

The Economic Impact of International Education in British Columbia

Roslyn Kunin & Associates, Inc.
Commissioned by the BC Council for International Education



**Economic Impact of International
Education in British Columbia
Final Report**

Presented to:

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Executive Summary

Major Findings

In 2010, international students in British Columbia spent in excess of \$1.8 billion on tuition, accommodation and discretionary spending. This translated to a direct contribution equivalent to \$1.245 billion in provincial GDP, over 21,540 jobs created; and more than \$66 million in government revenue generated.

Altogether there were about 28,000 international students in the province in 2010 pursuing various levels of formal post-secondary education and training in both public and private institutions. These students spent a total of \$1.2 billion in the province contributing to tuition and fees paid to the universities, retail trade businesses, food manufacturing industries, real estate rental services, transportation services, and various other sectors such as the arts, entertainment and recreation industries. In addition, there were about 43,000 international students pursuing language training programs in private language schools throughout the province. On average, their stay lasted more than 12 weeks, contributing to 536,200 student weeks of activities towards the provincial economy. In total, these international students at the post-secondary level spent \$1.5 billion in the province.

There were also about 12,000 international students in BC in 2010 pursuing education in both public and private schools in the K-12 system. These students also brought in excess of \$292 million worth of economic activities to the province. Similarly, they contributed to the educational services sector, retail trade, food manufacturing, real estate rental services, and other industry sectors in the provincial economy.

The contribution of international education services to the provincial economy is significant. The provincial GDP generated by international education services was equivalent to \$1.245 billion, which is slightly greater than the provincial GDP contribution from the crop and animal production industry, or from coal mining industry. The number of jobs created in a year due to international education services was 21,540, which is about the same as employment total in the broadcasting and telecommunications sector, and greater than employment levels in many other industries in the province.

When the value of educational services provided in British Columbia to international students is compared to the value of the more traditional goods that BC exports, it is significant to note that international education services as an export service accounted for 7% of the total values of goods export from the province. The impact for some countries is even more striking. The Saudi

Arabians, for example, spend the equivalent of 446% of the value of the goods they import from BC on educational services. Similarly, we see that India (54%), Mexico (42%), China (17%), and Korea (17%) all spend significantly for educational services when compared to the trade goods they import from BC.

In this report, Roslyn Kunin and Associates, Inc. (RKA) has used primarily secondary sources to collect information on the quantitative impact of international students in various levels of study on the provincial economy. The RKA team has also worked closely 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.

The summary tables are presented as follows.

Summary Table I Number of International Students in BC by Level of Study, and Expenditure, 2010

Province	All students per year									
	Number of Students	Tuition Fees	Additional Fees	Books & Supplies	Accommodation and Meals	Transportation	Discretionary Spending	Total Spending		
Public PSE										
Undergraduate	23,700	\$ 350,831,100	\$ 9,480,000	\$ 28,440,000	\$ 219,449,926	\$ 8,532,000	\$ 59,250,000	\$ 675,983,026		
Graduate	4,300	\$ 57,185,700	\$ 1,720,000	\$ 5,160,000	\$ 39,815,809	\$ 1,548,000	\$ 10,750,000	\$ 116,179,509		
Private PSE	11,000	\$ 209,000,000	\$ 2,750,000	\$ 13,200,000	\$ 99,000,000	\$ 13,200,000	\$ 27,500,000	\$ 364,650,000		
Languages Canada Students K-12	43,000	\$ 193,027,680	\$ -	\$ -	\$ 101,875,720	\$ 16,085,640	\$ 26,809,400	\$ 337,798,440		
Public	9,010	\$ 121,019,957	\$ -	\$ -	\$ 67,575,000	\$ -	\$ 4,505,000	\$ 193,099,957		
Private	2,990	\$ 55,683,767	\$ -	\$ -	\$ 42,159,000	\$ -	\$ 1,495,000	\$ 99,337,767		
Total										
PSE	82,000	\$ 810,044,480	\$ 13,950,000	\$ 46,800,000	\$ 460,141,455	\$ 39,365,640	\$ 124,309,400	\$ 1,494,610,975		
K-12	12,000	\$ 176,703,724	\$ -	\$ -	\$ 109,734,000	\$ -	\$ 6,000,000	\$ 292,437,724		

Source: calculated by RKA based on various sources.

**Summary Table II Total Expenditure of International Students in BC
in Post-Secondary Education and K-12,
and Direct and Combined Direct and Indirect Economic Impact in BC, 2010**

Province	Direct Economic Impact				Direct and Indirect Economic Impact		
	Total Spending	GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
Total	PSE \$ 1,494,610,975	\$ 1,018,460,000	17,900	\$ 56,000,000	\$ 1,289,045,000	21,820	\$ 70,035,000
	K-12 \$ 292,437,724	\$ 226,777,000	3,640	\$ 10,367,000	\$ 270,122,000	4,300	\$ 12,523,000

Source: RKA

**Summary Table III Value of International Student Expenditure
by Top Ten Source Countries, BC, 2010**

Country	Public Post-Secondary	Private Post-Secondary	Languages Schools	Elementary and Secondary Schools	Total: All Types
Korea	\$ 56,583,000	\$ 19,890,000	\$ 72,273,000	\$ 148,656,000	\$ 297,402,000
China	\$254,624,000	\$ 116,025,000	\$ 7,856,000	\$ 46,303,000	\$ 424,808,000
Japan	\$ 42,437,000	\$ 39,780,000	\$ 59,704,000	\$ 19,496,000	\$ 161,417,000
Saudi Arabia	\$ 39,608,000	\$ 39,780,000	\$ 31,423,000	\$ -	\$ 110,811,000
Brazil	\$ 5,658,000	\$ 9,945,000	\$ 36,922,000	\$ 7,311,000	\$ 59,836,000
Mexico	\$ 14,146,000	\$ 13,260,000	\$ 30,638,000	\$ 12,185,000	\$ 70,229,000
Taiwan	\$ 22,633,000	\$ 23,205,000	\$ 11,784,000	\$ 17,059,000	\$ 74,681,000
United States	\$ 56,583,000	\$ 9,945,000	\$ -	\$ 4,874,000	\$ 71,402,000
Germany	\$ 11,317,000	\$ -	\$ 10,213,000	\$ 17,059,000	\$ 38,589,000
Switzerland	\$ -	\$ -	\$ 17,283,000	\$ -	\$ 17,283,000
Top Ten Countries	\$503,589,000	\$ 271,830,000	\$ 278,096,000	\$ 272,943,000	\$ 1,326,458,000
Total	\$792,160,000	\$ 364,650,000	\$ 337,799,000	\$ 292,439,000	\$ 1,787,048,000

Source: RKA

Summary IV Export of International Education Services
Compared with All Goods Exports from BC, 2009

Country/Area	Export of Educational Services	All Goods Exports	Educational Services Compared with Total Goods Export
China	\$ 424,808,000	\$ 2,518,291,320	17%
Korea	\$ 297,402,000	\$ 1,747,864,990	17%
Japan	\$ 161,417,000	\$ 3,499,077,742	5%
Saudi Arabia	\$ 110,811,000	\$ 24,863,063	446%
Taiwan	\$ 74,681,000	\$ 475,860,693	16%
United States	\$ 71,402,000	\$ 12,908,600,320	1%
Mexico	\$ 70,229,000	\$ 165,715,633	42%
Brazil	\$ 59,836,000	\$ 254,362,920	24%
India	\$ 48,182,000	\$ 89,197,407	54%
Hong Kong	\$ 39,497,000	\$ 244,896,022	16%
Top Ten Countries	\$ 1,358,265,000	\$ 21,928,730,110	6%
Total (All Countries)	\$ 1,787,048,000	\$ 25,614,033,829	7%

Source: RKA; Canada Merchandise Exports (Customs Basis) – DFAIT 2009

1. Introduction

As Canada's and BC's economies become increasingly globalized, the benefits of international education to our economy are substantial and cannot be neglected. To remain competitive in the global economy, our province 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 the province also bring in substantial income to the local communities. International students can also become a valuable source of supply of highly skilled labour to our economy at a time when the western world is facing potential labour shortages especially among top talent. In essence, these benefits to the Canadian economy as a whole also apply to the economy in British Columbia.

Roslyn Kunin and Associates, Inc. (RKA) has been commissioned by the British Columbia Council for International Education to undertake an in-depth and comprehensive study evaluating the economic impact of international education in the province. Its purpose is to develop, implement, and analyze an economic model to determine the value of international education and student mobility brings to the provincial economy.

The layout of the report is as follows. In Section 2, we provide a description of our research methodology and approaches taken to gather data and provide estimates of economic impact. In Section 3, we describe background information we have examined in preparing for this report. In Sections 4 to 6 we examine how we collect data on student enrolment as well as student expenditure. In Section 6 we combine our data and provide estimates of economic impact of international education services in the province on provincial GDP, employment, and government revenue. Finally in Section 7, we summarize our findings and present our suggestions on areas for further research.

2. Methodology

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

We have reviewed existing data on university, college, language school and elementary/secondary school enrolment and tuition as well as information regarding living expenses and spending estimates for international students. The following provided relevant research data and information:

- *Statistics Canada*
- *Citizenship and Immigration Canada*
- *Ministries representing advanced education and education branches for BC*
- *BC Council for International Education*
- *Languages Canada*
- *National Association of Career Colleges*
- *Association of Universities and Community Colleges*

The References section of this report provides a more detailed listing of the materials used in preparing this report.

The methodology undertaken is as follows:

1. Through research and references from key contacts, collect as much data as possible on the following:
 - International student enrollment in various programs and institutions
 - Tuition data
 - Data on other additional fees pursuing the education/training programs
 - Living and entertainment expense data
 - Tourism data
2. Compile data and analyze data above.

3. Follow up with data gaps.
4. Calculate total expenditure by multiplying average expenditure in different categories by the number of student enrollment by level of study.
5. Allocate expenditure values as demand for goods and services in different industries in the province.
6. Feed values in demand for goods and services in each industry related in the provincial input-output tables published by Statistics Canada to estimate impact in terms of GDP, employment, and government revenue.
7. Sum up all impact values in all industries to arrive at total impact in GDP, employment, and government revenue.
8. Repeat procedures 4 to 7 for impact analysis in each region if regional analysis is involved.

In the Table below, we show multiplier values we have applied in our current study in estimating economic impact of international education in terms of GDP, employment, as well as government revenue contribution to the provincial economy. These values are derived based on expenditure values calculated in step 4, in seven categories;

- Tuition and fees for universities: expenditure in this category is the sum of average tuition and additional fees (such as Student Society fees, recreation fees), as well as average cost of books and supplies for students pursuing post-secondary education and training, both public and private.
- Tuition and fees in language training schools: expenditure in this category is the sum of average cost of tuition and additional fees incurred for students participating in private ESL programs in the province, as well as the average cost of books and supplies.
- Tuition and fees in K-12 schools: expenditure in this category is the sum of average tuition cost, plus additional student fees charged by schools, either public or private, as well as the cost of books and supplies incurred during the course of study.
- Food expenses: this expenditure category is generally the cost of food and meals incurred during either a home-stay, student residence, or living in a private accommodation.
- Residence expenses: this category of expenditure is the average cost of living accommodation incurred during a home-stay, student residence, or private apartment rental.

- Transportation expenses: this expenditure category refers to the average cost of getting a monthly bus pass (U-passes for public post-secondary students), or the average cost of getting ground transportation to and from school in a community.
- Discretionary expenses: this category of expenditure refers to an estimate of the average amount spent for entertainment (going to movies and dining out, for example), arts activities, or recreational activities (going to sports activities, ski trips, for example).

The expenditure in each category in the table below is assumed to be \$1 million in a given year. The employment impact refers to the number of jobs created.

	Direct Impact			Direct & Indirect Impact		
	GDP	Employment	Govt Rev	GDP	Employment	Govt Rev
Tuitions and fees in universities	\$745,644	11	\$14,059	857,769	12	\$19,059
Tuitions and fees in language training schools	\$711,961	26	\$16,739	895,901	28	\$31,706
Tuitions and fees in K-12 schools	\$868,517	16	\$3,509	\$955,638	17	\$7,269
Food expenses	\$653,445	16	\$29,930	866,961	19	\$42,800
Residence expenses	\$633,963	2	\$116,316	\$883,996	5	\$129,018
Transportation expenses	\$463,323	15	-	751,137	19	-
Discretionary expenses	\$504,538	16	\$23,878	812,690	22	\$39,055

More detailed explanation of how we arrive at the expenditure values in each of the categories can be found in Section 5.

3. Literature Review

In this Section, we provide an overview of literature on topics and issues related to international education in Canada in general and in British Columbia specifically. The purpose of this is to provide an overview of background information and what previous research has informed us and what data gaps exist.

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." (1999, Conference Board)

International Education:

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)

Economic Impacts

The Conference Board of Canada's study, *Economic Implications of International Education*, emphasized some key aspects to consider (although it is important to note that most of the statistics are from the mid 1990s):

- improved flow of knowledge and information, understanding of global markets, and the understanding of international capacities that can benefit a global business environment.
- in 1999 Canada was not a major player in the foreign education landscape and had not reaped the economic benefits that many other countries had.
- the report provides performance indicators - an index that compares the "relationship between international education activity and economic performance", reports on key countries and their policies, programs and indicators, international trends, and options for Canada in the future.
- the report found that - Canada is not keeping up with other key countries in terms of international education; international education and economic performance are "positively correlated"; international education has a positive impact on GDP, innovation, and foreign direct investment; European countries studied have developed coordinated national strategies for international education; Canada and US are dominated by non-profit, educational and employer initiatives;
- regarding student inflows, the US and the UK have the highest absolute levels and Australia has the highest level per 1000 people
- Relationships: the following are identified as having positive relationships
 - international education and GDP; international education and innovation;
 - international education and international trade, international education and foreign direct investment
- According to the report, Canada ranked 6th (out of the top 9 countries) in student inflows throughout the period 1991 to 1995

Roslyn Kunin and Associates' report *Economic Value of International Education in BC* used:

- a total impact approach to evaluate quantifiable benefits that international students bring to BC.
- direct impacts to measure the increase in industrial output and the increase in an industry's (educational services) labour force from the

inflow of international students to the province on a yearly basis. Increase in government revenue also measured.

- indirect impacts to measure the change in industrial output and employment demand in sectors that supply goods and services to the public post-secondary education sector in the province.
- induced impact to measure the changes in output and employment demand over all sectors of the economy as a result of an income increase in households impacted both directly and indirectly.
- other equally important though non quantifiable benefits including such factors as helping BC students prepare for a career in the global economy and generating long term international business and tourism opportunities for BC through networking and familiarity with the province.

Roslyn Kunin and Associates also produced another report on estimation of impact of international education in Canada by province for the Department of Foreign Affairs and International Trade in 2009.

A number of sources identified concerns regarding the double counting of students and the over-estimation of spending. The problem arises, generally, because data is collected, when available, from a variety of sources. And even then, there is a distinct possibility that the data may have been collected and used by other institutions. This is most often the case when data is collected from institutions that service both short and long term students. Organizations like Languages Canada have made considerable efforts to deal with the issue, but you are still ultimately at the mercy of each individual institution.

Growth in Foreign Student Expenditures in Canada

A recent (federal) Department of Foreign Affairs and International Trade table provides the baseline for an overall description of international education in Canada.

- 1998 to 2005 full time foreign students grew from 78,256 to 152,762¹
- expenditures per student (including tuition) is estimated at \$25,000
- between 1998 and 2005 the economic impact has grown from \$1.7 billion to \$3.82 billion
- 1998-2005 Short Term students have been estimated as increasing from 113,000 to 235,000

¹ The source for the data included in this table is not cited.

- non-educational expenditures (accommodation and transportation) is estimated at \$6,000 to \$7,000 per annum
- The total growth from 1998-2005 is estimated at \$2.38B to \$5.47B

Key Issues for this Research

Based on the literature research to date, the research team has found that there are some up-to-date, on-going, and consistent measures of evaluating the economic impact of international education in Canada in general, and in British Columbia. For example, there are some provincial studies in BC, Manitoba and in Nova Scotia. In BC, both the Ministry of Education and Advanced Education maintain data series on international student enrollment that are well defined and consistent. On a national level Statistics Canada's Survey of Tuition and Living Accommodation Costs for Full-time Students at Canadian Degree-granting Institutions (TLAC) provides annual data on tuition fees and other living expenses for Canadian domestic students as well as international students by major program.

However, the challenges in getting detailed data remain in areas of private post-secondary education and training institutions and K-12 independent schools. There are no central warehousing facilities which provide detailed student enrollment by program type or tuition fees information. The research team has reviewed a substantial number of individual institution's websites to obtain the information and have used a simple average of expenses for the purposes of this report.

4. Number of International Students in BC

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

4.1. By Level of Education

4.1.1. Post-Secondary Education and Training

One of the main purposes of this study is to understand the number of international students in the province 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.

Table 1 shows the total number of foreign students in BC in public funded colleges and universities from 2005/06 to 2009/10 academic year.

Table 1 Number of Foreign Students in BC Public Post-Secondary Institutions, 2005/06 to 2009/10

	<i>International Students</i>	<i>Domestic Students</i>	<i>Total Public Post-secondary Headcount</i>
AY 2005-06	20,554	393,945	414,499
AY 2006-07	21,482	404,263	425,745
AY 2007-08	22,469	409,688	432,157
AY 2008-09	24,198	419,157	443,355
AY 2009-10	27,662	426,272	453,934

Source: Ministry of Regional Economic and Skills Development

Over this period, the number of international students in BC in public funded universities and colleges has increased at an average growth rate of 8% per year. By comparison, enrollment of domestic students has grown at an average rate of 2% per year during the same period.

It should also be noted that between 2007/08 and 2009/10, enrolment of international students experienced much stronger growth than from 2005/06 to 2007/08. In fact, growth was at a rate of 14% between 2008/09 and 2009/10, the highest during this period of analysis.

We have also been provided data on the number of international students in private post-secondary institutions (including degree-granting institutions and private career training providers) in 2009/2010, as well as enrollment of students in Languages Canada member institutes in 2009/2010. However, data is not available in previous years to allow for a trend comparison.

It is estimated there are a total of 11,000 international students studying in private post-secondary institutes, and 43,000 Languages Canada students, representing 536,188 student weeks. The latter indicates that Languages Canada students on average study for 12 weeks in the program in the current year.

4.1.2. K-12 Education

Table 3 shows the number of foreign students in both the public and private K-12 school system in the province between 2005/06 and 2009/10 school year. Of all years, international student enrollment grew at an average annual rate of 2.8%, much more modest in comparison with percentage increase of international students at the post secondary level. Student enrollment in the public system grew faster than that in private (independent) system, at 3.3% and 1.2% per year respectively.

Table 2 Number of Foreign Students in BC in K-12 Education System, 2005/06 to 2009/10

	School Year	All Schools		All Public Schools		All Independent Schools	
		#	%	#	%	#	%
Non-Residents	2005/06	10483	1.6	7908	1.3	2575	3.9
	2006/07	11562	1.8	8824	1.5	2738	4.0
	2007/08	12096	1.9	9513	1.6	2583	3.7
	2008/09	12358	1.9	9498	1.6	2860	4.1
	2009/10	11713	1.8	9014	1.6	2699	3.9

The percentage is calculated using all students in that school year.

Source: Ministry of Education

Values in the table also indicate that international student enrollment decreased in both public and private schools in 2008/09 and 2009/10 school years in comparison with previous years. This is most likely reflective of the global economic recession which likely has delayed some students' choice of studying in a different country.

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 BC.

5.1. Tuition and Other Fees

5.1.1. Long Term Students

We have relied upon a variety of data sources to arrive at average tuition and other fees for different levels of study.

For tuition and other fees at the K-12 level, we have relied upon information published by Ministry of Education reports on total revenue from offshore students in each of the school districts.

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. The information we have used is the preliminary estimates for 2010/2011 academic year.

We have calculated an average of full time undergraduate and graduate tuition fees as we have a breakdown of the number of international students in each category in the public post-secondary institutions.

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.

On the other hand, even though private post-secondary institutions have been included in Statistics Canada's data sample, no institutions in this category reported tuition and fees information in the current survey. Further, we do not have a breakdown of the number of international students studying at undergraduate and graduate levels in the province. As such, we have used a simple average of tuition and fees information reported in each of private post-secondary institutes in the province for different levels of study.

We note that tuition fees data from the Statistics Canada TLAC survey for undergraduate students ranges from a minimum of eight months to a maximum

of 10 to 12 months. We have assumed that all undergraduate international students are studying for at least 10 months in a given year.

5.1.2. Languages Canada Short Term Students

Information from Languages Canada indicates that short term language students pay an average \$360 per study week for tuition fees (including books and other study related expenses).

5.2. Living Expenses

5.2.1. Long Term Students

In this sub-section, we develop a model of estimating cost of living for international students while they study in BC.

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, along with tuition and fees as discussed in the previous sub-section, is shown in Table 3.

For calculating living expenses at the K-12 level in the public domain, we have relied upon information published by school websites on average home-stay costs for a 10-month period. For private K-12 schools, we have relied upon information from school websites on cost of residence on campus.

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. Higher values in a range have been applied and 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 3.

Table 3 Estimated Total Expenditure on Tuition and Fees and Living for Foreign Student in BC by Level of Study, BC, 2010

Province	All students per year										Total Spending	
	Number of Students	Tuition Fees	Additional Fees	Books & Supplies	Accommodation and Meals	Transportation	Discretionary Spending					
Public PSE												
Undergraduate	23,700	\$ 350,831,100	\$ 9,480,000	\$ 28,440,000	\$ 219,449,926	\$ 8,532,000	\$ 59,250,000	\$	\$ 675,983,026			
Graduate	4,300	\$ 57,185,700	\$ 1,720,000	\$ 5,160,000	\$ 39,815,809	\$ 1,548,000	\$ 10,750,000	\$	\$ 116,179,509			
Private PSE	11,000	\$ 209,000,000	\$ 2,750,000	\$ 13,200,000	\$ 99,000,000	\$ 13,200,000	\$ 27,500,000	\$	\$ 364,650,000			
Languages Canada Students K-12	43,000	\$ 193,027,680	\$ -	\$ -	\$ 101,875,720	\$ 16,085,640	\$ 26,809,400	\$	\$ 337,798,440			
Public	9,010	\$ 121,019,957	\$ -	\$ -	\$ 67,575,000	\$ -	\$ 4,505,000	\$	\$ 193,099,957			
Private	2,990	\$ 55,683,767	\$ -	\$ -	\$ 42,159,000	\$ -	\$ 1,495,000	\$	\$ 99,337,767			
Total												
	82,000	\$ 810,044,480	\$ 13,950,000	\$ 46,800,000	\$ 460,141,455	\$ 39,365,640	\$ 124,309,400	\$	\$ 1,494,610,975			
	12,000	\$ 176,703,724	\$ -	\$ -	\$ 109,734,000	\$ -	\$ 6,000,000	\$	\$ 292,437,724			

We have also made allowances for transportation costs for students staying in the province. For those studying in public post secondary institutions, we have applied a value of \$360 per year as all these students are eligible to purchase a bus pass at a cost of \$30 per month, across the province. For those studying in private post-secondary institutions, we have relied upon data from Statistics Canada's Survey of Household Spending (SHS), detailing household spending on public transportation, by province and territory. The values we used refer to the median expenditure per household that reported using public transportation. Values in 2010 have been derived by multiplying values in 2007 by the percentage increase in public transportation costs in the same province between 2007 and 2010.

In addition to basic living costs as presented above, we have made an allowance of \$2,500 per student per year for discretionary expenses (such as eating out, recreational activities, and entertaining).

For 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 Foreign Student Expenditure in one year in the level of study

5.2.2. Languages Canada Short Term Students

Information from various language training school websites shows that an average short term student spends \$190 per study week for living expenses (full board). We have made an allowance of \$30 per week for transportation costs, and \$50 per week for discretionary spending. Thus, for short-term students covered by Languages Canada, the average weekly expenses (including tuition and fees and basic living expenses) amount to \$630.

6. Assessing the Economic Impact of International Education in British Columbia

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

Based on the information above, we have estimated that students in the K-12 system contribute almost \$292.4 million to the provincial economy, and those in the post secondary system (public and private universities and colleges) contribute over \$1.2 billion per year to the provincial economy. Students in language training institutions contribute another \$337.8 million.

In total \$1.8 billion worth of expenditure was put into the provincial economy in 2010 from those students who studied in the province, long term or short term.

To summarize, the average total expenditure per international student (including tuition fees, other fees, books, room and meal, transportation, and discretionary spending) is estimated as follows:

- Public post secondary: $\$792,162,535 / 28,000 = \$28,292$
- Private post secondary: $\$364,650,000 / 11,000 = \$33,150$
- Language training: $\$337,798,440 / 43,000 = \$7,856$
- K-12: $\$292,437,724 / 12,000 = \$24,370$

We note that our calculations have made use of various survey results and average expenditure data, as such, our estimates are fairly conservative. We realize that in certain cases the expenditure is substantially above the average. However, without consistent data set that shows that percentage of international students in different level of spending bracket, we have not included such data in our estimates.²

² One instance is a report from the DFAIT indicating that the total value of the salary stipends alone that the Saudi Cultural Centre pays to its doctors and scholarship students in Canada now exceeds \$16 million monthly (\$195 million annually). In addition, the centre pays tuition for students and spouses, family travel, child benefits, health insurance, dental costs and other expenses.

6.1. Direct and Indirect Economic Impact

6.1.1. Provincial Aggregate

When we compare international education services in the province with other sectors in the economy, we need to translate those total expenditure values into Gross Domestic Products GDP,³ employment, and government revenue contribution.

In this subsection, we make use Statistics Canada's economic multipliers, as derived from its provincial Input-Output Tables, to estimate international education services' contribution to the province's GDP, employment, and government revenue.⁴

In Table 4 that follows, we provide our estimates of the total expenditure by international students in all levels of study, and the corresponding contribution to the province's GDP, employment, and government revenue growth, using 2010's values.⁵

Table 4 Direct and Indirect Economic Impact of International Education Services, BC, 2010

Province	Direct Economic Impact				Direct and Indirect Economic Impact		
	Total Spending	GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
Total	PSE \$ 1,494,610,975	\$ 1,018,460,000	17,900	\$ 56,000,000	\$ 1,289,045,000	21,820	\$ 70,035,000
	K-12 \$ 292,437,724	\$ 226,777,000	3,640	\$ 10,367,000	\$ 270,122,000	4,300	\$ 12,523,000

Source: RKA

Total GDP contribution of international education services amounted to over \$1.245 billion in 2010 in British Columbia. By comparison, the GDP contribution of the whole Educational Services sector in BC was \$8.442 billion (2007 value). Therefore, international education services accounted for about 15% of the province's overall educational services.⁶

³ 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.

⁴ Statistics Canada, Provincial Input-Output Multipliers, 2007.

⁵ 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.

⁶ 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 the province has been allocated to these following industries in the provincial input-output model: universities and government

The contribution of international education services to the provincial GDP is significant. In Table 5, we list the level of GDP contributed by various industries in the province (in millions of current dollars) and how international educational services compare with these industries. It is shown that GDP contribution by international educational services is slightly larger than that of crop and animal production, or coal mining in the province.

education services; educational services (except universities); retail trade; transit and ground passenger transportation; lessors of real estate; and arts, entertainment and recreation.

Table 5 Comparison of International Education Services to Provincial GDP (in millions of current dollars) with Selected Other Industries, BC

North American Industry Classification System (NAICS)	2007
Other transportation equipment manufacturing [3369]	12.4
Leather and allied product manufacturing [316]	23.8
Communication engineering construction(3)	36.0
Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing [3252]	38.3
Pharmaceutical and medicine manufacturing [3254]	61.2
Textile and textile product mills(5)	99.2
Motor vehicle parts manufacturing [3363]	103.6
Other activities of the construction industry(3)	108.3
Animal food manufacturing [3111]	114.8
Fishing, hunting and trapping [114]	117.3
Fruit and vegetable preserving and specialty food manufacturing [3114]	136.4
Motor vehicle body and trailer manufacturing [3362]	137.4
Dairy product manufacturing [3115]	142.9
Sugar and confectionery product manufacturing [3113]	143.3
Converted paper product manufacturing [3222]	146.4
Aerospace product and parts manufacturing [3364]	147.2
Non-metallic mineral mining and quarrying [2123]	151.2
Computer and peripheral equipment manufacturing [3341]	153.6
Wineries [31213]	156.5
Basic chemical manufacturing [3251]	158.2
Seafood product preparation and packaging [3117]	167.5
Miscellaneous chemical product manufacturing(6)	189.5
Soft drink and ice manufacturing [31211]	190.8
Electrical equipment and component manufacturing(10)	221.9
Ship and boat building [3366]	242.0
Miscellaneous non-metallic mineral product manufacturing(7)	285.5
Breweries [31212]	325.5
Electronic product manufacturing(9)	357.7
Meat product manufacturing [3116]	404.1
Warehousing and storage [493]	406.8
Electric power engineering construction(3)	424.0
Waste management and remediation services [562]	428.1
Furniture and related product manufacturing [337]	460.0
Miscellaneous food manufacturing(4)	486.6
Printing and related support activities [323]	494.6
Religious organizations [8131]	535.8
Miscellaneous manufacturing [339]	540.5
Cement and concrete product manufacturing [3273]	545.0
Support activities for agriculture and forestry [115]	606.4
Postal service and couriers and messengers(12)	674.7
Support activities for mining and oil and gas extraction [213]	688.1
Pipeline transportation [486]	767.1
Defence services [9111]	783.1
Other engineering construction(3)	831.9
Transportation engineering construction(3)	843.7
Transit and ground passenger transportation [485]	1,006.3
Machinery manufacturing [333]	1,025.9
Crop and animal production(2)	1,113.2
Coal mining [2121]	1,161.4
International education services	1,245.2

Source: Statistics Canada, CANSIM Table 379-0025; RKA's estimation of international educational services

In employment, international education services provided 21,540 jobs in BC. The overall educational services sector in BC employed about 167,300 persons in

2010. Therefore, international educational services provided equivalent to about 13% of all the jobs in the educational services sector.

In Table 6, we also list employment in various industries in the province in 2010 and compare direct employment from the international education services with these industries. The number of employed attributed to international education services is about the same as that attributed to broadcasting and telecommunications, and is greater than many other industries as shown in the Table.

Table 6 Comparison of Employment Contributed by International Education Services (in thousands of persons) with Selected Other Industries, BC, 2010

North American Industry Classification System (NAICS) 2007	2010
Petroleum and Coal Products Manufacturing	1.8
Support Activities for Agriculture	1.9
Fishing, Hunting and Trapping	1.9
Electrical Equipment, Appliance & Component Manufacturing	2.3
Textile Mills & Textile Product Mills	2.5
Clothing Manuf & Leather & Allied Prod	3.3
Heritage Institutions	3.8
Plastics and Rubber Products Manufacturing	4.0
Waste Management and Remediation Services	4.0
Management of Enterprises & Other Administrative Services	4.5
Information Services and Data Processing Services	4.5
Beverage and Tobacco Product Manufacturing	4.8
Chemical Manufacturing	4.9
Employment Services	6.3
Printing and Related Support Activities	6.5
Business Services	6.5
Warehousing and Storage	6.7
Computer and Electronic Product Manufacturing	6.9
Non-Metallic Mineral Product Manufacturing	7.3
Primary Metal Manufacturing	7.3
Machinery Manufacturing	7.7
Advertising and Related Services	9.1
Transportation Equipment Manufacturing	9.2
Paper Manufacturing	9.8
Travelling Services	9.9
Furniture and Related Product Manufacturing	10.0
Other Professional Services	10.7
Fabricated Metal Product Manufacturing	12.7
Post-Secondary	13.0
Publishing Industries	13.2
Miscellaneous Manufacturing	13.5
Motion Picture and Sound Recording Industries	13.5
Animal Production	14.0
Utilities	14.0
Private Households	14.5
Crop Production	14.9
Forestry and Logging with support activities	16.1
Security Services	16.7
Performing Arts, Spectator Sports and Related Industries	19.4
Accounting and Tax Preparation	19.8
Religious, Grant-Making, Civic, Professional & Similar Orgs.	21.3
International Education Services	21.5
Broadcasting and Telecommunications	21.7
Food Manufacturing	22.5
Mining and Oil and Gas Extraction	22.7

Source: Statistics Canada, Labour Force Survey, produced by BC Stats; RKA's estimate of international education services

In economic impact analysis, a whole impact approach can be taken in which case indirect impact, measuring additional benefits brought on to industries providing goods and services to the industries directly impacted, is also measured in addition to direct impact.

Also in Table 4, we have shown values of combined direct and indirect impact international students bring to the provincial economy.

6.1.2. Regional Impact Analysis

In this sub-section, we have further provided estimates of economic impact by international students studying in different regions of the province in terms of their contribution to the provincial GDP, employment, and government revenue.

For the purposes of this analysis, we have used the boundaries of eight Development Regions in the province, and collected data of international students in each of the region, and data on their spending patterns. After arriving at the total expenditure for students in the various types of institutions, we have replicated the procedures in applying the demand for goods and services by industry by multiplier values in the provincial input-output tables to arrive at our estimates of direct and indirect impact in terms of GDP, employment, and government revenue contribution.

In the table below, we have shown total number of international students in each region by level of study, their aggregate expenditure by category. For the purposes of the report, we have one region for Southern Interior which combines Thompson/Okanagan and Kootenay Development Regions, and another region for Northern BC which combines Cariboo, Nechako, Northcoast and Northeast Development Regions.

Table 7 Estimated Total Expenditure on Tuition and Fees and Living for Foreign Student in BC by Level of Study, by Region, 2010

Mainland/Southwest									
		Number of	Tuition	Additional	Books &	Accommodation	Transportation	Discretionary	Total
		Students	Fees	Fees	Supplies	and Meals		Spending	Spending
Public PSE		19,000	\$ 276,868,543	\$ 7,856,500	\$ 22,800,000	\$ 186,123,147	\$ 6,840,000	\$ 47,500,000	\$ 547,988,190
Private PSE		10,000	\$ 190,000,000	\$ 2,500,000	\$ 12,000,000	\$ 90,000,000	\$ 12,000,000	\$ 25,000,000	\$ 331,500,000
Languages Canada Students		41,000	\$ 184,548,240	\$ -	\$ -	\$ 97,400,460	\$ 15,379,020	\$ 25,631,700	\$ 322,959,420
K-12									\$ -
Public		6,700	\$ 90,594,167	\$ -	\$ -	\$ 50,250,000	\$ -	\$ 3,350,000	\$ 144,194,167
Private		1,400	\$ 26,072,667	\$ -	\$ -	\$ 19,740,000	\$ -	\$ 700,000	\$ 46,512,667
Total	PSE	70,000	\$ 651,416,783	\$ 10,356,500	\$ 34,800,000	\$ 373,523,607	\$ 34,219,020	\$ 98,131,700	\$ 1,202,447,610
	K-12	8,100	\$ 116,666,834	\$ -	\$ -	\$ 69,990,000	\$ -	\$ 4,050,000	\$ 190,706,834
Vancouver Island/Coast									
		Number of	Tuition	Additional	Books &	Accommodation	Transportation	Discretionary	Total
		Students	Fees	Fees	Supplies	and Meals		Spending	Spending
Public PSE		4,000	\$ 58,288,114	\$ 1,244,000	\$ 4,800,000	\$ 33,404,472	\$ 1,440,000	\$ 10,000,000	\$ 109,176,586
Private PSE		300	\$ 5,700,000	\$ 75,000	\$ 360,000	\$ 2,700,000	\$ 360,000	\$ 750,000	\$ 9,945,000
Languages Canada Students		2,000	\$ 7,495,200	\$ -	\$ -	\$ 3,955,800	\$ 624,600	\$ 1,041,000	\$ 13,116,600
K-12									\$ -
Public		1,600	\$ 19,888,410	\$ -	\$ -	\$ 12,000,000	\$ -	\$ 800,000	\$ 32,688,410
Private		400	\$ 7,449,333	\$ -	\$ -	\$ 5,640,000	\$ -	\$ 200,000	\$ 13,289,333
Total	PSE	6,300	\$ 71,483,314	\$ 1,319,000	\$ 5,160,000	\$ 40,060,272	\$ 2,424,600	\$ 11,791,000	\$ 132,238,186
	K-12	2,000	\$ 27,337,743	\$ -	\$ -	\$ 17,640,000	\$ -	\$ 1,000,000	\$ 45,977,743
Southern Interior									
		Number of	Tuition	Additional	Books &	Accommodation	Transportation	Discretionary	Total
		Students	Fees	Fees	Supplies	and Meals		Spending	Spending
Public PSE		4,400	\$ 64,116,926	\$ 1,973,400	\$ 5,280,000	\$ 34,969,542	\$ 1,584,000	\$ 11,000,000	\$ 118,923,868
Private PSE		600	\$ 11,400,000	\$ 150,000	\$ 720,000	\$ 5,400,000	\$ 600,000	\$ 1,500,000	\$ 19,770,000
Languages Canada Students			\$ 984,240	\$ -	\$ -	\$ 519,460	\$ 82,020	\$ 136,700	\$ 1,722,420
K-12		1,700							\$ -
Public		560	\$ 9,231,446	\$ -	\$ -	\$ 4,200,000	\$ -	\$ 280,000	\$ 13,711,446
Private		1,140	\$ 21,230,600	\$ -	\$ -	\$ 16,074,000	\$ -	\$ 570,000	\$ 37,874,600
Total	PSE	5,000	\$ 76,501,166	\$ 2,123,400	\$ 6,000,000	\$ 40,889,002	\$ 2,266,020	\$ 12,636,700	\$ 140,416,288
	K-12	1,700	\$ 30,462,046	\$ -	\$ -	\$ 20,274,000	\$ -	\$ 850,000	\$ 51,586,046
Northern BC									
		Number of	Tuition	Additional	Books &	Accommodation	Transportation	Discretionary	Total
		Students	Fees	Fees	Supplies	and Meals		Spending	Spending
Public PSE		600	\$ 8,743,217	\$ 294,000	\$ 720,000	\$ 4,768,574	\$ 216,000	\$ 1,500,000	\$ 16,241,791
Private PSE		100	\$ 1,900,000	\$ 25,000	\$ 120,000	\$ 900,000	\$ 100,000	\$ 250,000	\$ 3,295,000
Languages Canada Students			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
K-12		200							\$ -
Public		150	\$ 1,305,934	\$ -	\$ -	\$ 1,125,000	\$ -	\$ 75,000	\$ 2,505,934
Private		50	\$ 931,167	\$ -	\$ -	\$ 705,000	\$ -	\$ 25,000	\$ 1,661,167
Total	PSE	700	\$ 10,643,217	\$ 319,000	\$ 840,000	\$ 5,668,574	\$ 316,000	\$ 1,750,000	\$ 19,536,791
	K-12	200	\$ 2,237,101	\$ -	\$ -	\$ 1,830,000	\$ -	\$ 100,000	\$ 4,167,101

In Table 8, we further show values of direct and combined direct and indirect economic impact from students in these regions to the provincial economy.

Table 8 Direct and Indirect Economic Impact of International Students, by Region, 2010

		Direct Economic Impact			Direct and Indirect Economic Impact			
		Total Spending	GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
Mainland/Southwest								
Total	PSE \$	1,202,447,610	\$ 817,771,000	14,830	\$ 45,322,000	\$ 1,038,062,000	18,010	\$ 56,899,000
	K-12 \$	190,706,834	\$ 148,196,000	2,390	\$ 6,632,000	\$ 176,256,000	2,820	\$ 8,025,000
Vancouver Island/Coast								
Total	PSE \$	132,238,186	\$ 90,609,000	1,440	\$ 4,904,000	\$ 113,749,000	1,780	\$ 6,058,000
	K-12 \$	45,977,743	\$ 35,545,000	570	\$ 1,664,000	\$ 42,431,000	670	\$ 2,007,000
Southern Interior								
Total	PSE \$	140,416,288	\$ 96,680,000	1,430	\$ 5,073,000	\$ 120,511,000	1,780	\$ 6,219,000
	K-12 \$	51,586,046	\$ 39,870,000	630	\$ 1,902,000	\$ 47,608,000	750	\$ 2,288,000
Northern BC								
Total	PSE \$	19,536,791	\$ 13,460,000	200	\$ 704,000	\$ 16,762,000	250	\$ 862,000
	K-12 \$	4,167,101	\$ 3,165,000	50	\$ 170,000	\$ 3,826,000	60	\$ 204,000

Source: RKA

6.2. Comparison of International Education Services in BC 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 BC's exports of goods to these countries. We will also compare the value of total expenditure in international education services in the province with the total export of goods from BC.

The Table that follows details the number of international students by top ten source countries. (See Appendix 3 for data table showing the number of foreign students in BC by top source countries.)

Table 9 Number of Foreign Students in BC by Top Source Countries, 2009/10**BC International Student Headcount Estimate by source country
2009/10**

Country	Public post-secondary¹	Private post-secondary²	Language schools³	Elementary and secondary schools⁴	Total: All Types
Korea	2,000	600	9,200	6,100	17,900
China	9,000	3,500	1,000	1,900	15,400
Japan	1,500	1,200	7,600	800	11,100
Saudi Arabia	1,400	1,200	4,000		6,600
Brazil	200	300	4,700	300	5,500
Mexico	500	400	3,900	500	5,300
Taiwan	800	700	1,500	700	3,700
United States	2,000	300		200	2,500
Germany	400		1,300	700	2,400
Switzerland			2,200		2,200
Top Ten Countries	17,800	8,200	35,400	11,200	72,600
Total	28,000	11,000	43,000	12,000	94,000

Source: Ministry of Regional Economic and Skills Development and Ministry of Education

In general, foreign students from the top 10 source countries account for about three-quarters of all foreign students coming to study in BC.

By multiplying an average total expenditure per student in 2009/10 (see Section 6.0) by the total number of foreign students in each of the top ten source countries, we have calculated the total amount of export in international education services from BC to each of these countries. This is summarized in Table 10.

Table 10 Total Value of International Education Services by Top Ten Source Countries (by Number of Students), 2009/10

Country	Public Post-Secondary	Private Post-Secondary	Languages Schools	Elementary and Secondary Schools	Total: All Types
Korea	\$ 56,583,000	\$ 19,890,000	\$ 72,273,000	\$ 148,656,000	\$ 297,402,000
China	\$254,624,000	\$ 116,025,000	\$ 7,856,000	\$ 46,303,000	\$ 424,808,000
Japan	\$ 42,437,000	\$ 39,780,000	\$ 59,704,000	\$ 19,496,000	\$ 161,417,000
Saudi Arabia	\$ 39,608,000	\$ 39,780,000	\$ 31,423,000	\$ -	\$ 110,811,000
Brazil	\$ 5,658,000	\$ 9,945,000	\$ 36,922,000	\$ 7,311,000	\$ 59,836,000
Mexico	\$ 14,146,000	\$ 13,260,000	\$ 30,638,000	\$ 12,185,000	\$ 70,229,000
Taiwan	\$ 22,633,000	\$ 23,205,000	\$ 11,784,000	\$ 17,059,000	\$ 74,681,000
United States	\$ 56,583,000	\$ 9,945,000	\$ -	\$ 4,874,000	\$ 71,402,000
Germany	\$ 11,317,000	\$ -	\$ 10,213,000	\$ 17,059,000	\$ 38,589,000
Switzerland	\$ -	\$ -	\$ 17,283,000	\$ -	\$ 17,283,000
Top Ten Countries	\$503,589,000	\$ 271,830,000	\$ 278,096,000	\$ 272,943,000	\$ 1,326,458,000
Total	\$792,160,000	\$ 364,650,000	\$ 337,799,000	\$ 292,439,000	\$ 1,787,048,000

Source: RKA

As the column “Total: All Types” indicates, the ranking of these top ten source countries changes when total expenditure is being compared. This is due to the different distribution of international students from these countries studying in the type of institutions in the province. China, for example, ranks second in terms of the number of students studying in BC, but because the majority are in post-secondary institutions, their total expenditure share is larger than students from Korea, which ranks first in the number of students in the province.

For this reason, we have constructed another table showing the top ten countries with international students in BC using values of student expenditure in BC. See Table 11.

Table 11 Total Value of International Education Services by Top Ten Source Countries (by Value of Student Expenditure), 2009/10

Country/Area	Public Post-Secondary	Private Post-Secondary	Languages Schools	Elementary and Secondary Schools	Total: All Types
China	\$ 254,624,000	\$ 116,025,000	\$ 7,856,000	\$ 46,303,000	\$ 424,808,000
Korea	\$ 56,583,000	\$ 19,890,000	\$ 72,273,000	\$ 148,656,000	\$ 297,402,000
Japan	\$ 42,437,000	\$ 39,780,000	\$ 59,704,000	\$ 19,496,000	\$ 161,417,000
Saudi Arabia	\$ 39,608,000	\$ 39,780,000	\$ 31,423,000	\$ -	\$ 110,811,000
Taiwan	\$ 22,633,000	\$ 23,205,000	\$ 11,784,000	\$ 17,059,000	\$ 74,681,000
United States	\$ 56,583,000	\$ 9,945,000	\$ -	\$ 4,874,000	\$ 71,402,000
Mexico	\$ 14,146,000	\$ 13,260,000	\$ 30,638,000	\$ 12,185,000	\$ 70,229,000
Brazil	\$ 5,658,000	\$ 9,945,000	\$ 36,922,000	\$ 7,311,000	\$ 59,836,000
India	\$ 28,292,000	\$ 19,890,000	\$ -	\$ -	\$ 48,182,000
Hong Kong	\$ 19,804,000	\$ 9,945,000	\$ -	\$ 9,748,000	\$ 39,497,000
Top Ten Countries	\$ 540,368,000	\$ 301,665,000	\$ 250,600,000	\$ 265,632,000	\$ 1,358,265,000
Total (All Countries)	\$ 792,160,000	\$ 364,650,000	\$ 337,799,000	\$ 292,439,000	\$ 1,787,048,000

Source: RKA

Note that the amounts generated as shown here in Table 11 are underestimates of the “true” amount of BC’s export in educational services as we are only accounting for the number of students who stay in the province to study. We have not accounted for the province’s export of educational services in the form of setting up programs on campuses outside of Canada.

We have further compared BC's export in international education services in each of these top ten countries with other export in goods to the same country. With the exception of exports to the United States, the value of BC's export in international education services to these countries all ranked in the top 10 exported goods to these countries.⁷ This is shown in Table 12.

⁷ The recreate the dataset used by the RKA team, the data is available at: http://www.ic.gc.ca/sc_mrkti/tdst/tdo/tdo.php#tag – the time period is 2009, Product Search is “Top 25 Product Groups – HS4”, and each country was chosen individually.

Table 12 Comparison of International Education Services with Other Top Exports in Goods from BC to the Top Ten International Student Source Countries, 2009

Export/Ranked	China, Peoples' Republic of	Korea, Republic of	Japan	Saudi Arabia	Taiwan	United States	Mexico	Brazil	India	Hong Kong
1	CHEMICAL WOODPULP - SODA OR SULPHATE \$622M	COAL AND SOLID FUELS \$926M	COAL \$1,439B	EDUCATION SERVICES \$11.1M	COAL \$192M	LIQUEFIED PETROLEUM \$1,905B	EDUCATION SERVICES \$70M	COAL AND SOLID FUELS \$191M	EDUCATION SERVICES \$48M	MOLLUSCS \$56M
2	COAL AND SOLID FUELS \$571M	EDUCATION SERVICES \$297M	LUMBER \$534M	LUMBER \$8.196M	EDUCATION SERVICES \$75M	LUMBER \$1,546B	COAL AND SOLID FUELS \$39M	EDUCATION SERVICES \$60M	COPPER ORES \$21M	EDUCATION SERVICES \$39M
3	EDUCATION SERVICES \$425M	UNWROUGHT ALUMINUM \$240M	COPPER ORES \$430M	LAMPS, SIGNS AND LIGHTING FITTINGS \$2M	CHEMICAL PULPWOOD \$58M	UNCOATED PAPER \$551M	PREPARATIONS OF/NON-CRUDE PETROLEUM OILS \$35M	HELICOPTERS, AIRPLANES AND SPACECRAFT \$27M	CHEMICAL WOODPULP \$17M	CHEMICAL WOODPULP \$35M
4	LUMBER \$319M	COPPER ORES AND CONCENTRATES \$192M	UNWROUGHT ALUMINUM \$208M	BULLDOZERS, SCRAPERS, GRADERS, LEVELERS \$1.7M	LUMBER \$31M	CHEMICAL WOODPULP \$495M	UNCOATED KRAFTLINER PAPER OR PAPERBOARD \$23M	SULFUR \$6.3M	NEWSPRINT \$6.3M	NEWSPRINT \$22M
5	COPPER ORES AND CONCENTRATES \$298M	CHEMICAL WOODPULP - SODA OR SULPHATE \$81M	CHEMICAL WOODPULP \$162M	COATED PAPER OR PAPERBOARD \$1.56M	NEWSPRINT \$24M	FISH \$371M	MOLYBDENUM ORES AND CONCENTRATES \$19M	THERMOSTATS \$2.6M	WORN CLOTHING \$4.1M	ZINC AND ZINC ALLOYS \$14M
6	CHEMICAL WOODPULP - DISSOLVING GRADES \$89M	WOOD IN THE ROUGH \$48M	EDUCATION SERVICES \$161M	UNCOATED PAPER AND PAPERBOARD \$1.1M	CHEMICAL WOODPULP - DISSOLVING GRADES \$19M	ZINC AND ZINC ALLOYS \$363M	THERMOSTATS AND OTHER CONTROLLING APPARATUS \$4M	URANIUM \$2.2M	PARTS FOR MACHINERY \$3.8M	LUMBER \$12.8M
7	SEMI-CHEMICAL WOOD PULP \$65M	LUMBER \$35M	WOOD IN THE ROUGH \$121M	PREPARED BINDERS FOR FOUNDRY \$1.0M	ZINC AND ZINC ALLOYS \$17M	ELECTRICAL ENERGY \$289M	PAPER OR PAPERBOARD COATED \$3.9M	OTHER BUILDERS WARE \$2.0M	ELECTRICAL MACHINES \$3.3M	WASTE, PARINGS AND SCRAP OF PLASTICS \$11M
8	FERROUS WASTE AND SCRAP \$39M	RENDERED FATS OF BOVINE ANIMALS, SHEEP OR GOATS \$27M	MEAT OF SWINE \$75M	THERMOSTATS AND OTHER CONTROLLING APPARATUS \$0.913M	FERROUS WASTE AND SCRAP \$13M	PREPARATIONS OF/NON-CRUDE PETROLEUM OILS \$237M	UNCOATED PAPER OR PAPERBOARD \$3.5M	MACHINES \$1.6M	MACHINES AND MECHANICAL APPLIANCES \$3.0M	TRANSMISSION APPARATUS \$6.7M
9	WOOD IN THE ROUGH \$38M	SEMI-CHEMICAL WOOD PULP \$21M	FISH \$42M	MOTORBOATS, SAILBOATS, ETC. \$0.776M	UNWROUGHT LEAD \$12M	WINDOWS, DOORS, SHINGLES AND SHAKES \$219M	RENDERED FATS OF BOVINE ANIMALS, SHEEP OR GOATS \$2.8M	TRANSMISSION SHAFTS \$1.5M	CHEMICAL WOODPULP \$2.3M	CRUSTACEANS \$6.7M
10	CRUSTACEANS \$31M	ZINC ORES AND CONCENTRATES \$15M	CRUSTACEANS \$41M	UNCOATED KRAFTLINER PAPER OR PAPERBOARD \$0.752M	APRICOTS, CHERRIES, PEACHES, PLUMS AND SLOES \$8M	FERROUS WASTE AND SCRAP \$204M	LUMBER \$2.6M	PARTS OF HELICOPTERS \$1.3M	UNCOATED PAPER AND PAPERBOARD \$1.7M	UNCOATED PAPER \$4.9M
NOT IN TOP 10										
EDUCATION SERVICES \$71M										

Source: RKA's calculation of education services; Trade Data Online – Industry Canada
www.ic.gc.ca/tdo

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 13 shows the value of international education services in BC from all international students and the value of province's total export in goods.

Table 13 Comparison of International Education Services with Total Exports in Goods from BC to the Top Ten International Student Source Countries and to All Countries, 2009

Country/Area	Export of Educational Services	All Goods Exports	Educational Services Compared with Total Goods Export
China	\$ 424,808,000	\$ 2,518,291,320	17%
Korea	\$ 297,402,000	\$ 1,747,864,990	17%
Japan	\$ 161,417,000	\$ 3,499,077,742	5%
Saudi Arabia	\$ 110,811,000	\$ 24,863,063	446%
Taiwan	\$ 74,681,000	\$ 475,860,693	16%
United States	\$ 71,402,000	\$ 12,908,600,320	1%
Mexico	\$ 70,229,000	\$ 165,715,633	42%
Brazil	\$ 59,836,000	\$ 254,362,920	24%
India	\$ 48,182,000	\$ 89,197,407	54%
Hong Kong	\$ 39,497,000	\$ 244,896,022	16%
Top Ten Countries	\$ 1,358,265,000	\$ 21,928,730,110	6%
Total (All Countries)	\$ 1,787,048,000	\$ 25,614,033,829	7%

Source: RKA; Canada Merchandise Exports (Customs Basis) – DFAIT 2009

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 BC's total export to countries such as the Peoples' Republic of China, South Korea, and Saudi Arabia.

7. Conclusions and Recommendations

Major Findings

In 2010, international students in British Columbia spent in excess of \$1.8 billion on tuition, accommodation and discretionary spending. This translated to a direct contribution equivalent to \$1.245 billion in provincial GDP, over 21,540 jobs created; and more than \$66 million in government revenue generated.

Altogether there were about 28,000 international students in the province in 2010 pursuing various levels of formal post-secondary education and training in both public and private institutions. These students spent a total of \$1.2 billion in the province contributing to tuitions and fees paid to the universities, retail trade businesses, food manufacturing industries, real estate rental services, transportation services, and various other sectors such as the arts, entertainment and recreation industries. In addition, there were about 43,000 international students pursuing language training programs in private language schools throughout the province. On average, their stay lasted more than 12 weeks, contributing to 536,200 student weeks of activities towards the provincial economy. In total, these international students at the post-secondary level spent \$1.5 billion in the province.

There were also about 12,000 international students in BC in 2010 pursuing education in both public and private schools in the K-12 system. These students also brought in excess of \$292 million worth of economic activities to the province. Similarly, they contributed to the educational services sector, retail trade, food manufacturing, real estate rental services, and other industry sectors in the provincial economy.

The contribution of international education services to the provincial economy is significant. The provincial GDP generated by international education services was equivalent to \$1.245 billion, which is slightly greater than the provincial GDP contribution from the crop and animal production industry, or from coal mining industry. The number of jobs created in a year due to international education services was 21,540, which is about the same as employment total in the broadcasting and telecommunications sector, and greater than employment levels in many other industries in the province.

When the value of educational services provided in British Columbia to international students is compared to the value of the more traditional goods that BC exports, it is significant to note that international education services as an export service accounted for 7% of the total values of goods export from the province. The impact for some countries is even more striking. The Saudi

Arabians, for example, spend the equivalent of 446% of the value of the goods they import from BC on educational services. Similarly, we see that India (54%), Mexico (42%), China (17%), and Korea (17%) all spend significantly for educational services when compared to the trade goods they import from BC.

In this report, Roslyn Kunin and Associates, Inc. (RKA) has used primarily secondary sources to collect information on the quantitative impact of international students in various levels of study on the provincial economy. The RKA team has also worked closely 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.

Challenges and Limitation of Study

Our research team has found that there are some up-to-date, on-going, and consistent measures of evaluating the economic impact of international education in Canada in general, and in British Columbia. For example, there are some provincial studies in BC, Manitoba and in Nova Scotia. In BC, both the Ministry of Education and Advanced Education maintain data series on international student enrollment that are well defined and consistent. On a national level Statistics Canada's Survey of Tuition and Living Accommodation Costs for Full-time Students at Canadian Degree-granting Institutions (TLAC) provides annual data on tuition fees and other living expenses for Canadian domestic students as well as international students by major program.

However, the challenges in getting detailed data remain in areas of private post-secondary education and training institutions and K-12 independent schools. There are no central warehousing facilities which provide detailed student enrollment by program type or tuition fees information. The research team has reviewed a substantial number of individual institution's websites to obtain the information and have used a simple average of expenses for the purposes of this report.

Another area of data limitation in study of this nature is the lack of continual and consistent data on various short-term language training programs as well as other types of programs in continuing education, such as:

- students in language training programs other than in member Languages Canada schools;
- short-term ESL programs;
- executive training programs,
- teachers' training programs; and
- off-shore delivery of educational services.

These are creditable sources of student contribution to the provincial economy. However, without well defined and consistent data sets, we have not been able to evaluate their economic impact in the province.

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Website Information Reference

Cost of Program for International Students at Post-Secondary Training Institutes

Alexander College: <http://www.alexandercollege.ca/admissions/fees-refunds/>

Art Institute of Vancouver: <http://www.artinstitutes.edu/vancouver/about/>

City University of Seattle: <http://www.cityu.edu/admissions-financialaid/admissions/tuition.aspx>

Columbia College: <http://www.columbiacollege.ca/en/content/fees>

Fairleigh Dickinson University: <http://view.fdu.edu/default.aspx?id=3812>

Quest University Canada tuition and fees:

http://www.questu.ca/admission/costs_financial_assistance/tuition_room_and_board.php

Trinity Western University, undergraduate:

http://www.twu.ca/undergraduate/finances/default.html?utm_source=ug-homepage&utm_medium=photo-btns&utm_campaign=tuition

Trinity Western University, graduate: <http://twu.ca/services/enrolment/financial-information/graduate-studies-tuition-and-fees/tuition-fees.html>

Centre for Arts and Technology (in Kelowna):

http://www.digitalartschool.com/files/The_Value_of_Education_v3_0.pdf

Cost of K-12 Education for International Students

St. Michael's University School:

http://www.smus.bc.ca/admissions/finance_info.html

Shawnigan Lake School: <http://www.shawnigan.ca/parents/aid>

St. Margaret's School: http://www.stmarg.ca/pdf/fees_10_11

Victoria International High School:

<http://www.studyinvictoria.com/programs/academic.asp>

Bodwell High School:

<http://www.bodwell.edu/highschool/admissions/fee-schedule/>

Mulgrave School: <http://www.mulgrave.com/admissions/financial-information/index.aspx>

Meadowridge School (in Fraser/Abbotsford):
<http://www.meadowridge.bc.ca/podium/default.aspx?t=125097>

Pattison School:
http://pattisonhighschool.ca/index.php?option=com_content&task=blogcategory&id=21&Itemid=83

Appendix 1 Notes on Data Sources

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's 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 2006, while college data is available for up to 2005 only.

One 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. For all these reasons, we have relied upon CIC data for analytical purposes.

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

One 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.

From previous research studies we have examined, the source of data on private language training schools generally comes from Languages Canada. One limitation of this data source is that it does not cover students studying in schools that are not members of Languages Canada.

The number of international students pursuing private vocational and career training programs which last for fewer than six months is an unknown value as well.

For the purposes of this study, we have referenced to CIC data but have not used the data set directly.

For the most part, data on private post-secondary training students have been provided to the research team by the Ministry of Regional Economic and Skills Development, that have covered estimates of both long-term and short-term students in the province, although no detailed breakdown is available.

Appendix 2 Scenario Analysis – Increase of International Student Enrollment and Its Economic Impact

In this appendix, we provide economic impact assessment for six 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 enrolment in three types of post-secondary education and training:

- Public post-secondary (Graduate and Undergraduate)
- Private post-secondary
- Language schools

In the rest of this appendix, we will show both direct and combined direct and indirect economic impacts as a result of changes in international student enrollment.

1. Five percent increase in all three types of institution enrolment

Assuming 5% increases in All Three Types post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,069,383,000	18,790	\$ 58,800,000	\$ 1,353,498,000	22,910	\$ 73,537,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$50.9 million in GDP
- increase of 890 jobs
- increase of \$2.8 million in government revenue

2. Ten percent increase in all three types of institution enrolment

Assuming 10% increases in All Three Types post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,120,306,000	19,680	\$ 61,600,000	\$ 1,417,950,000	24,000	\$ 77,039,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$101.8 million in GDP
- increase of 1,780 jobs
- increase of \$5.6 million in government revenue

3. Five percent increase in **public** post-secondary institution enrolment only

Assuming 5% increases in PUBLIC post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,045,643,000	18,290	\$ 57,536,000	\$ 1,323,075,000	22,310	\$ 71,904,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$27.2 million in GDP
- increase of 390 jobs
- increase of \$1.5 million in government revenue

4. Ten percent increase in **public** post-secondary institution enrolment only

Assuming 10% increases in PUBLIC post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,072,827,000	18,680	\$ 59,073,000	\$ 1,357,104,000	22,810	\$ 73,772,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$54.4 million in GDP
- increase of 780 jobs
- increase of \$3.1 million in government revenue

5. Five percent increase in **private** post-secondary institution enrolment only

Assuming 5% increases in PRIVATE post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,031,016,000	18,080	\$ 56,624,000	\$ 1,304,654,000	22,050	\$ 70,800,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$12.6 million in GDP
- increase of almost 180 jobs
- increase of \$624,000 in government revenue

6. Ten percent increase in **private** post-secondary institution enrolment only

Assuming 10% increases in PRIVATE post-secondary institution enrollment

Direct Economic Impact			Direct and Indirect Economic Impact		
GDP	Employment	Government Revenue	GDP	Employment	Government Revenue
\$ 1,043,572,000	18,260	\$ 57,248,000	\$ 1,320,263,000	22,280	\$ 71,564,000

In comparison with base scenario, such increase means direct impact of:

- increase of \$25.1 million in GDP
- increase of 360 jobs
- increase of \$1.2 million in government revenue

Appendix 3 Number of Foreign Students in BC by Top Source Countries

BC International Student Headcount Estimate by source country 2009/10

Country	Public post-secondary ¹	Private post-secondary ²	Language schools ³	Elementary and secondary schools ⁴	Total: All Types
Korea	2,000	600	9,200	6,100	17,900
China	9,000	3,500	1,000	1,900	15,400
Japan	1,500	1,200	7,600	800	11,100
Saudi Arabia	1,400	1,200	4,000		6,600
Brazil	200	300	4,700	300	5,500
Mexico	500	400	3,900	500	5,300
Taiwan	800	700	1,500	700	3,700
United States	2,000	300		200	2,500
Germany	400		1,300	700	2,400
Switzerland			2,200		2,200
India	1,000	600			1,600
Hong Kong	700	300		400	1,400
Spain			1,100		1,100
Russia	200		700		900
Turkey	200		600		800
United Kingdom	300			400	700
Iran	600				600
Venezuela			600		600
Columbia			500		500
Indonesia	400				400
Italy			300		300
Czech Republic			300		300
Malaysia	200				200
Thailand	200				200
France	200				200
Nigeria	200				200
Viet Nam	200				200
Singapore	100				100
Australia	100				100
Jamaica	100				100
Norway	100				100
Pakistan	100				100
Philippines	100				100
Bangladesh	100				100
Netherlands	100				100
All other countries	5,000	1,900	3,500		10,400
Top Ten Countries	17,800	8,200	35,400	11,200	72,600
Total	28,000	11,000	43,000	12,000	94,000

Source: Ministry of Regional Economic and Skills Development and Ministry of Education

Appendix 4 Expenditure of Foreign Students in BC by Top Source Countries

Average Annual Expenditure of Foreign Students by Type of Schooling,
by Top Source Countries, 2010

Country	Public Post-Secondary	Private Post-Secondary	Languages Schools	Elementary and Secondary Schools	Total: All Types
Korea	\$ 56,583,000	\$ 19,890,000	\$ 72,273,000	\$ 148,656,000	\$ 297,402,000
China	\$254,624,000	\$ 116,025,000	\$ 7,856,000	\$ 46,303,000	\$ 424,808,000
Japan	\$ 42,437,000	\$ 39,780,000	\$ 59,704,000	\$ 19,496,000	\$ 161,417,000
Saudi Arabia	\$ 39,608,000	\$ 39,780,000	\$ 31,423,000	\$ -	\$ 110,811,000
Brazil	\$ 5,658,000	\$ 9,945,000	\$ 36,922,000	\$ 7,311,000	\$ 59,836,000
Mexico	\$ 14,146,000	\$ 13,260,000	\$ 30,638,000	\$ 12,185,000	\$ 70,229,000
Taiwan	\$ 22,633,000	\$ 23,205,000	\$ 11,784,000	\$ 17,059,000	\$ 74,681,000
United States	\$ 56,583,000	\$ 9,945,000	\$ -	\$ 4,874,000	\$ 71,402,000
Germany	\$ 11,317,000	\$ -	\$ 10,213,000	\$ 17,059,000	\$ 38,589,000
Switzerland	\$ -	\$ -	\$ 17,283,000	\$ -	\$ 17,283,000
India	\$ 28,292,000	\$ 19,890,000	\$ -	\$ -	\$ 48,182,000
Hong Kong	\$ 19,804,000	\$ 9,945,000	\$ -	\$ 9,748,000	\$ 39,497,000
Spain	\$ -	\$ -	\$ 8,641,000	\$ -	\$ 8,641,000
Russia	\$ 5,658,000	\$ -	\$ 5,499,000	\$ -	\$ 11,157,000
Turkey	\$ 5,658,000	\$ -	\$ 4,713,000	\$ -	\$ 10,371,000
United Kingdom	\$ 8,487,000	\$ -	\$ -	\$ 9,748,000	\$ 18,235,000
Iran	\$ 16,975,000	\$ -	\$ -	\$ -	\$ 16,975,000
Venezuela	\$ -	\$ -	\$ 4,713,000	\$ -	\$ 4,713,000
Columbia	\$ -	\$ -	\$ 3,928,000	\$ -	\$ 3,928,000
Indonesia	\$ 11,317,000	\$ -	\$ -	\$ -	\$ 11,317,000
Italy	\$ -	\$ -	\$ 2,357,000	\$ -	\$ 2,357,000
Czech Republic	\$ -	\$ -	\$ 2,357,000	\$ -	\$ 2,357,000
Malaysia	\$ 5,658,000	\$ -	\$ -	\$ -	\$ 5,658,000
Thailand	\$ 5,658,000	\$ -	\$ -	\$ -	\$ 5,658,000
France	\$ 5,658,000	\$ -	\$ -	\$ -	\$ 5,658,000
Nigeria	\$ 5,658,000	\$ -	\$ -	\$ -	\$ 5,658,000
Viet Nam	\$ 5,658,000	\$ -	\$ -	\$ -	\$ 5,658,000
Singapore	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Australia	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Jamaica	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Norway	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Pakistan	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Philippines	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Bangladesh	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
Netherlands	\$ 2,829,000	\$ -	\$ -	\$ -	\$ 2,829,000
All other countries	\$141,458,000	\$ 62,985,000	\$ 27,495,000	\$ -	\$ 231,938,000
Top Ten Countries	\$503,589,000	\$ 271,830,000	\$ 278,096,000	\$ 272,943,000	\$ 1,326,458,000
Total	\$792,160,000	\$ 364,650,000	\$ 337,799,000	\$ 292,439,000	\$ 1,787,048,000

Source: RKA

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