

Catalogue no. 81-595-M
ISSN 2563-6251
ISBN 978-0-660-36393-6

Education, learning and training: Research Paper Series

**Labour market outcomes
of postsecondary graduates,
class of 2015**



by Alana Reid, Hui (Amy) Chen and Rebecca Guertin

Release date: November 17, 2020



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Labour market outcomes of postsecondary graduates, class of 2015

by **Alana Reid, Hui (Amy) Chen** and **Rebecca Guertin**

It is widely recognized that postsecondary education is associated with higher employment rates and generally better labour market conditions including higher wages or salaries.¹ According to the most recent National Graduates Survey (2018 NGS), 420,300 students graduated from a Canadian public postsecondary educational institution in 2015 and were still living in Canada three years later.² These graduates entered the labour market at the end of a long period of economic growth³ which followed the 2008/2009 recession. In 2018, three years after their graduation, the unemployment rate for core working age Canadians (aged 25 to 54 years) was 4.9%,⁴ the lowest since the previous recession. Accordingly, the employment rate was at a high for the same period, at 82.7%. Gross Domestic Product (GDP) was also on the rise, having risen by 1.8% annually in 2018.⁵

This period of economic growth came to a halt in 2020 with the onset of COVID-19. Graduates of 2020 and subsequent years may face labour market and financial challenges as a result. According to an online [crowdsourcing data collection](#) conducted in April 2020 on the impacts of COVID-19 on postsecondary students, two-thirds of student participants reported that they were very or extremely concerned about having no job prospects in the near future.⁶ Measuring the labour market outcomes of earlier cohorts of postsecondary graduates will provide an important baseline for comparison for graduates of 2020, as well as later cohorts.

Using data from the 2018 NGS (class of 2015), this article examines the labour market outcomes of Canadian postsecondary graduates three years after graduation, including employment status, job permanency, relatedness of their job or business to their field of study, extent to which they feel qualified for their job, median employment income and job satisfaction.⁷ Only 2015 graduates who did not pursue further education between 2015 and 2018 are included in this analysis.

Historically, statistical information on the labour market outcomes of postsecondary graduates in Canada came from the NGS and the Census of Population⁸, both conducted every five years. These sources provide invaluable information on the labour market outcomes of postsecondary graduates, such as employment status and occupation. The NGS has additional indicators of labour market outcomes such as graduates' perception of whether or not they are working in a job or business related to their 2015 program and their job satisfaction. More recently, information on the employment income of graduates is also available annually from the Education and Labour Market Longitudinal Platform (ELMLP).

1. According to the 2016 Census of Population, among Canadians aged 25 to 64 years who were working full time for the full 2015 calendar year, the median annual employment income of those with a secondary school diploma or equivalency certificate as their highest certificate, diploma or degree was \$46,492. In comparison, the median annual employment income for their counterparts with a postsecondary certificate, diploma or degree was \$61,622, a difference of \$15,130. See Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016271
2. The target population for the 2018 NGS corresponds to graduates of public postsecondary educational institutions in Canada during the 2015 calendar year who were living in Canada at the time of the interview (three years after graduation). The frame for the NGS is the Postsecondary Student Information System (PSIS). Graduate counts in PSIS include programs related to basic training or skills upgrading, second language training, job readiness or orientation programs, while the NGS excludes these programs.
3. While there were some fluctuations in the employment rate and unemployment rate in some provinces from 2009 to 2018, the overall employment rate has increased and the overall unemployment rate has decreased at the national level and in most provinces during this period.
4. Statistics Canada, Labour Force Survey. Table 14-10-0020-01 Unemployment rate, participation rate and employment rate by educational attainment, annual.
5. Statistics Canada. 2019. Gross domestic product, income and expenditure, fourth quarter 2018.
6. Statistics Canada. 2020. Impacts of the COVID-19 pandemic on postsecondary students.
7. Only college and university graduates who did not pursue further postsecondary education after graduating in 2015 are included in this study given the substantial and varied impacts that the pursuit of further education has on a graduate's entry into the labour market. Graduates who pursued further education after graduating from their 2015 program refers to graduates who returned to school either full time or part time.
8. The Labour Force Survey (LFS) provides the labour force status and unemployment rate, participation rate and employment rate of students aged 15 to 29 years, but does not have information on the labour market outcomes of postsecondary graduates after graduation.

Most 2015 graduates were employed in 2018

Postsecondary education generally leads to higher rates of employment. According to the Labour Force Survey, the employment rate of Canadians aged 25 to 54 years with a university degree above a bachelor's degree was 87.3% in 2018, compared with 76.9% for those holding a high school diploma or less.⁹

In fact, according to the National Graduates Survey, 90% of those who graduated in 2015 were employed three years after graduation (in 2018), 5% were unemployed and the remaining 5% were not in the labour force. These proportions were similar across all levels of study.^{10,11} Of the postsecondary graduates who had a job or business in 2018, most (91%) were working full time (the proportions ranged from 89% for college graduates to 94% for master's graduates).

Female graduates are more likely than their male counterparts to work part time

Female graduates (12%) were twice as likely as their male counterparts (5%) to be working part time three years after graduation. The difference in the proportion of men and women working part time was observed for each level of study, but the largest difference was observed for the college level, where 6% of men and 15% women were working part time (see Table 1).

Similarly, among all Canadians aged 25 to 54 years who were employed in 2018¹², a larger proportion of women than men were employed part time. In fact, among the core working age population, women (18.2%) were three times more likely to be employed part time than men (5.6%).

The propensity for female graduates to work part time may partly be related to the prevalence of part-time work in their fields of study. A shift share analysis showed that field of study accounts for 38% of the differences in the proportion of men and women working part time. In other words, if women had chosen the same fields of study as men, women would still be more likely to work part time, but the gap between men and women would be reduced by 38%.

The prevalence of part-time work is highest for graduates in 'humanities'

Graduates working full time typically earn higher wages and receive more non-wage benefits than those working part time who are often not eligible for these benefits.¹³ For instance, full-time employees generally receive more health-related benefits such as medical and dental plans and life or disability insurance plans than part-time workers. They may also receive better job advancement opportunities than their counterparts working part time.¹⁴

The fields of study with the highest proportions of graduates working part time at most levels of study were 'education', 'visual and performing arts, and communications technologies', 'humanities' and 'health and related fields' (see Table 1). Doctoral graduates in the field of 'social and behavioural sciences, and law' also showed a relatively high proportion of part-time workers.

9. Statistics Canada, Labour Force Survey. Table 14-10-0020-01 Unemployment rate, participation rate and employment rate by educational attainment, annual.

10. Level of study includes graduates of college, bachelor's, master's and doctoral programs. College includes college or other non-university certificates and diplomas, and coll ge d'enseignement g n ral et professionnel (CEGEP) certificates and diplomas. Bachelor's includes bachelor's degrees, degrees in medicine, dentistry, veterinary medicine and optometry and university certificates and diplomas below bachelor's degrees. Master's includes master's degrees and university diplomas and certificates above bachelor's degrees.

11. The proportion of graduates employed in 2018 ranged from 89% for college graduates to 92% for master's graduates, while the proportion of graduates who were unemployed was 5% for college and bachelor's graduates, 4% for master's graduates and 6% for doctoral graduates. The proportion of graduates who were not in the labour force in 2018 also varied little by level of study, from 4% for master's and doctoral graduates to 6% for college graduates.

12. Statistics Canada, Labour Force Survey. Table 14-10-0327-01 Labour force characteristics by sex and detailed age group, annual.

13. Statistics Canada, Labour Force Survey. Table 14-10-0064-01 Employee wages by industry, annual; Statistics Canada, 2005 Workplace and Employee Survey.

14. Chen and Mehdi. 2018. Assessing job quality in Canada: A multidimensional approach.

Table 1
Proportion of 2015 graduates working part time in 2018, by level of study, sex and field of study

Field of study	College		Bachelor's		Master's		Doctoral	
	Men	Women (ref.)	Men	Women (ref.)	Men	Women (ref.)	Men	Women (ref.)
	percent							
Total	6*	15	5*	10	4*	8	7*	12
Education	27	27	9	15	4	7	15	18
Visual and performing arts, and communications technologies	25	11	17	19	x	14	53*	32
Humanities	x	7	20	20	17	12	14	20
Social and behavioural sciences, and law	x	15	6	12	7	9	19	17
Business, management and public administration	7	13	3	3	2*	5	x	x
Physical and life sciences and technologies	x	18	6	3	x	10	3	4
Mathematics, computer and information sciences	x	25	2	x	3	3	x	15
Architecture, engineering and related technologies	3	9	0	x	2	8	4	6
Agriculture, natural resources and conservation	x	x	x	x	x	3	x	x
Health and related fields	14	19	11	13	8	10	x	10
Personal, protective and transportation services	9	14	6	x	x	x	x	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significantly different from reference category (ref.) ($p < 0.05$)

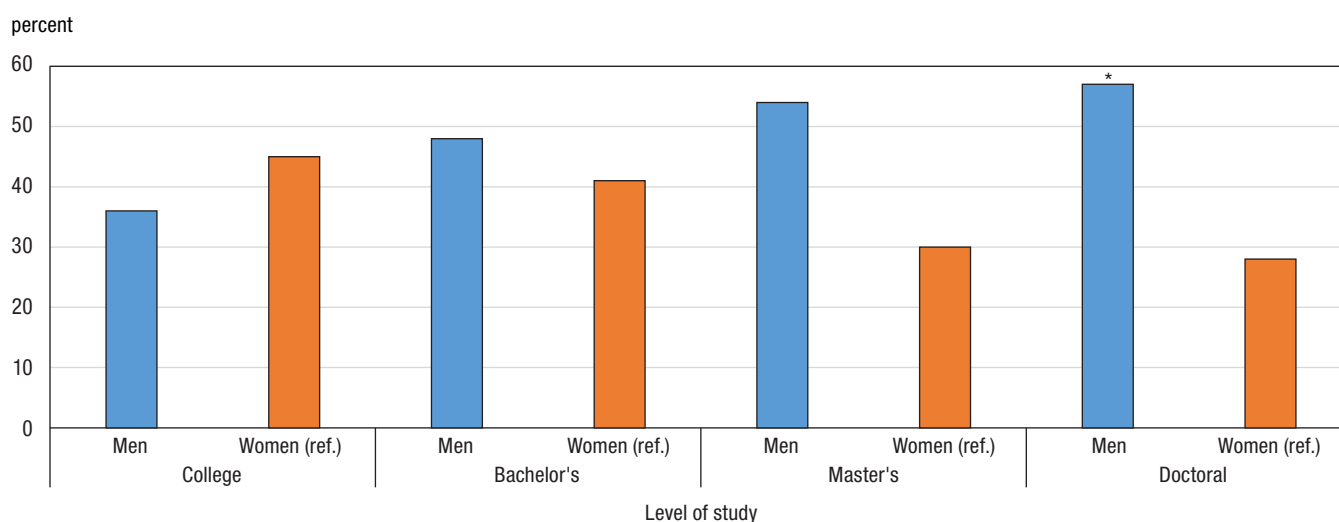
Source: 2018 National Graduates Survey (class of 2015).

Among those working part time, two in five were working part time involuntarily

Graduates work part time for various reasons, sometimes by choice, or involuntarily. Those who reported that they were working part time to care for family members or to pursue other activities and projects are considered to be working part time by choice. Others, who work part time due to business conditions and who indicated that they would rather work full time but are unable to find full-time employment, are considered to be working part time involuntarily.

Of graduates working part time, 42% were doing so involuntarily. The differences in the proportion of men and women working part time involuntarily were not statistically significant at the college, bachelor's and master's levels (see Chart 1). However, at the doctoral level, men were more likely to work part time involuntarily than women. Over one-half (57%) of male doctoral graduates who were working part time were doing so involuntarily, compared with 28% of their female counterparts.

Chart 1
Prevalence of involuntary part-time work among graduates who were working part time in 2018, by level of study and sex



* significantly different from reference category (ref.) ($p < 0.05$)

Source: 2018 National Graduates Survey (class of 2015).

Most 2015 graduates worked in permanent jobs in 2018

Holding a permanent job is generally associated with higher wages and better labour market conditions.¹⁵ According to the Labour Force Survey, 90% of Canadian employees aged 25 to 54 years had a permanent job in 2018.¹⁶ This compares to 86% for postsecondary graduates of 2015 who were working as employees in 2018. The slightly lower proportion of graduates holding a permanent job can be attributed to the fact that the NGS shows a portrait of the early labour market outcomes of postsecondary graduates, three years after graduation, while many Canadians in the core working age population have acquired years of work experience. Moreover, the propensity of recent graduates to hold temporary jobs early in their career could be due to the fact that employers seeking to fill entry-level positions are more likely to offer temporary employment.¹⁷

The vast majority of college, bachelor's and master's graduates who were employees reported they were working in a permanent job (all at 86%) three years after graduation. In contrast, less than two-thirds of doctoral graduates (63%) were working in permanent jobs. This can be attributed to the number of doctoral graduates working in post-doctoral positions (23%), which are usually temporary positions held by doctoral graduates primarily for gaining additional education and training in research. When excluding doctoral graduates working in post-doctorate positions, three-quarters (76%) of doctoral graduates reported working in a permanent job three years after graduation.

Men (89%) were more likely than women (84%) to report that their job was permanent, largely driven by differences at the bachelor's level (see Table 2). The differences in the proportion of men and women with a permanent job were not statistically significant at the college and doctoral levels. Moreover, a shift-share analysis of bachelor's graduates showed that over half (54%) of the differences in the proportion of men and women holding a permanent job were due to differences in field of study.

Generally, graduates in 'architecture, engineering and related technologies', 'mathematics, computer and information sciences' and in 'business, management and public administration' were among the most likely to hold a permanent job for most levels of study. Conversely, those in 'education', 'humanities' as well as in 'agriculture, natural resources and conservation' were the least likely to hold a permanent job.

Table 2
Proportion of graduates of 2015 working in permanent jobs in 2018, by level of study, sex and field of study

	College	Bachelor's	Master's	Doctoral
	percent			
Total	86	86	86	63
Men	88	91*	88*	64
Women (ref.)	85	83	84	63
Field of study				
Education	67*	61*	85*	67
Visual and performing arts, and communications technologies	82	85*	50*	54*
Humanities	73	81*	78*	59*
Social and behavioural sciences, and law	83	88*	80*	69
Business, management and public administration	88	92	92	76
Physical and life sciences and technologies	92	84*	68*	52*
Mathematics, computer and information sciences	92	93	87	69
Architecture, engineering and related technologies (ref.)	90	94	92	71
Agriculture, natural resources and conservation	76*	80*	78*	56*
Health and related fields	87	86*	85*	58*
Personal, protective and transportation services	85	91	85	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significantly different from reference category (ref.) ($p < 0.05$)

Source: 2018 National Graduates Survey (class of 2015).

15. Statistics Canada, Labour Force Survey. Table 14-10-0066-01 Employee wages by job permanency and union coverage, annual; Organisation for Economic Co-operation and Development, 2016. In it together: Why less inequality benefits all.

16. Statistics Canada, Labour Force Survey. Table 14-10-0072-01 Job permanency (permanent and temporary) by industry, annual (x 1,000).

17. Drolet, Marie. 2017. Getting your foot in the door: A look at entry-level job vacancies in Canada. *Insights on Canadian Society*. Statistics Canada. Catalogue no. 75-006-X.

Most graduates are working in a job or business related to their field of study

Working in a job or business related to their field of study may explain, in part, why some graduates are more or less satisfied with their job. Job satisfaction is associated with many other advantages such as lower turnover and higher productivity.¹⁸

Four out of five graduates (81%) who were employed three years after graduation reported that their job or business was ‘closely related’ or ‘somewhat related’ to their 2015 program. This was similar to the findings for graduates of 2010 (83%). Graduates with higher levels of education were more likely to work in a job or business related to their field of study, ranging from 77% for college graduates to 93% for doctoral graduates.

Women (83%) were more likely than men (79%) to report that they were working in a job or business related to their field of study three years after graduation, driven by differences at the college and master’s levels (see Table 3). At the bachelor’s and doctoral levels, the difference in the proportion of men and women working in a job or business related to their field of study was not statistically significant.

Generally, graduates in fields of ‘education’, ‘mathematics, computer and information sciences’, and in ‘health and related fields’ were the most likely to report working in a job or business related to their field of study. This may reflect the close association between these programs and the specific job requirements for these fields.¹⁹ Conversely, those in ‘humanities’ were the least likely to report their job or business was related to their field of study.

Table 3
Proportion of 2015 graduates who reported working in a job or business related to their field of study in 2018, by level of study, sex and field of study

	College	Bachelor's	Master's	Doctoral
	percent			
Total	77	80	91	93
Men	73*	78	89*	93
Women (ref.)	81	81	92	93
Field of study				
Education	80	89	95	96
Visual and performing arts, and communications technologies	66*	67*	82*	85*
Humanities	44*	41*	76*	80*
Social and behavioural sciences, and law	83	62*	86*	96
Business, management and public administration	77*	88	93*	95
Physical and life sciences and technologies	81	66*	78*	93*
Mathematics, computer and information sciences	84	90	94	97
Architecture, engineering and related technologies	70*	93	89*	94
Agriculture, natural resources and conservation	80	72*	82*	94
Health and related fields (ref.)	87	91	97	96
Personal, protective and transportation services	69*	73*	88*	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significantly different from reference category (ref.) ($p < 0.05$)

Source: 2018 National Graduates Survey (class of 2015).

The majority of graduates feel qualified for their job

When graduates feel qualified for their job, they are more likely to be satisfied with their job²⁰, which may have an impact on their productivity and their job turnover. When considering their experience, education and training, 74% of graduates reported they were qualified for the job they held three years after graduation, while 24% felt overqualified and 2% felt underqualified. Men and women were equally likely to report that they were overqualified at the college, bachelor’s and master’s levels, while female doctoral graduates were slightly more likely to feel overqualified than their male counterparts (see Table 4).

18. Oswald, Proto and Sgroi, 2015. Happiness and productivity; Harvard Business Review, 2011. The happiness dividend; Slate, 2019. The makeup of a happy employee.

19. Zhao, J. et al. 2017. Are young bachelor’s degree holders finding jobs that match their studies?

20. LaRochelle-Côté and Hango, 2016. Overqualification, skills and job satisfaction.

The extent to which graduates felt overqualified for their jobs varied more by field of study than by level of study.

Graduates at all levels of study in ‘humanities’ were generally more likely to report being overqualified. This was also the case for bachelor’s and master’s graduates in the fields of ‘social and behavioural sciences, and law’, ‘business, management and public administration’, as well as in ‘physical and life sciences and technologies’. Conversely, those in ‘health and related fields’ were the least likely to report being overqualified; this was also the case for doctoral graduates in ‘business, management and public administration’ and for bachelor’s graduates in ‘mathematics, computer and information sciences’.

Table 4
Proportion of 2015 graduates who felt overqualified for their job in 2018, by level of study, sex and field of study

	College	Bachelor's	Master's	Doctoral
	percent			
Total	22	23	28	24
Men	23	23	30	23*
Women (ref.)	22	24	27	26
Field of study				
Education	21	19	29*	34*
Visual and performing arts, and communications technologies	28*	26*	24	33*
Humanities	26	34*	38*	41*
Social and behavioural sciences, and law	24*	34*	32*	23
Business, management and public administration	24*	26*	31*	17
Physical and life sciences and technologies	21	29*	32*	21
Mathematics, computer and information sciences	24	14	25	22
Architecture, engineering and related technologies	24*	17	28	23
Agriculture, natural resources and conservation	19	22	28	23
Health and related fields (ref.)	15	12	19	20
Personal, protective and transportation services	27*	18	33	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significantly different from reference category (ref.) ($p < 0.05$)

Source: 2018 National Graduates Survey (class of 2015).

Median annual employment income varies by level of study and field of study

The employment income of graduates two years after graduation, in 2017, increased with the level of education. For example, college graduates earned \$35,000 in employment income, compared with \$48,000 for bachelor’s graduates, \$61,000 for master’s graduates and \$65,000 for doctoral graduates.

Employment income also varied by field of study. At the college, bachelor’s and doctoral levels, graduates in the fields of mathematics, computer and information sciences, architecture, engineering and related technologies and health and related fields had the highest median employment income. In addition, master’s and doctoral graduates in education and business, management and public administration had high employment income.

Notably, a large proportion of graduates in these fields of study with the highest median employment income reported they were working in a job or business related to their field (see Table 3).

Table 5
Median employment income of 2015 graduates who were working in a job or business in 2017 by level of study and field of study

Field of study	College	Bachelor's	Master's	Doctoral
	dollars			
Total	35,000 ^A	48,000 ^A	61,000 ^A	65,000 ^A
Education	33,000 ^{B*}	47,000 ^{A*}	72,000 ^A	84,000 ^A
Visual and performing arts, and communications technologies	28,000 ^{B*}	29,000 ^{B*}	47,000 ^{B*}	27,900 ^{B*}
Humanities	24,000 ^{E*}	40,000 ^{B*}	50,900 ^{A*}	47,000 ^{A*}
Social and behavioural sciences, and law	31,400 ^{A*}	40,200 ^{A*}	50,000 ^{A*}	70,000 ^{A*}
Business, management and public administration	35,000 ^A	47,600 ^{A*}	66,000 ^A	97,000 ^{A*}
Physical and life sciences and technologies	35,000 ^B	38,800 ^{A*}	50,000 ^{A*}	55,000 ^{A*}
Mathematics, computer and information sciences	44,000 ^B	55,000 ^{B*}	62,000 ^A	78,000 ^B
Architecture, engineering and related technologies	40,000 ^A	57,600 ^{A*}	60,000 ^A	70,000 ^{A*}
Agriculture, natural resources and conservation	36,000 ^B	40,000 ^{B*}	51,000 ^{A*}	56,000 ^{A*}
Health and related fields (ref.)	40,000 ^A	65,000 ^A	67,000 ^A	80,000 ^A
Personal, protective and transportation services	31,000 ^{B*}	48,000 ^{B*}	82,000 ^{B*}	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

^E use with caution

* significantly different from reference category (ref.) ($p < 0.05$)

A excellent - Coefficient of variation is less than or equal to 0.05

B very good - Coefficient of variation is greater than 0.05 and less than or equal to 0.15

Source: 2018 National Graduates Survey (class of 2015).

Similar to results from the “[Labour market outcomes for college and university graduates, 2010 to 2015](#)” release²¹, men earned more than women two years after graduation at most levels of study. The difference in the employment income of men and women was the most pronounced at the college level (\$7,000), and least pronounced at the doctoral level (\$700).

However, an examination of the median employment income of male and female graduates by field of study showed that the differences in the earnings of men and women were not statistically significant in most fields (see Table 6). The differences in the median employment income of male and female graduates were only statistically significant for college graduates in ‘physical and life sciences and technologies’ and for doctoral graduates in ‘mathematics, computer and information sciences’, ‘architecture, engineering and related technologies’ and ‘agriculture, natural resources and conservation’.

21. Statistics Canada. Table 37-10-0122-01 Characteristics and median employment income of postsecondary graduates two years after graduation, by educational qualification and field of study (alternative primary groupings), 2010 to 2015 cohorts.

Table 6
Median employment income of 2015 graduates who were working in a job or business in 2017 by level of study, sex and field of study

Field of study	College		Bachelor's		Master's		Doctoral	
	Men	Women (ref.)	Men	Women (ref.)	Men	Women (ref.)	Men	Women (ref.)
	dollars							
Total	40,000 ^{A*}	33,000 ^A	50,000 ^{A*}	45,000 ^A	65,000 ^{A*}	60,000 ^A	65,000 ^A	64,300 ^A
Education	34,000 ^B	32,000 ^B	50,000 ^B	45,000 ^A	81,000 ^A	70,000 ^A	84,000 ^A	82,000 ^A
Visual and performing arts, and communications technologies	27,000 ^B	28,000 ^B	27,000 ^B	30,000 ^B	55,000 ^C	40,000 ^C	34,000 ^B	25,500 ^C
Humanities	15,000 ^E	24,000 ^F	40,000 ^C	39,000 ^B	54,400 ^B	50,000 ^B	45,000 ^B	49,000 ^B
Social and behavioural sciences, and law	32,000 ^B	31,000 ^A	46,000 ^B	40,000 ^A	52,000 ^B	50,000 ^A	65,000 ^B	70,000 ^A
Business, management and public administration	40,000 ^B	32,000 ^B	47,600 ^A	47,300 ^A	72,000 ^A	64,000 ^A	94,400 ^A	97,000 ^A
Physical and life sciences and technologies	40,000 ^{B*}	32,000 ^C	40,000 ^B	36,600 ^B	52,400 ^B	48,000 ^B	56,000 ^A	55,000 ^A
Mathematics, computer and information sciences	45,000 ^B	30,000 ^C	56,000 ^B	40,200 ^E	65,000 ^A	57,000 ^B	81,000 ^{A*}	60,000 ^A
Architecture, engineering and related technologies	40,000 ^A	39,000 ^B	58,000 ^A	55,000 ^B	61,300 ^A	60,000 ^B	70,000 ^{A*}	55,000 ^B
Agriculture, natural resources and conservation	40,000 ^B	32,000 ^B	46,000 ^B	38,000 ^C	55,000 ^B	51,000 ^A	60,000 ^{A*}	50,000 ^B
Health and related fields	50,000 ^B	38,000 ^A	60,000 ^B	65,000 ^A	68,000 ^A	66,200 ^A	79,500 ^A	85,000 ^A
Personal, protective and transportation services	34,300 ^B	30,000 ^B	47,000 ^B	48,000 ^B	78,000 ^B	97,000 ^D	x	x

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* significantly different from reference category (ref.) ($p < 0.05$)

A excellent - Coefficient of variation is less than or equal to 0.05

B very good - Coefficient of variation is greater than 0.05 and less than or equal to 0.15

C good - Coefficient of variation is greater than 0.15 and less than or equal to 0.25

D acceptable - Coefficient of variation is greater than 0.25 and less than or equal to 0.35

Source: 2018 National Graduates Survey (class of 2015).

High degree of job satisfaction among 2015 graduates

Job satisfaction is associated with higher productivity and lower job turnover.²² The NGS asked graduates multiple questions about their job satisfaction, including their satisfaction with their overall job held in 2018, their wage or salary and their job security. In this section, we look at graduates' satisfaction with their overall job when considering all aspects of their job.

Among graduates who were working as employees, 83% of 2015 graduates reported that they were 'very satisfied' or 'satisfied' with their jobs three years after graduation, while less than two-thirds (62%) reporting being satisfied with their wage or salary. These rates were somewhat lower than what was observed for the 2010 graduates (91% reporting being 'very satisfied' or 'satisfied' with their job and 80% being satisfied with their wage or salary in their job held in 2013).

By level of study, the proportion of 2015 graduates with a high level of job satisfaction ranged from 80% for bachelor's graduates to 87% for doctoral graduates.

The proportion of graduates reporting a high level of job satisfaction varied more by field of study than by level of study. Although graduates in 'education' were less likely to be working in permanent positions than graduates in other fields of study, they reported the highest levels of job satisfaction across all levels of study (see Table 7). 'Health and related fields' was another field of study in which most graduates reported a high level of job satisfaction (between 82% and 89%).

In contrast, graduates at most levels of study (except for the doctoral level) in 'physical and life sciences and technologies' were among the least likely to be satisfied with their jobs. Bachelor's graduates in 'humanities' (71%) and doctoral graduates in 'visual and performing arts, and communications technologies' (75%) also reported lower levels of job satisfaction.

22. Oswald, Proto and Sgroi, 2015. Happiness and productivity; Harvard Business Review, 2011. The happiness dividend; Slate, 2019. The makeup of a happy employee.

Table 7
Job satisfaction of 2015 graduates, by level of study, sex and field of study

	College	Bachelor's	Master's	Doctoral
	percent			
Total	84	80	86	87
Men	84	80	85	88
Women (ref.)	84	81	86	87
Field of study				
Education (ref.)	88	90	89	92
Visual and performing arts, and communications technologies	78	73*	87	75*
Humanities	78	71*	88	88
Social and behavioural sciences, and law	84	75*	84	87*
Business, management and public administration	84	80*	85	91
Physical and life sciences and technologies	71	73*	72*	86*
Mathematics, computer and information sciences	84	88	87	87
Architecture, engineering and related technologies	83	87	85	88*
Agriculture, natural resources and conservation	81	72*	88	89
Health and related fields	89	82	88	86*
Personal, protective and transportation services	83	88	91	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significantly different from reference category (ref.) ($p < 0.05$)

Source: 2018 National Graduates Survey (class of 2015).

Summary

This study examined the labour market outcomes of graduates of 2015, three years after their graduation, using the 2018 National Graduates Survey (NGS). Most postsecondary graduates who did not pursue further postsecondary education after graduation were employed three years after graduation. Of those who were employed, 91% were working full time and four-fifths of graduates had a job or businesses that was related to their field of study. The majority of graduates reported that they were satisfied with their jobs and felt qualified for them.

With the exception of employment income, labour market outcomes varied more by field of study than level of study. For example, those in 'health and related fields', 'education' or 'mathematics, computer and information sciences' had the largest proportions of graduates reporting they were: working in a job or business related to their field of study; felt qualified for their job or were satisfied with their job.

By level of study, the proportion of graduates reporting they were working in a job or business related to their field of study ranged from 77% for college graduates to 93% for doctoral graduates. The proportion of graduates who felt overqualified for their jobs varied less by level of study from 22% for college graduates to 28% for master's graduates. Job satisfaction was also relatively similar across each level of study, with 80% of bachelor's graduates, 84% of college graduates, 86% of master's graduates and 87% of doctoral graduates reporting that they were satisfied with their jobs.

In contrast, 'humanities' emerged as a field of study in which graduates did not perform well across many labour market indicators. One-fifth of bachelor's graduates, 14% of master's graduates and 17% of doctoral graduates in this field were working part time three years after graduation. Moreover, bachelor's graduates in 'humanities' were the least satisfied with their jobs in 2018. Graduates in 'humanities' were also the least likely to be working in a job or business related to their field of study across all levels of study. Finally, graduates of 'humanities' were among the most likely to report that they were overqualified for their jobs.

The COVID-19 pandemic will likely impact the labour market outcomes of the postsecondary graduates of 2020, as well as future cohorts. It will be important that future studies examine these cohorts to determine the similarities of their outcomes with graduates of 2015 and the ways in which they differ.

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