindergarten resulted in an increase in the "relative weight" of a relatively inexpensive sector of enrollments.
- 4. Salary scales were adjusted retroactively to 1995-1996 but the school boards' financial statements do not take them into account until 1999-2000; this explains the large increase observed in 1999-2000 (significant adjustment of salary scales compared with the previous year). It is important to note, however, that the amounts paid retroactively in 1999-2000 for past years are not considered for the purpose of calculating per-student spending in 1999-2000 and that perstudent spending for past years has not been adjusted.
- 5. Following a policy limiting the financial contribution of parents to \$5 a day for each child enrolled on a regular basis in child-care services.
- 6. For example, additional money for "other expenses" to allow for increases in amounts other than those related to human resources.

<sup>1.</sup> See Note 1 at the bottom of Table 1.7. The concept of spending is the same as that used in Section 1.8.

<sup>2.</sup> The school boards' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services. Changes in spending in constant dollars reflect changes in the real funds available to school boards.

Table 1.7 School board spending <sup>1</sup>		1990- 1991	1994- 1995	1998- 1999	2000- 2001	2001- 2002	2002- 2003º			
	Total spending (in millio	Total spending (in millions of dollars)								
	In current dollars In constant 2002-2003 dollars <sup>2</sup>	6 001.8 7 462.2	6 583.7 7 710.2	6 607.6 7 460.3	7 437.8 7 859.9	7 757.4 7 904.4	8 036.6 8 036.6			
	Spending per student (\$	Spending per student (\$)								
	In current dollars In constant 2002-2003 dollars <sup>2</sup>	5 634 7 004	6 083 7 124	5 919 6 683	6 797 7 182	7 117 7 252	7 425 7 425			

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities), capital expenses financed directly from current revenues, and transfer expenses. The direct contribution of the Québec government to school board employee pension plans is included in the operating expenses.

2. See Note 2 at the bottom of the text.



Graph 1.7 School board spending per student in current dollars and in constant 2002-2003 dollars

### 1.8 School Board Spending per Student

In 2001-2002, spending per student<sup>1</sup> by Québec school boards was estimated at \$7 117, compared with the Atlantic Provinces at \$6 096, Ontario at \$6 868, and Western Canada at \$7 037. In the United States, per-student spending was estimated at \$9 282.<sup>2</sup>

Previous editions of the *Education Indicators* showed that spending per student rose more rapidly in Québec than in the rest of Canada and the United States in the 1970s. The sharper decline in Québec enrollments accounted for a large increase in per-student spending, owing to constraints that prevented expenses from being slashed in proportion to the drop in enrollments. More costly salary policies, a greater decrease in the student-teacher ratio and the higher cost of job-security policies also contributed to the more rapid rise of per-student spending in Québec during this period.

In the 1980s, a reversal occurred: per-student spending rose more slowly in Québec than in the rest of Canada and the United States. In Québec, the slower growth in spending was a result of salary-restriction measures applied to school board employees. During that time, the working conditions of school board employees were improving significantly in Ontario and in the United States, with the result that perstudent costs increased at a faster pace in these regions than in Québec.

Between 1990 and 2001, per-student spending varied in Canada and, in 2001-2002, it was slightly higher in Québec than the Canadian average. It should be noted that perstudent spending in Québec increased by 20% between 1998 and 2001. This increase is primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers, the signing of a new collective agreement, support measures for school boards and, in more general terms, amounts reinvested by the government in education.<sup>3</sup> In the United States, per-student spending was on an upward trend in 2001-2002 and was 30% higher than in Québec. A comparison with the United States as a whole for 2001-2002 reveals that per-student spending was higher in 45 U.S. states<sup>4</sup> than in Québec and Ontario, and lower in 6 states.

In 2001-2002, school board spending per student in Québec was slightly higher than the Canadian average, but lower than in the United States.

- 3. See Section 1.7.
- 4. Including the District of Columbia.

<sup>1.</sup> The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated based on Statistics Canada data.

<sup>2.</sup> For the purposes of this comparison, per-student spending in the United States is expressed in Canadian dollars. American dollars are converted to Canadian dollars using the purchasing power parity rates (PPP) set by the OECD. "Purchasing Power Parities (PPPs) are the rates of currency conversion that equalize the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. Thus, PPPs are the rates of currency conversion which eliminate differences in price levels between countries." (OECD, National Accounts).

#### Table 1.8

School board spending per student:<sup>1</sup> Québec, the other regions of Canada, and the United States (in current dollars<sup>2</sup>)

	1990- 1991	1994- 1995	1998- 1999	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Québec	5 634	6 083	5 919	6 424	6 797	7 117
Canada, excluding Québec	5 607	6 172	6 498	6 529	6 660	6 870
Atlantic Provinces	4 538	4 959	5 403	5 816	5 866	6 096
Ontario	6 1 1 4	6 696	6 834	6 669	6 666	6 868
Western Canada	5 235	5 782	6 306	6 502	6 828	7 037
Canada	5 613	6 152	6 370	6 506	6 690	6 924
United States	6 551	7 114	7 950	8 435	8 873	9 282

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities) and capital expenses financed directly from current revenues. The direct contribution of the Québec government to school board employee pension plans is included in the operating expenses.

2. See Note 2 at the bottom of the text.





### **1.9 Student-Teacher Ratio** in School Boards

n 2002-2003, the average number of students per L teacher in school boards was estimated at 15.7 in Québec and 15.5 in the United States. The student-teacher ratio is calculated by dividing the number of students by the number of teachers in the school boards. Data on enrollments and teaching personnel is expressed in full-time equivalents. The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the average number of students per class, the average teaching time of teachers and the average instruction time for students.

In 2002-2003, the student-teacher ratio in Québec school boards was therefore quite close to the average for the United States. A comparison of Québec with the United States as a whole reveals that the student-teacher ratio was higher in 16 states and lower in 35 states.<sup>1</sup>

The data available for the other provinces uses a broader concept of personnel. In addition to teachers, educators also include school administrators and nonteaching professionals who work with students (e.g. education consultants, guidance counsellors and pastoral animators).<sup>2</sup> Table 1.9b contains data on the student-educator ratio. In 2001-2002, this ratio was lower in Québec (14.5) than in the Atlantic Provinces (15.7), Ontario (16.0) and Western Canada (16.4). The lower number of students per educator in Québec than in Ontario is largely due to the average teaching time of teachers, which is lower in Québec. For example, the average teaching time of teachers in Québec was 615 hours per year at the secondary level, while that of their counterparts in Ontario was 740 hours. Since the average class size was approximately the same in both provinces and the average instruction time for students was 900 hours in Québec and 950 hours in Ontario, the lower average teaching time of teachers in Québec resulted in the need to hire more teachers.

In the 1990s, the student-educator ratio in Québec and the rest of Canada tended to increase, rising the most in Ontario. The increase in Ontario was due to job cuts resulting from the application of the 1993 Social Contract legislation. One of the objectives of this legislation was to reduce the number of teachers in school boards. There were also budget cutbacks in Québec in the 1990s, but they affected mostly salaries. It should also be noted that, in their contract negotiations, Québec unions have always given priority to employment levels and job descriptions.

However, since the peak observed in 1998-1999 (15.0), Québec's student-educator ratio has gradually declined. In 2001-2002, the average number of students per educator was 14.5 in Québec and 16.2 in the rest of Canada. This gap of 1.7 has a major impact on school board spending per student and is the main reason why per-student spending is higher in Québec than in the rest of Canada.<sup>3</sup>

The average number of students per educator is lower in Québec than in the other provinces, but higher than in most U.S. states.

<sup>1.</sup> Including the District of Columbia.

<sup>2.</sup> The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated based on Statistics Canada data.

<sup>3.</sup> See Section 1.8.

Table 1.9a Student-teacher ratio in school boards: Québec and the United States		1990- 1991	1994- 1995	1998- 1999	1999- 2000	2001- 2002	2002- 2003 <sup>e</sup>
	Québec	15.6	15.8	16.3	16.1	15.9	15.7
	United States	16.7	16.8	16.0	15.7	15.6	15.5
Table 1.9b Student-educator ratio <sup>1</sup> in school boards:		1990- 1991	1994- 1995	1998- 1999	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Québec and the other regions of Canada	Québec	14.1	14.4	15.0	14.8	14.6	14.5
	<b>Canada, excluding Québec</b> Atlantic Provinces Ontario Western Canada	<b>15.4</b> 15.9 14.8 16.1	<b>16.0</b> 16.4 15.4 16.9	<b>16.3</b> 16.3 16.0 16.9	<b>16.3</b> 16.0 15.9 17.0	<b>16.2</b> 15.8 16.1 16.6	<b>16.2</b> 15.7 16.0 16.4
	Canada	15.1	15.6	16.0	16.0	15.9	15.8

e: Estimates

1. See definition in the text.





### 1.10 Average Salary of Teachers in School Boards

In 2002-2003, the average salary of teachers in Québec school boards was estimated at \$49 395, compared with \$55 116 in the United States.<sup>1</sup> A comparison of Québec with the United States as a whole for 2002-2003 reveals 26 U.S.<sup>2</sup> states where the average salary of teachers was higher than in Québec and 25 states where it was lower.

The data available for the other provinces uses a broader concept of personnel. In addition to teachers, educators also include school administrators and nonteaching professionals who work with students (e.g. education consultants, guidance counsellors and pastoral animators).<sup>3</sup> Table 1.10b contains data on the average salary of educators. In 2001-2002, the average salary of educators in Québec was lower than in the rest of Canada. The difference between the average salary in Québec ( $$50 \ 414$ ) and in the rest of Canada ( $$57 \ 570$ ) was 12%.

Between 1990 and 1998, the average salary of educators increased by 5% in Québec, while it rose by 19% in the rest of Canada. In Québec, in a battle against budget deficits, agreements between the government and unions have resulted in the average salary of teachers rising very little. Also, in 1997, a vast program of voluntary retirement resulted in a younger average age of teachers in Québec, and consequently, a decrease in the average salary because of less seniority.<sup>4</sup>

However, there was a significant increase in the average salary of educators in Québec between 1998-1999 and 2001-2002 (13%), while the increase was much less pronounced in the rest of Canada (4%). The greater increase in Québec is primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers as well as of a new collective agreement.

The salary of teachers in school boards in Québec can be compared with that of the member countries of the Organisation for Economic Co-operation and Development (OECD) using indicators such as the starting salary, salary after 15 years of seniority and maximum salary.<sup>5</sup> In 2000-2001, the salary of teachers in Québec school boards was higher than the average for the OECD countries. Gaps in salaries are particularly wide in the case of teachers with 15 years of seniority because in Québec teachers reach the maximum salary scale their 15th year of recognized experience, whereas in the OECD countries, the maximum salary is reached on average after 25 years.

Teachers in Québec earned less than teachers in neighbouring regions, but the gap has narrowed in recent years.

<sup>1.</sup> The calculation of the average salary of U.S. teachers is based on data from the National Education Association. This data was expressed in Canadian dollars using the purchasing power parity rates (PPP) set by the OECD. See Note 2 in Section 1.8.

<sup>2.</sup> Including the District of Columbia.

<sup>3.</sup> The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated on the basis of Statistics Canada data.

<sup>4.</sup> In Québec, the basic salary of teachers in school boards is determined by the collective agreements. Teachers' salaries are based on their schooling and work experience.

<sup>5.</sup> See Marius Demers, "Cost of Statutory Salaries of Teachers per Student for Elementary and Secondary School Levels in 2000-2001. A Comparison of Québec and OECD Countries," Education Statistics Bulletin 29 (*Québec: Ministère de l'Éducation, Direction de la recherche, des statistiques et des indicateurs, November 2003).* This document is available on the Internet at <a href="http://www.meq.gouv.qc.ca">http://www.meq.gouv.qc.ca</a>.
### Table 1.10a

Average salary of teachers in school boards: Québec and the United States (in current dollars<sup>1</sup>)

### Table 1.10b

Average salary of educators<sup>2</sup> in school boards: Québec and the other regions of Canada (in current dollars)

	1990-	1004	1998-	1000	2001-	2002-
		1994-		1999-		
	1991	1995	1999	2000	2002	2003°
Québec	40 478	43 080	42 908	45 314	48 358	49 395
United States	43 009	45 844	48 290	49 687	53 657	55 116
	1990-	1994-	1998-	1999-	2000-	2001-
	1991	1995	1999	2000	2001	2002 <sup>e</sup>
Québec	42 767	45 610	44 780	47 459	49 480	50 414
Canada, excluding Québec	46 898	53 728	55 602	55 446	56 166	57 570
Atlantic Provinces	44 588	47 104	49 164	50 477	50 342	51 951
Ontario	47 470	55 932	57 575	57 055	57 522	59 193
Western Canada	46 691	52 315	54 482	55 065	56 369	57 348
Canada	45 895	51 773	53 031	53 554	54 586	55 878

#### e: Estimates

1. See Note 1 at the bottom of the text.

2. See definition in the text.

### Graph 1.10

Average salary of educators in school boards: Québec, Ontario and Western Canada (in current dollars)



# 1.11 CEGEP Spending

n 2002-2003, CEGEP spending on regular education was estimated at approximately \$1.2 billion, with student enrollments at roughly 145 000.<sup>1</sup> Per-student spending was an estimated \$8 469.

A previous edition of the *Education Indicators* showed that, between 1976 and 1981, CEGEP spending on regular education increased significantly. This marked increase can be explained primarily by a high inflation rate, salary increases exceeding the inflation rate, and a considerable rise in enrollments.

Between 1981 and 1989, the rise in CEGEP spending was sharply curbed, with the average annual rate of increase in current-dollar spending dropping to 4.2%. This decrease was a result of a curtailment of the inflation rate, as well as budget cutbacks adopted by the Québec government. Enrollments also continued to rise until the mid-1980s, but then declined. Per-student spending in constant dollars was slightly lower in 1989-1990 than in 1981-1982.<sup>2</sup>

In 1990-1991, per-student spending in current dollars was \$6 920, or 8.6% higher than in 1989-1990 (which corresponds to a growth of 3.4% in constant dollars). This increase can be explained primarily by a decline in the student-teacher ratio following the addition of new positions as part of a collective agreement. The increase in the number of teachers applies to activities such as departmental committees, practicums, professional development, and student support services.

In the 1990s, per-student spending in constant dollars followed a downward trend. This can be explained by budget cutbacks and the application of cost-cutting measures in CEGEPs. These measures were largely the result of agreements between the government and unions, which made it possible to lower labour costs. Thus, between 1990 and 1998, per-student spending in constant dollars decreased by 13%.

Between 1998-1999 and 2002-2003, there was a 27% increase in per-student spending in current dollars and a 14% increase in constant dollars. These increases were due primarily to new collective agreements for all CEGEP employees, support measures for CEGEPs (for the development of new information technologies, for careers in science, for success measures, etc.) and, in more general terms, amounts reinvested in education by the government.

Between 1998-1999 and 2002-2003, CEGEP spending increased by 19%, in spite of a 6% decrease in enrollments. This resulted in a significant increase in per-student spending.

<sup>1.</sup> Data on enrollments is based on fall registration recognized for the purpose of estimating costs.

<sup>2.</sup> The CEGEPs' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

### Table 1.11 CEGEP spending<sup>1</sup>

	1981- 1982	1989- 1990	1993- 1994	1998- 1999	2001- 2002	2002- 2003 <sup>e</sup>
Total spending in current dollars (in millions of dollars)	596.0	830.7	1 074.9	1 035.7	1 173.4	1 230.3
Per-student spending in current dollars	4 831	6 370	6 876	6 688	8 051	8 469
Per-student spending in constant 2002-2003 dollars <sup>2</sup>	8 375	8 207	7 969	7 410	8 256	8 469

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities) and capital expenses financed directly from current revenues.

2. See Note 2 at the bottom of the text.



### **1.12** Student-Teacher Ratio, Average Teacher Salary and Cost of Teachers per Student in CEGEPs

This section is a complement to Section 1.11, which analyzed the changes in CEGEP spending. Salary costs for teachers accounted for more than half the total of CEGEP spending in 2002-2003, and the changes in these costs were a determining factor in the changes in operating expenses.<sup>1</sup> Two factors determine the cost of teachers per student:<sup>2</sup> the student-teacher ratio, and the average salary of teachers in CEGEPs.

In 2002-2003, the average number of students per teacher in CEGEPs was estimated at 12.5 and the average teacher's salary at \$55 873. The student-teacher ratio is calculated by dividing the number of students by the number of teachers in the CEGEPs.<sup>3</sup> The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the average number of students per class, the average teaching time of teachers and the average instruction time for students.

Between 1981 and 1989, the average number of students per teacher in CEGEPs rose from 12.3 to 14.3, while teachers' average salary increased by 36%, from \$32 595 to \$44 217. In comparison, the consumer price index (CPI) increased by 53% during this period. The per-student cost of teachers, in current dollars, went from \$2,659 in 1981-1982 to \$3 098 in 1989-1990, an increase of 17%, while the cost per student in constant dollars dropped by 11%.<sup>4</sup>

Between 1989 and 1998, per-student spending in constant dollars remained relatively stable in spite of a decrease in the number of students per teacher. The labour cost reduction measures mentioned in Section 1.11 contributed to this result. Of particular note is the program of voluntary retirement that resulted in a younger average age of teachers. These measures were taken as part of the battle against budget deficits undertaken by the Québec government in the 1990s.

However, between 1998 and 2002, there was a 12% increase in the cost of teachers in constant dollars, primarily because of new collective agreements for all CEGEP employees and an average decrease in the student-teacher ratio, from 13.8 in 1998-1999 to 12.5 in 2002-2003. Teachers' average salary was \$55 873 in 2002-2003.

In 2002-2003, the average number of students per teacher in CEGEPs was estimated at 12.5 and the average teacher's salary at \$55 873. The actual cost of teachers has increased by 12% since 1998-1999.

- 3. Data on enrollments is based on fall registration recognized for the purpose of estimating costs and data on teaching personnel is expressed in full-time equivalents.
- 4. The CEGEPs' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

<sup>1.</sup> The salary costs considered in this section do not include employee benefits. If these were included, salary costs for teachers would account for more than 60% of total CEGEP operating expenses.

<sup>2.</sup> The cost of teachers per student is calculated by dividing the total payroll for teachers by the number of students.

Table 1.12							
Student-teacher ratio, <sup>1</sup>							
average salary of							
teachers and cost of							
teachers per student							
in CEGEPs							

	1981- 1982	1989- 1990	1993- 1994	1998- 1999	2001- 2002	2002- 2003⁰
Churde at the all an eatin						
Student-teacher ratio	12.3	14.3	13.9	13.8	12.6	12.5
Average salary in current dollars	32 595	44 217	48 789	50 399	54 612	55 873
Cost of teachers per stu	dent					
In current dollars In constant dollars (2001-2002)	2 659 4 376	3 098 3 900	3 503 3 975	3 659 3 999	4 341 4 428	4 472 4 472

e: Estimates

1. See Note 3 at the bottom of the text.



# 1.13 Total University Spending in Relation to the GDP

In 2001-2002, 1.75% of the GDP was allocated to university education in Québec,<sup>1</sup> compared with 2.32% in the Atlantic Provinces, 1.43% in Ontario and 1.50% in Western Canada.<sup>2</sup>

Between 1981 and 1989, this share of the GDP was on a slight downward trend in Québec, Ontario and the Atlantic Provinces, while it increased in Western Canada. However, in the early 1990s the share of the GDP allocated to university education increased significantly in Québec, whereas the increase was less marked in the rest of Canada.

The gap between Québec and the rest of Canada therefore widened considerably. Between 1986 and 1993, total spending for university education in Québec increased by 73%, compared with 56% in the rest of Canada. Québec's higher spending is partly explained by strong growth in research at its universities,<sup>3</sup> but also by a more rapid increase in real funds allocated to education.

Between 1993 and 1999, the share of the GDP allocated to university education dropped in Québec. It went from 1.99% in 1993-1994 to 1.67% in 1999-2000 as a result of budget cuts and a reduction in labour costs. In the rest of Canada, the share of the GDP allocated to university education went down as well, although not as significantly.

Between 1999 and 2001, the share of the GDP allocated to university education increased slightly both in Québec and in the rest of Canada. In 2001-2002, investment in university education remained higher in Québec than in the rest of Canada (except in the Atlantic Provinces), owing mostly to the fact that the collective wealth, as measured by per capita GDP, was relatively lower in Québec than in the rest of Canada.

When compared with the member countries of the Organisation for Economic Co-operation and Development (OECD), Québec ranks among the countries with the largest

share of its GDP allocated to university education in  $2000.^4$ This can be explained primarily by the fact that the cost of per-student spending is an estimated 23% higher in Québec than the OECD average.<sup>5</sup>

In addition, the schooling rate of young people is higher in Québec than on average in OECD countries, and this factor contributed to the larger investment in university education.<sup>6</sup>

In 2001-2002, the share of the GDP allocated to university education was 1.75% in Québec, compared with 1.52% in the rest of Canada. Higher spending in Québec is explained primarily by a per capita GDP that is lower than in the rest of Canada.

- 1. In 2001-2002, Québec spent \$4.0 billion of its \$229.6-billion GDP on university education.
- 2. The data on universities presented here has not been adjusted to take into account the organizational differences in the education systems.
- 3. See Section 1.17.
- 4. The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 2000.
- 5. For the purpose of comparing the cost of higher education in Québec with the average in OECD countries, poorer countries (those with a lower per capita GDP) were excluded. Otherwise, the gap between the per-student cost of university education in Québec and the OECD average would be higher.
- 6. In 2000-2001, Québec students aged 20 to 29 years represented 29.2% of the total population of 20-to-29-year-olds, whereas the corresponding average percentage for the OECD countries was 23.2%.

#### Table 1.13

Total spending allocated to university education<sup>1</sup> in relation to the GDP: Québec and the other regions of Canada (%)

	1981- 1982	1989- 1990	1993- 1994	1999- 2000	2000- 2001°	2001- 2002º
Québec	1.61	1.58	1.99	1.67	1.69	1.75
Canada, excluding Québec	1.34	1.40	1.52	1.43	1.47	1.52
Atlantic Provinces Ontario Western Canada	2.36 1.36 1.12	2.22 1.25 1.39	2.29 1.40 1.47	2.22 1.31 1.44	2.21 1.37 1.47	2.32 1.43 1.50
Canada	1.40	1.44	1.62	1.48	1.52	1.57

e: Estimates

1. These figures include the operating and capital expenses for universities, the cost of student financial assistance, funded and sponsored research at the universities and the Ministère's administrative expenses (the portion attributable to university education). The calculation of the share of the GDP allocated to university education is based on data from Statistics Canada.



Total spending allocated to university education in relation to the GDP: Québec, Ontario and Western Canada (%)



# 1.14 University Spending per Student<sup>1</sup>

In 2001-2002, spending per student by Québec universities (excluding sponsored research) was estimated at \$12 373, compared with \$12 455 in the Atlantic Provinces, \$11 372 in Ontario and \$13 325 in Western Canada.

Since there are differences in the way in which spending is accounted for between funds,<sup>2</sup> certain expenses are not included in the general operating fund: the purchase of furniture and equipment, equipment rental and maintenance, buildings, land and land improvements, other improvements and alterations, and financial expenses. Also, given the different approaches to student financial assistance in the different provinces, amounts awarded by universities in the form of bursaries have also been omitted.<sup>3</sup>

A previous edition of the *Education Indicators* showed that during the first half of the 1980s, spending per student rose at a much slower pace in Québec, such that, in 1986-1987, it was lower in Québec than in the other Canadian provinces. This slowdown in per-student spending in Québec can be explained by salary restrictions and budget cuts to Québec universities. However, in the second half of the 1980s until the mid-1990s, per-student spending rose more sharply in Québec than in the other regions of Canada, partly because of increased government subsidies per student, and partly because of increased revenues from tuition fees.

From the mid-1990s on, per-student spending in Québec decreased. This can be explained by budget cuts to universities and, more specifically, by a reduction in labour costs. In 1998-1999, spending per student was 6% lower in Québec than in the rest of Canada (see Table 1.14).

Between 1998-1999 and 2001-2002, per-student spending increased by 19% in Québec and by 10% in the rest of Canada. The more rapid growth in spending in Québec is primarily a result of a more substantial operating subsidy (reinvestment in education since 2000). In 2001-2002, spending per student by Québec universities was approximately \$1 000 higher than in Ontario. This gap can be explained primarily by higher per-student spending on teaching personnel,<sup>4</sup> administration and activities related to computers and communications in Québec. Conversely, there is less spending in Québec than in Ontario on libraries and student services.

In 2001-2002, spending per student by Québec universities was comparable to that for the rest of Canada.

<sup>1.</sup> The data on universities presented here has not been adjusted to take into account the organizational differences in the education systems. See Section 1.4.

<sup>2.</sup> Thus, part of the spending recorded in the capital fund in Québec appears in the general operating fund in Ontario. For example, Québec universities record most of their furniture and equipment expenses in the capital fund, while Ontario universities enter a large proportion of these expenses in the general operating fund.

<sup>3.</sup> In Québec, student financial assistance is for the most part managed by the government and not by universities. Universities spend little on student assistance. In Ontario, where tuition fees are considerably higher than in Québec (see Section 1.16), the universities are expected to give a portion back to the students in the form of bursaries. This explains why Ontario universities award so much more in the form of bursaries than Québec universities.

<sup>4.</sup> See Section 1.15.

#### Table 1.14

University spending per student:<sup>1</sup> Québec and the other regions of Canada (in current dollars)

	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Québec	11 229	10 675	10 415	11 358	12 027	12 373
Canada, excluding Québec	10 583	10 587	11 063	12 113	12 392	12 197
Atlantic Provinces Ontario Western Canada	10 191 10 350 11 095	10 356 10 318 11 086	10 824 10 868 11 451	11 677 11 471 13 236	12 236 11 591 13 613	12 455 11 372 13 325
Canada	10 744	10 609	10 903	11 928	12 304	12 240

e: Estimates

1. For the reasons explained in the text, certain expenses are not included in the general operating fund: the purchase of furniture and equipment, equipment rental and maintenance, buildings, land and land improvements, other improvements and alterations, financial expenses and bursaries. The basic data used to calculate per-student spending in universities was obtained from Statistics Canada and the Canadian Association of University Business Officers (CAUBO). In addition, the calculation of per-student spending is based on a standard method for counting student enrollments in all provinces, as follows: part-time enrollments are divided by 3.5 to convert them into full-time equivalents, and are then added to the full-time enrollments.



#### Graph 1.14

University spending per student: Québec, Ontario and Western Canada (in current dollars)

### 1.15 The Salary Costs of University Professors

**S** alary spending (including employee benefits) for all categories of personnel accounts for approximately 80% of university operating expenses in Québec and in the rest of Canada. Professors' salaries are the largest component of payroll expenditure. When the total payroll for professors is divided by the number of students expressed in full-time equivalents, the result is the cost of professors per student. In 2001-2002, this cost was lower in Québec (\$4 998) than in the Atlantic Provinces (\$5 240) and Western Canada (\$5 146), but 9% higher than in Ontario (\$4 576) and slightly higher than the Canadian average (\$4 863).<sup>1</sup>

The total payroll considered in the calculation of per-student spending for professors includes deans, department heads, professors and lecturers, as well as amounts paid to all other personnel employed in teaching positions (as defined by Statistics Canada).<sup>2</sup> Of the factors that explain the differences observed in per-student spending for professors, two are particularly significant: the average number of students per professor, and the average salary of professors. Table 1.15 presents data on the average salary of full-time professors.<sup>3</sup>

In 2002-2003, the average salary of professors in Québec (\$83 266) was 9% higher than in the Atlantic Provinces (\$76 566), but 7% lower than in Ontario (\$89 281) and Western Canada (\$89 962).

Graph 1.15 provides a comparison of the changes in the average salary of professors in Québec, Ontario and Western Canada between 1981 and 2002. It reveals that in the 1980s, the average salary increased less rapidly in Québec than in Ontario or Western Canada. In the 1990s, the average salary of Québec research professors also rose slightly less than elsewhere in Canada, although the inflation rate was also lower in Québec.

It should also be noted that, although the average salary of professors in Québec is lower than in Ontario (by 7%

in 2001-2002), the per-student cost of professors is still higher in Québec (by 9% in 2001-2002). This is primarily because the average number of students per professor (in full-time equivalents) is lower in Québec than in Ontario.

It is difficult to obtain comparable data on the studentprofessor ratio in universities because of differences in the information systems relating to part-time professors. However, part-time professors (including lecturers) must be included in the calculation of student-professor ratios because they are responsible for much of the teaching in universities (slightly more than 50% in Québec).

Depending on the hypotheses used to convert part-time professors into full-time equivalents, the differences between the student-professor ratio in Québec and Ontario may be larger or smaller, but the data always indicates that in recent years, the average number of students per professor has been lower in Québec than in Ontario.<sup>4</sup>

The salary costs of university professors in Québec is slightly higher than in the rest of Canada.

- 2. Employee benefits are not included in the total payroll used for this calculation.
- 3. Average salary includes basic salary as well as additional fees paid for administrative functions.

<sup>1.</sup> The calculation of per-student spending for professors is based on a standard method for counting student enrollments in all the provinces, as follows: part-time enrollments are divided by 3.5 to convert them into full-time equivalents, and are then added to the full-time enrollments.

<sup>4.</sup> According to the Council of Ontario Universities, the average number of students per professor in Québec is lower than in Ontario (see Ontario Universities–2002; Resource Document, September 2002, Tables 8.5 and 8.6).

#### Table 1.15

Average salary of full-time university professors: Québec and the other regions of Canada (in current dollars)

Canada	66 464	73 050	73 943	78 076	83 541	86 706
Atlantic Provinces Ontario Western Canada	59 826 68 763 67 267	63 764 76 318 73 864	64 586 75 828 76 525	68 707 81 721 79 657	74 435 85 461 86 691	76 566 89 281 89 962
Canada, excluding Québec	66 817	73 475	74 260	78 824	84 170	87 500
Québec	65 284	71 766	73 022	75 736	81 553	83 266
	1990- 1991	1993- 1994	1996- 1997	1999- 2000	2001- 2002	2002- 2003º

e: Estimates

1. See Note 2 at the bottom of the text.

2. See definition in the text.

### Graph 1.15

Average salary of university research professors: Québec, Ontario and Western Canada (in current dollars)



### **1.16** Student Financial Assistance and Tuition Fees

In Québec, financial assistance is available to students in full-I time postsecondary education and in secondary-level vocational training programs. The loans and bursaries awarded under Québec's Student Financial Assistance Program are intended to supplement the contribution of the student and, where applicable, of his or her parents, sponsor or spouse: responsibility for the cost of education lies with them first and foremost. Government assistance covers the difference between the allowable expenses and the contribution of the student and, where applicable, of his or her parents, sponsor or spouse.

In 2002-2003, of those persons eligible for financial assistance, 21.2% of students in secondary vocational training, 23.5% of college students and 36.7% of university students received assistance. A total of 130 183 students benefited from the Student Financial Assistance Program. Of these, 55 901 received only a loan, 73 622 received a loan and a bursary, and 660 received only a bursary. A total of \$345.2 million was granted in the form of loans and \$292.4 million, in bursaries.

In 2002-2003, of the university students who received financial assistance, 39.4% obtained only a loan, which averaged \$2 678, whereas 60.6% obtained a loan and a bursary totalling an average of \$7 537. Those who received a loan and a bursary obtained on average slightly more than half of the assistance in the form of a bursary.

A look at the historical data on the breakdown of financial assistance awarded to Québec students attending university in 1990-1991 shows that loans made up 59.4% of the total assistance awarded, and bursaries, 40.6%. In the years that followed, the portion of assistance granted in the form of loans increased and the portion awarded in bursaries decreased, such that, in 1999-2000, the corresponding percentages were 68.0% and 32.0%, respectively. However, in the following years, there was a reversal in this trend. In 2002-2003, loans made up only 51.5% of the total assistance awarded and bursaries, 48.5%. The increase in the portion of bursaries is related to roughly the 25% reduction in the maximum amount of loans awarded due to the funding obtained as part of the Millennium Bursaries.

In 2002-2003, upon completion of their undergraduate studies, Québec students who had received loans owed on average \$10 170. The average debt for graduate studies was \$13 741 and for postgraduate studies, \$18 700.

Student loans contracted for college and undergraduate studies averaged \$13 663 in 2002-2003; for college through to graduate studies, \$21 312; and for college to postgraduate studies, \$27 735.

These debt levels are lower than those for 2000-2001 as a result of changes made to the Student Financial Assistance Program, such as a decrease of approximately 25% of the maximum loan as well as a reduction in the contribution of the student, or the student's parents or spouse, toward the cost of education. It should be noted that student debt is much lower in Québec than elsewhere in Canada, in part because, on average, Québec awards more bursaries than the other provinces and because tuition fees in Québec universities are the lowest in Canada.

Tuition fees in Québec universities in 2003-2004 were 40% of the amount charged in the rest of Canada, having remained frozen for a number of years. Although there were major increases at the beginning of the 1990s, tuition fees have remained approximately at the same level in Québec since 1993-1994, whereas they have continued to climb in the other regions of Canada. The gap between Québec and the rest of Canada has once again begun to widen, and in 2003-2004, tuition fees in the rest of Canada (\$4 644) were 2.5 times higher than in Québec (\$1 862).

Since 2000-2001, there has been a significant increase in assistance granted in the form of bursaries.

#### Table 1.16a Average tuition fees for full-time undergraduate university students: Québec and the other regions of Canada (in current dollars)

### Table 1.16b

Proportion of financial assistance given to Québec university students in the form of loans and bursaries (%)

	1989- 1990	1991- 1992	1995- 1996	1999- 2000	2001- 2002	2003- 2004 <sup>p</sup>
Québec <sup>1</sup>	519	1 311	1 703	1 813	1 842	1 862
Canada, excluding Québec	1 537	1 842	2 603	3 764	4 078	4 644
Atlantic Provinces	1 728	2 075	2 821	3 778	4 138	4 561
Ontario	1 561	1 818	2 518	4 084	4 492	4 923
Western Canada	1 409	1 780	2 639	3 219	3 357	4 223
Canada	1 271	1 706	2 384	3 328	3 577	4 025
	1990- 1991	1991- 1992	1995- 1996	1999- 2000	2001- 2002	2002- 2003
Loans	59.4	60.5	66.4	68.0	53.6	51.5
Bursaries	40.6	39.5	33.6	32.0	46.4	48.5

p: Preliminary data

1. In Québec, as of the fall of 1997, Canadian students not residing in Québec must pay an additional amount that has been taken into account in the calculation of the average tuition fees (Statistics Canada data). This explains the increase in tuition fees in recent years, despite the freeze on tuition for Québec residents.

### Graph 1.16

Average tuition fees for full-time undergraduate university students: Québec, Ontario and Western Canada (in current dollars)



### **1.17** Funded and Sponsored Research in Universities

The amount of funding through grants and research contracts allocated to universities more than doubled from 1990-1991 to 2001-2002, going from \$456.2 million in 1990-1991 to \$1.023 billion in 2001-2002. This represents an average annual increase of 7.6%. Funding per research professor rose from \$54 654 to \$124 105, for an average annual increase of 7.7%. In comparison, the consumer price index (CPI) increased by 1.7% during this period.

The increase was particularly significant during the last four years with the amount of funding through grants and research contracts rising from \$604.2 million in 1997-1998 to \$1.023 billion in 2001-2002, which corresponds to an average annual increase of 14.1% during this period. The creation of the Canadian Foundation for Innovation (CFI) and Québec's equal or higher contribution were the primary reasons for this spectacular upward trend.

On the whole, from 1994-1995 to 2001-2002, the contribution of the Canadian government increased on average 10.0% per year. It decreased between 1994-1995 and 1997-1998, both in dollars and in terms of its share of total contributions from all sources of funding, going from 40% of total contributions in 1994-1995 to 35.0% in 1997-1998; however, it rose appreciably in subsequent years, reaching 44.7% in 2001-2002.

During the same period, 1994-1995 to 2001-2002, the Québec government's contribution represented 24.0% of total contributions and an average increase of 7.8% per year. Contributions from the Canadian private sector grew slowly at the beginning of this period and more quickly in the last two years. However, given the marked increase during these two years in the contributions of the Canadian government and, to a lesser degree, those of the Québec government, the portion of the Canadian private sector dropped from 25.0% to 19.6%. The average annual growth of the funding allocated to university research by the Canadian private sector was 6.1% from 1994-1995 to 2001-2002.

In 2001-2002, 78% of grants and research contracts were awarded in the fields of health sciences (37.2%), pure sciences (26.0%) and applied sciences (14.7%). Next came social sciences (6.9%), business administration (2.6%) and education (1.8%).

Health sciences received 29.3% of its grants and research contracts from the Canadian private sector and 33.9% from the Canadian government. The federal government also funded 54.3% of the research in pure sciences and 48.6% in applied sciences.

Funding for research in education varied between \$6.0 and \$18.7 million from 1990-1991 to 2001-2002, reaching an 11-year high. The average annual growth was 10.9%.

For the first time, the amount of funding allocated to university research exceeded a billion dollars in 2001-2002. Since 1997-1998, the average increase in funding was 14.1%, while the CPI rose on average 1.9% per year.

Table 1.17		1990-	1994-	1997-	1999-	2000-	2001-			
Funded and sponsored research according to		1991	1995	1998	2000	2001	2002			
source of funding and	Grants and research contracts (in millions of dollars), <sup>1</sup> by source									
per research professor	Government of Canada	203.0	234.3	211.0	275.4	343.9	457.6			
	Government of Québec	106.0	141.5	143.5	166.6	208.6	239.0			
	Canadian private sector	90.0	132.1	165.3	180.5	190.8	200.2			
	Other sources	56.7	78.7	84.8	99.7	131.2	126.3			
	Total	456.2	586.6	604.5	722.1	874.5	1 023.0			
	Number of research professors <sup>2</sup>	8 347	8906	8 144	8 005	8 021	8 243			
	Amount per research professor (\$)	54 654	65 866	74 225	90 209	109 032	124 105			

> 1. This refers to all research receiving direct assistance (grants, contracts, sponsorships, etc.) from either the university itself or outside organizations. Included are research projects which are conducted under the supervision of university research professors and for which funds have been put into specific accounts managed by the financial services or accounting department of the university, of a hospital or university-affiliated centre (as defined by the Système d'information sur la recherche universitaire [SIRU]).

> 2. This refers to career professors who occupy permanent positions in Québec universities, regardless of whether they are currently involved full-time in teaching-related activities or on sabbatical or career development leave. They may also assume certain administrative tasks. For example, department heads, deans and assistant deans often continue to be active in teaching or research. However, our definition of research professor excludes administrators of services (library directors, registrars, etc.) and senior administrators (rectors and vicerectors). (Source: Ministère de l'Éducation and Conference of Rectors and Principals of Québec Universities, Enquête sur le personnel enseignant.)



### 2.1 School Life Expectancy

child who began elementary school in 2002-2003 can A expect to spend 15.5 years in the education system.<sup>1</sup> Since 1988-1989, 0.8 years of schooling have been added for male students, and 1.2 years for female students. School life expectancy has not improved from the 15.7 years observed in 1993-1994. For male students, it has even decreased by 0.4 years since then, standing now at 15.0 years. In 2001-2002, young people in Québec could expect to spend 15.4 years in school, or 0.3 years less than young people in France.<sup>2</sup>

A breakdown by level of education reveals that all increases in the past 15 years are attributable to either adult education or postsecondary education. More than half of the additional schooling is a result of college and university studies. At the elementary and secondary levels, schooling rose by 0.36 years, resulting from an increase of 0.59 years in the adult sector and a drop of 0.23 years in the youth sector.

At the elementary and secondary levels, the actual duration of schooling more or less corresponds to the projected length of studies. This is not surprising given that enrollment at these levels of education is virtually universal and compulsory until almost the end of secondary school. The reason why the average duration of schooling is less than the length of programs at the college and university levels is primarily because not all students go on to postsecondary education.

Activities Ν 50

School life expectancy does not necessarily correspond to the number of years of study begun and successfully completed because grades repeated are included in the average duration. The slight decline since 1992-1993 in the duration of schooling at the elementary and secondary levels can be explained by the decrease in the number of years that are repeated (see Section 2.7). At the elementary and secondary levels, male students attend school slightly longer than female students (11.9 and 11.8 years, respectively) precisely because they have more difficulty. At the college and university levels, women tend to stay in school longer because more of them enroll in postsecondary education than men (see Sections 2.8 and 2.10). Women attend postsecondary school for an average of 4.2 years, compared with 3.0 years for men.

From elementary to university education, in 2002-2003 school-aged Quebeckers could expect to stay in school for an average of 15.5 years.

<sup>1.</sup> Technically, school life expectancy for a school year is equal to the sum of the schooling rates (or school attendance rates) for full-time studies (or the equivalent) per year of age. A schooling rate is equivalent to the average number of years of schooling per person. The sum of the rates per age indicates the hypothetical duration of studies for a child who begins elementary school and who, throughout his or her progression through school, is in the schooling situation observed for a given year at various ages.

<sup>2.</sup> Ministère de l'Éducation nationale, Direction de la programmation et du développement, L'état de l'école, Paris, Vol. 13, October 2003.

Table 2.1 School life expectancy for a child entering elementary school, by gender and level of education (in years)		1987- 1988	1988- 1989	1993- 1994	1998- 1999	2001- 2002	2002- 2003			
	All levels of education by gender									
	Male Female <b>Total</b>	N/A N/A <b>14.5</b>	14.2 14.8 <b>14.5</b>	15.4 16.0 <b>15.7</b>	15.1 15.9 <b>15.5</b>	14.9 15.9 <b>15.4</b>	15.0 16.0 <b>15.5</b>			
	Both genders according to level	of educati	on							
	Elementary (youth sector) Secondary (youth sector) Elementary and secondary (adult sector)	6.14 5.09 0.30	6.16 5.03 0.23	6.12 5.01 0.84	6.08 5.00 0.88	6.07 4.91 0.88	6.06 4.94 0.89			
	College University	1.74 1.28	1.74 1.34	2.07 1.64	1.99 1.53	1.92 1.61	1.88 1.71 <sup>e</sup>			

e: Estimates

N/A: Data not available



Graph 2.1 School life expectancy for a child entering elementary school (in years)



### 2.2 Enrollment in Preschool Education

**E** nrollment in kindergarten for 5-year-olds has varied between 97% and 99% for a number of years. There is no significant difference between the enrollment of boys and girls in either kindergarten for 5-year-olds or kindergarten for 4-year-olds. In the past, enrollment in kindergarten for 4-year-olds varied between 6% and 9%. It has been significantly higher since 1994-1995 because children in Passe-Partout play groups are now included, and it stood at 19.6% in 2002-2003.

For a long time, children enrolled in part-time kindergarten for 5-year-olds accounted for approximately 87% of all students in kindergarten, and this rate was the same for boys as for girls. In 1997-1998, with the kindergarten reform, the situation was completely reversed as almost all boys and girls in kindergarten for 5-year-olds started to attend on a full-time basis.

Around the world, daycare centres, kindergartens, regular schools and families participate to varying degrees in the education of young children. In Québec, a relatively large portion of educational activities are entrusted to daycare centres, while the official education system becomes involved later in the child's life. Thus, in Québec, 5-year-olds are about as likely to attend school-kindergarten or elementary school—as children in member countries of the Organisation for Economic Co-operation and Development (OECD). In 2001-2002, virtually all countries had universal access to school for 5-year-olds (Sweden was one exception). On the other hand, with respect to educational activities for 4-year-olds, Québec is far behind those countries in which the enrollment of 4-year-olds is almost identical to that of 5-year-olds. Similarly, in Québec and the rest of Canada, 3-year-olds do not attend school; this is a rare exception among OECD countries. Moreover, the majority of children enrolled in kindergarten for 4-year-olds in Québec are in a *Passe-Partout* play group, which means that they are not really part of the school system.

Children with handicaps or with learning or adjustment difficulties account for 1.5% of students in kindergarten for 5-year-olds. For girls, the proportion was 1.0%, but it was double (2.0%) for boys.

In 2002-2003, 98.2% of all eligible children attended kindergarten for 5-year-olds, almost all of them on a full-time basis.

<sup>1.</sup> This refers to the number of children in kindergarten for 5-year-olds (regardless of their age) in proportion to the population of 5-year-olds, or 4-year-olds in the case of kindergarten for 4-year-olds. Very few children who are not 5 years of age on September 30 are enrolled in kindergarten for 5-year-olds, and even fewer children in kindergarten for 4-year-olds are not 4 years of age. Variations in the estimates of the population aged 4 or 5 may affect the calculation of these rates, probably more so than any other factor.

<sup>2.</sup> In kindergarten for 5-year-olds, part-time attendance means five half-days per week and full-time attendance, five full days per week. In kindergarten for 4-year-olds, part-time attendance means one to four half-days per week and full-time attendance, five half-days per week.

<sup>3.</sup> The OECD calculates net enrollment rates, that is, the proportion of children of a given age who attend kindergarten or elementary school. These two levels are combined, since there are major differences among countries. The net enrollment rate does not take into account whether children attend school part-time or full-time, or their hours or days of attendance. Here too, major differences can be seen among countries.

#### Table 2.2

Proportion of children enrolled in kindergarten for 4-year-olds and for 5-year-olds (%)

	1982- 1983	1992- 1993	1999- 2000	2000- 2001	2001- 2002	2002- 2003
Kindergarten for 4-year-olds	8.0	9.2	17.2	17.0	19.2	19.6
Passe-Partout play groups		_	7.6	7.5	10.8	11.1
Other categories		_	9.5	9.5	8.4	8.5
Kindergarten for 5-year-olds	97.4	96.7	98.6	98.5	98.1	98.2
Full-time <sup>1</sup> Part-time <sup>2</sup>		9.2 87.6	98.4 0.2	98.4 0.0	98.1 0.0	98.2 0.0

-: Not applicable

1. Full-time: five full days

2. Part-time: five half-days



Graph 2.2 Net enrollment rates for 4-year-olds and 5-year-olds: Québec, Canada and various

(%)

countries, 2001-2002

### 2.3 Enrollment in Secondary IV and V, General Education– Youth Sector

**E** nrollment in Secondary V stood at 74.1% in 2002-2003, a slight increase from the preceding year. In 2002-2003, enrollment in Secondary IV was 84.1%, which means that enrollment in Secondary V could increase somewhat in 2003-2004.

From a more historical perspective, Graph 2.3 shows that enrollment in Secondary IV and V increased appreciably in the 1980s. This trend can be explained by the fact that admission to vocational training was delayed to ensure that students spent an extra year in general education. On the other hand, the drop observed in 1985-1986 (in Secondary IV) and in 1986-1987 (in Secondary V) was due to the raising of the pass mark.<sup>1</sup> There was a temporary decline in student retention, but it was not long before an upward trend took hold once again.

Enrollment in Secondary I is virtually universal;<sup>2</sup> it was 99% in 2002-2003. In 2002-2003, 97% of young people were enrolled in Secondary II, and 92% in Secondary III.

In 2002-2003, differences in enrollment between female and male students appear in Secondary II and Secondary III, where female students are ahead of the male students by 3 percentage points. The gap widens in Secondary IV to 7 percentage points in favour of the female students, and to 13 percentage points in Secondary V. In 2002-2003, in general education in the youth sector, enrollment in Secondary V was 74.1%.

<sup>1.</sup> The new, higher pass mark was applied to students entering secondary school in 1982-1983.

<sup>2.</sup> Some young people are not educated in the official education system. They may receive their schooling in reception centres, in schools that are not legally recognized or at home.

Table 2.3 Proportion of young people enrolling in		1982- 1983	1992- 1993	1997- 1998	2000- 2001	2001- 2002	2002- 2003
Secondary IV and V in general education in the public and private systems combined.	Secondary IV Male Female	<b>64.1</b> 59.9 68.6	<b>84.8</b> 81.7 88.0	<b>85.6</b> 82.1 89.3	<b>83.6</b> 80.0 87.4	<b>83.9</b> 79.9 88.1	<b>84.1</b> 80.9 87.5
	Secondary V	56.7	73.3	75.9	76.8	73.7	74.1
by gender (%)	Male Female	53.6 60.0	68.5 78.3	70.4 81.8	71.0 83.1	68.1 79.7	68.0 80.6

Note: Students enrolled in vocational training are not included.



# 2.4 Enrollment in Secondary Vocational Education– Youth and Adult Sectors

The proportion of young people under the age of 20 enrolling in vocational training programs was 16.6% in 2002-2003, a negligible drop from the previous year. Since 1998-1999, enrollment of students already holding a Secondary School Diploma (SSD) has been relatively stable, and was close to 10%; it dropped to 9.0% in 2002-2003.

Since short vocational programs were phased out in 1989-1990, most students who would normally have opted for these programs in the past are now enrolled in individualized paths for learning or, more likely still, in work skills and life skills education programs, which are a part of general education. Enrollment of students without diplomas was 7.6% in 2002-2003 and represented 46% of all people under the age of 20 enrolling in a vocational training program, an increase over recent years.

Vocational training programs attract more male than female students. Thus, in 2002-2003, 20.9% of male students opted for this path, compared with 12.1% of female students. This situation applies equally to students who had a diploma and to those who did not. This is the opposite of what has been occurring in general education in the youth sector (see Section 2.3), where female students tend to stay in school longer.

In 2002-2003, 16.6% of young people under the age of 20, 54% of whom already held an SSD, enrolled in vocational training.

Table 2.4 Enrollment in vocational training of students		1989- 1990	1994- 1995	1999- 2000	2000- 2001	2001- 2002	2002- 2003
under the age of 20,	TOTAL	14.4	12.8	16.4	16.7	17.0	16.6
youth and adult sectors combined (%)	Students without an SSD	8.4	5.1	6.6	6.7	7.2	7.6
combined (70)	Students with an SSD	6.0	7.8	9.8	10.0	9.8	9.0
	MALE	18.0	15.1	19.6	20.4	20.9	20.9
	Students without an SSD	11.5	6.6	8.9	9.1	9.7	10.5
	Students with an SSD	6.5	8.5	10.8	11.3	11.1	10.4
	FEMALE	10.6	10.5	13.0	12.8	12.9	12.1
	Students without an SSD	5.0	3.4	4.2	4.2	4.5	4.6
	Students with an SSD	5.5	7.1	8.9	8.6	8.5	7.6



Enrollment in vocational training of students under the age of 20, youth and adult sectors combined (%)



57

# 2.5 Enrollment in Secondary General Education– Adult Sector

S tudents who do not obtain a secondary school diploma in the youth sector are not all dropouts. Many of them choose to pursue their studies in the adult sector.

In 2002-2003, 13.9% of school-aged youth under 20 went directly from the youth sector to the adult sector in general education without interrupting their studies. In 1984-1985, the rate was only 1.3%; there has therefore been a tenfold increase. In view of this, the relatively low rate of 5.0% observed in 1992-1993 (see Graph 2.5) can be attributed to the changes made in the funding of educational activities for adult students in general education; at the time, this funding was part of a restricted envelope.<sup>1</sup> The increase observed in 1993-1994 (from 5% to 9%) was surely due in part to the fact that the envelope was once again opened for students 16 to 18 years of age.

An analysis of the proportion of students who, after interrupting their studies, return to school in general education in the adult sector reveals that the number of students aged 15 to 19 who returned to the adult sector was higher, until 1986-1987, than the number of students who transferred directly from the youth sector. Since then, however, the latter path has grown in popularity, and in 2002-2003, accounted for more than three quarters of all new enrollments of students under 20 years of age.

The adult sector does not limit its services to providing students leaving the youth sector with the opportunity to earn their diploma through an alternative system. Adult education is also open to those who already have a secondary school diploma but wish to add to their education. And even among students without a diploma who enroll in the adult sector, some simply wish to meet a short-term need, such as acquiring the knowledge or skills taught in a specific course. In 2002-2003, 13.9% of students under 20 years of age transferred directly from the youth sector to the adult sector.

<sup>1.</sup> As a result, the school boards had to encourage students to stay in the youth sector (whose envelope is always open), since funding for the adult sector was reduced in 1992-1993.

Table 2.5 Enrollment in general education in the adult		1984- 1985	1994- 1995	1999- 2000	2000- 2001	2001- 2002	2002- 2003
sector of students	Total	3.2	17.0	15.5	16.7	18.1	18.4
under the age of 20 without a secondary	Uninterrupted studies <sup>1</sup> (directly from the youth sector)	1.3	11.7	11.9	12.7	13.6	13.9
school diploma, by gender (%)	Interrupted studies	2.0	5.3	3.6	4.0	4.4	4.5
	Male	3.3	19.4	17.8	19.0	20.4	20.8
	Uninterrupted studies <sup>1</sup> (directly from the youth sector)	1.4	13.7	13.7	14.6	15.6	15.7
	Interrupted studies	1.9	5.8	4.1	4.4	4.9	5.1
	Female	3.1	14.6	13.0	14.2	15.6	16.0
	Uninterrupted studies <sup>1</sup> (directly from the youth sector)	1.1	9.7	9.9	10.8	11.6	12.0
	Interrupted studies	2.0	4.9	3.1	3.5	3.9	4.0

1. Refers to students enrolled in the youth sector on September 30 of the preceding year.



Graph 2.5 Enrollment in general education in the adult sector of students under the age of 20

without a secondary school diploma (%)

# 2.6 Dropping Out of **Secondary School**

This section measures both official successful completion (graduation) and school attendance of those who have not yet received a diploma. The dropout rate is defined as the proportion of the population that does not attend school and has not obtained a secondary school diploma.

The dropout rate by age is obtained by measuring the proportion of the population with a secondary school diploma<sup>1</sup> by age, and the proportion without a diploma but still in school.<sup>2</sup> The two measurements are added together and deducted from 100.

Graph 2.6 shows the downward trend of the dropout rate since 1979. The increase observed in the 1980s is due to the raising of the pass mark, which made it more difficult to obtain a secondary school diploma (see Section 5.2). Results in recent years have been relatively stable.

The dropout rate in 2002 was 19.6% for 20-year-olds, 20.6% for 25-year-olds and 25.6% for 30-year-olds. Generally speaking, this indicates that the dropout rate in the youth sector is lower than for previous generations. An analysis of the data for a given age reveals that the dropout rate has declined considerably in the past 20 years: the rate for 17-year-olds went from 26.2% in 1979 to 11.0% in 2002. and the rate for 19-year-olds dropped from 40.6% to 19.6% during the same period.

Table 2.6 shows the difference in dropout rates for male and female students and indicates that women are less likely to drop out of school. In 1979, the gender gap was relatively small, but was somewhat more pronounced in 2002. For example, for 19-year-olds, the dropout rate for men in 2002 was almost three fifths of what it was in 1979 (24.6% compared with 43.8%); for women, the rate in 2002 was less than two fifths of what it was in 1979 (14.4% compared with 37.2%). The situation of women has therefore improved more than that of men; this analysis also holds true for the other age groups in Table 2.6.

In 2002, 19.6% of 19-year-olds were without a secondary school diploma and were not attending school. This proportion was 40.6% in 1979.

<sup>1.</sup> The diplomas considered here are the Secondary School Diploma (SSD-including the Short Vocational Diploma and the Long Vocational Diploma), the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and certification for on-the-job training in a recycling facility.

<sup>2.</sup> At either the secondary or college level. It is possible-although less and less so in the past few years-for a person without a secondary school diploma to be accepted in college. Persons who enroll in university without a secondary school diploma are not taken into account here.

Table 2.6 Dropout rate by age and gender (%)		1979	1989	1999	2000	2001	2002
	<b>17-year-olds</b> Male Female	<b>26.2</b> 27.6 24.7	<b>18.5</b> 21.3 15.5	<b>10.2</b> 13.2 7.0	<b>11.4</b> 14.1 8.5	<b>10.5</b> 13.4 7.4	<b>11.0</b> 13.9 7.9
	<b>18-year-olds</b> Male Female	<b>35.7</b> 38.0 33.2	<b>23.4</b> 27.1 19.5	<b>16.9</b> 20.7 12.9	<b>16.5</b> 21.1 11.7	<b>17.3</b> 21.6 12.8	<b>16.3</b> 20.6 11.7
	<b>19-year-olds</b> Male Female	<b>40.6</b> 43.8 37.2	<b>27.1</b> 31.1 22.9	<b>20.2</b> 25.0 15.1	<b>19.7</b> 24.3 14.8	<b>18.8</b> 24.0 13.2	<b>19.6</b> 24.6 14.4

Table 2.6



### 2.7 Grade Repetition and Academic Delay– Youth Sector

cademic delay may be observed when a student in a grade A level is older than the age expected for this level.<sup>1</sup> It is difficult for students to catch up when they are experiencing this kind of delay, because they would have to skip a year later on, which is rare, especially when they have already had enough difficulties that they have had to be held back a year or more. This is why, as shown in Table 2.7 (in elementary school in 1983-1984, for example), the proportion of students experiencing academic delay increases with each grade level; essentially, each year more students experiencing delay are added to this group but none are ever removed.

In more recent years, this cumulative effect in the proportion of students experiencing academic delay has been less visible because students in the third year of a cycle in elementary school (who, by definition, are all behind) are counted with the students in the second year, thereby increasing the proportion of students experiencing academic delay (among the students in the second year of a cycle).

On the contrary, in secondary general education, the proportion of students experiencing academic delay appears to be declining with each grade level (see Table 2.7; in 1983-1984, the rate went from 33.4% for Secondary I to 25.2% for Secondary IV). This is a result of these students dropping out (who, instead of being counted as students experiencing delay, are no longer considered at all present in the school system) or transferring to vocational training.

In more recent years, this explanation seems to be less applicable to secondary school. The apparently stable rate from one grade to another hides a different reality. If a cohort (for example, students enrolled in Secondary I in 2000-2001, in Secondary II the following year and in Secondary III in 2002-2003) is followed, the proportion of students experiencing academic delay goes from 30.8% to 30.4%, then to 29.2%. The rates decrease for the cohort because the students drop out or transfer to vocational training.

With the education reform, it is no longer possible to calculate grade repetition<sup>2</sup> in elementary school, as was done in previous versions of the Education Indicators, especially in terms of constructing a historical profile. This section therefore deals only with grade repetition in general education at the secondary level.

Since peaking in 1991-1992, the proportion of secondary school students who repeat a grade is generally on a downward trend, and was 7.9% in 2002-2003. Grade repetitions are particularly high in Secondary I, but this is not surprising, considering that all elementary school students, including those with difficulties, are sooner or later promoted to secondary school, if only because they have turned 13 years of age. Moreover, students in individualized paths for learning may be classified for administrative purposes in Secondary I for several years.

The proportion of students who repeat a year is relatively low in the final years of secondary school. Some of these students have reached the age when school attendance is no longer compulsory and either drop out of school or continue their studies in vocational training or in the adult sector. Graph 2.7 shows changes in the proportion of grade repetition for each grade level. For all of secondary school, this proportion was 7.9% in 2002-2003, compared with 10.0% in 1991-1992.

In 2002-2003, 18.2% of elementary and secondary school students were behind in their schooling.

Activities N

<sup>1.</sup> This is the case if a student is older than 6 years of age (as of September 30) and enrolled in the first year of Elementary Cycle One, or older than 7 years of age and in the second year of Elementary Cycle One, as well as if a student is older than 12 years of age in Secondary I, and so forth. All students enrolled in the third year of a cycle at the elementary level are considered to be experiencing academic delay, regardless of their age.

<sup>2.</sup> Repeaters are those students who were in the same grade or a higher grade the preceding year. For our purposes, students in Secondary VI general education are considered repeaters.

Table 2.7		1983-	1993-	1998-	2000-	2001-	2002-
Proportion of students experiencing academic		1984	1994	1999	2001	2002	2003
delay, by level of	Total	20.9	24.0	21.0	19.8	18.9	18.2
education and	Elementary school	13.2	16.2	12.8	12.4	11.6	10.7
grade level (%)	1 (or A) (or 1.1)	6.5	8.6	6.9	6.3	4.3	2.6
	2 (or B-C) (or 1.2+)	9.2	12.5	9.8	10.0	10.2	9.8
	3 (or D) (or 2.1)	11.3	15.9	12.1	12.6	10.5	9.6
	4 (or E-F) (or 2.2+)	14.3	17.9	14.3	14.1	13.7	13.0
	5 (or 3.1)	14.5	20.2	16.6	14.9	14.6	13.2
	6 (or 3.2+)	22.4	21.6	18.6	16.6	14.0	15.4
	Secondary school	30.6	32.9	31.0	29.4	28.5	27.6
	(general education)						
	l ,	33.4	36.8	32.5	30.8	28.7	27.5
	II	30.4	32.6	31.5	31.7	30.4	28.5
	Ĩ	29.4	33.1	30.5	30.7	30.4	29.2
	IV	25.2	30.1	29.3	26.7	27.1	26.6
	V	33.5	30.4	30.8	26.4	25.3	25.4
	V	55.5	50.4	50.0	20.4	20.0	20.4



# 2.8 College Enrollment– **Regular Education**<sup>1</sup>

n 2002-2003, 57.8% of a generation of young Quebeckers went on to college. This is 6 percentage points lower than the rate observed in 1996-1997, just before the drop in the secondary school graduation rate and the tightening of the criteria for admission to CEGEP.<sup>2</sup>

College enrollment (regular education) rose by 22 percentage points between 1975-1976 and 1986-1987 (from 39.3% to 61.2%), followed by a drop of 5 percentage points in 1987-1988. In the six years thereafter, it rose by 10 percentage points, reaching a new high of 66.9% in 1993-1994. Since then, enrollment has dropped by 9 percentage points for all young Quebeckers.

Since the late 1970s, changes in college enrollment can be largely explained by trends observed at the secondary level in the youth sector: first, a rise in the graduation rate in secondary general education until 1985-1986, followed by a drop in the graduation rate owing to the application of tighter standards at the end of the 1980s, then by a return to an upward trend at a slower pace from 1990-1991 to 1995-1996, ending with a sudden drop in 1996-1997, which was finally ended in 1998-1999.

There is a close correlation between obtaining a secondary school diploma in general education in the youth sector or before the age of 20 in the adult sector, and enrolling in college. This correlation would seem to indicate that the majority of general education graduates, as well as a certain number of vocational training graduates, eventually go on to college.

Over a period of 15 years or so, the gender gap in college enrollment has widened steadily. Although rather negligible in the mid-1970s, the difference reached 19.5 percentage points in favour of women in 2002-2003, with only women having regained any ground in recent years.

College enrollment also varies depending on the type of education involved. Since 1995-1996, the probability of enrolling in pre-university education dropped from 37.9% to 33.4% in 2002-2003, after peaking at 43.9% in 1992-1993. The probability of enrolling in college technical education declined from 21.6% to 18.1% from 1986-1987 to 1989-1990. returning to 23.2% in 1992-1993 and then settling at 17.1% in 2002-2003.

In recent years, the only regular education program where enrollment has increased is Explorations. In 1993-1994, 4.9% of students undertook college studies in this type of program; in 2002-2003, the figure was 7.3%, which, out of a total of 57.8%, represents more than one in ten new enrollments.

In 2002-2003, college enrollment decreased 1.1% percentage points to stand at 57.8%, which is a return to the situation that prevailed five years ago.

Activities Ν 64

<sup>1.</sup> The figures mentioned here include only students enrolled for the first time in programs leading to a Diploma of College Studies (DCS) in regular education.

<sup>2.</sup> Since the fall of 1997, students who enroll in CEGEP must not only have their Secondary School Diploma (SSD), but must also have successfully completed the following courses: Secondary V language of instruction and second language, Secondary IV history and physical science, and Secondary V mathematics or comparable Secondary IV mathematics.

#### Table 2.8

Full- or part-time enrollment in regular education in public or private colleges, by gender and type of education (%)

	1975-	1985-	1995-	2000-	2001-	2002-
	1976	1986	1996	2001	2002	2003 <sup>e</sup>
Male	38.9	52.0	55.8	49.6	49.8	48.3
Pre-university education	25.4	34.2	31.5	26.3	26.2	26.2
Technical education	13.4	17.7	18.5	16.9	16.6	14.7
Explorations	-	-	5.9	6.4	7.0	7.5
Female	39.7	64.9	71.1	68.4	68.6	67.8
Pre-university education	22.5	41.0	44.7	42.5	41.7	41.1
Technical education	17.1	23.9	20.3	20.6	21.1	19.7
Explorations	-	-	6.1	5.3	5.7	7.0
Total	39.3	58.3	63.3	58.7	58.9	57.8
Pre-university education	24.0	37.5	37.9	34.2	33.7	33.4
Technical education	15.3	20.8	19.3	18.7	18.8	17.1
Explorations	-	–	6.0	5.9	6.4	7.3

e: Estimates

-: Not applicable

### Graph 2.8

Full- or part-time enrollment in regular education in public or private colleges, by gender (%)





### 2.9 Immediate Transition From College to University

The main objective of college pre-university education is to prepare students for university. In the fall of 2002, 77.7% of the class of 2001-2002 aged 24 or under with a diploma in a pre-university program<sup>1</sup> were enrolled full-time in university.<sup>2</sup> Also in the fall of 2002, 76.7% of female graduates of pre-university education were enrolled fulltime in university, a slightly lower percentage than that of men in the same situation (79.3%).

Between 1994 and 1999, the proportion of pre-university education graduates who went on to university without interrupting their studies was between 78.6% and 84.0%. The rate decreased from 84.0% in 1999 to 76.4% in 2002. Although the method used to estimate the proportion of graduates enrolled in university immediately after completing college has changed somewhat since 2000, data from the fall of 2002 confirms the downward trend observed in recent *Relance* surveys. Since the spring of 2000, it has been easier for people between the ages of 20 and 24 to find jobs. This may be one of the factors explaining the decrease in the proportion of college graduates who enroll in university immediately after college during this period. In the fall of 2002, there was nevertheless a significant increase in the proportion of college graduates who enrolled in university full-time, which went from 76.4% to 77.7%.

In the fall of 2002, 20.8% of students aged 24 or under who graduated from a technical program in 2001-2002, were enrolled full-time in university the following year, which is comparable to the situation observed in recent years. This result confirms the fact that more technical education graduates now go on to university. Indeed, the proportion of graduates of technical programs going on to university has been close to 20% in the past four years, the highest proportion since 1984, despite the fact that these graduates would have little difficulty finding a job.

More male graduates aged 24 or under with a diploma in a technical program have been enrolling full-time in university than their female counterparts since 1984.

Of the class of 2001-2002, 77.7% of pre-university education graduates and 20.8% of technical education graduates went on to study full-time at university in the fall of the year following their graduation from college.

<sup>1.</sup> This refers to students who obtained a Diploma of College Studies (DCS) between the months of September and August of a given school year.

<sup>2.</sup> In 2002, the method used to estimate the proportion of college graduates going on to university without interrupting their studies was revised. From 1984 to 2002, estimates were based on the results of the Relance surveys conducted by the Ministère de l'Éducation, which present the situation of graduates of pre-university and technical programs as of March 31 following their year of graduation. In 2002, the proportion of college graduates going on to university without interrupting their studies was based on administrative data from the Système de gestion des données sur l'effectif universitaire (GDEU). For the purpose of comparing this data with data from the Relance surveys, the GDEU system was used to calculate the proportion of students who earned a college diploma in 2000-2001 and who were enrolled full-time in a Québec university in the fall of 2001. Although the data is from different sources, the proportions obtained using both methods are a satisfactory representation of the situation observed in 2002.

#### Table 2.9

Proportion of college graduates (24 years old or under) enrolling full-time<sup>1</sup> in university without interrupting their studies, by type of education and gender (%)

	1984	1994	2000	2001	2002 <sup>2</sup>	2003
Pre-university education	86.0	79.9	81.4	78.6	76.4	77.7
Male Female	87.7 84.3	79.0 80.5	80.8 81.7	77.0 79.6	77.0 76.0	79.3 76.7
Technical education	17.4	18.6	20.0	21.5	19.7	20.8
Male Female	21.9 14.4	21.0 17.1	23.9 17.5	26.3 18.2	24.5 16.2	24.9 17.3

1. The statistics produced between 1984 and 2001 are based on government Relance surveys. They represent the proportion of college graduates who, on March 31 of the reference year, were not employed and were enrolled in university either part-time or full-time. Since 2002, statistics are from the Système de gestion des données sur l'effectif universitaire (GDEU). The 2002 and 2003 statistics represent the proportion of students who earned a college diploma in 2000-2001 and in 2001-2002 and who were enrolled full-time in a Québec university the following fall. In the calculation of the indicator based on the Relance surveys, the inclusion of college graduates enrolled part-time in university and the reference date used (March 31) combined to produce a slightly higher result than that of the new indicator used since 2002.

2. Revised data



# 2.10 University Enrollment

This section concerns  $enrollment^1$  in programs leading to a university degree at the bachelor's, master's or doctoral level. Enrollment in certificate programs and nonprogram studies is not measured here.

In 1992-1993, the proportion of a generation enrolled for the first time in programs leading to a bachelor's degree increased by one third over an 8-year period, climbing to 39.7%, from 30.1% in 1984-1985. From 1992-1993 to 1997-1998, there was a decline of 5.8 percentage points in enrollment in bachelor's programs, and the rate fell to 33.9%. A similar decline was observed in enrollment in pre-university college programs after 1992-1993 (see Section 2.8). Thereafter, the rate began to rise again, reaching 41.1% in 2003-2004, comparable to that of 1992-1993. Women posted an even higher rate of enrollment in programs leading to a bachelor's degree at 47.8%.

Over this 19-year period, only women showed veritable gains in enrollment in bachelor's programs: the rate increased by 16.5 percentage points, whereas men (34.2%) were 5.2 percentage points above the level observed in 1984-1985. The gender gap was 13.6 percentage points, whereas it had been 2.3 percentage points 19 years earlier.

With respect to master's programs, enrollment rose for a sixth time in a row to 11.6% after having dropped in 1997-1998. Here too, gains were more favourable for women, whose enrollment rate was 11.9% in 2003-2004, compared with 11.6% for men. In 1984-1985, the difference was 1.5 percentage points in favour of men. At the master's level, women began showing definitive gains over men in 1993-1994. The overall increase in enrollment in master's programs between 1984-1985 and 2003-2004 was relatively greater than that observed at the bachelor's level.

The growing interest in doctoral studies is significant even though it applies to only a small portion of the population. Enrollment rose from 1.1% in 1984-1985 to 2.4% in 2003-2004. Men continue to enroll in doctoral studies in slightly greater numbers (2.7%) than women (2.2%), but the number of women enrolling at this level has increased more rapidly in the past 19 years.

In 2003-2004, the proportion of students enrolling in university is estimated at 41.1% for bachelor's programs, 11.6% for master's programs, and 2.4% for doctorate programs.

<sup>1.</sup> Since the data on new enrollments generally used for this indicator was unavailable at the time of writing, preliminary data on enrollments provided by the Conference of Rectors and Principals of Quebec Universities (CREPUQ) was used for the 2001-2002, 2002-2003 and 2003-2004 figures. More specifically, the annual variation in new full-time enrollments in programs leading to a bachelor's degree was used to estimate enrollment for 2001-2002 and 2002-2003 on the basis of the most recent data observed, that is, in 2000-2001. Data for programs leading to a master's degree or doctorate was estimated on the basis of variations in enrollment in these programs.

Table 2.10 Enrollment in		1984- 1985	1992- 1993	1997- 1998	2001- 2002 <sup>e</sup>	2002- 2003⁰	2003- 2004 <sup>e</sup>
programs leading to a university degree,	Bachelor's programs						
by gender (%)	Male Female <b>Total</b>	29.0 31.3 <b>30.1</b>	34.8 44.9 <b>39.7</b>	28.9 39.1 <b>33.9</b>	30.4 43.7 <b>37.1</b>	31.9 45.3 <b>38.6</b>	34.2 47.8 <b>41.1</b>
	Master's programs						
	Male Female <b>Total</b>	7.5 6.0 <b>6.8</b>	8.5 8.3 <b>8.4</b>	8.4 8.9 <b>8.7</b>	10.2 10.4 <b>10.2</b>	11.2 11.4 <b>11.2</b>	11.6 11.9 <b>11.6</b>
	Doctoral programs						
	Male Female <b>Total</b>	1.4 0.8 <b>1.1</b>	2.3 1.4 <b>1.9</b>	1.9 1.8 <b>1.9</b>	2.3 1.8 <b>2.0</b>	2.5 2.0 <b>2.2</b>	2.7 2.2 <b>2.4</b>

e: Estimates (See Note 1 at the bottom of the text.)



69

# 2.11 Training of Researchers

C tudents enrolled in a program leading to a doctorate are > the most likely to go into university research. In the fall of 2002, these students totalled 9 280, a peak since 1990.

Enrollment in doctoral programs is mainly concentrated in social sciences, applied sciences, pure sciences and health sciences. In 2002, 29.6% of doctoral candidates were in social sciences, 18.4% in applied sciences, 15.2% in pure sciences, and 13.4% in health sciences.

Men accounted for the majority of the students enrolled in a doctoral program (53.8% in the fall of 2002, compared with 46.2% for women). In 1990, the percentages were 64.7% and 35.3%, respectively. From 1990 to 2002, the increase in the number of women enrolled in doctoral programs (72.4%) was much greater than it was for men (9.7%).

In 2002, 80.7% of the men in doctoral programs were enrolled in applied sciences (26.4%), social sciences (24.6%), pure sciences (18.2%) and health sciences (11.5%). The number of men enrolled in business administration has increased the most since 1990, that is, by 107.7%.

The distribution of enrollments in doctoral programs differs for women and men. In the fall of 2002, 35.5% of the female students were in social sciences, 15.7% in health sciences, 11.6% in pure sciences, 9.2% in applied sciences, 8.2% in literature and 8% in education. The largest annual increases in female enrollment since 1990 have been in the arts (262.5%), law (231.6%), applied sciences (150.3%), health sciences (129.7%), and business administration  $(129.7\%).^{1}$ 

In the fall of 2002, 29.6% of doctoral students were enrolled in social sciences, 18.4% in applied sciences, 15.2% in pure sciences, and 13.4% in health sciences.

<sup>1.</sup> Female enrollment in interdisciplinary studies, which went from 21 in 1990 to 56 in 2002, is not taken into consideration.
Table 2.11
Enrollment in doctoral
programs, by field of
study, 1990 to 2002
(fall term)

	1990	1995	1998	1999	2000	2001	2002
Arts	96	120	175	186	200	209	237
Literature	654	770	690	665	607	583	579
Business administration	258	391	482	463	494	508	558
Law	58	103	107	108	109	110	120
Education	549	587	594	560	556	504	526
Social sciences	2 168	2 730	2862	2 746	2 721	2 685	2749
Pure sciences	1 229	1 506	1365	1 347	1 351	1 355	1408
Applied sciences	1 276	1 715	1433	1 446	1 388	1 446	1711
Health sciences	662	958	1021	1 041	1 114	1 149	1246
Interdisciplinary studies	60	126	105	96	92	87	121
Not applicable	27	171	22	21	16	23	25
Total	7 037	9 177	8856	8679	8 648	8 659	9280



# **3.1** Success in Secondary Cycle Two of General Education– Adult Sector<sup>1</sup>

**O** f the students in general education in the adult sector who left secondary school in 2001-2002, 14.3% obtained a diploma. If only students in Cycle Two are considered, the proportion more than triples, to 47.3%. Of the various instructional services<sup>2</sup> only Secondary Cycle Two normally leads to a diploma. Figures for new enrollments broken down according to instructional service are available as of 1988-1989 only. These figures show that the proportion of graduates was 23.2% for students leaving Secondary Cycle Two; the rate has therefore doubled since that time.

Although earning a diploma is not the most appropriate criterion for measuring success in the other instructional services, it can nevertheless be observed that the proportion of graduates is on the rise among students in all the instructional services in the adult sector. Since 1980-1981, this proportion has risen from 11.5% to 14.3%. This increase is due primarily to the fact that fewer students are dropping out of instructional services that do not lead directly to a diploma. Instead of quitting school, students pursue their studies in another instructional service, and thus enter Cycle Two and eventually earn a secondary school diploma.

Among students leaving school, the proportion who hold a diploma is higher for those under 20 years of age than for all ages combined. Thus, in Secondary Cycle Two, 56.8% of the students leaving before the age of 20 did so with a diploma; progress has been considerable in this respect, because the corresponding proportion for 1988-1989 was 36.3%. With respect to instructional services as a whole, the proportion of those under the age of 20 leaving with a diploma grew from 22.0% to 26.8% between 1980-1981 and 2000-2001.

In 1980-1981, the graduation rate was slightly higher for male students than for female students, but the situation has since reversed. In 2001-2002, the graduation rate for

female students exceeded that of male students by 3.1 percentage points, with the difference being 11.2 percentage points for those under 20 years of age.

Of the students under the age of 20 who were enrolled in Secondary Cycle Two in the adult sector in 2001-2002, 56.8% earned a diploma.

<sup>1.</sup> Success in general education is measured here by the proportion of new graduates among all general education students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

<sup>2.</sup> The following instructional services are offered, or were offered in the past, in general education in the adult sector: Integration into Community Life Program (ICLP), sociovocational integration services, pre-employment training activities (PTA), literacy services, francization services, adults educated in the youth sector, study skills and career planning, preparatory services for secondary education, Secondary Cycle One education services, Secondary Cycle Two education services, vocational training preparation services, preparatory services for postsecondary education, and preparatory services for higher education.

Table 3.1
Proportion of students
leaving general
education in the adult
sector with a diploma, <sup>1</sup>
by gender, instructional
service, age and last
year of enrollment
(%)

T11 D4

	1980-	1988-	1990-	1995-	2000-	2001-
	1981	1989	1991	1996	2001	2002 <sup>e</sup>
Male						
Secondary Cycle Two	N/A	22.7	37.3	50.2	42.5	44.1
Under the age of 20	N/A	36.2	45.5	61.0	51.7	52.9
All instructional services	13.1	13.2	13.1	14.9	12.3	12.8
Under the age of 20	23.1	22.4	23.9	22.4	22.4	23.9
Female						
Secondary Cycle Two	N/A	23.6	41.4	55.9	49.3	50.4
Under the age of 20	N/A	36.4	50.9	67.5	57.9	61.1
All instructional services	10.3	15.3	16.5	20.0	16.1	15.9
Under the age of 20	20.8	25.8	30.9	33.2	33.2	35.1
Total						
Secondary Cycle Two	N/A	23.2	39.6	53.2	45.9	47.3
Under the age of 20	N/A	36.3	48.2	64.3	54.7	56.8
All instructional services	11.5	14.4	14.9	17.4	14.1	14.3
Under the age of 20	22.0	24.1	27.1	26.8	26.8	28.5

N/A: Data not available

Cycle Twoall ages

e: Estimates

1. All secondary school diplomas are taken into account.

#### Graph 3.1

**Proportion of students** leaving general education in the adult sector with a diploma, by last year of enrollment (%)



# 3.2 Success in Secondary Vocational Training<sup>1</sup>

**O** f the students in vocational training<sup>2</sup> who left secondary school in 2001-2002, 58.6% obtained a diploma. If only those students truly considered to be working toward a diploma, that is, full-time students,<sup>3</sup> are considered, the proportion of graduates climbs to 84.0%, the highest rate in recent years.

Since the beginning of the vocational training reform in 1987-1988, the percentage of graduates has increased appreciably. For example, at the end of 2001-2002, the proportion of students graduating from programs leading to a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) was 69.7%, compared with 43.4% in 1988-1989. The success rate for long vocational programs has not increased much since the mid-1980s, but data on long vocational programs concerned only the youth sector. If only full-time students are considered, progress is more evident. As noted earlier, the proportion of graduates among students enrolled for the last time in 2001-2002 was 84.0%, compared with 56.3% for students who completed their studies 20 years earlier.

However, if we consider all school leavers without taking into account the sector or whether enrollment is full-time or part-time, the proportion of diplomas has also increased since the early 1980s. Thus, the success rate of persons enrolled in vocational training for the last time in 1980-1981 was 46.6%, and it rose to 58.6% in 2001-2002.

There was a significant decline in the number of new enrollments in vocational training during the 1980s (see Section 2.4). Students are now required to spend more time in general education before being admitted into vocational training. General education graduates still have higher success rates in vocational training than students who do not already have a diploma. This explains in large part the higher success rate observed for all school leavers in recent years. The differences in the results of male and female students have varied over the years. In 1999-2000, there was a reversal in trends relating to graduation from programs leading to a DVS and the success rate of female students surpassed that of male students (70.2% compared with 63.9%). In the past, the success rate for male students was 2 to 10 percentage points higher than for female students. However, when only the overall graduation rate by gender is considered, the success rate for female students has been higher for a long time. In 1985-1986, the proportion of female students graduating from vocational training was 36.2%, compared with 28.7% for male students; in 2001-2002, the proportions were 67.8% and 52.9%, respectively.

In 2001-2002, although the success rate for male students in programs leading to a DVS increased by 1.6 percentage points (67.4%), it was still lower than for female students, who surpassed male students for the first time in a decade in 1999-2000.

3. Students enrolled for 270 course hours or more per year are considered full-time.

<sup>1.</sup> Success in vocational training is measured here by the proportion of new graduates among all vocational training students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

<sup>2.</sup> Because school boards are not required to transmit vocational training enrollment data when a diploma, attestation or certificate is not awarded, the denominator for the success rate may be incomplete.

Table 3.2
<b>Proportion of students</b>
leaving secondary
vocational training
with a diploma, <sup>1</sup>
by gender, category
and last year of
enrollment (%)

	1980- 1981	1985- 1986	1990- 1991	1995- 1996	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Male Long vocational or DVS <sup>2</sup> Full-time <sup>3</sup> All male school leavers	57.1 51.8 48.3	58.3 51.4 28.7	60.0 81.1 21.7	67.7 79.5 46.2	63.9 81.6 50.7	65.8 80.6 52.5	67.4 83.3 52.9
<b>Female</b> Long vocational or DVS <sup>2</sup> Full-time <sup>3</sup> All female school leavers	65.5 61.3 45.2	69.5 62.0 36.2	50.3 80.0 39.3	64.5 78.3 54.0	70.2 82.4 65.7	71.2 82.6 64.4	72.7 84.8 67.8
<b>Total</b> Long vocational or DVS <sup>2</sup> Full-time <sup>3</sup> All school leavers	61.7 56.3 46.6	64.1 56.6 32.1	54.4 80.6 27.9	66.1 78.9 49.5	66.6 82.0 56.6	68.1 81.5 57.2	69.7 84.0 58.6

e: Estimates

1. All secondary school diplomas are taken into account.

2. Figures for 1980-1981 and 1985-1986 cover enrollment in long vocational programs only in the youth sector. After 1988-1989, figures take into account DVSs in the youth and adult sectors.

3. Students enrolled for 270 course hours or more per year are considered full-time.





# **3.3** Success in Pre-University Programs in Regular College Education<sup>1</sup>

f the students in pre-university programs who left regular college education at the end of 2001-2002, 71.3% earned a Diploma of College Studies (DCS). In the past two decades, this graduation rate has fluctuated between 63.9% and 71.6%. The success rate has increased since 1999-2000. when it stood at 69.3%. Before the drop in 1999-2000, an increase in success rates had been observed: from 64.7% in 1995-1996 to 70.2% in 1998-1999. The stricter admission criteria that came into effect in the fall of 1997 (see Section 2.8) largely explain this increase, because fewer of the students who are most likely to guit their studies are able to enroll in college.

Women tend to do better than men in pre-university programs and the gap has grown over the years. In 1980-1981, the proportion of women finishing their pre-university education with a DCS surpassed that of men by 3.9 percentage points. In 2001-2002, the difference was 13.1 percentage points in favour of women (it was 10.8 percentage points in 1995-1996). This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.8). explains the gender gap with respect to graduation rates (see Section 5.6).

When the type of initial college program is taken into account, the success rate is slightly above average for students who began their studies in pre-university programs: in 2001-2002, it was 73.3%. Students arriving from technical programs had markedly lower success rates. Given that since 1994-1995 some graduates have also begun in Explorations programs (introduced the previous year), the success rate remained lower for pre-university program students who came from another type of program. This rate did not clear the 50% mark in 1998-1999 and reached 55.5% in 2001-2002.

In theory, it takes two years to obtain a DCS in a preuniversity program, but very few students do so within this time frame. In fact, the rate of completion within two years

(that is, the time elapsed from initial enrollment in a program leading to a DCS) reached 44.2% in 2001-2002 for students who began their studies in a pre-university program. This rate was at its lowest point, 35%, in 1986-1987. If all pre-university program graduates are considered, regardless of the program in which they were initially enrolled, obviously their success rate for two-year completion will be slightly lower because students who transfer from other programs spend more time in school. Generally, the majority of the pre-university DCSs are obtained within five years of the start of college studies; in 2001-2002, the corresponding success rate was 72.1%.

Of the students in pre-university education completing their studies in 2001-2002, 71.3% graduated with a DCS; this figure increased by close to 2 percentage points in the two preceding years.

<sup>1.</sup> Success in pre-university programs in regular college education is measured here by the proportion of new graduates among all students in pre-university programs in regular college education who leave programs leading to a DCS, with or without a diploma. DCSs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DCS. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

Table 3.3
Proportion of students
leaving a pre-university
program with a DCS,
by last year of
enrollment in regular
college education,
gender, type of initial
program, and time
elapsed <sup>1</sup> since initial
enrollment (%)

	1980- 1981	1990- 1991	1995- 1996	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Male and female						
Same type of initial program 2 years or less <sup>1</sup> 5 years or less <sup>1</sup> All durations	N/A N/A N/A	40.5 70.8 72.0	36.6 65.2 66.5	41.7 70.8 72.1	44.3 72.1 73.3	44.2 72.1 73.3
Other type of initial program <sup>2</sup> All durations	N/A	61.3	47.5	54.9	54.2	55.5
All types of initial programs-	-all duratio	ns				
Male and female Male Female	66.8 64.9 68.8	71.4 66.2 75.8	64.7 58.7 69.5	70.2 62.9 75.4	71.2 63.8 76.4	71.3 63.6 76.7

e: Estimates

Total

Male

N/A: Data not available

1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.

2. Until 1993-1994, this category referred to students who began their studies in a technical program. As of 1994-1995, this category also includes students who leave pre-university education (with or without a diploma) after having begun in an Explorations program the previous year.

#### Graph 3.3

**Proportion of students** leaving a pre-university program with a DCS, by gender and last year of enrollment in regular college education  $(\overline{\%})$ 



# **3.4** Success in Technical Programs in Regular College Education<sup>1</sup>

f the students in regular college education who left technical programs at the end of 2001-2002, 59.8% earned a Diploma of College Studies (DCS). In the past two decades, this graduation rate has fluctuated between 52.7% and 60.7%.

In this area, women still do better than men. The gender gap was at its greatest (17.1 percentage points) in 1997-1998 and narrowed by 5 percentage points in 2001-2002, when the success rate for women was 65.5% compared with 53.1% for men, a difference of 12.4 percentage points in favour of women. This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.8), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

When the type of initial college program is taken into account, for the first time in 2000-2001, the success rate was slightly higher than the average for students who began their studies in technical programs (60.1% in 2000-2001). Moreover, students who began in pre-university programs and who transferred to technical programs had markedly higher success rates (more than 60% until 1993-1994). Since 1994-1995, the success rates of students who began their college studies in programs other than technical programs were brought down by the rates of students in Explorations programs (introduced in 1993-1994).

In theory, it takes three years to earn a DCS in a technical program, but very few students do so within this time frame. In fact, the rate of completion within three years (that is, the time elapsed from initial enrollment in a program leading to a DCS) was 32.9% in 2001-2002 for all students who began in technical programs. If all technical education graduates are considered, regardless of the program in which they were initially enrolled, obviously their success rate for three-year completion will be slightly lower because students who transfer spend more time in school. Generally, a higher proportion of technical DCSs are obtained within five years of the start of college studies; in 2001-2002, the corresponding success rate was 53.9%.

Of the students in technical programs completing their studies in 2001-2002, 59.8% earned a DCS; this percentage has increased slightly in recent years.

<sup>1.</sup> Success in technical programs in regular college education is measured here by the proportion of new graduates among all students in technical programs in regular college education who leave programs leading to a DCS, with or without a diploma. DCSs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DCS. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

Table 3.4
Proportion of students
leaving a technical
program with a DCS,
by last year of
enrollment in regular
college education,
gender, type of initial
program, and time
elapsed since initial
enrollment <sup>1</sup> (%)

	1980- 1981	1990- 1991	1995- 1996	1999- 2000	2000- 2001	2001- 2002 <sup>e</sup>
Male and female						
Same type of initial program 3 years or less <sup>1</sup> 5 years or less <sup>1</sup> All durations	N/A N/A N/A	29.6 51.1 56.6	26.8 47.8 53.1	31.6 52.4 57.6	33.3 54.4 60.1	32.9 53.9 59.8
Other type of initial program <sup>2</sup> All durations	N/A	64.4	55.7	57.7	59.7	59.7
All types of initial programs-	-all duratio	ns				
Male and female Male Female	59.0 53.9 63.0	58.6 54.7 61.3	53.9 46.1 60.9	57.7 50.1 64.5	60.0 53.5 65.8	59.8 53.1 65.5

e: Estimates

N/A: Data not available

- 1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.
- 2. Until 1993-1994, this category referred to students who began their studies in a pre-university program. As of 1994-1995, this category also includes students who left technical education (with or without a diploma) after having begun in an Explorations program the previous year.

#### Graph 3.4

Proportion of students leaving a technical program with a DCS, by gender and last year of enrollment in regular college education (%)



# **3.5** Duration of Studies in Regular College Education

The duration of studies for graduates with a Diploma of College Studies (DCS) and for all students (regardless of whether or not they obtain a DCS) has changed very little over the years.<sup>1</sup>

Graduates from pre-university education have studied for an average of 2.4 years. For those who leave without a diploma, the total duration of studies is still an average of 1.5 years. The average duration of studies, whether students leave with or without a diploma, is 2.1 years.<sup>2</sup> For most students, that is, those who began their college studies directly in preuniversity programs, the corresponding durations are similar or are 0.1 years less. Students who transferred from another type of program take 3.1 years to obtain their DCS in pre-university education.

Students in technical programs take an average of 3.8 years to earn a DCS, while those who leave without a diploma do so after 2.2 years. Given the success rate (see Section 3.4), students leaving technical programs study for 3.1 years. Here too, those students who enrolled in technical programs right from the beginning of their college studies leave in a shorter time: those leaving with a DCS do so in 3.5 years and those leaving without a diploma do so after 1.8 years. However, students who had initially enrolled in pre-university programs (who have a higher success rate) or in Explorations programs take 4.5 years to obtain a DCS in technical education.

Very slight differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. In pre-university education, female graduates, like women who leave their studies before obtaining a diploma, do so sooner (0.1 years) than men. This difference disappears, however, when college leavers overall are considered by gender because more women than men obtain a diploma, thereby raising the average duration of studies

for women overall. The same effect can be observed in technical education, where female graduates study 0.1 years less than their male counterparts, while women who leave their studies before obtaining a diploma spend the same amount of time in school as men (average of 2.2 years).

On average, a DCS in pre-university education is obtained after 2.4 years equivalent to full-time study and a DCS in technical education, after 3.8 years.

<sup>1.</sup> This is why the results of this section are the averages for college leavers for the last five years observed (that is, the averages for students enrolled for the last time from 1997-1998 to 2001-2002). However, in the case of students leaving without a diploma, over a 10-year period, the duration of studies before dropping out has lengthened, by 0.4 full-time terms for pre-university education and by 1 full-time term for technical education.

<sup>2.</sup> The duration of studies for all college leavers depends, on the one hand, on the respective duration of studies of students with a DCS and college leavers without a diploma, and on the other hand, on the weighting of these two categories of students, that is, the success rate. This explains why the duration of studies for all students, whether or not they leave with a diploma, has remained stable, even though the success rates have been dropping and the duration of studies for those leaving without a diploma has been getting longer.

Table 3.5 Average number of years <sup>1</sup>		With Dipl	loma	Without Dij	ploma <sup>2</sup>	Total	
of study completed before leaving regular		Pre-university education	Technical education	Pre-university education	Technical education	Pre-university education	Technical education
college education (average for all college leavers after 1997-1998),	Male Female	2.5 2.4	3.9 3.8	1.5 1.4	2.2 2.1	2.1 2.1	3.0 3.2
by gender and type of	Total <sup>3</sup>	2.4	3.8	1.5	2.2	2.1	3.1
program enrolled in at the start and finish	Type of initial pro	ogram					
of the studies	Same Different <sup>3</sup>	2.4 3.1	3.5 4.5	1.4 2.1	1.8 2.9	2.1 2.6	2.8 3.8

1. One year of full-time study is equivalent here to two full-time terms or eight part-time terms.

2. Refers to students who have interrupted their studies for at least six consecutive terms.

3. Refers to the total duration, including studies undertaken previously in other types of programs.



Cumulative schoolleaving rates for regular college education between 1996-1997 and 2000-2001, by number of years elapsed since initial enrollment in a program leading to a DCS (%)



# **3.6** Success and Duration of Studies in Bachelor's Programs<sup>1</sup>

A t the end of 2001-2002, 67.4% of students leaving a bachelor's program earned their degree, that is, 0.4% more than the preceding year. In the 14-year period observed, the graduation rate increased from 55.9% for students enrolled for the last time in 1987-1988.

From the beginning of the period under observation, female students have had higher success rates than male students, with the difference rising from 0.7 to 4.1 percentage points between 1987-1988 and 2001-2002, after a maximum gap of 7.7 percentage points in 1996-1997. In the last year observed, 69.1% of female students who left a bachelor's program did so with a degree, compared with 65% of their male counterparts. This phenomenon, coupled with the fact that more women than men enroll in bachelor's programs (see Section 2.10), explains the gender gap with respect to graduation rates (see Section 5.7).

Graduates of bachelor's programs have studied for an average of 6.4 full-time terms, or for 8.8 terms if full-time or part-time status is not taken into account.<sup>2</sup> Those who leave without a degree study an average of 2.6 terms, or slightly more than one year, full-time. For all students leaving bachelor's programs, the average duration of studies is 7.3 terms, 5.1 of which are full-time.

Differences in the duration of studies are apparent in the figures for men and women, and according to the attendance status upon leaving. Whether women obtain a bachelor's degree or give up their studies without a degree, they do so sooner than men do. Women who obtain a bachelor's degree spend 0.6 fewer terms in full-time studies than men, while women who leave their program without a degree do so 0.5 terms sooner than men. Nevertheless, when the duration of studies is considered, regardless of full- or part-time status, the gender difference is not as pronounced, because more women than men study part-time. For all students leaving bachelor's programs, the gender difference is less evident, mainly because more women than men obtain a degree, which raises the average duration of studies for women overall.

Of the students leaving a bachelor's program at the end of 2001-2002, more than two thirds (67.4%) earned a degree.

<sup>1.</sup> Success in university bachelor's programs is measured here by the proportion of new graduates among all students leaving the programs with or without a degree. The degrees taken into account are bachelor's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in an undergraduate program leading to a bachelor's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.

<sup>2.</sup> A portion of the studies is done part-time and is added to the average duration of full-time studies. For graduates, the duration of part-time studies varies from 2.2 to 2.5 terms. For those who leave without a degree, the duration of part-time studies is from 1.7 to 2.0 terms. For all school leavers, the duration of part-time studies varies from 2.0 to 2.4 terms.

#### Table 3.6a

Table 3.6b

**Proportion of students** graduating from a bachelor's program, by gender and last year of enrollment (%)

		1987- 1988	1990- 1991	1995- 1996	1999- 2000	2000- 2001 <sup>e</sup>	2001- 2002º
	Male	55.5	59.7	61.7	62.5	64.4	65.0
[	Female	56.2	63.1	69.0	67.7	68.9	69.1
	Total	55.9	61.5	65.9	65.5	67.0	67.4

e: Estimates

Table 3.6b Average number of		With	Degree	Without	t Degree <sup>1</sup>	Total	
terms completed before leaving a bachelor's program		Full-time	All attendance statuses <sup>2</sup>	Full-time	All attendance statuses <sup>2</sup>	Full-time	All attendance statuses <sup>2</sup>
(average for all leavers after 1996-1997),	Male	6.7	9.0	2.9	4.5	5.2	7.3
by gender	Female	6.1	8.7	2.4	4.4	4.9	7.3
	Total	6.4	8.8	2.6	4.4	5.1	7.3

1. Refers to students who have interrupted their studies for at least six consecutive terms.

2. Refers to the total duration of full- and part-time studies.

#### Graph 3.6

**Proportion of students** graduating from a bachelor's program, by gender and last year of enrollment (%)



# **3.7** Success and Duration of Studies in Master's Programs<sup>1</sup>

t the end of 2001-2002, 70.4% of students leaving a A master's program earned their degree. This is a gain of 14.3 percentage points over a 14-year period, as well as the highest level recorded for that period.

In 1987-1988, relatively fewer women than men seeking a master's degree pursued their studies to graduation. Since then, women have taken the lead and now have a higher success rate than men. In 2001-2002, 72.2% of women leaving a master's program did so with a degree, for an increase of 17.2 percentage points since 1987-1988. The corresponding increase for men was 11.6 percentage points; 68.6% of men leaving a master's program did so with a degree in 2001-2002. This phenomenon, coupled with the fact that more women than men enroll in master's programs (see Section 2.10), explains the gender gap with respect to graduation rates (see Section 5.7).

Graduates of master's programs are enrolled for an average of 7.5 terms, regardless of whether they study on a full-time or part-time basis.<sup>2</sup> On average, students spend 4.1 terms in full-time studies. The total average duration of studies for students who leave without a degree is 5.2 terms, whether full-time or part-time. For all students leaving master's programs, the average duration of studies is 6.7 terms, 3.5 of which are full-time. The duration of studies referred to here is the actual duration and is not consistent with the calculation of full-time equivalents (FTEs) for funding purposes, where a standardized duration is generally recognized for a master's program with a thesis. In these cases, the "funded" duration is a maximum of 4 terms (1.5 years in FTEs) for master's programs. However, the actual duration of studies exceeds this standard for all types of attendance status. This means that students who leave without a master's degree are in practice fully funded, with the exception of a supplementary amount of \$1 000 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the attendance status upon leaving. Contrary to what was observed at the college level and in bachelor's programs, women enrolled in master's programs do not take less time than men to obtain their degree. If full-time enrollment only is considered, women certainly leave sooner (with or without a diploma) than men, but women with a master's degree have studied part-time for 0.3 terms more than men, and women who leave without a master's degree were enrolled part-time for 3.0 terms, compared with 2.7 terms for their male counterparts.

Of 100 students leaving a master's program at the end of 2001-2002, 70.4% earned a degree, after an average of 7.5 terms of study.

<sup>1.</sup> Success in university master's programs is measured here by the proportion of new graduates among all students leaving the programs with or without a degree. The degrees taken into account are master's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a graduate program leading to a master's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.

<sup>2.</sup> A portion of the studies is done part-time and is added to the average duration of full-time studies. For graduates, the duration of part-time studies varies from 3.2 to 4.0 terms. For those who leave without a degree, the duration of part-time studies is from 2.7 to 3.3 terms. For all school leavers, the duration of part-time studies varies from 3.0 to 3.8 terms.

#### Table 3.7a

Proportion of students graduating from a master's program, by gender and last year of enrollment (%)

1987- 1988       1990- 1991       1995- 1996       1999- 2000       2000- 2001°       2001- 2002°         Male       57.0       64.4       63.7       65.7       67.5       68.6         Female       55.0       64.5       67.5       69.0       71.1       72.2         Total       56.1       64.5       65.6       67.4       69.3       70.4								
1988         1991         1996         2000         2001e         2002e           Male         57.0         64.4         63.7         65.7         67.5         68.6		Total	56.1	64.5	65.6	67.4	69.3	70.4
1988 1991 1996 2000 2001 <sup>e</sup> 2002 <sup>e</sup>		Female	55.0	64.5	67.5	69.0	71.1	72.2
	-	Male	57.0	64.4	63.7	65.7	67.5	68.6

e: Estimates

Table 3.7b Average number of		With	With Degree		Without Degree <sup>1</sup>		Total	
terms completed before leaving a master's program (average for all leavers after 1996-1997), by gender		Full-time	All attendance statuses <sup>2</sup>	Full-time	All attendance statuses <sup>2</sup>	Full-time	All attendance statuses <sup>2</sup>	
	Male	4.2	7.4	2.4	5.1	3.5	6.6	
	Female	4.1	7.6	2.2	5.2	3.5	6.8	
	Total	4.1	7.5	2.3	5.2	3.5	6.7	

1. Refers to students who have interrupted their studies for at least six consecutive terms.

2. Refers to the total duration of full- and part-time studies.

#### Graph 3.7

Proportion of students graduating from a master's program, by gender and last year of enrollment (%)



# **3.8** Success and Duration of Studies in Doctoral Programs<sup>1</sup>

t the end of 2001-2002, 53.0% of students leaving a Adoctoral program earned their degree. Since 1987-1988, this proportion has increased by 4.3 percentage points, but has also dropped from its high of 58.1% in 1996-1997.

Although traditionally fewer women than men in doctoral programs have obtained their degree, in 2000-2001, for the first time, more women graduated from doctoral programs than their male counterparts. Of the women enrolled in 2001-2002 who left doctoral programs, 57.3% earned their degree, for an increase of 17 percentage points compared with 14 years earlier. For men, the graduation rate decreased by 3.3 percentage points during the same period and the proportion of male candidates who completed their studies in 2001-2002 with a degree was 49.8%, or 7.5 percentage points less than for female candidates. For women, success rates have been steadily rising, while for men, they have been in decline since 1995-1996. This phenomenon offsets the fact that more men than women enroll in doctoral programs (see Section 2.10), but there are still more men than women who obtain doctoral degrees (see Section 5.7).

Graduates of doctoral programs are enrolled for an average of 15.9 terms, regardless of whether they study on a full-time or part-time basis.<sup>2</sup> On average, students spend 11.9 terms in full-time studies. Those who leave without a degree study for 9.4 terms, whether full-time or part-time. For students overall, whether they leave a doctoral program with or without a degree, they do so after 12.9 terms, of which 9.4 are full-time. The duration of studies referred to here is the actual duration and is not consistent with the calculation of full-time equivalents (FTEs) for funding purposes, where only a standardized duration is recognized. The "funded" duration is a maximum of 8 terms (3 years in FTEs) for doctoral programs. However, the actual duration of studies exceeds this standard for all types of attendance

status. This means that students who leave without a doctorate are in practice fully funded, with the exception of a supplementary amount of \$7 000 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the attendance status upon leaving. Contrary to what was observed at the college level and in bachelor's programs, women enrolled in doctoral programs do not take less time than men to obtain their degree or to leave without one. If fulltime enrollment only is considered, women certainly leave sooner (with or without a diploma) than men, but women with a doctorate have studied part-time for 1.7 terms more than men, and women who leave without a doctorate were enrolled part-time for 3.3 terms, compared with 2.7 terms for their male counterparts.

Of the students leaving a doctoral program at the end of 2001-2002, 53.0% earned their degree, on average after 15.9 terms.

<sup>1.</sup> Success in university doctoral programs is measured here by the proportion of new graduates among all students leaving the programs with or without a degree. The degrees taken into account are doctorates obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a post-graduate program leading to a doctorate. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.

<sup>2.</sup> A portion of the studies is done part-time and is added to the average duration of full-time studies. For graduates, the duration of part-time studies varies from 3.4 to 5.4 terms. For those who leave without a degree, the duration of part-time studies is from 2.6 to 3.5 terms. For all school leavers, the duration of part-time studies varies from 3.1 to 4.4 terms.

Table 3.8a Proportion of students graduating from a		1987- 1988	1990- 1991	1995- 1996	1999- 2000	2000- 2001 <sup>e</sup>	2001- 2002 <sup>e</sup>
doctoral program,	Male	53.1	55.5	60.9	55.7	51.7	49.8
by gender and last year of enrollment (%)	Female	40.3	46.7	48.4	51.8	55.2	57.3
	Total	48.7	52.3	56.3	54.1	53.3	53.0

e: Estimates

#### Table 3.8b

Average number of terms completed before leaving a doctoral program (average for all leavers after 1996-1997), by gender

	With	With Degree		t Degree <sup>1</sup>	Total	
	Full-time	All attendance statuses <sup>2</sup>			Full-time	All attendance statuses <sup>2</sup>
Male	12.1	15.4	6.8	9.5	9.7	12.8
Female	11.7	16.7	6.0	9.3	8.9	13.1
Total	11.9	15.9	6.4	9.4	9.4	12.9

1. Refers to students who have interrupted their studies for at least six consecutive terms.

2. Refers to the total duration of full- and part-time studies.

#### Graph 3.8

**Proportion of students** graduating from a doctoral program, by gender and last year of enrollment (%)



# 4.1 Secondary School Examination Results, by Several Variables–Youth Sector

The Ministère de l'Éducation administers uniform exami-I nations to students in Secondary IV and V for purposes of certification. The average mark for the June 2003 examinations was 73.3%<sup>1</sup> and the success rate was 84.5%.

While female students have a much better record than male students for staying in school, they have no clear advantage over male students with regard to the results obtained on uniform examinations. This may be because of the higher dropout rate among male students, for it is usually the weaker students who leave school before graduation.

The average mark obtained by students in private schools was 8.9 percentage points higher than the average mark obtained in the public system. The success rate was 82.2% in the public system, compared with 94.8% in the private system. One of the factors likely to explain these differences<sup>2</sup> is that private schools can impose selection criteria for admitting students.

Students who received instruction in French obtained better results on the examinations than students who studied in English. The average mark of students studying in French was 3.0 percentage points higher than that of students studying in English; the success rate of students studying in French was 3.3 percentage points higher than that of students studying in English.

The best results were obtained in the second language, in particular English, and the poorest, in mathematics and French, language of instruction. The success rate was 82.9% for the Secondary V French, language of instruction, examination and 94.1% for the Secondary V English, language of instruction examination.

The success rate on the Ministère's June 2003 secondary school uniform examinations was 84.5%. Overall, female students obtained higher marks than male students.

Female students outperformed male students in French, language of instruction, English, language of instruction, and French, second language. In the other subjects, there was little difference.

<sup>1.</sup> This figure is calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure that renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

<sup>2. &</sup>quot;The performance disadvantage observed in public schools largely disappeared after other school factors were taken into consideration. . . . In other words, after taking the effect of other school characteristics into consideration, including school average parental SES, public school attendance was associated with higher individual performance." See Measuring Up: The Performance of Canada's Youth in Reading, Mathematics and Science-OECD PISA Study: First Results for Canadians Aged 15 (Ottawa: Statistics Canada, No. 81-590-XPE, December 2001, p. 44).

Table 4.1 Results on secondary		Average	Success Rate
school uniform examinations in the youth sector, by gender, school system, language of instruction	Male Female	72.4 74.0	83.8 85.6
	Public system <sup>1</sup> Private system	71.6 80.5	82.2 94.8
and subject: June 2003	Language of instruction: French	73.6	84.9
(%)	Language of instruction: English	70.6	81.6
	English, language of instruction (Secondary V) English, second language (Secondary IV) English, second language (Secondary V) French, language of instruction (Secondary V) French, second language (Secondary V) History (Secondary IV) Physical Science 416 (Secondary IV) Mathematics 436 (Secondary IV) Mathematics 514 (Secondary V)	73.1 77.8 79.7 69.4 74.9 72.1 71.8 70.9 66.9	94.1 88.1 92.1 82.9 91.1 82.7 81.8 80.0 76.7
	Total	73.3	84.5

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.



#### 4.2 Regional Disparities in Secondary School **Examination Results-Youth Sector**

ix administrative regions recorded higher averages and Success rates than the overall provincial results on the Ministère de l'Éducation's June 2003 uniform examinations.<sup>1</sup> These regions are Montréal, Mauricie, Capitale-Nationale, Montérégie, Estrie and Laval. Ranked among the lowest were Saguenay-Lac-Saint-Jean, Côte-Nord and Nord-du-Ouébec.

Regional disparities changed little from 2002 to 2003. The difference between the highest and lowest average marks remained at 8.6 percentage points, while the gap in the success rates dropped from 13.7 to 12.3 percentage points.

The results on uniform examinations are not necessarily indicative of the probability of obtaining a secondary school diploma. In some regions, it is possible that a low student retention rate contributes to higher marks on the uniform examinations because the weakest students have dropped out.

The results on the Ministère's June 2003 uniform examinations showed a difference of 12.3 percentage points between the success rates of students in the region with the best performance (87.4%) and in the region with the poorest performance (75.1%).

<sup>1.</sup> Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure that renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.2 Results on secondary	School Administrative Region	Average	Success Rate
school uniform	Gaspésie–Îles-de-la-Madeleine	71.6	82.8
examinations in the	Bas-Saint-Laurent	72.4	83.6
youth sector, by school administrative region:	Saguenay–Lac-Saint-Jean Capitale-Nationale	69.8 74.1	79.3 86.5
June 2003 (%)	Chaudière-Appalaches	74.1 72.7	84.8
	Mauricie	74.1	87.4
	Centre-du-Québec	71.9	83.0
	Estrie	73.6	85.1
	Montérégie	73.7	85.7
	Montréal	74.6	85.3
	Laval	73.5	84.8
	Lanaudière	72.9 72.5	84.2 83.3
	Laurentides Outaouais	72.6	82.0
	Abitibi-Témiscamingue	72.2	83.3
	Côte-Nord	69.7	78.6
	Nord-du-Québec	66.0	75.1
	Total	73.3	84.5

#### Graph 4.2

Average results on secondary school uniform examinations in the youth sector, by school administrative region: June 2003 (%)



# 4.3 Secondary V French, Language of Instruction, Examination–Youth Sector

**S** tudents who took the June 2003 Secondary V French, language of instruction, examination obtained an average mark of 69.4%; the success rate was 82.9%.<sup>1</sup>

The examination consisted of three components: written production, a reading comprehension exercise and an oral expression test. The reading comprehension and oral expression components were under the responsibility of the educational institutions. The results obtained in these sections are not included in Table 4.3, however, they were considered in the calculation of the overall results on the French examination. In written production, which was under the responsibility of the Ministère de l'Éducation, students obtained an average of 67.4% and a success rate of 73.2%.

Whereas there was no significant difference overall between the results obtained by male and female students on most of the examinations used for purposes of certification, female students outperformed male students on the French examination. The average for female students was 6.1 percentage points above that for male students, and the success rate was 11.5 percentage points in favour of female students. In written production, the female students' average was 6.0 percentage points higher than the male students' and their success rate was 13.7 percentage points higher.

The average obtained by private school students surpassed that of public school students by 5.7 percentage points. In the public system, 19.3% of the students failed the ministry examination, compared with 7.5% in the private system. In written production, students in private schools scored 5.4 percentage points higher than students in the public system. Compared with the June 2002 examination, the success rate for the written production component went from 81.2% to 73.2%. For the examination as a whole, the success rate dropped from 89.6% to 82.9%.

The success rate on the Ministère's June 2003 Secondary V French, language of instruction, examination was 82.9%. Female students obtained significantly higher marks than male students.

<sup>1.</sup> Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure that renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.3 Results on the		Written Pr	roduction	Overall Results		
Secondary V French, language of instruction, examination in the youth sector, by gender and school system: June 2003 (%)		Average	Success Rate	Average	Success Rate	
	Male Female	64.1 70.1	65.6 79.3	66.0 72.1	76.6 88.1	
	Public system <sup>1</sup> Private system	66.4 71.8	70.6 84.2	68.3 74.0	80.7 92.5	
	Total	67.4	73.2	69.4	82.9	

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.



# 4.4 Writing Achievement of 13-Year-Olds

Come 1 766 13-year-old Québec students, mostly in the first Or second year of secondary school, participated in the writing assessment administered in the spring of 2002 as part of the School Achievement Indicators Program (SAIP).

The assessment focused on writing skills and abilities, and was the same for both the 13- and 16-year-old students. The results were expressed on a five-level scale representing a continuum of skills and abilities acquired by the students throughout their studies.<sup>1</sup> The assessment was designed such that most 13-yearolds could be expected to attain at least the second level of performance. The results in the SAIP assessment are published not to provide an average of the students' results, but rather to highlight the proportion of students in each performance level.

In Québec, more than 96% of the students attained the first level of performance, while 79.0% of anglophone students and 88.4% of francophone students attained the second level. Most of the Canadian students had comparable results for the first level; however, compared with Québec francophone students, significantly fewer francophone students in Ontario as well as anglophone students in Nova Scotia, Newfoundland and Labrador, the Yukon and the Northwest Territories attained the first level.

Compared with Canada as a whole, more francophone students in Québec placed in the second level of performance (88.4%); although slightly higher than the 85.3% observed for anglophone students in Ontario, Québec's rate is quite similar to the proportion observed for this Ontario group.<sup>2</sup> Francophone students in Québec outperformed anglophone students in Manitoba, Alberta and British Columbia, who nevertheless obtained good results.

compared with 90.9% of francophone female students in Ouébec. Francophone male students in Ouébec are the only group whose results did not differ significantly from their female counterparts. The differences between the female and male students varied between 9.5% for students in Alberta and 22.8% for francophone students in Manitoba.

Some of the factors associated with achievement in writing that were gleaned from the study seem to provide explanations for the performance of students on the assessment. Fewer than 50% of the students spent an hour or more per week reading for enjoyment, but these students reported spending an average of 15 hours per week watching television. The 13-year-olds spent more time watching television than did the 16-year-olds, and anglophone students watched more television than francophone students. The time spent on homework is positively associated with achievement in writing, because it relates to the socioeconomic status of parents (mother's level of schooling) and the educational aspirations of the students and parents (plans to attend university). Achievement in writing is also directly linked to speaking the language of the assessment at home.

A total of 88.4% of 13-year-old students attained the second level of performance, thereby achieving the best results among all the Canadian students.

Across Canada, more female students attained the first two performance levels than male students. More than 88.5% of the female students attained the second level, compared with 78.1% of the male students. However, more than 85.4% of francophone male students in Québec attained the second level,

<sup>1.</sup> For more information on the SAIP writing assessment, please consult the following document: School Achievement Indicators Program of the Council of Ministers of Education (Canada) (SAIP) 2002: Québec Results in the 2002 Writing Assessment (Québec: Ministère de l'Éducation, Direction de la sanction des études, June 2003). This document is also available on the Ministère's Web site at <http://www.meq.gouv.qc.ca/sanction/pirs.htm>.

<sup>2.</sup> Comparisons of the results in this section take into account a margin of error inherent in all results obtained by surveying a sampling of persons. The confidence intervals calculated on the basis of standard errors around the average for the francophone students in Québec and anglophone students in Ontario (a 95% confidence interval represents a range of plus or minus about two standard errors around the average for a normally distributed population) indicate a possible variation of results.

Table 4.4 <b>Proportion of</b> <b>13-year-old students</b> who attained the first two performance levels		Lower than Level 1 (%)	Standard error	Level 1 (%)	Standard error	Level 2 (%)	Standard error
two performance levels in the SAIP writing assessment, 2002 (%)	British Columbia Alberta Saskatchewan Manitoba (Anglophone) Manitoba (Francophone) Ontario (Anglophone) Ontario (Francophone) <b>Québec (Anglophone)</b> <b>Québec (Francophone)</b> New Brunswick (Anglophone) New Brunswick (Francophone) Nova Scotia (Anglophone) Nova Scotia (Francophone) Nova Scotia (Francophone) Prince Edward Island Newfoundland and Labrador Yukon Northwest Territories	(76) 4.5 6.0 3.7 5.1 4.5 3.4 7.8 <b>3.7</b> <b>3.4</b> 5.9 3.9 6.6 2.6 5.1 7.9 6.0 11.4	1.5 1.7 1.2 1.4 0.9 1.3 2.0 <b>1.3</b> <b>1.2</b> 1.5 1.2 1.5 1.2 1.5 2.0 1.8 1.9 2.6 2.8	95.5 94.0 96.3 94.9 95.5 96.6 92.2 <b>96.3</b> <b>96.3</b> <b>96.6</b> 94.1 96.1 93.4 97.4 97.4 94.9 92.1 94.0 88.6	1.5 1.7 1.2 1.4 0.9 1.3 2.0 <b>1.3</b> <b>1.2</b> 1.5 1.2 1.5 1.0 1.4 1.9 1.2 1.5	<ul> <li>(76)</li> <li>80.8</li> <li>82.6</li> <li>75.4</li> <li>83.0</li> <li>75.0</li> <li>85.3</li> <li>79.5</li> <li>79.0</li> <li>88.4</li> <li>77.6</li> <li>78.5</li> <li>75.6</li> <li>72.8</li> <li>77.9</li> <li>74.8</li> <li>67.6</li> <li>57.7</li> </ul>	2.7 2.8 2.3 2.0 2.4 2.9 <b>2.7</b> <b>2.7</b> 2.7 2.7 2.7 2.7 3.0 2.4 2.4
	Canada	4.2	0.4	95.8	0.4	83.5	0.7

#### Graph 4.4



# 4.5 Writing Achievement of 16-Year-Olds

**S** ome 1 643 16-year-old Québec students, mostly in the fourth or fifth year of secondary school, participated in the writing assessment administered in the spring of 2002 as part of the School Achievement Indicators Program (SAIP).

The assessment focused on writing skills and abilities, and was the same for both the 13- and 16-year-old students. The results were expressed on a five-level scale (see Section 4.4).<sup>1</sup> The assessment was designed such that most 16-year-olds could be expected to attain at least the third level of performance. The results in the SAIP assessment are published not to provide an average of the students' results, but rather to highlight the proportion of students in each performance level.

In Québec, 97.0% of anglophone students attained the first level of performance, compared with 92.9% of the francophone students; the results for the second level were 91.8% and 88.8%, respectively.

Compared with Canada as a whole, francophone students in Québec had the best results in the third level (74.5%). This proportion is significantly higher than that observed for anglophone students in Québec (66.6%), who nonetheless did better than anglophone students in Manitoba, although the difference is not significant.<sup>2</sup> The results of francophone and anglophone students in Québec were also higher than those of anglophone students in Ontario as well as of students in British Columbia, Saskatchewan, Alberta, New Brunswick, Newfoundland and Labrador, and the Yukon, who nevertheless had good results.

Across Canada, more female students attained the second and third performance levels than male students. More than 69.4% of the female students attained the third level, compared with 52.9% of the male students. Male students in British Columbia and anglophone male students in Nova Scotia are the only groups that do not differ significantly from their female counterparts. The differences between the female and male students varied between 7.6% for anglophone students in Nova Scotia and 30.7% for francophone students in Nova Scotia.

Some of the factors associated with achievement in writing that were gleaned from the study seem to provide explanations for the performance of students on the writing assessment. Less than 50% of the students spent an hour or more per week reading for enjoyment, but these students reported spending an average of 15 hours per week watching television. The 13-year-olds spent more time watching television than did the 16-year-olds, and anglophone students watched more television than francophone students. Achievement in writing is in particular associated with the socioeconomic status of parents (mother's level of schooling) and the educational aspirations of the students and parents (plans to attend university). It is also directly linked to speaking the language of the assessment at home. Time spent on homework is also positively associated with achievement in writing.

A total of 74.5% of francophone students and 66.6% of anglophone students attained the third level of performance, thereby achieving the best results among all the Canadian students.

<sup>1.</sup> For more information on the SAIP writing assessment, please consult the following document: School Achievement Indicators Program of the Council of Ministers of Education (Canada) (SAIP) 2002: Québec Results in the 2002 Writing Assessment (Québec: Ministère de l'Éducation, Direction de la sanction des études, June 2003). This document is also available on the Ministère's Web site at <http://www.meq.gouv.qc.ca/sanction/pirs.htm>.

<sup>2.</sup> Comparisons of the results in this section take into account a margin of error inherent in all results obtained by surveying a sampling of persons. The confidence intervals calculated on the basis of standard errors around the average for the francophone students in Québec and anglophone students in Ontario (a 95% confidence interval represents plus or minus about two standard errors around the average for a normally distributed population) indicate that the possible variation of results allows for the overlap of the proportions observed.

Table 4.5 Proportion of 16-year-old students		Level 1 (%)	Standard error	Level 2 (%)	Standard error	Level 3 (%)	Standard error
who attained the first	British Columbia	95.2	1.6	87.6	2.5	57.0	3.7
three performance	Alberta	97.4	1.2	89.9	2.3	59.2	3.7
levels in the SAIP	Saskatchewan	96.8	1.1	87.7	2.1	57.1	3.1
writing assessment,	Manitoba (Anglophone)	94.8	1.5	88.7	2.2	60.0	3.3
2002 (%)	Manitoba (Francophone)	88.4	2.3	77.7	3.0	42.3	3.5
	Ontario (Anglophone)	94.3	1.7	85.1	2.6	57.5	3.6
	Ontario (Francophone)	92.4	2.2	79.1	3.4	44.8	4.2
	Québec (Anglophone)	97.0	1.3	91.8	2.0	66.6	3.5
	Québec (Francophone)	92.8	1.8	88.8	2.2	74.5	3.0
	New Brunswick (Anglophone)	94.8	1.5	86.7	2.2	58.4	3.2
	New Brunswick (Francophone)	95.9	1.3	85.9	2.3	56.4	3.3
	Nova Scotia (Anglophone)	94.0	1.7	85.7	2.5	52.8	3.5
	Nova Scotia (Francophone)	99.4	0.7	87.4	2.8	42.8	4.1
	Prince Edward Island	90.8	2.0	79.3	2.8	51.8	3.5
	Newfoundland and Labrador	94.2	1.8	87.9	2.4	58.2	3.7
	Yukon	88.7	2.3	73.7	3.2	50.8	3.7
	Northwest Territories	89.6	2.3	73.7	3.3	43.0	3.8
	Canada	94.5	0.4	86.8	0.6	60.6	0.9



#### 97

# 4.6 Reading Achievement of 10-Year-Olds

ore than 3 000 Québec students in the fourth year of Melementary school participated in a reading assessment administered in the spring of 2001 as part of the Progress in International Reading Literacy Study (PIRLS). These students were on average 10 years old in most of the education systems of the participating countries.

The assessment focused on reading literacy achievement, in particular, three aspects of reading literacy: processes of comprehension, purposes for reading, and reading behaviours and attitudes. The first two aspects were assessed using the reading test itself, while the questionnaire administered to the students addressed the third aspect. The test included various questions dealing with texts in order to assess the two purposes for reading: reading for literary experience (narrative fiction), and reading to acquire and use information (texts, lists, tables, graphs, diagrams, etc.). The results of the test are published for each of these two components of the assessment, as well as for the test as a whole. These results were standardized around an international average set at 500 points and including a standard deviation of 100.1

Québec students obtained a standardized average of 537 points, or 7.4% higher than the international average, which ranked it 12th out of the 35 participating countries.<sup>2</sup> In all participating countries, girls performed better than boys on the PIRLS 2001 assessment. Overall, the difference between the girls' and boys' results was 20 points, or 4%.

In Québec, girls also outperformed boys, however, the difference was less pronounced than that for the participating countries overall. Differences of 13 and 16 points, in favour of the girls, were observed for Québec anglophone and francophone students, respectively.

A number of factors contribute to explaining the differences in achievement, however, according to the results of the study, three seem to play a particularly important role: the socioeconomic conditions of a student's family; the knowledge and use of the language of instruction at home; and the student's attitudes toward reading.

Students from economically advantaged areas (parents' level of schooling) generally perform better than students from economically disadvantaged areas. Students who use the language of instruction as the language of communication at home also generally obtain the best results. Lastly, students who have a positive attitude toward reading also obtain better results. The notion of reading for enjoyment seems to explain why girls do better than boys. More girls reported that they enjoyed reading, liked to talk about the books they read and enjoyed receiving books as gifts. Also, more girls than boys read books almost every day. The index measuring attitudes toward reading reveals that 60% of girls have a positive attitude, compared with 42% of boys. In Québec and Ontario, the situation is comparable: 65% for girls and 43% for boys.

In Québec, 10-year-old students obtained a standardized average of 537 points in a PIRLS 2001 reading assessment, a level of 7.4%, which is higher than the international average. Québec students ranked 12th out of the 35 participating countries, behind students in Ontario, who ranked 5th.

<sup>1.</sup> Source: Progress in International Reading Literacy Study (PIRLS) 2001, Results for 10-Year-Old Students in Québec (Québec: Ministère de l'Éducation, Direction de la sanction des études, May 2003). This document is available at the Ministère's Web site at <http://www.meg.gouv.gc.ca/sanction/pirls.htm>.

<sup>2.</sup> The rank indicated for a Canadian province or for a linguistic group (francophone or anglophone) corresponds to the rank of one of the 35 participating countries with a comparable result. Québec's 12th rank is equivalent to that of the Czech Republic, which obtained an overall score of 537 points, the same as Québec.

Table 4.6
Results of 10-year-old
students in the
PIRLS 2001 reading
assessment, for some
of the 35 participating
countries
(OECD members)

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		Assessment–Results (average set at 500 <sup>1</sup> )						
Country or province		Reading– Overall score		erary erience	Acquisition and use of information			
	Average	Standard error	Average	Standard error	Average	Standard error		
Sweden The Netherlands England Ontario (Anglophone) Ontario (Anglophone, francophone)	561 554 553 <b>550 548</b>	2.2 2.5 3.4 <b>3.3</b> <b>3.3</b>	559 552 559 <b>553</b> 551	2.4 2.5 3.9 <b>3.5</b> <b>3.3</b>	559 553 546 <b>544 542</b>	2.2 2.6 3.6 <b>3.3</b> <b>3.2</b>		
Canada (Ontario, Québec <sup>2</sup> ) Hungary <b>Québec (Anglophone)</b> United States Italy Germany <b>Québec (Anglophone,</b>	544 543 <b>543</b> 542 541 539 <b>537</b>	2.4 2.2 <b>3.5</b> 3.8 2.4 1.9 <b>3.0</b>	545 548 <b>546</b> 550 543 537 <b>534</b>	2.6 2.0 <b>4.2</b> 3.8 2.7 1.9 <b>3.0</b>	541 537 <b>539</b> 533 536 538 <b>541</b>	2.4 2.2 <b>4.0</b> 3.7 2.4 1.9 <b>2.9</b>		
francophone) Québec (Francophone) New Zealand France Ontario (Francophone) International average	<b>537</b> 529 525 <b>494</b> <b>500</b>	<b>3.3</b> 3.6 2.4 <b>4.2</b> <b>0.6</b>	<b>533</b> 531 518 <b>488</b> <b>500</b>	3.4 3.9 2.6 4.3 0.6	<b>541</b> 525 533 <b>501</b> <b>500</b>	3.3 3.8 2.5 4.2 0.7		

1. The confidence intervals (plus or minus around two standard errors around the average) indicate if the variation in results allows their overlap or not. Thus, the results of francophone students in Québec (537 points; confidence interval of 6.6) are comparable to those of students in Germany (539 points; confidence interval of 3.8).

2. Only francophone and anglophone students in Ontario and Québec participated in this study.

Graph 4.6 Index of student attitudes toward reading and reading activities, Québec, Ontario, the United States and the 35 countries participating in PIRLS, by gender

Female

Male





# 4.7 Ministerial Examination of College French

In 2002-2003, 42 062 college students wrote the ministerial examination of college French, language of instruction and literature.

Since January 1, 1998,<sup>1</sup> students in French CEGEPs are required to pass this examination to obtain a Diploma of College Studies (DCS). The students must read a series of texts and write an essay on one of them, thereby demonstrating their ability to understand a variety of texts and produce a structured essay using correct language.

The examination consists in writing a 900-word critical essay based on the texts provided. There are three major evaluation criteria: I-Comprehension and insight; II-Organization of response; and III-Expression. The first two criteria contain specific subcriteria that are evaluated using a seven-level rating scale: A (very good), B (good), C+ (fair), C (adequate), D (weak), E (very poor) and F (unacceptable). In the Expression criterion, the "appropriate use of words" subcriterion is evaluated using the same rating scale, while sentence structure, punctuation, spelling and grammar are evaluated quantitatively, by counting errors. Students must obtain a C or better for each of the three major criteria. A grade of C represents an adequate level of competence. Therefore, students who obtain a D or worse on any one of the three criteria automatically fail the examination.

The overall success rate for the ministerial examination of college French was 85.8%, which was 1.5% higher than the rate observed in 2001-2002. This increase can be explained by a better success rate for the criteria I-Comprehension and insight and III-Expression.

The best results were obtained in Organization of response, on which 48% of students received an A. Good results were also obtained in Comprehension and insight, on which 55.3% of students received a B. The results for the third criterion, Expression, were not as good: only 88.1% of students passed this criterion, 40.1%. of them with a C. In 2002-2003, the success rate for women was 88.5%, compared with 81.8% for men. These rates are better than those observed in 2001-2002: 1.7 percentage points for women and 1.3 for men.

Students enrolled in pre-university programs recorded a success rate of 92.2%, while students enrolled in technical programs leading to a DCS achieved a success rate of 79.9%. In both cases, the results are better than those observed during the previous period. The greatest improvement was among students enrolled in technical programs (1.8 percentage points).

Of the college students who took the ministerial examination of college French during the 2002-2003 school year, 85.8% passed.

<sup>1.</sup> This requirement has been postponed until January 1, 2003, for students who have passed at least one language and literature course in the old system.

Table 4.7a Success rate for the		Success Rate					
ministerial examination		1999-200	0 2000-2001	2001-2002	2002-2003		
of college French, by gender and type of program (%)	Female Male	90.7 84.4	86.4 79.9	86.8 80.5	88.5 81.8		
	Pre-university education (DCS) Technical education (DCS)	93.1 82.7	90.3 76.9	90.6 78.2	92.2 79.9		
	Overall examination	88.1	83.7	84.3	85.8		
Table 4.7b Distribution of students according to the grade obtained on each criterion of the ministerial examination of college French, 2002-2003 (%)	Criteria for the 2002-2003 examination	Dis	Success				
		А	B C	Fail	Rate		
	Comprehension and insight	8.1	55.3 32.3	4.3	95.7		
	Organization of response	48.0	35.5 15.8	0.7	99.3		
	Expression	15.3	32.8 40.1	11.9	88.1		



#### 5.1 Highest Diploma or **Degree Earned**

The main data pertaining to diplomas and degrees earned **I** at the various levels of education appears in the diagram in the Introduction and is presented in more detail in the following sections. Organized in a different way,<sup>1</sup> this data may also show the distribution of a cohort of school leavers according to the highest diploma or degree earned.<sup>2</sup>

Between 1975-1976 and 2001-2002, graduation rates at the secondary and university levels rose rapidly for both men and women. The increase in the proportion of new graduates with bachelor's degrees (from 14.9% to 27.0%) was accompanied, at the other extreme, by a drop of more than one half in the proportion of those leaving school without a diploma (from 43.0% to 19.4%). This decline has resulted in a significant increase in all the other categories.

Thus, the proportion of school leavers who are not prepared for the labour market, that is, persons without a diploma or with only a Secondary School Diploma (SSD) in general education or a pre-university Diploma of College Studies (DCS) (including DCSs without mention) dropped from 63.2% in 1975-1976 to 35.6% in 2001-2002. This decline of 27.6 percentage points is reflected by increases of 12.1 percentage points in the proportion of graduates with a bachelor's degree and 15.5 percentage points in the proportion of holders of vocational training or technical education diplomas (11 and 4.5 percentage points, respectively).

A glance at the situation according to gender highlights the disparities already observed in the schooling of men and women. In 2002, one and a half times more women than men graduated with a bachelor's degree or with a college diploma in technical education (48.9% compared with 29.3%), while roughly half as many women as men left school without a diploma (12.5% compared with 26.0%).

In 2001-2002, 64.4% of those leaving the education system graduated with a bachelor's degree or a diploma in vocational training or technical education.

<sup>1.</sup> It is assumed that the diplomas or degrees awarded at a given level are preceded by a diploma at a lower level. For example, the number of bachelor's degrees should be a subset of the number of DCSs; it follows that the surplus of DCSs in relation to the bachelor's degrees would represent the number of DCSs that are not followed by a university degree. For this reason, there are no persons with a DCS in pre-university education or without mention of vocational specialty as a last diploma in 1975-1976 and 1995-1996. An additional hypothesis makes it possible to estimate the number of DCSs in technical education that are followed by a bachelor's degree. It is also assumed that secondary vocational training diplomas are not followed by another higher-level diploma. Partial studies at a given level are grouped with the diploma immediately below: for example, uncompleted college studies are considered with the SSDs in general education.

<sup>2.</sup> This level of schooling is different from the level for the general population as indicated in the census, the latter being primarily a historical reflection of all the generations in question. The level measured here is the schooling for persons currently leaving the education system. It also shows what the general state of schooling would be if current trends were to continue.

#### Table 5.1

Distribution of school leavers, by highest diploma or degree earned (%)

	1975- 1976	1985- 1986	1990- 1991	1995- 1996	2000- 2001	2001- 2002
Bachelor's degree <sup>1</sup>	14.9	19.0	23.6	29.0	25.7	27.0
College diploma in technical education <sup>2</sup>	7.4	11.2	10.4	11.2	12.1	11.9
Secondary vocational training diploma <sup>3</sup>	14.5	17.7	13.7	19.4	23.7	25.5
General education (DCS or SSD)	20.2	31.3	29.1	28.6	20.6	16.2
No diploma	43.0	20.8	23.2	11.8	17.9	19.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

1. Figures for university are based on the calendar year in which the school year ends.

2. The diplomas considered here are the Diploma of College Studies (DCS) in technical education, the Attestation of College Studies (ACS) until 1984, the Certificat d'études collégiales (CEC–certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies).

3. The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS–known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.



Graph 5.1 Distribution of school leavers, by highest diploma or degree earned (%)

# 5.2 Graduation From Secondary School– Youth and Adult Sectors

The probability of obtaining a secondary school diploma<sup>1</sup> in 2002-2003 was 78.8%, that is, a drop from 2001-2002. This is the lowest figure observed in a decade.

In 2002-2003, for students in the youth sector and under 20 years of age in the adult sector in Québec, the probability of obtaining a secondary school diploma was 65.8%, which is almost 2 percentage points lower than the level observed the previous year. The Ministère's objective is to reach a rate of 85% by the year 2010.

The graduation rate discussed here applies primarily to general education. As indicated in Section 5.4, the graduation rate for vocational training actually rose in 2002-2003, although not enough to compensate for the decrease in the graduation rate in general education. This section is primarily concerned with the first diplomas earned.<sup>2</sup> It is interesting to note that in 2002-2003, 88.5% of all the diplomas earned were first diplomas obtained in general education. This proportion was 97.4% if only diplomas obtained in the youth sector or by students under 20 years of age in the adult sector are considered.

The temporary slump in the graduation rate between 1986 and 1990 was largely due to the raising of the pass mark from 50% to 60%, which has made the diploma more valuable, yet more difficult to obtain. Students seem to have overcome this obstacle since 1989, and the graduation rate continued to rise for a number of years. As noted, however, the graduation rates for recent years are still lower than in 1995-1996 and have been steadily declining since 1998-1999.

The probability of graduating from secondary school is greater for female students than for male students. The gender gap was nearly 18 percentage points in 1989-1990 and 15 percentage points in 2002-2003.

The graduation rate for female students was above 90% between 1991-1992 and 1995-1996, and has remained

below this level since 1998-1999. For male students, it passed the 80% mark in 1995-1996, but dropped to 71.7% in 2002-2003.

The dropout rate is the proportion of the population who will never earn a diploma during their lifetime if the situation observed in a given year were to continue indefinitely. It is the complement to the probability of obtaining a secondary school diploma, presented in this section. The dropout rate was 21.2% in 2002-2003; it was 11.6% in 1995-1996.

In 2002-2003, the probability of obtaining a first secondary school diploma in the youth or adult sector was 78.8%, the lowest since 1990-1991.

<sup>1.</sup> The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general education and vocational training. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned.

<sup>2.</sup> Figures do not include the second or third vocational training diploma that a student may have earned, vocational training diplomas received after a general SSD, or SSDs obtained after a vocational education diploma.

#### Table 5.2

Probability of obtaining a secondary school diploma in either the youth or the adult sector, by gender (%)

	1975- 1976	1985- 1986	1995- 1996	2000- 2001	2001- 2002	2002- 2003°
<b>Total</b> Adult sector: 20 years of age or over Youth sector or before the age	<b>57.1</b> 3.5 53.6	<b>79.2</b> 6.8 72.3	<b>88.4</b> 14.7 73.7	<b>82.1</b> 11.4 70.7	<b>80.6</b> 12.7 67.9	<b>78.8</b> 13.0 65.8
of 20 in the adult sector <b>Male</b>	51.2	73.1	81.9	75.6	74.0	71.7
Adult sector: 20 years of age or over	3.0	6.0	14.6	12.1	13.4	13.6
Youth sector or before the age of 20 in the adult sector	48.2	67.1	67.3	63.5	60.6	58.1
Female Adult sector: 20 years of age or over	<b>63.1</b> 4.0	<b>85.6</b> 7.6	<b>95.3</b> 14.9	<b>89.1</b> 10.7	<b>87.5</b> 11.9	<b>86.2</b> 12.4
Youth sector or before the age of 20 in the adult sector	59.1	77.9	80.4	78.4	75.6	73.9

e: Estimates





# 5.3 Graduation From Secondary School: Regional Disparities– Youth and Adult Sectors

The regional statistics in this section<sup>1</sup> must be interpreted with great caution. For example, the figures vary enough for the ranking of the administrative regions, shown in Graph 5.3, to change considerably from one year to the next. However, an analysis of the statistics for the past few years seems to indicate that the regions of Saguenay–Lac-Saint-Jean, Bas-Saint-Laurent, Chaudière-Appalaches and Capitale-Nationale are those that usually obtain the highest results, while the regions of Outaouais and Nord-du-Québec obtain the lowest results.

While the probability of obtaining a first secondary school diploma was on the decline in Québec as a whole between 1998-1999 and 2001-2002, the results of some administrative regions improved by several percentage points. For example, the rate in Bas-Saint-Laurent and Abitibi-Témiscamingue increased close to 2 percentage points from 2000-2001.

Graph 5.3 shows the relative share of the secondary school diplomas in the youth sector and the adult sector with respect to the graduation rate for each administrative region. For example, the probability of obtaining a first secondary school diploma for the province as a whole (80.6%) is broken down as follows: 67.9% for the youth sector and adults under the age of 20, and 12.7% for adults 20 years of age or over. The graduation rate for adults 20 years of age or over varies from one region to another.

In 2001-2002, in 10 of Québec's 17 administrative regions, the probability of obtaining a first secondary school diploma exceeded 80%. Only one region scored above 90%: Saguenay–Lac-Saint-Jean.

Refers to the probability of obtaining a first secondary school diploma. The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general education and vocational training. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned.
Table 5.3		199	91-1992		2001-2002			
Probability of obtaining a first secondary school diploma, by administrative		Youth sector or before the age of 20 in the adult sector	Adult sector: 20 years of age or over	Total	Youth sector or before the age of 20 in the adult sector	Adult sector: 20 years of age or over	Total	
region (%)	Gaspésie–Îles-de-la-Madeleine	63.5	23.0	86.5	65.3	15.3	80.6	
9()	Bas-Saint-Laurent	70.9	19.0	89.8	71.7	16.2	87.9	
	Saguenay–Lac-Saint-Jean	72.4	22.4	94.9	72.8	20.0	92.8	
	Capitale-Nationale	78.1	14.8	92.9	73.5	12.4	85.9	
	Chaudière-Appalaches	77.5	16.1	93.6	76.2	11.2	87.4	
	Mauricie	69.9	14.1	84.0	68.7	13.8	82.4	
	Centre-du-Québec	70.8	15.3	86.1	70.2	13.8	84.0	
	Estrie	71.5	16.1	87.5	67.4	11.0	78.4	
	Montérégie	71.5	11.8	83.3	68.6	10.9	79.4	
	Montréal	66.2	12.2	78.5	65.8	12.1	77.9	
	Laval	69.9	12.4	82.3	70.3	11.0	81.3	
	Lanaudière	65.1	12.7	77.8	67.8	12.3	80.2	
	Laurentides	62.6	14.5	77.1	61.8	14.0	75.8	
	Outaouais	59.7	18.8	78.5	60.4	13.6	74.0	
	Abitibi-Témiscamingue	62.8	25.9	88.7	64.5	17.3	81.9	
	Côte-Nord	60.8	18.0	78.8	63.3	16.0	79.3	
	Nord-du-Québec	47.8	24.9	72.7	39.9	16.9	56.8	
	All Québec	69.2	14.6	83.8	67.9	12.7	80.6	



# 5.4 Graduation From Secondary Vocational Training-Youth and Adult Sectors

ased on behaviours observed in 2002-2003, 26 out of D 100 young Quebeckers can expect to obtain a vocational training diploma<sup>1</sup> in secondary school.<sup>2</sup> This group includes 17 persons who already have a first Secondary School Diploma (SSD) in general education. Since 1997-1998, the proportion of persons obtaining a vocational diploma after earning a diploma in general education has remained relatively stable.

Moreover, the probability of obtaining a first secondary school diploma from the youth sector or before the age of 20 in the adult sector in vocational training was 1.9% in 2002-2003; this rate was higher than 16% in 1977-1978; it has been relatively stable since 1996-1997. Students in the youth sector or before the age of 20 in the adult sector who obtain a first secondary school diploma (65.8% in 2002-2003) are most likely to do so in general education (Section 5.2).

The very nature of vocational training diplomas has also changed. Short vocational programs have been phased out in favour of general education. The basic difference between the Diploma of Vocational Studies (DVS) and its predecessor, the Long Vocational Diploma, is that the DVS deals exclusively with vocational training, since all the components of the vocational programs dealing with general education have been transferred to the SSD.

The difference between male and female students is much less pronounced than in general education. Nevertheless, vocational training represents a larger share of the graduation rate for male students (28.9%) than for female students (23.2%).

The proportion of a generation of students obtaining a secondary school vocational training diploma was 26.2% in 2002-2003. This is the highest rate ever recorded.

<sup>1.</sup> The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS-known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.

<sup>2.</sup> Refers to the probability of obtaining a first secondary school diploma. This rate is determined by grouping only the first secondary school diplomas in vocational training. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned in vocational training.

Table 5.4 Probability of obtaining		1975-	1985-	1995-	2000-	2001-	2002-
a vocational training		1976	1986	1996	2001	2002	2003 <sup>e</sup>
diploma, by sector,	Total	14.6	17.7	19.6	23.7	25.5	26.2
age and gender (%)	Male Female	12.0 17.2	17.0 18.4	21.2 17.9	26.0 21.2	28.2 22.6	28.9 23.2
	First diploma After an SSD <sup>1</sup>	12.3 2.2	10.7 7.0	6.3 13.3	7.5 16.2	8.6 16.9	9.1 17.1
	Youth sector or before the age of 20 in the adult sector	13.0	15.1	4.8	6.2	6.1	6.0
	First diploma After an SSD <sup>1</sup>	11.0 2.1	8.8 6.4	1.3 3.5	1.8 4.4	2.0 4.2	1.9 4.1
	Adult sector: 20 years of age or over	1.5	2.5	14.8	17.4	19.4	20.1
	First diploma After an SSD <sup>1</sup>	1.4 0.2	1.9 0.6	5.0 9.8	5.7 11.8	6.6 12.7	7.1 13.0

e: Estimates

1. SSD: Secondary School Diploma





# 5.5 Graduation From Secondary School in Québec and OECD Countries, 2001

In 2003, the Organisation for Economic Co-operation and Development (OECD) published *Education at a Glance*, which contains indicators on graduation from secondary school in OECD countries in 2001.

Table 5.5 compares the situation in Québec with that in a number of industrialized OECD nations with respect to the proportion of graduates from public and private secondary schools out of a total population old enough, in theory, to have obtained a secondary school diploma. In 2001, the secondary school graduation rate in Québec (84%) remained higher than the average for the OECD countries.

Of the 16 OECD countries appearing in the table,<sup>2</sup> eight had higher secondary school graduation rates than Québec. Québec's rate was lower than that of Denmark, Japan, Germany, Poland, Finland, Switzerland, the Czech Republic and France, but higher than that of Hungary, Belgium, Italy, Ireland, the Slovak Republic, the United States, Sweden and Iceland.

Except for Switzerland, where the secondary school graduation rate is 5 percentage points higher among male students than among female students, female students are more likely to graduate than male students. The greatest gender differences are observed in Iceland (17 percentage points), Ireland (14 percentage points) and Finland (12 percentage points), followed by Poland, Belgium, Italy and Sweden (7 percentage points). Québec, with a difference of 14 percentage points, is among those places where female students are far more likely to graduate than male students. In other countries, graduation rates among male and female students differ less (as seen in Table 5.5) for the Slovak Republic, the United States, the Czech Republic, Japan, France, Germany and Hungary, where the gap is less than the OECD average (7 percentage points).

The graduation rate observed for male students in Québec (77%) was 1 percentage point higher than the OECD average

for male students of 78%. The rate for female students in Québec was 91%, 6 percentage points higher than the OECD average for female students.

There are far more students in general education in Québec than there are in vocational training, and this holds true for both male and female students. With a probability of obtaining a diploma in general education of 77%, Québec ranks first among the OECD countries, with a rate 39 percentage points higher than the OECD average.

The reverse is true in vocational training. The probability of obtaining a diploma in vocational training in Québec is 26%, while the average for the OECD countries is 44%. A number of countries obtained very good results in vocational training, including Finland (73%), the Czech Republic (71%), the Slovak Republic (69%), France (69%) and Poland (65%).

The probability of obtaining a diploma in vocational training in Québec is very slightly higher for male students than for female students. It is the sector of activity that differs for female and male students.

In 2001, the probability of obtaining a secondary school diploma<sup>1</sup> in Québec was 84%, 2 percentage points higher than the OECD average.

<sup>1.</sup> For Québec, this rate was obtained by dividing the number of "first diplomas" awarded in 2001 by the number of 17-year-olds in Québec (the age at which a secondary school diploma is generally awarded in Québec).

<sup>2.</sup> The countries included in the table are those for which the OECD report provides totals and whose number of students per cohort is significant.

#### Table 5.5 Probability of obtaining a secondary school diploma, by gender and type of program: Québec and OECD countries, 2001 (%)

	(withc	Total (without double counting)			neral cation	Vocational education	
	M + F	Male	Female	M + F	Female	M + F	Female
Denmark Japan Germany Poland Finland Switzerland Czech Republic France <b>Québec</b> Hungary Palaium	96 93 92 91 88 85 85 <b>84</b> 83 79	N/A 91 89 88 85 91 83 82 <b>77</b> 80 76	N/A 95 95 97 86 87 <b>91</b> 86	54 69 32 54 28 16 32 <b>77</b> N/A	65 73 35 47 66 32 20 38 <b>86</b> N/A	64 24 59 65 73 62 71 69 <b>26</b> N/A	71 23 58 55 78 57 69 64 <b>24</b> N/A
Belgium Italy Ireland Slovak Republic United States Sweden Iceland	79 76 73 72 71 70	76 76 69 72 70 68 61	83 83 74 73 75 78	36 29 55 16 N/A 42 49	42 38 58 20 N/A 46 61	60 62 22 69 N/A 29 38	65 56 25 66 N/A 28 33
Average	82	78	85	38	44	44	42

N/A: Data not available

#### Graph 5.5

Probability of obtaining a secondary school diploma, general education and vocational training: Québec and OECD countries, 2001



# 5.6 Graduation From College

In 2001-2002, the proportion of a generation who could expect to obtain a first college diploma, be it a Diploma of College Studies (DCS) or any other diploma, was 38.1%. This is an increase of 15.9 percentage points since 1975-1976, when it stood at 22.2%. The proportion of a generation who are admitted to college (see Section 2.8) and the proportion of students who obtain a diploma upon leaving college (see Sections 3.3 and 3.4) are combined to produce this result.

The probability of women obtaining a diploma (DCS or other) was more than one and a half times higher than for men (48.4% compared with 28.4%). The gender gap grew steadily during the 1980s and 1990s. In 1975-1976, the probability of obtaining a college diploma<sup>1</sup> was already 2.7 percentage points higher for women than for men. Since then, the probability has continued to rise more sharply for women, and the gap is now almost 20 percentage points. In fact, in the past 15 years or so, it is virtually only among women that the probability of obtaining a college diploma has grown.

The greatest growth has occurred with the pre-university DCS, as the probability of obtaining this type of diploma rose from 13.5% to 23.1% between 1975-1976 and 2001-2002, an increase of 9.6 percentage points, compared with a rise of 7.5 percentage points for the technical DCS over the same period. In the latter case, however, the increase has been greater, given that the rate doubled. In the past six years, however, only in technical education did the probability of obtaining a diploma increase (1.5 percentage points), while it dropped by 1.3 percentage points for a pre-university DCS.

For both types of programs, the number of women graduating between 1975-1976 and 2001-2002 exceeded the number of men, and the gap between the sexes continued to widen. The probability of women obtaining a pre-university DCS increased by 17.5 percentage points, compared with a rise of 2.2 for men. On the other hand, for both sexes the probability of obtaining a technical DCS grew more modestly (in absolute value), although the increase for men was more pronounced in technical education (6.4 percentage points) than in pre-university education (2.2 percentage points). Women were ahead of men by 4.0 percentage points in 1975-1976, and by 6.3 percentage points in 2001-2002.

The Ministère's objective for the year 2010 is a college graduation rate of 60% for young Quebeckers; in 2001-2002, the rate was 38.1%. The gap between the actual rate and the objective is greater than the increase recorded over the past 25 years, since the probability of obtaining a DCS in 1975-1976 was 21%.

While the proportion of young female Quebeckers who could expect to obtain a DCS had risen by roughly 9.1 percentage points (from 39.3% to 48.4%) since 1985-1986, the proportion of young male Quebeckers who could expect to obtain a DCS dropped slightly and stood at 28.4% in 2001-2002.

<sup>1.</sup> The probability of obtaining a first college diploma measures the proportion of a generation that stays in school until a college diploma is earned.

Table 5.6 <b>Probability of obtaining</b> a first college diploma,		1975- 1976	1985- 1986	1995- 1996	1999- 2000	2000- 2001	2001- 2002º
by gender and type of education (%)	Male All diplomas <sup>1</sup> DCS <sup>2</sup> Pre-university education Technical education	20.8 <b>19.8</b> 14.3 5.5	29.7 <b>28.0</b> 18.7 9.0	30.8 <b>30.5</b> 19.4 10.9	29.2 <b>29.2</b> 17.1 12.2	29.5 <b>29.5</b> 17.0 12.4	28.4 <b>28.4</b> 16.5 11.9
	Female All diplomas <sup>1</sup> DCS <sup>2</sup> Pre-university education Technical education	23.5 <b>22.2</b> 12.7 9.5	39.3 <b>37.9</b> 23.6 14.0	46.6 <b>46.3</b> 29.8 16.2	48.6 <b>48.5</b> 30.4 18.2	47.9 <b>47.9</b> 30.1 17.8	48.4 <b>48.4</b> 30.2 18.2
	<b>Total</b> All diplomas <sup>1</sup> <b>DCS</b> <sup>2</sup> Pre-university education Technical education	22.2 <b>21.0</b> 13.5 7.5	34.3 <b>32.8</b> 21.1 11.4	38.6 <b>38.2</b> 24.4 13.5	38.6 <b>38.6</b> 23.6 15.1	38.5 <b>38.5</b> 23.4 15.1	38.1 <b>38.1</b> 23.1 15.0

e: Estimates

Total

Male

1. The diplomas considered here are the Diploma of College Studies (DCS), the Attestation of College Studies (ACS) until 1984, the Certificat d'études collégiales (CEC-certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC-diploma of advanced college studies). Since 1994, there have been no new enrollments in programs leading to a CEC or to a DPEC.

2. These figures include DCSs without mention of vocational specialty.





### 5.7 Graduation From University<sup>1</sup>

**B** ased on behaviours observed in 2002, more than one quarter of young Quebeckers (27.0%) can expect to obtain a bachelor's degree. In the past several years, the number of women enrolling in university has grown more rapidly than the number of men (see Section 2.10). The situation for the two sexes has changed drastically since 1976, when the probability of obtaining a bachelor's degree was 13.1% for women and 16.7% for men. In 1983, the probability for both sexes was more similar and, since then, the increase in probability has been in women's favour. In 2002, the probability of obtaining a bachelor's degree was 33.8% for women and 20.5% for men, or an increase of 20.7 percentage points for women and 3.8 percentage points for men.

The Ministère's objective for the year 2010 is a university graduation rate of 30% for young Quebeckers. The current rate (27%) shows a slight increase despite a series of drops in university enrollment between 1992-1993 and 1997-1998 (see Section 2.10). The recovery of the enrollment rate in the past six years appears to herald an end to the drop in the probability of obtaining a bachelor's degree. The probability is nevertheless lower in Québec than the average of 30.3% recorded for member countries of the Organisation for Economic Co-operation and Development (OECD) in 2001 (see Section 5.9).

With regard to obtaining a master's degree, the results have continued to increase and reached 7.8% for women and 7.4% for men. For both sexes, the rate of 7.6% represents close to triple the 1976 rate of 2.7%. An increase in enrollment at the master's level (see Section 2.10) points to a continued increase in the number of master's degrees awarded for at least a few years to come. The difference between the sexes here is much less significant (0.4 percentage points) than for the bachelor's degree, but could widen in favour of women, given the growing margin in earning a bachelor's degree. Since 1976, the situation of

men and women has reversed; whereas the initial gap was 1.6 percentage points in favour of men, the probability of women obtaining a master's degree has climbed from 1.9% to 7.8%, moving ahead of the probability for men in 1993.

Doctorates are still only earned by a minute fraction (1.0%) of the population. This last phase in the education system is perhaps the only one in which men continue to outnumber women. Figures are, however, minimal for both sexes: 1.0% of men obtain a doctorate, compared with 0.9% of women. In view of developments at the master's level, and the trend at the doctoral level (see Section 3.8), the pool of aspiring doctoral candidates is also likely to increase for some time to come.

In 2002, the probability of obtaining a bachelor's degree increased 1.3 percentage points after having declined the two previous years, and stood at 27.0%.

<sup>1.</sup> Only university degrees (bachelor's, master's and doctoral degrees) awarded by Québec universities are considered here. Degrees earned by Quebeckers outside the province are not taken into account.

Table 5.7 Probability of obtaining a university degree, by gender (%)		1976	1986	1991	1996	2001	2002
	Bachelor's degree	14.9	19.0	23.6	29.3	25.7	27.0
	Male Female	16.7 13.1	18.1 19.9	20.0 27.3	23.0 35.7	20.6 31.2	20.5 33.8
	Master's degree	2.7	3.9	4.4	6.1	7.4	7.6
	Male Female	3.5 1.9	4.4 3.4	4.4 4.3	5.8 6.3	6.9 7.9	7.4 7.8
	Doctorate	0.4	0.5	0.6	0.9	1.0	1.0
	Male Female	0.6 0.2	0.7 0.3	0.9 0.4	1.2 0.6	1.1 0.9	1.0 0.9



# 5.8 University Degrees by Field of Study<sup>1</sup>

In 2002, the largest proportion (26.7%) of bachelor's, master's and doctoral degrees issued by Québec universities were earned in the humanities, followed by business administration (22.1%), education (11.2%), engineering and architecture (10.4%), health sciences (8.7%) and natural sciences (7.7%). Social sciences represented 4.6%, mathematics and computer science, 5.5%, and law, 3.1% of the degrees earned.

The majority of degree holders are women (58.4%). In 2002, women earned 82.1% of the degrees in education, 78.7% in social sciences, 74.6% in health sciences, 67.7% in the humanities, 58.4% in law and 55.9% in natural sciences. Men earned 77.8%<sup>2</sup> of the degrees in engineering and architecture, 70.4% in mathematics and computer science, and 50.2% in business administration.

Compared with 1990, the number of degrees issued by universities in 2002 rose by 20.6%. This percentage is the result of a 32.0% increase in the number of degrees awarded to women and a 7.5% increase for men.

In the past 12 years, the distribution of the degrees awarded according to field of study has changed. Between 1990 and 2002, for example, the number of degrees in business administration dropped (by 0.5 percentage points), as did the number of degrees in engineering and architecture (by 0.7 percentage points), law (by 0.4 percentage points) and social sciences (by 0.3 percentage points).

At the other extreme, the number of degrees awarded in mathematics and computer science rose by 1.4 percentage points, the humanities, by 0.5 percentage points, and education, by 0.2 percentage points.

For member countries of the Organisation for Economic Co-operation and Development (OECD),<sup>3</sup> degrees earned in the sciences (life sciences, physical sciences and agriculture,

mathematics and computer science, engineering, and manufacturing and construction activities) accounted for 25.8% of the total number of degrees earned in 2001; in Québec (natural sciences, mathematics and computer science, engineering and architecture), this proportion was 23.6% in 2002. The proportion of degrees in social sciences, law and business administration was 31.7% for the OECD countries in 2001 and 29.8% for Québec in 2002, whereas the proportion of degrees in health sciences was 13.0% for the OECD countries in 2001 and 8.7% for Québec in 2002. Degrees in the humanities, literature and education represented 25.1% for the OECD countries and 37.9% for Québec.

In 2002, the proportion of degrees earned in engineering and architecture, as well as mathematics and computer science, accounted for 15.9% of all the bachelor's, master's and doctoral degrees awarded. In these fields of study, more men (75.2%) obtained degrees. However, more women earned degrees in the other fields of study (except business administration), as well as in all fields combined.

<sup>1.</sup> This refers to students who earned a university degree (bachelor's, master's or doctoral degree) during the year in question.

<sup>2.</sup> The proportion of degrees in engineering and architecture earned by women rose from 16.8% in 1990 to 22.2% in 2002.

<sup>3.</sup> Source: OECD, Education at a Glance–OECD Indicators (Paris: 2003). Any comparison between the results presented in this section and those published by the OECD must take into account the different methodologies used to obtain the results.

	1990	1995	1998	1999	2000	2001	2002
Health sciences	8.7	8.9	9.2	9.6	8.3	8.2	8.7
Natural sciences	7.8	6.5	8.0	8.0	8.5	8.0	7.7
Mathematics and computer science	4.1	3.6	3.8	4.0	4.7	5.0	5.5
Engineering and architecture	11.1	11.0	10.1	10.2	10.2	10.7	10.4
Law	3.5	3.2	3.4	3.1	3.4	3.2	3.1
Business administration	22.6	20.0	20.5	20.1	20.7	21.8	22.1
Education	11.1	15.2	10.4	12.4	11.1	10.8	11.2
Humanities	26.2	27.2	29.2	27.5	28.0	27.5	26.7
Social sciences	4.9	4.4	5.4	5.1	5.1	4.8	4.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female	53.4	56.4	56.6	57.0	56.7	57.2	58.4
Male	46.6	43.6	43.4	43.0	43.3	42.8	41.6

Table 5.8 Distribution of university degrees, by field of study and gender<sup>1</sup> (%)

1. Only holders of bachelor's, master's or doctoral degrees who obtained their degree in the year in question are considered.



## 5.9 Graduation From University in Québec and OECD Countries, 2001

In 2003, the Organisation for Economic Co-operation and Development (OECD) published *Education at a Glance*, which contains indicators on graduation from university in OECD countries in 2001.

Table 5.9 compares the situation in Québec with that in a number of industrialized OECD nations with respect to graduation from university. In 2001, the probability of obtaining a bachelor's degree was 25.7% in Québec, that is, 4.6% lower than the OECD average. In 1999 and 2000, the gap was 5 and 1 percentage points, respectively, in favour of Québec.

In 2001, 11 of the 17 OECD countries appearing in Table 5.9 had a higher probability of obtaining a first undergraduate (bachelor's) degree than Québec, that is, Australia (42%), Finland (40.7%), New Zealand (40.2%), Iceland (39.5%), Denmark (38.8%), Poland (38.6%) and the United Kingdom (37.4%).

The probability of obtaining a doctorate in Québec was 1.0%, slightly lower than the OECD average (1.1%). Sweden (2.7%), Switzerland (2.5%), Germany (2.0%) and Finland (1.8%) posted the highest university graduation rates from postgraduate research programs.

In 2001, the probability of obtaining a bachelor's degree in Québec was 25.7%, and the average for the OECD countries was 30.3%.

Table 5.9 Probability of obtaining		Baccalauréat	Doctorat
a university degree	Australia	42.0	1.3
(bachelor's degree and	Finland	40.7	1.8
doctorate) in Québec	New Zealand	40.2	0.9
and certain OECD	Iceland	39.5	0.1
countries, 2001 (%)	Denmark	38.8	1.0
	Poland	38.6	0.9
	United Kingdom	37.4	1.6
	Japan	32.8	0.7
	Spain	32.1	0.9
	Sweden	29.6	2.7
	Ireland	29.3	0.9
	Québec	25.7	1.0
	France	25.0	1.4
	Italy	20.0	0.5
	Germany	19.0	2.0
	Switzerland	18.7	2.5
	Austria	16.6	1.5
	Czech Republic	14.1	0.7
	Average	30.3	1.1

#### Graph 5.9

Probability of obtaining a bachelor's degree in Québec and certain OECD countries, 2001 (%)



# 6.1 Employment Trends by Level of Education

**S** ince the early 1990s, the structure of the labour market in Québec and in Canada as a whole has been changing in a way that benefits workers with more education. Indeed, the employment situation has been more favourable for those with a postsecondary diploma or university degree,<sup>1</sup> both during the recession of the early 1990s and in the period since 1993, when employment has been on the rise. The data presented in this section is from Statistics Canada. The levels of education considered here correspond to the highest level of education attained by employed workers in a given year.<sup>2</sup> It should be noted, however, that these levels do not necessarily correspond to employment requirements.

In Québec, it was not until 1995 that the job losses suffered in the last recession were absorbed. In 2003, although there were 508 000 more jobs than in 1990, this growth in employment did not benefit all workers. Those with only a secondary school diploma or who did not finish secondary school suffered job losses, while those who successfully completed some postsecondary studies or graduated from college or university made gains. Thus, employed individuals with a university education were more numerous (by 306 000) in 2003 than in 1990, for an increase of 73.6%. Those with a postsecondary diploma held 503 000 more jobs (+55.3%) in 2003 than in 1990. Those with only some postsecondary studies were more likely to hold jobs in 2003 than in 1990 (57 000 more), for an increase of 22.6%. In short, individuals with some higher education held 866 000 more jobs in 2003 than in 1990, an increase of 54.7%.

The situation was very different for those without a secondary school diploma or with only a secondary education. In all, these individuals held 358 000 fewer jobs in 2003 than in 1990. Thus, those with only a secondary school diploma held 43 000 fewer jobs (-6.8%) than in 1990. The situation is even more dismal for individuals without a secondary school diploma: from 1990 to 2003, they held 315 000 fewer jobs, a decrease of 34.0%. The increase of 57 000 jobs in 2003 over 2002 has benefited individuals who began but did not complete postsecondary studies as well as graduates with a postsecondary diploma or a university degree.

<sup>1.</sup> According to Statistics Canada terminology, elementary school includes the first two years of secondary education. Postsecondary studies include all programs leading to diplomas and certificates in the trades (including the Diploma of Vocational Studies), college diplomas and certificates, and university certificates below the bachelor's level. The university sector begins with programs leading to at least a bachelor's degree.

<sup>2.</sup> The level of education attained by a person may increase over time. It is therefore possible that the same job, held by the same person, will be considered to be held by a person with a higher level of education in a given year than in an earlier year.

Table 6.1 Employment trends in Québec, by level of education <sup>1</sup>	Year	No secondary school diploma	Secondary school diploma	Some postsecondary studies	Postsecondary diploma	University degree	Total
(in thousands)	1990	927	632	257	910	416	3 1 4 2
	1992	784	604	233	948	473	3 042
	1995	723	553	230	1 082	560	3 148
	2000	638	604	281	1 254	661	3 438
	2001	626	598	285	1 284	682	3 475
	2002	633	607	290	1 370	693	3 593
	2003	612	589	314	1 413	722	3 650
	Change from 1990 to 2003	- 34.0%	- 6.8%	22.2%	55.3%	73.6%	16.2%

Source: Statistics Canada

1. See notes at the bottom of the text.



of education, 1990 to 2003 (%)



# 6.2 Labour Force Attachment by Level of Education<sup>1</sup>

As indicated in Section 6.1, in recent years, there has been a rapid increase in the level of education of employees. In 1990, 29.5% of employees did not have a secondary school diploma, whereas in 2003, the rate was only 16.8%. This phenomenon is not limited to Québec, it extends to Ontario and the other provinces as well. In Ontario, individuals without a diploma accounted for 26.7% of employees in 1990 and only 14.1% in 2003. In the other provinces, the rates were 25.1% in 1990 and 14.8% in 2003.

The number of individuals with only a secondary school diploma is also declining, but less quickly.

The percentage of those who started postsecondary studies but did not graduate has remained relatively stable, going from 8.2% to 8.6% in Québec and 10.3% to 10.8% in the other provinces. This percentage dropped slightly in Ontario.

However, the number of employees with a postsecondary diploma or university degree has increased considerably. In 1990, they held approximately 40% of the jobs. In 2003, the proportions were 52.5% for the other provinces, 55.0% for Ontario and 58.5% for Québec.

The growth in the employment rate of university graduates was especially rapid: in 1990, they made up only 13.2% of employees in Québec, whereas in 2003, they held nearly one in five jobs (19.8%). In Ontario, this proportion is even higher, with close to one in four jobs (23.4%) and in the other provinces, it is 19.0%.

If the rates for the number of jobs held by graduates with different diplomas or degrees are compared for Québec and Ontario and the other provinces, it can be noted that Québec's situation has changed gradually from 1990 to 2003.

For jobs held by individuals without a secondary school diploma, the gap has remained essentially the same with respect to Ontario, but decreased by 2.4 percentage points with respect to the other provinces.

The proportion of employed individuals with only a secondary school diploma declined more rapidly in Québec than in Ontario or the other provinces, but it should be noted that it takes less time to earn a secondary school diploma in Québec than elsewhere in Canada.

The proportion of employees with a postsecondary diploma increased everywhere, but remained the highest in Québec, no doubt because the college education system is more developed in Québec.

The number of employees with a university degree in Québec (19.8%) currently exceeds that of the other provinces (19.0%); however, this increase was not sufficient enough to make up the gap with respect to Ontario (23.4%), which is now 3.6 percentage points.

In 2003, close to 60% of all jobs in Québec were held by individuals with a postsecondary diploma or university degree.

According to Statistics Canada terminology, postsecondary studies include all programs leading to diplomas and certificates in the trades (including the Diploma of Vocational Studies), nonuniversity college diplomas and certificates and, university certificates below the bachelor's level. The university sector begins with programs leading to at least a bachelor's degree.

#### Table 6.2 Employment by highest level of education: Québec, Ontario and the other provinces, 1990 and 2003<sup>1</sup> (%)

	Qué	Québec		ario	Other	provinces
	1990	2003	1990	2003	1990	2003
Total	100.0	100.0	100.0	100.0	100.0	100.0
No secondary school diploma	29.5	16.8	26.7	14.1	25.1	14.8
Secondary school diploma	20.1	16.1	23.0	21.2	24.3	21.9
Some postsecondary studies	8.2	8.6	10.2	9.7	10.3	10.8
Postsecondary diploma	29.0	38.7	24.0	31.6	27.0	33.5
University degree Bachelor's degree Higher degree	13.2 9.1 4.1	19.8 14.2 5.6	16.1 10.7 5.4	23.4 15.7 7.7	13.3 9.3 4.0	13.2

Source: Statistics Canada

1. See note at the bottom of the text.



### 6.3 Labour Market Integration of Graduates

**F**rom one year to the next, a large portion of the approx-imately 200 000 secondary school, college and university graduates enter the labour market. The data obtained through Québec government Relance surveys provides a picture of the placement of some 80 000 secondary school vocational training, college technical education and university graduates a number of months after they obtain their diploma or degree.<sup>1</sup>

Since 1999, more than 84.6% of students with a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) found work. On March 31, 2003, 86.9% of students who graduated with a DVS were in the labour force (either working or looking for work), a rate comparable to that observed in 2002. The unemployment rate for DVS graduates has been in decline since 1996, dropping from 27.0% in 1996 to 11.7% in 2003.

The proportion of students with an Attestation of Vocational Specialization (AVS) who are in the labour force has fallen since 1998, when it stood at 89.1%, to settle at 83.7% in 2003. On the other hand, the proportion of students with an AVS who are still in school grew from 5.8% in 1998 to 9.2% in 2002, and then dropped to 8.3% in 2003. The unemployment rate among AVS graduates is on the rise, going from 10.2% in 2002 to 12.0% in 2003.

In 2003, 73.6% of students who graduated from a college technical program with a Diploma of College Studies (DCS) were in the labour force, a decrease since 1999. Each year since 1999, the number of graduates still studying has increased. The unemployment rate for graduates with a DCS in technical education dropped slightly, from 6.0% in 2002 to 5.4% in 2003.

Between 1992 and 2001, more than 77.6% of students with a bachelor's degree entered the labour force. In 2003, 73.9% of them did so; this rate is comparable to the 77.6% observed in 2001, especially when methodological changes are considered.<sup>2</sup> The unemployment rate fell considerably between 1994 and 2001, dropping from 11.4% in 1994 to 4.0% in 2001, and then rose slightly in 2003 to 4.9%.

In 2003, 79.9% of graduates with master's degrees entered the labour force, comparable to the rate of 82.3% in 2001 (see Note 2). Their unemployment rate, which rose from 6.8% to 8.1% from 1994 to 1997, was 7.4% in 1999. In 2001, it decreased significantly from 1999, and stood at 3.7%. In 2003, it increased slightly to 4.6%.

Overall, as seen in Graph 6.3, the unemployment rate of all the graduates considered in this section decreased from 1997 to 2003. The labour force as a whole in Québec, whose age, training and work experience differs considerably from that of these graduates, did not experience a comparable drop in the unemployment rate during the same period.

The unemployment rate for graduates of vocational training (DVS), college technical education (DCS) and university (bachelor's and master's) has been declining since 1997.

<sup>1.</sup> Results refer to students graduating in the year indicated, approximately nine months after the completion of studies for graduates with a DVS or an AVS and roughly 10 months for graduates with a DCS (15 months for those finishing in the fall). The situation for those graduating with a bachelor's or master's degree is as of January, approximately 20 months after they earned their degree.

<sup>2.</sup> Methodological changes related to the definition of the term "employed individual" resulted in a slight decrease in 2003 in the proportion of university graduates considered employed. For more information, refer to the section dealing with the methodology of the survey La Relance à l'université 2003 at the Ministère's Web site: <http://www.meq.gouv.gc.ca/Relance/Relance.htm> (available only in French).

#### Table 6.3

Unemployment rates for graduates, by level of education and type of diploma or degree (%)

999 5.1 2.4	2000 13.0 12.4	2001 12.3 10.7	2002 12.0	2003
				• -
				• -
2.4	12.4	10.7	10 2	
			10.2	12.0
6.8	5.5	5.4	6.0	5.6
6.4	_	4.0	_	4.9
7.4	-	3.7	_	4.6
3.1	18.1	20.0	22.0	19.8
2.0	14.6	11.3	11.1	13.0
9.4	10.5	8.2	8.2	9.5
0.2	9.0	9.3	9.5	9.7
	5.4 7.4 3.1 2.0 9.4	5.4 – 7.4 – 8.1 18.1 2.0 14.6 9.4 10.5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

1. Data obtained from Statistics Canada. Includes the total labour force, regardless of level of education and work experience. The unemployment rates are those for March of the year in question (unadjusted data). Source: Statistics Canada, monthly labour force survey estimates (Labour Force Survey, Table 282-0001).

-: There is no data for these years.



### 6.4 Labour Market Integration of **Secondary Vocational Training Graduates**

n March 31, 2003, about nine months after graduation, 76.7% of graduates of programs leading to a Diploma of Vocational Studies (DVS) were employed, as were 73.7% of graduates of programs leading to an Attestation of Vocational Specialization (AVS). The employment rate among DVS graduates increased, while that among AVS graduates decreased slightly with respect to 2002.

The number of DVS graduates in the Relance survey for secondary vocational training went from 25 092 in 2002 to 27 609 in 2003, an increase of 10.0%. The number of jobs held by these graduates increased 10.7%, from 19 132 in 2002 to 21 178 in 2003.

On March 31, 2003, 76.7% of DVS graduates were employed, 10.2% were looking for work, 9.2% were studying and 3.9% were inactive. The proportion of individuals with a DVS who were in the labour force (employed or looking for work) was 86.9%, higher than in 2000. The unemployment rate for DVS graduates has been in decline since 1996. decreasing by more than half from 27.0% in 1996 to 11.7% in 2003.

A total of 86.7% of DVS graduates were employed full-time in 2003, comparable to the 2002 rate of 86.8%. There is an obvious trend throughout: more men than women are employed full-time. Between 1999 and 2003, the percentage of men employed full-time varied between 93.6% and 94.6%, compared with 74.9% and 76.7% for women.

Between 1997 and 2002, of those who were employed full-time, the correspondence between the field of study and the field of employment increased from 68.0% to 77.9% among DVS graduates working full-time. In 2003, the proportion of individuals working in a field related to the diploma earned declined slightly, from 77.9% in 2002 to 76.7% in 2003. Among women, it remained virtually unchanged

(76.9% in 2002 and 76.7% in 2003), while among men, it dropped from 78.6% in 2002 to 76.7% in 2003.

According to the Relance survey, the number of new AVS graduates dropped in the three-year period, going from 3 287 in 2001 to 2 837 in 2003.<sup>1</sup> The number of jobs held by AVS graduates declined more considerably, from 2 537 in 2001 to 2 092 in 2003.

On March 31, 2003, 73.7% of the class of 2000-2001 who graduated from programs leading to an AVS were employed, 10.0% were looking for work, 8.3% were studying and 8.0% were inactive. The number of AVS graduates in the labour force fell from 85.1% in 2002 to 83.7% in 2003. After dropping between 1996 and 1999, the unemployment rate for AVS graduates remained steady in 2000 at 12.4%. It dropped to 10.2% in 2002, and then in 2003, it rose to 12.0%.

A total of 86.6% of AVS graduates were employed full-time in 2003, compared with 85.5% in 2002. There is still a large gap between the full-time employment rate of women (77.0%) and that of men (93.7%). The correspondence between the field of study and the field of employment among AVS graduates also decreased slightly in 2003, going from 75.8% in 2002 to 71.6% in 2003. This decline affected both women and men.

The unemployment rate for DVS graduates decreased from 15.1% in 1999 to 11.7% in 2003. However, the unemployment rate for AVS graduates rose from 10.2% in 2002 to 12.0% in 2003.

<sup>1.</sup> In recent years, some programs of study leading to an AVS have been phased out or incorporated into programs leading to a DVS.

Table 6.4 Employment situation		1999	2000	2001	2002	2003
of secondary school	Graduates with a DVS					
vocational training	Employed	74.5	73.6	74.3	76.2	76.7
graduates, by graduation	Seeking employment	13.3	11.0	10.4	10.4	10.2
class, as at March 31	Studying	8.3	11.1	11.1	9.4	9.2
of the year following their graduation (%)	Inactive <b>Total</b>	3.9 <b>100.0</b>	4.3 <b>100.0</b>	4.2 <b>100.0</b>	3.9 <b>100.0</b>	3.9 <b>100.0</b>
their graduation (%)	Iotai	100.0	100.0	100.0	100.0	100.0
	Unemployment rate	15.1	13.0	12.3	12.0	11.7
	Graduates with an AVS					
	Employed	77.3	76.1	77.2	76.4	73.7
	Seeking employment	10.9	10.8	9.3	8.7	10.0
	Studying	6.8	8.0	7.5	9.2	8.3
	Inactive	5.0	5.1	6.1	5.7	8.0
	Total	100.0	100.0	100.0	100.0	100.0
	Unemployment rate	12.4	12.4	10.7	10.2	12.0



### 6.5 Labour Market Integration of Graduates of College Technical Programs

The percentage of graduates of technical programs who were employed approximately 10 months after they obtained a Diploma of College Studies (DCS) was on the decline as of March 31, 2003. It went from 70.3% in 2002 to 69.5% in 2003.

According to the *Relance* survey of graduates from college technical education, the number of graduates increased by 7.4% in 2003: it went from 15 260 in 2002 to 16 384 in 2003. The number of jobs held by these DCS graduates increased by 6.1%, from 10729 to 11393 during the same period.

In 2003, 69.5% of graduates were employed, while 4.1% were looking for work, 24.4% were studying, and 2.0% were inactive. The percentage of DCS technical graduates in the labour force (either working or looking for work) declined in 2003, going from 74.8% in 2002 to 73.6% in 2003. The unemployment rate of DCS technical graduates dropped from 6.0% in 2002 to 5.6% in 2003. The unemployment rate of graduates aged 24 or younger has not changed in relation to that of 2002, which was 5.6%. The proportion of DCS technical graduates who were in this age group was 80.9% in 2000-2001.

The percentage of students who, after obtaining a DCS in technical education the previous year, were studying on March 31 of the year in question rose from 19.3% in 1999 to 24.4% in 2003. Most of these students, 82.7%, were in university, 8.1% were in technical education and 2.5% were in pre-university education. Of those in university on March 31, 2003, 87.8% were studying in a field related to the diploma earned in 2001-2002. Of those in technical education, 74.2% were also studying in a field related to the diploma earned in 2001-2002. Finally, 8.8% of those studying on March 31, 2003 were there because they were unable to find a job.

In 2003, 86.3% of DCS technical graduates were employed full-time, a decrease from 2001, when it was 88.8%. This rate increased steadily between 1994, when it stood at 71.2%, and 2001. In 2003, men were more likely to be employed full-time (91.9%) than women (83.3%). The correspondence between the field of study and the field of employment declined for men, while it remained essentially the same for women: in 2003, 83.5% of full-time jobs (78.2% among men and 86.7% among women) were related to the field of study while, in 2002, the proportions were 84.9%, 82.9% and 86.3%, respectively. In 2003, 35.4% of part-time workers reported working part-time because they could not find full-time employment; this represents a decrease compared with 44.2% in 2001 and 40.2% in 2002.

The unemployment rate among graduates with a DCS in technical education dropped from 6.0% in 2002 to 5.6% in 2003. Close to one in four technical education graduates (24.4%) continued studying the year after they earned their diploma.

Table 6.5 Employment situation		1999	2000	2001	2002	2003
of graduates of college technical programs,	Graduates with a DCS Employed	73.2	74.1	71.3	70.3	69.5
by graduating class, as at March 31 of	Seeking employment Studying	5.3 19.3	4.3 19.6	4.1 22.8	4.5 23.1	4.1 24.4
the year following their graduation (%)	Inactive <b>Total</b>	2.2 <b>100.0</b>	2.0 <b>100.0</b>	1.8 <b>100.0</b>	2.1 <b>100.0</b>	2.0 <b>100.0</b>
	Unemployment rate	6.8	5.5	5.4	6.0	5.6



## 6.6 Labour Market Integration of University Graduates

pproximately 20 months after obtaining their degree, A70.4% of graduates from a bachelor's program and 76.2% of graduates from a master's program were employed as at the reference week of January 19 to 25, 2003.

In 2003, 73.9%<sup>1</sup> of graduates with a bachelor's degree were in the labour force: 70.4% were employed and 3.6% were looking for work. The percentage of graduates with a bachelor's degree who were in the labour force in 2003 is comparable to that of 2001.<sup>2</sup> The unemployment rate for these graduates declined between 1994 and 2001, and increased slightly in 2003, going from 4.0% in 2001 to 4.9% in 2003.

In 2003, 79.9% of graduates with a master's degree were in the labour force (76.2% were employed and 3.7% were looking for work), a rate comparable to that of 2001. The unemployment rate for these graduates, which dropped between 1997 and 2001, rose from 3.7% in 2001 to 4.0% in 2003.

The percentage of graduates who obtained a bachelor's or master's degree in 2001 and who were studying in 2003 was 22.9% and 17.3%, respectively during the reference week.

Of those who earned a bachelor's degree in 2001 and who were studying in 2003 during the reference week, 72.0% were enrolled in a master's program and 6.9% in a doctoral program, while 20.7% were in a bachelor's program. Of the graduates who, during the reference week in 2003, were studying in a master's or doctoral program, 92.8% and 93.9%, respectively, were in a field of study related to the degree earned in 2001.

Of the graduates who earned a master's degree in 2001 and who were studying in 2003 during the reference week, 69.6% were in a doctoral program, while 17.2% were in a

master's program and 12.2% in a bachelor's program. Of the graduates who, during the reference week in 2003. were studying in a master's or doctoral program, 85.8% and 94.8%, respectively, were in a field of study related to the degree obtained in 2001.

Of the graduates with a bachelor's or master's degree who were studying in 2003, 12.1% and 12.5%, respectively, were there because they were unable to find employment.

In 2003, 88.8% of graduates with a bachelor's degree and 91.2% of graduates with a master's degree were employed full-time. More men than women were employed full-time. The correspondence between the studies completed in 2001 and the profession being practised was 82.2% for graduates with a bachelor's and 85.4% for graduates with a master's degree who were working full-time during the reference week.

In 2003, the proportion of graduates working part-time who reported doing so because they had not found full-time employment was 32.9% after earning a bachelor's degree and 31.3% after a master's degree.

The unemployment rates in 2003 for university graduates with a bachelor's or master's degree were 4.9% and 4.0%, respectively.

<sup>1.</sup> In this section, percentages have been rounded off to the nearest decimal and may not total 100%.

<sup>2.</sup> Methodological changes related to the definition of the term "employed individual" resulted in a slight decrease in 2003 in the proportion of university graduates considered employed. For more information, refer to the section dealing with the methodology of the survey La Relance à l'université 2003 at the Ministère's Web site: <http://www.meq.gouv.qc.ca/Relance/Relance.htm> (available only in French).

	1992	1994	1997	1999	2001					
Graduates with a bachelor's degree										
Employed	71.3	74.0	75.6	74.5	70.4					
Seeking employment	9.2	7.4	5.1	3.1	3.6					
Studying		16.2	16.6	19.8	22.9					
Inactive		2.4	2.7	2.5	3.1					
Total	100.0	100.0	100.0	100.0	100.0					
Unemployment rate	11.4	9.1	6.4	4.0	4.9					
Graduates with a master's degree										
Employed	77.0	77.7	79.7	79.2	76.2					
Seeking employment	5.6	6.8	6.4	3.1	3.7					
Studying	15.0	12.7	11.7	15.2	17.3					
Inactive		2.8	2.2	2.5	2.9					
Total	100.0	100.0	100.0	100.0	100.0					
Unemployment rate	6.8	8.1	7.4	3.7	4.6					
	Employed Seeking employment Studying Inactive <b>Total</b> Unemployment rate <b>Graduates with a master's</b> Employed Seeking employment Studying Inactive <b>Total</b>	Graduates with a bachelor's degreeEmployed71.3Seeking employment9.2Studying16.5Inactive3.0Total100.0Unemployment rate11.4Graduates with a master's degreeEmployed77.0Seeking employment5.6Studying15.0Inactive2.4Total100.0	Graduates with a bachelor's degree   Employed 71.3 74.0   Seeking employment 9.2 7.4   Studying 16.5 16.2   Inactive 3.0 2.4   Total 100.0 100.0   Unemployment rate 11.4 9.1   Graduates with a master's degree Employed 77.0 77.7   Seeking employment 5.6 6.8 5   Studying 15.0 12.7 1   Inactive 2.4 2.8 2.8   Total 100.0 100.0 100.0	Graduates with a bachelor's degree   Employed 71.3 74.0 75.6   Seeking employment 9.2 7.4 5.1   Studying 16.5 16.2 16.6   Inactive 3.0 2.4 2.7   Total 100.0 100.0 100.0   Unemployment rate 11.4 9.1 6.4   Graduates with a master's degree Employed 77.0 77.7 79.7   Seeking employment 5.6 6.8 6.4 5tudying 15.0 12.7 11.7   Inactive 2.4 2.8 2.2 7 7 7	Graduates with a bachelor's degree Final Studying The set of the					

1. This is the situation of university graduates approximately two years after earning a degree. For example, the class of 2001 was surveyed in relation to the week of January 19 to 25, 2003.



# **Statistical Appendix**

35
36
37
38
39
40

Page

# *Full-time and part-time enrollment, by level of education and sector, 1993-1994 to 2002-2003*

	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
Preschool (4-year-olds)	8 151	14 023	17 284	17 294	16 295	15 908	15 174	14 601	15 778	15 240
Preschool (5-year-olds)	85 316	89 912	95 651	96 087	95 303	91 513	89 223	87 297	84 624	80 967
Elementary education (youth sector)	555 417	547 395	547 642	552 482	559 279	566 372	573 102	575 862	574 274	564 559
Secondary education (youth sector)	498 306	498 105	492 629	486 696	479 740	469 250	456 148	447 937	446 491	455 467
Elementary and secondary education (adult sector) <sup>1</sup>	222 531	223 886	226 317	222 434	218 193	214 701	219 268	222 714	238 507	247 258
<b>College</b> <sup>2</sup> Regular education Adult education	<b>254 863</b> 180 275 74 588	<b>247 400</b> 181 678 65 722	<b>241 860</b> 179 155 62 705	<b>237 485</b> 180 315 57 170	<b>231 089</b> 176 587 54 502	<b>228 733</b> 174 468 54 265	<b>219 292</b> 171 682 47 610	<b>213 837</b> 167 041 46 796	<b>206 069</b> 164 732 41 337	<b>199 467</b> 163 056 36 411
<b>University<sup>3</sup></b> Undergraduate studies Graduate studies Postgraduate studies	<b>253 344</b> 210 759 33 782 8 803	<b>244 531</b> 201 418 34 021 9 092	<b>237 810</b> 194 196 34 271 9 343	<b>230 941</b> 187 565 34 086 9 290	<b>226 977</b> 183 370 34 281 9 326	<b>226 638</b> 183 157 34 558 8 923	<b>231 897</b> 187 014 36 120 8 763	<b>233 463</b> 187 514 37 192 8 757	<b>239 097</b> 189 452 40 808 8 837	<b>249 158</b> 195 132 44 573 9 453
Total	1 877 928	1 865 252	1 859 193	1 843 419	1 826 876	1 813 115	1 804 104	1 795 711	1 804 840	1 812 116

Sources: Déclaration des clientèles scolaires (DCS)

Déclaration des clientèles en formation professionnelle (DCFP) Système d'information du Ministère sur les clientèles adultes (SIMCA) Système d'information financière sur la clientèle adulte (SIFCA) Système d'information et de gestion des données sur l'effectif collégial (SIGDEC) Système de recensement des clientèles universitaires (RECU) Gestion des données sur les effectifs universitaires (GDEU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.

2. Fall term. Figures for adult education exclude students enrolled in noncredit programs.

3. Fall term. These figures include resident physicians and some students in college or Explorations programs. However, they exclude auditors, postdoctoral trainees, students in Explorations programs and students from the Collège militaire Royal de Saint-Jean.

# Full-time and part-time enrollment, by category of institution, language of instruction, level of education and sector, 2002-2003

	Presc	nool	Elementary	Secondary	Elementary	Co	ollege <sup>2</sup>	University <sup>3</sup>	Total
	4-year- olds	5-year- olds	(Youth sector)	(Youth sector) (	and secondary Adult sector <sup>1</sup> )	Regular education	Adult education	-	
School boards French English Native languages	<b>14 975</b> 13 873 845 257	<b>76 421</b> 67 765 8 143 513	<b>533 276</b> 474 356 57 511 1 409	<b>376 409</b> 334 943 41 466 245	<b>242 841</b> 219 316 23 280 2 424				<b>1 243 922</b> 1 110 253 131 245
<b>Private institutions</b> French English French and English	<b>48</b> 14 34 1 384	<b>4 303</b> 3 411 892 3 408	<b>29 462</b> 23 629 5 833 4 792	<b>77 913</b> 70 365 7 548	<b>3 759</b> 3 465 294	<b>12 554</b> 8 288 2 882	<b>6 402</b> 2 663 331		<b>134 441</b> 111 835 17 814
Public institutions outside the jurisdiction of the Ministère de l'Éducation	217	243	1 821	1 145	658	1 776	44		5 904
French English Native languages	113 15 89	133 19 91	1 386 139 296	1 059 82 4	658	1 680 96	44		5 073 351 480
<b>CEGEPs and campuses</b> French English French and English						<b>148 726</b> 125 345 23 381	<b>29 965</b> 25 346 4 619		<b>178 691</b> 150 691 28 000
<b>Universities and branches</b> French English								<b>249 158</b> 187 152 62 006	<b>249 158</b> 187 152 62 006
<b>Total</b> French English Native languages French and English	<b>15 240</b> 14 000 894 346	<b>80 967</b> 71 309 9 054 604	<b>564 559</b> 499 371 63 483 1 705	<b>455 467</b> 406 367 49 096 4	<b>247 258</b> 223 439 23 574 245	<b>163 056</b> 135 313 26 359 1 384	<b>36 411</b> 28 053 4 950 3 408	<b>249 158</b> 187 152 62 006	<b>1 812 116</b> 1 565 004 239 416 2 904 4 792

Sources: Déclaration des clientèles scolaires (DCS) Déclaration des clientèles en formation professionnelle (DCFP)

Système d'information financière sur la clientèle adulte (SIFCA) Système d'information et de gestion des données sur l'effectif collégial (SIGDEC) Gestion des données sur les effectifs universitaires (GDEU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.

2. Fall term. Figures for adult education exclude students enrolled in noncredit programs.

3. Fall term. These figures include resident physicians, but exclude auditors, postdoctoral trainees and students in Explorations programs.

# *Enrollment in secondary vocational training and college technical education, 1995-1996 to 2002-2003*

	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003 <sup>p</sup>
SECONDARY EDUCATION <sup>1</sup> Under 20 years of age <sup>2</sup> 20 years of age or over <sup>3</sup>	<b>86 900</b> 22 376 64 524	<b>88 690</b> 25 751 62 939	<b>93 274</b> 26 923 66 351	<b>94 263</b> 26 476 67 787	<b>99 884</b> 26 031 73 853	<b>95 991</b> 25 514 70 477	<b>99 063</b> 25 480 73 583	<b>100 393</b> 24 825 75 568
<b>Regular paths:</b> <b>DVS (SSVD), SSVC, AVS, AVE</b> Under 20 years of age <sup>2</sup>	<b>66 950</b> 20 921	<b>72 990</b>	<b>75 786</b> 25 818	<b>77 127</b> 25 208	<b>75 890</b> 24 623	<b>76 359</b> 24 343	<b>79 395</b> 24 044	<b>79 737</b> 23 141
20 years of age or over <sup>3</sup> <b>Other programs</b> Under 20 years of age <sup>2</sup> 20 years of age or over <sup>3</sup>	46 029 <b>19 950</b> 1 455 18 495	48 460 <b>15 700</b> 1 221 14 479	49 968 <b>17 488</b> 1 105 16 383	51 919 <b>17 136</b> 1 268 15 868	51 267 23 994 1 408 22 586	52 216 <b>19 432</b> 1 171 18 261	55 351 <b>19 668</b> 1 436 18 232	56 596 <b>20 656</b> 1 684 18 972
COLLEGE Diploma of College Studies (DCS-technical)	<b>121 014</b> 89 526	<b>122 187</b> 90 460	<b>123 854</b> 90 958	<b>126 080</b> 90 433	<b>121 822</b> 88 963	<b>119 843</b> 87 488	<b>116 444</b> 86 968	<b>109 624</b> 84 674
Certificat d'études collégiales (CEC) Attestation of College Studies (ACS Diplôme de perfectionnement de l'enseignement collégial (DPEC)	7 329 ) 24 065 94	1 207 30 518 2	274 32 614 8	60 35 587 –	14 32 844 1	32 355 	29 476 _	24 950 _

Sources: Déclaration des clientèles scolaires (DCS) Déclaration des clientèles en formation professionnelle (DCFP) Système d'information financière sur la clientèle adulte (SIFCA) Système d'information et de gestion des données sur l'effectif collégial (SIGDEC)

p: Preliminary figures

DVS: Diploma of Vocational Studies (or SSVD: Secondary School Vocational Diploma, prior to 1998);

SSVC: Secondary School Vocational Certificate;

AVS: Attestation of Vocational Specialization;

AVE: Attestation of Vocational Education

1. Only persons having taken courses for which credits are earned for certification purposes are included. Persons enrolled in more than one program in the same year are counted only once.

2. Includes students 20 years of age or over in the youth sector.

*3.* For the adult sector only.

# *Personnel in school boards, CEGEPs and universities by job category, based on full-time equivalents,*<sup>1</sup> 1994-1995 to 2001-2002

	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
School boards	106 934	105 919	104 380	104 462	106 630	108 772	111 464	113 187
Youth and adult sectors								
Teaching staff	70 518	70 331	69 680	70 366	71 152	71 288	71 918	71 987
Administrative staff	1 452	1 388	1 274	1 159	1 118	1 080	1 076	1 079
School principals	3 820	3 753	3 647	3 528	3 567	3 661	3 713	3 723
Managerial staff	848	802	751	671	663	685	680	698
Nonteaching professionals	4 691	4 530	4 250	3 898	3 897	4 003	4 208	4 453
Support staff	25 605	25 115	24 778	24 840	26 233	28 055	29 869	31 247
CEGEPs	21 771	21 245	20 472	19 570	19 692	19 869	20 491	20 636
Regular education and adult education								
Teaching staff	13 919	13 652	13 224	12 699	12 892	12 950	13 381	13 355
Administrative staff	670	664	612	583	595	622	651	690
Managerial staff	327	307	287	245	230	232	233	234
Nonteaching professionals	1 146	1 085	1 047	964	964	1 017	1 086	1 137
Support staff	5 709	5 537	5 302	5 079	5 011	5 048	5 140	5 220
Universities <sup>2</sup>	33 054	32 224	31 615	N/A	N/A	N/A	N/A	N/A
Teaching and research staff	11 038	10 826	10 553	N/A	N/A	N/A	N/A	N/A
Teaching and research								
assistants	4 304	4 299	4 652	N/A	N/A	N/A	N/A	N/A
Executive personnel	1 305	1 291	1 218	N/A	N/A	N/A	N/A	N/A
Managerial staff	647	491	498	N/A	N/A	N/A	N/A	N/A
Nonteaching professionals	3 496	3 487	3 352	N/A	N/A	N/A	N/A	N/A
Support staff	12 264	11 830	11 342	N/A	N/A	N/A	N/A	N/A

Sources: Personnel des commissions scolaires (PERCOS II) Système d'information sur le personnel des organismes collégiaux (SPOC-RFA) Système d'information financière des universités (SIFU)

N/A: Data not available

1. All personnel activities carried out during the school year are included in the calculation of full-time equivalents for each job category.

2. Funds with or without restrictions. Excludes courses given by lecturers, those given in addition to regular course loads by regular professors and those given by individuals receiving honoraria or on contract.

# Number of diplomas awarded, by level of education and type of diploma, 1993 to 2002

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Secondary <sup>1</sup>	110 431	103 211	104 521	111 762	109 199	107 050	107 412	105 228	102 631	100 981
General education	79 418	81 176	81 791	86 451	80 289	77 315	76 866	73 363	72 025	68 791
Vocational training	31 013	22 035	22 730	25 311	28 910	29 735	30 546	31 865	30 606	32 190
College	44 716	44 749	43 135	40 956	42 676	41 877	42 090	40 710	39 294	N/A
DCS (pre-university education)	24 991	25 857	25 514	24 392	25 901	25 110	24 569	23 317	20 073	N/A
DCS (technical education)	14 764	15 017	15 602	16 136	16 694	16 747	17 508	17 391	16 747	N/A
DCS without mention	1 542	753	335	149	7	1	_	-	-	-
ACS, CEC and DPEC <sup>2</sup>	3 419	3 122	1 684	279	74	19	13	2	2 474	N/A
University <sup>3</sup>	55 277	56 817	56 015	55 184	53 277	50 781	50 726	50 563	51 378	54 459
Bachelor's degree	28 404	28 967	28 932	29 602	28 894	27 478	28 284	27 822	27 973	28 897
Master's degree	6 082	6 604	6 414	6 547	6 514	6 727	6 814	7 468	7 692	7 946
Doctorate	891	959	1 037	1 087	1 143	1 231	1 170	1 165	1 094	1 036
Certificates, diplomas and microprograms	19 900	20 287	19 632	17 948	16 726	15 345	14 458	14 108	14 619	16 580

Sources: Système de sanction des études appliquée au ministère de l'Éducation (SESAME) Sanction des adultes en formation générale (SAGE) Système de la sanction des études au collégial (SSEC) Système de recensement des clientèles universitaires (RECU) Gestion des données sur les effectifs universitaires (GDEU)

DCS: Diploma of College Studies;

ACS: Attestation of College Studies;

- CEC: certificat d'études collégiales (certificate of college studies);
- DPEC: diplôme de perfectionnement de l'enseignement collégial (diploma of advanced college studies)
- 1. From 1989-1990 to 1998-1999. Following the vocational training reform, approximately 8 800 students with an SSVC (Secondary School Vocational Certificate) also received an SSVD (Secondary School Vocational Diploma) in 1993.
- 2. Since 1994, there have been no new enrollments in programs leading to CECs and DPECs. ACSs are counted starting in 2001.
- 3. These figures exclude diplomas awarded by the Collège militaire Royal de Saint-Jean.

# Schooling rates,<sup>1</sup> by age, gender, level of education and attendance status, 2001-2002 (%)

	Preschool	Secon	dary	Colle	ege	Univer	sity		Total	
	and Elementary Education	Full- time	Part- time	Full- time	Part- time	Full- time	Part- time	Full- time	Part- time	All attendance statuses
<b>4-year-olds</b> Male Female Total	20.1 20.2 20.1	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	20.1 20.2 20.1	0.0 0.0 0.0	20.1 20.2 20.1
<b>5-year-olds</b> Male Female Total	96.7 98.2 97.4	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	96.7 98.2 97.4	0.0 0.0 0.0	96.7 98.2 97.4
<b>15-year-olds</b> Male Female Total	0.0 0.0 0.0	95.4 96.5 96.0	0.3 0.1 0.2	0.1 0.1 0.1	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	95.5 96.6 96.0	0.3 0.1 0.2	95.8 96.7 96.2
<b>16-year-olds</b> Male Female Total	0.5 0.3 0.4	89.3 91.2 90.2	2.7 2.3 2.5	1.9 3.2 2.5	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	91.7 94.6 93.1	2.7 2.3 2.5	94.4 97.0 95.7
<b>17-year-olds</b> Male Female Total	0.9 0.5 0.7	40.1 29.8 35.1	11.6 9.8 10.7	31.5 48.5 39.7	0.1 0.1 0.1	0.4 0.5 0.5	0.0 0.0 0.0	72.9 79.2 76.0	11.7 9.9 10.8	84.6 89.2 86.8
<b>18-year-olds</b> Male Female Total	0.7 0.4 0.6	23.0 16.5 19.9	10.6 8.2 9.4	35.1 52.1 43.4	0.3 0.3 0.3	2.5 3.8 3.2	0.1 0.1 0.1	61.4 72.8 67.0	11.1 8.6 9.9	72.5 81.4 76.8
<b>19-year-olds</b> Male Female Total	0.6 0.4 0.5	16.5 12.2 14.4	8.2 6.2 7.2	25.8 34.2 29.9	1.2 1.6 1.4	10.0 18.7 14.2	0.4 0.4 0.4	52.9 65.5 59.0	9.8 8.2 9.0	62.7 73.7 68.0

1. Schooling rates are calculated by dividing the school population of a given age on September 30, 2001, by the population of the same age on the same date. The rates for 4-year-olds and 5-year-olds differ from the results published in Section 2.2 (see notes in Section 2.2).

### Table 6 (cont.)

# Schooling rates,<sup>1</sup> by age, gender, level of education and attendance status, 2001-2002 (%)

	Preschool	Secon	dary	Colle	ege	Unive	rsity		Total	
	and Elementary Education	Full- time	Part- time	Full- time	Part- time	Full- time	Part- time	Full- time	Part- time	All attendance statuses
20-to-24-year-olds										
Male	0.4	7.6	5.0	7.8	1.1	13.7	2.9	29.4	9.0	38.4
Female	0.3	5.7	3.4	9.2	1.3	20.6	4.6	35.8	9.3	45.1
Total	0.3	6.7	4.2	8.5	1.2	17.0	3.7	32.5	9.1	41.7
25-to-29-year-olds										
Male	0.4	3.1	3.2	1.6	0.4	4.2	3.6	9.2	7.2	16.5
Female	0.4	2.9	2.1	2.1	0.7	4.4	5.5	9.7	8.4	18.2
Total	0.4	3.0	2.7	1.8	0.6	4.3	4.6	9.5	7.8	17.3
30-to-39-year-olds										
Male	0.4	1.6	2.1	0.6	0.2	1.1	2.0	3.6	4.4	7.9
Female	0.4	1.8	1.6	0.9	0.5	1.0	2.9	4.1	5.0	9.1
Total	0.4	1.7	1.8	0.7	0.4	1.1	2.5	3.8	4.7	8.5
40-to-49-year-olds										
Male	0.2	0.8	1.3	0.2	0.2	0.3	1.2	1.4	2.6	4.0
Female	0.2	1.0	1.0	0.4	0.4	0.3	2.0	1.9	3.4	5.3
Total	0.2	0.9	1.2	0.3	0.3	0.3	1.6	1.6	3.0	4.7
50-to-59-year-olds										
Male	0.1	0.3	0.6	0.1	0.1	0.1	0.4	0.5	1.1	1.6
Female	0.2	0.3	0.5	0.1	0.1	0.1	0.7	0.6	1.4	2.0
Total	0.1	0.3	0.6	0.1	0.1	0.1	0.6	0.6	1.2	1.8
60 years of age or over	r									
Male	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.3	0.4
Female	0.1	0.0	0.3	0.0	0.0	0.0	0.1	0.2	0.4	0.6
Total	0.1	0.0	0.3	0.0	0.0	0.0	0.1	0.2	0.4	0.5

## NOTES

# NOTES

## NOTES

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