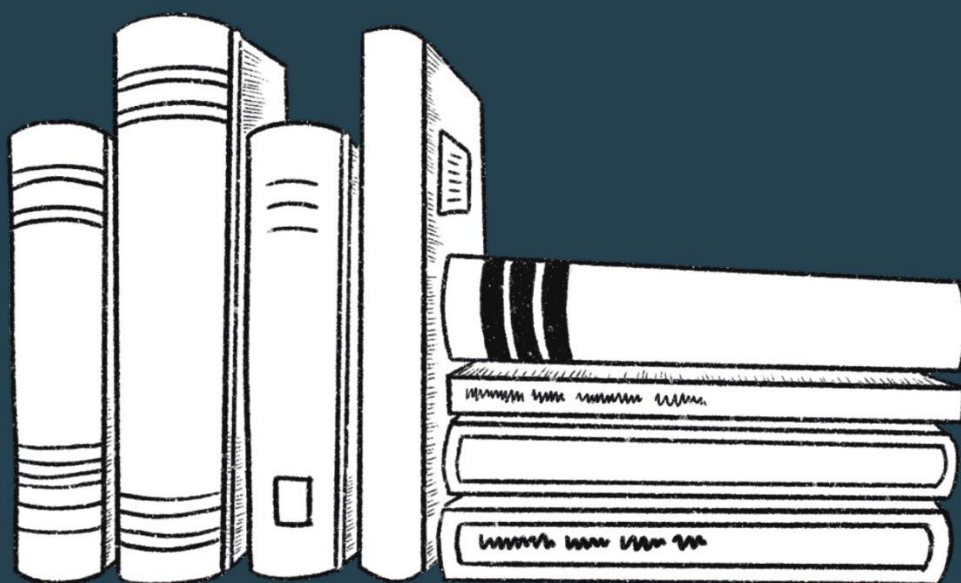


# Higher Education Quality Council of Ontario



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## **Public College–Private Partnerships: Lessons Learned for Ontario’s Postsecondary Education System**

Julia Colyar, Alexandra MacFarlane  
& Sarah Brumwell

Published by:

## The Higher Education Quality Council of Ontario

88 Queens Quay West, Suite 2500  
Toronto, ON  
Canada, M5J 0B8

Phone: (416) 212-3893

Fax: (416) 212-3899

Web: [www.heqco.ca](http://www.heqco.ca)

E-mail: [info@heqco.ca](mailto:info@heqco.ca)

**Cite this publication in the following format:**

MacFarlane, A., Brumwell, S., & Colyar, J. (2024) *Public College-Private Partnerships: Lessons Learned for Ontario's Postsecondary Education System*. Higher Education Quality Council of Ontario.



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## Introduction

Postsecondary institutions across Canada have seen dramatic growth in international enrolments over the past decade. In Ontario, much of this growth was driven by enrolments at public colleges. Ontario colleges recruited students to programs offered on their home campuses through Public College–Private Partnerships (PCPPs), where the partner institutions were primarily located in the Greater Toronto Area (GTA). PCPPs have existed in Ontario since 2005, but enrolments increased dramatically starting in 2019. In 2022–23, enrolment at the 14 PCPP campuses comprised 20% of all international enrolments at Ontario public colleges (Ministry of Colleges and Universities, 2023a). In this brief, we explore the alignment of PCPP programming and Ontario’s labour market needs.

The recent and rapid increase in the number of PCPP campuses in the GTA and the influx of international students sparked considerable public attention. Government, communities and advocacy groups raised concerns regarding unethical and unregulated recruitment practices (Keung, 2023; Trick, 2017), international students serving as part of the low-wage workforce (Choise, 2016; Keller, 2023), PCPPs’ uneven quality assurance mechanisms (Choise, 2018; Keller, 2023; Office of the Auditor General of Ontario, 2023; Trick, 2017) and challenges in the current housing market (Dufour & Pinto, 2023; Parekh, 2023). Further, Immigration, Refugees and Citizenship Canada (IRCC) noted that the growth in Post-Graduation Work Permit (PGWP) holders, who are eligible to work in Canada for up to three years, outpaced available spaces for permanent residency<sup>1</sup> (Standing Committee on Citizenship and Immigration, 2023). This means that opportunities for international student graduates to seek permanent residency were increasingly constrained.

In response to these mounting concerns, the federal government announced several changes to Canada’s international education framework in January 2024, including new limits on study permit applications by province (Government of Canada, 2024).<sup>2</sup> Ontario’s study permits were cut by nearly 50%. As well, beginning in May 2024, new international students studying at PCPPs are no longer eligible for PGWPs. While these changes will impact international student enrolments at institutions across Ontario, they disproportionately impact colleges with PCPPs.

Without access to PGWPs, PCPPs, in their current form, will likely dissolve. The most immediate concerns for colleges with PCPPs relate to financial sustainability; revenue losses across colleges are expected to reach \$3B over the next three years (Government of Ontario, 2024). College leaders also expressed concerns about the negative impact on the college sector, employers and local labour markets (Colleges Ontario, 2024).

A recent CBC investigation calls into question the alignment of international student enrolments and Canada’s labour needs (Crawley & Ouellet; 2024). According to the analysis, Canada’s recruitment of international students did little to meet Canada’s most pressing labour market gaps. This brief focuses on PCPP programming for international students and Ontario’s labour market. We provide an overview of the programs offered at PCPPs and labour market demand

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<sup>1</sup> International students may seek permanent residency through the “Canadian Experience Class” program, which requires at least one year of Canadian work experience. Applicants earn points for holding a secondary or postsecondary credential, and extra “points” for Canadian educational experience (Immigration and Citizenship Canada, n.d.).

<sup>2</sup> Study permit limits apply only to those applying to undergraduate and sub-baccalaureate programs.

through a review of online job postings in Ontario. Findings from this analysis offer lessons for a more strategic provincial approach to addressing labour market needs.

## Background

Public College–Private Partnerships emerged in response to ongoing financial and enrolment challenges in the college sector, as well as government policies. When Ontario colleges were established in 1965, they were envisioned as institutions that would work closely with and serve local economies. Colleges recruited students from catchment areas, which helped ensure that programming aligned with local business needs and reduced competition across institutions (Schollen, 2023). Government changes outlined in the *Ontario Colleges of Applied Arts and Technology Act, 2002* and Ontario Regulation 34/03 allowed colleges to “extend their reach” in terms of recruitment and entrepreneurial activities (Schollen, 2023, p. 31). Colleges could compete for students beyond their catchments and were encouraged to enter partnerships with business, industry and other educational institutions (Schollen, 2023). With the Ministry of Colleges and Universities’ “Entrepreneurial Activities” binding policy directive (2003), government explicitly allowed colleges to enter contracts with private businesses for the purpose of education and training. Together, these policies set the stage for colleges to establish partnerships with private providers in the GTA.

The first PCPP program was established in Ontario in 2005. From their inception, these partnerships were specifically designed to increase international student enrolments at public colleges to offset decreases in domestic student enrolments and provide an additional revenue stream. Between 2012–13 and 2021–22, domestic college enrolments decreased 17% in Ontario (Statistics Canada, 2023a). Declining domestic enrolments were most challenging for colleges located outside urban centers and in the north. These communities generally had smaller population bases and fewer adults aged 18–24, the traditional age range for postsecondary students (DuFour & Pinto, 2023; Office of the Auditor General of Ontario, 2021). PCPPs allowed a public college to license its curriculum to a private partner for the delivery of Ontario college credentials<sup>3</sup> at off-site locations (Office of the Auditor General of Ontario, 2021). Most partnerships were between colleges outside of the Greater Toronto Area and private partners in the GTA,<sup>4</sup> which offered the optimal location for recruiting international learners (Schollen, 2023).

Colleges and private partners shared tuition revenue; typically, the private partner retained 70–80% of the total revenue, and the remainder went to the public college (Office of the Auditor General of Ontario, 2021). International college tuition is four to five times higher than domestic tuition, so international enrolment increases more than compensated for decreases in domestic enrolments. International tuition was also important in the context of frozen provincial operating grants and a tuition cut and freeze implemented in 2019.<sup>5</sup> In 2020–21, international tuition fees comprised 33% of total revenue across the college sector, compared to domestic tuition at 16% and core operating grants at 22% (Office of the Auditor General of Ontario, 2021).

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<sup>3</sup> As part of these partnerships, private providers are also responsible for facilities, support services and hiring instructors.

<sup>4</sup> A list of current PCPPs is included in Table 2.

<sup>5</sup> In 2019, the newly elected Ford Government cut PSE tuition by 10% and froze it at that level. A February 2024 announcement outlined plans to hold tuition at current levels for three more years.

The federal government encouraged growth in international student recruitment, most notably through the PGWP program, which was introduced in 2005 (Williams et al., 2015). PGWPs provide international students an opportunity for employment experience in the Canadian context following their graduation; these experiences can support an international graduate's application for permanent residency. In 2006, the Off-Campus Work Permit (OCWP) extended opportunities for international students to work up to 20 hours per week during their studies (Williams et al., 2015).<sup>6,7</sup>

Ontario PCPPs were unique entities that emerged and expanded in a particular financial and policy context. They developed in response to colleges' ongoing revenue concerns and through provincial directives that enabled colleges to establish private partnerships and recruit students into the GTA. Program offerings, including diplomas and graduate certificates,<sup>8</sup> leveraged federal requirements for PGWP eligibility: with a two-year program, international graduates could secure a three-year work permit (the maximum length under the PGWP program). PCPPs offered benefits to all stakeholders: international students had access to the PGWP, colleges recruited high-tuition-paying international students and private partners, who do not receive direct funding from government, accessed a new and lucrative enrolment market.

The number of PCPP programs grew slowly between 2005 and 2017. A moratorium on new partnerships between 2017 and 2019 followed a government review that documented risks associated with the partnership arrangements. Identified risks included quality assurance and the impact of enrolment growth on students, institutions and the system (Trick, 2017). At that time, six colleges operated nine PCPP programs.<sup>9</sup> New partnerships and enrolments accelerated with the lifting of the moratorium in 2019. In 2023–24, 14 public colleges had partnerships through 23 PCPPs. Following the 2024 IRCC restrictions, MCU reinstated a moratorium on new PCPPs to review oversight mechanisms and support partnership quality (MCU, 2024a).

## Research Questions and Methodology

Our research was guided by the following question: What are the programming trends at PCPP campuses, and how do they align with Ontario's labour market needs? In November and December 2023, HEQCO assembled a list of PCPP program offerings by scraping private partner college websites. Through a combination of web scraping and cross-referencing the MCU's Approved Program Schedule (APS) table and the college system nomenclature principles (OCQAS, 2023), we identified the MCU codes associated with 190 of the 195 program offerings on our list, which allowed us to confirm the associated credentials and identify

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<sup>6</sup> The 20-hour limit was temporarily lifted in October 2022; under these temporary regulations, international students were permitted to work full time while also pursuing full-time study. On April 29, 2024, government announced that international students would be restricted to working 24 hours per week off campus starting in the fall (Immigration, Refugees and Citizenship Canada, 2024).

<sup>7</sup> Work experience gained with an OCWP cannot be applied to employment requirements for permanent residency under the Canadian Experience Class immigration stream.

<sup>8</sup> Graduate certificate programs are typically one year in duration, so students often enrol in sequential programs to accumulate two years of study. Some graduate certificates are offered as two-year programs (only for international students). The extra time is intended to provide the context needed for Canadian employment and/or to add a work-integrated learning component (Ontario College Quality Assurance Service, 2022).

<sup>9</sup> Enrolment data for these programs is not available. Data on international enrolments in PCPPs was not standardized for reporting until 2020–21 (Office of the Auditor General of Ontario, 2021).

common or comparable program offerings.<sup>10</sup> The field of study categories were adopted directly from the [Variant of the Classification of Instructional Programs \(CIP\) Canada 2021 Version 1.0 for Alternative primary groupings](#); the classification search tool was used to classify the PCPP programs by field of study.

To conduct our labour market analysis, we accessed the 2021 Canadian Census for population counts and the Labour Market Information Council (LMIC) Canadian Job Trends Dashboard<sup>11</sup> for net online job postings from January 2021 to December 2023 inclusive.<sup>12</sup> Vicinity Jobs collected the online job postings data underlying the dashboard from thousands of Canadian websites and job boards, which was then validated and integrated into the LMIC's data repository. The free, interactive dashboard collects Canadian online job postings and categorizes them in terms of economic region, NOC codes and TEER codes.<sup>13</sup>

LMIC's Dashboard provides a high-level depiction of labour market demand in terms of the type of work (NOC) and the type and/or level of training, education, experience and responsibilities (TEER) required for a given occupation. It is not a precise measure of labour market gaps, as it does not capture a complete inventory of job postings or job vacancies, nor does it capture jobs that are not posted online.<sup>14</sup> And while it is not clear what proportion of the total 2021–2023 job postings were represented in the Dashboard, it captured more than 1.6 million Ontario postings in the review period and provides a snapshot of available jobs that can be used to assess the alignment of PCPP programs with labour market needs. Our analysis focuses on job postings in the GTA, which is the region in which PCPPs are located.

## Ontario's Labour Market Needs

Sixty percent of the postings included in our analysis were for employment in the GTA; postings for each of the other regions comprised less than 10% of the total. Appendix B provides an overview of net postings by economic region. Sales and service positions and business, finance and administration positions were the most commonly advertised, as indicated by the number of postings per NOC grouping.<sup>15</sup>

Forty-three percent of Ontario postings in our LMIC sample did not require that applicants hold postsecondary credentials. The trend was relatively consistent within the GTA — where most of

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<sup>10</sup> MCU codes are 5-digit codes used to classify approved college programs for funding and quality assurance purposes by linking individual college program offerings to the program standards that describe what graduates of each program should know and be able to do, regardless of which college they attend. Colleges are obliged by the Framework for Programs of Instruction for Colleges of Applied Arts and Technology (Ministry of Colleges and Universities, 2023) to ensure that their program offerings conform to these standards and are consistent with accepted college system nomenclature and program titling principles. The Ontario College Quality Assurance Service reviews proposed college programs and audits existing offerings to ensure consistency with these principles across the sector (Ontario College Quality Assurance Service, 2023).

<sup>11</sup> These data were collected and validated by Vicinity Jobs in partnership with the Labour Market Information Council of Canada (LMIC). The Canadian Job Trends Dashboard captures online jobs postings in Canada and is updated on a weekly basis. For more details on the methods underlying the Canadian Job Trends Dashboard, see Appendix A.

<sup>12</sup> Net postings do not reflect seasonal (and pandemic-related) fluctuations in the job market but provide a more stable reference point for the analysis of program alignment and enrolment trends.

<sup>13</sup> NOC refers to the 2021 National Occupation Classification. NOC codes indicate the type of work associated with a given job, but do not indicate industry. TEER codes, which are part of the NOC system, reflect the type and/or level of training, education, experience and responsibilities (TEER) required for a given occupation (Statistics Canada, 2023b).

<sup>14</sup> The Canadian Job Trends Dashboard only collects online job postings. It does not indicate when or if these postings were filled or differentiate between permanent, casual, contract, full-time or part-time positions. Only those job postings that could be associated with a 4-digit NOC code and a geographical area were included. It should be noted that postings are not the same as job vacancies, and only capture those positions that were externally advertised; positions that are filled internally will not be reflected here. Postings are also not indicative of the unemployment rate (LMIC, n.d.).

<sup>15</sup> As indicated by the total number of online job postings per NOC code per economic region.



Ontario’s population and capital are concentrated — and across the economic regions where the PCPP home campuses are located. Table 1 shows the net online job postings in our LMIC sample for all of Ontario by TEER category.

Table 1

*Net Online Ontario Job Postings 2021–2023, by Training, Education, Experience and Responsibilities (TEER) Required and Number of Postings per 10,000 Working-age Adults*

<b>Economic Region: Ontario</b>			
<b>TEER Category</b>	<b>Number of Postings 2021–23</b>	<b>% of Ontario Postings</b>	<b>Postings per 10,000 Working-age Adults</b>
Some High School/High School Diploma	399,233	24.46%	427.7
No Formal Education	293,717	17.99%	314.7
PSE Below Bachelor's Level (< 2 Years)	270,364	16.56%	289.6
Undergraduate or Graduate Degree	241,493	14.79%	258.7
PSE Below Bachelor's Level (2-3 Years)	241,160	14.77%	258.4
Management Occupations	186,441	11.42%	199.7
<b>Grand Total</b>	<b>1,632,408</b>	<b>100.00%</b>	<b>1,748.8</b>

*N(Ontario working age adults)= 9,334,440*

Note: Table 1 shows net online job postings for January 2021 through December 2023 in Ontario by training, education, experience and responsibilities (TEER) required and number of postings per 10,000 working-age adults. Online job postings are unadjusted for seasonality. Working-age adults, by Statistics Canada’s definition, are adults between the ages of 15 and 64. TEER codes, which are part of the NOC system, reflect the type and/or level of training, education, experience and responsibilities (TEER) required for a given occupation (Statistics Canada, 2023).

Source: Labour Market Information Council, (2023), [Canadian Job Trends Dashboard](#); Statistics Canada, (2023). [Table 98-10-0449-01](#). Totals may not equal exactly 100% due to rounding.

Jobs requiring at maximum completion of high school comprised between 45% and 60% of our LMIC sample in every economic region except for Toronto (37%).<sup>16</sup> Thirty-two percent of Toronto postings required postsecondary education below the bachelor’s degree level — that is, diplomas (15%) and advanced diplomas (17%) — or comparable formal training. Another 18% required an undergraduate or graduate degree, and 14% required managerial experience. Toronto had the highest proportion of postings requiring postsecondary education at the bachelor’s level or higher of any region.

## PCPP Credential and Program Offerings

The total number of programs offered across PCPP campuses varied widely by institution, ranging from a single diploma program to 43 programs, 37 of which were graduate certificates. Table 2 provides an overview of credentials offered by PCPPs. One- and two-year graduate

<sup>16</sup> As indicated by the total number of online job postings per TEER code per economic region for the province of Ontario, January 2020–December 2023, from the LMIC Dashboard. For the precise sample criteria see Figure 4 in Appendix A.

certificates<sup>17</sup> were the most common credential offered at PCPPs and comprised 64% (n=122) of all programs offered. Two-year diploma programs were the second most popular credential and comprised 34% (n=64) of PCPP program offerings.

Table 2

*Ontario PCPP Programs by Campus and Credential (December 2023)*

Public College	Private Partner Campus	Ontario College Cert.	Ontario College Diploma	Ontario College Adv. Diploma	Ontario College Graduate Cert. (1-year)	Ontario College Graduate Cert. (2-year)	Total
Algonquin	CDI - Mississauga		4		3		7
	CDI - North York		3		1		4
Cambrian	Hanson - Brampton		2		3	1	6
	Hanson - Toronto		3		3	1	7
Canadore	Stanford - Brampton		1		6		7
	Stanford - Mississauga		5	2	6		13
	Stanford - Scarborough		3		7		10
Fanshawe	ILAC International College - Toronto		4		5	2	11
Fleming	Trebas Institute - Toronto	1	1		4	2	8
Georgian	ILAC International College - Toronto		6		5	1	12
Lambton	Queen's College - Mississauga		4			13	17
	St. Paul University - Ottawa <sup>18</sup>					7	7
	Cestar College - Toronto		2			17	19
Loyalist	Toronto Business College - Toronto		1				1
Mohawk	triOS - Mississauga		7		2	1	10
Niagara	Toronto School of Mgmt. - Toronto		5		3		8
Northern	Pures - Toronto	1	6		5	2	14
Sault	triOS - Brampton				2	5	7

<sup>17</sup> Nomenclature for these credentials is not consistent: The [Ontario Qualifications Framework](#) (OQF) uses "Ontario College Graduate Certificate," while Statistics Canada calls them "post-graduate certificates." In this report, we use the terminology "Ontario college graduate certificate," which is used by MCU and [Colleges Ontario](#). For simplicity, we shorten to "graduate certificate."

<sup>18</sup> The Lambton College–St. Paul University partnership is a public-public partnership and does not involve curriculum sharing.

	triOS - Toronto					7	7
St. Clair	ACE Acumen - Brampton		2				2
	ACE Acumen - Mississauga		1			1	2
	ACE Acumen - Toronto		1		1	2	4
St. Lawrence	Alpha International Academy - Scarborough		3		3	1	7
<b>Total</b>			<b>2</b>	<b>64</b>	<b>2</b>	<b>59</b>	<b>63</b>
							<b>190</b>

Source: PCPP public and private institutional websites (2023, December).

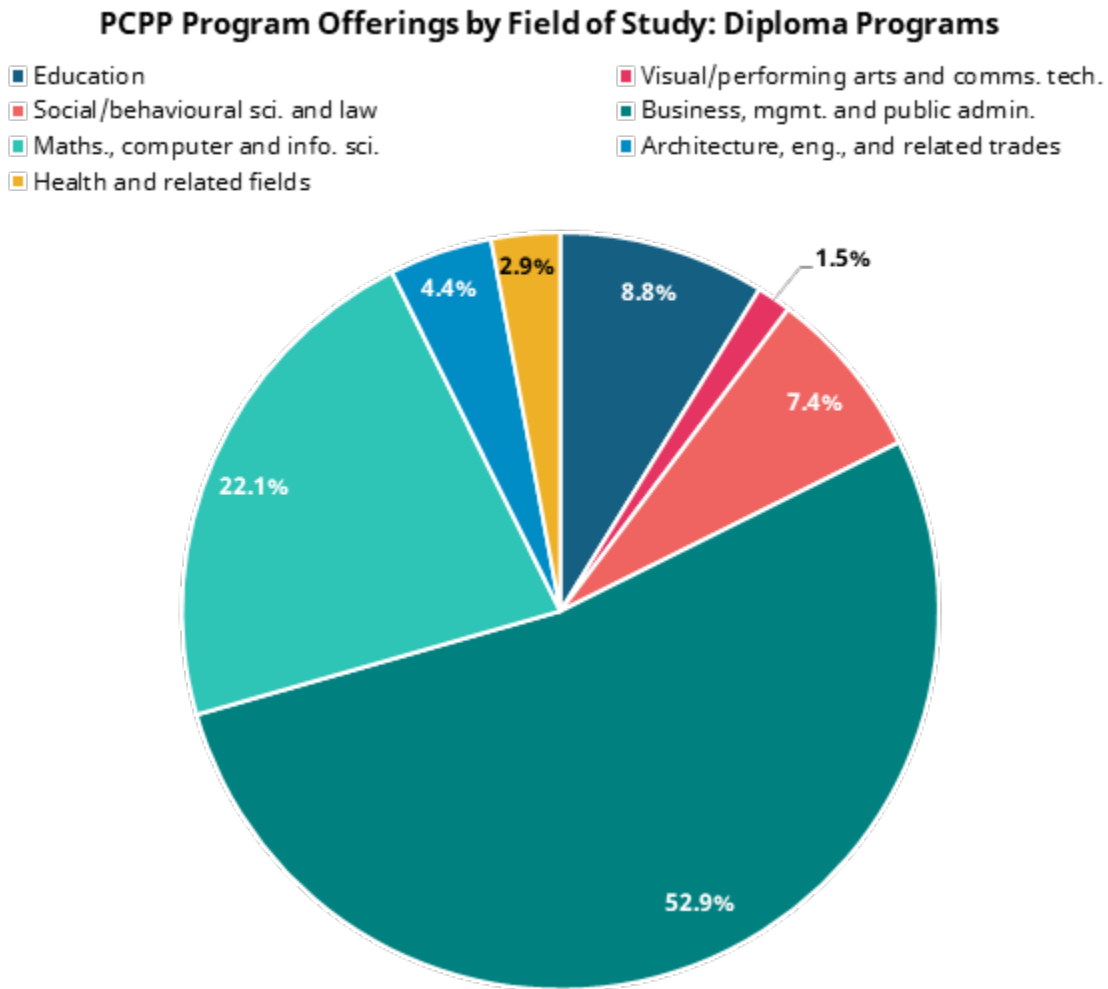
Graduate certificate programs were introduced in the college context in the early 2000s and gained popularity over the following decade. In Ontario, growth in graduate certificate programming coincided with growth in PCPPs (Ontario College Quality Assurance Service, n.d.; Schollen, 2023). For international students who already hold a credential, a graduate certificate provides an opportunity to extend their studies at costs typically lower than master's degree tuition. These certificates are associated with higher income after graduation than most other college credentials (Wall, 2022), which makes them an attractive choice for international students with previous degrees looking to enter the Canadian workforce. Graduate certificates are also associated with higher rates of transition to permanent residency than other college programs (Wall, 2022). For international graduates applying for permanent residency through the Federal Skilled Worker Class, more points are awarded for higher levels of education.

Two-year diploma programs require a secondary diploma or equivalent for admission, and they are designed to prepare graduates for employment at entry-level positions or for further study at a more advanced level (Ministry of Colleges and Universities, n.d.). Many diploma programs ladder into other Ontario credentials, including advanced diplomas or college or university bachelor's degrees.

More than 52% of the diploma programs offered at PCPPs were in business and related programs. These findings mirrored national trends; fields of study for international enrolments in Canada tended to concentrate in business, management and public administration programs (Crawley & Ouellet, 2024; Crossman et al., 2021). Figure 1 shows the fields of study for PCPP diploma programs.

Figure 1

*PCPP Program Offerings by Field of Study: Diploma Programs*



*n*=64

*Note:* Figure 1 shows the proportion of PCPP diploma programs by field of study. Advanced diplomas are not included in this summary.

*Source:* PCPP public and private institutional websites (2023, December). The field of study categories were adopted directly from the [Variant of the Classification of Instructional Programs \(CIP\) Canada 2021 Version 1.0 for Alternative primary groupings](#); the classification search tool was used to classify the PCPP programs by field of study.

The next most common fields were education and math, computer and information sciences. Within these fields, the most common PCPP diplomas were in early childhood education, computer programming and computer systems technician.

Figure 2 provides an overview of PCPP graduate certificate programs by field of study. The most common field across PCPPs was business and related subjects (75% of graduate certificate programs). In this field, graduate certificate programs included supply chain

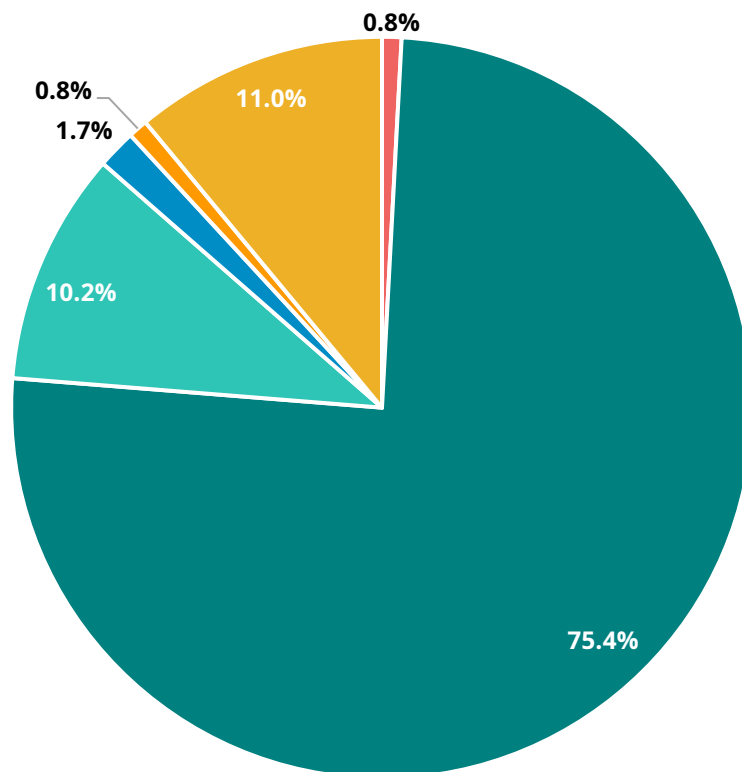
management, project management, international business management, global business management and human resources management.

Figure 2

*PCPP Program Offerings by Field of Study: Graduate Certificate Programs*

**PCPP Program Offerings by Field of Study: Graduate Certificate Programs**

- Social/behavioural sci. and law
  - Maths., computer and info. sci.
  - Agriculture, nat. resources and conservation
- Business, mgmt. and public admin.
  - Architecture, eng., and related trades
  - Health and related fields



n=122

*Note:* Figure 2 shows the proportion of PCPP graduate certificate programs by field of study.

*Source:* PCPP public and private institutional websites (2023, December). The field of study categories were adopted directly from the [Variant of the Classification of Instructional Programs \(CIP\) Canada 2021 Version 1.0 for Alternative primary groupings](#); the classification search tool was used to classify the PCPP programs by field of study.

As the figures show, PCPPs also offered diploma and graduate certificate programs in high-demand fields, including education, health, and math, computer and information sciences. Some PCPPs also offered certificates (distinct from graduate certificates) or diplomas in personal support work or personal support and developmental services, however, programming in these high-demand fields comprised a much smaller proportion than in business.

## PCPP–Labour Market Alignment

Alignment between PCPP programming and our LMIC sample of online job postings is mixed. Although there is some correspondence between the types of work (NOC) with available positions and PCPP programming — for example, the proportion of online job postings for business-related occupations and the proportion of business-related programs offered — this alignment does not account for the educational requirements of the advertised positions, due to the nature of the NOC classification. When these postings are examined in terms of the associated TEER categories, our analysis shows that most of the advertised positions in our sample were concentrated among postings that require low or no PSE — consistent with Statistics Canada findings (Morissette, 2023). PCPP graduates with diploma or graduate certificates may have entered Ontario’s labour market with credentials not required for many of the available jobs.

PCPP students who earned graduate certificates entered a highly competitive labour market, with only 18% of the posted jobs in Toronto requiring an undergraduate or graduate degree. Added to this, the ratio of unemployment to job vacancies is at a historic low, yet the number of unemployed Canadians with a bachelor’s degree or higher has consistently exceeded the number of vacancies requiring such qualifications since 2016, both in Toronto and most other major metropolitan areas of the country (Morissette, 2023). Postsecondary graduates, both domestic and international, are navigating a job market that is essentially bottom heavy, with employers offering wages below what applicants would expect to receive for the work involved and their skill level (Morrisette, 2023; Gellatly & Stepner, 2023).

Optimizing alignment between PCPP graduates and the labour market is an important consideration for all international students, as well as employers, postsecondary institutions and government. International students pay a high price for their Ontario credentials and likely graduate with high expectations. Mismatches between their qualifications and opportunities can be demoralizing both in the immediate and the longer term. If an international graduate is unable to secure employment in a role aligned with their qualifications, professional advancement may become very difficult. Overqualification can also lead to dissatisfaction in a job (Allen & van der Velden, 2001) or under-productivity (McGowan & Andrews, 2015). Alignment between international graduates’ skills and preparation and labour market demands is also important if government intends to fill anticipated gaps in highly skilled segments of Ontario’s labour market through immigration pathways like the PGWP.

## Conclusion

In recent years, international students have been drawn to Ontario in high numbers because of the quality of available programs and the opportunity to stay and work in Canada following their graduation. PCPP programming, with GTA locations and PGWP eligibility, was particularly successful in attracting international students. However, our analysis suggests an important mismatch between programming offered through PCPPs and online job postings in 2021–2023. For some international students, securing a study permit, completing a credential at an Ontario PCPP and obtaining a PGWP may not have resulted in the jobs they envisioned. While

postsecondary credentials hold long-term earning potential, a positive return on investment relies on graduates securing employment at a corresponding level within their field.

PCPPs will likely dissolve following the 2024 IRCC announcements and the Provincial Government's moratorium, but questions related to the intersections of international education and labour market and immigration pathways are relevant for all international students. Misalignment between PCPP programming and available jobs in Ontario echoes broader misalignment between IRCC policies and labour market needs: PCPP and other international students were incited to seek higher levels of education in the immigration process. The federal and provincial governments need to work together to ensure better alignment between internationalization, immigration policies and labour market pressures.

The alignment between postsecondary international student programming and the labour market could be improved with better use of data. Labour market analysis that accounts for both the field of study and type of work (as captured by the NOC classification), as well as the TEER categories associated with in-demand positions, could assist institutions in their programming decisions. Outcomes data, including employment, earnings, mobility and immigration outcomes, can help government and institutions understand how international graduates fare. Some data for international graduates are captured with domestic outcomes in various post-graduate surveys, but the unique experiences of international students require a more comprehensive approach. Government and colleges can work together to capture KPIs for international students to get a better sense of their journeys and transitions into employment.

Understanding and responding to labour market needs is complex, but government can work with postsecondary institutions to take a more strategic approach to program and enrolment planning. Under the current IRCC guidelines, which require provinces to distribute study permit allocations across postsecondary institutions, this effort is already underway. The Minister of Colleges and Universities indicated that 2024–25 allocations are aimed at ensuring international students are enrolled in programs “to support a pipeline of graduates for in-demand jobs” (MCU, 2024b). Allocations prioritize programs in high-demand fields such as health and human services, STEM, hospitality and childcare. The MCU has also paused international enrolments in some one-year business management programs to undertake a review. Careful planning will continue to be needed as Ontario works to meet labour market needs.

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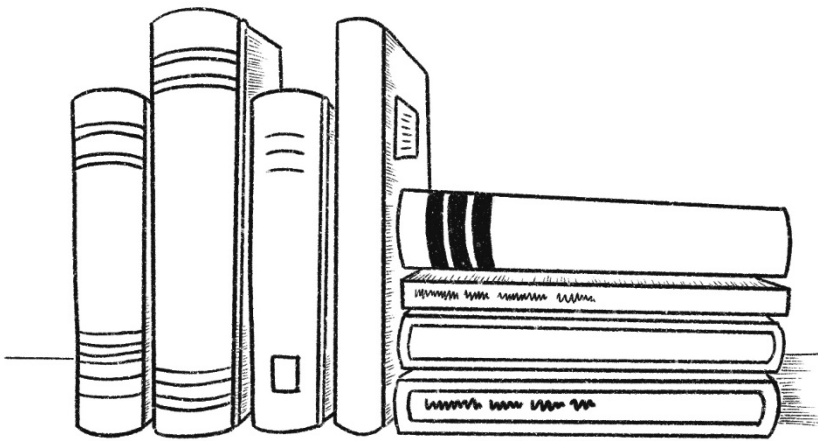


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# **Public College-Private Partnerships: Lessons Learned for Ontario's Postsecondary Education System**

Appendices

## Appendix A: Methodological Details

We used several different data sources for our analyses, ranging from administrative data to labour market information. All analysis was conducted in STATA 17 and Microsoft Excel.

### PCPP Program Matching

Our program-matching method began by assembling a list of programs offered via PCPPs by scraping PCPP websites. The data collected included program name, credential type, program length and MCU codes where available. We verified this list against the public PCPP colleges' websites for these programs.

Since some PCPP agreements had multiple private partner campuses under a single private partner college, we counted instances where a college delivered identical offerings across multiple private partner campuses as distinct offerings. For example, Cambrian College had a PCPP agreement with Hanson Canada. Under this agreement, they had two private partner campuses, Hanson Brampton and Hanson North York. Both Hanson Brampton and Hanson North York offered a two-year diploma in business. While these instances shared the same MCU code and would technically result in the same credential from the same college, we counted them as two distinct program offerings to be able to compare between PCPP private partner sites. This was also done to better reflect how students might experience the differences between these offerings, since they could choose to apply to either site.

MCU codes — the 5-digit numeric codes used to classify Ministry-approved college programs for funding and quality assurance purposes<sup>19</sup> — were the basis for our comparisons of programming trends, so we had to identify the MCU codes for every program in our PCPP program list before proceeding. We drew on the Ontario college system conventions for program development, titling and validation to identify MCU codes for those PCPP programs in our list that were missing them. These codes also link individual college program offerings to the program standards that describe what graduates of each program should know and be able to do, regardless of which college they attend. Colleges are obliged to ensure that their program offerings conform to these standards and are consistent with accepted college system nomenclature and program titling principles (*Framework for Programs of Instruction*, Ontario MCU, 2023b). The Ontario College Quality Assurance Service (OCQAS) is responsible for reviewing proposed college programs and auditing existing offerings to ensure consistency with these principles across the sector (*OCQAS, 2023*). As a result, MCU codes and, to a lesser extent, program titles in combination with credential type can be used to identify comparable programs across multiple institutions. The APS table, which is updated several times a year to reflect all active Ministry-funded college programs, is the clearinghouse for this administrative data.<sup>19</sup>

Using the guidelines described above, we conducted several rounds of matching against (a) those PCPP programs with identified MCU codes; (b) the full list of the associated public PCPP college programming, as documented in the MCU APS table; and (c) the complete list of college programs documented in the MCU APS table. We used program names in combination with

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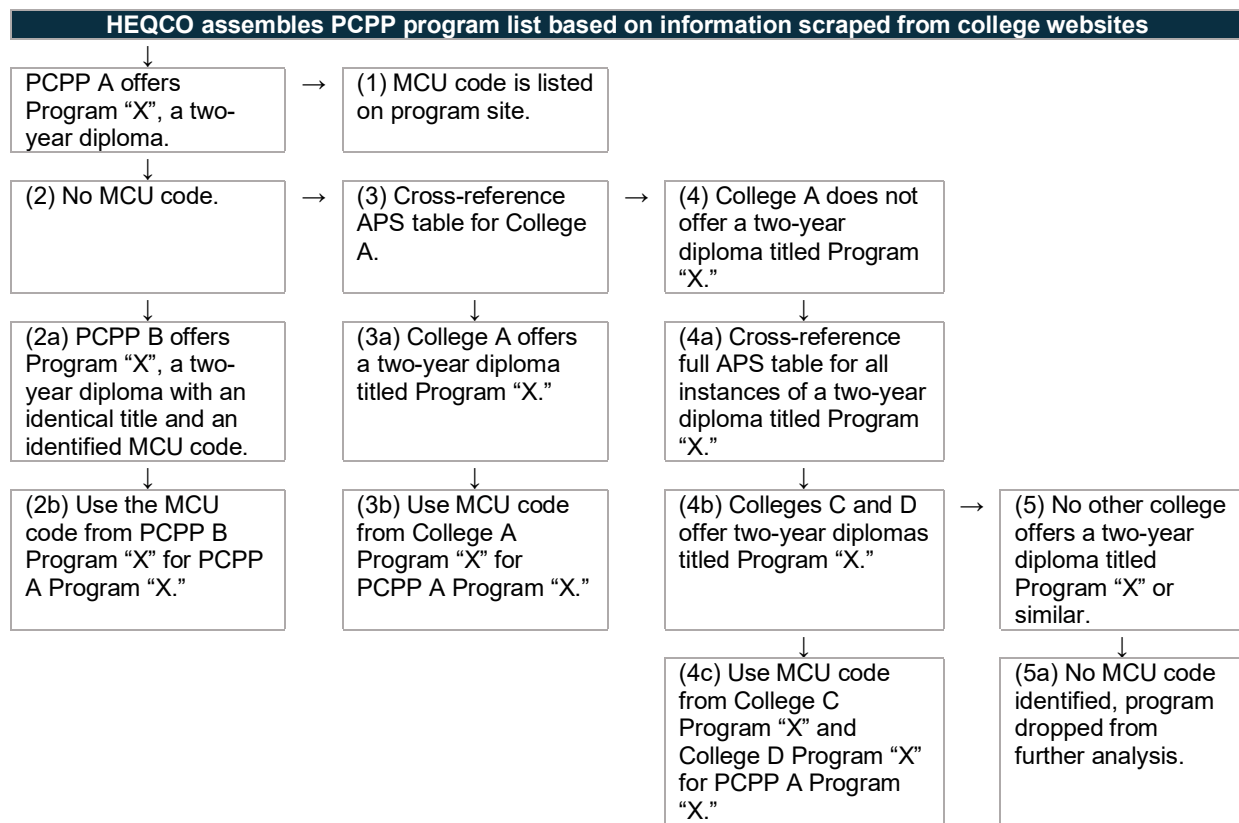
<sup>19</sup> We utilized the August 2023 APS table file hosted on the OCQAS "[Ministry Documents](#)" site as opposed to the Open Data Catalogue version (at the time of our study, version November 2022) because the OCQAS file was the most recent publicly available version.

credential type as the basis for our matches to identify similar programs at the institution and system level.<sup>20</sup>

Positive matches between the PCPP list and the APS table resulted in the MCU code from the matched program in the APS table match being applied to the matched program in the PCPP list. Negative matches were subjected to further rounds of matching until all options for identifying the relevant MCU code were exhausted. Regular manual checks were conducted throughout the process to ensure quality. This process is outlined in Figure 3.

Figure 3

*Process for Identifying and Validating MCU Codes for PCPP Programs*



Thirteen of the 195 programs in our list (see Table 2, pages 6-8) had publicly posted their MCU codes on the program websites. We were able to identify MCU codes for 177 other programs in the list, bringing our total to 190 programs. These 190 programs formed the basis of our analysis. Five programs were dropped from our analysis because we either could not identify their MCU codes or they did not culminate in a formal Ontario college credential, i.e., as in cases of Board of Governors certificates and English-language bridging programs.

<sup>20</sup> As the APS table contains two program name variables (APS title and MCU title), we conducted rounds of matching based on each.

## Labour Market Analysis

To conduct our labour market analysis, we accessed the 2021 Canadian census for population counts (Table 3) and the Canadian Job Trends Dashboard for net online job postings from January 2021 to December 2023 inclusive.

Table 3

2021 Canadian Census, Population by Age Group and Economic Region, Ontario

Economic Region	Total Population	Population Aged 15–64 (Working-age Population)
All Ontario	11,972,145	9,334,440
Hamilton-Niagara Peninsula	1,260,360	950,030
Kingston-Pembroke	413,720	298,860
Kitchener-Waterloo-Barrie	1,185,835	935,120
London	594,890	460,545
Muskoka-Kawarthas	350,270	238,520
Northeast	474,695	344,705
Northwest	193,260	146,065
Ottawa	1,180,930	915,120
Stratford-Bruce Peninsula	264,875	186,030
Toronto	5,503,115	4,446,935
Windsor-Sarnia	550,190	412,510

Note: Table 3 shows population counts for Ontario's working-age population (aged 15–64) by region using the 2021 Canadian Census.

Source: Statistics Canada. Table 98-10-0132-01, Marital status, age group and gender: Canada, provinces and territories and economic regions. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810013201>.

Vicinity Jobs collected the job postings data underlying the dashboard from thousands of Canadian websites and job boards, which was then validated and integrated into the Labour Market Information Council's data repository. The Canadian Job Trends Dashboard is free, interactive and updated weekly, allowing users to create custom tabulations to explore trends in occupational requirements and demands from 2018 onwards (LMIC, n.d.).

The dashboard categorizes online job postings in terms of the postings' associated economic region,<sup>21</sup> NOC codes and TEER codes.<sup>22</sup> While this is not a precise measure of labour market gaps, it is a high-level depiction of labour market demand in terms of the type of work (NOC) and the type and/or level of training, education, experience and responsibilities (TEER) required for a given occupation in a given location.

Figure 4 displays the search criteria used to tabulate and extract the data from the Canadian Job Trends Dashboard. For each of Ontario's economic regions, we compared the total job postings across all occupations for the periods of January–December 2021, January–December 2022 and January–December 2023, at Level 4 (Minor Group) of the NOC Classification.

<sup>21</sup> Economic region is a standard geographic unit composed of complete census divisions (Statistics Canada, 2021, [Variant of Standard Geographical Classification \(SGC\) 2021 for Economic Regions](#)).

<sup>22</sup> NOC refers to the 2021 National Occupation Classification. NOC codes indicate the type of work associated with a given job, but do not indicate industry. TEER codes, which are part of the NOC system, reflect the type and/or level of training, education, experience and responsibilities required for a given occupation (Statistics Canada, 2023).



Figure 4

Search Criteria, Canadian Job Trends Dashboard

The screenshot displays the 'Canadian Job Trends Dashboard' interface. At the top, there are navigation links for 'View top trends', 'Create a custom search', 'Download history', 'Logout', and 'Take a tour'. The main search area includes a 'SEARCH QUERY' field set to 'All occupations', a 'DATE RANGE' field set to 'Jan 2021' to 'Dec 2023', and a 'LOCATION' dropdown set to 'Ontario'. A dropdown menu for 'LOCATION' is open, showing options: 'All regions', 'Hamilton / Niagara Peninsula', 'Kingston / Pembroke', 'Kitchener / Waterloo / Barrie', 'London', 'Muskoka / Kawarthas', 'Northeast', 'Northwest', 'Ottawa', 'Stratford / Bruce Peninsula', 'Toronto', and 'Windsor / Sarnia'. The 'NOC LEVEL' is set to 'Level 4: Minor Group'. Below these filters, there is a 'Comparisons' section with a 'Geographic' radio button and a checked 'Date range' radio button. Three date range comparisons are listed: 1. Jan 2021 to Dec 2023, 2. Jan 2022 to Dec 2022 (with a red 'X' icon), and 3. Jan 2023 to Dec 2023 (with a red 'X' icon). At the bottom, there are tabs for 'Occupations 137', 'Work Requirements', and 'Visualize Data'. The main content area shows the title 'Job postings for All occupations' and a subtitle 'Comparing Jan 2021 - Dec 2023 to Jan 2021 - Dec 2021 and Jan 2022 - Dec 2022 and Jan 2023 - Dec 2023'. There are buttons for 'Visualize Data' and 'Export data'.



## Caveats and Interpretation Notes

The Canadian Job Trends Dashboard only collects online job postings. It does not capture positions that are advertised internally, nor does it differentiate between permanent, casual, contract, full-time or part-time positions. It cannot determine whether postings captured in the dashboard are eventually filled, nor whether a given posting has resulted from organizational growth versus the need to fill an existing position.

Job postings are not equivalent to job vacancies — the number of available openings an employer wants to fill.<sup>23</sup> In general, the number of job postings in the dashboard will differ from a complete count of job vacancies, because:

- not all vacancies are posted online;
- employers may seek to fill multiple positions from a single posting, which may underestimate actual vacancies; and
- employers sometimes keep up postings that they are not currently trying to fill, which may overestimate actual vacancies (LMIC, n.d.).

We used the Canadian Job Trends Dashboard to tabulate net online job postings between January 2021 and December 2023. Though focusing on net postings provided a more stable reference point for analyzing program alignment with labour market needs, it obscures seasonal (and, relevant for our timespan, pandemic-related) fluctuations in the job market.

The sum of the annual counts for all Ontario (n=2,040,260) did not equal the sum of the annual counts for each of the Ontario economic regions (n=1,632,408). One possible explanation for the larger Ontario total is that it includes postings that could not be attributed to a more specific economic region than the province in general (e.g., in the case of remote positions), which could be why the sum of the regional totals was lower. We used the latter figure, the sum of the annual counts for each economic region, as the basis for our Ontario totals. Instances where the sum of the annual counts for a given NOC code did not equal the provided baseline (n=19,890) were also excluded from the analysis.

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<sup>23</sup> Statistics Canada measures vacancies through the Job Vacancy and Wage Survey (JVWS). The JVWS considers a job vacant if: (a) it is vacant on the reference date or will become vacant within the month; (b) there are tasks to be carried out during the month in question; and (c) the employer is actively recruiting externally to fill the job (Statistics Canada, 2023, [Guide to the Job Vacancy and Wage Survey, 2023](#)).

## Appendix B

Table 4

*Net Online Ontario Job Postings, 2021–2023, by Economic Region and Number of Postings per 10,000 Working-age Adults*

Economic Region	% of Ontario Postings 2021–23	Number of Postings 2021–23	2021 Census Population Aged 15–64 (Working-age Population)	Postings per 10,000 Working-age Adults
Toronto	58.52%	955,357	4,446,935	2,148.3
Kitchener-Waterloo-Barrie	9.68%	158,015	935,120	1,689.8
Hamilton-Niagara Peninsula	9.39%	153,241	950,030	1,613.0
Ottawa	8.67%	141,496	915,120	1,546.2
London	3.20%	52,216	460,545	1,133.8
Northeast	2.72%	44,393	344,705	1,287.9
Windsor-Sarnia	2.20%	35,959	412,510	871.7
Kingston-Pembroke	1.92%	31,403	298,860	1,050.8
Muskoka-Kawarthas	1.44%	23,494	238,520	985.0
Stratford-Bruce Peninsula	1.39%	22,681	186,030	1,219.2
Northwest	0.87%	14,153	146,065	969.0
<b>All Ontario</b>	<b>100%</b>	<b>1,632,408</b>	<b>9,334,440</b>	<b>1,748.8</b>

Source: Labour Market Information Council, (2023), [Canadian Job Trends Dashboard](#); Statistics Canada, (2023), [Table 98-10-0132-01](#). Totals may not equal exactly 100% due to rounding.

Note: The Toronto economic region roughly corresponds to the typical boundaries of the Greater Toronto Area. Online job postings are net for the period from January 2021 through to December 2023 and unadjusted for seasonality. Working age adults, by Statistics Canada's definition, are adults between the ages of 15 and 64.

Table 5

*Net Online Toronto Job Postings, 2021–2023 by Training, Education, Experience and Responsibilities (TEER) and Number of Postings per 10,000 Working-age Adults*

<b>Economic Region: Toronto</b>			
<b>TEER Category</b>	<b>Number of Postings 2021–23</b>	<b>% of Toronto Postings</b>	<b>Postings per 10,000 Working-age Adults</b>
Some High School/High School Diploma	210,401	22.02%	473.1
Undergraduate or Graduate Degree	171,894	17.99%	386.5
PSE Below Bachelor's Level (< 2 Years)	157,729	16.51%	354.7
No Formal Education	138,477	14.49%	311.4
PSE Below Bachelor's Level (2-3 Years)	145,160	15.19%	326.4
Management Occupations	131,696	13.79%	296.2
<b>Grand Total</b>	<b>955,357</b>	<b>100%</b>	<b>2,148.3</b>

*N(Toronto working age adults)= 4,446,935*

*Note:* Table 5 shows net online job postings for January 2021 through December 2023 in Toronto by training, education, experience and responsibilities (TEER) required and number of postings per 10,000 working-age adults. Online job postings are unadjusted for seasonality. Working-age adults, by Statistics Canada's definition, are adults between the ages of 15 and 64. TEER codes, which are part of the NOC system, reflect the type and/or level of training, education, experience and responsibilities required for a given occupation (Statistics Canada, 2023).

*Source:* Labour Market Information Council, (2023), [Canadian Job Trends Dashboard](#); Statistics Canada, (2023). [Table 98-10-0449-01](#). Totals may not equal exactly 100% due to rounding.