Where are the international students? How COVID-19 could affect Northern Ontario’s economy

By: Hilary Hagar
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Hilary Hagar is originally from Hamilton, ON. A recent graduate from the University of Guelph with a B.A. (Hons) in International Development, Hilary values interdisciplinary approaches and is passionate about community economic development and poverty alleviation. During her undergraduate degree, Hilary completed participatory research in both Cuba and Bolivia. Closer to home, Hilary has also contributed policy debates on issues ranging from greenhouse gas emissions in Ontario agriculture to Inuit nutrition and health. An avid outdoors enthusiast, she spends as much time as possible camping, hiking, and canoeing.

Editors Note

This document was originally published in April 2020. This revised version was republished in May 2020 after feedback from interested readers. Tables 1 and 2 have been revised to show the potential economic loss due to falling international enrolments. Figures 1 and 2 have been revised to show the composite portions of the potential economic loss: tuition, direct student and visitor spending, and induced economic impacts. No actual data have been changed from the original except that College Boreal reported that they were set to exceed their historical growth rate in 2020-2021 by 300% and so their potential economic loss has been adjusted to reflect this.
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Executive Summary

Due to COVID-19, Northern Ontario’s post-secondary institutions (PSIs) may see fewer international students in the 2020-2021 academic year compared to previous years. This briefing note seeks to calculate the potential economic impacts if international student enrolment for 2020-2021 was down by 20 percent next year. As well, this note calculates what the loss might be if declines in international enrolment were to continue into future years. It looks at a scenario of a 50 percent decline in international enrolment.

In addition to analyzing the revenue for international tuition fees, as well as the cost of international student living and visitor expenditures, the paper outlines the projected total economic loss. In terms of total economic loss, a 20% decline in international enrolment next year would see an economic loss of $55.4 million for all of Ontario’s northern regions. If enrolment continued to decline and only 50 percent of these students come to Northern Ontario’s PSIs, about $155 million will be injected into the Northern Ontario economy, resulting in a loss of approximately $142 million compared to full enrolment.

Further, of all the PSIs, Lakehead University would suffer the greatest loss. As this paper shows, changes in enrolment numbers matter for local economies. Both administrators of postsecondary institutions and community leaders ought to be strategizing over the next few months and beyond to avoid or mitigate the potential harms that could be created by declining international enrolments.

Introduction

Every year, students come from across the province, the country, and the world to study at a Northern Ontario postsecondary institution (PSI). However, the upcoming school year may be different.

Because of COVID-19, it is plausible that Northern Ontario will see fewer international students in the 2020-2021 academic year. It is necessary to assess the economic impacts declines in international students would have on Northern Ontario communities next school year. Knowing what the potential economic losses caused by fewer foreign students could be will give better direction and enhance planning for communities and PSIs.

Using northern campus enrolment figures provided by the Ministry of Colleges and Universities, this piece estimates the potential enrolment in 2020-2021 by campus for every northern institution based on historical growth trends. This analysis seeks to identify just how large the economic gap will be if the North sees reduced numbers of international students. What would be the economic gap if 20 percent of international students vanish from our economy next year? Or if 50 percent fewer international students came from abroad to study and live in Northern Ontario in coming years?

Although, if the economic losses resulting from fewer foreign students should continue in the coming years, the economic losses could be even more severe than what is noted in this briefing note.
Background

For a number of reasons, it is likely that foreign student enrolment numbers will be lower in September 2020 than previous years. Normally, recruiters go abroad to tell students all over the world the advantages of studying at their institution. Now, with Prime Minister Justin Trudeau urging all Canadians to return home and a heap of countries moving to close their borders, recruiters are unable to continue their work abroad. The early termination of the international recruitment season could mean less international students will be coming to Northern Ontario’s post-secondary institutions for fall 2020 (Usher 2020a).

Further, it is not yet clear how and if international students can receive approval to study in Canada for this fall. Restrictions for international visitors took effect on March 18, 2020 (IRCC 2020b). These restrictions limit entry to international students who held a valid study permit or were approved for a study permit before March 18th (Ibid 2020b). According to the federal government’s website on March 25, 2020, study permit applicants may still apply online (IRCC 2020c), and Immigration Refugees and Citizenship Canada (IRCC) says they are continuing to accept and process applications during this time (IRCC 2020a). However, it is still not clear when the border restrictions will be lifted and if they will be lifted in time for September 2020.

International students may also delay higher education due to lowered savings and higher unemployment in their own countries from COVID-19. In the medium term, an international student’s decision to come to Canada may be impacted by how quickly the Canadian economy can rebound (Usher 2020b). Part of the appeal of studying in Canada is that Canada is a well-desired immigration destination. If the relative appeal of immigrating to Canada lags behind other countries, many may choose other destinations (Ibid 2020b).

It is also uncertain whether or not PSIs will be able to return to normalcy in September (Usher 2020c). Meaning, PSIs will need to plan and weigh decisions if they will start online, delay the start date, or a different option (Ibid 2020c). For students looking to study abroad, Canada may seem like a less attractive option if they could receive in-person courses elsewhere.

All this combined, international student enrolment in the 2020-2021 academic year may be less than expected.
Economic Impact Assessment of Northern Ontario PSIs and International Students

Generally speaking, PSIs in Northern Ontario have large impacts on communities, both economic and otherwise, and a number of Northern Ontario PSIs have undertaken their own economic impact assessments. Economic impact assessments are a tool used to measure how many dollars an industry, institution, or group of people contribute to the economy.

International students, their spending and the spending of their visitors, generate a considerable amount of economic activity. A study of all international students in Canada estimates that in 2016, international students contributed $15.5 billion to the Canadian economy (Roslyn Kunin and Associates 2017). Even at the provincial levels, these impacts are still noticeable. A recent study of international students in the four Atlantic Provinces found that the total economic impact was $765 million annually (CAMET 2018). Closer to home, an Ontario-wide study of universities found foreign students spend $794 million annually just on living expenses alone (Brain 2017, 22). Northern Policy Institute (NPI) will shortly be releasing a paper assessing the economic impacts of international students in Northern Ontario during the 2017-2018 school year (Hagar, forthcoming).
Tuition Losses

But, what if there were 20 percent or 50 percent less international students attending northern Ontario PSIs in the upcoming school year due to COVID-19?

In forecasting expected enrolment and the economic impacts with full and partial enrolment, a number of assumptions were made. These assumptions are presented in the Appendix.

Table 1 shows the forecasted amount international students studying at Northern Ontario campuses would spend on tuition. As shown below, half as many foreign students would mean a drop of over $58,000,000 and 20 percent less students would mean a drop of over $23,000,000, when compared to previously projected enrolment.

Table 1: Projected Revenue and Revenue Losses for International Tuition Fees by forecasted enrolment by Post-secondary Institution, 2020-2021

<table>
<thead>
<tr>
<th>Post-secondary Institution</th>
<th>Projected revenue with full forecasted enrolment</th>
<th>Projected revenue losses with 20 percent drop in forecasted enrolment</th>
<th>Projected revenue losses with 50 percent drop in forecasted enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algoma University</td>
<td>$3,121,794</td>
<td>$624,359</td>
<td>$1,560,897</td>
</tr>
<tr>
<td>Cambrian College</td>
<td>$4,270,066</td>
<td>$854,013</td>
<td>$2,135,033</td>
</tr>
<tr>
<td>Canadore College</td>
<td>$10,163,807</td>
<td>$2,032,761</td>
<td>$5,081,904</td>
</tr>
<tr>
<td>Collège Boréal</td>
<td>$718,298</td>
<td>$143,660</td>
<td>$359,149</td>
</tr>
<tr>
<td>Confederation College</td>
<td>$15,619,127</td>
<td>$3,123,825</td>
<td>$7,809,563</td>
</tr>
<tr>
<td>Lakehead University</td>
<td>$57,507,907</td>
<td>$11,501,581</td>
<td>$28,753,953</td>
</tr>
<tr>
<td>Laurentian University</td>
<td>$10,787,701</td>
<td>$2,157,540</td>
<td>$5,393,851</td>
</tr>
<tr>
<td>Nipissing University</td>
<td>$794,656</td>
<td>$158,931</td>
<td>$397,328</td>
</tr>
<tr>
<td>Northern College</td>
<td>$7,064,245</td>
<td>$1,412,849</td>
<td>$3,532,122</td>
</tr>
<tr>
<td>Sault College</td>
<td>$6,418,822</td>
<td>$1,283,764</td>
<td>$3,209,411</td>
</tr>
<tr>
<td>Université de Hearst</td>
<td>$344,548</td>
<td>$68,910</td>
<td>$172,274</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$116,810,971</strong></td>
<td><strong>$23,362,194</strong></td>
<td><strong>$58,405,486</strong></td>
</tr>
</tbody>
</table>

Source: MTCU 2019 and Ontario’s Universities 2019 based on author’s calculations

1 With the exception of Collège Boréal. Collège Boréal provided Northern Policy Institute with their most up to date projected international enrolment figures. Enrolment figures for all other PSIs in this analysis were projected using assumptions that can be found in the Appendix.

2 Unless stated otherwise, the dollar amounts in this analysis are adjusted for inflation and stated in 2020 dollars.
Student and Visitor Spending Losses

Not only do foreign students contribute to local university and college revenues through tuition, they also contribute economically to the communities they live in by purchasing items like rent, residence housing, groceries, meal plans, transportation, communications, textbooks and supplies, clothing, and discretionary expenses. A full description of expenses and how they were determined can be found in the Appendix.

To add, international students likely draw family and friends from abroad to visit them during their studies. Using a justification that can be found in the Appendix, this analysis assumes that each international student in Northern Ontario has one visitor annually.

Table 2 shows the combined losses of direct spending of international students and their visitors by city. When compared to full enrolment, half the number of international students results in a loss of almost $50,000,000 in Northern Ontario’s local economies and just 80 percent of students produces a gap of almost $20,000,000. Noticeably, Thunder Bay sees the largest difference between full and partial enrolments.

Table 2: Projected revenue and revenue losses for international student living and visitor expenditures by forecasted enrolment by community, 2020-2021

<table>
<thead>
<tr>
<th></th>
<th>Projected revenue with full forecasted enrolment</th>
<th>Projected revenue losses with 20 percent drop in forecasted enrolment</th>
<th>Projected revenue losses with 50 percent drop in forecasted enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Sudbury</td>
<td>$27,259,493</td>
<td>$5,451,899</td>
<td>$13,629,747</td>
</tr>
<tr>
<td>Hearst</td>
<td>$949,980</td>
<td>$189,996</td>
<td>$474,990</td>
</tr>
<tr>
<td>North Bay</td>
<td>$9,183,202</td>
<td>$1,836,640</td>
<td>$4,591,601</td>
</tr>
<tr>
<td>Sault Ste Marie</td>
<td>$8,998,811</td>
<td>$1,799,762</td>
<td>$4,499,406</td>
</tr>
<tr>
<td>Thunder Bay</td>
<td>$47,332,632</td>
<td>$9,466,526</td>
<td>$23,666,316</td>
</tr>
<tr>
<td>Timmins</td>
<td>$6,436,056</td>
<td>$1,287,211</td>
<td>$3,218,028</td>
</tr>
<tr>
<td>Total</td>
<td>$100,160,174</td>
<td>$19,945,750</td>
<td>$50,080,087</td>
</tr>
</tbody>
</table>

Source: Based on author’s calculations. Description of calculations can be found in the Appendix.
Additional Economic Impact

While the direct spending of international students is noted above, this does not outline the total economic impact. Besides direct impacts, there are also indirect and induced impacts. Direct impacts are the increase in an industry’s output and the industry’s labour force resulting from international students (Roslyn Kunin and Associates 2017). This would include expenditures for tuition, living expenses, etc. Indirect impacts are the change in output and employment in sectors that supply goods and services to the sectors that received the direct impacts (Ibid 2017). For example, when international students spend money on tuition, the PSI collects this tuition and could spend part on goods and services for students, like building a residence building. The indirect impact would be new output and employment as a result of the PSI spending on the new building. Lastly, induced impacts are the changes in output and employment across all sectors as a result of the indirect and direct impacts (Ibid 2017). Induced impacts are long-term and can take a year or more of spending in different sectors to be visible (CAMET 2018). To continue the previous example, induced impacts would include the output and employment created as a result of the spending of both the PSI and the spending of the new residence building workers. Another way to think of these three different impacts is to think about if all international students were removed, what would be the impacts tomorrow (direct impact), in say six months (indirect impact), or years (induced impact)? Together, direct, indirect, and induced impacts generate the total economic impact. A detail description of the multipliers used for this analysis can be found in the Appendix.
Applying these multipliers to the direct impacts listed in Tables 1 and 2 above, the total economic impact international students would have if the full projected number attended this fall is just under $300,000,000.

However, if just 50 percent of these students come to Northern Ontario PSIs, only about $155,000,000 will be injected into the northern Ontario economy, resulting in a loss of about $142,000,000 compared to full enrolment. If 80 percent forecasted students attend university or college next year, the economic impact would be about $242,000,000 - still a $55,000,000 loss when compared to full enrolment.

Split by institutions, Lakehead University and the Thunder Bay community would suffer the greatest loss of over $63,000,000 with 50 percent of full enrolment and over $24,000,000 with 80 percent of full enrolment, as shown in Figure 1.

**Figure 1: Projected total economic loss by economic component by post-secondary institution, 2020-2021**

Source: Author’s calculation
Split by city, Thunder Bay faces the greatest loss. If only half as many international students come to Thunder Bay as projected, the loss from full enrolment would be approximately $80,000,000.

Figure 2: Projected total economic loss by economic component by community, 2020-2021

Source: Author’s calculations
Potential Remedial Actions

Though these findings show the potential for considerable economic losses in Northern Ontario, there are actions that governments and PSIs can take to mitigate these negative effects. Firstly, the Government of Canada could extend study visas of international students that are already here. This would allow students to take a second program or degree which could help offset potential revenue losses for PSIs. Secondly, provincial and federal governments could expand assistance to colleges and universities to support more aggressive marketing and outreach. This work could take place both now, through online mediums and international contacts, and once the pandemic subsides. As well, PSIs could spend the upcoming months making their online courses more attractive and accessible to international students so they can register without physically being in the community. Finally, governments could increase supports for domestic students. A recent example of this is the federal government’s Canada Emergency Student Benefit (CESB) program. Supports for domestic students could help offset tuition losses from international students. Although it should be noted that on average, international student tuition is about four times higher than domestic tuition (Usher 2018b), so this would not be a one-for-one effort. However, costs to support and assist domestic students are also lower.

Conclusion

Changes in enrolment numbers matter for local economies. This analysis shows that if few international students - or fewer than projected - come to Northern Ontario in fall 2020, there will be economic impacts. If the full projected enrolment number of foreign students were to attend this fall, the total economic impact of their spending and spending of their visitors would be just under $300,000,000. However, if just 50 percent of these students come to Northern Ontario, the total economic impact would amount to about $155,000,000.

COVID-19 may cause a reduction in the number of students that come from abroad to study in Northern Ontario. Shortened recruitment season, border restrictions, as well as health and economic factors could sway international students away from Canada and from Northern Ontario. If preventative measures including the border closure and physical distancing continue into the summer and into September, it may not be possible to facilitate in-person classes for international students. Though international students could at least begin the semester online, which would help PSI’s revenue, there are still lost opportunities if international students cannot physically live in Northern Ontario. In addition to filling part-time jobs while studying and adding diversity to communities, a lack of foreign students would mean lost revenues from living expenses and visitor expenses for communities.

Even if COVID-19 were to clear up late-spring and communities returned to normalcy shortly after, this should not be expected. While these findings paint a grim forecast for PSIs and communities in the upcoming months, there is still time to plan. Both administrators of post-secondary institutes and community leaders have the remaining months to strategize and plan a way forward. Time should not be wasted to set these plans in motion.
Appendix

Assumptions for forecasting expected enrolment

For enrolment numbers, the most recent publically available data for college and university enrolments is from the 2017-2018 academic year. To forecast enrolment numbers for the 2020-2021 academic year, the average enrolment growth rate for the last three academic years were applied.\(^3\) It is important to note at this time that this analysis looks only at the headcount of international students that are enrolled in Northern Ontario PSIs at Northern Ontario campuses. This distinction becomes very important with certain institutions. Cambrian College, for example, had over 2,600 international students in 2017-2018 (MTCU 2019). However, only 21 percent (578) of these students are enrolled at the Greater Sudbury campus (Ibid 2019). Similarly, only 41 percent of Collège Boréal’s international students and just 12 percent of international students at Canadore College are located in the North (Ibid 2019).

It is also important to note that for the purpose of economic impact analysis, this entire briefing note only discusses international students by headcount. There are two ways that enrolment numbers for PSIs are typically reported. Full-time equivalent (FTE) reports the number of students enrolled at full-time status plus the number of part-time students would make-up a full-time student. In other words, FTE is the equivalent to one student enrolled full-time. The second way enrolment is reported is by headcount. Headcount is simply the number of students, regardless of their enrolment status. This report uses headcount as this is more appropriate when assessing the total economic impacts of students. Interestingly, Council of Ontario Universities data shows that during the 2018-2019 school year for universities in Northern Ontario, the number of FTE was actually higher than the headcount. This means that some international students are likely taking more courses than the requirement for full-time enrolment.

This report also counts international student enrolment rather than visa holders. Including the latter means including students that are enrolled in language courses, and those who obtain a visa but do not actually enroll in the intended institution (Usher 2018a). However there is a limitation associated with using the student enrolment method. International exchange students are counted. These students pay tuition at their home institution, but still contribute to living costs in Northern Ontario. However, these students make up such a small percentage of the international total, less than five percent for universities and less than one percent for colleges, so all international exchange students were assumed to pay both Northern Ontario fees and living expenses.

Assumptions for forecasting revenue from international tuition fees

As stated above, the most recent publically available data for college and university enrolments is from the 2017-2018 academic year.

International students pay differing amounts in tuition depending on the program and faculty. To get the average rate per student, revenue from international tuition fees was used from the 2017-2018 academic year as well. For colleges, this data was provided from the Ministry of Colleges and Universities. For universities, this data was provided from the Council of Ontario Universities.

To project revenue from international tuition for 2020-2021, the average tuition amount per student in the 2017-2018 academic year was multiplied by the number of forecasted enrolments in 2020-2021.

\(^3\) With the exception of the Université de Hearst. Because there are comparatively less international students that have grown rapidly overtime, the result of a three year average growth rate likely overstated the number of projected international students at Université de Hearst. Instead, the growth rate from the most recent academic year was applied to forecast 2020-2021.
Assumption for student spending

Additionally, assumptions regarding student spending habits were also made, most of which were borrowed from the CAMET (2018) study. This is the most recent study of a similar nature which surveyed international students in Atlantic Canada. Assumptions regarding housing and length of stay of international students were made based on consultations with selected Northern PSIs.

Table 3: General Assumptions used in Economic Impact Analysis

<table>
<thead>
<tr>
<th>Assumption</th>
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</thead>
<tbody>
<tr>
<td>• Off-campus housing – 60 percent of students lived off-campus and stayed for the full 12 months of the year.</td>
</tr>
<tr>
<td>• Residence – 40 percent of students lived in on-campus housing (residence) and stayed for eight months of the year.</td>
</tr>
<tr>
<td>• Transportation – 13 percent of students purchased vehicles and paid the expenses 12 months of the year. The other 87 percent of students purchased bus passes for 8 months of the year, if not already included in ancillary fees.</td>
</tr>
<tr>
<td>• Other goods and services - Spending on items in the “other goods and services” category was homogenous, regardless of the community.</td>
</tr>
</tbody>
</table>

Description of expenses

Off-campus housing

**Rent:** Rent was calculated through taking a random sample of the first 10 shared apartments that appeared on classifieds websites, such as Kijiji. Where 10 rental listings were not available (Hearst), an average of the rent in the other cities used in this analysis was taken. Rent was adjusted for inflation by using the Bank of Canada’s inflation calculator.

**Groceries:** Groceries were estimated from the 2017 Nutritious Food Baskets (NFB) for the various cities. As students are not a target group listed, the cost listed for a family of four with median income was divided by four to get per person. Where a NFB was not available (Hearst), an average of the other NFBs were taken.

Residence

**Fees:** Residence fees were taken from various websites of PSIs. When more than one option or price for residence was available, an average was taken. Fees were adjusted for inflation by using the Bank of Canada’s inflation calculator.

**Meal Expenses:** Assumes that all students in residence do not buy any groceries where meal plans are available. Meal expenses were taken from various websites of PSIs. When more than one option or price for residence was available, an average was taken. In cases where meal expenses were not listed on websites, the average cost for groceries was used. Expenses were adjusted for inflation by using the Bank of Canada’s inflation calculator.
Transportation

**Bus Pass:** If the PSI did not include a bus pass in the ancillary fees paid by students, the cost of a city bus pass from various municipal government websites was used. If the bus pass was not included in ancillary fees, it was assumed that 87 percent of students purchased the bus pass for 8 months of the year.

**Vehicles:** It was assumed that 13 percent of students purchase vehicles and pay the related expenses for the full 12 months of the year. CAMET (2018) observed that 13 percent of students purchased a vehicle and the average price for this vehicle and maintenance was $13,165. This was the price that was used in this analysis.

Other goods and services

All prices listed under other goods and services were taken from CAMET (2018). In this study “discretionary” refers to what CAMET (2018) included in the “other” and “entertainment categories”.

Assumptions for visitor spending

The Canada-wide study assumed that for every long-term international student, there were two visitors yearly (Roslyn Kunin and Associates 2017). A similar study in Australia also used 1:2 student to visitor ratio (Phillimore and Koshy 2010). Perhaps more relevant is the assessment from Nipissing University. These authors predicted that for each international student there was one visitor annually (KPMG 2018). Using this justification, this analysis uses the assumption that each international student has one visitor annually.

Spending habits by tourists and the length of their stays were calculated using the averages from the Ontario Ministry of Tourism, Culture, and Sport, regions 13a, 13b, and 13c, adjusted for inflation (Ontario 2017).

Multipliers

This analysis uses an input-output tool provided by EMSI to determine the total economic output of international students. Another commonly used input-output model is the Canadian model. However, the EMSI model is better suited to this analysis as it allows modeling down to individual census subdivisions (CSD) whereas the Canadian tool is only available at the provincial level (EMSI 2016, 17). Further, the EMSI model also allows for greater detail in North American Industry Classification System (NAICS) levels than the Canadian model (Ibid 2016, 17). Therefore, the multipliers used in this analysis are extremely detailed. All multipliers used in this briefing note ranged from 1.13 to 1.64, depending on the CSD and NAICS.3

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3 Of course, this assumes that multipliers will look the same post-COVID-19. The impacts that COVID-19 will have on factors that influence multipliers are so far unknown. As such, this analysis will continue with the multipliers that are most recently available, though this should be noted as a point of caution when interpreting the subsequent data.
References


About Northern Policy Institute

Northern Policy Institute is Northern Ontario’s independent think tank. We perform research, collect and disseminate evidence, and identify policy opportunities to support the growth of sustainable Northern Communities. Our operations are located in Thunder Bay and Sudbury. We seek to enhance Northern Ontario’s capacity to take the lead position on socio-economic policy that impacts Northern Ontario, Ontario, and Canada as a whole.

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