



# International students at Ontario Colleges: a profile

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O C T O B E R 2 0 1 6

## INTRODUCTION

International students have increasingly become an important part of post-secondary education in Canada. The number of international students has risen 84% between 2003 and 2013, and most precipitously since Canada introduced the Canadian Experience Class as part of its new immigration policy changes.<sup>1</sup> A report published by the Higher Education Quality Council of Ontario (Williams, K., Williams, G., Arbuckle, A., Walton, Roberts, M., & Hennebry, J., 2015) describes the political and economic climate, as well as the policy changes over that time period. These changes have allowed for an increase in the number of international students being admitted into Canada's post-secondary institutions by streamlining application processes and revising policies regulating off-campus work and post-graduation work permits. Students from India and China have had greater ease in accessing Canadian post-secondary education with the introduction of the Student Partners Program (SPP) in 2009, though financial restrictions have become a potential barrier to access.<sup>2</sup> With these changes, according to Williams et al., Ontario has become the primary destination for international students in Canada. This is especially true at Ontario colleges. "Ontario-bound international students show a growing tendency to study in the college sector, with over 50% of new entrants attending a college in 2012" (Williams et al., 2015). Despite this trend, the discussion on student characteristics does not distinguish between the two sectors.

There is a dearth of reports dealing specifically with international students attending colleges. Ontario

conducts two comprehensive provincial surveys which collect data to get a better understanding of

international students while enrolled, and what happens to them once they graduate. In so doing, we are able to understand how they may differ from domestic students.

Two distinct provincial datasets, the provincially mandated Student Satisfaction Survey (SSS) and the Graduate Student Survey (GSS), are used to understand key differences between international and domestic students. The SSS helps quantify characteristics, while the GSS allows for an examination of transfer to further education, including choice of institution destination and reasons for continuing their education.

## DATA SOURCES

The Ontario College Application Service (OCAS) is the centralized mechanism through which domestic students apply for entry into one

<sup>1</sup> See CBIE report: <http://monitor.icef.com/2015/02/canada-introduces-new-process-international-students-hoping-immigrate/>

<sup>2</sup> See report on international students: <http://www.heqco.ca/en-ca/Research/ResPub/Pages/International-Students-in-Ontario%E2%80%99s-Postsecondary-Education-System-2000-2012.aspx>

of the publicly funded colleges of applied arts and technology. International students apply directly to the colleges who are required to report and submit the numbers to OCAS, the central repository for data and a warehouse for colleges. Self-serve business intelligence tools for data analysis and reporting enable colleges to extract information for a variety of purposes.

The SSS is an annual paper-based survey administered to students in all programs enrolled in the second semester and higher, across Ontario.<sup>3</sup> Administered in the classroom, the survey asks questions relating to teaching, the program, college services, and engagement while collecting self-reported socio-demographic information. The survey captures approximately 65% of students enrolled in the Ontario College system. Since 2011, the survey has asked respondents to self-identify as international students, enabling researchers to distinguish them from domestic students. For this report, four years of the SSS are combined over the 2011/2012 to 2014/2015 period. In order to capture unduplicated students for this report, only those students who reported being enrolled in the first year of their program are analyzed. With this specification, the provincial total for international respondents is 26,047, compared to 234,623 domestic respondents.

The GSS is administered through a telephone survey by an external

**TABLE 1: FALL FULL TIME HEADCOUNT — MINISTRY FUNDED VERSUS INTERNATIONAL ENROLMENT**

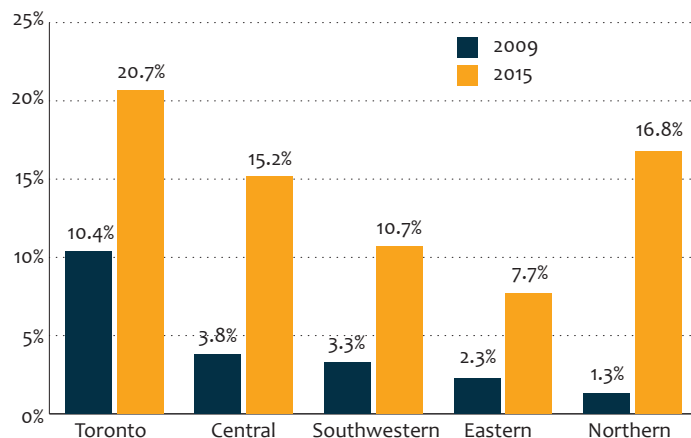
REGION	Funded			International		
	2009	2015	Growth	2009	2015	Growth
Toronto	54,098	62,485	15.5%	6,303	16,303	158.7%
Central	43,134	49,021	13.6%	1,720	8,753	408.9%
Southwestern	28,497	31,377	10.1%	968	3,746	287.0%
Eastern	29,946	32,805	9.5%	696	2,730	292.2%
Northern	13,472	12,749	-5.4%	174	2,583	1384.5%

Source: RPT0061-Enrolment Report, OCAS data warehouse; retrieved April 11, 2016

service provider to all college graduates with an Ontario College Credential from Ontario’s publicly funded, approximately six months after graduation.<sup>4</sup> The survey, which historically has had a response rate of 71%, asks the student about their education and job activity during a specified week. Although international students are not part of the official Key Performance Indicators report, they

are surveyed about their educational pathways after graduation, allowing for a comparison to domestic students. Eight years of the graduate survey data are combined, from 2007 to 2014. The share of international graduates rose from 4.4% in 2007 to 15.8% in 2014 with increases every year. Overall, international graduates represent 9.3% or 55,730 of the 596,740 students surveyed.

**Figure 1: International students as percentage of total student population: 2009 and 2015**



Note “total” student population includes international students and those funded under the Ontario Government’s General Purpose Operating Grant (GPOG).

<sup>3</sup> For a look at the 2015–2016 survey handbook, see: <https://www.tcu.gov.on.ca/pepg/documents/KPIStudentSatisfactionandEngagementSurvey.pdf>

<sup>4</sup> See the Ministry of Training, Colleges and Universities (2009). “Framework for Programs of Instruction”

## INTERNATIONAL STUDENT ENROLMENT

Since 2009, the Ontario College system has experienced a dramatic growth in international students (Table 1). The range of growth for individual colleges varies from 110% to 3,246%, with an individual enrolment count in 2015 from 24 students to 5,365 students. International student growth far exceeds that of ministry-funded students at the system level; 246.0% and 11.4% respectively. In a closer examination of individual colleges, international students are compensating for a decline in domestic students and has allowed for the continual growth in student enrolment.

The growth of international students is apparent in all regions across the province with the Northern Region increasing its international student

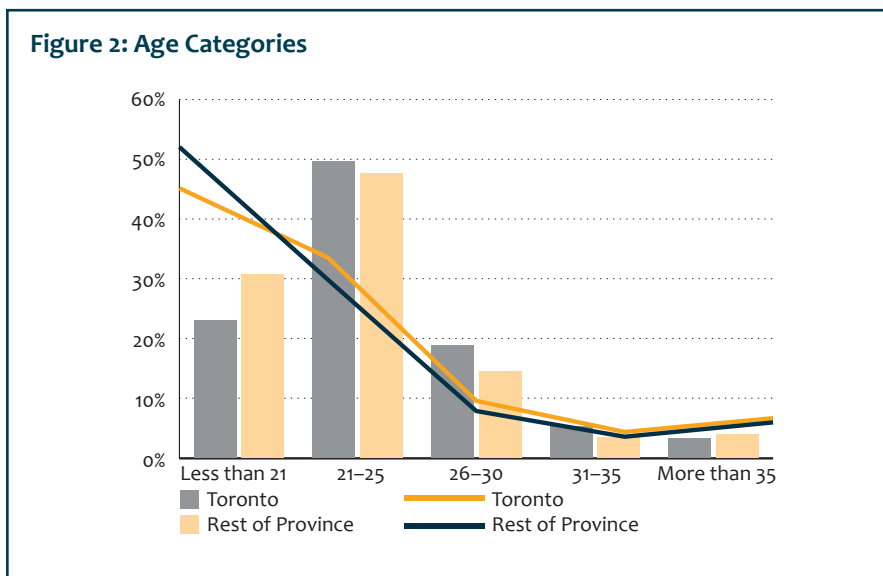
enrolment by 1,384.5%, and Toronto colleges increasing by 158.7% (Table 1). Toronto colleges have grown by 10,000 international students since 2009, almost four times the international student enrolment of Northern colleges in 2015. The number of international students at the four Toronto colleges is almost half (47.8%) of the total international student population in all 24 Ontario Colleges of Applied Arts and Technology.

International students also represent an increasing proportion of the total full-time student population. Figure 1 shows the percentage of international students as a proportion of the total full-time student population in 2009 and in 2015 for each region. The Northern region exhibits the highest growth in proportion, with 1.3% in 2009 and 16.8% in 2015; the Toronto colleges

continue to lead the system with 20.7% of its full-time student population consisting of international students.

Slow growth or declining domestic students, decreased funding,<sup>5</sup> provincial government encouragement and the potential for increased revenue have all combined to make the recruitment of international students a priority. Indeed, all of the reasons combined suggests Ontario colleges are becoming more dependent on international student enrolment.

When it comes to international students in Ontario, “Toronto dominates” (Williams et al., 2015). While the growth in international students is faster in the rest of the province, Toronto colleges still represent almost half of the total international student population, but only one-third of ministry-funded students. The Toronto colleges also represent a different domestic student profile; each one has a significant second language population fuelled by new Canadians. Toronto colleges arguably represent a different environment for the international student which is reflected in some of the dimensions uncovered in the data presented here. Therefore, for this report, for the purposes of comparison, the discussion will distinguish between Toronto and the rest of Ontario.<sup>6</sup>



<sup>5</sup> See [http://collegesontario.org/policy-positions/budget-submissions/CO%202016%20Budget%20WEB\\_2.pdf](http://collegesontario.org/policy-positions/budget-submissions/CO%202016%20Budget%20WEB_2.pdf)

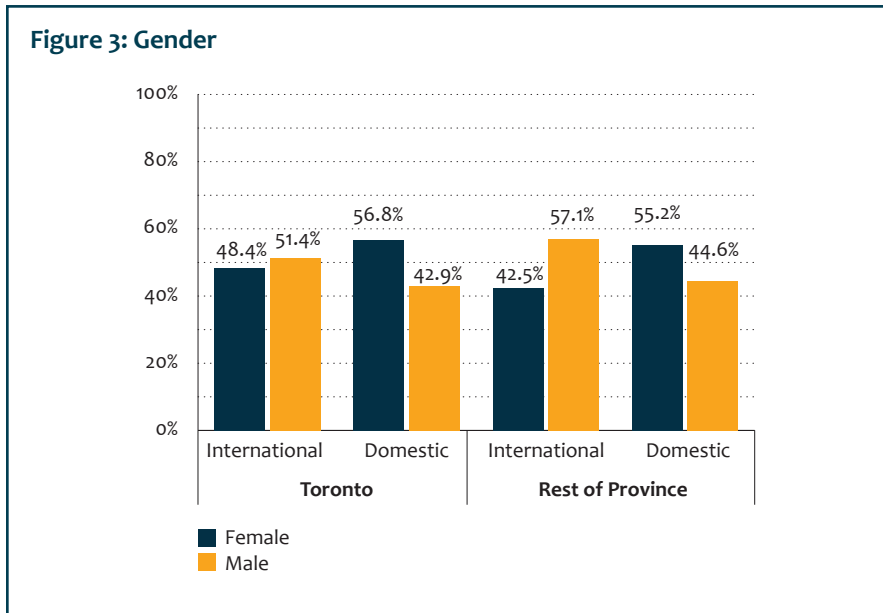
<sup>6</sup> There are four colleges in Toronto: Centennial, George Brown, Humber and Seneca. There are 18 English (Algonquin, Cambrian, Canadore, Conestoga, Confederation, Durham, Fanshawe, Fleming, Georgian, Lambton, Loyalist, Mohawk, Niagara, Northern, Sault, St. Clair, St. Lawrence, Sheridan) and two French colleges (Boréal and La Cité) in the rest of the province.

## PART ONE: FIRST YEAR COLLEGE STUDENTS

The SSS is intended to capture data on all students enrolled in colleges beyond their first semester. The survey provides self-reported

socio-demographic characteristics such as age, gender, first language, and international status, as well as student’s time use. Prior education is also reported by the student, with multiple selection possibilities

enabling accurate representation of previous education prior to entering their program. In addition, details on program and credential of enrolment are provided by the college for each student.



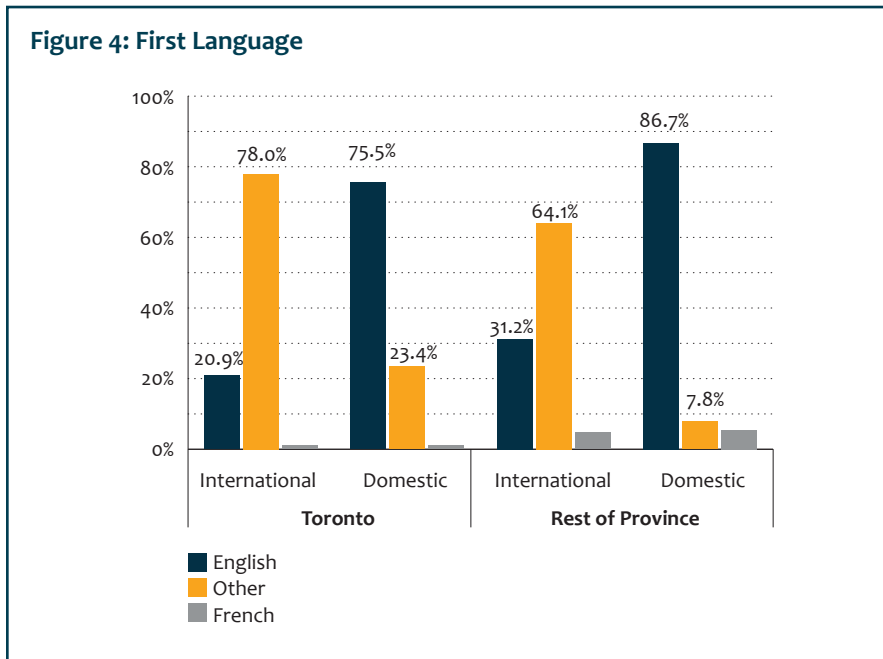
### Characteristics

#### Age

International students are older than domestic students overall with more students in the 21–25 and 26–30 age categories for both Toronto colleges and the Rest of Ontario (Figure 2). Toronto international students are also older than their international counterparts elsewhere in Ontario.

#### Gender

International students are more likely to be male than their domestic counterparts (Figure 3). This difference is especially true outside of Toronto, where the gender pattern is almost the mirror opposite for domestic students.



#### First Language

Not surprisingly, the survey reports considerable difference in first language between international students and domestic students (Figure 4). Of note are the responses between Toronto and the Rest of Ontario in terms of the number of domestic students who identify “Other” as their first language. With almost a quarter of domestic students in Toronto identifying “Other” as their first language, there exists the possibility that international students could feel

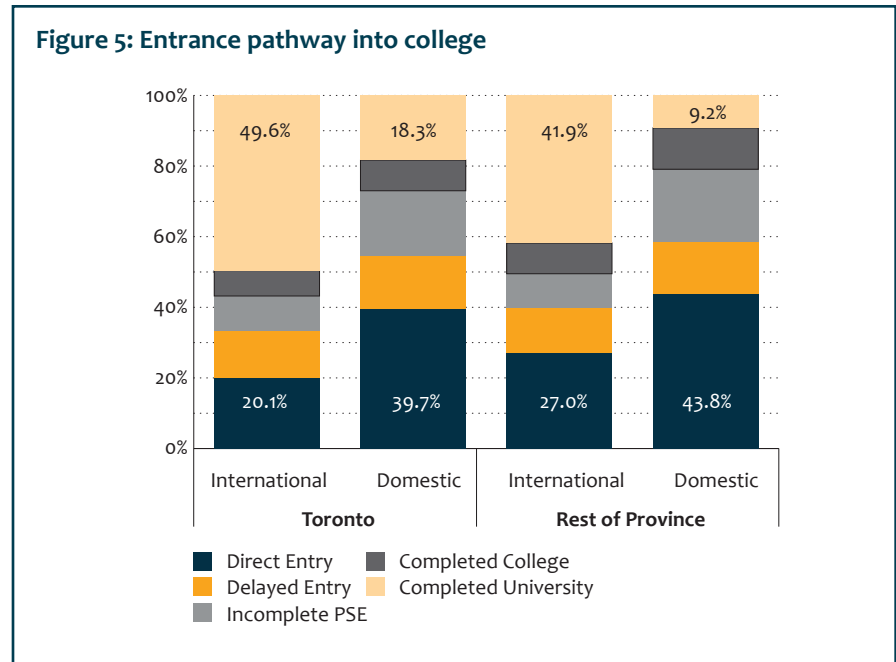
more “at home” in the Toronto colleges.

Also of note is the number of international students in the Rest of the Province who responded with English as their first language, at almost one-third (31.2%). The number of domestic students in the rest of the province whose first language is English is also higher than in Toronto colleges; consequently, the percentage point difference between international and domestic students in English as the first language is approximately the same.

**Previous education**

The education levels of students are identified by a prior education field on the SSS which indicates successive levels of education separately (Figure 5). The most dramatic difference between international and domestic students is the number of students who indicated they had completed a university degree. Of the international students enrolled in Toronto colleges, 49.6% reported they had completed a university degree compared to 18.4% of domestic students; similarly, 41.9% of international students and only 9.2% of domestic students in the rest of the province had a university degree.

Domestic students are vastly different in their prior education compared to international students and this is reflected in the type of credential in which each are enrolled. Domestic students are much more likely to be direct entrants, but even those numbers represent less than half the



population. Domestic students in colleges outside of Toronto have less previous education which would also explain their younger age overall.

The amount of education for international students also helps explain their older age overall. However, among university graduates, international students are younger than domestic students (not shown here). Of students in Toronto, 56.7% are aged 21–25, nearly 30% are between the ages of 26–30; while

63.5% of non-metro students are aged 21–25, compared with 25.4% who are aged 26–30. Meanwhile, of the domestic students in Toronto colleges who are university graduates, 51.4% are between the ages of 21 and 25, and 20.1% are between the ages of 26 and 30. In the rest of the province, the gap and pattern are similar.

**Aspirations**

In the SSS, students are asked to identify their main goal for enrolment with the closed category choices of

**TABLE 2: MAIN GOAL FOR ENROLMENT, ONTARIO COLLEGE STUDENTS, 2011–2014**

	TORONTO		REST OF PROVINCE	
	International	Domestic	International	Domestic
Employment/Career Prep	71.7%	71.3%	67.9%	71.7%
Prepare for further PSE study	15.1%	21.2%	18.1%	21.5%
Interest/Personal Dev.	9.8%	5.9%	9.4%	5.1%
Other	3.4%	1.7%	4.6%	1.7%

Employment/Career preparation, prepare for further PSE study, Interest/Personal Development or Other. Table 2 shows the results comparing international and domestic students.

The pattern is similar in Toronto and the Rest of the Province with international students somewhat less likely than domestic students to identify preparation for further education, and more likely to respond with Interest/Personal Development and Other. Preparation for PSE study could include both continuing in a college program or at a university. The difference is unclear for both international and domestic students. We know, however, from an examination of transfer data that international students are now less likely to be pursuing further education at a university.

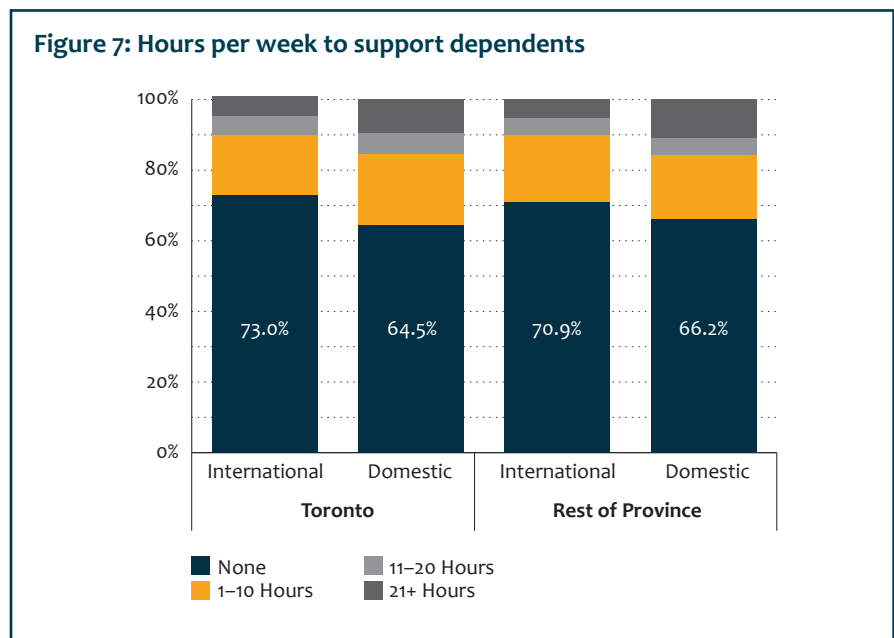
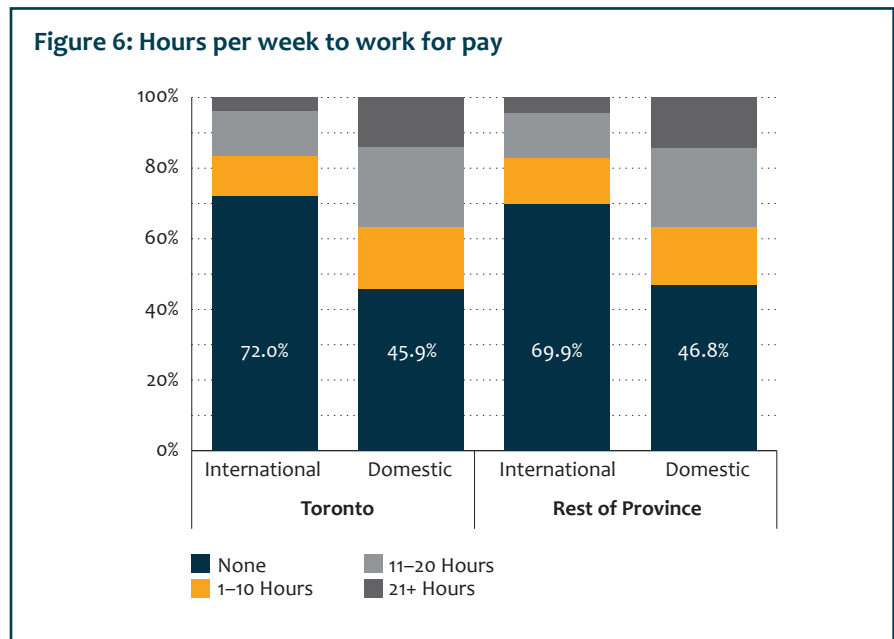
In distinguishing the manner international students entered the college system (direct entry, indirect, previous education), there exists significant variation. Direct and indirect entrants, who comprise more than one third of international students in the province, are far more likely than university graduates to identify their reason for enrolment as “Prepare for further PSE study” (26.9% vs. 8.4%). These numbers are comparable to their domestic counterparts. Because the survey is anonymous, we are unable to track students and therefore measure the extent to which students are able to achieve their goal, and whether or not the goal

was to attend university in pursuit of a degree.

**Work for pay and supporting dependents**

The student satisfaction survey also asks about academic and social

engagement. Respondents are asked to state how many hours per week they work for pay while in school and how many hours per week they are caring for dependents which could include children or other family members (Figure 6, Figure 7). In



**TABLE 3: DISTRIBUTION OF ONTARIO COLLEGE STUDENTS BY INTERNATIONAL STATUS AND REGION, 2011–2014.**

	TORONTO		REST OF PROVINCE	
	International	Domestic	International	Domestic
Business	43.9%	20.8%	31.3%	16.4%
Community service	6.5%	19.4%	11.6%	20.2%
Creative and Applied Arts	10.5%	17.4%	9.3%	13.0%
Health	3.5%	11.8%	9.3%	15.4%
Hospitality	14.8%	8.8%	8.2%	3.6%
Preparatory/Upgrading	3.5%	6.9%	5.9%	9.7%
Engineering/Technology	17.3%	14.9%	24.4%	21.7%

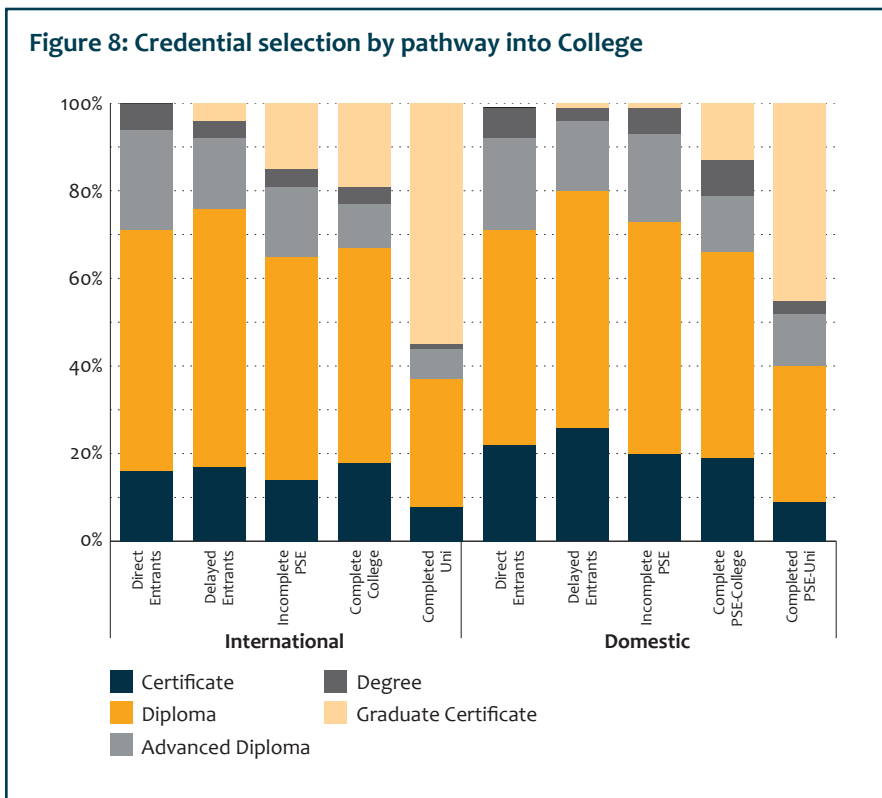
in extra-curricular academic and social activities.

**Program Selection**

The selection of program is an indicator of previous education and a marker for expected outcomes. For example, graduate certificates require a previous credential, typically a degree, to enter the program and those who enroll are looking to augment their employment prospects with specific training; two- and especially three-year programs have shown the greatest propensity for transfer, especially compared to one-year certificates. Students in certain program areas, such as business, have exhibited greater propensity to transfer into a degree program.

**Credential and program area**

Table 3 shows the distribution of students by major program areas. The most striking result is the large share of international students in Toronto enrolled in a business program (43.9%) compared to domestic students (20.8%), with a similar result seen outside of Toronto. Both in and outside of Toronto, international students are considerably less likely to be enrolled in community services and health programs, and somewhat more likely to be enrolled in hospitality and engineering.



both questions there exists a large difference between international and domestic students. Of the international students attending the Toronto colleges, 72.0% did not work for pay compared to 45.9% for the domestic students; and 73.0% of international students stated they

did not spend any time caring for a dependent compared to 64.5% for domestic students. The percentage and difference is similar for the rest of the province. Both of these measures would affect the amount of participation for each group

The type of credential is also an important distinction and one where the differences among international and domestic student, in Toronto or the rest of the province, reflect the previous education. For this reason we examine the credential type as

mediated by pathway into the college (Figure 8).

International students who have completed a degree are most likely to enroll in a Graduate Certificate, and at a higher rate than domestic students with a similar credential (55.3% versus 44.7%). Two-year diploma programs, the main type of credential in the Ontario college system, rank as the second highest in enrolment for both international and domestic students, regardless of incoming pathway. One-year Ontario college certificates are less common for

international students, but still have significant numbers.

**Top programs**

Table 4 displays the top ten programs by enrolment among international and domestic students in Toronto and the rest of the province in accordance with the ministry code groups. There is some consistency in the province for domestic students; Early Childhood Education, Police Foundations and Collaborative Nursing are the most attractive programs, along with shorter preparatory programs. On the

other hand, business programming is the most sought after area for international students, with Hospitality Management and International Business Management attracting the largest numbers. In choice of program, there is much similarity among international students across the province, but much less overlap with domestic student program choices.

**PART 2: GRADUATES**

The data in this section is derived from the GSS which is conducted approximately six months after

**TABLE 4: TOP TEN COLLEGE PROGRAMS BY INTERNATIONAL STATUS AND REGION OF ONTARIO, 2011-2014**

Rank	TORONTO		REST OF PROVINCE	
	International	Domestic	International	Domestic
1	Hospitality Management	Early Childhood Education	International Business Mgt	Preparatory Health Sciences
2	Project Management	Collaborative Nursing	General Arts And Science — One-year	General Arts And Science — One-year
3	International Business Mgt	Practical Nursing	Business	Police Foundations
4	Global Business Management	Police Foundations	Business — Accounting	Practical Nursing
5	Culinary Management	General Arts And Science — One-year	Hospitality Management	Early Childhood Education
6	Human Resources Management	Social Service Worker	Personal Support Worker	Collaborative Nursing
7	Business — Accounting	Child And Youth Worker	Human Resources Management	Social Service Worker
8	Early Childhood Education	Culinary Management	Early Childhood Education	Personal Support Worker
9	Business	Preparatory Health Sciences	Project Management	Child And Youth Worker
10	Personal Financial Services	Business Administration	Computer Systems Technician	Law And Security Administration

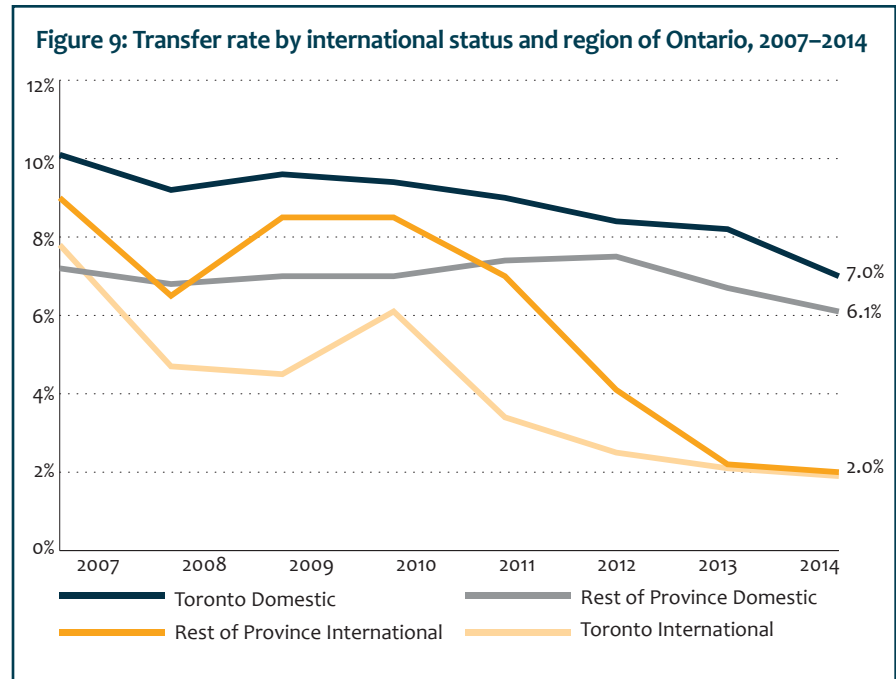


graduation, three times a year. It helps colleges understand the educational or occupational outcomes of those who completed a credential. Despite some limitations, the GSS represents a consistent and reliable assessment of student mobility. For purposes of this report, we will examine only those who have continued onto university.

**Transfer rate**

When a graduate responds that he or she is enrolled in another educational program, he or she is probed further with questions about the program, institution, amount of transfer credit, sources of information, satisfaction with the transfer process, and reasons for continuing. Colleges use the survey to report on the number of students who transfer to a university and from the numbers, a transfer rate is calculated. The transfer rate is the ratio of respondents who stated they were attending a university to all graduates in the survey.

In 2007, the transfer rate for international students was comparable to that of domestic students (Figure 9). Except for a blip in 2010, the transfer rate for international students in Toronto has been in a precipitous decline, down to 2.0 percent in 2014. In the rest of the province, the transfer rate for international students dropped significantly after 2010 to the same level as those in Toronto colleges. The transfer rate for domestic students has also gone down, but



**TABLE 5: MAJOR REASON FOR TRANSFER (2010-2014 GRADUATES)**

	International	Difference with Domestic
Upgrade/improve skills	77.0%	1.9%
More opp. for career advancement	76.3%	-8.8%
Gain theoretical knowledge	65.5%	-6.1%
To get diploma/cert./degree	64.8%	-10.5%
Interest in further/more in depth training	63.8%	-9.7%
Needed for prof. designation	58.3%	8.0%
Potential for higher income	50.3%	-13.1%
Interest in changing field of study	42.0%	9.2%
Encouragement from others	36.1%	1.5%
Formal transfer agreement	32.6%	-1.0%
No work/job in field of study	27.0%	5.9%
Company paid for it	17.9%	11.5%

not to the same extent. The decline occurs for all age groups, program types, and length of credential. International students have become less inclined to use the college system as a stepping stone into

a university credential, certainly immediately following graduation. One factor may be the changes in rules to allow student work longer after graduation which does not preclude a student from seeking

another credential several years later not captured in this survey.

### **Reasons for transfer**

The GSS also inquires about different aspects of the transfer process, including the reasons for continuing (Table 5). The top two major reasons, in order, are to “upgrade/improve skills” and to provide “more opportunities for career advancement”; interestingly, the same two reasons as for domestic students, albeit in reverse. More opportunities for career opportunities was the highest response for domestic students by 6.2 percentage points, but it was almost equal to that of upgrading and improving skills as it was for international graduates. The perceived difference between the two answers is unclear, but all graduates view obtaining a degree at a university as something to give them more advantages in the workplace.

There are large differences between international and domestic transfer students in other areas. The “potential for higher income” is much less a major reason (–13.1%) for international students, as is earning another credential (–10.5%). On the other hand, international students are more likely than domestic students to respond that acquiring a professional designation was a major reason for transfer.

## **CONCLUSION**

The growth of international students at Ontario Colleges of Applied Arts and Technology is an important trend for both individual colleges and the system. Their numbers provide an understanding of international student characteristics and enrolment, relative to who enrolls at university, and compared to domestic counterparts. This report is an attempt to inform the latter.

The data, from two provincially mandated surveys, provides some important demographic and academic characteristics. Relative to domestic students, international students are older and are more likely to be male. International students report less time working for pay outside of their academic studies, and having fewer dependents. The extent to which these two variables affect their social and academic engagement is not known at this time.

There are demonstrated differences between international students enrolled in Toronto colleges and those enrolled in all other Ontario colleges. A larger number in international students in the rest of the province whose first language is English also leads to a conclusion of different countries of origin than international students at Toronto colleges.

There exists as well a significant difference in the previous education of international students. Almost half have completed a university degree which in turn translates into a larger percentage enrolling in graduate certificate programming. The interest in programming also differs from domestic students overall, with a tendency to enroll in specialized programming for hospitality, culinary, international business, financial, and project management. The large number of international students with previous university contributes, in part, to a decreasing number of international students transferring to a university after college. Indeed, it appears international students are primarily using college as a second credential, particularly in recent years, and not as an automatic stepping stone to university.

The data sources are unable to identify the focus of previous education of international students so it remains unknown to what extent college programs are related and provide some Canadian-specific knowledge to augment labour prospects; or whether the college program offers alternative skills which can be more easily translated into an occupation here or abroad. Continued exploration of this question is needed.

## WORKS CITED:

Williams, K., Williams, G., Arbuckle, A., Walton-Roberts, M. & Hennebry, J. (2015). International Students in Ontario's Postsecondary Education System, 2000–2012: An evaluation of changing policies, populations and labour market entry processes. Toronto: Higher Education Quality Council of Ontario.

## CBIE RESEARCH IN BRIEF

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