

Regional Distribution of Bachelor's Level Graduates in Québec

Introduction

Each year, regional disparities regarding secondary school graduation rates are presented in section 5.3 of the *Education Indicators*. This bulletin is intended to highlight disparities among graduates at the bachelor's level.

We will begin with a general profile of bachelor's degree holders in Québec as a whole, before looking more specifically at those who also completed their secondary education in Québec¹, in order to produce a regional profile of graduation patterns². This will be followed by an analysis of graduation rates at bachelor's level, measured as the ratio of graduates to total population in each region, and by a regional comparison. All these data are extremely relevant in a context where the MELS and its partners are beginning to focus increasingly on the provision of good quality, easily accessible education throughout Québec³.

1 Profile of All Graduates at Bachelor's Level in Québec

1.1 General overview

The number of bachelor's level graduates rose from 26 962 in 2001 to 28 959 in 2003, for an increase of approximately 7% (see Table 1). However, the distribution of graduates across fields of study remained virtually unchanged during the period⁴. In 2003, the highest percentage of graduates (27.8%) was found in the social sciences and humanities, followed by business administration (21.6%). Education ranked a distant third (12.6%), followed by engineering and architecture (10.7%). All the other fields accounted for fewer than 10% of graduates.

1 In line with information from the *Banque de cheminements scolaires* (BCS), we assigned students to administrative regions based on their place of residence when they obtained their secondary school diploma, or their place of residence when they last enrolled for secondary school.

2 The *Institut de la statistique du Québec* (ISQ) recently published a study on this topic in collaboration with the MELS, entitled: *Portrait régional de la diplomation au niveau baccalauréat au Québec* (January 2006). This bulletin follows on from ISQ study and presents a more detailed analysis of the various fields of study.

3 See *Éducation: l'avenir du Québec. Rapport sur l'accès à l'éducation* (October 2005), presented to the Minister of Education, Recreation and Sport.

4 OCDE, *Education at a Glance 2006*. Paris: OCDE, September 2006: <http://www.oecd.org/edu/eag2006>

Table 1 Distribution of graduates at bachelor's level¹ in Québec, by field of study, from 2001 to 2003

Field of study	2001		2002		2003	
	n	%	n	%	n	%
Health sciences	2 078	7.7	2 239	8.0	2 292	7.9
Natural sciences	2 057	7.6	2 070	7.4	1 967	6.8
Mathematics and computer science	1 289	4.8	1 515	5.4	1 469	5.1
Engineering and architecture	2 914	10.8	2 842	10.2	3 104	10.7
Law	732	2.7	721	2.6	703	2.4
Business administration	5 436	20.2	5 617	20.2	6 249	21.6
Education	3 367	12.5	3 697	13.3	3 661	12.6
Social sciences	1 322	4.9	1 326	4.8	1 458	5.0
Humanities	7 767	28.8	7 805	28.0	8 056	27.8
Total	26 962	100.0	27 832	100.0	28 959	100.0

1 Includes all graduates except those who obtained two bachelor's degrees in the same year and those whose field of study could not be determined (e.g. certificates in different fields). Overall, these exclusions account for less than 1% of all graduates.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

1.2 Distribution by gender

In recent years, women have made more progress than men in terms of obtaining bachelor's degrees⁵. In 2003, for example, women accounted for 60.7% of all graduates at bachelor's level (see Table 2). Although they formed the majority in virtually every field of study, they were in the minority in mathematics and computer science, and in engineering and architecture. Only in the field of business administration was the gender distribution fairly even (54% women, 46% men).

Table 2 Distribution of all graduates at bachelor's level in Québec, by field of study and gender, 2003

Field of study	Total	Men	Women
	n	%	
Health sciences	2 292	21.6	78.4
Natural sciences	1 967	39.6	60.4
Mathematics and computer science	1 469	73.2	26.8
Engineering and architecture	3 104	77.2	22.8
Law	703	35.3	64.7
Business administration	6 249	46.0	54.0
Education	3 661	15.9	84.1
Social sciences	1 458	20.2	79.8
Humanities	8 056	32.6	67.4
Total	28 959	39.3	60.7

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

5 From 1976 to 2003, graduation rates at bachelor's level increased from 13.1% to 34.4% among women, and from 16.7% to 21.3% among men. See *Education Indicators* (2005 Edition), published by the MELS, document 5.7: <<http://www.mels.gouv.qc.ca>>.

1.3 Distribution by age category

The average age of bachelor's level graduates in Québec in 2003 was 25.6 years. If we look at the distribution by age category (Table 3), we see that 63.6% of graduates were 24 years of age or under, and only 12.6% were 30 years of age or over. The average age was highest (27.5 years) in the social sciences, where 52.5% of graduates were 24 years of age or under, and nearly 22% were 30 years of age or over. At the other end of the spectrum, the average age was just 23.9 years in the natural sciences, where nearly 78% of graduates were 24 years of age or under, and just 5.5% were 30 years of age or over.

Table 3 Distribution of all graduates at bachelor's level in Québec, by field of study and age category, 2003

Field of study	Total	24 years of age and under	25-29 years of age	30 years of age and over	Average age
	n	%			
Health sciences	2 292	64.2	21.3	14.5	25.9
Natural sciences	1 967	77.7	16.8	5.5	23.9
Mathematics and computer science	1 469	55.5	25.1	19.4	26.2
Engineering and architecture	3 104	63.8	29.9	6.3	24.7
Law	703	68.7	20.3	11.0	24.9
Business administration	6 249	64.9	23.0	12.1	25.3
Education	3 661	63.0	26.4	10.5	25.5
Social sciences	1 458	52.5	25.7	21.9	27.5
Humanities	8 056	61.8	23.6	14.5	26.1
Total	28 959	63.6	24.0	12.6	25.6

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

1.4 Distribution by citizenship

Table 4 divides graduates with Canadian citizenship into two categories, namely those from Québec and those from the other Canadian provinces. Canadian citizens living in Québec accounted for nearly 82% of all graduates at bachelor's level in 2003, while Canadian citizens from other provinces and citizens of other countries accounted for 8.3% and 10.1% respectively.

The highest percentage of graduates in 2003 was found in the humanities (40.3% of Canadian graduates from other provinces, compared with 27.2% of graduates from Québec). With regard to graduates from other countries, 22.6% also obtained their degrees in the humanities. However, it was the field of business administration that accounted for the highest number of foreign graduates (37.5%).

There were more graduates from other countries than from Canada in the fields of engineering and architecture, and mathematics and computer science. On the other hand, more Canadians from other provinces graduated in the natural sciences and social sciences.

Table 4 Distribution (%) of all graduates at bachelor's level in Québec, by field of study and citizenship, 2003

Field of study	Total	Canada		Other countries
		Québec	Other provinces	
Health sciences	7.9	8.3	8.3	4.8
Natural sciences	6.8	6.6	9.3	6.6
Mathematics and computer science	5.1	4.8	2.6	9.5
Engineering and architecture	10.7	11.0	5.3	13.2
Law	2.4	2.6	2.0	1.0
Business administration	21.6	19.8	19.3	37.5
Education	12.6	14.7	6.2	1.6
Social sciences	5.0	5.1	6.8	3.1
Humanities	27.8	27.2	40.3	22.6
Total	100.0	100.0	100.0	100.0
Distribution by citizenship	100.0	81.6	8.3	10.1

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

1.5 Distribution by region of graduation

Of the 28 959 graduates in 2003 (Table 5), 63.9% earned their bachelor's degree in the Montréal region and 15.4% in the Capitale-Nationale region. However, taking into account only those who completed their secondary education in Québec (23 400 graduates), 59.6% earned their diploma in the Montréal region and 18% in the Capitale-Nationale region. Among Canadians who did not complete their secondary school studies in Québec, 80.6% obtained their diploma in the Montréal region; this percentage rose to 84.1% among foreign students.

Table 5 Distribution (%) of all graduates at bachelor's level in 2003, according to whether or not they completed their secondary education in Québec, by region of graduation¹

	Bas-Saint-Laurent	Saguenay-Lac-Saint-Jean	Capitale-Nationale	Mauricie	Estrie	Montréal	Outaouais	Abitibi-Témiscamingue	Total n
Secondary education in Québec	2.1	2.7	18.0	5.0	9.8	59.6	2.2	0.7	23 400
Canadian, no secondary education in Québec	0.6	0.8	4.3	1.1	9.8	80.6	1.7	1.2	2 826
Other country, no secondary education in Québec	0.1	4.2	4.2	0.9	3.6	84.1	2.9	0.0	2 733
Total	1.8	2.7	15.4	4.2	9.2	63.9	2.2	0.7	28 959

1 The region of graduation is defined by the main campus of the university that issues the diploma; the region of graduation cannot be established according to the individual who receives the diploma because the computer system does not contain the student's region of residence during the last semester of enrollment that precedes the granting of the diploma.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

1.6 Distribution by field of study and region of graduation

The distribution of graduates by field of study, shown in Table 1, varies according to the region of graduation (Table 6). In 2003, the Mauricie region produced the highest percentage of graduates in the health sciences with 12.9%, compared with a 7.9% provincial average. In the Capitale-Nationale region, 11.7% of graduates also obtained a diploma in this field.

While the provincial average of bachelor's level graduates in natural sciences was 6.8%, 10.2% of graduates obtained their diploma in this field in the Capitale-Nationale region. The Estrie and Outaouais regions stand out with approximately 8% of their graduates in mathematics and computer science, compared with 5.1% at the provincial level. Also in the Capitale-Nationale region, 12.3% of graduates earned their diploma in engineering and architecture, compared with an average of 10.7% for all graduates.

Among the regions offering a law program, nearly 5% of graduates in the Estrie region obtained their diploma in this field, compared with 2.4% across the province. In the Outaouais region, 34.1% of graduates obtained a diploma in business administration, compared with an average of 21.6% for all graduates.

While the provincial average was 12.6%, the Bas-Saint-Laurent region registered a 48.4% rate of graduates in education. Also worth mentioning are the Saguenay–Lac-Saint-Jean and Abitibi-Témiscamingue regions, where this rate was 30%. The Abitibi-Témiscamingue region also distinguished itself in the social sciences field, with 32.7% of graduates, while the national average was only 5%. And finally, in the social sciences and humanities fields of study, Montréal, with 30.5%, had the highest percentage of graduates, compared with 27.8% for all graduates in the province.

Table 6 Distribution (%) of all graduates at bachelor's level in 2003, by field of study and region of graduation

Region of graduation	Field of study									Total n
	Health sciences	Natural sciences	Mathematics and computer science	Engineering and architecture	Law	Business administration	Education	Social sciences	Humanities	
Bas-Saint-Laurent	8.1	6.8	..	3.1	N/A	24.6	48.4	..	6.4	516
Saguenay–Lac-Saint-Jean	4.8	3.2	7.1	7.3	N/A	29.4	30.6	6.1	11.4	770
Capitale-Nationale	11.7	10.2	5.6	12.3	3.8	12.5	12.4	4.1	27.4	4 452
Mauricie	12.9	2.4	3.8	6.9	N/A	17.6	26.0	4.3	26.0	1 225
Estrie	5.2	7.8	7.9	11.6	4.9	18.5	17.6	3.3	23.3	2 659
Montréal	7.2	6.6	4.6	11.2	2.2	23.7	8.9	5.3	30.5	18 507
Outaouais	9.4	N/A	7.9	1.6	N/A	34.1	22.2	7.4	17.4	631
Abitibi-Témiscamingue	..	N/A	..	..	N/A	19.6	29.1	32.7	13.6	199
Total	7.9	6.8	5.1	10.7	2.4	21.6	12.6	5.0	27.8	28 959

.. Percentages are not shown in order to protect the confidentiality of respondents.

N/A It may have been impossible to follow this program in some regions, or there may not have been enough enrollments, or there were no graduates that year.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

2. Regional Profile of Graduates at Bachelor's Level Who Completed Their Secondary Education in Québec

2.1 General overview

Bachelor's graduates who completed their secondary education in Québec accounted for approximately 81% of all the province's bachelor's level graduates in 2003. Between 2001 and 2003, the number of graduates increased by 6%, from 22 074 to 23 400 (see Table 7). The distribution of graduates by administrative region was similar to the distribution of the population as a whole. In 2003, for example, 22.6% of graduates who completed their secondary education in Québec were from Montréal, 18.1% were from Montérégie and 10.7% were from the Capitale-Nationale region. Percentages varied from 0.3% (Nord-du-Québec) to 6% (Chaudière-Appalaches) for the other regions.

Table 7 Distribution of graduates at bachelor's level who completed their secondary education in Québec, by administrative region of origin, from 2001 to 2003

Région of origin	2001		2002		2003	
	n	%	n	%	n	%
Québec as a whole¹	22 074	100.0	22 695	100.0	23 400	100.0
Bas-Saint-Laurent	706	3.2	710	3.1	729	3.1
Saguenay-Lac-Saint-Jean	1 050	4.8	1 214	5.3	1 126	4.8
Capitale-Nationale	2 359	10.7	2 381	10.5	2 512	10.7
Mauricie	841	3.8	809	3.6	812	3.5
Estrie	807	3.7	833	3.7	901	3.9
Montréal	5 184	23.5	5 317	23.4	5 288	22.6
Outaouais	547	2.5	578	2.5	588	2.5
Abitibi-Témiscamingue	382	1.7	388	1.7	432	1.8
Côte-Nord	239	1.1	243	1.1	300	1.3
Nord-du-Québec	48	0.2	58	0.3	66	0.3
Gaspésie-Îles-de-la-Madeleine	247	1.1	265	1.2	229	1.0
Chaudière-Appalaches	1 260	5.7	1 355	6.0	1 407	6.0
Laval	1 032	4.7	999	4.4	1 168	5.0
Lanaudière	886	4.0	1 001	4.4	1 025	4.4
Laurentides	996	4.5	1 017	4.5	1 125	4.8
Montérégie	4 048	18.3	4 133	18.2	4 246	18.1
Centre-du-Québec	546	2.5	613	2.7	709	3.0

¹ All graduates who completed their secondary education in Québec have been included in the table, even where their administrative region of origin is unknown. They account for less than 5% of the group each year.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005

2.2 Distribution by gender

In 2003, women accounted for 61.7% of all bachelor's level graduates who completed their secondary education in Québec. They also formed the majority of graduates in every administrative region (see Table 8). This was especially true for the more remote regions. For example, 72.9% of all bachelor's level graduates from Gaspésie–Îles-de-la-Madeleine and 72.7% of those from Nord-du-Québec were women, compared with 57.8% for the Montréal region and 61% for the Capitale-Nationale region.

Table 8 Distribution of graduates at bachelor's level who completed their secondary education in Québec, by administrative region of origin and gender, 2003

Région of origin	Total n	Men	Women
		%	
Québec as a whole	23 400	38.3	61.7
Bas-Saint-Laurent	729	32.0	68.0
Saguenay–Lac-Saint-Jean	1 126	38.7	61.3
Capitale-Nationale	2 512	39.0	61.0
Mauricie	812	38.7	61.3
Estrie	901	37.4	62.6
Montréal	5 288	42.2	57.8
Outaouais	588	32.0	68.0
Abitibi-Témiscamingue	432	36.1	63.9
Côte-Nord	300	34.0	66.0
Nord-du-Québec	66	27.3	72.7
Gaspésie–Îles-de-la-Madeleine	229	27.1	72.9
Chaudière-Appalaches	1 407	37.5	62.5
Laval	1 168	39.2	60.8
Lanaudière	1 025	39.2	60.8
Laurentides	1 125	36.6	63.4
Montérégie	4 246	38.7	61.3
Centre-du-Québec	709	35.7	64.3

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

2.3 Distribution by age category

The average age at graduation for students who completed their secondary education in Québec was 24.4 years in 2003 (see Table 9). This was below the average age for all bachelor's level graduates in 2003 (25.6 years). Graduates from the Nord-du-Québec were the oldest at graduation (27.5 years), whereas those from the Côte-Nord and Chaudière-Appalaches regions were the youngest (24.1 years).

Table 9 Distribution of graduates at bachelor's level who completed their secondary education in Québec, by administrative region of origin and age category, 2003

Field of study	Total n	24 years of age and under	25-29 years of age	30 years of age and over	Average age
Québec as a whole¹	22 663	67.9	25.7	6.5	24.4
Bas-Saint-Laurent	729	71.1	23.0	5.9	24.3
Saguenay–Lac-Saint-Jean	1 126	69.5	23.5	6.9	24.4
Capitale-Nationale	2 512	67.8	26.9	5.4	24.4
Mauricie	812	70.6	24.5	4.9	24.2
Estrie	901	68.6	25.6	5.8	24.4
Montréal	5 288	66.0	26.6	7.4	24.5
Outaouais	588	63.8	27.9	8.3	24.7
Abitibi-Témiscamingue	432	66.0	25.2	8.8	24.8
Côte-Nord	300	69.7	25.7	4.7	24.1
Nord-du-Québec	66	57.6	15.2	27.3	27.5
Gaspésie–Îles-de-la-Madeleine	229	69.9	22.3	7.9	24.6
Chaudière-Appalaches	1 407	73.4	22.0	4.6	24.1
Laval	1 168	64.8	27.1	8.1	24.7
Lanaudière	1 025	69.9	25.7	4.5	24.2
Laurentides	1 125	69.4	25.0	5.6	24.3
Montérégie	4 246	66.7	26.7	6.5	24.5
Centre-du-Québec	709	71.8	22.7	5.5	24.2

1 Graduates whose region of origin was unknown have been excluded from the table. Their average age at graduation was 43.7 years, which pushed the average age for Québec as a whole up to 25 years.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

2.4 Mobility of graduates and the primary language of instruction

Many graduates chose to study in a region located close to their administrative region of origin (Table 10). However, we can see that mobility is higher among graduates from outlying regions.

Graduates from Eastern Québec show a preference for the Capitale-Nationale region. More than 30% of graduates from the Gaspésie–Îles-de-la-Madeleine, Côte-Nord and Bas-Saint-Laurent regions earned their diploma in the Capitale-Nationale region. However, graduates from Saguenay–Lac-Saint-Jean were the exception, as 44.2% obtained their diploma in their administrative region of origin.

The majority of graduates from the Capitale-Nationale and Chaudière-Appalaches regions obtained their diploma in the Capitale-Nationale region. In addition, the majority of graduates from the Mauricie and Estrie regions obtained their diploma in their respective region of origin. The situation is slightly more balanced among graduates from the Centre-du-Québec region, with 28.9% obtaining their diploma in the Montréal region and 30.3% in the Estrie region.

The majority (more than 75%) of graduates from the Montérégie, Laval, Lanaudière and Laurentides regions obtained their diplomas in the Montréal region. Moreover, very low mobility is seen among graduates from Montréal, since 95% of them obtained their diploma in their administrative region of origin.

If the Capitale-Nationale region appears to hold a certain attraction for the province's eastern regions, the same holds true for Montréal and the western regions. Among graduates from the Abitibi-Témiscamingue and Nord-du-Québec regions, 28.5% and 27.3% respectively obtained their diploma in the Abitibi-Témiscamingue region, while slightly more than 30% obtained their diploma in the Montréal region. Meanwhile, half of the graduates from the Outaouais obtained their diploma in their region of origin, but 35.2% earned theirs in the Montréal region.

Table 10 Region of graduation of graduates at bachelor's level who completed their secondary education in Québec (%), by administrative region of origin, 2003

Region of origin	Region of graduation								Total n
	Bas-Saint-Laurent	Saguenay-Lac-Saint-Jean	Capitale-Nationale	Mauricie	Estrie	Montréal	Outaouais	Abitibi-Témiscamingue	
Québec as a whole	2.1	2.7	18.0	5.0	9.8	59.5	2.2	0.7	23 400
Gaspésie-Îles-de-la-Madeleine	14.8	..	35.8	3.1	17.5	26.6	..	0.0	229
Côte-Nord	5.7	8.3	37.0	7.3	13.3	26.3	2.0	0.0	300
Bas-Saint-Laurent	26.2	..	34.0	2.6	9.9	25.9	..	0.0	729
Saguenay-Lac-Saint-Jean	0.5	44.2	22.9	4.8	4.4	22.3	0.9	0.0	1 126
Capitale-Nationale	2.8	0.9	69.7	2.9	3.9	19.1	0.6	0.0	2 512
Chaudière-Appalaches	8.2	..	57.2	3.8	13.8	15.9	0.6	..	1 407
Mauricie	..	..	16.4	50.9	6.7	25.0	..	..	812
Centre-du-Québec	..	..	21.3	17.9	30.3	28.9	0.7	0.0	709
Estrie	..	..	9.1	3.4	60.4	25.5	0.6	..	901
Montérégie	0.1	0.3	4.7	2.3	11.9	79.8	0.8	0.1	4 246
Montréal	..	..	1.4	0.4	2.8	95.0	0.3	0.0	5 288
Laval	..	..	2.1	1.8	3.3	92.0	0.7	0.0	1 168
Lanaudière	..	0.0	5.0	11.8	6.8	76.1	0.0	..	1 025
Laurentides	..	..	4.3	2.7	6.8	83.3	2.1	..	1 125
Outaouais	..	..	5.4	1.2	7.7	35.2	50.0	0.0	588
Abitibi-Témiscamingue	..	..	18.8	2.5	8.3	33.1	6.7	28.5	432
Nord-du-Québec	0.0	..	16.7	..	12.1	31.8	..	27.3	66

.. Percentages are not shown in order to protect the confidentiality of respondents.

Note: The order of the regions of origin is listed east to west across the province.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005

Two things appear to distinguish graduates from the Montréal region: low mobility and language of instruction (Table 11). While 79.4% of all graduates chose French as the language of instruction, the level drops to 46.3% for graduates from Montréal. This percentage is clearly different from graduates coming from other regions.

Table 11 Primary language of instruction chosen by graduates at bachelor's level who completed their secondary education in Québec, by administrative region of origin, 2003

Region of origin	Language of instruction				Total n
	French		English		
	n	%	n	%	
Québec as a whole	18 585	79.4	4 815	20.6	23 400
Bas-Saint-Laurent	706	96.8	23	3.2	729
Saguenay–Lac-Saint-Jean	1 099	97.6	27	2.4	1 126
Capitale-Nationale	2 379	94.7	133	5.3	2 512
Mauricie	779	95.9	33	4.1	812
Estrie	796	88.3	105	11.7	901
Montréal	2 446	46.3	2 842	53.7	5 288
Outaouais	541	92.0	47	8.0	588
Abitibi-Témiscamingue	415	96.1	17	3.9	432
Côte-Nord	281	93.7	19	6.3	300
Nord-du-Québec	58	87.9	8	12.1	66
Gaspésie–Îles-de-la-Madeleine	214	93.4	15	6.6	229
Chaudière-Appalaches	1 362	96.8	45	3.2	1 407
Laval	891	76.3	277	23.7	1 168
Lanaudière	936	91.3	89	8.7	1 025
Laurentides	967	86.0	158	14.0	1 125
Montréal	3 382	79.7	864	20.3	4 246
Centre-du-Québec	668	94.2	41	5.8	709

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

2.5 Distribution by first language and language of instruction

The particular situation of Montréal, as shown in the preceding section, is the product of several factors. The first of these is the supply of universities; two of Québec's three English-speaking universities are located on the Island of Montréal. The second is Montréal's highly distinctive linguistic profile.

Virtually all bachelor's level graduates in 2003 who were from regions other than Montréal (85%) had French as their first language⁶ (see Table 11), a percentage that tended to increase the further away the region was from Montréal. On the other hand, less than half the graduates from the Montréal region (48%) had French as their first language and more than a third (34.2%) had English as their first language. The weight of Montréal's large English-speaking population therefore tends inevitably to increase the likelihood of graduating from an English-speaking university.

⁶ First language declared at secondary school, either in the year in which the secondary school diploma was obtained, or in the last year in which the student was enrolled in secondary school.

Table 12 Distribution of graduates at bachelor's level who completed their secondary education in Québec, by administrative region of origin and first language declared at secondary school, 2003

Region of origin	Total n	Language of origin		
		French	English	Other
		%	%	%
Eastern Québec ¹	2 384	98.6	1.1	0.3
Capitale-Nationale and Chaudière-Appalaches	3 919	98.2	1.0	0.8
Mauricie and Centre-du-Québec	1 521	99.1	0.5	0.4
Estrie	901	92.8	5.8	1.4
Montérégie	4 246	85.4	10.5	4.1
Montréal	5 288	48.0	34.2	17.8
Laval, Lanaudière and Laurentides	3 318	88.5	7.0	4.5
North-western Québec ²	1 086	94.5	3.3	2.2
Québec as a whole	23 400	82.7	11.5	5.8

1 Includes Bas-Saint-Laurent, Saguenay–Lac-Saint-Jean, Côte-Nord and Gaspésie–Îles-de-la-Madeleine.

2 Includes Nord-du-Québec, Abitibi-Témiscamingue and Outaouais.

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

In 2003, the percentage of bachelor's level graduates whose first language was not French or English (allophones) was much higher in the Montréal region than elsewhere in Québec, accounting for slightly over one graduate in every six (17.8%). Table 12 shows that more allophone students from the Montréal region choose to study in English compare to their counterparts from other regions (60.9% versus 50.6%).

Of the graduates from the Montréal region who declared French as their first language, approximately four-fifths (80.6%) studied in French at university. This means that 19.4% of French-speaking graduates from the Montréal area elected to study in English – well above the average of 5.4% for the other regions of Québec. French-speakers from the Montréal region therefore behave differently from their counterparts elsewhere in Québec, and this, too, makes it more likely for them to graduate from an English-speaking university.

Table 13 Distribution of graduates at bachelor's level who completed their secondary education in Québec, by first language declared at secondary school and language of instruction at university, 2003

Language of origin	Total n	Language of instruction			
		French		English	
		n	%	n	%
Montréal region	5 288	2 446	46.3	2 842	53.7
French	2 536	2 044	80.6	492	19.4
English	1 811	34	1.9	1 777	98.1
Other	941	368	39.1	573	60.9
Québec as a whole (excluding Montréal)	18 112	16 139	89.1	1 973	10.9
French	16 807	15 894	94.6	913	5.4
English	886	38	4.3	848	95.7
Other	419	207	49.4	212	50.6
Québec as a whole	23 400	18 585	79.4	4 815	20.6
French	19 343	17 935	92.7	1 405	7.3
English	2 697	72	2.7	2 625	97.3
Other	1 360	575	42.3	785	57.7

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

2.6 Distribution by field of study

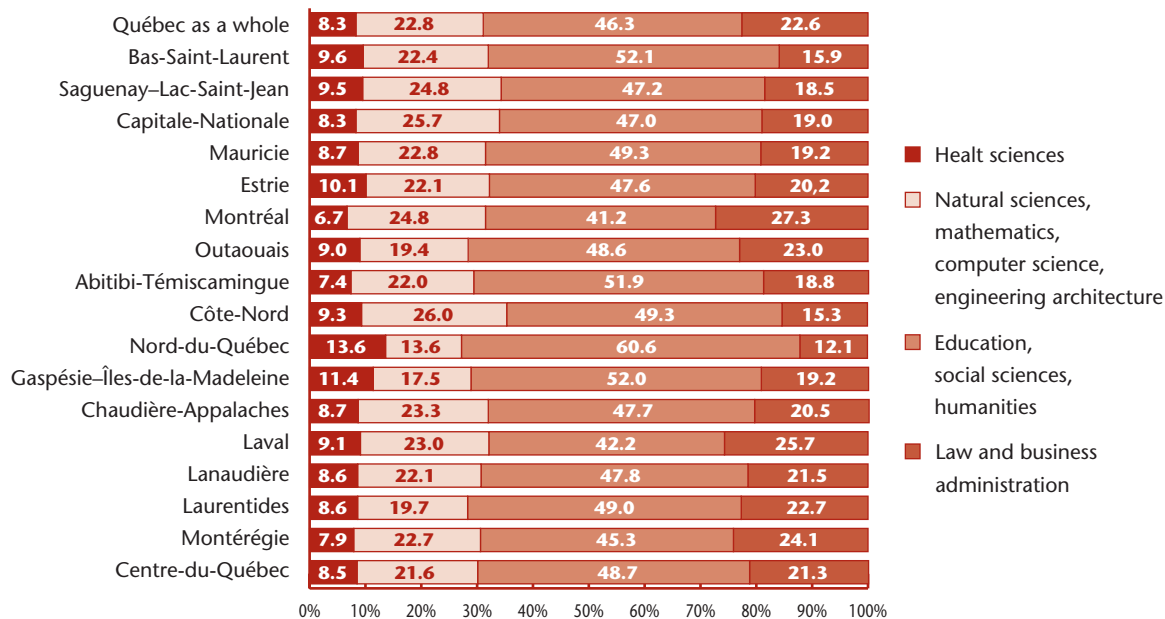
In Québec, health sciences account for 8.3% of all bachelor's degrees obtained by students who completed their secondary education in Québec, although the situation in the individual regions varies considerably (see Figure 1). For example, 11.4% of bachelor's level graduates from Gaspésie-Îles-de-la-Madeleine and 10.1% of those from the Estrie obtained their degrees in the field of health sciences, compared with just 6.7% of graduates from the Montréal region.

Together, natural sciences, mathematics and computer science, engineering and architecture accounted for nearly 23% of the province's graduates. The figure was slightly higher in the Capitale-Nationale and Côte-Nord regions, at 26%, and also in the Montréal region, at 25%. On the other hand, only 13.6% of graduates from the Nord-du-Québec region and 17.5% of those from Gaspésie-Îles-de-la-Madeleine obtained their degrees in one of these fields.

Education, social sciences and the humanities accounted for 46.3% of all bachelor's degrees in 2003. The figure was over 50% in certain regions, including Bas-Saint-Laurent, Abitibi-Témiscamingue, Nord-du-Québec and Gaspésie-Îles-de-la-Madeleine, and somewhat lower in the Montréal region (41.2%) and the Laval region (42.2%).

Law and business administration accounted for approximately 23% of the province's graduates. The percentage was highest in the Montréal region, with 27.3%, and in Laval, with 25.7%. However, the further away a region is located from Montréal, the fewer the number of graduates in these two fields. For example, only 12.1% of graduates from Nord-du-Québec, 15.3% of those from the Côte-Nord region and 15.9% of those from Bas-Saint-Laurent obtained their degrees in law or business administration. The percentage was also below 20% in the Gaspésie-Îles-de-la-Madeleine, Saguenay-Lac-Saint-Jean, Capitale-Nationale, Mauricie and Abitibi-Témiscamingue regions.

Figure 1 Distribution of graduates at bachelor's level (%) who completed their secondary education in Québec, by administrative region of origin and field of study, 2003



Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

3 Graduation Rates by Administrative Region of Origin

In the previous section we examined the profile of graduates based on different variables, and also measured their regional weighting as a percentage of all graduates in Québec. This latter measure, however, does not reflect the relative importance of a region's graduates as a percentage of its total population. The graduation rate for a region offers a better basis for inter-regional comparison because the number of graduates is shown as a ratio of the regional population⁷. It indicates the number of people who obtained bachelor's degrees for every 100 people in a given region who completed their secondary education in Québec. Table 13 shows graduation rates for the various regions of Québec in 2001 and 2003.

⁷ The graduation rate compares the number of graduates per age group with the total population by age group. This method, based on a summation of rates by age group, was used to calculate most of the indicators in Chapter 5 of the *Education Indicators*. At secondary level, the indicator is calculated for Québec as a whole and for each administrative region. At higher education level, it is calculated only for Québec as a whole, due to a lack of information on administrative regions. Since 2000, however, every student is assigned a permanent code at secondary school which remains unchanged throughout his or her academic career. It is therefore possible to identify the administrative region in which students completed their secondary studies. Therefore, by comparing the number of bachelor's level graduates in a given year by age and by year of completion of secondary studies, or the last year at secondary school, with the total population of the region, also by age and by year of completion of secondary studies, it is possible to obtain the graduation rate at bachelor's level.

For Québec as a whole, the bachelor's level graduation rate increased slightly between 2001 and 2003, from 22.4% to 23.3%⁸. The increase was due mainly to women, whose graduation rate increased from 27.8% to 29.5% during the period, while the rate for men remained basically stable at around 17.5%.

In 2003, the Capitale-Nationale, Montréal and Laval regions recorded the highest rates. Of every 100 people from the Capitale-Nationale region who completed their secondary education in Québec, nearly 30 obtained bachelor's degrees (22.8% of boys and 37% of girls). In Montréal, the figure was 26.7%, and in Laval, 26.2% (see Figure 2).

Remote regions such as Abitibi-Témiscamingue, Côte-Nord, Gaspésie-Îles-de-la-Madeleine and Nord-du-Québec recorded the lowest graduation rates, ranging from 9.4% (Nord-du-Québec) to 17.5% (Côte-Nord). The Outaouais region reported a rate of just 14.7% in 2003, but this is probably an underestimate because many people from this particular region probably studied in a university in Ontario. Rates for the other regions were close to the mean, except for Lanaudière and the Laurentides, both of which reported figures of slightly less than 20%.

Table 14 Graduation rate at bachelor's level (%), by administrative region of origin and by gender, 2001 and 2003

Region of origin	2001			2003		
	Total	Men	Women	Total	Men	Women
Québec as a whole	22.4	17.4	27.8	23.3	17.5	29.5
Bas-Saint-Laurent	21.6	16.2	27.5	21.8	13.6	30.5
Saguenay-Lac-Saint-Jean	21.5	17.4	26.0	22.1	16.7	28.0
Capitale-Nationale	28.3	23.3	33.4	29.8	22.8	37.0
Mauricie	23.3	17.5	29.3	21.7	16.4	27.3
Estrie	20.0	15.4	24.9	21.7	15.9	27.8
Montréal	26.0	21.1	31.0	26.7	22.2	31.5
Outaouais	13.9	9.9	18.2	14.7	9.1	20.6
Abitibi-Témiscamingue	15.6	10.7	20.7	17.2	12.0	22.7
Côte-Nord	13.9	10.0	18.0	17.5	11.5	23.8
Nord-du-Québec	7.0	4.8	9.3	9.4	5.0	13.9
Gaspésie-Îles-de-la-Madeleine	15.0	10.8	19.6	13.9	7.3	20.7
Chaudière-Appalaches	21.3	15.6	27.3	22.9	16.7	29.5
Laval	23.6	18.2	29.2	26.2	20.1	32.7
Lanaudière	17.6	13.2	22.3	19.1	14.6	24.1
Laurentides	18.0	13.1	23.2	19.0	13.7	24.6
Montérégie	22.3	17.7	27.2	22.8	17.2	28.8
Centre-du-Québec	16.3	12.3	20.7	20.4	14.2	27.0

Source: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005.

⁸ We considered only those graduates who completed their secondary education in Québec, and the graduation rates shown here therefore differ from the 2003 figure published by the MELS (27.7%). (See point 5.7, *Education Indicators*, 2005 Edition).

The regional disparities observed may be linked to isolation, but also to other causes, notably the socioeconomic milieu from which individuals come. Table 15 indicates that a higher percentage of graduates come from advantaged backgrounds. While approximately 30% of the Québec population is listed as having an advantaged background⁹, 42.7% of graduates in 2003 came from this background¹⁰. On the other hand, slightly less than 20% of graduates came from a disadvantaged area, which accounts for approximately 30% of the population.

Men (45.8%) seemed slightly more likely than women (40.7%) to come from advantaged areas. Also, 21% of female graduates at the bachelor's level were from disadvantaged areas compared to 17.5% of male graduates at the bachelor's level. This could be explained in part by the fact that a lower percentage of men than women stay in school to complete their secondary school and college studies. The results shown in Table 15 could thus be attributed to greater selection bias with regard to men.

Table 15 Distribution of 2003 bachelor's level graduates who completed their secondary school studies in Québec, according to socioeconomic background

Socioeconomic level	Men		Women		Total		Total population
	n	%	n	%	n	%	%
Privileged level	3 805	45.8	5 364	40.7	9 169	42.7	≈ 30.0
Average situation	3 048	36.7	5 059	38.4	8 107	37.7	≈ 40.0
Underprivileged level	1 456	17.5	2 766	21.0	4 222	19.6	≈ 30.0
Total bachelors ¹	8 309	100.0	13 189	100.0	21 498	100.0	100.0

¹ Only certain bachelor's level graduates have been included, specifically those whose administrative region of origin and population unit of residence were known when they earned their secondary school diploma, or in the last year they were enrolled in general education in the youth sector.

Sources: Ministère de l'Éducation, du Loisir et du Sport, Banque des cheminements scolaires, August 2005
Ministère de l'Éducation, du Loisir et du Sport, DRSI, special compilation of 1996 census data, October 2006

The distribution of administrative regions of origin, according to socioeconomic levels in 1996¹¹, reveals a certain connection between these levels and the graduation rates. Some of the highest bachelor's level graduation rates are in the Capitale-Nationale and Laval regions (see Table 14). These regions were also considered to be the most advantaged regions in 1996 compared to the rest of Québec (see Table 16). The Montréal region also has a high bachelor's level graduation rate even though it is more disadvantaged. However, there is a broad spectrum of socioeconomic levels in this region. In addition, this region has the advantage of having many educational institutions.

⁹ Socioeconomic poverty, calculated by population unit, is determined using an index (IMSE), based on the percentage of mothers without a diploma (two-thirds of the index weighting) and economic inactivity of the parents. The level of inequality is established using a decile rank for each unit. The socioeconomic backgrounds for ranks 1, 2 and 3 are considered to be advantaged backgrounds. At the opposite end of the scale, those in ranks 8, 9 and 10 are deemed disadvantaged.

For more information on the school population map and poverty indices, see the *2003 School Population Map* (2005 edition), published by the MELS (http://www.mels.gouv.qc.ca/stat/Indice_defav/index_ind_def.htm) and *The School Population Map and Poverty Indices*, Education Statistics Bulletin No. 26 (<http://www.mels.gouv.qc.ca/stat/Bulletin/index.htm#26>).

¹⁰ The levels presented in Table 15 are calculated according to the population unit where graduates lived while earning their secondary diploma, or during the last year enrolled in general education in the youth sector.

¹¹ This is the average socioeconomic index (IMSE) of the population units in the administrative region weighted according to the number of families in each unit. The lower the IMSE value, the more advantaged the area is considered to be.

In contrast, remote regions with low socioeconomic levels do not seem to produce many bachelor's level graduates. Indeed, the Abitibi-Témiscamingue, Côte-Nord, Gaspésie-Îles-de-la-Madeleine and Nord-du-Québec regions had some of the lowest bachelor's level graduation rates, combined with lower socioeconomic levels than those of other regions. While the Outaouais region is not very disadvantaged, it also had a low bachelor's level graduation rate. As mentioned above, the bachelor's level graduation rate is probably underestimated for this region, given the proximity of Ontario universities.

Table 16 **Distribution of administrative regions of origin according to the weighted average IMSE in 1996**

Région of origin	Average IMSE 1996
Québec as a whole	21.37
Bas-Saint-Laurent	23.80
Saguenay-Lac-Saint-Jean	22.07
Capitale-Nationale	15.48
Mauricie	22.17
Estrie	20.90
Montréal	24.56
Outaouais	20.21
Abitibi-Témiscamingue	26.37
Côte-Nord	29.62
Nord-du-Québec	35.52
Gaspésie-Îles-de-la-Madeleine	31.18
Chaudière-Appalaches	20.25
Laval	16.87
Lanaudière	21.12
Laurentides	21.30
Montérégie	18.93
Centre-du-Québec	22.11

Source: Ministère de l'Éducation, du Loisir et du Sport, DRSI, special compilation of census data from 1996, October 2006.

Conclusion

Some 23 400 of Québec's 28 959 bachelor's level graduates in 2003 had completed their secondary education in Québec, and 61.7% were women. This reflects a trend that emerged in 1983, the year in which the graduation rate for women first equalled that for men. The rate has continued to progress steadily ever since. Regional calculations also show that the number of woman graduates has increased in the remote regions of Québec.

The average age of bachelor's level graduates who completed their secondary education in Québec was 24.4 years. The average age was highest in the more popular fields of study, such as education, social sciences and the humanities. These same fields accounted for 46.3% of all bachelor's level graduates in 2003, although the figure was somewhat higher – above 50% – in the remote regions.

This study has also shown that many graduates obtained their degrees from region located close to their region of origin. Regional graduation rates tended to be lower in the remote regions. In 2003, the highest graduation rates at bachelor's level were recorded in the Capitale-Nationale, Montréal and Laval regions. The male-female difference also tended to be greater further from the large cities. This was particularly true for the Bas-Saint-Laurent and Gaspésie-Îles-de-la-Madeleine regions where, in 2003, more than twice as many women as men obtained bachelor's degrees.

Regional disparities may be attributed to distance, but also to other causes, particularly the individuals' socioeconomic background. The most advantaged regions, namely Capitale-Nationale and Laval, also have the highest bachelor's level graduation rates. In contrast, the most disadvantaged regions also have the lowest bachelor's level graduation rates.

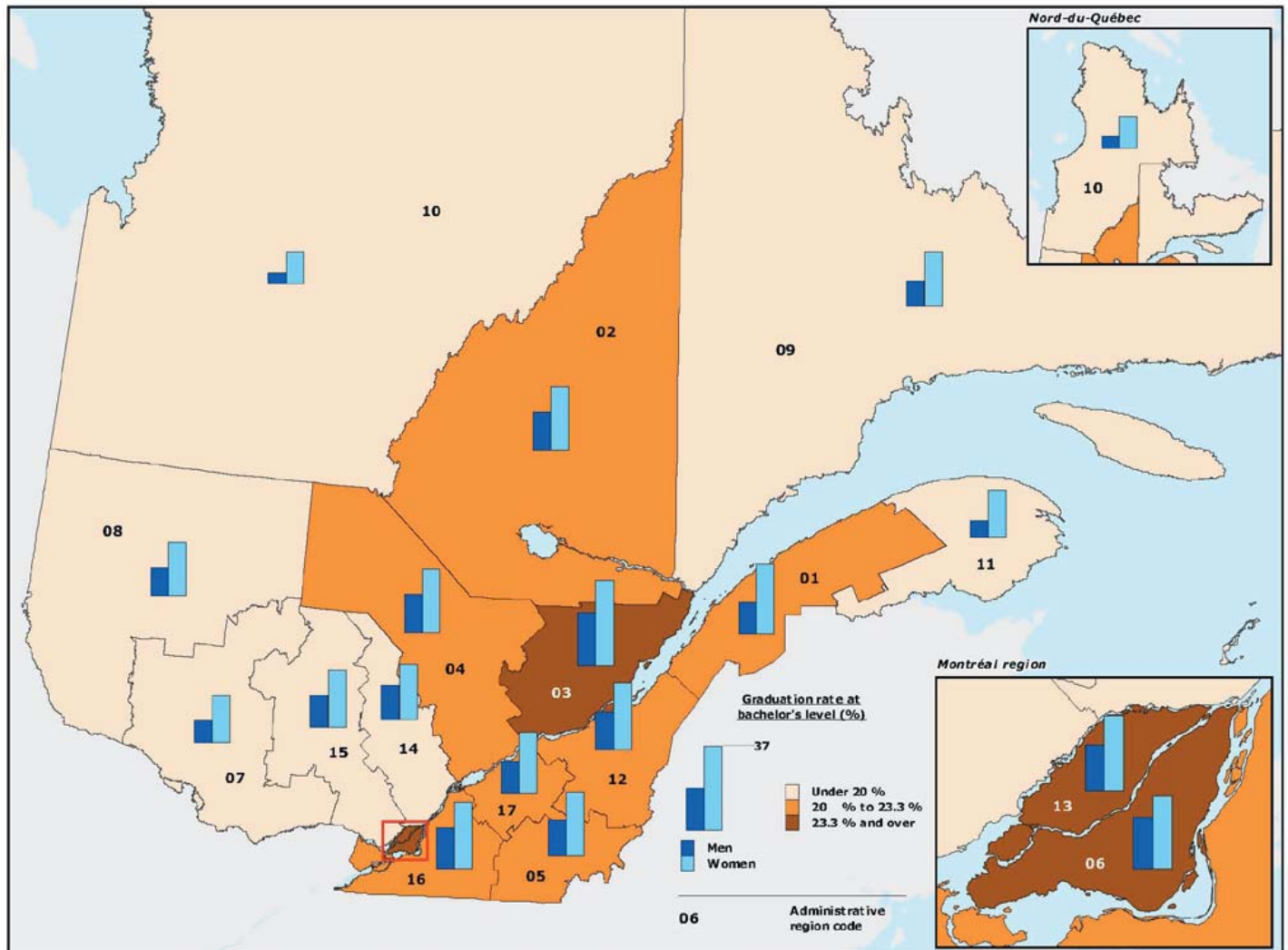
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Figure 2 Graduation rate (%) at bachelor's level by administrative region of origin and by gender, 2003



Ministère de l'Éducation, du Loisir et du Sport, Direction de la recherche, des statistiques et des indicateurs

April 2006

List of administrative regions

- | | | | |
|----|-------------------------|----|-------------------------------|
| 01 | Bas-Saint-Laurent | 10 | Nord-du-Québec |
| 02 | Saguenay–Lac-Saint-Jean | 11 | Gaspésie–Îles-de-la-Madeleine |
| 03 | Capitale-Nationale | 12 | Chaudière-Appalaches |
| 04 | Mauricie | 13 | Laval |
| 05 | Estrie | 14 | Lanaudière |
| 06 | Montréal | 15 | Laurentides |
| 07 | Outaouais | 16 | Montérégie |
| 08 | Abitibi-Témiscamingue | 17 | Centre-du-Québec |
| 09 | Côte-Nord | | |

Note: See table 14 for percentages.

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