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Are young bachelor's degree holders finding jobs that match their studies?

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0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)

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Are young bachelor's degree holders finding jobs that match their studies?

Highlights

- Young graduates with bachelor's degrees in the fields of study of 'nursing,' 'engineering,' 'education and teaching' and 'computer and information science' are more likely than other graduates to find work closely related to their studies.
- Given Canada's aging population, individuals with health care skills are increasingly important to the labour market. Women comprise the majority in health fields, including 'nursing,' 'medicine,' and 'health diagnostic and treatment related professions' (such as mammography and MRI technicians). Most women with degrees or diplomas in these fields find work that matches their studies.
- Young bachelor's degree holders in 'engineering' and 'computer and information science' were very likely to bring their qualifications to where they were needed in the labour market, as 7 in 10 worked in science and technology occupations. By contrast, young graduates in 'biological sciences' tended to work in fields other than science and technology.
- Young bachelor's degree holders in 'arts and humanities' and 'social and behavioural sciences' were more likely than other young graduates with bachelor's degrees to work in jobs typically requiring a high school education at most. Bachelor's degree holders working in such jobs are classified as being 'overqualified.'

Introduction

Are young postsecondary graduates finding employment related to their studies?[1] Are there opportunities for them to use the skills they have acquired by obtaining bachelor's degrees? Do women and men fare similarly? And are there differences on these dimensions whether they are 'science, technology, engineering and mathematics' (STEM) graduates or 'business, humanities, health, arts, social science and education' (BHASE) graduates?[2] Young people and their parents often have such questions in mind when choosing education programs.

This document, on the match between what Canadians study and their occupation after graduation, complements another 2016 Census in Brief article, *Is field of study a factor in the earnings of young bachelor's degree holders?* (http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016023/98-200-x2016023-eng.cfm), which looks at the earnings of young graduates in STEM and BHASE fields of study.

To ensure a prosperous future, Canada requires graduates who are prepared to build and maintain a strong social infrastructure in areas such as education, communications, justice and health. Canada also needs graduates who have the scientific and technical skills to move into jobs that will advance the country's scientific and business innovation agenda.

1. The universe for this study includes bachelor's degree holders aged 25 to 34 who completed their education in Canada. Please see the "Data sources, methods and definitions" section for more information.
2. The term "business, humanities, health, arts, social science, and education fields" (BHASE) includes all of the BHASE (non-STEM) fields from the classification of STEM and BHASE (non-STEM) groupings of the Classification of Instructional Programs, 2016 (http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=401856).

'Engineering' and 'computer and information science' graduates most likely to work in science and technology occupations

The skills of young graduates in STEM fields help expand the frontiers of science and technology. This is critical to ensuring Canada's competitiveness in the global economy. Overall, half of young employed STEM graduates with a bachelor's degree worked in science and technology occupations.[3] Young STEM graduates in 'engineering' and in 'computer and information science' were the most likely to bring their education-related skills to this labour market sector; i.e., more than 7 in 10 of those employed were working in science and technology occupations.[4]

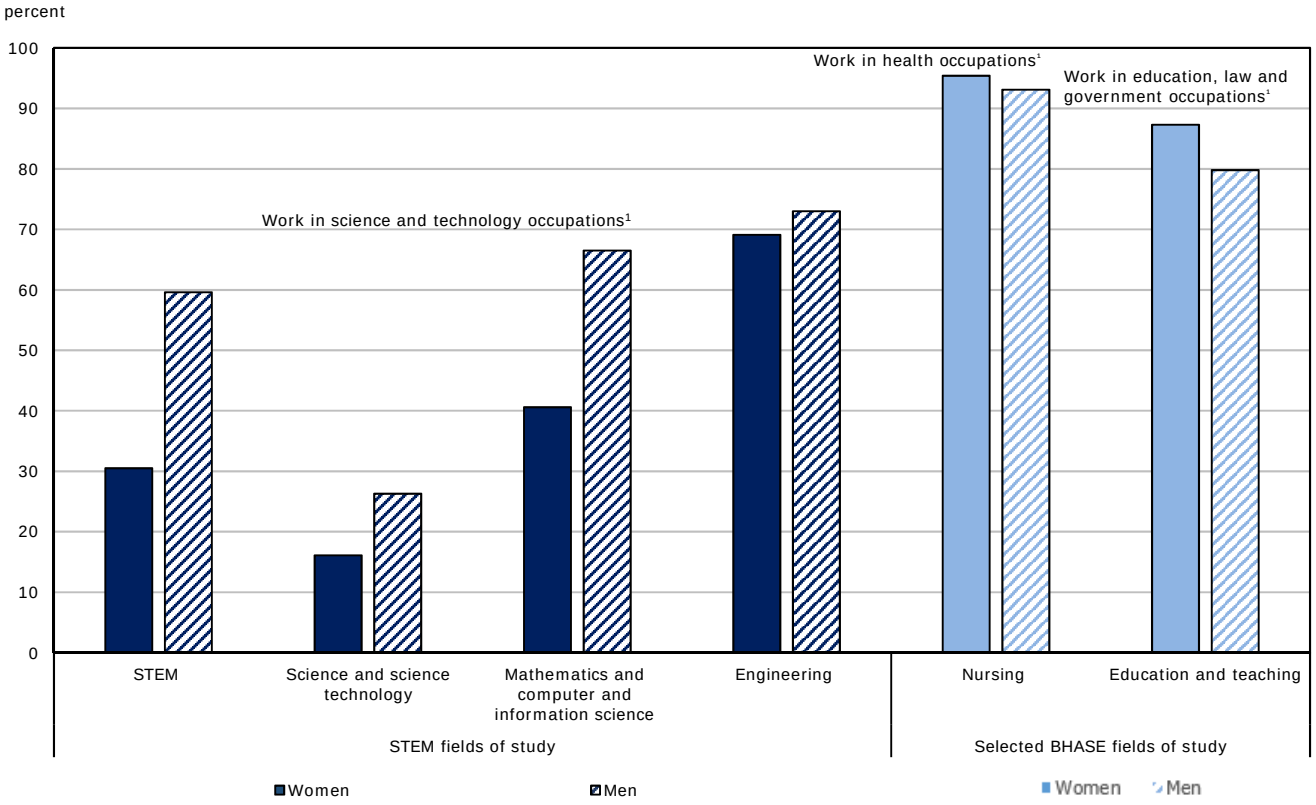
Not all STEM graduates are moving into science and technology occupations. Whether employed graduates were more likely or less likely to be found working in science and technology jobs depended on the type of engineering degree they had. About 85% of young 'surveying engineering' and 'geological engineering' graduates worked in science and technology occupations, while 71.5% of 'mechanical engineering' graduates and 48.6% of 'construction engineering' graduates did so.[5] STEM graduates of the 'biological sciences' tended to work outside the science and technology field. For example, only 13.4% of young women with a bachelor's degree in 'biological sciences' who were employed worked in science and technology occupations, whereas 26.2% of this group worked in health occupations (Table 2).

Young men with a STEM degree twice as likely as young women to work in science and technology occupations

Among young people who graduated with a bachelor's degree from a STEM program, men were almost twice as likely as women to be working in science and technology occupations (Tables 1 and 2). This is partly because these men and women studied different disciplines within STEM. For example, women were less likely than men to have obtained bachelor's degrees in 'engineering' or in 'computer and information science,' but were more likely than men to have bachelor's degrees in 'biological sciences,' where graduates, whether men or women, were less likely to work in science and technology occupations.

3. Unlike the Classification of Instructional Programs (CIP), which has a group of fields of study referred to as "science, technology, engineering and mathematics" (STEM), the National Occupational Classification (NOC) does not provide sub-categories of STEM and non-STEM occupations. In an attempt to identify the occupations of persons with a STEM degree, the occupations in the NOC category "Natural and applied sciences and related occupations" are used for, and referred to as, "science and technology occupations" in this article. Please see the "Data sources, methods and definitions" section for more information.
4. Those aged 25 to 34 who were attending school were excluded from this analysis. Please see the "Data sources, methods and definitions" section for more information.
5. These data are not included in the tables nor charts in this paper.

Chart 1
Percentage of bachelor's degree holders aged 25 to 34 working in occupations[1] closely related to their fields of study, by STEM and selected BHASE fields of study and sex, Canada, 2016



1. These occupations are from the broad groups of the National Occupational Classification (NOC) 2016.
Source: Statistics Canada, Census of Population, 2016.

Women are the majority in health fields and finding work that matches their studies

More than 9 in 10 young graduates with a bachelor's degree in 'nursing' (92.7%) were women.[6] The work these women found matched their studies: almost all young women with a 'nursing' degree (95.4%) who were employed worked in health occupations (Table 1). This is partly a reflection of the strong demand for skills in health care fields in an aging society. Women accounted for the majority in health fields at the college- and medical-degree levels as well, and the work these women found also matched their studies. For example, about 65% of young college graduates in fields related to health diagnostic and treatment technologies[7] were women. As well, 85.1% of employed women with a college diploma in these fields worked in health occupations. Similarly, women accounted for more than 6 in 10 young graduates with medical degrees; i.e., degrees in medicine, dentistry, veterinary medicine and optometry. Furthermore, almost all young employed women with medical degrees (96.4%) worked in health occupations.[8]

6. Data not included in the tables nor charts in this paper, but can be reproduced from the data table (Catalogue no. 98-400-X2016252 (http://www12.statcan.gc.ca/global/URLRedirect.cfm?lang=E&ips=98-400-X2016252)) .
7. Refers to the category of "Allied health diagnostic, intervention and treatment professions" (51.09) in the 2016 Classification of Instructional Programs (CIP).
8. These data are not included in the tables or charts.

'Education and teaching' graduates very likely to be in occupations closely related to their studies

Women also comprised the majority in the 'education and teaching' field. Among young graduates who obtained bachelor's degrees in this field, the majority (81.2%) were women.[9] These women were very likely to be in occupations closely related to their studies: almost 8 in 10 of those who were employed were working as elementary or secondary school teachers.[10] Similarly, about three-quarters of employed young men with a degree in 'education and teaching' were elementary or secondary school teachers.[11]

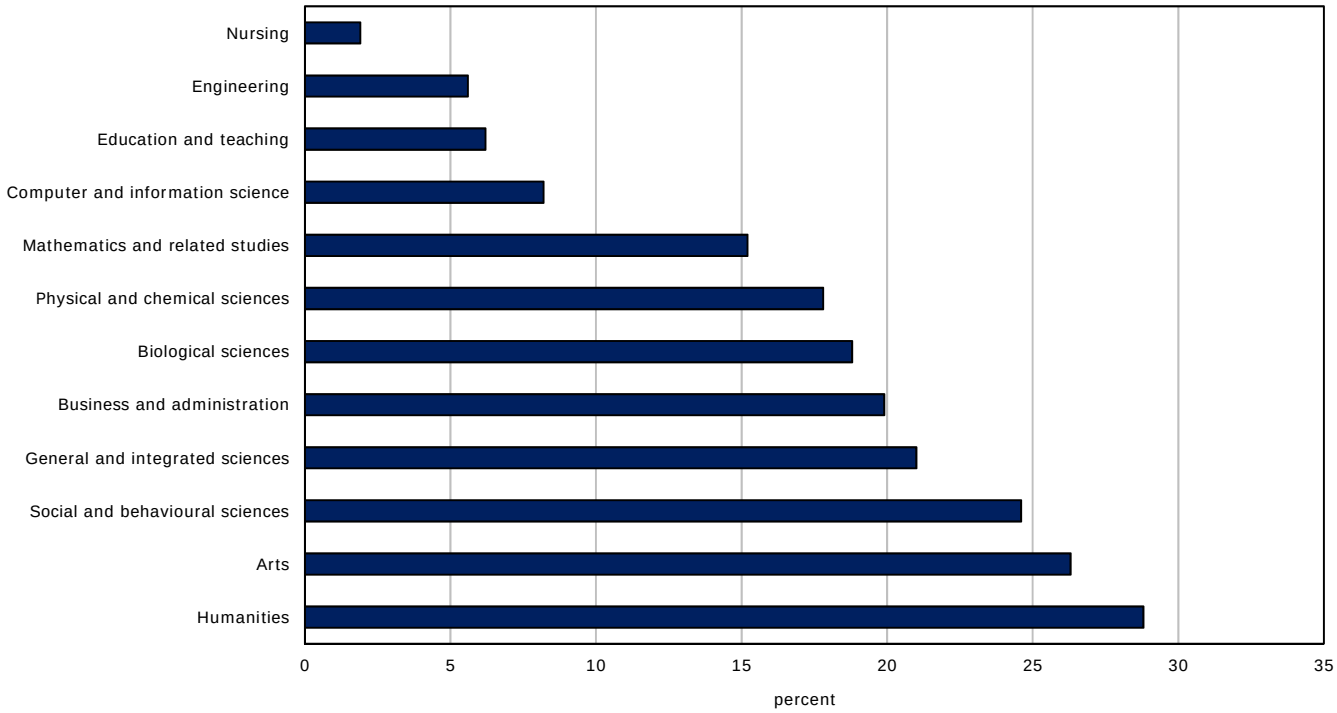
Young graduates in 'nursing,' 'engineering,' 'education and teaching' and 'computer and information science' less likely to be overqualified in their jobs

Charts 2 and 3 present the overqualification rates for young women and men who graduated with a bachelor's degree in different fields of study. For bachelor's degree holders, being "overqualified" means working in an occupation that typically requires a high school education at most. For both young women and men, those who graduated with a bachelor's degree in the 'nursing' field of study had the lowest overqualification rates, followed by those from 'engineering.' Apart from 'nursing' and 'engineering,' graduates from 'education and teaching' and from 'computer and information science' also had lower overqualification rates than the remaining fields of study. As discussed previously, graduates from these four fields were very likely to work in occupations that match their studies, hence their lower overqualification rates as the occupations they are moving into typically require a high level of education. One reason why graduates from these fields of study were very likely to work in occupations that match their studies is the close association between these educational programs and specific job requirements.

At the other end of the spectrum, both young women and men who graduated with a bachelor's degree in 'humanities' had the highest overqualification rate. Apart from 'humanities,' graduates from the fields of study of 'arts' and 'social and behavioural sciences' also had higher overqualification rates than the remaining fields. The critical thinking, analytical and writing skills that graduates of 'arts and humanities' and 'social and behavioural sciences' may possess can be applied in many different occupations. While the occupational options may be broader for these graduates, the overqualification rates were also higher for them as some may work in occupations not typically requiring a postsecondary education.

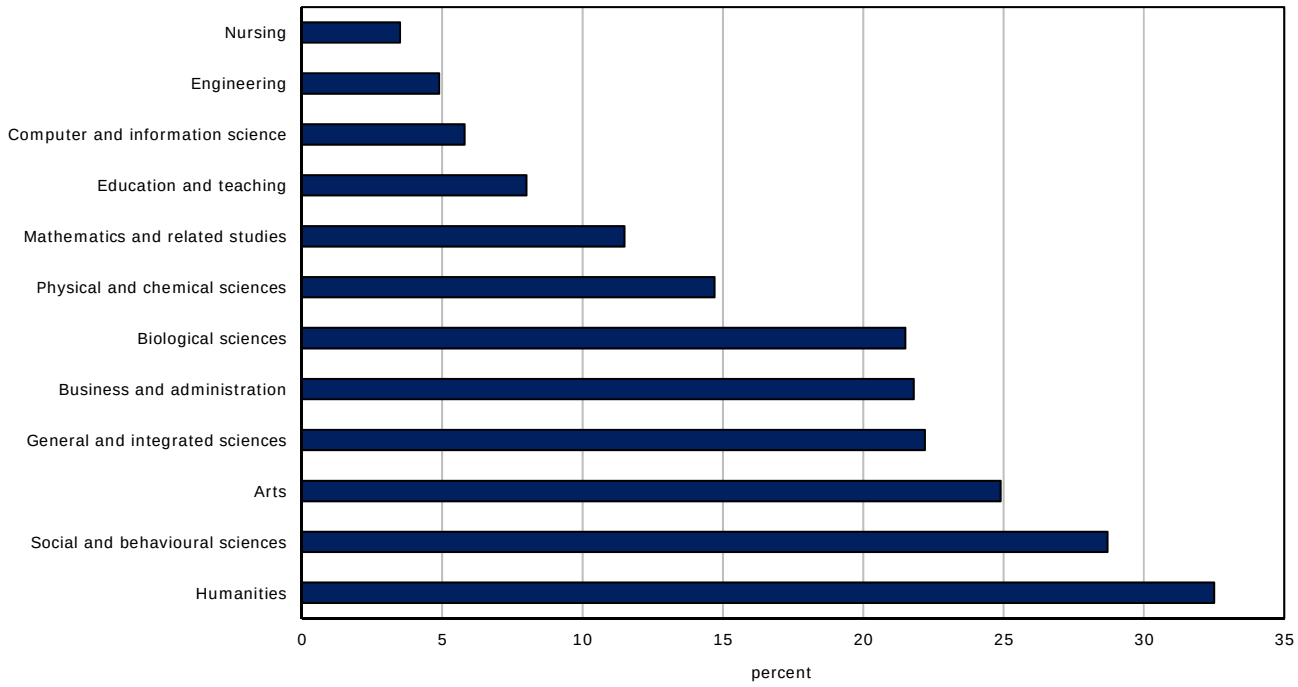
9. These data are not included in the tables or charts.
10. Elementary and secondary teachers are included in the broader category "Occupations in education, law and social, community and government services" in tables 2 and 3.
11. Even though young 'education and teaching' graduates were very likely to be in occupations closely related to their studies, it does not mean that they were in permanent jobs. Other Statistics Canada education data have shown that recent 'education' graduates were more likely than other recent graduates to work in non-permanent jobs, such as contract work. Please see, for example, Ferguson and Wang, *Graduating in Canada: Profile, Labour Market Outcomes and Student Debt of the Class of 2009-2010*. Catalogue no. 81-595-M, no. 2014101.

Chart 2
Overqualification[1] rate among women aged 25 to 34 with a bachelor's degree as their highest qualification, by selected fields of study, Canada, 2016



1. A person is considered overqualified when he or she has completed a university degree but is working in an occupation that typically requires a high school education at most. In this article, all graduates have a bachelor's degree as their highest level of education completed. See the "Data sources, methods and definitions" section for more information.
Source: Statistics Canada, Census of Population, 2016.

Chart 3
Overqualification[1] rate among men aged 25 to 34 with a bachelor's degree as their highest level of education completed, by selected fields of study, Canada, 2016



1. A person is considered overqualified when he or she has completed a university degree but is working in an occupation that typically requires a high school education at most. In this article, all graduates have a bachelor's degree as their highest level of education completed. See the "Data sources, methods and definitions" section for more information.
Source: Statistics Canada, Census of Population, 2016.

Young 'engineering' graduates in Newfoundland and Labrador very likely to work in science and technology occupations

One of the challenges in a large country like Canada is bringing the talent to the jobs. Among the provinces, Newfoundland and Labrador had the highest proportion of employed 'engineering' graduates working in science and technology occupations (82.0%). This reflects in part the strong demand for such graduates in the province's oil sector. In contrast, 'engineering' graduates who were employed in Nova Scotia were least likely (63.1%) to work in science and technology occupations. Overall, young employed STEM graduates in Nova Scotia were less likely than those in all other provinces to work in science and technology occupations.

Of all provinces, Quebec had the highest percentage (63.2%) of employed STEM graduates working in science and technology occupations, followed by Newfoundland and Labrador (57.7%) and Alberta (55.7%). Compared with all other provinces, these three provinces had a higher proportion of STEM graduates from 'engineering.' As discussed previously, 'engineering' graduates were very likely to work in science and technology occupations. Other factors such as the high demand for STEM graduates in the resources sector in Alberta and Newfoundland and Labrador and in the aerospace and high tech sectors in Quebec likely also contributed to STEM graduates in these regions finding work related to their fields of study.

Table 1
Percentage distribution of occupations[1] of women aged 25 to 34 with a bachelor's degree as their highest level of education completed, by STEM and BHASE fields of study, Canada, 2016

Field of study	Management occupations	Business, finance and administration occupations	Natural and applied sciences and related occupations	Health occupations
	percent			
All fields of study	**9.5**	**24.2**	**6.2**	**15.0**
STEM	**9.0**	**15.6**	**30.5**	**15.2**
Science and science technology	**8.3**	**17.0**	**16.1**	**22.9**
Physical and chemical sciences	7.4	13.4	40.8	7.1
Biological sciences	8.6	16.5	13.4	26.2
General and integrated sciences	7.7	19.7	14.0	19.8
Engineering and engineering technology	**10.5**	**6.7**	**69.1**	**0.5**
Engineering	10.6	6.7	69.2	0.5
Mathematics and computer and information science	**9.7**	**22.5**	**40.6**	**0.7**
Mathematics and related studies	10.2	29.7	29.1	1.0
Computer and information science	9.1	13.9	54.0	0.4
BHASE (non-STEM)	**9.5**	**25.5**	**2.4**	**15.0**
Business and administration	**18.8**	**55.2**	**2.4**	**0.4**
Arts and humanities	**10.8**	**25.3**	**3.0**	**2.1**
Arts	10.1	16.5	4.3	1.5
Humanities	11.3	30.4	2.2	2.6
Social and behavioural sciences	**11.7**	**32.7**	**2.7**	**4.4**
Health care	**1.6**	**2.3**	**1.0**	**88.7**
Nursing	0.9	0.7	0.1	95.4
Health care, n.e.c.	4.3	9.5	4.7	60.1
Education and teaching	**1.9**	**4.6**	**0.3**	**0.4**
Trades, services, natural resources and conservation[2]	**7.5**	**13.0**	**9.9**	**2.8**

Table 1 (end)
Percentage distribution of occupations[1] of women aged 25 to 34 with a bachelor's degree as their highest level of education completed, by STEM and BHASE fields of study, Canada, 2016

Field of study	Occupations in education, law and social, community and government services	Occupations in art, culture, recreation and sport	Sales and service occupations	Other occupations	Total
	percent				
All fields of study	**27.5**	**5.3**	**11.2**	**1.3**	**100**
STEM	**13.4**	**3.4**	**9.9**	**3.1**	**100**
Science and science technology	**16.7**	**3.6**	**12.1**	**3.2**	**100**
Physical and chemical sciences	14.0	2.6	10.9	4.1	100
Biological sciences	16.1	4.3	11.9	3.0	100
General and integrated sciences	19.7	2.3	13.5	3.5	100
Engineering and engineering technology	**3.6**	**1.3**	**4.0**	**4.0**	**100**
Engineering	3.6	1.4	4.0	4.0	100
Mathematics and computer and information science	**12.0**	**5.6**	**8.0**	**0.9**	**100**
Mathematics and related studies	18.1	0.5	10.7	0.7	100
Computer and information science	4.8	11.9	4.8	1.0	100
BHASE (non-STEM)	**29.6**	**5.6**	**11.3**	**1.0**	**100**
Business and administration	**6.9**	**1.6**	**14.0**	**0.7**	**100**
Arts and humanities	**18.5**	**19.5**	**18.9**	**1.9**	**100**
Arts	10.1	35.0	19.8	2.8	100
Humanities	23.4	10.4	18.4	1.4	100
Social and behavioural sciences	**26.5**	**5.6**	**15.3**	**1.2**	**100**
Health care	**3.6**	**0.5**	**2.1**	**0.2**	**100**
Nursing	1.7	0.2	0.9	0.1	100
Health care, n.e.c.	11.8	1.9	7.2	0.6	100
Education and teaching	**87.3**	**1.3**	**3.7**	**0.4**	**100**
Trades, services, natural resources and conservation[2]	**51.4**	**4.7**	**8.9**	**1.8**	**100**

1. Occupations in this table are from the broad groups of the National Occupational Classification (NOC), 2016.

2. This category includes 'agriculture and natural resources operation and management,' 'mechanics and repair, architecture, construction and precision production,' 'personal, security and transport services,' 'social work and related programs' and 'BHASE (non-STEM) programs n.e.c.' At the bachelor's level, the most common fields of study in this category are 'social work,' 'health and physical education/fitness' and 'architecture.' While the title of this category begins with trades, qualifications in the trades are primarily held by those at the trades and college level, and are thus not included in this analysis.

Source: Statistics Canada, Census of Population, 2016.

Table 2
Percentage distribution of occupations[1] of men aged 25 to 34 with a bachelor's degree as their highest level of education completed, by STEM and BHASE fields of study, Canada, 2016

Field of study	Management occupations	Business, finance and administration occupations	Natural and applied sciences and related occupations	Health occupations
	percent			
All fields of study	**15.2**	**19.5**	**25.6**	**2.7**
STEM	**11.3**	**6.6**	**59.6**	**2.7**
Science and science technology	**11.8**	**10.9**	**26.3**	**10.2**
Physical and chemical sciences	11.4	7.4	50.6	2.0
Biological sciences	12.2	10.9	16.4	14.5
General and integrated sciences	11.3	14.3	26.0	7.5
Engineering and engineering technology	**12.1**	**3.6**	**73.0**	**0.2**
Engineering	12.1	3.6	73.0	0.1
Mathematics and computer and information science	**8.8**	**8.6**	**66.5**	**0.3**
Mathematics and related studies	10.5	19.6	42.5	0.5
Computer and information science	8.4	5.3	73.7	0.2
BHASE (non-STEM)	**17.3**	**26.6**	**7.0**	**2.8**
Business and administration	**23.7**	**42.2**	**5.4**	**0.2**
Arts and humanities	**12.0**	**15.4**	**8.0**	**1.0**
Arts	8.3	9.7	10.5	0.6
Humanities	14.0	18.4	6.7	1.2
Social and behavioural sciences	**16.4**	**24.0**	**6.9**	**1.2**
Health care	**4.8**	**4.6**	**4.9**	**70.3**
Nursing	2.1	0.3	0.4	93.1
Health care, n.e.c.	9.0	10.8	11.7	35.9
Education and teaching	**4.4**	**3.6**	**1.3**	**0.4**
Trades, services, natural resources and conservation[2]	**17.6**	**9.4**	**22.7**	**1.4**

Table 2 (end)
Percentage distribution of occupations[1] of men aged 25 to 34 with a bachelor's degree as their highest level of education completed, by STEM and BHASE fields of study, Canada, 2016

Field of study	Occupations in education, law and social, community and government services	Occupations in art, culture, recreation and sport	Sales and service occupations	Other occupations	Total
	percent				
All fields of study	**12.9**	**4.8**	**13.1**	**6.2**	**100**
STEM	**5.4**	**2.2**	**6.2**	**6.0**	**100**
Science and science technology	**13.2**	**4.4**	**12.2**	**11.1**	**100**
Physical and chemical sciences	7.9	1.6	8.7	10.4	100
Biological sciences	15.7	6.1	13.0	11.1	100
General and integrated sciences	12.2	3.1	13.8	11.6	100
Engineering and engineering technology	**2.0**	**0.6**	**3.6**	**5.0**	**100**
Engineering	2.1	0.6	3.6	5.0	100
Mathematics and computer and information science	**4.4**	**3.3**	**5.5**	**2.6**	**100**
Mathematics and related studies	12.7	1.0	9.1	3.9	100
Computer and information science	1.9	4.0	4.4	2.2	100
BHASE (non-STEM)	**17.0**	**6.1**	**16.8**	**6.4**	**100**
Business and administration	**5.6**	**1.3**	**17.6**	**4.0**	**100**
Arts and humanities	**14.3**	**19.7**	**20.2**	**9.4**	**100**
Arts	6.4	38.5	18.1	8.0	100
Humanities	18.5	9.8	21.3	10.2	100
Social and behavioural sciences	**17.6**	**6.3**	**19.5**	**8.1**	**100**
Health care	**5.7**	**1.2**	**5.6**	**3.0**	**100**
Nursing	1.6	0.0	1.2	0.9	100
Health care, n.e.c.	11.5	2.7	12.0	6.3	100
Education and teaching	**79.8**	**2.1**	**4.4**	**4.0**	**100**
Trades, services, natural resources and conservation[2]	**22.1**	**4.8**	**12.1**	**10.0**	**100**

1. Occupations in this table are from the broad groups of the National Occupational Classification (NOC), 2016.

2. This category includes 'agriculture and natural resources operation and management,' 'mechanics and repair, architecture, construction and precision production,' 'personal, security and transport services,' 'social work and related programs' and 'BHASE (non-STEM) programs n.e.c.' At the bachelor's level, the most common fields of study in this category are 'social work,' 'health and physical education/fitness' and 'architecture.' While the title of this category begins with trades, qualifications in the trades are primarily held by those at the trades and college level, and are thus not included in this analysis.

Source: Statistics Canada, Census of Population, 2016.

Table 3
Overqualification[1] rates of men and women aged 25 to 34 with a bachelor's degree as their highest level of education completed, by STEM and BHASE fields of study, Canada, 2016

	Women	Men	Total
		percent	
STEM	**15.4**	**9.3**	**11.4**
Science and science technology	**19.2**	**20.1**	**19.6**
Physical and chemical sciences	17.8	14.7	15.9
Biological sciences	18.8	21.5	19.8
General and integrated sciences	21.0	22.2	21.4
Engineering and engineering technology	**5.6**	**4.9**	**5.0**
Engineering	5.6	4.9	5.0
Mathematics and computer and information science	**12.0**	**7.1**	**8.3**
Mathematics and related studies	15.2	11.5	13.1
Computer and information science	8.2	5.8	6.2
BHASE (non-STEM)	**17.0**	**23.6**	**19.2**
Business and administration	**19.9**	**21.8**	**20.9**
Arts and humanities	**27.9**	**29.7**	**28.5**
Arts	26.3	24.9	25.8
Humanities	28.8	32.5	30.1
Social and behavioural sciences	**24.6**	**28.7**	**26.0**
Health care	**3.7**	**9.2**	**4.2**
Nursing	1.9	3.5	2.0
Health care, n.e.c.	11.8	18.6	13.1
Education and teaching	**6.2**	**8.0**	**6.5**
Trades, services, natural resources and conservation[2]	**15.7**	**23.9**	**18.5**
All fields of study	**16.8**	**18.3**	**17.4**

1. A person is considered overqualified when he or she has completed a bachelor's degree but is working in an occupation that typically requires a high school education at most.

2. This category includes 'agriculture and natural resources operation and management,' 'mechanics and repair, architecture, construction and precision production,' 'personal, security and transport services,' 'social work and related programs' and 'BHASE (non-STEM) programs n.e.c.' At the bachelor's level, the most common fields of study in this category are 'social work,' 'health and physical education/fitness' and 'architecture.' While the title of this category begins with trades, qualifications in the trades are primarily held by those at the trades and college level, and are thus not included in this analysis.

Source: Statistics Canada, Census of Population, 2016.

Data sources, methods and definitions

Data sources

The data in this analysis are from the 2016 Census of Population. Further information on the census can be found in the *Guide to the Census of Population, 2016* (http://www12.statcan.gc.ca/census-recensement/2016/ref/98-304/index-eng.cfm), Catalogue no. 98-304-X.

All information on the quality and comparability of census data on education can be found in the *Education Reference Guide, Census of Population, 2016* (http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/013/98-500-x2016013-eng.cfm), Catalogue no. 98-500-X2016013.

Methods

The universe for this study includes graduates aged 25 to 34 who obtained a bachelor's degree and completed their education in Canada. Both the Canadian-born population who obtained their bachelor's degree (as their highest level of education completed) in Canada, as well as immigrants who obtained their bachelor's degree (as their highest level of education completed) in Canada are included. The immigrant group includes those who immigrated to Canada at a young age.

In order to make the analysis on overqualification and occupation outcomes more comparable, the report only includes graduates from entry-level bachelor's programs. The analysis therefore excludes bachelor's degree holders who studied 'law' or 'pharmacy,' because these programs normally require previous university education prior to entry.

Unlike the Classification of Instructional Programs (CIP), which has a group of fields of study referred to as 'science, technology, engineering and mathematics' (STEM), the National Occupational Classification (NOC) does not provide subcategories of STEM and non-STEM occupations. Therefore, to identify the occupations of persons with a STEM degree, the occupations in the 'natural and applied sciences and related occupations' NOC category are used for and referred to as 'science and technology occupations' in this article. Note that STEM graduates may work in other occupations—they may, for example, teach, become managers or hold jobs in an entirely different field. However, this occupational group is the one that most closely corresponds to the STEM field of study, which is why it was used in this article. For additional information on this topic, see "Women in scientific occupations in Canada," (http://www.statcan.gc.ca/pub/75-006-x/2016001/article/14643-eng.htm) *Insights on Canadian Society*, Catalogue no. 75-006-X, June 2016.

A person is considered "overqualified" when he or she has completed a bachelor's degree or higher but is working in an occupation that typically requires a high school education. In this article, all graduates have reported a bachelor's degree as their highest level of education completed. As the age group being examined is 25 to 34, many would be recent graduates and new entrants to the labour market, which could have an impact on the types of jobs and occupational categories they belonged to at the time of the census. Managerial occupations were excluded from the analysis on overqualification because the educational qualifications associated with them are non-specific. Persons who were attending school at any level, including those who may have been pursuing subsequent degrees, were also excluded from this analysis. The reference periods for occupation and school attendance differ slightly. NOC classifications describe the main occupation worked during the reference week (May 1 to May 7, 2016), while school attendance was reported for the period from September 2015 to May 2016.

Random rounding and percentage distributions: To ensure the confidentiality of responses collected for the 2016 Census, a random rounding process is used to alter the values reported in individual cells. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.

Because of random rounding, counts and percentages may vary slightly between different census products, such as the analytical documents, highlight tables and data tables.

Data sources, methods and definitions (end)

Definitions
Please refer to the *Dictionary, Census of Population, 2016* (http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/index-eng.cfm), Catalogue no. 98-301-X for additional information on the census variables.

Additional information

Additional analyses on education can be found in *The Daily* (http://www.statcan.gc.ca/daily-quotidien/171129/dq171129a-eng.htm) of November 29, 2017, and in the Census in Brief articles entitled *Is field of study a factor in the earnings of young bachelor's degree holders?* (http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016023/98-200-x2016023-eng.cfm), Catalogue no. 98-200-X2016023, and *Does education pay? A comparison of earnings by level of education in Canada and its provinces and territories* (http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016024/98-200-x2016024-eng.cfm), Catalogue no. 98-200-X2016024.

Additional information on education can be found in the *Highlight tables* (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/edu-sco/index-eng.cfm), Catalogue no. 98-402-X2016010; the *Data tables* (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Lp-fra.cfm?LANG=F&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=0&PRID=10&PTYPE=109445&S=0&SHOWALL=0&SUB=0&Temporal=2017&THEME=123&VID=0&VNAMEE=&VNAMEF=), Catalogue nos. 98-400-X2016204 and 98-400-X2016240 to 98-400-X2016280; the *Census Profile* (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E), Catalogue no. 98-316-X2016001; and the *Focus on Geography Series* (http://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Index-eng.cfm), Catalogue no. 98-404-X2016001.

Thematic maps (http://www12.statcan.gc.ca/census-recensement/2016/geo/map-carte/ref/thematic-thematiques/edu-sco/thematic-thematiques-eng.cfm) for this topic are also available for Canada by census division.

An infographic entitled *Canada's educational portrait* (http://www.statcan.gc.ca/pub/11-627-m/11-627-m2017036-eng.htm) also illustrates some key findings on education in Canada.

For details on the concepts, definitions and variables used in the 2016 Census of Population, please consult the *Dictionary, Census of Population, 2016* (http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/index-eng.cfm), Catalogue no. 98-301-X.

In addition to response rates and other data quality information, the *Guide to the Census of Population, 2016* (http://www12.statcan.gc.ca/census-recensement/2016/ref/98-304/index-eng.cfm), Catalogue no. 98-304-X, provides an overview of the various phases of the census including content determination, sampling design, collection, data processing, data quality assessment, confidentiality guidelines and dissemination.

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