

# **Estimating the Economic Impact of International Students in Language Education Programs in Canada**

Presented to

**Languages Canada**

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## Economic Impact of International Students in Language Education Programs in Canada

Roslyn Kunin and Associates has been requested to provide an estimate of the economic impact associated with international students undertaking language education programs in Canada. The base estimates have been conducted according to the number of international students in all language education programs in 2019.

In order to evaluate the potential economic impact, we have followed the approaches listed below and made certain assumptions:

- A profile of Languages Canada (LC) member program students was first created for students in each province. Then along with student week data for each province, it was possible to derive the average length of study for these students.
- Student week data were multiplied by average cost of education and day-to-day living for each province (where applicable) to arrive at total annual expenditure. Data for tuition and fees, rent, food, transportation, and discretionary spending were provided by Languages Canada to the research team.
- In addition to spending of LC students, we have made allowances for visiting family and friends while the students are studying in Canada. It is assumed that for every ten students, there would have been two family or friends visiting. The average expenditure of these visiting family or friends has been derived from Destination Canada's reports on U.S. and international arrivals and expenditure by type<sup>12</sup>.
- Once an annual total expenditure for LC program students has been derived, we made two further adjustments.
- First, the number of international students in Languages Canada (LC) member programs were 144,208, calculated as (150,112-5,094) – the latter representing domestic students in LC member programs;
- Secondly, it has been established that 86% of all international language students in Canada were enrolled at LC member programs, and therefore the total number of international language students in Canada in 2019 was estimated to be 167,684.

Table 1 below shows the estimate of total student spending on an annual basis.

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<sup>1</sup> Destination Canada, Total International Arrivals to Canada. <https://www.destinationcanada.com/en/research#tourismincanada>

<sup>2</sup> Destination Canada, Tourism Spend in Canada. <https://www.destinationcanada.com/en/tourism-spend>

**Table 1 Estimated Annual Spending of International Students in All Language Programs in Canada, 2019**

	2019
Tuition & fees, books and material	\$641 million
Accommodation and food	\$623 million
Transportation	\$69 million
Utilities	\$86 million
Discretionary	\$326 million
Additional Visiting Family Expenditure	\$24 million
<b>Total</b>	<b>\$1,771 million</b>

Source: RKA based on data from 2019 Annual Report on Language Education in Canada and from Languages Canada.

The analytical framework to capture the overall economic impact of international students in language education programs is through the input-output structure of our economy. We can understand this input-output structure of the economy this way.

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

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

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

Statistics Canada's input-output model is based on the input-output structure of the Canadian economy, which is essentially a set of tables describing the flows of goods and services among the various sectors of the economy. Such a model is useful in determining how much additional production is generated by a change in the demand for one or more products or by a change in an industry's output<sup>3</sup>.

Its Economic Simulation Model is specifically developed to simulate the economic impacts of an expenditure on a given basket of goods and services or the output of one or several industries. For this project, the expenditure values derived in Table 1 has been applied to this model to evaluate the economic impact of international students in language education programs in Canada in 2019.

<sup>3</sup> For a description of the origin of the input-output tables developed by Statistics Canada in 1961, see Statistics Canada's publication "Evolution of the Canadian Input-Output Tables 1961 to Date", and more evolution since that publication in Supply, Use and Input-Output Tables <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1290631>.

Table 2 below shows the economic impact for Canada’s economy in terms of Gross Domestic Product (GDP), labour income, jobs, and government tax revenue. There are three types of impact shown:

- **Direct impact** measures the increase in industrial output and the increase in an industry’s labour force resulting from the inflow of international students and their spending on a yearly basis.
- **Indirect impact** measures the change in industrial output and employment demand in sectors that supply goods and services to sectors of the economy that are directly impacted.
- **Induced impact** measures the changes in output and employment demand over all sectors of the economy as a result of an income increase in households impacted both directly and indirectly.

Although we present all three types of economic impact values associated with international students spending, we note that it is generally acknowledged that direct impacts alone are incomplete and the total impact (i.e., the total of direct, indirect and induced impacts) may sometimes overestimate the impacts of initial spending.

We note that although spending from international students in Canada contribute to an increase in demand for various products and services, not all of it is equal to the increase in production of products or provision of services of domestic industries as some of the expenditure was consumption taxes and some of the expenditure was used to pay for imports (either as raw material or final product).

In general, government revenues come from personal income taxes, indirect taxes less subsidies, corporate income taxes and natural resource royalties. In this report, we are able to estimate personal income taxes and indirect taxes.

Statistics Canada’s expenditure model does not automatically estimate personal income taxes. We derive the personal income tax estimates by applying the average personal income tax rate in Canada (2019) to total labour income, which is generated from Statistics Canada’s impact simulation model.

Indirect taxes incurred in the process of producing outputs and services include both indirect taxes on production (such as property taxes) and indirect taxes on products (such as federal and provincial sales taxes). It should be noted that Statistics Canada’s model estimates tax revenue impacts for the combined direct and indirect impacts, and total (direct, indirect and induced impacts) impacts only.

**Table 2 Estimated Economic Impact Attributed to International Language Education Students in Canada, Based on Annual Total Spending of \$1.77 Billion, 2019**

	GDP at basic price	Labour Income	Jobs	Taxes
<b>Direct*</b>	\$976 million	\$533 million	11,930	\$101 million
<b>Direct and Indirect</b>	\$1,396 million	\$779 million	16,440	\$367 million
<b>Direct, Indirect and Induced</b>	\$1,763 million	\$946 million	19,830	\$448 million

\* Direct tax impact refers to income tax impact only.

Source: Customized Statistics Canada’s Economic Simulation Model; RKA’s calculation

## Economic Development Opportunities in Language Education Sector in Canada during the Pandemic

We have been asked to further estimate the potential economic impact of Canada’s language education sector due to the adverse effects brought on by the COVID-19 pandemic. Specifically, there are three potential economic development scenarios for Canada’s international language education sector, and we present the impact estimates for each of these scenarios.

### Scenario One – Status Quo

Under this scenario, it is assumed that

- No exemption for international students under Canada’s travel ban.
- No new international students are allowed into the country, and international language students are limited to those already in the country with a valid Study Permit prior to March 18, 2020. These students are estimated to be 3,500 in total.
- Effectively, Canada’s language education sector is expected to experience equivalent to 95% loss of 2019’s enrollment<sup>4</sup>.

Under these conditions, total spending of the 3,500 international language students remaining in Canada in a year will be \$88.7 million only.

Table 3 below presents the estimated economic impact of Canada’s international language education sector, much reduced by the COVID-19 crisis.

**Table 3 Estimated Economic Impact Attributed to International Language Education Students in Canada, Scenario One, Based on 95% Reduction of 2019 Enrollment**

	GDP at basic price	Labour Income	Jobs	Taxes
<b>Direct</b>	\$49 million	\$27 million	600	\$5 million
<b>Direct and Indirect</b>	\$70 million	\$39 million	820	\$18 million
<b>Direct, Indirect and Induced</b>	\$88 million	\$47 million	990	\$22 million

\* Direct tax impact refers to income tax impact only.

Source: Customized Statistics Canada’s Economic Simulation Model; RKA’s calculation

### Scenario Two – Supportive Policy, No Stimulus

Under this scenario, it is assumed that

- International students are allowed into Canada with an exemption to Canada’s travel ban.
- Students are expected to pay the full-cost of compliance of COVID-19 safety requirement, i.e., 14-day period of mandatory quarantine upon arrival.

<sup>4</sup> It is also understood that these students are Study Permit holders and therefore will study for up to 24 weeks in language education programs before continuing in further post-secondary education programs. For the purposes of this report, we have used 24 weeks to calculate their annual spending.

- The number of international students who may take up the travel arrangement is estimated to be 2,400. It is also understood that these students will most likely commit to studying on average 24 weeks in language education as per Languages Canada’s internal poll.
- Total number of international language education students is 5,900. Effectively, Canada’s language education sector is expected to experience equivalent to 91.6% loss of pre-COVID level in 2019<sup>5</sup>.
- Cost of 14-day mandatory quarantine for each incoming international language education student is estimated to be \$2,000<sup>6</sup>.
- Cost of a flight from a Canadian source is estimated to be \$1,000 per incoming student, before sales taxes and fees.
- Total cost for each student to comply with COVID-19 safety requirement is \$3,000. For 2,400 students, this amounts to \$7.2 million of revenue to Canada’s accommodation and airline sectors, which will generate economic impact.

Under these conditions, annual total spending for these 5,900 international students is estimated at \$156.7 million.

Table 4 below presents the estimated economic impact of Canada’s international language education sector, much reduced by the COVID-19 crisis, but welcoming 2,400 additional students (over and above the 3,500 remaining in Canada) coming to language programs.

**Table 4 Estimated Economic Impact Attributed to International Language Education Students in Canada, Scenario Two, Based on 91.6% Reduction of 2019 Enrollment**

	GDP at basic price	Labour Income	Jobs	Taxes
<b>Direct *</b>	\$86 million	\$47 million	1,060	\$9 million
<b>Direct and Indirect</b>	\$124 million	\$69 million	1,460	\$32 million
<b>Direct, Indirect and Induced</b>	\$156 million	\$84 million	1,760	\$39 million

\* Direct tax impact refers to income tax impact only.

Source: Customized Statistics Canada’s Economic Simulation Model; RKA’s calculation

### Scenario Three – Supportive Policy, Strategic Stimulus

Under this scenario, it is assumed that

- International students are allowed into Canada with an exemption to Canada’s travel ban.
- Because of an \$80 million stimulus package, students are expected to pay partial cost of compliance of COVID-19 safety requirement, i.e., 14-day period of mandatory quarantine upon

<sup>5</sup> Although 5,900 students represent only 3.5% of the level of enrollment in 2019, because of the longer period of study in language education programs assumed of the 2,400 incoming students 3,500 existing, the “effective” reduction in enrollment was 91.6%.

<sup>6</sup> The estimate is used for the purposes of calculating impact only, and is based on a range of quotes from hotels that may be able to provide such services at this time. The cost includes accommodation and meals during the 14-day period, with additional charges of airport transfer and basic medical insurance. The prices quoted are before sales taxes.

arrival. The number of international students who may take up the travel arrangement is estimated to be 40,000.

- Total number of international language education students is 43,500. Effectively, Canada’s language education sector is expected to experience equivalent to 38% loss of pre-COVID level enrollment in 2019<sup>7</sup>.
- Cost of 14-day mandatory quarantine for each incoming international language education student is estimated to be \$2,000.
- Cost of a flight from a Canadian source is estimated to be \$1,000 per incoming student, before sales taxes and fees.
- Total cost for each student to comply with COVID-19 safety requirement is \$3,000. For 40,000 students, this translates to \$120 million of revenue to Canada’s accommodation and airline sectors, which will generate economic impact. The \$80 million stimulus package is assumed to split equally between the accommodation and air transport sectors. Net revenue brought by these students is expected to be \$40 million.

Under these conditions, annual total spending for these 43,500 international students is estimated at \$1,142 million.

Table 5 below presents the estimated economic impact of Canada’s international language education sector, welcoming 40,000 additional students to language programs over and above the 3,500 remaining in Canada.

**Table 5 Estimated Economic Impact Attributed to International Language Education Students in Canada, Scenario Three, Based on 38% Reduction of 2019 Enrollment**

	GDP at basic price	Labour Income	Jobs	Taxes
<b>Direct *</b>	\$631 million	\$345 million	7,800	\$65 million
<b>Direct and Indirect</b>	\$903 million	\$504 million	10,720	\$235 million
<b>Direct, Indirect and Induced</b>	\$1,140 million	\$612 million	12,920	\$289 million

\* Direct tax impact refers to income tax impact only.

Source: Customized Statistics Canada’s Economic Simulation Model; RKA’s calculation

As the impact analysis shows, under scenario 1, Canada’s language education sector is expected to suffer a loss equivalent to 95% of its pre-COVID student enrollment, and the ensuing economic benefit. Under scenario 2, even if some students are willing to come to Canada to pursue language education, the high cost of compliance of COVID-19 safety requirement, Canada’s language education sector may still suffer a loss equivalent to 91.6% of its pre-COVID student enrollment and the resulting economic benefits. However, with supportive government policies and a modest stimulus package, the sector may be able to maintain 62% of pre-COVID student enrollment and therefore the resulting economic benefit.

<sup>7</sup> Although 43,500 students represent only 25.9% of the level of enrollment in 2019, because of the longer period of study in language education programs assumed of the 40,000 incoming students and 3,500 remaining students, the “effective” reduction in enrollment was 37.7%.