

**Economic Impact of International
Education in Canada
-- An Update
Final Report**

Presented to:

Department of Foreign Affairs and International Trade

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Executive Summary

We estimate that in 2010, international students in Canada spent in excess of \$7.7 billion on tuition, accommodation and discretionary spending; created over 81,000 jobs; and generated more than \$445 million in government revenue.

Altogether there were more than 218,200 long-term (staying for at least six months) international students in Canada in 2010, generating more than \$6.9 billion to the Canadian economy. It is estimated that nearly 37 percent of that revenue came from two countries – China and South Korea. As of December 2010 there were 56,900 Chinese and 24,600 South Korean citizens in Canada undertaking a formal education program. Ontario and BC hosted nearly two thirds of the international students in Canada (85,300 and 60,500 respectively) while Quebec was a distant third.

Short term students who pursued language training also contributed an estimated \$788 million to the Canadian economy.

Overall, the total amount that international students spend in Canada (\$8.0 billion) is greater than our export of unwrought aluminium (\$6 billion), and even greater than our export of helicopters, airplanes and spacecraft (\$6.9 billion) to all other countries.

When the value of educational services provided in Canada to international students is compared to the value of the more traditional goods that Canada exports, the impact for some countries is even more striking. The Saudi Arabians, for example, spend the equivalent of 44% of the value of the goods they import from Canada on educational services. Similarly, we see that South Korea (19.1%), China (13.9%), India (27.9%), and France (14.2%) all spend significantly for educational services when compared to the trade in goods they import from Canada.

In total, the annual expenditure of \$8.0 billion by international students translated to estimates of almost \$4.9 billion worth of contribution to GDP, 86,570 jobs, and \$455 million of government tax revenue.

**Summary Table I Economic Impact of International Education Services in
Canada, 2010**

	Total Expenditure	GDP	Employment	Government Revenue
Long-Term Students				
Newfoundland and Labrador	\$40,670,000	\$27,614,000	370	\$1,480,000
Prince Edward Island	\$27,760,000	\$6,191,000	60	\$621,400
Nova Scotia	\$217,167,000	\$123,568,000	1,890	\$12,000,000
New Brunswick	\$93,576,000	\$66,975,000	1,030	\$3,425,300
Quebec	\$1,014,526,000	\$593,069,000	8,000	\$81,226,000
Ontario	\$2,902,608,000	\$1,808,730,000	29,970	\$202,975,000
Manitoba	\$153,784,000	\$87,342,000	1,640	\$10,831,000
Saskatchewan	\$120,503,000	\$69,887,000	1,050	\$4,479,000
Alberta	\$486,637,000	\$300,332,000	4,770	\$13,249,000
British Columbia	\$1,864,093,000	\$1,151,116,000	21,460	\$66,897,000
Territories*	\$623,000	\$174,000	0	\$8,000
Sub-Total Long-Term Students	\$6,921,947,000	\$4,234,998,000	70,240	\$397,191,700
Short-Term Languages Canada Students	\$788,162,180	\$455,708,000	10,780	\$48,108,400
Additional Tourism Benefits	\$336,389,440	\$187,680,000	5,550	\$9,739,000
*Yukon, Northwest Territories and Nunavut				
Grand Total	\$8,046,498,620	\$4,878,386,000	86,570	\$455,039,100

Source: RKA

The quantitative results are summarized below.

- The economic benefit of international students studying in Canada is substantial. Total expenditure of long-term international students in Canada amounted an estimated \$6.9 billion in 2010. This translates to almost \$4.2 billion in GDP contribution to the Canadian economy, and represents about 7% of the GDP contributed by the overall education services sector in the Canadian economy.
- International education services serving these long-term students contributed to 70,240 jobs in the labour market. This represents about 5.7% of the total number of jobs in the overall education services sector in Canada.
- Those international students in short-term language training programs in Canada were estimated to have contributed an additional \$788 million per year in total spending to the Canadian economy. This is equivalent to about \$455 million in GDP, 10,780 jobs, and \$48 million in government revenue.

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- In addition to capturing the economic impact that has resulted from students' spending on tuition, fees and basic living expenses, we estimate that \$336 million per year can be attributed to additional tourism related activities, enjoyed by the international students and their family and friends.
- Governments also benefit from international education services as the total amount of net indirect taxes collected in 2010 was estimated to be \$455 million (including tax revenue generated from serving long term and short term international students, as well as from tourism activities). Out of this amount, we estimate that \$180.6 million was tax contribution to federal government, and \$273.9 million contributed to provincial and territorial government tax revenue.

International students visit Canada from all over the world. The top source countries from which students visit Canada and the export value of their education is detailed in the tables below. It is important to note that over 50% of students are from Asian countries (primarily China, India, South Korea and Japan).

Summary Table II Value of International Education Services by Top Ten Countries by Level of Study, 2010

Area/ Country	Secondary or less	Trade	University	Other post-secondary	Other	All Long-Term Students
China	\$145,131,000	\$142,471,000	\$1,190,491,000	\$322,774,000	\$35,560,000	\$1,836,427,000
Korea	\$214,820,000	\$259,868,000	\$181,721,000	\$38,973,000	\$12,020,000	\$707,402,000
India	\$4,451,000	\$46,992,000	\$157,018,000	\$351,754,000	\$23,373,000	\$583,588,000
Saudi Arabia	\$14,546,000	\$31,550,000	\$222,160,000	\$82,442,000	\$76,964,000	\$427,662,000
USA	\$19,648,000	\$10,959,000	\$291,024,000	\$33,643,000	\$13,857,000	\$369,131,000
France	\$9,770,000	\$7,970,000	\$276,980,000	\$33,810,000	\$5,009,000	\$333,539,000
Japan	\$28,549,000	\$19,096,000	\$68,526,000	\$21,985,000	\$42,572,000	\$180,728,000
Mexico	\$37,884,000	\$11,624,000	\$46,699,000	\$18,321,000	\$10,852,000	\$125,380,000
Hong Kong	\$24,098,000	\$7,638,000	\$70,726,000	\$18,154,000	\$835,000	\$121,451,000
Taiwan	\$20,082,000	\$9,963,000	\$40,439,000	\$29,646,000	\$1,336,000	\$101,466,000
Top 10 Areas	\$518,979,000	\$548,131,000	\$2,545,784,000	\$951,502,000	\$222,378,000	\$4,786,774,000
All Areas/Countries	\$762,889,000	\$672,170,000	\$3,955,558,000	\$1,229,139,000	\$302,013,000	\$6,921,769,000

Source: RKA Estimates

We have also examined the value of education services versus the total exports to each of these same countries. Canada's international education services for

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long-term students alone contribute to the equivalent of 1.7% of Canada's total export in goods to the world. However, for top international student source countries such as China, South Korea, and Saudi Arabia, Canada's international education services to these countries contribute to more than 10% of Canada's export in goods to these countries.

Summary Table III Comparison of International Education Services with Total Exports in Goods from Canada to the Top Ten International Student Source Countries and to All Countries, 2010

Area/ Country	All Long-Term Students	All Exports in Goods	Educational Services as % of All Goods Exports
China	\$1,836,427,000	\$13,232,891,000	13.9%
Korea	\$707,402,000	\$3,709,307,000	19.1%
India	\$583,588,000	\$2,088,683,000	27.9%
Saudi Arabia	\$427,662,000	\$977,758,000	43.7%
USA	\$369,131,000	\$299,068,000,000	0.1%
France	\$333,539,000	\$2,349,565,000	14.2%
Japan	\$180,728,000	\$9,194,118,000	2.0%
Mexico	\$125,380,000	\$5,009,864,000	2.5%
Hong Kong	\$121,451,000	\$1,897,603,000	6.4%
Taiwan	\$101,466,000	\$1,289,112,000	7.9%
Top 10 Areas	\$4,786,774,000	\$338,816,901,000	1.4%
All Areas/Countries	\$6,921,769,000	\$399,434,000,000	1.7%

Source: RKA Estimates based on DFAIT data

Recommendations

This report provides evidence showing that international students make a very significant contribution to the Canadian economy, job base and government revenues. Therefore, it is important to get more consistent, complete and accurate data on students and their expenditures in Canada. Such data is not readily available now. Therefore, we put forward the following recommendations:

- Ensure that international students are recognized and supported commensurate to their importance to Canada relative to other similar sized exports of goods and services.

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- Consider the possibility of establishing a survey method like that undertaken in Australia where a sample of visitors leaving the country would be surveyed regarding their activities in Canada. This would need to be done at all major international airports and would need to be carried out in a number of languages.
- Work with stakeholders (including CIC, Statistics Canada, and universities, colleges, and other training institutions) to develop a consistent system of record-keeping to track international student expenditures while in Canada.
- Work with Statistics Canada to develop a national survey of public and private educational institutions to determine international student enrolment, tuition rates, and other expenses for degree/diploma granting programs as well as adult and continuing education classes of under six months.
- Coordinate with provincial governments and national organizations to determine consistent survey questions for international students.

1. Introduction

As Canada's economy becomes increasingly globalized, the benefits of international education to our economy are substantial and cannot be neglected. To remain competitive in the global economy, Canada needs to attract the best and the brightest to contribute to our talent pool in so many areas – scientific and research development, economic development opportunities, cultural diversification, just to name a few. International students studying in Canada also bring in substantial income to the local communities. International students can also become a valuable source of highly skilled labour to our economy at a time when the western world is facing potential labour shortages especially among top talent. In addition, Canada's educational expertise is a valuable export that can be measured in comparison to other goods and service exports.

Roslyn Kunin and Associates, Inc. (RKA) was commissioned by the Foreign Affairs and International Trade Canada (DFAIT) to undertake an in-depth and comprehensive study evaluating the economic impact of international education in Canada in 2009. Its purpose was to develop, implement, and analyze an economic model to determine the value of international education and student mobility to the Canadian economy. The current study is an update of the 2009 estimates with more up-to-date data and information, as well as more fine-tuning of our estimation approach.

Existing literature has clearly indicated that there is positive value associated with Canadian students going abroad and international students coming and studying in Canada. RKA has been commissioned to look at the latter and to assess the financial value by way of looking into the trends in international students' enrolment patterns, the length of study, the type of educational institutions they attend, their choice of place to stay while they are in Canada, and their expenditure patterns.

Our research has:

- Covered all provinces and territories in Canada where international student enrollment data is available;
- Collected and reviewed, where possible, data and information regarding enrollment in K-12, post-secondary (both colleges and universities, both public and private), as well as short term studies in language training;
- Contacted stakeholders to obtain information regarding tuition and fees that international students pay for the types of programs in which they enroll, from jurisdictions across Canada;

- Located and analyzed information on international student expenditure patterns.

The data has been analyzed and estimates have been calculated. The values have also been measured as a contribution to the Canadian economy in terms of GDP growth, employment, and government revenue.

The layout of the report is as follows:

- Study methodology
- Literature review
- International student data
- Expenditure data
- Economic impact estimation for 2010
- Examination of the economic contributions of “tourism activities”
- Examination of Canada’s performance in the global market
- Conclusions and Recommendations
- A reconciliation of our estimates with Statistics Canada valuations
- Sensitivity analysis

In sections where we present more up-to-date data, we will also provide comparisons with our findings in the previous study in 2009.

2. Methodology

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

When we first conducted the research for this project in 2009, one of our first thoughts was to go to national organizations representing large groups of private and public schools and institutions. What became evident very quickly is that these organizations (except for Languages Canada) do not collect data on international students from their member institutions.

While some organizations (BC Progress Board, Conference Board of Canada and others) completed reports on the economic impact of international education, two things became apparent when following up with them on these studies. First, they have not kept up with the research, so much of the work is out of date, and second, they ran into many of the same problems that we did.

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

Enrollment

One of the main purposes of this study is to understand the number of international students in each province and territory and in different levels of study – public or private, in the K-12 system, college level, undergraduate and graduate students in the university system. Also, we need to determine the number of international students studying in professional and language training programs.

We have not found data that was consistently defined or reported data on all students. Statistics Canada, in its Post-Secondary Information System, collects data on international student enrollment at the college and university levels (including 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 as such we did not use enrollment numbers from this source as we were not able to gather

information on those international students in the private post-secondary system. Also, university level data is available for up to 2008/09, while college data is available for up to 2005 only.

On 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.

Another way of getting information on the number of international students in the country is from data published by Citizenship and Immigration Canada (CIC). 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, CIC's data allows us to know how many holders of study permits are in each of the provinces and territories at a given time.

CIC defines foreign students as "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 our 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."

Five levels of study are shown for foreign students.

- Secondary or less: primary or secondary educational institutions in Canada.
- Trade: vocational trade at non-university educational institutions in Canada (such as technical and vocational institutions, CEGEPs and colleges).
- University: undergraduate, postgraduate (master's and doctoral) and other studies at universities in Canada.
- Other post-secondary: post-secondary level of study, not at the university or trade level, including language institutions, private institutions and university qualifying programs.
- Other: foreign students not classified in any of the above levels of study.

The CIC data will therefore allow 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 distinction between broad level of study. For all these reasons, we have relied upon CIC data for analytical purposes.

One limitation of using the CIC data set to represent the number of international students is that the actual number of permit holders registering in 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, enroll in an education program. Another limitation of this data set is that we would have assumed that all study permit holders have in fact registered in a program on a full time basis, which may not be necessarily correct. In Appendix 2, we assess a scenario in which not all CIC study permit holders are actively pursuing formal training in order to evaluate how this assumption affects our economic impact estimates.

Finally, another important source of international students that is not covered in the CIC data is the number of such students who study in Canada for periods shorter than six months, as they do not require a study permit to enter the country. We have approached organizations whose members are in the business of providing short-term vocational training to the public, yet, as we mentioned earlier in this section, only Languages Canada collects the 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 which meet the rigorous standards of the association and who are committed to upholding them. Currently there are over 165 member programs across the country, including 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 will define international students as those from the two sets of data available to us. Long-term students refer to the ones that are represented by the CIC data, while short-term students refer to the ones that are students pursuing language training programs of shorter than six-month duration in institutions with Languages Canada membership.

Comparison of RKA's Data Sources and Methodology and Statistics Canada's Data Sources and Methodology in Estimation of Canada's Trade in International Education Services

Statistics Canada also provides an annual estimate of the value of Canada's trade in international education services, and the description of its data sources and methodology is found in *Statistics Canada's Balance of International Payments and International Investment Position: Concepts, Sources, Methods and Products* (Statistics Canada 2000). In principal, both our current study and Statistics Canada's valuation of Canada's international education services go beyond capturing tuition and fees expenditure incurred by international students, by including estimates of goods and services purchased by international students while they stay in Canada.

However, the results from our current study and Statistics Canada's valuation are different, as the data sources and methodology in evaluation are different. In the discussion that follows, we outline these differences.

The difference between Statistics Canada's estimates of education services exports - \$3.51 billion – and our estimate of the expenditures of international students in Canada - \$7.71 billion – is substantial. Appendix 1 lays out the trajectory explaining the differences between the two evaluations, starting from the Statistics Canada figure and arriving at our estimate.

Data Sources and Methodology on Number of International Students

While Statistics Canada's valuation of international education services includes full time university and college students in the public system, the scope of students included in our current study is much broader. We have included international students in public and private colleges and universities who pursue either full-time or part-time study. In addition, we have included international students studying in the K-12 system, as well as those who pursue short-term language training.

Because our inclusion of the type of international students is broader than that in Statistics Canada's valuation, we have resorted to data sources different from those adopted by Statistics Canada. Specifically, given that international students pursuing study in Canada for longer than six months are required to hold a valid Study Permit before they enter the country, and are required to do so every year during their stay in Canada, we have used data pertaining to the number of study permit holders by level of study to represent the number of international students in Canada in five levels of study: secondary or less, trade, university, other post-secondary, and other. For students pursuing short-term language training (those who do not require a study permit), we have relied upon enrollment data provided by Languages Canada, which is Canada's premium language training organization and whose member schools are required to be accredited under one internationally recognized and comprehensive scheme. For these reasons, we believe that our scope of the type of international students is more comprehensive and provides a more complete representation of the number of international students in Canada.

Data Sources and Methodology on Student Expenditure

On tuition and fees applicable to university international students, both Statistics Canada and our study rely on data from the Tuition and Living Accommodation Costs (TLAC) survey pertaining to the weighted average tuition and fees. Tuition and fees applicable to other post-secondary international students in our study have been derived based on TLAC (see Section 5.1.1 for details). While tuition and fees from the TLAC is based on an eight-month period, we have adjusted

these tuition and fees to account for the amount incurred in a 12-month period as some students take credit courses in summer months.

On living expenses such as accommodation, food, and transportation applicable to international students at the post-secondary level, both Statistics Canada's and our estimates are based on the TLAC survey and the Survey of Household Spending (SHS). Although the TLAC survey reports expenses for an eight-month period, we have adjusted the amount to account for a 12-month period given that international students are less likely to leave the country even in summer months.

For tuition and fees related to students in the K-12 system, we have relied upon information we have gathered from provincial education ministries, as well as various websites publishing information for potential international students studying in specific provinces in Canada. Tuition and fees for K-12 students have been calculated for ten months in a year. Similarly, we have used information from these sources to calculate average costs for accommodation and food for international students in the K-12 system for 10 months in a year. We have not included transportation costs for K-12 students assuming that their host families are responsible for transporting them to school.

For tuition and fees, as well as living expenses, applicable to international students pursuing short-term language training in Canada, we have relied upon Languages Canada's survey of its own membership schools in each province (or groups of provinces) on their students' average weekly expenses in these categories. We have applied these average weekly expense amounts in different provinces to average number of student weeks by province to arrive at the total of student expenditure in short-term language training.

One category of living expenses which we have included in our study, but not in Statistics Canada's valuation of international education services, is discretionary spending. We have made an allowance of \$2,500 per year for post-secondary students, and \$1,500 per year for K-12 students, for activities such as recreation and entertainment and any other miscellaneous discretionary spending. While this is not based on any survey of international students, we have included such an amount based on student budgeting information gathered from websites.

In summary, our study covers a broader student population and therefore more expense categories. We have taken care to avoid double counting, and have used data sources that are reliable and creditable, and therefore meaningful, to provide a comprehensive and complete picture of the level of expenditure brought by international students while they are in Canada.

3. Literature Review

In this Section, we look at the literature on topics and issues related to international education in Canada. The purpose of this is to provide an overview of background information that relates to trends and patterns of international education, especially those identified in recent studies.

Defining International Education

"International education may involve formal or informal academic, cultural, employment, travel or volunteer experience abroad with return to the native country; hosting international education programs and students; internationalizing domestic courses, programs and curriculum; and exchange programs for students, researchers, citizens and employees provided by government, non-profit, educational, or employer provided programs." (Conference Board of Canada 1999)

The Council for Higher Education Accreditation's *Sharing Quality Education Across Borders: A Checklist for Good Practice*, highlighted a number of important issues, including:

- "the need to safeguard the broader cultural, social, and economic contributions of higher education and research; protect the interests of students and facilitate their mobility; and strengthen the capacity of developing countries to improve accessibility to high-quality higher education"
- key elements – contribution to the public good (social, economic, and cultural), capacity building (cooperation and collaboration), relevance (current and recognizable), accessibility (financial), quality (institutional, administrative, faculty), accountability (authorization and organizational memberships), and transparency (public information, admission policies, and appeals procedures), and commitment to high-quality standards (codes of good practice)

International Student Mobility Comparison

“International student mobility is one of the cornerstones of the growing internationalization of Canadian universities. It encompasses both international students attending Canadian institutions and Canadian students going abroad for academic credit while registered at a Canadian institution. Both streams have a great impact on our universities and, ultimately, on society as a whole. Likewise, both present complex challenges to university officials and policy-makers who share the goal of raising the levels of international student mobility.” (Association of Universities and Colleges of Canada (AUCC) 2007, page 1.)

It should be noted that in the general international student mobility picture, there is another component to outgoing student mobility in addition to “Canadian students going aboard for academic credit while registered at a Canadian Institution”. This is the number of Canadian students registered in a country other than Canada pursuing formal and informal education.

AUCC conducted an internationalization survey in 2006 to seek insight on the current status of Canadian student mobility and international students in Canada. Findings from the survey suggested that, within the university community, there is a growing interest in, and engagement with, international student mobility. Its value is also increasingly recognized. Survey responses showed that although there are differences at the level of individual institutions, on average there has been steady progress on the overall rates of student mobility, including modest growth in the number of Canadian students undertaking short-term study abroad for credit, as well as significant growth in international student recruitment to Canadian universities.

About 2.2% of total full-time Canadian students have participated in a form of study abroad for credit in 2006 – an increase from the approximately 1% of students who studied abroad in 2000.¹ The number of international students on Canadian campuses has grown rapidly to approximately 70,000 full-time and 13,000 part-time students in 2006.

The number of Canadian students studying abroad at the post-secondary level has also been growing. In 2007-2008, UNESCO reported 45,000 Canadian students studying abroad, a 50% increase since 1999 (UNESCO 2010).² The top five international destinations for Canadian students in that academic year were the United States, the United Kingdom, Australia, France and Ireland. Together, they attracted 90% of Canadian students studying abroad.

Although these figures may have appeared promising, the proportion of Canadian students studying abroad is low in comparison with many OECD countries. On recruitment of international students to Canada, Canada faces

¹ This is the most recent figure that is available.

² The UNESCO Institute for Statistics defines internationally mobile students as those who study in a foreign country of which they are not a permanent resident – the report does not include students in short exchange programs of one school year or less.

significant international competition in the years ahead for our share of the international student market.

Globally, student migration has grown faster than overall migration: the US and the UK are the top destinations for degree mobility (where the student moves abroad for an entire degree course), while China and India are top source countries (King et.al. 2010). Over the period from 1975 to 2006, Canada's students studying abroad for credit or degree have grown 207%, but Germany's has grown 424%, and France's has grown 492%.

There are a number of barriers identified in Canada on why international student mobility has not grown faster than it has. The relatively low levels of Canadian students studying abroad as exchange students is mainly the result of lack of funds or financial support, followed by "the curriculum at the home institution being too inflexible or the program being too heavy" and "students lack the necessary language skills."

AUCC survey results also indicated that Canadian universities' overall internationalization activities, including international student recruitment, are hindered by financial constraints and an overall lack of a federal strategy to enhance internationalization effort.

Since the AUCC survey was conducted in 2006, many internationalization activities have been undertaken by Canadian universities in recent years, and support for internationalization has been provided by the federal "Edu-Canada" initiative launched in 2007.

The "Edu-Canada" initiative, funded with \$1 million per year, sought to leverage DFAIT's network of embassies and consulates to undertake promotion efforts and attract more international students to Canada. Under the "Edu-Canada" initiative, DFAIT also entered into a partnership with the provincial and territorial governments via the Council of Ministers of Education, Canada, to launch and jointly manage Canada's education brand.

The \$1 million per year budget for "Edu-Canada" has been effectively managed to contribute to increased internationalization activities. The number of missions receiving funds to engage in promotional activities increased from 15 missions in 2006 to 95 in 2010. These missions are planning 170 promotional events in 2011. Stated objectives for the "Edu-Canada" initiative included a target of increasing the number of international students by 20% by 2012, which was achieved (increase of 28.4% between 2006 and 2010). Further, there was a target set of increasing the international use of Canadian curricula by 10%, a goal which was also reached (increase of 21% between 2006 and 2011). Lastly, "Edu-Canada" sought to increase the number of agreements facilitating two-way student mobility, which was accomplished via "Edu-Canada's" leadership in organizing Canada pavilions at Signature Events as well as focussed bilateral or regional roundtables to increase inter-institution agreements. Canadian institutions also

increased their international activities which resulted in greater inter-institutional engagement.

Canada as a Top Educational Destination

Canada remains a very attractive destination for international students when they seek a suitable country for pursuing international education at the post-secondary level. In the Canada First 2009 Survey (CBIE 2009), over half of student participants in the survey (53%) replied that Canada was their first choice of destination for pursuing their post-secondary education. Almost all student participants said that they thought of Canada as a place to reach their educational potential.

Several factors influenced international students' choice of educational institution, but the most important one appeared to be the quality of education the student would get from the relevant institution, followed by the availability of the desired program at that particular institution. From survey respondents, almost 9 students in 10 were satisfied with their decision to come to study in Canada, and over 80% said they would recommend Canada as a study destination to friends in their home country.

Most student participants report being satisfied with services and facilities they have used at their institutions. For example, about 8 in 10 students who had the relevant experience report being satisfied or very satisfied with the International Students Handbook, recreational facilities, international student advisors, and study skills and other learning support services.

These findings point to the success of the marketing of Canada as a top educational destination, as well as to the quality of international educational services offered in Canada's post-secondary education and training system.

Cost of International Education

The way we measure the impact of international students on Canada's economy is through the estimate of expenditure by international students during their stay in Canada. This is the way we measured such impacts in our previous study completed in 2009, as well as in other similar studies. Cost of education is one of the factors affecting an international student's choice of study destination. In the *Economic Impact of Post-Secondary International Students in Atlantic Canada: an Expenditure Analysis* (Dalhousie University 2010), it was pointed out that historically, differential tuition levels and fees were introduced because several host countries were concerned about the rising cost of subsidizing students from abroad.

The Dalhousie University study also pointed out that, recently, Australian universities have reversed their stance on differential tuition fees, opting to take a more aggressive approach towards international student recruitment by introducing tuition waivers for graduate and post-doctoral students from other countries. The Council of Australian Postgraduate Associations has stated that fee waivers will likely become a trend as universities compete in the international student market; a sharp contrast to the previous attitude of universities trying to attract the maximum number of international students paying differential fees to boost incomes. New Zealand has also followed suit by removing differential tuition fees for international students enrolled in Ph.D. programs.

In Canada, however, with the exception of a few programs offered in the province of Quebec, differential tuition rates and fees paid by international students have existed since the 1970s and were increased substantially in the 1980s. Data shows that, in most provinces, international students at the undergraduate level pay an average tuition at least twice as much as that paid by domestic students, and in some cases, more than six times as much. International graduate students also pay more than their domestic counterparts. (See Table 1 and Table 2.)

Table 1 Weighted Average Undergraduate Tuition Fees for Canadian and International Full-Time Students

	Canadian		International	
	2008/2009 current dollars	2009/2010	2008/2009 current dollars	2009/2010
Canada	4,747	4,942	14,630	15,943
Newfoundland and Labrador	2,619	2,624	9,322	10,314
Prince Edward Island	4,530	4,969	8,940	22,846
Nova Scotia	5,877	5,752	12,405	12,434
New Brunswick	5,479	5,516	10,973	11,248
Quebec	2,180	2,309	13,196	14,868
Ontario	5,667	5,985	16,891	18,051
Manitoba	3,238	3,408	9,690	11,166
Saskatchewan	5,064	5,173	10,465	12,618
Alberta	5,308	5,240	14,399	17,388
British Columbia	4,746	4,706	15,378	16,195

Source: Statistics Canada, Tuition and Living Accommodation Costs (TLAC) survey

Table 2 Weighted Average Graduate Tuition Fees for Canadian and International Full-Time Students

	Canadian		International	
	2008/2009 current dollars	2009/2010	2008/2009 current dollars	2009/2010
Canada	5,737	4,860	12,337	11,678
Newfoundland and Labrador	2,443	2,458	2,785	2,790
Prince Edward Island	2,665	4,091	6,148	7,913
Nova Scotia	7,734	7,701	14,493	14,580
New Brunswick	5,070	5,074	8,960	8,978
Quebec	2,219	2,443	11,346	12,801
Ontario	8,256	6,256	15,283	14,140
Manitoba	3,805	3,936	7,973	7,814
Saskatchewan	2,762	3,127	2,513	2,800
Alberta	4,948	4,597	9,324	9,272
British Columbia	7,241	6,230	13,876	9,794

Source: Statistics Canada, Tuition and Living Accommodation Costs (TLAC) survey

Given the competition in the global international education market, educational policy makers may need to re-examine the practice of differential tuitions and fees. However, it is important to note that, for example, the 95 members of AUCC are public and private not-for-profit universities and university-degree level colleges. Therefore, the motive for differential tuition is not profit as the funds cover the full costs of international students' participation.

Often, the preferred route for top talent is scholarships at the graduate level (both provided by universities themselves and some of the new federal government scholarships). These more than offset the tuition fees, yet draw less controversy (particularly when the domestic students can compete for the same scholarships).

Data Collection Practices

In conducting the literature review in our previous study, it became apparent that while many countries cater to a significant number of international students, few actively track the activities and spending patterns on a national basis. A recent study in Australia could have a significant impact on how national governments approach the issue of tracking the impact of international students. *The Australian Education Sector and the Economic Contribution of International Students (ACPET, 2009)* has determined that international students directly contribute over \$14 billion (Australian dollars) to the Australian economy (and about \$12.5 billion in indirect contributions) representing over 126,000 full time employees.

In order to collect this data, the Australian Council for Private Education and Training and its consultants used the Tourism Research Australia's International Visitor Survey to determine the number of visitors who identified education as their purpose of travel and examined their spending patterns³. The surveying of visitors (and the subsequent spin-off studies) has given the Australian education sector a significant advantage and could be the jumping off point for other countries committed to a comprehensive evaluation of the economic impact of international education.

The Institute of International Education (the leading not-for-profit educational and cultural exchange organization in the United States) has also done extensive work regarding the economic impact of students. In fact, they have given what seems to be a more tempered, and realistic, assessment of international students' economic impact as they have subtracted scholarships and financial assistance provided to international students from the total economic impact amount. The Institute has published an annual report (Open Doors) on international students in the U.S. since 1919. Open Doors also produces reports on surveys on international scholars at U.S. universities; international students enrolled in pre-academic Intensive English Programs; and on U.S. students studying abroad (since 1985). Its collection of data is through a survey of approximately 3,000 accredited institutions in the U.S.

However, it appears that the dollar figure that the Institute arrives at is still not entirely comprehensive as a) it is only based on tuition and living expenses – without mention of tourism or entertainment expenses and b) it would appear that language schools and other short term training institutes are not included in this study. In fact, the IIE partner site, the NAFSA: Association of International Educators, acknowledges that their impact figure is a conservative one.

In Canada, there is no readily available data set which provides detailed information on the number of international students or expenditure patterns. At the national level, Statistics Canada administers a survey to collect data on average tuition and fees as well as average cost of accommodation on campus. In another survey, Statistics Canada collects information on profiles of post-secondary institution graduates including age, registration status, gender, field of study, etc., and one of the variables can identify whether the student is an international student. Still, these datasets may not provide a comprehensive picture as not all post-secondary education institutions participate in the surveys.

Some provinces have compiled data on international students. Two recent studies on the economic impact of international education at a regional level are examples of such efforts (the studies by Dalhousie University and Kunin 2010).

³ The TRA samples 40,000 foreign visitors as they leave Australia each year. Survey participants are interviewed in airports (in one of four languages – English, Mandarin, Korean and Japanese) and asked 96 questions that cover purposes of trip, expenditures, travel, accommodation, etc. The survey results are posted each quarter.

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However, data collection methods differed in these studies and the level of detail on the types of students also differed amongst these studies. This again, points to the fact that there is still not a consistently defined and collected data set that is available across all provinces which will allow for comparison of such impacts.

One advantage of our current study over the previous one in 2009 is the availability of data on certain types of short term students (through Languages Canada) including the number of students as well as student week data. This will improve our understanding of this section of the international education market.

4. Number of International Students in Canada

In this Section, we will analyse data we have collected on the number of international students in Canada, as well as growth trends in recent years.

4.1. By Level of Education

4.1.1. Long Term Students

Table 3 shows the total number of international students in Canada (as of December 1st of each year) in each of the five levels of study from 2000 to 2010.⁴ For a description of the sources for this data-set, refer to Enrollment in the Methodology section.

Table 3 Number of International Students in Canada by Level of Study, 2000 to 2010

Level of study	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Secondary or less	27,997	31,669	32,590	31,614	30,763	30,517	32,546	34,480	34,390	34,510	35,140
Trade	16,504	20,127	22,857	24,717	25,179	24,079	22,581	21,553	18,923	21,130	20,240
University	53,168	63,613	72,970	81,117	88,647	91,727	92,865	94,621	95,404	109,665	116,890
Other post-secondary	9,092	12,785	14,485	15,801	13,910	14,506	15,823	19,375	22,726	23,390	36,900
Other	7,218	8,452	7,588	6,435	6,324	6,325	6,340	6,060	6,672	7,315	9,045
Total	114,093	136,716	150,552	159,727	164,855	167,188	170,194	176,116	178,227	196,030	218,245

Source: Citizenship and Immigration Canada

Over this period, the number of international students in Canada has increased at an average growth rate of 7% per year. Students classified under the “Other Post Secondary” category have grown the fastest, at a rate of 15% per year, followed by those students classified in the “University” category, with an annual growth rate of 8%. Students who pursue study in the K-12 system have grown at a rate of 2% per year during this period, the same as those in the “trade” and “other” levels of study.

It should also be noted that between 2000 and 2003, enrolment of international students at the university level experienced double-digit annual growth rates. However, in recent years since 2005, it has not grown as fast as the average for all students.

⁴ For more information see <http://www.cic.gc.ca/english/resources/statistics/menu-fact.asp>

Enrolment of international students in vocational trade colleges also enjoyed strong double-digit annual growth up to 2003. However, enrolment of students at this level of study has been declining steadily since 2004 and continued into 2010.

Table 4 indicates the distribution of international students in Canada at different levels of study. The information in this Table has been derived based on the stock of international students as of December 1st of each year reported by CIC.

Table 4 Distribution of International Students in Canada by Level of Study, 2000 to 2010

Distribution	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Secondary or less	24.5%	23.2%	21.6%	19.8%	18.7%	18.3%	19.1%	19.6%	19.3%	17.6%	16.1%
Trade	14.5%	14.7%	15.2%	15.5%	15.3%	14.4%	13.3%	12.2%	10.6%	10.8%	9.3%
University	46.6%	46.5%	48.5%	50.8%	53.8%	54.9%	54.6%	53.7%	53.5%	55.9%	53.6%
Other post-secondary	8.0%	9.4%	9.6%	9.9%	8.4%	8.7%	9.3%	11.0%	12.8%	11.9%	16.9%
Other	6.3%	6.2%	5.0%	4.0%	3.8%	3.8%	3.7%	3.4%	3.7%	3.7%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Citizenship and Immigration Canada

Data in Table 4 also indicate that Canada’s universities are most attractive to international students when we compare students in different levels of study. Together with other colleges, students in the post secondary system account for almost four-fifths (79.7% in 2010) of all international students in Canada who pursue study for more than six months.

4.1.2. Languages Canada Short Term Students

As described in the Methodology section, for international students who generally study for shorter than six months in Canada, and therefore would not have required a Study Permit issued by CIC, we have relied upon information provided to us by Languages Canada. In 2010, Languages Canada surveyed their membership and, of the 154 institutions that replied, responses indicated enrollment of 136,906 students (representing 1,639,793 study weeks). Of this number at least 110,157 students (almost 81%) were on short term programs of under 6 months (not all programs were able to report the breakdown of their study weeks by length of study). These numbers are for a combination of private post-secondary and public post-secondary non-credit language programs.

Therefore, using information provided by Languages Canada, it is estimated that a total of 1,134,638 student weeks were spent in Canada by international students in short term language training programs in 2010.

We note that Languages Canada does not have all language training institutions in Canada in its membership. We further note that since there is no reliable data indicating the number of short-term international students enrolling in vocational training or other types of training, we have not been able to estimate the number

of short-term international students other than those covered by Languages Canada.

4.2. By Province / Territory

4.2.1. Long Term Students

CIC data also provide a breakdown of the number of international students by province / territory.

Table 4 shows the number of international students in each of the provinces and territories in Canada between 2004 and 2010 (as measured by the stock of international students on December 1st each year). Of all the provinces and territories, international students to Newfoundland and Labrador and Prince Edward Island have shown the strongest growth in enrollment in recent years, at a rate of 10.9% and 15.4% respectively, but starting from a small base number. Nova Scotia is the third in line, with an annual growth rate of 6.4% per year over the period.

Table 5 Number of International Students in Canada by Province and Territory, 2004 to 2010

	2004	2005	2006	2007	2008	2009	2010
Newfoundland and Labrador	915	1,049	1,203	1,382	1,524	1,525	1,700
Prince Edward Island	309	345	405	476	521	655	730
Nova Scotia	5,464	5,461	5,475	5,444	5,802	6,610	7,920
New Brunswick	3,193	3,242	3,181	3,228	3,263	3,285	3,515
Quebec	25,472	25,206	25,914	27,095	28,010	30,575	32,225
Ontario	62,266	62,834	63,815	65,517	65,833	72,960	85,280
Manitoba	4,762	4,972	5,147	5,256	4,873	5,385	5,710
Saskatchewan	3,630	3,734	3,493	3,536	3,656	3,965	4,340
Alberta	12,023	12,431	12,965	13,846	14,433	15,560	16,290
British Columbia	46,707	47,777	48,463	50,198	50,221	55,450	60,470
Territories*	97	111	85	93	87	65	60
Total	164,838	167,162	170,146	176,077	178,227	196,030	218,245

*Yukon, Northwest Territories and Nunavut

Source: Citizenship and Immigration Canada

Because of its geographic size and the number of educational institutions, Ontario attracts the largest number of international students amongst all provinces and territories. It takes almost 40% of all international students in Canada. Although British Columbia only accounts for about 13% of the national population, it accounts for about 28% of the international students in the country, indicating the popularity of the province as an education destination.

Quebec, being the second most populous province in the country, accounts for almost 15% of the total number of international students in the country. Other provinces, especially the Maritime Provinces, have grown the number of international students in the region in recent years, although their share of the total number of international students remains relatively small. Information describing the distribution of international students in Canada by province/territory can be found in Table 6.

Table 6 Distribution of International Students in Canada by Province and Territory, 2004 to 2010

	2004	2005	2006	2007	2008	2009	2010
Newfoundland and Labrador	0.6%	0.6%	0.7%	0.8%	0.9%	0.8%	0.8%
Prince Edward Island	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%
Nova Scotia	3.3%	3.3%	3.2%	3.1%	3.3%	3.4%	3.6%
New Brunswick	1.9%	1.9%	1.9%	1.8%	1.8%	1.7%	1.6%
Quebec	15.5%	15.1%	15.2%	15.4%	15.7%	15.6%	14.8%
Ontario	37.8%	37.6%	37.5%	37.2%	36.9%	37.2%	39.1%
Manitoba	2.9%	3.0%	3.0%	3.0%	2.7%	2.7%	2.6%
Saskatchewan	2.2%	2.2%	2.1%	2.0%	2.1%	2.0%	2.0%
Alberta	7.3%	7.4%	7.6%	7.9%	8.1%	7.9%	7.5%
British Columbia	28.3%	28.6%	28.5%	28.5%	28.2%	28.3%	27.7%
Territories*	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Yukon, Northwest Territories and Nunavut

Source: Citizenship and Immigration Canada

4.2.2. Languages Canada Short Term Students

In this subsection, we show the number of Languages Canada students pursuing language training, as well as the number of student weeks, in Canada, by region.

Table 7 Number of International Students in Canada in Language Training Programs, by Region, 2010

	Languages Canada Enrollment		Students	Students	Students	Students	Students	Students
	Students	Weeks	<4 Weeks	4-12 Weeks	13-24 Weeks	25-36 Weeks	37-52 Weeks	>1 Year
Alberta	9,573	100,049	623	6,234	827	690	415	21
BC	60,777	669,058	8,227	27,118	17,074	11,472	7,848	188
SK and MB	2,238	26,207	45	440	554	348	194	36
ON	50,269	643,896	6,506	20,212	10,711	5,365	1,891	284
QC	10,314	107,487	1,430	5,906	2,339	546	91	2
NS	2,937	65,210	104	767	805	471	595	195
Rest of ATLANTIC	798	27,886	129	74	32	6	555	2
Total	136,906	1,639,793	17,064	60,751	32,342	18,898	11,589	728

Source: Languages Canada

Data in Table 7 show the number of students in each province/region who pursued language training courses in 2010 by the length of their programs. The total number of students (136,906) compared to the student weeks represented indicate that on average, these international students study for approximately 12 weeks in their programs.

It should be noted that, of 136,906 students, at least 110,157 students (almost 81%) were on short term programs of under 6 months (those in the columns "< 4 weeks", "4 to 12 weeks" and "13 to 24 weeks"). These represent 1,134,638 student weeks which is the number we will use in calculating expenditure for short term students later in Section 6.

As can be seen in Table 8, the percentage of international students in Languages Canada training programs is the largest in the province of BC, followed by in Ontario. Data in Table 8 also indicates that the average length of study of these international students is the longest in the Atlantic Provinces. In fact, their average length of study is 35 weeks, compared with the 11 to 12 weeks in other parts of the country.

Table 8 Distribution of International Students in Canada in Language Training Programs, by Region, 2010

Distribution			Students	Students	Students	Students	Students	Students
	Students	Weeks	<4 Weeks	4-12 Weeks	13-24 Weeks	25-36 Weeks	37-52 Weeks	>1 Year
Alberta	7.0%	6.1%	3.7%	10.3%	2.6%	3.7%	3.6%	2.9%
BC	44.4%	40.8%	48.2%	44.6%	52.8%	60.7%	67.7%	25.8%
SK and MB	1.6%	1.6%	0.3%	0.7%	1.7%	1.8%	1.7%	4.9%
ON	36.7%	39.3%	38.1%	33.3%	33.1%	28.4%	16.3%	39.0%
QC	7.5%	6.6%	8.4%	9.7%	7.2%	2.9%	0.8%	0.3%
NS	2.1%	4.0%	0.6%	1.3%	2.5%	2.5%	5.1%	26.8%
Rest of ATLANTIC	0.6%	1.7%	0.8%	0.1%	0.1%	0.0%	4.8%	0.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Languages Canada

4.3. By Province / Territory and by Level of Education

4.3.1. Long Term Students

We have also obtained information from Citizenship and Immigration Canada on international student enrollment by province and by level of study. For the year 2010, the information is shown in Table 9.

Table 9 Number of International Students in Canada by Level of Study, by Province and Territory, 2010

	Secondary or less	Trade	University	Other Post- Secondary	Other	Level of Study not Stated
Newfoundland and Labrador	100	30	1,470	90	10	-
Prince Edward Island	80	15	560	65	10	-
Nova Scotia	1,045	250	5,910	560	155	-
New Brunswick	415	65	2,625	250	160	-
Quebec	1,790	995	25,430	3,165	850	-
Ontario	12,640	9,065	39,135	19,295	5,135	10
Manitoba	845	195	4,050	535	85	-
Saskatchewan	765	55	3,235	235	45	-
Alberta	3,605	1,870	8,545	1,900	375	-
British Columbia	13,820	7,700	25,935	10,800	2,220	-
Territories*	25	10	10	10	-	-
Total	35,140	20,240	116,890	36,900	9,045	-

*Yukon, Northwest Territories and Nunavut

Source: Citizenship and Immigration Canada

Numbers in this table represent our best estimates of international student enrollment in different levels of study (longer than six months of duration) in each of the provinces and territories and will be the basis for our calculation in Section 6.

Table 9 shows the distribution of international students by level of study in the provinces and territories. In the Maritime Provinces as well as the provinces of Quebec, Manitoba and Saskatchewan, university students account for at least 70% of all international students studying in each of these provinces. In Ontario, Alberta, and BC, however, the shares of university students are lower than the national average. This is because international students in other levels of programs account for a much higher share of their total.

It should be noted that data shown for Territories may not correctly represent enrollment in the K-12 system. We are unaware of any international education program in the three territories. Therefore, we have not calculated any impact at this level of study.⁵

⁵ For example, Yukon Government stated that there is no international student program in the public K-12 system. (See link: <http://www.education.gov.yk.ca/psb/1185.html>)

Table 10 Distribution of International Students in Canada by Level of Study, by Province and Territory, 2010

	Secondary or less	Trade	University	Other Post- Secondary	Other	Level of Study not Stated
Newfoundland and Labrador	5.9%	1.8%	86.5%	5.3%	0.6%	-
Prince Edward Island	11.0%	2.1%	76.7%	8.9%	1.4%	-
Nova Scotia	13.2%	3.2%	74.6%	7.1%	2.0%	-
New Brunswick	11.8%	1.8%	74.7%	7.1%	4.6%	0.0%
Quebec	5.6%	3.1%	78.9%	9.8%	2.6%	-
Ontario	14.8%	10.6%	45.9%	22.6%	6.0%	-
Manitoba	14.8%	3.4%	70.9%	9.4%	1.5%	-
Saskatchewan	17.6%	1.3%	74.5%	5.4%	1.0%	-
Alberta	22.1%	11.5%	52.5%	11.7%	2.3%	-
British Columbia	22.9%	12.7%	42.9%	17.9%	3.7%	-
Territories*	41.7%	16.7%	16.7%	16.7%	-	-
*Yukon, Northwest Territories and Nunavut						
Total	19.3%	10.6%	53.5%	12.8%	3.7%	-

Source: Citizenship and Immigration Canada

5. Student Expenditure

In this section, we detail the sources of information and data we relied on and the techniques we applied to derive estimates of basic educational expenses and living costs while international students stay in Canada.

5.1. Tuition and Other Fees

5.1.1. Long Term Students

The average tuition fees and other fees paid by international students in different levels of study in each province and the territories are shown in Table 11.

Table 11 Estimated Tuition Fees and Education Related Expenses per International Student in Canada by Level of Study, by Province and territory, 2010

	Secondary or less	Trade	University Average	University Additional Fees	Books & Supplies	Other Post- Secondary	Other
Newfoundland and Labrador	\$9,000	\$10,980	\$10,310	\$500	\$1,200	\$10,980	\$10,980
Prince Edward Island	\$10,000	\$22,710	\$23,340	\$500	\$1,200	\$22,710	\$22,710
Nova Scotia	\$8,000	\$12,990	\$12,390	\$640	\$1,200	\$12,990	\$12,990
New Brunswick	\$11,160	\$12,140	\$11,700	\$410	\$1,200	\$12,140	\$12,140
Quebec	\$7,945	\$16,220	\$15,990	\$630	\$1,200	\$16,220	\$16,220
Ontario	\$13,250	\$19,160	\$19,060	\$810	\$1,200	\$19,160	\$19,160
Manitoba	\$10,000	\$12,200	\$11,740	\$430	\$1,200	\$12,200	\$12,200
Saskatchewan	\$10,795	\$14,080	\$13,820	\$440	\$1,200	\$14,080	\$14,080
Alberta	\$9,830	\$17,900	\$17,640	\$820	\$1,200	\$17,900	\$17,900
British Columbia	\$13,430	\$16,890	\$16,850	\$520	\$1,200	\$16,890	\$16,890
Territories*	-	\$8,300	\$7,490	\$360	\$1,200	\$8,300	\$8,300
Average	\$10,341	\$14,870	\$16,770	\$700	\$1,200	\$14,870	\$14,870

*Yukon, Northwest Territories and Nunavut

Source: RKA Estimates based Statistics Canada TLAC survey and Other Sources

For tuition and other fees at the K-12 level, we have relied upon information published by provincial government reports in each of the provinces. Note that these are based on tuition and fees in a school year (10 months) from public school sources only. Tuition and fees in private schools can be substantially higher.

Detailed tuition fees for full-time university level international students for each of the provinces are available from Statistics Canada's annual Tuition and Living

Accommodation Costs (TLAC) survey. Note that no data is available from the TLAC for the Territories.

We have not calculated an average of full time undergraduate and graduate tuition fees as we do not have a breakdown of the number of international students in each category. We have applied the average of undergraduate student tuition fees for calculation purposes. In addition, we have included “Additional Fees” which represent compulsory fees universities impose on both domestic and international students, such as facility fees, society fees, health and dental (for international students only) fees, student pass fees in some cases, and others. We have also made an allowance of \$1,200 per academic year for books.

We note that tuition fees for undergraduate students are for an academic year of eight months, although in some cases, students do take courses in summer programs. We have assumed that all undergraduate international students are paying for the equivalent of one academic year’s tuition in a given year.

Nationally, the average tuition fees for international undergraduate students was \$16,768 in 2010/2011, an increase of 5.2% over the previous year. This increase in tuition fees for international undergraduate students was smaller than that of the previous year (+7.1%), and changes in tuition fees ranged from a decrease of 0.3% in Nova Scotia to a rise of 9.5% in Saskatchewan.⁶

In estimating student expenditure in tuition and other fees directly related to educational purposes for students in the “Trade” and “Other Post-Secondary” levels, we have derived the values in the following manner:

- For tuition fees, we have applied a factor of 90% to the average university tuition fees in each province. Based on the data available from the TLAC, tuition fees in colleges providing university level training average about 90% of all training institutions surveyed.⁷
- We have also assumed that international students in “Trade” and “Other Post-Secondary” levels of study pay on average the same amount of “Additional Fees” as university level international students.⁸
- The same allowance for annual expenditure on books has also been applied.
- For college international students in the Territories, tuition fees information has been derived from a number of colleges’ websites.

⁶ See <http://www.statcan.gc.ca/daily-quotidien/100916/dq100916a-eng.htm>

⁷ We have also been provided by the BC Ministry of Advanced Education detailed tuition data for public college and university international students. Similarly, the average full-year tuition fees in colleges and university colleges are about 90% of the average of all public universities and colleges.

⁸ The TLAC data does cover colleges and institutes providing university level of training.

For international students in the “Other” category, since we don’t have any detailed information on the nature of their study, we have assumed that they pay the same level of tuition fees and other education related expenses as those in the “Trade” level of study.

5.1.2. Languages Canada Short Term Students

Information from Languages Canada indicates that short term language students pay an average \$305 per study week for tuition fees.

5.2. Living Expenses

5.2.1. Long Term Students

We have also relied upon a variety of data sources to arrive at average living expenses for different levels of study. Information related to home-stay, average room and meals and other basic living expenses for international students in different levels of study is shown in Table 12.

Table 12 Estimated Accommodation and Related Expenses per International Student in Canada by Level of Study, by Province and territory, 2010

	Secondary or less	Trade	University		Other Post- Secondary	Other
			Room & Meal Average	Transport		
Newfoundland and Labrador	\$6,500	\$9,930	\$9,330	\$600	\$9,930	\$9,930
Prince Edward Island	\$6,500	\$13,275	\$12,855	\$420	\$13,275	\$13,275
Nova Scotia	\$6,500	\$12,600	\$12,060	\$540	\$12,600	\$12,600
New Brunswick	\$6,500	\$11,990	\$11,640	\$350	\$11,990	\$11,990
Quebec	\$7,000	\$12,305	\$11,805	\$500	\$12,305	\$12,305
Ontario	\$8,350	\$13,255	\$12,435	\$820	\$13,255	\$13,255
Manitoba	\$6,500	\$12,810	\$12,090	\$720	\$12,810	\$12,810
Saskatchewan	\$6,600	\$11,875	\$11,475	\$400	\$11,875	\$11,875
Alberta	\$7,020	\$11,550	\$10,650	\$900	\$11,550	\$11,550
British Columbia	\$8,080	\$12,815	\$11,835	\$980	\$12,815	\$12,815
Territories*	-	\$9,740	\$8,400	\$1,340	\$9,740	\$9,740
Average	\$6,955	\$12,013	\$11,325	\$688	\$12,013	\$12,013

*Yukon, Northwest Territories and Nunavut

Source: RKA Estimates based Statistics Canada TLAC survey and Other Sources

For calculating living expenses at the K-12 level, we have relied upon information published by provincial government reports in each of the provinces on average home-stay costs for a 10-month period.⁹

⁹ By using a 10-month home stay value we have assumed that international students in secondary

At the university level, we have relied upon 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 months period. Values in the column "University – Room and Meal Average" have been scaled up to full year values.

We note that these are fairly conservative estimates as they apply to single students living on campus. Students with a family generally pay more than the amount shown here in Table 12. We assess in Appendix 2 how total expenditure is affected by changes in living expenses.

We have also made allowances for transportation costs for students staying in different provinces and territories.¹⁰ We have relied upon data from Statistics Canada's Survey of Household Spending (SHS), detailing household spending on public transportation, by province and territory, in 2009. The values we used refer to the median expenditure per household that reported using public transportation. Values in 2010 have been adjusted for inflation between 2009 and 2010.

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

Average costs of meals and accommodation for colleges in the Territories has been derived based on college websites. So has the estimate of transportation cost.

In addition to basic living costs as presented above, we have 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).

For each province and territory, in each level of study, the formula to calculate total expenditure is as follows:

Estimated number of students in that level of study x sum of (average tuition and additional fees, books, average room and meals, average transportation cost, average discretionary spending) per year = Total International Student Expenditure in one year in the level of study

schools or lower levels in the K-12 system spend on average 10 months each year and may return to home countries for vacation.

¹⁰ There may be double-counting of transportation cost in this Table and previous Table 7, as some universities have included bus passes in their reported "Additional Fees".

5.2.2. Languages Canada Short Term Students

Information from Languages Canada shows that an average short term student spends \$206 per study week for room cost. We have assumed \$100 per study week for food, \$35 for transportation, and \$50 per week for discretionary spending, based on various institution websites which provide information on expense budgeting.

6. Assessing the Economic Impact of International Education in Canada

In this section, we will combine estimated number of international students in Canada by level of study in each province and territory and estimates on educational and living costs to arrive at an estimation of total expenditure by international students while they study in Canada.

6.1. Total Spending

Based on the data and approaches we described in the previous two sections, we have estimated that students in the K-12 system contribute over \$763 million to the Canadian economy, and those in the university system contribute close to \$4.0 billion per year to the Canadian economy in 2010. Students in other post secondary institutions contribute another \$1.9 billion. In total \$6.9 billion worth of expenditure was put into the Canadian economy in 2010 from those students who studied for six months or longer. This is shown in Table 13.

Table 13 Estimated Total Expenditure of International Students in Canada by Level of Study, by Province and Territory, 2010

	Secondary or less	Trade	University	Other Post- Secondary	Other	Total Expenditure
Newfoundland and Labrador	\$1,700,000	\$702,000	\$35,927,000	\$2,107,000	\$234,000	\$40,670,000
Prince Edward Island	\$1,440,000	\$577,000	\$22,856,000	\$2,502,000	\$385,000	\$27,760,000
Nova Scotia	\$16,720,000	\$7,023,000	\$173,340,000	\$15,730,000	\$4,354,000	\$217,167,000
New Brunswick	\$7,951,000	\$1,731,000	\$72,975,000	\$6,658,000	\$4,261,000	\$93,576,000
Quebec	\$29,437,000	\$30,870,000	\$829,654,000	\$98,194,000	\$26,371,000	\$1,014,526,000
Ontario	\$291,984,000	\$316,504,000	\$1,441,146,000	\$673,685,000	\$179,289,000	\$2,902,608,000
Manitoba	\$15,210,000	\$5,364,000	\$116,154,000	\$14,718,000	\$2,338,000	\$153,784,000
Saskatchewan	\$14,455,000	\$1,565,000	\$96,516,000	\$6,687,000	\$1,280,000	\$120,503,000
Alberta	\$66,152,000	\$59,747,000	\$288,052,000	\$60,705,000	\$11,981,000	\$486,637,000
British Columbia	\$317,998,000	\$247,979,000	\$878,807,000	\$347,814,000	\$71,495,000	\$1,864,093,000
Territories*	-	\$205,000	\$213,000	\$205,000	-	\$623,000
Total	\$763,047,000	\$672,267,000	\$3,955,640,000	\$1,229,005,000	\$301,988,000	\$6,921,947,000

*Yukon, Northwest Territories and Nunavut

Source: RKA Estimates

The average total expenditure per international student (including tuition fees, other fees, books, room and meal, transportation, and discretionary spending) in Canada in different levels of study can therefore be derived as:

- K-12: \$21,710

- Trade: \$33,210
- University: \$33,840
- Other Post-secondary: \$33,310
- Other: \$33,390
- All Levels of Study: \$31,720

An additional \$788 million per year has been estimated as the contribution from students pursuing short term language training courses. This has been calculated based on values of spending per week for 1,134,638 student weeks.

Table 14 Estimated Total Expenditure of Languages Canada Short-Term International Students in Canada, by Province and Territory, 2010

	Total Expenditure	Share of Exp. by Province
Newfoundland and Labrador	\$367,913	0%
Prince Edward Island	\$103,185	0%
Nova Scotia	\$15,031,315	2%
New Brunswick	\$541,687	0%
Quebec	\$65,677,517	8%
Ontario	\$262,724,657	33%
Manitoba	\$5,320,205	1%
Saskatchewan	\$4,499,226	1%
Alberta	\$46,423,486	6%
British Columbia	\$387,472,971	49%
Territories*	-	-
*Yukon, Northwest Territories and Nunavut		
Total	\$788,162,162	100%

Source: RKA Estimates

Combining long-term and short-term students, we estimate that total international student expenditure in 2010 was about \$7.71 billion, a significant contribution to the Canadian economy.¹¹

We note that our calculations have made use of various survey results and average expenditure data, as such, our estimates are fairly conservative. We have anecdotal evidence that show, in certain cases, student expenditure is substantially above the average. However, without a consistent data set that

¹¹ For comparison, we note that Statistics Canada's annual record of trade in services indicates that, in 2010, total expenditure of international students studying in Canada at the colleges and universities amounted to \$3.51 billion. See http://cansim2.statcan.gc.ca/cgi-win/cnsmcgi.pgm?Lang=E&RootDir=CII/&ARRAY_VREL=3760031&PortalID=3764&ResultTemplate=V3764 for more information. Readers can refer to Section 2 Methodology for an explanation on the difference between our estimates and Statistics Canada's estimates, and Appendix 1 for reconciliation of our estimates with Statistics Canada's valuation.

shows percentage of international students in different level of spending bracket, we have not included such data in our estimates.

6.2. Direct Economic Impact

6.2.1. Long Term Students

When we compare international education services in each province and territory with other sectors in the economy, we need to translate that total expenditure values into Gross Domestic Product (GDP), employment, and government revenue contribution.

In this subsection, we make use of economic multipliers that we have derived from Statistics Canada's provincial Input-Output Tables, to estimate international education services' contribution to each province's GDP, employment, and government revenue.¹²

In Table 15 that follows, we provide our estimates of the total expenditure made by international students who stay in Canada for at least six months, and the corresponding contribution to the province/territory's GDP,¹³ employment, and government revenue growth.¹⁴

¹² Statistics Canada, Provincial Input-Output Multipliers, 2007.

¹³ Total expenditure (or 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 purposes of building houses, for example) or used as a final product (think of a beam in a completed house). If we calculate gross domestic product at the provincial level, or GDP at the provincial level, this way, the cost of the log will be counted many times, as it moves from a raw product to its eventual use as a beam, and it is wrong. The value of total industrial output thus includes both the value of intermediate inputs and primary inputs - the latter being the labour and the capital in production. It is the sum of the latter, which is also referred to as the value added, that is equal to gross domestic product at the provincial level.

¹⁴ The types of taxes included in the Input-Output Tables include indirect taxes on products as well as indirect taxes on production, at the federal, provincial, and municipal levels, where applicable, net of subsidies on products and/or production.

Table 15 Direct Economic Impact of International Education Services, by Province and Territory, 2010

	Total Expenditure	GDP	Employment	Government Revenue
Newfoundland and Labrador	\$40,670,000	\$27,614,000	370	\$1,480,000
Prince Edward Island	\$27,760,000	\$6,191,000	60	\$621,400
Nova Scotia	\$217,167,000	\$123,568,000	1,890	\$12,000,000
New Brunswick	\$93,576,000	\$66,975,000	1,030	\$3,425,300
Quebec	\$1,014,526,000	\$593,069,000	8,000	\$81,226,000
Ontario	\$2,902,608,000	\$1,808,730,000	29,970	\$202,975,000
Manitoba	\$153,784,000	\$87,342,000	1,640	\$10,831,000
Saskatchewan	\$120,503,000	\$69,887,000	1,050	\$4,479,000
Alberta	\$486,637,000	\$300,332,000	4,770	\$13,249,000
British Columbia	\$1,864,093,000	\$1,151,116,000	21,460	\$66,897,000
Territories*	\$623,000	\$174,000	0	\$8,000
Total	\$6,921,947,000	\$4,234,998,000	70,240	\$397,191,700

*Yukon, Northwest Territories and Nunavut

Source: RKA based on Statistics Canada's Provincial Input-Output Multipliers, 2007.

Total GDP contribution of international education services amounted to over \$4.2 billion in 2010 in Canada. By comparison, the GDP contribution of the whole Educational Services sector in Canada was \$66.6 billion (2007 value). Therefore, international education services accounted for about 6.3% of Canada's overall educational services.

In employment, international education services provided 70,240 jobs in Canada.¹⁵ The overall educational services sector in Canada employed about 1,217,800 persons in 2010. Therefore, international educational services provided the equivalent of about 5.7% of all the jobs in the educational services sector.

6.2.2. Languages Canada Short Term Students

When we take into account the spending of short-term language students covered by Languages Canada, these international students also contributed an additional \$788 million in 2010 in total spending to the Canadian economy. This is equivalent to about \$456 million in GDP, 10,780 jobs, and \$48 million in government revenue. This is represented in Table 16.

¹⁵ Note that direct economic impact in terms of GDP, employment, and government revenue is not attributed to the educational services industry only. In fact, total expenditure in each province has been allocated to these following industries in the individual provincial input-output model: universities and government education services; retail trade; transit and ground passenger transportation; finance, insurance, real estate and rental and leasing; and arts, entertainment and recreation.

Table 16 Direct Economic Impact of Short-Term International Language Students, by Province and Territory, 2010

	Total Expenditure	GDP	Employment	Government Revenue
Newfoundland and Labrador	\$367,910	\$234,000	0	\$10,200
Prince Edward Island	\$103,190	\$62,000	0	\$3,200
Nova Scotia	\$15,031,310	\$8,793,000	250	\$861,000
New Brunswick	\$541,690	\$390,000	10	\$22,000
Quebec	\$65,677,520	\$36,273,000	870	\$5,655,000
Ontario	\$262,724,660	\$155,703,000	3,330	\$22,198,000
Manitoba	\$5,320,210	\$2,738,000	110	\$396,000
Saskatchewan	\$4,499,230	\$2,250,000	90	\$169,000
Alberta	\$46,423,490	\$27,488,000	620	\$1,713,000
British Columbia	\$387,472,970	\$221,777,000	5,500	\$17,081,000
Territories*	-	\$0	0	\$0
Total	\$788,162,180	\$455,708,000	10,780	\$48,108,400

*Yukon, Northwest Territories and Nunavut

Source: RKA based on Statistics Canada's Provincial Input-Output Multipliers, 2007.

6.2.3. Government Tax Revenue

In this sub-section, we will further demonstrate the importance of international education with respect to its contribution to government revenue. Government revenue, as reported in Table 15 and Table 16, have been derived using the provincial and territorial input-output tables published by Statistics Canada by calculating the amount of net indirect taxes incurred in the process of producing outputs and services by an industry.

Indirect taxes incurred in the process of producing outputs and services include both indirect taxes on production as well as indirect taxes on products. The types of taxes can be:

- federal trading profits on lottery and race track
- federal gasoline tax
- federal excise tax
- federal excise duties
- federal air transportation tax
- provincial wine and liquor gallonage tax
- provincial trading profits on liquor and lottery
- provincial gasoline tax
- provincial amusement tax
- local amusement tax
- local retail sales tax
- federal GST

- provincial retail sales tax
- provincial HST

The net taxes we calculated are total indirect taxes net of total subsidies incurred on products and production. From what has been included in “government tax revenue” the reader will see that this is a very conservative estimate of the amount of tax dollars contributed by international students as we have not included other types of tax revenue, such as personal income taxes paid by individuals providing services to international students.

The amount of government tax revenue can be further allocated to federal, provincial or territorial, and local governments. To do this, we have referred to information on consolidated federal, provincial, territorial, and local government revenue and expenditure published by Statistics Canada. In 2009 (the latest year in which such information was reported), the distribution of consumption taxes amongst federal, provincial/territorial, and local governments was 39.7%, 60.2% and .01%.

Therefore, out of the \$397.2 million government tax revenue from long term international students, federal government would have benefited \$157.7 million, and \$239 million have contributed to provincial and territorial governments’ tax revenue.

Similarly, of the \$48 million tax revenue generated by short term international students, \$19 million was contributed to federal government, and almost \$29 million was contributed to provincial and territorial governments.

6.2.4. Comparison with Impact Values in 2009 Study

Compared with our previous study results, change in total spending values by long term students can be attributed to both change in enrolment and price inflation. As can be seen from the table below, enrolment of long term students has increased by 22% between 2008 and 2010. Total spending has grown by 26%, indicating the implicit price inflation rate of about 2% per year.

We further note that because of data availability, we have been able to use more accurate tuition and fees to calculate spending by university students in each of the provinces and territories.

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	2010	2008	2010	2008
	Enrolment		Total Expenditure	
Newfoundland and Labrador	1,700	1,524	\$40,670,000	\$38,145,000
Prince Edward Island	730	521	\$27,760,000	\$12,864,000
Nova Scotia	7,920	5,802	\$217,167,000	\$168,340,000
New Brunswick	3,515	3,263	\$93,576,000	\$88,915,000
Quebec	32,225	28,010	\$1,014,526,000	\$1,025,042,000
Ontario	85,280	65,833	\$2,902,608,000	\$2,162,252,000
Manitoba	5,710	4,873	\$153,784,000	\$115,807,000
Saskatchewan	4,340	3,656	\$120,503,000	\$99,695,000
Alberta	16,290	14,433	\$486,637,000	\$364,584,000
British Columbia	60,470	50,221	\$1,864,093,000	\$1,423,161,000
Territories*	60	87	\$623,000	\$1,214,000
Total	218,245	178,227	\$6,921,947,000	\$5,500,019,000

We did not have a regional breakdown of enrolment of Languages Canada short term students in 2009, and as such our estimates of enrolment in each of the provinces were derived by reference to the share of total spending of CIC students in a province. With improved data, we have a more accurate picture of possible short term student spending in provinces and territories in 2010.

Further, we note that because we have used more detailed provincial input-output tables to calculate impact values and better input industry allocation, impact values are more accurate in this update.

6.3. Comparison of International Education Services in Canada with Other Export Trade

In this sub-section, we will provide a comparison of the total value of international education services by top source country, with the values of Canada's exports of goods and services to these countries. We will also compare the value of total expenditure in international education services in Canada with the total export of goods in Canada.

Table 17 details the number of study permit holders in 2010 (as of December 1st) by top ten source countries. This represents the estimate of the number of long term international students in Canada in different levels of study by top source countries.

Table 17 Number of Long Term International Students in Canada by Top Source Countries, 2010

Area/ Country	Secondary or less	Trade	University	Other post-secondary	Other	Total
China	6,685	4,290	35,180	9,690	1,065	56,900
Korea	9,895	7,825	5,370	1,170	360	24,615
India	205	1,415	4,640	10,560	700	17,530
Saudi Arabia	670	950	6,565	2,475	2,305	12,960
USA	905	330	8,600	1,010	415	11,280
France	450	240	8,185	1,015	150	10,050
Japan	1,315	575	2,025	660	1,275	5,845
Mexico	1,745	350	1,380	550	325	4,530
Hong Kong	1,110	230	2,090	545	25	4,000
Taiwan	925	300	1,195	890	40	3,355
Top 10 Areas	23,905	16,505	75,230	28,565	6,660	151,065
All Areas/Countries	35,140	20,240	116,890	36,900	9,045	218,245

Source: Citizenship and Immigration Canada

Using data from Languages Canada, we have in the Table below the estimates of language training students by the same top source countries.

Table 18 Number of Languages Canada International Students in Canada by Top Source Countries, 2010

	LC Students
China	13,719
Korea	20,466
India	-
Saudi Arabia	16,340
USA	364
France	1,965
Japan	16,018
Mexico	5,861
Hong Kong	-
Taiwan	2,568
All	110,157

Source: Languages Canada

However, data from the Languages Canada does not allow us to provide further details on the proportion who study for fewer than 6 months in a given year. As such we do not use information from Languages Canada in our calculation to follow.

Overall, international students from the top 10 source countries account for almost two-thirds of all international students coming to study in Canada. By multiplying an average total expenditure per student by level of study by the total number of international students in each of the top ten source countries, we have calculated the total amount of exports of international education services from Canada to each of these countries. This is summarized in Table 19.

Table 19 Number of International Students in Canada by Top Source Countries, and Total Value of International Education Services, 2010

Area/ Country	Secondary or less	Trade	University	Other post-secondary	Other	All Long-Term Students
China	\$145,131,000	\$142,471,000	\$1,190,491,000	\$322,774,000	\$35,560,000	\$1,836,427,000
Korea	\$214,820,000	\$259,868,000	\$181,721,000	\$38,973,000	\$12,020,000	\$707,402,000
India	\$4,451,000	\$46,992,000	\$157,018,000	\$351,754,000	\$23,373,000	\$583,588,000
Saudi Arabia	\$14,546,000	\$31,550,000	\$222,160,000	\$82,442,000	\$76,964,000	\$427,662,000
USA	\$19,648,000	\$10,959,000	\$291,024,000	\$33,643,000	\$13,857,000	\$369,131,000
France	\$9,770,000	\$7,970,000	\$276,980,000	\$33,810,000	\$5,009,000	\$333,539,000
Japan	\$28,549,000	\$19,096,000	\$68,526,000	\$21,985,000	\$42,572,000	\$180,728,000
Mexico	\$37,884,000	\$11,624,000	\$46,699,000	\$18,321,000	\$10,852,000	\$125,380,000
Hong Kong	\$24,098,000	\$7,638,000	\$70,726,000	\$18,154,000	\$835,000	\$121,451,000
Taiwan	\$20,082,000	\$9,963,000	\$40,439,000	\$29,646,000	\$1,336,000	\$101,466,000
Top 10 Areas	\$518,979,000	\$548,131,000	\$2,545,784,000	\$951,502,000	\$222,378,000	\$4,786,774,000
All Areas/Countries	\$762,889,000	\$672,170,000	\$3,955,558,000	\$1,229,139,000	\$302,013,000	\$6,921,769,000

Source: RKA Estimates

Note that the amounts generated as shown here in Table 16 are underestimates of the “true” amount of Canada’s export in educational services as we are only accounting for the number of students who stay in Canada to study for at least six months in a year, but not those in short-term education and training programs.

For comparison, we have also shown the value of international education services in each of the top 10 source countries as a percentage of total value of goods export to these countries. The final row in Table 20 shows the value of international education services in Canada from all long-term international students and the value of Canada’s total export in goods.

Table 20 Comparison of International Education Services with Total Exports in Goods from Canada to the Top Ten International Student Source Countries and to All Countries, 2010

Area/ Country	All Long-Term Students	All Exports in Goods	Educational Services as % of All Goods Exports
China	\$1,836,427,000	\$13,232,891,000	13.9%
Korea	\$707,402,000	\$3,709,307,000	19.1%
India	\$583,588,000	\$2,088,683,000	27.9%
Saudi Arabia	\$427,662,000	\$977,758,000	43.7%
USA	\$369,131,000	\$299,068,000,000	0.1%
France	\$333,539,000	\$2,349,565,000	14.2%
Japan	\$180,728,000	\$9,194,118,000	2.0%
Mexico	\$125,380,000	\$5,009,864,000	2.5%
Hong Kong	\$121,451,000	\$1,897,603,000	6.4%
Taiwan	\$101,466,000	\$1,289,112,000	7.9%
Top 10 Areas	\$4,786,774,000	\$338,816,901,000	1.4%
All Areas/Countries	\$6,921,769,000	\$399,434,000,000	1.7%

Source: RKA Estimates based on DFAIT data

While the size of international education services is small in comparison with the value of total export in goods to countries such as Japan and the United States, such services contribute substantially to Canada's total export to countries such as India, the Peoples' Republic of China, South Korea, and Saudi Arabia.

We do, however, point out that our estimates of international education services exceeds both the travel services and total services exports reported by Statistics Canada for a number of these top ten countries, specifically for China, Korea, India and Saudi Arabia.

Comparing with results from our 2009 study, the importance of international education compared with Canada's value of exports has increased. Overall the value of international education accounts for 1.7% of the value of all Canada's export in goods in 2010, which is an increase from 1.1% in 2008. We caution that part of the reason of this increase maybe attributed to the fact that we have data for international students by level of study in each of the top source countries in this study, which we did not have in the 2009 study and therefore have applied an average expenditure value for all students from that country.

For individual top source countries, these ratios have increased for China, Saudi Arabia, France, India, and Mexico.

7. Additional Benefit from Tourism Activities

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

As with our previous study in 2009, there is not data which shows that actual percentage of international students having family and friends visiting while they stay in Canada. For the purposes of this estimation, we have used similar methodology as in our 2009 study to derive the estimated number of family and friends of international students who participate in tourism activities.

The methodology in our previous study in 2009 was based on research work conducted by Tourism Research Australia in 2007 (Australian Council for Private Education and Training (ACPET), 2009). The study shows that for every 10 formal visiting student (defined as those whose main purpose of visiting Australia is education), there are an additional five family and friend visitors to the country. For those informal visiting students (defined as those whose main purpose of visiting Australia was not education but still studied a course while on the trip), every 10 bring an additional 2 visitors.

Table 21 Friend and Family Visitors per International Student, Australia, 2006

	Formal Study Tourist	Informal Study Tourist	All Students
Number of Family Visiting	0.3	0.1	0.4
Number of Friend Visiting	0.2	0.1	0.3
Total	0.5	0.2	0.7

Source: Tourism Research Australia 2007, Reproduced from ACPET 2009

If we assume international students visiting Canada follow a similar pattern, we can estimate that the number of family and friend visitors could be as high as 131,200 per year. This is shown in Table 22.

Table 22 Number of Friend and Family Visitors Related to International Students in Canada

	Formal Study Tourist	Informal Study Tourist	All Students
Number of Family Visiting	65,472	11,016	76,488
Number of Friend Visiting	43,648	11,016	54,664
Total	109,120	22,031	131,151

Source: RKA

For travel expenses, we have made use of data available from Statistics Canada's publication *International Travel, 2009*, which indicated that for one or more night travelers to Canada, average expenditure they spent in Canada was \$739.¹⁶ (Average number of nights they stayed in Canada was 7.4.)

Using information we have derived on student enrollment by province/territory, along with our estimates of "friends and family tourists", we have calculated total expenditure related to additional tourism activities. We have further estimated the economic impact of tourism related expenditure (estimated to be \$336 million in 2010) on GDP, employment, and government revenue due to student expenditure as described above. This is equivalent to about \$188 million in GDP, 5,550 jobs, and \$9.7 million in government revenue. This is represented in Table 23.¹⁷

¹⁶ See <http://www.statcan.gc.ca/pub/66-201-x/66-201-x2009000-eng.pdf> for information on international travel.

¹⁷ In estimating direct economic impact in terms of GDP, employment, and government revenue related to tourism related activities, total expenditure in each province has been allocated to these following industries in the individual provincial input-output model: retail trade; transit and ground passenger transportation; accommodation and food services; and arts, entertainment and recreation.

Table 23 Direct Economic Impact of Tourism Activities Associated with International Students and Their Family/Friends, 2010

	Estimated Total Tourist Spending	GDP	Employment	Government Revenue
Newfoundland and Labrador	\$1,941,590	\$1,065,000	40	\$56,900
Prince Edward Island	\$822,570	\$410,000	20	\$23,000
Nova Scotia	\$10,168,360	\$5,875,000	210	\$324,000
New Brunswick	\$3,969,880	\$1,930,000	80	\$81,800
Quebec	\$43,881,570	\$24,578,000	780	\$1,115,000
Ontario	\$126,515,070	\$72,146,000	2,120	\$4,005,000
Manitoba	\$6,764,060	\$3,280,000	100	\$216,000
Saskatchewan	\$5,183,500	\$2,780,000	90	\$125,000
Alberta	\$24,636,050	\$12,332,000	280	\$604,000
British Columbia	\$112,440,910	\$63,251,000	1,830	\$3,187,000
Territories*	\$65,880	\$33,000	0	\$1,300
Total	\$336,389,440	\$187,680,000	5,550	\$9,739,000

*Yukon, Northwest Territories and Nunavut

Source: RKA based on Statistics Canada's Provincial Input-Output Multipliers, 2007.

Using an approach as described in section 6.2.3, out of the total of \$9.7 million tax revenue, \$3.9 million was contribution to federal government tax revenue, while \$5.9 million was contribution to provincial and territorial governments.

8. Canada's Performance in the Global Market

To remain competitive in the global economy, Canada needs to attract the best and the brightest to contribute to our talent pool in many areas – scientific and research development, economic development opportunities, cultural diversification, just to name a few. International students studying in Canada not only bring in substantial income to the local communities, but also may become a valuable source of highly skilled labour to our economy at a time when the western world is facing potential labour shortages especially among top talent.

In this section, we present statistics available from the UNESCO Institute for Statistics regarding international student mobility at the tertiary level by country.¹⁸ In Table 24, we have shown the number of international students in selected host countries from 1999 to 2009 (the most recent year in which data for most countries is available).

Table 24 Number of Tertiary Level International Students in Selected Host Countries, 1999 to 2009

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Japan	56,552	59,691	63,637	74,892	86,505	117,903	125,917	130,124	125,877	126,568	131,599
New Zealand	6,900	8,210	11,069	17,732	26,359	41,422	40,774	...	33,047	31,565	38,351
Canada	32,466	36,450	42,711	49,572	59,067	65,001	69,126	68,520	92,881
France	130,952	137,085	147,402	165,437	221,567	237,587	236,518	247,510	246,612	243,436	249,143
Germany	178,195	187,033	199,132	219,039	240,619	260,314	259,797	207,994	206,875	189,347	197,895
Great Britain	232,540	222,936	225,722	227,273	255,233	300,056	318,399	330,078	351,470	341,791	368,968
USA	451,935	475,169	475,168	582,996	586,316	572,509	590,158	584,719	595,874	624,474	660,581
Australia	117,485	105,764	120,987	179,619	188,160	166,954	177,034	184,710	211,526	230,635	257,637
...	Data not available										
World Total	1,602,186	1,731,913	1,804,933	2,104,935	2,360,223	2,432,256	2,475,986	2,543,659	2,745,080	2,775,012	2,799,408

Source: UNESCO Institute for Statistics

Table 25 shows the number of tertiary level international students in these selected countries as a percentage of total number of international students studying away from home country from 1999 to 2009 (i.e., each country's share in the global market).

¹⁸ The UNESCO Institute for Statistics (UIS) is the statistical office of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and is the UN depository for comparable statistics in the fields of education, science and technology, culture, and communications.

Table 25 Selected Host Countries of Tertiary Level International Students, Market Shares, 1999 to 2009, and Average Annual Growth Rate

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Ave. Ann. Grth Rt.	
											2009	1999-2007
Japan	3.5%	3.4%	3.5%	3.6%	3.7%	4.8%	5.1%	5.1%	4.6%	4.6%	4.7%	11%
New Zealand	0.4%	0.5%	0.6%	0.8%	1.1%	1.7%	1.6%	...	1.2%	1.1%	1.4%	22%
Canada	2.0%	2.1%	2.4%	2.4%	2.5%	2.7%	2.8%	2.7%	3.4%	14%
France	...	7.9%	8.2%	7.9%	9.4%	9.8%	9.6%	9.7%	9.0%	8.8%	8.9%	8%
Germany	...	10.8%	11.0%	10.4%	10.2%	10.7%	10.5%	8.2%	7.5%	6.8%	7.1%	2%
Great Britain	14.5%	12.9%	12.5%	10.8%	10.8%	12.3%	12.9%	13.0%	12.8%	12.3%	13.2%	5%
USA	28.2%	27.4%	26.3%	27.7%	24.8%	23.5%	23.8%	23.0%	21.7%	22.5%	23.6%	4%
Australia	7.3%	6.1%	6.7%	8.5%	8.0%	6.9%	7.2%	7.3%	7.7%	8.3%	9.2%	8%
... Data not available												
World Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	7%

Source: UNESCO Institute for Statistics

Data in this Table indicate that Canada took in about 3% of all international students in the global market, slightly more than New Zealand. Canada's market share at this level of education has also been growing from 1999 to 2007. By comparison, Australia, a country similar in size and population to Canada, took up 9.2% of the global market in this area. Of all these selected countries, US accounted for the largest market share, at 23.6% in 2009.

Table 25 further shows the average annual growth rate in the number of international students in these countries during the period from 1999 to 2007 (the most recent year data is available for Canada).

Of all these countries under comparison, New Zealand has experienced the strongest growth in the number of international students in the country for college and university education. Canada ranked above average, presenting an average annual growth rate of 14% compared with the 7% growth rate for all countries. Results from these two variables indicate that Canada has made inroads over recent years in attracting international students. This is consistent with our findings in the literature review section shown earlier.

9. Conclusions and Recommendations

In this report, Roslyn Kunin and Associates, Inc. (RKA) has used mainly secondary sources to collect information for estimating the quantitative impact of international students in various levels of study on the Canadian economy. The RKA team has worked extensively with international education stakeholders and organizations to collect data on different types of expenditure items and their dollar amounts, and calculated total expenditure by level of study and by province/territory.

We have discussed the differences of a number of data sets which could be used to approximate the number of international students studying in provinces and territories in Canada. In the end, we have adopted the time series of the number of study permit holders in the country, derived from the Citizenship and Immigration Canada, as the proxy for the number of international students in the country by level of study. As the CIC data does not provide any information on short term students who do not require a study permit to pursue career, language, or vocational training while they stay in Canada, we have further utilized data from Languages Canada, an established data set which helps to fill some of the data gap.

The economic benefit of international students studying in Canada is substantial. Total expenditure of long-term international students in Canada amounted to about \$6.9 billion in 2010. This translates to \$4.2 billion in GDP contribution to the Canadian economy, and represents almost 7% of the GDP contributed by the overall education services sector in the Canadian economy.

International education services serving these long-term students contributed to over 70,000 jobs in the labour market. This represents about 5.7% of the total number of jobs in the overall education services sector in Canada.

International education services serving long term students also generated almost \$400 million in government revenue, mainly by way of paying consumption taxes. Out of this amount, we estimate that \$157.7 million was tax contribution to federal government, and \$239 million contributed to provincial and territorial government tax revenue.

International students in short-term language training programs in Canada also contributed an additional \$788 million per year in total spending to the Canadian economy. This is equivalent to about \$455 million in GDP, 10,780 jobs, and \$48 million in government revenue.

In addition to capturing economic impact resulted from spending on tuition and fees and basic living expenses, we estimate that \$336 million per year can be attributed to additional tourism related activities, including international students and their family and friends.

Canada's international education services for long-term students alone contribute to the equivalent of 1.7% of Canada's total export in goods to the world. However, for top international student source countries such as China, South Korea, and Saudi Arabia, Canada's international education services to these countries contribute to more than 10% of Canada's export in goods to these countries.

It should be noted that this report has utilized a combination of literature, websites, and other public information to collect data and these are at best our educated estimates of the magnitude of international education services in Canada. However, these estimates are subject to revision should more accurate data become available in the future.

Given the substantial amount of economic benefits brought by international students to the country, we believe that there is a need to develop more consistently defined and more timely available data sets which will allow for tracking international educational services performance over time.

Specifically, we recommend that,

- Ensure that international students are recognized and supported commensurate to their importance to Canada relative to other similar sized exports of goods and services.
- Consider the possibility of establishing a survey method like that undertaken in Australia where a sample of visitors leaving the country would be surveyed regarding their activities in Canada. This would need to be done at all major international airports and would need to be carried out in a number of languages.
- Work with stakeholders (including CIC, Statistics Canada, and universities, colleges, and other training institutions) to develop a consistent system of record-keeping to track international student expenditures while in Canada.
- Work with Statistics Canada to develop a national survey of public and private educational institutions to determine international student enrolment, tuition rates, and other expenses for degree/diploma granting programs as well as adult and continuing education classes of under six months.

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- Coordinate with provincial governments and national organizations to determine consistent survey questions for international students.

References

Articles

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

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>

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

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."

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

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

Infometrics, 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 (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: Comparing Education Statistics Across the World*.
<http://unesdoc.unesco.org/images/0018/001894/189433e.pdf>

Website References

General

High School Programs 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 School:
<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/eeed/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/vancouver/news/business/story.html?id=c0db1f52-0062-498c-8e29-7e5a14d9e69c>

"The Role of International Education", BC Progress 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 Ministère de l'Éducation, du Loisir et du Sport: www.mels.gouv.qc.ca

Provincial Associations

BC Centre for International Education: <http://bccie.bc.ca/bccie/factsfigs.php>

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

Appendix 1 Reconciliation of RKA Estimates with Valuation by Statistics Canada

Statistics Canada reported that Canada's international student services was valued at \$3.51 billion in 2010. In this appendix, we will reconcile our estimates of international education services shown in Table 13 and Table 14 with Statistics Canada's valuation.

We have been advised that Statistics Canada's valuation of international students in 2010 was based on the number of international students in post-secondary system of 118,870. A breakdown of Statistics Canada's valuation indicates that average expenditure on tuition was \$17,263, \$11,437 on food and rent, and \$832 on supplies. Average total expenditure per student was therefore \$29,532, for an academic year (8 months).

In RKA's calculation, for the same type of students (equivalent to the sum of students in Trade, University, and Other Post Secondary levels of study), average tuition cost was \$18,406, \$7,976 on food and rent, \$779 on transportation, and \$2,500 for discretionary spending. Average total expenditure was \$29,661. These figures are for one academic year, eight months. If we had applied a value of 118,870 for the number of students, the resulting total expenditure for this population of students would have been \$3.52 billion, similar to Statistics Canada's valuation. However, for estimating the number of post secondary students in Canada in 2010, we have relied upon values from Citizenship and Immigration Canada's estimate of the "stock" of foreign students as of December 1 of 2010. Total number of students from this source indicates that there were 174,060 students who held a valid student permit pursuing post secondary training in Canada. Therefore, total expenditure was valued at \$5.16 billion.

As detailed in the report, we have assumed that even though estimates from Statistics Canada's Tuition and Living Accommodation Costs (TLAC) survey for "Room and Meal" are for an eight-month period, international students are most likely to stay for the whole calendar year. Therefore we have applied a factor of $12/8=1.5$ to scale up the cost of food and accommodation. With this adjustment, total expenditure for post secondary level international students became \$5.86 billion.

In addition to post secondary students, we have included students in the K-12 system (with expenditure on tuition and homestay for 10 months), and other students whose level of study was not clear, but who were included in CIC data. Total expenditure for these "long-term" students (meaning that they are required by CIC to hold a valid student permit while they stay in Canada for pursuing study longer than six months in a calendar year) was \$6.92 billion.

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The last segment of international student population refers to "short-term" students who do not require a student permit to pursuing training generally shorter than six months long. These students would include those pursuing language training, or other short term vocational training. For practical reasons, we have only data from Languages Canada and therefore have valued expenditure from this source. For these 110,157 students who studied for up to 24 weeks in 2010 (see Table 7), total number of student weeks was estimated at 1,134,638, and total expenditure at \$788 million (Table 14).

Combining long-term and short-term students yields a total expenditure value of \$7.71 billion in RKA's estimate.

Table 1
Reconciliation of RKA Estimates with Statistics Canada Valuation

	Average Annual Expenditures						Total Expenditures (\$ Millions)
	Students	Tuition	Food&Rent	Other	Discretionary	Total	
	(#)	(\$)	(\$)	(\$)	(\$)	(\$)	
Statistics Canada	118,870	17,263	11,437	832	nil	29,532	3,510.50
Switch to RKA costs		+1,143	-3,461	-53	+2,500	129	15.3
Switch to RKA # of students	+55,190					29,661	1,637.0
Switch to 12-month food & rent	174,060		+3,988				694.2
Add K-12 students	35,140					21,710	762.9
Add other long-term students	9,045					33,390	302.0
Add short-term students*	1,134,638	305	306	35	50	696	789.7
RKA expenditures of int'l students							7,711.6

*: uses number of student weeks and weekly expenditures per student

Appendix 2 Scenario Analysis

In this appendix, we provide an assessment of how total expenditure will change for four different scenarios of increase in the number of international students in the province at the post-secondary level.

For the purposes of this analysis, we focus on assessing how total expenditure changes:

- when a portion of students as represented by CIC data may not be actively pursuing formal training;
- when a portion of post-secondary students pursue part-time study; or
- when living expenses are higher or lower.

In the rest of this appendix, we will show total expenditure will change as a result of changes in international student enrollment or spending patterns.

Before we proceed, we reproduce Table 13 in the report for comparison purposes.

Estimated Total Expenditure of International Students in Canada by Level of Study, by Province and Territory, 2010

	Secondary or less	Trade	University	Other Post- Secondary	Other	Total Expenditure
Newfoundland and Labrador	\$1,700,000	\$702,000	\$35,927,000	\$2,107,000	\$234,000	\$40,670,000
Prince Edward Island	\$1,440,000	\$577,000	\$22,856,000	\$2,502,000	\$385,000	\$27,760,000
Nova Scotia	\$16,720,000	\$7,023,000	\$173,340,000	\$15,730,000	\$4,354,000	\$217,167,000
New Brunswick	\$7,951,000	\$1,731,000	\$72,975,000	\$6,658,000	\$4,261,000	\$93,576,000
Quebec	\$29,437,000	\$30,870,000	\$829,654,000	\$98,194,000	\$26,371,000	\$1,014,526,000
Ontario	\$291,984,000	\$316,504,000	\$1,441,146,000	\$673,685,000	\$179,289,000	\$2,902,608,000
Manitoba	\$15,210,000	\$5,364,000	\$116,154,000	\$14,718,000	\$2,338,000	\$153,784,000
Saskatchewan	\$14,455,000	\$1,565,000	\$96,516,000	\$6,687,000	\$1,280,000	\$120,503,000
Alberta	\$66,152,000	\$59,747,000	\$288,052,000	\$60,705,000	\$11,981,000	\$486,637,000
British Columbia	\$317,998,000	\$247,979,000	\$878,807,000	\$347,814,000	\$71,495,000	\$1,864,093,000
Territories*	-	\$205,000	\$213,000	\$205,000	-	\$623,000
*Yukon, Northwest Territories and Nunavut						
Total	\$763,047,000	\$672,267,000	\$3,955,640,000	\$1,229,005,000	\$301,988,000	\$6,921,947,000

Source: RKA Estimates

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Scenario 1. Assuming 5% of CIC students are not in fact actively pursuing study

Estimated Total Expenditure of International Students in Canada by Level of Study, Assuming 5% Students Not in Training

by province	Total Expenditure					Total Expenditure
	Secondary or less	Trade	University	Other Post- Secondary	Other	
Newfoundland and Labrador	\$1,655,000	\$686,000	\$35,044,000	\$2,057,000	\$229,000	\$39,671,000
Prince Edward Island	\$1,400,000	\$560,000	\$22,155,000	\$2,428,000	\$373,000	\$26,916,000
Nova Scotia	\$16,302,000	\$6,860,000	\$169,135,000	\$15,367,000	\$4,253,000	\$211,917,000
New Brunswick	\$7,720,000	\$1,691,000	\$71,228,000	\$6,506,000	\$4,164,000	\$91,309,000
Quebec	\$28,725,000	\$30,063,000	\$806,996,000	\$95,627,000	\$25,682,000	\$987,093,000
Ontario	\$283,610,000	\$307,820,000	\$1,399,918,000	\$655,200,000	\$174,369,000	\$2,820,917,000
Manitoba	\$14,788,000	\$5,246,000	\$113,447,000	\$14,392,000	\$2,287,000	\$150,160,000
Saskatchewan	\$14,042,000	\$1,526,000	\$94,016,000	\$6,521,000	\$1,249,000	\$117,354,000
Alberta	\$64,380,000	\$58,073,000	\$279,652,000	\$59,005,000	\$11,646,000	\$472,756,000
British Columbia	\$308,718,000	\$241,476,000	\$854,727,000	\$338,693,000	\$69,620,000	\$1,813,234,000
Territories*	\$0	\$201,000	\$208,000	\$201,000	\$0	\$610,000
*Yukon, Northwest Territories and Nunavut						
Total	\$741,340,000	\$654,202,000	\$3,846,526,000	\$1,195,997,000	\$293,872,000	\$6,731,937,000

Total expenditure was reduced by 3%.

Roslyn Kunin and Associates, Inc.

Scenario 2. Assuming 5/6 of CIC Post Secondary students paid full tuition and fees and 1/6 CIC Post Secondary students paid half tuition and fees

Estimated Total Expenditure of International Students in Canada by Level of Study, Assuming 5/6 of CIC Post Secondary students paid full tuition and fees and 1/6 CIC Post Secondary students paid half tuition and fees

by province	Total Expenditure					Total Expenditure
	Secondary or less	Trade	University	Other Post- Secondary	Other	
Newfoundland and Labrador	\$1,700,000	\$675,000	\$34,456,000	\$2,025,000	\$234,000	\$39,090,000
Prince Edward Island	\$1,440,000	\$549,000	\$21,688,000	\$2,379,000	\$385,000	\$26,441,000
Nova Scotia	\$16,720,000	\$6,752,000	\$166,332,000	\$15,124,000	\$4,354,000	\$209,282,000
New Brunswick	\$7,951,000	\$1,665,000	\$70,063,000	\$6,405,000	\$4,261,000	\$90,345,000
Quebec	\$29,437,000	\$29,525,000	\$791,890,000	\$93,916,000	\$26,371,000	\$971,139,000
Ontario	\$291,984,000	\$302,031,000	\$1,372,432,000	\$642,877,000	\$179,289,000	\$2,788,613,000
Manitoba	\$15,210,000	\$5,166,000	\$111,642,000	\$14,174,000	\$2,338,000	\$148,530,000
Saskatchewan	\$14,455,000	\$1,500,000	\$92,348,000	\$6,411,000	\$1,280,000	\$115,994,000
Alberta	\$66,152,000	\$56,957,000	\$274,052,000	\$57,871,000	\$11,981,000	\$467,013,000
British Columbia	\$317,998,000	\$237,141,000	\$838,673,000	\$332,613,000	\$71,495,000	\$1,797,920,000
Territories*	\$0	\$198,000	\$205,000	\$198,000	\$0	\$601,000
*Yukon, Northwest Territories and Nunavut						
Total	\$763,047,000	\$642,159,000	\$3,773,781,000	\$1,173,993,000	\$301,988,000	\$6,654,968,000

Total expenditure was reduced by 4%.

Roslyn Kunin and Associates, Inc.

Scenario 3. Assuming Living Expenses are 10% Higher

Estimated Total Expenditure of International Students in Canada by Level of Study, Assuming 10% Higher Living Expenses

by province	Total Expenditure					Total Expenditure
	Secondary or less	Trade	University	Other Post- Secondary	Other	
Newfoundland and Labrador	\$1,780,000	\$740,000	\$37,754,000	\$2,219,000	\$247,000	\$42,740,000
Prince Edward Island	\$1,504,000	\$601,000	\$23,740,000	\$2,604,000	\$401,000	\$28,850,000
Nova Scotia	\$17,556,000	\$7,400,000	\$182,264,000	\$16,576,000	\$4,588,000	\$228,384,000
New Brunswick	\$8,283,000	\$1,825,000	\$76,779,000	\$7,020,000	\$4,493,000	\$98,400,000
Quebec	\$30,958,000	\$32,343,000	\$867,303,000	\$102,880,000	\$27,630,000	\$1,061,114,000
Ontario	\$304,434,000	\$330,786,000	\$1,502,804,000	\$704,084,000	\$187,379,000	\$3,029,487,000
Manitoba	\$15,886,000	\$5,663,000	\$122,355,000	\$15,537,000	\$2,468,000	\$161,909,000
Saskatchewan	\$15,074,000	\$1,644,000	\$101,167,000	\$7,025,000	\$1,345,000	\$126,255,000
Alberta	\$69,223,000	\$62,374,000	\$300,058,000	\$63,375,000	\$12,508,000	\$507,538,000
British Columbia	\$331,238,000	\$259,771,000	\$918,527,000	\$364,354,000	\$74,895,000	\$1,948,785,000
Territories*	\$0	\$218,000	\$225,000	\$218,000	\$0	\$661,000
*Yukon, Northwest Territories and Nunavut						
Total	\$795,936,000	\$703,365,000	\$4,132,976,000	\$1,285,892,000	\$315,954,000	\$7,234,123,000

Total expenditure would increase by 4.5%.

Roslyn Kunin and Associates, Inc.

Scenario 4. Assuming Living Expenses are 10% Lower

Estimated Total Expenditure of International Students in Canada by Level of Study, Assuming 10% Lower Living Expenses

by province	Total Expenditure					
	Secondary or less	Trade	University	Other Post- Secondary	Other	Total Expenditure
Newfoundland and Labrador	\$1,620,000	\$665,000	\$34,100,000	\$1,995,000	\$222,000	\$38,602,000
Prince Edward Island	\$1,376,000	\$554,000	\$21,973,000	\$2,399,000	\$369,000	\$26,671,000
Nova Scotia	\$15,884,000	\$6,645,000	\$164,416,000	\$14,885,000	\$4,120,000	\$205,950,000
New Brunswick	\$7,619,000	\$1,637,000	\$69,171,000	\$6,295,000	\$4,029,000	\$88,751,000
Quebec	\$27,915,000	\$29,397,000	\$792,005,000	\$93,508,000	\$25,113,000	\$967,938,000
Ontario	\$279,534,000	\$302,223,000	\$1,379,489,000	\$643,286,000	\$171,198,000	\$2,775,730,000
Manitoba	\$14,534,000	\$5,066,000	\$109,953,000	\$13,899,000	\$2,208,000	\$145,660,000
Saskatchewan	\$13,835,000	\$1,486,000	\$91,866,000	\$6,349,000	\$1,216,000	\$114,752,000
Alberta	\$63,080,000	\$57,119,000	\$276,046,000	\$58,036,000	\$11,454,000	\$465,735,000
British Columbia	\$304,759,000	\$236,186,000	\$839,088,000	\$331,274,000	\$68,095,000	\$1,779,402,000
Territories*	\$0	\$193,000	\$201,000	\$193,000	\$0	\$587,000
*Yukon, Northwest Territories and Nunavut						
Total	\$730,156,000	\$641,171,000	\$3,778,308,000	\$1,172,119,000	\$288,024,000	\$6,609,778,000

Total expenditure would decrease by 4.5%.