

INTERNATIONAL STUDENTS IN BC'S EDUCATION SYSTEMS

Summary of Research from the
Student Transitions Project

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Executive Summary

About this Research

This report provides key research findings from a recently updated analysis of international students studying in the B.C. secondary and post-secondary education systems. The study was conducted by the Student Transitions Project (STP), a collaborative research partnership involving B.C.'s education and advanced education ministries and post-secondary institutions.

The study updates a similar study conducted in 2014, but with more recent STP 2017 data, to address a number of research questions about the programs, pathways and education outcomes of international students who enrolled in B.C.'s secondary or public post-secondary system.

Quick Facts

How many international students are studying in B.C.'s education systems? The Canadian government reports that more than 150,000 international students were enrolled in public and private post-secondary institutions, elementary and secondary schools and private language training schools in B.C. in 2017. This represents nearly one-quarter of all international students studying in Canada (page 10).

This study includes only a subset of these 2016/2017 international students: a total of 58,591 post-secondary international students (excluding exchange students) and 3,335 international B.C. grade 12 graduates (page 10).

International students enrolled in 2016/2017 represent 13.7% of the total B.C. public post-secondary headcount enrollment and 7.7% of the total population of B.C. grade 12 graduates (pages 11 and 28).

In which institutions and regions of B.C. are international students enrolled? Fewer than half (42%) of B.C.'s public post-secondary international students are enrolled in research-intensive universities. International students in all institution types are concentrated in Lower

What is an international student?

An **international student** is any non-Canadian citizen who does not have permanent residency status in Canada and is participating in a program of study at an education institution in Canada. International students are defined differently in each of three different data sources provided to the STP, but the definitions are sufficiently similar across systems for this analysis (see [How does the STP identify international students?](#) on page 4).

Why do international students choose to study in B.C.?

According to Study in BC Canada*, a website produced by the B.C. Council for International Education, here are the top reasons to learn, live and play in B.C.:

- 1) **Superior Education** - B.C. teachers and institutions are ranked among the best in the world.
- 2) **Extraordinary Quality of Life** - B.C. is one of Canada's most exciting, beautiful, safe and peaceful provinces.
- 3) **Friendly and Diverse People** - B.C. is friendly and welcoming with many diverse cultures.
- 4) **Mildest Weather in Canada** - B.C. has the mildest climate in the country, with warm summers in the interior and mild winters on the south coast.

* <http://studyinbc.com/why-study-in-bc/>

How does the STP Identify International Students?

International students are defined differently in each of three different data sources provided to the STP, but the definitions are sufficiently similar across systems for this study.

The **B.C. K-12** system does not provide an international student identifier to the STP, so the STP uses a proxy by selecting only K-12 non-residents of B.C. This proxy not perfect because domestic residents of other Canadian provinces will also be included as international students. In the past, the STP filtered out students whose primary language spoken at home is English, but the STP has been asked to include them this time.

The **Central Data Warehouse (CDW)** institutions (all post-secondary institutions excluding Research universities) define international students on the basis of the fees the students pay. Students who pay international fees are classified as international students. It is also assumed that international exchange students pay domestic fees and are therefore counted as domestic students in this study.

The **Research-Intensive Universities (RIUs)** identify international students according to the student visa status. The following visa status values are provided to the STP: Diplomat, Minister, Other, Student Visa, Visitor and International Exchange. Although international exchange students were included in some of the preliminary analysis, they have primarily been filtered out.

Mainland/Southwest institutions (68%). Institutions in other regions of B.C. enrol a smaller share of B.C.'s international students: Vancouver Island (15%), Thompson-Okanagan-Kootenays (14%) and Cariboo-North (3%) ([page 12](#)).

What are the international student enrollment trends? Total international student enrolment in the B.C. public post-secondary system has nearly tripled over the last decade, with the largest growth occurring in colleges and institutes ([page 14](#)); institutions in the Cariboo North region have seen more international student growth than other regions, growing to four-times the number from a decade ago ([page 15](#)).

As international student enrollment grew, did domestic enrollments decline? Yes, the total number and relative share of domestic students in the B.C. public post-secondary system declined from 95% to 86% over the last decade, while the total number and relative share of international students grew from 5% to 14%. A similar shift occurred among the B.C. population of grade 12 graduates over the same time period, with international grade 12 graduates increasing from 3% to 8% of the total ([page 16](#)).

Which countries do international students in B.C. public post-secondary institutions come from? B.C.'s international students come from 185 different countries around the world, but more than three-quarters (78%) come from only ten of these countries. China (38%) and India (21%) are the two main sources of international students studying in B.C. ([page 17](#)).

Which post-secondary study levels and credentials are international students enrolled in? The majority of 2016/2017 international students were enrolled in undergraduate programs (80%), with the remaining 20%, split almost equally in graduate programs and developmental programs. Undergraduate registrants were primarily enrolled in Bachelor's degree programs; while graduate-level registrants were enrolled mainly in Master's, and half as many in Doctorate programs; and finally, developmental registrants were mainly enrolled in non-credit second language learning programs ([page 21-22](#)).

What are the previous B.C. education experiences of international students studying in B.C.? The majority (87%) of B.C.'s nearly 60,000 international students in 2016/2017 had not previously attended B.C.'s K-12 education system; however, 10% were former B.C. grade 12 graduates and a further 3% had attended the B.C. K-12 system without

attaining B.C. grade 12 graduation. International students studying at the developmental level or graduate level in B.C. public post-secondary institutions were almost entirely (87% and 99%) without any previous secondary school experience from B.C. (page 23).

Which program areas do international students enrol in and how do international student program preferences compare to domestic students? The vast majority of undergraduate international students (87%) enrolled in three program areas (Arts and Sciences, Business and Management, and Engineering/Applied Sciences), compared to just over half (54%) of domestic students enrolled in these same three program areas. In aggregate, domestic students enrol in a broader range of programs than international students (pages 24-25).

Do the program preferences of international students differ by country of origin? For international students from all countries combined, the top two program areas sought are: (1) Arts/Sciences and (2) Business. This program ranking holds true for students from China, South Korea and Mexico, but Business ranks as the top choice for students from India, Brazil, Saudi Arabia and Nigeria (pages 26).

Do the types of institutions and regional destinations of international students differ by country of origin? Research-intensive universities are the primary destination of international students from most countries, especially students from the United States (85%), but B.C. Colleges are the more popular destination for students from India (56%), Japan (57%), Vietnam (52%) and Brazil (35%). Institutions in the Mainland/Southwest region of B.C. attract the largest share of international students; however, the majority of students from Nigeria (66%), Japan (56%) and Saudi Arabia (58%) tend to enrol in institutions outside of the Mainland/Southwest region (page 27).

What are the trends in the number of international grade 12 graduates in B.C.? The number of international grade 12 graduates in B.C. has nearly tripled from 1,285 in 2007/2008 to 3,335 in 2016/2017 during a time period when the total number of grade 12 graduates in B.C. declined by 3% from 44,542 to 43,186. The total number of grade 12 graduates grew slightly faster in independent schools than public schools, such that international students now represent 6% of the total population of public school graduates and 18% of all independent school grade 12 graduates (page 29).

About the STP

The Student Transitions Project is British Columbia's collaborative research project that measures student success from the K-12 to post-secondary systems. This effective system-wide partnership, involving B.C.'s education and advanced education ministries and public post-secondary institutions, is tracking student success by reporting on student transition rates to post-secondary education, student mobility among post-secondary institutions, and post-secondary completion and retention rates. STP is managed by a steering committee with representation from the two education ministries, public institutions and the B.C. Council on Admissions and Transfer (BCCAT).

STP Steering Committee Members

Robert Adamoski, Chair, STP Steering Committee and Director, Admissions and Research, BCCAT.

Brian Beacham, Director, Institutional Research, Vancouver Community College.

Chelsea Chalifour, Executive Director, Post-Secondary Governance, Accountability & Analytics, Ministry of Advanced Education, Skills and Training.

Nicole Gardner, Director, Education Analytics, Ministry of Education.

Tony Eder, Executive Director, Academic Resource Planning, University of Victoria.

What proportion of international grade 12 graduates transition to B.C. public post-secondary education? More than one-third (35% to 40%) of international B.C. grade 12 graduates subsequently enrolled in the B.C. public post-secondary education system within one year of graduation in each of the last ten years, compared to 51% to 53% of domestic grade 12 graduates (page 30).

What proportion of new international students in B.C. Public Post-secondary institutions entered directly from B.C. grade 12 graduation? Among the nearly 24,000 new international students who entered undergraduate or developmental programs in the B.C. public post-secondary education system in 2016/2017, roughly 5% came directly from the B.C. K-12 education system after graduating in 2015/2016 and a further 2% entered after waiting more than a year before enrolling (page 31).

Do undergraduate international students in the B.C. public post-secondary system remain at one institution, or do they attend multiple institutions over time? Of all international students who first entered the B.C. public post-secondary system between 2007/2008 and 2016/2017, the majority (88%) attended just one institution throughout their educational career in the B.C. public post-secondary system; 11% attended multiple post-secondary institutions. Students were more likely to enrol in multiple institutions if they remained enrolled in the B.C. system for a longer period of time, or completed a credential, or first entered the system via a B.C. college or institute, rather than a university (page 32).

What are the post-secondary education outcomes of international students in B.C.? International students who previously graduated from grade 12 in B.C. achieved better education outcomes than international students from other sources. These students persisted longer in the system, attended a greater number of institutions, achieved higher credential completion rates and earned proportionately more bachelor's degrees and fewer developmental credentials than students who had no previous education experience in the B.C. secondary school system (page 35).

International Student Enrollment Growth

The **total number** of international students enrolled in the B.C. public post-secondary system has nearly tripled over the last decade, increasing from 21,943 in 2007/2008 to 58,591 in 2016/2017.

Colleges and institutes have seen the largest growth where international headcounts are now 2.5 times the number ten years ago. Growth in **TIUs** and **RIUs** doubled over the same time frame.

International students represent roughly 26% of the total headcount in Business programs. **Business and Engineering** programs continue to be the most popular and fastest growing program choices for international students.

China has retained its place as the top country of origin for international students studying in the B.C. public post-secondary education system over the last decade. In 2016/2017, 35% of international students came from China.

International students from **India** have shown a five-fold rate of growth in B.C. over the last five years, compared to **China** with a growth rate leveling off at about 1.5 times the number from five years ago.

India is now the second most popular country of origin for post-secondary international students studying in B.C., increasing from 3% to 22% of all international students in the last ten years.

Introduction

Overview

This report highlights key research findings from a recent analysis of international students studying in the B.C. secondary and post-secondary education systems. The study was conducted by the Student Transitions Project (STP), a collaborative research partnership involving B.C.'s education and advanced education ministries and post-secondary institutions.

As the number of students crossing national borders to receive an education outside of their home country continues to grow, we frequently hear amenable statements like this one from a worldwide international student recruitment agency: "International students contribute significantly to excellence in education and research, bringing a diversity of perspectives, experiences and languages that enhance the experience for all students"¹ Similarly, a more locally focused research report on the economic impact of international students in British Columbia by Roslyn Kunin and Associates echoes that "International students studying in B.C. bring significant social and cultural benefits, as well as significant economic gains, to communities throughout the province"². Furthermore, much of the existing research consistently argues the benefits of international education from numerous perspectives:

- For **students**, studying abroad offers them an opportunity to access education or acquire skills that might not be taught in their home country, frequently resulting in better access to labour markets and improved employability. In addition, foreign students have an opportunity to broaden their knowledge of other societies and improve their language skills.
- From the perspective of the **host country**, international students provide an important source of income and positive economic impact, as these students typically pay higher tuition fees than domestic students and they contribute to the local economy through their living expenses. Over the long run, foreign students might stay in the host country, participate in the domestic labour market, and offer a new pool of talent and skills to contribute to the growth of the local economy. According to the 2015 International Student Survey by the Canadian Bureau of International Education, 51% of international students plan to apply for permanent residence in Canada.
- From the perspective of the **country of origin**, students who leave to study elsewhere and later return to their home country with new knowledge and skills, can help build capacity back home and facilitate the growth of their local economy.

In light of the continued importance of international students in British Columbia, the STP undertook this study to provide an update on the education pathways and achievements of international students studying in the B.C. secondary and post-secondary systems. A previous edition of this report was released by the STP in October of 2014. A number of research questions are addressed in this report and results are summarized at a provincial level. More detailed information at the institution and program level may be obtained from institution or government STP representatives.

¹ Source: 2017 Trends in International Student Recruitment, <https://www.studyportals.com/intelligence/2017-trends-in-international-student-recruitment/>, by Studyportals, a worldwide international student recruitment agency.

² Source: An Assessment of the Economic Impact of International Education in British Columbia in 2010 and 2015, by Roslyn Kunin & Associates, Inc., <http://bccie.bc.ca/wp-content/uploads/2017/02/RKA-International-education-Rpt-to-BCCIE-final-revised-1.pdf>

What is the profile of international education around the world?

According to a 2018 report from the Organization for Economic Cooperation and Development (OECD)³, the number of *foreign students*⁴ participating in tertiary⁵ education programs worldwide has “exploded” or more-than-doubled in less than two decades, from two million in 1999 to five million in 2016. This represents an average annual growth rate of 5.1% among OECD countries and 6.4% among non-OECD countries. When limited to the subset of 3.5 million *international students*⁴ in 2016, the OECD report provides some global context about those students who moved to another country for the purpose of study.

- **Study Level:** Compared to just 6% of the total enrollment in tertiary education, international students represent a significant proportion (26%) of doctoral program enrollments. In most countries, the share of international students gradually increased with education level.
- **Credential Category:** Among all 3.5 million international students in 2016, roughly half (50%) were pursuing a Bachelor’s degree, 37% Master’s degree, 7% doctoral degree and 6% short-cycle tertiary education.
- **Field of Study:** One-third of international students around the world enrolled in STEM fields (science, technology, engineering and mathematics) in 2016. “The lower language proficiency required to perform in STEM fields could partly explain the internationalization of these fields of study” (page 220)³.
- **Region of Origin:**
 - In 2016, students from **Asia** represented the largest group (1.9 million or 55%) of international students studying in tertiary education programs. Asian students were mainly studying in Australia (15%), the United Kingdom (11%) and the United States (38%). In total, 860,000 of these Asian international students were from China.
 - The next largest region of origin for international students was **Europe**, representing 24% or 845,000 international students. Most of these students (80%) remained within Europe to study, but in a different European country from their home country.
- **Destination Countries:**
 - The top destination country of international students is the **United States**, receiving 971,000 or 28% of the 3.5 million international students in 2016.
 - In total, four English-speaking countries received over half (55%) of the total international students in the OECD area⁶: United Kingdom (12%), Australia (10%), and **Canada** (5% or 189,000 students).
 - Other popular destination countries include the **European Union**, collectively receiving 1.6 million students or 46% of international students to its member countries; and the Russian Federation, receiving a larger share (7%) than Canada (5%).

³ OECD Education at a Glance 2018 Report, https://www.oecd-ilibrary.org/education/education-at-a-glance-2018_eag-2018-en.

⁴ The OECD refers to *foreign students* as those who are not citizens of the country in which they are enrolled, but may be long-term residents or even born in the host country. *International students* are a subset of foreign students who have crossed borders to another country for the purpose of study.

⁵ Tertiary education generally includes post-secondary education provided at universities, trade schools and colleges, leading to a credential, such as a certificate, diploma or degree; or vocational programs leading to the labour market; or professional programs leading to advanced research or high skill professions, such as medicine.

⁶ The OECD includes 36 member countries, many among the world’s most advanced, from North and South America to Europe and Asia-Pacific. See list at: <http://www.oecd.org/about/membersandpartners/>

What is the profile of international students studying in Canada?

Numerous reports and databases are available that profile international students in Canada (see [Appendix A](#)), but each are extracted from a different data source, from a different time period, according to different definitions. This page of the report uses the most recent international study permit data for all study levels available from an August 2018 report, *International Students in Canada*, prepared by the Canadian Bureau for International Education (CBIE)⁷. According to CBIE, a total of 494,525 international students held a valid study permit in Canada on December 31, 2017, representing a 119% increase from 2010. Canada currently ranks fourth as a destination country for higher education international students, after the United States, United Kingdom and China.

- **Study Level:** The CBIE figures include all study permit holders in all education study levels, with 75% enrolled in post-secondary education, 11% in secondary, 3% in elementary/primary, and 10% in other studies.
- **Institution Type:** Among the 370,710 international students enrolled at the post-secondary level in Canada, 57% were enrolled in a university, and the balance were enrolled in a college (40%), CEGEP (2%) or other institution type (less than 1%).
- **Field of Study and Credential Category:** CBIE does not provide information on field of study or credential category.
- **Country of Origin:**
 - The top two countries of origin for post-secondary international students studying in Canada are China (25%) and India (31%), but this varies by institution type. Students from China tend to enrol in Canadian universities, whereas international students from India are more inclined to enrol in Canadian colleges.
 - Among the roughly 212,000 international students studying in Canadian **universities**, the top five countries of origin account for 64% of Canadian university international enrollments: China (35%), India (12%), France (8%), United States (5%) and Nigeria (4%).
 - By comparison, the top five countries of origin of the roughly 151,000 students enrolled in Canadian **colleges** account for a larger share (77%) of total international college enrollment: India (57%), China (11%), South Korea (4%), Brazil (3%) and Vietnam (2%).
 - The top three fastest growing countries of origin are Vietnam, India and Iran.
- **Destination Province:** The primary destination province of international students studying in Canada is Ontario, capturing nearly half (48%) of Canada's international enrollment. British Columbia ranks second as a destination (24% or 119,110 study permits), attracting double the share of students that enrol in Quebec (12%). Each of the remaining Canadian provinces and territories enrol fewer than 5% of the international students studying in Canada. Over the last year, Ontario has shown the largest growth in its share of international students studying in Canada, increasing by four percentage points, while Quebec declined two percentage points.
- **Destination City:** In total, 68% of the international students studying in Canada in 2017 were enrolled in institutions located in three census metropolitan areas: Toronto (34%), Vancouver (22%) and Montreal (12%).

⁷ [International Students in Canada](#), by the Canadian Bureau for International Education (CBIE), August 2018. This report includes all levels of education, with enrollment counts derived from Immigration, Refugees and Citizenship Canada (IRCC) data.

Which International Students are Included in this Study?

There are many different types of international students studying in B.C.:

- **B.C.'s K-12 education system** enrolls international and visiting students in all elementary and secondary grade levels, including International Baccalaureate⁸ students.
- The **B.C. public and private post-secondary system** enrolls international students in undergraduate, graduate and developmental education programs. These post-secondary students seek degree or non-degree programs; some enrol in English language training courses or fieldschool courses; some enrol in short-term professional training programs; some are researchers or post-doctoral students; and some are visiting or exchange students who enrol in B.C. and later return to their home country and institution to complete their credential.⁹

B.C. welcomes over 150,000 international students each year in public and private post-secondary institutions, elementary and secondary schools and private language training schools.¹⁰ This STP study focuses primarily on a small subset of these students enrolled in 2016/2017, including 58,591 international students in B.C. public post-secondary institutions¹¹ and 3,335 international B.C. grade 12 graduates from B.C. public and B.C. independent schools. The international students chosen for this study include those whose records are accessible and identifiable by the STP in either or both of the following systems: (1) international grade 12 graduates from the B.C. K-12 system, and (2) international post-secondary students enrolled in B.C.'s public post-secondary system (see inset box [How Does the STP Identify International Students on page 5](#)).

Which International Students are Excluded from this Study?

Several categories of international students are excluded from this STP study.

- **International exchange** students are excluded from this study¹¹ because these students are not normally expected to stay for the full duration of their education in the postsecondary system, nor are they expected to complete a postsecondary credential in B.C.
- B.C. K-12 international students who were **not identifiable** via the proxy definition are excluded. The use of student residency status (B.C. non-resident) as a proxy for international student status is currently the best available method to the STP for identifying international students attending the B.C. K-12 system. The STP acknowledges that this proxy is not precise and is continuing efforts to help the B.C. K-12 system create and collect specific international student identifiers in order to integrate more accurate information in the STP database.
- International students attending **B.C. private post-secondary** institutions, such as language training schools or other B.C. private post-secondary education institutions are excluded because student records from B.C. private post-secondary institutions are not submitted to the STP. This represents a significant portion of the students excluded from this study.

⁸ The International Baccalaureate program is an academically challenging program for students, typically age 16 to 19, with the objective of preparing them for acceptance and success at leading universities around the world.

⁹ The STP excludes offshore students who receive their education through a B.C. institution that delivers programs in other countries.

¹⁰ Immigration, Refugees and Citizenship Canada. *Canada - Study permit holders by province/territory of intended destination, study level and calendar year*, <https://open.canada.ca/data/en/dataset/90115b00-f9b8-49e8-afa3-b4cff8facee>.

¹¹ This study excludes post-secondary international exchange students – RIU's included 1,404 in 2016/2017, but these were filtered out; and CDW institutions do not submit international exchange students to the STP.

Research Results

How many international students are studying in the B.C. public post-secondary system?

Consistent with the definitions and caveats previously identified, there were 58,591 unique headcount international students studying in the B.C. public post-secondary education system in academic year 2016/2017 (see [Figures 1 to 3](#)).

- Nearly half (43%) of these international students were enrolled in research-intensive universities, with approximately 12,500 enrolled at UBC and more than 7,000 enrolled at SFU.
- International students are concentrated in Lower Mainland/Southwest institutions with 68% enrolled in this region, compared to 3% of B.C.'s international students enrolled in the Cariboo-North region.
- International students make up 13.7% of the total headcount enrollment (domestic and international combined) in B.C. public post-secondary institutions and this varies by institution, from a high of 26.2% for Langara to less than 1% for Northwest Community College and Nicola Valley Institute of Technology.
- International students also make up a larger proportion of the total enrollment at research universities, where 20% are international, compared to teaching-intensive universities (14%) and B.C. colleges (11%) and institutes (7%).

FIGURE 1: HEADCOUNT INTERNATIONAL STUDENTS IN B.C. PUBLIC POST-SECONDARY INSTITUTIONS, 2016/2017

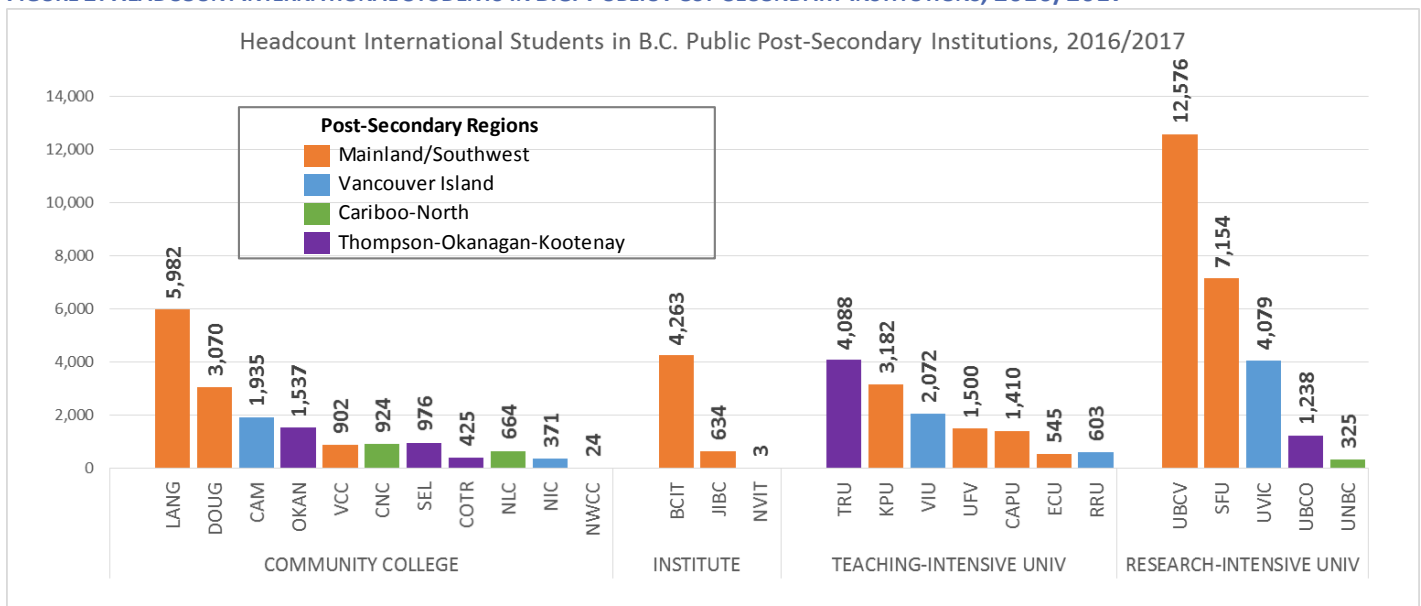


FIGURE 2: INTERNATIONAL STUDENTS AS % OF INSTITUTION TOTAL, BY INSTITUTION¹², PSI TYPE AND REGION, 2016/2017

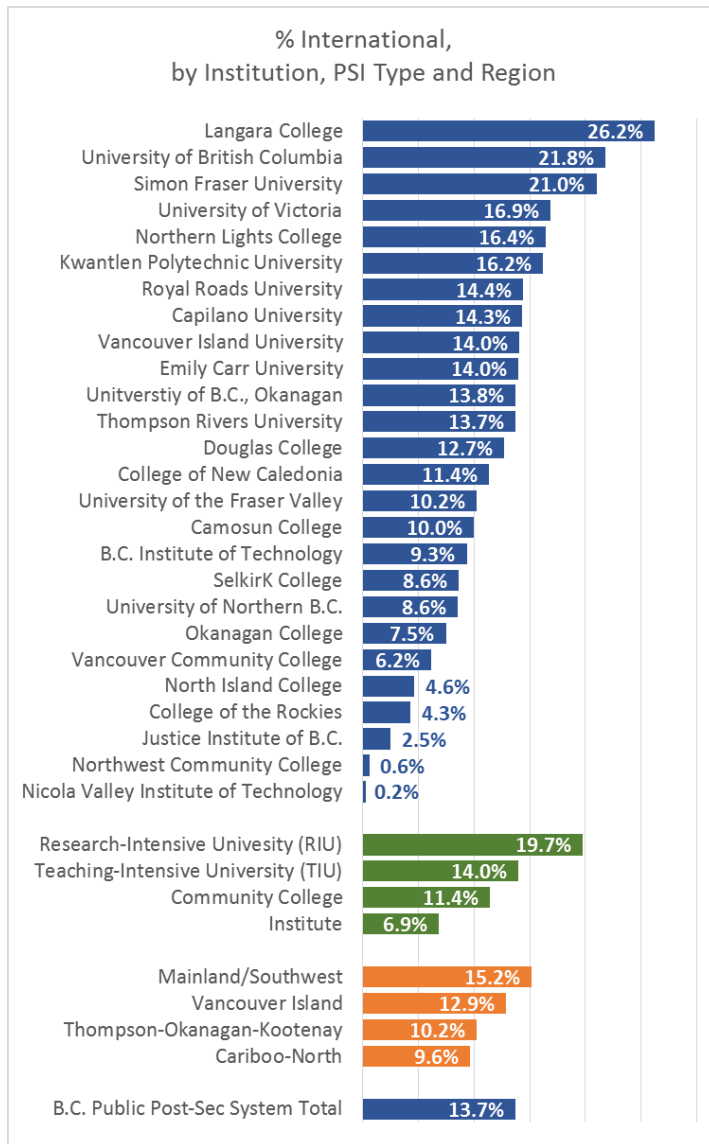
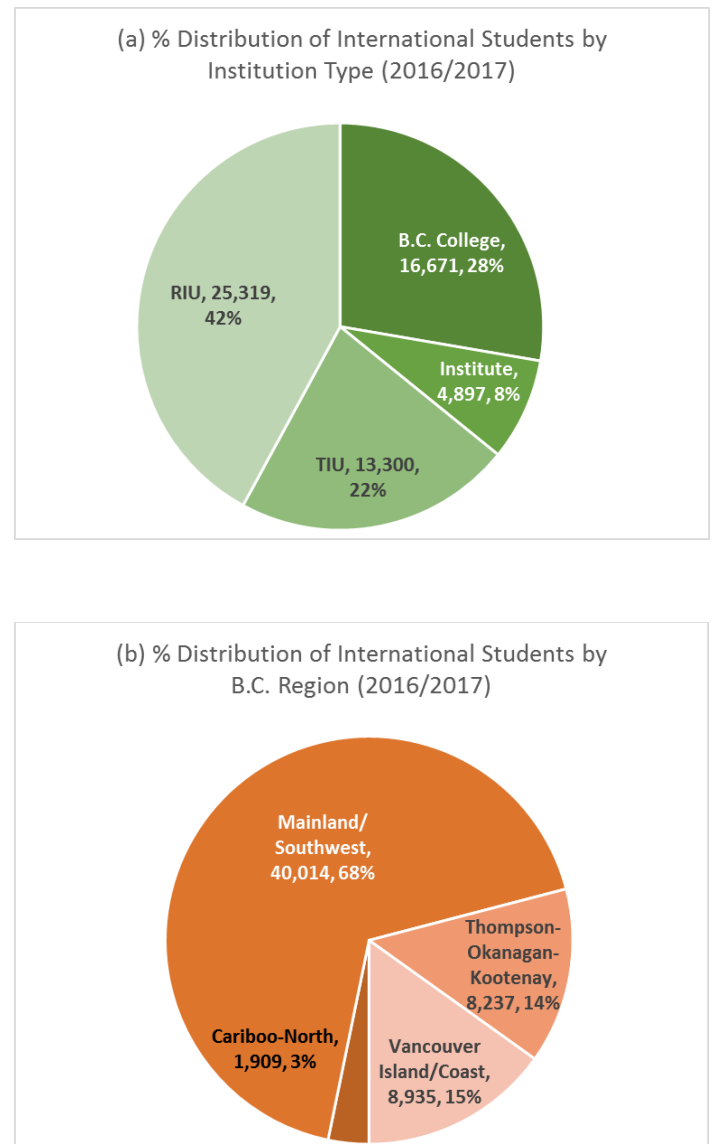


FIGURE 3: % DISTRIBUTION OF INTERNATIONAL STUDENTS BY: (A) INSTITUTION TYPE, AND (B) B.C. REGION



Note: The % international figures include Continuing Education (CE) students (in all institution types, excluding RIUs). When CE students are excluded, a larger share (15.8% vs 13.7%) of students in the B.C. System are international. See [Appendix B](#) for more information.

¹² Names of post-secondary institutions in this report are those submitted to the STP in the Fall of 2017. After the STP submission,

on June 18, 2018, Northwest Community College was renamed **Coast Mountain College**.

What are the international student enrollment trends – by institution type?

International students continue to be attracted to B.C. public post-secondary institutions in growing numbers and this is revealed when we look at the enrollment trends by institution, institution type and region.

- The total number of international students enrolled in the B.C. public post-secondary system has nearly tripled over the last decade, increasing from 21,943 in 2007/08 to 58,591 in 2016/2017 (see [Figure 4a](#)).
- The largest growth in international students over the last decade has taken place in colleges and institutes where international headcounts are now 2.5 times the number ten years ago. This growth is largely attributed to the international student enrolment growth at Langara, BCIT and Douglas College (see [Figure 4b](#)).
- International student enrollment growth continues to be steady in the Research (RIUs) and Teaching-Intensive universities (TIUs), where international headcounts have more than doubled over the decade, reaching 26,522 in RIUs and 11,214 in TIUs. International student growth at UBC and SFU remains strong.
- In terms of the distribution of B.C.'s international students across the different types of B.C. public post-secondary institution types, the proportion attending research-intensive universities has declined (from 50% to 43%) while a greater share of international students are now attending other institution types, especially colleges, in the province (see [Figure 4a](#)).

FIGURE 4A: TOTAL INTERNATIONAL STUDENTS IN B.C. PUBLIC POST-SECONDARY INSTITUTIONS BY YEAR AND CHANGE IN % DISTRIBUTION OF INTERNATIONAL STUDENTS BY INSTITUTION TYPE

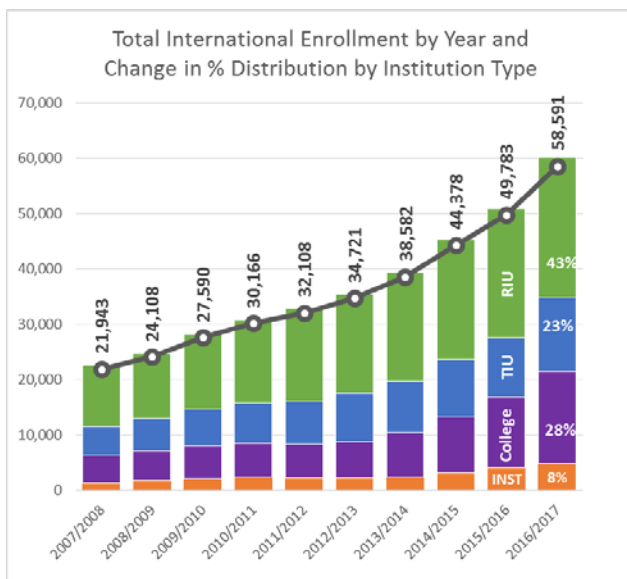
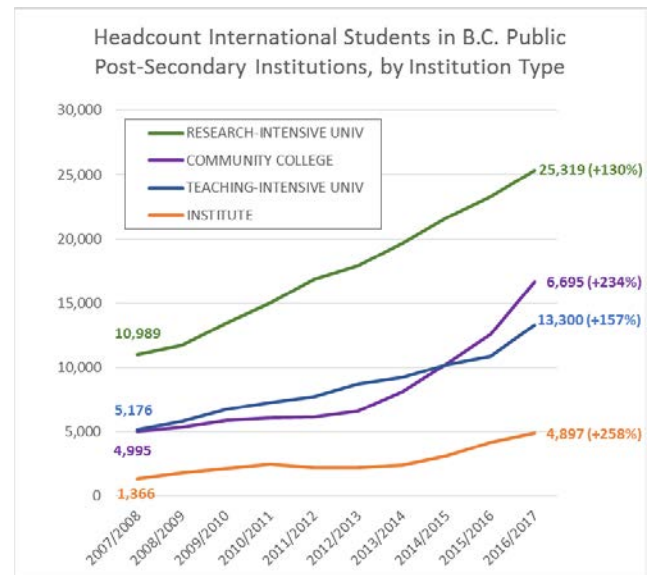


FIGURE 4B: INTERNATIONAL STUDENTS IN B.C. PUBLIC POST-SECONDARY INSTITUTIONS, BY INSTITUTION TYPE



What are the international student enrollment trends – by region of B.C.?

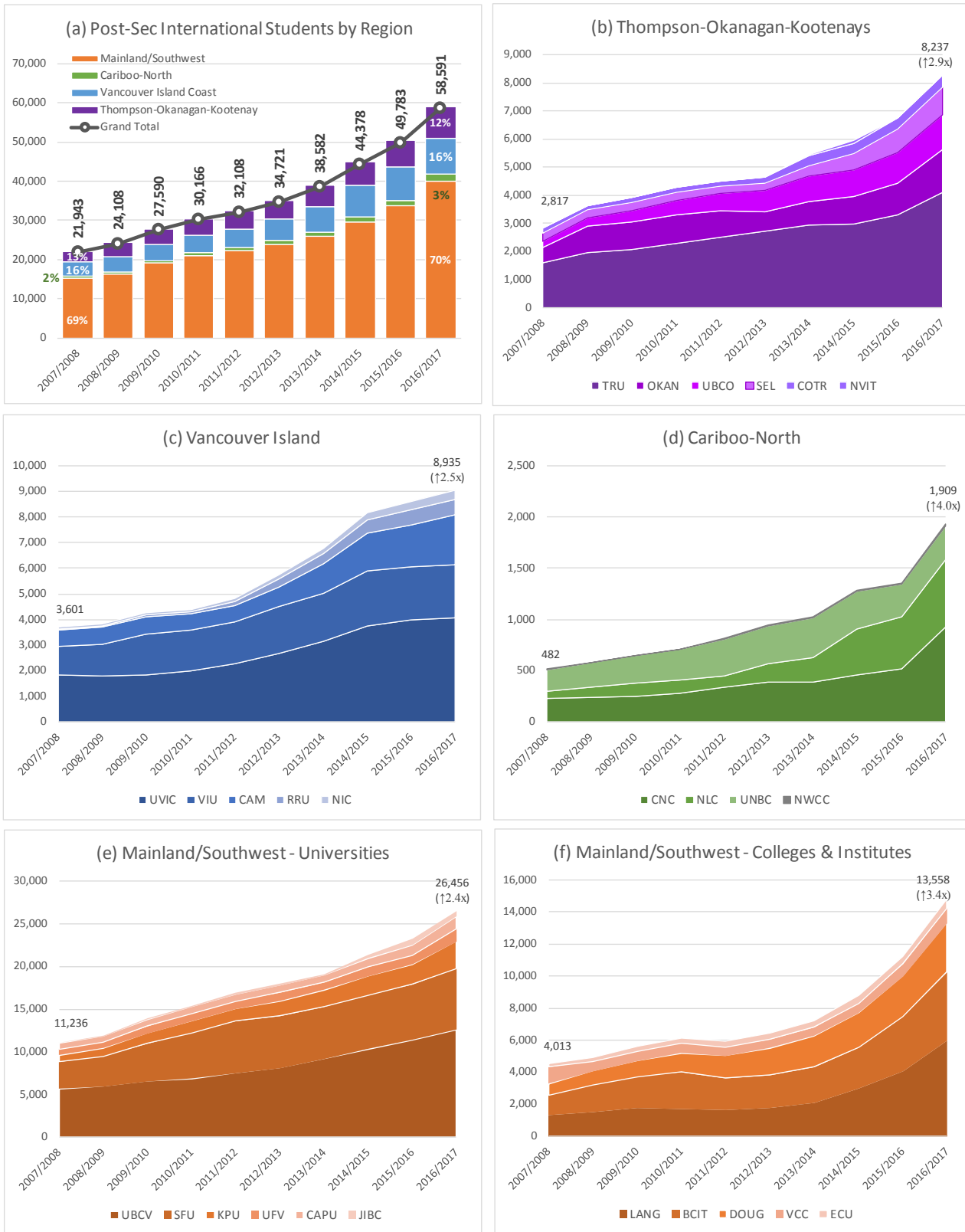
The regional distribution of international students in B.C. public post-secondary institutions has not shifted much over the last decade; however international enrollment increases across the province have allowed all institutions to increase their share of international students, relative to total headcount enrollments (domestic and international combined) (see [Figure 5a](#)).

International student enrollments have seen the largest rate of growth in the Cariboo-North region, compared to any other region in the province, where international student headcounts are now four-times the number a decade ago. The three other geographic regions of the province have seen a doubling or tripling in international headcounts over the ten-year period. [Figures 5b to 5f](#) reveal the extent to which institutions in each region contributed to the regional international enrollment growth in B.C.

- Thompson Rivers University (TRU) and the two Okanagan institutions (UBCO and Okanagan College) accounted for the majority of the international enrollment growth in the **Thompson-Okanagan-Kootenay** region (see [Figure 5b](#)). Also in this region of the province, Selkirk College (SEL) more than tripled their international enrollments from roughly 300 to nearly 1,000 students over the decade.
- The three largest institutions on **Vancouver Island** (UVic, VIU and Camosun College) contributed to a significant share of international student growth on the Island over the decade, but especially in the most recent five years (see [Figure 5c](#)). Although Royal Roads University (RRU) has a relatively small share of the region's international students¹³, it has shown a significant increase in international students over the last ten years, increasing nearly ten-fold to roughly 600 students in 2016/2017.
- Institutions in Prince George (College of New Caledonia and University of Northern B.C.) account for the largest share of the international students in the **Cariboo-North** region, but Northern Lights College (NLC) in Dawson Creek has seen the most significant growth over the decade, growing by an average of 46% per year over the last five years, reaching current levels of roughly 900 international students (see [Figure 5d](#)).
- UBC and SFU contributed significantly to the growth in international students in **Mainland/Southwest** universities (see [Figure 5e](#)), but over the last five years, college and institutes have shown more significant growth in international students (see [Figures 5f](#)) than universities. In terms of relative growth rates over last decade, the number of international students in colleges and institutes roughly tripled (↑3.4), but university international headcounts only doubled (↑2.4).

¹³ The STP excludes offshore students who receive their education through a B.C. institution that delivers programs in other countries. According to their [Institutional Accountability Plan and Report: 2016/2017-2018/2019](#), Royal Roads “has an active presence in Asia Pacific Markets... The university has successfully offered offshore degree programs in China, Hong Kong and Taiwan”.

FIGURE 5: INTERNATIONAL STUDENT ENROLLMENT GROWTH BY REGION OF B.C.



As international student enrollment grew, did domestic enrollments decline?

The total number and relative share of domestic students in the B.C. public post-secondary system declined over the last decade, while the total number and relative share of international students grew.

- As shown in the rightmost columns of **Figure 6**, total international student headcount grew by 162.2% over the last ten years, while domestic student headcounts declined by 6.8%. The total increase in international students across the system during this time period exceeded the decrease in the number of domestic students, such that the total enrolment in the B.C. public post-secondary system still grew by more than 10,000 students (or 2.5%), from 416,612 to 426,942.

FIGURE 6: 10-YEAR CHANGE IN INTERNATIONAL AND DOMESTIC STUDENT ENROLLMENTS, 2007/2008 TO 206/2017

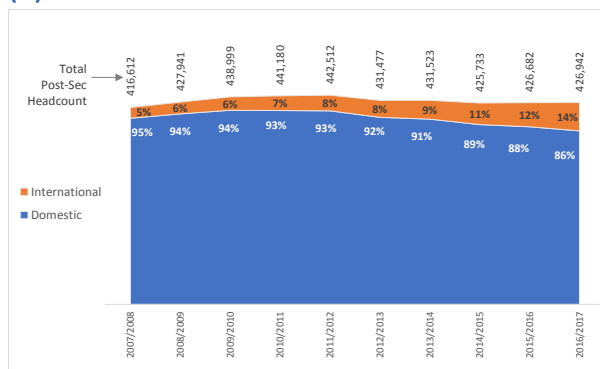
Student Type	Institute	College	TIU	RIU	Total	% Change
International	+3,531	+11,676	+8,124	+14,789	+37,107	+162.2%
Domestic	-7,620	-24,427	-6,652	+5,863	-27,795	-6.8%
Total	-4,094	-12,748	+1,472	+20,652	+10,330	+2.5%

*Ten-year enrollment changes are calculated from the difference in unique headcount totals per institution type per year. Although students may enrol in multiple institution types simultaneously, they are counted only once in the totals.

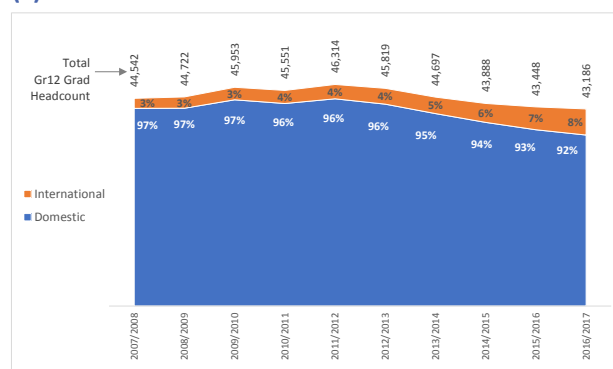
- Several other notable enrollment shifts by institution type also occurred within these overall trends:
 - Domestic enrollments increased only in RIUs over the decade, while international enrollments increased in all institution types across the B.C. system.
 - Unlike TIUs, where international student growth helped to offset the decline in domestic students, the total enrollment in colleges and institutes declined because the growth in international students was not enough to offset the drop in domestic students.
- During this period of rapid growth in post-secondary international students, the share of international students increased from 5% to 14% of the total enrollment, while the share of domestic students declined from 95% to 86% of the total headcount enrollment (see **Figure 6a**). At the same time, a similar shift in the shares of international and domestic students occurred within the of population of B.C. grade 12 graduates: International grade 12 graduates increased from 3% to 8% of B.C.'s declining population of grade 12 graduates (see **Figure 6b**).

FIGURE 6: TEN-YEAR CHANGE IN SHARES OF DOMESTIC VS INTERNATIONAL ENROLLMENT

(A) POST-SECONDARY HEADCOUNT



(B) GRADE 12 GRADUATES



Which countries do international students in B.C. public post-secondary institutions come from?

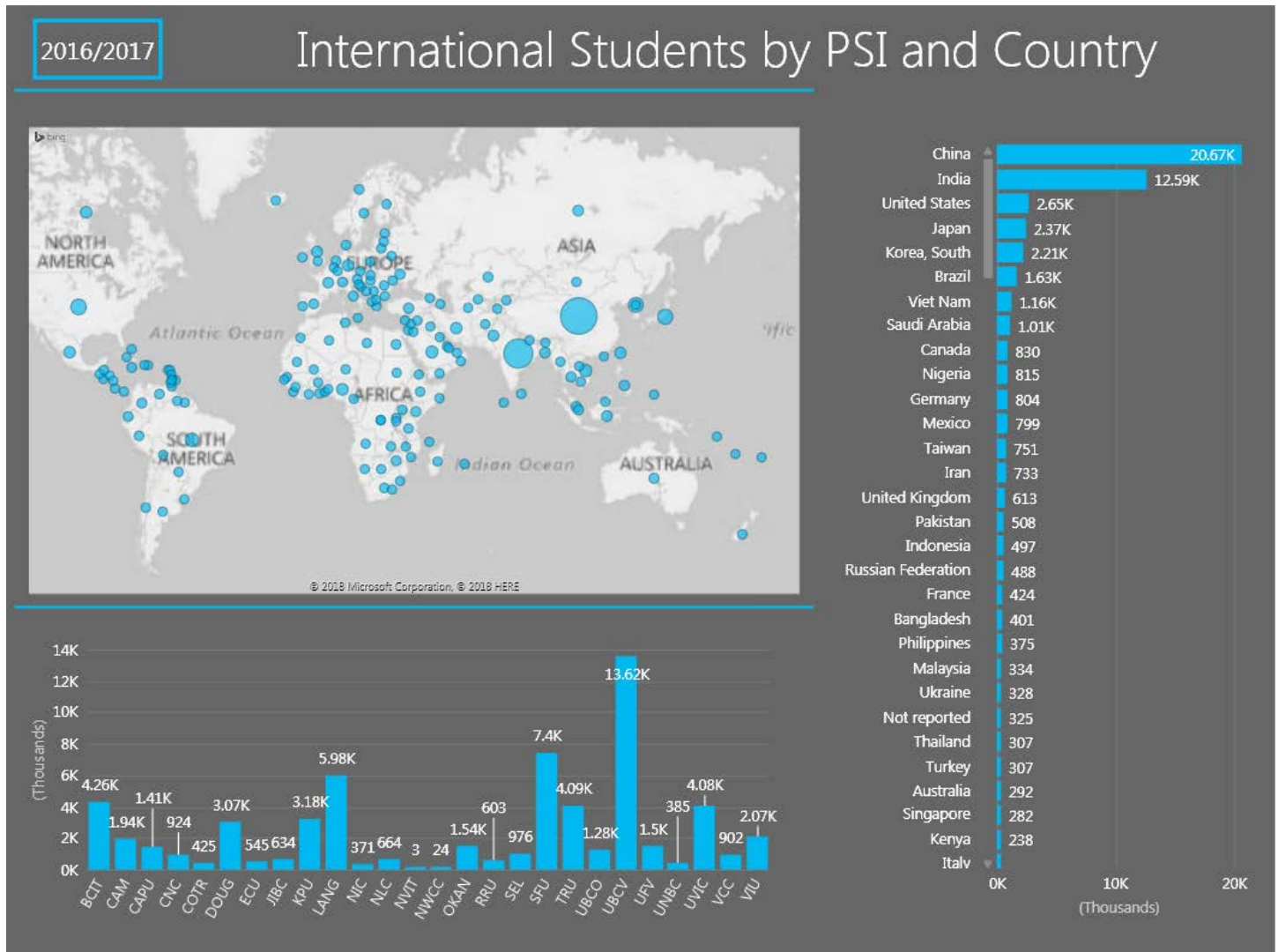
Figure 7a shows the distribution of the 58,591 headcount international students studying in B.C. public post-secondary institutions in 2016/2017, by country and by institution. The greatest proportion of students (35%) are from China. The next most popular countries from which international students come to study in B.C. are India (21%), United States (4%), Japan (4%) and South Korea (4%).

The number of international students studying in the B.C. public post-secondary education system has nearly tripled, from roughly 22,000 students in 2007/2008 to roughly 58,600 in 2016/2017 (see **Figure 7b**). Over the decade, overall international student growth in the last five years (+69%) was a bit steeper than the preceding five years (+58%), but this also varies by country of origin. For example, international students from India have shown a five-fold rate of growth over the last five years, compared to China whose growth rate has leveled off to a point that is almost double (1.5 times) the number from five years ago.

Although 185 countries in the world are currently represented by international students studying in B.C.'s public post-secondary institutions, the number of international students from the top ten countries alone currently comprises 78% of the total international student enrollment.

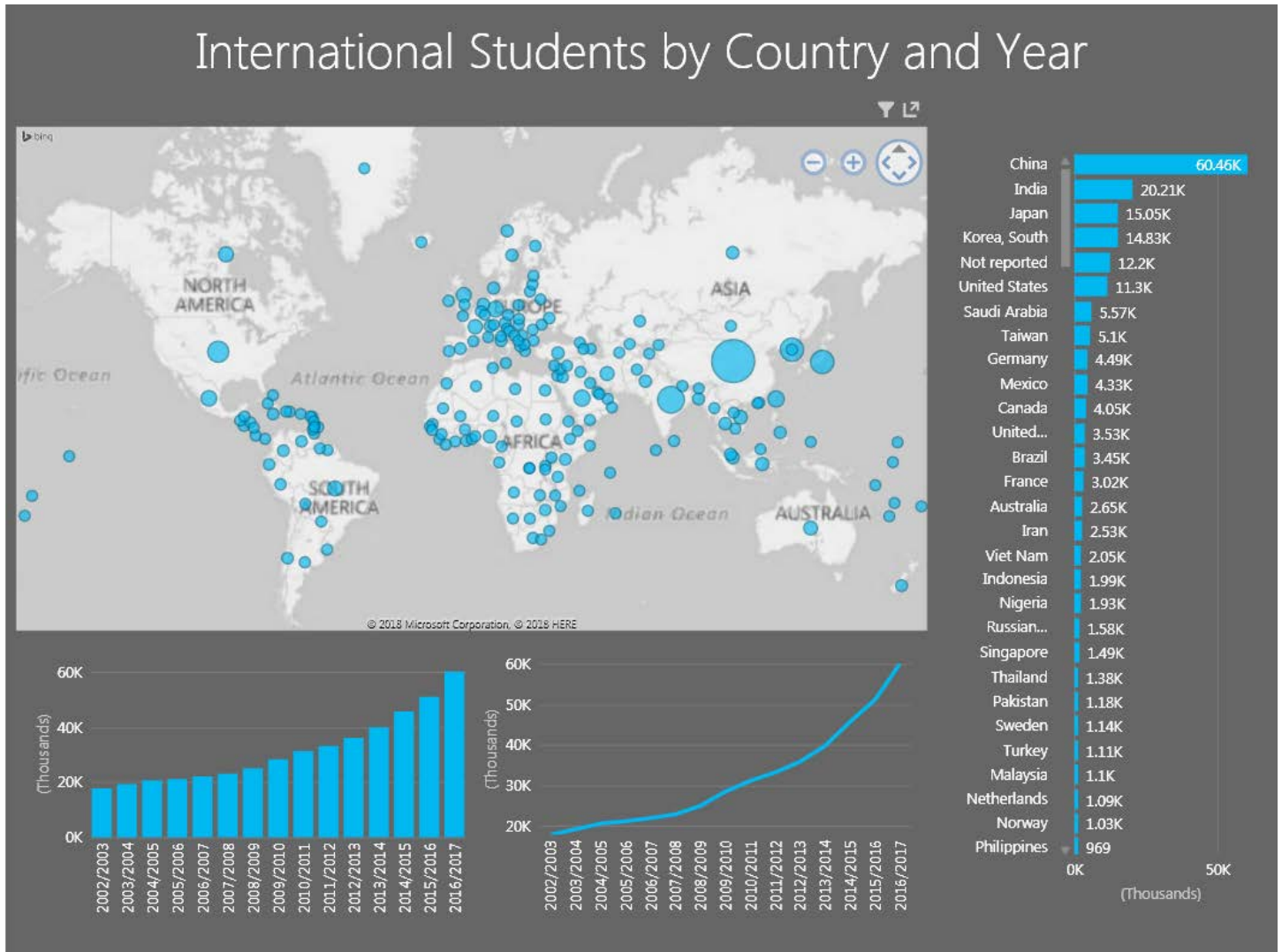
The relative change in the top ten country rankings (by number of international students enrolled in B.C. public post-secondary institutions) is shown in **Figure 7c**. Over the last decade, China has remained the top country from which the majority of international students come to B.C. to study, however the relative rankings of the top ten countries has shifted over time. For example, India, Brazil, Vietnam and Nigeria have increased their relative share of international students studying in B.C., while the share of students from the United States, Japan and Korea has slightly decreased.

FIGURE 7A: INTERNATIONAL STUDENTS BY COUNTRY AND B.C. INSTITUTION, 2016/2017



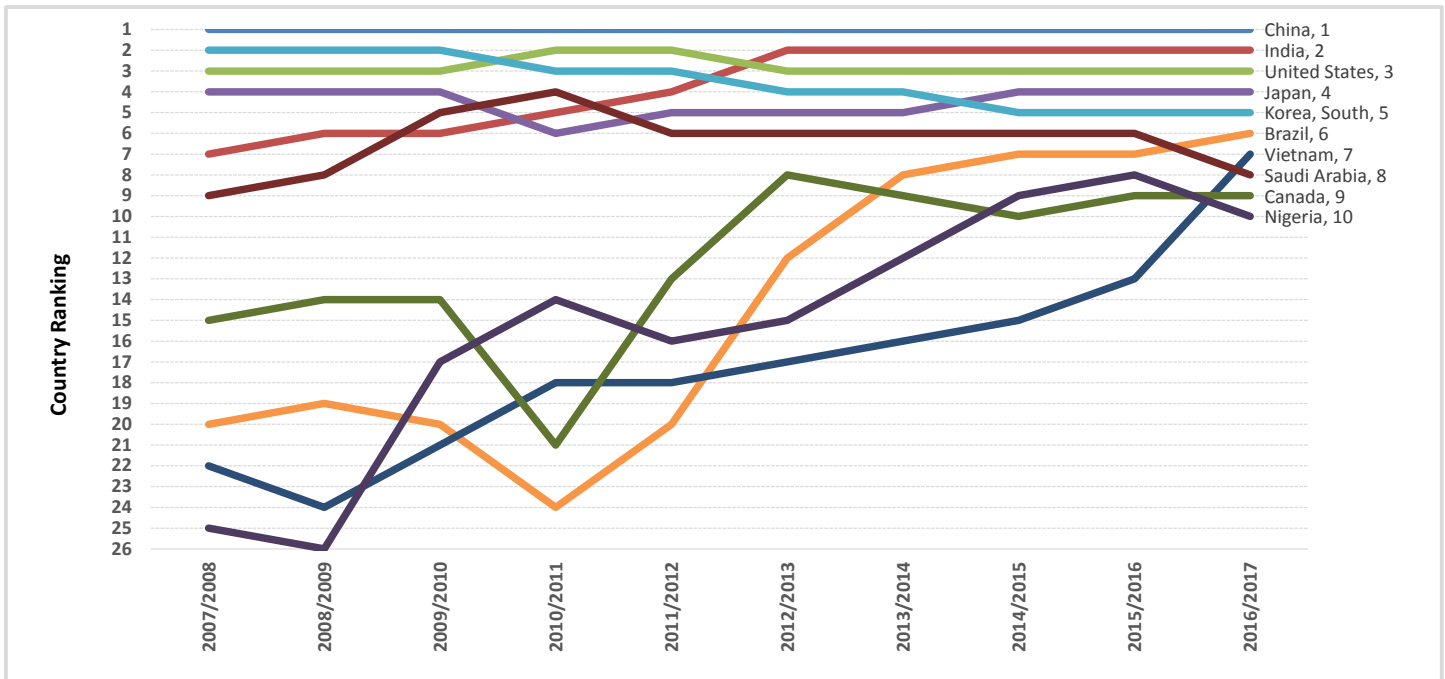
Note: The number of international students with Canadian citizenship is an anomaly that the STP is attempting to resolve and correct with all post-secondary institutions. Although international students may become Canadian citizens, some institutions use a default Canadian citizenship value when the citizenship is unknown; and other institutions use the country of the student's previous institution (Canada) as a proxy for the student's country of citizenship.

FIGURE 7B: INTERNATIONAL STUDENTS BY COUNTRY AND YEAR



Note: The number of international students with Canadian citizenship is an anomaly that the STP is attempting to resolve and correct with all post-secondary institutions. Although international students may become Canadian citizens, some institutions use a default Canadian citizenship value when the citizenship is unknown; and other institutions use the country of the student's previous institution (Canada) as a proxy for the student's country of citizenship.

FIGURE 7C: INTERNATIONAL STUDENT HEADCOUNT ENROLLMENT TRENDS – CHANGE IN RANKING OF TOP 10 COUNTRIES, 2007/2008 TO 2016/2017



Note: The number of international students with Canadian citizenship is an anomaly that the STP is attempting to resolve and correct with all post-secondary institutions. Although international students may become Canadian citizens, some institutions use a default Canadian citizenship value when the citizenship is unknown; and other institutions use the country of the student's previous institution (Canada) as a proxy for the student's country of citizenship.

Which post-secondary study levels and credentials do international students enrol in?

The Student Transitions Project classifies post-secondary student enrollments into one of three study levels: Developmental, Undergraduate or Graduate. Within each of these study levels are a number of different credential categories (see [Credential Categories by Study Level](#) in sidebar).

Among the 58,591 post-secondary international students in 2016/2017, the majority (80%) were enrolled in undergraduate programs, with the remaining 20%, comprised of almost equal numbers, enrolled in graduate and developmental programs. See [Figure 8](#).

- At the undergraduate level, 22,785 international students were enrolled in Bachelor's degree programs, representing the largest proportion (39%) of all international students studying in B.C. in 2016/2017.
- A total of 7,237 students (or 12% of total international students) were studying at the graduate level, with 8% of the total international enrollment in a Master's degree program and 4% in a doctorate degree program.
- The remaining 5,730 (or 10% of) international students were enrolled in a developmental program in 2016/2017. These are primarily non-credit second language learning programs. Most of the students enrolled in these programs had not previously attended the B.C. K-12 education system. Please see [Figure 9](#) for a detailed list of the developmental programs these students were enrolled in.

Another perspective on international student enrollments is to look at the proportion of all registrants who are international, by study level and credential category.

- Among all students enrolled, graduate-level programs have a larger share of international students enrolled (28%), compared to undergraduate programs with 13% international.
- Bachelor's degree registrants in 2016/2017 were represented by 17% international students and 83% domestic students.
- Post-degree diploma programs have the largest share of international students enrolled (47%), compared to apprenticeship programs (0.2%).

Credential Categories by Study Level

The post-secondary study levels and credential categories used by the STP across the B.C. public post-secondary system are listed below in descending order of entry qualifications for the study level and credential category.

Graduate

- Doctorate
- Master's Degree
- Graduate Diploma
- Graduate Certificate

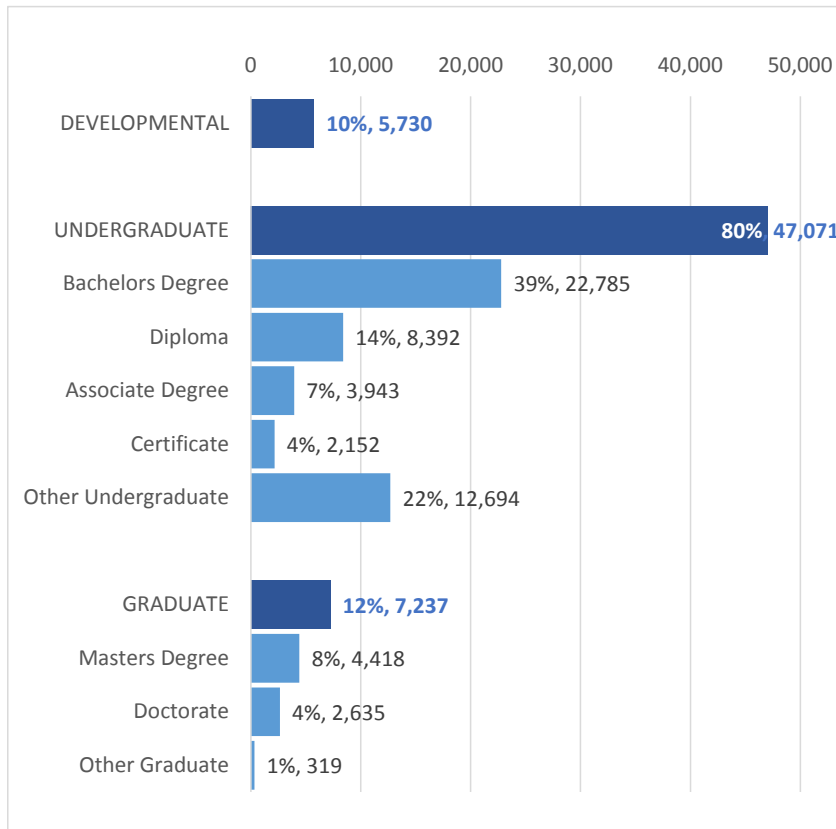
Undergraduate

- Post-Degree Diploma
- Post-Degree Certificate
- First Professional Degree
- Bachelor's Degree
- Advanced Diploma
- Advanced Certificate
- Associate Degree
- Diploma
- Certificate
- Apprenticeship
- Short Certificate
- Other
- None

Developmental

The classification of credentials within this study level varies across institutions, but may include a variety of developmental certificates, short certificates, "other" or "none". The developmental study level is commonly used at B.C. colleges, institutes and teaching-intensive universities. Research-intensive universities do not submit any "developmental" student records to the STP. Please see [Figure 9](#) for more information on the typical programs included in this study level.

FIGURE 8: 2016/2017 DISTRIBUTION OF INTERNATIONAL STUDENTS, BY STUDY LEVEL AND CREDENTIAL SOUGHT

FIGURE 9: INTERNATIONAL STUDENTS ENROLLED IN DEVELOPMENTAL PROGRAMS, 2016/2017¹⁴

BASIC SKILLS -- NOT FOR CREDIT	4,855	85%
Second language learning (not for credit)	4,649	81%
Basic skills (not for credit)	106	2%
Literacy and communication skills (not for credit)	49	1%
Workforce development and training (not for credit)	5	0%
Other basic skills, job-seeking, computer, career skills (not for credit)	53	1%
HIGH SCHOOL/SECONDARY DIPLOMA AND CERTIFICATE PROGRAMS	943	16%
College/university preparatory programs	909	16%
Regular/general high school/secondary diploma programs	19	0%
High school equivalence certificate programs	9	0%
High school/secondary certificate programs, other	6	0%
High school/secondary diploma programs	1	0%
Other	1	0%
Grand Total Interational Students in Developmental Programs	5,730	100%

¹⁴ Students may be counted in more than one program, but they are counted only once in the subtotals and grand total.

What are the previous B.C. education experiences of international students studying in B.C.?

By linking student records across education systems, the STP is able to identify whether B.C.'s international students had any previous education experience in B.C.'s K-12 education system, including whether they graduated from grade 12 in the B.C. system. Some interesting patterns are revealed in the cross-tabulation of international student post-secondary study level and previous B.C. K-12 education experience (see [Figure 10](#)).

- The majority (87%) of the 58,591 international students in B.C. in 2016/2017 did not previously attend B.C.'s K-12 education system, although 10% were B.C. grade 12 graduates and a further 3% had attended the B.C. K-12 system without attaining B.C. grade 12 graduation.
- Of the 5,935 international post-secondary students in B.C. who previously graduated from B.C. grade 12, they were almost exclusively (96%) enrolled in undergraduate programs, compared to graduate (1%) or developmental (6%) programs.¹⁵ By comparison, domestic students who graduated from B.C. grade 12 were less likely to enrol in developmental programs (95% undergraduate, 3% graduate and 3% developmental).
- Virtually all (99%) of the 7,237 graduate-level international students studying in B.C. had no record of previous B.C. K-12 attendance and/or grade 12 graduation in B.C. This implies that these graduate students primarily came to B.C. directly from their home country to pursue a Master's, Doctorate or other graduate-level program, although some may have previously attended a B.C. private or non-B.C. institution. By comparison, a much smaller share (63%) of domestic students enrolled in graduate-level programs without any previous B.C. K-12 attendance or B.C. grade 12 graduation.
- Among the 5,730 total international students enrolled in developmental programs in 2016/2017, the vast majority (88%) had not previously attended the B.C. K-12 system and/or graduated from B.C. grade 12. This might suggest that attending the B.C. K-12 system prior to enrolling in the post-secondary education system reduces the need for international students to enrol in developmental or language training programs because their language skills were sufficiently developed in the K-12 system in B.C.

FIGURE 10: 2016/2017 INTERNATIONAL POST-SECONDARY REGISTRANTS IN B.C., BY PREVIOUS B.C. K-12 EDUCATION EXPERIENCE

Study Level	Previous BC K-12 Experience			Total Headcount
	Attended BC K-12*	BC Gr12 Graduate	Not from BC K-12	
Developmental	341	367	5,022	5,730
Undergraduate	1,257	5,702	40,112	47,071
Graduate	23	58	7,156	7,237
Grand Total	1,536	5,935	51,120	58,591

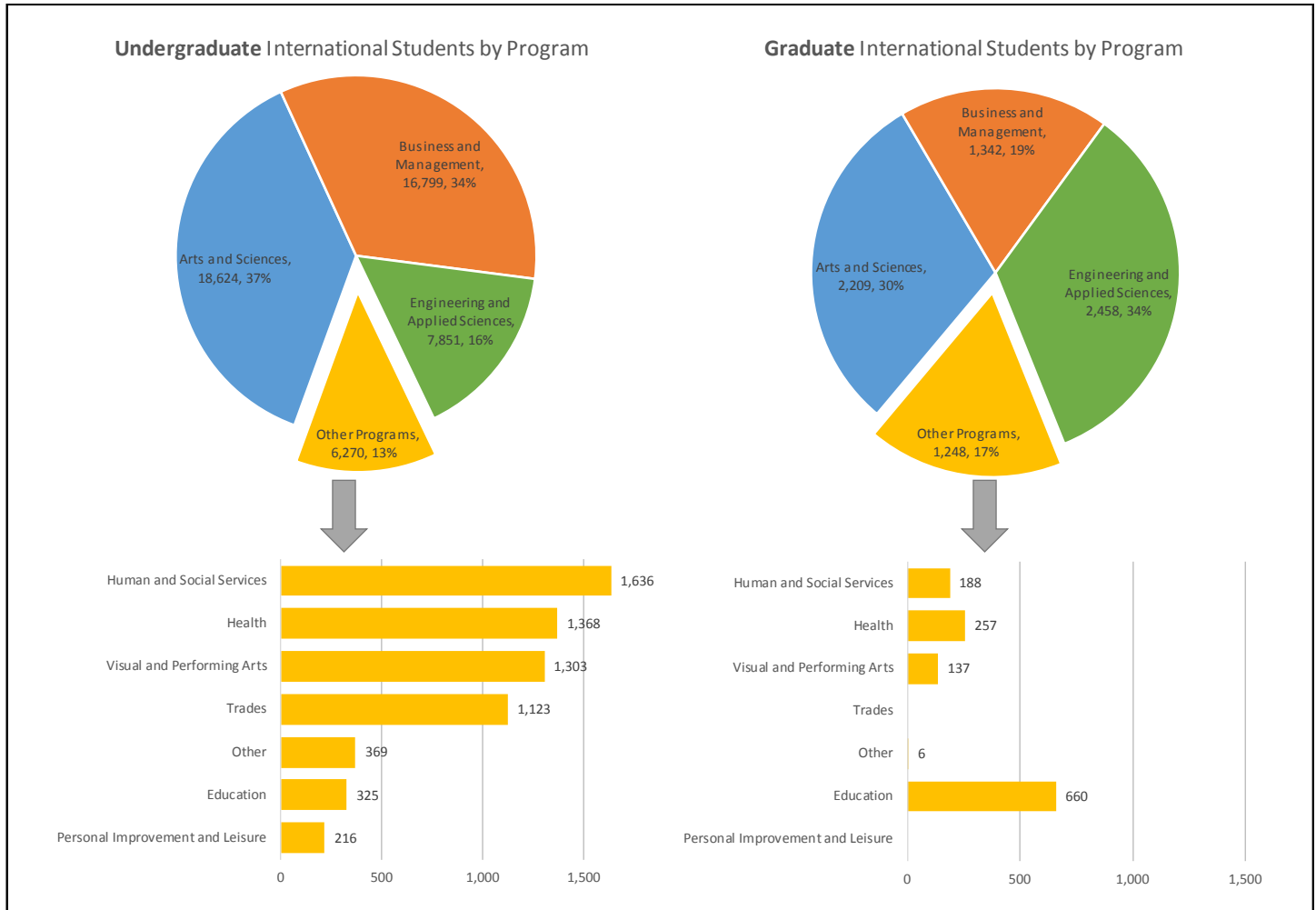
* Distinct from BC Gr12 Graduates are those who "Attended BC K-12". These students have some enrollment history in B.C.'s K-12 education system, but no record of B.C. grade 12 graduation, although they may have graduated from grade 12 in some other jurisdiction, or they have not yet graduated from grade 12.

¹⁵ Students may be counted in more than one post-secondary study level, but they are counted only once in the grand total (58,591).

Which program areas do international students enrol in?

International students primarily enrol in three program areas: (1) Arts and Sciences, (2) Business and Management and (3) Engineering and Applied Sciences. Compared to graduate students, a greater proportion of international undergraduate¹⁶ students seek credentials in Arts and Sciences (37% vs. 30%) and Business and Management (34% vs. 19%), and a smaller proportion of international undergraduate students seek credentials in Engineering and Applied Sciences (16% vs. 34%). See **Figure 11**.

FIGURE 11: 2016/2017 INTERNATIONAL STUDENTS BY PROGRAM, UNDERGRADUATE VS. GRADUATE



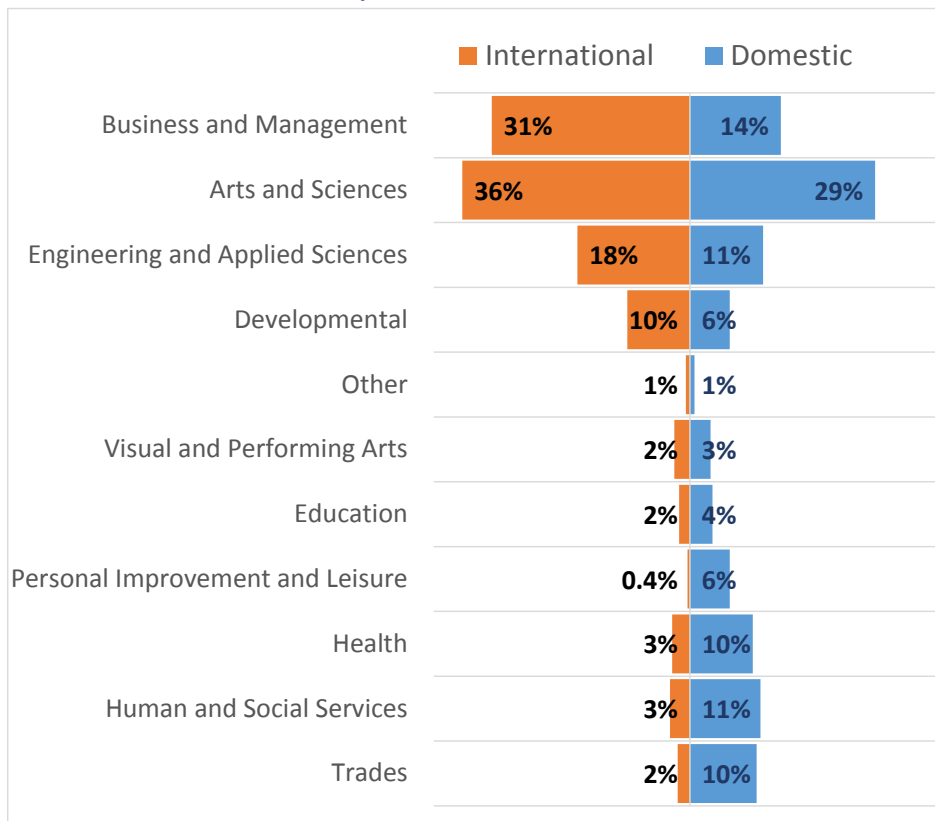
¹⁶ Developmental programs excluded (N=5,730).

Do undergraduate international students enrol in different programs from domestic students?

Among 2016/2017 undergraduate and developmental students only, **Figure 12** shows that international and domestic students enrolled in proportionately different programs.

- With a significant proportion of undergraduate international students (84%) enrolled in the top three programs (Arts and Sciences, Business and Management, Engineering/Applied Sciences), just over half (55%) of domestic students were enrolled these same three program areas.
- International students, compared to domestic students, are more than twice as likely to enrol in Business and Management programs (31% vs 14%).
- A greater share of total international students than domestic students enrol in developmental programs for English language training and academic upgrading (10% vs. 6%).
- Domestic students tend to be enrolled at higher rates than international students in trades programs (10% vs. 2%), human and social services (11% vs. 3%), and health (10% vs 3%).

FIGURE 12: DISTRIBUTION OF 2016/2017 UNDERGRADUATE AND DEVELOPMENTAL STUDENTS BY PROGRAM, INTERNATIONAL VS. DOMESTIC



Do the program preferences of international students differ by country of origin?

Figure 13 shows the programs in which international students from the top ten countries were enrolled in 2016/2017.

- The top two program areas sought by all international students from all countries combined are Arts and Sciences (36%) and Business and Management (31%), but only three of the top ten countries hold this same ranking of program destinations: China, South Korea and Mexico.
- Business and Management is the top program destination for students from four of the top ten countries: India (46%), Brazil (63%), Saudi Arabia (51%) and Nigeria (42%).
- Engineering and Applied Sciences ranks among the top three programs for five of the ten countries.
- Developmental programs are the primary destination for students from Japan (58%) and Vietnam (38%).
- Each of the other program areas typically attract fewer than 5% of the international students; and cumulatively, these less popular programs for international students account for roughly 10% to 20% of international student enrollments for each of the top ten countries.

FIGURE 13: DISTRIBUTION OF 2016/2017 INTERNATIONAL STUDENTS BY PROGRAM AND COUNTRY OF CITIZENSHIP

BC CIP Cluster	All Countries	China	India	USA	Japan	South Korea	Brazil	Vietnam	Saudi Arabia	Nigeria	Mexico
Arts and Sciences	36%	42%	28%	57%	23%	35%	20%	20%	17%	31%	32%
Business and Management	31%	28%	46%	6%	11%	22%	63%	34%	51%	42%	27%
Engineering and Applied Sciences	18%	16%	22%	17%	4%	13%	22%	11%	16%	16%	14%
Developmental	10%	10%	4%	1%	58%	17%	8%	38%	11%	1%	14%
Human and Social Services	3%	3%	3%	5%	1%	2%	3%	1%	1%	3%	2%
Health	3%	1%	6%	3%	0%	1%	1%	1%	5%	6%	2%
Visual and Performing Arts	2%	3%	0%	7%	2%	4%	4%	2%	0%	1%	5%
Trades	2%	2%	1%	1%	1%	8%	2%	3%	0%	1%	1%
Education	2%	1%	0%	5%	1%	2%	2%	0%	3%	2%	2%
Other	1%	0%	0%	1%	3%	1%	2%	1%	0%	0%	5%
Personal Improvement/Leisure	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	1%
Total International	58,591	20,498	12,583	2,631	2,323	2,158	1,327	1,157	1,015	813	788

Do the types of institutions and regional destinations of international students differ by country of origin?

Figures 14 and 15 show the types of institutions and the regional destinations of 2016/2017 international students from each of the top ten countries.

- Research-intensive universities (RIUs) are the primary destination of international students from most countries, especially students from the United States (85%) and less-so China (56%); although, there are some exceptions.
 - International students from India (56%), Japan (57%) and Vietnam (52%) are more likely to enrol in a College, with Langara being the most likely destination for these students.
 - South Korean students are equally likely, at 37%, to enrol in a College or an RIU.
 - International students from Saudi Arabia and Nigeria are more likely to enrol in a teaching-intensive university (TIU).
 - Students from Brazil are about equally as likely to enrol in a College (typically Langara) or an Institute (typically BCIT).

FIGURE 14: DISTRIBUTION OF 2016/2017 INTERNATIONAL STUDENTS BY INSTITUTION TYPE AND COUNTRY OF CITIZENSHIP

Institution Type	All Countries	China	India	USA	Japan	South Korea	Brazil	Vietnam	Saudi Arabia	Nigeria	Mexico
RIU	43%	56%	13%	85%	21%	37%	19%	24%	27%	41%	45%
College	29%	18%	56%	5%	57%	37%	35%	52%	25%	17%	28%
TIU	23%	21%	31%	7%	20%	13%	12%	16%	52%	42%	17%
Institute	8%	8%	6%	3%	3%	14%	36%	10%	1%	0%	10%
Total International	58,591	20,498	12,583	2,631	2,323	2,158	1,327	1,157	1,015	813	788

- In terms of the regional destinations of international students, it is not surprising that the majority of B.C.'s international students enrol in the Mainland/Southwest region of the province, as this is where the majority of the post-secondary institutions are located.
- Three countries show a significant proportion of international students enrolling in regions outside of the Lower Mainland: Nigeria (66%), Japan (56%), Saudi Arabia (58%). Where do they enrol?
 - Roughly 20% of Nigerian students enrol at TRU, primarily in Business programs.
 - For 20% of Japanese international students, these students enrol at Okanagan College, almost exclusively in Developmental programs.
 - Saudi Arabian students frequently enrol at VIU (17%) or TRU (16%) and their most popular program of choice at these institutions is Business.

FIGURE 15: DISTRIBUTION OF 2016/2017 INTERNATIONAL STUDENTS BY DESTINATION REGION AND COUNTRY OF CITIZENSHIP

Institution Region	All Countries	China	India	USA	Japan	South Korea	Brazil	Vietnam	Saudi Arabia	Nigeria	Mexico
Mainland/Southwest	68%	72%	67%	78%	44%	82%	88%	80%	42%	34%	67%
Vancouver Island/Coast	15%	18%	14%	15%	32%	9%	7%	13%	32%	30%	16%
Thompson-Okanagan-Kootenays	14%	11%	10%	7%	22%	8%	5%	7%	24%	28%	12%
Cariboo North	3%	1%	10%	1%	3%	1%	1%	1%	4%	9%	7%
Total International	58,591	20,498	12,583	2,631	2,323	2,158	1,327	1,157	1,015	813	788

How many international students graduate from the B.C. K-12 education system each year?

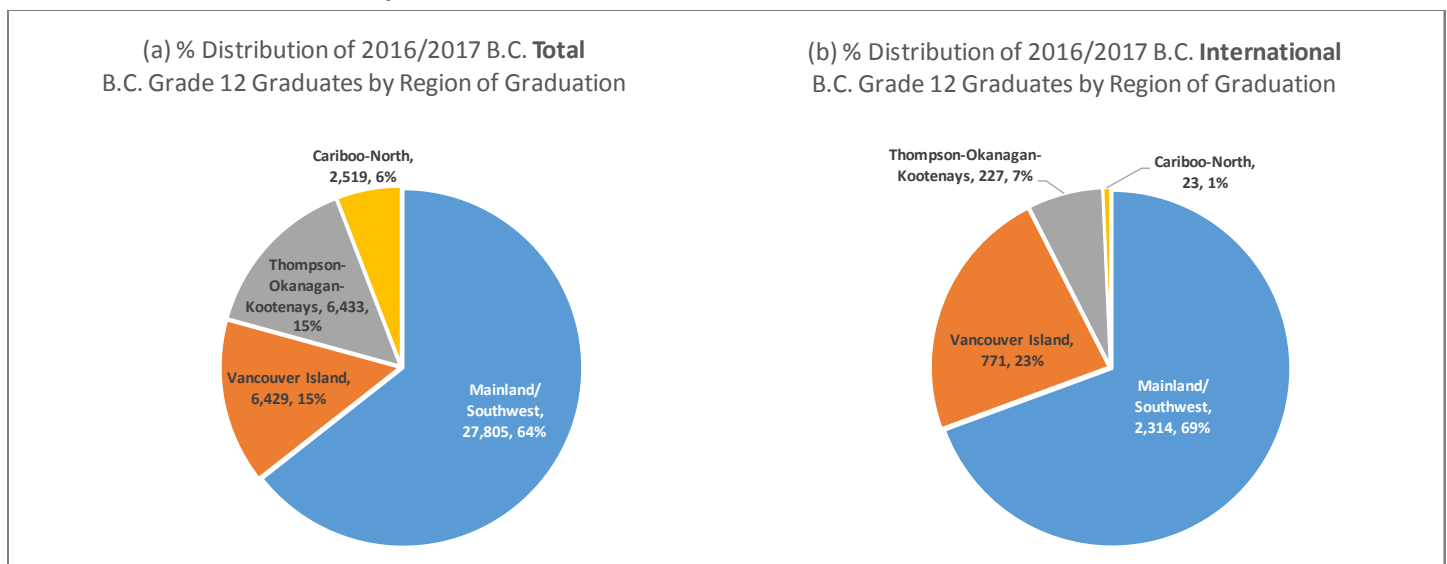
In 2016/2017, a total of 43,186 eligible¹⁷ grade 12 students graduated from grade 12 in B.C., of which 3,335 (or 7.7%) were identified by the STP's proxy definition as "international" students (or B.C. non-residents).

Among the 3,335 international grade 12 graduates of 2016/2017, the majority (69%) were graduates from high schools in the Mainland/Southwest region of B.C. The remaining international graduates completed grade 12 at B.C. high schools in the Vancouver Island region (23%), Thompson-Okanagan-Kootenays (7%), and Cariboo-North region (1%). See **Figure 16b**.

As revealed in a comparison of **Figure 16a** and **16b**, two regions of the province have a disproportionately larger share of B.C.'s international grade 12 graduates: Mainland/Southwest (69% international grade 12 graduates versus 64% of all graduates) and Vancouver Island (23% versus 15%). In addition, collectively, these two regions account for 92% of B.C.'s international grade 12 graduates, but only 79% of all grade 12 graduates.

With roughly 7.7% of all 2016/2017 grade 12 graduates in B.C. identified as "international", these non-B.C. residents represent a relatively larger share of all grade 12 graduates in the Vancouver Island region (12.0%) and Mainland/Southwest region (8.3%), compared to the other two regions: Thompson-Okanagan-Kootenays (3.5% international) and Cariboo-North (0.9%). In other words, a member of a grade 12 graduation cohort from a Vancouver Island high school is more likely to be an international student (12%) than a grade 12 graduate from any other region of B.C. (8.3%, 3.5% or 0.9%).

FIGURE 16: % DISTRIBUTION OF 2016/2017 B.C. GRADE 12 GRADUATES BY REGION OF GRADUATION



¹⁷ An "eligible" grade 12 graduate is a student who was deemed eligible to graduate at the end of the school year upon successful completion of the courses registered in, and based on the courses previously completed towards graduation. The grade 12 graduates reported here are selected from those identified as "eligible" to graduate.

What are the *trends* in the number of international grade 12 graduates in B.C.?

- The number of international grade 12 graduates in B.C. has nearly tripled from 1,285 in 2007/2008 to 3,335 in 2016/2017 (see [Figure 17](#)). The STP acknowledges that identifying B.C. grade 12 international students in the STP is problematic and these international student counts likely do not accurately estimate the true counts and true growth rate over time.
- Over the last decade, the total number of grade 12 graduates in B.C. declined by 3%, from 43,186 to 44,542, and this was mainly due to a shrinking number of grade 12 graduates in B.C. public schools (-6%), offset by an increase in the number of B.C. independent school graduates (+23%). During this same time period, the number of international grade 12 graduates within these two populations of public and independent schools continued to grow steadily. See [Figure 17](#).
- Due to the differences in rate of growth of student sub-populations in B.C. public and independent schools, the independent schools have gradually increased their contribution to the total number of grade 12 graduates in B.C. from 9% of total grade 12 graduates to 12% over the last decade. At the same time, the relative shares of international grade 12 graduates has remained relatively constant, with independent schools graduating roughly 30% of all international graduates and the remaining 70% graduating in B.C. public schools (see [Figure 17](#)).
- In terms of growth rate, the total number of international grade 12 graduates grew slightly faster in independent schools than public schools, with both groups seeing increasing shares of international students among their grade 12 graduation cohorts. As a result, international students now represent 6.3% of grade 12 graduates in B.C. public schools, triple the share from one decade ago; and 18.1% in B.C. independent schools, double the share from ten years ago (see [Figure 18](#)).

FIGURE 17: TOTAL INTERNATIONAL B.C. GRADE 12 GRADUATES BY GRADUATION YEAR

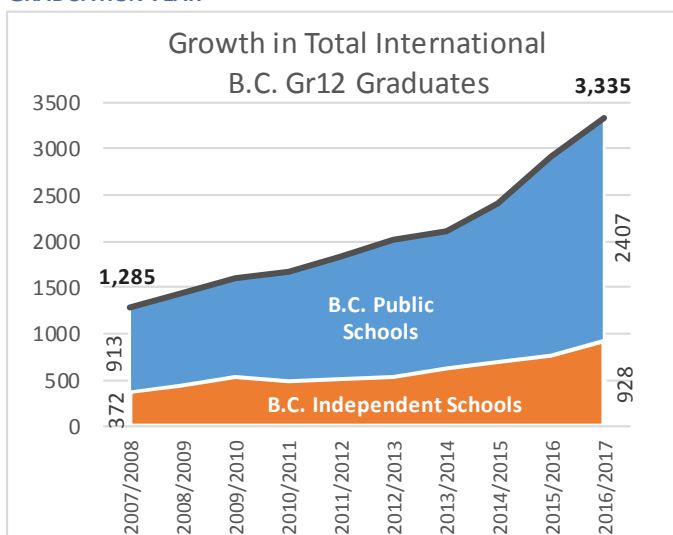
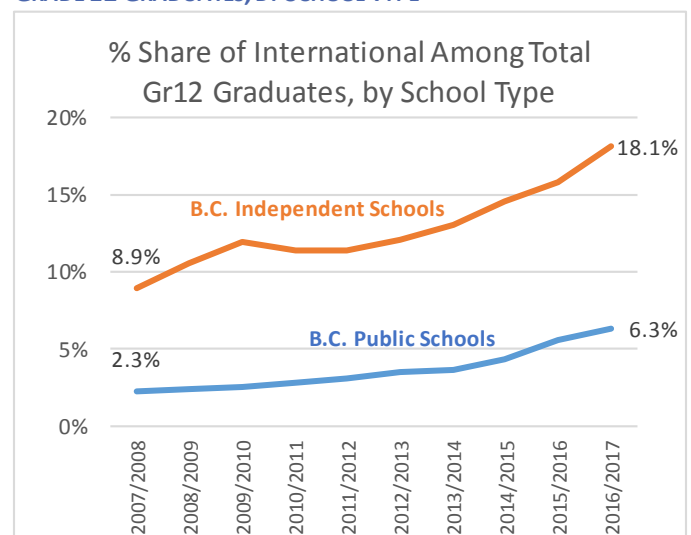


FIGURE 18: % SHARES OF INTERNATIONAL STUDENTS AMONG TOTAL GRADE 12 GRADUATES, BY SCHOOL TYPE



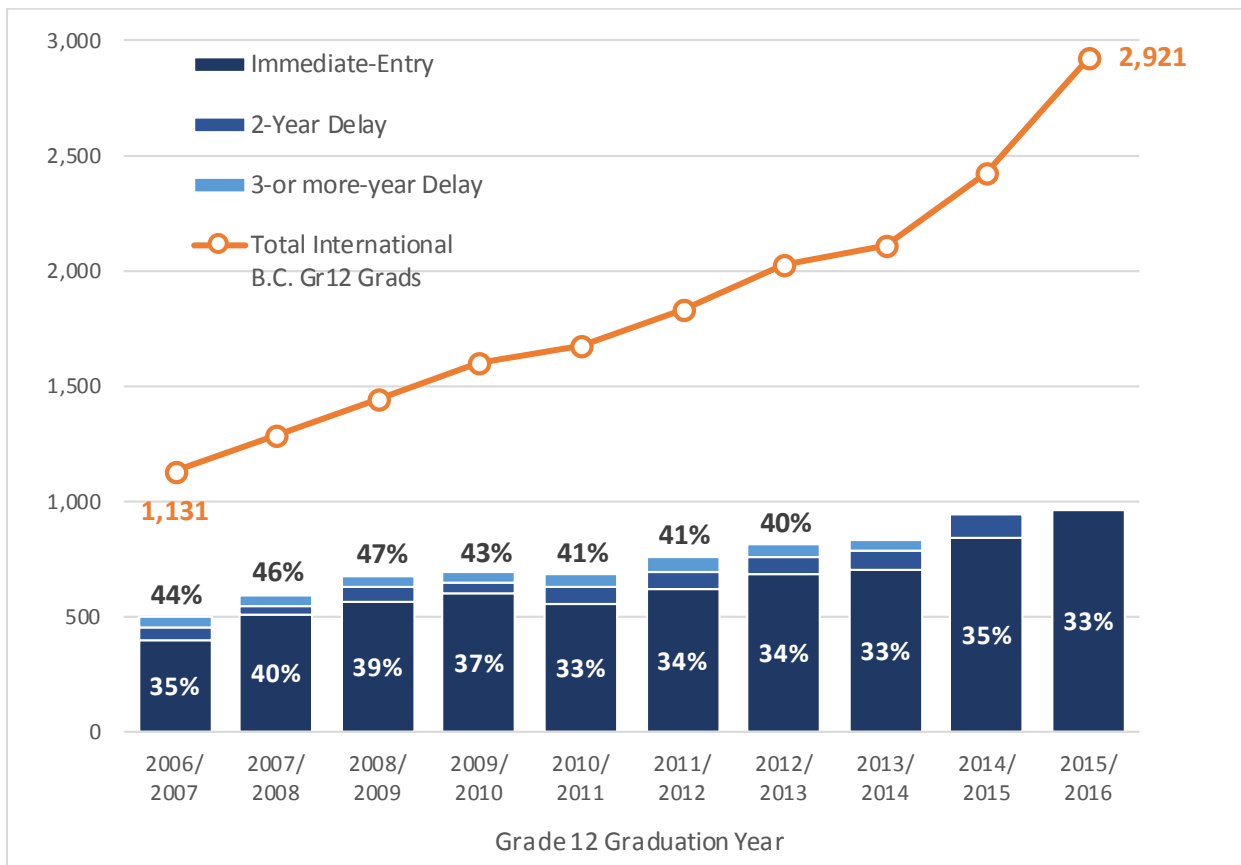
What proportion of international grade 12 graduates transition to B.C. public post-secondary education?

Consistent with the definition of an international grade 12 graduate previously defined on [page 5](#) (*How does the STP Identify International Students?*), the STP finds that more than one-third of international B.C. grade 12 graduates (33% to 40%) subsequently enrolled in the B.C. public post-secondary education system within one year of graduation in each of the last ten years. Fewer than 10% of the international grade 12 graduates tend enrolled in the B.C. public post-secondary system over the subsequent two to ten years after graduation. The largest proportion of students transition to post-secondary education within two years of grade 12 graduation (see [Figure 19](#)).

By comparison, more than half (51% to 53%) of domestic grade 12 graduates enrol in the B.C. public post-secondary education system within one year of graduation and a further 25% enrol over the subsequent decade.

International students are not expected to enrol in the B.C. public post-secondary system at the same rate as those achieved by domestic students, especially since many international students may return to their home country for post-secondary education.

FIGURE 19: INTERNATIONAL GRADE 12 GRADUATES IN B.C. WHO TRANSITIONED TO B.C. PUBLIC POST-SECONDARY EDUCATION



What proportion of new international students in B.C. public post-secondary institutions enrolled directly from B.C. grade 12 graduation?

The Student Transitions Project is interested in students who transition from B.C.'s K-12 to post-secondary education systems. As previously described, roughly 40% of B.C.'s international students make the transition within a year of graduation, but these international student transitioners in B.C. represent only a small proportion of all new international students enrolled in the B.C. public post-secondary education system.

- Among the roughly 24,000 new international students who entered undergraduate or developmental programs in the B.C. public post-secondary education system in 2016/2017, approximately 5% came directly from the B.C. K-12 education system after graduating in 2015/2016 and a further 2% entered after waiting more than a year before enrolling.
- Although currently difficult for the STP to measure precisely, the vast majority (89%) of new international students came from outside of B.C.'s public K-12 or post-secondary education systems. Some of these new international students may have last attended a B.C. private post-secondary institution or any secondary or post-secondary institution outside of B.C., but most would have come directly from outside of Canada.

How reliable or consistent is STP's ability to identify "international" students across B.C.'s education systems (among B.C. public post-secondary registrants with B.C. grade 12 graduation)?

By linking student records in a **forward-looking** direction, from the B.C. K-12 education system into the B.C. public post-secondary education system, the STP finds that 84% to 93% of the B.C. grade 12 "international" graduates who transition to the B.C. public post-secondary system subsequently enrolled as an international student in the B.C. public post-secondary system and roughly 7% to 16% enrolled as domestic students. This shift may be an indication of the proportion of K-12 non-residents who were inaccurately identified by the proxy definition as "international" (but are in fact from other Canadian provinces); or the proportion of students who changed their visa status over time. In general, the STP is satisfied that international student status is accurately identified in the data collected from post-secondary institutions.

Similarly, through a **backward-looking** comparison of international student status across education systems, the STP finds that roughly 85% of the post-secondary registrants who previously attended the B.C. K-12 system were also identified in the B.C. K-12 data via STP's proxy definition as "international" students (or non-residents of B.C.). This is consistent with the forward-looking validation of international status across education systems and confirms that solely using non-resident status to identify international K-12 students is a reasonable approach, although still not perfect. (In the past, the STP also filtered out non-resident students whose primary language spoken at home was English, but this is no longer the practice.) The STP will continue their efforts to encourage the K-12 system to collect more precise international student identifiers and to help integrate this new information into the STP database.

Do undergraduate international students in the B.C. public post-secondary system remain at one institution, or do they attend multiple institutions over time?

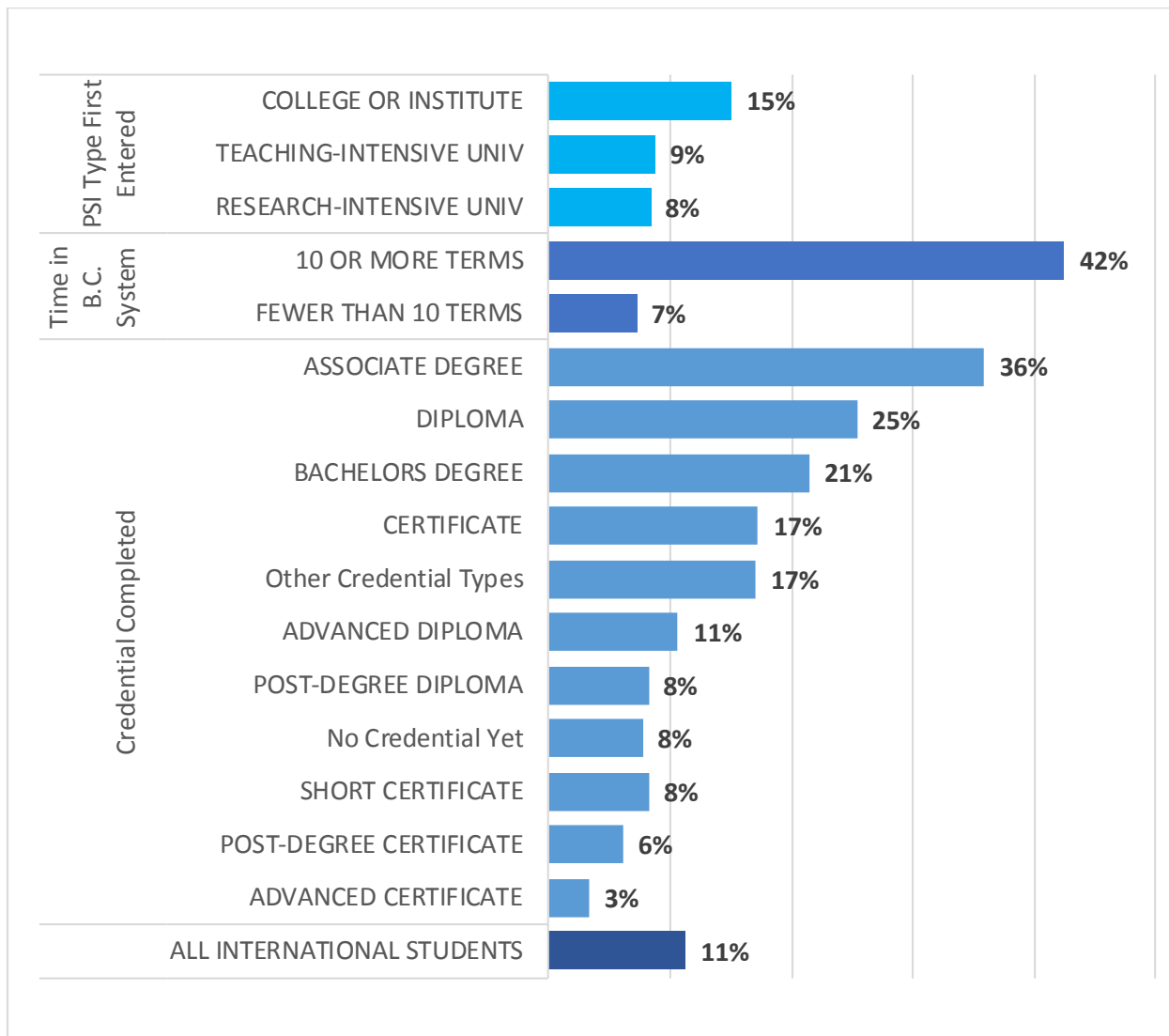
Of all international students who first entered the B.C. public post-secondary system between 2007/2008 and 2016/2017, the majority (88%) attended just one institution throughout their educational career in the B.C. public post-secondary system; 11% attended multiple post-secondary institutions.

Whether students attended multiple institutions (i.e. switched institutions) during the course of their studies in the B.C. public post-secondary system largely depended on the type of institution they first enrolled in, the length of time enrolled in the system and the type of credential completed in the B.C. public post-secondary system by Fall 2013 (see [Figure 20](#)).

- **Institution Type First Entered:** Of those international students¹⁸ who first enrolled in a B.C. college or institute, 15% attended more than one institution, compared to those who first enrolled in a teaching-intensive university (9%) or a research-intensive university (9%). These findings are consistent with the fact that students have numerous options available to transfer between institutions in B.C., such as the traditional pathway from a college to a university.
- **Length of Time in the B.C. System:** Of those international students who registered in the B.C. public post-secondary system for fewer than ten registration terms, 7% switched institutions at least once. By comparison, 43% of those who enrolled for ten or more terms in the B.C. system switched institutions at least once, including 33% who attended two institutions, almost 8% who attended three and nearly 2% who attended four or more institutions throughout their time in the B.C. system.
- **Type of Credential Completed:** Over one-fifth (21%) of international students who completed a Bachelor's degree attended more than one institution to achieve their credential, compared to 36% of Associate Degree completers and 25% of Diploma completers. Only 8% of international students who had not completed a credential switched institutions during their stay in the B.C. public post-secondary system. Students who completed a Post-Degree Certificate (6%), Short Certificate (8%), or Advanced Certificate (3%) were much less likely to switch institutions than other credential completers.

¹⁸ This includes nearly 142,981 new international students who first entered undergraduate or developmental programs in the B.C. public post-secondary system between 2007/2008 and 2016/2017.

FIGURE 20: % OF INTERNATIONAL STUDENTS WHO SWITCHED INSTITUTIONS WHILE ATTENDING THE B.C. PUBLIC POST-SECONDARY SYSTEM



Note: "Other Credential Types" includes developmental, first professional, apprenticeship, masters, doctorate, none, other and graduate certificate.

To what extent do international students move between institution types in the B.C. public post-secondary system?

Figure 21 shows the mobility rates between institution types of all new international students who first enrolled in the B.C. public post-secondary system between 2007/2008 and 2016/2017 in undergraduate or developmental programs. The majority (93%) of students were still enrolled in the same institution type where they first enrolled by the time of their last registration in the system. The mobility patterns of international students tend to vary by the type of institution where they first enrolled.

- Students who first enrolled in a college were more likely to be enrolled in another institution type in their last registration period, compared to students who first enrolled in other institution types: 13% switched from colleges, 4% switched from research-intensive universities, and 6% switched from institutes or teaching-intensive universities.
- Students who first entered a community college in B.C. were the most mobile between institution types, with 7% subsequently enrolled at a research university in their last registration period, 3% in a teaching-intensive university and 2% in an institute.
- Students who first entered a university or institute in B.C. were less mobile than college entrants.
 - Roughly 3% who first entered a teaching-intensive university switched to a research-intensive university and a similar proportion (3%) switched from an institute to a B.C. college.
 - International students who first entered an RIU and subsequently switched institutions were about as equally likely to move to college as to a TIU.

FIGURE 21: MOBILITY OF INTERNATIONAL STUDENTS BETWEEN INSTITUTION TYPES – FROM FIRST ENTRY TO LAST REGISTRATION TERM

PSI Type Entered	Type of Institution Where Last Registered				Grand Total
	COMMUNITY COLLEGE	INSTITUTE	RESEARCH-INTENSIVE UNIV	TEACHING-INTENSIVE UNIV	
COMMUNITY COLLEGE					
Stu Count	40,407	1,131	3,443	1,435	46,416
Stu % of Row	87.1%	2.4%	7.4%	3.1%	100.0%
INSTITUTE					
Stu Count	390	12,008	156	200	12,754
Stu % of Row	3.1%	94.2%	1.2%	1.6%	100.0%
RESEARCH-INTENSIVE UNIV					
Stu Count	760	323	44,790	653	46,526
Stu % of Row	1.6%	0.7%	96.3%	1.4%	100.0%
TEACHING-INTENSIVE UNIV					
Stu Count	627	404	1,057	35,197	37,285
Stu % of Row	1.7%	1.1%	2.8%	94.4%	100.0%
Total Stu Count	42,184	13,866	49,446	37,485	142,981
Total Stu % of Row	29.5%	9.7%	34.6%	26.2%	100.0%

What are the post-secondary education outcomes of international students in the B.C. public post-secondary education system?

The education achievements of a cohort of new international students were tracked from the time of their first entry into B.C. public post-secondary undergraduate and developmental programs in 2010/11 until the Fall of 2017.

This cohort of 10,193 new international students is comprised of three mutually exclusive sub-populations:

- 864 students who attended the B.C. K-12 system and graduated with B.C. grade 12 before enrolling in the post-secondary education system;
- 364 students who previously attended the B.C. K-12 education system, but did not graduate before¹⁹ enrolling in post-secondary; and
- 8,965 students who did not previously attend the B.C. K-12 system.

The education achievements of these three groups of students are compared in [Figure 22](#).

The subset of B.C. public post-secondary international students who previously **graduated from the B.C. K-12 system** generally achieved better education outcomes than international students with some or no previous education in the B.C. K-12 system.

These B.C. grade 12 graduates:

- Persisted in the B.C. public post-secondary education system for a longer elapsed time (10.8 terms versus 8.8 or 6.8 terms), primarily at a research-intensive university; and attended for a greater number of registration terms (8.6 versus 7.1 and 5.8);
- Took a greater number of stop out terms (2.2 versus 1.8 and 1.0) and recorded similar and higher stop out rates (20% versus 20% and 15%). This suggests that B.C. grade 12 graduates, who were likely more settled in Canada than students with limited or no B.C. K-12 experience, may have taken summers off to work or pursue other activities, rather than persisting in their post-secondary studies without a break;
- Attended a greater number of institutions (1.36 on average versus 1.28 and 1.15) by Fall 2017 and this is likely because they persisted in the B.C. system for a greater length of time than the other sub-populations;
- Achieved higher credential completion rates by 2016/2017 (60% versus 47% and 45%);
- Earned proportionately more bachelor's degrees (66% versus 38% and 46%) and fewer developmental credentials (6% versus 7% and 19%).

These results suggest that post-secondary institutions might consider focusing their international student recruiting efforts on those students who previously attended and graduated from the B.C. K-12 system because these students have generally demonstrated superior education outcomes than those international students who did not previously attend and graduate from the B.C. K-12 education system.

¹⁹ Included in this group of 364 students are 57 students who did eventually graduate from the B.C. K-12 system, but this occurred after they enrolled in the B.C. public post-secondary education system.

FIGURE 22: COMPARISON OF EDUCATION OUTCOMES OF INTERNATIONAL STUDENTS IN THE B.C. PUBLIC POST-SECONDARY SYSTEM

	2010/2011 International Entrants to BC Public Post-Sec				
	Attended B.C. K-12 (BC12 Graduate)	Attended B.C. K-12 (Non-BC12 Graduate)	No B.C. K-12 Experience	All New International Students	
Entry Cohort:	# New International Students to BC Public Post-Sec	864	364	8,965	10,193
Identity in B.C. K-12 System:	BC K-12 International Students (Proxy)	671	278	0	949
	BC K-12 Graduates (before or after enrolling in post-sec)	864	57	0	921
	BC K-12 Graduates as % of Cohort	100.0%	15.7%	0.0%	9.0%
PSI Term History:	Avg # Elapsed Terms (Includes stopout terms)	10.8	8.8	6.8	7.2
	Avg # Registration Terms (excludes stopout terms)	8.6	7.1	5.8	6.1
	Avg # Stopout Terms	2.2	1.8	1.0	1.2
	Stopout Rate (Stopout Terms as % of Elapsed Terms)	20%	20%	15%	16%
Type of PSI's Attended:	Avg # Terms in RIU(s)	5.3	2.3	2.7	2.9
	Avg # Terms in TIU(s)	1.4	2.6	1.5	1.5
	Avg # Terms in B.C. College(s)	1.6	1.5	1.1	1.1
	Avg # Terms in Institute(s)	0.4	0.7	0.5	0.5
PSI Attendance History:	Avg # PSIs Attended	1.36	1.28	1.15	1.17
	Avg # Terms at Each PSI Attended	8.0	6.9	5.9	6.2
Credential Completion:	Credential Completion Rate (by 2012/2013)	60.2%	47.3%	44.9%	46.3%
	Average # Credentials Per Credential Completer	1.18	1.34	1.31	1.30
	Total Headcount Credential Completers	520	172	4,027	4,719
	Total Credentials Completed (See breakdown below):	611	230	5,274	6,115
Cred Compl Level:	Developmental	37	17	1,006	1,060
	Undergraduate	570	212	4,120	4,902
	Graduate	4	1	148	153
Cred Compl Category:	Bachelor's Degree	405	88	2,439	2,932
	Certificate	44	36	327	407
	Diploma	88	72	920	1,080
	Masters	4	1	141	146
	Doctorate	0	0	3	3
	Developmental	34	17	994	1,045
	Other Credential Category	74	34	1,585	1,693

Figure 18 Notes: (a) Education outcomes of new international students admitted to B.C. public post-secondary institutions in 2010/11; outcomes achieved by Fall 2017. (b) This is a study cohort, thus the process for cohort inclusion filtered out some student records for data quality reasons. (c) Excludes new students to graduate programs. (d) 57 BC grade 12 graduates in the cohort of students with B.C. K-12 experience did subsequently graduate from B.C. grade 12, but grade 12 graduation occurred *after* they were admitted to a B.C. public post-secondary institution.

Conclusion

International students studying in B.C.'s education systems continue to enrich the diversity of perspectives and academic, social and cultural experiences of local students, while making an important contribution to the B.C. economy and society.

This report shows that significant growth in international students is continuing to occur in B.C.'s education systems, especially over the last decade. As the number of international students continues to expand in B.C. and elsewhere, the STP will continue to monitor and report on the enrollment trends and education achievements of these students in the B.C. system in an effort to aid policy development, program planning and decision-making within institutions and government.

For More Information

Additional information in various formats is available to post-secondary institutions seeking more detailed information on international students studying in B.C.

STP Highlights newsletters and reports are available on the public Student Transitions Project [web site](#) at:

<https://www2.gov.bc.ca/gov/content/education-training/post-secondary-education/data-research/student-transitions-project>

Appendix A: Data Sources - International students in Canada

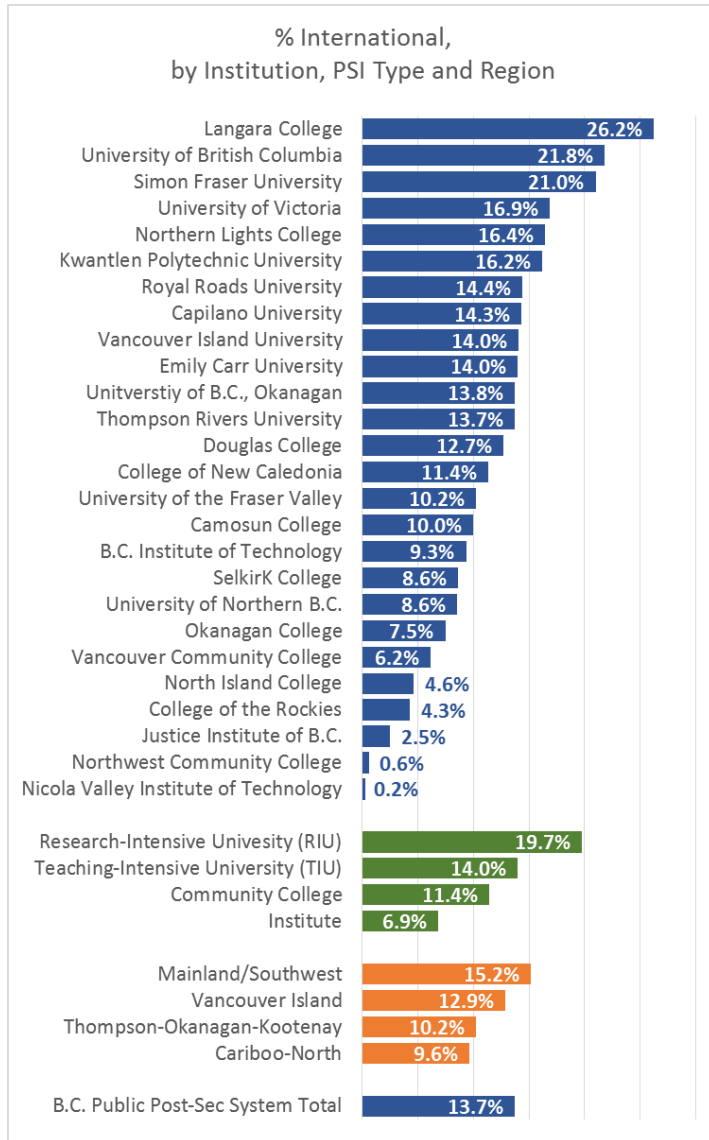
Numerous reports and databases are available that profile international students in Canada, but each are extracted from a different data source, from a different time period, according to different definitions. For readers seeking more information on international students studying in Canada, you may wish to review and compare the results from these various sources.

Data Source	Report Publication Date	Enrollment Year	International Student Count	Notes
Statistics Canada	Accessed 2018-11-14	2015/2016	221,862	Table 37-10-0018-01 . Based on program counts (not student counts) for students enrolled at time of Fall snapshot date. Students in multiple programs are counted in each program. Includes all post-secondary enrollments, including pre-employment, apprenticeship, basic training, skills upgrading, second language training, job readiness and orientation programs.
Canadian Bureau for International Education	August 2018	2017	494,525	Preliminary 2017 Immigration, Refugees and Citizenship Canada (IRCC) data is used to quantify international students. Student numbers are based on valid study permits and work permits (as of December 31, 2017) for study in Canadian public and private education institutions at all study levels. Students in Canada for less than six months are not required to hold a study permit and are therefore not counted. Therefore, language school students and exchange students are largely excluded. Presumably, high school students on a study permit would be included in this figure.
OECD, Education at a Glance 2018	2018	2015/2016	189,000	International students studying in Canada, from OECD countries. Enrollment numbers are computed using a snapshot method of counting enrolled students on a specific day or period of the year. International enrollment data is obtained from enrollments in the country of destination.
Project Atlas	2017	2015/2016	309,530	Higher education data, as provided by representative governments from participating countries. A temporary resident who has been approved by an immigration officer to study in Canada. The study permit identifies the level of study and the length of time the individual may study in Canada. International students do not need a study permit for courses of six months or less if they will finish the course within the period of stay authorized upon entry, which is usually six months. Every foreign student must have a student authorization, but may also have been issued other types of permits or authorizations. Includes formal higher education activities for which high school completion is the normal entrance requirement.
Government of Canada Open Data - Immigration, Refugees and Citizenship Canada	2017	Calendar Year 2017	152,390	<i>Canada - Study permit holders by province/territory of intended destination, study level and calendar year.</i> Temporary residents who are in Canada on a study permit in the observed calendar year. Datasets include study permit holders by year in which permit(s) became effective or with a valid permit in a calendar year or on December 31st. https://open.canada.ca/data/en/dataset/90115b00-f9b8-49e8-afa3-b4cff8facee .

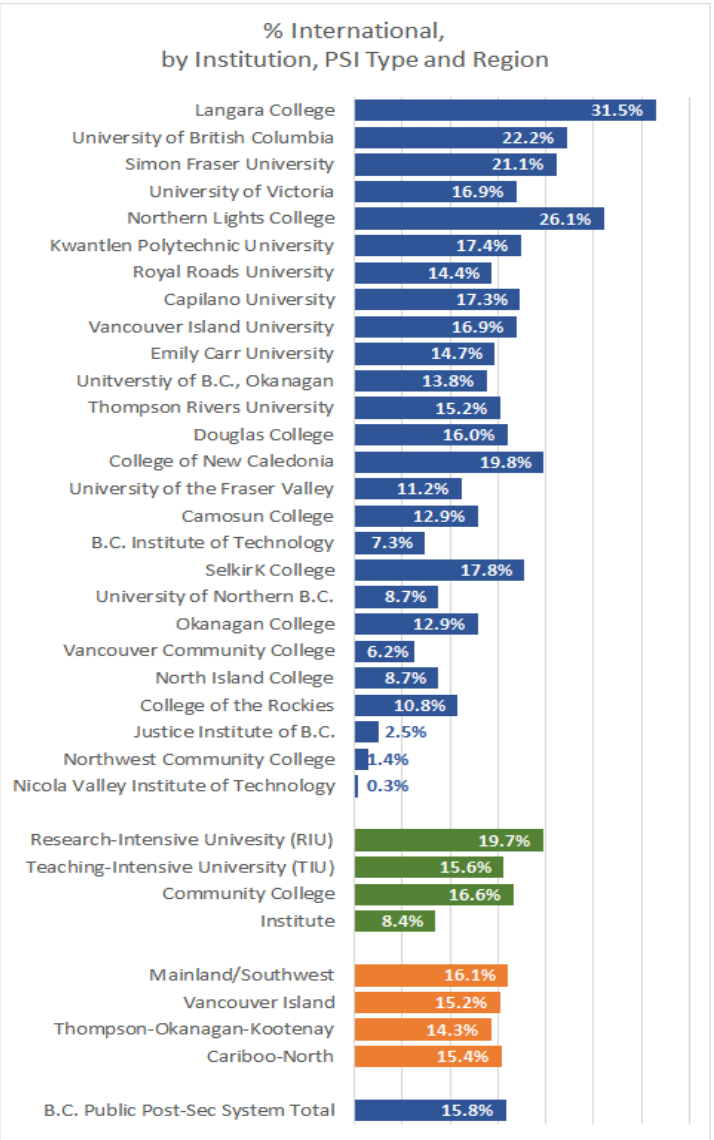
Appendix B: % International Students, by Institution (2016/2017)

INTERNATIONAL STUDENTS AS % OF INSTITUTION TOTAL,
BY INSTITUTION, PSI TYPE AND REGION, 2016/2017:

CONTINUING EDUCATION STUDENTS INCLUDED



CONTINUING EDUCATION STUDENTS EXCLUDED



Note: RIU's do not submit Continuing Education students to the STP, thus Continuing Education students at RIUs are excluded from both charts above.

References

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- Canadian Bureau for International Education (CBIE) (August, 2018), *CBIE Research in Brief Number 10: International Students in Canada*, <https://cbie.ca/wp-content/uploads/2018/09/International-Students-in-Canada-ENG.pdf>.
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- Study Portals (2017). *2017 Trends in International Student Recruitment*, <https://www.studyportals.com/intelligence/2017-trends-in-international-student-recruitment/>.