

In order to count new graduates, access to a data bank containing information on the students' history is necessary. This way, each time a diploma is issued by the Ministère, it will be possible to determine whether the recipient has already obtained a diploma in the past.

Age-group estimates of the population must also be used. The limits of these demographic estimates, which will not be described in detail in this document, ensure that the *probability of obtaining a secondary school diploma* can easily be calculated for the entire province, as well as for most administrative regions. However, this indicator cannot be calculated with a satisfactory degree of reliability for the Regional County Municipalities (RCM), the municipalities or the school board territories.

Leaving secondary school without a diploma

The proportion of individuals leaving school without a diploma, which has long been presented in the *Education Indicators*, has often been interpreted as a measurement of permanent secondary school leaving. It is important, however, to properly grasp the differences that exist between the various indicators.

Leaving **the youth sector** does not always mean leaving school permanently. Indeed, in some cases, it does not even mean dropping out temporarily. It is possible for a student go directly from the youth sector to the adult sector,² in which case there is no interruption or termination of studies.

From a technical perspective, the *proportion of a cohort that leaves secondary school without ever obtaining a diploma* is the complement of the *probability of obtaining a secondary school diploma* (see below). If the *probability of obtaining* measures the probability of an individual obtaining a diploma in his or her life, then its complement measures the probability of an individual **never** obtaining a diploma.

The *proportion of a cohort that leaves secondary school without ever obtaining a diploma* (overall proportion without age or sector restrictions) is an accurate measurement of the proportion of the general population that would never obtain a diploma if the situation observed in the education system in a given year continued indefinitely.

Table 1
Proportion of a cohort leaving secondary school without a diploma (%)

	1981-1982	1992-1993	1995-1996	2000-2001
Proportion of a cohort of students that:				
• never obtains a diploma	27.9	17.9	11.8	17.5
• leaves the youth sector without a diploma	34.0	36.3	29.6	31.7
• does not obtain a diploma in the youth sector or before the age of 20 in the adult sector	33.5	33.8	26.5	28.3

In other words, the complement of the *probability of obtaining a secondary school diploma* measures the probability of dying before obtaining a diploma (e.g. 17.5 % in 2000-2001).

The complement of the *probability of obtaining a secondary school diploma in the youth sector* measures the probability of leaving the youth sector before obtaining a diploma (e.g. 31.7 % in 2000-2001).

The complement of the *probability of obtaining a secondary school diploma before the age of 20* measures the probability of reaching the age of 20 before obtaining a diploma (e.g. 28.3 % in 2000-2001).

2 In some school boards, students enrolling in vocational education are considered to be entering the adult sector.

The dropout rate

“Dropouts” are people who do not have a secondary school diploma and do not attend school. The *dropout rate*³ has been published in the *Education Indicators* since 2000. This statistic measures as accurately as possible the proportion of dropouts at a given age, or the proportion of people, compared to the total population, who are neither secondary school graduates nor enrolled in the education system. As calculated in the Education Indicators, the dropout rate is always expressed according to age, so there is no general rate for the entire population of Québec, but rather a series of dropout rates; the rate for 16-year-olds, for 17-year-olds, for 24-year-olds, for 30-year-olds, etc.

Table 2
Dropout rate
(%)

	1985	1990	1995	2000
15-year-olds	4.8	4.0	4.0	3.1
16-year-olds	8.5	11.0	5.2	5.2
17-year-olds	14.9	15.8	10.2	11.4
18-year-olds	22.5	23.6	16.3	16.6
19-year-olds	25.4	25.4	20.7	19.3
20-year-olds	26.9	27.5	21.3	20.8
21-year-olds	29.3	25.4	24.7	20.0
22-year-olds	30.9	24.6	25.1	21.0
23-year-olds	32.8	25.6	27.0	21.4
24-year-olds	35.1	26.4	26.3	23.0

To calculate the *dropout rate*, we must begin with an estimate of the general population at a given age (for example, persons aged 17 on September 30, 1998); then, we eliminate from this cohort⁴ individuals who have already obtained a secondary school diploma as well as those who still attended school in 1998. In the end, we obtain the number of 17-year-old dropouts for 1998.

The *dropout rate* therefore requires varied and reliable data: an estimate of the general population based on age; the number of new graduates based on age; the number of individuals not holding secondary school diplomas enrolled in the secondary or college level;⁵ also based on age.

The *dropout rate* describes the current situation of the general population. In its current form, it can be calculated for all of Québec, but not for the administrative regions, RCMs, municipalities or school board territories.

Using the same definition of dropping out, but an entirely different calculation method, a similar indicator can be developed from surveys.

A census, survey or Labour Force Survey (LFS) could, with the appropriate questions, give an estimate of the proportion of dropouts in the general population. However, these methods all have limitations: the census takes place only once every five years; the samples of surveys or Labour Force Surveys are too small to be useable at the regional, local, or even provincial level (if statistics by age are required, for example).

3 For a more detailed account of the method used to calculate this indicator, please see Bulletin No.14: André Lespérance, Pierre Ducharme and Diane Foucault. *Dropping Out of School*, March 2000.

4 A cohort consists of individuals born over a given one-year period. In many statistics from the field of education, age is defined according to one's age on September 30; for example, people 17 years of age on September 30, 1998 were all born between October 1, 1980 and September 30, 1981.

5 In the past, it was simple to attend college without having obtained a secondary school diploma, though it is not common today. A decision was made not to consider these students as secondary school “dropouts.”

Table 3
Dropout rate
and simplified dropout rate
in 1998

	15-19 years	20-24 years	25-29 years
Dropout rate (MEQ)	11.4%	22.4%	26.4%
Dropout rate (LFS)	7.7%	14.0%	15.2%
Difference	3.7	8.4	11.2

Lastly, the sampling is never perfect, especially in the case of dropouts, who are less inclined than the general population to respond to surveys.

In this context, the *dropout rate* (obtained through a survey, census or LFS) should not be used to describe the phenomenon of dropping out, even if the rate thus calculated is conceptually accurate, when a more accurate, albeit more complex, method can be used.

Statistics Canada and Human Resources Development Canada worked together on the *Youth in Transition Survey* (YITS). The dropout rate calculated for 20-year-olds in Québec in 1999 was 16.0%,⁶ while the corresponding *dropout rate* published in the *Education Indicators* was 19.4%.

The probability of obtaining a secondary school diploma after seven years

This indicator, although it can be calculated for all of Québec, was created to establish a portrait of the situation in the school boards. It measures the proportion of students newly enrolled in Secondary I who will have obtained a secondary school diploma seven years later.⁷

For example, 72.1% of the students newly enrolled in Secondary I on September 30, 1994 throughout Québec will have obtained a secondary school diploma in the following seven years, or before the end of the 2000-2001 school year. This is a portrait of the current situation, as this cohort experienced it.

This indicator is calculated over a relatively long period; consequently, it is not so much the current situation that is measured as that of the last seven years.⁸

Another problem with this method is that the indicator cannot be calculated accurately for each school. This is because graduates are automatically associated with the school board where they first enrolled in Secondary I, whereas in fact, students sometimes change schools. Thus, if students switch to a second school board, where they remain until graduation, and where they receive most of their secondary education, this second school board will not receive any credit.

The complement of the probability of *obtaining a secondary school diploma after seven years* cannot be defined as a dropout rate for 19-year-olds.⁹ In fact, if 27.9% of the students enrolled in Secondary I in 1994 still had not graduated in 2000-2001, this indicator does not make it possible to distinguish those who were continuing their studies (continuers) from those who were absent from the education system (dropouts).

The proportion of dropouts among school leavers

The *success plan* seeks to measure the performance of educational institutions. One of the indicators developed for this purpose determines the proportion of dropouts (or individuals who have temporarily or permanently left the Québec secondary education system without a diploma) among school leavers (those individuals who have left secondary school with or without a diploma).

6 Statistics Canada. *At a Crossroads: First Results for the 18- to 20-Year-Old Cohort of the Youth in Transition Survey* January 2002, page 27. The dropout rate concept used by Statistics Canada is more or less similar to the concept used for the Education Indicators.

7 There are variants for calculating the same proportion after five or six years of studies.

8 Considering the long observation period, an estimate (per school board) of the school leavings that can be attributed to immigration or death must be made in order to be able to separate these demographic school leavings from those related only to dropping out (leaving without a diploma).

9 Around 19 years old, or 7 years after accessing secondary school, normally at 12 years old.

Table 4
Proportion of dropouts
among school leavers
- some examples
(%)

	1999-2000	2000-2001
All of Québec (all networks)	23.9	24.7
All school boards ¹	26.4	27.2
Commission scolaire des Monts-et-Marées (711)	18.5	19.3
Polyvalente Armand-Saint-Onge, Amqui (711021)	11.2	15.5

¹ Excluding the Cree and Kativik School Boards and the Commission scolaire du Littoral.

In the above table, the *proportion of dropouts among school leavers* rose almost a percentage point between 1999-2000 and 2000-2001 throughout Québec, at all the school boards and at the Commission scolaire des Monts-et-Marées. However, when this proportion is calculated for one school of this school board, it increases by more than four points. This example, which takes the current situation of this school into account, shows that the proportion of dropouts at a particular school can vary substantially from one year to the next.

An indicator calculated at the local level (school board, school) must be used with caution. Furthermore, it applies only to schools that offer the second cycle of the secondary level. In fact, individuals leaving Secondary Cycle One can be leavers only without a diploma;¹⁰ since a diploma cannot be obtained at that level! For these Cycle One secondary schools, the proportion of dropouts among school leavers would necessarily be 100%, which is a disconcerting result to say the least: not because the calculation is inaccurate or incorrect, but because such an indicator is not valid in this particular context.

Since secondary schools must deal with students from different socioeconomic environments, and some of these environments have a more positive effect on educational success than others, this indicator is determined for a group of schools with similar socioeconomic environments. The *proportion of dropouts among school leavers* therefore helps a school compare its situation to other schools similar to it.

Other factors also influence the calculation of the proportion of dropouts among school leavers. These include methodology¹¹ and educational factors that are not taken into consideration. The selection of students by private educational institutions and public schools offering specialized programs (sports-studies, international education program, etc.) probably has an adverse affect on the drop-out level on schools that lose many of their best students to schools that select their students.

The proportion of dropouts from many French-language secondary schools¹² is, to varying degrees, affected by these transfers of the best students. Thus, there are limits to the comparability of educational institutions, even when the socioeconomic environments are taken into account.

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- 10 The term *school leaver* does not apply to students finishing their Secondary III in a school that offers only the first cycle of the secondary level, and continuing their secondary education at another institution that offers the second cycle. Rather, school leavers are students attending an institution in a given year but no longer attending any institution in the secondary system the following year (or students who have obtained their diploma, if issued by the institution).
- 11 Contrary to the calculation of the probability of obtaining a secondary school diploma after seven years, there are no estimations made following leavers due to emigration or mortality. They are interpreted as leavers without a diploma. Consequently, the drop-out level among early school-leavers is overvalued slightly, notably in the case of certain English schools where emigration out of Quebec has a higher incidence.
- 12 Secondary schools in remote regions (Bas-Saint-Laurent, Gaspésie-Îles-de-la-Madeleine, Saguenay-Lac-Saint-Jean, Abitibi-Témiscamingue, Côte-Nord and Nord-du-Québec) are scarcely affected by this selection and transfers of students.

**Other Education
Statistics Bulletins
available:**

- Lespérance, André. *Level of Graduation Upon Leaving the Education System*, **No. 1, November 1997.**
- Demers, Marius. *Statutory Salaries and Teaching Time of Teachers in Public Elementary and Lower Secondary Schools: A Comparison of Québec and OECD Countries*, No. 2, **November 1997.**
- Demers, Marius. *Educational Expenditure Relative to the GDP: A Comparison of Québec and OECD Countries*, **No. 3, June 1998.**
- Maheu, Robert. *Graduation from Secondary School, College and University in 1995: A Comparison of Québec and OECD Countries*, **No. 4, June 1998.**
- Beauchesne, Luc. *Secondary School and College Graduates: A Sociodemographic Analysis*, **No. 5, June 1998.**
- St-Germain, Claude. *Québec Student Achievement in Mathematics and Science: An International Comparison*, **No. 6, August 1998.**
- Foucault, Diane. *The Aboriginal School Population of Québec*, **No. 7, September 1998.**
- Demers, Marius. *The Return on Investment in Education*, **No. 8, February 1999.**
- Ouellette, Raymond. *Projections of Teaching Staff in Québec School Boards: 1996-97 to 2008-09*, **No. 9, February 1999.**
- St-Germain, Claude. *The Linguistic Situation in the Education Sector, 1997-98*, **No. 10, March 1999.**
- St-Germain, Claude. *Education Level of the Adult Populations of the Principal Cultural Communities of Québec in 1996*, **No. 11, May 1999.**
- Dufort, Jean-Pierre. *Secondary School Vocational Education*, **No. 12, September 1999.**
- St-Germain, Claude. *School Enrolments in Québec and the OECD Countries in 1995-96*, **No. 13, November 1999.**
- Lespérance, André, Pierre Ducharme and Diane Foucault. *Dropping Out of School*, **No. 14, March 2000.**
- Ouellette, Raymond. *School Administrators in Québec School Boards*, **No. 15, May 2000.**
- Demers, Marius. *Education pays!*, **No. 16, June 2000.**
- Audet, Marc. *The Professional Integration of Holders of Bachelor's and Master's Degrees Over the Past Two Decades*, **No. 17, August 2000.**
- Foucault, Diane. *Québec's Education System and the International Standard Classification of Education*, **No. 18, September 2000.**
- Demers, Marius. *Statutory Salaries of Teachers in Public Elementary and Secondary Schools in 1997-1998: A Comparison of Québec and OECD Countries*, **No. 19, September 2000.**
- Demers, Marius. *Educational Spending Relative to the GDP in 1997: A Comparison of Québec and the OECD Countries*, **No. 20, November 2000.**
- Foucault, Diane. *Graduation Rates in Québec and the OECD Countries*, **No. 21, January 2001.**
- Lavigne, Jacques. *Forecast of Full-Time Equivalent Student Enrollment in Québec Universities, 2000-2001 to 2014-2015*, **No. 22, July 2001.**
- La Haye, Jacques. *Student Flow Indicators for Students Enrolled in Undergraduate Degree Programs at Québec Universities*, **No. 23, April 2002.**
- Lavigne, Jacques. *Forecast of Full-Time Equivalent Student Enrollment in Québec Universities, 2001-2002 to 2015-2016*, **No. 24, July 2002.**