Education, learning and training: Research Paper Series

Canadian postsecondary education and labour market outcomes of 2010 economic immigrants to Canada

by George Marshall and Eric Fecteau

Release date: August 15, 2023



Statistics Statistique Canada Canada



Canadä

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

Email at infostats@statcan.gc.ca

Telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service
- · National telecommunications device for the hearing impaired
- Fax line

1-800-263-1136 1-800-363-7629 1-514-283-9350

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "Standards of service to the public".

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Published by authority of the Minister responsible for Statistics Canada

© His Majesty the King in Right of Canada as represented by the Minister of Industry, 2023

All rights reserved. Use of this publication is governed by the Statistics Canada Open Licence Agreement.

An HTML version is also available.

Cette publication est aussi disponible en français.

Canadian postsecondary education and labour market outcomes of 2010 economic immigrants to Canada

by George Marshall and Eric Fecteau

Introduction

The contribution of immigration to the Canadian economy and society has been of <u>continued importance in recent</u> <u>decades</u>, due to being the main driver of population growth and their importance on the labour market. Given that Canada and other countries of the Organisation for Economic Co-operation and Development (OECD) are competing for skilled workers, measuring the socio-economic integration of immigrants into Canada is essential. Immigrants with postsecondary educational qualifications can help fill the labour demand in Canada, especially if their qualifications are readily recognized by the labour market. In this context, exploring the labour market outcomes and Canadian postsecondary educational attainment of immigrants is critical to understanding the various facets of their socio-economic integration.¹

Since the late 1990s, federal and provincial governments have shifted immigration policies toward immigrants with postsecondary qualifications, as part of the "economic" category of immigrants. Despite this shift, the <u>potential</u> <u>difficulty of qualified landed immigrants to transfer their educational qualification to the Canadian labour market</u> continues to exist and may represent a barrier to accessing the labour market for some, and thus impact the supply of skilled workers.

This study explores in detail the educational attainment from Canadian public institutions and employment income of immigrants from the "economic immigrant" programs who were granted permanent residency based on their ability to contribute to the Canadian economy. The analysis compares the skilled immigrants who returned to postsecondary education after admission to Canada to those who did not return to postsecondary education and explores their potential difficulty to transfer their educational qualifications onto the Canadian labour market. The analysis uses the Longitudinal Immigration Database (IMDB) integrated with the Postsecondary Student Information System (PSIS) and the T1 Family File (T1FF) through the Education and Labour Market Longitudinal Platform (ELMLP).

The study population is limited to immigrants admitted to Canada as permanent residents in 2010,² who were at the core working age of 25 to 54 years old³ at the time of admission, who had not studied in Canada⁴ prior to their 2010 admission and who filed taxes in Canada at least once between 2011 and 2019.⁵ The methodology to identify their postsecondary education obtained in Canada between 2010 and 2019 can be found in the <u>technical</u> reference guide for the labour market outcomes for college and university graduates.⁶

^{1.} A forthcoming Statistics Canada paper entitled "Post-migration education of immigrants admitted in 2010 and 2011: The impact of completing skilled trades training in Canada on economic outcomes" explores the outcomes of economic immigrants who became certified journeypersons in the skilled trades.

^{2.} The 2010 immigration year was selected as the first year with sufficient pan-Canadian postsecondary information and to allow for the maximum length of time to study their outcomes — up to nine years after admission.

^{3.} The core working age refers to a subset of the overall working population. The Labour Force Survey commonly uses it to refer to those between the ages of 25 to 54 years old.

^{4.} Immigrants with a study permit at any time prior to their admission were excluded from the analysis.

^{5.} Immigrants who died between 2010 and 2019 were excluded from the analysis.

^{6.} As a result of limited data availability, these estimates exclude college graduates for the following provinces and territories: Ontario (2010 to 2013), New Brunswick (2010), Manitoba (2010), and Territories (2010 and 2011).

Nearly one in seven economic principal applicants who were admitted in 2010 graduated from a Canadian postsecondary program between 2010 and 2019

In 2010, 278,210 immigrants and refugees were admitted to Canada. Of these, the majority were of the economic immigrant category (27.4% were principal applicants, and 39.5% were spouses and dependants). This article focuses on the economic principal applicants, as they were admitted based on their ability to contribute to the Canadian economy.

Table 1

Categories and exclusions, for immigrants admitted to Canada in 2010

Categories and exclusions	Count	Percent
Total immigrants and refugees	278,210	
Economic immigrants, principal applicant	76,170	27.4
Economic immigrants, spouse and dependent	110,010	39.5
Immigrants sponsored by family	64,310	23.1
Refugees	24,390	8.8
Other	3,330	1.2
Economic immigrants, principal applicant	76,170	
Outside of core working age (25 to 54 years old)	2,840	3.7
Studied previously in Canada	8,340	10.9
Did not file taxes in Canada in any year between 2011 and 2019	6,040	7.9
Economic immigrants, principal applicant, study population	58,950	77.4
Economic immigrants, principal applicant, study population	58,950	
Graduated in Canada (2010 to 2019)	8,060	13.7
Did not graduate in Canada (2010 to 2019)	50,890	86.3

... not applicable

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Of the 76,170 principal applicants, 2,840 were excluded from the analysis since they were outside of the core working age. An additional 8,340 immigrants were also excluded from the analysis due to having previously studied in Canada and 6,040 were excluded due to not having filed taxes in Canada in any year between 2011 and 2019. The study population for this analysis includes 58,950 economic principal applicants who were admitted to Canada in 2010. Of these, 8,060 (13.7%) graduated from a Canadian public postsecondary educational institution after admission.

Female economic principal applicants from all continents of birth were more likely than men to graduate from a Canadian public postsecondary educational institution after admission to Canada

Although the overall population of principal applicants graduated from a Canadian postsecondary institution at the rate of 13.7%, the rate varied widely by continent of birth and gender.⁷ Principal applicants born in the Americas⁸ (24.8%) and in Africa (30.2%) were the most likely to graduate from a Canadian postsecondary institution after admission to Canada (see Chart 1). This may be partly because immigrants from certain countries can experience difficulty in having their educational qualifications recognized in Canada.

A higher proportion of women who were economic principal applicants completed a Canadian educational qualification than men, for all continents of birth. The largest gap was among principal applicants born in Europe, where only 6.2% of men completed a Canadian postsecondary educational qualification, while 19.9% of women did so. This was followed by the Americas, where 20.8% of men and 30.7% of women completed a Canadian postsecondary educational qualification after admission to Canada. A study looking at immigrants of the early

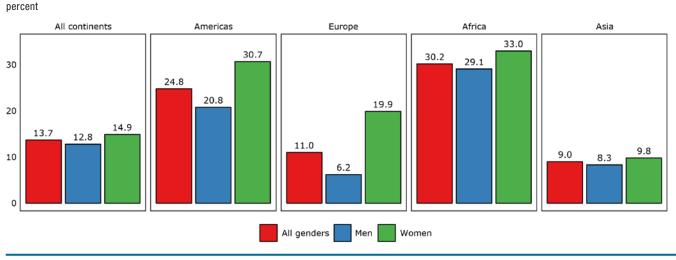
^{7.} Among principal applicants, 90.2% declared that they knew English, French or both when they were admitted to Canada. A logit model comparing those with "knowledge of one or both official languages" and those with "no knowledge of an official language" was tested to see whether predicted probabilities were comparable with the results in Chart 1. Results were comparable. Those who had knowledge of one or both official languages were more likely to obtain a Canadian postsecondary educational qualification. The predicted probabilities of returning to school were between 2.1% and 5.6% higher, depending on the continent of birth, for those who declared knowledge of one or both official languages.

^{8.} The United States was excluded from the category "Americas".

2000s showed that immigrant women were significantly less likely to have their educational qualification recognized in Canada than men. For context, women were also more likely to obtain a postsecondary education in the general student population in Canada.

Chart 1

Proportion of principal applicants admitted to Canada in 2010, who obtained a Canadian educational qualification between 2010 and 2019, by continent of birth and gender



Note: The United States was excluded from the category "Americas". Certain regions were excluded due to low counts. Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

A large majority of economic principal applicants who returned to postsecondary education in Canada did so at a similar or lower level than their educational qualification at admission

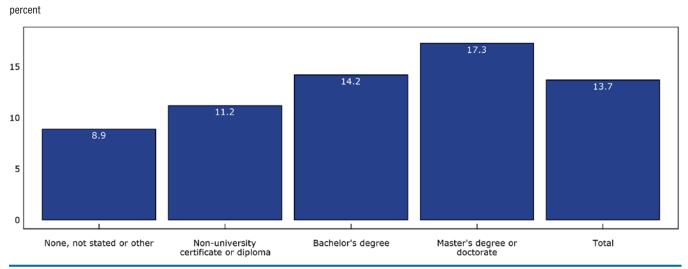
While 13.7% of all principal applicants who were admitted to Canada in 2010 completed a Canadian postsecondary educational qualification between 2010 and 2019,⁹ this was more common among those who had higher educational attainment at admission (17.3% for those with a master's degree or doctorate and 14.2% for those with a bachelor's degree) than those with a non-university certificate or diploma (11.2%).¹⁰

^{9.} When a principal applicant received more than one Canadian educational qualification, their highest one was selected.

^{10.} The "educational qualification at admission" is determined by Immigration, Refugees, and Ĉitizenship Canada (IRCC) for permanent residents based on the certificate, diploma, or degree obtained at the time of admission. This may add a level of subjectivity to the educational qualification at admission. The "non-university certificate or diploma" is described as "Training in a profession that requires formal education but not at the university level (for example, dental technician or engineering technician)."

Chart 2

Proportion of principal applicants admitted to Canada in 2010, who obtained a Canadian educational qualification between 2010 and 2019, by educational qualification at admission



Note: The "None, not state or other" category for the educational qualification at admission includes "secondary or less", "formal trade certificate or apprenticeship", "some university – no degree" and "some postgraduate education – no degree".

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

The most common educational qualification obtained in Canada among principal applicants who were admitted in 2010 was "short college programs" (31.9%), which includes programs typically completed in less than two years, such as a college-level certificate, and "long college or short university program," (31.1%) which includes programs typically completed in two or more years, such as a college-level diploma or an undergraduate certificate. This could be due, in part, to the fact that some immigrants may not have had the educational prerequisites to qualify for higher-level educational qualifications (e.g. a master's degree requires prior completion of an bachelor's degree) or that these educational qualifications were shorter and allowed immigrants the ability to return to the labour market quickly. These findings differed from the overall postsecondary population in Canada, where the most common educational qualification in Canada was a bachelor's program. For more information on the classification of programs and credentials obtained in Canada, see Appendix A.

Of those with a non-university certificate or diploma at admission in 2010 and who completed a postsecondary educational qualification in Canada between 2010 and 2019, 74.5% completed a postsecondary educational qualification below a bachelor's program, whereas 21.3% completed a bachelor's program and only 4.3% completed a master's or doctoral program. Similarly, of those with a bachelor's degree at admission, 65.4% completed an educational qualification below a bachelor's program in Canada, 14.7% a bachelor's program and 19.8% a master's or doctoral program or equivalent. For the principal applicants who were admitted to Canada with a master's or doctoral degree and completed a postsecondary educational qualification in Canada between 2010 and 2019, 71.1% returned to postsecondary education at a level below a master's or doctoral program.

Overall, completion of Canadian postsecondary education was more common among immigrants who had higher educational attainment at admission. Additionally, many of the principal applicants who returned to postsecondary education did so to complete a similar or lower educational qualification. This is likely further evidence that the previous educational attainment of some immigrants was not recognized by the Canadian labour market.

Table 2

Educational qualification obtained in Canada by educational qualifications at admission, for the principal applicants who obtained a Canadian educational qualification after admission

Educational qualification at admission	Educational qualification obtained in Canada	Count	Percent by educational qualification at admission
None, not stated or other	Short college program	320	34.8
	Long college or short university program	290	31.5
	Bachelor's program or equivalent	170	18.5
	Master's or doctoral program or equivalent	140	15.2
Non-university certificate or diploma	Short college program	400	42.6
	Long college or short university program	300	31.9
	Bachelor's program or equivalent	200	21.3
	Master's or doctoral program or equivalent	40	4.3
Bachelor's degree	Short college program	1230	34.8
	Long college or short university program	1080	30.6
	Bachelor's program or equivalent	520	14.7
	Master's or doctoral program or equivalent	700	19.8
Master's degree or doctorate	Short college program	620	23.3
	Long college or short university program	830	31.2
	Bachelor's program or equivalent	440	16.5
	Master's or doctoral program or equivalent	770	28.9

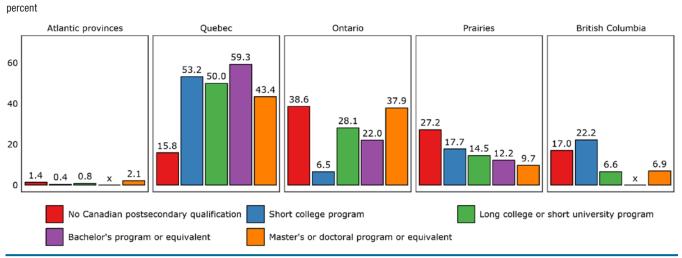
Note: The "None, not state or other" category for the educational qualification at admission includes "secondary or less", "formal trade certificate or apprenticeship", "some university – no degree" and "some postgraduate education – no degree". The 'Not Applicable' category for the educational qualification obtained in Canada was removed from this table. Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Economic principal applicants who resided in Quebec were more likely to have obtained a Canadian educational qualification

The proportion of principal applicants with additional Canadian educational qualifications differed by the region of residence in 2019. Principal applicants of 2010 whose region of residence in 2019 was Quebec were more likely to have obtained a Canadian educational qualification than those living in other regions. This may be due to <u>Quebec</u> having a special agreement on immigration with the Government of Canada, where the province has its own rules for choosing immigrants who will adapt well to living there.¹¹ Conversely, Ontario had the highest proportion of those who did not receive any additional Canadian educational qualification (38.6%).

^{11.} Principal applicants who were admitted in 2010 and who lived in Quebec in 2019 were more likely to have been born in Africa, compared to all other regions of Canada, whereas principal applicants who were admitted in 2010 and lived in any other region in Canada were more likely to have been born in Asia. However, principal applicants who resided in Quebec in 2019 and who were born in the Americas, in Europe, in Africa and in Asia were all more likely to graduate from a Canadian public postsecondary educational institution after admission to Canada, than their counterparts in other regions of Canada.

Chart 3 Proportion of principal applicants admitted to Canada in 2010, who resided in each region in 2019, by Canadian educational gualification



x suppressed to meet the confidentiality requirements of the Statistics Act

Note: The region of residence is as per the information available on the 2019 tax form. Individuals who did not file taxes in 2019, who did not file taxes in Canada or who filed taxes in the territories were excluded from this chart.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Economic principal applicants admitted with a bachelor's degree and who completed a Canadian postsecondary educational qualification had higher median employment income nine years after admission than those who did not return to postsecondary education

Principal applicants admitted with a bachelor's degree¹² but who did not obtain an additional postsecondary educational qualification in Canada had a higher median employment income¹³ in 2011 (\$25,400) but lower growth over the period from 2011 to 2019¹⁴ compared to those who obtained a Canadian postsecondary educational qualification during the period. The lower initial income may be because those who obtained a Canadian postsecondary educational qualification were out of the labour market in 2011 (either fully or partially) to complete their Canadian educational qualification. By 2019, those who had obtained a Canadian postsecondary educational qualification (between \$47,700 and \$67,600) caught up or surpassed the median employment income of those who had not obtained a Canadian postsecondary educational qualification at admission saw higher median employment income (bachelor's program or equivalent (\$55,200) and master's or doctoral program, or equivalent (\$67,600)) than those who obtained a short college program (\$47,700) or a long college or short university program (\$48,200). For context, the median employment income of all tax filers with employment income was \$36,960 in 2019.

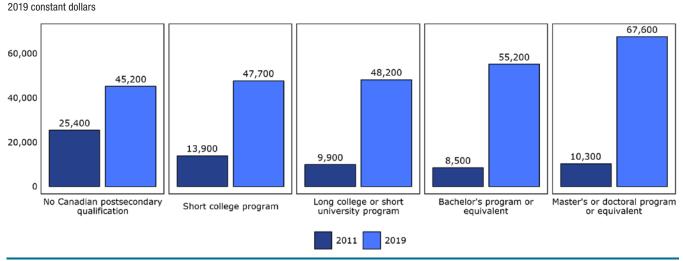
^{12.} This section focuses on principal applicants admitted with a bachelor's degree, the largest category. For more information on those with a "non-university certificate or diploma" or a "master's degree or doctorate" at admission to Canada in 2010, see Appendix B.

^{13.} Employment income includes wages, salaries and commissions (wages and salaries, commissions from employment, training allowances, tips and gratuities, tax exempted Indian employment income) and net self-employment income (net income from business, profession, farming, fishing and commissions). Net self-employment income may be positive, negative or zero.

^{14.} All employment income values in this article are expressed in 2019 constant dollars.

Chart 4

Median employment income for principal applicants who had a bachelor's degree at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019, 2019 constant dollars



Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

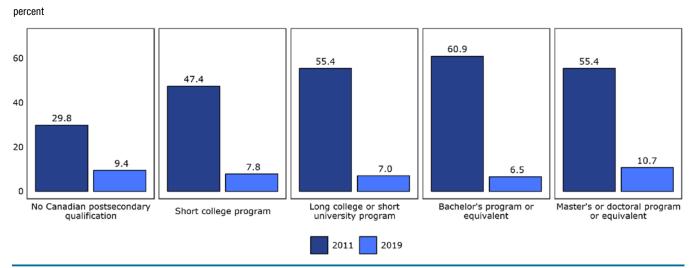
Those admitted with a bachelor's degree, but who did not obtain an additional postsecondary educational qualification in Canada, had a lower proportion in low income¹⁵ in 2011 (29.8%) than those who obtained a Canadian postsecondary educational qualification between 2010 and 2019. Among those who obtained further postsecondary education, those who completed a bachelor's program between 2010 and 2019 had the highest proportion in low income in 2011, at 60.9%. This may be because those who obtained a Canadian postsecondary education were out of the labour market in 2011 (either fully or partially) to complete their Canadian educational qualification. By 2019, the proportion of principal applicants admitted to Canada with a bachelor's degree who were in low income had been significantly reduced. It varied between 6.5% for those who completed a bachelor's program in Canada and 10.7% for those who completed a master's or doctoral program in Canada.¹⁶ In 2019, 9.4% of those without additional educational qualification in Canada were in low income. For context, the low-income status for all tax filers and dependants in Canada, aged 18 to 64, was 16.6% in 2019.

^{15.} This is according to the census family low-income measure. The low-income status identifies low-income individuals and families according to the after-tax census family low-income measure. The census family low-income measure is one-half of the adjusted median census family total income after tax, where the adjustment is made by dividing the after-tax total income by the square root of the census family size. More information on the low-income measure can be found in "Revising Statistics Canada's Low Income Measure (LIM)" by Brian Murphy, Xuelin Zhang and Claude Dionne.

^{16.} Note that some in longer programs, or those who returned to school at a later date, may still be in school in 2019.

Chart 5

Proportion of immigrants in low income among principal applicants who had a bachelor's degree at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019



Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Conclusion

This article examined the educational qualifications obtained in Canada, between 2010 and 2019, by economic principal applicants admitted to Canada in 2010. Overall, nearly one in seven completed a Canadian postsecondary educational qualification after admission. Those who came from Africa and the Americas, women, those who were admitted to Canada with a master's or doctoral degree, and those who lived in Quebec as of 2019 were more likely to complete a Canadian postsecondary educational qualification.

Those who obtained a Canadian postsecondary educational qualification generally returned at a similar or lower level of education than their educational qualification at admission. Among those who were admitted to Canada with a bachelor's degree, those who obtained a Canadian postsecondary educational qualification had higher median employment income in 2019 than those who did not return to postsecondary education, regardless of the level of the additional postsecondary educational qualification completed. Similarly, those who graduated from a Canadian bachelor's program had the lowest rate of low income in 2019.

While the proportion of economic principal applicants who obtained a Canadian educational qualification in Canada after admission in 2010 was small (13.7%), some of the information presented in this paper suggests that there may be some immigrants who had difficulties in getting their educational qualification recognized in Canada. For the labour market outcomes, the principal applicants who completed postsecondary education in Canada caught up to and often surpassed those who did not complete postsecondary education in Canada. Further analysis could explore the reasons behind this return to Canadian postsecondary education after immigrating to Canada.

George Marshall and Eric Fecteau are analysts with the Canadian Centre for Education Statistics at Statistics Canada.

Appendix A: Classification of programs and credentials

This paper uses the <u>International Standard Classification of Education (ISCED)</u> to classify the postsecondary education obtained in Canada. Some of the categories, as outlined in Table A.1, were renamed for ease of understanding in a Canadian context. Table A.1 also provides a concordance between the ISCED and the <u>Classification of programs and credentials</u>, commonly used in Canada. For more information on the ISCED and the classification of programs and credentials, see the <u>Handbook for the Report of the Pan-Canadian Education</u> Indicators Program.

Table A.1

Concordance table between the International Standard Classification of Education groupings (ISCED) and the Classification of programs and credentials, for the principal applicants who obtained a Canadian educational qualification after admission

ISCED	ISCED Renamed	Classification of programs and credentials	Count
Post-secondary non-tertiary education (ISCED 4)	Short college program	Career, technical or professional training certificate	
		Career, technical or professional training short credential	1,610
		Other career, technical or professional training credential	10
Short-cycle tertiary education (ISCED 5)	Long college or short university program	Career, technical or professional training diploma	
		Post career, technical or professional training program certificate	180
		Post career, technical or professional training program diploma	10
		Undergraduate certificate	1,170
		Undergraduate diploma	10
		Undergraduate short credential	х
		Undergraduate associate degree	х
		Other postsecondary diploma	Х
Bachelor's or equivalent (ISCED 6)	Bachelor's program or equivalent	Undergraduate degree	920
		Post-baccalaureate non-graduate certificate	Х
		Post-baccalaureate non-graduate diploma	40
		Master's certificate	Х
		Master's diploma	330
		Other master's-level credential	Х
Master's and Doctoral or equivalent (ISCED 7 and 8)	Master's or Doctoral program or equivalent	Master's degree	1,420
		Doctoral-level diploma	х
		Doctoral degree	170
		Professional degree	x

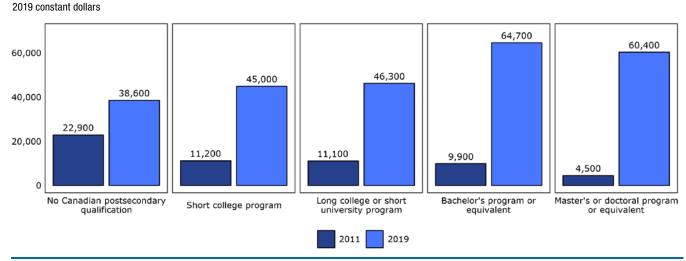
x suppressed to meet the confidentiality requirements of the Statistics Act

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Appendix B: Median employment income and low-income status

Chart B.1

Median employment income for principal applicants who had a non-university certificate or diploma at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019, 2019 constant dollars



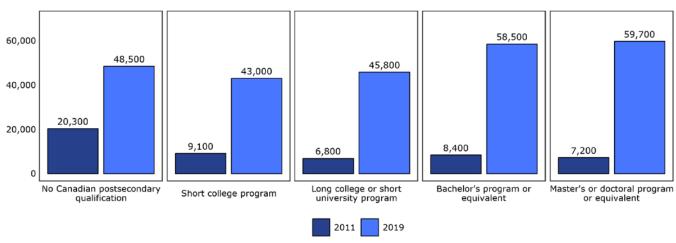
Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Chart B.2

Median employment income for principal applicants who had a master's degree or doctorate at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019, 2019 constant dollars

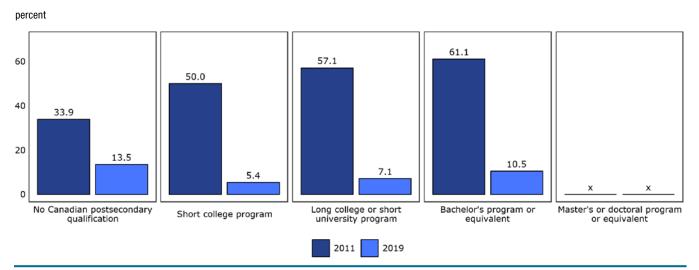
2019 constant dollars



Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Chart B.3 Proportion of immigrants in low income among principal applicants who had a non-university certificate or diploma at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019



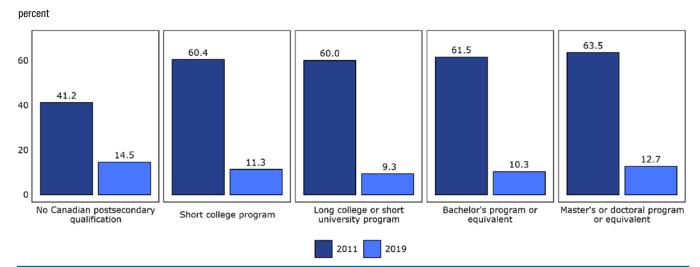
x suppressed to meet the confidentiality requirements of the Statistics Act

Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.

Chart B.4

Proportion of immigrants in low income among principal applicants who had a master's degree or doctorate at admission to Canada in 2010, by educational qualification obtained in Canada between 2010 and 2019



Note: Individuals who did not file taxes in 2011 and in 2019 are excluded from this analysis.

Sources: Statistics Canada, Longitudinal Immigration Database (IMDB), 2010, Postsecondary Student Information System (PSIS), 2009/2010 to 2019/2020 and T1 Family File (T1FF), 2011 to 2019.