



A Different Ontario

Education

Gains and gaps in attainment and earnings

BY ANDREW PARKIN

Mowat Centre
ONTARIO'S VOICE ON PUBLIC POLICY

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This report is part of the series *A Different Ontario: What the Census tells us about how Ontario is changing*. The series examines the most important results of the 2016 census, from an Ontario perspective. All of the data reported here has been obtained from the census data and highlight tables, available from [Statistics Canada](#) and from similar tables for previous censuses. Key charts are included in each report, with supplementary charts to be made available on the Mowat Centre website.

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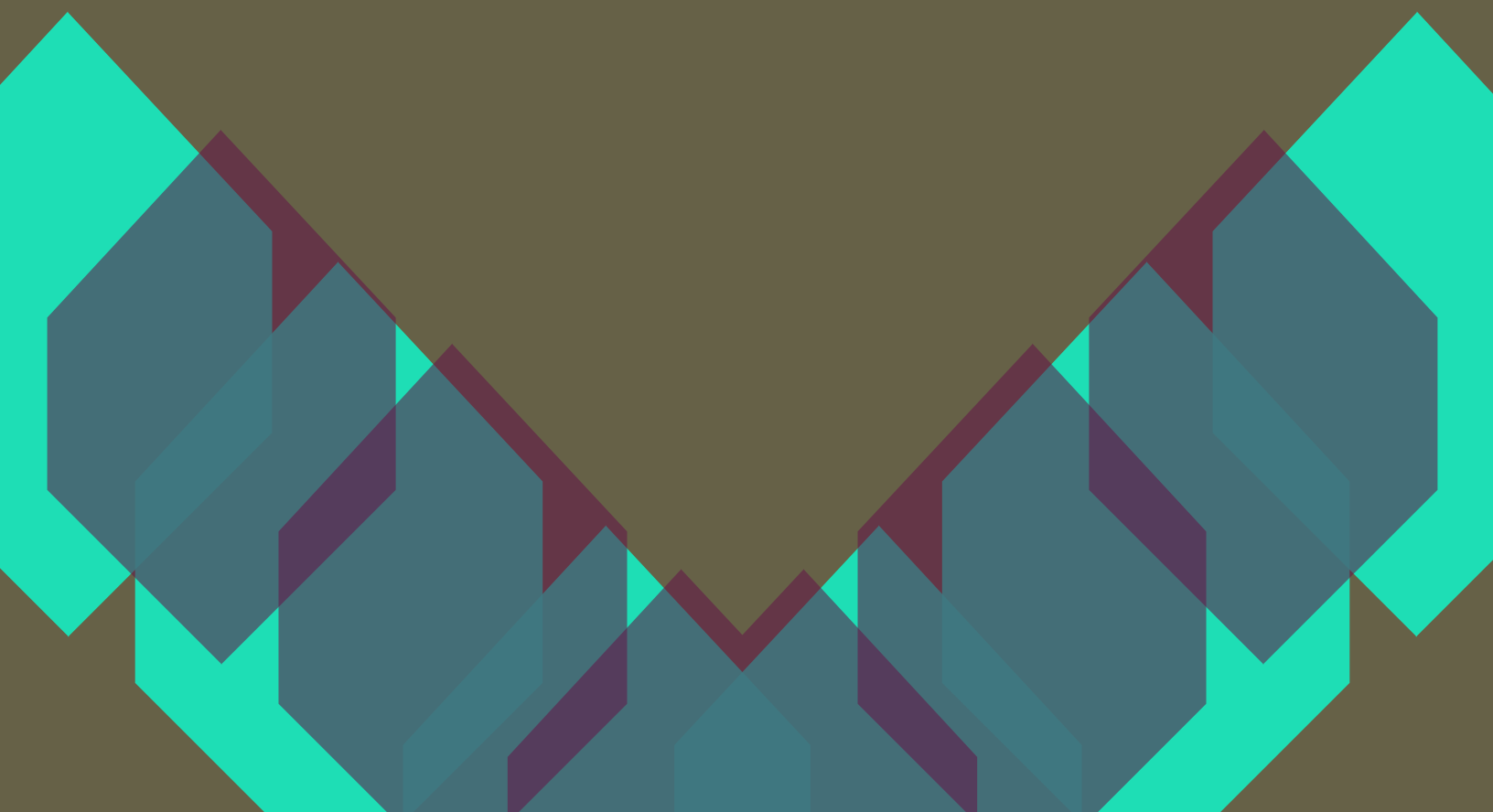
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1 Introduction

Ontario is changing in important ways that matter for public policy. *A Different Ontario: What the Census tells us about how Ontario is changing*, a series of reports from the Mowat Centre, takes a close look at data from the 2016 census to chart the most important trends and to discuss their implications for policymakers.

Census 2016 covers a lot of ground, including population growth, employment and income, education, housing, ethnicity, language and immigration status, and much more. Many of the main findings, such as those related to aging or diversity, have been widely reported.

But a closer look at the data reveals both trends that have been overlooked, and important nuances. As we note in this report, for example, almost three in ten young Ontarians – and one in three young men in Ontario – are entering an increasingly demanding labour market without any postsecondary training or credential. Indigenous people and certain visible minority groups also show important and worrisome educational attainment gaps when compared with the Ontario average. In the case of First Nations in particular, these gaps unfortunately have not been narrowing over time.

Finally, while the focus of this report is education, the results actually underline how Ontario's education system is only one avenue for producing the highly-skilled workforce the province needs. Only three out of five university graduates in the province have a degree from an Ontario institution, pointing to the importance of inter-provincial and international migration as a means of developing the province's human capital.

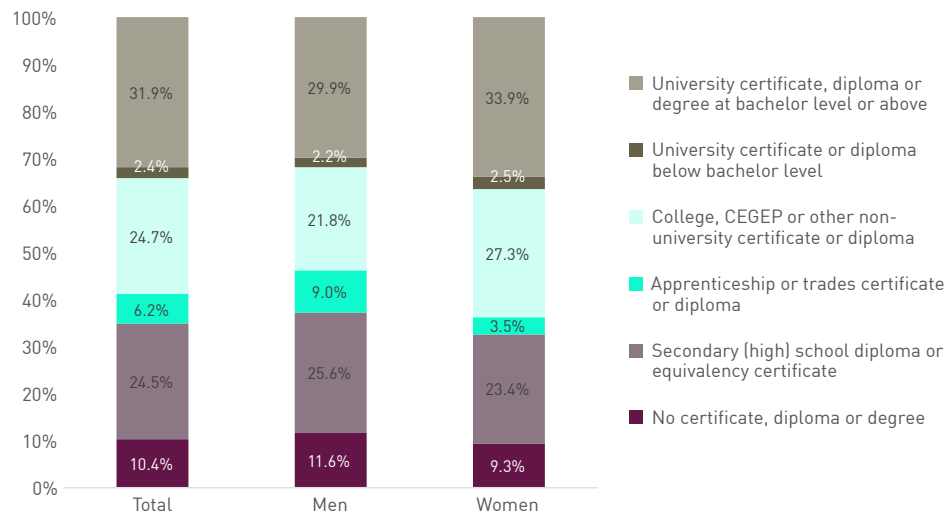
The census findings highlighted in this report underline a number of policy priorities. It is important to continue to focus on measures designed to encourage young Ontarians – especially Indigenous youth and youth from Southeast Asian, Black and Latin American minority communities – to access postsecondary education, and particularly to study and succeed at the university level. At the same time, Ontario must continue to focus on recruiting skilled workers from outside its borders, in part by further leveraging its education system to recruit and train promising young workers.

2 Educational Attainment

Ontario has a highly educated population. In 2016, almost two-thirds (65.1 per cent) of the working age population (age 25-64) had a postsecondary education (PSE), including almost one-third (31.9 per cent) with a least a university undergraduate degree. Among provinces, Ontario has the second highest PSE attainment rate (after Quebec), and the highest university attainment rate.

FIGURE 1

Educational attainment, age 25-64, Ontario (2016), by gender



Source: Census 2016 Education Highlight Tables

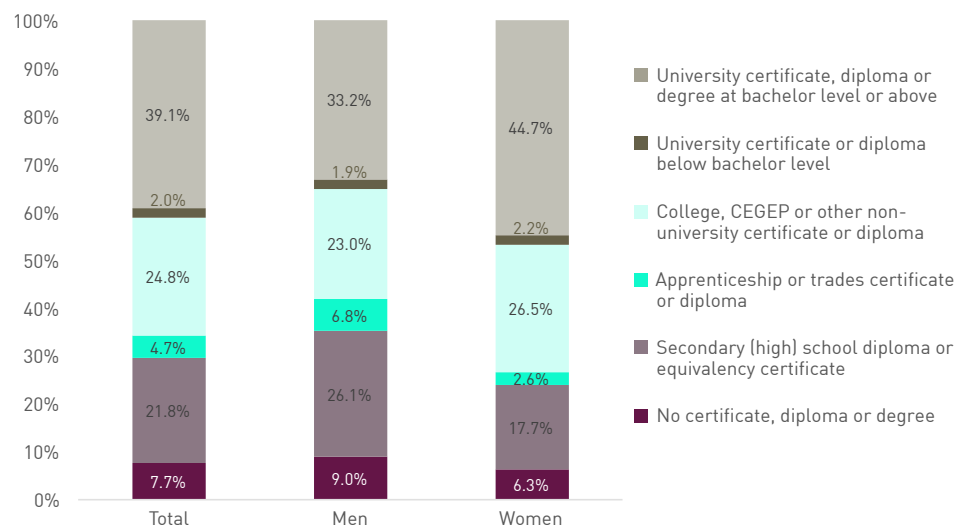
In terms of PSE attainment, Ontario's rate is among the highest in the developed world. However, Ontario's university attainment rate is not particularly high by international standards. Ontario's high PSE attainment is driven in large part by the non-university sector (colleges and trades and apprenticeship training). One out of every two Ontarians with a postsecondary education obtained a credential other than a university undergraduate or graduate degree. This is a feature of Ontarian and Canadian PSE that differentiates it from most other systems in the world.

PSE attainment in Ontario is rising over time, as each successive age cohort is more likely than the previous one to continue education past high school. The PSE attainment rate of 25 to 34 year-olds is almost 15 percentage points higher than that of 55 to 64 year-olds.

The change over time has been particularly notable among women. Among older Ontarians (age 55 to 64), women are less likely than men to have attained a postsecondary education; the opposite is true among younger Ontarians (age 25 to 34) – a product of the fact that the rate of increase in PSE attainment has been much faster for women than for men. Younger women are twice as likely to hold a university degree than older women. And younger women are almost 12 percentage points more likely to hold a university degree than younger men.

FIGURE 2

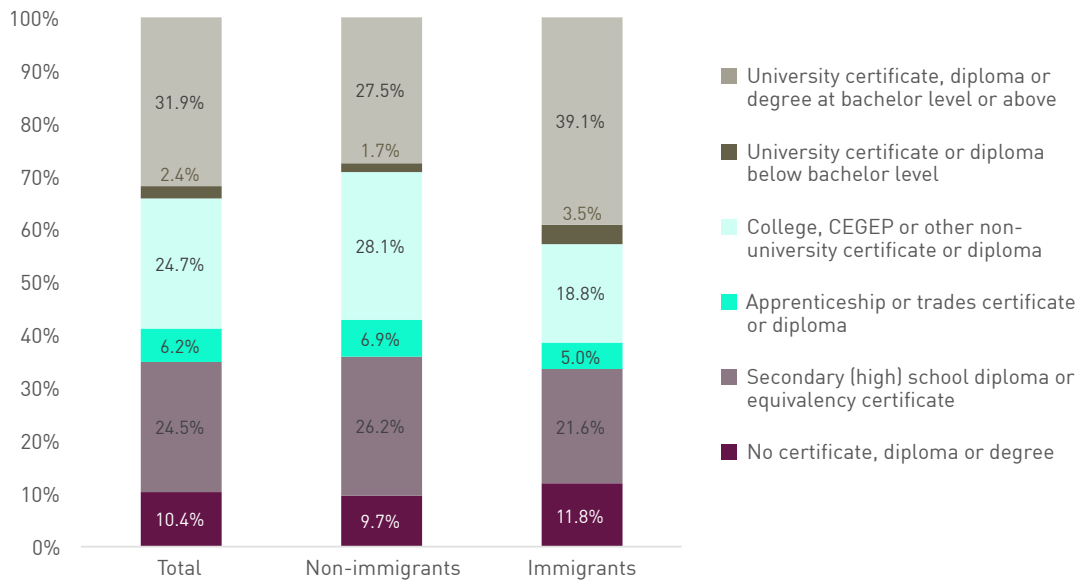
Educational attainment, age 25-34, Ontario (2016), by gender



Source: Census 2016 Education Highlight Tables

Despite gains in educational attainment, almost three in ten young Ontarians (age 25 to 34) are entering the labour market without a PSE credential of any kind. This includes over one in three men, and just under one in four women.

Educational attainment among immigrants is higher than among those born in Canada. In particular, immigrants are much more likely than non-immigrants to have earned a university degree (undergraduate or graduate). The difference in university attainment is particularly striking among young adults (age 25-34): 34.3 per cent of non-immigrants in that age group have a university degree, compared with 47.4 per cent of immigrants. Among males in this age group, the gap in university attainment between immigrants and non-immigrants is even larger.

FIGURE 3**Educational attainment, age 25-64, Ontario (2016), by immigrant status**

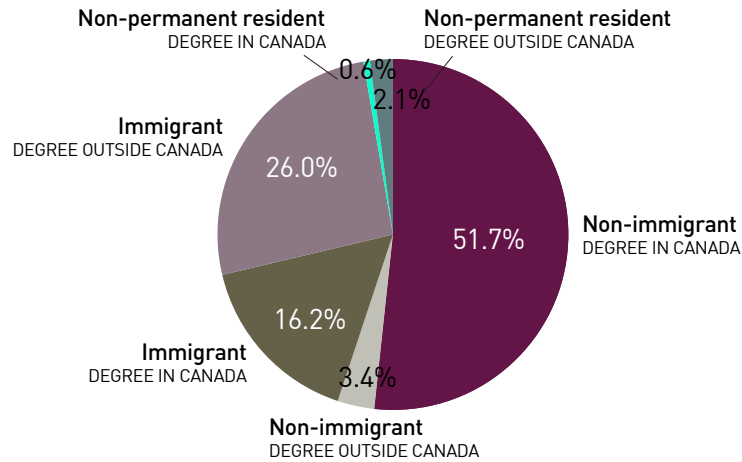
Source: Census 2016 Education Data Table #53 and author's calculations

Higher educational attainment among immigrants in part reflects the importance of education as a criterion for selecting immigrants under Canada's points-based system. This is evident by focusing on the educational attainment of immigrants who arrived in Canada more recently. The proportion of immigrants with a university degree has risen steadily, from 27.6 per cent among those who arrived in the 1980s, to 38.7 per cent among those who arrived in the 1990s, to 50.0 per cent among those who arrived in the 2000s, to 52.3 per cent for those who arrived in the four years prior to the 2016 census.

The importance of immigration to Ontario's human capital can be underlined by looking, not only at attainment rates among immigrants, but also at the composition of Ontario's population of university graduates. More than two in five (42.2 per cent) Ontarians with a university degree (undergraduate or graduate) is an immigrant – they started their journey into Ontario's pool of human capital from somewhere outside of Canada. Of course, many of these immigrants arrived as children or young adults and obtained all or at least part of their education in Canada. More than one in four (26.0 per cent) of all university graduates in Ontario, however, are immigrants who earned their degree outside of Canada. (Among young Ontarian university graduates, age 25 to 34, the proportion who are immigrants who obtained their degrees outside of Canada is lower, at 13.1 per cent.)

FIGURE 4

Distribution of university graduates in Ontario age 25 to 64, by immigrant status and location of degree (2016)



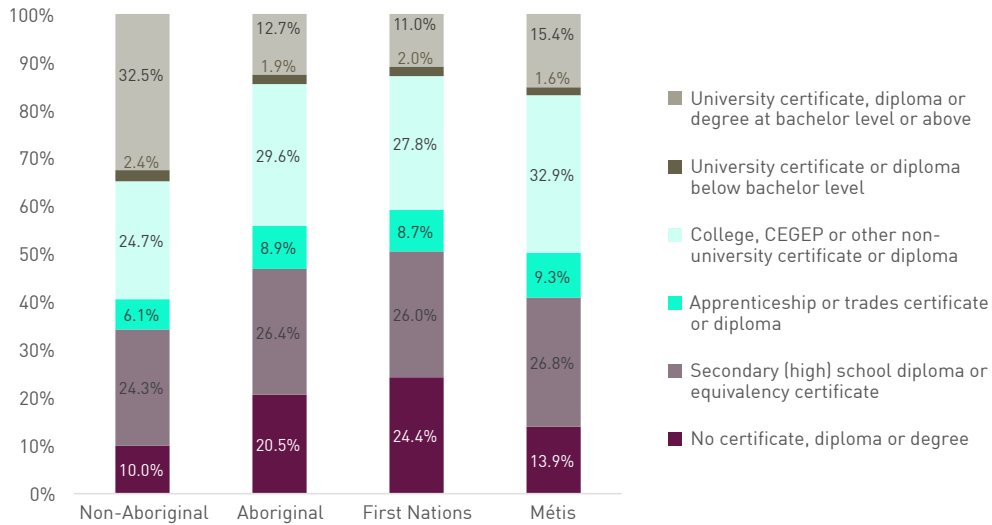
Source: Census 2016 Education Data Table #53 and author's calculations

The census also allows us to look specifically at whether degrees were received in or outside Ontario. Overall, only three in five (60.6 per cent) university graduates in the Ontario working age population (age 25 to 64) obtained their degree in Ontario – an indication of the importance of measures to attract talent from outside the province to the success of Ontario's economy.¹

The census data on education also highlight two important attainment gaps. The first of these is that between Indigenous and non-Indigenous people in Ontario. Indigenous people in Ontario are twice as likely as non-Indigenous people to not have graduated from high school, and less than half as likely to have obtained a university degree. Indigenous people in Ontario are three times less likely to have earned a university degree at the graduate or professional level (the figures are 3.5 per cent among Indigenous people in Ontario, and 11.1 per cent among non-Indigenous people). Indigenous people are however more likely to have gained an apprenticeship, trades, or college certificate or diploma.

As is the case with non-Indigenous people, among Indigenous people, women tend to have higher educational attainment than men.

¹ Many of those who obtain their degree outside Ontario are Ontario residents studying in other provinces or abroad; yet even in these cases, the students need to be motivated to return to Ontario upon graduation.

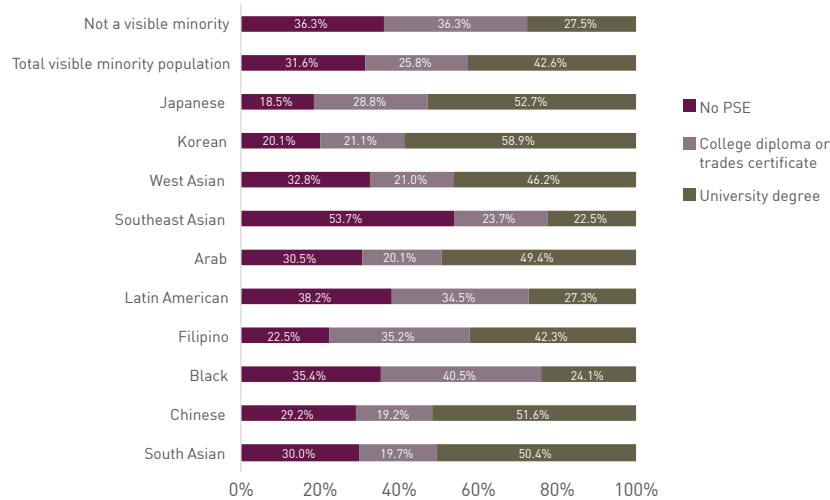
FIGURE 5**Educational attainment, age 25-64, Ontario (2016), by Aboriginal identity**

Source: Census 2016 Education Data Table #2 and author's calculations

The most troubling feature of the census results relating to Indigenous education is the extent to which the attainment gap is persisting. On the one hand, attainment for younger Indigenous people in Ontario is higher than for older age cohorts, indicating improvement over time. Fifteen per cent of Indigenous people between the ages of 25 and 34 have a university degree, compared with nine per cent of those between the ages of 55 and 64. On the other hand, because the rate of educational attainment among non-Indigenous people is also improving, the attainment gap between Indigenous and non-Indigenous people in Ontario is not narrowing. Within the cohort between the ages of 25 and 34, Indigenous people in Ontario are still more than twice as likely as non-Indigenous people to not have graduated from high school, and less than half as likely to have obtained a university degree. In more precise terms, the ratio of Indigenous to non-Indigenous university attainment in Ontario has remained unchanged: within both the older and younger age cohorts, non-Indigenous people remain exactly 2.6 times more likely have obtained a university degree than their Indigenous counterparts.

The situation is different, however, for different Indigenous people. Younger Métis adults are more than twice as likely as their older counterparts to have earned a university degree.²

² Note, however, that comparisons of the Métis population in Ontario over time are complicated by the fact that there has been an increase in the proportion of individuals with Métis ancestry who are choosing to identify as Métis in the census.

FIGURE 6**Educational attainment, age 25-64, Ontario (2016), by visible minority identity**

Source: Census 2016 Education Data Table #77 and author's calculations

As a result, the educational attainment gap between Métis and non-Indigenous people in Ontario is narrowing. By contrast, there has been little change across age cohorts in educational attainment among First Nations in Ontario. In fact, among First Nations in Ontario, the youngest adult age cohort (age 25-34) is less likely to have completed high school, less likely to have attained a postsecondary education, and less likely to have graduated from university than the age cohort that precedes it (age 35 to 44) – a pattern which is alarmingly different from other communities in the province.

The second type of attainment gap is that pertaining to certain visible minority groups. Overall, Ontarians who identify as a member of a visible minority have higher educational attainment than those who do not: among those aged 25 to 64, 42.6 per cent of visible minorities have a university degree, compared with 27.5 per cent for non-visible minorities. These aggregate figures, however, mask significant variations. University attainment ranges from a high of 58.9 per cent among those who identify as Korean, to a low of 22.5 among those who identify as Southeast Asian. In total, there are three visible minority groups whose university attainment rate is below the Ontario average: Southeast Asian, Black, and Latin American; in addition, the attainment rate for those who do not identify as a visible minority is also below the Ontario average.

The pattern is even more complicated when other factors are taken into account, notably age and gender. As seen above, across Ontario society as a whole, educational attainment is highest among the youngest age cohorts. But this is not universally true among visible

minority groups. In some cases, such as for those identifying as Chinese, South Asian or Southeast Asian, the university attainment rate of younger age cohorts is indeed much higher than that of older cohorts. For others, such as those identifying as Korean or Japanese, there is little difference across age cohorts. And for some groups, including Blacks, Latin Americans, West Asians and Filipinos, the university attainment rate is lower for the cohort aged 25 to 34 than for the next oldest one (age 35 to 44).

In the case of most of the groups with lower university attainment among the youngest age cohort, the situation of men and women is different. Among those who identify as Black, Latin American, or West Asian, for instance, university attainment is highest among the youngest age cohort (age 25 to 34) in the case of women, but not men. Younger Black women (age 25 to 34) are 9.5 percentage points more likely to have earned a university degree than are middle-aged Black women (age 45 to 54), and slightly less likely to have discontinued their education without a postsecondary credential. Younger Black men, however, are slightly less likely than middle-aged Black men to have earned a university degree, and 4.5 percentage points more likely to have discontinued their education without a postsecondary credential.

This complexity suggests that addressing educational attainment gaps in Ontario – in the sense of zeroing in on those groups whose attainment rates are below average – requires an approach that goes beyond aggregated categories such as “visible minority” to look, not just at specific communities, but at the experiences of men and women across different age cohorts within each community.

It is worth adding that the analysis is further complicated by the different ways in which ongoing immigration affects different visible minority groups. Each group is composed of different proportions of non-immigrants, established immigrants, and recent immigrants, and – among those who are immigrants – of immigrants admitted as economic immigrants, family-sponsored immigrants or refugees. Changes in educational attainment within groups over time or across age cohorts reflect a mixture of what is happening within those communities (e.g. degrees of success within Ontario schools, colleges and universities) and the changing composition of communities in terms of newer or younger immigrants. In short, the statistics on educational attainment cannot by themselves answer the crucial question of the extent to which above- or below-average rates of educational attainment are products of the experiences of community members in Ontario (what happens after immigration to Canada) or the effect of immigration selection criteria on different communities at different points in time (what happens prior to immigration to Canada).

Education & Income in Ontario

University Degree Source

ONTARIANS 25-64



From Ontario

61%



Outside Ontario

39%



Indigenous Education

ONTARIANS 25-64

NON-INDIGENOUS ONTARIANS

INDIGENOUS ONTARIANS

No postsecondary education

34%

47%



University degree

40%

15%

Gender & Income

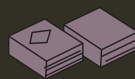
ONTARIANS 25-64

Women's median income as percentage of men's median income



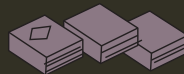
High school diploma

72%



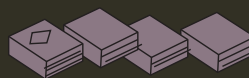
College/CEGEP

69%



Bachelor's degree

75%



University degree

78%

Immigrants & Income

Median income as percentage of non-immigrants' median income

STUDIED:



In Canada

93%



Outside Canada

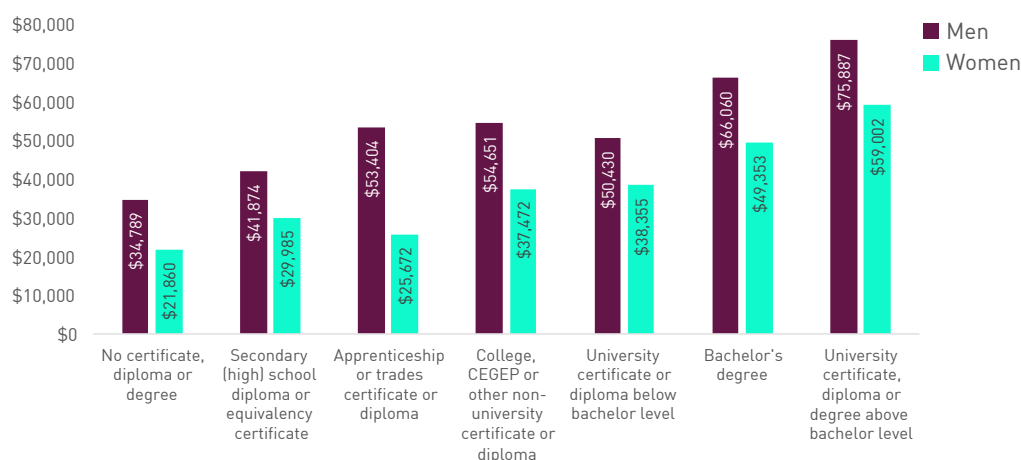
68%

3 Education & Earnings

It is well-established that higher levels of educational attainment typically lead to higher earnings in the labour market. The 2016 census confirms this pattern in Ontario. Among Ontarians age 25 to 64, median employment income is lowest among those who did not complete high school, followed by those with a high school diploma but no postsecondary credential. Income is highest among those with a university degree, with those with a graduate or professional degree earning even more than those with an undergraduate degree. In the middle are those with another form of postsecondary credential, such as an apprenticeship or trade certificate, a college diploma or a non-degree university certificate.

FIGURE 7

Median employment income of 25 to 64 year-olds, by educational attainment, Ontario (2016)



Source: Census 2016 Education Data Table #13 and author's calculations.

This overall pattern is the same for both men and women, with the exception that women with an apprenticeship or trade certificate have less of an earnings advantage than men with this type of qualification. This is particularly so among younger adults (age 25 to 34). While men in this age group with an apprenticeship or trade certificate earn more than those with a college diploma, this is not the case for women.³

³ Note that men and women with the same type of credential – namely an apprenticeship or trades certificate – may nonetheless have credentials relating to very different trades or occupations, which may in part explain the significant difference in employment incomes.

The gender gap in employment income is evident across all education levels, but is narrower among those with a university degree. The median employment income of women age 25 to 64 with a high school diploma is two-thirds that of men with the same level of educational attainment. Women with a university undergraduate degree have incomes three-quarters as big as those of their male counterparts. Among younger adults (age 25 to 34), the importance of educational attainment for women is accentuated, meaning that the earnings gap is even larger for younger women without a postsecondary education and somewhat narrower for younger women with a university education.

The 2016 census also shows how employment income varies for workers with a postsecondary credential, according to their program of study. Some results are hardly surprising: median employment income among graduates with a degree or diploma in law or engineering is much higher than it is among those with a degree or diploma in the social sciences, humanities or the arts. Beyond this, however, there are several results worth noting.

First, while for university graduates, the earnings of those with degrees in STEM fields of study are higher than for those with degrees in non-STEM fields⁴, the gap is not that large. This is because university graduates from non-STEM fields such as law, public administration, education, business and health have relatively high earnings.⁵ The difference in median employment income for those who studied in STEM and non-STEM fields is much greater for college graduates, however. In the case of college graduates, earnings for those who studied in fields such as law, health care and education are relatively low. While overall, among 30 to 59 year-olds, college graduates earn 70 per cent of university graduates, this difference is smaller in STEM-related fields such as engineering (84 per cent) and science (81 per cent), and larger for non-STEM fields such as health care (60 per cent) and education and teaching (48 per cent).

Immigrants who obtain a degree from a Canadian university are at a significant advantage in terms of employment income compared with university graduates who immigrate to Canada after their studies are complete.

4 Major fields of study are grouped into STEM fields (science, technology, engineering, and math and computer sciences) and BHASE or non-STEM fields (business, humanities, health, arts, social science, and education fields).

5 Note that this refers to the field of study and not the occupation.

Second, in the case of university graduates, the gap between the median employment income of men and women is generally smaller for graduates from non-STEM fields than for those from STEM fields. Female university graduates in health care and in education and teaching earn 96 per cent of their male counterparts; this compares to 88 per cent in science and to 84 per cent in engineering.⁶ (Note that there are two fields of study whose female graduates in Ontario earn the same as male graduates: nursing and social work.)

Third, while median employment income for university graduates who are immigrants is lower than that of those who were born in Canada, the difference is much smaller in the case of immigrants who completed their education in Canada. Overall, immigrant university graduates in Ontario age 30 to 59 working full-year and full-time have median employment incomes that are 79 per cent as large as those of their non-immigrant counterparts.⁷ In the case of immigrants who studied in Canada, however, their earnings disadvantage is much smaller, at 93 per cent. This compares with a significant earnings disadvantage of 68 per cent for immigrants who studied outside of Canada. In fields of study associated with regulated professions such as teaching or law, the earnings disadvantage for immigrants who studied outside of Canada is especially stark.⁸

Immigrants who studied outside of Canada with a degree in a legal field earn 41 per cent of non-immigrants – in comparison, immigrants who studied in this field in Canada earn 80 per cent of non-immigrants. In the case of degrees in education and teaching, the respective ratios are 50 per cent and 96 per cent. As always, the categories in use here combine individuals with very different experiences. Immigrants who study in Canada include both those who arrived as infants and completed all of their education in Canada, and those who arrived as graduate students, obtaining only their final degree from a Canadian institution. Immigrants with degrees from other countries include those who studied at world-renown institutions in the US or the UK, and those who studied at less well-known institutions in developing countries. That said, the overall pattern is clear. Immigrants who obtain a degree from a Canadian university are at a significant advantage in terms of employment income compared with university graduates who immigrate to Canada after their studies are complete.

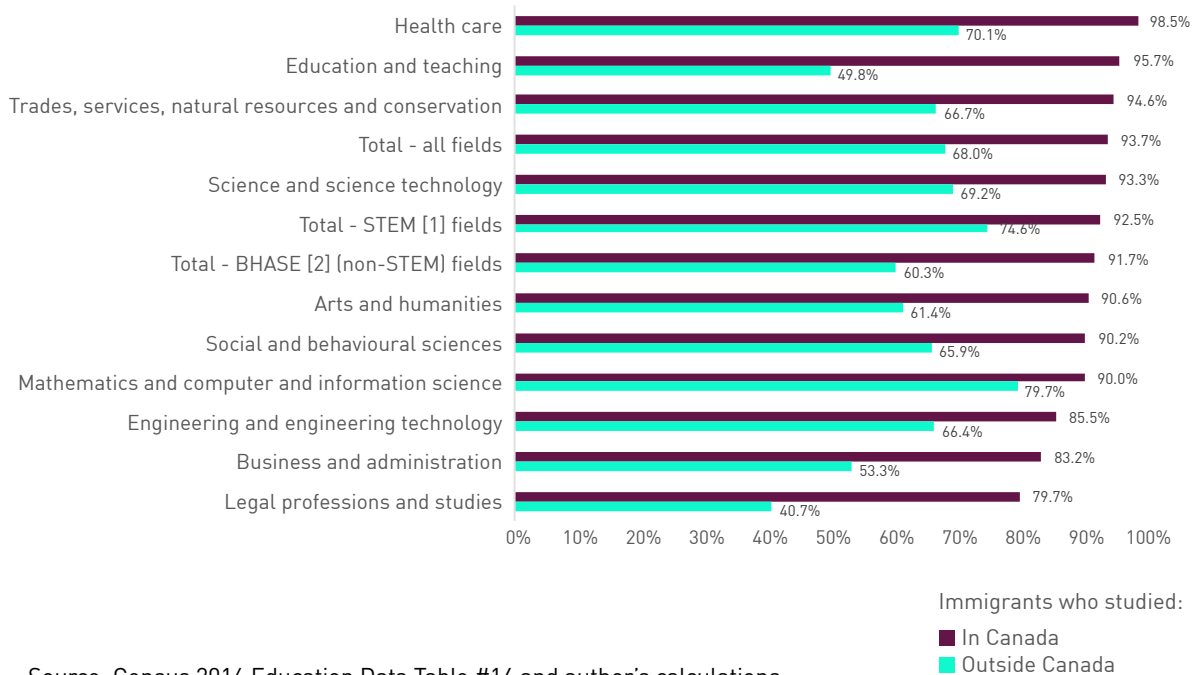
6 This could mean either that men and women with degrees from these fields are paid differently in similar occupations or positions, or that they go on to work in somewhat different occupations or positions which are paid differently.

7 Specifically, the comparison group is non-immigrants who studied in Canada.

8 Note that this is likely because many of those who studied in these fields outside of Canada are not able to obtain employment in their intended profession following arrival in Canada.

FIGURE 8

Median employment income of immigrants age 30 to 59 with a university degree by field of study as a % of that of non-immigrants* in the same field, by location of study (Ontario)



Source: Census 2016 Education Data Table #14 and author's calculations

*Non-immigrants with Canadian PSE credential only

[1] Science, technology, engineering, and math and computer sciences

[2] Business, humanities, health, arts, social science, and education fields

Finally, the census also documents the relationship between earnings and educational attainment for Indigenous people living in Ontario. The data show that the earnings advantage associated with having a university degree is particularly acute in the case of Indigenous people, in two senses. First, as is the case for all Ontarians, the median employment income for Indigenous people in Ontario with a university degree is significantly higher than for those who did not pursue a postsecondary education; however, the gap in earnings between those with and without a university degree is larger in the case of Indigenous people than for non-Indigenous people. Second, the gap in median employment income between Indigenous and non-Indigenous people is smaller in the case of those with a university degree. Indigenous people in Ontario between the ages of 25 and 64 with a university degree earn 97 per cent as much as their non-Indigenous counterparts; the case of those with a college or a high school diploma, the proportion is 90 per cent.



4 Implications for Public Policy

Ontario's postsecondary educational attainment rate is among the highest in the developed world. That said, given the increasing complexity and skills-intensity of work in the contemporary economy, the bar continues to rise. In this context, several challenges remain to be addressed.

Despite gains in educational attainment, almost three in ten young Ontarians are entering the labour market without a PSE credential of any kind. This includes over one in three men, and just under one in four women. At the same time, Ontario's university attainment rate is not particularly high by international standards. For these reasons, it is important to continue to focus on measures designed to encourage young Ontarians to access postsecondary education, and particularly to study and succeed at the university level. These efforts should include (but by no means be limited to) the provision of consistent and clear information about the advantages in the labour market that are associated with higher levels of educational attainment.

The province must address the fact that the educational attainment gap between Indigenous and non-Indigenous people in the province is not narrowing. Indigenous people in Ontario are twice as likely as non-Indigenous people to not have graduated from high school, and much less likely to have obtained a university degree. While educational attainment for Indigenous people is improving, it is not improving at a rate that is fast enough to close the gap. This is particularly so in the case of First Nations people in Ontario.

Ontarians who identify as members of certain visible minority groups also face an attainment gap, in the sense that their university attainment rate is below average. Specifically, those who identify as Southeast Asian, Black and Latin American have below-average university attainment rates, as do those who do not identify as a visible minority. Within these groups, it is the situation of younger men that is most concerning. Addressing educational attainment gaps in Ontario therefore requires an approach that looks beyond aggregated categories such as "visible minority" in order to address the unique situations of men and women across different age cohorts within specific visible minority communities.

As well as focusing on measures designed to encourage Ontario students from all backgrounds to succeed in education, the province's human capital development strategy must continue to focus on recruiting talent from outside its borders. Essentially, Ontario relies on two different mechanisms to produce the human capital it needs: its education system, and migration. Only three in five university graduates in the Ontario working age population obtained their degree in Ontario. More than one in four university graduates in Ontario is an immigrant who earned their degree outside of Canada. Ensuring that Ontario remains a desirable and accessible destination for mobile, high-skilled workers is key to the province's economic development.

Ontario's strategy for attracting talent from outside its borders should leverage the advantages offered by its education system. Immigrants who complete their education in Canada do much better in the labour market than do immigrants who arrive in Canada after their studies are complete. The province's efforts to recruit international students to study in Ontario therefore should not be focused solely on education-related policy objectives, such as the academic benefits of internationalizing campuses, or on the financial benefits of increasing foreign tuition fees.⁹ Rather they should be conceived more broadly as part of an immigrant recruitment strategy that is aimed at facilitating the successful transition of immigrants to jobs in which they can fully make use of, and be rewarded for, their skills.

⁹ On the latter point, see Alex Usher, "The State of Canadian Post-Secondary Education, 2018," *One Thought Blog* (August 28, 2018); <http://higherstrategy.com/the-state-of-canadian-pse-2018/>.

