

TRENDS

IN MARITIME HIGHER EDUCATION

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IS DEMAND FOR UNIVERSITY EDUCATION SHRINKING AMONG MARITIMERS?

OVERVIEW

Over the last 25 years, the Maritimes have seen a large growth in university enrolment, rising 40% between 1985 and today, to reach 57,807 full-time students.

Among Maritime residents only, the increase has been 7.5% over the same time period, now standing at 39,402 full-time students. Over the last few years, however, the enrolment of Maritimers has declined from the peak of 44,023 reached in 2004-05.

The recent shift is not the result of a shrinking population; rather, relative to the size of the region's typical university-aged population (aged 18-24) fewer Maritimers are enrolling in university studies compared to the peak.

In this paper, the ratio of Maritimers who attend university relative to the population aged 18-24 is used as a measure of demand; this concept is also known as the participation rate.

Our analysis shows that the demand for university education among Maritimers has been variable over the long term; it was characterized by strong growth from 1985 to the early 90s, a plateauing in the mid to late 90s and then a period of modest increases; in recent years it has been showing signs of softening.

The trend is most pronounced among Nova Scotians, while among New Brunswickers and those from Prince Edward Island, the recent trend has been a slight decline or flattening.

Over the same time frame, the average participation rate of Canadians is now approaching or even surpassing rates in the Maritime provinces, which had historically tracked well above the Canadian average.

In addition, while Maritime men and women enrolled in the region's universities in equal proportions 25 years ago, today, Maritime women enroll at one-and-a-half times the rate of their male peers.

The impact of these trends on enrolment has perhaps not been felt to its full extent because universities in the region have been attracting increasing numbers of students from outside the region.

What do these trends mean for the future?

Many factors influence individual decision-making about whether to pursue a postsecondary education and if so, what type of institution to attend (which ultimately translates to the

overall demand for university education in the population). For example, the investment of time and money needed are two important factors. Overall economic conditions and labour force demand for university-educated people also play an important part, and have been linked to the enrolment growth seen over the last 25 years. How these factors will evolve individually in the coming years, and their interactions, is uncertain.

What is predicted with a fair degree of certainty, however, is that beginning in 2012, the region will face a thirteen-year decline in its typical university-aged population. If the level of demand (participation) remained constant at today's rates, this demographic shift would mean that in thirteen years, nearly 7,000 fewer Maritimers, would be enrolled in universities within their province of residence.

In addition to what this might mean for the educational attainment of the region's young people, both the recent softening in the demand for university education and the forecasted decline in the population aged 18-24 raise questions for governments and institutions. For example:

1. Why has the demand for university education stopped growing among Maritimers?
2. What should be the optimal university participation rate of the region's youth?
3. What would be the impact on the provincial economies with substantially fewer, highly skilled, university-educated Maritimers available to meet the needs of the region's labour force?
4. How can universities and governments address the projected shortfall of Maritimers enrolling in the region's universities?

This paper draws attention to shifting patterns of demand for university education and highlights the challenge that the projected population decline presents to the region. Important policy questions are also raised for readers to consider, but answers to them have not been ventured here.

Addressing the questions posed is not a simple task; however, open discussion of the issues among the Commission's stakeholders, and further work to characterize the factors underlying the shifting trends observed, are the key ingredients in a successful attempt to do so.

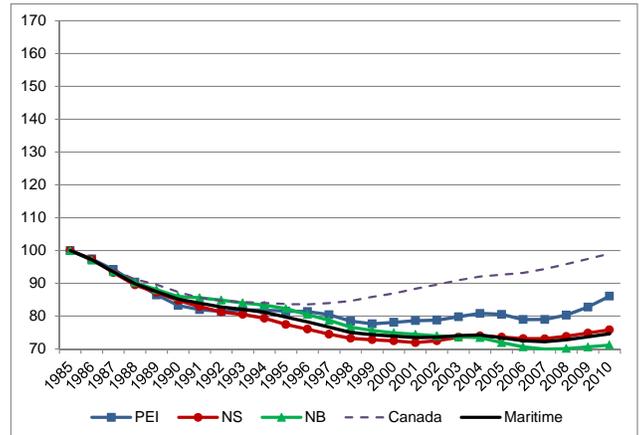


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- ⇒ In 2010, students aged 18-24 made up 82.4% of the total full-time enrolment of Maritimers in the region.
- ⇒ If the demand for university education were constant, the profile of this group's demographic trend would track in lockstep with enrolment.
- ⇒ Over the last 25 years, the typical university-aged population (aged 18-24) in the Maritimes has declined 26.5%.

- ◆ The number of Nova Scotians aged 18-24 declined 24.1% between 1985 and 2010 and now stands at 89,932.
- ◆ New Brunswick's 18-24 population has decreased by 28.8% and now stands at 67,910.
- ◆ Prince Edward Island's 18-24 population has declined 13.9% over the same time period. It now stands at 14,304.
- ◆ In Canada as a whole, the 18-24 population decreased 0.9% between 1985 and 2010 and now stands at 3,316,200.

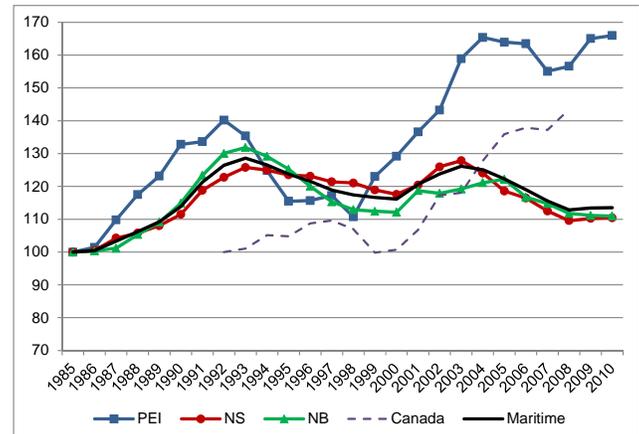
Population aged 18-24. Index: 1985=100



- ⇒ University students are most likely to enroll in an institution within their province of residence (also referred to here as home province); it is with home province enrolment that we begin our examination of demand.
- ⇒ The number of Maritimers attending university in their home province has not followed the same trend as the population over the last decade, and the profile has varied considerably by province.
- ⇒ Between 1985 and 1993, enrolments increased steeply across the region while the recruitment pool (population aged 18-24) shrank.
- ⇒ By contrast, despite a recent (since 2006) flattening / slight increase of the population, enrolment declined steeply among Maritimers.

- ◆ The number of Nova Scotians enrolled full-time in universities in that province increased 27.8% between 1985 and 2003, but since then has declined by 2,976 students. Enrolment is now 18,875, an increase of 10.4% above numbers reached 25 years prior.
- ◆ 12,648 New Brunswickers are currently enrolled full-time in that province, an increase of 11.0% above 1985 numbers but below the peak reached in 2005. Compared to the peak, there are 1,275 fewer NB resident students enrolled in that province.
- ◆ Prince Edward Island has charted a very different course. Full-time enrolment of its residents has reached 2,581, a 66.0% increase compared to 1985 numbers (an increase of 1,026 students).
- ◆ Overall, the number of Maritimers attending university in their home province increased 13.5% since 1985.
- ◆ On average, the number of Canadians as a whole enrolled full-time in their home province has marched steadily upward since 1999, and was 43.4% higher in 2008 (most recent data available).

Students enrolled full-time in their province of residence (home province enrolment). Index: 1985=100



- ⇒ Population and enrolment trends do not correspond; from this we can conclude that demand has not been at a constant rate over the last 25 years.
- ⇒ Demand varies over time and by province.
- ⇒ To further characterize the demand for university education, we now turn to participation rates, which track the ratio of full-time university enrolment to the population aged 18-24.

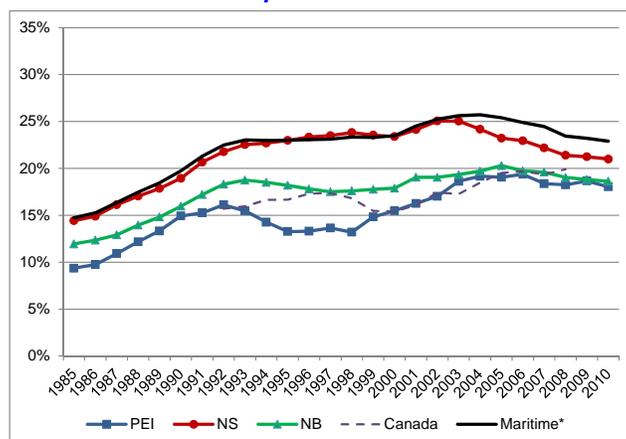
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- ⇒ *Home Province Participation* is the best measure of the extent to which young people access university education within their province of residence.
- ⇒ *National Participation* describes the extent to which they participate in university anywhere in Canada thereby providing the most comprehensive sense of the 'culture of participation' in a province.

- ⇒ *Home Province Participation* in the Maritime provinces has been stagnant or in decline since 2003. This suggests that the demand for university education has softened among the region's young people.

- ◆ In all three provinces, the demand for university education in one's province of residence (*Home Province Participation*) increased steeply for about eight years beginning in 1985. A second eight-year period saw demand either flatten (among Nova Scotians) or decline then stagnate (among those from New Brunswick and Prince Edward Island).
- ◆ Among Nova Scotians, this demand peaked in 2002 at 25.0% and has since dropped 4 percentage points to 21.0%, equivalent to the level of demand in 1992. Although demand is still highest among Nova Scotians compared to other Maritimers, the gap has narrowed considerably.
- ◆ Among New Brunswickers, demand peaked in 2005 and since declined 1.7 percentage points, and now rests at 18.6%.
- ◆ The profile for Prince Edward Island has been similar in recent years. Since 2005, demand among Islanders decreased 1.0 percentage point to 18.0%.
- ◆ There is mobility of students within the Maritimes which means that we must also look at demand at the regional level. The participation of Maritimers in universities anywhere in the region has also entered a decline since its peak in 2004; it is now 2.8 percentage points lower, at 22.9%.
- ◆ Over the last 10 years, the average demand among Canadians for university education within their home province has largely closed the gap with Nova Scotia and surpassed both New Brunswick and Prince Edward Island's rates, standing at 19.9% in 2008-09.
- ◆ Another important characteristic of participation is the large gap in enrolment between men and women that has emerged since 1985. In that year, women made up 51% of the full-time enrolment of Maritimers; today, they comprise 60% of Maritime full-time enrolment.
- ◆ How does that translate to the level of demand? Today, the *Maritime Participation* rate of women is 28%, a full 10 percentage points higher than that of men (18%).

Home Province Participation (number enrolled full-time in a university in their province of residence, divided by the provincial population aged 18-24) and Maritime Participation*



*Number of Maritime residents enrolled full-time in Maritime universities, divided by the Maritime population aged 18-24

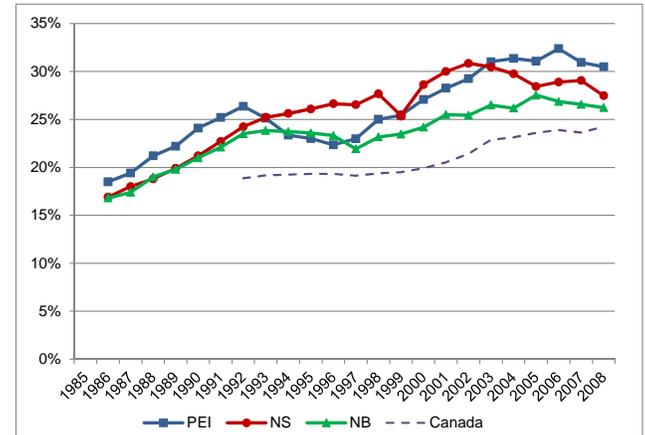
- ⇒ **What has the impact of these trends been? If the Nova Scotia *Home Province Participation* rate had remained steady at 2002 rates in subsequent years, there would be 3,608 more Nova Scotians studying in that province.**
- ⇒ **If, today, the demand for university education among Maritime men was the same as women, there would be 8,609 more students enrolled in Maritime universities.**

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- ⇒ The demand for a university education in one's home province has at best flattened, and in Nova Scotia, declined. Is it possible that demand for university education among Maritimers in fact remained strong, but with more attending university elsewhere in Canada?
- ⇒ We now turn to the *National Participation* rate, the ratio of full-time enrolment of residents of a province at any university in Canada to the provincial population aged 18-24, to address this question.

- ◆ After 16 years of growth, proportionately fewer Nova Scotians are attending university anywhere in Canada. The *National Participation* rate of Nova Scotians in 2008 stood at 27.5% (down 3 percentage points since 2002); this translates to 2,049 fewer Nova Scotians enrolling in university anywhere in Canada compared to five years earlier.
- ◆ Among New Brunswickers, the peak demand for university education anywhere in Canada (*National Participation*) occurred in 2005 (27.5%) and in 2008 stood at 26.2%; there are now 1,353 fewer New Brunswickers enrolled in university compared to the peak.
- ◆ The peak demand among those from Prince Edward Island occurred in 2006 (32.4%) and has since declined (down 2.0 percentage points); Prince Edward Island's *National Participation* rate stood at 30.4% in 2008.
- ◆ After nearly a decade of stagnation, since 1999 the average demand among Canadians for university education anywhere in the country tracked steadily upward. Though the most recent data show that all three provinces are currently above the national average *National Participation* of 24.3%, if trends continue their course, that situation could reverse in the coming years.

National Participation (number of provincial residents enrolled full-time in a university anywhere in Canada, divided by the provincial population aged 18-24)



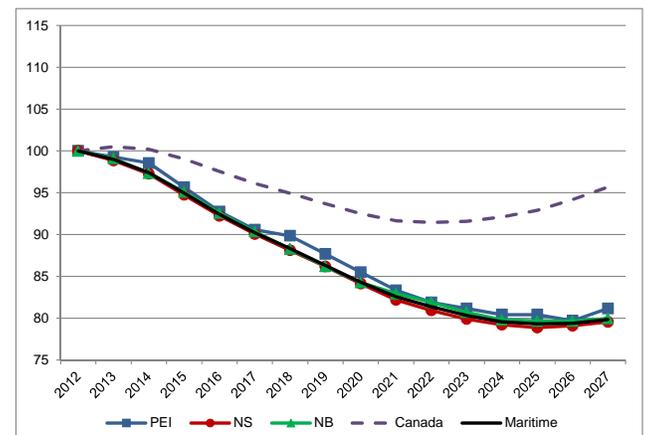
- ⇒ Taken together, the trends in *Home Province Participation* and *National Participation* present evidence that the demand for university education, after a long period of growth, has been declining among Nova Scotians and showing signs of softening among New Brunswickers and those from Prince Edward Island.
- ⇒ These trends are not mirrored on the national level. The average demand among Canadians for university education either in their home province or anywhere in the country has been steadily climbing and closing the gap with the Maritime provinces, suggesting that the average participation rate in Canada does have room to grow.
- ⇒ These trends also raise the question of whether there is a participation rate 'ceiling'.

⇒ What does the future hold for demand among Maritimers for university education?

- ⇒ According to Statistics Canada, part of the participation/demand equation is projected to change. The Maritime region is facing a decline in the population aged 18-24.

- ◆ Between 2012 and 2025, the 18-24 age group is projected to shrink by:
 - ◇ 18,500 or 21.1% in Nova Scotia
 - ◇ 13,700 or 20.3% in New Brunswick
 - ◇ 2,700 or 19.6% in Prince Edward Island
 - ◇ This would mean 34,900 fewer people in the typical university-age range in the Maritimes in 2025.

Projected population aged 18-24. Index: 2012=100



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- ⇒ There are a number of factors influencing the demand for university education, such as individuals' decision-making about their personal investment of time and money, the availability of other choices for post-secondary education and relative costs, as well as labour market demand and economic conditions. How these factors will evolve and their interaction over time are not known.
- ⇒ We can, however, make a reasonable prediction about the effect that the demographic decline will have on enrolments, all else being equal.

- ◆ In this exercise, we use the *Home Province Participation rate* (held constant at 2010 rates) to estimate the proportion of the population that will enroll in their home province in 2025:

Province	Change in population aged 18-24 between 2012 and 2025	Home Province Participation rate in 2010	Difference in full-time home province enrolment in 2025 relative to 2012
Nova Scotia	-18,500	21.0%	-3,885
New Brunswick	-13,700	18.6%	-2,548
Prince Edward Island	-2,700	18.0%	-486

- ⇒ Based on these assumptions, we estimate that approximately 6,919 fewer Maritimers will be enrolled in universities within their home province in thirteen years.
- ⇒ How much would *Home Province Participation* need to increase to offset this estimated deficit? In Nova Scotia, it would have to reach 32.9%, (representing an 11.9 percentage point increase) in New Brunswick, 28.3% (a 9.7 percentage point increase) and in Prince Edward Island, 27.6% (an 9.6 percentage point increase).

- ⇒ How have the region's universities maintained their enrolments?

- ◆ Enrolment of students from outside the Maritimes have been rising.
 - ◇ In Nova Scotia universities in 2010-11, 13,386 full-time students come from outside the region (up 78% over 10 years);
 - ◇ New Brunswick enrolls 3,484 of these students (up 14%), and
 - ◇ Prince Edward Island enrolls 657 of these students (up 106%).
- ◆ The current share of full-time university enrolments in each province that is comprised of students from outside the Maritimes is:
 - ◇ Nova Scotia: 38.0%
 - ◇ New Brunswick: 19.2%
 - ◇ Prince Edward Island: 17.9%
- ◆ The enrolment of Ontarians continue to make up the largest share of this group.

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CONCLUSION

The demand for university education among Maritimers has been variable over the longer term; strong growth throughout the 1980s was followed by a period of decline or flattening in the early 1990s and then a period of increase in the early 2000s. Most recently, the demand for university education by Maritimers has shown signs of decline. That trend is most pronounced among Nova Scotians, while among New Brunswickers and those from Prince Edward Island, the trend has declined slightly or plateaued.

And while the demand for university education among Maritimers has, over the past 25 years, tracked well above the average for Canadians, in recent years the national average has been closing the gap, now approaching or even surpassing rates in the Maritime provinces.

The Commission has made progress in identifying some likely factors¹ behind the shifting demand explored here, but more work remains to further characterize these and the extent of their impact. For example, the impact of tuition fees and other costs,

labour force trends and projected demand, as well as popularity of other postsecondary education choices. In that context, a preliminary analysis of these trends indicate that college is an increasingly popular choice in the Maritimes, and compared to the national average, has room to grow.

Whatever the factors, and the extent to which they impact on individuals weighing costs and returns in their decision-making about postsecondary education, their effect will likely be exacerbated by the looming projected decline in the population aged 18-24. This almost certainly means that universities will be educating fewer and fewer students from their home province.

What would this mean for the region overall? How can institutions and governments begin to address this issue? The Commission hopes that this paper will spark discussion and enrich the debate among its stakeholders on the topic of participation in general, and the characteristics that make the higher education landscape of this region unique in the country.

Data sources:

- Population data: Statistics Canada Census data and projections (scenario M2: medium-growth)
CANSIM Table 051-0001 (1985-2010)
CANSIM Table 052-0005 (2011-2027)
- Enrolment data: MPHEC Postsecondary Student Information System (PSIS); enrolment data for the calculation of *National Participation*: Statistics Canada PSIS
- Data tables are available on request

Measures of Student Progress and Outcomes

The Measures of Student Progress and Outcomes project was launched by the Commission in 2008 to help fulfill its mandate to assist institutions and governments in enhancing the post-secondary learning environment. The development of measures responds to a rising demand among the Commission's stakeholders for enhanced standardized statistics informing key questions about the postsecondary sector. Going beyond notions of league tables and a narrow definition of accountability, this drive for measures focuses on enhancing the quality of the educational process and the support of its ongoing improvement, which clearly is the MPHEC's primary orientation.

¹ Maritime Provinces Higher Education Commission Surveying the Enrolment Landscape: Factors and Trends in Maritime University Enrolment: 2000-2001 to 2005-2006. Volume 5, Number 1, June 2007. *Trends in Maritime Higher Education*.



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