



PROJECT SNAPSHOT

Apprentices in Ontario: Who Pursues Apprenticeships and What Are Their Pathways into and out of Various PSE Institutions and the Labour Market?

Type: Research

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Project Summary

The purpose of this analysis is to determine who pursues apprenticeships, what lateral and vertical transfer pathways students take into and out of various post-secondary education (PSE) institutions in Ontario, and the sequencing of these transfers. Moreover, our proposed study is interested in examining the destinations of individuals exiting apprenticeship programs. A key contribution of our proposed research will be to examine how these patterns differ for men, women, immigrants, Indigenous peoples, and visible minorities. Apprenticeships are generally a low cost means of obtaining PSE, because wages are paid throughout a students' training (Sharpe & Gibson, 2005), which leads to the development of skills useful in many lucrative industrial sectors. As such, apprenticeship programs can act as a means for youth, who would otherwise not attend post-secondary education, to transition from school to work and into adulthood (Wright, Lehmann & Taylor, 2020). Yet, apprenticeship programs and training remain a hidden pathway for many individuals in Canada (Sharpe & Gibson, 2005). In fact, much of the focus for post-secondary education (PSE) remains on getting students enrolled in college and university and, as such, research had argued that there is an academic bias in PSE pathways (Sharpe & Gibson, 2005). While most students who register in apprenticeship programs are Canadian-born males under the age of 25 (Sharpe & Gibson, 2005), Jin, Langevin, Lebel & Haan (2020) found that average age at the time of registration was 28 years old. Thus, many apprentices may be taking divergent pathways through education and, as such, may experience higher levels of mobility. Nevertheless, apprenticeships can facilitate economic integration of

some of the most marginalized groups in Canada and improve regional economic conditions, especially if students who experience mobility between various PSE institutions are able to successfully transfer their credits. As such, our proposed project seeks to address the following research questions:

What are the pathways that students take into apprenticeships (direct entry from high school, from employment, or from other PSE institutions) and how does entry differ across minority groups and women?

What are the destinations (transfers between PSE institutions or employment) of individuals exiting apprenticeships and what is the sequence of these pathways? How do exits differ across minority groups and women and are there discernible differences in completion rates and destinations across different groups?

What are the labour market outcomes of individuals who were in apprenticeship training and how do outcomes differ by entry and exit pathways for different groups?

Developing and maintaining a skilled workforce in Ontario is essential to maintain a robust economy equipped with opportunities for a variety of workers. Apprenticeship training programs and certifications are a means to providing skills and knowledge to future tradespeople so that they may enter the labour market in lucrative employment positions. In fact, research has shown that tradespeople are a driving force for a healthy economy in Canada, as they are found in almost every industry (Statistics Canada, 2020). An important and under researched aspect of developing a skilled workforce in Canada is the pathways taken by students into and out of PSE and apprenticeships, more specifically, and how student mobility factors into completion rates. Our proposed study will contribute to the growing body of literature on apprenticeship training and student mobility in Ontario. Moreover, a thorough examination of completion rates by identity and minority populations, such as Indigenous peoples, women, visible minorities, and immigrants, will allow us to assess important differences when compared with Canadian-born males. In fact, Indigenous apprentices seem to take divergent pathways into and out of apprenticeship programs (Statistics Canada, 2017) and, as such, our research will reveal the sequencing of lateral and vertical transfers into and out of apprenticeship programs. Thus, an important contribution of our proposed study will be to investigate visible minority, immigrant, Indigenous, and female apprentices' registration in training programs, their certification completion rates, the degree of student mobility and vertical and lateral transfers taken by these groups into apprenticeship programs in Ontario. Finally, by assessing gender differences across population sub-groups, we will make suggestions for future policy programs aimed at improving the ability for students to successfully transfer their credits from one PSE institution to another.

Project Rationale

Very few studies have been able to study the work-school, school-school, or other transitions that individuals make as they plot their educational journeys. This study separately identifies the factors that predict an entry into apprenticeship, whereas our second study looks at the factors that predict completion.

Methods

This report uses the Education and Labour Market Longitudinal Platform (ELMLP) developed by Statistics Canada, which allows us to construct various samples through the linkages provided. The samples include data constructed from the Postsecondary Student Information System, the Registered Apprentice Information System (RAIS) linked with the 2016 Canadian Census, and the RAIS linked with the T1 Family Tax File (T1FF). Our report is divided into two

main parts. The first looks at entry into apprenticeships, whereas the second looks at completers.

The methods used include a sequencing analysis, a logistic regression to examine the predictors of completing a program of study among apprentices, and an OLS regression analysis to examine apprentices' labour market outcomes.

Describe any limitations

There were no methodology limitations, only data limitations.

Research Findings

Our findings demonstrate that most apprentices do not transfer from another type of PSE program and that a substantial number are non-visible minority, native-born men who are between the ages of 15 to 24. We also find that not only are major trades groups gender segregated, but a higher number of visible minority apprentices study female dominated trades.

In our analyses of the pathways in and out of apprenticeships we find that, while most enter into apprenticeships through employment, many end up re-entering the labour market without completing their apprenticeship training. Alternatively, the second most common pathway occurs in the jump from employment, to completion, to employment again. Further, through our Ordinary Least Squares regression results, we find that those who switch their program of study earn less than those who do not switch, suggesting that they either transferred to a lower-paying program, or that they may have encountered barriers during the transition. The results also illustrate a significant gender pay gap that is not explained by the covariates in the model. This suggests that factors other than gender segregation in the skilled trades and age impact the pay differential between men and women.

Future Research

As the dataset continues to develop, we expect that the ability to answer new questions will emerge. For example, do apprenticeships yield the same rate of return for every student? Or, does this differ by sociodemographic characteristics like age, sex, visible minority status, indigenous status, etc. Unfortunately, the ELMLP does not currently permit the linkage of the files we would need to answer these questions. We expect that these linkages may soon be possible.

Student Outcomes

We find we find that those who switch their program of study earn less than those who do not switch. For students, this suggests that individuals should try to stay in their initial program of study whenever possible.

Institutional Outcomes

We find that many individuals re-enter the labour market without completing their training.

Sector or System Implications

Our results show a lot of movement in and out of the labour market and apprenticeship training. Looking only at transfers between educational institutions misses a good deal of movement. For a system to be seamless, movements in and out of the labour market should be part of the

student-centred transfer system.

Tips

Have access to the data before writing the proposal. The documentation was inadequate, and we were unaware that the files in ELMLP could not all be linked together.

