



Unlocking Canada's Skills Potential

Training Pathways, Participation, and Outcomes Beyond Post-secondary

The Future Skills Centre (FSC) is a forward-thinking centre for research and collaboration dedicated to driving innovation in skills development so that everyone in Canada can be prepared for the future of work. We partner with policymakers, researchers, practitioners, employers and labour, and post-secondary institutions to solve pressing labour market challenges and ensure that everyone can benefit from relevant lifelong learning opportunities. We are founded by a consortium whose members are Toronto Metropolitan University, Blueprint, and Signal49 Research, and are funded by the Government of Canada's Future Skills Program.

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Key findings

- Post-secondary education is only a starting point for most learners. Over 80 per cent of learners whose most recent training occurred outside the traditional system already hold a post-secondary credential, indicating that learners use these pathways to extend, update, and apply prior education.
- This ongoing learning is supported by a broad training ecosystem. Learners draw on a diverse mix of providers outside the formal post-secondary system—including private organizations, unions, and community-based non-profits—that deliver flexible, work-aligned training.
- Skills are built cumulatively across this ecosystem. Ninety per cent of learners engage with multiple providers beyond post-secondary, assembling skills over time rather than acquiring them through a single institution or program.
- Labour market outcomes are strongest when post-secondary education is complemented by additional, work-aligned training. Learners who build on prior credentials through training outside the post-secondary system are more likely to work full time and earn above \$60,000 than those trained solely within it, particularly early in their careers.
- Learners report higher scores on job satisfaction and career alignment when their most recent training occurred outside the post-secondary system, compared with those whose most recent training occurred within it, suggesting a closer fit between skills and work.
- Training beyond the post-secondary system is helping address critical workforce needs. Learners who pursue this type of training are more likely to work in sectors facing persistent shortages—including construction, manufacturing, and mining, oil and gas—while also being well represented in health and education.

Leveraging the full skills and training ecosystem

Canada's ability to address persistent skills shortages increasingly depends on how well its training system can keep pace with rapidly evolving labour market demands. While post-secondary institutions (PSIs) provide a critical foundation for skills development, they are not designed to meet all workforce needs on their own. As technologies, occupations, and skill requirements continue to change, learners are turning to a broader ecosystem of training providers to build, update, and apply skills over time.

While this broader training ecosystem represents an important and underleveraged source of training capacity, it remains fragmented, with limited visibility into available programs and uneven integration into workforce strategies. This data briefing brings new clarity to this landscape by examining how these diverse pathways function, who participates in them, and how they contribute to labour market outcomes. In doing so, it highlights how different parts of the system work together—and how the full range of training options can be more effectively mobilized to meet workforce demand.

Drawing on a national survey of more than 1,000 Canadians who recently completed training, we compare individuals whose most recent program took place outside the post-secondary system with those whose most recent program was solely within it. This analysis shows how complementary learning pathways shape employment outcomes and identifies actionable implications for workforce development policy, funding, and system coordination.



Training providers outside the post-secondary system

Signal49's typology of non-post-secondary training providers highlights the diverse organizations that provide workforce-relevant training outside traditional degree and diploma programs, often through shorter, flexible learning opportunities designed to build practical skills.¹

They include:

- independent providers, such as private training organizations, sector-led bodies, unions, and employer-led academies;
- community-based and non-profit providers, such as Indigenous-led training providers, workforce development organizations, and social enterprises delivering sector-focused training;
- publicly affiliated units operating outside traditional credential pathways, such as schools of continuing studies.

These providers are defined by their delivery model rather than institutional affiliation—flexible, modular programming designed to build applied skills, often alongside or after post-secondary education.

Together, they form a complementary layer of the skills ecosystem, enabling continuous learning beyond formal credentials.

¹ Signal49 Research, "Unlocking Canada's Skills Potential."

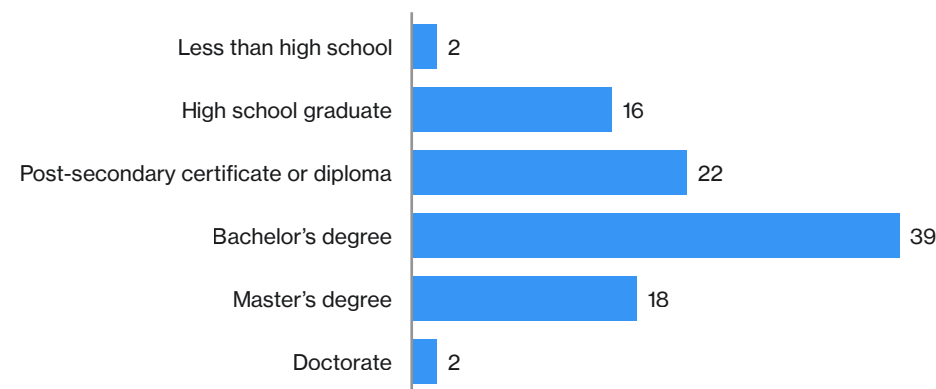
Post-secondary education is just a starting point

More than 80 per cent of learners whose most recent training occurred outside the post-secondary system already hold a post-secondary credential. (See Chart 1.) This underscores that these pathways are not primarily used to enter the labour market, but to build on and extend prior education.

Chart 1

Most learners have a post-secondary degree

Q: What is your highest level of education? (n = 505)
(per cent)



Source: Signal49 Research.

Training is distributed across a broad ecosystem

To support this ongoing learning, learners draw on a broad and diverse set of training providers operating beyond the formal post-secondary credential system, including schools of continuing education, employer-led training, bootcamps, private institutions, unions, and community-based organizations. (See Chart 2.)



Chart 2

Training institutions outside the post-secondary system

Q: At what type of institution did you complete your most recent program?

(n = 505)

(per cent)



Note: Thirty-one respondents (6 per cent) preferred not to answer. "Other" includes institution types not listed and specified by respondents.

Source: Signal49 Research.

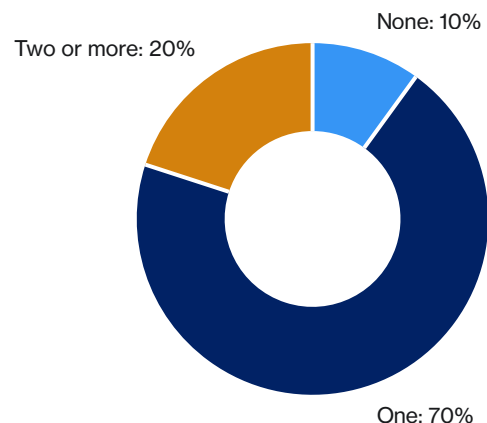
Learners assemble training across many providers

People build skills over time² and they do so by combining training from multiple providers. Ninety per cent of learners whose most recent training occurred outside the post-secondary system had previously completed training with at least one other non-PSI provider, indicating that engagement with these programs is typically ongoing rather than one time. (See Chart 3.)

Chart 3

Most learners have previous non-PSI training

Q: Total number of provider types attended prior to most recent training (n = 505)
(per cent)



Note: Variable derived from the question: Before your most recent program, at which type of institution or organization did you complete your training? Select all that apply.

Source: Signal49 Research.

² Signal49 Research, *Following Career Paths to Forecast Skills*.

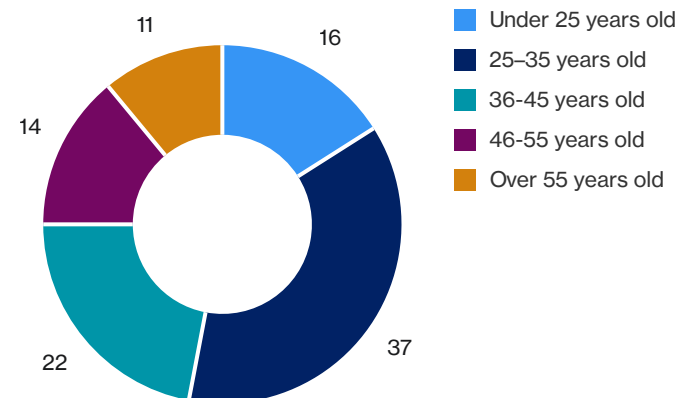
Engagement reflects lifelong learning

Participants in non-post-secondary training span multiple age groups. While just over half are under 36 years old, there is a substantial share of older learners, including one-quarter over the age of 45. This indicates that engagement is not confined to early career but reflects ongoing learning across multiple career stages. (See Chart 4.)

Chart 4

Non-PSI learners span multiple age groups

Q: Please select your age today (n = 505)
(per cent)



Source: Signal49 Research.

Upskilling—not reskilling—drives participation

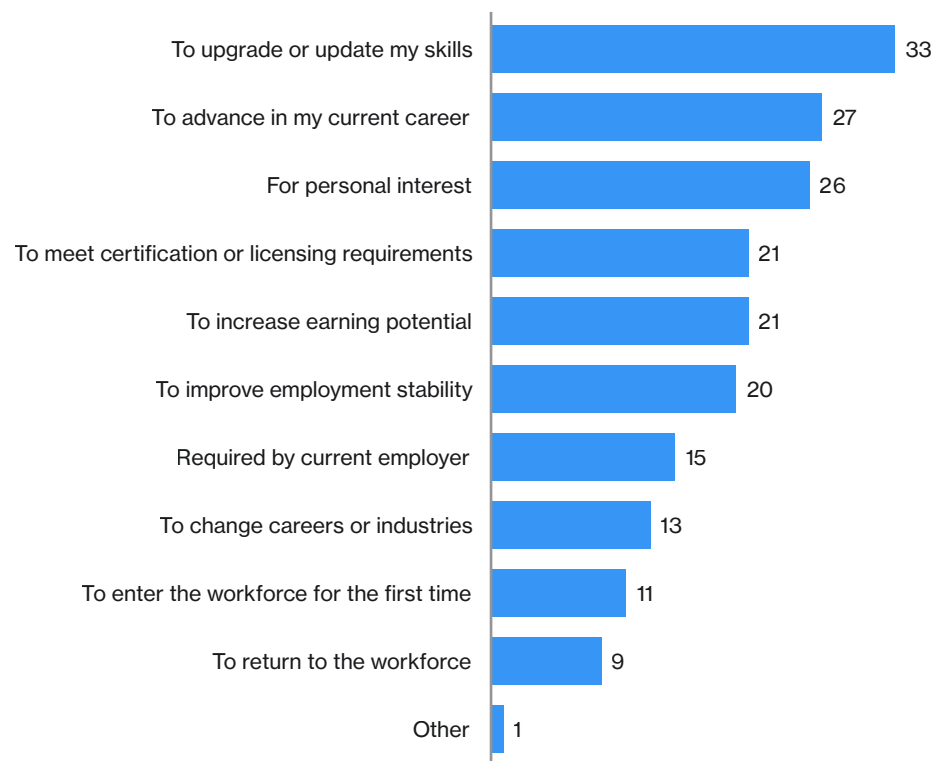
Training outside the formal post-secondary system primarily functions as a mechanism for incremental, work-aligned skill development rather than a full career transition. Most non-PSI learners indicated that they pursued their most recent training to deepen skills or advance within their current field. (See Chart 5.) Less than 15 per cent indicated that they enrolled to prepare for a full career or industry change.



Chart 5

Upskilling is the top reason for training

Q: What were the reasons for enrolling in your most recent program?
Select all that apply (n = 505)
(per cent)



Note: "Other" includes reasons not listed and specified by respondents.
Source: Signal49 Research.

Training aligns with labour market demand

Business was the most common field of study among learners whose most recent training occurred outside the traditional post-secondary system (16 per cent, see Chart 6), likely reflecting the broad applicability of business skills across industries. Information technology and healthcare were the next most common fields (13 per cent each), followed by trades (9 per cent), education (8 per cent), and engineering (8 per cent). Together, these six fields accounted for two-thirds of all learners.

Their prominence suggests that training outside the traditional post-secondary system is concentrated in fields where demand for skilled workers remains high. Many of these sectors have experienced persistent labour shortages while also requiring workers to continually update their knowledge and competencies in response to technological advances, changing professional standards, and evolving workplace practices.³

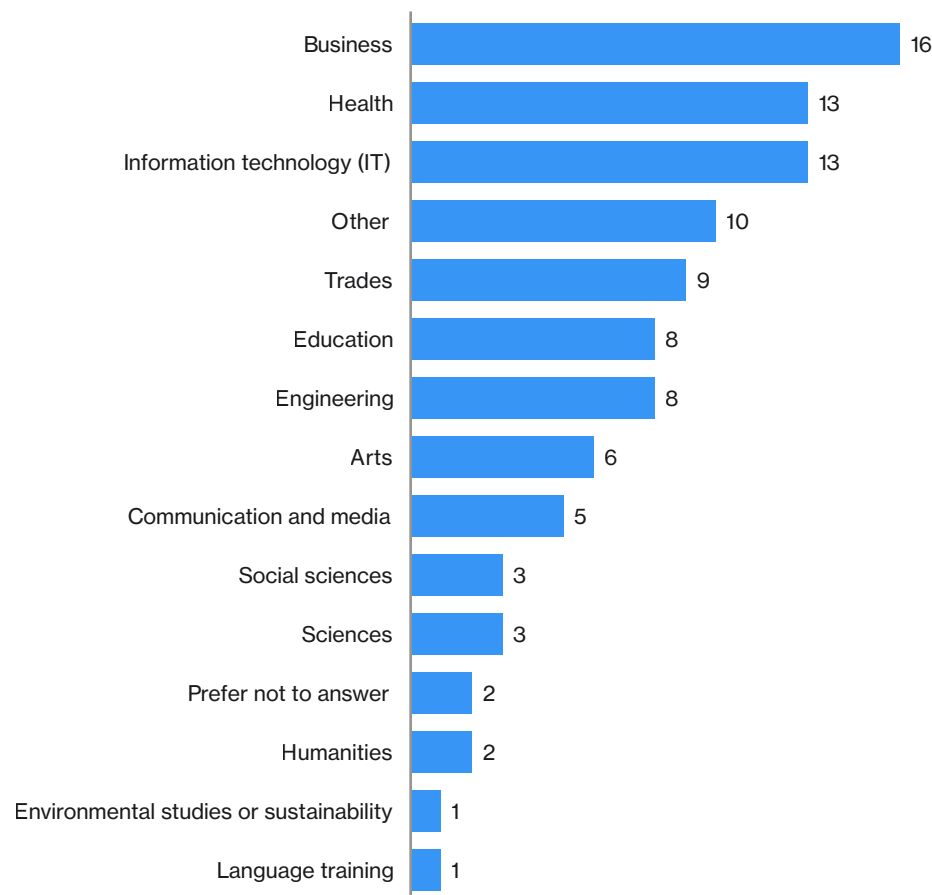
Chart 6

Many non-PSI programs are in fields with high labour demand

Q: Which subject area best describes the focus of your most recent program?

(n = 505)

(per cent)



Note: "Other" includes fields of study not listed and specified by respondents.

Source: Signal49 Research.

³ Signal49 Research, *From Shortages to Solutions*.

Training is linked to positive job outcomes

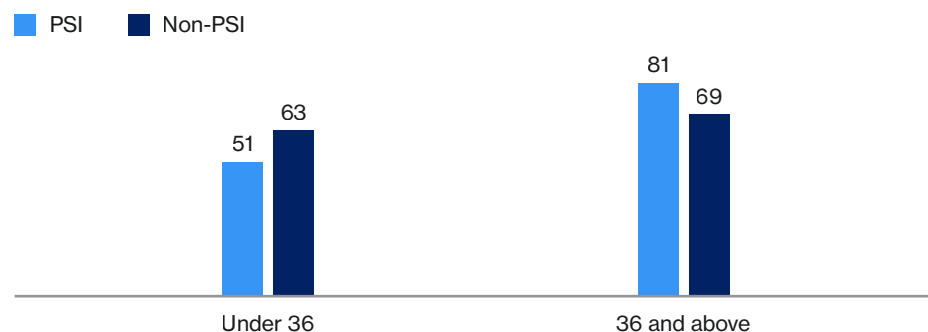
Higher employment rates and earning

Training outside the post-secondary system is associated with stronger labour market outcomes for younger learners, particularly in full-time employment and earnings. Among learners under age 36, those whose most recent training occurred outside the post-secondary system are more likely to be employed full time than those trained exclusively within a PSI. This pattern reverses among learners aged 36 and older: in this group, learners whose most recent training was outside the post-secondary system are less likely to be employed full time than those recently trained exclusively within it. (See Chart 7.)

Chart 7

Non-PSI training is linked to full-time employment

Q: Which of the following best describes your employment status?
(recoded employed full time = 1; other = 0) (n = 979)
(per cent employed full time)



Note: PSI refers to learners whose most recent training was at a post-secondary institution; non-PSI refers to learners whose most recent training was outside the post-secondary system.
Source: Signal49 Research.

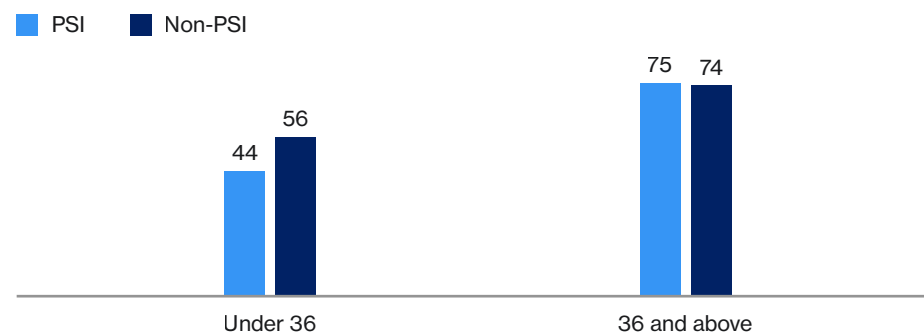
Learners under age 36 are also more likely to report annual earnings of \$60,000 or more if their most recent training occurred outside the post-secondary system, compared with peers trained exclusively within it. Among learners aged 36 and older, however, earnings are broadly similar across training pathways. (See Chart 8.)

These age-related differences persist in regression models that include an interaction between age and training pathway and control for gender, population group, and time since training. (See Appendix B, Tables 1 to 4.)

Chart 8

Non-PSI training is linked to higher income

Q: Please select your current income range before taxes
(recoded \$60,000 and above = 1; below \$60,000 = 0) (n = 800)
(per cent earning \$60,000 and above)



Note: PSI refers to learners whose most recent training was at a post-secondary institution; non-PSI refers to learners whose most recent training was outside the post-secondary system.
Source: Signal49 Research.

Benefits extend beyond employment and earnings

Learners whose most recent training occurred outside the post-secondary system report higher levels of job and career satisfaction than those trained solely within it, suggesting that the benefits of non-post-secondary training extend beyond earnings and employment. (See Chart 9.) Although these differences are modest, the pattern is consistent.



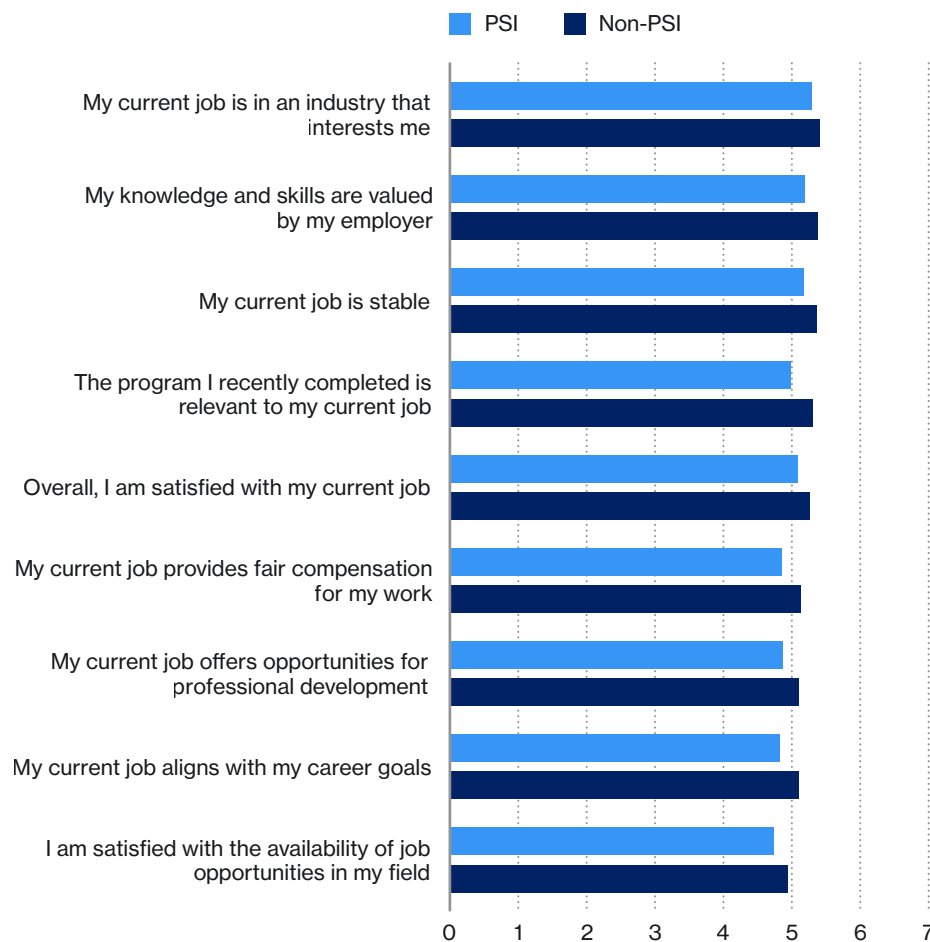
Chart 9

Non-PSI learners are more satisfied with their jobs

Q: Please indicate your level of agreement with the following statements

(n = 820–847)

(average score on scale from 1 [strongly disagree] to 7 [strongly agree])



Note: PSI refers to learners whose most recent training was at a post-secondary institution; non-PSI refers to learners whose most recent training was outside the post-secondary system. "Unsure" responses recoded as missing.

Source: Signal49 Research.

Employment is concentrated in high-need industries

Learners whose most recent training occurred outside the post-secondary system are more likely to work in sectors facing persistent labour shortages—including construction, manufacturing, and mining, oil and gas⁴—than those solely trained within it. They're also well represented in other high-demand sectors such as health and education, although PSI-only learners are more likely to be employed in these sectors. (See Chart 10.)

The importance of these pathways is underscored by prior research from Signal49, which estimates that persistent vacancies in these sectors reduced Canada's GDP by \$2.6 billion in 2024.⁵ As labour shortages continue to constrain productivity and growth, training beyond the post-secondary system represents a meaningful source of workforce resilience. By enabling workers to update and apply skills in high-demand fields, these pathways can contribute not only to improved individual outcomes, but also to broader economic capacity and labour market responsiveness.

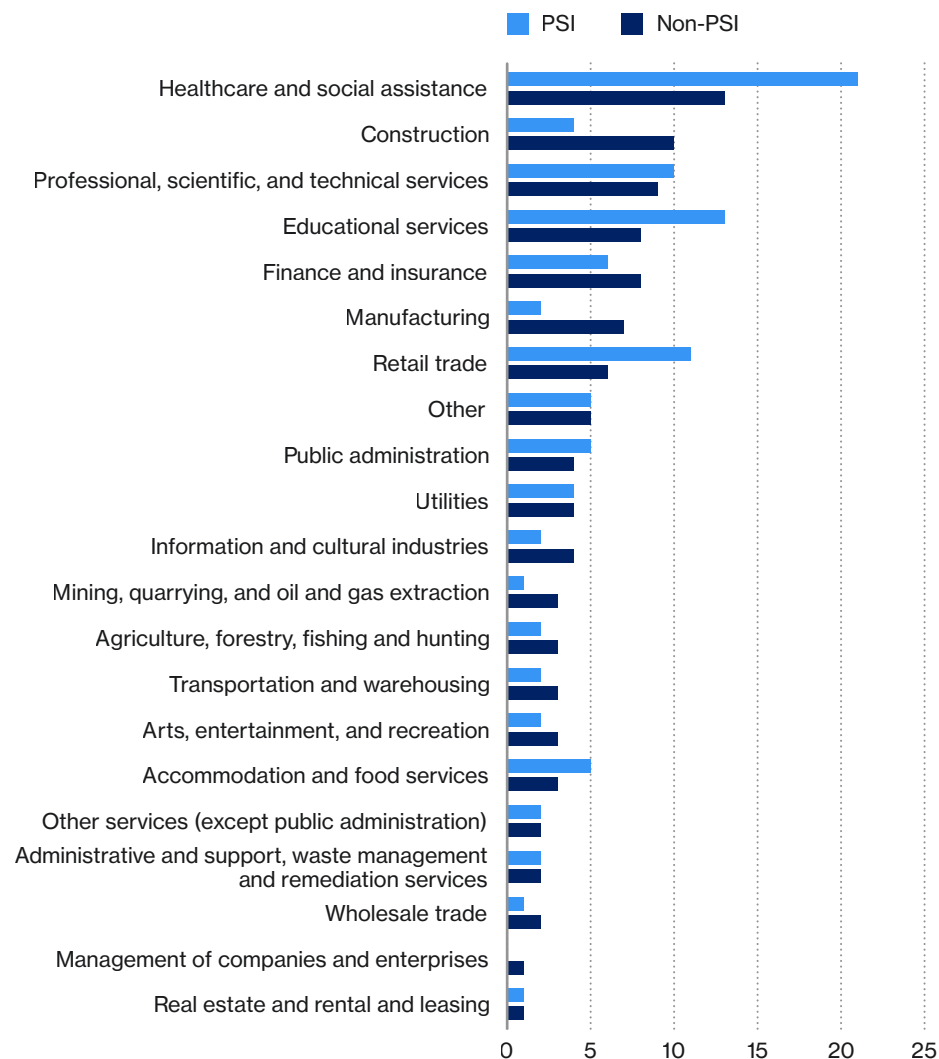
⁴ Signal49 Research, *From Shortages to Solutions*; and Signal49 Research, *Fuelling Our Future: Talent and Technology in Canada's Mining and Oil & Gas Industries*.

⁵ Signal49 Research, *From Shortages to Solutions*.

Chart 10

A large share of non-PSI learners is employed in sectors with well-documented skills shortages

Q: In what industry is your current job? (n = 855)
(per cent)



Source: Signal49 Research.

Expanding beyond post-secondary to meet workforce needs

Most learners who pursue training outside the post-secondary system already hold a post-secondary credential and are using this training to deepen or update skills within their existing field. This pattern is notable: rather than using additional training to change careers, learners are building on prior education to keep pace with evolving skill requirements—particularly in high-demand fields where participation is most concentrated. This reflects the rapid pace at which skill needs evolve.

Policy frameworks can therefore shift from a system centred primarily on initial post-secondary attainment to one that actively supports lifelong, distributed learning. This begins with improving visibility and coordination across the full range of training providers, enabling learners, employers, and intermediaries to better navigate options and align training with labour market needs. It also requires modernizing funding approaches to reflect how skills are actually developed—expanding support for shorter, modular programs and ensuring high-quality non-post-secondary providers are integrated into public funding systems.

At the same time, governments can more fully incorporate non-post-secondary training into workforce and sector strategies, particularly in industries facing persistent shortages, where these pathways are already playing a demonstrated role. Such efforts can be paired with proportionate, outcomes-based approaches to quality assurance that maintain standards while preserving the flexibility and responsiveness that characterize these providers.

Taken together, these changes would position Canada to more effectively address skills gaps by mobilizing the full breadth of its existing skills and training ecosystem.



Appendix A

Methodology

About the research

We examine the role, reach, and impact of education and training programs delivered outside the formal post-secondary system. We ask the following research questions:

1. What types of non-post-secondary training institutions (non-PSIs) operate in Canada?
2. How do early labour-market outcomes of non-PSI graduates compare with those of PSI graduates in Canada?
3. What are learners and employers' perceptions of non-PSI training in key sectors, and how do these perceptions influence enrolment decisions for learners and hiring practices for employers?
4. What policy, funding, and quality assurance mechanisms could strengthen the role and alignment of non-post-secondary training providers within Canada's skills and training ecosystem?

To find out, we surveyed 1,010 learners across Canada who completed formal training within the past three years, including 505 whose most recent training was completed outside the post-secondary system and 505 whose most recent training was completed within it. This issue briefing presents the findings from that survey. We also interviewed institutional leaders and hosted focus groups with employers, and we will share those insights in a forthcoming report.

Ethics

Veritas, an independent research ethics board, reviewed this research project and approved all instruments. Survey responses were collected anonymously, and we guaranteed participant confidentiality.

Survey data

To examine how learners engage with Canada's skills and training ecosystem, we surveyed 505 learners whose most recent training occurred outside the public post-secondary system. To compare learner pathways, we surveyed an additional 505 learners whose most recent training took place at a public post-secondary institution.

To achieve a national sample, we worked with Leger, a Canadian market research firm, which administered the survey in March and April 2026. Leger recruits participants through its online panel, targeting pre-profiled learners across Canada. To qualify for the survey, learners had to be 18 years of age or older and to have completed their most recent training within the last three years.

The survey included multiple-choice questions and Likert-scale questions that captured learner perspectives, experiences, and outcomes. The survey also collected demographic information, including age, gender, population group, and province of residence.

Data analysis

We conducted univariate analyses to examine the distributions of key variables. These included the type of institution where training occurred, reasons for pursuing training, program length, factors shaping program choice, field of study, highest educational attainment, employment status, earnings, sector of employment, and socio-demographic characteristics. We conducted bivariate analyses to assess how key outcomes (employment and earnings) varied across subgroups, such as employment status by the institution type of most recent training. We used cross-tabulations to examine associations between categorical variables and one-way ANOVA to assess differences in mean outcomes between PSI and non-PSI learners.

We used logistic regression models to examine the relationship between non-PSI training and labour market status while controlling for demographic characteristics. The outcomes of interest were employment status (employed full time vs. not employed full time) and self-reported yearly earnings (\$60,000 and above vs. under \$60,000). Model 1 included institution type (reference category: post-secondary institution), age (reference category: learners under 36), gender (reference category: women), race (reference category: white), and time since training completion (reference category: less than 12 months ago). Model 2 added an interaction term to assess whether the association between institution type and labour market outcomes differed for younger and older learners. Model 3 included Model 2 and added fields of study.

To support interpretation, we present predicted probabilities and average marginal effects for key independent variables alongside odds ratios. (See Appendix B, Tables 1 to 4.)

As these analyses are based on observational survey data, the results should be interpreted as associations rather than causal effects. While the models control for several observed characteristics, unmeasured factors—such as motivation, prior work experience, employer support, or pre-existing labour market advantages—may also influence both training choices and labour market outcomes.

We analyzed survey data using SPSS and RStudio.

Appendix B

Supplementary tables

Table 1
Logistic regression models predicting full-time employment
(odds ratios) (n = 979)

Variable	Model 1 Odds ratio	Model 2 Odds ratio	Model 3 Odds ratio
Non-PSI	1.08	1.39	1.26
Age (36 or older)	1.79*	3.45*	3.51*
Non-PSI x age (36 or older)		0.37*	0.32*
Men	1.89*	1.86*	1.81*
Non-binary	0.46	0.45	0.41
Non-white	1.06	1.06	1.05
Trained over ONE year ago	1.62*	1.57*	1.55*
Field of study	No	No	Yes

Note: Odds ratios above 1 indicate higher odds of employment, while those below 1 indicate lower odds, relative to the reference group; *p<0.05.
Source: Signal49 Research.

Table 2
Full-time employment predictions from models 2 and 3
(predicted probabilities and average marginal effects) (n = 979)

Under 36	Model 2 Predicted probability	Model 3 Predicted probability
PSI	0.54*	0.56*
Non-PSI	0.62*	0.61*
Average marginal effect	0.08	0.05

36 and above	Model 2 Predicted probability	Model 3 Predicted probability
PSI	0.79***	0.8*
Non-PSI	0.67***	0.64*
Average marginal effect	-0.12*	-0.16*

Note: Predicted probabilities can range from 0 to 1. Average marginal effect represents the discrete change in probability from PSI to non-PSI; *p<0.05.
Source: Signal49 Research.

Table 3

Logistic regression models predicting earning \$60,000 and above
(odds ratios) (n = 800)

Variable	Model 1 Odds ratio	Model 2 Odds ratio	Model 3 Odds ratio
Non-PSI	1.28	1.44*	1.43
Age (36 or older)	2.65*	3.56*	3.54*
Non-PSI x age (36 or older)		0.62	0.63
Men	1.93*	1.91*	1.79*
Non-binary	0.25	0.25	0.24
Non-white	0.81	0.81	0.75
Trained over one year ago	1.18	1.17	1.15
Field of study	No	No	Yes

Note: Odds ratios above 1 indicate higher odds of employment, while those below 1 indicate lower odds, relative to the reference group; *p<0.05.

Source: Signal49 Research.

Table 4

Predictions of earning \$60,000 or above from models 2 and 3
(predicted probabilities and average marginal effects) (n = 800)

Under 36	Model 2 Predicted probability	Model 3 Predicted probability
PSI	0.46*	0.47*
Non-PSI	0.55*	0.55*
Average marginal effect	0.09*	0.08

36 and above	Model 2 Predicted probability	Model 3 Predicted probability
PSI	0.74*	0.74*
Non-PSI	0.72*	0.72*
Average marginal effect	-0.02	-0.02

Note: Predicted probabilities can range from 0 to 1. Average marginal effect represents the discrete change in probability from PSI to non-PSI; *p<0.05.

Source: Signal49 Research.

Appendix C

Bibliography

Signal49 Research (formerly operating as The Conference Board of Canada). *From Shortages to Solutions: Tackling Canada's Critical Gaps in Healthcare, Trades, and Tech*. March 2025. https://www.signal49.ca/product/tackling-canadas-critical-skill-gaps_mar2025/.

Signal49 Research. *Following Career Paths to Forecast Skills*. February 2026. https://www.signal49.ca/product/following-career-paths-to-forecast-skills_feb2026/.

—. *Fuelling Our Future: Tech, Talent and Technology in Canada's Mining and Oil & Gas*. April 2026. https://www.signal49.ca/product/tech-automation-and-talent-in-mining-and-oil-gas_apr2026/.

—. "Unlocking Canada's Skills Potential: The Role of Education and Training Outside the Post-Secondary System." May 2026. https://www.signal49.ca/product/education-and-training-outside-the-post-secondary-system_may2026/.

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