

## **Intranational University Student Mobility: A Case Study of Student Migration and Graduate Retention in Eastern Canada**

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### **Abstract**

While international student mobility has received much examination, intranational student mobility is a lesser-studied area. Data shows that residents of the four Easternmost Canadian provinces are more likely to travel outside of their home province to undertake university studies than other Canadians. Beginning in the mid-1990s, Memorial University of Newfoundland experienced a near ten-fold increase in the enrolment of students from the three nearby Maritime provinces. Previous study of this enrolment trend indicated that the increase was partially driven by Memorial's lower tuition fees. Guided by the conceptual lenses of student choice frameworks, tuition price sensitivity analyses, and student migration studies, this study was carried out to examine the persistence and graduation rates of the 2010 Maritime student cohort, where they resided following their university studies, and factors influencing their decisions to stay or leave Newfoundland and Labrador. This research primarily relied on university administrative records and participant survey responses. The results showed that almost 40% of the 2010 Maritime student cohort had dropped out two years after their initial enrolment at Memorial and by the sixth year, their graduation rate (45%) was far below the overall graduation rate for Canadian students in undergraduate degree programs (74%). In addition, almost 78% of those who were successfully surveyed in autumn 2020 were no longer residing in Newfoundland and Labrador. While there are limitations to the interpretation of the results, they raise important questions about tuition fee policies and their connection (or not) to population growth.

*Keywords:* student migration, tuition fees, tuition freeze, graduate retention, maritime students, Newfoundland and Labrador

According to Statistics Canada (2020), there are approximately 2.1 million students enrolled at Canadian post-secondary institutions with full-time equivalent students accounting for about 1.7 million students (Usher, 2020). While most students find their way to graduation, a significant proportion do not persist to the point of successful completion. Amongst university entrants, pan-Canadian data show that 74% of undergraduates complete a baccalaureate degree program within 6 years (Statistics Canada, 2019b). Thus, more than a quarter of individuals continue to fall short successful degree completion. In these instances, the costs are borne not just by individuals, but also by governments, institutions, and the labour market.

While Canada increasingly competes with other nations around the globe to attract international students to its institutions, there is also competition amongst individual Canadian provinces to enrol students from beyond their borders at institutions within their respective provincial jurisdictions. In the

absence of a coherent national strategy for higher education or for its internationalization, individual Canadian provinces compete among themselves to attract international students who are drawn to Canada. This is primarily because within the system of higher education there is no national government agency to oversee and regulate it. Rather, higher education is a long-protected area of jurisdiction for Canadian provinces. In addition to the frequently discussed and well-studied market for international students, there is also a competitive intra-national market for Canadian domestic students. This intra-national domestic student market sees higher education institutions across the country competing to enrol students who completed their secondary schooling in other, often neighbouring, provinces.

Intra-national higher education student flows amongst the Canadian provinces remains an understudied area. Comprehensive national-level data on student demographics is limited to periodic surveys conducted by Statistics Canada, the national statistics agency, as well as surveys carried out by a sub-group of English-language universities that participate in the Canadian Undergraduate Survey Consortium. At the provincial level, most jurisdictions do not make detailed higher education student information available, particularly for out-of-province student enrollments. One study of Canadian university student cohorts in 1982, 1986, and 1990 found that students who migrate to attend university tend to prefer nearby provinces, but Nova Scotia and Ontario were the top provinces for students re-locating further from home (Burbidge & Finnie, 2000). Cohort studies carried out by Day and Grafton (1998) and Burbidge and Finnie (2000) found the overall interprovincial migration rate to be between six and nine percent of Canadian university students. Recent Statistics Canada data indicated that approximately 10% of higher education graduates graduated from an institution that was in a different province from their place of residence at the time of initial enrollment (Statistics Canada, 2019a). Students attending universities in the Atlantic region (i.e., the provinces of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador) were the most likely National Graduates Survey respondents to indicate that they had graduated from an institution outside of their home province. Twenty-two percent of them indicated this, compared to just 2.9% for Quebec graduates, 8.0% for Ontario graduates, and 11.4% for graduates from the Western provinces<sup>1</sup>.

### **Maritime Students in Newfoundland and Labrador**

Beginning in the mid-1990s, Newfoundland and Labrador's only university, Memorial University of Newfoundland, experienced an influx of students from the three nearby Maritime provinces of Nova Scotia, New Brunswick, and Prince Edward Island. Within a decade, their numbers had increased ten-fold. In 1999, this population of so-called 'Maritime students' at Memorial University represented just 1% of its total enrolment of 12,864 full-time undergraduate and graduate students (Memorial University of Newfoundland, 2000). By 2010, almost 10% of the university's 14,143 students came from one of the nearby Maritime provinces.

### *Influence of Low Tuition Fees*

For more than two decades prior to 2005, student enrolment in the Maritime region's public universities had either increased or remained relatively stable. A period of enrolment decline which followed was partly attributed to the increased numbers of Maritime students attending university in Newfoundland and Labrador. This was considered to be correlated with Memorial University's lower tuition fees (Maritime Provinces Higher Education Commission, 2007, 2009). At the end of the 1990s, tuition fee policy in Newfoundland and Labrador significantly diverged from the fee policies adopted by the neighbouring Maritime provinces. For example, in the Maritime region, tuition fees increased from a low of 7.7% in Nova Scotia to a high of 31.8% in New Brunswick between the 1999-2000 and 2009-2010 academic years. In comparison, fees at Memorial University declined by 37.4% over the same period. In 2010, the average undergraduate tuition fees for the four provinces in the Atlantic region were as follows: New Brunswick - \$5,516, Nova Scotia - \$5,495, Prince Edward Island - \$5,131, and Newfoundland and Labrador - \$2,624 (Statistics Canada, 2010).

In 2010, a study that investigated the trend in Maritime student enrollment at Memorial University confirmed that these students were indeed choosing to attend university in Newfoundland and Labrador because of the lower tuition fee costs. The university's reputation and program availability

<sup>1</sup> National Graduates Survey data for these data are provided in aggregate for the four Atlantic provinces and for the four Western provinces, unlike the larger provinces of Quebec and Ontario.

were also highlighted as determinants of students' enrollment decisions (Greene & Kirby, 2012, 2013).

### *Subsidization Questions Raised*

Newfoundland and Labrador is no different than any other Canadian province in that it has also sought to attract students from beyond its domestic student market in order to cover increases in operating costs and make up for declining or stagnant provincial government funding. However, while a differential tuition fee policy intended to increase fee revenue was instituted for international students at Memorial University by the early 1990s, tuition rates for Canadian non-residents remained the same as for Newfoundland and Labrador residents.

After experiencing a drop in revenues from its offshore oil fields, in 2012 the Government of Newfoundland and Labrador began to experience significant fiscal challenges. This marked the beginning of a period of large annual budget deficits that continues unresolved today. Increasing concerns about the province's financial stability and annual spending resulted in public questioning of the tuition freeze policy that had been in place since 1999. In 2014, the province's Auditor General noted that Memorial University had the lowest tuition fees in Canada while at the same time in excess of \$112 million of government's annual operating grant to Memorial University was effectively subsidizing students from outside the province (Newfoundland and Labrador Auditor General, 2014). This subsidy for out-of-province students had increased by \$80 million since the start of the tuition fee freeze. Later in 2018, it was decided that the fee freeze would only be maintained for students from Newfoundland and Labrador, while tuition for Canadian non-residents would be increased by 30%.

### *Population Growth Claims*

The lifting of the tuition fee freeze for non-residents was met with some public criticism, particularly from the national student advocacy group the Canadian Federation of Students and its affiliated student organizations. In light of Newfoundland and Labrador's aging population and ongoing efforts by the provincial government to incent population growth through immigration, these groups opposed to tuition fee increases insisted that the former tuition fee freeze policy was an effective public policy instrument for encouraging population growth. While there has been no data to validate this argument, student lobby groups have consistently contended that lower fees were an incentive for individuals from other provinces to move to Newfoundland and Labrador, and that out-of-province students tended to stay in the province following their university studies (Collins, 2016; McCabe, 2014; McLeod, 2017).

### **Current Study and its Importance**

The current study was designed as a follow-up on the previous Maritime student enrolment cohort study carried out in 2010. It examined the persistence and graduation rates of this student cohort and also focused on understanding the extent to which these students continued to reside in Newfoundland and Labrador after graduation. This was accomplished by surveying students from the original cohort study to confirm if they stayed in the province following their university studies and questioning them about the factors contributing to their decision to stay or leave. This research is important for a number of reasons. Firstly, this paper sheds some additional light on the relatively understudied area of higher education student migration in Canada. Second, no research to date has focused on the degree to which out-of-province students continue to live in Newfoundland and Labrador after completing their studies there or the factors that influence their decisions to stay in the province or move elsewhere following their studies. Third, this work contributes to the discourse on the role of higher education in population growth and economic development, especially as it pertains to the role of universities in attracting and retaining population and talent. Finally, this research can help to inform debates regarding provincial higher education tuition fee policies and their association, or lack thereof, with domestic migration in Canada. The latter is of particular relevance in light of the recommendations provided by higher education system reviews such as those recently released by the provinces of Alberta (2021) and Newfoundland and Labrador (2021).

In what follows, the data gathering process for the study is explained and quantitative data respecting students' university persistence and graduation are presented. Next, the results of the fall 2020 follow-up survey with the 2010 Maritime student cohort are summarized. After this, the article moves

to a discussion of what the findings indicate about intra-national student migration generally and for the case study of the 2010 Maritime student cohort in particular. Before this, we review the theoretical constructs guiding this work.

### Theoretical Underpinnings

In the absence of extensive student mobility and migration research in Canada and data regarding where students settle and establish their residency following university, this study is informed by the intersection of three related conceptual lenses: student choice frameworks, tuition price sensitivity analyses, and student migration studies. Several conceptual models have been developed to explain the social, economic, and cultural factors that influence students' higher education decision-making and choices. This includes the choice model proposed by Hossler and Gallagher (1987) and adapted by others (e.g., Chen, 2007). These models conceptualize decisions to participate in higher education as a three-stage process, consisting of predisposition, search, and choice. In the predisposition stage, students begin to see further education beyond secondary school as a path to goal achievement and collect information accordingly. During the search stage, students refine their study abroad program/institutional preferences and submit one or more applications. For the choice stage, which is particularly important to this study, students make an enrollment decision based on a number of economic and sociological factors. In this final step, students evaluate their "choice set" after receiving offers of admission, consider the available alternatives (i.e., program, institution, cost, etc.) and make a final decision based on interwoven influences.

An expanded model of "situated context" developed by Ross (2010) expanded upon Hossler and Gallagher's model while integrating aspects of the economic theory and sociological notions of social and cultural capital previously proposed by Perna (2006). This approach recognizes multiple layers of context influencing higher education decision-making including a) individual attitudes and behaviours that influence such decisions, b) family influence and experiences with higher education; c) the effects of educational resources and academic preparation; and d) external forces that indirectly influence participation and access such as social factors, economic conditions, and public policies. Mazzarol and Soutar's (2002) "push-pull" model is grounded in theories of migration and accounts for push and pull factors influencing students' institution and program choices. Push factors have a positive or negative affect on the decision-making process, such as whether or not a preferred program is available closer to home, while pull factors attract students based on the options they must select amongst in making their final decision, including institutional reputation, costs, and the influence of family and friends. More recently, Iloh (2018) proposed a new conceptual approach to modeling higher education decision-making. Arguing that previous choice models tend to overlook the diversity of post-traditional student pathways, she put forward an 'ecological model of choice' which emphasizes the influence of external environment factors on student decisions. This three-component model incorporates the bi-directional forces of information, time, and opportunity which differentially impact students' experiences with post-secondary education decisions.

Extensive work has been carried out to determine the level of student sensitivity toward university fees and their impact on enrollment decisions. The appropriate level of tuition fees has been the subject of protracted debate in Canada and abroad for decades. Student stakeholder groups have frequently argued that institutions should reduce fees, or eliminate them altogether, in the name of accessibility and affordability. Another proposition is that higher education should function under a system where tuition fees are relatively high with the means-tested student financial assistance equivalently high so as to fund those most in need. It has been suggested that with a "high tuition-high aid" model only slightly fewer students from middle- and upper-income backgrounds would attend, because they are less price-sensitive, while participation for students from low-income families would be less encumbered due to the availability of more substantive financial assistance. The latter view is consistent with tuition rationalization theory (Hearn & Longanecker, 1985) which posits that higher tuition fees more adversely impact affordability for lower-income students because they are more responsive to net price than are middle- and upper-income students. While it is frequently assumed that if university fees are lowered then an increase in enrollment will follow, research on the relationship between enrollment and fee levels has produced mixed results. A number of studies have proven little or no relationship between tuition rates and student participation (Christofides et al., 2001; Rivard & Raymond, 2004) while others

have suggested that higher university fees place a downward pressure on enrollment (Christofides et al., 2009; Johnson & Rahman, 2005; Neill, 2009; Noorbakhsh & Culp, 2002).

While there have been no comparable analyses of Canadian student populations, a number of studies have examined out-migration amongst university students in the United States. These researchers have noted a wide range of variables affecting so-called 'out-of-state' student migration behavior including the availability of employment, climate and geography, marital status, racial identity, and socioeconomic status (Gonzalez Canche, 2017; Ishitani, 2011; Kodrzycki, 2001; Parsad & Gray, 2005). One study of cross-border student migration across the four UK nations and the Republic of Ireland found that student mobility was not deterred by tuition increases although lower fees nearer to home appeared to discourage educational migration (Wakeling & Jefferies, 2013).

## Methods

### *Research Questions*

The objectives guiding this study were as follows:

1. To investigate the university persistence and graduation rates of students from Canada's Maritime provinces (i.e., Nova Scotia, New Brunswick, Prince Edward Island) who moved to the province of Newfoundland and Labrador to undertake university studies.
2. To determine if this cohort of students continued to reside in the province of Newfoundland and Labrador after enrolling at the province's university.
3. To identify the reasons why these students stayed in Newfoundland and Labrador or left the province following graduation.

### *Research Design*

This research utilized a quantitative longitudinal approach to follow-up with a cohort of students who participated in a university choice study 10 years prior. Unlike the so-called 'snapshot in time' data provided by cross-sectional studies, the longitudinal panel approach used for this research enabled the same group of individuals to be contacted and surveyed after an extended period of time (Cohen et al., 2018; Salkind, 2010). One notable disadvantage, however, is the difficulty involved in maintaining contact with all of the original panel study participants due to a variety of participant attrition factors, such as when such as when they decline to participate in a follow-up survey or when they are not able to be located/contacted by researchers for various reasons (e.g., outdated contact information).

This study relied on three primary sources of data that were analysed using descriptive and inferential statistics. These data consisted of a) archived data for prospective survey participants from a previous study carried out in 2010, b) university administrative records, and c) participant responses to an on-line survey carried out in 2020.

### *Participants*

The study sampling frame consisted of individuals from Canada's Maritime provinces who initially registered as first-year undergraduate students at Memorial University of Newfoundland for the fall 2010 semester. This sample of 279 students included only those who physically re-located to the province of Newfoundland and Labrador to pursue full-time on-campus studies (i.e., distance education students were exempt). In the fall of 2020, these former students from the 2010 Maritime cohort were invited to take part in the study using the Qualtrics online survey platform. After the initial email distribution of the survey information to 279 individuals by Qualtrics, two reminders were sent to the cohort -- one week and two weeks following the initial distribution. A total of 140 individuals completed the survey, for a response rate of approximately 50%. Considering the longstanding problems associated with achieving favourable response rates with samples such as this in educational research (Dey, 1997; Saleh & Bista, 2017), the response rate was considered to be within acceptable limits. This is especially so in light of the COVID-19 pandemic which was ongoing in the fall of 2020 when the survey was carried out. Table 1 provides a comparison of gender and province of origin for the overall cohort versus the survey respondents. The numbers of male and female survey respondents were very similar to the distribution in the cohort



sample. The proportion of respondents from the provinces of Nova Scotia and Prince Edward Island was smaller compared to the cohort sample while the number of respondents from New Brunswick was proportionately larger.

**Table 1**

*Gender and Province of Origin for 2010 Student Cohort and 2020 Survey Respondents*

	2010 Cohort	2020 Respondents
<b>Gender</b>		
<i>Male</i>	125 (44.8%)	61 (43.6%)
<i>Female</i>	154 (55.2%)	79 (56.4%)
<b>Province of Origin</b>		
<i>Nova Scotia</i>	210 (75.3%)	91 (65.0%)
<i>New Brunswick</i>	52 (18.6%)	45 (32.1%)
<i>Prince Edward Island</i>	17 (6.1%)	4 (2.9%)
<b>Total</b>	279	140

### *University Administrative Records*

Individual student personal, registration, and academic records are stored on a university-wide BANNER Student Information System (SIS). SIS data were extracted for each student who participated in the original study during the 2010-11 academic year in order to assess rates of persistence and graduation as outlined in the results section. SIS data were also used to verify and update students' email contacts.

### *Survey Instrument*

The survey instrument was adapted, in part, from a survey previously utilized by the consulting firm Goss Gilroy while conducting an investigation of population outmigration for the government of Newfoundland and Labrador (Goss Gilroy Inc., 2018). This instrument model was utilized in order to compare the results of the fall 2020 survey with the survey results previously reported by the province, however, that comparative analysis is not the subject of this article. The instrument included questions eliciting information to current province of residence (1 item) and the following subgroup of variables related to reasons why participants chose to remain in or to leave Newfoundland and Labrador at the end of their university studies: employment and education related factors (11 items), quality of life factors (10 items), and relationship factors (5 items). The survey took approximately 7 to 8 minutes for participants to complete.

### *Ethics Review and Considerations*

Prior to commencement, a proposal to conduct this study underwent a review for ethical compliance by the Interdisciplinary Committee on Ethics in Human Research at Memorial University and was found to be in compliance with the university's ethics policy. There were no risks associated with participation in this study and the participants were informed about the nature of the study and their participation, including the assurance that they could withdraw at any time. All participants provided their consent to participate including their consent for the publication of the study's results. They were also informed that they could request a copy of the summary of the results. All student data, including records from the 2010 Maritime cohort study, were stored on password a protected computer with access limited to the researcher and research assistants. The study data is reported here in aggregate form, prohibiting the identification of individual participants.

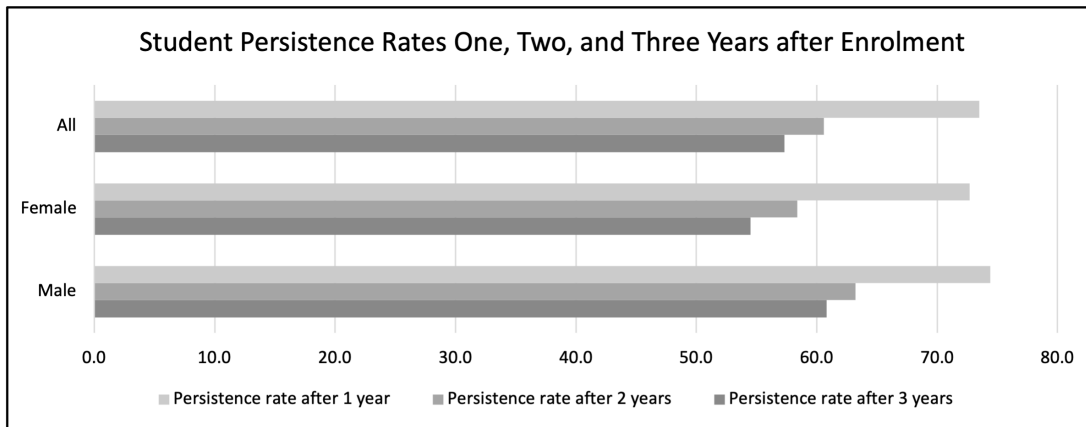
## **Results**

### *Student Persistence and Graduation*

Figure 1 displays the one-year, two-years, and three-years persistence rates for the 279 students who were part of the original study sample. After beginning their degree programs in the 2010 fall semester, 73.5% returned to Newfoundland and Labrador to undertake a second year of full- or part-time undergraduate studies. The one-year persistence rate for men (74.4%) was slightly higher than for women (72.7%). Two years after their initial enrolment, the rate of persistence for this cohort of students fell to 60.6% overall, once again with men's re-enrolment higher than that for women (63.2% vs 58.4%). After three years, at the beginning of the 2012-13 academic year, the overall persistence rate for the cohort was down to 57.3%, with men persisting at a rate of 60.8% and women at 54.5%. Chi-square tests for independence (with Yates Continuity Correction) indicated no significant association between gender and student persistence for either of the three years as shown in Figure 1.

**Figure 1**

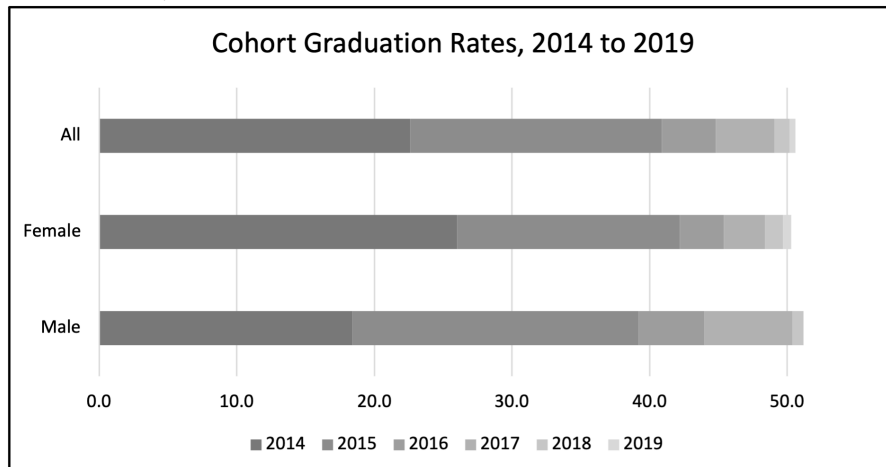
*Student Persistence Rates One, Two, and Three Years after Enrolment*



Students' degree completion status by year is shown in Figure 2 below. As shown, by the end of 2015, almost 41% of the original student cohort had graduated with an undergraduate degree from Memorial University of Newfoundland. This five-year degree completion rate was higher for women (42.2%) than for men (39.2%). As of September 2019, just over half (50.6%) of the cohort had successfully completed the university's undergraduate degree program requirements and graduated. At that time, exactly half of the women had completed an undergraduate degree with 51.2% of the men graduating as well. There were no significant differences between women and men's graduation status at either point in time (as indicated by chi-square tests).

**Figure 2**

*Cohort Graduation Rates, 2014-2019*



### 2020 Follow-Up Survey

Of 140 former students who participated in the follow-up survey completed in the fall of 2020, only 31 (22.1%) continued to live in Newfoundland and Labrador a decade after they initially attended Memorial University for the fall 2010 semester. Most of the participants surveyed, 109 (77.9%), resided elsewhere at the time of the survey. Figure 3 below breaks down the residency status of respondents by gender. A Chi-square test for independence (with Yates Continuity Correction) indicated no significant association between respondents' gender and residency status,  $X^2(1, n = 140) = .00, p = 1.00$ .

**Figure 3**

*Respondent Residency vs. Gender*

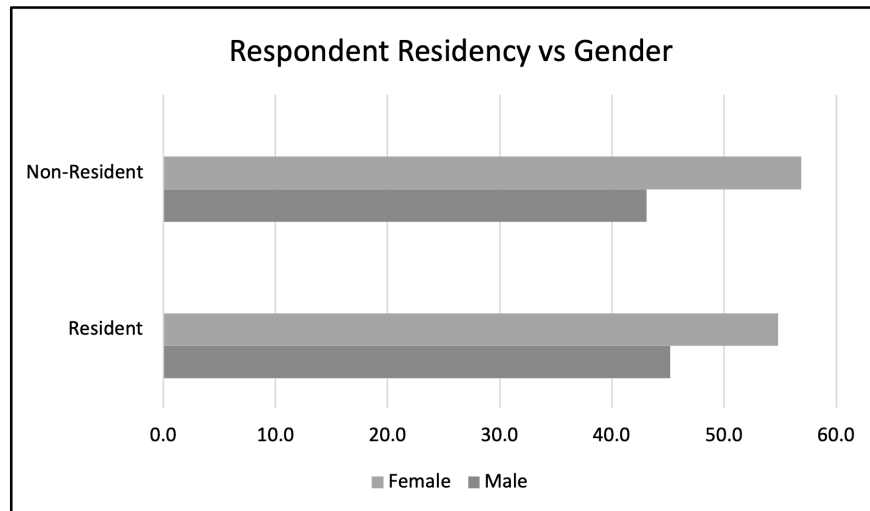
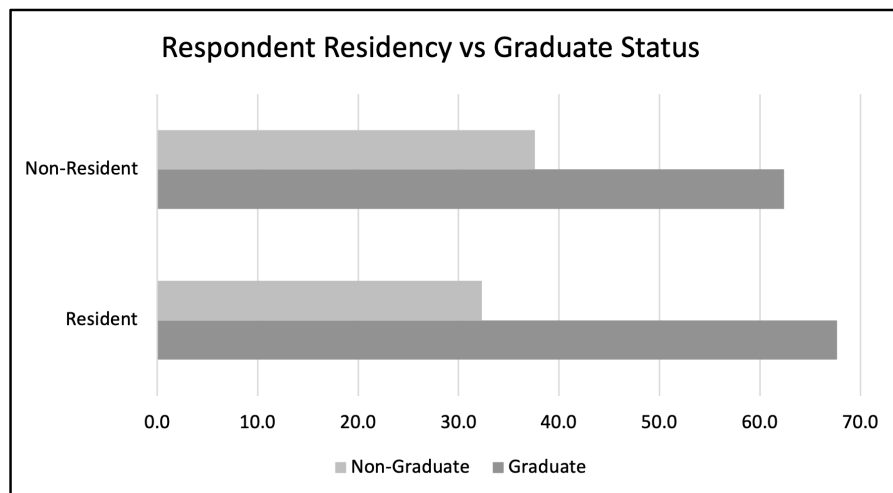


Figure 4 below shows the residency status of respondents by their graduation status. A Chi-square test for independence (with Yates Continuity Correction) indicated no significant association between respondents' graduation status and residency status,  $X^2(1, n = 140) = .11, p = .74$ .

**Figure 4**

*Respondent Residency vs. Graduate Status*



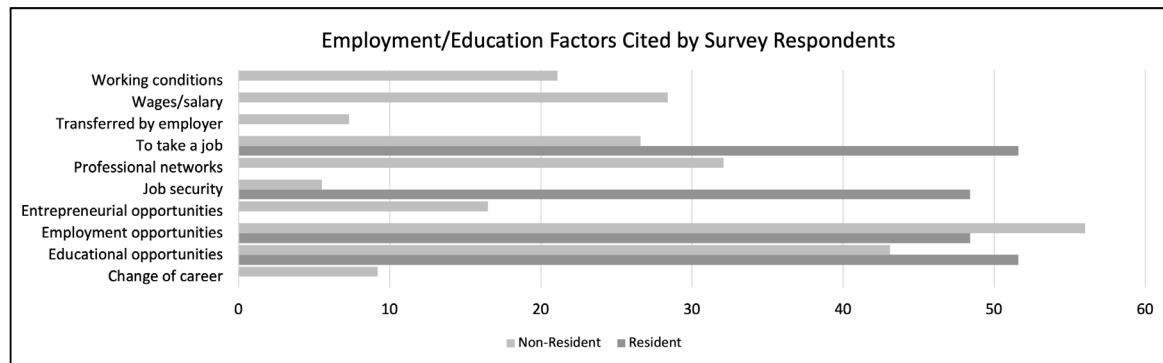


The survey provided to respondents asked that they respond to a series of questions about the reasons they chose to either remain in Newfoundland and Labrador or to leave and reside elsewhere. This covered three areas: a) employment and education-related factors, b) quality of life factors, and c) relationship factors.

**Employment and Education-related Factors.** A list of 10 items comprising a variety of employment and education related factors were provided to survey respondents and they were asked to select any factors that influenced their decision to stay in Newfoundland and Labrador or to leave. As shown in Figure 5, those currently residing in the province selected educational opportunities (51.5%), employment opportunities (48.4%), job security (48.4%), and to take a job (51.5%) as the factors influencing their place of residence.

**Figure 5**

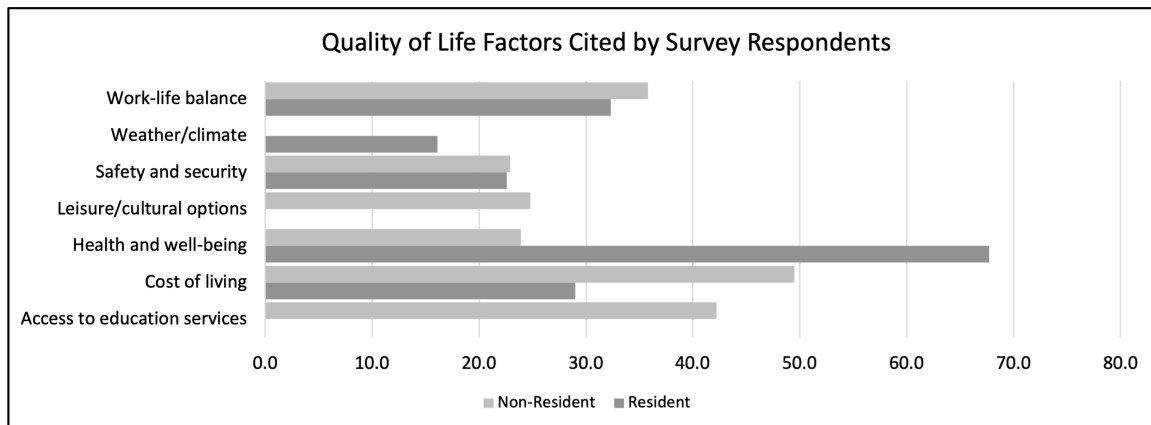
*Employment/Education Factors Cited by Survey Respondents*



Those who left the province most frequently indicated they left to pursue employment opportunities (56.0%) and educational opportunities (43.1%). Almost one-third relocated to be nearer to professional networks (32.1%). More than a quarter of the respondents who left indicated their choice was related to wages/salaries (28.4%) or taking a job (26.6%). Others cited working conditions (21.1%) and entrepreneurial opportunities (16.5%) while smaller numbers of respondents were influenced by a being transferred by their employer (7.3%) or a change of career (9.2%).

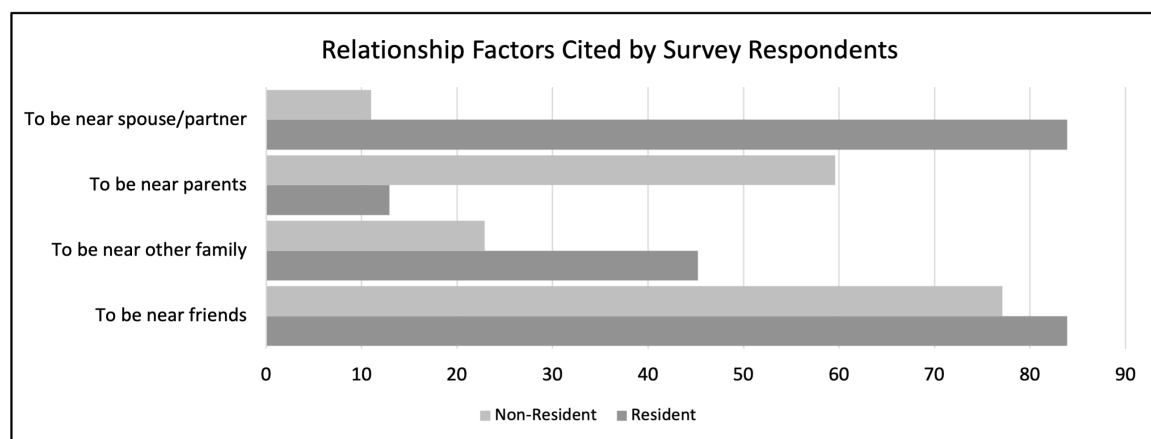
**Quality of Life Factors.** Survey respondents were provided with a list of quality-of-life factors and asked to choose any factors which had influenced their decision on where to live following their university studies. Their choices are provided in Figure 6. Among those who stayed in the province, health and well-being was selected by the largest proportion of respondents at 67.7%. This was followed by work-life balance (32.3%), cost of living (29%), safety and security (22.6%), and weather/climate (16.1). For respondents who re-located their residence outside of Newfoundland and Labrador, the largest proportion (49.5%) chose cost of living as an influence followed by access to education services at 42.2%. This was followed by work-life balance (35.8%), leisure/culture options (24.8%), health and well-being (23.9%, and safety and security (22.9%).

**Figure 6**  
*Quality of Life Factors Cited by Survey Respondents*



**Relationship Factors.** The final survey item asked respondents to choose from a list of 5 items covering relationships that may have influenced their decision to leave or stay in Newfoundland and Labrador after university. The data for these items are summarized in Figure 7 below. For the resident group, both to be near spouse/partner and to be near friends was selected by 83.9% of respondents. To be near other family was selected by 45.2% while to be near parents was chosen by only 12.9%. The later is logical since all of the respondents lived outside the province prior to taking up their university studies. To be near friends was the most commonly selected relationship factor (77.1%) for those who left Newfoundland and Labrador following their time at university. The next most commonly chosen factor was to be near parents (59.6). Smaller numbers of respondents in the non-resident group chose to be near other family (22.9%) and to be near spouse/partner (11%).

**Figure 7**  
*Relationship Factors Cited by Survey Respondents*



## Discussion

Although the central objective of this research was to examine Maritime student migration and confirm their place of residence, this discussion starts by reviewing the 2010 Maritime cohort's persistence and graduation rates. The analysis of university records showed that 26.5% of these students were no longer pursuing a program at the university one year after their initial enrolment. We know from research that student transitions to higher education are sometimes neither linear nor predictable (Campbell & Ungar, 2008) and as such these students may have switched to another institution, 'stopped out' to take some

time off, left Canada to study outside the country, or decided to discontinue post-secondary studies entirely. While a comparator institution-wide first-year persistence rate is not available for Memorial University, the persistence rate for Canadian students after one year in a bachelor's or equivalent program was 85% in 2019 (Organization for Economic Cooperation and Development, 2019). So, the retention rate for the 2010 Maritime cohort was more than 10% below the national average. A Canada-wide study from Statistics Canada (2019b) reported that, for students who enrolled in undergraduate degree programs between 2010 and 2014, persistence rates were consistently above 80% two years after. For our 2010 Maritime cohort, the persistence rate was much lower at 60.6%. Although the results were not statistically significant, unlike the national trend reported by Statistics Canada whereby women persist in undergraduate programs at a greater rate than men, the data for 2010 Maritime cohort showed the opposite with men continuing their programs into the second and third years to a greater extent. According to Statistics Canada data on graduation rates from undergraduate programs, 40% of full-time students in Canada graduate within 4 years (Statistics Canada, 2019b). By the sixth year following first enrollment, the graduation rate increased to 74%. For the 2010 Maritime cohort, the four-year graduation rate was much lower at 22.6%, however, their graduation rate reached the national average by year 5. By the sixth year, the graduation rate of 44.8% is far below the 74% national rate of graduation.

Despite stakeholder claims to the contrary in public reporting, almost 78% of the 2010 Maritime student cohort who were successfully surveyed in 2020 were no longer residing in Newfoundland and Labrador at the time. Of those who remained in the province, survey respondents indicated that they were primarily drawn to the province due to opportunities for employment and education, health and well-being considerations, and to be near spouse/partner and their friends.

Survey respondents who did not continue to live in the province after leaving university most frequently cited employment opportunities, cost of living, and living closer to friends as their motivation to move out of the province. Living closer to their parents and education factors also were frequently selected by this group. It is notable that there was no statistically significant connection between location of residence and graduation status (i.e., degree completion).

## Study Limitations

The use of survey methods in educational research has limitations, especially as they relate to the problem of non-response. This problem exists in 'normal times', however, it is possible that the COVID pandemic may have exacerbated this problem as the crisis has caused a variety of challenges and difficulties for people – too many to cite here. The distribution of respondents for the fall 2020 survey amongst the three Maritime provinces was somewhat divergent from the sample but perhaps more problematic was the evidence of overrepresentation of those who successfully graduated. The analysis of institutional data files showed that only 50.6% of the 2010 Maritime student cohort graduated, however, the graduation rate for the survey respondents was 63.6%. As a result, it must be acknowledged that results of the survey may not be a completely accurate representation of the survey sample population as a whole. Unfortunately, this is common to many survey research studies. It also should be noted that with a small sample of respondents (i.e., 140 individuals), more sophisticated empirical analyses such as regressions are not reliable or recommended, so this study relied for the most part on reviewing descriptive statistics.

## Conclusion

Now, Memorial University President Dr. Gary Kachanoski and Canadian Federation of Students chairperson Travis Perry both say out-of-province students bring the province significant benefits as well; spending out-of-province money, enriching the student experience at MUN, increasing enrolment, and staying here when they graduate – which is critical with our ageing population. (McCabe, 2014)

The quote cited above, which appeared in a Newfoundland and Labrador newspaper in 2014, repeats the often-made claim that out-of-province Canadian students were staying in Newfoundland and Labrador and, hopefully, helping to stem population ageing. The results of the current study of the 2010 Maritime student cohort at Memorial University of Newfoundland runs counter to this claim and should serve as a cautionary tale on public reporting on advocacy regarding tuition fees and student migration. The

results provided in this paper did not appear to support the notion that low fees for out-of-province domestic students contributed to population growth as suggested by stakeholders in public media reports. In fact, any contribution to population growth would appear to be minimal. The data indicated that there was a large percentage of student attrition and nearly half of the students in the cohort did not successfully graduate from an undergraduate program. Many of the 2010 Maritime student cohort returned to their home province without successfully completing a credential and compared to the national graduation rate, this cohort of students significantly underperformed. If one of the primary aims of the former low tuition fee policy for out-of-province Canadians was to aid population growth, this study indicates that this objective failed tremendously. Considering the large drop-out rate, one must weigh these relatively poor student outcomes against the cost of the investment to the province of Newfoundland and Labrador.

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