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# Economic Impact of International Education in Canada — An Update

# Final Report

Presented to

**Global Affairs Canada**


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December 2017

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# Executive summary

Existing literature, as well as the previous studies on the economic impacts of international education conducted by Roslyn Kunin and Associates (RKA) for Global Affairs Canada, clearly indicates that there is a significant positive value associated with international students studying in Canada. The current study updates the 2016 study (which was based on 2014 data) with more recent data, and assesses the economic impact that international students studying in Canada in 2015 and 2016 had on the Canadian economy.

We estimate that, in 2015 and 2016 respectively, international students in Canada spent around $12.8 billion and $15.5 billion on tuition, accommodation and discretionary spending. The economic impacts presented in this report focus on the combined *direct and indirect* impacts associated with such spending.

The results of the study are summarized below.

- After accounting for Canadian scholarships and bursaries, the total annual expenditures of international students, including their visiting families and friends, contributed $12.8 billion and $15.5 billion to economic activities in Canada in 2015 and 2016, respectively. This translates into a $10.5 billion and $12.8 billion contribution to Canada's GDP in 2015 and 2016, respectively
- GDP contributions of over $10 billion include both ***direct*** impacts and ***indirect*** impacts, where firms supplying goods and services to the education services and other sectors are also taken into account.
- An impressive 18.0% growth in the number of long-term international students in 2016 accounts for most of the 21.2% higher spending and associated economic impact compared with 2015. Students from India, in particular those studying at the college level, contributed most to this overall increase, with Ontario accounting for the biggest increase in the number of international students.
- Ontario, with the largest number of students, made the largest contribution to GDP with $6.3 billion (49.7% of 12.8 billion), followed by British Columbia, with 21.6% and Quebec, with 13.0%.
- The amount of international students' overall annual spending translates to 140,010 jobs (the equivalent of 118,640 FTE) supported by the Canadian economy in 2015. The comparable value in 2016 was 168,860 jobs (or 143,100 FTE) supported.
- International students' annual spending *directly* and *indirectly* contributed $2.3 billion in tax revenue in 2015. The comparable value in 2016 was $2.8 billion.

- Because international students' expenditures represent revenue for goods and services from overseas, they are Canadian exports of education services.
- In 2015, the value of international education services, as measured by total spending by international students in Canada ($12.8 billion) amounted to 12.5% of Canada's total service exports to the world, and equalled 2.4% of Canada's total merchandise exports. This value increased in 2016, accounting for 14.5% of our total service exports, or 3.0% of our total merchandise exports.
- The top 10 source countries accounted for $9.6 billion in international student spending in 2015, which translates to 14.5% of the total service exports, or 2.1% of Canada's total merchandise exports to these countries.[1] In 2016, these countries accounted for $11.8 billion in international student spending, which translates to 17.2% of the total service exports, or 2.7% of Canada's total merchandise exports to these countries.
- In 2016, long-term international students accounted for 93.4% of the total spending by international students, they contributed $12.0 billion to Canada's GDP and they supported 158,300 jobs.
- Based on sensitivity analysis, we have estimated the upper and lower bands of economic impacts resulting from different levels of student spending.

  A 10% increase or decrease in spending by international students results in an approximately 10-11% change in economic impacts.

Key results of the study are summarized in the following tables.

[1] Statistics Canada reports that the export value of Canada's education-related travel services was $5.827 billion in 2015. The analysis in this report builds on that number by exploring and adding other areas of export revenues, such as including K-12 students and Languages Canada's short-term students.

**Summary table I: Number of international students and total annual spending in Canada, by province and territory, 2015 and 2016**

| | 2015 | | 2016 | |
|---|---|---|---|---|
| | All Students | Total Annual Spending (millions) | All Students | Total Annual Spending (millions) |
| **Newfoundland and Labrador** | 2,638 | $58.4 | 3,227 | $72.6 |
| **Prince Edward Island** | 1,715 | $48.6 | 2,270 | $68.3 |
| **Nova Scotia** | 12,537 | $352.8 | 14,063 | $413.4 |
| **New Brunswick** | 4,837 | $124.0 | 5,178 | $136.4 |
| **Quebec** | 61,880 | $1,692.5 | 67,534 | $1,887.2 |
| **Ontario** | 195,710 | $6,161.4 | 233,226 | $7,806.8 |
| **Manitoba** | 11,276 | $287.8 | 14,298 | $374.8 |
| **Saskatchewan** | 6,814 | $181.0 | 8,063 | $222.6 |
| **Alberta** | 26,063 | $668.9 | 30,342 | $823.6 |
| **British Columbia** | 134,324 | $3,236.8 | 145,691 | $3,726.6 |
| **Yukon** | 25 | $0.6 | 60 | $1.4 |
| **Northwest Territories** | 9 | $0.2 | 19 | $0.4 |
| **Nunavut** | 0 | $0.0 | 0 | $0.0 |
| **Canada[2]** | 457,828 | $12,812.9 | 523,971 | $15,533.9 |

[2] Total number of students includes long-term and short-term students. It should be noted that the total number of long-term students reported here does not correspond with the figure reported on IRCC's website regarding the number of international students with a valid permit on December 31, as we have made a number of adjustments to arrive at these values. It should also be noted that RKA estimated the number of short-term Languages Canada students in 2016, as no data from Languages Canada was available at the time the report was prepared.

**Summary table II: Combined direct and indirect economic impact of all international students in Canada, by province and territory, 2015 and 2016 ($million)**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Output | GDP at Basic Price | Labour Income | Employment (Jobs) | Output | GDP | Labour Income | Employment (Jobs) |
| **Newfoundland and Labrador** | $83.5 | $51.2 | $26.7 | 615 | $102.7 | $62.9 | $33.0 | 762 |
| **Prince Edward Island** | $54.7 | $32.9 | $20.1 | 488 | $74.1 | $44.9 | $27.4 | 663 |
| **Nova Scotia** | $437.4 | $267.7 | $158.1 | 3,685 | $519.1 | $318.2 | $188.5 | 4,378 |
| **New Brunswick** | $196.1 | $106.7 | $61.0 | 1,458 | $225.6 | $122.1 | $70.2 | 1,670 |
| **Quebec** | $2,553.1 | $1,463.6 | $897.7 | 22,173 | $2,920.4 | $1,664.9 | $1,019.1 | 25,102 |
| **Ontario** | $8,017.9 | $5,037.8 | $3,041.4 | 62,737 | $10,081.9 | $6,349.4 | $3,833.6 | 79,034 |
| **Manitoba** | $400.0 | $238.8 | $143.3 | 3,321 | $510.8 | $306.3 | $183.5 | 4,250 |
| **Saskatchewan** | $289.9 | $160.4 | $84.8 | 1,915 | $356.0 | $197.1 | $104.1 | 2,350 |
| **Alberta** | $1,361.3 | $772.4 | $446.7 | 8,280 | $1,663.9 | $945.0 | $545.1 | 10,094 |
| **British Columbia** | $3,669.9 | $2,391.1 | $1,507.4 | 35,294 | $4,252.9 | $2,764.8 | $1,732.3 | 40,499 |
| **Yukon** | $2.5 | $1.4 | $0.8 | 20 | $3.5 | $2.0 | $1.2 | 27 |
| **Northwest Territories** | $6.4 | $3.4 | $1.1 | 17 | $8.0 | $4.2 | $1.4 | 21 |
| **Nunavut** | $1.5 | $0.9 | $0.4 | 7 | $1.8 | $1.1 | $0.5 | 8 |
| **Canada** | $17,074.5 | $10,528.3 | $6,389.6 | 140,010 | $20,720.8 | $12,783.0 | $7,740.0 | 168,861 |

**Summary table III: Comparison of total annual spending by international students with Canada's service and merchandise exports**

| | 2015 | | 2016 | |
|---|---|---|---|---|
| | Value | International Student Spending as % of Exports | Value | International Student Spending as % of Exports |
| **Total spending by international students** | **$12.8 billion** | | **$15.5 billion** | |
| **Canada's exports in services** | $102.3 billion | 12.5% | $107.4 billion | 14.5% |
| **Canada's exports in merchandise** | $524.0 billion | 2.4% | $517.0 billion | 3.0% |

**Summary table IV: Base case and sensitivity analysis: Base case**

| | 2015 | 2016 |
|---|---|---|
| Total spending (billion) | $12.8 | $15.5 |
| GDP (billion) | $10.5 | $12.8 |
| Employment | 140,010 | 168,860 |
| Tax revenue (billion) | $2.3 | $2.8 |

**10% higher annual total spending by all international students in Canada – Combined direct and indirect impacts, 2015 and 2016**

| | 2015 | 2016 |
|---|---|---|
| Total spending (billion) | $14.1 | $17.1 |
| GDP (billion) | $11.6 | $14.1 |
| Employment | 154,000 | 185,700 |
| Tax revenue (billion) | $2.6 | $3.1 |

**10% lower annual total spending by all international students in Canada – Combined direct and indirect impacts, 2015 and 2016**

| | 2015 | 2016 |
|---|---|---|
| Total spending (billion) | $11.5 | $13.9 |
| GDP (billion) | $9.4 | $11.4 |
| Employment | 125,200 | 150,800 |
| Tax revenue (billion) | $2.1 | $2.5 |

# 1. Introduction

International education, owing to its impact on Canada's ability to develop and retain the necessary knowledge and skills, plays an important role in the globalization of its economy allowing it to thrive in a fast-changing and competitive environment.

Global Affairs Canada commissioned Roslyn Kunin and Associates (RKA) to conduct this study to determine the value of the impact that international students' spending in Canada has on the Canadian economy. This study is an update to the 2014 impact assessment and uses the same estimation approach, although some minor adjustments of assumptions have been made.

As in the 2014 study, the analytical approach used in this study included the estimation of total spending by international students (including tuition and fees, books, accommodation, transportation and discretional spending), and the estimation of the economic impact on the Canadian economy as of 2015 and 2016 in terms of exports,[3] GDP, employment and government revenue. The study also provides the economic impact by province and territory and the level of studies, as well as the impact by the top 10 source countries.

This study covers long-term students at schools, colleges and universities, as well as short-term students. For the number of long-term international students (those pursuing education and training for periods longer than six months and requiring study permits), we relied on Immigration, Refugees and Citizenship Canada (IRCC) data. For short-term students (less than six months duration), we relied on Languages Canada's data. In order to calculate student expenditures, we relied on data from various sources, including Statistics Canada's annual Tuition and Living Accommodation Costs survey. To fill in the gaps in data, we made several assumptions, including those with respect to scholarships and bursaries provided by Canadian government (federal, provincial or territorial) institutions, as well as expenditures by friends and family members visiting the international students, therefore adjustments were made to the original sets of

[3] Given that spending by international students represents Canada's exports in educational services, in this report we have used the phrases "spending by international students" and "international education services" interchangeably. It should be noted that the inclusions in "international education services" are quite different from Statistics Canada's definition, based on the *Manual on Statistics of International Trade in Services 2010* (published by United Nations). Statistics Canada's definition of education services, in the context of balance of payment, is as follows:

> ***"Education services comprise of services relating to all levels of education whether delivered through correspondence, via TC, satellite, or the internet, or by teachers, among others, who supply services directly in host economies. Excluded are the services provided to non-residents who are present in the territory of the service supplier (as this is included in the travel category)."***

Therefore, the comparable value in Statistics Canada's balance of payment data is that associated with education-related personal travel.

data. These adjustments are detailed in Appendix 1. We also carried out sensitivity analyses with respect to some key variables. This is presented in Appendix 3.

To capture the overall impact of total spending by international students on the Canadian economy, we used Statistics Canada's interprovincial expenditure impact model. In this study, we not only quantified the direct economic impact associated with international student spending, but have also taken a total impact approach to quantify direct, indirect and induced impacts. These include quantifying the activities of businesses providing goods and services to entities where direct expenditures occur (thus including direct and indirect impacts). In addition, as a result of increased local household income, there may be further increases in overall expenditures. This was considered a spun-off (or induced) impact. Total impact includes all three: the direct, indirect and induced impacts of an initial spending. The total impact can be considered the upper band of economic impacts, whereas the sum of direct and indirect impacts provides a relatively conservative level of impacts on the economy. In this updated study, we focused on the *direct and indirect* economic impact on the Canadian economy as of 2015 and 2016.[4] Direct impacts, along with total impacts, are shown in Appendix 2.

In the main body of the report, we present our estimates of the number of international students in Canada by province and territory and by long-term and short-term study status. Then we present our estimates of their annual total spending, and resulting combined direct and indirect economic contribution to the Canadian economy, and the importance of international education services to Canada's trade with the rest of the world. We also provided historical comparisons of the value and impacts of international education to highlight its growing contribution to Canada's economy. In addition, the study includes a comparison of economic impacts by the top 10 source countries.

In appendices to the main body of the report, we further applied scenario analyses to provide alternate estimates of the value and impacts of spending by international students in situations where higher or lower student spending occurred. We also provided an explanation of the differences between our estimates and those released by Statistics Canada.

Detailed data tables are also presented in appendices 5 and 6.

[4] Economic impact studies evaluate the impacts of increased economic activities due to an increase in spending from programs or individuals on a regional economy and they measure the impacts in terms of macro-economic variables, such as gross domestic product (GDP) and employment. Such an analysis is useful for government decision making when evaluating and comparing impacts from different programs and projects. It should also be noted that, in spite of its usefulness, an economic impact analysis is not a cost-benefit analysis and does not take into account the opportunity cost associated with program expenditures. The evaluation of costs associated with providing education to international students is beyond the scope of this study.

# 2. Data sources and methodology

RKA's methodology for the study on the economic impact of international education in Canada included extensive secondary research involving reviewing literature, collecting existing statistical data and information, as well as consulting with representatives from the provincial and territorial education sectors, and representatives from organizations promoting and researching trends in international education in Canada and/or the provinces.

In this section, we describe the different sources of data that are available, the ones we used for the project and any limitation with the data sets. We also point out how the data sources and methodology differ between our estimates and those adopted by Statistics Canada in its estimate of Canada's trade in education-related personal travel services.

## Data sources

### *Enrolment*

One of the main purposes of this study was to determine the overall economic impacts of total spending by international students, which required the understanding of the number of international students in each province and territory, and in different levels of study: public or private, in the K-12 system, at the college level, as well as undergraduate and graduate students in the university system. It was also necessary to determine the number of international students studying in professional and language training programs.

We did not find one complete set of data that fit our definition of *international students* or reported data on all students. In its Post-Secondary Information System, Statistics Canada collects data on international student enrolment at the college and university levels (including a breakdown of undergraduate and graduate levels) by field of study or by program level. However, the colleges and universities that are covered in the Statistics Canada survey are essentially all in the public system and therefore the data does not yield information on international students in the private post-secondary system.

In terms of the number of international students in the K-12 system, no data is readily available from Statistics Canada for each of the provinces and territories, or from each provincial or territorial ministry of education.

As described in the Introduction section, when no consistent data was available for international students, the alternative was to use the data on foreign students available from Immigration, Refugees and Citizenship Canada (IRCC). As international students need to obtain a study permit before arriving in Canada to pursue education and training for a period longer than six months, IRCC's data told us how many study permits holders were in each of the provinces and territories at a given time.

IRCC defines foreign students as follows:

> ***"Temporary residents who entered Canada mainly to study and have been issued a study permit (with or without other types of permits). A study permit is an official document issued by an officer that allows someone who is not a Canadian citizen or a permanent resident to study in Canada. In general, a study permit is not needed for any program of study that is six months or less. For statistical purposes, a temporary resident is designated as a foreign student on the basis of IRCC's determination of his or her "yearly status" – the main reason for which the person has been authorized to enter and stay temporarily in Canada during the year of observation. Foreign students exclude temporary residents who have been issued a study permit but who entered Canada mainly for reasons other than study."***

There are three broad levels of study for foreign students.

a. Secondary or less: secondary school and elementary school
b. Post-secondary: which is further divided into
    - CEGEP
    - College education
    - University education
    - Others
c. Other studies

The IRCC data therefore allowed us to use the number of study permit holders as a proxy for the number of international students at a given time in a year. It also allowed for a distinction to be made between broad levels of study. For all these reasons, we relied on IRCC's data for analytical purposes.

One limitation of using the IRCC's data set to represent the number of international students was that the actual number of permit holders registered at a Canadian institution may be smaller than the number of permits issued due to the fact that some permit holders may not be able to, or have chosen not to, enrol in an education program. Another limitation of this data set was that since the term "foreign student" is defined by citizenship, it also includes permit holders who are the children or spouses of attending students, but these are not considered fee-paying international students for the purposes of our analysis.[5]

[5] It should be noted that there are still some "non-fee-paying" students who have not fully been adjusted for due to lack of data. For example, no adjustments have been made for cases in which Quebec has made an agreement with respect to international students with French citizenship (in Quebec, an international student can even pay domestic fees if he/she is studying French language, literature, culture, etc. at the degree level), or for exchange students in all provinces (they do not pay international fees, as they pay tuition to their own institutions back home).

Finally, another important source of international students that was not fully covered in the IRCC data is the number of students who study in Canada for periods of less than six months, as they do not require a study permit to enter the country. We approached organizations whose members provide short-term vocational training to the public. It should be noted, however, that only Languages Canada collects comprehensive data that is useful for our purposes.

Languages Canada is Canada's premier language organization representing its two official languages, English and French. Membership is limited to schools that meet the association's rigorous standards and are committed to upholding them. Currently, there are over 165 member programs across the country, including at universities, colleges and private institutions. The association is not-for-profit and sector driven. Quality assurance is a critical element of Languages Canada and all member schools are required to be accredited under one internationally recognized and comprehensive scheme.

In the rest of the report, we defined international students as those from the two sets of data available to us, with adjustments. Long-term students refer to the individuals who are represented by the IRCC data, while short-term students are those pursuing language training programs of less than six-months in institutions with Languages Canada membership.

Detailed adjustments to the IRCC data and the data from Languages Canada are presented in Appendix 1.

***Student expenditures***

For students in each level of study, we estimated expenditures in the following categories:

- Tuition and fees
- Additional compulsory fees
- Books and other study tools/materials
- Living expenses
- Transportation costs
- Discretionary expenditures

In order to calculate the net economic benefits of international students in the host country, we took into account any financial assistance that international students receive from Canadian governments, as well as from universities or other institutions.

Again, the detailed description of adjustments can be found in Appendix 1.

***Additional visiting family and friends "tourist" activities***

Existing literature on international education points to another area of university activity, which is the important role that institutions can play in attracting visitors to the host country.[6]

In this study, we estimated the number of international students' family and friends visiting Canada based on assumptions used in the 2013 Australian ACPET study on the economic benefits that international students brought to the country.

## Analytical framework

To capture the overall impact on the Canadian economy of total spending by international students, the expenditures of international students and their visiting family and friends were applied to Statistics Canada's interprovincial impact simulation model.[7] The model provides estimates of the overall impact on output, gross domestic product (GDP) and employment in each province/territory's economy.

A short description of the input-output model is provided here.

### *An input-output structure of the economy*

When a person spends money on a product (goods and/or services), that amount creates a direct requirement for the production of that product. The economic impact, however, does not end there. The increased production of this product leads to increased production of all the intermediate goods and services that are used to make this product, and the increased production of intermediate goods and services will in turn generate more demand for other goods and services that are needed to produce these intermediate products. As demand rises, workers are able to earn a higher wage, and they sometimes decide to spend a portion of their extra earnings on more goods and services.

As such, an initial demand for a product creates a chain effect down the production process.

An economic impact analysis is designed to study such interlinkage between industries in order to evaluate how a change in an initial demand for goods or services contributes to changes in other industries' levels of production and the overall economic activity level within a region.

The input-output model is based on the input-output structure of the Canadian economy,[8] which is essentially a set of tables describing the flows of goods and services among the various sectors of the economy. Such a model is useful in

[6] Some studies include not only leisure visitors, such as the family and friends of international students visiting the host country, but also international conference business and international academic business visitors.

[7] Statistics Canada catalogue product 15F0009X – Input-Output Model Simulations (Interprovincial Model).

[8] Statistics Canada catalogue product 15F0042X – Provincial Input-Output Tables.

determining how much additional production is generated by a change in the demand for one or more products or by a change in an industry's output.

Beyond direct expenditures, input-output models can be used to analyze additional benefits to the economy. This includes businesses providing goods and services to entities where direct expenditures occur. In addition, as a result of increased local household income, there may be further increases in overall expenditures. The latter is considered a spun-off (or induced) impact, which is sometimes shown in economic impact studies.

Currently, Statistics Canada uses the 2010 interprovincial input-output model to estimate economic impact and the results are used for comparative analysis purposes. It should be noted that employment impact estimates from this model are based on the 2010 total compensation per job.[9] As such, it was necessary to deflate the net student expenditures incurred in 2015 and 2016 to 2010 dollars to get a more accurate estimate of the employment impact.

[9] Data is derived from Statistics Canada's CANSIM table 383-0030 – labour statistics by business sector industry and by non-commercial activities consistent with the industry accounts, provinces and territories.

# 3. Assessing the economic impact of international students in Canada

The economic impact assessment of international education involved first collecting data and information on the number of international students by level of study, and on the type of student expenditures incurred. These values were adjusted when necessary to arrive at the amount of overall spending by international students on educational fees and living expenditure. These spending values were then applied to Statistics Canada's expenditure model to generate estimates of the impact that international students' total spending had on Canada's gross output, GDP, employment and tax revenues. In this section, we present the resulting estimates and analysis.

## 3.1. Overall spending

In this subsection, we combine the estimated number of international students in Canada by level of study in each province and territory with estimates on educational and living costs to arrive at an estimation of total expenditures by international students while they study in Canada. All student numbers and expenditure values capture the impact in 2015 and 2016.

Table 1 shows the total number of international students studying in Canada, with provincial and territorial distribution. The student numbers have also been broken down to show students that are considered "long-term" and those who are considered "short-term."[10]

[10] Detailed data pertaining to international students by level of study in each province and territory can be found in appendices 5 and 6.

**Table 1: Total number of international students in Canada, by province and territory, 2015 and 2016**

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Long-Term Students | Short-Term Students | All Students | Long-Term Students | Short-Term Students | All Students |
| **Newfoundland and Labrador** | 2,638 | 0 | 2,638 | 3,227 | 0 | 3,227 |
| **Prince Edward Island** | 1,424 | 291 | 1,715 | 1,969 | 301 | 2,270 |
| **Nova Scotia** | 10,347 | 2,191 | 12,537 | 11,799 | 2,264 | 14,063 |
| **New Brunswick** | 4,173 | 663 | 4,837 | 4,493 | 686 | 5,178 |
| **Quebec** | 49,689 | 12,191 | 61,880 | 54,934 | 12,600 | 67,534 |
| **Ontario** | 149,435 | 46,275 | 195,710 | 185,398 | 47,828 | 233,226 |
| **Manitoba** | 9,918 | 1,358 | 11,276 | 12,894 | 1,404 | 14,298 |
| **Saskatchewan** | 5,736 | 1,078 | 6,814 | 6,949 | 1,114 | 8,063 |
| **Alberta** | 18,472 | 7,591 | 26,063 | 22,496 | 7,846 | 30,342 |
| **British Columbia** | 93,927 | 40,397 | 134,324 | 103,938 | 41,753 | 145,691 |
| **Yukon** | 25 | 0 | 25 | 60 | 0 | 60 |
| **Northwest Territories** | 9 | 0 | 9 | 19 | 0 | 19 |
| **Nunavut** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Canada**[11] | 345,793 | 112,036 | 457,828 | 408,176 | 115,796 | 523,971 |

*Source: Immigration, Refugees and Citizenship Canada, and Languages Canada, with adjustments by RKA*

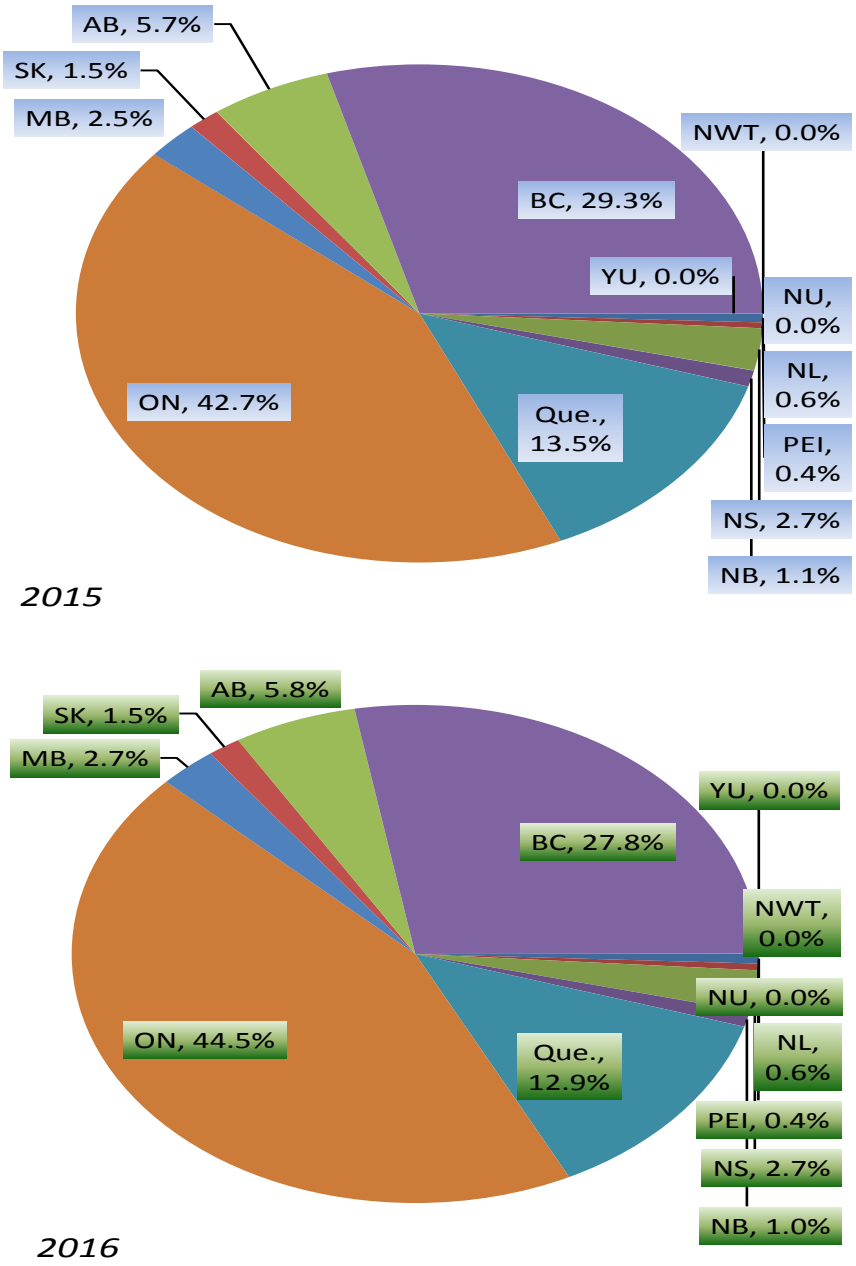
[11] It should be noted that the total number of "long-term students" reported here does not correspond with the figure reported on IRCC's website on the number of international students with a valid permit on December 31, 2015 or 2016, as we have made a number of adjustments to arrive at these values. The number of "short-term" students in 2015 has been derived based on data received from Languages Canada. The number of students in 2016 has been estimated.

The number of international students studying in Canada continues to grow steadily. In fact, the increase between 2015 and 2016 was substantial, from approximately 457,800 to 524,000, an increase of 14.4%. This has been driven mainly by an 18.0% increase in the number of "long-term" students.[12] Detailed data indicates that Ontario contributed most toward the growth of long-term students; it had almost 36,000 more students in 2016 than it did in 2015, a 24.1% increase. Detailed data also indicates that of the top source countries for long-term students, the biggest increase was from India.

As can be seen in Figure 1, which shows the distribution of the total number of international students in Canada by province and territory, Ontario has the largest share of the international student population (42.7% in 2015, which increased to 44.5% in 2016). The province with the second-largest share of international students is British Columbia, which accounted for 29.3% of the total in 2015, though its share decreased slightly to 27.8% in 2016. When compared with British Columbia's population share in Canada, its share in the international student service market is much higher. Quebec has the third-largest market share in international education services, accounting for 13.5% of the number of students in 2015 (and 12.9% in 2016). All other provinces and territories also hosted the increasing number of international students: Alberta had 5.7% of all international students in 2015 (5.8% in 2016); Nova Scotia had 2.7% of all students in both 2015 and 2016; Manitoba had 2.5% of students in 2015 (which increased to 2.7% in 2016); Saskatchewan had 1.5% of students both in 2015 and 2016; New Brunswick had 1.1% of all students; Newfoundland and Labrador had 0.6% of all students; and Prince Edward Island had 0.4% of all students. The three territories also took in a very small number of international students.

[12] IRCC data showed that the number of study permit holders as of December 31 increased 17.9% between 2015 and 2016. It should be noted that the number of students in this table has been adjusted. For details, please refer to Appendix 1.

**Figure 1: Distribution of the total number of international students in Canada, by province/territory, 2015 and 2016**




*Source: Data from IRCC and Languages Canada, with adjustments by RKA*

Table 2 shows the annual spending incurred by these international students, including the additional tourism activities associated with visiting family and friends.[13] The data sources and adjustments to raw data to derive estimates of international student expenditures are detailed in Appendix 1.

[13] Detailed data calculated for different types of student expenditures, for students in various levels of study, can be found in appendices 5 and 6.

**Table 2: Total annual expenditures of international students in Canada, by province and territory, 2015 and 2016 ($millions)[14]**

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Long-Term Students | Short-Term Students | All Students | Long-Term Students | Short-Term Students | All Students |
| **Newfoundland and Labrador** | $58.4 | $0.0 | $58.4 | $72.6 | $0.0 | $72.6 |
| **Prince Edward Island** | $47.3 | $1.4 | $48.6 | $66.9 | $1.4 | $68.3 |
| **Nova Scotia** | $328.2 | $24.5 | $352.8 | $388.1 | $25.3 | $413.4 |
| **New Brunswick** | $119.3 | $4.7 | $124.0 | $131.5 | $4.9 | $136.4 |
| **Quebec** | $1,596.2 | $96.3 | $1,692.5 | $1,787.7 | $99.5 | $1,887.2 |
| **Ontario** | $5,748.1 | $413.2 | $6,161.4 | $7,379.7 | $427.1 | $7,806.8 |
| **Manitoba** | $275.0 | $12.8 | $287.8 | $361.6 | $13.2 | $374.8 |
| **Saskatchewan** | $168.2 | $12.8 | $181.0 | $209.4 | $13.2 | $222.6 |
| **Alberta** | $590.8 | $78.1 | $668.9 | $742.8 | $80.7 | $823.6 |
| **British Columbia** | $2,901.8 | $335.1 | $3,236.8 | $3,380.3 | $346.3 | $3,726.6 |
| **Yukon** | $0.6 | $0.0 | $0.6 | $1.4 | $0.0 | $1.4 |
| **Northwest Territories** | $0.2 | $0.0 | $0.2 | $0.4 | $0.0 | $0.4 |
| **Nunavut** | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **Canada** | $11,834.1 | $979 | $12,812.9 | $14,522.3 | $1,012 | $15,533.9 |

*Source: Detailed data sources, as reported in Appendix 1, with adjustments by RKA*

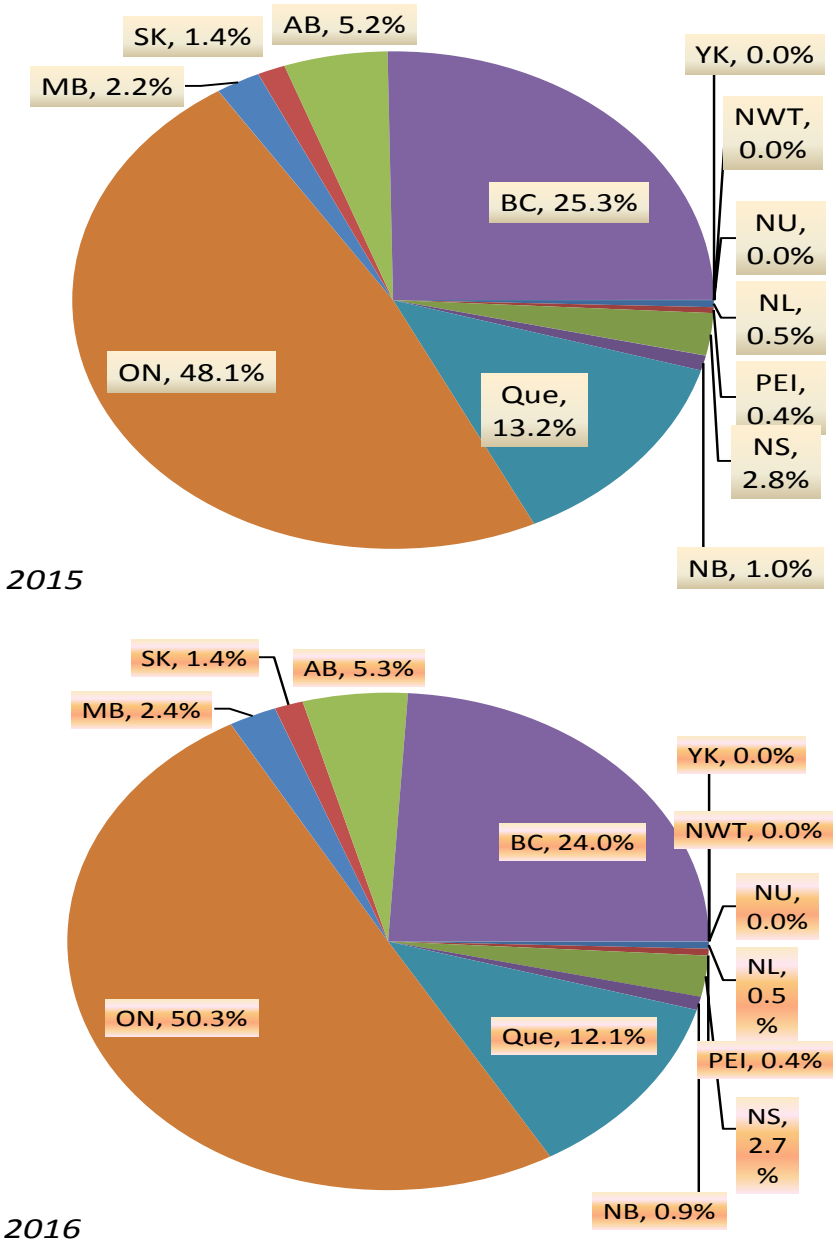
[14] It should be noted that there are no short-term international students reported in private Languages Canada membership schools in Newfoundland and Labrador, or the three territories.

In total, $15.5 billion was put into the Canadian economy in 2016 by international student expenditures across the country. The comparable number in 2015 was $12.8 billion. This represents a 21.2% increase in international student spending between 2015 and 2016.

Figure 2 illustrates the distribution of the total amount of international student expenditures in 2015 and 2016 by province and territory. In line with Figure 1, Ontario accounts for the largest share of total student expenditures of all provinces and territories in Canada, followed by British Columbia. The data in this figure also indicates that Ontario accounts for an even higher expenditure share than its student share (48.1% in 2015, which increased to 50.3% in 2016), which reflects the tuition fees of students studying in university programs.[15]

[15] For a comparison of tuition fees for university undergraduate and graduate programs in different provinces across Canada, see tables 47 and 48 in Appendix 5.

**Figure 2: Distribution of total international student expenditures in Canada, by province and territory, 2015 and 2016**




*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

Long-term students accounted for 93.5% of total annual spending, while short-term students accounted for the other 6.5%.

**Table 3: Average per-student expenditures – Cost of education and cost of living for long-term international students**

| | 2015 | 2016 |
|---|---|---|
| **K-12** | $25,000 | $25,800 |
| **College/trades** | $34,600 | $36,400 |
| **University** | $37,300 | $38,800 |
| **Other post-secondary** | $34,100 | $35,800 |
| **Other** | $26,600 | $27,500 |
| **All levels of study** | $33,800 | $35,100 |

*Source: RKA, based on various adjustments detailed in Appendix 1*

Table 3 above shows our estimates of the per-student cost of education and living while they stay in Canada. For long-term students, the average per-student expenditure (including tuition fees, other fees, books, accommodations and meals, transportation, and discretionary spending, but excluding spending from visiting family and friends) per year was estimated to be $33,800 in 2015 and $35,100 in 2016.

Short-term students had an average of $900 in total expenditures per week.

## 3.2. Economic impact

As we pointed out in the methodology section, when a person spends money on a product (goods and/or services), that amount creates a direct requirement for the production of that product. The economic impact, however, does not end there. The increased production of the product leads to increased production of all the intermediate goods and services that are used to make that product, which in turn generates more demand for other goods and services that are used to produce these intermediate products. As demand rises, workers are able to earn a higher wage, and they sometimes decide to spend a portion of their extra earnings on more goods and services. As such, the initial demand for a product creates a chain effect down the production process. This is referred to as the combined direct and indirect impact. Three types of impacts are usually estimated and they are described briefly here.

- Direct impact measures the increase in industrial output and the increase in an industry's labour force resulting from the inflow of international students and their spending on a yearly basis.

- Indirect impact measures the change in industrial output and employment demand in sectors that supply goods and services to sectors of the economy that are directly impacted.
- Induced impact measures the changes in output and employment demand over all sectors of the economy as a result of an income increase in households impacted both directly and indirectly.

Although we present all three types of economic impact values associated with international students spending in this updated report, **it should be noted that the report focuses on the combined direct and indirect impacts as representing a complete picture of economic impacts.** It is generally acknowledged that direct impacts alone are incomplete and the total impact may sometimes overestimate the impacts of initial spending.

When we compare the value of total spending by international students with other sectors in the economy, GDP, employment and export values are the key variables of interest. Other variables that may be of interest to readers include output, labour income and tax revenues. The results are presented for the aggregate of all international students, as well as long-term and short-term students separately.

To produce these impact values, we used Statistics Canada's economic impacts simulation model to estimate international students' contribution to each province's GDP and employment.[16] Also reported are the values of output and labour income.[17]

The following sections present the combined direct and indirect impacts, first for the aggregate of all students, followed by the analysis for long-term students, then short-term students. Direct economic impacts and total economic impacts (combining direct, indirect and induced impacts) are shown in Appendix 2.

[16] It should be noted that Statistics Canada's impact estimation model has two types of job impact and multipliers: one for the total number of jobs and another that transforms the former into a full-time-equivalent (FTE) number of jobs. The estimate of the total number of jobs covers two main categories: employee jobs and self-employed jobs (including persons working in a family business without pay). The total number of jobs includes full-time, part-time and temporary jobs. It does not take into account the number of hours worked per employee. FTE jobs include both the employee and self-employed jobs, but the FTE transformation only applies to employee jobs. The transformation is based on the overall average full-time hours worked in the business and government sectors.

The impact of labour income includes three components: wages and salaries, supplementary labour income, and labour income of the unincorporated sector. This variable captures the return to labour in the make-up of GDP.

[17] Total industrial output refers to the value of outputs produced, whether the products are used as an intermediate product (think of a log cut down from a tree for the purpose of building a house, for example) or used as a final product (think of a beam in a completed house). If we calculate gross domestic product the same way we calculate the value of outputs, the cost of the log will be counted many times, as it moves from raw product to its eventual use as a beam, and it is wrong. The value of total industrial output therefore includes both the value of intermediate inputs and primary inputs, the latter being the labour and the capital needed in production. It is the sum of the latter, which is also referred to as the value added, that equals gross domestic product at the national or provincial level.

### 3.2.1 Combined direct and indirect impacts

#### 3.2.1.1. Aggregate for all students

Table 4 below presents the results of the combined direct and indirect economic impacts associated with all students in Canada, by province and territory, in 2015 and 2016.

**Table 4: Direct and indirect economic impacts of all international students, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Output | GDP | Labour Income | Employment | Output | GDP | Labour Income | Employment |
| Newfoundland and Labrador | $83.5 | $51.2 | $26.7 | 615 | $102.7 | $62.9 | $33.0 | 762 |
| Prince Edward Island | $54.7 | $32.9 | $20.1 | 488 | $74.1 | $44.9 | $27.4 | 663 |
| Nova Scotia | $437.4 | $267.7 | $158.1 | 3,685 | $519.1 | $318.2 | $188.5 | 4,378 |
| New Brunswick | $196.1 | $106.7 | $61.0 | 1,458 | $225.6 | $122.1 | $70.2 | 1,670 |
| Quebec | $2,553.1 | $1,463.6 | $897.7 | 22,173 | $2,920.4 | $1,664.9 | $1,019.1 | 25,102 |
| Ontario | $8,017.9 | $5,037.8 | $3,041.4 | 62,737 | $10,081.9 | $6,349.4 | $3,833.6 | 79,034 |
| Manitoba | $400.0 | $238.8 | $143.3 | 3,321 | $510.8 | $306.3 | $183.5 | 4,250 |
| Saskatchewan | $289.9 | $160.4 | $84.8 | 1,915 | $356.0 | $197.1 | $104.1 | 2,350 |
| Alberta | $1,361.3 | $772.4 | $446.7 | 8,280 | $1,663.9 | $945.0 | $545.1 | 10,094 |
| British Columbia | $3,669.9 | $2,391.1 | $1,507.4 | 35,294 | $4,252.9 | $2,764.8 | $1,732.3 | 40,499 |
| Yukon | $2.5 | $1.4 | $0.8 | 20 | $3.5 | $2.0 | $1.2 | 27 |
| Northwest Territories | $6.4 | $3.4 | $1.1 | 17 | $8.0 | $4.2 | $1.4 | 21 |
| Nunavut | $1.5 | $0.9 | $0.4 | 7 | $1.8 | $1.1 | $0.5 | 8 |
| Canada | $17,074.5 | $10,528.3 | $6,389.6 | 140,010 | $20,720.8 | $12,783.0 | $7,740.0 | 168,861 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

In 2015, the total GDP contribution of all student expenditures amounted to over $10.5 billion in Canada, when both direct and indirect impacts were considered. Directly and indirectly, the international education sector supported over 140,010 jobs (or 118,640 full-time equivalent (FTE)).

In 2016, the combined direct and indirect GDP contribution of all student expenditures amounted to almost $12.8 billion in Canada, when we take into account not only the sectors directly impacted by international student spending, but also the many other industries in the supply chain of those directly impacted. In terms of employment, 168,860 jobs (the equivalent of 143,150 FTE) were supported. If we assume 10% lower total annual spending by international students, the resulting combined GDP impact would have been $11.4 billion, and $14.1 billion had we assumed 10% higher overall student spending.

#### 3.2.1.2. Long-term students

Table 5 presents the corresponding direct and indirect impacts of international students who stay in Canada for at least six months on the province or territory's output, GDP, employment and labour income.

**Table 5: Direct and indirect economic impacts of international students studying for longer than six months, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Output | GDP | Labour Income | Employment | Output | GDP | Labour Income | Employment |
| Newfoundland and Labrador | $81.2 | $49.7 | $26.1 | 603 | $100.4 | $61.5 | $32.4 | 750 |
| Prince Edward Island | $52.9 | $31.9 | $19.5 | 472 | $72.2 | $43.8 | $26.8 | 646 |
| Nova Scotia | $410.7 | $251.4 | $148.2 | 3,440 | $491.5 | $301.3 | $178.3 | 4,125 |
| New Brunswick | $186.7 | $101.9 | $58.0 | 1,386 | $215.9 | $117.1 | $67.2 | 1,596 |
| Quebec | $2,400.1 | $1,377.8 | $846.3 | 20,902 | $2,762.2 | $1,576.3 | $966.0 | 23,788 |
| Ontario | $7,494.3 | $4,721.1 | $2,849.6 | 58,624 | $9,540.7 | $6,022.0 | $3,635.4 | 74,784 |
| Manitoba | $378.8 | $226.7 | $135.8 | 3,144 | $488.8 | $293.8 | $175.7 | 4,068 |
| Saskatchewan | $269.9 | $149.4 | $78.8 | 1,777 | $335.3 | $185.8 | $98.0 | 2,207 |
| Alberta | $1,233.2 | $699.0 | $404.2 | 7,450 | $1,531.4 | $869.1 | $501.1 | 9,237 |
| British Columbia | $3,323.9 | $2,169.0 | $1,369.4 | 31,929 | $3,895.3 | $2,535.3 | $1,589.6 | 37,021 |
| Yukon | $2.3 | $1.3 | $0.8 | 18 | $3.2 | $1.9 | $1.1 | 25 |
| Northwest Territories | $5.9 | $3.1 | $1.0 | 15 | $7.4 | $3.9 | $1.3 | 19 |
| Nunavut | $1.3 | $0.8 | $0.4 | 6 | $1.7 | $1.0 | $0.5 | 8 |
| Canada | $15,841.2 | $9,783.2 | $5,938.1 | 129,767 | $19,446.1 | $12,012.9 | $7,273.3 | 158,274 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

The values show that the total GDP contribution of students who stayed for at least six months during the year amounted to almost $9.8 billion in 2015 in Canada. In terms of employment, international education services supported almost 129,800 jobs (the equivalent of 110,000 FTE) in Canada.

The comparable values show that the combined direct and indirect GDP contribution of expenditures incurred by long-term students amounted to over $12 billion in 2016 in Canada. In terms of employment, international education services and the goods and services in its supply chain supported 158,300 jobs (the equivalent of 134,170 FTE) in Canada.

#### 3.2.1.3. Languages Canada short-term students

When we take into account the spending of short-term language students who are studying in Languages Canada's private member schools, these international students directly and indirectly contributed an additional $745.1 million to GDP and supported 10,240 jobs (the equivalent of 8,690 FTE) in 2015. The comparable values in 2016 were $770.1 million in GDP contributions and 10,590 jobs (or the equivalent of 8,980 FTE) supported. This is represented in Table 6.

**Table 6: Direct and indirect economic impacts of short-term international language students, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Output | GDP | Labour Income | Employment | Output | GDP | Labour Income | Employment |
| Newfoundland and Labrador | $2.2 | $1.4 | $0.6 | 12 | $2.3 | $1.5 | $0.6 | 12 |
| Prince Edward Island | $1.8 | $1.0 | $0.6 | 17 | $1.9 | $1.1 | $0.6 | 17 |
| Nova Scotia | $26.7 | $16.3 | $9.9 | 245 | $27.6 | $16.8 | $10.2 | 253 |
| New Brunswick | $9.4 | $4.8 | $3.0 | 72 | $9.7 | $5.0 | $3.1 | 74 |
| Quebec | $153.1 | $85.8 | $51.4 | 1,271 | $158.2 | $88.6 | $53.1 | 1,314 |
| Ontario | $523.6 | $316.8 | $191.8 | 4,113 | $541.2 | $327.4 | $198.2 | 4,251 |
| Manitoba | $21.3 | $12.1 | $7.5 | 177 | $22.0 | $12.5 | $7.7 | 183 |
| Saskatchewan | $20.0 | $10.9 | $6.0 | 138 | $20.7 | $11.3 | $6.2 | 143 |
| Alberta | $128.2 | $73.5 | $42.6 | 829 | $132.5 | $75.9 | $44.0 | 857 |
| British Columbia | $346.0 | $222.1 | $138.1 | 3,365 | $357.6 | $229.5 | $142.7 | 3,478 |
| Yukon | $0.2 | $0.1 | $0.1 | 2 | $0.3 | $0.1 | $0.1 | 2 |
| Northwest Territories | $0.6 | $0.3 | $0.1 | 2 | $0.6 | $0.3 | $0.1 | 2 |
| Nunavut | $0.1 | $0.1 | $0.0 | 1 | $0.2 | $0.1 | $0.0 | 1 |
| Canada | $1,233.3 | $745.1 | $451.5 | 10,243 | $1,274.7 | $770.1 | $466.7 | 10,586 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

It should be noted that, even though there were no annual student expenditures in Newfoundland and Labrador or the three territories, as there were no short-term students reported in 2015 or 2016, there were impact values in output, GDP, labour income and employment because of the effect of interprovincial trade.

#### 3.2.1.4. Government tax revenue

In this subsection, we further demonstrate the importance of total spending by international students in terms of its contribution to government revenue. In general, government revenues come from personal income taxes, indirect taxes less subsidies, corporate income taxes and natural resource royalties. In this study, we were able to estimate personal income taxes and indirect taxes.

Indirect taxes incurred in the process of producing outputs and services include both indirect taxes on production (such as property taxes) and indirect taxes on products (such as federal and provincial sales taxes).[18]

Government revenue can be derived by Statistics Canada's expenditure model to calculate the amount of indirect taxes incurred in the process of producing an industry's outputs and services. It should be noted that Statistics Canada's model estimates tax revenue impacts for the combined direct and indirect impacts, and total (direct, indirect and induced impacts) scenarios only.

In addition to indirect taxes, another type of tax revenue generated is income taxes associated with labour income.[19] Statistics Canada's expenditure model did not automatically estimate personal income taxes. Instead, we derived the values by applying the average personal income tax rates in each province and territory to labour income, which is generated in Statistics Canada's expenditure model.

The following three tables show our estimates of the tax revenue impacts, first for all international student spending in a year, and then for annual spending by long-term students and short-term students, respectively.

[18] The types of taxes can be the following: federal trading profits on lottery and race tracks, federal gasoline tax, federal excise tax, federal excise duties, federal environment tax, federal air transportation tax, federal sales tax (GST/HST), provincial wine and liquor gallonage tax, provincial trading profits on liquor and lottery, provincial gasoline tax, provincial amusement tax, provincial environment tax, provincial sales tax, provincial harmonized sales tax (HST), local amusement tax, or local retail sales tax.

[19] Personal income tax values have been derived by applying the average personal income tax rates in each province and territory to labour income. Average personal tax rates have been derived based on data available from Statistics Canada's CANSIM table 384-0040 - Current accounts - Households, provincial and territorial, annual.

**Table 7: Tax revenue impact (direct and indirect) from spending by all international students, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
| Newfoundland and Labrador | $6.1 | $4.6 | $10.6 | $7.5 | $5.6 | $13.1 |
| Prince Edward Island | $3.9 | $3.3 | $7.2 | $5.3 | $4.5 | $9.9 |
| Nova Scotia | $32.7 | $28.4 | $61.1 | $38.0 | $33.9 | $71.9 |
| New Brunswick | $13.8 | $10.0 | $23.8 | $15.2 | $11.5 | $26.8 |
| Quebec | $204.4 | $173.4 | $377.8 | $229.9 | $196.8 | $426.7 |
| Ontario | $616.3 | $538.5 | $1,154.7 | $772.6 | $678.8 | $1,451.3 |
| Manitoba | $29.6 | $24.3 | $53.9 | $38.2 | $31.1 | $69.3 |
| Saskatchewan | $15.8 | $13.7 | $29.4 | $19.3 | $16.8 | $36.1 |
| Alberta | $49.1 | $78.7 | $127.8 | $60.2 | $96.0 | $156.2 |
| British Columbia | $246.4 | $238.8 | $485.3 | $284.4 | $274.5 | $558.9 |
| Yukon | $0.1 | $0.1 | $0.2 | $0.1 | $0.1 | $0.3 |
| Northwest Territories | $0.1 | $0.2 | $0.3 | $0.2 | $0.2 | $0.4 |
| Nunavut | $0.0 | $0.1 | $0.1 | $0.0 | $0.1 | $0.1 |
| Canada | $1,218.3 | $1,114.1 | $2,332.3 | $1,471.0 | $1,350.0 | $2,821.0 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 8: Tax revenue impact (direct and indirect) from spending by international students studying longer than six months, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
| Newfoundland and Labrador | $6.0 | $4.5 | $10.5 | $7.4 | $5.5 | $13.0 |
| Prince Edward Island | $3.7 | $3.2 | $6.9 | $5.2 | $4.4 | $9.6 |
| Nova Scotia | $29.9 | $26.6 | $56.5 | $35.1 | $32.0 | $67.1 |
| New Brunswick | $13.2 | $9.5 | $22.7 | $14.6 | $11.0 | $25.6 |
| Quebec | $190.4 | $163.5 | $353.8 | $215.4 | $186.6 | $402.0 |
| Ontario | $563.5 | $504.5 | $1,068.1 | $718.1 | $643.7 | $1,361.8 |
| Manitoba | $27.9 | $23.0 | $51.0 | $36.5 | $29.8 | $66.3 |
| Saskatchewan | $14.3 | $12.7 | $27.0 | $17.8 | $15.8 | $33.6 |
| Alberta | $42.0 | $71.2 | $113.2 | $52.8 | $88.3 | $141.1 |
| British Columbia | $211.8 | $217.0 | $428.8 | $248.7 | $251.9 | $500.5 |
| Yukon | $0.1 | $0.1 | $0.2 | $0.1 | $0.1 | $0.2 |
| Northwest Territories | $0.1 | $0.2 | $0.3 | $0.2 | $0.2 | $0.4 |
| Nunavut | $0.0 | $0.1 | $0.1 | $0.0 | $0.1 | $0.1 |
| Canada | $1,103.0 | $1,036.1 | $2,139.0 | $1,351.8 | $1,269.4 | $2,621.2 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 9: Tax revenue impact (direct and indirect) from spending by short-term international language students, by province and territory, 2015 and 2016 ($millions)**

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
| Newfoundland and Labrador | $0.0 | $0.1 | $0.1 | $0.0 | $0.1 | $0.2 |
| Prince Edward Island | $0.2 | $0.1 | $0.3 | $0.2 | $0.1 | $0.3 |
| Nova Scotia | $2.9 | $1.8 | $4.6 | $2.9 | $1.8 | $4.8 |
| New Brunswick | $0.6 | $0.5 | $1.1 | $0.7 | $0.5 | $1.2 |
| Quebec | $14.1 | $9.9 | $24.0 | $14.5 | $10.3 | $24.8 |
| Ontario | $52.7 | $34.0 | $86.7 | $54.5 | $35.1 | $89.6 |
| Manitoba | $1.6 | $1.3 | $2.9 | $1.7 | $1.3 | $3.0 |
| Saskatchewan | $1.4 | $1.0 | $2.4 | $1.5 | $1.0 | $2.5 |
| Alberta | $7.1 | $7.5 | $14.6 | $7.4 | $7.7 | $15.1 |
| British Columbia | $34.6 | $21.9 | $56.5 | $35.8 | $22.6 | $58.4 |
| Yukon | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| Northwest Territories | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| Nunavut | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| Canada | $115.3 | $78.0 | $193.3 | $119.2 | $80.6 | $199.8 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

The total tax revenue generated by indirect taxes and personal income taxes associated with international student spending in 2015 was estimated to be $2.3 billion, when direct and indirect impacts were combined.

The total tax revenue contributed to all levels of government as a result of international student expenditures was more than $2.8 billion in Canada in 2016, when direct and indirect impacts were combined. If we assume 10% higher overall spending by international students, the tax revenue impact would have been $3.1 billion, and $2.5 billion if we assume 10% lower student spending.

# 4. International students and Canada's export

Because international student expenditures represent revenue from goods and services from overseas, this representation of international student spending is an export of international education services from Canada.

In this section, we compare the value of international education services, as measured by total spending in Canada, with the total export of services and merchandise from Canada. We also provide a comparison of the total value of international student spending by the top 10 source countries with the value of Canada's exports to these countries.

In Canada's official account of the balance of payment, spending by international students is captured under "education-related personal travel," which is part of Canada's total export in services. We believe that Statistics Canada's estimate of education-related personal travel may be underestimating the true value of total spending by international students and therefore present an alternate way of evaluating such spending in this report. For a detailed description of how to reconcile these two sets of estimates, please refer to Appendix 4.

## 4.1. Spending by international students and Canada's trade

In 2015, the total value of international student spending in Canada was over $12.8 billion. When compared with Canada's total export of services in 2015, which includes spending by international students and was worth $102.3 billion, international student expenditures equal 12.5% of the total value of Canada's service exports. The total value of international student spending in 2016 was over $15.5 billion in Canada, an increase of 21.2% from 2015. By contrast, Canada's total export of services in 2016 grew 5.0% from the year before.[20] The value of international student expenditures accounted for 14.5% of Canada's total value of export of services.

In comparison, the total value of international student spending was almost $11.4 billion in 2014. When compared with Canada's total export of services in 2014, $95.7 billion, international student expenditures equalled 10.9% of the total value of Canada's service exports.

Canada is known for its exports from resource sectors like oil, natural gas, logging and forestry. Few people realize that international student spending also makes a substantial contribution. In 2015, the total amount of international student spending surpassed the value of Canada's exports in liquefied petroleum or hydrocarbon gases ($11.8 billion), helicopters, airplanes and spacecraft ($10.6 billion), lumber (>6mm) ($8.9 billion) and wheat ($7.9 billion). The total amount of

[20] Canada's export in services reported in CANSIM table 376-0108 - International transactions in services, by category, (dollars).

international student spending in 2015 equalled about 2.4% of the total value of Canada's merchandise exports. This information is depicted in tables 10 and 11.

**Table 10: Comparison of international education services, as measured by total spending by international students, with other top merchandise exports from Canada, 2015**

| | Exports of Goods ($billions) |
|---|---|
| **Crude petroleum oils and oils obtained from bituminous minerals** | $64.1 |
| **Motor vehicles for passenger transport (other than buses/public transport)** | $57.3 |
| **Gold** | $15.9 |
| **Preparations of/non-crude petroleum oils and oils obtained from bituminous minerals** | $14.6 |
| **Motor vehicle parts (excl. body, chassis and engines)** | $14.0 |
| ***International education services*** | *$12.8* |
| **Liquefied petroleum or hydrocarbon gases** | $11.8 |
| **Helicopters, airplanes and spacecraft** | $10.6 |
| **Lumber (thickness >6mm)** | $8.9 |
| **Medicaments - put up in measured doses or packed for retail use** | $8.5 |
| **Wheat** | $7.9 |
| **Total merchandise exports** | $524.0 |

*Source: RKA and Industry Canada*

**Table 11: Comparison of international education services, as measured by total spending by international students, and Canada's service and merchandise exports, 2015**

| | Value | International Student Spending as % of Exports |
|---|---|---|
| **Total annual spending – all international students** | **$12.8 billion** | |
| **Canada's exports in services** | $102.3 billion | 12.5% |
| **Canada's exports in merchandise** | $524.0 billion | 2.4% |

*Source: RKA, Statistics Canada Table 376-0036 and Industry Canada*

In 2016, the total amount of international student spending surpassed the value of Canada's exports in lumber (>6mm) ($10.3 billion), liquefied petroleum or hydrocarbon gases ($10.3 billion), helicopters, airplanes and spacecraft ($8.2 billion), and wheat ($6.0 billion). Total international student spending in 2016 equalled about 3.0% of the total value of Canada's merchandise exports. This is shown in tables 12 and 13.

**Table 12: Comparison of international education services, as measured by total spending by international students, with other top merchandise exports from Canada, 2016**

| | Exports of Goods ($billions) |
|---|---|
| **Motor vehicles for passenger transport (other than buses/public transport)** | $64.7 |
| **Crude petroleum oils and oils obtained from bituminous minerals** | $52.4 |
| **Gold** | $16.5 |
| ***International education services*** | *$15.5* |
| **Motor vehicle parts (excl. body, chassis and engines)** | $14.1 |
| **Preparations of/non-crude petroleum oils and oils obtained from bituminous minerals** | $10.8 |
| **Lumber (thickness >6mm)** | $10.3 |
| **Liquefied petroleum or hydrocarbon gases** | $10.3 |
| **Medicaments - put up in measured doses or packed for retail use** | $9.8 |
| **Helicopters, airplanes and spacecraft** | $8.2 |
| **Turbojets, turbo-propellers and other gas turbines** | $6.9 |
| **Total merchandise exports** | $517.0 |

*Source: RKA and Industry Canada*

**Table 13: Comparison of international education services, as measured by total spending by international students, and Canada's service and merchandise exports, 2016**

| | Value | International Student Spending as % of Exports |
|---|---|---|
| **Total annual spending – all international students** | **$15.5 billion** | |
| **Canada's exports in services** | $107.4 billion | 14.5% |
| **Canada's exports in merchandise** | $517.0 billion | 3.0% |

*Source: RKA, Statistics Canada Table 376-0036 and Industry Canada*

## 4.2. The trade impact of international students from top 10 source countries

In the international student market, the top 10 source countries account for almost three quarters of the overall number of students.[21] China, India and South Korea are the top three source countries for long-term students. Japan and Brazil are the top two source countries for short-term students.

In terms of source countries, the number of students from China accounted for about a third of the total number of the long-term students. In fact, students from the top three source countries (China, India and South Korea) accounted for a little over half of all long-term students.

Brazil and Japan are the two top countries for students studying in short-term language training programs in Canada. Students from the top 10 source countries accounted for over 86% of all such students. Detailed information on source countries can be found in appendices 5 and 6.

In 2015, the total value of international student spending was over $12.8 billion. The value of spending by students from the top 10 countries was $9.6 billion. By 2016, the value of such spending from the top source countries increased to $11.7 billion, up 22.9%. Among these top 10 international student source countries, most of the increase in spending was by students from India ($1.1 billion increase in spending in 2016 over 2015) and China (up by $715.2 million). In terms of percentage increase, spending by students from three countries stood out: India (up 65.7%), Vietnam (up 56.3%) and Brazil (up 18.3%).

For the top 10 source countries, in 2015, the value of international education services, as measured by the total spending by students from these countries, represented 14.5% of total service exports and 2.1% of Canada's merchandise exports to these countries. By 2016, the value of total spending by international

[21] The top 10 source countries are ranked based on the number of long-term international students in Canada in 2015 and 2016. These can be found in table 45 and 61 in appendices 5 and 6.

students from these countries represented 17.2% of total service exports and 2.7% of Canada's merchandise exports to these countries.

**Table 14: Comparison of annual spending by international students from the top 10 source countries and Canada's service and merchandise exports, 2015**

| | Value | International Student Spending as % of Exports |
|---|---|---|
| **Total annual spending – international students from top 10 source countries** | **$9.6 billion** | |
| **Canada's exports in services to the same countries** | $66.1 billion | 14.5% |
| **Canada's exports in merchandise to the same countries** | $448.2 billion | 2.1% |

*Source: RKA, Statistics Canada Table 376-0036 and Industry Canada*

**Table 15: Comparison of annual spending by international students from the top 10 source countries and Canada's service and merchandise Exports, 2016**

| | Value | International Student Spending as % of Exports |
|---|---|---|
| **Total annual spending – international students from top 10 source countries** | **$11.8 billion** | |
| **Canada's exports in services to the same countries** | $68.5 billion | 17.2% |
| **Canada's exports in merchandise to the same countries** | $442.0 billion | 2.7% |

*Source: RKA, Statistics Canada Table 376-0036 and Industry Canada*

# 5. Trends in international student enrolment and economic impacts in Canada

Roslyn Kunin and Associates (RKA) has so far helped to prepare estimates of international student spending and the associated economic impacts in five years – 2008, 2010, 2014, 2015 and 2016 – in four separate studies, dated 2009, 2012, 2016 and 2017. While the studies prepared in 2016 and 2017 essentially follow the same methodological approach as the earlier reports prepared in 2009 and 2012, there are differences in the data sources, assumptions and the model specification, in addition to the use of more recent data for impact estimates in 2014 through 2016. Nevertheless, readers will be able to gain knowledge of the magnitude of the impacts.

In this section, we show comparable values, where applicable, and highlight the trends of international student enrolment and the growing economic impacts of these students on Canada's economy.

## 5.1. Comparison of student enrolment

Table 16 below shows how international student enrolment evolved from 2008 to 2016.

**Table 16: Comparing the number of international students in Canada, 2008, 2010 and 2014-2016**

| | Long-Term Students | Short-Term Students | All Students |
|---|---|---|---|
| **2008** | 178,227 | 101,943 | 280,170 |
| **2010** | 218,245 | 110,157 | 328,402 |
| **2014** | 330,706 | 107,451 | 438,157 |
| **2015** | 345,793 | 112,036 | 457,828 |
| **2016** | 408,176 | 115,796 | 523,971 |

Between 2008 and 2016, the number of international students studying in Canada increased by 87.0%, or at an average annual rate of 8.1%. The increase is mainly attributed to the number of long-term students, those who study for longer than six months in a given year. Enrolment in this category of students more than doubled between 2008 and 2016, growing at 10.9% per year.

Between 2015 and 2016, the number of international students grew an impressive 14.4%, most of which was the results of an increase in long-term students from India studying at the college level.

## 5.2. Comparison of overall spending 2008, 2010 and 2014-2016

Table 17 below depicts the values of total annual spending by international students.

**Table 17: Comparing the annual total spending by international students in Canada, 2008, 2010 and 2014-2016**

| | All Students |
|---|---|
| 2008 | $6.5 billion |
| 2010 | $8.0 billion |
| 2014 | $11.4 billion |
| 2015 | $12.8 billion |
| 2016 | $15.5 billion |

Between 2008 and 2016, the total annual international student spending more than doubled, from $6.5 billion in 2008 to more than $15.5 billion in 2016. This represents an 11.4% increase per year. Between 2014 and 2016, the rate of growth in overall student spending (16.9% per year on average) is significantly higher than the growth in previous years.

## 5.3. Comparison of combined direct and indirect impacts, 2014-2016

This subsection summarizes the combined direct and indirect economic impacts of international students in Canada between 2014 and 2016. We note that, in the 2009 study and 2012 update on impacts in 2008 and 2010, respectively, only direct economic impacts were reported; therefore, the impact values were not comparable.

**Table 18: Comparing the combined direct and indirect economic impacts of international students in Canada, 2014-2016**

| | 2014 | 2015 | 2016 | Percentage Change 2014-2016 |
|---|---|---|---|---|
| **GDP** | $9.3 billion | $10.5 billion | $12.8 billion | +37% |
| **Jobs** | 122,680 | 140,010 | 168,860 | +38% |
| **Tax revenue** | $2.1 billion | $2.3 billion | $2.8 billion | +35% |

As noted in the table, the combined direct and indirect GDP impact of international student spending increased 37.2% between 2014 and 2016, which equals an annual growth rate of 17.1%. International student spending directly and indirectly supported 168,860 jobs in Canada in 2016, an increase of 38% over 2014. Government tax revenue derived from international student spending rose from $2.1 billion in 2014 to $2.8 billion in 2016, an increase of 34.6%.

## 5.4. Comparison of overall spending and Canada's trade

Table 19 below summarizes and compares the value of spending by all international students with the overall values of Canada's export in 2008, 2010, 2014, 2015 and 2016.

It should be noted that the value of overall international student spending as a percentage of the total value of Canada's exports in services was not provided in the reports that RKA prepared in 2009 or 2012, but has been added to the table below. Furthermore, the value of overall international student spending as a percentage of Canada's total exports in merchandise in the table below are different from those reported in previous studies to show that all student expenditures (including those of short-term students) have been accounted for.

**Table 19: The increasing role of international students' spending of International Students in Canada's trade, 2008, 2010 and 2014-2016**

| | 2008 | 2010 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Spending by all international students as % of Canada's service exports** | 8.2% | 10.2% | 11.9% | 12.5% | 14.5% |
| **Spending by all international students as % of Canada's merchandise exports** | 1.4% | 2.0% | 2.2% | 2.4% | 3.0% |

To put international students' economic impact into context, it was important to review the changes to the impacts created by international students in some of

Canada's competitive international education markets where data was available. Since our study on the economic impacts of international students was released in 2016, the following countries have also released more up-to-date analyses of international students and their economic impacts in the host countries: the U.S., the U.K., Australia and New Zealand.

According to the latest Institute of International Education (IIE) Open Doors data and NAFSA (Association of International Educators) analysis, in the U.S., international students in higher education institutions added US$30.5 billion to the U.S. economy in 2015 and US$32.8 billion in 2016. This is in comparison with the US$27 billion in exports added to the U.S. economy in 2014.

A U.K. study published in 2014 evaluated the contribution of post-secondary international education using data for the 2011-2012 academic year.[22] Non-U.K. students directly contributed £10.71 billion to the U.K.'s exports. A recent update indicated that international students were responsible for £10.8 billion of the U.K.'s export earnings in the 2014-2015 academic year.[23]

In Australia, it is reported that "in 2016 preliminary export data shows international education exports hit a record AUS$21.8 billion, making it Australia's third largest export after iron ore and coal".[24] This estimated export value of international education followed the release of "data from the Australian Bureau of Statistics reveal(ing) that Australia's education export income reached AUS$19.65 billion in 2015",[25] representing an increase of 11.5% over 2014. In fact, based on global education data from OECD, "Australia was the third most popular study destination for international students after the US and UK and one of the few major destination countries to increase its global market share over the last decade".[26] However, compared with values in the U.S. and U.K. studies, it should be noted that the export values of international education in Australia include not only the spending of international students in formal post-secondary training, but also in grade schools, English Language Intensive Courses for Overseas Students (ELICOS), vocational education and training (VET), and other non-award students.

In New Zealand, the most recent study of the impacts of international education in the 2015-2016 academic year indicates that the sector was responsible for NZ$3.8 billion in foreign exchange earnings. The student cohort in the study included those in grade schools, institutes of technology, polytechnics, wānanga (ITP), universities, English language schools and other private tertiary establishments (PTE). This is in comparison with the approximately

[22] Universities UK, 2014. "The Impact of Universities on the UK economy."
[23] Universities UK (March 2017): *The Economic Impact of International Students*.
[24] Cited in an ICEF Monitor briefing dated February 24, 2017: http://monitor.icef.com/2017/02/foreign-enrolment-hits-new-record-australia/.
[25] Cited in an ICEF Monitor briefing dated February 9, 2016: http://monitor.icef.com/2016/02/australian-education-exports-top-aus19-billion-in-2015/.
[26] Cited in an ICEF Monitor briefing dated February 9, 2016: http://monitor.icef.com/2016/02/australian-education-exports-top-aus19-billion-in-2015/.

NZ$2.5 billion in export earnings in the 2012-2013 academic year. It should be noted, however, that “total student spending over the last two years outstripped the growth in spending on tuition fees and the growth in student numbers”.[27] The explanation for the increase relates to the change in methodology, in addition to price inflation.

[27] Infometrics, National Research Bureau (2016), *The Economic Impact of International Education in New Zealand 2015/16*.

# 6. Conclusions

This report provides an estimate of economic impacts in Canada in 2015 and 2016, and serves as an update to the previous valuations prepared for Global Affairs Canada for the years 2008, 2010 and 2014. The report is mainly based on IRCC data on international students studying in Canada for longer than six months and Languages Canada data for short-term students. Several other secondary sources have been used to collect information to estimate the quantitative impact of international students on Canada's economy.

In addition to capturing the economic impacts of spending on tuition, fees and basic living expenses, we also captures additional tourism-related activities associated with visiting family and friends. The analysis also accounts for scholarships and bursaries provided by Canadian governments (federal and provincial), universities and other Canadian institutions in estimating net expenditures by international students in Canada.

- Our analysis clearly indicates that the contributions that international students make to Canada's economy are continuing to grow. In line with an increasing number of international students, overall spending more than doubled between 2008 and 2016, from $6.5 billion to $15.5 billion, representing an increase of 11.4% per year.
- We estimate that in 2015 and 2016, international students in Canada spent over $12.8 billion and $15.5 billion, respectively, on tuition, accommodations and discretionary spending, which represents a 36.6% increase from the $11.4 billion spent in 2014.

  This significantly higher level of annual spending resulted in $10.5 billion and $12.8 billion contributions to Canada's GDP in 2015 and 2016, respectively, a significant increase over the $9.3 billion contribution in 2014.
- The amount of overall annual spending by international students also generated $2.3 billion to $2.8 billion in tax revenues and supported 140,010 to 168,860 jobs in the Canadian economy in 2015 and 2016, respectively, significantly up from the $2.1 billion in tax revenue and 122,680 jobs in 2014.
- In 2016, Canada's international education services ($15.5 billion) amounted to 14.5% of Canada's total service exports to the world, and equalled 3.0% of Canada's total merchandise exports. The top 10 source countries accounted for $11.8 billion in international student spending, which translated to 17.2% of total exports of services, or 2.7% of total merchandise exports to these countries from Canada.[28]

[28] It should be noted that Statistics Canada reports that the export value of Canada's education-related travel services was $5.827 billion in 2015. The analysis in this report built on this number by exploring and adding other areas of export revenues, such as K-12 students and Languages Canada's short-term students.

- In 2016, long-term students accounted for 93.5% of the total amount of spending by international students, they contributed $12.0 billion to Canada's GDP and they supported 158,300 jobs. Ontario accounts for the largest share of contributions to GDP (50.1%) and jobs (47.2%). Short-term students contributed $770.1 million to Canada's GDP and supported 10,600 jobs.
- Based on sensitivity analyses, we estimate that a 10% increase in spending by international students in 2016 would translate into $17.1 billion in student expenditure, a $14.1 billion contribution to GDP and support for 185,700 jobs. Similarly a decrease of 10% in spending by international students in 2016 would result in a $13.9 billion decrease in total student expenditures, bring down the GDP contribution by $11.4 billion, and decrease the number of jobs supported to about 150,800.

# References


Australian Council for Private Education and Training (ACPET) (2009). "The Australian Education Sector and the Economic Contribution of International Students."

Australian Council for Private Education and Training (ACPET) (2013). The Economic Contribution of International Students. Prepared by Deloitte Access Economics. http://www.acpet.edu.au/uploads/files/Reports_Submissions/2013/Economic-Contribution-Executive-Summary.pdf.

Association of Universities and Colleges of Canada (AUCC) (2007). Canadian universities and international student mobility. http://www.aucc.ca/_pdf/english/publications/student_mobility_2007_e.pdf

Association of Universities and Colleges of Canada (AUCC) (2011). Trends in Higher Education – Enrolment. http://www.aucc.ca/wp-content/uploads/2011/05/trends-2011-vol1-enrolment-e.pdf

British Columbia Ministry of Advanced Education (2006). "Economic Impact of International Education at Public Post-Secondary Institutions."

Campus France (2014). Beyond Influence: the Economic Impact of International Students in France. http://www.campusfrance.org/en/resource/beyond-influence-economic-impact-international-students-france.

Canadian Association of Public Schools – International (CAPSI) (2015). "A Comparative Market Assessment of International K-12 Students in Canada."

Canadian Bureau of International Education (2007). "Northern Lights."

Canadian Bureau of International Education (2009). Canada First – The 2009 Survey of International Students.

Citizenship and Immigration Canada (no date). "Competitor Research."

Citizenship and Immigration Canada (2007). Facts and Figures 2007: Immigration Overview – Permanent and Temporary Residents. http://www.cic.gc.ca/english/pdf/pub/facts2007.pdf (accessed July 8, 2009).

Citizenship and Immigration Canada (2011). Facts and Figures 2010: Immigration Overview – Permanent and Temporary Residents. http://www.cic.gc.ca/english/resources/statistics/menu-fact.asp.

Conference Board of Canada (1999). "The Economic Implications of International Education for Canada and Nine Comparator Countries."

Conference Board of Canada (2006). "Opportunity Begins at Home: Enhancing Canadian Commercial Services Exports."

Council for Higher Education Accreditation, American Council on Education, Association of Universities and Colleges Canada, and the International Association of

Universities. ”Sharing Quality Higher Education Across Borders: A Checklist for Good Practice.”

Dalhousie University, School of Public Administration (2010). The Economic of Post-Secondary International Students in Atlantic Canada: An Expenditure Analysis.

Department of Foreign Affairs and International Trade Canada (no date). “Growth in Foreign Student Expenditures in Canada.”

Department of Foreign Affairs and International Trade Canada (2007). “Canadian Economic Performance.”

German Academic Exchange Service (2013). The Financial Impact of Cross-border Student Mobility on the Economy of the Host Country. Prepared by Prognos AG. https://eu.daad.de/medien/eu/publikationen/erasmus/englische_studie.pdf.

Government of Manitoba International Education Branch (2007). “2006-2007 Annual Report.”

Group of Eight Australia (2014). Policy Note: International Students in Higher Education and their Role in the Australian Economy. https://go8.edu.au/sites/default/files/docs/publications/international_students_in_higher_education_and_their_role_in_the_australian_economy.pdf.

Immigration, Refugees and Citizenship Canada (IRCC). “Facts and Figures – Immigration Overview: Temporary Residents.” http://www.cic.gc.ca/english/pdf/2014-Facts-Figures-Temporary.pdf.

Illuminate Consulting Group (ICG) (2015). A Comprehensive Market Assessment of International K-12 Students in Canada. For the Canadian Association of Public Schools – International (CAPS-I).

Infometrics (2006). The Economic Impact of Foreign Fee-Paying Students, Report prepared for Ministry of Education (New Zealand).

Informetrics, NRB (2016). The Economic Impact of International Education 2015/16, for Education New Zealand.

Informetrics, NRB (2013). The Economic Impact of International Education 2012-2013, for Education New Zealand. http://enz.govt.nz/sites/public_files/Economic%20Value%20of%20International%20Education.pdf.

Informetrics, NRB & Skinnerstrategic (2008). The Economic Impact of Export Education.

Institute for the Study of International Migration (2007). “Foreign Students Coming to America.”

Institute of International Education (2010). Press Release http://www.iie.org/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2010/2010-11-15-Open-Doors-International-Students-In-The-US.

King, Russel et.al. (2010) International student mobility literature review. http://www.britishcouncil.org/hefce_bc_report2010.pdf.

NAFSA (2010). The Economic Benefits of International Education to the United States for the 2009-2010 Academic Year: A Statistical Analysis.

Naidoo, Vikash (2005). Bridging The Gap Between Anecdotal and Empirical Evidence In The International Education Market: Insights From The US and UK.

Skills Research Initiative (2006). "Structural Incentives to Attract Foreign Students to Canada's Post-Secondary Educational System: A Comparative Analysis."

Seldon, James R. (2005). The Economic Impact of Thompson River University's International Students on the Kamloops Economy: 2005-06, Thompson River University, October.

Statistics Canada (2000). Canada's Balance of International Payments and International Investment Position Concepts, Sources, Methods and Products. Catalogue no. 67-506-XIE. http://www.statcan.gc.ca/pub/67-506-x/67-506-x2000001-eng.pdf (accessed July 4, 2009).

Statistics Canada (2005). Canada's International Trade in Services – Data quality, concepts and methodology. Catalogue no. 67-203. http://www23.statcan.gc.ca/imdb-bmdi/document/1536_D2_T9_V1-eng.pdf (accessed August 25, 2017).

Statistics Canada (2008). International Travel, 2007. Catalogue no. 66-201-XWE. http://www.statcan.gc.ca/pub/66-201-x/2007000/tablesectlist-listetableauxsect-eng.htm.

Statistics Canada (2010). International Travel, 2009. Catalogue no. 66-201-X. http://www.statcan.gc.ca/pub/66-201-x/66-201-x2009000-eng.pdf.

The Observer (2007). "Costs deter foreign students," The Observer, September 16, 2007.

Verbik, Line and Veronica Lasanowski (2007). International Student Mobility: Patterns and Trends.

UNESCO Institute for Statistics (2010). *Global Education Digest 2010: Comparing Education Statistics Across the World*. http://unesdoc.unesco.org/images/0018/001894/189433e.pdf.

Universities U.K. (2014). The Impact of Universities on the UK Economy. http://www.universitiesuk.ac.uk/highereducation/Documents/2014/TheImpactOfUniversitiesOnTheUkEconomy.pdf.

World Education Services (WES) (2015). "International Student Mobility Trends 2015: An Economic Perspective." http://wenr.wes.org/2015/02/international-student-mobility-trends-2015-an-economic-perspective/.

## Website references

### *General*

High School Study Abroad: www.highschoolprogramsabroad.com

Canadian Federation of Students: http://www.cfs-fcee.ca/html/english/research/factsheets/factsheet-intl-undergrad.pdf

Schools in Canada: www.schoolsincanada.com

Australian Council for Private Education and Training: http://www.acpet.edu.au/index.php?option=com_content&task=view&id=183&Itemid=108

Canadian Association of Private Language Schools: http://www.vec.ca/english/1/capls.cfm

Languages Canada: http://www.languagescanada.ca/

Edudata Canada: http://www.edudata.educ.ubc.ca/about_us/about_us_project.htm

Canadian Council on Learning: http://www.ccl-cca.ca/CCL/Home?Language=EN

Citizenship and Immigration Canada: www.cic.gc.ca

Department of Foreign Affairs and International Trade: www.dfait.gc.ca

Statistics Canada: www.statcan.gc.ca

Trade Data Online: http://www.ic.gc.ca/sc_mrkti/tdst/tdo/tdo.php#tag

Thompson Rivers University: http://www.tru.ca/

Association of Universities and Colleges of Canada: http://www.aucc.ca/policy/research/index_e.html

***Student expenses***

University of Toronto: http://www.utoronto.ca/about-uoft/measuring-our-performance/cudo/cudo_2008/annualexpenses.htm

University of Ontario Institute of Technology: http://www.uoit.ca/EN/main/11259/oira/cudo2008/htmlSectionG.html

Bishop's University: http://www.ubishops.ca/int-exch/int/fees.html

Fleming College: http://www.flemingc.on.ca/index.cfm/go/international/sub/costs.cfm

National Student Loan Service Centre: https://nslsc.canlearn.ca/eng/default.aspx

Study in Ontario: http://www.studyinontario.com/en/st_tuition.php

Yukon College International: http://www.yukoncollege.yk.ca/international/future-students/fees-costs.php

Manitoba International Education – Tuition and Fees: http://www.gov.mb.ca/ie/study/tuition.html

Nunavut Arctic College: http://www.arcticcollege.ca/students/intlstudents_eng.aspx

Study in Alberta: Catalogue of International Student Programs for Kindergarten to Grade 12. http://www.studyinalberta.ca/media/63032/cs3_abed_inted_k-12catalogue_finalrev2%20web.pdf

Saskatoon: http://www.saskatooninternational.com/

Regina: http://international.rbe.sk.ca/tuition_fees

Prince Edward Island: http://www.gov.pe.ca/eecd/index.php3?number=1027953&lang=E

Canada Homestay Network:
http://www.canadahomestayinternational.com/studentsservices.html

Toronto School Fees:
http://www.tdsb.on.ca/wwwdocuments/programs/international_students/docs/Tuition%20Fee%20and%20Refund%20Policy%20ENGLISH%2011-12.pdf

Schools in Canada: http://www.schoolsincanada.com/index.cfm

School fees in Montreal:
http://www.emsb.qc.ca/en/services_en/pages/registration_en.asp

***Performances of the international education services sector***

"Canada Losing Out on Student Revenue," Vancouver Sun, March 27, 2006:
http://www2.canada.com/vancouversun/news/business/story.html?id=c0db1f52-0062-498c-8e29-7e5a14d9e69c.

"The Role of International Education," BC Progress IT Services Board:
http://www.bcprogressboard.com/2005Report/EducationReport/Education_Final.pdf.

"More overseas students 'found,'" BBC, May 21, 2009:
http://news.bbc.co.uk/2/hi/uk_news/education/8060219.stm.

UNESCO Institute for Statistics:
http://stats.uis.unesco.org/unesco/ReportFolders/reportFolders.aspx.

***Provincial ministries***

Manitoba International Education Branch: http://www.gov.mb.ca/ie/index.html

Study in Alberta: http://www.studyinalberta.ca/

Study in Ontario: http://www.studyinontario.com/en/home.php

Quebec's Ministère de l'Éducation, du Loisir et du Sport: www.mels.gouv.qc.ca

***Provincial associations***

BC Council for International Education: http://bccie.bc.ca/bccie/factsfigs.php

EduNova: http://edunova.ca/?lang=eng

# Appendix 1: Detailed explanation of data sources and adjustments

**Number of international students**

As noted in Section 2, Data sources and methodology, a comprehensive data set representing "internationally mobile students" in Canada cannot be found in existing data sources. Therefore, we sought an alternate data set: the number of "foreign students" as a proxy to represent international students in Canada.

IRCC defines foreign students as follows:

> Temporary residents who entered Canada mainly to study and have been issued a study permit (with or without other types of permits). A study permit is an official document issued by an officer that allows someone who is not a Canadian citizen or a permanent resident to study in Canada. In general, a study permit is not needed for any program of study that is six months or less. For statistical purposes, a temporary resident is designated as a foreign student on the basis of IRCC's determination of his or her "yearly status" – the main reason for which the person has been authorized to enter and stay temporarily in Canada during the year of observation. Foreign students exclude temporary residents who have been issued a study permit but who entered Canada mainly for reasons other than study.

There are three broad levels of study for foreign students.

a. Secondary or less: secondary school and elementary school
b. Post-Secondary: which is further divided into
    - CEGEP
    - College education
    - University education
    - Others
c. Other studies.

The IRCC data therefore allows us to use the number of study permit holders as a proxy for the number of international students at a given time in a year. It also allows for a distinction to be made between broad levels of study.

One limitation of using the IRCC data set to represent the number of international students is that the actual number of permit holders registered at a Canadian institution may be smaller than the number of permits issued due to the fact that some permit holders may not be able to, or have chosen not to, enrol in an education program.

One of the adjustments we have made includes removing a portion of student permit holders in the "secondary or less" category, who are assumed to be children whose parents are enrolled in some post-secondary education program.

The adjustment is based on industry information, as reported in the 2015 ICG report for CAPS-I.

These students have been further allocated to studying in public or independent K-12 school systems based on industry intelligence.

The allocation of student permit holders in the post-secondary system to finer categories of trade, college, under-graduate, master's, PhD and other type of programs is based on IRCC information and data in Statistics Canada's CANSIM data series (Table 477-0019).

Further allocation of registration status in full-time and part-time study for each type of students has been based on Statistics Canada's CANSIM data series (Table 477-0019).

Finally, another important source of international students that is not covered in the IRCC data is the number of students who study in Canada for periods of less than six months, as they do not require a study permit to enter the country. In this regard, Languages Canada collects data that is useful for our purposes.

Languages Canada administers an annual survey with its member schools to collect data on such topics as the source of students, immigration status, the length of study, the students' average weekly spending and other variables. On Languages Canada's advice, we sought data related to international students studying in its private membership schools only, as the number of those studying in its public membership schools would have been represented in IRCC's dataset.

We made further adjustments to calculate the average number of student-weeks for students studying for up to six months in each province and territory.

It should be noted that at the time this report was being prepared, no detailed information on short-term students, as represented by the number of students in Languages Canada's membership schools, was available for 2016. The number of short-term students in 2016 was estimated, based on the annual percentage increase of Languages Canada membership students between 2014 and 2015. It should be noted that since the completion of this report, Languages Canada has released the 2016 data and our estimates of the number of short-term students were slightly higher (2%).[29]

## Student expenditures

### Tuition and fees

For tuition and other fees at the K-12 level, we relied on information published in the CAPS-I report. Note that these are based on tuition and fees in a school year (10 months). Tuition and fees in private schools can be substantially higher. In

[29] Note that IRCC collects data on short-term students from some countries (SX-1 Visa holders). However, these numbers are small and not captured in this study.

this regard, we also used information available from the CAPS-I report to calculate the average annual tuition and fees for international students in private schools.

Detailed information on tuition and fees for full-time university-level international students in each province is available in Statistics Canada's annual Tuition and Living Accommodation Costs (TLAC) survey. Note that the TLAC does not provide any data for the territories.

When deriving student tuition and fees for the four levels of study other than "secondary or less" (i.e. post-secondary, which is further divided into trade/college, university, other post-secondary and other), we made the following assumptions:

- University – We applied separate undergraduate and graduate tuition values from the TLAC to full-time undergraduate students and students in master's/PhD programs.[30]

  Part-time students were assumed to take a 50% course load for the purposes of calculation.

  In addition to tuition, we have included "additional fees," which represent the compulsory fees the universities impose on both domestic and international students, such as facility fees, society fees, health and dental fees (for international students only), student pass fees in some cases, and others. We also made an allowance of $1,200 per academic year for books/tools/materials.

  Tuition and fees are for an academic year (i.e. eight months) in the TLAC data, but for the purposes of this study, we have assumed that 10% of students study 12 months of the year.

- Trade/college and other post-secondary – For full-time tuition, we applied a factor of 75% to the average university undergraduate tuition in each province. The 75% is an approximation based on web research conducted for select college programs in each province to see how they compare to the full-time tuition for an undergraduate program.

  For part-time students, we assumed a 50% course load.

[30] Detailed data on tuition for full-time undergraduate and graduate students can be found in tables 47 and 48, as well as in tables 63 and 64, in appendices 5 and 6. It should be noted that setting tuition and fees in public post-secondary institutions is generally a provincial/territorial responsibility. As such, the level of tuition shown in these data tables does not necessarily reflect the true cost of educational programs in these provinces and territories.

It should also be noted that, in the release of TLAC data, since 2010-2011, regular and executive MBA (master of business administration) programs have been excluded from the national and provincial weighted averages due to their high costs and their effect on the overall tuition fee average. Dental, medical and veterinary residency programs offered in teaching hospitals and similar locations that may lead to advanced professional certification have also been excluded.

We also assumed that international students in "trade," "college" and "other post-secondary" levels of study pay on average the same percentage (75%) of "additional fees" as university-level international students. We also made the same allowance for books/equipment requirement ($1,200) in a year.

For international college students in the territories, tuition and fees information was derived from colleges' websites.

- Other – since we did not have any detailed information on the nature of their study, we assumed the following: that these students may pay tuition and fees equivalent to the average paid by K-12 and college students. Students in this category were also assumed to incur living expenses equivalent to those in part-time college studies.

For short-term international students, estimates of tuition and fees on a weekly basis were derived from information provided by Languages Canada.

**Living expenses**

- Secondary or less - we assumed that a student in the public school system pays an average homestay cost of $850 per month (in 2015) for a 10-month period. Essentially, we assumed that students return to their home countries for summer vacation. For those in the private, independent school system, we assumed that three quarters of these students pay an average homestay cost of $850 per month, and one quarter of these students board with the school they attend. Values in 2016 were adjusted upward by 2% to account for price inflation.
- University – for full-time students, we use Statistics Canada's annual Tuition and Living Accommodation Costs (TLAC) survey data (to calculate the average costs of on-campus room and meal expenses for an eight month period for students in the undergraduate, master's and PhD programs).[31] Then, values were scaled up to full-year (12 months) values. That is, we assumed that international students in the university category stay in the country for 12 months, even though they may only take courses for two semesters.

  For part-time students, we assumed a monthly homestay cost of $850 in 2015 for 12 months in a year. Values of homestay costs in 2016 were adjusted upward by 2%.

  We also made allowances for transportation costs for students staying in different provinces and territories. We applied data from Statistics Canada's Survey of Household Spending (SHS), which details household spending on public transportation, by province and territory, in 2013. The values we used refer to the average expenditure per household on public transportation

[31] Statistics Canada, TLAC, Table 7. Living Accommodation Costs at Residences, 2015-2016 (final), and Table 7. Living Accommodation Costs at Residences, 2016-2017 (preliminary).

(households that did or did not use public transit). Values in 2013 dollars were adjusted for inflation between 2013 and 2015, and from 2015 to 2016.

- For students in other levels of study (trade/college and other post-secondary, as well as those in the "other" category), we assumed that they spend the equivalent of what university students have to pay during an academic year (average room, meal and transportation costs).

  The average costs for meals and accommodation at colleges in the territories were derived in the same way as they were in the provinces. Estimates of transportation costs were calculated as the average for provincial transportation costs.

In addition to basic living costs, as presented above, we made an allowance of $2,500 per student per year ($1,500 for K-12 students) for discretionary expenses (such as eating out, recreational activities and entertaining), both in 2015 and 2016.

For each province and territory, for each level of study, the formula to calculate gross expenditures was as follows:

*Estimated number of students in that level of study* multiplied by *the sum of (average tuition and additional fees, books, average room and meal costs, average transportation costs, average discretionary spending) per year = gross expenditures in one year for international students in the level of study*

**Scholarships and awards**

In this study, in order to calculate the *net* economic benefits that international students brought to the host country, we took into account any financial assistance that international students received from Canadian federal or provincial governments, and from institutions.

We conducted extensive web research on the financial statements of universities and colleges across all provinces in order to find such information, but to little avail. We estimated that the support universities and colleges provide to international students is probably no more than 1% of the student tuition collected.[32]

We were also informed that the federal government annually grants $27 million to support international students.[33] As such, we used a factor equivalent to 1% of

[32] We reviewed the consolidated financial statements of a number of universities and colleges across the provinces. While all financial statements report student tuition and fees received on the revenue side, and amounts paid for scholarships, awards and bursaries on the expense side, very few financial statements actually include information pertaining to international students. From the few financial statements that presented such information, the amount of scholarships/awards/bursaries given to international students accounted for less than or about 1% of the tuition and fees received from international students. See for example, the consolidated financial statements from the Vancouver Island University, and Kwantlen Polytechnic University in British Columbia.

[33] Global Affairs Canada.

international student tuition and fees, plus $27 million to represent the deduction. This reduction factor of 1% was applied to students in the trade/college, undergraduate, master's and PhD programs only.

**Additional tourism benefits from visiting friends and family members**

One additional benefit of international education is increased tourism activities, due to family and friends visiting the host country while students remain in the country.

Unfortunately, this area is still a challenge with respect to data availability. We do not have a good handle on the number of family and friends who visit international students during their stay in Canada. For the purposes of this estimation, we applied a similar methodology to the one used in an Australian study to derive the estimated number of international students' family and friends who participate in tourism activities.

The methodology in the Australian Council for Private Education and Training's (ACPET's) 2013 study was based on research conducted by Tourism Research Australia. The study shows that for every 10 formal visiting students (defined as those whose main purpose for visiting Australia is education), an additional five family members or friends visit the country. For every 10 informal visiting students (defined as those whose main purpose for visiting Australia was not education but still studied a course while on their trip), there are an additional 2 visitors.

In our current study, we assumed that for every 10 long-term international students, five family members and/or friends visited Canada during the year, and that for every 10 short-term international students, two family members and/or friends visited Canada during the year.

# Appendix 2: Economic impacts

## A. Direct economic impacts

This section presents the results of direct economic impacts associated with all students in Canada, by province and territory. First, we present the results for 2015 for all students, then long-term and short-term students separately. Similar information is then provided for 2016.[34]

### A.1 Direct impacts, 2015[35]

**Table 20: Direct economic impact of all international students, by province and territory, 2015 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $58.4 | $50.9 | $31.4 | $18.9 | 464 |
| Prince Edward Island | $48.6 | $39.6 | $24.8 | $15.2 | 352 |
| Nova Scotia | $352.8 | $316.7 | $207.3 | $120.5 | 2,689 |
| New Brunswick | $124.0 | $119.7 | $74.8 | $41.6 | 978 |
| Quebec | $1,692.5 | $1,610.5 | $987.0 | $620.6 | 15,913 |
| Ontario | $6,161.4 | $5,594.2 | $3,757.8 | $2,208.4 | 45,910 |
| Manitoba | $287.8 | $260.5 | $167.3 | $100.5 | 2,313 |
| Saskatchewan | $181.0 | $160.6 | $99.1 | $58.8 | 1,277 |
| Alberta | $668.9 | $719.7 | $454.4 | $281.4 | 5,538 |
| British Columbia | $3,236.8 | $2,741.5 | $1,867.8 | $1,178.4 | 28,152 |
| Yukon | $0.2 | $1.2 | $0.7 | $0.4 | 11 |
| Northwest Territories | $0.0 | $1.4 | $0.6 | $0.4 | 7 |
| Nunavut | $0.6 | $0.5 | $0.3 | $0.2 | 4 |
| Canada | $12,812.9 | $11,617.0 | $7,673.3 | $4,645.3 | 103,609 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

[34] It should be noted that no tax revenue impacts have been estimated in the direct impact estimation, as Statistics Canada's model does not estimate indirect tax revenue associated with spending.

[35] Please refer to section 3 of this report for definitions of the various types of impacts.

**Table 21: Direct economic impact of international students studying for longer than six months, by province and territory, 2015 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $58.4 | $50.2 | $31.0 | $18.6 | 458 |
| **Prince Edward Island** | $47.3 | $38.4 | $24.1 | $14.8 | 341 |
| **Nova Scotia** | $328.2 | $297.4 | $194.8 | $112.9 | 2,505 |
| **New Brunswick** | $119.3 | $114.6 | $71.7 | $39.7 | 931 |
| **Quebec** | $1,596.2 | $1,517.7 | $931.4 | $586.8 | 15,034 |
| **Ontario** | $5,748.1 | $5,241.6 | $3,531.1 | $2,074.4 | 42,949 |
| **Manitoba** | $275.0 | $248.0 | $159.7 | $95.6 | 2,197 |
| **Saskatchewan** | $168.2 | $149.8 | $92.5 | $54.7 | 1,183 |
| **Alberta** | $590.8 | $647.7 | $409.1 | $253.7 | 4,953 |
| **British Columbia** | $2,901.8 | $2,484.2 | $1,695.9 | $1,071.6 | 25,463 |
| **Yukon** | $0.6 | $1.1 | $0.6 | $0.4 | 10 |
| **Northwest Territories** | $0.2 | $1.2 | $0.5 | $0.3 | 6 |
| **Nunavut** | $0.0 | $0.5 | $0.3 | $0.1 | 3 |
| **Canada** | $11,834.1 | $10,792.4 | $7,142.7 | $4,323.7 | 96,032 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 22: Direct economic impact of short-term international language students, by province and territory, 2015 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $0.0 | $0.8 | $0.5 | $0.3 | 6 |
| **Prince Edward Island** | $1.4 | $1.2 | $0.7 | $0.4 | 11 |
| **Nova Scotia** | $24.5 | $19.3 | $12.5 | $7.6 | 185 |
| **New Brunswick** | $4.7 | $5.1 | $3.1 | $1.9 | 46 |
| **Quebec** | $96.3 | $92.8 | $55.5 | $33.8 | 879 |
| **Ontario** | $413.2 | $352.5 | $226.7 | $134.0 | 2,962 |
| **Manitoba** | $12.8 | $12.5 | $7.7 | $4.9 | 116 |
| **Saskatchewan** | $12.8 | $10.8 | $6.6 | $4.1 | 94 |
| **Alberta** | $78.1 | $71.9 | $45.3 | $27.8 | 586 |
| **British Columbia** | $335.1 | $257.3 | $171.9 | $106.7 | 2,689 |
| **Yukon** | $0.0 | $0.1 | $0.1 | $0.0 | 1 |
| **Northwest Territories** | $0.0 | $0.2 | $0.1 | $0.0 | 1 |
| **Nunavut** | $0.0 | $0.1 | $0.0 | $0.0 | 0 |
| **Canada** | $978.8 | $824.6 | $536.0 | $321.6 | 7,577 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

## A.2 Direct impacts, 2016

**Table 23: Direct economic impact of all international students, by province and territory, 2016 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $72.6 | $63.1 | $39.0 | $23.5 | 578 |
| Prince Edward Island | $68.3 | $54.4 | $34.2 | $21.1 | 486 |
| Nova Scotia | $413.4 | $375.7 | $246.5 | $143.9 | 3,196 |
| New Brunswick | $136.4 | $135.8 | $84.8 | $47.6 | 1,111 |
| Quebec | $1,887.2 | $1,821.5 | $1,112.1 | $697.7 | 17,841 |
| Ontario | $7,806.8 | $7,067.4 | $4,755.5 | $2,795.9 | 58,064 |
| Manitoba | $374.8 | $336.4 | $216.7 | $129.6 | 2,985 |
| Saskatchewan | $222.6 | $197.6 | $121.9 | $72.3 | 1,568 |
| Alberta | $823.6 | $882.0 | $556.9 | $343.4 | 6,751 |
| British Columbia | $3,726.6 | $3,166.8 | $2,153.6 | $1,347.5 | 32,145 |
| Yukon | $0.4 | $1.8 | $1.1 | $0.6 | 16 |
| Northwest Territories | $0.0 | $1.7 | $0.8 | $0.4 | 8 |
| Nunavut | $1.4 | $0.7 | $0.4 | $0.2 | 4 |
| Canada | $15,533.9 | $14,104.8 | $9,323.4 | $5,623.6 | 124,754 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 24: Direct economic impact of international students studying for longer than six Months, by province and territory, 2016 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $72.6 | $62.3 | $38.5 | $23.2 | 571 |
| **Prince Edward Island** | $66.9 | $53.1 | $33.5 | $20.6 | 474 |
| **Nova Scotia** | $388.1 | $355.8 | $233.6 | $136.0 | 3,005 |
| **New Brunswick** | $131.5 | $130.5 | $81.6 | $45.7 | 1,063 |
| **Quebec** | $1,787.7 | $1,725.6 | $1,054.7 | $662.7 | 16,933 |
| **Ontario** | $7,379.7 | $6,703.0 | $4,521.3 | $2,657.3 | 55,003 |
| **Manitoba** | $361.6 | $323.5 | $208.7 | $124.6 | 2,865 |
| **Saskatchewan** | $209.4 | $186.4 | $115.1 | $68.1 | 1,471 |
| **Alberta** | $742.8 | $807.6 | $510.1 | $314.7 | 6,146 |
| **British Columbia** | $3,380.3 | $2,900.9 | $1,976.0 | $1,237.2 | 29,366 |
| **Yukon** | $1.4 | $1.7 | $1.0 | $0.6 | 15 |
| **Northwest Territories** | $0.4 | $1.5 | $0.7 | $0.4 | 7 |
| **Nunavut** | $0.0 | $0.6 | $0.4 | $0.2 | 4 |
| **Canada** | $14,522.3 | $13,252.5 | $8,775.0 | $5,291.2 | 116,923 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 25: Direct economic impact of short-term international language students, by province and territory, 2016 ($millions)**

| | Annual Expenditures | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $0.0 | $0.8 | $0.5 | $0.3 | 7 |
| **Prince Edward Island** | $1.4 | $1.2 | $0.7 | $0.4 | 11 |
| **Nova Scotia** | $25.3 | $19.9 | $13.0 | $7.9 | 191 |
| **New Brunswick** | $4.9 | $5.3 | $3.2 | $2.0 | 48 |
| **Quebec** | $99.5 | $95.9 | $57.4 | $34.9 | 908 |
| **Ontario** | $427.1 | $364.4 | $234.3 | $138.5 | 3,061 |
| **Manitoba** | $13.2 | $12.9 | $7.9 | $5.0 | 120 |
| **Saskatchewan** | $13.2 | $11.2 | $6.8 | $4.2 | 97 |
| **Alberta** | $80.7 | $74.3 | $46.8 | $28.7 | 606 |
| **British Columbia** | $346.3 | $265.9 | $177.6 | $110.3 | 2,780 |
| **Yukon** | $0.0 | $0.1 | $0.1 | $0.0 | 1 |
| **Northwest Territories** | $0.0 | $0.2 | $0.1 | $0.0 | 1 |
| **Nunavut** | $0.0 | $0.1 | $0.0 | $0.0 | 0 |
| **Canada** | $1,012 | $852.3 | $548.4 | $332.4 | 7,831 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

## B. Total (direct, indirect and induced) economic impacts

This section presents the values of the total direct, indirect and induced impact that international students bring to the provincial/territorial economy and the aggregate to Canada. The impact values apply to all international students. As expected, all indicators, including GDP contribution and the jobs supported, were significantly higher than those for the direct or combined direct and indirect impacts. First, we present the results for 2015 for all students, then long-term and short-term students. These tables are then followed by the results for 2016.

### B.1 Total (direct, indirect and induced) impacts, 2015

**Table 26: Total economic impact (direct, indirect and induced) of all international students, by province and territory, 2015 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $107.9 | $66.9 | $32.5 | 753 |
| Prince Edward Island | $68.1 | $41.1 | $23.5 | 600 |
| Nova Scotia | $548.0 | $333.4 | $187.4 | 4,533 |
| New Brunswick | $255.3 | $136.7 | $75.2 | 1,855 |
| Quebec | $3,358.7 | $1,914.4 | $1,120.9 | 27,860 |
| Ontario | $10,446.3 | $6,443.8 | $3,734.8 | 78,283 |
| Manitoba | $524.1 | $311.5 | $176.9 | 4,222 |
| Saskatchewan | $382.0 | $210.0 | $104.1 | 2,425 |
| Alberta | $1,862.5 | $1,056.0 | $573.5 | 10,792 |
| British Columbia | $4,741.5 | $3,080.8 | $1,807.0 | 42,997 |
| Yukon | $4.0 | $2.3 | $1.3 | 31 |
| Northwest Territories | $10.1 | $5.5 | $1.8 | 28 |
| Nunavut | $2.5 | $1.5 | $0.7 | 11 |
| Canada | $22,311.1 | $13,604.1 | $7,839.9 | 174,388 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 27: Total economic impact (direct, indirect and induced) of international students studying for longer than six months, by province and territory, 2015 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $104.6 | $64.8 | $31.7 | 736 |
| Prince Edward Island | $65.7 | $39.7 | $22.8 | 578 |
| Nova Scotia | $514.3 | $313.0 | $175.7 | 4,234 |
| New Brunswick | $242.6 | $130.3 | $71.5 | 1,761 |
| Quebec | $3,156.3 | $1,801.3 | $1,055.9 | 26,245 |
| Ontario | $9,765.0 | $6,036.1 | $3,498.0 | 73,165 |
| Manitoba | $495.3 | $295.2 | $167.4 | 3,991 |
| Saskatchewan | $355.4 | $195.5 | $96.8 | 2,250 |
| Alberta | $1,692.0 | $958.3 | $520.2 | 9,746 |
| British Columbia | $4,299.7 | $2,796.7 | $1,642.2 | 38,944 |
| Yukon | $3.6 | $2.1 | $1.2 | 28 |
| Northwest Territories | $9.2 | $5.1 | $1.6 | 26 |
| Nunavut | $2.3 | $1.4 | $0.7 | 10 |
| Canada | $20,706.0 | $12,639.5 | $7,285.6 | 161,715 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 28: Total economic impact (direct, indirect and induced) of short-term international language students, by province and territory, 2015 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $3.3 | $2.1 | $0.8 | 17 |
| Prince Edward Island | $2.4 | $1.4 | $0.8 | 21 |
| Nova Scotia | $33.7 | $20.4 | $11.8 | 298 |
| New Brunswick | $12.7 | $6.5 | $3.8 | 94 |
| Quebec | $202.4 | $113.1 | $65.0 | 1,614 |
| Ontario | $681.3 | $407.7 | $236.8 | 5,117 |
| Manitoba | $28.8 | $16.4 | $9.5 | 231 |
| Saskatchewan | $26.6 | $14.5 | $7.3 | 175 |
| Alberta | $170.5 | $97.7 | $53.3 | 1,046 |
| British Columbia | $441.9 | $284.1 | $164.8 | 4,053 |
| Yukon | $0.4 | $0.2 | $0.1 | 3 |
| Northwest Territories | $0.8 | $0.4 | $0.2 | 3 |
| Nunavut | $0.2 | $0.1 | $0.1 | 1 |
| Canada | $1,605.1 | $964.5 | $554.3 | 12,673 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 29: Total tax revenue impact (direct, indirect and induced) from the spending of all international students, by province and territory, 2015 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $9.1 | $5.6 | $14.7 |
| Prince Edward Island | $6.0 | $3.9 | $9.9 |
| Nova Scotia | $51.2 | $33.7 | $84.9 |
| New Brunswick | $21.2 | $12.4 | $33.6 |
| Quebec | $317.4 | $216.5 | $533.9 |
| Ontario | $946.9 | $661.3 | $1,608.1 |
| Manitoba | $46.0 | $30.0 | $76.0 |
| Saskatchewan | $25.4 | $16.8 | $42.2 |
| Alberta | $87.1 | $101.0 | $188.2 |
| British Columbia | $394.5 | $286.3 | $680.8 |
| Yukon | $0.2 | $0.2 | $0.3 |
| Northwest Territories | $0.3 | $0.3 | $0.6 |
| Nunavut | $0.1 | $0.1 | $0.2 |
| Canada | $1,905.3 | $1,368.0 | $3,273.2 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 30: Total tax revenue impact (direct, indirect and induced) from the spending of international students studying for longer than six months, by province and territory, 2015 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $9.0 | $5.4 | $14.4 |
| Prince Edward Island | $5.8 | $3.8 | $9.6 |
| Nova Scotia | $47.2 | $31.6 | $78.8 |
| New Brunswick | $20.2 | $11.7 | $31.9 |
| Quebec | $296.7 | $204.0 | $500.7 |
| Ontario | $873.1 | $619.3 | $1,492.5 |
| Manitoba | $43.5 | $28.4 | $71.9 |
| Saskatchewan | $23.2 | $15.6 | $38.9 |
| Alberta | $76.5 | $91.6 | $168.2 |
| British Columbia | $346.3 | $260.2 | $606.5 |
| Yukon | $0.1 | $0.1 | $0.3 |
| Northwest Territories | $0.3 | $0.3 | $0.5 |
| Nunavut | $0.0 | $0.1 | $0.1 |
| Canada | $1,742.1 | $1,272.1 | $3,014.2 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 31: Total tax revenue impact (direct, indirect and induced) from the spending of short-term international language students, by province and territory, 2015 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $0.1 | $0.1 | $0.3 |
| Prince Edward Island | $0.3 | $0.1 | $0.4 |
| Nova Scotia | $4.0 | $2.1 | $6.1 |
| New Brunswick | $1.0 | $0.6 | $1.6 |
| Quebec | $20.7 | $12.6 | $33.2 |
| Ontario | $73.7 | $41.9 | $115.7 |
| Manitoba | $2.5 | $1.6 | $4.2 |
| Saskatchewan | $2.1 | $1.2 | $3.3 |
| Alberta | $10.6 | $9.4 | $20.0 |
| British Columbia | $48.1 | $26.1 | $74.2 |
| Yukon | $0.0 | $0.0 | $0.0 |
| Northwest Territories | $0.0 | $0.0 | $0.1 |
| Nunavut | $0.0 | $0.0 | $0.0 |
| Canada | $163.2 | $95.8 | $259.0 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

## B.2 Total (direct, indirect and induced) impacts, 2016

**Table 32: Total economic impact (direct, indirect and induced) of all international students, by province and territory, 2016 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $132.6 | $82.2 | $40.2 | 932 |
| Prince Edward Island | $91.6 | $55.6 | $31.9 | 809 |
| Nova Scotia | $651.7 | $397.0 | $223.6 | 5,394 |
| New Brunswick | $295.5 | $157.4 | $87.0 | 2,139 |
| Quebec | $3,859.0 | $2,188.0 | $1,278.9 | 31,701 |
| Ontario | $13,106.4 | $8,103.4 | $4,697.1 | 98,421 |
| Manitoba | $666.0 | $397.7 | $225.5 | 5,380 |
| Saskatchewan | $468.4 | $257.9 | $127.7 | 2,972 |
| Alberta | $2,270.8 | $1,289.0 | $698.7 | 13,137 |
| British Columbia | $5,491.8 | $3,561.1 | $2,078.9 | 49,408 |
| Yukon | $5.3 | $3.1 | $1.7 | 40 |
| Northwest Territories | $12.4 | $6.8 | $2.2 | 34 |
| Nunavut | $3.0 | $1.9 | $0.9 | 13 |
| Canada | $27,054.8 | $16,501.2 | $9,494.5 | 210,383 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 33: Total economic impact (direct, indirect and induced) of international students studying for longer than six months, by province and territory, 2016 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $129.2 | $80.0 | $39.4 | 915 |
| Prince Edward Island | $89.1 | $54.2 | $31.1 | 787 |
| Nova Scotia | $616.9 | $375.8 | $211.5 | 5,086 |
| New Brunswick | $282.4 | $150.7 | $83.1 | 2,042 |
| Quebec | $3,649.8 | $2,071.1 | $1,211.7 | 30,032 |
| Ontario | $12,402.2 | $7,682.1 | $4,452.3 | 93,132 |
| Manitoba | $636.3 | $380.8 | $215.7 | 5,142 |
| Saskatchewan | $440.9 | $242.9 | $120.2 | 2,791 |
| Alberta | $2,094.6 | $1,188.1 | $643.6 | 12,056 |
| British Columbia | $5,035.1 | $3,267.5 | $1,908.6 | 45,220 |
| Yukon | $4.9 | $2.9 | $1.6 | 37 |
| Northwest Territories | $11.6 | $6.4 | $2.0 | 32 |
| Nunavut | $2.8 | $1.7 | $0.8 | 12 |
| Canada | $25,395.8 | $15,504.3 | $8,921.6 | 197,285 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 34: Total economic impact (direct, indirect and induced) of short-term international language students, by province and territory, 2016 ($millions)**

| | Output | GDP | Labour Income | Employment |
|---|---|---|---|---|
| Newfoundland and Labrador | $3.4 | $2.2 | $0.9 | 18 |
| Prince Edward Island | $2.5 | $1.4 | $0.8 | 22 |
| Nova Scotia | $34.9 | $21.1 | $12.2 | 308 |
| New Brunswick | $13.2 | $6.7 | $3.9 | 97 |
| Quebec | $209.2 | $116.9 | $67.2 | 1,669 |
| Ontario | $704.2 | $421.4 | $244.8 | 5,289 |
| Manitoba | $29.7 | $16.9 | $9.8 | 239 |
| Saskatchewan | $27.5 | $14.9 | $7.6 | 181 |
| Alberta | $176.2 | $101.0 | $55.1 | 1,081 |
| British Columbia | $456.7 | $293.6 | $170.3 | 4,189 |
| Yukon | $0.4 | $0.2 | $0.1 | 3 |
| Northwest Territories | $0.9 | $0.5 | $0.2 | 3 |
| Nunavut | $0.2 | $0.1 | $0.1 | 1 |
| Canada | $1,658.9 | $996.9 | $572.9 | 13,098 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 35: Total tax revenue impact (direct, indirect and induced) from the spending of all international students, by province and territory, 2016 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $11.3 | $6.9 | $18.1 |
| Prince Edward Island | $8.3 | $5.3 | $13.5 |
| Nova Scotia | $60.1 | $40.2 | $100.3 |
| New Brunswick | $23.8 | $14.3 | $38.1 |
| Quebec | $359.2 | $247.0 | $606.2 |
| Ontario | $1,187.6 | $831.7 | $2,019.2 |
| Manitoba | $59.1 | $38.2 | $97.4 |
| Saskatchewan | $31.0 | $20.6 | $51.6 |
| Alberta | $106.4 | $123.1 | $229.5 |
| British Columbia | $454.8 | $329.4 | $784.2 |
| Yukon | $0.2 | $0.2 | $0.4 |
| Northwest Territories | $0.4 | $0.4 | $0.7 |
| Nunavut | $0.1 | $0.1 | $0.2 |
| Canada | $2,302.2 | $1,657.3 | $3,959.5 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 36: Total tax revenue impact (direct, indirect and induced) from the spending of international students studying for longer than six months, by province and territory, 2016 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $11.1 | $6.7 | $17.8 |
| Prince Edward Island | $8.0 | $5.2 | $13.1 |
| Nova Scotia | $56.0 | $38.0 | $94.0 |
| New Brunswick | $22.8 | $13.7 | $36.5 |
| Quebec | $337.8 | $234.0 | $571.9 |
| Ontario | $1,111.4 | $788.3 | $1,899.7 |
| Manitoba | $56.5 | $36.6 | $93.1 |
| Saskatchewan | $28.8 | $19.4 | $48.2 |
| Alberta | $95.4 | $113.4 | $208.8 |
| British Columbia | $405.1 | $302.4 | $707.5 |
| Yukon | $0.2 | $0.2 | $0.4 |
| Northwest Territories | $0.3 | $0.3 | $0.7 |
| Nunavut | $0.1 | $0.1 | $0.2 |
| Canada | $2,133.5 | $1,558.3 | $3,691.8 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

**Table 37: Total tax revenue impact (direct, indirect and induced) from the spending of short-term international language students, by province and territory, 2016 ($millions)**

| | Indirect Taxes | Personal Income Taxes | Total Tax Revenue |
|---|---|---|---|
| Newfoundland and Labrador | $0.1 | $0.1 | $0.3 |
| Prince Edward Island | $0.3 | $0.1 | $0.4 |
| Nova Scotia | $4.2 | $2.2 | $6.3 |
| New Brunswick | $1.0 | $0.6 | $1.7 |
| Quebec | $21.3 | $13.0 | $34.3 |
| Ontario | $76.2 | $43.3 | $119.6 |
| Manitoba | $2.6 | $1.7 | $4.3 |
| Saskatchewan | $2.2 | $1.2 | $3.4 |
| Alberta | $10.9 | $9.7 | $20.7 |
| British Columbia | $49.7 | $27.0 | $76.7 |
| Yukon | $0.0 | $0.0 | $0.0 |
| Northwest Territories | $0.0 | $0.0 | $0.1 |
| Nunavut | $0.0 | $0.0 | $0.0 |
| Canada | $168.7 | $99.1 | $267.7 |

*Source: Customized Statistics Canada expenditure model, based on expenditure produced by RKA*

# Appendix 3: Scenario analyses

## 3.1 Scenario analysis – Assuming higher student expenditures

This section provides an assessment of the total economic impacts under a different scenario, in which we assumed, on average, 10% higher spending by international students than we did in the base run in the main part of the report.

Under this scenario, total annual student expenditures become $14.1 billion in 2015 and $17.1 billion in 2016. Three sets of impacts – direct, combined direct and indirect, and total economic impacts (direct, indirect and induced) – are summarized in the table below.

**Table 38: Scenario analysis: Direct, combined direct and indirect, and total (direct, indirect and induced) economic impacts of international students, assuming 10% higher annual student expenditures, Canada, 2015 ($millions)**

| | Direct Impacts | Direct and Indirect Impacts | Direct, Indirect and Induced Impacts |
|---|---|---|---|
| **Output** | $12,778.7 | $18,781.9 | $24,542.2 |
| **GDP** | $8,440.6 | $11,581.2 | $14,964.5 |
| **Labour income** | $5,109.9 | $7,028.6 | $8,623.9 |
| **Jobs - FTEs** | 94,423 | 130,502 | 162,451 |
| **Jobs (incl. f/t, p/t and temporary)** | 113,970 | 154,011 | 191,827 |
| **Indirect taxes** | | $1,340.1 | $2,095.8 |
| **Personal income taxes** | | $1,225.5 | $1,504.8 |

**Table 39: Scenario analysis: Direct, combined direct and indirect, and total (direct, indirect and induced) economic impacts of international students, assuming 10% higher annual student expenditures, Canada, 2016 ($millions)**

| | Direct Impacts | Direct and Indirect Impacts | Direct, Indirect and Induced Impacts |
|---|---|---|---|
| **Annual student expenditures** | $17,087.3 | | |
| **Output** | $15,515.2 | $22,792.9 | $29,760.2 |
| **GDP** | $10,255.7 | $14,061.3 | $18,151.3 |
| **Labour income** | $6,186.0 | $8,514.0 | $10,443.9 |
| **Jobs - FTEs** | 113,744 | 157,462 | 196,049 |
| **Jobs (incl. f/t, p/t and temporary)** | 137,229 | 185,747 | 231,421 |
| **Indirect taxes** | | $1,618.1 | $2,532.4 |
| **Personal income taxes** | | $1,485.0 | $1,823.1 |

## 3.2 Scenario analysis – Assuming lower student expenditures

This section provides an assessment of 10% lower spending due to many factors and, consequently, how total expenditures will change in a different scenario. In this scenario, we assumed that international students studying in Canada receive Canadian government and/or university financial support that is equivalent to the magnitude of such support being offered to international students in the U.S. Furthermore, we assumed that additional tourism activities by the family and friends of international students studying in Canada follow a pattern that is similar to that of non-U.K. students pursuing university education in the U.K.[36]

The assumptions underlying alternate government/university support to international students are as follows:

- 8% of expenditures for undergraduate students were assumed to come from support by Canadian governments and/or universities;
- 35% of expenditures for students in master's and PhD programs were assumed to come from support by Canadian governments and/or universities;
- 10% of expenditure for students in trade and college programs were assumed to come from support by Canadian governments and/or colleges and institutes;
- For every 10 international students, there would have been one family member and/or friend visiting them while they study in Canada.

This scenario can be interpreted as the most conservative values of impacts in the current study.

Under these conditions, total annual student expenditures become $11.5 billion in 2015 and $13.9 billion in 2016. Altogether, three sets of impact values – direct impacts, combined direct and indirect impacts, and total economic impacts (direct, indirect and induced) – are summarized in the tables below.

[36] From Universities U.K.'s study in 2014: *The Impact of Universities on the UK economy*.

**Table 40: Scenario analysis: Direct, combined direct and indirect, and total (direct, indirect and induced) economic impacts of international students, assuming 10% lower expenditures (due to higher values of government support and fewer family member/friend visits), Canada, 2015 ($millions)**

| | Direct Impact | Direct and Indirect Impacts | Direct, Indirect and Induced Impacts |
|---|---|---|---|
| **Annual student expenditures** | $11,469.1 | | |
| **Output** | $10,413.8 | $15,261.9 | $19,967.6 |
| **GDP** | $6,902.9 | $9,442.0 | $12,207.0 |
| **Labour income** | $4,185.4 | $5,737.8 | $7,040.8 |
| **Jobs - FTEs** | 77,025 | 106,183 | 132,265 |
| **Jobs (incl. f/t, p/t and temporary)** | 92,865 | 125,225 | 156,099 |
| **Indirect taxes** | | $1,075.3 | $1,691.8 |
| **Personal income taxes** | | $999.2 | $1,227.2 |

**Table 41: Scenario I: Direct, combined direct and indirect, and Total (direct, indirect and induced) economic impacts of international students, assuming 10% lower Expenditures (due to higher values of government support and fewer family member/friend visits), Canada, 2016 ($millions)**

| | Direct Impact | Direct and Indirect Impacts | Direct, Indirect and Induced Impacts |
|---|---|---|---|
| **Annual student expenditures** | $13,885.4 | | |
| **Output** | $12,628.2 | $18,499.1 | $24,183.3 |
| **GDP** | $8,376.5 | $11,449.8 | $14,787.5 |
| **Labour income** | $5,060.1 | $6,941.4 | $8,515.8 |
| **Jobs - FTEs** | 92,660 | 127,958 | 159,420 |
| **Jobs (incl. f/t, p/t and temporary)** | 111,671 | 150,842 | 188,086 |
| **Indirect taxes** | | $1,296.5 | $2,041.6 |
| **Personal income taxes** | | $1,209.6 | $1,485.1 |

# Appendix 4: Reconciliation of the study estimates with valuation by Statistics Canada

In the report, we compared our estimates of the value of international student spending in a given year with Statistics Canada's valuation. Statistics Canada reported that Canada's receipt of foreign exchange dollars from international student was valued at $5.827 billion in 2015. Similar data from Statistics Canada for 2016 is not yet available.[37] In our study, we estimated that total annual spending by international students and their visiting families and friends was valued at almost $12.8 billion in the same year. In this appendix, we reconcile our estimates with Statistics Canada's valuation.

In Statistics Canada's valuation, "international transactions in services are a major component of the Current account of the Balance of payments. Services are grouped under four major categories: travel, transportation, commercial services and government services." Spending by international students includes education-related travel, which is defined as follows:[38]

> ***In theory, education-related travel should include all expenditures in another country by students. But for practical reasons, Canadian statistics include only outlays of post-secondary students; that is, only outlays on full-time university and college programs, which generally extend over more than one year, are included. Recorded outlays include all expenditures by post-secondary students studying abroad – that is, expenditures for tuition fees and course materials, together with accommodation and general living expenses. Except as incidentally covered in other personal travel, spending for primary and secondary schooling remains to be estimated in Canadian statistics. Certain further expenditures on institutional education (such as for personal interest courses) also remain in other personal travel because of data limitations.***

Therefore, it is important to note that the Statistics Canada's valuation we compared with is limited to the cost of education and living expenses for full-time post-secondary international students. In our report, our valuation included the expenditures of students who were in K-12 schools and in other programs, including students in programs shorter than six months. Our valuation also included expenditures incurred by visiting family and friends.

[37] Statistics Canada CANSIM table 376-0031. Data for 2016 was not available at the time this report was prepared.

[38] Statistics Canada: Canada's International Trade in Services – Data quality, concepts and methodology. Catalogue no. 67-203.

We were advised that Statistics Canada's valuation of international student spending in 2015 was based on the number of international students in post-secondary systems, 214,782,[39] and their expenditures on tuition, food, accommodations and transportation for an academic year of eight months.[40]

In RKA's calculation, to estimate the number of post-secondary students in Canada in 2015 who were in trades/college programs and in universities, we relied on values from Immigration, Refugees and Citizenship Canada's estimate of study permit holders as of December 31 of that year. Of the total 351,330 study permit holders, 245,725 were students pursuing post-secondary training in Canada. We derived per-student expenditures (net of Canadian scholarships and bursaries) as follows:

- Those in college and trades programs: $34,564 per year in 2015, assuming 8 months of study and 12 months of living expenses.
- Those in university programs: $37,276 per year in 2015, assuming 8 months of study (12 months for 10% of the students) and 12 months of living expenses.

Therefore, total expenditures for post-secondary students in 2015 was valued at $8.97 billion.

In addition to post-secondary students in trades/college programs and universities, we included students in other post-secondary programs, in the K-12 system (with expenditures on tuition and homestay for 10 months), and other students whose level of study was not clear but who were included in IRCC's data. Total expenditures for these long-term students (meaning IRCC requires them to hold a valid study permit while they stay in Canada to study longer than six months in a calendar year) was $11.7 billion.

The last segment of international student population is short-term students, who do not require a study permit to pursue training generally shorter than six months long. These students include those who are pursuing language training or other short-term vocational training. For practical reasons, we have obtained data only from Languages Canada and therefore have valued expenditures from this source. For these 112,036 students, who studied for up to 26 weeks in 2015, the total number of student weeks was estimated to be 1,117,080 and total expenditures to be $958.4 million.

In addition to student expenditures related to tuition, fees and living expenses, we estimated spending by visiting family members and friends. The value of spending attributed to visiting family members and friends was estimated to be $178.1 million.

[39] International students in Canada from Statistics Canada CANSIM table 477-0019.

[40] Statistics Canada is reviewing its methodology for estimating student spending and expects the changes to be implemented by 2019. Statistics Canada also expects to revise to the early 2000s.

Combining the spending of long-term and short-term students, as well as their visiting family members and friends, yields a total expenditure value of $12.8 billion in our estimate.

# Appendix 5: Data tables for 2015

**Table 42: Number of study permit holders on December 31 by study level and intended province or territory of destination, 2015**

| | Post-Secondary Total | Secondary or Less Total | Other Studies | Not Stated | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | 2,340 | 225 | 105 | -- | 2,670 |
| **Prince Edward Island** | 920 | 210 | 315 | 0 | 1,445 |
| **Nova Scotia** | 8,230 | 1,295 | 940 | -- | 10,465 |
| **New Brunswick** | 3,580 | 430 | 200 | 0 | 4,215 |
| **Quebec** | 43,455 | 2,870 | 3,645 | 20 | 49,985 |
| **Ontario** | 113,930 | 24,190 | 13,560 | 60 | 151,740 |
| **Manitoba** | 8,185 | 1,060 | 760 | 5 | 10,010 |
| **Saskatchewan** | 4,590 | 1,005 | 280 | -- | 5,875 |
| **Alberta** | 13,655 | 4,125 | 1,820 | 15 | 19,615 |
| **British Columbia** | 62,940 | 20,535 | 11,610 | 50 | 95,135 |
| **Northwest Territories** | 10 | 10 | 0 | | 20 |
| **Nunavut** | -- | -- | 0 | | |
| **Yukon** | 25 | -- | 5 | | 35 |
| **Not Stated** | 100 | 5 | 10 | 0 | 115 |
| **Canada** | 261,955 | 55,970 | 33,250 | 155 | 351,330 |

*Source: IRCC, January 31, 2017*

**Table 43: Estimated number of long-term international students by level of study, and province and territory, 2015**

| | Secondary or Less | Trade | College | University – Bachelor's Degree | University – Master's Degree | University – Doctorate | Other Post-Secondary | Other Studies | All Levels of Study |
|---|---|---|---|---|---|---|---|---|---|
| **Newfoundland and Labrador** | 193 | 0 | 100 | 1,173 | 693 | 348 | 25 | 105 | 2,638 |
| **Prince Edward Island** | 189 | 0 | 90 | 711 | 52 | 26 | 40 | 315 | 1,424 |
| **Nova Scotia** | 1,177 | 15 | 335 | 6,163 | 1,320 | 296 | 100 | 940 | 10,347 |
| **New Brunswick** | 393 | 15 | 385 | 2,515 | 421 | 164 | 80 | 200 | 4,173 |
| **Quebec** | 2,569 | 2,520 | 2,420 | 18,967 | 11,153 | 6,585 | 1,810 | 3,645 | 49,689 |
| **Ontario** | 21,885 | 265 | 42,145 | 44,798 | 12,485 | 5,797 | 8,440 | 13,560 | 149,435 |
| **Manitoba** | 968 | 265 | 1,335 | 4,835 | 940 | 569 | 240 | 760 | 9,918 |
| **Saskatchewan** | 866 | 10 | 425 | 2,341 | 1,088 | 641 | 85 | 280 | 5,736 |
| **Alberta** | 2,982 | 70 | 3,660 | 5,479 | 1,874 | 1,972 | 600 | 1,820 | 18,472 |
| **British Columbia** | 19,327 | 530 | 15,395 | 32,323 | 6,387 | 3,600 | 4,705 | 11,610 | 93,927 |
| **Yukon** | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 5 | 25 |
| **Northwest Territories** | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 9 |
| **Nunavut** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | |
| **Canada** | 50,553 | 3,690 | 66,315 | 119,306 | 36,414 | 20,000 | 16,125 | 33,240 | 345,793 |

*Source: IRCC, with adjustments by RKA*

**Table 44: Number of short-term international students and student weeks, by province and territory, 2015**

| | Number of Students | Number of Student Weeks |
|---|---|---|
| Newfoundland and Labrador | 0 | 0 |
| Prince Edward Island | 291 | 1,788 |
| Nova Scotia | 2,191 | 27,581 |
| New Brunswick | 663 | 4,910 |
| Quebec | 12,191 | 104,082 |
| Ontario | 46,275 | 460,295 |
| Manitoba | 1,358 | 13,306 |
| Saskatchewan | 1,078 | 14,620 |
| Alberta | 7,591 | 95,627 |
| British Columbia | 40,397 | 394,971 |
| Yukon | 0 | 0 |
| Northwest Territories | 0 | 0 |
| Nunavut | 0 | 0 |
| Canada | 112,036 | 1,117,180 |

*Source: Languages Canada, with adjustments by RKA*

**Table 45: Number of long-term international students in Canada, by top 10 source countries, 2015**

| | Number of Students | Percentage of Total |
|---|---|---|
| **China** | 117,675 | 33% |
| **India** | 48,530 | 14% |
| **France** | 20,075 | 6% |
| **Korea** | 19,700 | 6% |
| **United States of America** | 12,160 | 3% |
| **Saudi Arabia** | 11,650 | 3% |
| **Nigeria** | 9,930 | 3% |
| **Brazil** | 7,305 | 2% |
| **Japan** | 7,090 | 2% |
| **Vietnam** | 4,860 | 1% |
| **Total of top 10 countries** | 258,975 | 74% |
| | | |
| **All countries** | 351,330 | 100% |

*Source: IRCC*

**Table 46: Number of short-term international students in Canada, by top 10 source countries, 2015**

| | Number of Students | Percentage of Total |
|---|---|---|
| **Japan** | 21,192 | 19% |
| **Brazil** | 20,707 | 18% |
| **China** | 15,272 | 14% |
| **Korea** | 15,167 | 14% |
| **Mexico** | 9,013 | 8% |
| **Saudi Arabia** | 5,622 | 5% |
| **Colombia** | 3,283 | 3% |
| **Taiwan** | 3,250 | 3% |
| **Switzerland** | 1,795 | 2% |
| **Germany** | 1,262 | 1% |
| **Total of top 10 countries** | 96,563 | 86% |
| | | |
| **All countries** | 112,036 | 100% |

*Source: Languages Canada*

**Table 47: Comparison of weighted average undergraduate tuition fees for Canadian and international full-time students, 2015–2016 academic year**

| | Canadian Students | International Students |
|---|---|---|
| Newfoundland and Labrador | $2,759 | $9,360 |
| Prince Edward Island | $6,130 | $22,146 |
| Nova Scotia | $6,834 | $14,705 |
| New Brunswick | $6,379 | $13,125 |
| Quebec | $2,797 | $20,269 |
| Ontario | $7,865 | $27,627 |
| Manitoba | $4,013 | $14,385 |
| Saskatchewan | $6,978 | $18,096 |
| Alberta | $5,739 | $20,412 |
| British Columbia | $5,397 | $20,485 |
| Yukon | | |
| Northwest Territories | | |
| Nunavut | | |
| | | |
| Canada | $6,201 | $22,346 |

*Source: Statistics Canada, Table 477-0077*

**Table 48: Comparison of weighted average graduate tuition fees for Canadian and international full-time students, 2015–2016 academic year**

| | Canadian Students | International Students |
|---|---|---|
| Newfoundland and Labrador | $2,475 | $2,810 |
| Prince Edward Island | $4,887 | $10,586 |
| Nova Scotia | $8,439 | $16,601 |
| New Brunswick | $5,737 | $10,432 |
| Quebec | $2,850 | $14,330 |
| Ontario | $9,175 | $19,928 |
| Manitoba | $4,594 | $10,032 |
| Saskatchewan | $3,788 | $5,513 |
| Alberta | $5,615 | $8,993 |
| British Columbia | $8,262 | $12,877 |
| Yukon | | |
| Northwest Territories | | |
| Nunavut | | |
| | | |
| Canada | $6,537 | $14,520 |

*Source: Statistics Canada, Table 477-0077*

**Table 49: Estimated expenditures of long-term international students in the K-12 system, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $2,397,780 | $1,796,968 | $0 | $96,250 | $4,290,998 |
| Prince Edward Island | $2,354,663 | $1,764,655 | $0 | $94,519 | $4,213,837 |
| Nova Scotia | $14,654,963 | $10,982,869 | $0 | $588,269 | $26,226,101 |
| New Brunswick | $4,900,957 | $3,672,924 | $0 | $196,731 | $8,770,612 |
| Quebec | $31,997,548 | $23,979,922 | $0 | $1,284,423 | $57,261,893 |
| Ontario | $345,151,368 | $204,296,082 | $0 | $10,942,596 | $560,390,046 |
| Manitoba | $13,568,566 | $9,036,901 | $0 | $484,038 | $23,089,506 |
| Saskatchewan | $12,137,317 | $8,083,664 | $0 | $432,981 | $20,653,962 |
| Alberta | $41,794,634 | $27,835,954 | $0 | $1,490,962 | $71,121,549 |
| British Columbia | $304,807,937 | $180,416,689 | $0 | $9,663,558 | $494,888,184 |
| Yukon | $0 | $0 | $0 | $0 | $0 |
| Northwest Territories | $41,250 | $35,962 | $0 | $2,115 | $79,327 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $773,806,982 | $471,902,590 | $0 | $25,276,442 | $1,270,986,015 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 50: Estimated expenditures of long-term international students in trade/college programs, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $809,481 | $1,123,821 | $49,591 | $243,590 | $2,226,482 |
| **Prince Edward Island** | $1,526,868 | $1,263,398 | $46,632 | $210,938 | $3,047,834 |
| **Nova Scotia** | $4,107,203 | $5,075,961 | $162,257 | $809,232 | $10,154,652 |
| **New Brunswick** | $4,476,660 | $5,885,502 | $102,616 | $988,000 | $11,452,778 |
| **Quebec** | $78,323,995 | $56,231,648 | $2,335,039 | $11,621,592 | $148,512,274 |
| **Ontario** | $844,096,146 | $599,631,072 | $38,336,520 | $94,327,068 | $1,576,390,806 |
| **Manitoba** | $18,046,325 | $17,274,466 | $1,323,504 | $3,647,619 | $40,291,914 |
| **Saskatchewan** | $5,828,959 | $5,590,294 | $202,980 | $976,278 | $12,598,511 |
| **Alberta** | $59,616,752 | $48,316,923 | $3,793,671 | $8,669,336 | $120,396,682 |
| **British Columbia** | $241,641,372 | $203,845,281 | $12,738,726 | $35,796,001 | $494,021,380 |
| **Yukon** | $198,142 | $204,000 | $12,443 | $50,000 | $464,585 |
| **Northwest Territories** | $54,857 | $51,000 | $3,111 | $12,500 | $121,467 |
| **Nunavut** | $0 | $0 | $0 | $0 | $0 |
| | | | | | |
| **Canada** | $1,258,726,759 | $944,493,364 | $59,107,089 | $157,352,154 | $2,419,679,366 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 51: Estimated expenditures of long-term international students in university programs, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $16,795,832 | $24,862,430 | $1,098,441 | $5,361,022 | $48,117,725 |
| Prince Edward Island | $17,074,280 | $11,025,214 | $409,323 | $1,833,149 | $30,341,965 |
| Nova Scotia | $127,972,377 | $114,109,303 | $3,606,730 | $18,303,521 | $263,991,931 |
| New Brunswick | $40,410,577 | $42,837,557 | $795,274 | $6,906,936 | $90,950,344 |
| Quebec | $701,599,785 | $419,634,632 | $17,349,719 | $88,050,727 | $1,226,634,863 |
| Ontario | $1,690,873,537 | $932,671,028 | $57,021,166 | $150,388,539 | $2,830,954,270 |
| Manitoba | $94,339,828 | $68,921,924 | $5,248,521 | $15,186,427 | $183,696,698 |
| Saskatchewan | $57,290,925 | $54,167,721 | $1,899,143 | $9,833,120 | $123,190,909 |
| Alberta | $168,809,923 | $123,763,294 | $9,484,178 | $22,832,365 | $324,889,760 |
| British Columbia | $767,139,604 | $534,099,019 | $33,844,615 | $92,232,506 | $1,427,315,744 |
| Yukon | $0 | $0 | $0 | $0 | $0 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $3,682,306,668 | $2,326,092,122 | $130,757,110 | $410,928,311 | $6,550,084,211 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 52: Estimated expenditures of long-term international students in other post-secondary programs, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $203,089 | $280,610 | $12,398 | $60,503 | $556,599 |
| **Prince Edward Island** | $683,742 | $560,684 | $20,725 | $93,515 | $1,358,666 |
| **Nova Scotia** | $1,195,562 | $1,458,352 | $46,359 | $233,203 | $2,933,475 |
| **New Brunswick** | $812,282 | $1,102,654 | $20,523 | $177,478 | $2,112,937 |
| **Quebec** | $29,264,061 | $20,646,675 | $855,551 | $4,298,734 | $55,065,021 |
| **Ontario** | $172,406,583 | $120,551,999 | $7,629,338 | $19,073,635 | $319,661,554 |
| **Manitoba** | $2,806,663 | $2,599,559 | $198,526 | $561,625 | $6,166,372 |
| **Saskatchewan** | $1,182,356 | $1,106,442 | $39,663 | $196,050 | $2,524,510 |
| **Alberta** | $9,967,278 | $7,875,703 | $610,242 | $1,434,925 | $19,888,148 |
| **British Columbia** | $67,748,908 | $58,557,436 | $3,763,624 | $9,935,751 | $140,005,719 |
| **Yukon** | $0 | $0 | $0 | $0 | $0 |
| **Northwest Territories** | $0 | $0 | $0 | $0 | $0 |
| **Nunavut** | $0 | $0 | $0 | $0 | $0 |
| **Canada** | $286,270,523 | $214,740,114 | $13,196,948 | $36,065,418 | $550,273,002 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 53: Estimated expenditures of long-term international students in other studies, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $952,442 | $892,500 | $52,071 | $131,250 | $2,028,262 |
| Prince Edward Island | $4,414,568 | $2,677,500 | $163,211 | $393,750 | $7,649,028 |
| Nova Scotia | $10,606,373 | $7,990,000 | $435,775 | $1,175,000 | $20,207,147 |
| New Brunswick | $2,119,200 | $1,700,000 | $51,308 | $250,000 | $4,120,508 |
| Quebec | $48,786,503 | $30,982,500 | $1,722,919 | $4,556,250 | $86,048,171 |
| Ontario | $248,131,050 | $115,260,000 | $12,257,562 | $16,950,000 | $392,598,612 |
| Manitoba | $9,212,530 | $6,460,000 | $628,664 | $950,000 | $17,251,194 |
| Saskatchewan | $3,755,815 | $2,380,000 | $130,654 | $350,000 | $6,616,469 |
| Alberta | $26,495,105 | $15,470,000 | $1,851,067 | $2,275,000 | $46,091,172 |
| British Columbia | $180,226,384 | $98,685,000 | $9,287,071 | $14,512,500 | $302,710,955 |
| Yukon | $49,393 | $42,500 | $3,111 | $6,250 | $101,254 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $534,749,361 | $282,540,000 | $26,583,412 | $41,550,000 | $885,422,773 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 54: Estimated expenditures of long-term international students in all levels of study, by province and territory, 2015**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $21,158,625 | $28,956,328 | $1,212,500 | $5,892,614 | $57,220,067 |
| Prince Edward Island | $26,054,120 | $17,291,451 | $639,891 | $2,625,871 | $46,611,331 |
| Nova Scotia | $158,536,477 | $139,616,484 | $4,251,120 | $21,109,225 | $323,513,307 |
| New Brunswick | $52,719,676 | $55,198,638 | $969,721 | $8,519,145 | $117,407,180 |
| Quebec | $889,971,892 | $551,475,377 | $22,263,228 | $109,811,726 | $1,573,522,222 |
| Ontario | $3,300,658,684 | $1,972,410,180 | $115,244,586 | $291,681,838 | $5,679,995,288 |
| Manitoba | $137,973,912 | $104,292,850 | $7,399,215 | $20,829,709 | $270,495,685 |
| Saskatchewan | $80,195,372 | $71,328,121 | $2,272,439 | $11,788,429 | $165,584,361 |
| Alberta | $306,683,691 | $223,261,874 | $15,739,158 | $36,702,588 | $582,387,311 |
| British Columbia | $1,561,564,204 | $1,075,603,425 | $59,634,036 | $162,140,316 | $2,858,941,982 |
| Yukon | $247,534 | $246,500 | $15,554 | $56,250 | $565,838 |
| Northwest Territories | $96,107 | $86,962 | $3,111 | $14,615 | $200,794 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $6,535,860,293 | $4,239,768,190 | $229,644,559 | $671,172,325 | $11,676,445,367 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 55: Estimated additional tourism activities of visiting family members and friends associated with long-term international students, by province and territory, 2015**

| | Total Spending |
|---|---|
| Newfoundland and Labrador | $1,202,936 |
| Prince Edward Island | $649,489 |
| Nova Scotia | $4,718,949 |
| New Brunswick | $1,903,472 |
| Quebec | $22,653,445 |
| Ontario | $68,128,474 |
| Manitoba | $4,521,251 |
| Saskatchewan | $2,616,112 |
| Alberta | $8,418,011 |
| British Columbia | $42,816,377 |
| Yukon | $11,402 |
| Northwest Territories | $4,210 |
| Nunavut | $0 |
| Canada | $157,644,130 |

*Source: RKA, based on ACPET study*

**Table 56: Estimated expenditures of short-term international students by type of expenditure, by province and territory, 2015**

| | Tuition, Fees and Books/Material | Homestay | Transportation | Utilities | Discretionary | Total Annual Expenditures |
|---|---|---|---|---|---|---|
| Newfoundland and Labrador | $0 | $0 | $0 | $0 | $0 | $0 |
| Prince Edward Island | $447,063 | $335,297 | $71,530 | $89,413 | $357,650 | $1,300,952 |
| Nova Scotia | $9,695,271 | $6,424,717 | $1,103,240 | $1,379,050 | $5,516,199 | $24,118,476 |
| New Brunswick | $2,147,998 | $1,032,119 | $196,388 | $245,485 | $981,942 | $4,603,933 |
| Quebec | $36,785,696 | $27,082,132 | $4,163,279 | $5,204,099 | $20,816,397 | $94,051,604 |
| Ontario | $161,582,021 | $109,720,563 | $18,411,807 | $23,014,759 | $92,059,036 | $404,788,186 |
| Manitoba | $5,775,764 | $2,891,608 | $532,230 | $665,288 | $2,661,152 | $12,526,042 |
| Saskatchewan | $4,919,652 | $3,406,475 | $584,803 | $731,003 | $2,924,013 | $12,565,945 |
| Alberta | $28,213,871 | $20,784,588 | $3,825,091 | $4,781,364 | $19,125,455 | $76,730,368 |
| British Columbia | $121,208,567 | $91,949,148 | $15,798,823 | $19,748,528 | $78,994,113 | $327,699,179 |
| Yukon | $0 | $0 | $0 | $0 | $0 | $0 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 | $0 |
| Canada | $370,775,902 | $263,626,646 | $44,687,191 | $55,858,989 | $223,435,957 | $958,384,685 |

*Source: Languages Canada, with adjustments by RKA*

**Table 57: Estimated additional tourism activities of visiting family members and friends associated with short-term international students, by province and territory, 2015**

| | Total Spending |
|---|---|
| Newfoundland and Labrador | $0 |
| Prince Edward Island | $53,058 |
| Nova Scotia | $399,649 |
| New Brunswick | $121,039 |
| Quebec | $2,224,131 |
| Ontario | $8,442,203 |
| Manitoba | $247,784 |
| Saskatchewan | $196,666 |
| Alberta | $1,384,882 |
| British Columbia | $7,369,887 |
| Yukon | $0 |
| Northwest Territories | $0 |
| Nunavut | $0 |
| Canada | $20,439,299 |

*Source: RKA, based on ACPET study*

# Appendix 6: Data tables for 2016

**Table 58: Number of study permit holders on December 31 by study level and intended province or territory of destination, 2016**

| | Post-Secondary Total | Secondary or Less Total | Other Studies | Not Stated | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | 2,800 | 340 | 115 | 0 | 3,250 |
| **Prince Edward Island** | 1,310 | 245 | 430 | -- | 1,990 |
| **Nova Scotia** | 9,430 | 1,505 | 990 | -- | 11,930 |
| **New Brunswick** | 3,620 | 600 | 320 | 0 | 4,540 |
| **Quebec** | 47,230 | 3,250 | 4,735 | 20 | 55,235 |
| **Ontario** | 143,050 | 27,910 | 16,915 | 50 | 187,925 |
| **Manitoba** | 10,415 | 1,315 | 1,255 | -- | 12,990 |
| **Saskatchewan** | 5,635 | 1,155 | 340 | -- | 7,130 |
| **Alberta** | 17,255 | 4,135 | 2,225 | 15 | 23,630 |
| **British Columbia** | 71,315 | 22,220 | 11,675 | 50 | 105,255 |
| **Northwest Territories** | -- | 25 | 0 | | 25 |
| **Nunavut** | -- | -- | 0 | | -- |
| **Yukon** | 40 | 10 | 10 | | 65 |
| **Not Stated** | 280 | 10 | 25 | -- | 315 |
| **Canada** | 312,385 | 62,725 | 39,035 | 145 | 414,285 |

*Source: IRCC, January 31, 2017*

**Table 59: Estimated number of long-term international students by level of study, and province and territory, 2016**

| | Secondary or Less | Trade | College | University – Bachelor's Degree | University – Master's Degree | University – Doctorate | Other Post-Secondary | Other Studies | All Levels of Study |
|---|---|---|---|---|---|---|---|---|---|
| **Newfoundland and Labrador** | 312 | 0 | 150 | 1,391 | 822 | 413 | 25 | 115 | 3,227 |
| **Prince Edward Island** | 229 | 0 | 210 | 955 | 70 | 35 | 40 | 430 | 1,969 |
| **Nova Scotia** | 1,379 | 15 | 510 | 6,975 | 1,494 | 335 | 100 | 990 | 11,799 |
| **New Brunswick** | 553 | 20 | 430 | 2,507 | 419 | 163 | 80 | 320 | 4,493 |
| **Quebec** | 2,949 | 3,840 | 3,495 | 19,680 | 11,572 | 6,833 | 1,810 | 4,735 | 54,934 |
| **Ontario** | 25,383 | 305 | 69,585 | 45,962 | 12,810 | 5,948 | 8,440 | 16,915 | 185,398 |
| **Manitoba** | 1,224 | 380 | 1,975 | 5,960 | 1,159 | 701 | 240 | 1,255 | 12,894 |
| **Saskatchewan** | 974 | 5 | 615 | 2,836 | 1,317 | 777 | 85 | 340 | 6,949 |
| **Alberta** | 3,001 | 85 | 5,825 | 6,313 | 2,159 | 2,273 | 600 | 2,225 | 22,496 |
| **British Columbia** | 20,898 | 635 | 24,790 | 31,464 | 6,217 | 3,505 | 4,705 | 11,675 | 103,938 |
| **Yukon** | 10 | 0 | 40 | 0 | 0 | 0 | 0 | 10 | 60 |
| **Northwest Territories** | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| **Nunavut** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | |
| **Canada** | 56,931 | 5,285 | 107,625 | 124,042 | 38,040 | 20,983 | 16,125 | 39,010 | 408,176 |

*Source: IRCC, with adjustments by RKA*

**Table 60: Number of short-term international students and student weeks, by province and territory, 2016**

| | Number of Students | Number of Student Weeks |
|---|---|---|
| **Newfoundland and Labrador** | 0 | 0 |
| **Prince Edward Island** | 301 | 1,848 |
| **Nova Scotia** | 2,264 | 28,507 |
| **New Brunswick** | 686 | 5,074 |
| **Quebec** | 12,600 | 107,575 |
| **Ontario** | 47,828 | 475,744 |
| **Manitoba** | 1,404 | 13,752 |
| **Saskatchewan** | 1,114 | 15,111 |
| **Alberta** | 7,846 | 98,837 |
| **British Columbia** | 41,753 | 408,227 |
| **Yukon** | 0 | 0 |
| **Northwest Territories** | 0 | 0 |
| **Nunavut** | 0 | 0 |
| **Canada** | 115,796 | 1,154,675 |

*Source: Estimated by RKA*

**Table 61: Number of long-term international students in Canada, by top 10 source countries, 2016**

| | Number of Students | Percentage of Total |
|---|---|---|
| **China** | 132,345 | 32% |
| **India** | 76,530 | 18% |
| **Korea** | 21,345 | 5% |
| **France** | 20,790 | 5% |
| **United States of America** | 12,915 | 3% |
| **Nigeria** | 10,835 | 3% |
| **Brazil** | 9,250 | 2% |
| **Saudi Arabia** | 9,120 | 2% |
| **Japan** | 7,805 | 2% |
| **Vietnam** | 7,525 | 2% |
| **Total of top 10 countries** | 308,460 | 74% |
| | | |
| **All countries** | 414,285 | 100% |

*Source: IRCC*

**Table 62: Number of short-term international students in Canada, by top 10 source countries, 2016[41]**

| | Number of Students | Percentage of Total |
|---|---|---|
| **Japan** | 21,903 | 19% |
| **Brazil** | 21,402 | 18% |
| **China** | 15,785 | 14% |
| **Korea** | 15,676 | 14% |
| **Mexico** | 9,315 | 8% |
| **Saudi Arabia** | 5,811 | 5% |
| **Colombia** | 3,393 | 3% |
| **Taiwan** | 3,359 | 3% |
| **Switzerland** | 1,855 | 2% |
| **Germany** | 1,304 | 1% |
| **Total of top 10 countries** | 99,804 | 86% |
| | | |
| **All countries** | 115,796 | 100% |

*Source: Estimated by RKA*

[41] Values of Languages Canada membership students studying up to ~~6~~ six months not available at the time this report was prepared. RKA estimated the number of students by applying the percentage change of overall students in 2015 ~~over~~ from 2014 to 2015 values.

**Table 63: Comparison of weighted average undergraduate tuition fees for Canadian and international full-time students, 2016-2017 academic year (preliminary)**

| | Canadian Students | International Students |
|---|---|---|
| Newfoundland and Labrador | $2,759 | $9,360 |
| Prince Edward Island | $6,288 | $22,700 |
| Nova Scotia | $7,218 | $15,661 |
| New Brunswick | $6,682 | $13,842 |
| Quebec | $2,851 | $20,749 |
| Ontario | $8,114 | $29,761 |
| Manitoba | $4,058 | $14,557 |
| Saskatchewan | $7,177 | $18,640 |
| Alberta | $5,750 | $20,727 |
| British Columbia | $5,534 | $21,486 |
| Yukon | | |
| Northwest Territories | | |
| Nunavut | | |
| | | |
| Canada | $6,373 | $23,589 |

*Source: Statistics Canada, Table 477-0077*

**Table 64: Comparison of weighted average graduate tuition fees for Canadian and international full-time students, 2016-2017 academic year (preliminary)**

| | Canadian Students | International Students |
|---|---|---|
| **Newfoundland and Labrador** | $2,733 | $3,169 |
| **Prince Edward Island** | $5,025 | $10,898 |
| **Nova Scotia** | $8,763 | $17,528 |
| **New Brunswick** | $5,965 | $11,104 |
| **Quebec** | $2,904 | $14,550 |
| **Ontario** | $9,416 | $20,673 |
| **Manitoba** | $4,650 | $10,152 |
| **Saskatchewan** | $3,908 | $5,742 |
| **Alberta** | $5,618 | $9,079 |
| **British Columbia** | $8,557 | $13,773 |
| **Yukon** | | |
| **Northwest Territories** | | |
| **Nunavut** | | |
| | | |
| **Canada** | $6,703 | $15,009 |

*Source: Statistics Canada, Table 477-0077*

**Table 65: Estimated expenditures of long-term international students in the K-12 system, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $4,004,615 | $2,967,191 | $0 | $155,814 | $7,127,620 |
| Prince Edward Island | $2,942,431 | $2,180,173 | $0 | $114,486 | $5,237,089 |
| Nova Scotia | $17,719,166 | $13,128,890 | $0 | $689,427 | $31,537,483 |
| New Brunswick | $7,101,990 | $5,262,169 | $0 | $276,328 | $12,640,487 |
| Quebec | $37,895,015 | $28,078,043 | $0 | $1,474,440 | $67,447,497 |
| Ontario | $412,011,337 | $241,684,229 | $0 | $12,691,369 | $666,386,936 |
| Manitoba | $17,683,358 | $11,658,744 | $0 | $612,226 | $29,954,328 |
| Saskatchewan | $14,067,057 | $9,274,495 | $0 | $487,024 | $23,828,576 |
| Alberta | $43,346,470 | $28,578,587 | $0 | $1,500,724 | $73,425,781 |
| British Columbia | $339,219,930 | $198,985,076 | $0 | $10,449,143 | $548,654,149 |
| Yukon | $99,450 | $86,700 | $0 | $5,000 | $191,150 |
| Northwest Territories | $187,245 | $163,239 | $0 | $9,414 | $359,898 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $896,278,064 | $542,047,536 | $0 | $28,465,394 | $1,466,790,994 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 66: Estimated expenditure of long-term international students in trade/college programs, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $1,214,330 | $1,703,373 | $75,130 | $365,385 | $3,358,218 |
| **Prince Edward Island** | $3,646,452 | $2,988,287 | $109,895 | $492,188 | $7,236,822 |
| **Nova Scotia** | $6,513,386 | $7,805,637 | $245,819 | $1,213,848 | $15,778,689 |
| **New Brunswick** | $5,281,518 | $6,904,262 | $116,597 | $1,111,500 | $13,413,877 |
| **Quebec** | $118,823,496 | $85,841,270 | $3,501,779 | $17,255,946 | $225,422,492 |
| **Ontario** | $1,490,805,713 | $1,022,130,784 | $63,808,836 | $155,447,272 | $2,732,192,605 |
| **Manitoba** | $26,863,304 | $26,107,799 | $1,967,513 | $5,368,839 | $60,307,455 |
| **Saskatchewan** | $8,537,719 | $8,189,131 | $292,197 | $1,391,477 | $18,410,525 |
| **Alberta** | $95,846,861 | $80,555,441 | $6,070,993 | $13,736,133 | $196,209,428 |
| **British Columbia** | $403,495,046 | $360,552,467 | $20,541,346 | $57,149,974 | $841,738,832 |
| **Yukon** | $396,889 | $408,000 | $25,135 | $100,000 | $930,024 |
| **Northwest Territories** | $0 | $0 | $0 | $0 | $0 |
| **Nunavut** | $0 | $0 | $0 | $0 | $0 |
| **Canada** | $2,161,424,715 | $1,603,186,450 | $96,755,240 | $253,632,561 | $4,114,998,967 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 67: Estimated expenditures of long-term international students in university programs, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $20,370,551 | $29,776,216 | $1,314,781 | $6,353,355 | $57,814,904 |
| Prince Edward Island | $23,475,777 | $14,997,310 | $554,710 | $2,459,669 | $41,487,466 |
| Nova Scotia | $153,197,775 | $132,412,156 | $4,122,729 | $20,714,974 | $310,447,634 |
| New Brunswick | $42,365,604 | $44,382,651 | $800,636 | $6,884,656 | $94,433,546 |
| Quebec | $742,220,329 | $447,786,205 | $18,182,038 | $91,361,175 | $1,299,549,747 |
| Ontario | $1,846,686,927 | $991,365,018 | $59,088,680 | $154,298,451 | $3,051,439,076 |
| Manitoba | $117,674,337 | $87,282,303 | $6,533,312 | $18,716,762 | $230,206,715 |
| Saskatchewan | $71,487,428 | $67,503,876 | $2,323,441 | $11,910,880 | $153,225,625 |
| Alberta | $197,370,197 | $150,469,411 | $11,037,701 | $26,309,251 | $385,186,560 |
| British Columbia | $784,378,447 | $573,465,181 | $33,274,152 | $89,780,093 | $1,480,897,874 |
| Yukon | $0 | $0 | $0 | $0 | $0 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $3,999,227,373 | $2,539,440,327 | $137,232,181 | $428,789,265 | $7,104,689,147 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 68: Estimated expenditures of long-term international students in other post-secondary programs, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| **Newfoundland and Labrador** | $203,107 | $283,579 | $12,522 | $60,503 | $559,710 |
| **Prince Edward Island** | $699,817 | $568,374 | $20,932 | $93,515 | $1,382,638 |
| **Nova Scotia** | $1,263,983 | $1,495,168 | $46,823 | $233,203 | $3,039,177 |
| **New Brunswick** | $851,842 | $1,145,967 | $20,728 | $177,478 | $2,196,016 |
| **Quebec** | $29,899,844 | $21,230,229 | $864,106 | $4,298,734 | $56,292,913 |
| **Ontario** | $184,772,020 | $124,740,654 | $7,705,631 | $19,073,635 | $336,291,939 |
| **Manitoba** | $2,838,507 | $2,670,260 | $200,511 | $561,625 | $6,270,903 |
| **Saskatchewan** | $1,215,057 | $1,137,602 | $40,059 | $196,050 | $2,588,768 |
| **Alberta** | $10,113,640 | $8,299,539 | $616,344 | $1,434,925 | $20,464,449 |
| **British Columbia** | $70,857,804 | $64,298,729 | $3,801,260 | $9,935,751 | $148,893,545 |
| **Yukon** | $0 | $0 | $0 | $0 | $0 |
| **Northwest Territories** | $0 | $0 | $0 | $0 | $0 |
| **Nunavut** | $0 | $0 | $0 | $0 | $0 |
| | | | | | |
| **Canada** | $302,715,622 | $225,870,101 | $13,328,917 | $36,065,418 | $577,980,058 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 69: Estimated expenditures of long-term international students in other studies, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $1,054,406 | $997,050 | $57,600 | $143,750 | $2,252,806 |
| Prince Edward Island | $6,160,556 | $3,728,100 | $225,024 | $537,500 | $10,651,180 |
| Nova Scotia | $11,630,149 | $8,583,300 | $463,544 | $1,237,500 | $21,914,492 |
| New Brunswick | $3,511,080 | $2,774,400 | $82,914 | $400,000 | $6,768,394 |
| Quebec | $64,712,653 | $41,052,450 | $2,260,521 | $5,918,750 | $113,944,374 |
| Ontario | $325,598,949 | $146,653,050 | $15,443,217 | $21,143,750 | $508,838,967 |
| Manitoba | $15,449,207 | $10,880,850 | $1,048,505 | $1,568,750 | $28,947,312 |
| Saskatchewan | $4,671,473 | $2,947,800 | $160,237 | $425,000 | $8,204,510 |
| Alberta | $32,936,119 | $19,290,750 | $2,285,611 | $2,781,250 | $57,293,729 |
| British Columbia | $187,436,288 | $101,222,250 | $9,432,457 | $14,593,750 | $312,684,744 |
| Yukon | $99,837 | $86,700 | $6,284 | $12,500 | $205,321 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $653,260,717 | $338,216,700 | $31,465,913 | $48,762,500 | $1,071,705,829 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 70: Estimated expenditures of long-term international students in all levels of study, by province and territory, 2016**

| | Tuition and Fees | Accommodation and Food | Transportation | Discretionary | Total |
|---|---|---|---|---|---|
| Newfoundland and Labrador | $26,847,010 | $35,727,409 | $1,460,033 | $7,078,806 | $71,113,259 |
| Prince Edward Island | $36,925,033 | $24,462,245 | $910,562 | $3,697,356 | $65,995,196 |
| Nova Scotia | $190,324,459 | $163,425,150 | $4,878,914 | $24,088,952 | $382,717,475 |
| New Brunswick | $59,112,034 | $60,469,449 | $1,020,875 | $8,849,962 | $129,452,320 |
| Quebec | $993,551,337 | $623,988,197 | $24,808,444 | $120,309,045 | $1,762,657,024 |
| Ontario | $4,259,874,946 | $2,526,573,735 | $146,046,365 | $362,654,476 | $7,295,149,522 |
| Manitoba | $180,508,714 | $138,599,956 | $9,749,840 | $26,828,202 | $355,686,713 |
| Saskatchewan | $99,978,734 | $89,052,904 | $2,815,935 | $14,410,431 | $206,258,003 |
| Alberta | $379,613,287 | $287,193,728 | $20,010,649 | $45,762,283 | $732,579,946 |
| British Columbia | $1,785,387,514 | $1,298,523,703 | $67,049,214 | $181,908,711 | $3,332,869,143 |
| Yukon | $596,176 | $581,400 | $31,419 | $117,500 | $1,326,495 |
| Northwest Territories | $187,245 | $163,239 | $0 | $9,414 | $359,898 |
| Nunavut | $0 | $0 | $0 | $0 | $0 |
| Canada | $8,012,906,490 | $5,248,761,114 | $278,782,252 | $795,715,139 | $14,336,164,995 |

*Source: Various data sources detailed in Appendix 1, with adjustments by RKA*

**Table 71: Estimated additional tourism activities of visiting family members and friends associated with long-term international students, by province and territory, 2016**

| | Total Spending |
|---|---|
| Newfoundland and Labrador | $1,471,631 |
| Prince Edward Island | $898,027 |
| Nova Scotia | $5,381,335 |
| New Brunswick | $2,049,054 |
| Quebec | $25,045,650 |
| Ontario | $84,535,179 |
| Manitoba | $5,881,026 |
| Saskatchewan | $3,169,389 |
| Alberta | $10,253,555 |
| British Columbia | $47,382,368 |
| Yukon | $27,365 |
| Northwest Territories | $8,587 |
| Nunavut | $0 |
| Canada | $186,103,167 |

*Source: RKA, based on ACPET study*

**Table 72: Estimated expenditures of short-term international students by type of expenditure, by province and territory, 2016**

| | Tuition, fees and Books/Material | Homestay | Transportation | Utilities | Discretionary | Total Annual Expenditures |
|---|---|---|---|---|---|---|
| Newfoundland and Labrador | $0 | $0 | $0 | $0 | $0 | $0 |
| Prince Edward Island | $462,067 | $346,550 | $73,931 | $92,413 | $369,653 | $1,344,614 |
| Nova Scotia | $10,020,664 | $6,640,343 | $1,140,267 | $1,425,333 | $5,701,333 | $24,927,940 |
| New Brunswick | $2,220,089 | $1,066,759 | $202,980 | $253,724 | $1,014,898 | $4,758,450 |
| Quebec | $38,020,298 | $27,991,063 | $4,303,007 | $5,378,759 | $21,515,037 | $97,208,165 |
| Ontario | $167,005,038 | $113,403,005 | $19,029,744 | $23,787,181 | $95,148,722 | $418,373,690 |
| Manitoba | $5,969,610 | $2,988,656 | $550,093 | $687,616 | $2,750,465 | $12,946,441 |
| Saskatchewan | $5,084,765 | $3,520,803 | $604,430 | $755,537 | $3,022,149 | $12,987,684 |
| Alberta | $29,160,785 | $21,482,160 | $3,953,469 | $4,941,836 | $19,767,343 | $79,305,593 |
| British Columbia | $125,276,570 | $95,035,146 | $16,329,063 | $20,411,329 | $81,645,314 | $338,697,421 |
| Yukon | $0 | $0 | $0 | $0 | $0 | $0 |
| Northwest Territories | $0 | $0 | $0 | $0 | $0 | $0 |
| Nunavut | $0 | $0 | $0 | $0 | $0 | $0 |
| Canada | $383,219,885 | $272,474,485 | $46,186,983 | $57,733,729 | $230,934,916 | $990,549,998 |

*Source: Languages Canada, with adjustments by RKA*

**Table 73: Estimated additional tourism activities of visiting family members and friends associated with short-term international students, by province and territory, 2016**

| | Total Spending |
|---|---|
| Newfoundland and Labrador | $0 |
| Prince Edward Island | $54,839 |
| Nova Scotia | $413,062 |
| New Brunswick | $125,101 |
| Quebec | $2,298,777 |
| Ontario | $8,725,540 |
| Manitoba | $256,100 |
| Saskatchewan | $203,266 |
| Alberta | $1,431,362 |
| British Columbia | $7,617,235 |
| Yukon | $0 |
| Northwest Territories | $0 |
| Nunavut | $0 |
| Canada | $21,125,283 |

*Source: RKA, based on ACPET study*