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Becoming journeypersons: A comparative study of childhood immigrant apprentices and Canadian-born apprentices from registration to certification



by Allison Leavage

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Becoming journey persons: A comparative study of childhood immigrant apprentices and Canadian-born apprentices from registration to certification

by Allison Leverage 

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Abstract

This article examines trades certification outcomes from 2008 to 2023 among apprentices who were childhood immigrants (hereinafter known as “childhood immigrants”), compared with their Canadian-born counterparts, across eight registration cohorts (2008 to 2015). The analysis uses data from the Registered Apprenticeship Information System (RAIS) linked with the Longitudinal Immigration Database and the personal RAIS–T1 Family File (tax data) within the Education and Labour Market Longitudinal Platform. Childhood immigrants represented about 4% to 5% of newly registered apprentices across all cohorts, while Canadian-born apprentices made up the remaining 95% to 96%. Descriptive comparisons revealed relatively large trade-specific certification rate differences for childhood immigrants—particularly among cabinetmakers, carpenters, sheet metal workers, and hairstylists and barbers—with some of these gaps narrowing once sociodemographic, income, employment and program characteristics were considered. Across all model specifications, childhood immigrant apprentices remained less likely to obtain certification than their Canadian-born counterparts. Among childhood immigrants, those who arrived during adolescence were less likely to obtain certification than those who arrived before the age of 5. Those whose parents entered Canada through family-sponsored or refugee streams showed lower certification rates, whereas children of Provincial Nominee Program entrants were more likely to obtain certification than those whose parents arrived through worker programs (e.g., skilled trades workers). Overall, these findings indicate that childhood immigrant apprentices experience persistent certification gaps relative to their Canadian-born peers, suggesting challenges in progressing through and completing apprenticeship programs even as labour market demand for trades occupations has expanded.

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Introduction

Over the last several decades, skilled tradespeople have been continuously in high demand, driven by an aging workforce and earlier retirements compared with other occupational groups (Jin et al., 2020; Statistics Canada, 2024a). Apprenticeship systems are also sensitive to business cycle conditions, as firms' training and certification decisions respond to changes in labour demand (Muehlemann & Wolter, 2021). The COVID-19 pandemic was associated with disruptions to Canada's apprenticeship system, during which new apprenticeship registrations remained below pre-pandemic levels (Statistics Canada, 2022a; Statistics Canada, 2024b; Zeman, 2023), and led to a growing need for apprentices. However, certification rates began to recover in some trades after 2022, with several exceeding pre-pandemic levels by 2024, yet these certification trajectories have varied considerably across the skilled trades (Statistics Canada, 2024c). For example, certification rates increased among trades such as ironworkers, powerline technicians and industrial electricians, while other trades—including hairstylists, cooks, truck and transport mechanics, and refrigeration and air conditioning mechanics—continued to exhibit lower certification rates relative to pre-pandemic levels. This highlights ongoing heterogeneity in post-pandemic recovery patterns. While skilled trades and apprenticeship are under provincial and territorial jurisdiction, the federal government plays an important role in workforce development through national strategies and apprenticeship supports. The federal government implemented the Canadian Apprenticeship Strategy to support approximately 25,500 apprentices in the 2023/2024 fiscal year (Government of Canada, 2023; see Government of Canada [2025] for other initiatives) and has been promoting in-demand skilled trades as a first-choice career path (Employment and Social Development Canada, 2022). While job vacancies—including those in trades—have declined since mid-2022, trade-related vacancies grew relatively faster than average over the last decade (Statistics Canada, 2025a).

Canada has previously turned to immigrants to help address workforce recruitment challenges, by increasing the admission of skilled trades immigrants to fill labour market shortages since the late 2000s and the early 2010s (Hou et al., 2021). Many of these immigrants come to Canada during their working years, often bringing their families, including children. Since 1980, over 2 million of these arrivals have been childhood immigrants—those admitted before the age of 18—who represent one-quarter of the overall immigrant population (Statistics Canada, 2025b). Childhood immigrants differ from adult immigrants and occupy a unique position. They may receive all or part of their education in Canada and therefore may have distinct pathways and experiences, including reduced exposure to challenges commonly faced by adult immigrants, such as foreign credential recognition barriers (Houle & Yssaad, 2010), which can shape educational and labour market outcomes.

Previous research has shown that childhood immigrants who arrived in Canada over the past decades surpassed their Canadian-born counterparts in educational attainment and reported similar labour market outcomes (Abada et al., 2009; Boyd, 2009; Chen & Hou, 2019; Childs et al., 2017; Finnie & Mueller, 2010; Hou & Bonikowska, 2016, 2017; Picot & Hou, 2011, 2013; Picot et al., 2023; Turcotte, 2019). For example, Picot et al. (2023) found that childhood immigrants were more likely to pursue a bachelor's degree or higher than a trades or college certification, while the opposite was observed among those with Canadian-born parents. The study suggests that this trend may be driven by immigrant families placing greater emphasis on university degrees, which they may perceive as more valuable than apprenticeship training, relative to Canadian-born parents.

Although childhood immigrants are less likely to pursue trades certification than Canadian-born people, these jobs have the potential to be well-paying careers because of high demand, especially given the current housing challenges in Canada (Statistics Canada, 2022b). Statistics Canada (2017) found that completing an apprenticeship program can be as profitable as completing a bachelor's degree in British

Columbia for men. Furthermore, a recent study by Zeman (2023) showed that the employment income of apprentices two years after certification was higher than that of people with an undergraduate degree (\$59,000 versus \$50,900, respectively).¹

Some attention has been paid to the completion of skilled trades training by immigrants and their economic outcomes in Canada (Jin & Kopp, 2023), but research on apprenticeship programs, their completion and pathways of childhood immigrants is limited (see Picot et al. [2023] for an exception). As apprenticeship training is critical for the Canadian labour market and essential for becoming a journeyperson in sectors such as construction, manufacturing and infrastructure development in Canada (Jin et al., 2020), analyzing pathways of the childhood immigrant population in the trades helps situate their potential contribution to skilled trades growth and starts to unpack barriers they may face when becoming certified journeypersons. This study aims to contribute to this knowledge gap by examining how childhood immigrant apprentices compare with their Canadian-born counterparts in terms of their sociodemographic profiles, working conditions during training and program characteristics from registration to certification (becoming journeypersons²)—especially with the increasing numbers of immigrants and their families entering Canada. As such, this study aims to answer three interrelated research questions:

- Do childhood immigrants differ from Canadian-born individuals in their certification rates when becoming journeypersons?
- Do differences in certification rates for becoming journeypersons between childhood immigrants and Canadian-born individuals persist after controlling for sociodemographic characteristics, working conditions during training (e.g., wages and benefits) and program-related characteristics?
- To what extent do immigrant-specific characteristics—such as age at arrival, source region, immigration class and knowledge of official languages—provide additional explanatory insight into certification outcomes among childhood immigrants, beyond socioeconomic, employment and program-related characteristics?

Previous research has shown that a notable share of apprentices do not complete their programs, yet obtaining certification is important as it provides access to the full wages and benefits associated with their trade (Jin et al., 2020). Understanding whether apprentices who were childhood immigrants (hereinafter called “childhood immigrants”) and Canadian-born apprentices differ in their trades certification outcomes provides insights on the various pathways into the apprenticeship system.

The next section provides information on the data sources and methodology used in this study, followed by the presentation of the results, discussion of the findings, limitations and future research considerations.

1. While certified journeypersons earn more than bachelor's degree holders two years after completion, bachelor's degree holders experience stronger long-term income growth—about a 25% increase over five years, compared with roughly 15% for trades—and typically surpass those with a trades education in median earnings over time (Zeman, 2023).

2. Journeypersons are defined as “individuals who completed an apprenticeship program or trade qualifiers who have received a certificate of qualification” (Statistics Canada, 2023b).

Data

This study integrates the following datasets from the Education and Labour Market Longitudinal Platform (ELMLP): the 2023 Longitudinal Immigration Database (IMDB), the 2023 Registered Apprenticeship Information System (RAIS) and tax data from the T1 Family File (T1FF).

The ELMLP is an environment containing longitudinal administrative data that allow researchers to analyze the educational pathways and career trajectories of different cohorts of postsecondary students and apprentices over time. The datasets within the ELMLP can be integrated to provide more detailed information on the individuals' characteristics upon entering postsecondary education or apprenticeships and their educational outcomes (e.g., graduation status and certification).

The IMDB is an administrative database that combines landing records (available from 1980 to 2023) with annual tax file data. However, in the main IMDB, there was little information about childhood immigrants during their early years, as children were not tax filers. The 2023 children module within the IMDB was developed to explore the impact of childhood socioeconomic conditions (children aged 17 years or younger at the time of admission) on education and economic outcomes later in life. Given the focus on childhood immigrants in this study and acknowledging potential differences in migration experiences, this analysis excluded adult immigrants (those who were not in the IMDB children module).³ Using the IMDB children module, the sample was limited to children aged 17 years or younger at the time of admission. The country of birth⁴ and immigrant class were taken from the main IMDB landing file. Country of birth was categorized into five source regions: Americas, Europe, Africa, Asia and other countries.⁵ Immigrant class was grouped into six categories based on the admission category classification: economic immigrants from the Provincial Nominee Program, worker programs⁶ and business programs; immigrants sponsored by family; refugees; and other immigrants (see Statistics Canada, 2023b).

The RAIS is an administrative dataset that contains annual information on all registered apprentices in Canada from 2008 to 2023, providing details on apprentices who received training and obtained certification in a trade, alongside their demographic characteristics (e.g., sex and age). Because this study examines pathways to certification among apprentices in Canadian skilled trades, it is important to define key terminology. Newly registered apprentices are individuals who enrolled in an apprenticeship program during the 12-month reporting period from January 1 to December 31. To begin an apprenticeship, individuals must secure a job with an employer who provides on-the-job training under the supervision of a certified journeyperson, with the agreement formally registered through the relevant provincial or territorial apprenticeship authority (Jin et al., 2020). Approximately 80% of training occurs on the job, while the remaining portion consists of in-class technical instruction. Apprentices are

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3. All children in the IMDB children module consisted of those who were granted permanent residency. Parent-child connections were determined, and connections between dependent identifier numbers and social insurance numbers were prioritized; if this information was not available, the immigration application number was used to identify children's parents.
 4. This study acknowledges that there were other country-level variables in the IMDB landing file. Further analysis revealed that about 85% of childhood immigrants had no change between their country of birth and citizenship and 91% had no change between their country of birth and country of residence. Therefore, country of birth was relatively stable across childhood immigrants across all cohorts (analysis not shown here) and was used in this study.
 5. The six categories were based on the Variant of the Standard Classification of Countries and Areas of Interest 2022 for Social Statistics using the first digit of the country of birth variable of childhood immigrants because of low sample sizes (Statistics Canada, 2023a).
 6. "Worker programs" refers to a grouping within the economic immigrant admission category, as defined by Statistics Canada's classification of admission category. This grouping includes the Federal Skilled Worker Program, the Canadian Experience Class, the caregiver programs and the Atlantic Immigration Program (see Statistics Canada, 2023b).

paid during their on-the-job training, typically at a lower rate than certified journeypersons. Obtaining certification requires completing the required on-the-job and technical training, as well as passing one or more examinations (Statistics Canada, 2022a).⁷

Drawing from the RAIS data, the analysis focused on eight registration cohorts—individuals newly registered in apprenticeship training programs from 2008 to 2015—to assess certification within the expected program duration, as well as within one and a half times (e.g., six years for a four-year program) and twice the program duration (e.g., eight years for a four-year program).^{8,9} For example, the 2008 (registration) cohort includes individuals who enrolled in a four-year apprenticeship program in 2008 and may have been certified within the expected duration (by 2012), within one and a half times the program duration (by 2014) or within twice the program duration (by 2016).¹⁰

Trades were categorized using the five-digit 2021 National Occupational Classification (NOC) codes that appeared in the RAIS.¹¹ This analysis limited its analysis to 19 trades where certification was available across all provinces and territories to ensure consistency across jurisdictions, according to the Ellis Chart (Employment and Social Development Canada, 2025). Apprentices' provinces and territories were determined based on the jurisdiction of application and grouped into six regions: the Atlantic provinces, the Prairies, Quebec, Ontario, British Columbia and the territories.¹² In each province and territory, trades are designated as either regulated (requiring compulsory certification) or unregulated (voluntary certification), and the specific trades that require compulsory certification differ by jurisdiction. Additionally, apprentices who pass the Red Seal exam receive a Red Seal endorsement on their provincial or territorial trade certificate, indicating that they have met the national standard for that trade (Jin & Su, 2021). For the purposes of this study, apprentices were classified into four categories, following previous research (Jin et al., 2020): (1) compulsory Red Seal trade, (2) voluntary Red Seal trade, (3) compulsory non-Red Seal trade and (4) voluntary non-Red Seal trade. A binary variable captured whether apprentices received credits for pre-registration training, which indicates whether credits were granted for combined in-class and on-the-job training before their program start.

Furthermore, following previous research highlighting the role of working conditions during training, such as wages and benefits, in apprenticeship completion in Canada (Jin et al., 2020), this study incorporated employment-related variables from the RAIS and T1FF. The 2023 T1FF covers approximately 95% of the population (Statistics Canada, 2025c), with 89% of apprentices linked to the personal income tax file

7. The process for obtaining journeyperson certification varies across Canada, as responsibility for the requirements lies within the provinces or territories. According to Statistics Canada (2022a), "requirements for granting a certificate vary by jurisdiction in Canada. In most cases, apprentices are issued a certificate when they fulfill such requirements as supervised on-the-job training, technical training and passing one or more examinations. Trade qualifiers, meanwhile, become certified once they pass an examination."

8. Program duration varied, ranging from one to five years.

9. Following previous research by Zeman (2023) and Jin and Kopp (2023), which noted that the national average program duration is four years, this study included an observation window extending up to 2023 to allow apprentices from the 2008 to 2015 registration cohorts sufficient time to get certified within twice the expected four-year duration. However, apprentices in the 2014 and 2015 registration cohorts enrolled in 5-year programs would require up to 10 years to complete certification. Because the dataset currently captures outcomes only up to 2023, these individuals' certifications would not be fully observed within the available timeframe.

10. This study used the Statistics Canada (2024d) Common Output Data Repository (CODR) table as a reference to calculate certification, continuation and discontinuation of apprentices within the program duration, at one and a half times the program duration and at twice the program duration. The percentages are similar to those in the CODR table but differ because the study sample excludes adult immigrants and focuses only on the trades that have certification across all provinces and territories.

11. The NOC is a classification of occupations that was designed primarily for use in statistical programs to analyze and communicate information about occupations, such as labour market information.

12. These six categories were based on the Standard Geographical Classification 2021 that provides the standard names and codes for the geographical regions of Canada, such as provinces and territories (Statistics Canada, 2022c).

at the time of their registration. Personal annual employment income was grouped into six categories ranging from less than \$15,000 to \$75,000 or more, including a missing income category (for those who did not file taxes). Union membership, registered pension plan participation and receipt of employment insurance benefits were coded as binary variables, with any positive contribution amount (greater than \$0) indicating membership, participation or receipt, respectively. The number of industries worked in the registration year was categorized as no industries reported, one, two, or three or more, based on the number of distinct employer North American Industry Classification System codes linked to an individual's paid employment in that year.^{13,14}

Methods

The analyses were conducted across eight registration cohorts, focusing on two groups: childhood immigrants and Canadian-born apprentices. Descriptive statistics were first used to examine sociodemographic, income, employment and program characteristics by immigrant status and registration cohort and, where applicable, immigrant characteristics of newly registered apprentices. The study then investigated whether newly registered apprentices certified, continued or discontinued within the expected program duration, one and a half times the program duration or twice the program duration. Next, certification by immigrant status and trade were examined.

Logistic regression models were estimated to compare the likelihood of obtaining certification between childhood immigrants and Canadian-born apprentices, accounting for sociodemographic, income, employment and program characteristics. Among childhood immigrants only, additional analysis was conducted examining immigrant-specific characteristics—such as age at arrival, source region, admission class and knowledge of official languages at admission—to assess whether these factors further explained the likelihood of obtaining certification beyond socioeconomic, income, employment and program characteristics. Likelihood ratio tests were used to compare the baseline and extended models.

Results

Table 1 presents the distribution of newly registered apprentices by immigrant status; registration cohort; and key sociodemographic, income, employment, program and—where applicable—immigrant characteristics.¹⁵ Across all eight cohorts (2008 to 2015), the majority of apprentices were born in Canada (about 95% to 96%), while childhood immigrants accounted for roughly 4% to 5%, increasing modestly from 4% in 2008 to 5% in 2015.

Among childhood immigrants, most arrived in Canada during middle childhood, with the next largest group arriving during adolescence and fewer arriving before the age of 5. The largest share of childhood immigrants came from Asia (about 40% to 47%), followed by Europe (about 24% to 29%), the Americas

13. This study considered those who did not file taxes and included them in the “no industries reported” category and as missing income.

14. Jin et al. (2020) noted in their study that the number of sectors in which an apprentice worked was used as a proxy for job switching.

15. As this study uses administrative population data from the RAIS and ELMLP, formal significance tests were not conducted for descriptive comparisons. Reported percentages represent actual population distributions rather than sample estimates.

(about 17% to 23%) and Africa (about 7% to 12%). Childhood immigrants' parental admission class also varied—about one-third (33% to 35%) were admitted through worker programs, followed by about 23% to 30% through family sponsorship, roughly one-quarter (24% to 27%) through refugee streams, and smaller proportions through the Provincial Nominee Program (2% increasing to 11% across cohorts), through business programs (5% to 7%) or as other immigrants (1% to 3%). At admission, approximately 57% to 60% of childhood immigrants reported that neither English nor French was their primary official language, whereas about 37% to 40% reported English only as their primary official language.

Income and employment patterns also differed by immigrant status. A higher percentage of childhood immigrants had employment incomes below \$15,000 than Canadian-born apprentices, while the reverse was observed in the employment income category of \$75,000 or more in the registration year. A lower proportion of childhood immigrants were union members (17% to 23%), participated in registered pension plans (4% to 9%) or received employment insurance benefits (13% to 18%) compared with Canadian-born apprentices (29% to 34%, 16% to 19%, and 20% to 28%, respectively).

Program characteristics showed broadly similar patterns for childhood immigrants and Canadian-born apprentices. Four-year programs accounted for the largest share of registrations among both apprentice groups, ranging from about 49% to 62% for childhood immigrants and 48% to 59% for Canadian-born apprentices. In terms of trade type, compulsory Red Seal programs represented the highest proportion of registrations for both groups (approximately 50%), followed by voluntary Red Seal programs (about 32% to 40%), with smaller shares in voluntary (7% to 16%) and compulsory (1% to 4%) non-Red Seal trades.

Table 1
Proportion of new registrants in apprenticeship programs by immigrant status and registration cohort year

	Pathway cohort (registration cohort)															
	2008		2009		2010		2011		2012		2013		2014		2015	
	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born
Total	3.7	96.3	3.7	96.3	3.6	96.4	3.8	96.2	4.1	95.9	4.1	95.9	4.8	95.2	5.0	95.0
Sociodemographic characteristics								percentage								
Sex																
Male	87.3	89.1	85.2	87.0	85.2	87.0	84.9	87.9	87.7	88.3	88.3	89.0	88.2	88.2	88.9	87.6
Female	12.7	10.9	14.9	13.0	14.8	13.0	15.1	12.1	12.3	11.8	11.7	11.0	11.8	11.8	11.1	12.4
								median								
Age at registration																
Age	22.0	23.0	22.0	23.0	22.0	23.0	23.0	23.0	24.0	23.0	24.0	23.0	24.0	23.0	23.0	24.0
								percentage								
Region																
Atlantic provinces	F	6.0	F	6.6	F	6.4	F	6.3	F	6.2	F	6.3	F	5.8	F	6.3
Prairies	26.6	33.6	23.7	30.0	23.2	28.0	25.2	29.6	31.1	34.1	33.3	35.1	40.6	37.1	35.8	31.8
Quebec	2.8	17.1	4.1	18.0	5.9	22.6	5.1	19.8	4.7	16.1	4.8	17.3	4.6	14.7	4.9	16.2
Ontario	43.5	24.6	47.9	27.4	47.3	26.1	40.2	24.7	34.8	23.8	24.3	18.0	30.6	22.7	32.2	25.8
British Columbia	26.6	18.3	23.6	17.7	23.2	16.5	29.0	19.3	28.8	19.5	36.6	23.0	23.7	19.5	26.4	19.5
Territories	F	0.4	F	0.4	F	0.5	F	0.4	F	0.4	F	0.4	F	0.3	F	0.4
Immigrant characteristics																
Age at landing																
0 to 5 years (reference category)	23.9	...	23.9	...	23.9	...	23.0	...	23.9	...	22.3	...	23.6	...	21.6	...
6 to 12 years (middle childhood)	45.6	...	42.7	...	42.4	...	42.5	...	42.6	...	43.5	...	41.7	...	43.7	...
13 to 17 years (adolescence)	30.5	...	33.4	...	33.7	...	34.5	...	33.5	...	34.2	...	34.7	...	34.7	...
Source region																
Americas	21.3	...	23.2	...	21.3	...	20.1	...	18.3	...	16.7	...	18.5	...	18.3	...
Europe	29.2	...	26.9	...	28.6	...	27.1	...	27.8	...	26.9	...	25.3	...	23.9	...
Africa	8.0	...	7.4	...	F	...	7.7	...	8.2	...	9.3	...	12.1	...	F	...
Asia	39.9	...	41.6	...	41.6	...	44.4	...	44.6	...	46.1	...	43.3	...	47.2	...
Other countries	1.5	...	0.9	...	F	...	0.8	...	1.1	...	1.0	...	0.8	...	F	...
Admission class																
Provincial Nominee Program	1.8	...	2.7	...	3.5	...	4.8	...	6.0	...	6.6	...	8.2	...	10.7	...
Worker program	35.4	...	33.4	...	32.9	...	33.8	...	35.1	...	35.1	...	33.1	...	33.2	...
Business program	7.1	...	6.1	...	6.5	...	6.7	...	6.2	...	7.2	...	5.7	...	4.9	...
Immigrant sponsored by family	29.6	...	29.5	...	30.1	...	27.1	...	27.0	...	22.9	...	24.5	...	22.6	...
Refugee	24.8	...	26.5	...	24.3	...	25.4	...	23.6	...	25.2	...	25.1	...	25.8	...
Other	1.4	...	1.8	...	2.7	...	2.2	...	2.2	...	3.1	...	3.4	...	2.9	...
Knowledge of official languages at admission																
English (only)	37.9	...	38.5	...	36.9	...	39.5	...	38.4	...	39.0	...	39.7	...	38.6	...
French and English or French (only)	2.2	...	2.8	...	4.0	...	3.8	...	3.3	...	3.6	...	3.8	...	2.7	...
Neither English nor French	59.8	...	58.7	...	59.0	...	56.7	...	58.2	...	57.4	...	56.5	...	58.7	...

F too unreliable to be published

... not applicable

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 1
Proportion of new registrants in apprenticeship programs by immigrant status and registration cohort year (continued)

	Pathway cohort (registration cohort)															
	2008		2009		2010		2011		2012		2013		2014		2015	
	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born
	percentage															
Income and employment characteristics																
Employment income in registration year																
Less than \$15,000	35.7	27.2	46.5	33.9	46.9	32.1	39.8	28.8	38.8	27.8	34.8	26.5	32.1	25.8	32.7	25.8
\$15,000 to \$29,999	24.1	24.6	25.4	25.5	24.2	25.7	25.4	25.7	22.7	23.3	22.7	23.3	25.0	23.6	25.7	25.6
\$30,000 to \$44,999	22.1	23.1	16.5	20.0	15.9	21.0	20.2	22.6	18.1	22.0	20.1	21.7	20.4	22.2	22.4	23.5
\$45,000 to \$59,999	10.0	11.9	6.8	9.9	7.1	10.1	7.9	11.1	10.3	12.0	11.3	12.6	10.8	12.8	9.5	11.9
\$60,000 to \$74,999	4.6	5.3	2.9	4.5	2.9	4.8	3.8	5.3	5.3	6.5	5.5	6.7	5.3	6.5	5.2	5.8
\$75,000 or more	3.5	7.9	1.9	6.2	3.0	6.4	2.9	6.5	4.8	8.4	5.5	9.3	6.4	9.2	4.5	7.4
Missing income	11.1	10.0	13.6	11.1	13.6	11.5	11.6	10.7	11.3	11.1	10.5	10.9	10.9	11.0	10.6	10.4
Had union membership in registration year																
Yes	21.7	34.3	17.2	30.3	18.7	30.8	17.8	31.3	20.2	28.7	21.5	31.9	23.2	29.7	22.3	29.9
Had a registered pension plan in registration year																
Yes	5.5	18.2	4.4	16.3	6.6	18.0	6.1	18.6	7.3	16.7	8.6	18.4	8.3	16.0	8.0	16.4
Received employment insurance benefits in registration year																
Yes	13.4	23.0	18.3	27.9	17.5	25.8	16.2	24.4	15.4	21.6	14.4	22.0	13.9	20.3	16.8	22.7
Number of industries worked in registration year																
No industries reported	14.9	12.0	21.2	14.7	22.0	15.4	16.8	13.4	16.4	13.7	15.4	13.1	14.5	12.9	13.7	12.5
One	38.4	39.5	42.6	44.6	41.2	42.6	42.7	40.4	41.2	40.5	43.6	41.0	42.2	40.7	44.2	42.8
Two	29.2	30.5	24.8	27.5	25.4	27.8	28.3	29.9	28.0	29.7	27.6	29.3	26.9	30.1	27.7	29.4
Three or more	17.6	18.0	11.4	13.2	11.3	14.2	12.2	16.2	14.5	16.2	13.5	16.5	16.5	16.3	14.5	15.4
Program characteristics																
Received credits for pre-registration training																
Yes	32.4	42.7	33.0	45.2	32.7	44.2	39.0	49.1	43.2	50.0	46.4	51.7	47.1	51.2	44.5	50.2
Program duration																
One year	1.5	3.7	11.4	10.4	12.5	7.8	15.8	10.1	15.0	8.8	11.1	7.2	8.9	5.9	9.0	5.2
Two years	10.8	7.6	14.4	10.5	13.7	10.0	12.8	8.4	10.6	8.1	8.7	6.6	10.3	8.4	9.4	9.4
Three years	12.4	18.6	9.2	18.7	10.7	23.6	9.6	22.9	13.2	23.1	14.1	24.3	16.5	21.3	12.7	19.7
Four years	61.7	58.8	52.5	49.4	51.7	48.5	50.7	47.9	49.3	49.0	57.7	53.6	53.0	54.1	59.1	54.1
Five years	13.6	11.4	12.6	11.0	11.4	10.0	11.0	10.8	11.9	11.0	8.3	8.4	11.4	10.3	10.0	11.7
Red Seal endorsement and type of certification																
Compulsory Red Seal trade	50.0	51.7	54.4	50.3	52.2	49.6	47.7	50.6	48.9	50.3	44.3	49.8	52.4	52.3	49.1	51.3
Compulsory non-Red Seal trade	2.4	2.7	2.2	3.5	2.2	4.0	2.0	2.6	1.4	2.5	1.0	1.8	1.4	2.0	1.1	2.1
Voluntary Red Seal trade	39.9	39.0	32.1	36.3	32.0	36.1	35.8	36.4	34.4	37.2	38.7	38.0	36.1	37.9	38.6	38.4
Voluntary non-Red Seal trade	7.6	6.6	11.3	9.9	13.7	10.2	14.5	10.4	15.3	10.0	16.1	10.4	10.2	7.8	11.2	8.2

F too unreliable to be published

... not applicable

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 2 presents the proportions of apprentices who obtained certification within the expected program duration, within one and a half times the program duration, and within twice the program duration, disaggregated by immigrant status, across eight registration cohorts (2008 to 2015). Overall, most apprentices took longer than the expected program duration to obtain their certification. Across the registration cohorts, roughly 16% to 25% certified within the expected duration, increasing to about 33% to 45% within twice the program duration.

Despite these extended completion times, population-level differences emerged by immigrant status. Compared with their Canadian-born counterparts, childhood immigrants across registration cohorts were consistently less likely to obtain certification within the expected program duration (except the 2011 registration cohort), one and a half times the program duration or twice the program duration.

For example, in the 2009 registration cohort, 16% of childhood immigrants certified within the expected time, compared with 22% of Canadian-born apprentices. Similarly, in the same 2009 registration cohort, 28% of childhood immigrants obtained certification within one and a half times the program duration, compared with 38% of Canadian-born apprentices (33% and 42%, respectively, for twice the program duration). By contrast, discontinuation rates were higher among childhood immigrants within twice the program duration, with differences ranging from about 3 to 11 percentage points across cohorts, compared with their Canadian-born counterparts. These results show that childhood immigrants were less likely than Canadian-born apprentices to obtain certification across the three periods and more likely to discontinue their programs within twice the program duration. These differences were observed across multiple registration cohorts.

Table 2
Proportions of certifications by immigrant status and registration cohort year

	Pathway cohort (registration cohort)															
	2008		2009		2010		2011		2012		2013		2014 ^p		2015 ^p	
	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born	Childhood immigrants	Canadian-born
	percentage															
Time of certification (total)																
Within program duration																
Certified	18.5	21.6	16.1	22.1	17.3	21.9	23.8	24.5	20.1	23.2	19.3	21.9	19.6	22.8	21.4	23.2
Continued	47.2	43.2	53.2	46.6	48.7	47.3	43.8	44.9	48.7	45.0	45.1	44.0	46.9	43.0	45.6	43.0
Discontinued	34.3	35.2	30.8	31.4	34.0	30.8	32.4	30.6	31.1	31.9	35.5	34.1	33.6	34.3	33.0	33.9
Within one and a half times program duration																
Certified	33.8	37.8	27.6	36.5	29.3	38.1	36.0	40.2	34.3	39.0	34.1	37.1	32.8	37.0	35.0	37.8
Continued	18.2	16.3	19.3	18.3	22.2	20.0	19.2	18.8	22.4	20.6	21.5	21.5	25.8	22.3	25.4	23.1
Discontinued	48.0	45.9	53.2	45.2	48.6	41.9	44.8	41.0	43.4	40.4	44.5	41.4	41.4	40.8	39.6	39.2
Within twice program duration																
Certified	40.0	43.6	33.2	42.1	34.4	43.6	41.6	46.1	40.4	44.5	39.1	42.7	38.6	42.5	39.9	42.9
Continued	8.8	8.1	8.8	9.4	9.2	10.7	8.3	9.4	9.1	10.1	8.5	9.9	10.0	10.1	10.7	10.8
Discontinued	51.2	48.4	58.0	48.5	56.4	45.7	50.1	44.5	50.5	45.4	52.5	47.4	51.4	47.5	49.5	46.3

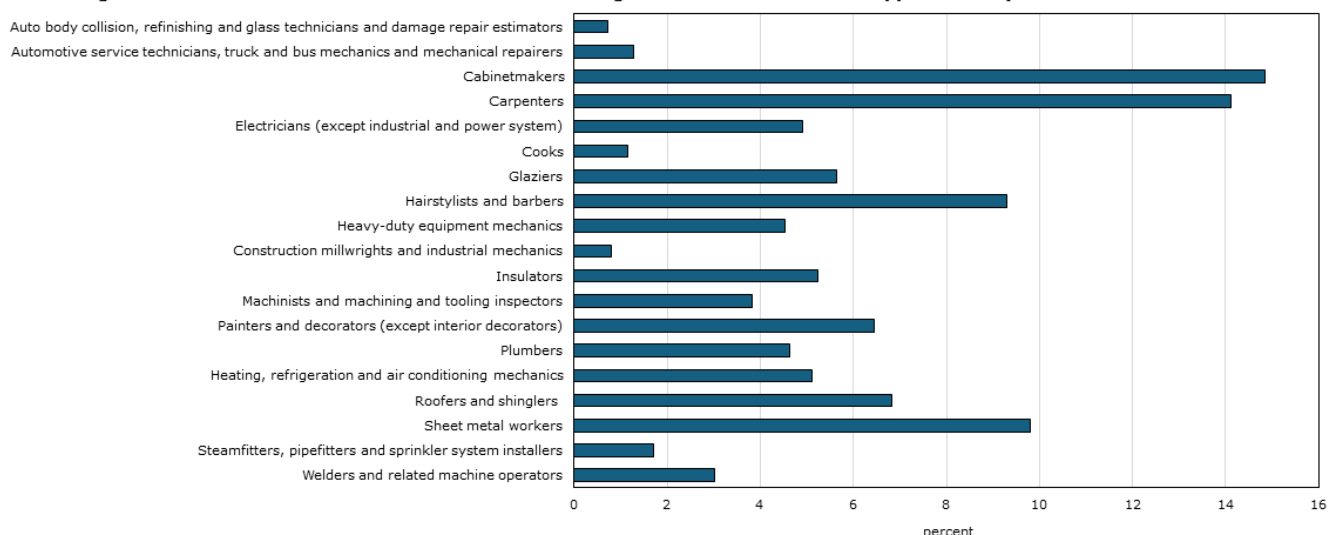
^p preliminary

Note: Numbers for the 2014 and 2015 registration cohorts are preliminary, as these cohorts do not yet have the full observation period of 10 years (twice the duration of a 5-year program).

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Chart 1 illustrates the percentage point differences in obtaining certification (within two years of program duration) between Canadian-born apprentices and childhood immigrants across 19 trades. Positive values indicate higher certification among Canadian-born apprentices. In 8 out of 19 trades examined in this study, childhood immigrants were significantly less likely to obtain certification than their Canadian-born counterparts. The largest certification gaps were observed among cabinetmakers (15 percentage points),¹⁶ carpenters (14 percentage points), sheet metal workers (10 percentage points), and hairstylists and barbers (9 percentage points). Moderate gaps of about 5 percentage points were also found between childhood immigrants and Canadian-born apprentices for heavy-duty equipment mechanics; plumbers; electricians (except industrial and power system); and heating, refrigeration and air conditioning mechanics. These results highlight that certification rates were higher among Canadian-born apprentices in half the trades, underscoring the diverse disparities across the skilled trades sector.

Chart 1
Percentage difference in certification between childhood immigrants and Canadian-born apprentices by trade



Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 3 presents the average marginal effects from logistic regression models, showing the average percentage point (times 100) change in the likelihood of certification associated with each predictor.

Model 1 includes sociodemographic characteristics (inclusive of registration year cohort) and examines baseline differences in the likelihood of obtaining certification between childhood immigrants and Canadian-born apprentices. Childhood immigrants were approximately 5 percentage points less likely to obtain certification than their Canadian-born counterparts, holding age, sex, region and registration year constant. Female apprentices were roughly 4 percentage points less likely than male apprentices to obtain certification. Regional differences were also observed, with apprentices in the Prairies (2 percentage points), British Columbia (9 percentage points) and the territories (6 percentage points) being less likely to obtain certification than apprentices in Ontario.

Model 2 additionally accounted for income and employment measures at the time of registration, alongside program-specific characteristics. Accounting for these factors reduced the gap to 3 percentage points, yet childhood immigrants remained less likely to obtain certification than their

16. For instance, 38% of Canadian-born apprentices obtained certification as cabinetmakers, compared with 23% of childhood immigrants.

Canadian-born counterparts. Relative to apprentices who earned \$15,000 to \$29,999 annually, apprentices earning less than \$15,000 were 17 percentage points less likely to obtain certification, whereas those earning \$30,000 to \$74,999 were 6 to 9 percentage points more likely to obtain certification. Apprentices with incomes above \$75,000 were 3 percentage points more likely to get certified than apprentices earning \$15,000 to \$29,999. Apprentices who paid union dues (1 percentage point), had a registered pension plan (1 percentage point) or received employment insurance (2 percentage points) were more likely to obtain certification. Compared with apprentices who reported no industries worked in the registration year, those working in one or two industries were more likely to obtain certification (8 and 5 percentage points, respectively), while those in three or more industries were 2 percentage points less likely to get certified.

Apprenticeship program features also mattered. Apprentices who had pre-registration credits (13 percentage points) were more likely to obtain certification than those who did not have these credits. Additionally, apprentices in one-year (3 percentage points) and five-year (7 percentage points) programs were more likely to obtain certification compared with those in four-year programs. However, apprentices in three-year programs were less likely to obtain certification (about 3 percentage points). Compared with apprentices in compulsory Red Seal trades, those in voluntary Red Seal trades were about 11 percentage points less likely to obtain certification.

There was substantial variation in certification outcomes across trades. Compared with electricians (except industrial and power system), apprentices in most other trades had lower probabilities of obtaining certification, with differences ranging from about 5 to 27 percentage points. The largest gaps were observed among roofers and shinglers (27 percentage points); glaziers (20 percentage points); painters and decorators (except interior decorators) (19 percentage points); carpenters (18 percentage points); and auto body collision, refinishing and glass technicians and damage repair estimators (18 percentage points). By contrast, apprentices in trades such as hairstylists and barbers (14 percentage points) and construction millwrights and industrial mechanics (3 percentage points) were more likely to obtain certification than electricians (except industrial and power system).

Further analysis was conducted to assess how much of the certification gap between childhood immigrants and Canadian-born apprentices could be attributed to differences in observable characteristics. Results indicated that sociodemographic factors alone (Model 1)—specifically age, sex, province and registration year—accounted for approximately 7% of the observed certification gap. When all observable characteristics were included (Model 2, with the addition of income, employment and program characteristics), approximately one-third (36%) of the certification gap between Canadian-born apprentices and childhood immigrants was explained. In this explained portion, sociodemographic characteristics contributed -26%, indicating that these factors narrowed the certification gap between childhood immigrants and Canadian-born apprentices. By contrast, employment- and income-related characteristics contributed 39%, and program characteristics contributed 23%, both of which widened the gap. The combined (net) effect of these opposing contributions yielded an overall 36% that could be explained by observable characteristics. These findings suggest that while observable factors account for roughly one-third of the certification gap, the remaining approximately two-thirds are unexplained, showing that unmeasured factors may also contribute to certification disparities.

Table 3

Average marginal effects on the probability of certification among apprentices registered from 2008 to 2015

	Obtaining a certificate			
	Model 1		Model 2	
	average marginal effect	standard error	average marginal effect	standard error
Immigrant status				
Childhood immigrant	-0.05 ***	0.00	-0.03 ***	0.00
Canadian-born (ref.)	...	...	...	...
Sociodemographic characteristics				
Sex				
Male (ref.)	...	...	...	...
Female	-0.04 ***	0.00	-0.05 ***	0.00
Age (average)				
Age	0.01 ***	0.00	-0.01 ***	0.00
Age squared	0.00 ***	0.00	0.00 ***	0.00
Region				
Atlantic provinces	0.00	0.00	-0.05 ***	0.00
Prairies	-0.02 ***	0.00	-0.07 ***	0.00
Quebec	0.00 *	0.00	0.05 ***	0.00
Ontario (ref.)	...	...	...	...
British Columbia	-0.09 ***	0.00	-0.04 ***	0.00
Territories	-0.06 ***	0.01	-0.11 ***	0.01
Income and employment characteristics				
Employment income in registration year				
Less than \$15,000	...	...	-0.17 ***	0.00
\$15,000 to \$29,999 (ref.)	...	...	...	...
\$30,000 to \$44,999	...	...	0.09 ***	0.00
\$45,000 to \$59,999	...	...	0.09 ***	0.00
\$60,000 to \$74,999	...	...	0.06 ***	0.00
\$75,000 or more	...	...	0.03 ***	0.00
Missing income	...	...	0.05 ***	0.01
Had union membership in registration year				
Yes	...	...	0.01 ***	0.00
No (ref.)	...	...	...	...
Had a registered pension plan in registration year				
Yes	...	...	0.01 *	0.00
No (ref.)	...	...	...	...
Received employment insurance benefits in registration year				
Yes	...	...	0.02 ***	0.00
No (ref.)	...	...	...	...
Number of industries worked in registration year				
No industries reported (ref.)	...	...	...	...
One	...	...	0.08 ***	0.01
Two	...	...	0.05 ***	0.01
Three or more	...	...	-0.02 ***	0.01

... not applicable

* significantly different from reference category ($p < 0.05$)** significantly different from reference category ($p < 0.01$)*** significantly different from reference category ($p < 0.001$)

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 3

Average marginal effects on the probability of certification among apprentices registered from 2008 to 2015

(continued)

	Obtaining a certificate			
	Model 1		Model 2	
	average marginal effect	standard error	average marginal effect	standard error
Received credits for pre-registration training				
Yes	...	...	0.13 ***	0.00
No (ref.)	...	...	...	...
Program duration				
One year	...	...	0.03 ***	0.00
Two years	...	...	-0.01	0.01
Three years	...	...	-0.03 ***	0.00
Four years (ref.)	...	...	...	...
Five years	...	...	0.07 ***	0.00
Red Seal endorsement and type of certification				
Compulsory Red Seal trade (ref.)	...	...	...	...
Voluntary Red Seal trade	...	...	-0.11 ***	0.00
Compulsory non-Red Seal trade	...	...	0.00 *	0.00
Voluntary non-Red Seal trade	...	...	0.00	0.00
Trade				
Auto body collision, refinishing and glass technicians and damage repair estimators	...	...	-0.18 ***	0.01
Automotive service technicians, truck and bus mechanics and mechanical repairers	...	...	-0.05 ***	0.00
Cabinetmakers	...	...	-0.10 ***	0.01
Carpenters	...	...	-0.18 ***	0.00
Electricians (except industrial and power system) (ref.)	...	...	...	...
Cooks	...	...	-0.09 ***	0.00
Glaziers	...	...	-0.20 ***	0.01
Hairstylists and barbers	...	...	0.14 ***	0.01
Heavy-duty equipment mechanics	...	...	-0.05 ***	0.00
Construction millwrights and industrial mechanics	...	...	0.03 ***	0.00
Insulators	...	...	-0.10 ***	0.01
Machinists and machining and tooling inspectors	...	...	-0.14 ***	0.01
Painters and decorators (except interior decorators)	...	...	-0.19 ***	0.01
Plumbers	...	...	-0.06 ***	0.00
Heating, refrigeration and air conditioning mechanics	...	...	-0.07 ***	0.00
Roofers and shinglers	...	...	-0.27 ***	0.01
Sheet metal workers	...	...	-0.14 ***	0.00
Steamfitters, pipefitters and sprinkler system installers	...	...	-0.12 ***	0.00
Welders and related machine operators	...	...	-0.05 ***	0.00
Registration cohort				
2008 registration cohort (ref.)	...	...	...	...
2009 registration cohort	-0.02 ***	0.00	-0.01 ***	0.00
2010 registration cohort	0.00	0.00	0.00	0.00
2011 registration cohort	0.02 ***	0.00	0.01 ***	0.00
2012 registration cohort	0.01 **	0.00	-0.01 *	0.00
2013 registration cohort	0.00	0.00	-0.02 ***	0.00
2014 registration cohort	-0.01 ***	0.00	-0.03 ***	0.00
2015 registration cohort	-0.01	0.00	-0.03 ***	0.00

... not applicable

* significantly different from reference category ($p < 0.05$)** significantly different from reference category ($p < 0.01$)*** significantly different from reference category ($p < 0.001$)

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Building on Table 3, which compares certification outcomes between childhood immigrants and Canadian-born apprentices, Table 4 examines the average marginal effects of certification among childhood immigrants by incorporating immigrant-specific characteristics. They include age at landing, source region, admission class and knowledge of official languages (Model 2), in addition to the baseline model of sociodemographic, income, employment and program characteristics (Model 1).

Table 4

Average marginal effects of certification with and without immigrant-specific characteristics

	Childhood immigrants (only)	
	Model 1 (without immigrant characteristics)	Model 2 (with immigrant characteristics)
average marginal effect		
Sociodemographic characteristics		
Sex		
Male (ref.)	...	...
Female	0.00	0.00
Age at registration		
Age	0.00	0.00
Age squared	0.00	0.00
Region		
Atlantic provinces	0.01	-0.01
Prairies	-0.06 ***	-0.07 ***
Quebec	0.04 *	0.03
Ontario (ref.)	...	...
British Columbia	-0.02	-0.03
Territories	0.00	-0.03
Immigrant characteristics		
Age at landing		
0 to 5 years (ref.)	...	...
6 to 12 years (middle childhood)	...	-0.01
13 to 17 years (adolescence)	...	-0.03 **
Source region		
Americas	...	-0.02 *
Europe	...	0.05 ***
Africa	...	-0.07 ***
Asia (ref.)	...	...
Other countries	...	-0.01
Admission class		
Provincial Nominee Program	...	0.03 *
Worker program (ref.)	...	...
Business program	...	0.00
Immigrant sponsored by family	...	-0.04 ***
Refugee	...	-0.06 ***
Other	...	0.02

... not applicable

* significantly different from reference category ($p < 0.05$)** significantly different from reference category ($p < 0.01$)*** significantly different from reference category ($p < 0.001$)

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 4

Average marginal effects of certification with and without immigrant-specific characteristics (continued)

	Childhood immigrants (only)	
	Model 1 (without immigrant characteristics)	Model 2 (with immigrant characteristics)
average marginal effect		
Knowledge of official languages at admission		
English (only)	...	...
French and English or French (only)	...	0.01
Neither English nor French	...	0.01
Program and tax characteristics		
Employment income in registration year		
Less than \$15,000	-0.16 ***	-0.15 ***
\$15,000 to \$29,999 (ref.)	...	...
\$30,000 to \$44,999	0.08 ***	0.08 ***
\$45,000 to \$59,999	0.08 ***	0.08 ***
\$60,000 to \$74,999	0.06 **	0.06 **
\$75,000 or more	0.07 ***	0.07 ***
Missing income	0.01	0.02
Had union membership in registration year		
Yes	-0.01	0.00
No (ref.)	...	...
Had a registered pension plan in registration year		
Yes	0.00	0.00
No (ref.)	...	...
Received employment insurance benefits in registration year		
Yes	0.05 ***	0.05 ***
No (ref.)	...	...
Number of industries worked in registration year		
No industries reported (ref.)	...	...
One	0.07 ***	0.07 ***
Two	0.06 **	0.06 **
Three or more	-0.01	0.00
Received credits for pre-registration training		
Yes	0.11 ***	0.10 ***
No (ref.)	...	...
Program duration		
One year	0.13 ***	0.12 ***
Two years	0.05	0.06 *
Three years	-0.02	-0.01
Four years (ref.)	...	...
Five years	0.07 ***	0.06 ***

... not applicable

* significantly different from reference category ($p < 0.05$)** significantly different from reference category ($p < 0.01$)*** significantly different from reference category ($p < 0.001$)

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Table 4

Average marginal effects of certification with and without immigrant-specific characteristics (concluded)

	Childhood immigrants (only)	
	Model 1 (without immigrant characteristics)	Model 2 (with immigrant characteristics)
	average marginal effect	
Red Seal endorsement and type of certification		
Compulsory Red Seal trade (ref.)	...	...
Voluntary Red Seal trade	-0.15 ***	-0.15 ***
Compulsory non-Red Seal trade	-0.03 **	-0.04 ***
Voluntary non-Red Seal trade	-0.04 *	-0.05 *
Trade		
Auto body collision, refinishing and glass technicians and damage repair estimators	-0.16 ***	-0.15 ***
Automotive service technicians, truck and bus mechanics and mechanical repairers	-0.02	-0.02
Cabinetmakers	-0.21 ***	-0.22 ***
Carpenters	-0.23 ***	-0.23 ***
Electricians (except industrial and power system) (ref.)	...	...
Cooks	-0.12 ***	-0.12 ***
Glaziers	-0.20 ***	-0.19 ***
Hairstylists and barbers	-0.01	-0.02
Heavy-duty equipment mechanics	-0.07 **	-0.08 ***
Construction millwrights and industrial mechanics	0.05	0.05
Insulators	-0.10 *	-0.06
Machinists and machining and tooling inspectors	-0.14 ***	-0.15 ***
Painters and decorators (except interior decorators)	-0.20 ***	-0.19 ***
Plumbers	-0.06 **	-0.05 **
Heating, refrigeration and air conditioning mechanics	-0.06 *	-0.07 **
Roofers and shinglers	-0.28 ***	-0.27 ***
Sheet metal workers	-0.20 ***	-0.20 ***
Steamfitters, pipefitters and sprinkler system installers	-0.10 ***	-0.09 ***
Welders and related machine operators	-0.09 ***	-0.09 ***
Registration cohort		
2008 registration cohort (ref.)	...	...
2009 registration cohort	-0.07 ***	-0.06 ***
2010 registration cohort	-0.05 **	-0.05 **
2011 registration cohort	0.00	0.00
2012 registration cohort	-0.01	-0.02
2013 registration cohort	-0.03 *	-0.03 *
2014 registration cohort	-0.04 **	-0.04 **
2015 registration cohort	-0.02	-0.03

... not applicable

* significantly different from reference category ($p < 0.05$)** significantly different from reference category ($p < 0.01$)*** significantly different from reference category ($p < 0.001$)

Sources: Statistics Canada, Longitudinal Immigration Database, and Education and Labour Market Longitudinal Platform, 2023.

Several immigrant-specific characteristics contributed to variation in the likelihood of certification. Childhood immigrants who arrived in Canada as adolescents (aged 13 to 17 years) were 3 percentage points less likely to obtain certification compared with those who arrived before the age of 5. Source region was also important. Relative to immigrants from Asia, immigrants from Europe were more likely (5 percentage points) to obtain certification, while those from Africa (7 percentage points) were less likely. Parental admission class was another key determinant. Compared with childhood immigrants whose parents arrived through worker programs, those whose parents immigrated through the Provincial Nominee Program had a 3 percentage point higher likelihood of obtaining certification, whereas those whose parents were admitted under family sponsorship (4 percentage points) or refugee programs (6 percentage points) were less likely to get certified.

These results suggest that background factors linked to migration—such as age at arrival, region of origin, knowledge of official languages and parental admission class—provide additional explanatory insight into certification outcomes beyond individual, socioeconomic and program characteristics. Prior research (Karpinski et al., 2024) suggests that age at arrival plays an important role in shaping social integration, with immigrants arriving during adolescence (ages 13 to 17) exhibiting smaller local social networks than childhood immigrants who arrived earlier and Canadians in the third generation or more. This may be particularly relevant in apprenticeship contexts, where access to informal networks and employer connections often plays an important role in securing training opportunities. The findings highlight the importance of early integration experiences and the broader migration context in shaping apprenticeship program completion among childhood immigrants.

Conclusion

This study contributes to the limited literature on apprenticeship completion among childhood immigrants in Canada by comparing their pathways to certification with those of Canadian-born apprentices across eight registration cohorts (2008 to 2015). Using linked administrative data from the ELMLP, the analyses reveal persistent certification gaps between childhood immigrants and Canadian-born apprentices before and after accounting for sociodemographic, income, employment and program characteristics simultaneously.

Childhood immigrants made up approximately 4% to 5% of newly registered apprentices, and the remaining 95% to 96% were born in Canada. Descriptive comparisons revealed that childhood immigrants were consistently less likely to obtain certification and more likely to discontinue their programs within twice the program duration than their Canadian-born counterparts. Certification rates also varied considerably by trade, with the largest differences between childhood immigrants and Canadian-born apprentices seen among cabinetmakers, carpenters, sheet metal workers, and hairstylists and barbers.

Regression analyses showed that childhood immigrants remained less likely to obtain certification than Canadian-born apprentices, with the gap decreasing from about 5 percentage points after adjusting for sociodemographic characteristics to about 3 percentage points once income, employment and program characteristics were included. Apprentices from lower-income brackets (less than \$15,000) were less likely to obtain certification. Additionally, apprentices with greater access to training resources and supports—such as union membership, registered pension plan participation, receipt of employment insurance and pre-registration credits—showed a higher likelihood of obtaining certification. These results align with previous research by Jin and colleagues (2020), who found that working conditions during training, such as job-related benefits and wages, along with credit for previous work experience or training, were associated with a greater likelihood of completion. Apprentices who worked in one or two industries during the registration year had higher marginal probabilities of certification than those who worked in none, while apprentices who worked in three or more industries did not differ from those who worked in none or were slightly less likely to obtain certification. Additional analyses showed that observable factors (sociodemographic, income, employment and program characteristics) explained approximately one-third of the certification disparity.

Further analyses focusing exclusively on childhood immigrants revealed that immigrant-specific characteristics also play an important role. The inclusion of age at arrival, source region, immigration class and knowledge of official languages significantly improved model fit, indicating that these variables explain additional variation in certification outcomes beyond socioeconomic and program factors. Childhood immigrants who arrived at older ages (13 to 17 years) were less likely to obtain certification compared with those who arrived before the age of 5. Differences by source region and parental admission class were also notable. Those from Europe were more likely—and those from Africa were less likely—to obtain certification compared with immigrants from Asia. Relative to childhood immigrants whose parents arrived through worker programs, those whose parents were admitted through the Provincial Nominee Program were more likely to get certified, while those whose parents entered through family sponsorship or refugee streams were less likely.

Overall, this study indicates that certification pathways for childhood immigrants are shaped by both integration-related factors and migration characteristics. The persistence of certification gaps, even among those who arrived in Canada as children, suggests that earlier and more targeted supports within apprenticeship systems may help improve outcomes.

This study has several limitations that should be acknowledged. First, small sample sizes in some provinces, territories and source regions necessitated grouping categories, which may not have captured more nuanced regional differences. Second, it was not possible to disaggregate continuers and discontinuers by sex and immigrant status because of data limitations. This constrains a more detailed understanding of within-group variation; gender plays a significant role in obtaining certification (see Jin et al., 2020) and being among the 19 trades examined in this study (see Leanage & Mehdi, 2026).

Nevertheless, this study provides novel evidence on certification outcomes among childhood immigrants in the skilled trades using population-level data, highlighting how different groups move through the apprenticeship system. Future research should further examine how early integration experiences (e.g., social networks that could lead to apprenticeship opportunities) and labour market contexts influence not only the likelihood of certification, but also longer-term outcomes such as employment stability, wage growth and occupational retention. Given Canada's increasing reliance on immigration to address labour shortages in the skilled trades (Hou, Picot, & Xu, 2021), longitudinal analyses linking apprenticeship and tax data could shed light on whether certification gaps observed among childhood immigrants persist over time and whether they are associated with subsequent wage or employment disparities.

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