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by Klarka Zeman

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From high school, into postsecondary education and on to the labour market

by **Klarka Zeman**

In 2020/2021, almost 354,000 young Canadians graduated from a regular high school program, with an additional 24,000 graduating from a vocational program and 9,000 graduating from a general program for adults.¹

The pathway for young graduates from a high school program, through postsecondary education and into the labour market may be linear for some, while more circuitous for others. This fact sheet, using the latest indicators available, aims to provide insight on how young Canadians² move from largely compulsory secondary education, into and through their postsecondary experiences and finally onto the labour market. Notably, while the pathways of people who complete their high school diploma later in life or through general programs for adults are interesting, they will not be explored in this paper, as its aim is to focus on the main pathways of young people's school to work transitions.

A note on reference periods in this fact sheet

While the organization of this fact sheet follows the pathways of young people from mandatory schooling through to postsecondary and into the labour market, it does not present a cohort-based analysis, i.e. it does not follow the same people through these transitions. Instead, it presents the most up-to-date data on each of the following transitions and outcomes:

1. High school graduation
2. Postsecondary participation
3. Postsecondary pathways, including persistence and graduation rates
4. Labour market outcomes

As this fact sheet presents the most recent data available for all the indicators it covers, not all indicators will have the same reference period.

The first step – graduating high school and transitioning to postsecondary studies

The first transition that Canadian youth will generally make is graduating from high school, and either transitioning to postsecondary studies or into the labour market. Almost all young Canadians eventually make this transition – in 2021, only 5% of Canadians 25 to 34 did not attain a high school diploma.

In Canada, a high proportion of young people complete their studies within the expected time, which is three years after starting grade 10 (or “Secondary 3” in Québec). In 2019/2020, during the early phase of the COVID-19 pandemic, 84% of young people graduated on time, up from 81% in 2018/2019.³ This proportion was higher for girls at 87% than for boys at 81%.

Some students may take longer to complete their high school studies. If we extend the timeframe to complete a high school diploma to five years after starting grade 10 (secondary 3 in Quebec), this percentage increases to 89%. This proportion was 86% for boys, while it was 91% for girls.

1. Statistics Canada. [Table 37-10-0111 Number of graduates from secondary schools, by school type and program type.](#)

2. International students are excluded from this analysis as their pathways may be quite different from Canadian youth.

3. Statistics Canada. [Table 37-10-0221 True cohort high school graduation rate, on-time and extended-time graduation rates, by gender.](#)

What proportion of youth participate in postsecondary education?

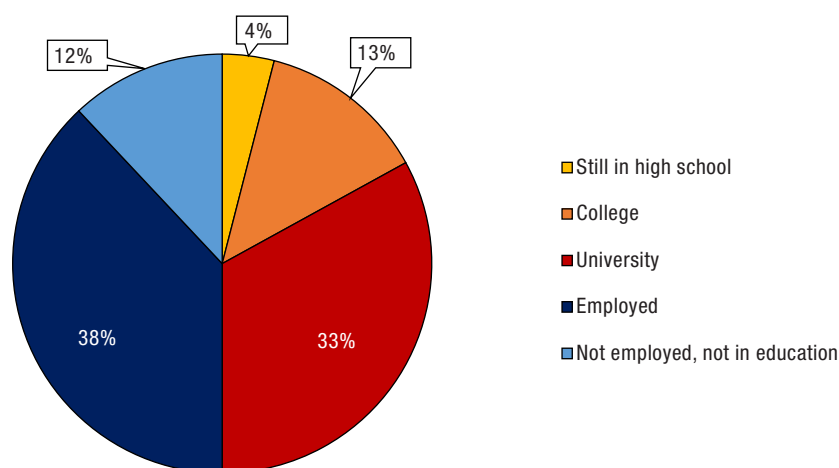
In Canada, if a young person has completed their high school diploma “on-time”, they are typically 18. The following section looks at the participation rates of 18- to 24-year-olds as this is the most likely time that young Canadians will be participating in postsecondary education.

Half of all young Canadians in this age group are undertaking some form of education. In 2021/2022,⁴ 4% were still working towards their high school diploma, and thus may be included in the extended high school graduation rate. Thirteen percent were pursuing their studies at college, while one-third (33%) were studying at university.

The other half (50%) of 18- to 24-year-old Canadian youth were not in education in 2022.⁵ Of these youth, 38% were employed, while 12% were not in employment, education, or training.

Chart 1

Education and labour market activities of 18 to 24 year olds, Canada, 2021/2022



Note: The participation rate in apprenticeships cannot be added to this graphic, as it is not known how apprentices report their educational participation in the Labour Force Survey. The reference period for the education activities is 2021/2022, while the reference period for the labour market activities is 2022.

Source: Statistics Canada, tables 37-10-0103 and 37-10-0196.

While a directly comparable proportion of youth pursuing apprenticeships is not available, by examining the number of 18–24-year-old Canadians who are registered apprentices, and comparing it to their number in the population, a participation rate for an apprenticeship can be estimated. In 2021, 101,727 18- to 24-year-olds⁶ were registered apprentices, while the population in Canada of 18- to 24-year-olds for the same year was almost 3.3 million.⁷ This leads to an estimated participation rate for apprenticeship of approximately 3% of 18- to 24-year-olds.⁸

Postsecondary pathways - persistence and graduation rates for postsecondary students

Once they enter and participate in postsecondary education, how well do Canadian youth do? This next section provides insight into the persistence and graduation rates of young Canadians enrolled in an undergraduate degree, college diploma or apprenticeship program.

4. Statistics Canada. [Table 37-10-0103 Participation rate in education, population aged 18 to 34, by age group and type of institution attended.](#)

5. Statistics Canada. [Table 37-10-0196 Percentage of 15- to 29-year-olds in education and not in education by labour force status, highest level of education attained, age group and sex.](#)

6. Statistics Canada. [Table 37-10-0219 Apprenticeship programs by age groups, major trade groups, sex and registration status.](#)

7. Statistics Canada. [Table 17-10-0005 Population estimates on July 1st, by age and sex.](#) Note that the apprenticeship count and the population count include international students.

8. The participation rate in apprenticeships should not be added to the participation rates in other types of postsecondary education for a total postsecondary participation rate. This is because the college and university participation rates come from the Labour Force Survey, and it is not known how apprentices would respond to the participation in studies question. They may consider themselves participating in a college program (and thus be included in the college participation rate), or they may consider themselves to be employed, and not participating in education.

Undergraduate degrees

One of the most common postsecondary credentials undertaken by Canadian students is the undergraduate, or bachelor's degree. These programs are typically four years in length, or three years in Quebec. This section reports on the latest data (reference year 2020/2021) for the average time to graduate, the persistence rate and the graduation rate for undergraduate degrees.

For the 2014/2015 cohort of Canadian students, the average time to graduate was 4.24 years.⁹ In addition, the persistence rate after one year is high for undergraduate degrees. For example, for the 2019/2020 cohort, 90% of enrolled students were still in this program one year later. By year two, 84% of the 2018/2019 cohort were also still in this program.

Almost three-quarters (74%) of the 2014/2015 cohort of Canadian students had completed a bachelor's degree after six years. As for the "on-time" rate – 44% of the 2016/2017 cohort of students had graduated after four years.

Career, technical or professional training diploma

Another popular type of credential for Canadian students is a career, technical or professional training diploma. These programs can vary widely but must be a minimum of two years.¹⁰ The following section reports on the latest data (reference year 2020/2021) for the average time to graduate and the completion rate for these programs.

For Canadian students, the average time to graduate from a career, technical or professional training diploma was 2.6 years. Notably, the completion rate for these programs is much lower than for undergraduate degrees. Over half (57%) of the 2016/2017 cohort had graduated after four years, while just under half, or 48% of the 2017/2018 cohort of Canadian students had graduated from this program after three years.

Apprenticeships

Another pathway available to Canadian youth is apprenticeships. Registered apprentices are enrolled in a supervised work training program in a designated trade. To complete the training, the apprentice must be registered with the appropriate governing body, usually a ministry of education or labour or a trade-specific industry governing body.¹¹

While program durations vary by province and trade, the most common program duration at the national level is four years.

The credential at the end of an apprenticeship program is called a certification. The requirements for being certified varies by the jurisdiction in Canada. In most instances, apprentices are issued a certificate when they have completed requirements such as supervised on-the-job training and technical training and passing one or more examinations.

For the cohort of apprentices who began their apprenticeship in 2014, just over 1 in 5 (21%) certified within the duration of their program or 'on-time'.¹² This proportion goes up to 34% who certify within 1.5 times the duration of the program. The median time to certification within 1.5 times the program duration was 3.2 years.¹³

Educational attainment of 25- to 34-year-olds

Ultimately, three-quarters (75%) of young Canadians will attain a postsecondary qualification. In 2021, 30% of 25- to 34-year-olds had a bachelor's degree, 24% had a college diploma, 12% had earned a Master's or doctorate, and 9% had a trade certificate.¹⁴

9. All the figures for the sections "Undergraduate degrees" and "Career, technical or professional training diploma" come from Statistics Canada [Table 37-10-0136 Graduation of career, technical or professional training diploma students, within Canada, by student characteristics](#).

10. Calculating persistence rates after one year is less relevant for those pursuing these diplomas, because it is possible to graduate these programs (in a condensed format) within one year.

11. The Daily, 2022-12-06. "[Registered apprenticeship training programs, 2021](#)".

12. All data points in this paragraph come from Statistics Canada [Table 37-10-0193 Certification, continuation and discontinuation rates of newly registered apprentices within program duration, 1.5 times program duration and 2 times program duration](#).

13. While four years is the most common duration for apprenticeship programs, the median includes completion for all trades, including 2 and 3 year programs.

14. Statistics Canada. [Table 37-10-0130 Educational attainment of the population aged 25 to 64, by age group and sex, Organisation for Economic Co-operation and Development \(OECD\), Canada, provinces and territories](#).

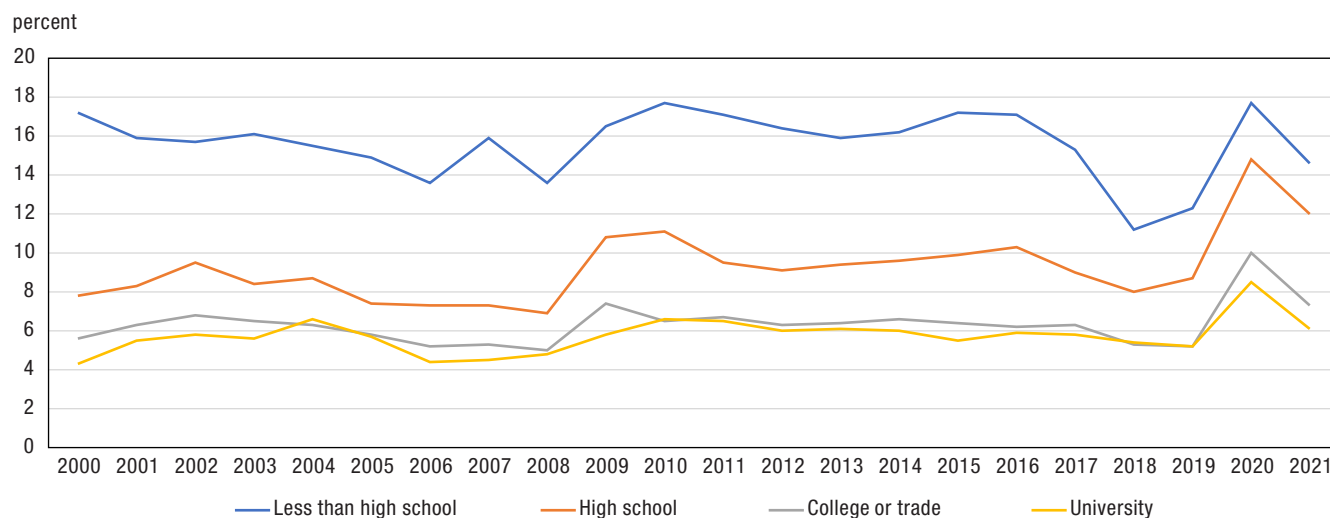
Labour market outcomes

Unemployment rates

In general, the more years of education that a young person has attained, the lower the unemployment rate. The chart below displays the unemployment rates of 25- to 29-year-olds from 2000 to 2021.¹⁵

Chart 2

Unemployment rates of 25 to 29 year olds, by highest level of educational attainment, Canada, 2000 to 2021



Source: Statistics Canada, table 14-10-0362.

In addition, Chart 2 shows that while unemployment rates are generally similar for college or trade graduates and university graduates, in times of economic shock, such as the pandemic in 2020, college or trade graduates experience a steeper rise in unemployment than that faced by university graduates. This effect is even stronger for people who do not have a postsecondary credential or high school diploma.

Employment income

Regarding employment income, for the class of 2018, undergraduate degree graduates had a median income of \$50,900 two years after graduation, compared with a median income of \$39,700¹⁶ for college diploma graduates. For apprentices who certified in 2018, two years after certification in the trades, their median employment income was \$59,000.¹⁷

Employment income over time

For the 2015 cohort of Canadian graduates of career, technical or professional training diplomas, the median income two years after graduation (in 2020 constant dollars) was \$38,400, and five years after graduation was \$43,700 – an increase of 14%.¹⁸ For Canadian graduates with undergraduate degrees, the median income was \$48,200 after two years and \$60,100 after five, an increase of 25%.

For apprentices who certified in 2016, the median employment income was \$54,461 at time of certification, \$64,793 after two years and \$62,882 after four years. Note that four years after certification for this cohort occurred in 2020, a year in which the COVID-19 pandemic had negative impacts on the economy, and on journeypersons

15. Statistics Canada. Table 14-10-0362 Unemployment rates of 25- to 29-year-olds, by educational attainment, Canada and provinces.

16. Statistics Canada. Table 37-10-0122 Characteristics and median employment income of postsecondary graduates two years after graduation, by educational qualification and field of study (primary groupings), 2020 constant dollars.

17. Statistics Canada. Table 37-10-0194 Median employment income of journeypersons who certify in selected trades, two and five years after certification, cross-sectional analysis, 2018 constant dollars. For comparability purposes, the figure quoted in this paper has been adjusted to 2020 constant dollars.

18. Statistics Canada. Table 37-10-0115 Characteristics and median employment income of longitudinal cohorts of postsecondary graduates two and five years after graduation, by educational qualification and field of study (primary groupings).

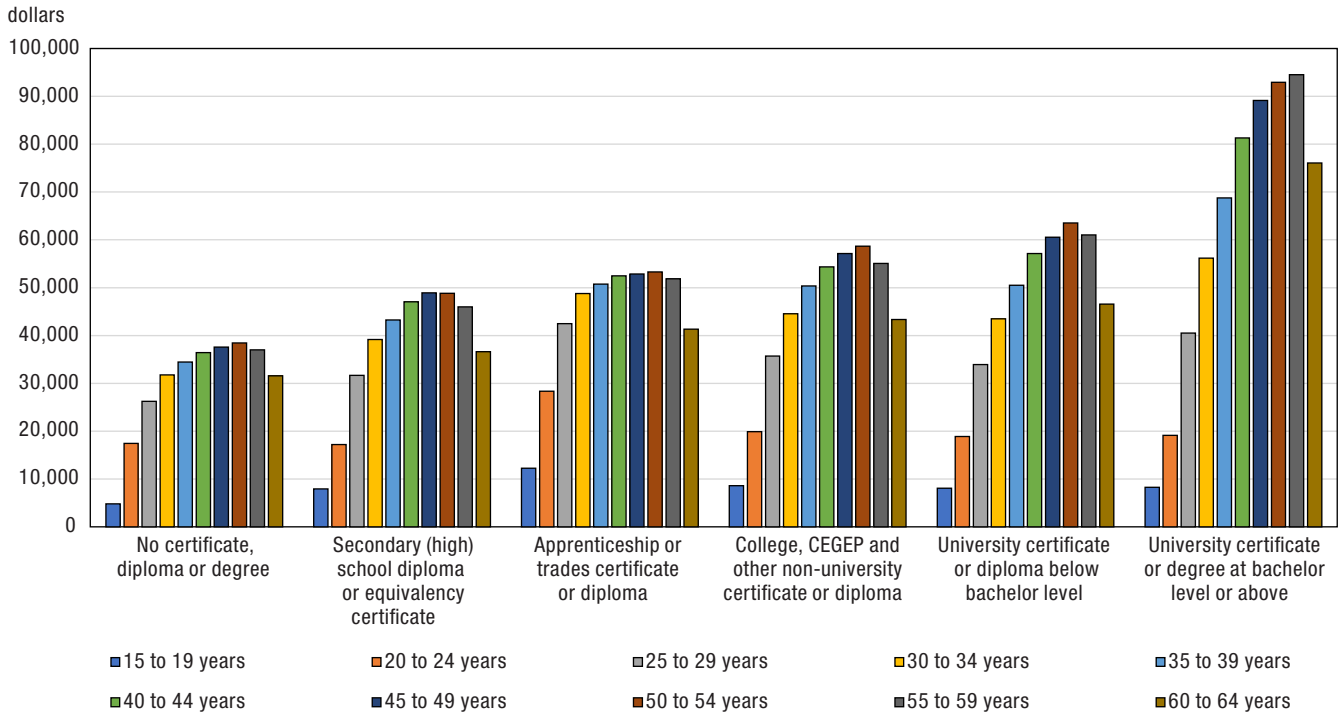
in particular.¹⁹ While the growth in income between two years and four years after certification was negative over this period, overall, there was a growth in median employment income of 15%²⁰ relative to the year of certification.

Income over a lifetime

Another way of looking at income growth is to examine workers' average earnings or employment income by age and highest level of education.

Chart 3

Average earnings or employment income of workers by age group and highest level of educational attainment, Canada 2016



Source: Statistics Canada, table 37-10-0152.

As can be seen from Chart 3, while workers at all levels of education see growth in earnings and employment income up to age 55 to 59, this curve is steepest for those with a university certificate or degree at the bachelor level or above.²¹

The effects of the COVID 19 pandemic

This fact sheet has provided an overview of the pathways of Canadian youth out of compulsory education, into postsecondary and beyond, or into the labour market. As new data become available, it will be important to observe the role that the COVID-19 pandemic has played, and continues to play, on these pathways.

For apprentices, some effects of the pandemic have already been observed. The onset of the pandemic in 2020 had a negative impact on the economy as a whole and newly certified journeypersons in particular. Among the restrictions provinces and territories implemented to contain the spread of COVID-19 was the closure of many worksites. Without the capacity to perform their jobs virtually, newly certified journeypersons were more affected than some others in the labour force at the beginning of the pandemic.

19. The Daily, March 13, 2023. "Earnings and mobility indicators for newly certified journeypersons in Canada, 2020".

20. Statistics Canada. Table 37-10-0195 Median employment income of journeypersons who certify in selected trades at 4 and 2 years before certification, year of certification, 2 and 4 years after certification, longitudinal analysis, 2018 constant dollars. For comparability purposes, figures quoted in this paper have been adjusted to 2020 constant dollars.

21. Statistics Canada. Table 37-10-0152 Average earnings or employment income, by age group and highest certificate, diploma or degree.

This also made it difficult to start an apprenticeship in 2020, as finding an employer willing to take on an apprentice is a prerequisite for anyone looking to start a career in the trades.²² While tight labour markets in 2021 and 2022 helped the apprenticeship system regain losses experienced in the depths of the pandemic,²³ the number of new registrations in apprenticeship programs [remained below pre-pandemic levels](#).

As new data become available for the other pathways presented in this paper, the following questions could be explored: Will the disruptions to in-person learning at the elementary/secondary level lead to longer times to high school graduation? How will the switch to virtual learning affect the persistence and graduation rates of postsecondary students? And, what are the longer-term effects on labour market outcomes for college and university graduates and apprentices?

22. The Daily 2021-12-06 "[Registered apprenticeship training programs, 2020](#)".

23. The Daily 2022-12-06 "[Registered apprenticeship training programs, 2021](#)".