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# Characteristics of postsecondary international students who did not enrol in publicly funded postsecondary education programs

by Youjin Choi and Feng Hou

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The fast-growing number of international students has generated strong public interest and concerns about their impacts on Canada's educational institutions, labour market and affordable housing. Fully understanding such impacts requires better knowledge of the school enrolment and labour force participation of international students. Earlier Statistics Canada studies found that the number of international students enrolled in publicly funded postsecondary education institutions was about 20% to 30% smaller than the number of postsecondary study permit holders (SPHs) (Choi & Hou, 2023; Frenette, Lu & Chan, 2019). However, little information exists about these SPHs who did not enrol in publicly funded postsecondary programs. It is unclear whether they stayed in Canada and, if so, what their main activities were. This article attempts to explore this less known area.

This article first improves the estimate of how many postsecondary SPHs were not enrolled in publicly funded postsecondary education institutions. There are some limitations in previous estimates that were based on the comparison at the aggregate level of the number of international students in the Postsecondary Student Information System (PSIS) and the number of SPHs in the Longitudinal Immigration Database (IMDB). The PSIS covers the population who received postsecondary education by enrolling in a publicly funded postsecondary educational institution. The IMDB contains information on the total number of SPHs in a given calendar year. Meanwhile, the number of international students in the PSIS includes SPHs, individuals with another visa status and those with no visa status, and thus it may overestimate the number of SPHs. Also, some SPHs may not have enrolled in one calendar year but enrolled in the previous or subsequent years. Therefore, the number of international students who appeared in one particular year of the PSIS may be an underestimate of the number of SPHs who ever enrolled in publicly funded postsecondary education institutions. This article overcomes these limitations by directly counting SPHs in the PSIS based on the linkage between the IMDB and PSIS.

This article further uses temporary resident permit data from the IMDB and tax data from the Longitudinal Worker File to explore whether SPHs not in the PSIS (hereafter "non-enrolled SPHs") can be found in other administrative data, potentially indicating their presence in Canada, and compares their sociodemographic characteristics and labour force engagement with those of SPHs in the PSIS (hereafter "enrolled SPHs"). The focus is on SPHs who held study permits for postsecondary education in calendar year 2019, which is the latest year before the COVID-19 pandemic.<sup>1</sup> Calendar year 2019 spanned academic years 2018/2019 (January to August) and 2019/2020 (September to December) in the PSIS. Postsecondary SPHs were analyzed separately by level of intended study in four groups: non-university postsecondary (CEGEP or college certificate, diploma and applied degree programs), bachelor's degree, master's or doctoral degree, and others.<sup>2</sup>

# About one-quarter of postsecondary study permit holders in 2019 had not enrolled in publicly funded postsecondary programs, with over half of them likely engaging in other study or work activities

In this study, if an individual is not in the PSIS, it indicates that they had not enrolled in publicly funded postsecondary institutions since at least 2009.<sup>3,4,5</sup> A possible reason for the absence is enrolment in private postsecondary institutions, which are beyond the scope of the PSIS. Some SPHs may not stay in Canada, and some may stay in Canada without enrolling in school and do other activities.

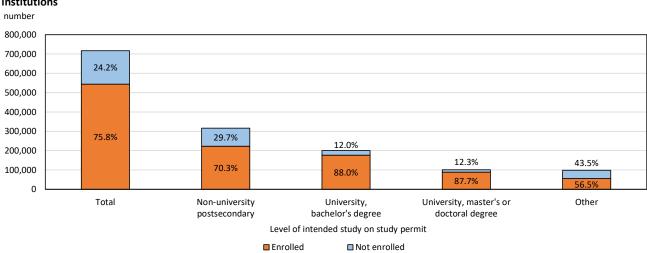


Chart 1 Number and percentage of study permit holders in 2019 by enrolment in publicly funded postsecondary institutions

**Notes:** Percentages in this chart show the percentage of study permit holders by their enrolment in publicly funded postsecondary institutions for each level of study. Non-enrolment in publicly funded postsecondary institutions indicates that study permit holders had not enrolled in publicly funded postsecondary institutions since at least 2009.

Sources: Statistics Canada, Longitudinal Immigration Database and Postsecondary Student Information System.

<sup>1.</sup> SPHs in primary or secondary education and SPHs with missing information on study levels are excluded from the analysis. If a person has multiple study permits in a calendar year, they are counted only once, and the study permit issued last is used to record information on characteristics (e.g., level of study).

<sup>2.</sup> Others in the beginning includes university (other studies), other studies, English as a second language or French as a second language (ESL/FSL), ESL/FSL and college, ESL/FSL and university, and vocational training programs in Quebec.

<sup>3.</sup> SPHs who received a study permit in 2019 and arrived in academic year 2020/2021 were included in enrolled SPHs. Less than 0.1% of SPHs registered for apprenticeship programs without enrolling in publicly funded postsecondary institutions.

<sup>4.</sup> When the information needed for data linkage between the IMDB and PSIS is unavailable, SPHs in the IMDB may not be linked to the PSIS, even if they are present in the PSIS.

The PSIS started to collect information on postsecondary enrolments nationwide from academic year 2009/2010. Collection
of this information started earlier in Alberta (2004/2005), the Atlantic provinces (2005/2006) and British Columbia
(2008/2009).

In 2019, about 717,300 people held postsecondary study permits (Chart 1). Among the postsecondary SPHs, 24% were not in the PSIS and 76% were. Among non-university postsecondary SPHs, 30% were not in the PSIS. The share not in the PSIS was lower at the bachelor's, master's and doctoral degree levels (12% in all cases).

Among postsecondary SPHs not in the PSIS, 54% were found in other administrative data in 2019, indicating that they likely engaged in other study or work activities in the year (Table 1). For example, among non-university postsecondary SPHs, 48% held a work permit in addition to a study permit, 35% had earnings from paid jobs and received T4 slips from employers, and 33% filed a personal income tax return (T1 form). Some of these activities were overlapping. The percentage of non-enrolled SPHs who had some other information in the administrative data was higher at the non-university postsecondary (62%) and graduate (63%) levels than at the bachelor's degree level or other (42%).

Table 1

Characteristics of postsecondary study permit holders by enrolment in publicly funded postsecondary institutions and level of intended study on study permit, 2019

	Not enrolled					Enrolled					
	Total	Non-university postsecondary				Total	Non-university postsecondary		University, master's or doctoral degree	Other	
					nu	mber					
Number of study permit holders	173,390	94,000	24,040	12,460		543,910 rcent	222,600	176,880	88,740	55,690	
Percentage found in other administrative data											
in 2019, a+b+c	54.5	62.4	41.9	62.5	41.9	74.1	85.3	58.8	82.9	63.6	
Had other temporary resident permits, a	37.3	47.9	17.1	22.9	29.7	35.0	49.9	21.3	29.4	28.2	
Had a work permit	37.1	47.8	16.6	22.7	29.4	34.9	49.8	21.1	29.2	28.1	
Had paid jobs, b	32.8	35.4	29.1	45.2	25.6	56.7	69.5	39.6	64.0	48.4	
Filed personal income tax return (T1 form), c	32.5	32.6	28.3	51.4	29.1	60.6	70.3	44.4	72.6	54.3	
Percentage enrolled in postsecondary											
institutions in 2019, d+e	22.0	23.1	18.5	36.9	17.0	93.9	94.1	93.9	97.0	88.2	
Enrolled in publicly funded postsecondary											
institutions in 2018/2019 or 2019/2020, d	0.0	0.0	0.0	0.0	0.0	92.6	92.4	93.2	96.4	85.	
Reported school enrolment in T1 tax return, e	22.0	23.1	18.5	36.9	17.0	48.9	55.3	37.3	59.8	42.0	
Sociodemographic characteristics											
Age group (years)											
24 or younger	69.0	72.3	89.7	32.3	60.7	73.2	71.4	92.9	39.1	72.5	
25 to 34	24.3	22.8	8.9	54.1	27.4	22.6	23.7	6.6	51.9	22.4	
35 or older	6.7	4.8	1.4	13.7	11.9	4.2	4.9	0.5	9.0	5.3	
Gender											
Male	52.3	51.2	59.2	53.8	50.4	55.0	56.8	51.9	57.4	53.6	
Female	47.7	48.8	40.9	46.2	49.6	45.1	43.3	48.1	42.6	46.4	
Province of destination on study permit											
New foundland and Labrador	0.2	0.1	0.5	0.5	0.1	0.9	0.2	1.2	2.2	0.5	
Prince Edward Island	0.6	0.1	1.1	0.2	1.5	0.5	0.3	1.0	0.3	0.4	
Nova Scotia	1.3	0.2	4.2	1.7	2.1	3.2	0.7	5.5	3.6	5.0	
New Brunswick	0.9	0.5	2.5	1.3	0.9	1.1	0.7	1.6	1.2	0.4	
Quebec	16.8	14.6	14.7	19.3	22.0	13.4	5.9	15.8	30.8	8,6	
Ontario	38.6	47.5	29.6	18,4	29.9	52.1	67.6	42.1	35.3	49.	
Manitoba	3.6	2.7	7.1	0.9	4.5	3.0	1.6	5.2	2.1	2.8	
Saskatchewan	1.0	0.5	3.0	1.1	1.0	1.8	0.8	2.4	3.0	1.0	
Alberta	4.2	3,9	4.5	5,9	4.3	5.1	4.2	5.6	7.2	3.5	
British Columbia	30.6	27.2	32.1	50.3	31.5	17.9	16.5	19.0	13.9	26.3	

Notes: Non-enrolment in publicly funded postsecondary institutions indicates that study permit holders had not enrolled in publicly funded postsecondary institutions since at least 2009. For industry of employment, the following industries were not presented because of small sample sizes: agriculture; forestry, fishing, mining, quarrying, oil and gas; and utilities. "Not stated" was also not presented.

Sources: Statistics Canada, Longitudinal Immigration Database, Postsecondary Student Information System, and Longitudinal Worker File.

### Table 1

Characteristics of postsecondary study permit holders by enrolment in publicly funded postsecondary institutions and level of intended study on study permit, 2019 (continued)

	Not enrolled					Enrolled					
	Total	Non-university postsecondary		University, master's or doctoral degree	Other	Total	Non-university postsecondary		University, master's or doctoral degree	Other	
					perc	ent					
Source country (top 5)											
India	47.9	66.3		36.1	22.1	34.9	58,6	9.9		40.	
China	9.7	4.4	20.5	12.0	14.6	22.4	8.8	40.3	19.8	23.	
France	2.5			2.5		5.0		6.9	9.1	**	
South Korea	5.3	3.5	***	***	11.6	2.6	3.4			3.1	
Vietnam	1.8	1.2			3.6	3.0	3.5			8.2	
United States			5.1	4.0				4.5	4.7		
Brazil		3.4		245			3.2			2.4	
Iran			+++	9.9					8.8		
Nigeria		***	1.7	445	***	***	144	3.9			
Japan	+++			4+1	9.0		145	- 14	***	2.	
Total of top 5 countries	67.3	78.8	58.8	64.5	60.8	67.9	77.3	65.6	64.9	78.3	
Other countries	32.8	21.2	41.2	35.5	39.2	32.1	22.7	34.4	35.2	21.	
Issue year of the first temporary resident											
permit											
2019	41.6	41.9	35.7	42.6	43.7	24.4	27.7	15.6	25.4	37.5	
2018	30.0	29.6			34.6	24.0	27.5			29.6	
2017	16.2				13.5	20.3	24.1			18.1	
2016 or earlier	12.3				8.3	31.3	20.7			14.	
Work characteristics.	12.0	10.0	20,7	12.1	0.0	51.5	20.7	45.0	51.1	14.1	
only those who had paid jobs in 2019											
Industry of employment (main job) at taxation											
Construction	2.2	2.5	1.7	1.5	2.0	1.5	1.9	1.2	0.7	1.5	
Manufacturing	4.1	4.0			4.8	4.1	4.3			3.	
Wholesale and retail trade	22.0	20.1			23.3	19.7	21.0			23.4	
Transportation and warehousing	3.4	3.8			3.6	2.6	21.0		1.0	23.	
	1.9	1.6			1.9	3.1	2.2		3.6	2.1	
Finance, insurance, real estate, rental and leasing	3.6	3.2			4.2	5.2				4.1	
Professional, scientific and technical services	17.1	18.7		12.0	12.8	14.8	3.6			15.	
Business, building and other support services											
Educational services	3.7	1.7			2.7	12.5	2.3			3.1	
Health care and social assistance	3.4	3.6			3.6	2.9	3.4			2.9	
Information, culture and recreation	2.1	1.9			2.6	2.4	2.0		2.3	2.1	
Accommodation and food services	31.2				32.4	26.1	31.2			32.9	
Other services (except public administration)	3.1	2.8	414		3.7	2.2	2.3			3.	
Public administration	0.4	0.2	0.5	0.6	0.5 doll	1.0	0.6	1.7	1.7	0.5	
Median earnings from all jobs	9,300	9,800	7,400	10,000		10,700	12,300	7,900	9,700	11,30	
not applicable											

... not applicable

Notes: Non-enrolment in publicity funded postsecondary institutions indicates that study permit holders had not enrolled in publicity funded postsecondary institutions since at least 2009. For industry of employment, the following industries were not presented because of small sample sizes: agriculture; forestry, fishing, mining, quarrying, oil and gas; and utilities. "Not stated" was also not presented.

Sources: Statistics Canada, Longitudinal Immigration Database, Postsecondary Student Information System, and Longitudinal Worker File.

Among SPHs not in the PSIS, 22% reported school enrolment in their tax return in 2019. Because tax filing rates among international students are low (61% among those in the PSIS, Table 1), this figure is likely a low bound for the percentage of SPHs enrolled in private postsecondary institutions. Putting together this share and the share of enrolled SPHs in the PSIS suggests that at least 81% (=76%+24%\*22%) of SPHs in 2019 had enrolled in Canadian postsecondary institutions.

# Relatively larger shares of study permit holders not enrolled in publicly funded postsecondary programs intended to study in British Columbia and came from India

Some differences in sociodemographic characteristics were found between enrolled and non-enrolled SPHs (Table 1). A disproportionately large share (31%) of non-enrolled SPHs intended to study in British Columbia, compared with enrolled SPHs (18%). In comparison, 39% of non-enrolled SPHs were destined to study in Ontario, whereas 52% of enrolled SPHs were. The difference was largest among non-university postsecondary SPHs (47% versus 68%).

A relatively large share of non-enrolled SPHs who intended to enrol in non-university postsecondary and university degree programs were from India. Indian nationals accounted for 66% of non-enrolled SPHs for non-university postsecondary programs and 28% of non-enrolled SPHs at the bachelor's degree level. The corresponding percentages of Indian nationals among enrolled SPHs were 59% at the non-university postsecondary level and 10% at the bachelor's degree level.

Most non-enrolled SPHs were recent arrivals. More than 70% arrived in Canada within two years, and 42% were first-time permit holders in 2019.

Among SPHs who intended to enrol in non-university postsecondary or other programs and who had paid jobs in 2019, being in the PSIS or not made no difference in their industry distribution. About 72% were employed in three industry sectors: accommodation and food services; wholesale and retail trade; and business, building and other support services (primarily temporary employment services).

However, at university degree levels, the industry distribution was significantly different between enrolled and non-enrolled SPHs. The educational services sector was one of the top three sectors among SPHs who studied at the bachelor's degree (14%) or graduate degree (43%) levels in publicly funded postsecondary institutions. In contrast, the corresponding shares were 7% and 13%, respectively, among non-enrolled SPHs. A larger share of non-enrolled SPHs at the bachelor's degree level (20%) worked in business, building and other support services than enrolled SPHs (9%). At the graduate degree level, wholesale and retail trade (31%) was the top sector for non-enrolled SPHs, but the corresponding share was 14% among enrolled SPHs.

Enrolled and non-enrolled SPHs had similar median annual earnings at the bachelor's and graduate degree levels. However, among non-university postsecondary SPHs, non-enrolled SPHs had lower median annual earnings than enrolled SPHs.

### Concluding remarks

This article sheds light on the activities of postsecondary SPHs who were not enrolled in publicly funded postsecondary institutions. The analysis suggests that, as of 2019, at least 54% stayed in Canada, with some (at least 22%) studying in school, possibly in private colleges, and some working with or without a work permit. Relatively larger shares of non-enrolled postsecondary SPHs intended to study in British Columbia, came from India and were first-time permit holders. When employed, a relatively larger share found work in low-paying industry sectors, including wholesale and retail trade, and accommodation and food services.

Nevertheless, it is important to note that the current dataset does not provide a precise estimate regarding international student enrolments in private postsecondary institutions. More comprehensive insights on enrolment in private postsecondary institutions could be gleaned from administrative data on tuition and enrolment certificates once they become available for analysis.

## Authors

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