

2006 Census New Education Module: follow-up report

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Note: A [printable version](#) of this report is also available

Executive summary

This report presents a new set of education questions for the 2006 Census. No change to census content is ever made lightly. There are three reasons for modifying the 2006 Census education content.

First, the education questions in the Canadian Census have remained relatively stable for many years but the landscape is changing. For example:

- Rising educational participation rates have caused a major shift in the educational profile of the Canadian population.
- There is increasing public policy interest in the capacity of the educational system to fill specialised labour market needs, and in the link between educational credentials and the labour market outcomes of both Canadian-born and immigrant workers.

- The educational system itself is changing in response to labour market needs. This includes not only the development of new programs but also structural shifts, such as “bridges” between college and university programs.

With fundamental changes such as these, some adjustments to the education questions were proposed to ensure that the census does the best job possible in collecting relevant information.

Second, analysis of recent census data raised some questions on the data quality front. For example, 2001 school attendance rates for young people are implausibly low. The results for years of schooling show some significant anomalies. Qualitative testing has also brought to light several situations where respondents have difficulty answering the questions on years of schooling, particularly in cases of repeated grades, part-time attendance and interrupted schooling. Some older respondents try to convert schooling received decades ago into modern equivalents.

Finally, there are several major data sources that provide education information, many of which did not exist when the current set of questions was defined. While the census offers great potential for analysing data for small areas and small population groups, some needs can be met by other data sources and decisions on census content should be made in the light of the full social statistics program.

For these reasons, Statistics Canada initiated a review of the census education questions. Between June and December 2002, an extensive consultation process with key stakeholders was conducted, including federal departments, provincial governments, municipalities, researchers and academics. Stakeholders commented on the existing and proposed new questions. In addition, qualitative testing of the proposed questions was conducted in the spring of 2003 and the new questions were included in the Census Test of May 2004.

In a nutshell, the questions for 2006 involve a shift away from years of schooling and more precision and detail on educational credentials. This shift freed up enough questionnaire space to add a new question on where the highest degree, certificate or diploma was obtained (country, province or territory). A new classification system, called the Classification of Instructional Programs (CIP), will be used to code the discipline of the highest degree, certificate or diploma. Finally, the question on school attendance has been reworded and the response categories changed to improve response quality.

Qualitative testing, as well as the May 2004 Census Test, show that the new questions are more clearly understood by respondents. The 2006 Census education content was finalised in the fall of 2004 and received Cabinet approval in the spring of 2005. At that stage, attention turned to assuring the best transition possible. For example, the definition of derived variables that support trend analysis, the development of a concordance between the old and new classification system for field of study and information on alternative data sources that complement the new census content.

I - Introduction

This report describes changes planned for the 2006 Census education questions, changes that were put to the test in the May 2004 Census test of over 300,000 households.

The changes aim to address data limitations in the 2001 Census questions and to enhance their relevance to education studies by allowing a better reflection of the range of educational pathways taken by Canadians.

Census education data are widely used by all levels of government, educational institutions, and academic researchers. The information feeds both labour market analyses and education planning. Researchers also turn to the census for information on the educational characteristics and labour market integration of immigrants, official language minorities, Aboriginal peoples and other groups that draw policy attention.

While the importance of census education content is not an issue, analysis of 2001 results and of findings from qualitative testing and from consultation with stakeholders indicated that there was room for improvement.

Why change the census questions

Stability in the content of a survey, especially one the size of the census, has many virtues. The rationale for change must be persuasive. The case for change in the census education questions is based on three things.

First, the education questions in the Canadian Census have remained relatively stable for many years but the landscape has changed dramatically. For example:

- Rising educational participation rates have caused a major shift in the educational profile of the Canadian population. The population increasingly has post-secondary education but the amount of detail collected on the higher end of the educational spectrum has been static for many years.
- There is increasing public policy interest in the capacity of the educational system to fill specialised labour market needs, and in the link between educational credentials and the labour market outcomes of both the Canadian-born and immigrant population.
- The educational system itself is changing in response to labour market needs. This includes not only the development of new programs but also structural shifts, such as “bridges” between college and university programs.

With fundamental changes such as these, some adjustments to the education questions are proposed to ensure that the census does the best job possible in collecting relevant information.

Second, analysis of recent census data raised some questions on the data quality front. For example, 2001 Census school attendance rates for young people are implausibly low. In particular:

- Less than 80% of 15 year olds were reported as attending school in the nine months preceding the census, while other sources place the proportion at about 93% to 95%.
- The results on years of schooling also show some significant anomalies, in relation to the highest degree, certificate or diploma.
- Qualitative testing has also brought to light several situations where respondents have difficulty answering the questions on years of schooling, particularly in cases of repeated grades, part-time attendance and interrupted schooling. Some older respondents try to convert schooling received decades ago into modern equivalents.

Finally, there are several major data sources that provide education information, many of which did not exist when the current set of questions was defined. While the census offers great potential for analysing data for small areas and small population groups, some needs can be met by other data sources and decisions on census content should be made in the light of the full social statistics program. Surveys such as the Adult Literacy and Lifeskills Survey, the Survey of Labour and Income Dynamics, the Labour Force Survey, the 2001 Aboriginal Peoples Survey, the Youth in Transition Survey, the Enhanced Student Information System, the National Graduate Survey, the Survey of Earned Doctorates and the 2001 Participation and Activity Limitation Survey all offer important education information.

Section II of this report presents an overview of the 2001 Census education questions and the proposed 2006 questions. Section III takes a closer look at the changes related to educational credentials and highest level of schooling. Section IV focuses on the years of schooling variables, explaining the rationale for dropping these variables. The changes to major field of study are presented in Section V. Section VI looks at the new question on where highest degree, certificate or diploma was obtained. Finally, Section VII examines changes to the school attendance question.

II - Overview of 2001 and 2006 Census education questions

Education questions are a part of the Form 2B (the long form) of the census. This form is completed by 20% of all households. In 2001, six education questions spread over two questionnaire pages were asked of persons in the household aged 15 and over. With minor exceptions, these six questions were the same as in the 1991 and 1996 Censuses. The underlying concepts measured included years of schooling, education credentials (degrees, certificates and diplomas), field of study of highest degree, certificate or diploma and school attendance.

The six education questions of the 2001 Census are presented on the following pages.

The major field of study information was coded to a classification system of academic disciplines that was developed in the 1970s on the basis of coding schemes used in institutional surveys, and updated over time to reflect responses obtained in the census.

The 2006 questions

The questions for 2006 are shown immediately following the 2001 questions. They still take up two questionnaire pages, which is the same physical space that was available for 2001 Census education content. But there are several differences aimed at improving quality and relevance. The underlying concepts measured by the proposed seven questions include education credentials; major field of study of highest degree, certificate or diploma; country, province or territory where those credentials were obtained; and school attendance. The new questions would not yield a direct measure of total years of schooling.

The new content, which was developed and qualitatively tested in 2002-2003, and tested in a large scale quantitative test in May 2004, was developed within the space parameters noted above. Also paramount was the goal of ensuring that questions are clear and unambiguous, allowing respondents to “get it right” without reference to instructions or subtle nuances.

The changes relative to 2001 can be summarised as follows:

- drop the questions on years of schooling and collect more detailed and precise information on educational credentials earned
- collect more precise information on the type of institution where the credential was earned
- add a question on where (country/province/territory) the highest level of education was obtained
- refine the wording on the school attendance question to improve clarity
- drop the distinction between full-time and part-time attendance (over the past nine months) and collect information on the type of educational institution attended
- change the classification system used to code academic discipline (of highest credential earned) from Major Field of Study to the Classification of Instructional Programs.

A detailed look at each of these changes follows. Throughout the report, the issue of comparison with past census data is discussed, to show where comparisons will be possible. Also, alternative data sources are noted.

2001 Census education questions

Remember, these questions are only for persons aged 15 and over.		
EDUCATION	31.	32.
<p>26 What is the highest grade of secondary (high school) or elementary school attended by this person (completed or not)?</p> <p><i>Enter highest grade (1 to 13) for elementary and secondary school only, excluding kindergarten.</i></p> <p><i>In the case where the person has attended secondary school in the province of Quebec, include the total number of years of elementary and secondary schooling.</i></p>	<p>01 <input type="text"/> <input type="text"/> ◀ Number (1 to 13) of grades of secondary or elementary school</p> <p>OR</p> <p>02 <input type="radio"/> Never attended school or attended kindergarten only</p>	<p>01 <input type="text"/> <input type="text"/> ◀ Number (1 to 13) of grades of secondary or elementary school</p> <p>OR</p> <p>02 <input type="radio"/> Never attended school or attended kindergarten only</p>
<p>27 How many years of education has this person completed at university?</p>	<p>03 <input type="radio"/> None</p> <p>04 <input type="radio"/> Less than 1 year (of completed courses)</p> <p>05 <input type="text"/> <input type="text"/> ◀ Number of completed years at university</p>	<p>03 <input type="radio"/> None</p> <p>04 <input type="radio"/> Less than 1 year (of completed courses)</p> <p>05 <input type="text"/> <input type="text"/> ◀ Number of completed years at university</p>
<p>28 How many years of schooling has this person ever completed at an institution other than a university, a secondary (high) school or an elementary school?</p> <p><i>Include years of schooling at community colleges, technical institutes, CEGEPs (general and professional), private trade schools or private business colleges, diploma schools of nursing, etc.</i></p>	<p>06 <input type="radio"/> None</p> <p>07 <input type="radio"/> Less than 1 year (of completed courses)</p> <p>08 <input type="text"/> <input type="text"/> ◀ Number of completed years at community colleges, trade schools, CEGEPs, etc.</p>	<p>06 <input type="radio"/> None</p> <p>07 <input type="radio"/> Less than 1 year (of completed courses)</p> <p>08 <input type="text"/> <input type="text"/> ◀ Number of completed years at community colleges, trade schools, CEGEPs, etc.</p>
<p>29 In the past nine months (that is, since last September), was this person attending a school, college or university?</p> <p><i>Include attendance at elementary or secondary schools, business or trade schools, community colleges, technical institutes, CEGEPs, etc., for courses that can be used as credits towards a certificate, diploma or degree.</i></p> <p><i>Mark "X" one circle only.</i></p>	<p>09 <input type="radio"/> No, did not attend in the past nine months</p> <p>10 <input type="radio"/> Yes, full time</p> <p>11 <input type="radio"/> Yes, part time, day or evening</p>	<p>09 <input type="radio"/> No, did not attend in the past nine months</p> <p>10 <input type="radio"/> Yes, full time</p> <p>11 <input type="radio"/> Yes, part time, day or evening</p>

Remember, these questions are only for persons aged 15 and over.		
<p>30 What certificates, diplomas or degrees has this person ever obtained?</p> <p><i>Include all qualifications obtained from secondary (high) schools, or trade schools and other postsecondary educational institutions.</i></p> <p><i>Mark "X" as many circles as applicable.</i></p>	<p>37.</p> <p>01 <input type="radio"/> None ▶ Go to Question 32</p> <p>02 <input type="radio"/> Secondary (high) school graduation certificate or equivalent</p> <p>03 <input type="radio"/> Trades certificate or diploma</p> <p>04 <input type="radio"/> Other non-university certificate or diploma (obtained at community college, CEGEP, technical institute, etc.)</p> <p>05 <input type="radio"/> University certificate or diploma below bachelor level</p> <p>06 <input type="radio"/> Bachelor's degree(s) (e.g., B.A., B.Sc., LL.B.)</p> <p>07 <input type="radio"/> University certificate or diploma above bachelor level</p> <p>08 <input type="radio"/> Master's degree(s) (e.g., M.A., B.Sc., M.Ed.)</p> <p>09 <input type="radio"/> Degree in medicine, dentistry, veterinary medicine or optometry (M.D., D.D.S., D.M.D., D.V.M., D.O.)</p> <p>10 <input type="radio"/> Earned doctorate (e.g., Ph.D., D.Sc., D.Ed.)</p>	<p>38.</p> <p>01 <input type="radio"/> None ▶ Go to Question 32</p> <p>02 <input type="radio"/> Secondary (high) school graduation certificate or equivalent</p> <p>03 <input type="radio"/> Trades certificate or diploma</p> <p>04 <input type="radio"/> Other non-university certificate or diploma (obtained at community college, CEGEP, technical institute, etc.)</p> <p>05 <input type="radio"/> University certificate or diploma below bachelor level</p> <p>06 <input type="radio"/> Bachelor's degree(s) (e.g., B.A., B.Sc., LL.B.)</p> <p>07 <input type="radio"/> University certificate or diploma above bachelor level</p> <p>08 <input type="radio"/> Master's degree(s) (e.g., M.A., B.Sc., M.Ed.)</p> <p>09 <input type="radio"/> Degree in medicine, dentistry, veterinary medicine or optometry (M.D., D.D.S., D.M.D., D.V.M., D.O.)</p> <p>10 <input type="radio"/> Earned doctorate (e.g., Ph.D., D.Sc., D.Ed.)</p>
	<p>FOR INFORMATION ONLY</p>	
<p>31 What was the major field of study or training of this person's highest degree, certificate or diploma (excluding secondary or high school graduation certificates)?</p> <p><i>For example, accounting, carpentry, civil engineering, history, legal secretary, welding, etc.</i></p>	<p>Major field of study or training</p> <p>11 <input type="text"/></p> <p>OR</p> <p>12 <input type="radio"/> This person's highest qualification is a secondary (high) school graduation certificate</p>	<p>Major field of study or training</p> <p>11 <input type="text"/></p> <p>OR</p> <p>12 <input type="radio"/> This person's highest qualification is a secondary (high) school graduation certificate</p>

2006 Census education questions

Remember, these questions are only for persons aged 15 and over.		
EDUCATION		
<p>26 Has this person completed a secondary (high) school diploma or equivalent?</p> <p><i>Examples of secondary (high) school equivalency certificates are General Educational Development (GED) and Adult Basic Education (ABE).</i></p>	<p>Secondary (high) school diploma or certificate</p> <p><input type="radio"/> Yes, secondary (high) school diploma</p> <p><input type="radio"/> Yes, secondary (high) school equivalency certificate</p> <p><input type="radio"/> No</p>	<p>Secondary (high) school diploma or certificate</p> <p><input type="radio"/> Yes, secondary (high) school diploma</p> <p><input type="radio"/> Yes, secondary (high) school equivalency certificate</p> <p><input type="radio"/> No</p>
<p>27 Has this person completed a Registered Apprenticeship or other trades certificate or diploma?</p> <p><i>Mark "X" as many circles as applicable.</i></p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • hairdressing • CNC machinist 	<p>Registered Apprenticeship or trades certificate or diploma</p> <p><input type="radio"/> Yes, Registered Apprenticeship certificate</p> <p><input type="radio"/> Yes, other trades certificate or diploma</p> <p><input type="radio"/> No</p>	<p>Registered Apprenticeship or trades certificate or diploma</p> <p><input type="radio"/> Yes, Registered Apprenticeship certificate</p> <p><input type="radio"/> Yes, other trades certificate or diploma</p> <p><input type="radio"/> No</p>
<p>28 Has this person completed a college, CEGEP, or other non-university certificate or diploma?</p> <p><i>Mark "X" as many circles as applicable.</i></p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • accounting technology • real estate agent • industrial engineering technology 	<p>College, CEGEP or other non-university certificate or diploma</p> <p><input type="radio"/> Yes, certificate or diploma from a program of less than 3 months</p> <p><input type="radio"/> Yes, certificate or diploma from a program of 3 months to less than 1 year</p> <p><input type="radio"/> Yes, certificate or diploma from a program of 1 to 2 years</p> <p><input type="radio"/> Yes, certificate or diploma from a program of more than 2 years</p> <p><input type="radio"/> No</p>	<p>College, CEGEP or other non-university certificate or diploma</p> <p><input type="radio"/> Yes, certificate or diploma from a program of less than 3 months</p> <p><input type="radio"/> Yes, certificate or diploma from a program of 3 months to less than 1 year</p> <p><input type="radio"/> Yes, certificate or diploma from a program of 1 to 2 years</p> <p><input type="radio"/> Yes, certificate or diploma from a program of more than 2 years</p> <p><input type="radio"/> No</p>
<p>29 Has this person completed a university degree, certificate or diploma?</p> <p><i>Mark "X" as many circles as applicable.</i></p>	<p>University degree, certificate or diploma</p> <p><input type="radio"/> Yes, certificate or diploma below bachelor level</p> <p><input type="radio"/> Yes, bachelor's degree (including LL.B.)</p> <p><input type="radio"/> Yes, certificate or diploma above bachelor level</p> <p><input type="radio"/> Yes, master's degree</p> <p><input type="radio"/> Yes, degree in medicine, dentistry, veterinary medicine or optometry</p> <p><input type="radio"/> Yes, earned doctorate</p> <p><input type="radio"/> No</p>	<p>University degree, certificate or diploma</p> <p><input type="radio"/> Yes, certificate or diploma below bachelor level</p> <p><input type="radio"/> Yes, bachelor's degree (including LL.B.)</p> <p><input type="radio"/> Yes, certificate or diploma above bachelor level</p> <p><input type="radio"/> Yes, master's degree</p> <p><input type="radio"/> Yes, degree in medicine, dentistry, veterinary medicine or optometry</p> <p><input type="radio"/> Yes, earned doctorate</p> <p><input type="radio"/> No</p>

Remember, these questions are only for persons aged 15 and over.		
<p>30 What was the major field of study of the highest degree, certificate or diploma that this person completed?</p> <p><i>Please be specific. For example:</i></p> <ul style="list-style-type: none"> • automobile mechanics • civil engineering • dental technology • aircraft mechanics • medical laboratory technology • day-care • agricultural economics <p><i>Print in capital letters as follows:</i></p> <p>COMPUTER EN GINEERING T ECHNOLOGY</p>	<p>Major field of study of highest degree, certificate or diploma</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>OR</p> <p><input type="radio"/> No certificate or diploma (higher than high school) → Go to Question 22</p>	<p>Major field of study of highest degree, certificate or diploma</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>OR</p> <p><input type="radio"/> No certificate or diploma (higher than high school) → Go to Question 22</p>
<p>31 In what province, territory or country did this person complete his/her highest degree, certificate or diploma?</p>	<p>In Canada Specify province or territory</p> <p>_____</p> <p>OR</p> <p>Outside Canada Specify country</p> <p>_____</p>	<p>In Canada Specify province or territory</p> <p>_____</p> <p>OR</p> <p>Outside Canada Specify country</p> <p>_____</p>
<p>32 Has this person attended a school, college, CEGEP or university at any time since September 2005?</p> <p><i>Mark "X" as many circles as applicable.</i></p>	<p><input type="radio"/> Yes, attended elementary, junior high school or high school</p> <p><input type="radio"/> Yes, attended trade school, college, CEGEP or other non-university institution</p> <p><input type="radio"/> Yes, attended university</p> <p><input type="radio"/> No, did not attend school at any time since September 2005</p>	<p><input type="radio"/> Yes, attended elementary, junior high school or high school</p> <p><input type="radio"/> Yes, attended trade school, college, CEGEP or other non-university institution</p> <p><input type="radio"/> Yes, attended university</p> <p><input type="radio"/> No, did not attend school at any time since September 2005</p>

III - More precision on educational credentials

The 2001 Census education questions were aimed at collecting information on both credentials and years of schooling. On the whole, more “space” in 2001 was devoted to years of schooling as opposed to credentials. The 2006 approach places more emphasis on credentials. More specifically, the 2001 Census had one question on credentials with 10 response categories while the 2006 Census will have four questions dealing explicitly with high school, trade/apprenticeship, college and university.

There are pros and cons associated with using either years of schooling or educational credentials as an indicator of the skills and knowledge held by individual Canadians. Indeed Ferrer and Riddell (2002) argue that *both* measures play a role in accounting for the impact of education on earnings, for example. But they also find that the importance of credentials increases with educational attainment, citing the work of other researchers who point to the sorting role of education in the labour market. The argument here is that employers use program completion to screen for unobserved characteristics such as perseverance.

It would be ideal if the census could collect both finer detail on educational credentials and years of schooling. However, response burden is an issue that the census is especially sensitive to, given the scale and mandatory character of the census. Inevitably, choices must be made. What is critical is that choices be made on the basis of sound information on relevance and quality. On the basis of consultations done for the census, data users generally supported a shift towards collecting more information on credentials rather than years of schooling, for reasons outlined below.

Certification and labour market requirements

In a labour market characterized by varied and complex educational pathways, employers need to have a standard way of assessing the knowledge and skills that individuals bring to a job.

Graduation, whether from high school, college or university, conveys a message to employers that the number of years of schooling does not. It may be that credentials are indicative of a skill level required for a job (in combination with field of study). Employers may use credentials as a screening device to reduce the pool of candidates to be considered when supply exceeds demand. Credentials may also be used as an indirect measure of unobserved traits, such as persistence.

Variation in educational pathways

The census education questions need to take into account the growing complexity of educational systems, and the blurring of lines between the various levels of educational institutions. One example is university transfer programs designed to create bridges between college and university. A student who follows and completes such a pathway ends up with a university degree. By focussing on the college credential, including program duration, rather than the type of institution attended, the intent of the census education questions is clearer.

Lack of detail on credentials other than from a university

The 2001 question on credentials distinguished among people with no credentials, those with a high school diploma, a trade certificate, other non-university postsecondary credentials and six categories of university certification.

The “non-university postsecondary” category is large and heterogeneous, ranging from vocational programs of 3-4 months through to three year college diplomas.

Furthermore, apprenticeship programs are not identified. (This is also another instance where the reporting of years of schooling is problematic from a reporting and data interpretation perspective, given the mix of classroom and on-the-job training.)

Continuity with past census data

The proposed changes are expected to have some impact on trend analysis with respect to credentials held by the Canadian population. Instead of one question on credentials, there are four. In past censuses, many respondents indicated only their highest degree, certificate or diploma, rather than indicating all of them as requested. In the new approach, an explicit, separate question on credentials is asked for high school, trade/apprenticeship programs, college/CEGEP and universities. The 2004 Census test suggests that this approach tends to prompt respondents to report all credentials rather than just the highest.

Despite these expected reporting differences, comparisons with historical data should still be possible when it comes to the highest degree, certificate or diploma. The 2006 questions essentially provide more detail, which can be collapsed into the 2001 categories.

At its maximum detail, the highest degree, certificate or diploma variable will look like this:

- No degree, certificate or diploma
- High school diploma or equivalent
- Trade certificate or diploma
- Registered Apprenticeship
- College diploma, less than 3 months
- College diploma, 3 months to less than 1 year
- College diploma, 1 to 2 years
- College diploma, more than 2 years
- University certificate or diploma below Bachelor level
- Bachelor's degree (including LL.B.)
- University certificate or diploma above Bachelor level
- Master's degree
- Degree in medicine, dentistry, veterinary medicine or optometry
- Earned doctorate

It may be that the very short college diplomas (less than 3 months) should not be taken into consideration in determining the highest degree, certificate or diploma. The advantage of explicitly identifying them is that they can be analyzed and handled separately.

The university categories are exactly comparable to those of 2001. The trade/college categories can be collapsed into one group for purposes of comparison with 2001. However, the fact that explicit questions are asked in 2006 will result in more reporting of credentials. In 2001 and previous censuses, many respondents tended to report the highest credential only. The explicit questions in 2006 can be expected to elicit more positive responses and, indeed, the May 2004 Census Test showed a higher level of reporting credentials.

IV - No direct measure of years of schooling

Total years of schooling

The 2001 Census provides a derived variable called *total years of schooling*. It is the sum of the highest grade attended at the elementary/secondary level plus years of university schooling and years of “other non-university” schooling. At the elementary/secondary level, the variable refers to years *attended*; at higher levels, it refers to years *completed*. The concept the census is seeking to measure is *full-time equivalent* years. In other words, if it takes eight years of part-time attendance to complete a three-year degree, the value of the derived variable should be three, not eight.

Qualitative testing has shown that respondents frequently do not know how to answer the questions. Situations that are error-prone include part-time attendance, double degrees, interrupted schooling and repeated grades. For example, a person with double degrees who attended university for 5 years and obtained two BA’s may enter 7 years as the “equivalent value” of their years of schooling. In addition, older people may “adjust” their responses for perceived changes in the educational system over time; they try to convert to modern-day equivalences.

While analysts often find that aggregate data “behave” well, in the sense that years of schooling are highly correlated with median earnings, there are anomalies in the final, edited census data when they are compared with highest level of schooling. In comparing the distribution of years of schooling for persons aged 25 to 64 with various levels of credentials, the data do not demonstrate a reasonable fit between years of schooling and highest certificate or diploma, keeping in mind that the purpose of the question on years of schooling is to obtain an answer in full-year equivalents, not counting years repeated or years skipped. For example, it would be difficult to achieve a high school diploma with no more than 9 years of schooling. Even if the assumption about what is “reasonable” is relaxed, there is still be a substantial number of people whose years of schooling is implausibly high or low in relation to their highest level of schooling.

The bottom line is that both qualitative testing and the census results indicate that respondents have difficulty reporting years of schooling.

Proxy measures of years of schooling

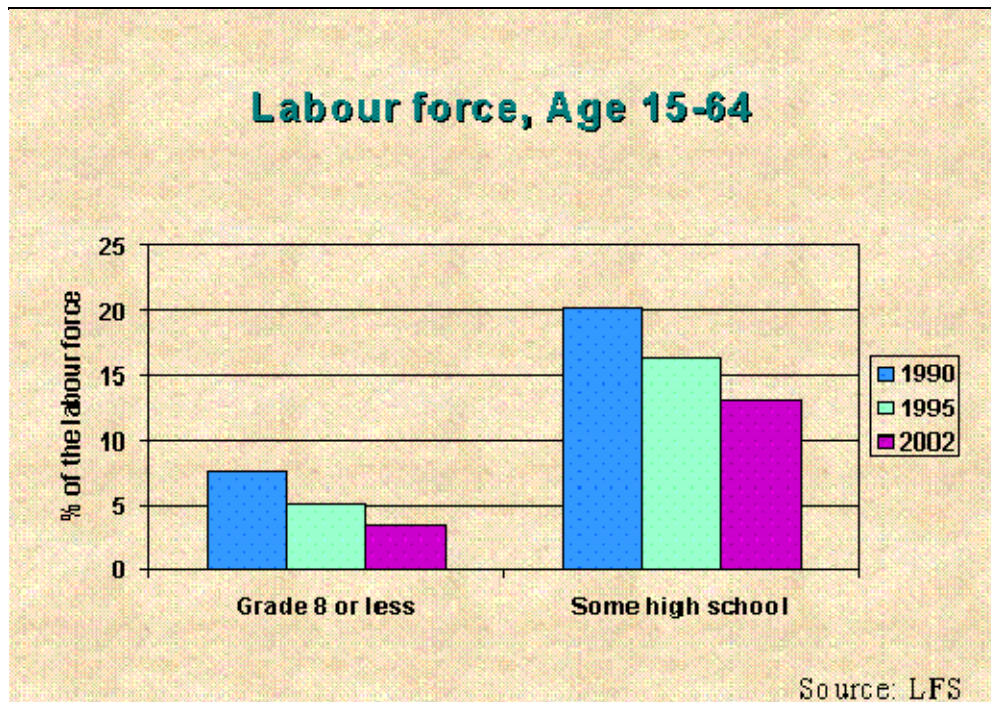
Although individual respondents may have trouble answering questions on years of schooling, the variable is used by many analysts. A possible alternative for analysts would be to derive an estimated years of schooling based on degrees, certificates and diplomas. This would provide a continuous variable. The OECD has methodology to do this, which would be a useful starting point. The 2006 questions will provide detail on program length for college-level programs, which could be factored into the estimate. Also, the fact that the questions are designed to collect *all* degrees, certificates or diplomas would afford more of a measure than just the *highest* degree, certificate or diploma.

Highest grade of elementary/secondary school attended

The 2006 Census will provide data on whether a person completed high school (or the equivalent) but, for non-completers, it will not provide information on the highest grade achieved.

The rationale for this change is that the educational profile of the Canadian population has changed dramatically over the past couple of decades. As [Chart 1](#) shows, even since 1990, the proportion without high school completion has dropped substantially.

Chart 1



Labour market studies often take into consideration whether or not a person has a high school diploma. Below that level, the number of years completed certainly has some analytical value, but arguably less value than greater precision at the postsecondary level.

From a labour market perspective, high school completion is a prerequisite for many jobs. For those without a high school diploma, the value of 11 years of schooling versus nine or ten in today's labour market is questionable. Indeed, Labour Force Survey data show a substantial drop in unemployment rates for high school graduates relative to those without high school completion; below that level, there is little difference in unemployment rates between persons with Grade 8 or less and those with some high school.

Also, with rising educational standards and population ageing, the proportion of the working-age population with less than high school will continue to decline. By 2006, detail in the data at the postsecondary level will be increasingly important because that is the level where the majority of the population will be.

There are still important policy concerns in the sphere of low education levels, among them: young dropouts, Aboriginal Peoples, immigrants, persons with disabilities, and basic literacy levels needed for daily living.

In all of these cases, postcensal surveys or recent and on-going surveys offer relevant information. The Aboriginal Peoples Survey and the Health and Activity Limitation Survey provide detailed data focussed on these population groups. The Youth in Transition Survey is tracing young people through time to provide information on the school leaving and labour market integration process, including those who drop out of high school. The 2003 Adult Literacy and Lifeskills Survey (ALL) will provide information on persons with low literacy levels. A follow-up survey targeting people identified in ALL as having low literacy level will provide further details on barriers to literacy.

“Some postsecondary”

The shift in emphasis towards credentials also means that the “some postsecondary” category will not be identified in 2006. This category refers to people who enrolled in a postsecondary program but did not complete it. It covers people still enrolled, those who have left school with no intention of returning (“dropouts”) and those who have left school, with plans to return (“stopouts”). According to census data, it accounted for less than 10% of Canadian adults aged 25 to 64 in 2001.

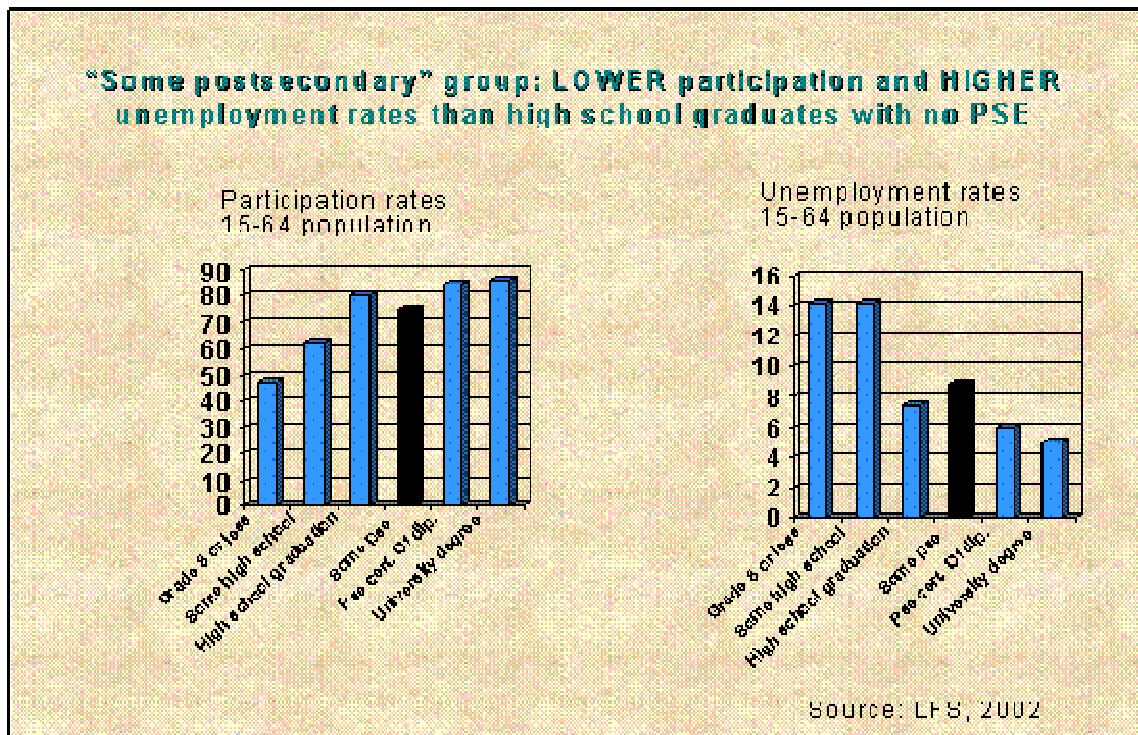
Given this mix, the “some postsecondary” group does not fit well into a hierarchical scheme from low to high education. Their labour market outcomes are poorer than those of high school graduates; on the face of it, the extra years of schooling appear to have

done them a disservice. In fact, their outcomes are more likely a function of their highest credential achieved to date and their current student status.

Results showing higher unemployment rates and lower participation rates of persons whose highest level of education is “some postsecondary” are not just a feature of the census. The Labour Force Survey results are in the same direction, as shown in [Chart 2](#).

More generally, the LFS is a good alternative source of data on educational attainment and its impact on labour market activity. Therefore, in developing the questions for 2006, care was taken to ensure a good fit with the LFS ([Appendix I](#)).

Chart 2



V - New typology for classifying field of study of highest credential

In 1998, Statistics Canada adopted the Classification of Instructional Programs (CIP) as the standard field-of-study taxonomy. CIP was originally developed in the United States by the Department of Education’s National Center for Education Statistics. Since the mid-1980s, CIP has been the accepted US Government statistical standard on program classification. Statistics Canada’s decision to adopt CIP was based on its comprehensiveness and level of detail, its relevancy to emerging disciplines, and the

potential for enhancing data comparability between the two countries. Revisions made to CIP in 2000 reflect Statistics Canada requirements to ensure good representation of programs unique to Canada. Statistics Canada has produced a French version of CIP. Users interested in looking at the CIP typology can find it on Statistics Canada's website @ www.statcan.ca/english/concepts/definitions/education09.htm.

CIP will be used to code the academic discipline of the highest degree, certificate or diploma in the 2006 Census, replacing the Major Field of Study (MFS) classification. CIP is currently being used to code enrolment data in the Enhanced Student Information System. It has also been used in the National Graduate Survey and the Adult Education and Training Survey. As new surveys and more and more existing surveys move to using CIP, it will be possible to provide coherent data from survey and administrative sources, using a classification standard that covers all types of postsecondary institutions.

Historical consistency

The MFS typology was developed in the early 1970s using several classification systems in use at the time for administrative surveys. It has been updated over time to reflect reporting patterns in the census. Many household surveys have used MFS. It is useful for classifying program data for people of all ages surveyed at a point in time. But it is less than optimal for shedding light on emerging disciplines, which is one of the strengths of CIP.

At its most detailed level, MFS has about 500 classes, CIP has about 1400. At a detailed level, the two systems can be mapped onto each other reasonably well. But higher-level aggregations vary significantly.

The ideal solution for historical consistency would be to recode 2001 Census data using CIP and produce a set of standard tables for 2001 well in advance of the 2006 results. This would serve the dual purpose of providing a bridge between the two typologies and allow analysts time to become accustomed to CIP. This approach was used when CIP was implemented in university enrolment data. Specifically, annual enrolment data were back-coded to 91/92. Given that funding has not been identified to back-code census data to CIP, the fallback is to produce concordance tables allowing regrouping of CIP/MFS categories into comparable categories.

VI - New question on where highest credential was obtained

During the 2006 Census consultation process, broad-based interest was expressed in having information on where (what province, territory or country) a person's academic credentials were obtained. The information is considered critical for analysis of national and international flows of highly qualified workers.

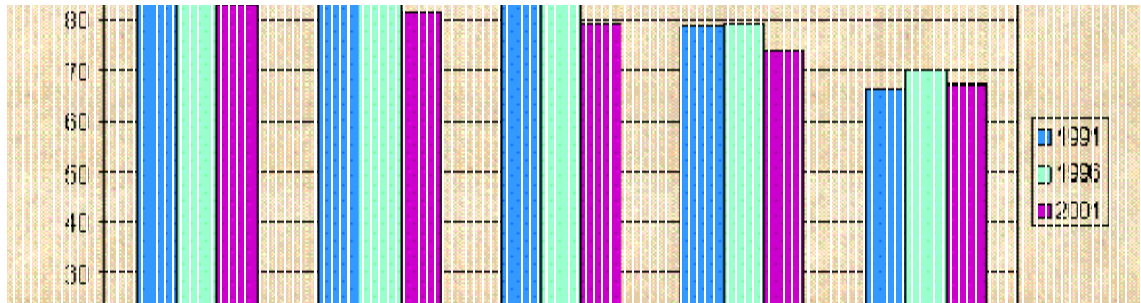
Studies have demonstrated that highly-educated workers tend to be mobile. This new census question will allow detailed analysis of flows of persons with specific skills. For example, are some provinces net gainers of inter-provincial flows of highly educated workers? How successful is the labour market integration of immigrants educated in various countries? Does the country where the highest credential was obtained have an effect on earnings and other labour market outcomes?

The inclusion of this question in the 2006 Census was possible because the other changes in the education module freed up the necessary space to add it.

VII - School attendance

The 2001 Census included a question asking respondents aged 15 and over if they had attended an educational institution in the past nine months and, if so, if they were full-time or part-time students. Two problems were identified in the results, and are illustrated in [Chart 3](#). First, the participation rate is declining, which is contrary to the evidence from other data sources. Second, the levels for 15-16 year olds are much too low, given the fact that school attendance is mandatory up to age 16 across the country. Labour Force Survey and administrative sources yield enrolment rates in the 93%-95% range for this age group.

Chart 3



Three possible shortcomings were identified in the school attendance question:

- The question wording may be too formal and respondents – especially Anglophones – do not relate to it: “In the past nine months (that is, since last September), was this person attending a school, college or university?”
- The question on school attendance is placed after the questions on educational attainment, so respondents may think they relate to postsecondary attendance only.
- The concept of full-time versus part-time attendance is ambiguous when the reference period is nine months long. (For example, if a person attended full-time for three months, is that really “full-time in the past nine months”?)

It is possible that all three of these factors contributed to under-reporting of school attendance. With respect to language, [Chart 4](#) shows that the attendance rate of 15 year olds in Quebec is closer to what one would expect; if home language is taken into account, the differences are even more pronounced. Attendance rates are highest for Francophones in Quebec, followed by Anglophones in Quebec, then Francophones in the rest of Canada and finally Anglophones in the rest of Canada. The pattern is suggestive of the use of wording that is more clearly understood by parents of 15 year

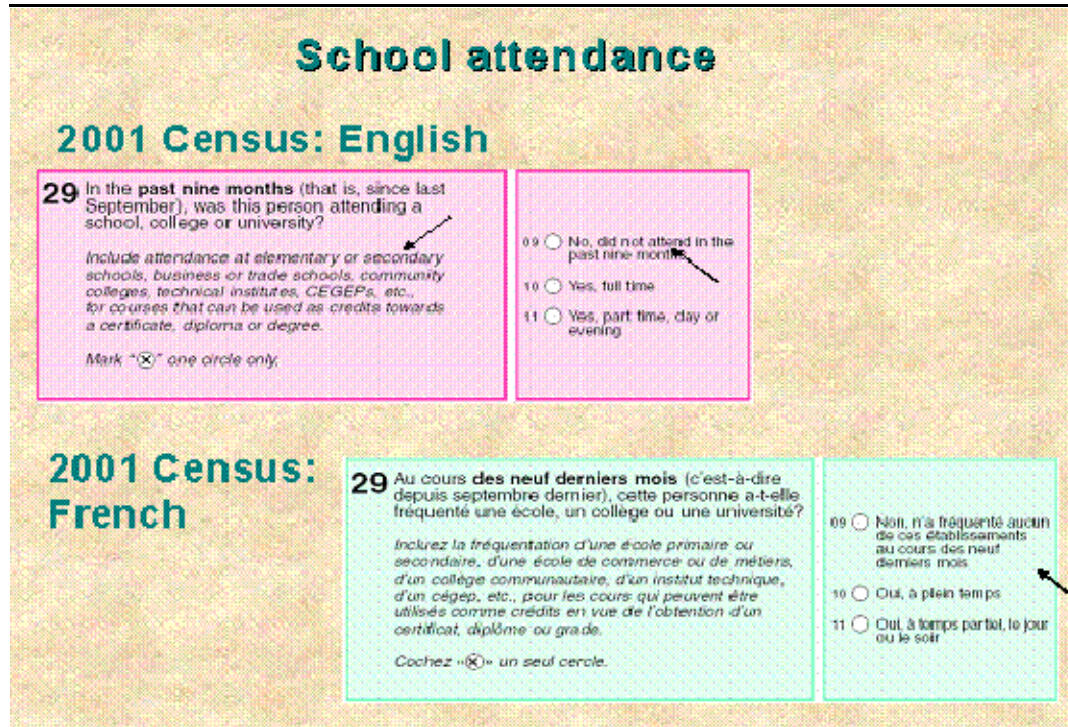
olds in the francophone school system
(or dominant school system in the case of Quebec).

Chart 4



An analysis of the French and English question wording lends some support to this hypothesis. The arrows in [Chart 5](#) point to terms used in the 2001 question that may be more in tune with French usage than English usage, in particular, the use of the word “secondary” rather than “high” school. This is not an issue in French but it might be in English. Moreover, the “No” answer category in French refers to *any of these institutions*, which might induce a respondent to check the list of institution types listed in the question before answering “No”. The English version does not do this.

Chart 5



The question for 2006 adjusts the language to reinforce the idea that high school attendance should be reported: “Has this person attended a school, college, CEGEP or university at any time since September, 2005?”.

The second issue concerns the ambiguity of reporting student status as full-time or part-time in the context of a question that is asking for school attendance *at any time in the past nine months*. To eliminate this ambiguity, the full-time/part-time answer category was replaced by categories defining the type of institution attended: elementary, junior high or high school; trade, college, CEGEP or other non-university institution; and university. The respondent can mark as many as apply (which is appropriate for a question with a nine-month reference period). The information on type of institution will be of interest in its own right, but it should also help to reduce the under-reporting of school attendance among young people because “high school” is an answer category.

Historical consistency

The changes outlined above are likely to have an impact on the reporting of school attendance and, of course, the full-time/part-time status will not be available in 2006. The main objective of the changes is to achieve a more accurate participation rate for young people so a break in the series for attendance rates is to be expected. Moreover, the census has shown declining participation rates since 1991, inconsistent with information

from other sources, so short-term changes are to be interpreted with caution. Analytically, the proposed strategy is to focus on 2006 and take a longer-term view (1981-2006) for trend analysis in overall attendance rates, which will moderate impact of declines in attendance of young people recorded since 1991.

With respect to full-time/part-time attendance, the Labour Force Survey collects this information on a monthly basis, in the context of a question that asks about enrolment *last week*. In this context, there is no ambiguity in the student status question. The LFS also has a question on type of institution attended. The LFS thus yields information on attendance patterns in the average week of the year, or the average week of the academic year.

VIII - Conclusion

Several changes will be made to the education module of the 2006 Census. Inevitably, the changes will have some impact on the education variables. The questionnaire changes are driven by real-world changes in the Canadian population and the educational system; the census cannot stay current without change.

The focus to date has been on ensuring that the 2006 questions are as relevant as possible and will produce high quality results. The changes were based on consultations, analysis of 2001 data, the availability of data in other social surveys, qualitative testing and the 2004 Census test. Qualitative testing and the May 2004 Census test show that the new questions are easier to answer. Clear, unambiguous questions are important in any survey but they are especially important in the census because of its scale, its mandatory nature and the fact that self-enumeration is used.

Attention will now turn to ensuring the smoothest possible transition to the new content, through the development of derived variables that facilitate trend analysis and concordances for the old and new classification systems for field of study. Also, Statistics Canada will work with researchers to increase awareness of alternative data sources and the role they can play in complementing the census.

Appendix I

Education data: comparison of data available from the Labour Force Survey and the 2006 Census

	Labour Force Survey	2006 Census
School attendance	School attendance in the preceding week. Full-time/part-time student status and type of institution.	School attendance at some time in past 9 months. Type of institution.
Educational attainment		
Elementary and secondary	Highest level completed: less than Grade 8; Grade 9-10; Grade 1-13.	Did not complete high school; high school graduation; high school equivalent or Adult Basic Education.
Postsecondary	No postsecondary education;	No completed postsecondary program;
	Some postsecondary;	
	Trade certificate from a vocational school or apprenticeship training;	Registered apprenticeship certificate; other trades certificate or diploma;
	Non-university certificate or diploma from a community college, CEGEP, school of nursing, etc;	College, CEGEP or other non-university certificate or diploma: program length less than 3 months; 3 months to less than 1 year; 1-2 years; more than 2 years;

	University certificate below Bachelor level;	University certificate below Bachelor level;
	Bachelor's degree;	Bachelor's degree;
	University degree or certificate above Bachelor level	Certificate or diploma above Bachelor level;
		Master's degree;
		Degree in medicine; dentistry; veterinary medicine; optometry;
		Doctorate.
Field of study		Classification of Instructional Programs
Where highest degree, certificate or diploma was received		Province, territory or country.