



All Hands on Deck

Responding to the Challenges of the 21st Century
by Leveraging Public Post-Secondary Education

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Executive Summary

Mandate and review process

Budget Speech 2018 committed to a review of the public post-secondary education system in Newfoundland and Labrador. The overall purpose of the review was to provide a strategic vision for the next decade and beyond for a public post-secondary education system that delivers high quality education, contributes to knowledge creation and transfer, and prepares post-secondary students for the future, both personally and professionally. A Committee of Experts to guide the review was recommended by the Independent Appointments Commission and announced on March 7th, 2019.

The review process commenced in April, 2019. Broad consultation was conducted across all provincial campuses of Memorial University of Newfoundland (MUN) and the College of the North Atlantic (CNA), and public consultations were held at each campus community. Information was obtained from a number of sources: interviews with other key stakeholders within the post-secondary education system, government, industry and the broader community across the province and across the country; academic journals, websites and newsletters; and comparator universities and colleges across Canada. Further, requests for institution-specific data were made to MUN, CNA, and government departments. Finally, submissions from key stakeholders and members of the general public were encouraged and received via a portal on the Public Post-Secondary Education Review website. A final report was released to the Minister of Education.

Key findings

Throughout this report, evidence of the positive impact of post-secondary education on individuals and society as a whole is highlighted. **Post-secondary education is an investment in the future and post-secondary institutions are a source of expertise in the present.** However, the extent and pace of change in the 21st century, as well as the challenges currently facing the province of Newfoundland and Labrador, require the province's



post-secondary institutions to do more than strengthen and celebrate their existing core competencies. **Changes are necessary to optimize the contributions post-secondary education can make** to social, cultural, and economic development for the province, the nation, and the world.

First and foremost, it is crucial to **strengthen the foundations of the post-secondary education system**. This report describes the governance structures and funding support for Memorial University and the College of the North Atlantic, and options for alternative arrangements are proposed. The implications of existing and proposed arrangements on the performance of the public post-secondary system with respect to accountability, accessibility, effectiveness, and sustainability are discussed.

Global forces are driving many of the changes that are occurring in the 21st century, including demographic, political, and cultural shifts; climate change, and rapid advances in technology. It is imperative that graduates be able to cope with change. Post-secondary education institutions must provide an educational experience that will prepare graduates to be successful and fully engaged citizens. The report presents options to **enhance the acquisition of knowledge and skills that will help graduates thrive in constantly changing, socially complex, and increasingly technological environments**.

Most individuals will change employment and possibly careers many times in their lives. Employers are seeking nimble and responsive professional development options for their employees. New models of learning are needed in addition to the traditional, linear, diploma or degree programs, and these must be accessible over the course of a lifetime. In addition, smoothing transitions between K-12 and post-secondary programs and within the post-secondary education system in the province will improve access to a wider range of programs. This report identifies opportunities to **foster and facilitate lifelong learning**.

Research and different forms of creative activity enable the post-secondary system to be an important servant of society in the exploration and generation of ways to improve the lives

of people in communities and the world more broadly. This report discusses strategies to **enhance the research and innovation contributions of the post-secondary education system** in the province.

Improved access to higher education for traditionally disadvantaged groups and provision of appropriate supports to an increasingly diverse post-secondary education population (students, faculty/educators, and staff) can increase social and economic opportunities for all. Higher education institutions can also create a microcosm of the world as it could be by fostering respectful and constructive debate. This report highlights the pressing need and opportunity to **develop a wider range of support, equity, diversity and inclusion initiatives in the post-secondary education system.**

The public post-secondary education system is an important tool in the government's approach to diversification of the province's economy and the generation of new sources of public funds. As the title of this report suggests, response to challenges in the province will require concerted and focused effort among post-secondary institutions and across sectors within Newfoundland and Labrador. Specific strategies to **foster greater collaboration within the province** are proposed. Success requires that a broad range of stakeholders are engaged in strengthening and leveraging the resources of the post-secondary education system.

The Review Committee has reflected on these findings and made a series of recommendations to strengthen the post-secondary education system. A list of recommendations, grouped by chapters, follows.

Recommendations

Chapter 2: Value of Post-Secondary Education

1. Conduct a current economic impact study for both Memorial University and the College of the North Atlantic.

Chapter 3: Ensuring a Strong Foundation

Governance

2. Develop a new act for Memorial University that will enhance the autonomy and accountability of the institution with respect to self-governance and board powers. Specific considerations include:
 - a. establish the power of the Board of Regents to appoint its own Chair;
 - b. establish the power of the Board of Regents to appoint the President;
 - c. establish the power of the Board of Regents to appoint the majority of its membership;
 - d. reduce the size of the board;
 - e. review areas requiring government approval to determine the appropriateness of the level of oversight;
 - f. eliminate the requirements for joint appointments to Memorial's Board of Regents and the Board of Governors of the College of the North Atlantic; and
 - g. strengthen the accountability mechanisms in place for Memorial University by reinstating authority of the Auditor General to conduct performance audits.
3. Develop a new act for the College of the North Atlantic, which will enhance the autonomy and accountability of the institution with respect to self-governance and board powers. Specific considerations include:
 - a. establish the power of the Board of Governors to appoint its own Chair;
 - b. establish the power of the Board of Governors to appoint the President;
 - c. establish the power of the Board of Governors to appoint the majority of its membership;
 - d. establish the power of the Board of Governors to make final decisions on academic programming;

- e. reduce the size of the board;
- f. eliminate the position for a representative of the Department of Education on the Board of Governors; and
- g. eliminate the requirements for joint appointments to the Board of Regents of Memorial University and CNA's Board of Governors.

4. Strengthen the accountability capacity within the College of the North Atlantic by providing professional development support to the Board of Governors as it transitions from an advisory to a governing role.
5. Abolish the Council on Higher Education and repeal the Council of Higher Education Act, 2007.
6. Establish an alternative mechanism to facilitate and ensure focused attention on collaboration:
 - a. between Memorial University and the College of the North Atlantic, and
 - b. among all key stakeholders in the post-secondary education system.
7. Engage key stakeholders from the federal and provincial governments, the post-secondary education system, and industry in a review of the apprenticeship system in the province.

Funding

8. With respect to revenues, Memorial University:
 - a. replace the tuition freeze with a tuition model that: reflects and respects the priorities of the university and the province; takes into consideration the impacts on student access to university education; and explicitly considers the true costs of supporting students being accepted into programs within the university;
 - b. continue exploration of revenue generation options. This recommendation is pursuant to the implementation of the recommended changes in governance above to allow the university to have more autonomy; and
 - c. increase efforts to obtain more and larger donations to the university from alumni, and individual and corporate members of the community.



9. With respect to expenditures, Memorial University:
 - a. in future discussions regarding new infrastructure or development of new programs and initiatives, include information that: identifies the full projected costs and impacts on current programs; and plans for how to address costs and other identified issues;
 - b. increase investment in Information Technology infrastructure;
 - c. focus on introduction of cost-effective green technologies as deferred maintenance activities proceed;
 - d. introduce greater transparency in internal budgeting processes, including allocations to different academic units/campuses; and
 - e. conduct a salary and benefits benchmarking study for all employee categories that have not been recently reviewed.
10. With respect to revenues, College of the North Atlantic, these recommendations are pursuant to the recommended changes in governance to allow the college more autonomy:
 - a. replace the tuition freeze with a tuition model that: reflects and respects the priorities of the college and the province; takes into consideration the impacts on access; and explicitly considers the true costs of supporting students being accepted into programs within the college; and
 - b. continue exploration of revenue generation options.
11. With respect to expenditures, College of the North Atlantic:
 - a. review the location and number of academic programs in light of best available labour market information, current program enrolment, program resource requirements, and availability of qualified instructional staff;
 - b. increase investment in Information Technology infrastructure; and
 - c. introduce greater transparency in internal budgeting processes, including allocations to different academic units/campuses.

Accessible and Supported Post-Secondary Education System

12. To ensure equitable student access to post-secondary education,

The Provincial Government:

- a. establish guiding principles and parameters within which post-secondary institutions are expected to operate with respect to tuition and fee increases;
- b. establish guiding principles and parameters around fee differentials for different groups of students – residents of Newfoundland and Labrador, Canadians, international students (both undergraduate and graduate);
- c. align student financial aid policy with tuition changes to ensure equitable access to post-secondary education; and
- d. consider additional support for Newfoundland and Labrador students such as grants tied to annual completion of courses.

Post-Secondary Institutions:

- a. articulate tuition policies that adhere to the guiding principles established by the provincial government;
- b. increase the number and value of scholarships, bursaries and other forms of student support; and
- c. enhance data collection and reporting processes to ensure transparency with respect to tuition revenues received and allocated.

13. To ensure stable funding for post-secondary institutions, the Provincial Government:

- a. maintain at least the current level of support for the operating grant for Memorial University, with no further reductions; and
- b. maintain at least the current level of support for the operating grant for College of the North Atlantic, with no further reductions.

14. The Provincial Government, in collaboration with the public post-secondary education sector, establish a funding policy for public post-secondary education in the province that:

- a. recognizes the value and contributions of PSE to social transformation, economic development, and personal development of graduates;
- b. acknowledges that those who benefit also have a role to play in supporting the PSE sector (society/government, industry, and students);

- c. ensures that financial issues do not pose a significant barrier to participation in PSE; and
- d. includes reporting mechanisms that enhance transparency around financial resource provision and utilization in the PSE sector.

Chapter 4: Knowledge and Skills for the 21st Century

Accessibility

- 15. Introduce programming at CNA which allows learners to complete their high school education.
- 16. Extend opportunities for high school students to experience university and college courses while still in high school.
- 17. Increase the options for laddering between college and university degree programs.
- 18. Develop a Prior Learning Assessment Recognition (PLAR) process that is student focused.
- 19. Increase the number of formal articulation agreements among the PSE institutions within the province.
- 20. MUN and CNA work together to explore options for offering French language streams in education and health post-secondary education programs.
- 21. MUN and CNA collaborate with each other in: (a) assessing community needs for continuing education; (b) designing and offering courses in varied formats; and (c) developing teams of instructors from both the university and the college to deliver the courses onsite in communities around the province and through online platforms.
- 22. MUN and CNA explore options to make existing for-credit courses more accessible to the general public.

Effectiveness

23. MUN and CNA collaborate in the development of comprehensive data collection and evaluation processes with respect to academic outcomes for students who enrol in bridging, transition and/or transfer programs.
24. MUN and CNA collaborate in the development of data collection and evaluation processes to monitor academic outcomes for all students who are admitted to their respective institutions (such as drop-out rate, persistence semester over semester, time to completion, and graduation rates).
25. All post-secondary institutions, both public and private, incorporate use of the unique student identifier into their databases.
26. MUN and CNA, in collaboration with the Government of Newfoundland and Labrador and Statistics Canada, develop data collection processes and systems to track labour market outcomes for graduates of post-secondary institutions in the province.
27. Increase the number and variety of interprofessional and interdisciplinary experiential learning opportunities within the university and the college.
28. MUN and CNA collaborate in the development of programs and experiences that allow college and university students to learn from each other.
29. Develop a province-wide comprehensive labour market information system and tie it to the analytical capacity of the RAnLab;
30. Provide province-wide dedicated support for coordinating the response of PSE institutions to identified labour market priorities. Programs developed and delivered should be:
 - a. complementary and collaborative — building on the unique strengths of participating institutions;
 - b. conducive to lifelong learning and career progression — offering individual laddering opportunities wherever feasible and appropriate;
 - c. inclusive of a range of design and delivery options such as micro-credentials or short courses offered in an in-person, blended or online delivery platform; and
 - d. responsive to Labour Market Information.

Accountability

31. Revise Memorial University's Frameworks for Teaching and Learning, Research and Engagement to align with the institutional priorities identified in the strategic plan currently being developed at Memorial University.
32. Review faculty/campus representation at the senior level of the university.
33. Review academic governance arrangements at both Grenfell Campus and Marine Institute to ensure equitable representation across campuses and programs.
34. Consolidate the nursing undergraduate degree program under the governance and administration of Memorial University.
35. Move the management and funding of three primary health care clinics to the Eastern Regional Health Authority.
36. Align academic governance within the College of the North Atlantic to ensure coherence and integrity of the academic mission.
37. Re-envision the role of the CNA campus administrator in light of the new academic governance structure.
38. Transfer all nursing related post-secondary education programming from the Regional Health Authorities to a post-secondary education institution.

Sustainability

39. MUN and CNA identify the priority areas for academic programming and allocate resources accordingly.
40. MUN and CNA evaluate the feasibility and cost effectiveness of program delivery methods for all programs (new and proposed).

Chapter 5: Research and Innovation

41. Provide fundamental research support to the university so that it can increase its investment in crucial areas such as startup funding and expenditures for infrastructure to support new and existing faculty. The university will need to find additional internal and external funds to facilitate and sustain the research enterprise.



42. Lever the transformational power of the post-secondary system in the socioeconomic life of the province. Increase investments in targeted research and development:
 - a. as an investment in the future establish a research and development fund which would build to a value of no less than 0.2% of the GDP of the province within five years;
 - b. make the fund accessible to the post-secondary system and the private sector;
 - c. operate the fund using an arm's length mechanism that is accountable to government and governed by a board that has appointees from the private and academic sectors from within and outside the province;
 - d. make investments from the fund only after proposals for funding have been vetted by an external committee of academic and business experts who advise the board on the relative value of the investments; and
 - e. assess performance including effectiveness, efficiency, accountability and timeliness of investments on a five-year cycle using provincial and extra-provincial experts from business, academia and government including referees from governmental agencies in other jurisdictions.
43. Initiate a five-year pilot for a small proportion, possibly \$5 million of the research and development fund that is targeted to projects that must have co-leaders from each of MUN and CNA. Evaluate the activity at year five for effectiveness of outputs and outcomes and judgment of the usefulness of continuing with the funding mechanism.
44. Increase the direct stipendiary support for graduate students, including foreign students and postdoctoral fellows, who are essential to successful research projects in most disciplines. This will also support the provincial immigration strategy and targets.

Memorial University

45. Maintain opportunities and base institutional operational support for research and scholarship in a broad range of domains that is consistent with being a highly credible Canadian university. Beyond those base investments, however, MUN must chose to focus additional support on a limited number of strategically chosen areas in order to increase its stature among peer institutions and its relevance to the province.

46. Identify, in consultation with government, five or six fields where MUN can most effectively assist with social and economic development and growth in the province:
 - a. government and MUN invest in these agreed upon targeted areas;
 - b. identify meaningful targets and indicators of achievement before investments are made;
 - c. make investments for no more than ten years; and
 - d. conduct evaluations for effectiveness at five and ten years.

College of the North Atlantic

47. Identify, in consultation with government, five or six fields where CNA can most effectively assist with social and economic development and growth in the province:
 - a. government and CNA invest in these agreed upon targeted areas;
 - b. identify meaningful targets and indicators of achievement before investments are made;
 - c. make investments for no more than ten years; and
 - d. conduct evaluations for effectiveness at five and ten years.
48. Increase the number of faculty appointments with responsibility solely for the performance of applied research.
49. Create faculty positions that carry joint responsibilities for teaching and research.
50. Apply for a Technology Access Centre (TAC) within twelve months.

Chapter 6: Creating a Supportive and Inclusive Environment

General Support for Students, Faculty/Educators and Staff

51. CNA conduct a review of internal communications for students, faculty and staff.
52. CNA increase student access to libraries and computer rooms during evening and weekend hours.
53. MUN and CNA work with student unions and municipalities to improve student access to public transportation.
54. CNA review availability of diverse food options in their food services.

55. MUN and CNA explore options to increase available child care spaces on campus.
56. MUN and CNA explore options to increase the number and dollar amount of scholarships and bursaries available to students.
57. CNA explore options to ensure health and dental coverage is accessible for international students.
58. MUN and CNA collaborate in the enhancement of mental health supports available to students, building on the success of the Stepped Care Model at MUN
59. CNA introduce automation of student loans processing
60. MUN and CNA enhance the level of transitional supports available to students entering these institutions.
61. CNA explore options to increase student access to peer tutoring.
62. CNA enhance its level of resources in the area of student accessibility and accommodations.
63. MUN and CNA review supports available to students taking courses online in light of feedback received during the COVID pandemic.
64. MUN and CNA review supports available to faculty/instructors teaching courses online in light of feedback received during the COVID pandemic.
65. MUN and CNA explore options for increasing availability of family-oriented housing.
66. MUN and CNA collaborate in recruitment of international students and development of enhanced supports for international students.
67. CNA consider enrolling international students in communities that have high levels of support for new Canadians.
68. CNA increase recognition and awards for faculty/instructors and staff.
69. CNA and MUN (Marine Institute and Faculty of Education) review the Post-Secondary Education Teaching Program offered by Memorial University and identify options for improvement.
70. CNA enhance options for professional development for faculty/instructors and staff.
71. CNA review supports provided to campus faculty/instructors for accreditation.
72. MUN and CNA explore options for improving outreach to and engagement of their respective alumni.

Supports for Underrepresented Groups

73. CNA consider becoming a signatory to the Indigenous Education Protocol for Colleges and Institutes.
74. CNA consider designated seats for qualified Indigenous students in its academic programs.
75. MUN enhance supports for Indigenous students at Grenfell Campus.
76. CNA enhance supports for Indigenous students.
77. CNA enhance supports for international students.
78. MUN and CNA explore the possibility of shared services with respect to:
 - a. international student recruitment;
 - b. international student support;
 - c. indigenous student recruitment; and
 - d. indigenous student support.
79. CNA review and enhance its procedures for addressing sexual harassment issues for students, faculty/instructors and staff.
80. MUN and CNA review resources allocated to accessibility services for students in light of increasing demand for these services.
81. MUN, CNA and the Government of Newfoundland and Labrador work together to develop common tools/databases to monitor progress on EDI issues for students and members of the workforce (including faculty/instructors and staff in PSE institutions as well as the members of the workforce in other sectors).

Chapter 7: A Post-secondary Education System for the 21st Century

82. The Government of Newfoundland and Labrador and the College of the North Atlantic repurpose some CNA campuses as Community Access Centres.
83. Create a Post-Secondary Education Secretariat with the following organizational features:
 - a. a direct reporting line to the Clerk of the Executive Council, Cabinet Secretariat;
 - b. a small core staff consisting of an Executive Head, communications officer, and administrative assistant;

- c. additional personnel resources obtained primarily by secondment of individuals with expertise in priority areas for the duration of a particular initiative, and/or creation of working groups wherein participation by individuals with required expertise is part of their regular duties in their respective institutions;
- d. an advisory council consisting of senior representatives from government departments, key industry sectors, community partners, and the post-secondary institutions; and
- e. an initial term of five years, after which it will be evaluated and renewed, reconfigured or disbanded.

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Chapter 1: Introduction and Overview

1.1 Introduction

“Post-secondary education is not only about meeting the needs of learners, advancing, interpreting and adapting knowledge, and providing an essential public service, important as these functions are. Education is also an investment, both prudent and visionary, in health and in combatting poverty, crime and unemployment. It is a major source of social cohesion and mobility, and is essential to the development and continued prosperity of Canada and all of its regions” (1).

In September, 2015, Canada adopted the United Nations 2030 Agenda for Sustainable Development — Agenda 2030, a 15-year global initiative centred on 17 Sustainable Development Goals (2). Canadian provinces and territories, through the Council of Ministers of Education, Canada (CMEC) are the lead for Sustainable Goal 4 (SDG4) on education. SDG4, “Ensuring inclusive and equitable education and promoting lifelong learning opportunities for all”, has been endorsed as a founding belief for Canadian educational systems in Canada, with provincial, territorial, and federal governments recognizing that “education and skills training are essential for Canada’s economic and social prosperity and for the well-being of all Canadians” (3).

Education in general has traditionally been regarded as being for the public good and therefore deserving of public support. This view has been extended to post-secondary education because

its benefits reach beyond those to the individual to include clear positive impacts on society at large (4). The public post-secondary education system in this province has three major stakeholders - the people of the province who are the ultimate supporters of the system, the government who are the people's representatives, and the students, faculty/instructors, and staff of the post-secondary institutions (Memorial University of Newfoundland and the College of the North Atlantic) and their governing bodies. Communities invest in post-secondary education because they expect future returns in terms of well-informed and resilient citizens and improvement in overall quality of life. Graduates of Memorial University of Newfoundland and the College of the North Atlantic work in every sector and contribute to the well-being of all residents.

The benefits of post-secondary education, both individual and societal, were highlighted in the recent review of higher education in England (5) and include: "promoting citizens' ability to realize their full potential, economically and more broadly; providing a suitably skilled workforce; supporting innovation through research and development, commercial ideas and global talent; contributing scholarship and debate that sustain and enrich society through knowledge, ideas, culture and creativity; contributing to growth by virtue of institutions' direct contributions to the economy; and playing a core civic role in the regeneration, culture, sustainability, and heritage of the communities in which they are based." The findings of this review confirm these observations. Throughout this report, evidence of the positive impact of post-secondary education on individuals and society is highlighted.

The successes of the present and the past notwithstanding, the extent and pace of future change in the 21st century will present great challenges and opportunities for citizens and communities, and demand effective and coordinated responses from all sectors of society. To be relevant and successful in the 21st century, the province's post-secondary institutions must do more than strengthen and celebrate their existing core competencies. As Janet Napolitano, current President of the University of California System and former US Secretary of Homeland Security, noted in a recent discussion of Higher Education and the Public Good, "we need to do some things differently and also do some different things" (6). Throughout this report, opportunities and options for change are presented and discussed.

The overall purpose of this review is to provide a strategic vision for the next decade and beyond for a public post-secondary education system that delivers high quality education, contributes to knowledge creation and transfer, and prepares post-secondary students for their future personal and professional lives (7). In order to ensure that Newfoundland and Labrador's post-secondary institutions are well positioned to address the local and global economic and social challenges of the 21st century, it is crucial to strengthen the foundations of the current system. Changes are necessary to optimize the contributions post-secondary education can make to social, cultural, and economic development for the province, the nation, and the world. These changes must be considered in light of the need for a sustainable level of investment of public funds in post-secondary education, the revenue generating capacities of the institutions, and the institutions' internal spending priorities. This report reviews the current governance and funding of public post-secondary education institutions within Newfoundland and Labrador. Options for alternative arrangements are proposed. The implications of existing and proposed arrangements on the performance of the public post-secondary system with respect to accountability, accessibility, effectiveness, and sustainability are highlighted.

Global forces are driving many of the changes that are occurring in the 21st century. These include population growth, demand for natural resources, globalization, climate change, and rapid advances in technology, including digitization, communications networks, automation, artificial intelligence and robotics (8, 9). Post-secondary education institutions need to provide an educational experience that will prepare graduates to be successful in this new environment, and to be able to participate in society as well-informed citizens. In addition to specific field-of-study knowledge, post-secondary graduates will need to have essential skills such as: (a) critical and creative thinking skills, global awareness, and digital literacy; (b) resiliency, adaptability, and an ability to work in teams as well as in local and international networks, and (c) entrepreneurship in the best sense — awareness of the world and what is happening (10). Post-secondary students develop these skills through exposure to the liberal arts, which fosters the acquisition of critical thinking, decision making and communication skills (11); involvement in research, which enhances inquiry and problem solving skills; and opportunities to learn and

solve problems in technology-rich environments, essential to processing information in print and digital formats (12). Higher education must also harness the potential of technology to enhance the teaching and learning experience for faculty, staff, and students, and expand community outreach and engagement. This report presents options for strengthening student, faculty, and staff acquisition of skills that will help them thrive in a complex, rapidly changing, and increasingly technological and digital world.

Although we now live in a knowledge-based society in which a post-secondary education has become essential for the vast majority of individuals (13), the future of work in particular is uncertain. Sixty-five percent of children entering primary school today will be employed in jobs that do not yet exist (14) and most individuals will change employment and possibly careers many times over the course of their lifetime. Employers are seeking nimble and responsive options for professional development of their employees. New models of learning are needed in addition to the traditional, linear, diploma or degree programs, and these must be accessible over the course of a lifetime. There must also be improved access to a wider range of programs, achievable through smoothing transitions between K-12 and post-secondary programs and within the post-secondary education system in the province. This report identifies opportunities to foster and facilitate lifelong learning.

The performance of research and different forms of creative activity are both an obligation and an opportunity for modern higher education systems. These mechanisms and the knowledge they generate enable the post-secondary system to be an important servant of society in the exploration and generation of ways to improve the lives of people in communities and the world more broadly. This report will discuss the future for research and innovation in the post-secondary system in the province.

The year 2020 has seen tremendous personal, social, political, and economic upheaval resulting from historical inequalities related to race, culture, gender identity, and mental and physical disabilities. The teaching, learning, and research that are essential components of the

post-secondary system are expected to lead to greater educational, social, and technological equity. Improved access to higher education for traditionally disadvantaged groups and provision of appropriate supports to an increasingly diverse student population can increase social and economic opportunities for all. Post-secondary institutions can also create a microcosm of the world as it could be in terms of fostering respectful and constructive debate. Students, faculty/instructors, and staff exposure to multiple perspectives, cultures, and ways of knowing can help generate appreciation for the benefits that a diverse population can bring to institutions, workplaces, and communities. This report highlights the pressing need and opportunity for a wider range of support, equity, diversity and inclusion initiatives in the post-secondary education system.

The year 2020 also saw a threat to human safety arise from the COVID-19 pandemic. As experience with the pandemic quickly demonstrated, no one profession, institution, sector, or nation has the capacity to address a global threat on its own. However, post-secondary institutions did, through sharing of knowledge, research, and innovation, demonstrate that they could collaborate globally on identifying solutions and act locally within their communities to help adoption of best practices. In an increasingly interconnected and interdependent world, capacity to collaborate in responding to these and other emerging challenges will be required at the local, national, and global levels. In Newfoundland and Labrador, geography and demographic factors have presented challenges in the delivery of post-secondary education. However, during the pandemic these factors did not prevent learning and collaboration. This report shines a light on opportunities for collaboration among post-secondary institutions and across sectors within Newfoundland and Labrador, Canada, and internationally.

1.2 The public post-secondary education system in Newfoundland and Labrador

The public post-secondary education system in Newfoundland and Labrador consists of two distinct institutions, a university and a college.

1.2.1 Public post-secondary education institutions

1.2.1.1 Memorial University of Newfoundland

Memorial University of Newfoundland (MUN) is the province's only university and includes St. John's Campus, Signal Hill Campus, and the Marine Institute, all in St. John's; Grenfell Campus in Corner Brook; the Labrador Institute in Happy Valley-Goose Bay; and a residential campus in Harlow, England. MUN is a comprehensive teaching and research university. In fall 2020, enrolment was over 19,000 full- and part-time undergraduate and graduate students. MUN is recognized worldwide as a top-tier post-secondary institution in teaching and learning, research, scholarship, and public engagement. MUN conducts leading research in areas such as oceans, health, natural resources, energy and the environment, social sciences, and culture and heritage, contributing to the province's social and economic development and global competitiveness.

College of the North Atlantic

The College of the North Atlantic (CNA) is Newfoundland and Labrador's only public college and is one of the largest post-secondary educational and skills training centres in Atlantic Canada. In 2019-20, CNA enrolled close to 6900 students. CNA operates 17 campuses across the province. It also operates a campus in the Middle East State of Qatar, funded through a contract with the Qatari government. In addition to offering labour market relevant training programs, CNA contributes to applied research and development activities of the province by working with local industry and community partners to solve practical problems, and facilitate social and economic development and growth.

1.2.2 Government departments

1.2.2.1 Department of Education

The Department of Education is the main government department involved with funding and oversight for the post-secondary education system in the province.

This department is also responsible for Early Childhood Education and the K-12 system. The Post-Secondary Education Branch is organized under two divisions: Literacy and Institutional Services, and Student Financial Services.¹

1.2.2.2 Department of Immigration, Skills and Labour

The Department of Immigration, Skills and Labour is responsible for a range of programs and services that support immigration, skills, and labour in the province, including apprenticeship. This department is also responsible for supporting the provincial immigration strategy, and administering the Labour Market Development Agreement (LMDA) Skills Development program. The Skills Development program identifies barriers to employment for eligible clients and assists individuals enter/return to the labour market and/or transition into post-secondary education and training.

1.2.2.3 Department of Health and Community Services

The Department of Health and Community Services is responsible for overseeing the province's health care system, medical care plan, and mental health strategy. The department also provides the core funding for the Faculty of Medicine at Memorial University.

1.2.2.4 Other government departments

Many other government departments interact with the post-secondary education system including Industry, Energy and Technology which administers the Research and Innovation Fund.

¹ When the review commenced in April 2019, the Department of Advanced Education, Skills and Labour (AESL) was the sponsoring department. At the time the report was completed, AESL had been restructured.

Transportation and Infrastructure provides and maintains physical infrastructure for the 17 campuses of the College of the North Atlantic and for the Marine Institute of Memorial University.

1.3 The review process

1.3.1 Committee mandate

Budget Speech 2018 and phase three of The Way Forward: Building for our Future committed to a review of the public post-secondary education system. A Committee of Experts to guide this review was recommended by the Independent Appointments Commission and announced on March 7th, 2019, by the Honourable Bernard Davis, Minister of Advanced Education, Skills and Labour. The Terms of Reference for the review are attached as Appendix A and can also be found at www.ppser.ca

The goal of this review was to help ensure that Newfoundland and Labrador's post-secondary institutions are well positioned to continue making their contribution to the province's social, cultural, and economic development and growth. In order to achieve this goal, it is important that the system be effective, sustainable, accountable, and accessible.

The results of the review provide a strategic vision for the next decade and beyond for a public post-secondary education system that delivers high quality education, contributes to knowledge creation and transfer, and prepares post-secondary students for their future personal and professional lives.

1.3.2 Review methodology

1.3.2.1 Review of publications and environmental scans

Information was sourced from academic journals, sector reports, websites, newsletters, blogs, webcasts, and news reports/features from media outlets. (See Appendix B for a bibliography of materials reviewed.)

A list of comparator institutions, both universities (Appendix C) and colleges (Appendix D), was developed and jurisdictions' governing legislation and accountability mechanisms were analyzed. As well, a range of other topics such as organizational structures, organizational size, academic programs, funding sources, student supports, teaching and learning supports, research activities, and outcome measures were reviewed. Information was gathered through interviews, websites, and analysis of data available in national databases such as those provided by Statistics Canada and the Canadian Association of University Business Officers (CAUBO). Institution-specific data requests were also made to MUN, CNA, and government departments, including the Department of Advanced Education, Skills and Labour, and the Department of Education and Early Childhood Development.

1.3.2.2 Campus and public consultations

The review committee made a commitment to visit all campuses of the College of the North Atlantic and Memorial University to (a) tour the campus; (b) meet with administration, faculty/instructors, staff and students; and (c) conduct a public consultation in each community. A Discussion Guide was prepared and circulated to participants in the consultation process (Appendix E). The Public Engagement and Planning Division guided the process to both solicit and record feedback received at campus-based and public consultations. All feedback received as a part of this review was considered as the Review Committee prepared its recommendations for the public post-secondary education system in Newfoundland and Labrador. Any personal information that was received was governed in accordance with the Access to Information and Privacy Act, 2015, and used only for the purpose of informing the review of the post-secondary education system.

The Review Committee visited 16 of the 17 campuses of the College of the North Atlantic and the 3 campuses of Memorial University (St. John's, Grenfell and the Marine Institute). However, severe winter weather and later COVID-19 pandemic-related restrictions had an impact on the later stages of the consultation plan (see Appendix F). The consultation with the Placentia campus of CNA was conducted virtually and included a video tour and meetings with students, administration, faculty/instructors, and staff via Zoom and Skype. While the campus tour and meetings with administration at the Marine Institute of Memorial University had been previously conducted in person, meetings with faculty/instructors and students occurred virtually.

Feedback received from the campus and public consultations was entered into a database and a thematic analysis was conducted on the answers to the three main questions posed: (1) What is working well in the public post-secondary system? (2) What is not working well within the public post-secondary system and how can we address these concerns? and (3) What additional ideas do you have to support the future of post-secondary education in the province? The data were then themed around the lenses of accessibility, effectiveness, accountability, and sustainability.

1.3.2.3 Interviews with key stakeholders

The Review Committee also conducted interviews with other key stakeholders within the post-secondary education system, government, industry and the broader community across the province and across Canada (see Appendix G). Notes from these meetings were reviewed and discussed by the Review Committee.

1.3.2.4 Submissions to the PPSER website

The Review Committee established a website to provide a publicly available source of information on the mandate of the review, the review process, and the schedule of consultations. The website included a portal for submissions

to the review via email or through the portal. All 78 submissions received were reviewed and discussed by the Review Committee members (see Appendix H).

1.3.2.5 Limitations

The Review Committee originally intended to include a second round of consultations, however the COVID-19 pandemic affected timelines to the extent that this was no longer possible.

In addition, data gaps in several areas limited some of the analysis the Review Committee was able to undertake.

1.3.2.6 Presentation of findings and recommendations

Key themes highlighted in the Introduction above are discussed in the chapters which follow. Data from jurisdictional comparisons, the document and literature review, and stakeholder feedback (“what we heard”) are presented and discussed through the lenses of effectiveness, accountability, accessibility and/or sustainability where relevant. Supporting documentation was compiled in a companion document to this report. Recommendations address future directions for the public post-secondary education system.

The final chapter summarizes the key challenges that face the post-secondary education system in the province and the opportunities that have been identified. A vision for a 21st century post-secondary education system in Newfoundland and Labrador is proposed and initiatives the Review Committee has concluded would help achieve this vision are presented.

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Chapter 2: Value of Post-Secondary Education

Post-secondary education is an investment in the future and post-secondary institutions are a source of expertise in the present. A 2019 Ekos Research survey of Canadians (1) showed that “there was strong support for the role of post-secondary education in: helping people to get and keep good jobs (87%); providing a path for social and economic integration of new Canadians (86%); and equipping people with a broad base of skills, social awareness, and knowledge essential to citizenship (72%). Despite strong agreement that post-secondary institutions should prepare students for the workplace (87%), only 63% agree that education should be geared towards specific jobs. There was however strong support for businesses advising post-secondary education (PSE) institutions to help ensure that students graduate with skills they need in the workplace (87%); students getting experience in the workplace as part of their programs (86%); and greater recognition of past work experience with a credit or credential by PSE institutions (83%). Almost all respondents agreed that access to lifelong learning at all ages is important (98%). Public colleges (56%) and universities (52%) were the top ranked options for institutions Canadians would be most interested in accessing for retraining or lifelong learning; workplace training (37%) and selected private training institutes (21%) were the preferred options of a smaller percentage of respondents.”

As noted in the Introduction, the positive impacts of post-secondary education on individuals and society are highlighted throughout this report. This chapter provides a brief overview of two specific impacts which are particularly significant now, early in the third decade of the 21st century: capacity to adapt to change and economic benefits/ contributions to the province of Newfoundland and Labrador.

2.1 Capacity to adapt to change in the 21st century

The world is changing rapidly. Global forces will continue to have significant impacts on how we live and work (2). Technology, in particular, will accelerate the pace of change, as will the consequences of unforeseen events such as the COVID-19 pandemic. Social movements, seeking to address long-standing inequities associated with ethnicity, culture, gender, and gender identity are challenging traditional institutions and behaviours. Post-secondary education is a key enabler of successful adaptation to the changes that are underway and those changes yet to be encountered, for both individuals and society.

2.1.1 Individual capacity

It is an important function of the post-secondary education system to prepare individuals to be full, informed, and active contributors to civil society. To achieve this, the system contributes in a number of ways, as highlighted below.

Meaningful employment makes an enormous contribution to an individual's resource base and sense of self-efficacy, both of which enhance their capacity to cope with change. Individuals with tertiary education are more likely to be employed and earn more than individuals without tertiary education (3).

Lifelong learning is essential in the rapidly evolving world of work. Technologies such as digitization, robotics and artificial intelligence are having an impact not only on manufacturing but also on a wide array of professions such as medicine, engineering, banking, and law. Futurists predict that few individuals will have a job for life (4). Job skills in high demand will shift rapidly as global forces and new technologies change the nature of work and where work is located. A post-secondary education enables students to be ready for jobs that have yet to be invented and helps adult workers reskill or upskill to address labour market opportunities.

Canada prides itself on being a multicultural society. Awareness and appreciation of differences are vital in order to thrive in an increasingly diverse and multicultural world. Post-secondary education can be transformational for individuals in this regard, as it exposes them to people from a wide variety of backgrounds and creates awareness of the need to communicate effectively across cultural differences. Habits of self-awareness and critical reflection, fostered throughout educational experience, help graduates to examine their own assumptions and prejudices and develop new appreciation for the benefits that derive from diversity of backgrounds, experiences, beliefs, and approaches.

Equitable access to opportunity for all individuals is essential if our changing world is to be a more inclusive one. Higher education is an important gateway to opportunity and Canada's post-secondary education system plays a major role reducing intergenerational inequality in access to higher education (5). A recent Statistics Canada report (6) on post-secondary enrolment by parental income found that enrolment of 19-year-olds in a post-secondary education program increased steadily from 2001 to 2014 among youth from across Canada and the increase was more pronounced at the bottom of the income distribution. Post-secondary enrolment rates increased the fastest among youth from Newfoundland and Labrador and within Newfoundland and Labrador, as for the rest of Canada, the largest gains occurred for students from lower income families.

2.1.2 Societal capacity

Society's strategic response capacity is hugely dependent on the post-secondary education system, as illustrated during the COVID-19 pandemic. PSE institutions not only provided the educated workforce for the health care system, government departments, and private industry partners who led the response to the pandemic; they also collaborated globally to identify solutions and then acted locally with their communities to adopt best practices. PSE institutions led the research associated with vaccine development and evaluation of public health measures, and worked with private industry to rapidly retool technology to develop and evaluate personal protective equipment for a wide range of front-line essential workers. Universities and colleges will

also play a key role along the continuum of issue identification, research, innovation and adoption/diffusion of innovations with respect to planning for future pandemics. Areas that will be of major interest include: (a) identification of more targeted and timely risk-based implementation and withdrawal measures to control epidemics, thereby reducing health and economic consequences; (b) development of ethically acceptable risk-based clinical trial methodologies for more rapid testing of drugs and vaccines; (c) identification of improved safety materials and business processes to protect and support front-line workers; and (d) development of public-private partnerships to get vaccines to market and equitably distributed (7). PSE also has an important responsibility to inform the discussion of traditional economic approaches for development in the face of existential challenges such as climate change.

Post-secondary education institutions play a core role in strengthening the resilience and sustainability of the communities in which they are located. Many economic, social and ethical issues that pervade work lives and personal lives are accentuated during periods of rapid change and upheaval. Through scholarship and debate, PSE institutions initiate and provide a forum for discussion of ideas and approaches that enrich our culture, enhance our creativity and innovation, and explore the equity of our responses to change.



Vital Signs Publications (MUN, Harris Centre) provide easy-to-read statistics and stories about important issues that have an impact on the quality of life in Newfoundland and Labrador.

The province of Newfoundland and Labrador is currently facing many significant challenges. Daunting as these challenges are, the province also has important resources at its disposal. Newfoundland and Labrador's post-secondary education system is well positioned to play a major role in the economic recovery and success of the province. In addition to providing an educated workforce, the university and college are key drivers of innovation required to generate creative solutions.

Although the USA remains Canada's largest trading partner, Asia-Pacific and European countries are becoming a larger share of Canada's international trade and this diversification is expected to continue. There are challenges in expanding to these markets, in that Canadians are not as familiar with the languages, markets and business cultures of these countries. Canada has recognized the need to internationalize its workforce in order to cultivate opportunities and compete in global markets (8).

International students who attend post-secondary institutions can help the province forge mutually beneficial cultural and economic ties with many countries around the world.

In addition to the need for diversification of its workforce, Newfoundland and Labrador faces another serious issue, that of population decline and a corresponding decrease in the size of the available workforce. PSE plays a vital role in helping to meet immigration targets for the province. Individuals who come to Newfoundland and Labrador to study and stay to live and work contribute to the strength and diversity of our economy and our culture. By virtue of the different experiences and ideas they bring to the table, the province's arsenal of responses to its challenges will be greatly enhanced. In recognition of the importance of immigration to the health of the provincial economy, the Government of Newfoundland and Labrador announced an enhanced pathway to residency for students who graduate from post-secondary education institutions in the province.

**Newfoundland and Labrador
Workforce Innovation Centre
(NLWIC),**

administered by CNA, provides a coordinated, central point of access to engage government, career and employment services providers, skills development organizations, and stakeholders in the business and community sectors throughout the province.

The Priority Skills NL Program

This program, announced in November 2020, is designed to attract and retain individuals

(a) who wish to express their interest in either staying in, or coming to the province and becoming a permanent resident of Canada, (b) who can contribute to specific labour pools, and/or (c) who have completed graduate level studies at Memorial University in recent years in the areas of technology, health care, aquaculture or agriculture.

2.2 Economic benefits/contributions to the province

The economic benefits accruing to the province from the post-secondary education sector consist of direct, indirect and induced impacts. “Direct impact is the value added to the economy by the PSE sector that is attributed directly to the sector’s employees, wages earned, and revenues generated. Indirect impacts measure the value added that PSE institutions generate within the economy through demand for intermediate inputs or other support services, such as finance, insurance, real estate, and construction. Induced impacts are derived when employees of the industries providing these intermediate services spend their earnings and the owners spend their profits. These purchases lead to more employment, as well as higher wages and tax revenues, and the benefit can be felt across a wide range of industries. The sum of direct, indirect and induced effects represents the overall impact that the sector has on the economy.” (9)

In 2014, Locke and Lynch (10) provided an estimate of the economic impacts generated by Memorial University. These included: a major employer (5.6% of the full-time jobs reported in the province for 2013); contributions in excess of \$1 billion annually to the provincial GDP (3.1 % of GDP in 2012); revenues to the City of St. John’s of \$22.2 million; revenues to the federal government of \$93 million annually; and support of \$2 billion annually in inter-form sales within the province. A similar study has not been completed for the College of the North Atlantic.

MUN currently employs 3,435 individuals (1,990 staff and 1,445 faculty). The majority of employees (72.6%) are full time and permanent; 71% of staff and 74.8% of faculty (11). CNA currently employs 1,794 individuals. The majority of employees for CNA (1,432) are full time (53% permanent and 27% temporary).

During fiscal year 2012-2013, MUN spent more than \$580 million on salaries and employee benefits, purchasing goods and services, equipment rental, and scholarships (10). By 2019 this figure had grown to over \$595 million (12).

In 2010-2011 MUN's total expenditures on research provided from external funding sources were \$70 million and in 2018-2019 they were \$161 million. In 2010-2011 external funding for research at CNA was \$3.3 million and in 2018-2019 it was \$6.2 million (13).

In 2016, international education contributed \$12 billion to Canada's GDP and supported 158,000 jobs; 762 in Newfoundland and Labrador (14). Each international student represents on average \$35,438 in annual added value to Atlantic Canada (8). In addition to the tuition and fees they pay to Memorial University, international university students also contribute \$22,000 per year to the local communities in which they live. MUN's earlier goal of attracting 3500 international students (15) has been essentially achieved. In 2019 3,481 international students were enrolled at the university.

Comparator institutions in the Atlantic Provinces had a range of international student enrolments (4,000 for Dalhousie, 1,300 for University of New Brunswick, and 1,200 for University of Prince Edward Island).

In 2018-19, CNA had 151 international students, which was nearly triple the number for the past several years. However, comparator institutions in the Atlantic Provinces had higher numbers of students. For example, Nova Scotia Community College reported 671 international students in 2018-19.

In summary, public post-secondary institutions are a significant investment for Newfoundland and Labrador. The investment yields substantial economic and social benefits to the province.

Recommendation

1. Conduct a current economic impact study for both Memorial University and the College of the North Atlantic.

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Chapter 3: Ensuring a Strong Foundation

In order to optimize the contributions that post-secondary education institutions can make to social, cultural and economic development, it is important to ensure that their foundations are strong. This chapter reviews the current governance models and funding mechanisms for Memorial University of Newfoundland (MUN) and College of the North Atlantic (CNA). Proposed changes in governance consider the balance between autonomy and accountability that best positions the institutions to fulfill their respective mandates. Proposed changes in funding consider the need for stable and sustainable levels of investment of public funds, the revenue generating capacity and spending priorities of the institutions, alternatives to the current tuition freeze, student access to financial aid and the need for a provincial funding policy for post-secondary education.

3.1 Institutional governance

Governance is a function of structure and the distribution and exercise of authority (1, 2, 3). Canada is structured around ten provinces and three autonomous territories. Governing power is shared between the federal and provincial orders of government. As prescribed in the Constitution Act of 1867, the provinces have exclusive power to make laws with respect to education. Consequently, provinces have direct control over the regulation and funding of post-secondary education.

Canada is the only industrialized country without a federal education office or department. While no national policy framework governs post-secondary education, the federal government plays a significant funding role in several areas that intersect with post-secondary education, including federal-provincial transfers, skills development, research and development, and student financial aid (4,5).

The public post-secondary education system in Newfoundland and Labrador consists of two major institutions, Memorial University of Newfoundland and the College of the North Atlantic, and the apprenticeship program.² The system is governed primarily by the Department of Education, the Board of Governors of the College of the North Atlantic, and the Board of Regents of Memorial University of Newfoundland. There is also a Council on Higher Education which is not a governance body *per se* but in its current form has a legislated role to review and report on shared program areas of the university and the college.³

The roles and responsibilities of the government and the institutions are outlined in legislation: the College Act (1996), the Memorial University Act, the Degree Granting Act, the Council on Higher Education Act, and the Apprenticeship and Certification Act (1999). Several other pieces of legislation also have an impact on the institutions within the public system, including the Auditor General Act, the Transparency and Accountability Act, the Access to Information and Protection of Privacy Act, the Memorial University Pensions Act (1997), and the Works, Services and Transportation Act.

In publicly funded post-secondary education systems, tensions invariably arise between the autonomy required by institutions in order to fulfill their academic mission and the accountability expected of the institutions with respect to their expenditure of public funds. Traditionally, governments have exercised their authority over publicly funded institutions through control of their funding (government grants), appointment of members to their governing boards, and establishing requirements for audits (1, 2, 3, 4, 5). Finding the right balance between autonomy and accountability is key to: (a) aligning the governance of each of the institutions to support their academic mission; and (b) ensuring that all institutions and components of the system work together to create maximum value for students, faculty, staff, and communities.

2 See section 3.1.4 of this report

3 Council on Higher Education Act, 2006, Section 7

3.1.1 Memorial University of Newfoundland

The governance of Memorial University is similar to most universities as it consists of two governing bodies: the Board of Regents and the Senate. The bicameral model gives responsibility for and authority over management and administrative decisions of the university to the Board of Regents, and responsibility for and authority over academic issues to the Senate. Academic governance is discussed later in this report; this section focuses on the Board of Regents.

The Board of Regents has 30 members, and consists of three ex-officio members (Chancellor, President and the Vice-President of the university), 17 members (including the Chair) who are selected by the Lieutenant-Governor in Council (cabinet of the provincial government), four full-time students, and six members who are elected by the University Alumni Association.

Currently, the balance between autonomy and accountability of Memorial University as outlined in legislation (the Memorial University Act) is skewed towards direct accountability to the government overall, with one notable exception, as noted below.

Memorial University is: (a) an outlier (except for the University of Calgary) across the 10 comparator universities in that the Board of Regents is not involved in the appointment of the Board Chair; and (b) an outlier except for the University of New Brunswick in terms of having the President appointed by the Lieutenant Governor in Council instead of the Board of Regents. Memorial University is also unique among the comparators in that academic staff members are not eligible to be appointed to the Board of Regents. Memorial is similar to the other universities in the comparator group in that the size of the board, at 30 members, is neither the largest nor the smallest — the range is from 34 to 11 members.

With respect to the powers of the Board of Regents, Memorial University is similar to other universities in the comparator group in that all universities, except Dalhousie University, require some level of government approval over large expenditures related to borrowing and property acquisition. However the range of areas in which government approval is required is quite broad in the Memorial University Act and could be substantially reduced.

Memorial University has three board members who are jointly appointed to the Board of Governors of the College of the North Atlantic. This requirement was recommended by the 2005 White Paper on Post-Secondary Education in an effort to increase collaboration between the two institutions. This review found that the expectations for the appointees filling those positions have not been clearly outlined, the effectiveness of the initiative has been questioned, and no formal evaluation has been undertaken. Concerns were also raised about the possibility of placing joint appointees in a conflict of interest position.

Memorial University is unique among the comparator institutions (Appendix C) with respect to the role of the Auditor General. The Auditor General (AG) is an independent officer of the House of Assembly and is appointed under legislation. The role of the AG is to be the independent auditor of government, its departments and agencies. The AG performs audits on the financial statements of government and certain government entities. The purpose of such audits is to provide an opinion as to whether the financial statements present fairly the financial results and position of government.

In addition to this function, the AG performs performance audits of government departments, programs and entities. A performance audit, generally speaking, is an examination of economy, effectiveness and efficiency. The purpose of such audits is to determine whether programs have mechanisms in place to ensure they are meeting their objectives with due consideration for responsible stewardship of public funds. In 1993, the Memorial University Act was amended (Section 38.1) to limit the authority of the AG

with respect to the university. Memorial University is an outlier among the comparator universities with respect to this limitation to the authority of the Auditor General to audit performance.

In order to ensure that Memorial University has sufficient autonomy to fulfill its primary mission, enhancements to board governance are required to bring it in line with other universities in the comparator group. Accountability mechanisms should also be aligned with those of similar universities.

Consultations with several past presidents and board chairs of universities and colleges that have undertaken reviews of their respective legislation caution that opening of the governing acts should not be considered unless several conditions are in place: a good and trusting relationship exists between the government and the governing bodies of the institutions; an understanding of the purposes and scope of the review is agreed upon by all parties; and, a statement of guiding principles for how the discussions will proceed has been endorsed by both the institutions and the government departments overseeing the review of the relevant legislation. The Review Committee makes the following recommendation with these cautions in mind.

Recommendation

2. Develop a new act for Memorial University that will enhance the autonomy and accountability of the institution with respect to self-governance and board powers. Specific considerations include:
 - a. establish the power of the Board of Regents to appoint its own Chair;
 - b. establish the power of the Board of Regents to appoint the President;
 - c. establish the power of the Board of Regents to appoint the majority of its membership;
 - d. reduce the size of the board;
 - e. review areas requiring government approval to determine the appropriateness of the level of oversight;

- f. eliminate the requirements for joint appointments to Memorial's Board of Regents and the Board of Governors of the College of the North Atlantic; and
- g. strengthen the accountability mechanisms in place for Memorial University by reinstating authority of the Auditor General to conduct performance audits.

3.1.2 College of the North Atlantic

The College of the North Atlantic is a member of the national organization Colleges and Institutes Canada (CICAN) and: (a) operates with a college mandate; (b) delivers post-secondary programs of the academic standard set out by the appropriate authorities; and (c) operates as an integral part of the provincial government's educational activities and is funded substantially through that government.

The Board of Governors of the College of the North Atlantic consists of a Chair and 18 board members, each appointed by government (Lieutenant Governor in Council).

Currently, the balance between autonomy and accountability of the College of the North Atlantic as outlined in legislation (the College Act, 1996) is disproportionately skewed towards direct accountability to the Department of Education. In comparison to the other colleges in the jurisdictional scan (Appendix D), the College of the North Atlantic operates more like a department of government than a free standing post-secondary institution with status comparable to that of a crown corporation.

The Board of Governors of the college serves only in an advisory capacity to the President of CNA and the Minister of Education. The President is hired by and reports directly to the Minister. The legislation allows the Minister of Education to intervene in the day-to-day affairs of the college, including decisions about the type of academic programming being offered, the location of program offerings across the 17 campuses of the college, and the faculty/instructors hired to teach in the academic programs. This governance structure makes it possible for such decisions to be influenced at the political level.

Concerns about the extent of government intervention were expressed consistently throughout the consultations. Approval of funding for academic programs can be changed or withdrawn with little notice, which contributes significant uncertainty and instability to the functioning of the college as an institution of higher learning and as an employer. In addition, the College Act, 1996, Section 10 (2) states “One of the members of the board appointed under subsection (1) may be a representative of the department nominated by the Minister”. Currently, the Assistant Deputy Minister of Post-Secondary Education, Department of Education, is a member of the Board of Governors for the College of the North Atlantic. Appointment of a member of the department to the board can contribute to a perception of conflict of interest and further limit the autonomy of the institution.

Comparison with other jurisdictions also revealed that CNA is unique with respect to the role of the Lieutenant Governor in Council in hiring the President, and is in the minority in terms of the degree of autonomy the college has with respect to developing and delivering academic programming without direction from the Department of Education.

The College of the North Atlantic is unique as well in its requirement that three of its board members be jointly appointed to the Board of Regents of Memorial University. This requirement was recommended by the 2005 White Paper on Post-Secondary Education in an effort to increase collaboration between the two institutions. As noted above, this review found that the expectations for the appointees filling those positions have not been clearly outlined, the effectiveness of the initiative has been questioned, and no formal evaluation has been undertaken. Concerns were also raised about the possibility of placing joint appointees in a conflict of interest position.

The College of the North Atlantic is similar to other colleges in the comparator group in terms of:

- a. The role of the Auditor General with respect to financial audit: the authority of the Auditor General to conduct an audit of the college's finances is either allowed or not explicitly excluded in all of the college acts reviewed.
- b. Appointment of the Board Chair: the Board Chair is appointed by the Lieutenant Governor in Council in four colleges, including CNA, and is appointed by the Board of Governors in the other five.
- c. Designation of an academic staff member seat on the Board of Governors: similar to the College of the North Atlantic, all colleges but one in the comparator group have a seat designated for an academic staff member; in Red River College (Manitoba) the seat is designated for an employee but the term employee is not defined.
- d. Size of the board: the College of the North Atlantic Board of Governors can have as many as 18 members; the range for the other comparators is 12 – 20 members, with five of the other boards having 15 members or fewer.

In order to ensure that the College of the North Atlantic is positioned to make the maximum contribution to the success of the province in the 21st century, its autonomy to fulfill its primary mission as an academic institution must be strengthened and its accountability mechanisms brought into alignment with those of similar publicly funded colleges in terms of board oversight and annual reporting processes.

Recommendations

3. Develop a new act for the College of the North Atlantic, which will enhance the autonomy and accountability of the institution with respect to self-governance and board powers. Specific considerations include:
 - a. establish the power of the Board of Governors to appoint its own Chair;
 - b. establish the power of the Board of Governors to appoint the President;
 - c. establish the power of the Board of Governors to appoint the majority of its membership;

- d. establish the power of the Board of Governors to make final decisions on academic programming;
- e. reduce the size of the board;
- f. eliminate the position for a representative of the Department of Education on the Board of Governors; and
- g. eliminate the requirements for joint appointments to the Board of Regents of Memorial University and CNA's Board of Governors.

4. Strengthen the accountability capacity within the College of the North Atlantic by providing professional development support to the Board of Governors as it transitions from an advisory to a governing role.

3.1.3 Council of Higher Education

The 2005 White Paper on Public Post-Secondary Education: Foundations for Success (6) identified the continued need for collaboration between Memorial University and the College of the North Atlantic and recognized the limited progress that had been made on contentious issues such as applied degrees and college-university articulation agreements. Legislation and an institutional governance model were proposed to enhance the council's role in strengthening collaboration between the two institutions.

The Council of Higher Education Act was proclaimed in 2007, but the Council on Higher Education was not reactivated until 2017, following the release of The Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador in 2016. The council currently includes senior representatives from the provincial government (Minister and Deputy Minister of Education), Memorial University (Chair of the Board of Regents and President of the University), College of the North Atlantic (Chair of the Board of Governors and President of the College) and two students (one from the college and one from the university). During this period, subcommittees on (1) Articulation and Transfer and (2) Applied Research have been formed and some, but limited, progress has been made in each area.

Feedback from key stakeholders not directly associated with the council was unanimous in suggesting that the Council on Higher Education is not the best mechanism for ensuring collaboration for several reasons. First, a mandate and clearly stated expectations, timelines and deliverables are not in place. The only duties stated in the Council in the Higher Education Council Act pertain to frequency of meetings, maintenance of meeting records and reviewing and reporting on shared programs of the university and the college. Secondly, many stakeholders in post-secondary education are not represented on the council, including other government departments, faculty/instructional staff, industry, and private sector providers. Thirdly, the council has senior level direction but lacks the dedicated human resources required to support sustained and focused collaboration between institutions with distinct missions and cultures.

Similar to the findings of the 2005 White Paper on Post-Secondary Education (6) this review highlights the continuing need for increased collaboration between the two largest public institutions in the post-secondary sector. In addition, this review identifies a host of key stakeholders in post-secondary education and other sectors whose energy and perspective could be brought to bear on issues requiring collaboration in the post-secondary sector.

Recommendations

5. Abolish the Council on Higher Education and repeal the Council of Higher Education Act, 2007.
6. Establish an alternative mechanism to facilitate and ensure focused attention on collaboration:
 - a. between Memorial University and the College of the North Atlantic, and
 - b. among all key stakeholders in the post-secondary education system.

3.1.4 Apprenticeship

Apprenticeships are a form of post-secondary education in Canada (7). In several provinces, including Newfoundland and Labrador, individuals complete the first

phase of their education as students in a post-secondary education setting (public or private training institutions) and then transition to individual learning experiences in the workplace, under the supervision of experienced tradespeople. Provinces have a predominant role in apprenticeship, with their agencies responsible for overseeing the system, setting standards, and ensuring delivery.

In Newfoundland and Labrador, the Apprenticeship and Trades Certification division is located in the Department of Immigration, Skills and Labour of the provincial government. The Apprenticeship and Certification Act (1999) sets out the role of the board that is established under the Act. The board is responsible for the key aspects of apprenticeship training: setting policies to ensure that the Apprenticeship and Certification Training Act is implemented, designating occupations as appropriate for apprenticeship, registering and monitoring progress of all apprentices/trade qualifiers leading to a journeyperson certification, approving the plan of training, accrediting training institutions, overseeing final examinations and practical examinations, and approving the objectives of every course of instruction included in the plan of training. At present there are approximately 5,000 registered apprentices in the trades.

In 2012, a standardized curriculum project began in the Atlantic Provinces, the Atlantic Apprenticeship Harmonization Project (AAHP). It is expected that 17 trades will be harmonized by 2022.

In Newfoundland and Labrador, individuals complete their in-class training and first block of their apprenticeship, called entry level, in the College of the North Atlantic, one of the private trade union schools, or private training institutions. The College of the North Atlantic delivers 30 pre-apprenticeship training programs (entry-level).

The advanced level block of training and exams ensues and the number of blocks and exams varies among trades. Individuals who complete the required advanced blocks

and examinations, and required work experiences and hours, will receive certification as a journeyperson. CNA supports the province and employers in the delivery of 19 apprenticeship training programs (advanced block).

After completing their apprenticeship and passing the Red Seal examination (the highest level of certification) tradespersons receive a Red Seal Endorsement (“RSE”) on their provincial/territorial trade certificate, usually called a “Certificate of Qualification”. The Canadian Council of Directors of Apprenticeship (CCDA) participates in the Red Seal Secretariat in partnership with the federal government and industry. The CCDA maintains responsibility for the Red Seal Program, but individual provinces and territories are responsible for training, certification, and regulation as prescribed by provincial and territorial apprenticeship legislation.

The capacity of colleges such as CNA to set direction for apprenticeship is very limited — the colleges support government and employers. A full review of apprenticeship was beyond the scope of this review. However, a recent report for Atlantic Colleges Atlantique (8) highlighted many challenges and opportunities for the apprenticeship system. Concerns regarding the apprenticeship system were expressed to committee members during consultations by stakeholders in the PSE system as well as by industry representatives.

Recommendation

7. Engage key stakeholders from the federal and provincial governments, the post-secondary education system, and industry in a review of the apprenticeship system in the province.

3.2 Funding⁴ for post-secondary education institutions

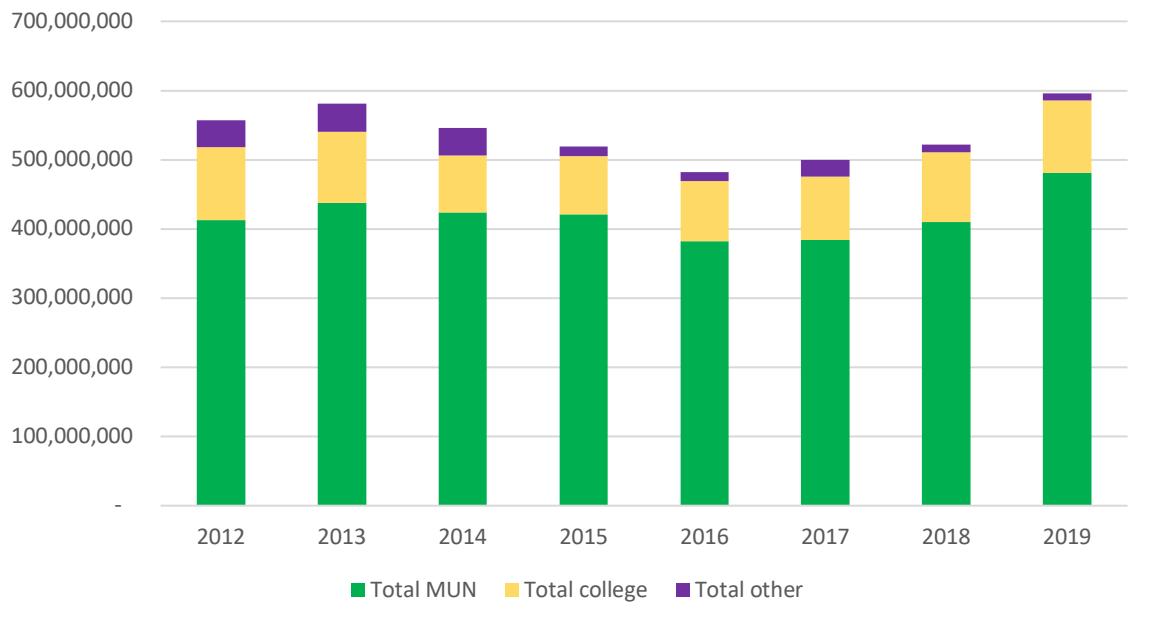
Financial health and viability are essential to a strong and sustainable post-secondary education system, one that can honour its core mandate and mission while responding to challenges and opportunities that arise. This section of the report addresses institutional funding, both revenues and expenditures.

3.2.1 Provincial funding for public post-secondary education in Newfoundland and Labrador

Figure 3.1 shows total investment in post-secondary education broken out by funding to Memorial University, the College of the North Atlantic, and “other”, which includes apprenticeship programs, adult literacy programs, student financial assistance, industrial training, and funding to the Atlantic Veterinary College. Investment declined from 2013 to 2016 then began to increase so that in 2019 levels of funding overall for post-secondary education were approximately \$40 million higher than they were in 2012. It is important to note that after 2014 the student loan program changed. Expenditures for the years 2012 to 2014 included approximately \$28 million per year in funding for student loans. From 2015 onward this funding was administered by the federal government and therefore is not included in Newfoundland and Labrador government expenditures in the “other” category.

4 There are many sources from which PSE funding data can be obtained. Some of these include the institution's financial statements, government public accounts, Statistics Canada, and the Canadian Association of University Business Officers (CAUBO). Each of these may use different bases of reporting. While it may be confusing switching amongst these multiple sources, all of these sources are drawn upon in order to get the most representative picture possible. Every attempt has been made to ensure data from a particular source is consistent with other data from that same source.

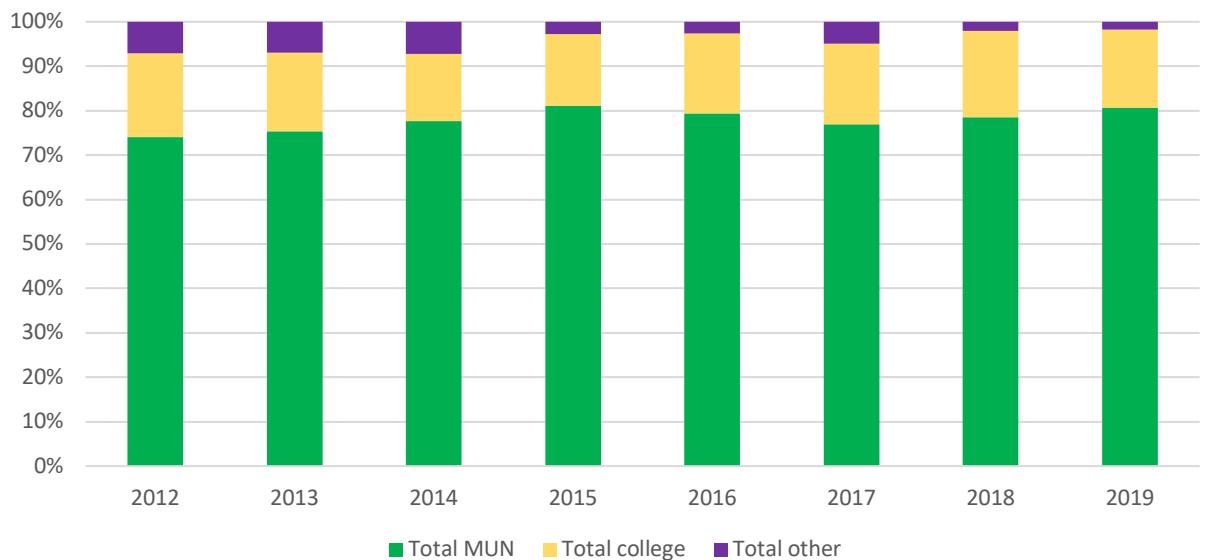
Figure 3.1 Total Government of Newfoundland and Labrador investment in public PSE by year, 2012-2019 (dollars)



Source: compiled from Government of Newfoundland and Labrador Public Accounts Volume III — Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund. Data are gross expenditures (not netted against federal revenues).

As shown in Figure 3.2, the percentage of the total provincial government annual investment in post-secondary education that was allocated to Memorial University increased from 74% in 2012 to 81% in 2015 and has stayed fairly constant since then. It was 81% in 2019. The percentage of total funding allocated to the College of the North Atlantic declined from 19% in 2012 to 15% in 2014 but increased after that and has remained in the 17% - 19% range.

Figure 3.2 Total Government of Newfoundland and Labrador investment in public PSE by category, 2012-2019 (percentages)

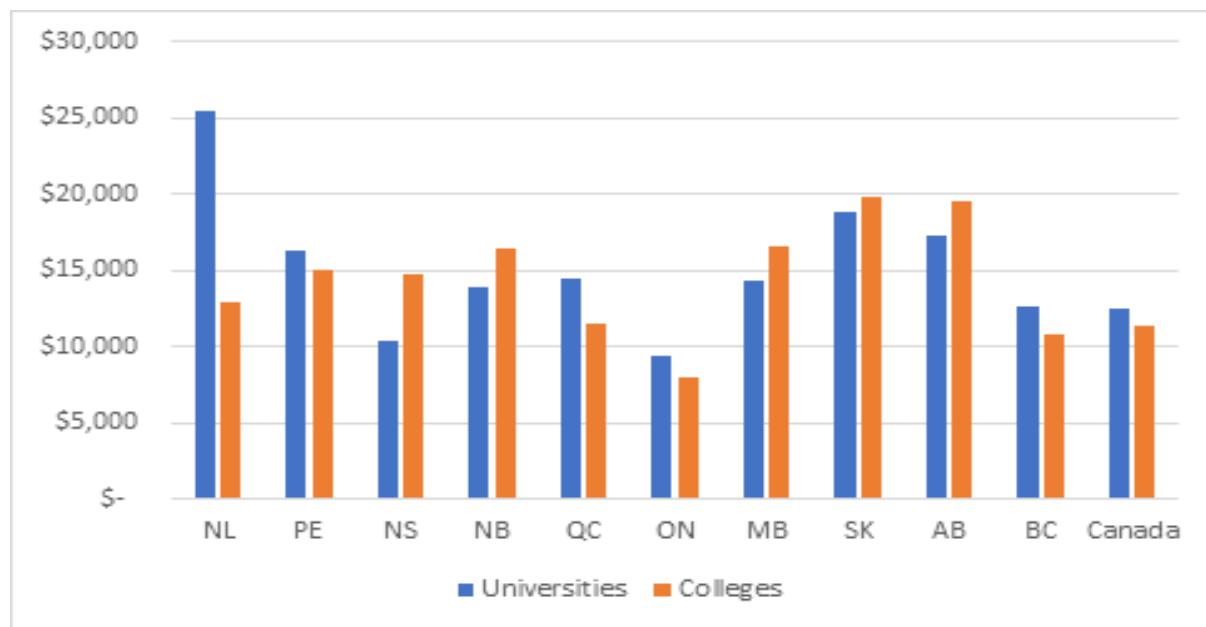


Source: compiled from Government of Newfoundland and Labrador Public Accounts Volume III – Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund. Data are gross expenditures (not netted against federal revenues).

Newfoundland and Labrador expenditures per full time equivalent (FTE) post-secondary education student for the years 2015-16 were the highest in Canada (\$21,000). Nationally, the average is \$12,306 per FTE student, though this average is lowered significantly by Ontario, where the funding is \$9,096 per FTE student (9).

Looking at funding per FTE student for universities and colleges separately, Figure 3.3 shows that Newfoundland and Labrador is the highest in terms of universities but one of the lowest in the country in terms of college funding, although the amount is slightly higher than the Canadian average. This finding is consistent with analysis of funding data for Memorial from Statistics Canada and from financial statements for the College of the North Atlantic.

Figure 3.3 Provincial government transfers to PSE institutions per FTE student by institution type, Canada and provinces, 2015-2016



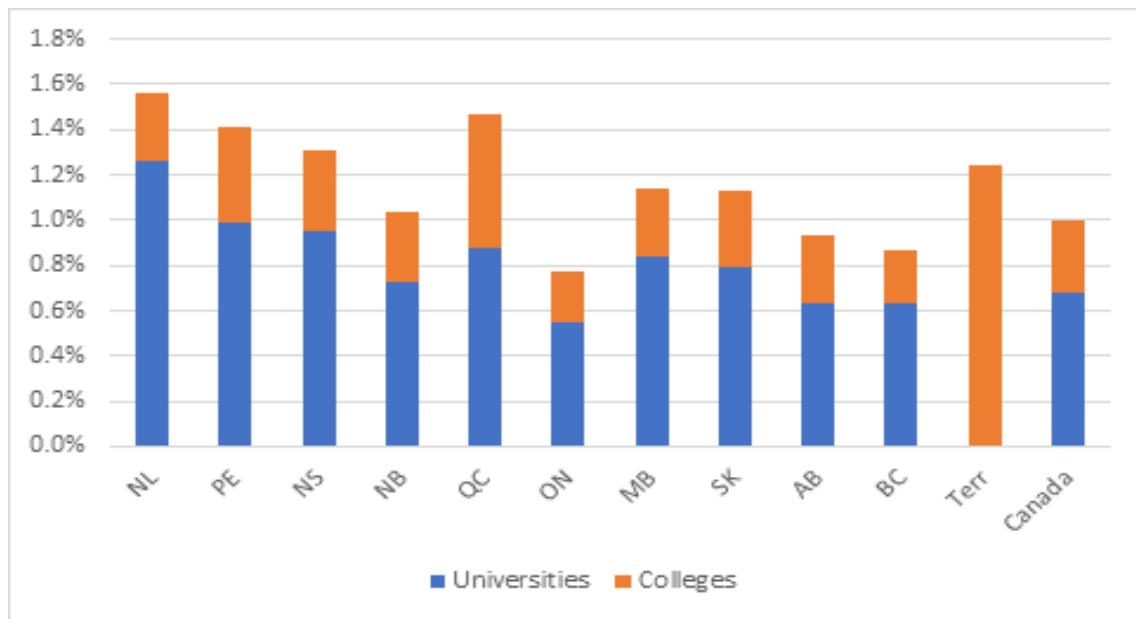
Source: Usher A. (2018). The State of Post-Secondary Education in Canada, 2018. (p. 34, Figure 5.4, used with permission). Canadian average calculated as total transfers for all provinces divided by total FTE students.

Another way to look at funding is to compare expenditures as a percentage of Gross Domestic Product (GDP). As shown in Figure 3.4, in 2015-16, on average, provinces spent approximately 1% of GDP on post-secondary education — about 70% of that amount on universities and the rest on colleges. Newfoundland and Labrador invested 1.55% of its GDP on post-secondary education, an amount that was above the national average and the highest of any province.

More recent information from the Department of Finance/Statistics Canada indicates that Newfoundland and Labrador had a real GDP of \$33.241 billion for 2018. The 2018-19 Report on Program Expenditures and Revenues of the Consolidated Revenue Fund of the Public Accounts indicates that in 2018-19 the provincial government spent \$567,484,000 on post-secondary education, which represents an increase to 1.71% of real GDP.

In summary, the Government of Newfoundland and Labrador has continued to invest substantially in post-secondary education.

Figure 3.4 Provincial government expenditures on PSE institutions as a percentage of GDP, Canada and provinces, 2015-2016



Source: Usher A. (2018). The State of Post-Secondary Education in Canada, 2018. (p. 35, Figure 5.5, used with permission).

3.2.2 Federal funding for public post-secondary institutions in Newfoundland and Labrador

As noted in the discussion of governance above, in Canada primary responsibility for funding of public post-secondary education institutions rests with provincial governments. However the federal government does play an important role in funding post-secondary education, both at the institutional and individual student level.

Currently the federal government uses a number of mechanisms to disburse funding to post-secondary institutions: (a) the Canada Social Transfer (CST), which includes funds that are earmarked for post-secondary education; (b) research granting councils, namely the Canadian Institutes of Health Research (CIHR), the Natural Science and Engineering Research Council (NSERC), and the Social Sciences and Humanities Research Council (SSHRC) — collectively known as the Tri-Council agencies, the Canada Foundation

for Innovation (CFI), Genome Canada, and the recently created Strategic Innovation Fund; (c) funding provided by federal government departments and agencies, such as Health Canada; and (d) occasional large investments in capital such as the Strategic Infrastructure Program (2017) and funding by regional development agencies such as the Atlantic Canada Opportunities Agency (ACOA).

Canada Social Transfer

The CST is a federal block transfer to provinces and territories in support of post-secondary education, social assistance and social services, and early childhood development and child care (see companion document). The CST is calculated on an equal per capita cash basis to reflect the federal government's commitment to ensure that conditional transfers provide equal support for all Canadians.

Federal transfers via the Canada Social Transfer to Newfoundland and Labrador have increased by \$33 million (\$171 million - \$204 million), or 19.3 percent, over the past decade. However, the transfers to Newfoundland and Labrador have been increasing at a lower rate than transfers to provinces overall. Transfers to all Canadian provinces increased by \$3.5 billion, or 30.5 percent, over that same period. This is likely due to increases in population in many other parts of Canada over this period while Newfoundland and Labrador's population decreased from 2012 to 2019.

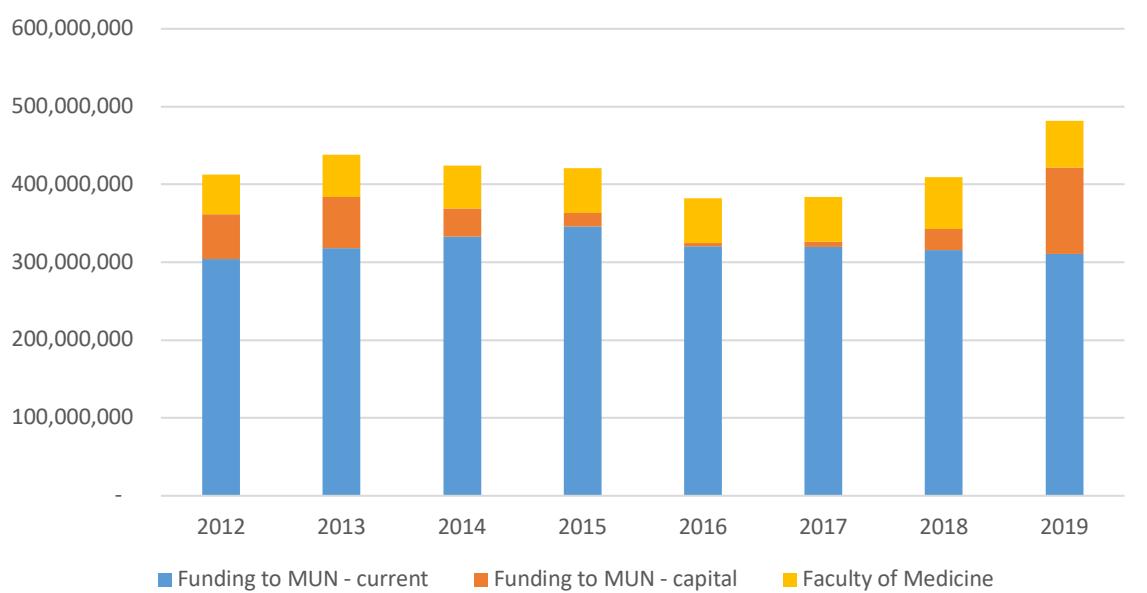
3.2.3 Revenues and expenditures: Memorial University of Newfoundland

3.2.3.1 Revenues

Provincial government funding is the major source of revenue for Memorial University. Figure 3.5 shows Government of Newfoundland and Labrador funding to Memorial, broken out by current and capital, from 2012 to 2019. Funding of the operating budget has been decreasing since 2015, however, government's total investment in Memorial increased in both 2018 and 2019 due to capital spending.

Funding to the Faculty of Medicine is shown separately as the funding is provided by the Department of Health and Community Services. Funding for the Faculty of Medicine operating budget increased by \$8.2 million overall from 2012 to 2019. In 2018 there was a one-time addition of \$9.1 million to the operating budget to assist with stabilization of the operating deficit.

Figure 3.5 Government of Newfoundland and Labrador funding for Memorial University, 2012-2019 (dollars)

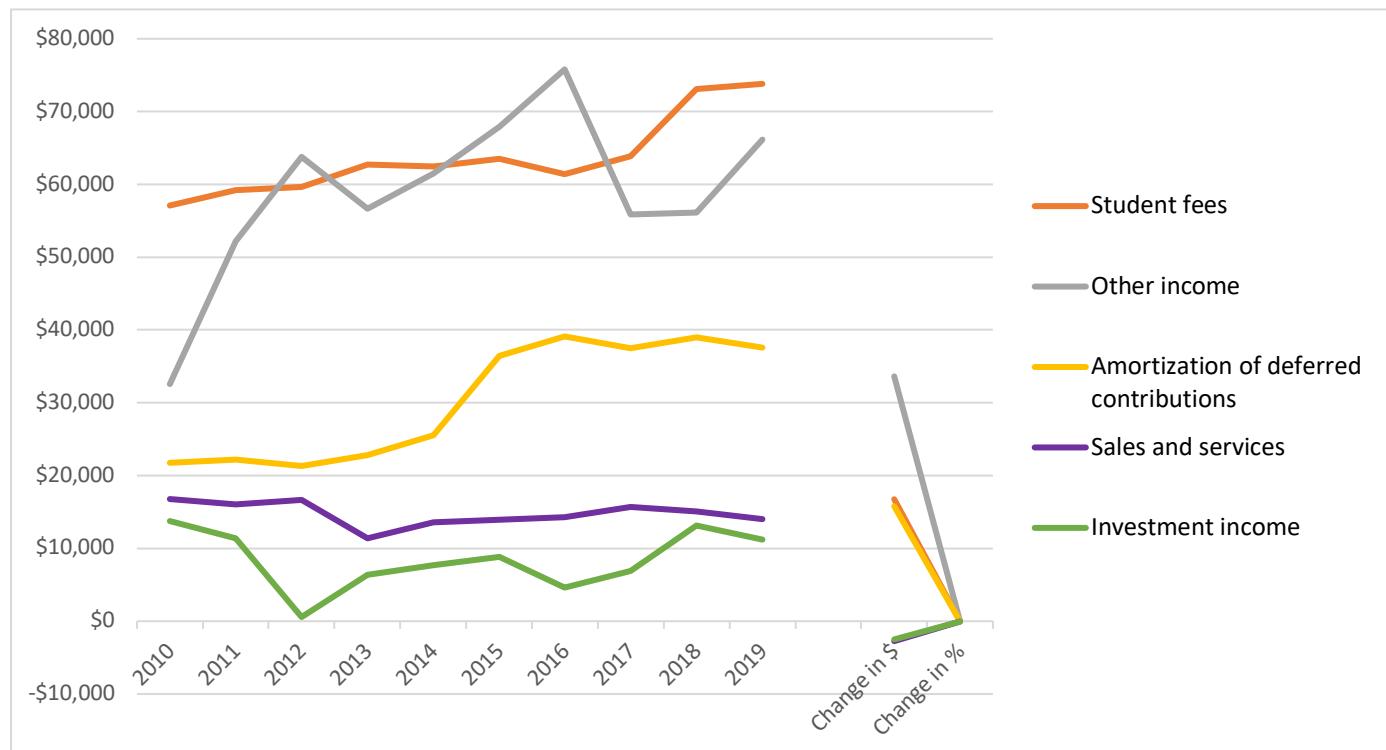


Source: compiled from Government of Newfoundland and Labrador Public Accounts Volume III – Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund

Figure 3.6 indicates that over the period 2010 to 2019, Memorial's revenues (excluding government grants) have grown in both dollar and percentage terms from other income (103%), amortization of deferred contributions⁵ (72.5%), and student fees (29.4%) but declined in terms of investment income (-18.2%) and sales and services (-16.3%).

5 A portion of a multiple year grant received in a given fiscal year.

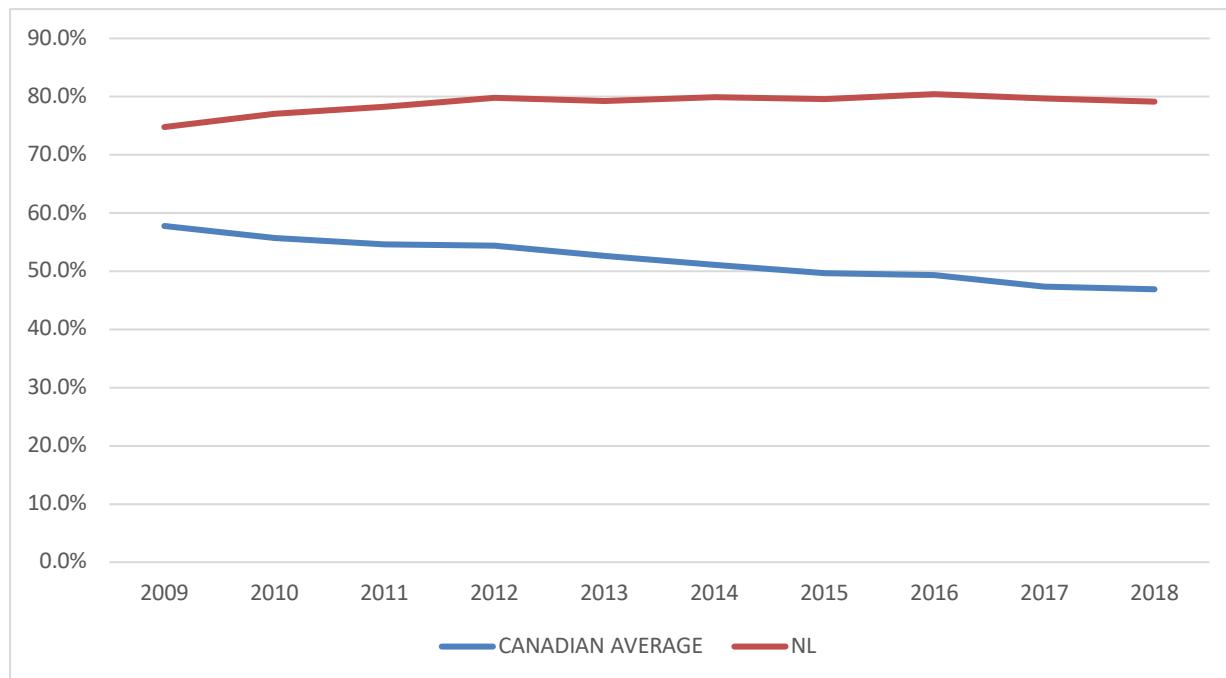
**Figure 3.6 MUN consolidated revenues excluding government grants,
2010-2019 (\$000's)**



Source: MUN Consolidated Financial Statements

While actual dollars of operating funding have decreased in recent years, Memorial continues to have a far greater percentage of its operating fund provided by provincial government grant than the Canadian average for universities. The trend across Canada has been a decline in the percentage of operational funding provided by provincial governments. In 2009, 74.8% of Memorial's operating grant came from the provincial government, compared to the Canadian average of 57.8%. In 2018, 79.1% of Memorial's operating budget came from government grants versus the Canadian average of 46.9% (Figure 3.7).

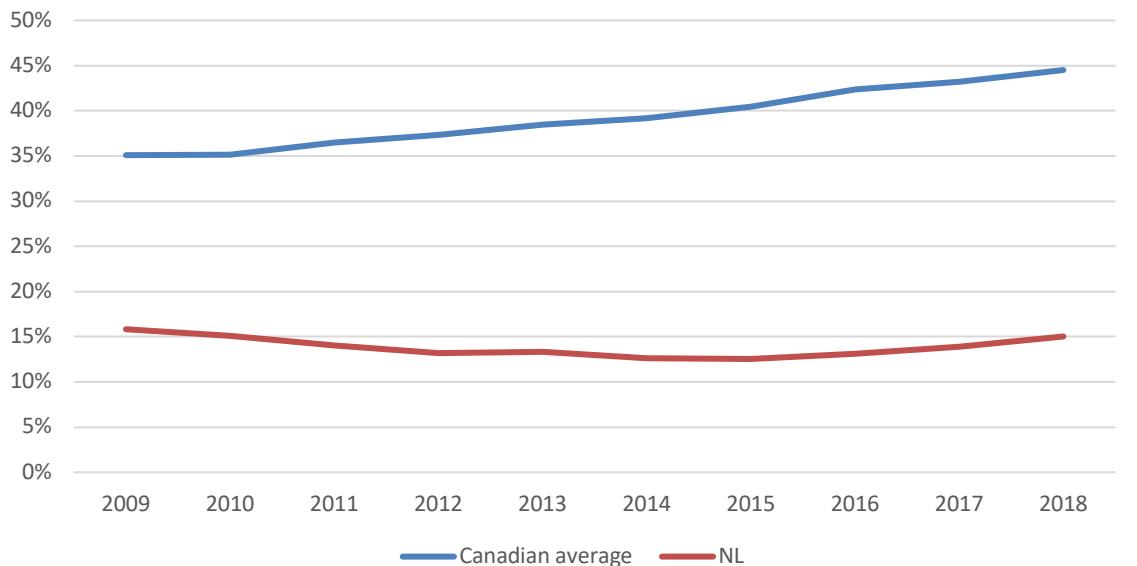
Figure 3.7 Percentage of universities' total operations funded by provincial grants, Newfoundland and Labrador and Canada, 2009-2018



Source: data compiled from CAUBO

Memorial is also significantly different from the average for Canadian universities with respect to the percentage of its operating funds derived from tuition fees. As shown in Figure 3.8, the Canadian average has steadily increased over time, from 35.1% of operating funds from tuition in 2009 to 44.5% in 2018. Memorial's percentage of operating funds from tuition declined slightly over time but then increased slightly due to additional student fees, such as the Campus Renewal Fee and the Student Services Fee. Overall, in 2018, the percentage was essentially the same as it was in 2009: 15.0% versus 15.8%. Memorial University charges the lowest tuition fees of any university in Canada, with the exception of domestic tuition fees in Quebec. The provincial government's mandated tuition freeze has been the major factor in keeping tuition revenues low for Memorial University.

Figure 3.8 Percentage of total university operations funded by tuition fees, Newfoundland and Labrador and Canada, 2009-2018



Source: data compiled from CAUBO

The composition of tuition income has changed as well over time at Memorial (undergraduate/graduate and Newfoundland and Labrador/Canadian/International). However, the percentage of tuition revenue coming from different categories of students was not available.

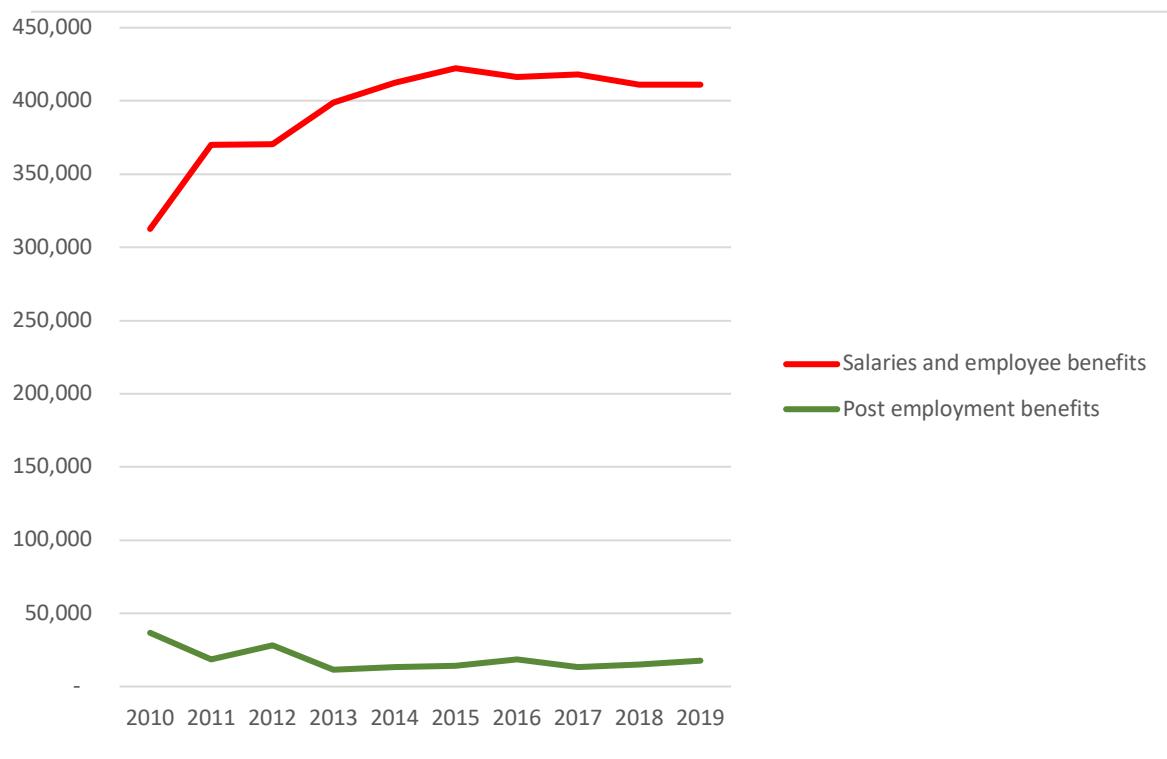
3.2.3.2 Expenditures

Three main variables drive costs in post-secondary institutions: labour, student enrolment, and infrastructure. Each is discussed below for Memorial University and the College of the North Atlantic.

Labour costs

The biggest cost for the university is employee costs (salary, benefits, and post-employment benefits excluding pensions). As shown in Figure 3.9, Memorial's salary and employee benefits costs peaked in 2015 and have declined slightly since then.

Figure 3.9 MUN consolidated employee expenses, 2010-2019 (\$000's)



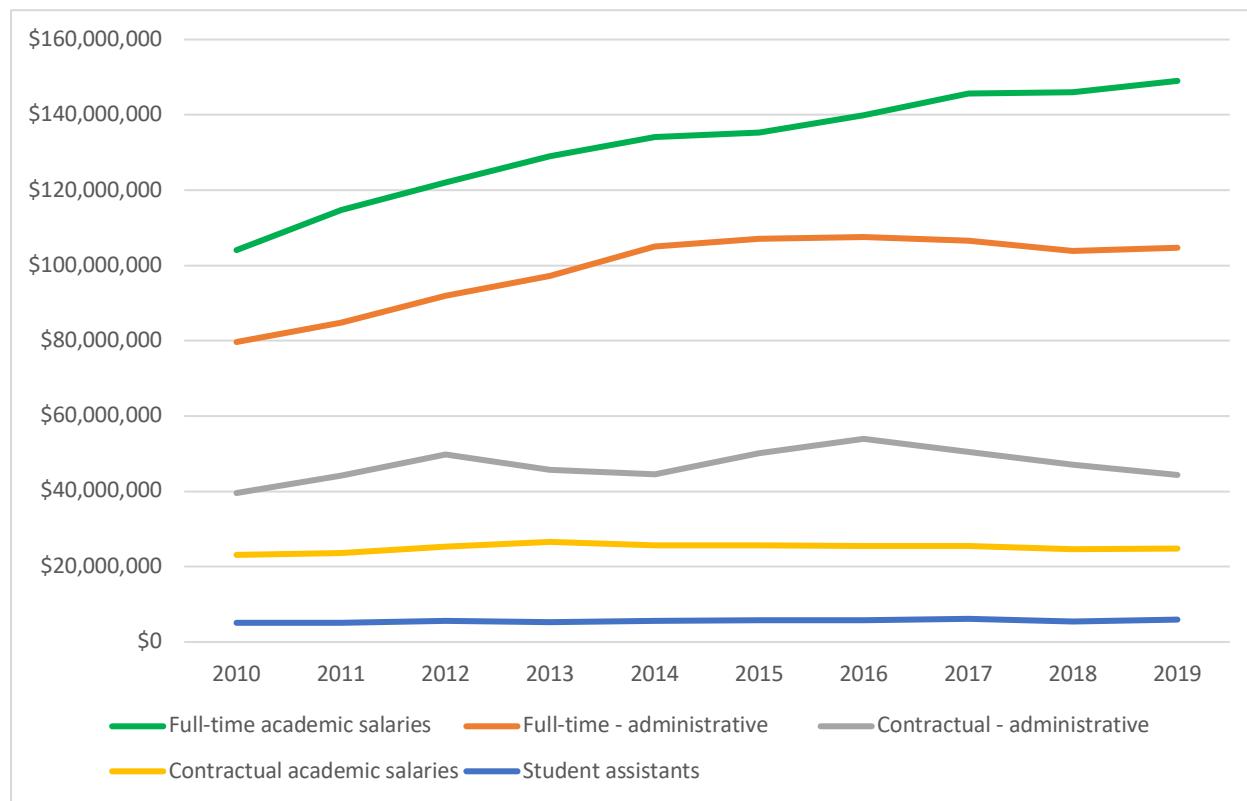
Source: MUN Consolidated Financial Statements

As shown in Figure 3.10 below, the greatest growth in salary costs has been in the category of full-time academic salaries, followed by full-time administrative salaries.⁶ The review team was unable to obtain employee counts associated with employee expenses in each category so these figures do not necessarily correlate with increases or decreases in numbers of employees.

Feedback from consultations suggested there is a perception of significant salary and/or benefits cost inflation at the senior level. The review team did not have access to data to explore this further.

⁶ MUN prepared a response to PPSSER salary documentation wherein they excluded a number of costs in this category.

Figure 3.10 MUN salary expenditures, 2010-2019



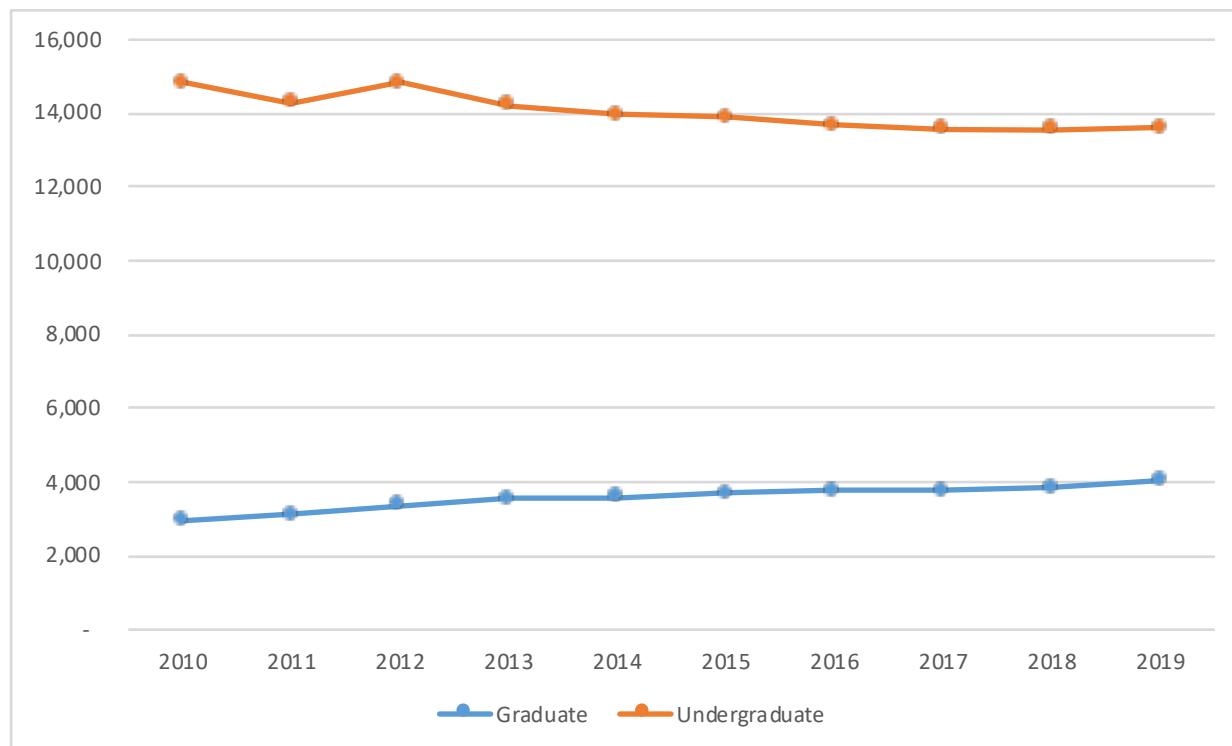
Source: MUN Consolidated Financial Statements

Student Enrolment

Student enrolment has an impact on an institution's expenses in terms of the types of infrastructure, academic instruction, academic supports, and financial supports students require. Memorial's total enrolment numbers have been steady for the past 10 years, decreasing by 1.6% from 2010 to 2019. However, the composition of the student body at Memorial has changed over this time period, as presented below.

1. Enrolment related to undergraduate studies has decreased and enrolment related to graduate studies has increased (Figure 3.11). In 2010, undergraduate students constituted 83.4% of the total student enrolment but this declined to 77.1% by 2019. In contrast, graduate student enrolment as a percentage of total student enrolment grew from 16.6% in 2010 to 22.9% in 2019.

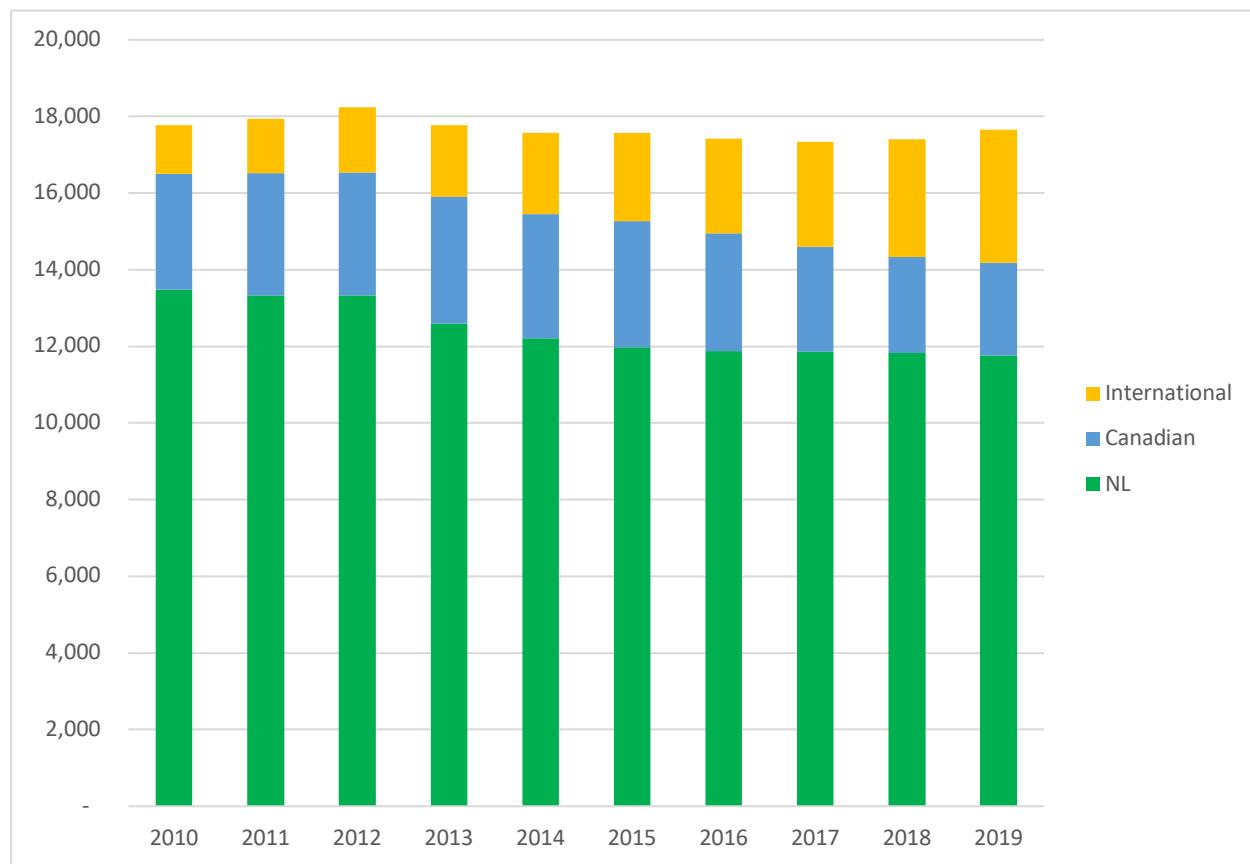
Figure 3.11 MUN enrolment, undergraduate and graduate, 2010-2019



Source: MUN Fact Book

2. Figure 3.12 presents university enrolment by student place of origin for the period 2010-2019. There was a decrease in the percentage of students from Newfoundland and Labrador (-12.8%) and students from the rest of Canada (-19.7%), and an increase in the percentage of international students (173.4%). Currently Memorial's enrolment comprises students from Newfoundland and Labrador (67%), students from the rest of Canada (14%), and international students (20%).

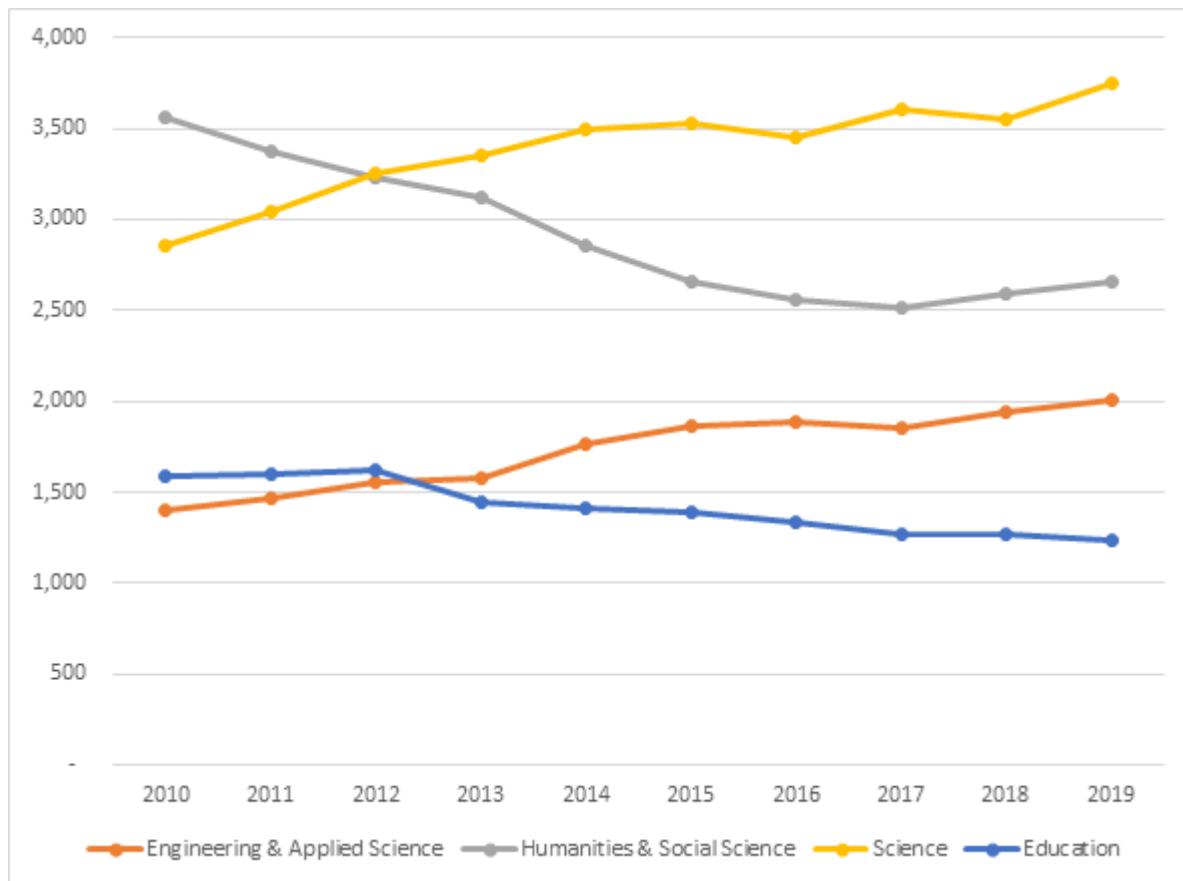
Figure 3.12 MUN enrolment by student place of origin, 2010-2019



Source: MUN Fact Book

3. There has been a shift in undergraduate enrolment away from the fields of social sciences and humanities towards STEM related fields (science, technology, engineering, and mathematics). The most notable pattern is the increase in enrolment in Science and Engineering and the decrease in enrolment in Humanities and Social Sciences and Education. This shift in enrolment towards STEM fields, as presented in Figure 3.13 has been observed in all comparator jurisdictions.

Figure 3.13 MUN enrolment 2010-2019: Science, Engineering, Humanities and Social Science, and Education



Source: MUN Fact Book

Changes in enrolment patterns help the university maintain its student base and increase tuition revenue despite declining numbers of students from Newfoundland and Labrador. However some changes, such as higher numbers of graduate and international students and increased enrolment in STEM programs, can have a substantial impact on expenditures in many areas of the university. Graduate students usually receive financial support (payment for teaching assignments, internal scholarships, and bursaries) in order for the graduate programs to be able to attract the best candidates possible. Many international students require academic and other types of support to facilitate their adjustment to life and study in a new country. STEM programs

are typically more expensive because of their requirements for technology enhanced teaching spaces such as laboratories and simulation centres.

As shown in Table 3.1, while Memorial's total enrolment numbers have been relatively steady over the past 10 years, the operating budget has grown during this same period from \$384 million to \$432 million, an increase of 12.4%. The operating budget per student grew from \$21,408 to \$24,448, or 14.2%.

Table 3.1 MUN operating budget and number of students, 2011-2019

Year	Operating budget	Total students	Change in enrolment, year to year	% change in enrolment, year to year	Operating budget per student
2011	\$384,149,997	17,944			\$21,408
2012	\$401,343,871	18,236	292	1.6%	\$22,008
2013	\$415,526,977	17,773	-463	-2.5%	\$23,380
2014	\$441,540,342	17,568	-205	-1.2%	\$25,133
2015	\$459,029,206	17,581	13	0.1%	\$26,109
2016	\$453,319,221	17,422	-159	-0.9%	\$26,020
2017	\$437,855,477	17,338	-84	-0.5%	\$25,254
2018	\$438,244,367	17,406	68	0.4%	\$25,178
2019	\$431,855,226	17,664	258	1.5%	\$24,448
Change, 2011-19	+12.4%	-1.6%			+14.2%

Source: MUN Fact Book and MUN Budget Division

Feedback received during consultations at Memorial University revealed widespread dissatisfaction with the transparency of the budget process used to distribute resources across the faculties and campuses. One concern repeatedly expressed was that the relationship

between budgets and enrolment was not clear. This finding was supported by additional analysis of changes in operating expense budget per student, which found that changes in enrolment do not uniformly have an impact on operating expenses across faculties.

Academic salary costs are the largest component of the operating budget of any faculty/school and much of the salary cost is fixed according to what percentage of a particular unit's faculty is tenured and the degree of turnover in faculty — junior faculty are less expensive than full professors, for example. In addition to the impact of enrolment patterns noted above, Memorial University indicated that "other factors that affect the operating budget include: (a) differences in pedagogy and program delivery (lecture style courses versus individualized instruction, including graduate supervision); (b) availability of large classrooms (more than 60 seats); (c) differences in level of course enrolments (such as high enrolment in junior level courses versus low enrolment in senior courses)."

It is important that the cost implications of shifting enrolment patterns be considered explicitly in resource allocation processes within the institution in order to ensure that appropriate supports are in place to provide a high quality post-secondary education experience for all students, irrespective of their place of origin or program of study.

An analysis of expenditure data indicated that there has been a significant increase of 49% from 2010 to 2019 in expenses related to scholarships, bursaries, and awards. However, a breakdown of the distribution of this funding across undergraduate and graduate students was not available. In the absence of information about (a) percentage of tuition revenue received from different categories of students and (b) spending on different categories of students, it is difficult to project the potential impact of future enrolment changes on the university's overall financial situation.

Infrastructure

There are numerous organizational configurations in the publicly funded post-secondary education sector in Canada and internationally, including but not limited to: a single publicly funded university and college in one province (Newfoundland and Labrador); multiple universities and colleges per province/state; institutes (technical and others); and polytechnics. Many institutions have multiple campuses. Some institutions are investing heavily in new, purpose-built infrastructure to replace aging facilities; others have moved away from creating new physical structures in favour of reliance on networks of existing structures or virtual networks to address new educational programs or research issues.

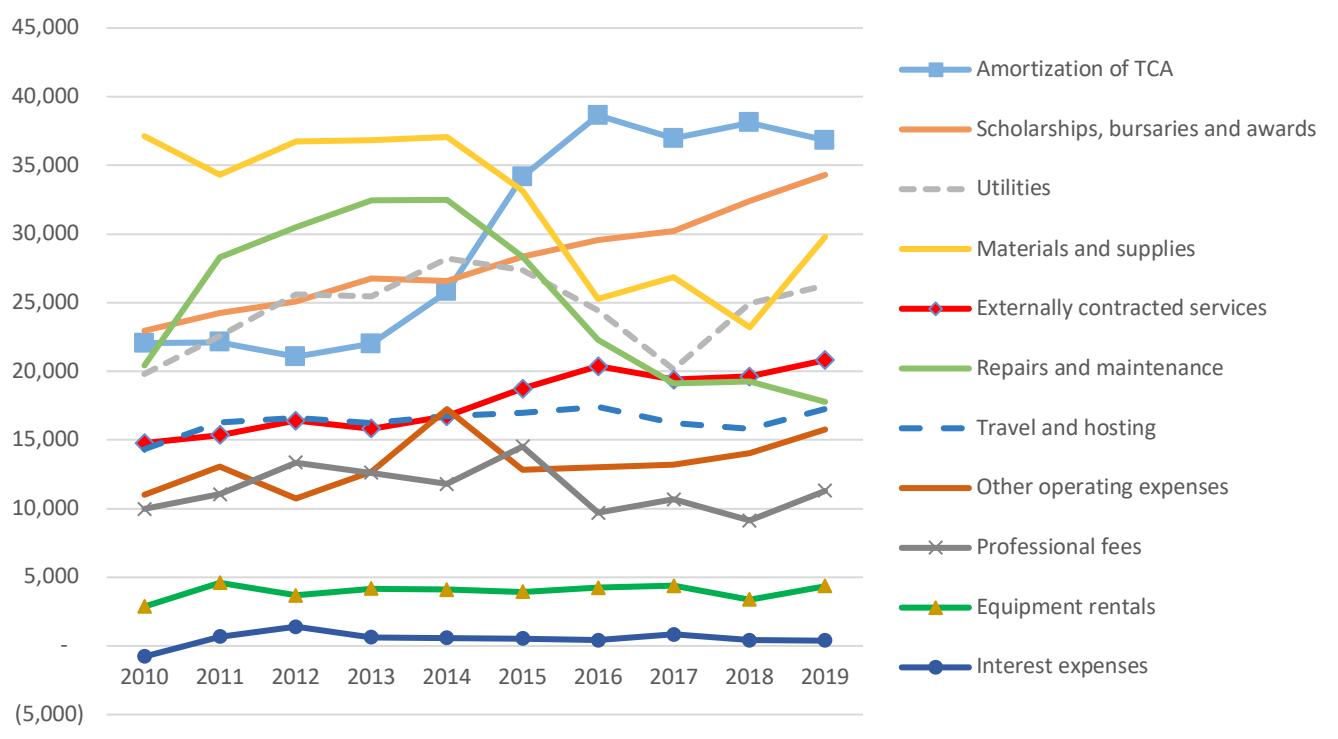
Memorial University has three main campuses. Buildings on the St. John's and Grenfell Campuses are owned by the university. The Marine Institute Campus building is owned by government. These campuses offer a wide range of academic programming to both undergraduate and graduate students, and in the case of the Marine Institute, diploma students. The new Core Science Building on the St. John's campus is scheduled to open in 2021. Discussions are underway within Memorial University to transition the Labrador Institute to a campus in Happy Valley-Goose Bay (a School of Arctic and Sub-Arctic Studies was established in 2020). Memorial University also refers to other facilities as campuses such as (a) the recently acquired and refurbished Signal Hill Campus which provides public engagement and incubator and innovation support, and (b) Harlow Campus which provides housing and infrastructure support to visiting Memorial students and faculty.

In addition to campuses, Memorial University maintains physical plant and research activities in other locations, for example the Ocean Sciences Centre in Logy Bay and the Bonne Bay Research Centre in Norris Point. Other more recent infrastructure acquisitions include the Johnson Geo Centre in St. Johns, the Pye Farm in Happy Valley Goose Bay, Labrador, and the Botanical Garden (formerly a Separately Incorporated Entity of Memorial University). Memorial University reports a significant risk associated with deferred maintenance of existing/aging infrastructure, particularly on the St. John's campus.

3.2.3.3 Current Liabilities (excluding salaries)

Figure 3.14 presents expenditure categories, excluding employee salaries and benefits and post-retirement benefits. As shown, the largest expenditures in recent years are related to amortization of tangible capital assets (TCA) such as buildings, furniture and equipment and computers and funding for scholarships, bursaries, and awards. These trends are consistent with the increase in capital spending and the shift in enrolment towards graduate programs noted above (see companion document).

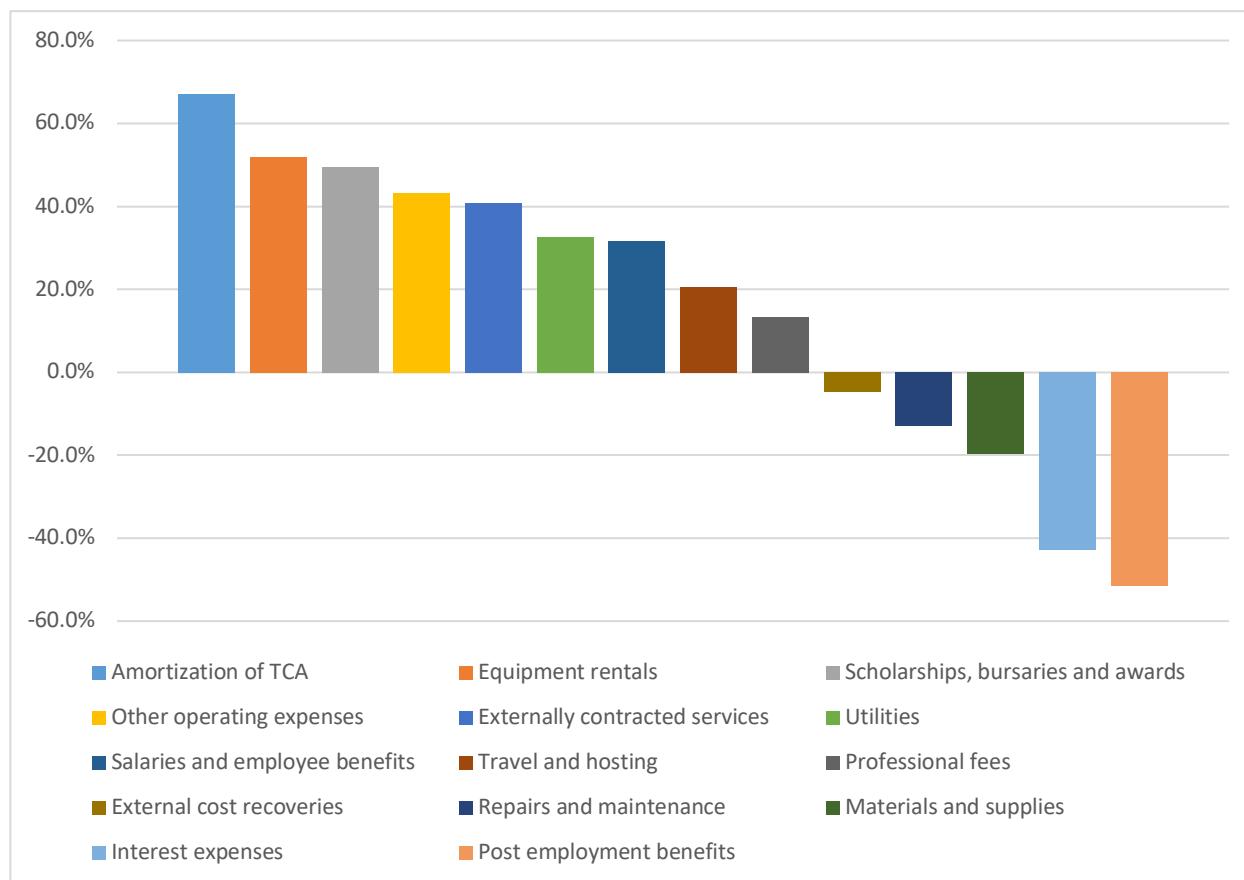
Figure 3.14 MUN consolidated expenses, excluding employee expenses, 2010-2019 (\$000's)



Source: MUN Financial Statements

Total consolidated expenses at Memorial grew by 23.9% from 2010 to 2019. In that same period revenues increased by 27.1% and the consolidated annual deficit decreased significantly (from \$15 million in 2010 to \$3 million in 2019). As shown in Figure 3.15, during that period savings were found in the areas of (a) materials and supplies — a decrease of \$7.3 million (-19.7%) and (b) repairs and maintenance — a decrease of \$2.7 million (-13%). Given the aging infrastructure on Memorial University campuses, especially those in St. John's, the reduction in annual repairs and maintenance has contributed to a rising deferred maintenance liability of \$441 million (St. John's \$390 million; Grenfell \$33 million; and off-campus properties such as the GEO Centre, Botanical Gardens, Signal Hill, and Ocean Sciences Centre \$17 million).

Figure 3.15 MUN percentage change in expenditures



Source: MUN Financial Statements

3.2.3.4 Ratio analysis

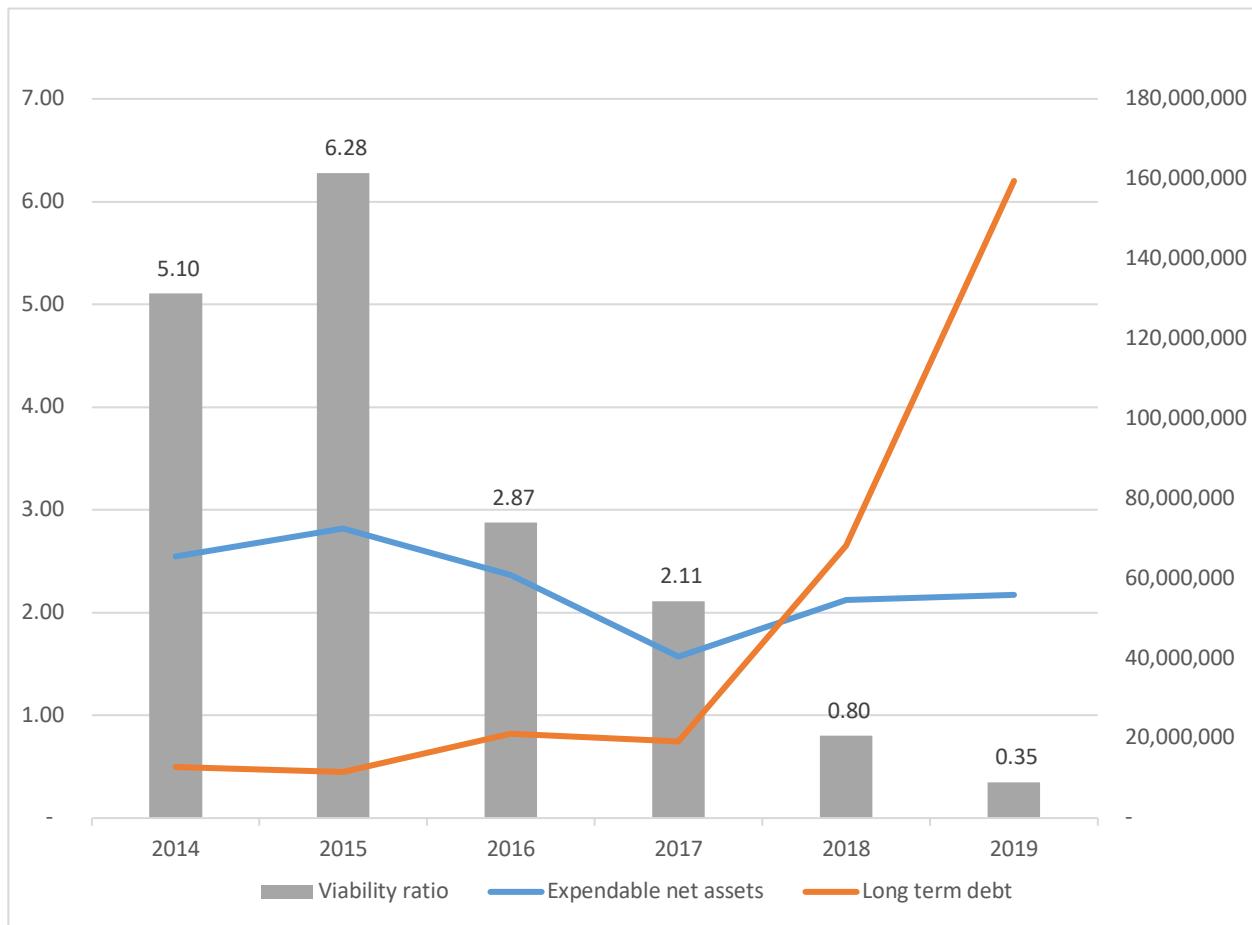
Financial ratios are an important tool in helping an entity understand its financial health and areas of risk. A key performance indicator used in higher education is the viability ratio. “Viability ratio measures the availability of expendable net assets to cover long-term debt should the university need to settle its obligations as of the balance sheet date. It is an indicator of debt affordability and financial sustainability.”⁷ It is calculated by dividing expendable net assets by long-term debt. A healthy post-secondary institution should have a viability ratio between 1.25 and 2.⁸ Figure 3.16 illustrates that Memorial’s long-term viability may be jeopardized unless debt levels are reduced or there is an infusion of expendable assets. This ratio has deteriorated in recent years mainly due to increases in the university’s debt levels related to capital acquisition and pension liability. The December 31, 2019 actuarial valuation disclosed a going concern unfunded pension liability of \$201.7 million which must be repaid over a period of 15 years or less. The required payment for fiscal 2020/21 is estimated to be \$34.5 million or 11.4 percent of pensionable payroll.⁹

7 MUN VP Administration and Finance <https://www.mun.ca/vpadmin/metrics/finance-matters.php>

8 Using Effective Ratio Analysis at Nonprofits - Marks Paneth

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Figure 3.16 MUN viability ratio, 2014-2019



Source: data provided by MUN Office of the Vice President, Finance and Administration

Oversight of spending and compliance with legislation are important to the long-term sustainability of the university. Section 36 of the Memorial University Act places a restriction on expenditures in that the university is normally prohibited from recording a deficit on its consolidated financial statements in excess of $\frac{1}{4}$ of 1 percent of its total revenue. This section of the legislation is a key control with regard to oversight of Memorial's spending. The intent of this section appears to be to ensure that the university is spending within its means and that any exceptions to this are approved by government. Based upon analysis conducted as part of this review, it appears that Memorial may not be in compliance with the Act for 2016 and 2017, but the university has a different interpretation of the Act. It is the view of this committee that a legal

interpretation by government is warranted and this issue has been referred to the Department of Education.

Acquisition of new capital assets is costly because it requires long-term debt financing and resources for operating and maintaining these facilities. Discussions around sustainability generally and financial sustainability more particularly in the post-secondary sector have included consideration of options such as the use of green technologies (where cost-effective), and a reduction in the number of buildings/facilities requiring upkeep. Memorial has made strides forward in terms of introducing greener technologies in its physical plant and there are hopes that federal green infrastructure funding will allow increased activity in this area. The recent experience with COVID-19 and the move to remote work and learning activities also highlighted the possibility of reducing the overall campus footprint by sharing space and scheduling both work and study activities to maximize use of office, classroom, and laboratory space. However the medium- to long-term effects of the extensive conversion to remote learning and working that was initiated during the COVID-19 pandemic have yet to be evaluated.

The foregoing discussion of revenues and expenditures for Memorial University raises some concerns in terms of the financial sustainability of the institution moving forward. The major source of current revenues is the provincial government, and the government's fiscal situation makes the infusion of significant amounts of new funding in the near term unlikely. The university has repeatedly requested the elimination of the tuition freeze to allow it to increase revenue from students. It is crucial, given the existing debt load of the institution, that new revenues generated from tuition not be offset by further reductions in the operating grant from government. It is also unlikely that the institution could raise sufficient revenues from tuition increases alone to address current operating challenges, deferred maintenance issues, pension liability, and long-term debt financing costs. Therefore it is also crucial that the university carefully manage its spending going forward if it is to have the resources necessary to support its core mission and pursue new programs or opportunities. The preceding section

on governance identified the need for increased autonomy for Memorial University, which will greatly enhance its capacity to increase its revenues. This increased autonomy should be balanced with greater transparency around: (a) the data and principles that guide current allocation of resources, and (b) the potential revenues and associated costs of new proposals.

Recommendations

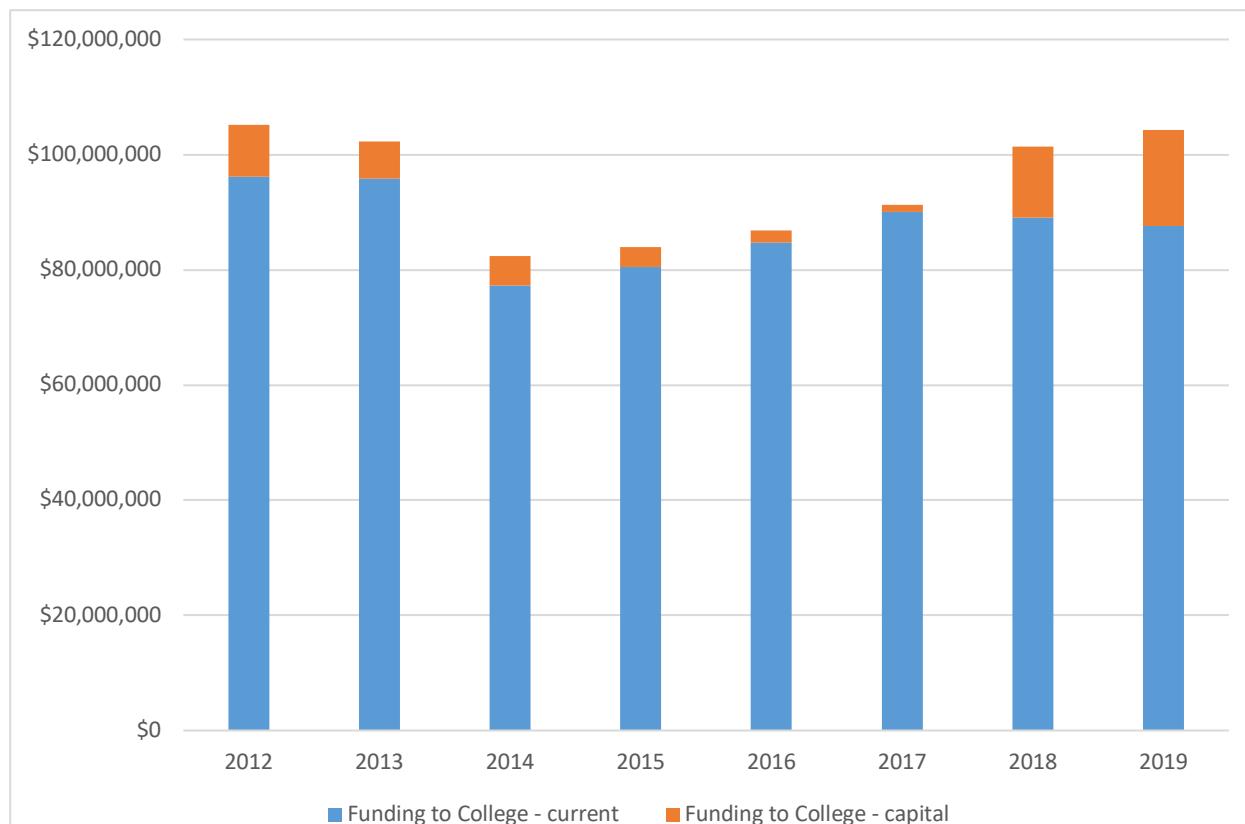
8. With respect to revenues, Memorial University:
 - a. replace the tuition freeze with a tuition model that: reflects and respects the priorities of the university and the province; takes into consideration the impacts on student access to university education; and explicitly considers the true costs of supporting students being accepted into programs within the university;
 - b. continue exploration of revenue generation options. This recommendation is pursuant to the implementation of the recommended changes in governance above to allow the university to have more autonomy; and
 - c. increase efforts to obtain more and larger donations to the university from alumni, and individual and corporate members of the community.
9. With respect to expenditures, Memorial University:
 - a. in future discussions regarding new infrastructure or development of new programs and initiatives, include information that: identifies the full projected costs and impacts on current programs; and plans for how to address costs and other identified issues;
 - b. increase investment in Information Technology infrastructure;
 - c. focus on introduction of cost-effective green technologies as deferred maintenance activities proceed;
 - d. introduce greater transparency in internal budgeting processes, including allocations to different academic units/campuses; and
 - e. conduct a salary and benefits benchmarking study for all employee categories that have not been recently reviewed.

3.2.4 Revenues and expenditures: College of the North Atlantic

3.2.4.1 Revenues

As noted earlier in this chapter, while provincial funding for PSE overall has increased, there have been shifts in the types of funding allocated to the PSE institutions. Figure 3.17 shows Government of Newfoundland and Labrador funding to the College of the North Atlantic. CNA experienced a sharp drop in operational funding in 2014, when the provision of Adult Basic Education (ABE) was removed from the public college system and transferred to private training institutions. Operating funding levels fluctuated in the following years, but remained lower than previous levels in 2012. Similar to the pattern observed with Memorial University, government increased capital investment in CNA in recent years. Overall though, provincial funding for CNA decreased by 2.7% between 2012 and 2019.

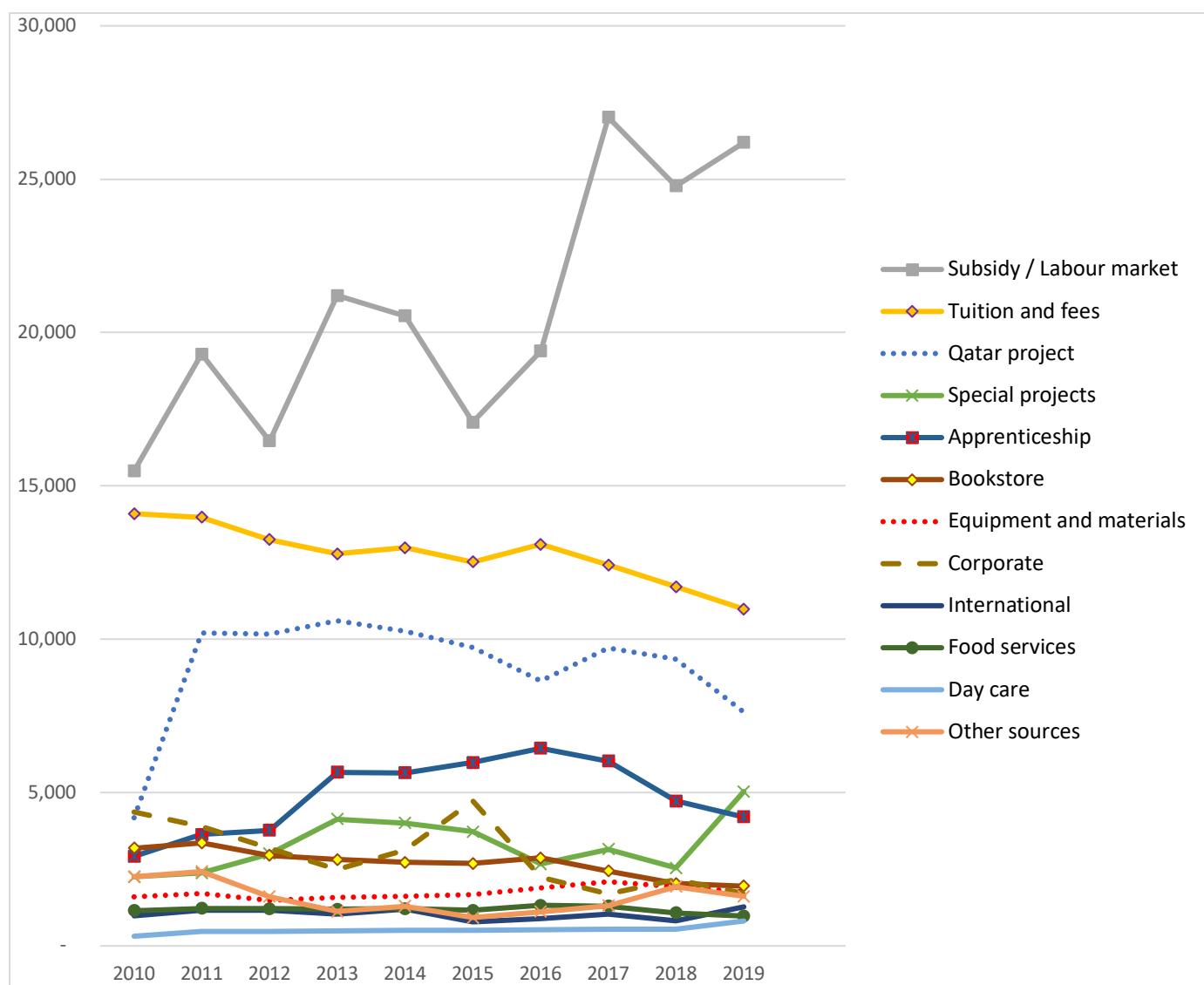
Figure 3.17 Government of Newfoundland and Labrador funding to CNA



Source: CNA Financial Statements

Figure 3.18 indicates that CNA revenues (excluding government grants) increased substantially during the period 2010-2019 from daycare (157.5%), special projects revenues (123%), labour market agreements/subsidy (69.2%), the Qatar campus (82.4%), and apprenticeship (43.9%). However, in more recent years the areas of growth included labour market agreements, special projects and international. Declines in revenue from other sources such as tuition are reflective of the overall decline in enrolments.

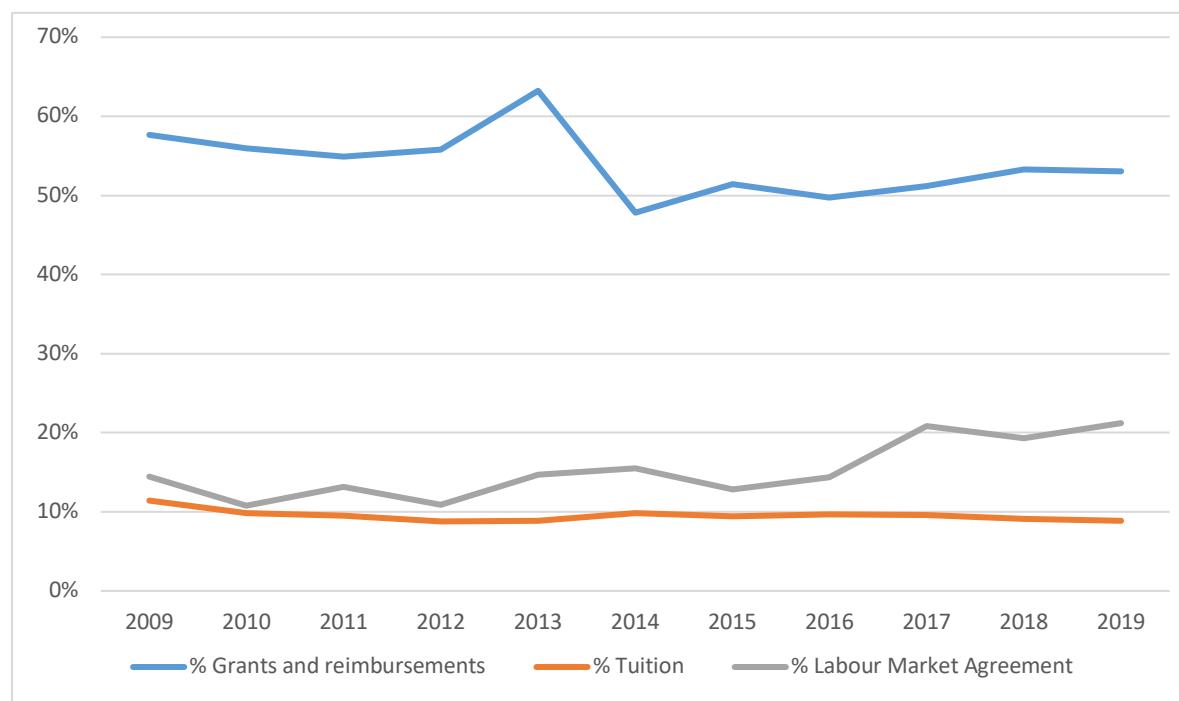
Figure 3.18 CNA revenues excluding provincial grants 2010-2019 (\$000's)



Source: CNA Financial Statements

While the percentage of total college revenues from government grants and reimbursements declined from 58% in 2009 to 53% in 2019, provincial funding remains the largest contributor to CNA revenues (Figure 3.19). The College of the North Atlantic is in the middle of the comparator colleges in this regard, as the percentage of college funding from provincial sources ranges from 75% for Grand Prairie College in Alberta to 30% for Conestoga College in Ontario (Figure 3.20).

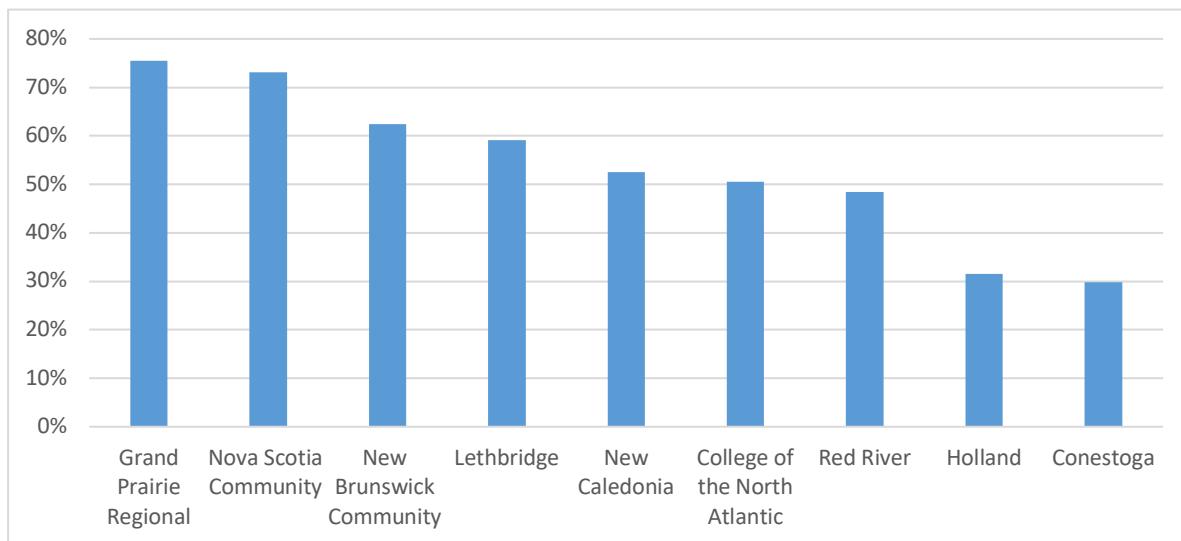
Figure 3.19 Percentage of total operations funding for CNA, by source, 2009-2019



Source: CNA Financial Statements

Note: The one-time increase in funding from Grants and Reimbursements in 2013 is due to adoption of Public Sector Accounting Standards

Figure 3.20 Percentage of funding from provincial sources, CNA and comparator colleges, 2009-2018



Source: Financial Statements of the Colleges

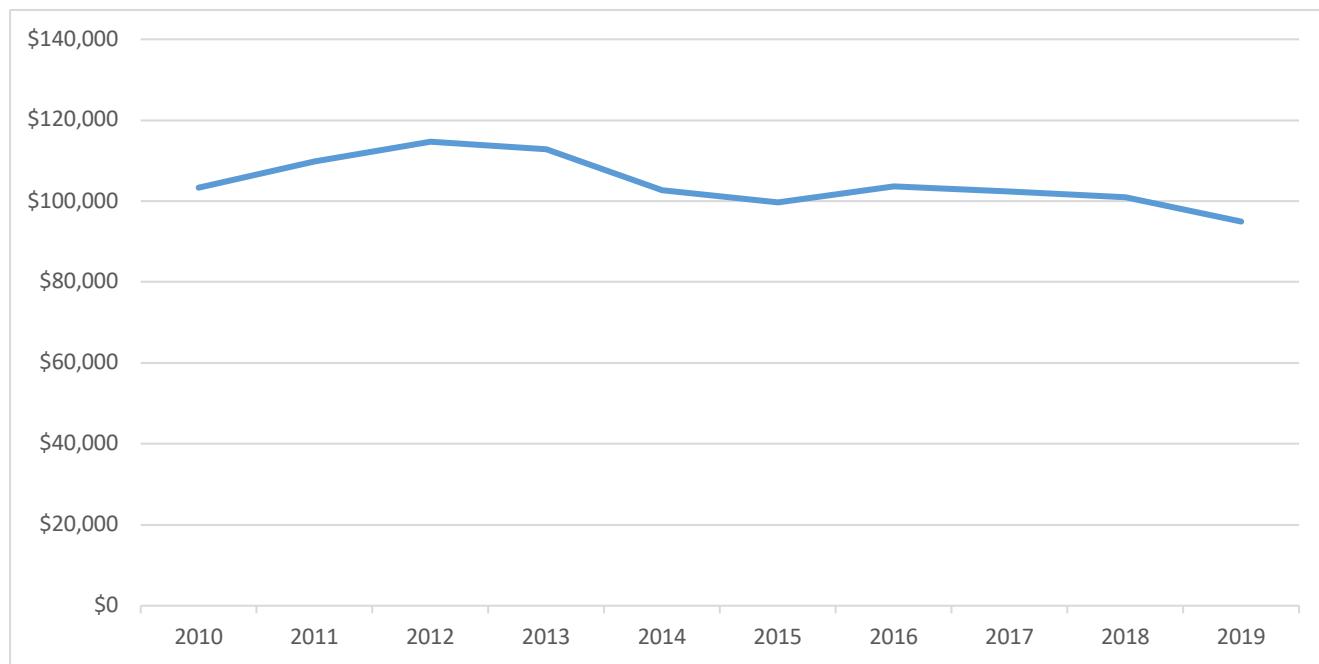
3.2.4.2 Expenditures

The major cost drivers (labour, student enrolment, and infrastructure) for the College of the North Atlantic are discussed below.

Labour Costs

The biggest cost for the College of the North Atlantic is employee expenses (salaries and benefits). As shown in Figure 3.21 these costs peaked in 2012 and have been declining since then (-8.1% from 2010-2019).

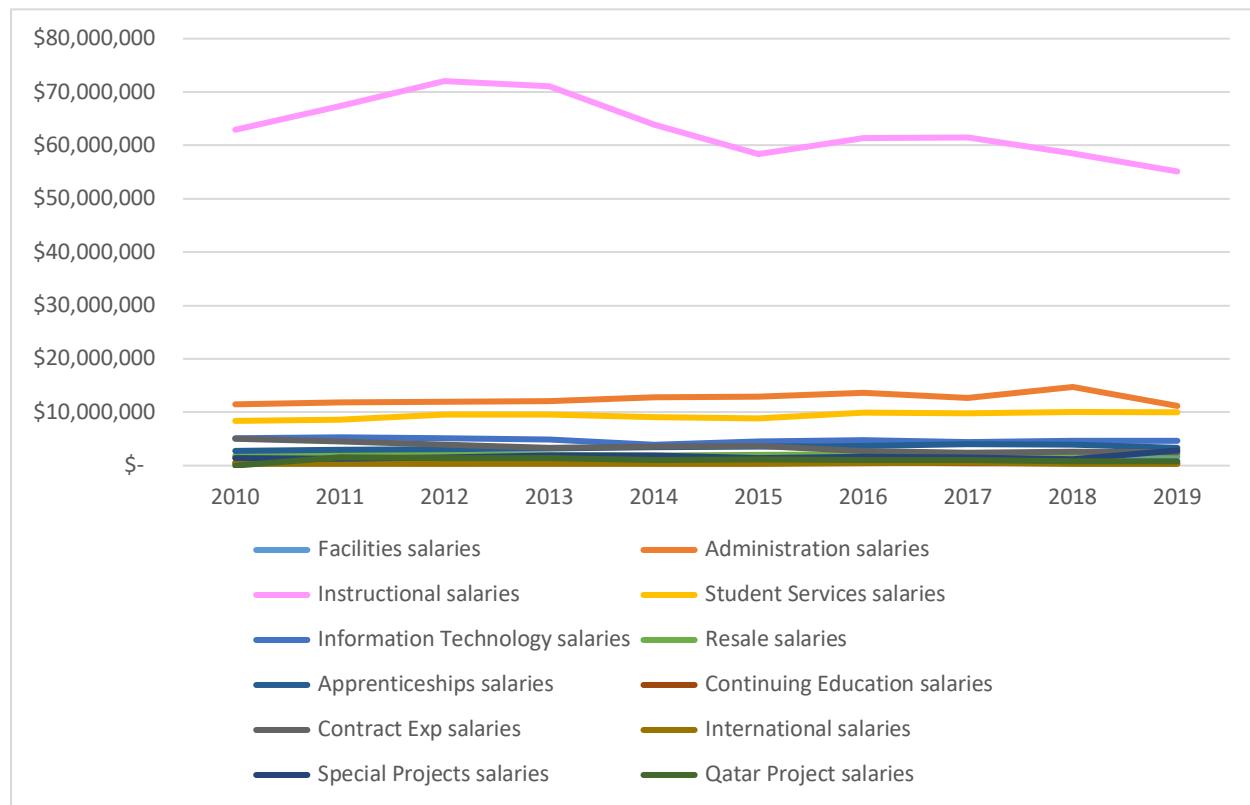
Figure 3.21 CNA consolidated employee expenses — salaries and benefits (\$000's), 2010-2019



Source: CNA Financial Statements

As shown in Figure 3.22 the greatest decline in salary expense has been in the category of Instructional Salaries, which decreased from \$63 million in 2010 to \$55 million in 2019 (-13%).

Figure 3.22 CNA salary data, 2010-2019



Source: CNA Financial Statements

Employee counts by employment status and classification were obtained from the College of the North Atlantic for the period 2015-2020 (see companion document). These data indicate that the only growth in numbers of employees occurred for those with the status “temporary, full-time” (7%) and employees classified as “management” (29%). The percentage of decline in all other categories of employees ranged from -4% for “permanent full-time” to -53% for “permanent part-time”.

Student Enrolment

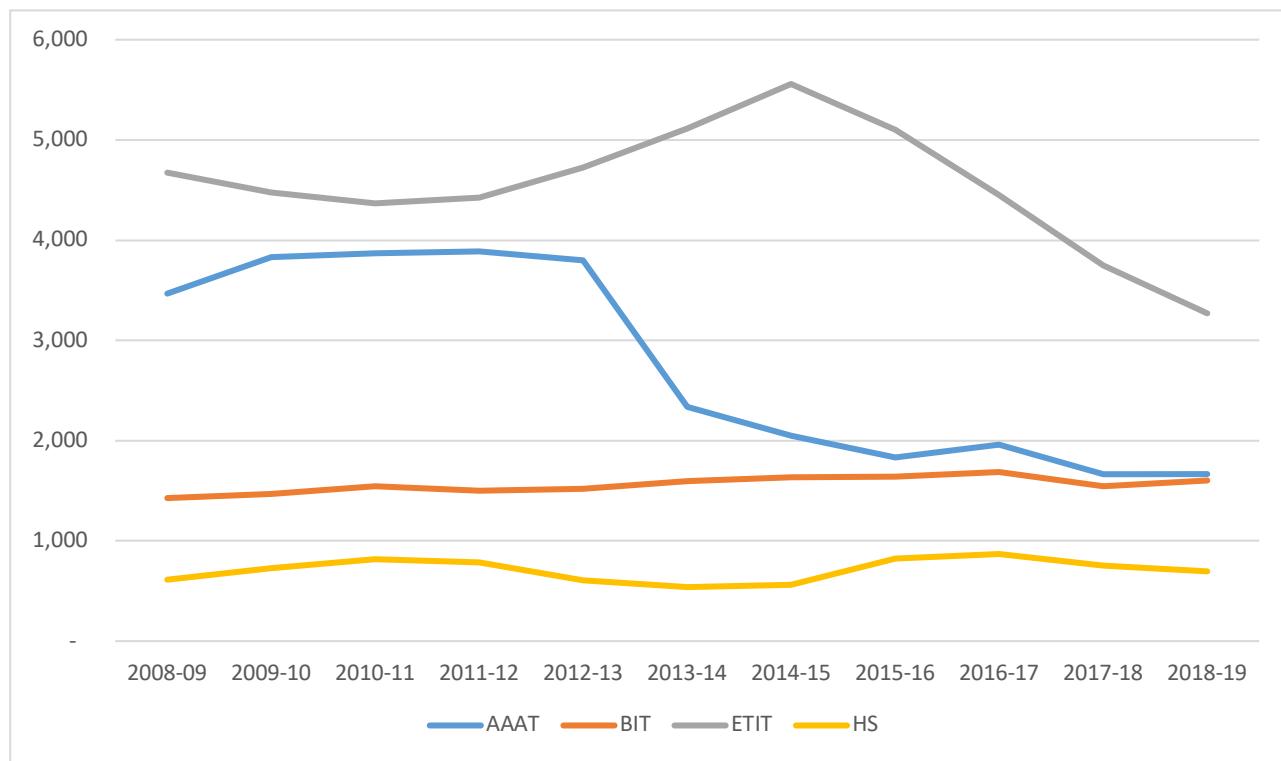
As indicated previously, student enrolment has an impact on an institution’s expenses in terms of the types of infrastructure, academic instruction, academic supports, and financial supports the students require. CNA’s total enrolment numbers have been in decline over the period

2008-09 to 2018-19. The declines in enrolment were not evenly distributed across the four schools.

As shown in Figure 3.23, there has been a slight increase in enrolments in the Schools of Business and Information Technology (BIT) (12%) and Health Sciences (HS) (14%). There have also been large declines in enrolment in two schools. The School of Academics, Applied Arts and Tourism (AAAT) experienced a decrease (-38%) in 2013-14 when the ABE program was removed from the College of the North Atlantic and continued to experience a decline in enrolment most years, leading to a 52% decrease from 2008-09 to 2018-19. The School of Engineering Technology and Industrial Trades (ETIT) experienced a decline (-30%) post 2014-15 related to declines in enrolment in apprenticeship, both entry and advanced block programs.

Subsequent to changes in enrolment trends, the composition of the student body at CNA has changed. In 2008-09 versus 2018-19 the largest percentage of enrolment in CNA by school continued to be in the School of ETIT (46% versus 45%) and AAAT (34% versus 23%). However, if recent enrolment trends continue, the schools of BIT (14% versus 22%) and HS (6% versus 10%) will make up an increasing proportion of the overall student body in the coming years. Campus tours revealed that the college is highly invested in infrastructure to support industrial trades programs.

Figure 3.23 CNA enrolment by school, 2008-2009 to 2018-2019



Source: CNA

AAAT= Academics, Applied Arts and Tourism

BIT= Business and Information Technology

ETIT= Engineering Technology and Industrial Trades

HS= Health Sciences

As shown in Table 3.2, from 2009 to 2018, CNA's total expenditures per year increased marginally (increase of \$3.3 million, 3%). However, declining enrolment of approximately 2,999 students (-28%) over the same period resulted in an increase in the total expenditures per student of \$4,343 per year (35%).

Table 3.2 CNA total expenditures, enrolment, and total expenditures per student

Year	Total expenditures (dollars)	Enrolment			Total expenditures per student (dollars)
		ABE	All other programs	Total enrolment	
2009	124,936,000	1,435	8,739	10,174	12,280
2010	143,745,000	1,491	9,005	10,496	13,695
2011	146,803,000	1,520	9,084	10,604	13,844
2012	150,722,000	1,422	9,181	10,603	14,215
2013	144,097,000	1,270	9,377	10,647	13,534
2014	132,204,000	-	9,593	9,593	13,781
2015	132,863,000	-	9,801	9,801	13,556
2016	135,244,000	-	9,397	9,397	14,392
2017	129,550,000	-	8,965	8,965	14,451
2018	128,246,000	-	7,715	7,715	16,623
Change 2009 - 2018	3,310,000			-2,999	4,343

Source: CNA Financial Statements and enrolment data from CNA information request.

Additional analysis revealed substantial variation in expenditures per student by school (see companion document). However, trends in expenditures per student have aligned with shifting enrolment patterns (declining in schools with declining enrolments and increasing in schools with increasing enrolments).

Infrastructure

The College of the North Atlantic currently has 17 campuses throughout Newfoundland and Labrador. “The land and buildings being used by the College, with the exception of some rental property, are the properties of the Province of Newfoundland and Labrador. Expenditures for repairs and maintenance of these buildings are paid by the Province.”¹⁰ The number of locations enhances the accessibility of local populations to PSE, but not all programs are offered in all locations. To counter this limitation, there has been substantial growth in the Connected Learning Network which offers programming by distance learning technologies to students across the province. Some campuses are seeking to differentiate themselves by focusing resources on specific program areas, such as mining, heavy equipment, culture and tourism, and engineering.

There are numerous concerns with both the cost and the effectiveness of this current model of delivery: low enrolments on many campuses; difficulty recruiting and retaining qualified instructional and administrative personnel in some locations; quality of the infrastructure to support programs (in particular the online and hybrid programs); and, in some cases, quality of instruction. Changing enrolment patterns also suggest the need for greater investment in infrastructure to support the delivery of health sciences, business, and information technology programs.

Throughout the consultations, the sustainability of 17 campuses was raised as a significant concern (except in smaller communities with smaller campuses). Additional analysis found that total expenditures per student varied substantially (see companion document). In 2019, among the geographically based campuses, St. Anthony, HVGB, Burin, Placentia, and Bay St. George had the highest cost per student, ranging from \$27,214 to \$21,773. Clarenville, Ridge Road and Seal Cove campuses had the lowest cost per student, ranging from \$11,091 to \$8,703. However, the overall lowest cost per student was for the Distributed Learning Campus, at \$4,127 per student.

10 CNA Financial Statement 2019

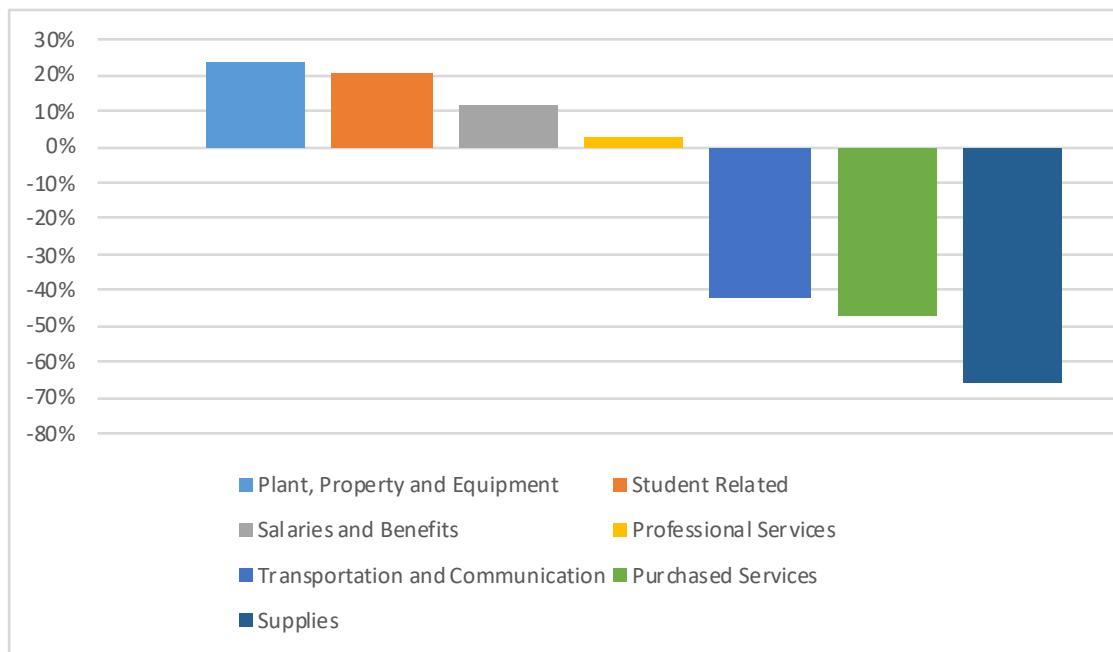
Much of the infrastructure was purpose built in the 1960s with a heavy focus on the industrial trades. As enrolment patterns shift across schools in the college, repurposing existing space to address different program needs will be challenging. Technology upgrades are required at all campuses.

As noted, the College of the North Atlantic does not own the buildings which house their programs and since 2015 has not collected information on deferred maintenance. Over the course of the campus visits, the review team observed that the campuses in St. John's and surrounding areas appeared to be in the most need of significant upgrades. In contrast, many smaller rural facilities are well maintained, and have undergone substantial upgrades in recent years. Smaller rural communities that host college campuses uniformly stress the importance of the college to the sustainability of their communities. The option to repurpose some of these campuses to meet a range of community needs was identified by the Review Committee.

Over the period 2010 to 2019, CNA reduced overall expenditures by \$20.2 million (-14.1%) and almost all categories of expenditures declined (see companion document). Figure 3.24 presents expenditure categories (excluding salaries). Professional development costs have decreased by \$627,000 (-74.2%). Investment in computer equipment is down by \$5.0 million (-65.8%). Repairs and maintenance are down by \$380 thousand (-18.3%). Throughout consultations with instructors, students, and staff of CNA, concerns were expressed with respect to challenges experienced in accessing professional development and modern technology. Concerns with respect to repairs and maintenance issues were less frequently expressed.

The only categories that showed a substantial growth in expenses over the same time period were contracted services (92%), professional fees (70.3%) and amortization (9.4%) as shown in Figure 3.24.

Figure 3.24 CNA percentage change in expenditures, 2010-2019



Source: CNA Financial Statements

3.2.4.3 Ratio Analysis

It was not possible to present a viability ratio analysis for CNA as it does not own its buildings and therefore has no long-term debt.

The Current Ratio, as per the Generally Accepted Accounting Principles, measures the financial health of the institution by comparing its assets and anticipated liabilities within the fiscal year. Examples of current assets are cash, accounts receivable, inventory, and prepaid expenses. Examples of current liabilities are accounts payable. When the current ratio is less than 1, it indicates that the institution has more current liabilities than assets and thus may encounter some difficulties in meeting its short-term obligations. The Current Ratio for CNA declined to below 1 for much of this decade but has steadily improved in recent years, as shown in Table 3.3 below.

Table 3.3 Current ratio (current assets/current liabilities), CNA, 2010-2019

Current ratio by year									
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1.11	1.08	0.52	0.76	0.71	0.71	0.63	0.78	0.88	0.95

Source: CNA Financial Statements

Recommendations

10. With respect to revenues, College of the North Atlantic, these recommendations are pursuant to the recommended changes in governance to allow the college more autonomy:
 - a. replace the tuition freeze and a tuition model that: reflects and respects the priorities of the college and the province; takes into consideration the impacts on access; and explicitly considers the true costs of supporting students being accepted into programs within the college; and
 - b. continue exploration of revenue generation options; and
 - c. increase efforts to obtain more and larger donations to the college from alumni and individual and corporate members of the community.
11. With respect to expenditures, College of the North Atlantic:
 - a. review the location and number of academic programs in light of best available labour market information, current program enrolment, program resource requirements, and availability of qualified instructional staff;
 - b. increase investment in Information Technology infrastructure; and
 - c. introduce greater transparency in internal budgeting processes, including allocations to different academic units/campuses.

3.3 An Accessible and Supported Post-Secondary Education System

There is widespread agreement that post-secondary education is highly valued and valuable to the individual student, the economy and the wider society. Given that the benefits accrue to both the graduates and the civil society, most western countries endorse the principle that students and society should share the costs. However, the extent to which private versus public resources are used to cover the costs of students attending post-secondary education institutions varies widely.

In Canada tuition seems to be the focus of the discussion about the cost of PSE. However, tuition is not the largest component of costs for the student. The 2018 Maclean's Survey of the Cost of a University Education (10) found that the average annual cost of PSE in Canada is approximately \$19,500. Tuition costs are 34% of the total but rent costs constitute 40%, followed by groceries (8%), food on campus (5%) and books/course materials (4%). Tuition is a larger component of costs for specialized programs such as medicine, veterinary medicine, dentistry and law. Tuition rates in Newfoundland and Labrador have been frozen for some time as a result of a provincially mandated tuition freeze and are currently below tuition rates in all other provinces, for both universities and colleges, with the exception of domestic rates in Quebec.

Most countries provide financial aid to offset at least partially the cost of PSE so as to prevent financial considerations from becoming a substantial barrier to access. Across Canada, the interaction between costs of PSE and financial aid available to offset these costs is complex, involving different aid programs at the federal and provincial levels, eligibility criteria, incentives, and mechanisms, primarily loans or grants.(7)

At the national level, the Canada Student Loans Program provides repayable loans and non-repayable grants to help Canadian students pay for their post-secondary education.¹¹ Federal loans and grants are delivered in partnership with participating provinces and territories for both full- and part-time students. In addition, apprentices in a designated Red Seal trade can receive

¹¹ Government of Canada, Employment and Social Development Canada. Canada Student Loans and Grants. <https://www.canada.ca/en/employment-social-development/programs/canada-student-loans-grants.html>

up to \$4000 in financial assistance through Canada Apprentice Loans and Apprenticeship Grants. The Labour Market Development Agreement provides federal funding to support individuals who are Employment Insurance (EI) eligible and facing barriers to employment. Funding is available for programs of no longer than three years duration, which includes most public and private college programs. There are occasions where individuals have been assessed and sponsored for university level programs but these are infrequent.

The federal government also encourages parents to save for their children's post-secondary education by contributing to a Registered Education Savings Plan (RESP) for each child. Annual contributions of up to \$2000 are permitted, and maximum contributions are matched with a \$500 contribution from the federal government. The goal of this program is to encourage participation in post-secondary education, particularly among lower income families.

The provinces and territories have their own student financial aid programs. Newfoundland and Labrador, and most provinces in Canada, manage both the federal and provincial programs, enabling students to make a single application to access both programs. The federal program forms the base of the overall student assistance package and the province puts additional resources around it to enhance the financial aid available to students. Anyone who has established residency in the province can apply to Student Financial Services for financial assistance, regardless of where they will be attending school. Provincial and federal assistance is available for study at any designated educational institution in the world.

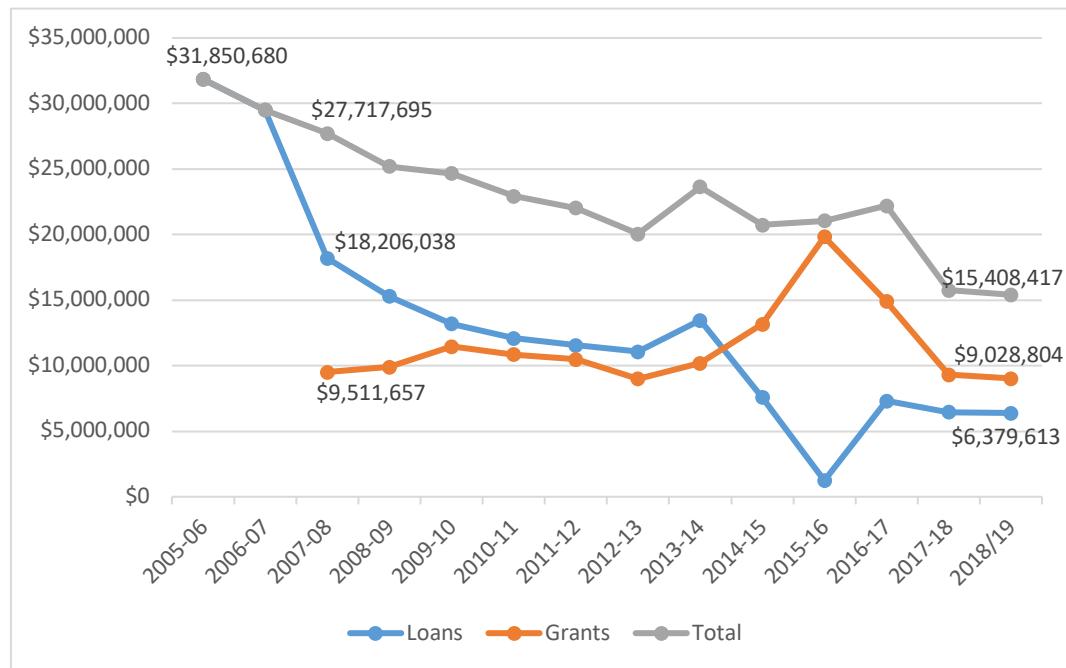
Student financial assistance, federal and provincial, is based upon assessed need. Costs of education (tuition, materials and books) and living (housing and food) are determined. Then the applicant's income (as well as parental income if a dependent or spousal income if married) is considered, to determine the resources available to the student. Costs minus resources available translates to assessed need, subject to a maximum of \$350/week of study (\$210/week from the federal loan and up to \$140/week from a combination of provincial loans and grants). The Canada Student Loans Program also offers a series of non-repayable grants to eligible

students. Eligible students studying outside the province but enrolled in programs offered in the province cannot access provincial grants but can access the full \$140/week in loans only.

In June, 2020 the Government of Newfoundland and Labrador announced enhancements to the Provincial Student Financial Assistance Program for the 2020-21 academic year. In alignment with changes announced earlier to the federal Canada Student Loans Program: the weekly loan limit was raised to \$100 per week of study (from \$40 per week of study); upfront non-repayable grants remained at \$100 per week of study for a combined total of \$200 per week of study; eligible students studying outside the province but enrolled in programs offered in the province who cannot access provincial grants also had increased access to \$200 per week of study in loans; and student and spousal contributions were exempted from calculation of resources available. All student loans are interest free while the individual is in school. Repayment commences six months after graduation/completion of studies. The variable rate of interest on Canada Student Loans is the prime rate. Newfoundland and Labrador Student Loans are interest-free.

The Newfoundland and Labrador Student Financial Services Division (SFSD) also offers a number of additional grants, including the Newfoundland and Labrador Grant for High Need Students with Permanent Disabilities, Debt Reduction Grants, Part-time Study Incentive Grants, and Early Childhood Education Grants (11). Targeted federal grant programs are also available for those who meet specific criteria. Figure 3.25 presents a historical overview of grants and loans distributed by the SFSD from 2005-06 to 2018-19. In 2015-16, the Government of Newfoundland and Labrador implemented changes to the student loan and grant program. For Newfoundland and Labrador students studying in the province, the weekly loan amount was eliminated while the weekly grant amount was increased to \$140. For Newfoundland and Labrador students studying outside of the province, the weekly loan amount was changed to \$60 while the grant portion was changed to \$80. In the prior year, the weekly loan amount for both types of students was \$40 while the weekly grant portion was \$100.

Figure 3.25 Historical loan/grant disbursements 2005-2006 to 2018-2019



Source: Government of Newfoundland and Labrador, Department of Education

As shown below in Table 3.4, the total number of students accessing student loans (borrowers) decreased by less than 2% over the 3 academic years (2016-17 to 2018-19). Although differences were small, the percentage of borrowers attending MUN or attending out-of-province institutions increased and the percentage attending CNA and the private training institutions decreased. Table 3.5 shows a corresponding decline in borrowers completing non-degree programs and growth in borrowers enrolled in degree programs at MUN and out of province programs.

Table 3.4 Change in students accessing financial aid, 2016-2017 to 2018-2019, by type of institution attended

Institution	Borrowers						% change in # of borrowers, 2016-2017 to 2018-2019	
	2016-2017		2017-2018		2018-2019			
	#	% of total	#	% of total	#	% of total		
Memorial University	2,790	43.8%	2,837	45.7%	2,974	47.4%	6.6%	
College of the North Atlantic	1,701	26.7%	1,431	23.1%	1,411	22.5%	-17.0%	
Private training institutions (Newfoundland and Labrador)	930	14.6%	949	15.3%	806	12.9%	-13.3%	
Out of province	956	15.0%	989	15.9%	1,079	17.2%	12.9%	
Total	6,377	100%	6,206	100%	6,270	100%	-1.7%	

Source: Student Financial Services Division, Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour) Divisional Reports, 2017-2018 academic year and 2018-2019 academic year

Table 3.5 Change in students accessing financial aid, 2016-2017 to 2018-2019, by type of program

Study program	Borrowers						% change in # of borrowers, 2016-2017 to 2018-2019	
	2016-2017		2017-2018		2018-2019			
	#	% of total	#	% of total	#	% of total		
Non-degree	2,983	46.8%	2,750	44.3%	2,600	41.5%	-12.8%	
Undergraduate degree	3,113	48.8%	3,152	50.8%	3,352	53.5%	7.7%	
Master's	241	3.8%	261	4.2%	266	4.2%	10.4%	
PhD	40	0.6%	43	0.7%	52	0.8%	30.0%	
Total	6,377	100%	6,206	100%	6,270	100%	-1.7%	

Source: Student Financial Services Division, Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour) Divisional Reports, 2017-2018 academic year and 2018-2019 academic year

If a student's assessed need is in excess of the maximum funding available from the Canada-Newfoundland and Labrador Student Financial Assistance Program, the difference is considered to be "unmet need". In 2017-18, the province introduced the Federal First award assessment model which resulted in a decrease (-17.8%) in the percentage of borrowers with unmet need. As shown in Table 3.6, less than a quarter of borrowers attending the two public post-secondary institutions in the province in 2018-19 had unmet need. However, a majority of borrowers attending private training institutions and out-of-province institutions continue to have high levels of unmet need (69.7% and 77.9% respectively). While policy changes have assisted these latter groups, the impact has not been as great, partially due to the much higher educational costs of attending these institutions.

Table 3.6 Proportion of borrowers with unmet financial need, by educational institution, 2016-2017 to 2018-2019

Institution	% of borrowers with unmet need			Change in % of borrowers, 2016-2017 to 2018-2019
	2016-2017	2017-2018	2018-2019	
Memorial University	46.1%	18.2%	20.6%	-25.5%
College of the North Atlantic	36.6%	19.2%	20.1%	-16.5%
Private training institutions (Newfoundland and Labrador)	79.5%	71.7%	69.7%	-9.8%
Out of province	86.9%	85.2%	77.9%	-9.0%
Total	54.5%	48.5%	36.7%	-17.8%

Source: Student Financial Services Division, Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour) Divisional Reports, 2017-2018 academic year and 2018-2019 academic year

The flip side of decreasing unmet need among borrowers is an increase in debt load. A Maclean's survey (1) of over 23,000 Canadian students found that among the 11,000 who carried student debt, the average debt level after a four-year program of study was \$23,396. As illustrated in Table 3.7, the average debt loads of borrowers attending the programs listed in the Newfoundland and Labrador post-secondary education system is much lower (\$15,113 in 2018-19). However, the average debt load of students in these programs increased overall by 18.6% between 2016-17 and 2018-19, with the largest percentage increase in debt load being for borrowers attending College of the North Atlantic two- and three-year programs and Memorial University four-year programs. The Student Financial Services Division (12) anticipated that in 2019-20, debt loads for borrowers in CNA one- and two-year programs will stabilize but there will be further increases in debt loads for borrowers in CNA three-year programs and MUN four-year programs.

Table 3.7 Average debt loads of borrowers, by type of program

Institution and program	2016-2017	2017-2018	2018-2019	Change in average debt load 2016-2017 to 2018-2019
MUN: four-year program	\$17,008	\$17,880	\$19,691	\$2,683 15.8%
Marine Institute	\$16,102	\$15,690	\$14,594	-\$1,508 -9.4%
CNA: one-year program	\$7,488	\$8,303	\$8,417	\$ 929 12.4%
CNA: two-year program	\$12,516	\$13,917	\$15,312	\$2,796 22.3%
CNA: three-year program	\$15,398	\$16,322	\$18,568	\$3,170 20.6%
Private training (Newfoundland and Labrador) one-year program	\$8,549	\$9,328	\$9,030	\$ 481 5.6%
Private training (Newfoundland and Labrador) two-year program	\$16,652	\$18,048	\$18,401	\$1,749 10.5%
Average for all borrowers	\$12,748	\$13,997	\$15,113	\$2,365 18.6%

Source: Student Financial Services Division, Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour) Divisional Reports, 2017-2018 academic year and 2018-2019 academic year.

Another implication of the Federal First award assessment policy is the change in the percentage of debt that is federal. Table 3.8 shows that the average percentage of debt load that is provincially held has dropped between 2016-17 and 2018-19 (a decrease of 8.4% for all

borrowers, with the greatest decrease being for students attending MUN four-year programs). As noted above, federal debt is repayable at an interest rate of prime +2.5%. Provincial debt is interest-free. Therefore, as the percentage of total debt that is provincial declines, students are not only acquiring more debt but they are also acquiring more expensive debt.

It is important to note that the recent dual trends of (a) increasing debt, and (b) more expensive debt, among students who must access financial aid to complete their post-secondary education, have occurred during a period of no tuition increases for domestic students attending Memorial University or the College of the North Atlantic.

Table 3.8 Student provincial debt as percentage of total student debt

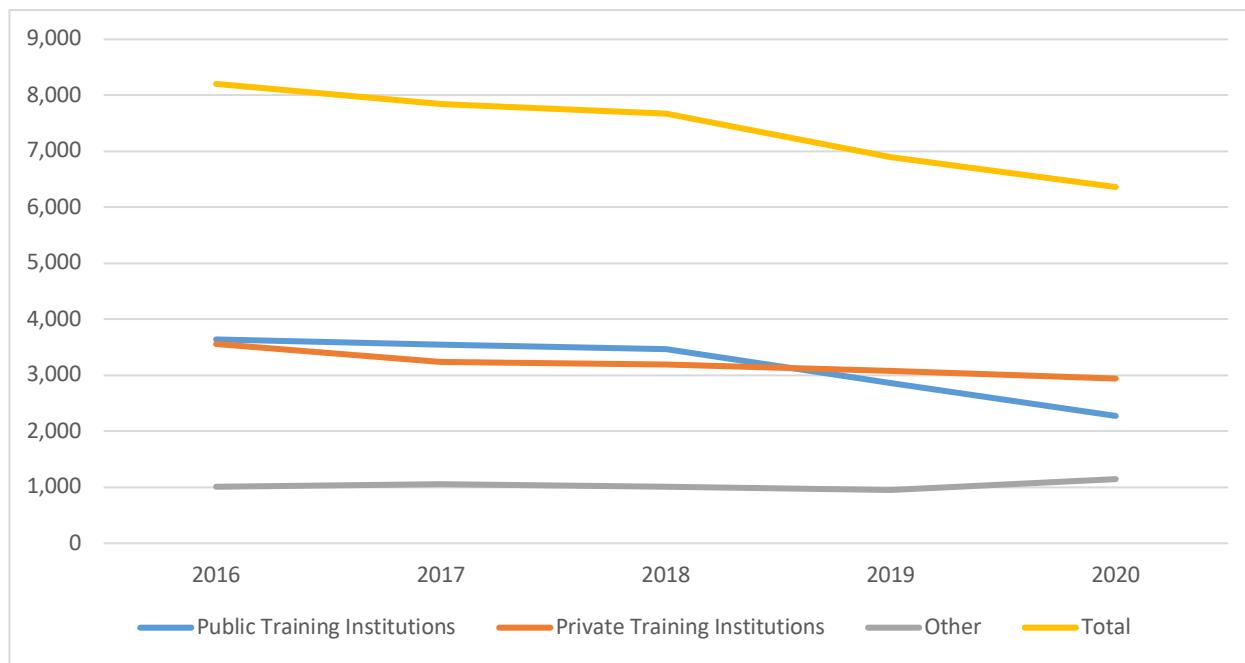
Institution and program	2016-2017	2017-2018	2018-2019	Change in average % provincial debt load 2016-2017 to 2018-2019
MUN four-year program	14.9%	8.6%	5.2%	-9.7%
Marine Institute	15.1%	11.2%	9.1%	-6.0%
CNA one-year program	19.0%	13.2%	10.5%	-8.5%
CNA two-year program	16.8%	10.6%	7.8%	-9.0%
CNA three-year program	16.3%	10.1%	7.4%	-8.9%
Private training (Newfoundland and Labrador) one-year program	15.5%	15.5%	12.8%	-2.7%
Private training (Newfoundland and Labrador) two-year program	9.6%	6.7%	5.0%	-4.6%
Average for all borrowers	15.2%	10.8%	8.3%	-6.9%

Source: Student Financial Services Division, Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour) Divisional Reports, 2017-2018 academic year and 2018-2019 academic year.

In addition to government grants (federal and provincial) for targeted groups of students, post-secondary institutions also provide financial support to students through scholarships and bursaries and part-time employment opportunities.

Another source of financial support available primarily to students attending the College of the North Atlantic or private training institutions is from the federal Labour Market Development Agreement Fund. As shown in Figure 3.26, in 2019-20, 6,363 students availed of this funding (46% attended private institutions and 36% attended public institutions, primarily CNA).

Figure 3.26 Number of LMDA clients attending PSE, Newfoundland and Labrador, 2016-2020



Source: Department of Advanced Education, Skills and Labour, (Now Department of Immigration, Skills and Labour)

Data on provincial rates of participation in RESP plans were not available. A recent Statistics Canada publication indicated that for the country as a whole, the share of parents opening RESP accounts has increased steadily over time (13). As noted above, one of the policy goals of this program was to encourage participation in post-secondary education among low income families. However, as of 2016, participation rates remained over twice as high among parents in the top income quartile (top 25%) compared to those in the bottom income quartile. This finding was deemed to be concerning, given earlier research that indicated that children having an RESP were more likely to enrol in university or college than those who did not have an RESP, even after accounting for differences in family income, parental education, and the academic performance of children (13).

This review received feedback from a wide variety of stakeholders confirming the benefits of post-secondary education to the economic and cultural well-being of the province as well as to the individual student. The review also heard broad support for increases in tuition rates from all stakeholders (except student groups, which expressed concerns regarding access and increasing levels of student debt). The primary rationale for tuition increases is the need for increased funding to support post-secondary institutions in their delivery of high quality programs and improvements in infrastructure.

The policy decision to increase tuition means that a greater share of the costs of PSE would be borne by the students. As illustrated in section 3.2, in other jurisdictions where tuition rates are higher, the level of government grant funding is lower to institutions. Greater institutional reliance on income from tuition exposes institutions to significant risks associated with changes in enrolment, particularly enrolment of international students (as recent experience with the COVID-19 pandemic highlighted). In order to address access barriers that arise from increased costs to students, institutions must find additional resources to direct towards student support via scholarships and bursaries.

It is therefore important that decisions around tuition increases be made in the context of a broader discussion of the overall funding of the post-secondary education system. Impacts,

intended and unintended, on not only the post-secondary education sector but on other sectors and policy areas, as well as on students, institutions, taxpayers, and the provincial coffers should be monitored. For example, one of the agreed upon challenges facing the province is a dwindling population. Retaining our existing population, particularly those potentially entering or currently in the workforce, is an important consideration. Growing the Newfoundland and Labrador population is another. As emphasized in Chapter One, the post-secondary system is key to training and maintaining a workforce ready for the 21st century. Memorial University and the College of the North Atlantic have played an essential role in educating the majority of the current workforce in the province. Memorial University and more recently the College of the North Atlantic have played a major role as well in attracting newcomers to the province — people who will be well educated in our system and able to stay and contribute to the economic and social success of the province.

Some of the issues that should be explicitly discussed with respect to increasing tuition rates include impacts on: (a) attraction of people to the Newfoundland and Labrador post-secondary system and the province from the rest of Canada and the rest of the world; (b) student debt; (c) demands on government funding via the Student Financial Assistance program, particularly provincial interest free loans and grants; (d) retention of students who graduate with higher debt loads; (e) likelihood of achieving revenues for institutions in sufficient amounts to cover costs of providing education and support services to additional students and providing scholarship and bursary supports to more students. Maintaining political/public support for core provincial grant funding to post-secondary institutions is essential, as it is unlikely that increased tuition revenues would be sufficient to address infrastructure and capital needs of Memorial University or the College of the North Atlantic. With the exception of information provided on financial aid and student debt, no documentation of discussions or analyses pertaining to the above considerations was available. Maintaining equitable access to post-secondary education while ensuring that post-secondary institutions have sufficient and stable resources requires that the institutions and the province work together to establish the necessary guidelines and policies.

Recommendations

12. To ensure equitable student access to post-secondary education

The Provincial Government:

- a. establish guiding principles and parameters within which PSE institutions are expected to operate with respect to tuition and fee increases;
- b. establish guiding principles and parameters around fee differentials for different groups of students — Newfoundland and Labrador, Canadian, international, undergraduate, and graduate;
- c. align student financial aid policy with tuition changes to ensure equitable access to PSE; and
- d. consider additional support for Newfoundland and Labrador students such as grants tied to annual completion of courses.

Post-secondary education institutions:

- a. articulate tuition policies that adhere to the guiding principles established by the province;
- b. increase the number and value of scholarships, bursaries, and other forms of student support; and
- c. enhance data collection and reporting processes to ensure transparency with respect to tuition revenues received and allocated.

13. To ensure stable funding for post-secondary institutions, the Provincial Government:

- a. maintain at least the current level of support for the operating budget of Memorial University of Newfoundland, with no further reductions; and
- b. maintain at least the current level of support for the operating budget of College of the North Atlantic, with no further reductions.

14. The Provincial Government, in collaboration with the public post-secondary education sector, establish a funding policy for public post-secondary education in the province that:
 - a. recognizes the value and contributions of PSE to social transformation, economic development, and personal development of graduates;
 - b. acknowledges that those who benefit also have a role to play in supporting the PSE sector (society/government, industry, and students);
 - c. ensures that financial issues do not pose a significant barrier to participation in PSE; and
 - d. includes reporting mechanisms that enhance transparency around financial resource provision and utilization in the PSE sector.

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Chapter 4: Knowledge and Skills for the 21st Century

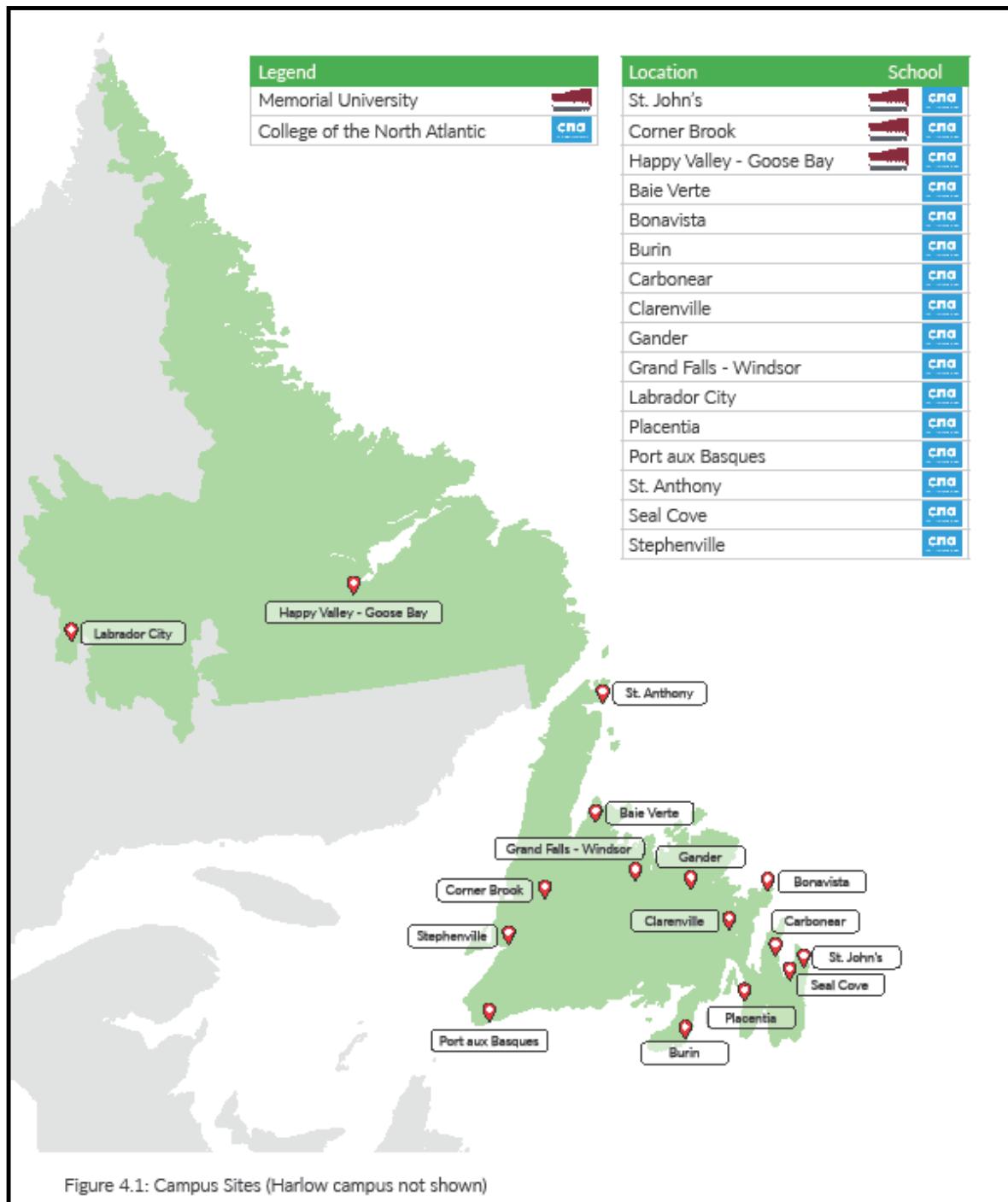
This chapter describes the current and potential strategies the public post-secondary education system employs to ensure that students acquire the necessary knowledge and skills required for citizens to contribute to and be successful in society in the 21st century. This chapter is organized around the four pillars of accessibility, effectiveness, accountability, and sustainability, including the availability of programs and their locations, program outcomes, academic oversight of programs, and cost of program delivery.

4.1 Accessibility of Public Post-secondary Education

4.1.1 Location of campuses

As indicated on Figure 4.1, the three campuses of Memorial University are located in St. Johns and Corner Brook and the 17 campuses of the College of North Atlantic are distributed across the province. During the Review Committee's consultations, the location of college campuses in multiple communities, including two in Labrador, and the existence of a university campus on the west coast of the province were identified as strengths of our PSE system in terms of accessibility.

Figure 4.1 Post-secondary education campuses located in Newfoundland and Labrador



Source: Marketing and Brand Management, Government of Newfoundland and Labrador

4.1.2 Enrolment in post-secondary education

In 2017-18, there were 1.76 million full time equivalent students enrolled in post-secondary education institutions in Canada (private and public). In Canada as a whole, 64% of enrolment was in universities and 36% was in colleges. In Newfoundland and Labrador the distribution of enrolment was more skewed towards university — 72% university and 28% college (1). The percentage of university enrolment ranged from 55% in Quebec to 81% in Nova Scotia, with corresponding percentage of enrolment in Canadian colleges ranging from 19% in Nova Scotia to 45% in Quebec.¹²

4.1.2.1 University enrolment

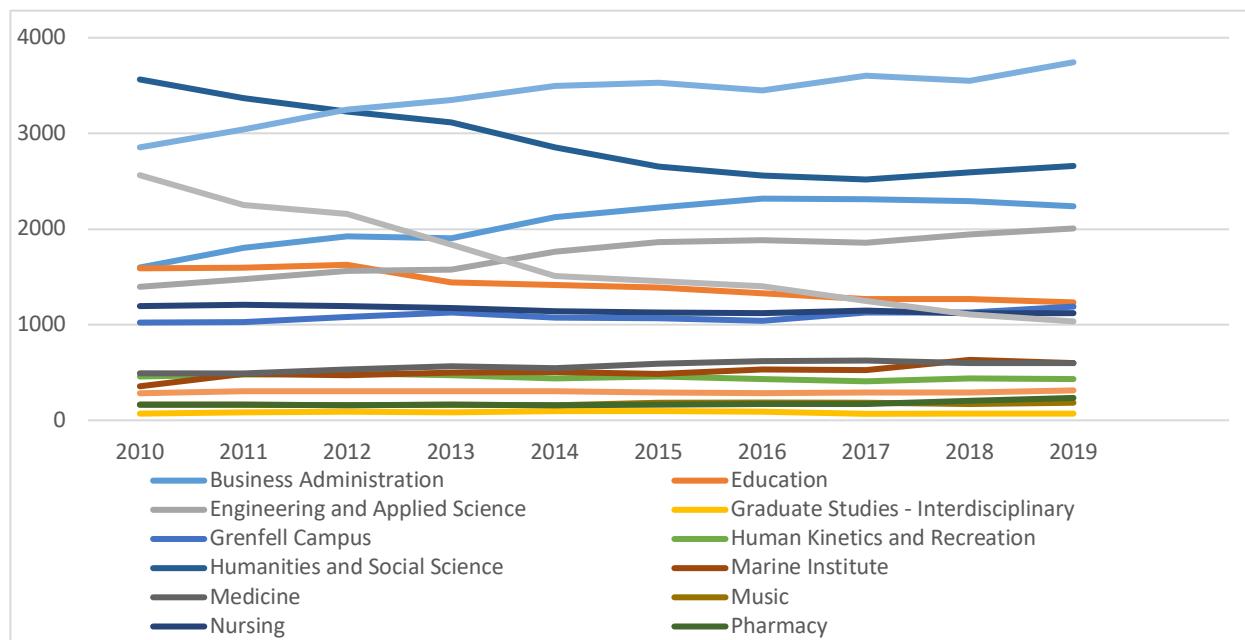
Enrolment in universities in Canada has been steadily rising since 2000 (with the exception of New Brunswick which declined by 13.7 % over the period 2009-10 to 2019-20). Enrolment growth in the other Atlantic Provinces was lower than in many other jurisdictions due to declining population but was bolstered by enrolment of international students. Among the three Atlantic Provinces that experienced growth, Newfoundland and Labrador had the lowest percentage growth in enrolment (3.9%), followed by Nova Scotia (14.1%) and Prince Edward Island (18.7%). In comparison, Ontario, Manitoba, Saskatchewan and British Columbia experienced enrolment growth of 20% or higher (1).

Internationally, Arts, Social Science, Business, Law and Education make up the majority of university enrolments in most countries (Canada is at 60%), while Science and Health Disciplines combined range from 36% in the USA to 45% in Korea (Canada is at 38%) (1).

¹² The post-secondary education system in Quebec is unique in Canada. Students who have completed Grade 11 proceed to a two-year college program titled Collège d'enseignement général et professionnel (CEGEP) prior to enrolling in university or college.

Canada wide, between 2009-10 and 2017-18, enrolment in humanities decreased by 19%, while other fields increased — business (20%), health (25%), science (33%) and engineering (42%). (1). At Memorial University a similar pattern of enrolment has been observed, as shown in Figure 4.2 below.

Figure 4.2 MUN enrolment 2010-2019 by faculty/school



Source: MUN Fact Book

4.1.2.2 College enrolment

Enrolment in colleges in Canada have also been increasing overall since 2000 but the rates of growth have been more modest and several jurisdictions have experienced a decline in college enrolment. Newfoundland and Labrador experienced a -16.1% decline over the period 2007-08 to 2017-18. The other Atlantic Provinces reported increases (PEI, 0.2%; NB, 5.8%; and NS, 12.2%). Declines in provinces like BC (-22.1%) and Alberta (-16.5%) were associated with the changeover of several colleges to university status. In comparison, Ontario reported a 44.8% increase in college enrolment (1).

The College of the North Atlantic reported a decline in enrolment of 24% from 2009-2018. The year 2013 was the last time that the Adult Basic Education Program (ABE) was offered by the college. From 2013-2018 overall enrolment dropped by 20% and the decline was concentrated in the rural campuses.

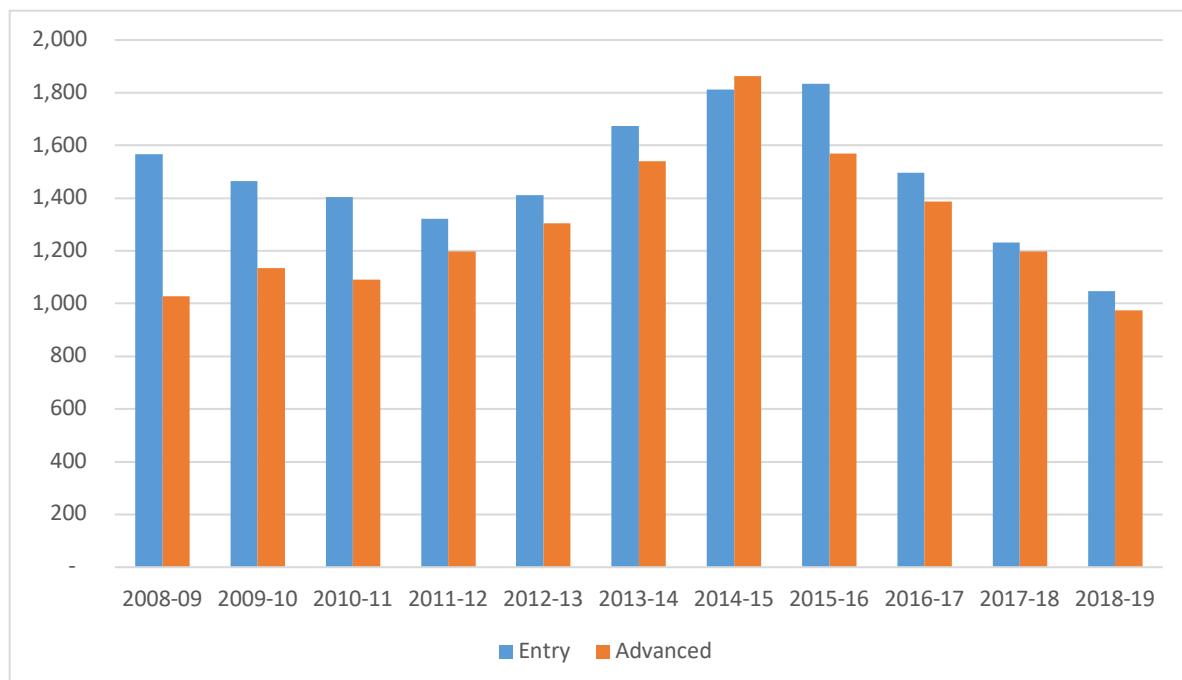
Across Canada, from 1992-93 to 2017-18, business is the college program with the highest enrolment, followed by engineering and health related fields (1). At CNA, a different pattern exists, with the largest programs being in Engineering Technology and Industrial Trades (ETIT), followed by Academics, Applied Arts and Tourism (AAAT), Business and Information Technology (BIT), and Health Sciences (HS). However, enrolment in ETIT (both Engineering Technology and Industrial Trades programs) and AAAT has been declining (see Chapter 3 Figure 3.23).

4.1.2.3 Apprenticeship enrolment

While apprentices are considered post-secondary learners in Canada, they are not enrolled in post-secondary institutions per se (1). Enrolment as an apprentice means that the learner has a contract with an employer in which both sides agree the apprentice will follow a particular course of learning and will periodically attend classes (see companion document for more detail on apprenticeship programs).

Across Canada, apprenticeship enrolment grew steadily from 1997 to 2013 as the construction and resource extraction industries expanded, then declined 12% by 2018, largely due to the slow-down in the resource extraction sector. In Newfoundland and Labrador, enrolment in apprenticeships in total (entry level and advanced blocks) declined by 22% from 2009 to 2019 (Figure 4.3). However, the decline was more pronounced in advanced blocks (-33%) than entry level programs (-5%).

Figure 4.3 Enrolment in apprenticeship, by year, 2008-2009 to 2018-2019



Source: CNA information request

During consultations two major concerns were identified with respect to access to advanced training blocks required to achieve Red Seal certification in a trade. These included: (a) inconvenient scheduling of advanced blocks during times of peak employment when employers find it difficult to release employees for training; and (b) reluctance of employers to release employees for advanced block training and offer them continued employment at a higher rate of pay upon completion of their block.

4.1.3 Program Availability

4.1.3.1 Post-secondary programs available on campus

MUN offers a wide range of undergraduate and graduate programs similar to its counterparts in other jurisdictions. Program offerings at the Marine Institute are more unique for the university sector in that they range from diploma through to graduate programs focused on the marine environment. On-campus courses

are available at Grenfell Campus in Corner Brook, the Marine Institute in St. John's, and the St. John's campus.

The College of the North Atlantic consists of 4 Schools and offers a wide range of one-, two-, and three-year programs, similar to their counterparts in other jurisdictions. On-campus courses are offered at all 17 campuses but not all programs are available on all campuses.

Feedback from students indicated that accessibility to on-campus programs could be improved by more flexible scheduling of classes. The cost of textbooks was also identified as a concern.

Feedback across key stakeholders in CNA suggested that access to on-campus programs would be enhanced (i.e., waiting lists reduced) if programs were offered where key demand and student populations were highest.

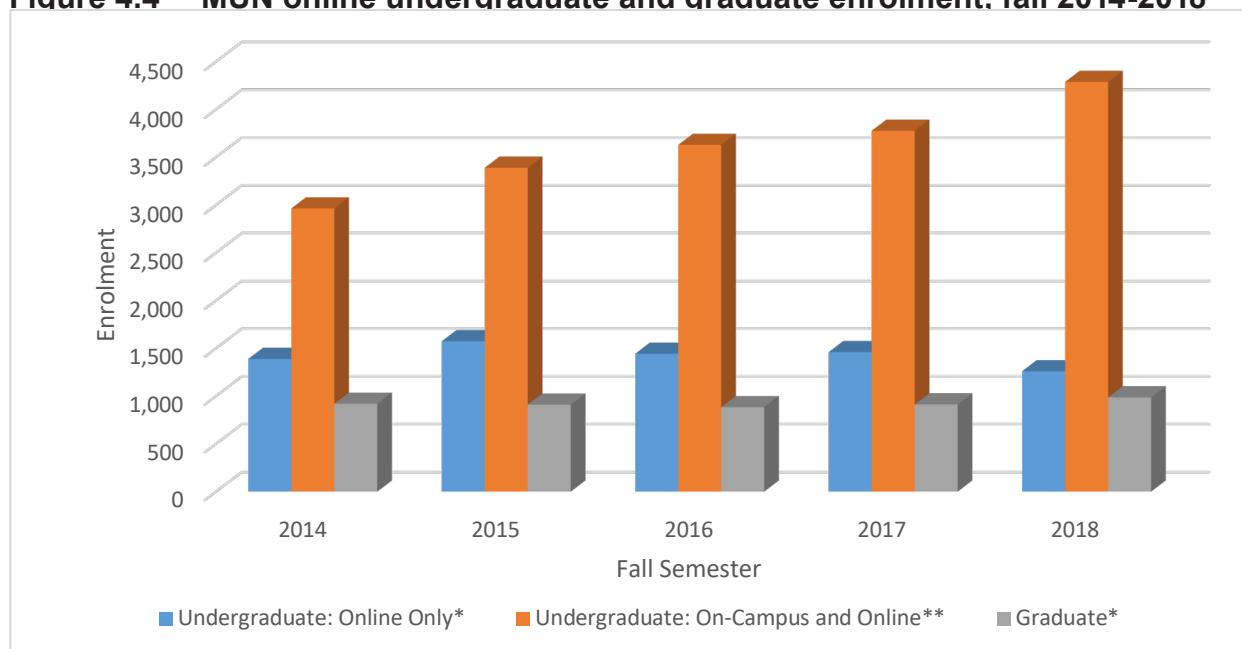
4.1.3.2 Post-secondary programs available online

Access to online courses improves overall access for students who do not live close to a campus or who require flexibility in their class schedules. The 2005 Government of Newfoundland and Labrador White Paper on Public Post-Secondary Education (2) recommended expanding access to courses through online course offerings and significant progress was made on this recommendation as a result of an infusion of government funding support to both Memorial University of Newfoundland and the College of the North Atlantic.

MUN has a long history of providing access to off-campus learning. Currently leadership in this area is provided by the Centre for Innovation in Teaching and Learning (CITL). As shown in Figure 4.4, overall enrolment in online courses at MUN has increased but the pattern of enrolment has shifted over time.

From the period 2012-2019 the number of undergraduate students enrolled in “online courses only” decreased by 16% and most of this decrease was among students outside the Avalon Peninsula and non-Newfoundland and Labrador Canadian students. However, among on-campus students, the number taking at least one online course increased steadily from 2,481 in 2010 to 4,286 in 2018 (73%). The number of graduate students taking at least one online course increased from 906 in 2012 to 985 in 2018 (9%).

Figure 4.4 MUN online undergraduate and graduate enrolment. fall 2014-2018



*Undergraduate students taking online courses only.

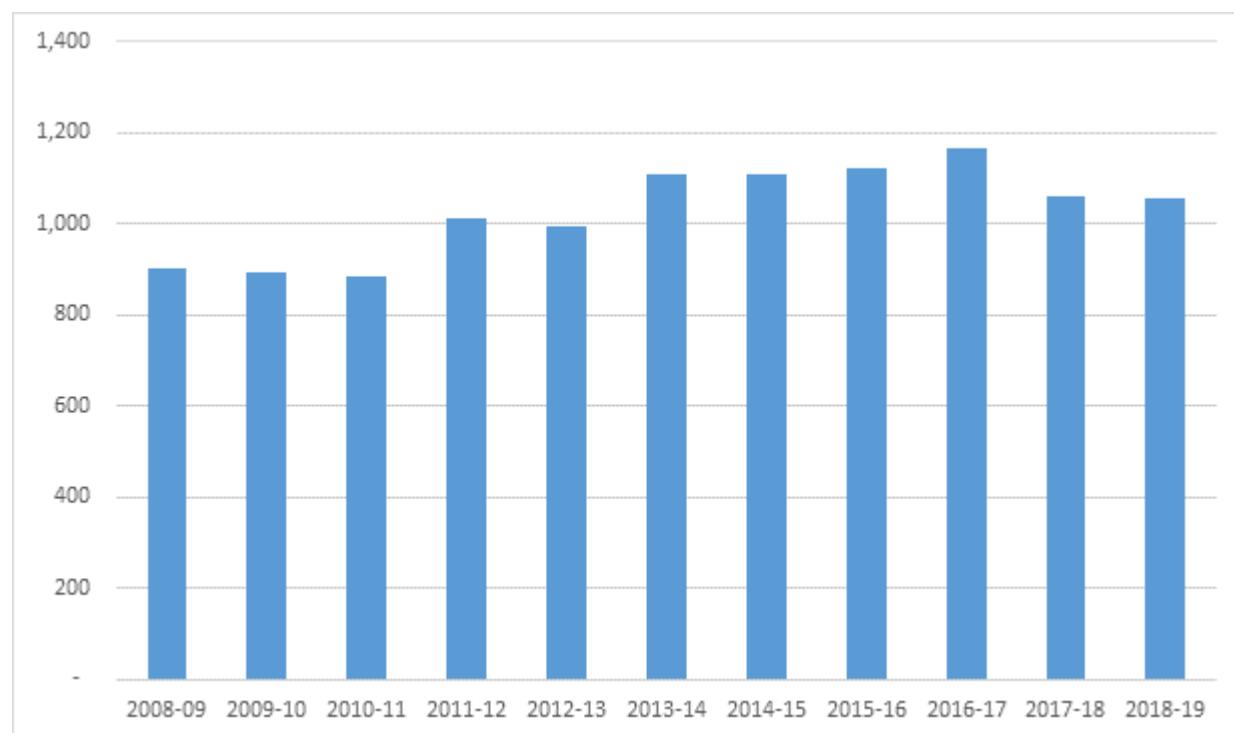
** On-campus undergraduate students taking at least one online course.

*** Graduate students taking at least one online course.

Source: MUN Fact Book

Online enrolment at CNA increased by 17% from 2008-09 to 2018-19 (Figure 4.5).

Figure 4.5 CNA online enrolment, 2008-2009 to 2018-2019



Source: CNA information request

Both Memorial University and the College of the North Atlantic offer a number of full programs online. Throughout the Review Committee's consultations, the availability of online courses and programs was identified as a significant strength in terms of accessibility to the Newfoundland and Labrador post-secondary education system. Concerns were expressed, prior to the COVID-19 pandemic, about limitations in bandwidth and availability of up-to-date technology; concerns which were exacerbated as most if not all programming moved to online formats during the pandemic. Faculty, staff, and students involved in consultations after public health guidelines were proclaimed indicated that the move to online learning for post-secondary programs entailed significant challenges pertaining to the effective use of technology. One area of programming that is not available in the province is post-secondary programs

delivered in French. Consultations with the Francophone Association indicated Newfoundland and Labrador is the only province in the country that does not provide French language post-secondary education. Programs in Healthcare and Education are the highest priorities identified by the Association to meet the needs for teachers in six Francophone schools in the province and to support delivery of healthcare services in French.

4.1.3.3 Transition programs

There are two broad categories of transition programs: programs that assist students to complete high school and attain entrance requirements for post-secondary education; and programs that facilitate transfer between post-secondary institutions.

4.1.3.3.1 Secondary education to post-secondary education

Adult Basic Education

Based on data from 2008-09 to 2017-18 an average of 1300¹³ young people leave school early (before completing high school) each year in this province (3). This is very concerning for the individuals who drop out of school, for the post-secondary system which loses these potential students, and for the province as a whole, given the poorer outcomes in terms of health, employment and participation in civil society for individuals who do not complete high school.

Individuals who drop out of school do have the option to complete high school and enter post-secondary programs through adult basic education programs. Until 2013, the ABE program was delivered by the College of the North Atlantic on 12 campuses and was also

¹³ There is some concern that the actual number of students who drop out of school early is under-reported, as noted in the report of the 2017 Premier's Task Force on K-12 education. Data cited exclude 2016-2017 as data were not available for that year.

delivered by a number of private training institutions and community-based organizations. In March, 2013, the provincial government announced that ABE was going to be privatized and would no longer be part of the public college system. ABE is currently offered at 35 private locations across the province (28 campuses of private training institutions and 7 community-based organizations such as the Murphy Centre and Choices for Youth). Students who attend ABE at private training institutions are charged daily tuition rates, however most students are eligible for federal funding. Newfoundland and Labrador is the only jurisdiction in Canada where the option to complete high school education is not offered in the publicly funded college system.

Feedback received during consultations indicated that both community members and college instructors and staff believe that losing the ABE program significantly diminished the connectivity between the college campuses and the communities they serve. Concerns were expressed that students completing ABE in private training institutions do not have access to the types of additional student supports and resources provided by CNA. In addition, loss of this program is believed to have contributed to overall decline in CNA enrolment, as individuals who completed ABE at a college campus frequently continued on to acquire a post-secondary credential at the college as well.

Another issue with respect to access for individuals who do not complete high school is the entrance requirements. Currently, to be accepted into the ABE program, an individual must be 19 years old or older; or 18 years old and out of high school for at least one

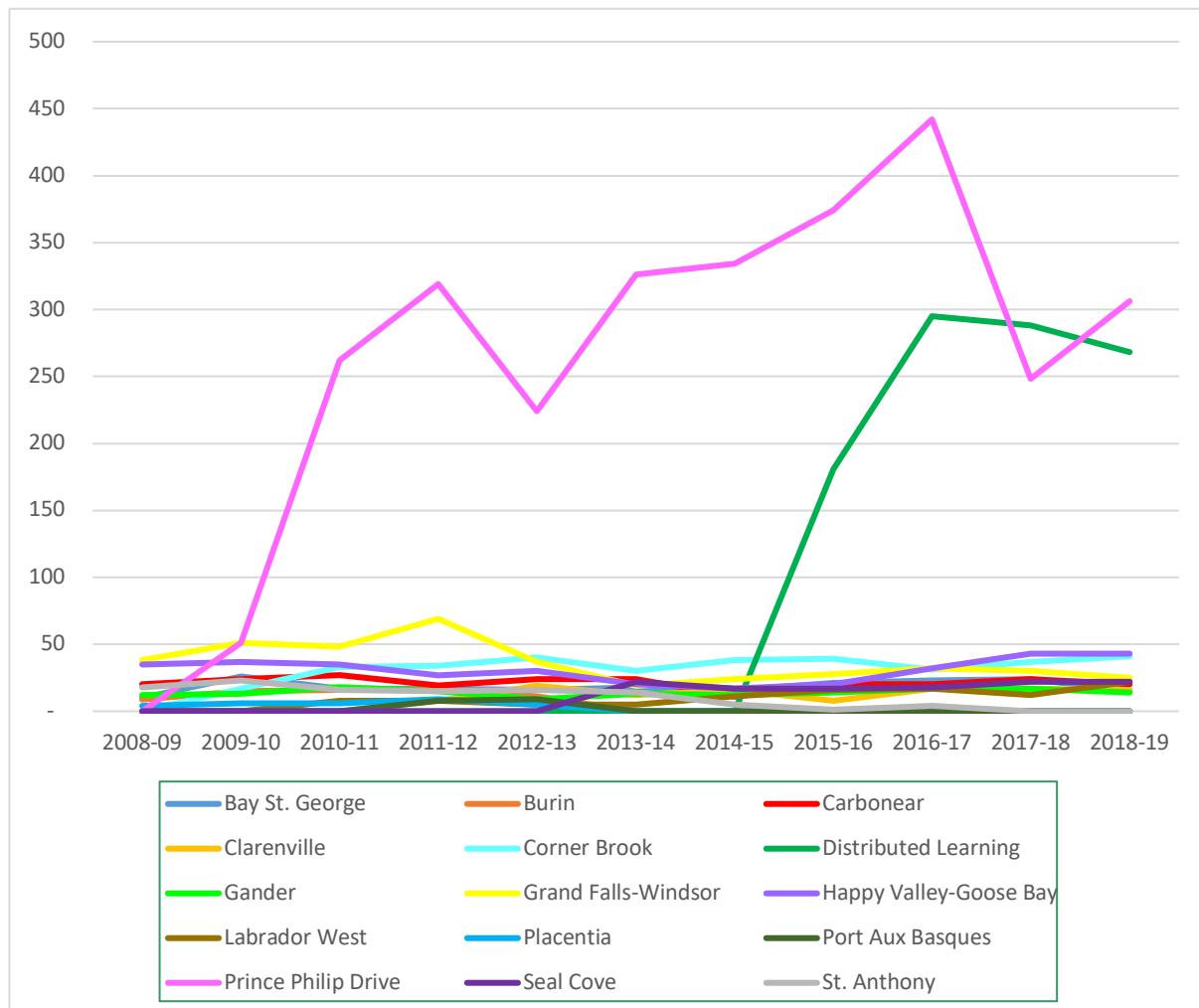
year. Students who drop out of school prior to high school (age 14 for example) cannot access ABE until they turn 19 or are provided access under special exemptions.

Comprehensive Arts and Science (CAS) Transition

This Certificate Program (one year, two semesters) is designed for high school graduates and ABE graduates who require: (a) academic courses to meet the entrance requirements for post-secondary or (b) a higher high school average to meet the entrance requirements for post-secondary institutions. Courses in English, Math and Sciences, as well as General Education and Social Sciences are offered. Electives from other college programs can be accessed which may be used in a future college program. This program is offered at 10 campuses and online through the Connected Learning Network.

Since 2008-09 the number of students enrolled in CAS transition has increased 17% (Figure 4.6).

Figure 4.6 Enrolment, CAS transition, by campus, 2008-09 to 2018-19



Source: CNA information request

Comprehensive Arts and Science (CAS) Trades

Comprehensive Arts and Science Trades, a one-year program, is designed for students who are 19 years and older and have a minimum of Grade 9 high school completion. The program is designed to improve employability skills for learners and to provide academic instruction for those who lack the academic courses or

the required grades to meet the entrance requirements for entry into a College of the North Atlantic Industrial Trades program.

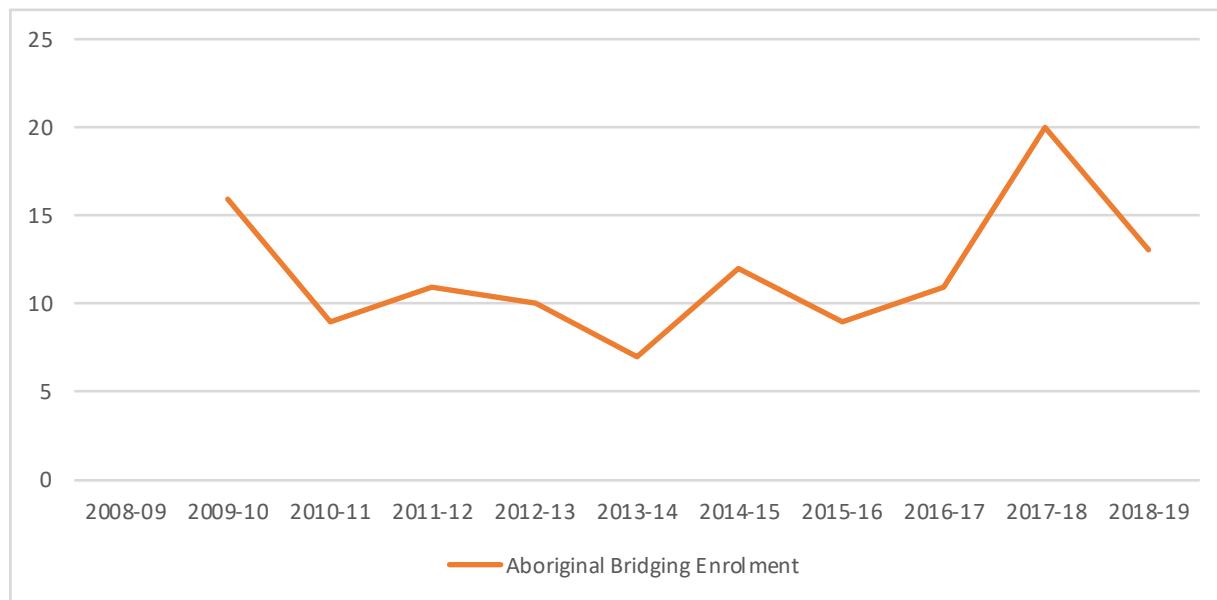
This program was delivered as a pilot at the Happy Valley-Goose Bay campus through contract training with Indigenous students and the Labrador Aboriginal Training Program (LATP). In consultations with stakeholders in Happy Valley-Goose Bay, the review team heard that the supports for Indigenous students at the campus were good, however stakeholders were concerned that the Comprehensive Arts and Science Trades program was very expensive and they hoped that the program could be offered as a grant-in-aid program at the Happy Valley-Goose Bay campus. This program is currently offered at the Grand Falls-Windsor campus.

Aboriginal Bridging Program

The Aboriginal Bridging Program has been offered at the Happy Valley-Goose-Bay Campus of the College of the North Atlantic since 2009. Grade 12 is an entrance requirement. Students are provided with opportunities for engagement with campus life, academic upgrading in traditional areas of challenge (math and sciences), and opportunities for career exploration. Students receive instruction in reading comprehension, writing, numeracy, public speaking, researching, scientific experimentation, personal awareness, study skills, time management, and critical thinking. Culturally relevant materials are utilized to form a curriculum designed specifically for First Nations, Inuit, and Métis students. Successful completion of the Aboriginal Bridging program enables students to gain specific credits which can be used in the CAS transition program described above.

Enrolment in this program for the last 10 years has ranged from 7 to 20 students per offering. (Figure 4.7).

Figure 4.7 Enrolment, Aboriginal Bridging Program, CNA

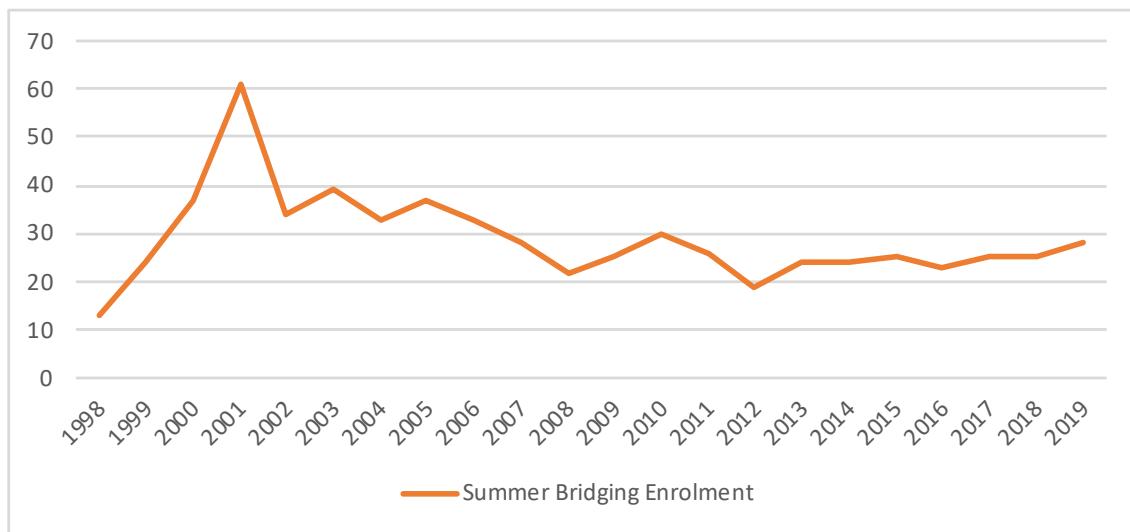


Source: CNA information request

Summer Bridging Program: Grenfell Campus, MUN

Grenfell Campus of Memorial University offers a two-week summer non-credit bridging program for Newfoundland and Labrador students with a high school average of between 65 and 69.9 and who pass the courses required for admission to Memorial University. Students who successfully complete the program can be admitted to Memorial University in September at the campus of their choice. As shown in Figure 4.8, enrolment averaged 25 students per year for the period 2010-2017. The program was not offered in 2020.

Figure 4.8 Enrolment, Summer Bridging Program, Grenfell Campus, MUN



Source: MUN information request

Technology Career Pathway

The College of the North Atlantic will be piloting Technology Career Pathway (TCP) programming to eight provincial high schools in the 2021-22 school year as part of a new partnership between the Department of Education, the Newfoundland and Labrador English School District (NLES) and the College of the North Atlantic. The collaboration is focused on creating new pathways for interested high school students to transition to Information Technology programs at CNA.

4.1.3.3.2 College to University

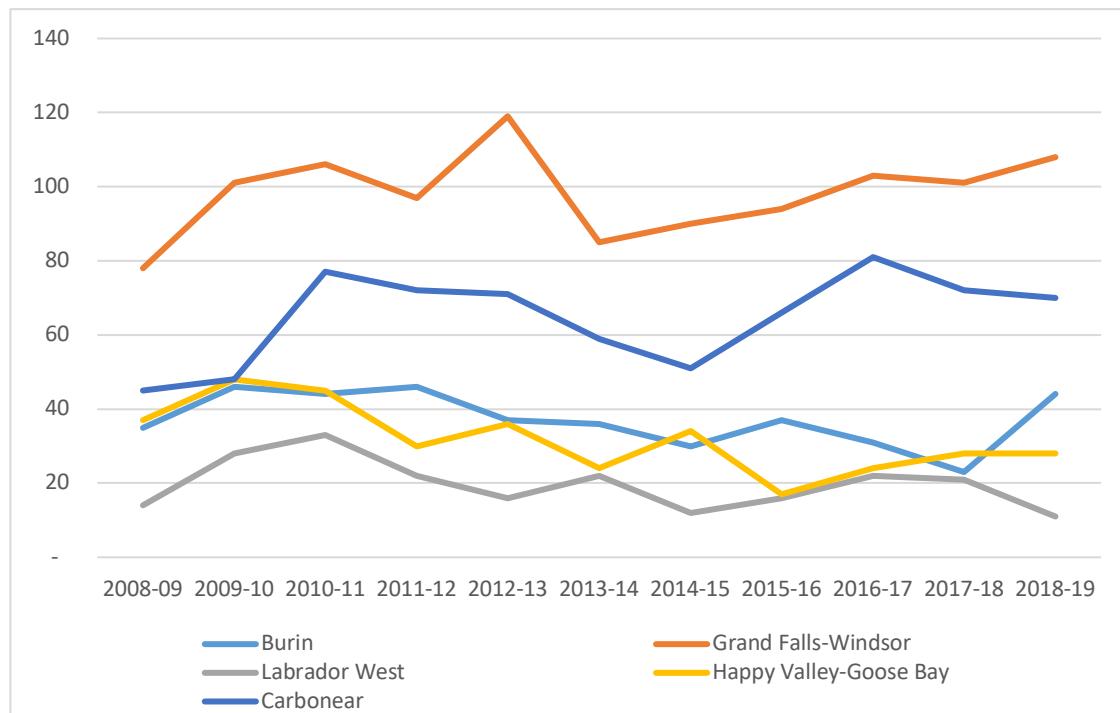
Comprehensive Arts and Science Transfer: College-University Certificate Program

The one-year Comprehensive Arts and Science (CAS) Transfer Certificate program provides students with the opportunity to complete a suite of courses for which they will gain credit from College of the North Atlantic as well as from Memorial University. It has been developed through an agreement with Memorial, whereby courses are developed in collaboration with Memorial and areas such as curriculum content and testing methodologies are identical to Memorial's courses. In order to meet the requirements of the program, students must complete 10 courses from the CAS Transfer: College-University suite of courses with a minimum Grade Point Average of 2.00.

This program is offered at the Burin, Carbonear, Grand Falls-Windsor, Happy Valley-Goose Bay, and Labrador West campuses of the College of the North Atlantic. Feedback received during consultations at these campuses indicated that the programs were highly valued for providing cost-effective access to university level education closer to home for the students who enrolled.

There has been a 25% increase in enrolment from 2008-09 to 2018-19 in CAS transfer. In 2008-09 there were 209 students. In 2018-19 there were 261 students enrolled with 41% at the Grand Falls-Windsor campus followed by 27% at the Carbonear campus (Figure 4.9).

Figure 4.9 Enrolment, CAS Transfer Program (College – University)



Source: CNA information request

4.1.3.4 Degree laddering programs

4.1.3.4.1 CNA business diplomas — Bachelor of Business Degree, Grenfell Campus, MUN

Students who have graduated from a two-year CNA Business Administration diploma program with a minimum average of 65% will be awarded 60 credit hours applicable to the Bachelor of Business Degree at Grenfell Campus, MUN. Students can complete the degree with two additional years of study in two academic years, with full-time and part-time enrolment options available. Some courses are available online.

Students who have graduated from a three-year CNA Business Management diploma program with a minimum average of 65%

will be awarded 75 credit hours applicable to the Bachelor of Business Degree at Grenfell Campus, MUN. Students can complete the degree with one additional year of study. Full- and part-time enrolment options are available. Some courses are available online.

4.1.3.4.2 CNA diploma programs — Bachelor of Technology, Marine Institute

Graduates of a three-year diploma program in Engineering Technology or Health Sciences have been able to ladder into Marine Institute's Bachelor of Technology (BTech) program for many years. Recently, an expanded agreement announced that graduates of a three-year diploma program in Information Technology can also ladder into the Marine Institute BTech program and complete the degree program with one additional year of study. Courses will be delivered online and the program can be completed on a full-time or part-time basis.

One laddering program that is currently not available in the province is between the CNA Diploma in Engineering Technology and the BSc in Engineering at Memorial University. A proposal for a bridging program between CNA and MUN Faculty of Engineering has been under discussion for many years but to date has not been implemented — an access barrier that was frequently highlighted during the Review Committee's consultations at CNA campuses across the province and during meetings with industry representatives.

During consultations, Prior Learning Assessment and Recognition (PLAR) assessment practices at Memorial University were

identified as a significant barrier to degree laddering opportunities within the post-secondary system in the province. Formal articulation agreements are also important mechanisms for student advancement.

Degree Laddering Between Community Recreation Leadership (CNA) and Human Kinetics and Recreation (MUN)

A block transfer system was piloted between the CNA two-year diploma program, Community Recreation Leadership, and the Bachelor of Recreation degree (co-op) at MUN. This block transfer is now being expanded to include other institutions, ultimately enabling students who begin their education in a two-year diploma program in the college system to transfer to Memorial to complete a degree program in HKR.

4.1.3.5 Continuing education courses

Continuing Education courses foster citizen engagement and lifelong learning. For example, in our highly technological age, courses can assist people to maintain currency. In addition, such courses will help individuals attain or enhance a range of skills, become more familiar with culture and research, and ease the transition to more formal modes of post-secondary learning.

Memorial University, St. John's campus, closed its division of Life Long Learning in 2011. During consultations, the closure of this division was identified as limiting access of the general public to the expertise of university faculty and staff and contributing to a sense of disconnection between the university and the community, particularly in rural areas. However, continuing education programming is offered at the Grenfell campus and Marine Institute.

The College of the North Atlantic (CNA) offers Customized and Continuous Learning to individuals, groups, businesses and government. Credit and non-credit programming is customized to meet the needs of the target audience and delivered via multiple delivery methods and in multiple locations. However, levels of contract training and continuing education course offerings have declined 60 % from 2009-10 to 2018-19.

CNA recently announced that it is expanding its array of program offerings to include micro-credentials. Micro-credentials focus on verifying learner competencies in a single skill or a small discrete set of skills. CNA has been designated as an Amazon Web Service (AWS) Academy provider and the first micro-credential offering was AWS Cloud Computing in January 2021. MUN has also announced that it intends to offer micro-credential programming but details have not yet been announced. Feedback from consultations suggested that additional opportunities for laddering of credentials to facilitate academic and career progression would be highly valued.

Input received during consultations indicated that connectivity to the communities would be enhanced if a broader range of non-credit and for-credit courses were available to the general public. In particular, the role of micro-credentials and other non-traditional course formats are likely to be in greater demand in the 21st century.

Recommendations

15. Introduce programming at CNA which allows learners to complete their high school education.
16. Extend opportunities for high school students to experience university and college courses while still in high school.

17. Increase the options for laddering between college and university degree programs.
18. Develop a Prior Learning Assessment Recognition (PLAR) process that is student focused.
19. Increase the number of formal articulation agreements among the PSE institutions within the province.
20. MUN and CNA work together to explore options for offering French language streams in education and health post-secondary education programs.
21. MUN and CNA collaborate with each other in: (a) assessing community needs for continuing education; (b) designing and offering courses in varied formats; and (c) developing teams of instructors from both the university and the college to deliver the courses onsite in communities around the province and through online platforms.
22. MUN and CNA explore options to make existing for-credit courses more accessible to the general public.

4.2 Effectiveness of public post-secondary education

4.2.1 Educational attainment

Globally, Canada is one of the world leaders in post-secondary education attainment (4). As of 2018, 68% of 25-34 year olds in Canada hold a post-secondary credential: trades certificate or diploma (10%); bachelor's degree (22%); college diploma or certificate (26%); master's degree or higher (10%).

In terms of percentage of the population aged 24-65 with post-secondary credentials, Newfoundland and Labrador (68%) compares favourably with the OECD (44%), Canada as a whole (68%), and the other Atlantic provinces (range 61-69%), as shown in Table 4.1 below. Newfoundland and Labrador has a greater percentage of its population with trades certificate/diploma or college diploma/certificate as the highest level of post-secondary credential (47%) than Canada as a whole (36%) or the other Atlantic provinces (range 37-39%).

Table 4.1 Distribution of the 24-65 year old population, by highest level of post-secondary education attained, both sexes, OECD, Canada, Atlantic Provinces, 2018 (percentages)

Jurisdiction average for both sexes	Post-secondary non-tertiary (trade, vocational and apprenticeship)	College diploma or certificate	Bachelor's or equivalent	Master's or doctoral equivalent	All levels of post-secondary education
OECD ¹⁴ Average	6	7	17	14	44
Canada	10	26	22	10	68
Newfoundland and Labrador	17	30	13	7	67
PEI	8	29	18	8	63
NS	13	26	18	12	69
NB	8	31	16	6	61

Source: Statistics Canada. Education Indicators in Canada: An International Perspective 2019, Table A.1.1

4.2.2 Academic outcomes

4.2.2.1 Successful transition to post-secondary education

As noted earlier, the Adult Basic Education (ABE) program is no longer offered in the public post-secondary education system. However, given the importance of completion of high school for both the individual and society, it is important to track the outcomes for individuals who enrol in these programs. Data that

¹⁴ In 2019, the OECD member countries include: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (South Korea), Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. G7 member countries include: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

should be collected and analyzed for this program and all transition programs discussed below include: number of students who enrol; percentage of students who successfully complete the program; time required to complete the program; academic or other supports required; academic and other supports provided; enrolment in a post-secondary education program upon completion of ABE; and graduation rates from post-secondary education programs.

The Comprehensive Arts and Science (CAS) Transition Program at CNA enrolled 6,149 students during 2008-09 to 2018-19. The program underwent an academic review in 2019 which reported that there were over 1600 graduates of the CAS transition program from 2005-06 to 2017-18. Approximately 65% of those who graduated had enrolled in a program at CNA within five years of graduation (see companion document). No data are available for the substantial number of students who enrol but do not complete the program. The five-year graduate outcome surveys for 2019 and 2020, conducted by the college, indicated that 28% and 19% of graduates were attending or thinking of attending Memorial University. An academic program review that highlights outcome data for the Comprehensive Arts and Science Trades program will be advisable if CNA continues to offer the program on one or more campuses.

CNA's five-year graduate outcome surveys for 2019 and 2020 for students who completed the **Comprehensive Arts and Science (CAS) Transfer Program** found that over 90% of students who completed that

Marine Institute Mate Program

The Marine Advanced Technology Education (MATE) program forms teams consisting of junior high and high school students and students from the Marine Institute to compete in the design and building of Remotely Operated Vehicles to tackle missions modeled from the ocean workplace.

program were enrolled in further studies and approximately 80% of students were attending Memorial University or thinking about attending Memorial University. The last time that Memorial University did an analysis of academic outcomes for students who entered MUN through the CAS Transfer Program was in 2006.

The Aboriginal Bridging Program is an important entry point to the CAS Transition Program. Currently there are no data available on the numbers of students who enrol and complete the program, the number of successful graduates who then go on to enrol in the CAS Transition Program, and their academic outcomes from that point onwards.

Previously, MUN tracked enrolments and the success of students who completed the **Summer Bridging Program, Grenfell Campus**, including persistence to graduation of these students in comparison to students who were admitted to Grenfell with a high school average of 70% and 72.5%.

However, this monitoring and evaluation exercise has been discontinued.

MedQUEST

MedQUEST is a career-oriented summer program for students in grades 10-12 in Newfoundland and Labrador. This program introduces students to health sciences and careers in medicine, physiotherapy, pharmacy, nursing, veterinarian medicine and research. The program seeks to encourage enthusiasm for study in post-secondary institutions and provide career development information through career exploration.

Recommendation

23. MUN and CNA collaborate in the development of comprehensive data collection and evaluation processes with respect to academic outcomes for students who enrol in bridging, transition and/or transfer programs.

4.2.2.2 Graduation rates for students attending post-secondary institutions

Graduation rates are difficult to calculate for a variety of technical and definitional reasons. However, recent national analyses of students who entered post-secondary education in 2010 suggests that the graduation rate after six years was as follows: four-year undergraduate degree – 73%; three-year college diploma – 55%, and shorter college certificates – 70% (1). Retention and graduation data for full-time students entering MUN directly from high school indicated 55.9% of the 2010 cohort and 60.5% of the 2011 cohort had graduated by the seventh fall enrolment period.¹⁵ Graduation rates for CNA were requested but not received.

Recommendation

24. MUN and CNA collaborate in the development of data collection and evaluation processes to monitor academic outcomes for all students who are admitted to their respective institutions (such as drop-out rate, persistence semester over semester, time to completion, and graduation rates).

4.2.2.3 Red Seal Exam Pass Rate

Red Seal exam pass rates vary year over year and across trades. A comparison of the most recent five years of data for Newfoundland and Labrador and Canada (received from the Department of Immigration, Skills and Labour) showed that pass rates for Newfoundland and Labrador were well above the

¹⁵ Data excludes other categories of new students from both within and outside the province, such as previous matriculants from high school, transfer students, part-time students, etc.

national average for Industrial Electrician, Automotive Service Technician, Hairstyler and Welder. An additional eight trades were above the national average. However, data for some trades in some years were not available when the number of exam writings was fewer than five. The proposed review of apprenticeship in the province (Recommendation 7 in Chapter 3) could explore in greater detail factors contributing to the variation in Red Seal exam pass rates.

4.2.3 Labour market outcomes

Newfoundland and Labrador previously collected data on labour market outcomes of graduates of the post-secondary education system through a survey conducted every two years (CareerSearch) and in five-year follow-up studies. However, this data collection was discontinued in 2008. Other jurisdictions such as Ontario have a unique education identifier for all students and this can be linked to employment and tax databases to facilitate the study of labour market outcomes.

Recommendations

25. All post-secondary institutions, both public and private, incorporate use of the unique student identifier into their databases.
26. MUN and CNA, in collaboration with the Government of Newfoundland and Labrador and Statistics Canada, develop data collection processes and systems to track labour market outcomes for graduates of post-secondary institutions in the province.

4.2.4 Skills acquisition

One of the major benefits of post-secondary education is the acquisition of skills needed to engage fully in society through meaningful employment and political and civic engagement. As noted previously, dramatic changes in the workplace and the broader community, arising from global forces and accelerated by rapid technological changes are demanding a greater depth and diversity of skills from our citizens, in particular

information processing skills. Countries such as Canada are becoming increasingly interested in gauging the skill levels of their population and identifying how their education systems can enhance overall capacity in these areas.

An international assessment was developed under the auspices of the Organisation for Economic Co-operation and Development (OECD) in order to assess key cognitive and workplace skills needed for successful participation in 21st century society and the global economy. The assessment, conducted in Canada by Statistics Canada in 2012, examined the foundational skills¹⁶ of literacy, numeracy and problem solving in technology-rich environments (PS-TRE) of Canadians with post-secondary credentials. One of the key findings is that having a post-secondary credential is associated with higher levels of performance in all three skills areas (5). University graduates in Newfoundland and Labrador performed above the OECD average for literacy and at the OECD average for numeracy and PS-TRE skills. For Canada as a whole: university and college graduates in the humanities, social sciences and health have the strongest literacy skills; university and college graduates in sciences, engineering, manufacturing and construction have the strongest numeracy skills.

Within the post-secondary education system, a range of approaches can be utilized to measure the skills acquired by students and graduates. At the course level, these evaluations consist mainly of the written and/or oral examinations of the specific content of courses delivered. At the program level, particularly for those programs that are overseen by accrediting bodies, specific skills are identified as necessary for the graduating student, and training with respect to skills (appropriate technical skills as well as critical thinking and ability to work in teams) are mapped to courses within the curriculum of the program. Many graduates of professional programs also write licensing

16 Individuals must be able to understand, process and respond to textual and numerical information in both print and digital formats if they are to participate fully in society. Literacy, numeracy and PS-TRE are key to that ability in that they provide a foundation for development of other, higher order cognitive skills and are prerequisites for gaining access to and an understanding of specific domains of knowledge. In addition, they are necessary in a broad range of contexts, from education, to work, to everyday life (reference # 5, page 4).

exams. Graduates of trades programs complete block exams and Red Seal certifications which focus on technical competency in their chosen field. For programs that do not require accreditation and/or post-graduation licensure, primarily programs in the general arts and sciences, academic program review provides an opportunity for the faculty to articulate the skill sets their graduates will acquire through their educational experience, and map their curriculum content and evaluation activities to demonstrate student mastery of these skills.

Memorial University has a well-established program of Academic Program Planning, supported through the Centre for Institutional Analysis and Planning and overseen by a Senate Committee. Every faculty participates in a formal review of its teaching and research programs on a schedule of five to seven years to inform its planning and delivery of programs going forward.¹⁷ The process involves the faculty, staff, and students, and three reviewers external to the Faculty (one external to the university and two from other faculties within the university). The report is submitted to the Provost and a summary copy made available to the public.

The College of the North Atlantic is currently revising its processes for academic program review. A new role of Senior Director of Programs was recently created and a new unit for program assessments was established, with a mandate to standardize academic program quality and the student experience across all campuses. The goal is to conduct eight program assessments per year. The process will include external experts and encompass curriculum assessment, academic support services, and student support services. These program assessments are the first steps in the program review process. The policy and procedures are in place for the program review process and a framework is being developed. The goal is to establish a three-year academic planning model and a five-year cycle for academic program review.

¹⁷ Academic Program Planning and review processes have recently commenced at the Marine Institute campus of Memorial University

Interprofessional Health Education

The Centre for Collaborative Health Professional Education (CCHPE) coordinates interprofessional education (IPE) for undergraduate students in medicine, nursing, pharmacy, social work, and human kinetics and recreation, and students in the Doctor of Psychology Program. To date the IPE curriculum has been limited to the pre-licensure level with only synchronous, in-class learning opportunities available. A major gap in interprofessional health education is in practical, clinical settings before completion of the undergraduate programs. A proposal to create a primary healthcare learning experience housed at Memorial University will extend participation to students of the College of the North Atlantic and the Marine Institute and will require funding and support from MUN, CNA, the Eastern Regional Health Authority and the Government of Newfoundland and Labrador.

Throughout the consultation process, concerns were expressed with the level of skills students demonstrated upon graduation from their post-secondary programs, ranging from appropriate technical skills to broader skills such as critical thinking, problem solving, and working in teams, to even broader attributes such as resiliency and adaptability to change. Nationally and internationally, employers and students are calling for approaches that can address these skill gaps within the post-secondary education programs and once graduates reach the workforce.

Within post-secondary education programs, the inclusion of co-op, internship and other forms of work-integrated learning have been identified as the most promising avenues for increasing skills levels not attained through course content alone. Memorial University has a long history of cooperative education internships and practice exposure in its professional programs (engineering, business and health). These program components are generally viewed well by both employers and

students. However, feedback suggested that: (a) the quality of the student experience in these work related experiences varies widely within and across programs and (b) greater support for these types of learning experiences in general arts and sciences programs is required.

The College of the North Atlantic also has a long history of building practical experience and workplace exposure into their programs and these components are also generally viewed well by both employers and students. However, feedback suggested that the quality of the student practical experience was challenged by a number of factors, including: (a) the availability of appropriate equipment, including technologically enhanced and industry-current training tools in the labs; (b) limitations in the Plan of Training for trades, particularly those which have undergone harmonization with the Atlantic provinces and decreased exposure to practical experience; and (c) limited availability of instructors who were familiar with current industry equipment. More recently, the College of the North Atlantic invested resources into developing interdisciplinary experiences for their students.

Bonavista Cultural Culinary Arts and Tourism Program

The Bonavista Cultural Culinary Arts and Tourism Program is a two-year offering that allows students to develop their culinary skills in a prime tourism destination where culture, cuisine, history and place come together to create unique opportunities. In March of 2019, the program was developed and offered at the Bonavista Campus. Graduates completing both years of this joint program offering receive two credentials – a certificate for the successful completion of Cook (first year) and an advanced diploma for the completion of the second year. During consultations this program was identified by instructors, students, and community members as a promising approach to skill development which enhances the opportunities available to the graduate and meets the cross training/multiple skill needs of the community.

Recommendations

27. Increase the number and variety of interprofessional and interdisciplinary experiential learning opportunities within the university and the college.
28. MUN and CNA collaborate in the development of programs and experiences that allow college and university students to learn from each other.

4.2.5 Providing a skilled workforce

One of the major expectations of both Memorial University and the College of the North Atlantic is to help provide an appropriately skilled workforce to support the social and economic growth of the province. For the university, the primary focus in meeting the workforce needs of the province involves both delivery of a comprehensive array of academic and professional programs to meet longstanding needs for the workforce required in most areas of society (as described above in this chapter). Industry advisory groups for faculties such as Business and Engineering and at the Marine Institute provide regular feedback to academic programs in this regard. Development of new programs and approaches in response to the rapidly changing economy and workforce usually occurs in response to government direction and funding to expand existing programs (such as the expansion of the undergraduate programs in Business and Engineering). Because these types of program expansions require substantial resources (such as the hiring of additional faculty members, most of whom will be eventually tenured and therefore permanent employees) the timelines for response can be several years. However, other more immediate approaches are also employed, such as: (a) the recent efforts to

Computer Science/Computer Engineering Working Group

This working group was developed in 2019 and includes stakeholders from industry, government and Memorial University. The purpose is to develop a better understanding of the factors contributing to a shortage of graduates in computer science/computer engineering, including barriers to enrolment and student success.

enhance computer science and software engineering programs at Memorial University in collaboration with technology industry leaders in the province; (b) development and delivery of a graduate program in aquaculture; and (c) offering a joint degree between the School of Music and the Faculty of Business.

The College of the North Atlantic identifies responding to the labour force, industry and training needs of Newfoundland and Labrador both at home and abroad as a key feature of its mandate (6). Regular meetings with industry leaders as well as government departments help inform decisions to develop new programs or expand the number of seats and locations of delivery for existing programs.

Strategic, timely and cost-effective responses to labour market needs require labour market information (LMI). LMI helps individuals to make informed decisions about career choice and post-secondary program providers. LMI also allows educators in post-secondary institutions to develop and support program delivery that contributes to the economic growth of the province.

Throughout consultations with the post-secondary institutions, communities, and various industry sectors, it became clear that the labour market information that is available is not always adequate for identifying priorities for action. This finding is not unique to Newfoundland and Labrador. A recent report to Atlantic Colleges (7) recommended that colleges strengthen their labour market foresight capacity and establish units that could

Newfoundland and Labrador Workforce Innovation Centre
The Newfoundland and Labrador Workforce Innovation Centre at the Corner Brook campus of CNA reinforces the strategic priority of labour market responsiveness in the college. This centre is currently working in consultation with Immigration, Skills and Labour (ISL) regarding a labour market project to explore workforce and labour market needs.

conduct research on high level economic needs/trends for the main clients of the college and develop opportunities for knowledge exchange. The NLWIC highlighted above is an important component of a provincial response to this recommendation. Other resources within the university and industry sectors could also be brought to bear on this issue.

This province's economic future is challenging. Labour market information (LMI) is important for individuals seeking a career or reskilling program that will help them successfully participate in the economic life of society. Timely and accurate LMI data are also vital if Newfoundland and Labrador public post-secondary education institutions are to deliver academic programs that support strategic workforce development, and if provincial immigration strategies are to target individuals with the skill sets the province requires. It will be important to harness and coordinate all resources available to achieve the level of accessible and meaningful LMI that is necessary.

It is also important to remember that graduates of post-secondary education programs are entering rapidly changing work environments and employers are seeking nimble and responsive options for ongoing professional development of their employees. During the consultations it was stressed that: (a) new models of learning, in addition to the traditional, linear, diploma or degree programs are needed; (b) flexible delivery options are required; and (3) options for continuous learning leading to career progression or supporting career redirection must be accessible over the course of a lifetime.

RAnLab

The RAnLab at the Memorial University Harris Centre helps inform policies for regional development. Working with a variety of partners, RAnLab develops regional analytics models that can assess the localized impacts of any present or projected future changes in demography, commodity prices, technology, labour markets and housing demands. This includes modelling the effects of the introduction, reorganization, or removal of industries or services from a region (such as transportation and health services).

Recommendations

29. Develop a province-wide comprehensive labour market information system and tie it to the analytical capacity of the RAnLab;
30. Provide province-wide dedicated support for coordinating the response of PSE institutions to identified labour market priorities. Programs developed and delivered should be:
 - a. complementary and collaborative - building on the unique strengths of participating institutions;
 - b. conducive to lifelong learning and career progression - offering individual laddering opportunities wherever feasible and appropriate;
 - c. inclusive of a range of design and delivery options such as micro-credentials or short courses offered in an in-person, blended or online delivery platform; and
 - d. responsive to Labour Market Information.

4.3 Accountability for academic programs in post-secondary education

While individual programs delivered by the university or college may be subject to external accreditation or internal program review processes, overall accountability for academic programs lies within the governance structures of the institutions as discussed below.

4.3.1 Memorial University of Newfoundland

4.3.1.1 Institutional governance

Currently Memorial University of Newfoundland (MUN) consists of three main campuses where students are enrolled and academic programming specific to that campus is delivered: St. John's Campus, Grenfell Campus and the Marine Institute Campus (discussions are underway within Memorial University to designate the Labrador Institute as another campus). Administratively, Memorial University at the senior level consists of a President and five Vice-Presidents: Provost and Vice-President (Academic); Vice-President (Research); Vice-President (Finance and Administration); Vice-President (Grenfell Campus); and Vice-President (Marine Institute).

The Provost chairs the Vice-Presidents' Council, which is the senior administrative committee of the university. It is a decision making body with responsibility for pan-university operations and affairs, for matters that cross over vice-presidential portfolios and for making recommendations to the President on matters within his or her sole authority. Membership includes the five vice-presidents. The President is an ex-officio member and a number of other senior management personnel provide support to the Vice-Presidents' Council.

The issue of equitable representation of academic faculties in institutional governance was raised during the consultations. It was noted that the Faculty of Medicine in particular is larger in number of students and faculty, budget, and research activities than either of the two campuses which have vice-presidents (Marine Institute and Grenfell Campus). Also, the St. John's campus is the only campus that does not have its own vice-president even though it has the majority of faculty, staff, students and research activity.

4.3.1.2 Academic governance

Memorial University has several strengths in terms of academic governance, including a Senate which governs academic programming across all campuses, and a provostial model which is intended to promote administrative alignment of all university activities in support of the academic mission. However, academic governance at MUN is not without its challenges, as discussed below.

Academic mission

In most universities, the academic mission is the central consideration in the institutional strategic plan. A strategic plan helps to focus institutional resources on high quality academic programming and research in areas that the institution has or ought to have significant strengths and strategic advantages. This is particularly important in comprehensive universities, where there is a risk of

defaulting to offering a wide breadth of programming at the expense of depth of programming in key areas. MUN did not have a strategic plan over the course of the last decade, opting instead for separate guiding frameworks for Teaching and Learning, Research and Engagement, as well as campus specific strategic plans for both Grenfell Campus and the Marine Institute (but not for the St. John's campus) and a series of plans pertaining to important issues such as enrolment, indigenization and internationalization. Feedback from key stakeholders both internal and external to the university suggested that: (a) the maze of documents available in the absence of an overarching statement of priorities was confusing and (b) the lack of a strategic plan limited transparency around the priorities for the institution and accountability for achievement of clearly articulated goals related to those priorities. The process of developing a new strategic plan is currently underway.

Senate

The bicameral model of university governance gives responsibility for and authority over academic issues to the Senate. The Senate is composed of a number of elected and appointed members representing the administration, faculty and students. The Senate of Memorial University meets monthly during the academic year. Standing committees of Senate are in place to address key functions of the academic enterprise such as Admissions, Undergraduate Studies, Graduate Studies, Academic Unit Planning, Academic Appeals, Teaching and Learning, Research, Course Evaluation, Undergraduate Scholarships, Bursaries and Awards, and University Planning and Budget. The President is the Chair of Senate and the Registrar serves as the Secretary. Minutes of Senate are publicly available on the MUN website.

MUN has one Senate for all campuses and all campuses have representation at Senate. Deans from St. John's and Grenfell campuses are members of Senate. However, Heads of Schools at Marine Institute do not hold a seat on Senate by virtue of their position.

Provost

The Provost and Vice-President (Academic), serves as the chief academic officer for Memorial University and is ultimately responsible for all students enrolled in the institution. However the alignment of academic governance with respect to the role of the Provost is different across the three campuses:

At St. John's campus, deans are the academic and administrative heads of academic programs, and they report directly to the chief academic officer for the institution as a whole, the Provost and Vice-President (Academic). This is the traditional model of academic governance.

At Grenfell Campus, the deans are the academic and administrative head of academic programs. The deans report directly to the Vice-President, Grenfell Campus, who serves as the overall administrator for the Grenfell Campus and the chief academic officer for the Grenfell Campus. Grenfell Campus did at one time have an Associate Vice-President (Academic) but this position no longer exists. There is no direct reporting relationship between the senior academic officer of Grenfell Campus and the Provost of the university.

At the Marine Institute, academic leadership is provided by the Heads of Schools. The Heads of Schools report directly to a senior academic officer, the Associate Vice-President, Academic and Student Affairs, Marine Institute, who in turn reports directly to the Vice-President of the Marine Institute. There is no direct reporting relationship between the senior academic officer of the Marine Institute and the Provost of the university.

Deans' Council

A Deans' Council has been established to provide advice to the Provost and Vice-President Academic, and by extension to the Vice-Presidents' Council, on all matters relating to the academic mission of the university, including strategic

directions, policies, and procedures. This Council, chaired by the Provost and Vice-President (Academic), consists of: the Associate Vice-Presidents (Academic), including the Associate Vice-President, Marine Institute (Academic and Student Affairs); all the academic deans for the St. John's campus and Grenfell campus; the Director of Academic and Support Services and a number of other senior administrators for the university (such as the Vice-President (Research) and the Vice-President (Finance and Administration). It does not however include the Heads of Schools at the Marine Institute or the senior academic officer for the Grenfell Campus.

Unique faculty governance arrangements

There are two faculties within the university that are also fairly unique in Canada with respect to governance, the School of Nursing and the Faculty of Medicine, both of which are discussed below.

Memorial University is the only post-secondary institution in the province empowered to grant a baccalaureate degree in nursing and is therefore ultimately accountable for the delivery of the undergraduate nursing curriculum. Nursing education however is provided in three sites, only one of which under the governance of the university (Faculty of Nursing, MUN, St. John's campus). The majority of nursing education in the province is provided in the Centre for Nursing Studies, Eastern Regional Health Authority, and Western School of Nursing, Western Regional Health Authority, and is guided by a consortium agreement across the three sites.

The delivery of nursing education outside of a post-secondary institution is unique in Canada. This issue was raised in the 2005 White Paper on Post-Secondary Education and several proposals to consolidate nursing education under Memorial University Faculty of Nursing followed. These reports focused on the consolidation of faculty, staff and programming.

The PPSER committee met with the government ministries involved (Advanced Education, Skills and Labour and Health and Community Services), the CEOs of Eastern and Western Regional Health Authorities, and the administration and faculty from each site. These consultations revealed a lack of consensus among key stakeholders in terms of direction moving forward.

The Review Committee also consulted directly with the students in these programs. Students at the Centre for Nursing Studies and Western Regional School of Nursing indicated that they consider themselves to be students of Memorial University but do not always feel they are receiving a full university experience.

The other faculty that has an unusual governance arrangement is the Faculty of Medicine. Currently the Faculty is funded by the Department of Health and Community Services to administer and manage direct patient care services in three family practice clinics (Shea Heights, Health Science Complex, and Whitbourne). The delivery of direct patient care services is otherwise within the mandate of the Regional Health Authorities. Similar to the principle raised above, i.e., post-secondary education should be under the governance of post-secondary institutions, it seems reasonable to suggest that health care delivery should be under the governance of the regional health authorities.

Recommendations

31. Revise Memorial University's Frameworks for Teaching and Learning, Research and Engagement to align with the institutional priorities identified in the strategic plan currently being developed at Memorial University.
32. Review faculty/campus representation at the senior level of the university.
33. Review academic governance arrangements at both Grenfell Campus and Marine Institute to ensure equitable representation across campuses and programs.

34. Consolidate the nursing undergraduate degree program under the governance and administration of Memorial University.
35. Move the management and funding of three primary health care clinics to the Eastern Regional Health Authority.

4.3.2 College of the North Atlantic

4.3.2.1 Institutional governance

The College of the North Atlantic has 17 campuses plus Connected Learning that enrol students and deliver academic programming. Administratively, CNA at the senior level has an executive team which is led by the President and CEO, and consists of a Vice-President Academic (Programs and Delivery); Chief Operating Officer; Vice-President Student Engagement; Vice-President, Partnerships, Innovation and Entrepreneurship; General Counsel and Corporate Secretary; and Director of Public Affairs. Campus Administrators report to the Chief Operating Officer.

4.3.2.2 Academic governance

Academic schools

The college consists of four Academic Schools: School of Academics, Applied Arts and Tourism; School of Business and Information Technology; School of Engineering Technology and Natural Resources; and the School of Health Sciences. Each school is led by a Dean who has responsibility for program development and evaluation (including accreditation where relevant) of academic programs delivered across the 17 campuses of the college.

The Deans report to the Vice-President, Academic. However, the academic programs, delivered at the campus level, are administered by the Campus Administrator. The Campus Administrator, with assistance from the Human Resources Department, hires and supervises the instructional staff for each academic program on their campus. The Campus Administrator allocates

instructional resources to the academic programs and addresses academic performance issues of students. The Campus Administrators do not report to the Vice-President, Academic.

The Review Committee heard many examples that suggest the current model of academic governance is problematic. Program instructors and students report feeling disconnected from the Deans and from their program colleagues throughout the college. Curriculum content and delivery within each program vary significantly across campuses, which undermines a sense of program coherency and academic integrity. Resource allocation to academic programs varies by campus, as do the qualifications of the instructional staff. Instructional staff do not feel they have adequate input into timing of program offerings or program revisions (such as updating course content, delivery schedules, and formats). Program evaluation and accreditation exercises are viewed as a top down exercise with significant workload demands placed on instructional staff to complete documentation but little sense of ownership of the process and its outcomes among the people who actually deliver the programs to students.

The administrative structures and business processes of the College of the North Atlantic are not consistent with academic governance principles, wherein leadership of and accountability for the academic exercise is aligned vertically within the institution under the direction of the senior academic administrator. For example, in most institutions of higher learning: The Vice-President (Academic), hires the Dean. The Dean, a subject matter expert in at least one area of his or her School's programming, hires instructional staff with appropriate qualifications for each academic program, usually with the assistance of /input from other instructional staff from the program area, as these are the people who are most knowledgeable about the field in general and the specific program needs. Instructional staff report to the Dean on all academic matters. The Dean, who is directly responsible for the delivery of academic programs irrespective

of where they are delivered, and who has the best understanding of the overall needs and resources of the School, allocates resources to the academic programs. Academic performance issues with respect to students that cannot be managed at the program level by the instructional staff are also addressed by the Dean. Program evaluation and accreditation activities are overseen by the Dean but coordinated and managed by a team of academic instructors and staff. Academic policies and decisions are usually the responsibility of a senior academic body consisting of the President, Vice-President (Academic), deans, program heads/instructors and student representatives.

Academic Council

The College of the North Atlantic does not have a Senate but does have an Academic Council, chaired by the Vice-President, Academic. This Council is advisory to the President on academic policy, programs, and student development issues. Membership includes the Senior Vice-President, Academic and Chief Learning Officer (Chair), the Associate Vice-Presidents of Students, Strategic Enrolment, Management, and Campus Operations, the four deans, four full-time faculty representatives (one from each School), a student union representative, and an academic support staff representative. There is normally one meeting of Academic Council per semester. Minutes of the Academic Council are not available publicly.

Unique governance arrangements

Currently the College brokers the Practical Nursing Program at nine campuses, but the program is owned by the Centre for Nursing Studies which is under the governance of the Eastern Regional Health Authority. Once again, the Review Committee notes that governance, administration and responsibility for delivery of post-secondary education belongs in a post-secondary institution.

Recommendations

36. Align academic governance within the College of the North Atlantic to ensure coherence and integrity of the academic mission.
37. Re-envision the role of the CNA campus administrator in light of the new academic governance structure.
38. Transfer all nursing related post-secondary education programming from the Regional Health Authorities to a post-secondary education institution.

4.4 Sustainability

As discussed in Chapter 3 (Ensuring a Strong Foundation), there are significant issues on both the revenue and expenditure side for Memorial University of Newfoundland and the College of the North Atlantic. Consequently, both face challenges with respect to maintaining core academic programming and simultaneously planning and developing new programs to address the changing needs of the province.

An array of Memorial University documents stress the special obligation of the university to help meet the social and economic needs of the province; offering of a comprehensive array of programs ranging from the arts and sciences to professional degrees is a key component of their mandate. The university has ambitions to expand programming and delivery sites, particularly in Labrador. Information about the cost per student for programs was not available. The College of the North Atlantic also stresses the importance of offering a wide array of programs to meet the labour force needs of the province and offering them in easily accessible locations throughout the province. However, the cost per student for delivery of these programs varies substantially (see companion document). CNA also has ambitions to expand program offerings.

Both institutions value the comprehensiveness of their respective programs and delivery approaches and therefore there is considerable hesitation around restructuring or elimination of programs. However, there is significant risk (from both quality of education and cost perspectives) in spreading resources too thinly. In the current fiscal environment, resources must be allocated on a priority basis.

Recommendations

39. MUN and CNA identify the priority areas for academic programming and allocate resources accordingly.
40. MUN and CNA evaluate the feasibility and cost effectiveness of program delivery methods for all programs (new and proposed).

References for Chapter 4

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Chapter 5: Research and Innovation

5.1 The role of research and innovation in the community

Research contributes to the enhancement of knowledge and to a community's standard of living. A core element of any university of significant stature is the expectation of the creation of new knowledge, and the intensity of this expectation has increased in recent decades. Community colleges too have undertaken research activities with increasing frequency and intensity. This chapter will outline the fundamental and applied aspects of research that underlie their contributions to the province and beyond.

Research is defined as "the systematic investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws" (1). The Organisation for Economic Cooperation and Development (OECD) (2016), having studied three categories of research over many years — basic or fundamental research, applied research, and experimental development — found that universities are the principal generators of basic research (2). Some research conducted in universities falls into the applied category, whereas applied research is the form more commonly conducted in community colleges, while experimental development tends to be pursued mostly in companies (2). In practice, divisions among categories are often indistinct and universities and colleges assist the private sector with experimental development and companies will support basic research in their fields of interest (2, 3, 4).

Innovation, on the other hand, refers to making changes or doing something in a new way (1). Innovation can be seen in all fields of endeavor, ranging from the creative arts, to commercial processes and the development of public policy. In recent decades, governments have become

focused on the promotion of innovation for economic and social development. There is an expectation and a desire for the post-secondary education system to play a substantial role in initiating and developing innovation, and post-secondary institutions have become deeply involved in contributing to innovation for economic and social return (3, 4).

While the post-secondary system plays an important role in innovation and economic development, most innovations occur at the level of the appropriate enterprise (5). David Dodge, former governor of the Bank of Canada, has presented a fiscal analysis noting necessary actions for the country, and by extension, the province, to enhance its standard of living. Dodge's paper calls for education to embrace digitization more fulsomely, and for the post-secondary sector to play an important role in achieving the goals of diversification and increased productivity (6). The post-secondary system contributes to these ends by developing open-minded and innovative citizens, and through producing and developing innovations itself and in concert with other sectors.

5.2 Knowledge generation and its role in the community

5.2.1 Memorial University

This section will explore the recent history of knowledge generation within Memorial University and its affiliated centres and units.¹⁸

The creation of new knowledge through research and other activities that add to society's understanding of itself is essential to the modern university. While the support for and performance of research is a defining characteristic of a modern university, other forms of creative and innovative intellectual activity are also highly valued. These encompass examination of concepts in thought such as in philosophy, the creation of new works in the arts and literature, and other thoughtful and analytical approaches to

¹⁸ The summary and analysis are substantially informed by information provided by the Vice-President (Research) of Memorial University, which will be found in the companion document, other submissions to the Review Committee, individual interviews, and the Review Committee's information gathering activities.

our past, current, and future conditions. It is incumbent upon the university to act on the core values expressed in the Memorial University of Newfoundland Act and take its essential knowledge creation responsibility seriously.

5.2.1.1 Roles served by research and knowledge generation activities and their contributions to innovation

At Memorial University research activities serve the institution and its community in many ways, including:

- generating knowledge that contributes to the understanding of fundamental aspects of nature and society;
- facilitating understanding of immediate problems and challenges presented by nature and society;
- in concert with others, converting knowledge gained into means of addressing immediate and long-term problems;
- developing and enhancing the culture within the local and broader communities;
- contributing to innovation in industry, as well as in policy and practice in a range of fields;
- advancing training and learning in problem solving that can be applied to a range of different challenges;
- developing new information that can be applied to teaching and learning in all fields and professions; and
- contributing to innovation in solving social and economic challenges.

5.2.1.2 Support of knowledge generation at Memorial University

In Canadian universities full-time faculty members are expected to devote their time to teaching, research, and service to the institution and the broader community. The university provides salaries to cover the time necessary for these activities, and usually an appropriate space in which to perform research and access to major infrastructure to support these activities.

Researchers at universities have the freedom to choose problems on which they work, but essentially they need to find ways to develop the financial resources to do so. Only in special circumstances do universities provide funds to professors to carry out their individual research projects; generally researchers must apply to various outside agencies for financial support for their research. Financing usually comes in the form of grants or contracts from federal and provincial governments; international, national and provincial agencies in the public and charitable sectors; and the private sector. At Memorial University only a small proportion of research support comes through private philanthropy.

In addition to the salaries of researchers, Memorial, like other universities, provides support for research in various ways. First, the university supports a substantial library and associated professional library services which are essential to the conduct of good research. The amount of pre-existing information that informs research planning is increasing enormously. The university library provides many services but two of the most important are access to physical and online pre-existing information for students and researchers, and guidance and assistance from professional librarians in obtaining desired information. It also assembles and maintains collections of information and writings of special interest to the province. Neither research nor teaching would be effective in the absence of this core service.

Second, Memorial provides management and accounting support to ensure that the conditions required of grants and contracts, and the general conditions for performing research in Canada that are specified by governing and funding agencies, are followed.

Third, the university maintains specialized facilities for research and teaching, for example, in fisheries, aquaculture, marine biology, and marine transportation.

Fourth, Memorial is unique as a major Canadian university in that it provides two centralized services that are critical to the operation and maintenance of research equipment. The Technical Services Department performs major maintenance on equipment and does design and construction work on research equipment that is unique to activities at Memorial. The other central facility, the Core Research Equipment and Instrument Training Network, provides operational support and minor maintenance services for major pieces of equipment to ensure optimal use for the university community. Much of the equipment in the centralized facility is placed there by faculty members who have obtained the instruments from individual grants. The equipment can be operated and maintained consistently by knowledgeable technical staff, extending equipment life and optimizing its use throughout the institution. Equipment at the facility can be readily used by other faculty members.

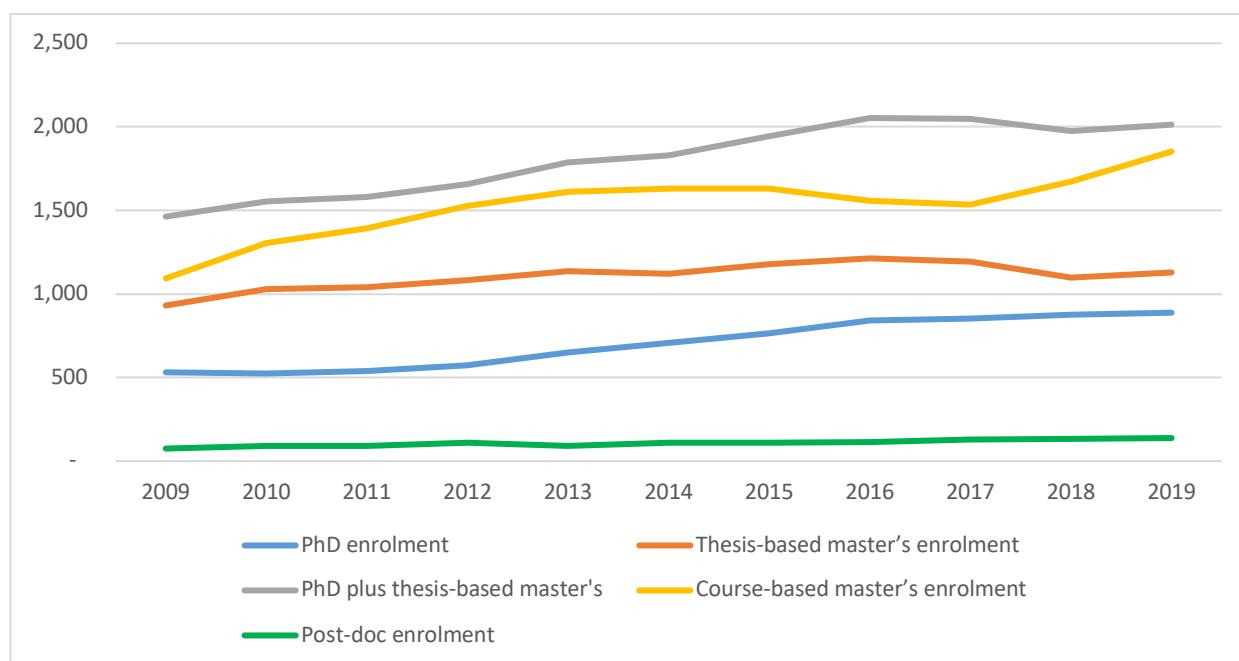
The facilities are operated on a graduated cost-recovery basis. In addition to helping with MUN research, the unique facilities provide services to the larger community when there is no local private sector provider. These facilities are also used for training higher-level undergraduate and graduate students.

5.2.1.3 Graduate studies and research

Growth in research and growth in graduate studies are intimately linked. Programs leading to master's and doctoral degrees are usually associated with research at universities. These programs typically have two components associated with learning: students receive higher levels of training in their fields; and, they learn to impart knowledge through opportunities to provide different forms of instruction in classrooms, laboratories and seminars under the supervision of faculty members. Graduate students are major performers of research, usually under the guidance of a faculty supervisor where students become increasingly independent as researchers.

A master's degree in graduate research programs usually requires up to two years of study and research after a bachelor's degree, and obtaining a doctoral degree requires up to five to six years of post-bachelor academic and research work. Many factors influence a student's decision to enter a graduate research program but among the important ones are the nature and reputation of the program, the reputation of the faculty member(s) who will oversee the student's efforts, and the facilities and equipment available for the research. Also, the amounts of financial support for the students' personal living and related costs that are available through scholarships and other avenues provided by the university and a research supervisor's grants is a substantial factor in attracting the most qualified students. Figure 5.1 shows the growth in enrolment in graduate research programs at Memorial over the last decade.

Figure 5.1 Trends in MUN graduate student enrolment, 2009-2019



Source: Office of the Vice-President (Research), MUN

There has been a steady increase in the number of graduate research programs over the past decade, reflecting new opportunities for students and increased investment by the university and faculty supervisors. Many, but not all, research graduate students are supported financially by the university through scholarships and bursaries from core funding and endowments, and by faculty supervisors' grants and contracts received from various external sources. The university also provides modest stipends for graduate students who undertake supervision in laboratory courses, oversight of seminar groups, and various other forms of teaching assistance duties for the institution.

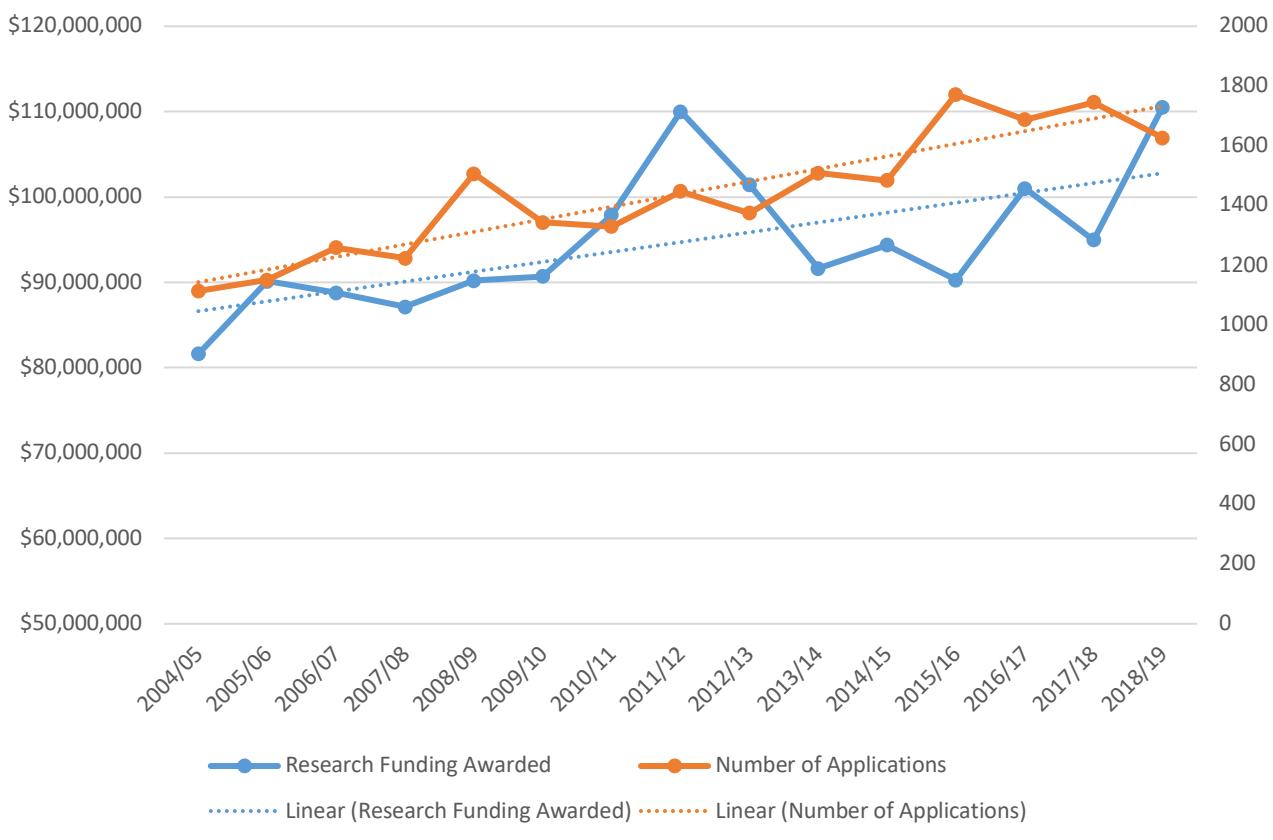
As graduate enrolment has increased, the supporting infrastructure for students has increased, and the School of Graduate Studies has received national and international recognition and excellence awards for the high quality of its service in support of graduate students.

5.2.1.4 Measuring the growth and development of research activities through external financial support

It would be expected that a university such as Memorial would see increased research effort and activity over time. A measure of the intensity of research activity is found in the external funding received for this purpose. Figure 5.2 shows the development of external funding at Memorial University for the period 2004 to 2019.

Figure 5.2 Research grants and contracts: total applications and funding

2004-05 to 2018-19



Source: The Office of the Vice-President (Research), MUN

There are two important observations from this figure. Funding for research activity has been increasing both in the numbers of applications for research funding to outside agencies, and in the amount of funding received over the last decade and a half. These are very positive indicators for the institution. Also, there is a strong correlation between the total amount of funds received and the number of applications submitted, suggesting that means should be found to promote an increase in the number of applications for research funds.

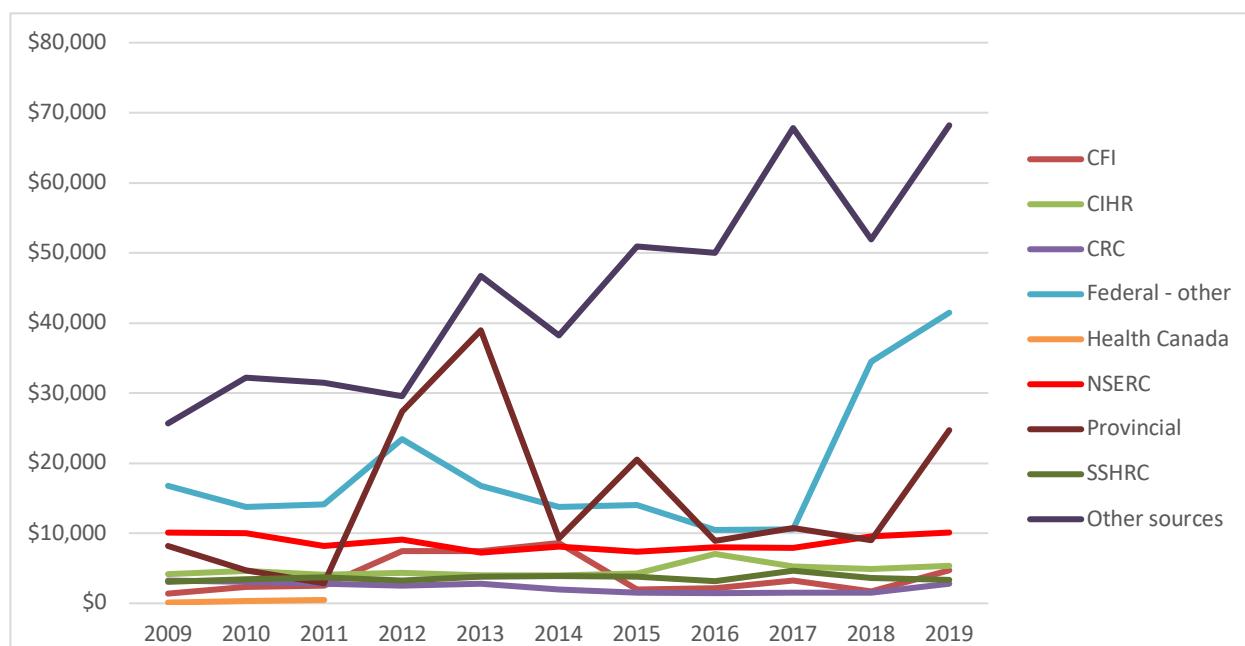
While it is recognized that there are many other demands for changing institutional activities, it is important that the university continue to find funds within its core budget to promote research activity. Losing traction now would

be unfortunate for the institution and the province. Currently, funds are found to support modest stipends for graduate students and very small amounts of assistance are made available in areas such as enabling new faculty to start research.

Memorial now spends six to seven percent of its core salary budget on facilitating research.¹⁹ Attraction of competitive research funding affects the ability of a university to contribute to local and broader communities, to its national and international reputation as a high-quality academic institution, and to its ability to attract faculty of the highest quality who wish to contribute not only to teaching but to the creation of knowledge.

The research support from major funding sources expended over the last decade at Memorial University is shown in Figure 5.3.

Figure 5.3 Research funding (expended) by source, MUN 2009-2019 (\$000's)



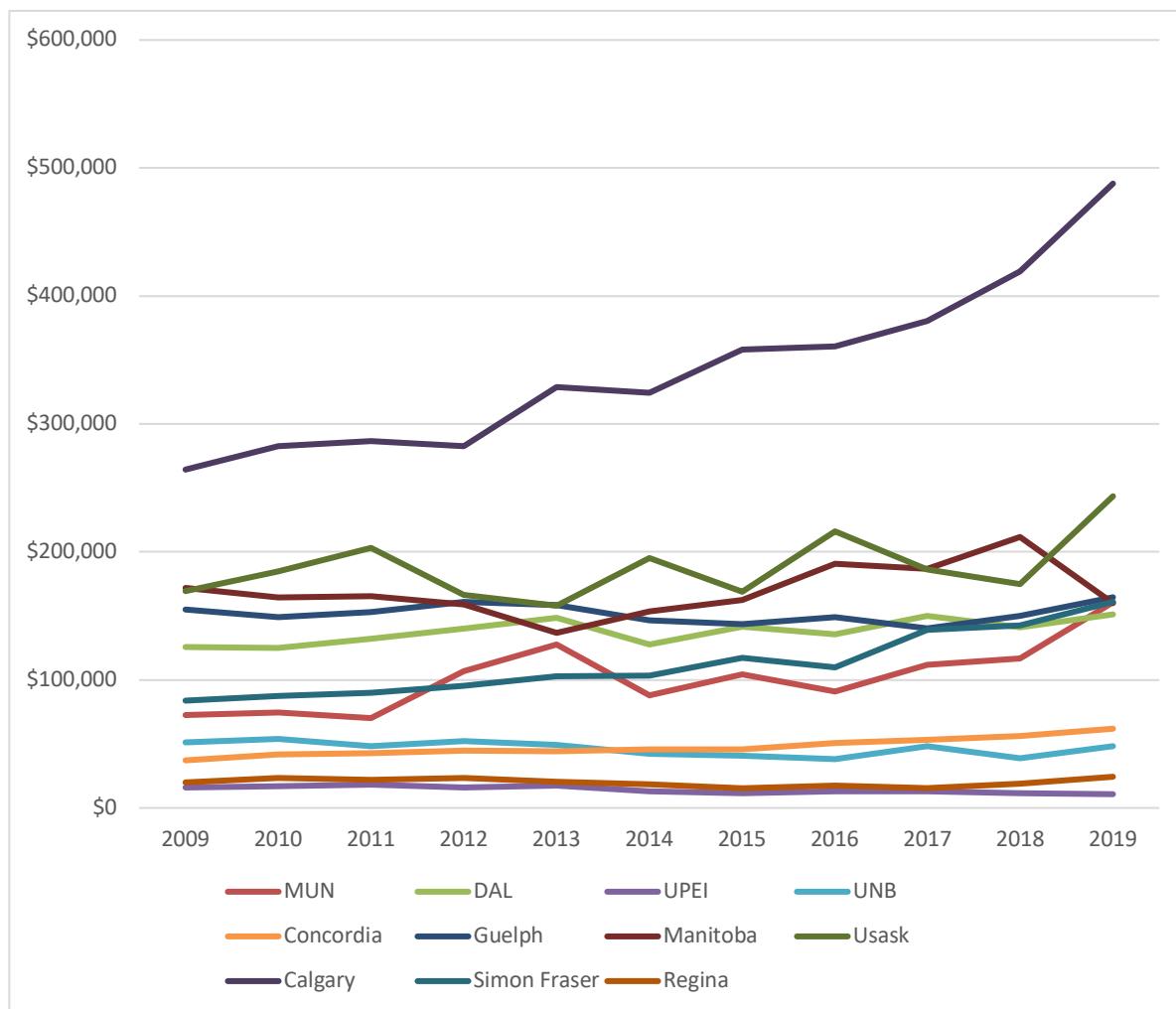
Source: CAUBO database (7)

19 Calculation based on data from information provided by the Office of the President, MUN

This figure should be compared with those presented for universities which have been chosen as comparator institutions (refer to the companion document). Funding from “other sources” is largely composed of investments by the private sector, and in the last few years largely by industry. Over the past decade MUN has seen over a doubling of research investment from the private sector, demonstrating that research is of direct interest to provincial and national industry. That trend, however, highlights a potential new challenge for MUN as the downturn in the energy industry may result in decreased support from this source in the short to medium term. Memorial will need to find ways to diversify private sector research support and undertake more of the fundamental work that can support economic diversification in the province.

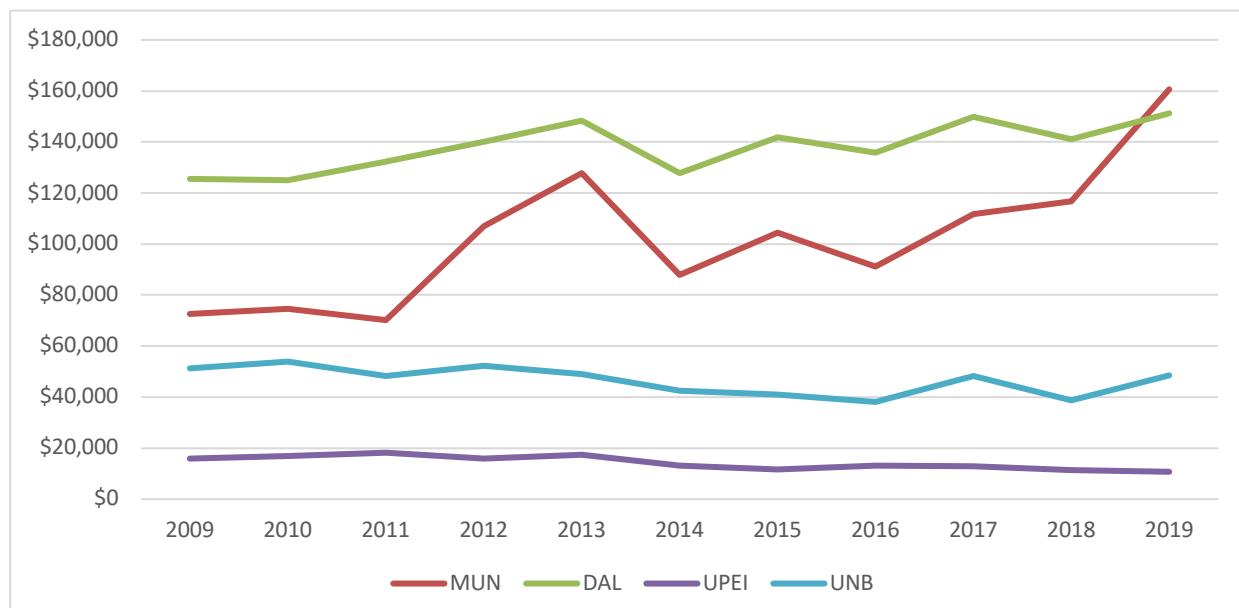
Figure 5.4 shows the total external research funding expended by MUN and the comparator institutions, and Figure 5.5 shows the comparison with other Atlantic universities.

**Figure 5.4 Total external research funding expended, select Canadian universities
2009-2019 (\$000's)**



Source: CAUBO database

Figure 5.5 External research funding for four Atlantic universities 2009-2019 (\$000's)



Source: CAUBO

A consideration of the data in Figures 5.4 and 5.5 (see the companion document) shows that with some exceptions external research funding in most institutions was roughly stable over the decade. In the Atlantic Provinces funding for UNB and UPEI decreased while that for Dalhousie increased and the amount for MUN increased by the largest amount. Next to the University of Calgary, MUN showed the highest percentage growth in external funding over the period. It is noted that MUN's funding at the beginning of the period was significantly lower than that for many of the comparator institutions.

As seen in Figure 5.3 and the companion document much of MUN's funding growth was accounted for by the private sector. Three other universities, Manitoba, Calgary, and Simon Fraser, also showed high growth in private sector funding for research. Almost all institutions showed little change in provincial funding. Dalhousie received the smallest proportion of its external funds from provincial sources. Funding from the Natural Sciences and Engineering

Research Council (NSERC) at Dalhousie grew substantially in the early part of the decade and has remained high since. Funding from NSERC at MUN decreased slightly in the same period but the hiring of a new cadre of researchers later in the decade might lead to this trend reversing.

The University of Calgary received a substantial amount of funding from the Canadian Institute of Health Research (CIHR), a situation aided by major investments from the Province of Alberta in health research and associated faculty over the last 40 years. These investments have changed Alberta from a low recipient of national health research funding to being one of the top jurisdictions in the country. The provincial investments in building capacity for health research have paid off in making health researchers in Alberta quite competitive for other national and international awards. Other provinces have followed suit with larger provincial investments to increase their competitiveness.

The Government of Alberta has also made significant investments in energy research in its universities, and this has levered substantial investment from the private sector and federal funding agencies.

The Universities of Guelph and Calgary have very high research investments from their respective provinces. The case of the University of Guelph is special in that it receives a high level of support from the Ontario Ministry of Agriculture, Food and Rural Development. For many decades the University of Guelph has effectively been the research and development arm for the ministry that supports a large agriculture industry in Ontario. This high level of investment has allowed the University of Guelph to effectively lever investments into funding from other bodies such as the federal research granting bodies. It has also enabled the University of Guelph to become one of the world's outstanding agricultural research universities.

The University of Saskatchewan has also focused on and made significant investments in agricultural research in concert with its provincial government. This strategy has also allowed the university to become a premier university in this field. The stature of the university's cadre of excellent researchers has enabled Saskatchewan to be the only university in the country to garner two Canada First Research Excellence Fund awards from the federal government. These awards are the largest investments ever offered to build focal points of excellence in the country.

There are lessons to be learned by Memorial and the Newfoundland and Labrador provincial government from these focused research activities and the successes enjoyed by the Universities of Saskatchewan and Guelph.

5.2.1.5 Provincial government support for research and development

In addition to contributing to the core operating grants for universities, most provincial governments make investments in research through funds that are held in government departments or assigned to arm's length agencies. These provincial funds are often used to make strategic investments in areas of provincial priorities, and they are also used to provide partnership funds to allow for leverage of funds from other non-provincial agencies, especially federal granting agencies.²⁰ In 2007 the Newfoundland and Labrador Government began to provide research funds through an arm's length agency, the Research and Development Corporation (RDC). Since 2017 provincial government funding for research and innovation has been disbursed through an internal fund, the Research and Innovation Fund (RIF) Program, operated by the Department of Industry, Energy and Technology. The most recent government accounts indicate that approximately \$22 million was allocated last year, of which the university allocation was about \$6 million (see Figure 5.6). The program is open

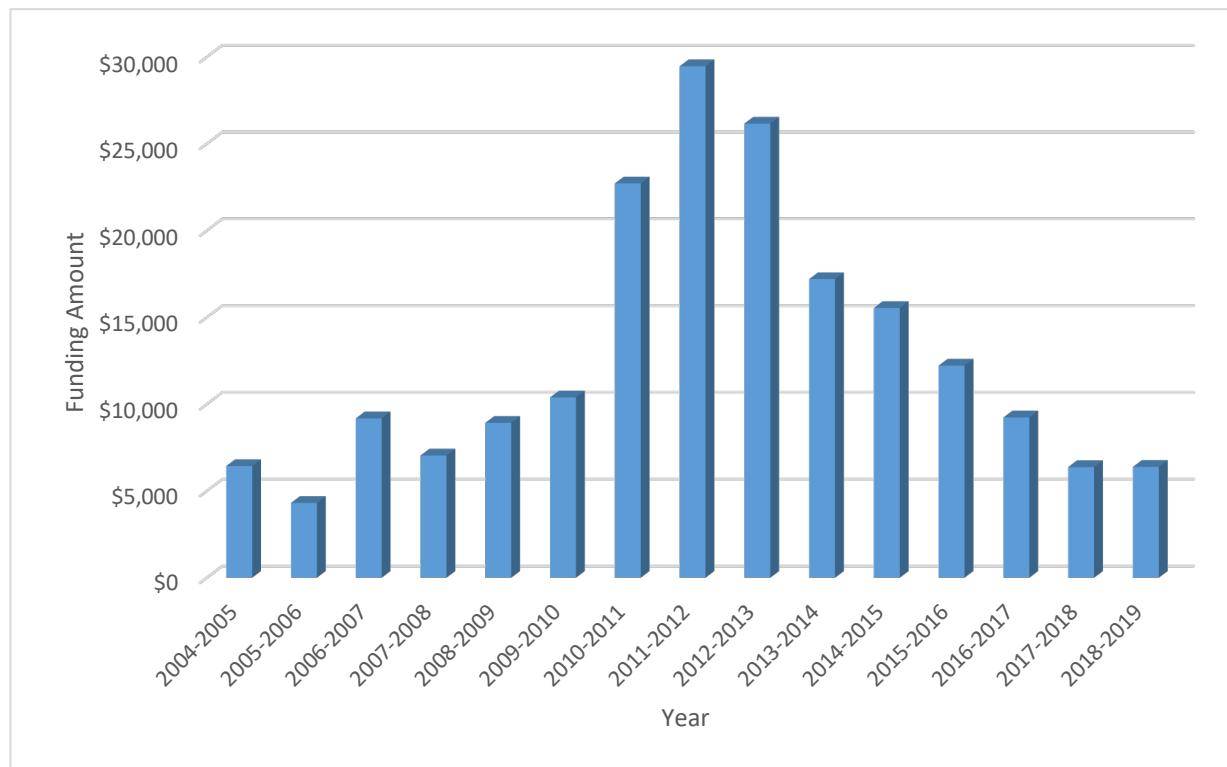
20 (companion document, and interviews with Vice-presidents research in comparator universities).

to a number of applicants including post-secondary institutions, municipalities, industry associations and other not-for-profit organizations such as economic development associations.

Specific research investments in Memorial University by the provincial government over the past decade are depicted in Figure 5.3 and 5.6.

With the exception of the years from 2012 to 2015 when there were significant expenditures as were noted above made in the Faculty of Medicine for the building and equipping a new building that housed the Craig L. Dobbin Genetics Research Centre, and the Centre for Fisheries Ecosystem Research at the Marine Institute, the provincial funds as recorded in the Canadian Association of University Business Officers (CAUBO) reports have continued to decrease. While CAUBO reports (7) have been used because they provide a reliable country-wide standard for comparison among universities (companion document), they provide what are sometimes called “trailing indicators”: they are recorded when the amounts are spent or disbursed, not when they are received. The CAUBO records indicate a slow decrease in spending from provincial research grants over the past few years; the awards that have been received from the province in the period from 2004 to 2019, displayed in Figure 5.6, show that recent provincial funding received for research has been decreasing at a greater rate than is obvious from the CAUBO reports. The amounts received in 2010-2011 to 2013 as shown in Figure 5.4 were unusually high because they included the same special investments for developing and equipping the Craig L. Dobbin Genetics Research Centre in the Faculty of Medicine and the Centre for Fisheries Ecosystems Research at the Marine Institute noted above.

Figure 5.6 Research funding received by MUN from the Province of Newfoundland and Labrador 2004-05 to 2018-19 (\$000's)



Source: Office of the Vice-President (Research), MUN

Provincial research funds are often associated with economic development departments. In some provinces there is additional funding for research and innovation flowing from other line departments, often from departments of agriculture and health.²¹

Provincial research support provides leverage and partnering funds for other programs, especially competitive federal funds that require partner contributions. This is most critically felt in obtaining infrastructure for research and innovation from agencies such as the Canada Foundation for Innovation (CFI). Without new and renewed physical infrastructure for research an institution will fall behind

21 Refer to composite figure on research funding in the companion document

rapidly. Provincial funds aid in establishing new areas of research or building areas of strategic importance to the province. They are also especially helpful in attracting new researchers, a process that is becoming increasingly competitive for the best talent across the country. It is nearly impossible to build a new research area of provincial priority in the absence of provincial investment.

5.2.1.6 Research contributing to the community

There are many ways through which research at Memorial University makes direct and indirect contributions to the provincial and national communities. A few examples from the more detailed exposition in the companion document are provided below. Some activities will have more immediate impact than others, although it is likely that in the longer term research will lead to a better understanding of the more complex issues facing many regions and communities.

Much of the impact of MUN investments in research and innovation is seen in units at the university that have special connections to sectors of the community, such as the Marine Institute, the Faculty of Engineering, and the Faculty of Music. MUN research has also had province-wide effects in that it has informed policy and regulatory decisions.

Through its Institute for Social and Economic Research (ISER) and the J.R. Smallwood Foundation, the university provides support for graduate students and researchers in social sciences and humanities who are conducting research with a strong relationship to Newfoundland and Labrador. Another unit that involved community and university researchers is the SafetyNet Centre for Occupational Health and Safety Research. Memorial's Harris Centre facilitates a wide range of connections between MUN researchers and provincial communities to assist them with tangible and researchable questions. The

Harris Centre also provides support for rigorous data gathering and analysis for various sections of the community for government through its RAnLab.

The creative activities that are associated with the Faculty of Humanities and Social Sciences include sponsorship of the SPARKS Literary Festival which features emerging and established provincial, national, and international writers.

The Maritime History Archive develops and hosts online resources such as the Newfoundland and Labrador Heritage Website. This long-established Archive is currently working with the provincial Department of Education to develop curriculum materials for use in instruction in Grades 8 and 11.

The Labrador Institute has established a strong presence in research and development in Labrador, in particular through its relationship with Indigenous people. It has a number of programs and facilities to aid research such as its archeology collections room and its library and archive of materials relevant to Labrador. Grenfell Campus has developed a research presence in areas such as agriculture and forestry that are especially relevant to the community in the western and northern parts of the province. It has also established partnerships with the Corner Brook city council, the College of the North Atlantic, and the major regional industry, Corner Brook Pulp and Paper, to promote innovation and entrepreneurship.

The School of Music has created the Research Centre for the Study of Music Media and Place which undertakes research on music in the history and culture of Newfoundland and Labrador. The creative and performance activities of the School highlight the School and MUN across the province and around the world.

Other faculties, such as Medicine, have undertaken research activities that focus on providing solutions to problems faced by government in delivering and maintaining high quality health care across the province. The Faculty of Medicine has created high-level expertise in human genetics that was originally

built on genetic “founder populations” in Newfoundland and Labrador. This research has led to developments such as the identification of people who are at risk of sudden cardiac death syndrome, and a relatively simple way to remedy the problem by implanting pacemakers. The medical faculty is also home to the Translational and Personalized Medicine Initiative which unites multidisciplinary research and health analytics with patient care to develop personalized approaches to patient care.

The Oceans Sciences Centre continues to be a leading source of fundamental and applied research on the marine environment.

The Marine Institute (MI) has been solving challenges in the marine and fishing industries for many decades. Its research and development activities are strongly focused on the ocean, fisheries, aquaculture and marine transportation. The institute is the physical home for the Canadian Centre for Fisheries Innovation (CCFI) which has supported research and development by Marine Institute and faculties at Memorial for over 30 years. The institute embraces a large range of research and development activity, from investigating fundamental phenomena to responding to more immediate challenges that require both short- and long-term strategies and applications. The activities are supported by units that have special and sometimes unique infrastructure that enables high-quality focused research. Through its technical staff and researchers the Institute has been a major contributor to innovation in fisheries, aquaculture, and marine technologies and operations locally and throughout the world.

There are numerous other examples given in the companion document and on websites of the various faculties and units of the university. The engagement of Memorial’s faculty from many fields of study in meeting the challenges of the provincial economy was evident in the recent international conference held at

Memorial on the “engagement of post-secondary institutions in economic, social and cultural development in peripheral regions” (8).

5.2.1.7 Contributions to innovation and economic diversification

An undergraduate education contributes substantially to developing the qualities that help people to be innovative. A graduate education that revolves around a challenging research problem hones the skills needed for identifying opportunities, finding and testing ways to implement solutions, and adding a high value to the skills needed in a modern innovative economy.

Innovations in policy and regulatory frameworks are needed to create the change required for fulsome economic and community development. Advanced educational institutions such as Memorial University develop skills that prepare their graduates to be leaders in facilitating economic and social change.

Internationally, most regions that have developed new economies have done so around local advanced education systems. Advanced educational institutions have also been central to attracting companies, innovators, and highly qualified people to these developing regions.

In addition to graduating well prepared and specialized citizens, universities contribute to innovation and economic development by being a source of new ideas and technologies that will be implemented in the marketplace, in practice, in policy, or in areas such as community development. Memorial University helps its researchers to maximize the use of newly generated knowledge to find application in the community. Personal contacts between researchers and decision makers are encouraged so that applications in policy can be fostered. The Marine Institute and faculties such as Engineering and Medicine have connections to their professional communities that promote and facilitate new and innovative processes in the community.

Through central offices the university provides assistance with transfer of new technological or creative developments. It provides assistance with patenting and technology transfer, among other activities, that are necessary to introduce new innovations into the market.

Memorial has had for quite some time ancillary enterprises that form the backbone of an important innovation support system in the province. As noted above, the Canadian Centre for Fisheries Innovation (CCFI) has underwritten major research and development projects that have improved more environmentally sustainable fishery and aquaculture industries. The centre is highly responsive to industry needs, and it relies heavily on units such as the Marine Institute and the Ocean Sciences Centre for the research infrastructure and personnel to help solve problems.

Genesis, formed nearly 25 years ago, was an early investment by the university in the development of new companies in the province. It has recently been enjoying substantial success with its activities associated with “graduating companies” (see section 5.4).

C-CORE was created by the university 45 years ago to provide engineering research and development expertise to companies and governments in the area of operations in cold oceans and harsh environments, and it continues to successfully contribute to solving problem for a wide range of clients (refer to companion document and section 5.4).

These ancillary enterprises have mandates that are not solely institution-centric; their clients represent regional, national and international companies and agencies (see Section 5.4).

5.2.1.8 Contributions to advancing fields of knowledge

It is expected of substantial universities and their faculty that, through research and other scholarly work, they will make significant contributions to new information and new understanding of natural phenomena. There are various ways in which contributions to new knowledge can be measured, each with their benefits and drawbacks. Most of the methods have been used to assess contributions of individuals or small groups, but similar processes are now being used to rate or rank universities in their overall performance. A key measure in rankings is the amount of new information generated, and much more important, how much attention experts in the field are giving to the new findings. Another significant measure is related to how much funding academics can generate for their research. As in many endeavors, past performance is taken as a good guide to future performance. These measures are applied to individuals and institutions.

There are agencies that rank universities across the world on the basis of their performance in knowledge generation and related areas. These rankings provide some assessment of quality and regard for the institution in comparison with others. The rankings depend fairly strongly, but not exclusively, on research performance. Memorial University has moved up somewhat in the Canadian and world rankings over the past few years, and now ranks in the 21st to 24th place in Canada. While this is a good position considering the total number of universities in Canada, Memorial's ranking is still below most of the comparator universities included in this review.

When specific areas or fields are considered MUN ranks highly among Canadian universities. The "Academic Ranking of World Universities" (ARWU) compiled by ShanghaiRanking Consultancy provides a detailed breakdown of rankings by subject areas (9). In ARWU's most recent rankings the field of Marine/Ocean Engineering ranks first among Canadian universities. Other

noteworthy Canadian rankings for fields at MUN are: Oceanography, 5-6; Political Science, 5-7; and Mathematics, 7-9.

A university's reputation as a high-performing institution has at least three important effects. It is important for the university's alumni, especially in the early stages of their careers, to have graduated from a highly regarded institution. Second, a university's reputation affects the ability to recruit international students and international researchers. And third, a university's reputation in research has an effect on its ability to attract new faculty members, and research grants and contracts.

National reputation is strongly influenced by the amount of funding received from a group of federal granting bodies that provide support in highly competitive awards processes. Receiving grants from these national agencies is considered the gold standard for indications of quality of research, principally because the competitions are rigorously reviewed and successful awards are relatively few in number compared to the number of applicants. These agencies include the Social Sciences and Humanities Research Council, the Natural Sciences and Engineering Research Council, the Canadian Institutes of Health Research, the Canada Foundation for Innovation, the Canada Excellence Research Chairs, and Genome Canada.

The funding data from the three federal granting councils seen in Figure 5.3 indicate that Memorial's ability to attract new funds from these councils has not grown much over the last decade. In order to build its national and international reputation, in particular to assist its graduates in promoting themselves, MUN needs to make special efforts to increase funding from these sources. Memorial could do more to help itself by taking additional actions to support research applications and by increasing internal expectations of performance.

They could ask the provincial government to help more with seed funds, and ask its professoriate to do more to succeed in these national competitions. Private sector and provincial funds can add to leverage, consequently enabling MUN researchers to be more competitive in national and international funding competitions. Because the competition for these funds is extremely high, making positive change in Memorial's success in these competitions could be slow, but MUN cannot afford to lose ground, for its sake and for the sake of its staff and graduates.

Memorial also needs to find ways with the province to increase competitiveness in federal TriCouncil granting competitions for a practical reason. Some TriCouncil funding programs provide funds and other opportunities to institutions that are based on the amount of support that an institution has received in competitions with other universities. Two examples are opportunities to obtain funding for Canada Research Chairs (CRC) and contributions to additional operating costs that are directed at general support of research activities. The CRC program provides for salary and some research operating costs for faculty who have a special requirement for research for up to ten years. This program enables institutions to gain additional faculty or cover costs of existing faculty in designated research areas. Using the program to cover costs of existing faculty is self-defeating if the institution wishes to move upward in reputation. Memorial University should not be satisfied with its current reputation, and must continue to find ways to build that reputation. This might best be accomplished by choosing to focus on areas of existing or clearly emerging strength.

5.3 College of the North Atlantic

5.3.1 Applied Research

In their early days colleges contributed to their communities principally through their teaching and training mandates, but most colleges in Canada have now developed a capacity to support research as well. Usually in colleges, research is closely related to

solving a distinct problem or there is a process of applying existing knowledge to the solution of an immediate problem; this activity is usually referred to as applied research. Over the past generation colleges increasingly assumed the mantle of providing research-based and immediate solutions to practical problems to industry and entities such as community councils (see companion document).

Applied research is often needed by a company or a social enterprise when modifying an existing product or process to make it more useful. The useful changes brought about are often collectively termed incremental innovation, and are the source of substantial means of improving competitiveness in firms and economies.

The development of applied research in colleges has been encouraged and enhanced by governments that are interested in tapping into capacities in colleges to facilitate incremental innovation leading to greater competitiveness. Economic development agencies and, more recently, federal research funding agencies, have created dedicated mechanisms to enable colleges to contribute more to regional and national innovation economies. The most prominent of these dedicated funding mechanisms is the College and Community Innovation Program (CCIP). The program was started in 2010 and is managed by NSERC on behalf of the Tri-Council Agencies (CIHR, NSERC, SSHRC). Federal support mechanisms usually require contributions to the costs of the applied research project from a partner, usually a company (10, 11).

5.3.2 Applied research at the College of the North Atlantic

Applied research in the College of the North Atlantic (CNA) has grown as a result of its access to funding from the College and Community Innovation Program and other support mechanisms such as the Industrial Research Assistance Program of the National Research Council of Canada. CNA has an Office of Applied Research and Innovation, led by an associate vice-president, with a mandate to promote applied research.²²

22 Information used in this summary is based on information provided by the Office of the Associate Vice-President, College of the North Atlantic, and research by The Committee.

In CNA, as in colleges in general, research is usually organized and managed by research offices (see companion document). While faculty in universities are expected to spend a substantial portion of their time conducting research, it is only recently that some colleges have begun to make appointments where the performance of research is part of the obligations of employment contracts. The first such appointment was made at CNA approximately a year ago. The mechanics of arranging and performing research are substantially different at a college compared to a university. In a college, if full-time expert faculty participate in research projects they might be volunteering time beyond their usual workload. More frequently the time a faculty member spends on a research project needs to be compensated through funding received for the research. This enables the temporary coverage of teaching duties through retention of replacement teaching experts. Often college research activities are led by additional temporary staff members who are hired specifically for the research projects using funds available in research contracts. Technical assistants for the research projects are also paid with funds from research contracts with external parties, the same as in universities.

An important condition of obtaining research funding from the Tri-Council agencies is that students be incorporated into the research. Because obtaining these funds is also conditional on having a private sector or community organization partner, these projects enable college students to have experiential learning opportunities.

In all of its three-year diploma programs the college has compulsory capstone courses in which students are expected to develop possible solutions to “real world” problems, gaining research and industry experience. These finishing courses provide opportunities for students to become involved in mentored applied research projects. In 2019-20 there were 806 unpaid students involved in these projects.

Applied research project funds also provide for the payment of students as assistants. In 2019-20 there were 33 paid students in research projects at CNA.

5.3.2.1 Measuring activity in applied research

As noted above for universities, an indication of research intensity can to some extent be obtained from the amount of funding received from external sources.

The amount of applied research activity at CNA since 2013 is shown in Table 5.1. The data were obtained from Re\$earch Infosource (12), a publication to which colleges submit data on applied research each year.

Table 5.1 Record of applied research measures for CNA

Indicator	2013	2014	2015	2016	2017	2018	2019
Total R&D funding (\$000's)	1,107	1,293	1,821	1,474	2,415	2,611	6,151
Industry R&D funding (\$)	-	-	10,000	10,000	69,000	655,000	129,000
Industry funding as a percentage of total sponsored funding	0.0%	0.0%	0.5%	0.7%	2.9%	25.1%	2.1%
Number of research partnerships	19	22	16	23	29	25	32
Number of research projects completed	34	19	11	15	22	17	28
Number of paid student researchers	-	-	25	19	27	18	30

Source: Re\$earch Infosource

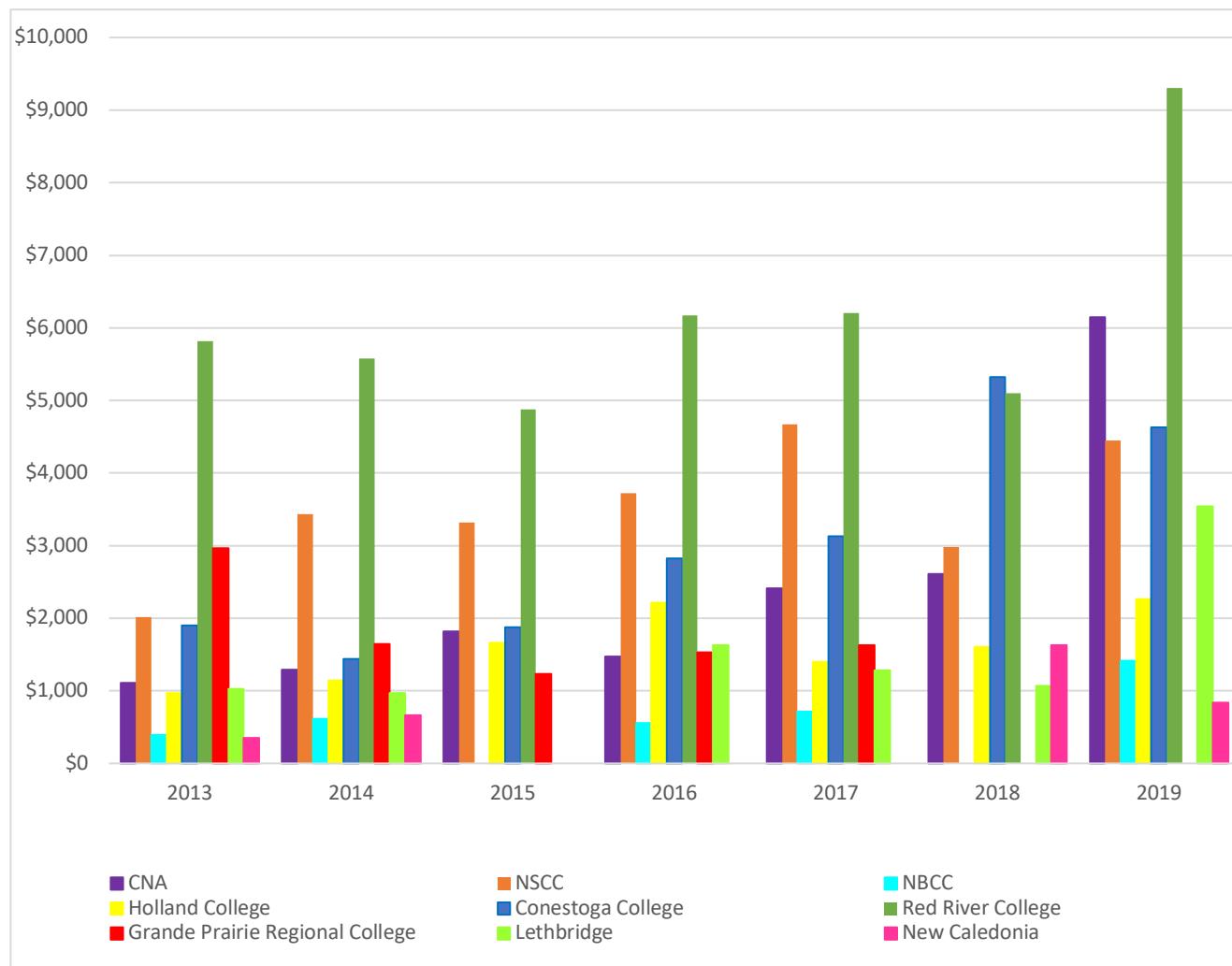
CNA external funding for research more than doubled from 2013 to 2018. Over that period the number of partners and number of projects completed has

been variable. The amount and percentage of funding from industry increased substantially over the same time period. Data for comparator colleges is included in the companion document. These increasing external investments, especially from industry, are an indication of a rising reputation among stakeholders and clients for good performance at the college.

Data obtained from CNA indicated that for the year 2019-20 the total number of research projects had grown to 88 while the number of participating partner firms and organizations was 41. The number of students who were paid to work on research projects was 33 while the number of unpaid students who were working on these projects was 806, most of them completing capstone courses. The total external investment in applied research had grown to over \$6.4 million, a substantial increase from the previous year.

Figure 5.7 shows the total external research funds received by CNA and the comparator colleges (see companion document). In general, the funds received by all institutions increased over time, but in the case of CNA and Conestoga College external research funding more than doubled.

Figure 5.7 Research and development funding at CNA and comparator colleges 2013-2019 (\$000's)



Source: Re\$earch Infosource and New Brunswick Community College

Red River College had the highest investment overall, likely because it has one of the longest records of applied research support among the comparators.

There is also a wide spectrum of agri-food, transportation and manufacturing industries with which the college can partner in applied research. Over the last 15 years Red River College has built research capacity and support quite effectively; for example, it has developed a new vehicle efficiency facility and

three Technology Access Centres. Technology Access Centres are specialty focused units of applied research technology transfer support that are funded by the federal Tri-Agencies to provide partnerships between applied research capacities in colleges and stakeholders in the private and public sectors (see 5.3.2.2, and companion document).

Holland College has also seen substantial increases in research and in external investment as can be seen in Figure 5.7. These changes likely reflect the focused and growing life-and bio-technology related industries in PEI that invest in the college's services.

Centre for Research and Innovation

Recently CNA Corner Brook Campus and MUN's Grenfell Campus developed a Centre for Research and Innovation in partnership with Corner Brook Pulp and Paper Limited and the City of Corner Brook. This Centre, located in the heart of Corner Brook, will be a focal point for applied research in forestry and the development of entrepreneurship and commercialization. This is a unique opportunity to develop new research and innovation partnerships within the post-secondary system and support stakeholders in the industrial and municipal communities.

Examples of specific applied research projects currently underway at CNA include the following:

- developing a hyperspectral drill core scanning unit
- improving methods for ore grade determination using laser induced breakdown spectroscopy
- developing a robotic crab processing device
- optimizing the functionality of a smart back brace
- designing and manufacturing a robotic controlled ultrasonic cookie bar cutting system

5.3.2.2 CNA research facilities and assistance for research and development

In recent years CNA has built a substantial infrastructure for research in areas such as hyperspectral scanning, applied mineralogy, mineral processing, applied entomology, innovative product development, nanotechnology, and a wave environmental research facility. These facilities are located at various campuses of CNA and they provide equipment that is being effectively utilized in applied research activities (13). In addition, CNA, with the assistance of the federal and provincial governments, is nearing the end of construction in Stephenville of a \$20 million Centre of Excellence in Heavy Equipment Teaching, Innovation and Industrial Research. This major investment will underpin an ability of CNA to develop an existing strength into a regional and national leadership role in applied research in an area of substantial regional and national need.

The college has also created the College Innovation Network (CIN) with the intention of making stronger connections among the geographically and conceptually dispersed innovation capacities across the college. This network is also intended to connect the senior students who are completing capstone projects with the entities in the community that are seeking solutions to specifically identified problems in their operations. Complementing this network, the college has also developed a group of 12 Sector Teams that will develop ideas for assisting sectors by prioritizing college investments in infrastructure and personnel.

CNA has not yet taken advantage of a significant national program managed by NSERC called Technology Access Centres (TAC), established a decade ago. TAC grants are intended to enhance the ability of colleges to assist companies, particularly small and medium-sized enterprises (SMEs), to become more productive and innovative by enabling them to readily access college expertise, technology and equipment (11). The college needs to expeditiously apply for a TAC.

CNA is also a member of Springboard Atlantic, a pan-Atlantic facilitating body that is a network supported by the Atlantic Canada Opportunities Agency (ACOA) and its 19 network member colleges and universities, including Memorial University. Springboard Atlantic supplies support for technology transfer and commercialization activities that are generated from college and university research and development activities. Given its expanding portfolio of research and development activity the college should anticipate using Springboard to full advantage in the near future.

The College of the North Atlantic is adding to its applied research strengths as is seen in its increasing acquisition of external funding for applied research. It has also put in place a number of new core activities and organizational arrangements that will increase its ability to contribute to innovation in the economy. It has been developing new links with Memorial University which will strengthen the Newfoundland and Labrador post-secondary research environment and enable the post-secondary system to contribute at a new level to the future of young innovators and entrepreneurs in the province (companion document).

5.3.3 Connection to community

The number of private and public sector partnerships involved in CNA applied research is an indicator of the value of the work to the community in helping private and public sector clients (see companion document).

As noted above, CNA has developed a College Innovation Network to share expertise across their campuses based upon sector teams that are oriented to key areas of the provincial economy. The network and the sector teams will enable focused direction for the college to assist provincial industries and communities with future development.

Currently CNA has a substantial number of partnerships with industry and other community stakeholders for work in applied research. There are 88 current or recently completed applied research projects between CNA and clients. Many of the partners are listed in the companion document. They cover a wide spectrum of companies and industries of priority to the provincial economy as listed in the provincial government's "The Way Forward" plan.

CNA administers the Newfoundland and Labrador Workforce Innovation Centre (NLWIC) that was established and funded by the Government of Newfoundland and Labrador through the Canada-Newfoundland and Labrador Labour Market Development Agreement. In 2017 and 2018 NLWIC invested in 20 research projects related to the workforce across 11 sectors of the Newfoundland and Labrador economy. There are significant opportunities within the activities of this centre to promote partnerships in research with the community and with other institutions such as Memorial University. To date, six of the NLWIC projects have involved faculty and staff from both CNA and MUN, and graduate students from MUN have also taken part in the projects. There are likely to be additional possibilities created through the research sponsored by NLWIC for CNA and MUN students to gain experiential learning and research training. These experiences will invigorate the ability of new graduates of both institutions to contribute to innovative approaches to socioeconomic development upon their graduation. As well, student perspectives often produce new approaches to the solutions of older "intractable" problems, which can be of great benefit to clients and partners.

The Corner Brook Centre for Research and Innovation, described above in section 5.3.2.1 is a further example of an important connection between the post-secondary education system and the community.

5.3.3.1 Research partnerships with MUN

Over the past few years there has been an increasing number of collaborations between CNA and MUN on research projects and research support processes (companion document). These include:

- a number of workforce innovation studies
- compositional analysis of soils in western Newfoundland
- studies on ores from Voisey's Bay and Baie Verte
- hyperspectral imaging studies with the Labrador Institute of MUN
- with the assistance of CCFI, development of a crab processing robot with the Marine Institute and the Technical Services unit of MUN
- with Genesis, examining ways to increase technology entrepreneurship among women and immigrants
- work with C-CORE on a ground satellite station at CNA Happy Valley-Goose Bay campus

Other areas of increasing collaboration include:

- discussions on adjunct cross-appointment of faculty
- collaboration on agriculture initiatives
- discussions between the CNA, the Marine Institute, and the Ocean Sciences Centre on the use of the CNA Wave Environment Research Centre in Lord's Cove
- discussions between CNA and MUN on human research ethics processes
- interactions between CNA and MUN on their research grants management platform and on research data management

As mentioned above, the Newfoundland and Labrador Workforce Innovation Centre and the new Centre for Research and Innovation, both located in Corner Brook, provide additional opportunities for interactions between CNA and MUN.

5.4 Innovation and the role of the post-secondary system

The material above, in sections 5.2 and 5.3, discusses the role of the post-secondary system in the generation of knowledge through research. This section discusses innovation, considered to be making a change or doing something in a new way (1), or the use of new or established knowledge to generate beneficial changes in products, policies or procedures. The common appreciation of innovation is in terms of the implementation of a change that brings benefit to some part of society. That perspective will be pursued in this section, and the important role the post-secondary system plays in innovation will be discussed.

The potential for innovation presents itself in all endeavors, and in all forms of research and development. Innovation and creativity are closely linked in that it is hard to achieve innovation in the absence of creativity. Methods for procuring fundamental knowledge can, in themselves, involve innovative processes.

In the sense that innovation plays a large role in the sustenance of a modern firm or a public system, innovation and entrepreneurial behaviour are closely linked. Much has been written about the relationship between the two (14, 15).

The process of bringing value to ideas for the benefit of a firm or a public body is sometimes described by the following pathway:

Idea → Invention → Innovation → Implementation → Imitation

Usually the pathway is not nearly as “clean” as portrayed, and the process from idea to outcome is often a tortuous web of complicated interwoven actions and reactions, but the outline serves a useful purpose for this brief discussion.

To effect change and make innovation successful there is need for entrepreneurial activity to bring the idea and invention into practical and productive use. Sometimes an inventor is also

an entrepreneur (Edison) but often success requires a team (Steve Wozniak, the inventor, and Steve Jobs, the entrepreneur, behind Apple). Closer to home, there are examples of teams such as Jacques Guigne, the inventor, and Moya Cahill, the entrepreneur behind the international success of the St. John's company, Pangeo Subsea, which uses acoustic technologies to obtain high-resolution information about sea bottom structures. And there is the highly successful company, Verafin, started by three entrepreneurial graduate students (see below), which employs artificial intelligence to monitor monetary transactions to detect financial crimes.

Innovation can occur in many ways with a wide range of consequences. The term “disruptive innovation” is often used for the creation and implementation of some product or process that is unexpected but that changes the landscape in a large way. The invention and implementation of the World Wide Web, or possibly the personal mobile phone, are examples. Other innovations that build in a smaller way on existing products or processes can be of high value but less fundamentally disruptive — cell phones for example. Such changes are usually described as being sustaining or incremental innovations.

Sometimes the importation of an existing process or technology into a business or a public body represents an innovation for that entity when it changes the way in which the organization operates. Examples include introducing new management systems or information technology into a business or government department.

5.4.1 Stakeholders

Most value-adding innovations occur by changes that are developed internally in an organization (5). In this case the steps outlined above usually occur within a firm or other entity such as a public body. Sometimes a firm might “import” an innovation from another source and it might require adjusting to make it effective in the new environment. In some cases a company might engage a university or college to help with development of the innovation in order to achieve the value gained in the latter part of the chain.

The post-secondary sector is also an important source of the earlier steps in the innovation process. The post-secondary system itself does not usually engage in the entrepreneurial activities and private sector financing required to achieve the outputs seen in the latter steps, but the system has invested in programs to promote entrepreneurial activities in its students and in research that can initiate and assist innovation.

Imitation can be a good thing for many innovations, especially those that are introduced in public sector entities, or even in firms when an imported process or technology enables a firm to become more productive. Imitation is highly desirable, for example, in the case of a new surgical procedure that is more efficient and effective than established practice.

Governments need to be involved in all innovation steps, providing sustaining policy frameworks and in some cases assuming early-stage financial risk by providing appropriate public investment. The process usually requires many partners, like a dance with the entrepreneur as choreographer.

5.4.2 Innovation in post-secondary institutions

To be effective in the current economic environment post-secondary institutions need to be innovative themselves. Program and management changes are necessary to respond to evolving circumstances associated with institutions' core mandates. Institutional innovations follow a similar pathway to the one outlined above. The College of the North Atlantic has been introducing innovations in many of its operations, and Memorial University has been undergoing substantial changes to its operations and programs over the last decade as well. A particular example at Memorial has been a major re-equipping and restructuring of its information technology systems. An example at CNA is the embracing and development of its Connected Learning Platform.

5.4.2.1 The role of the post-secondary system in contributing to innovation in the community

The post-secondary education system in Newfoundland and Labrador has been involved in many innovative changes that have occurred at the level of firms, policies and communities. While the traditional innovation role for the post-secondary system has been to generate and support inventors, increasingly the system has assumed and supported activities to develop entrepreneurs. The following list provides just a few examples:

- C-CORE
- Genesis
- Memorial Centre for Entrepreneurship
- Creation of the consortium of CNA, MUN (Grenfell Campus), Corner Brook Pulp and Paper and the City of Corner Brook to create a regional research and innovation centre

Over the past few years Genesis has helped many companies, as can be seen in Table 5.2.

Table 5.2 Companies assisted by Genesis, MUN

Year	2014	2015	2016	2017	2018	2019	2020
Companies assisted	8	8	10	16	20	26	26

Source: Genesis

An outstanding success for Genesis has been the incubation of Verafin, which developed into a substantial international company in financial technology. In the sale of Verafin the current founders and investors have recognized the origins of and assistance obtained by the company through negotiating with the new owner, Nasdaq, for contributions to Genesis and Memorial University. It is hoped that other successful companies that have had origins within the Memorial

University system, and that rely on the university and the college to educate their employees, will follow Verafin's example and invest in the post-secondary system.

Another arm's length entity of Memorial is C-CORE which has operated for over 40 years providing research and development assistance to companies and public sector agencies, such as the European Space Agency, in the area of operations in harsh environments. The magnitude of C-CORE's work, as reflected in the number of its contracts over the past decade, is available in the companion document.

In addition to its research and development activities, C-CORE has provided opportunities to MUN undergraduate and graduate students for experiential learning placements where they work with established companies on applied research projects. Such projects often lead to rapid uptake as innovations in companies.

C-CORE was successful in being awarded a Centre of Excellence in the Commercialization of Research (CECR) from the federal government for a project called LOOKNorth that has a remarkable number of private and public sector partners (see companion document). CECRs, composed primarily of industry partners, were introduced by the federal government about a decade ago as one of its mechanisms for stimulating innovation and competitiveness in the private sector. C-CORE led a successful proposal, LOOKNorth, in a highly competitive first round of competition for a CECR, an indication of its high standing in the community that deals with operations in the North. Table 5.3 highlights the wide range of partners participating in this initiative. The funding was renewed in a review competition two years ago, a mark of success in achieving the objectives of the CECR program.

Table 5.3 Numbers of LOOKNorth Partnerships over a decade

LOOKNorth partners	2011-2020
SMEs	86
Industry	108
International	21
Government & NGOs	55
Academia	24
TOTAL	294

Source: C-CORE

Atlantic Canada Opportunities Agency

Over the last three decades the Atlantic Canada Opportunities Agency has been a constant and effective partner in support of research and innovation within the post-secondary and private sectors of the province. Since 2016, ACOA has approved approximately \$46million for projects with the College of the North Atlantic and Memorial University, including separately incorporated entities such as C-CORE and Genesis. Without ACOA's investments much of what has occurred in capacity building and implementation in areas such as high technology would have been stymied.

5.4.2.2. Examples of innovations from the post-secondary education sector

The post-secondary system has been a source of many innovations over the past several decades.

An interesting example of social innovation that was pioneered by Memorial University in 1976 was the creation of the consortium that enabled the first use

of new Canadian satellite technology to carry out distance teaching and distance medicine. The success of that first trial led to Newfoundland and Labrador prominence in these areas and a world-wide recognition of its capability. The unique and innovative feature at the time was the creation of the consortium that made the development happen — it was a marriage of the strong interests and support from the Faculty of Medicine with the entrepreneurial Dr. A. Maxwell House leading, the technical capabilities and leadership of the Educational Television Unit in the Faculty of Education, the Community Learning Centres that had been created by the Distance Education unit of MUN, and the location of many of those Learning Centres at the campuses of the Community Colleges (now CNA) and the colleges' support for those Access Centres. This innovative approach to a very serious challenge set Newfoundland and Labrador up for being the “poster-child” for distance education and distance medicine in Canada and beyond. While MUN was first to give effect to the process it is noteworthy that imitation soon followed. The current pandemic has shown just how essential telemedicine is for practice over short and long distances.

It is noteworthy that this innovative use of new satellite technology was dependent on a consortium of the university and the colleges, and it serves as a reminder that much can be established in this province through such cooperation. The use of high technology in telemedicine is now commonplace and extensive.

A disruptive innovation arising from MUN involves the development of a rapidly growing salmon that has high feed conversion and grows to market weight at a much greater rate than found in natural salmon.

“Hey Garth” (Dr. Fletcher, fish physiologist), asked Dr. Choy Hew (biochemist), “why are my cod in the Marine Sciences Centre holding tank all dead overnight when all the winter flounder are swimming happily around in the same tank?”

So began a journey in late January, 1975, which continues today. It is illustrative of the challenging and changing pathways in innovation. It is also illustrative of why investors and companies feel the need for protection of the intellectual property that is needed to develop new ideas into products in the market in order to start the drive for production of biological/ pharmaceutical treatments. The scientists started by inserting the gene for a protein into salmon that would keep them from freezing at seawater temperatures. After establishing this technology, they realized that it would be much better to get the fish to grow faster in one season to avoid having them live in cold water, and they realized that there would be a much bigger market for fast growing fish than cold-protected fish. So, they used the technology to insert a gene for a protein that would cause the fish to grow fast. In the lingo of commercial development, they “pivoted” to achieve a new outcome with their process.

The rights to the technology which involves inserting a gene into the salmon to enable it to grow fast were acquired by AquaBounty Corporation. The company has continued to promote the acceptance of this technology and the salmon. But the innovation is a disruptive one, and it has been subject to extensive scrutiny before the fish are introduced for general consumption.

The complicated path from the initial idea and invention cannot be reproduced here, but the length of time required to achieve regulatory approval presents a perspective on how difficult the path to innovation can sometimes be. The salmon has been approved by the regulators in the US and Canada but a US judge has recently ordered that there be additional work on environmental assessment. The implementation of this innovation is taking a long time.

A major contribution of the post-secondary education system is the exposure of graduates to a variety of ways of thinking, preparing them to ask the question “Why not?” rather than “Why?” when confronted with a challenge to make

a difference. In 2003 Brendan Brothers, Jamie King and Raymond Pretty were graduate students working with Dr. Ray Gosine on the development of robotics for operations in the mining industry. They had formed a company to develop and commercialize their technology, and were clients of Genesis. The technology needed for the mining robotics required recognition of patterns at mine faces. Genesis introduced the three founders to Dave Kelly, a person with long experience in the banking industry. Dave pointed out to the founders that their technology could be used to recognize patterns in financial transactions, and that it could be used to recognize fraud and money laundering in the financial system through the analysis of patterns of financial transactions and money flow. The principals “pivoted” the company and the technology into financial technology, or “fintech”. The outcome has been amazing. The company, Verafin, has grown at an exponential rate. It has customers throughout Canada and the US. It employs over 500 people and it continues to grow. Verafin was just sold to Nasdaq for \$2.75 billion.

In addition to the examples above the following list describes innovations where the Newfoundland and Labrador post-secondary system played a special role:

- diagnosis and treatment of sudden cardiac death by the genetics team in the Faculty of Medicine
- development of special radar technology by Rutter Technologies which allowed it to become a world leading provider of safe operations and tracking in the marine environment though the support of the then Canadian Centre of Marine Communications located at the Marine Institute
- the RAnLab, conceptualized in the Department of Geography and developed by the Harris Centre, to map and analyze socioeconomic data at a regional and subregional level to enable targeted and effective interventions in communities

- Genesis which has enabled many small Newfoundland and Labrador companies to develop innovations and bring them to market such as Virtual Marine, Mysa, Universal Cognitive Solutions, Seaformatics, ASWorks, and others (see companion document and refer to Genesis website)
- Yaffle, a unique platform that enables connections between communities/ individuals and MUN researchers
- design and development of an automated crab meat extraction system by CNA and the Marine Institute of MUN that was funded by the Canadian Centre for Fisheries Innovation (CCFI)
- creation of an automated syringe-driven filtration device for use in repetitive sampling in Long Harbour by CNA and Vale S.A.
- Choosing Wisely Newfoundland and Labrador, bringing an innovative approach to healthcare practice in the province
- SmartICE, developed by Dr. Trevor Bell in the Department of Geography, the world's first climate change adaptation tool to integrate traditional knowledge of sea ice with advanced data acquisition and remote monitoring technology
- the eNuk Project, an environment- and health-monitoring program that runs through an app, designed and led by Inuit in Rigolet. Its development was catalyzed and facilitated by Dr. Ashlee Consolo at Memorial's Labrador Institute

5.4.2.3 Support for innovation within the post-secondary institutions

Memorial University supports the development of new ideas and inventions arising from its research into effective innovations through its Technology Transfer and Commercialization Office, where experts provide assistance in areas such as patenting and commercialization coaching, introductions to active companies, and access to funding. MUN and CNA are partners in Springboard Atlantic, which is a consortium of Atlantic universities and colleges that is funded by ACOA and the consortium, and is dedicated to underwriting commercialization and technology transfer.

MUN and CNA are equipped to assist outside entities to gain assistance in developing innovations that originate inside a company by providing links to research staff and research equipment.

The university also has access to university-industry research chairs, supported by the tri-agency granting councils and a private sector partner, who carry out fundamental and applied research. MUN needs to approach existing and potential industry partners to increase the number of its industry-sponsored chairs. Now that the Research and Development Corporation has been terminated, MUN needs to turn more actively to industry for matching funds. The link between the researcher and the industrial partner in these chairs often facilitates ease of uptake and development of research into new innovations.

Memorial is a member of the partnership with Dalhousie University and the University of Prince Edward Island in the \$130 million federally funded Canada First Research Excellence Fund (CFREF) project called the Ocean Frontier Institute, where there is an imperative to link fundamental research to innovative opportunities for the private and public sector. The CFREF program was created by the federal government to enable universities to strengthen their capacities in areas where they already excelled to ensure that they were in the top five percent of international research activity. The CFREF award recognizes the research strengths that exist in the three partners.

There are other university facilities that have connections to industry and policy makers that foster the development of innovation. The Marine Institute's mandate is to train individuals and to carry out research relevant to innovation in marine industries and marine policy making. Facilities such as the flume tank and a number of specialized simulators provide the MI with strong capacity to assist the private sector in developing innovations. New facilities in Holyrood

provide researchers, ocean technology companies, and students with physical space and new technology to test new products.

Facilities such as the Ocean Sciences Centre at Logy Bay and the Bonne Bay Marine Laboratory provide opportunities for interactions between university researchers and the private sector, leading to innovations in marine biology industries. The Ocean Sciences Centre, for example, has a building dedicated to resolving the problems of the aquaculture industry.

In addition to its research contributions Memorial has created a unit that mentors and coaches student entrepreneurs, the Memorial Centre for Entrepreneurship (MCE), to prepare them to deal with business opportunities and innovation after graduation.

Over the past 15 years the College of the North Atlantic has created opportunities to resolve challenges in industry through the creation of an Office of Applied Research and Innovation, with leadership at the associate vice-presidential level. This type of assistance is central to the incremental innovation that is a major contribution to provincial and national competitiveness, as has been identified by many commentators (3).

5.4.2.4 Role of the private sector in innovation

Most of what has been written about innovation has been in regard to its role in the private sector and furthering wealth creation. It is beyond the purview of this review to deal with that theme, except to say that most wealth creating innovations arising in the post-secondary system will not be brought to fruition without the involvement of the private sector. The private sector needs to assume financial risk and participate heavily in the process outlined above to see the chain of innovation through to implementation and benefit for the firm and community. The involvement of the private sector again highlights the

important role that the post-secondary education system must play in preparing the leaders of tomorrow, including the managers and directors of private sector corporations, to be open to the implementation of innovation. These innovations could be developed inside a firm, or they could be imported into a firm from outside sources.

5.4.2.5 Role of governments in innovation

In developed countries, governments now play a large role in promoting innovation as a fundamental policy to increase state competitiveness and wealth. In Canada, this activity has fallen mostly to the national government.

Federal government support

For over 70 years the federal government has developed programs that are designed to promote innovation and these have been met with varying degrees of enthusiasm and success. Currently the federal government has many programs to link the post-secondary education system to companies and communities with the objective of stimulating innovation. Some of these programs include the following:

- Federal regional development agencies such as ACOA have programs to support innovation that can be accessed by post-secondary institutions in partnership with the private sector. The private sector partner is usually expected to make some contribution in cash or in-kind, or both, to the project. Some similar arrangements are in place for partnerships between public sector and not-for-profit entities and the post-secondary sector.
- Federal bodies such as the Tri-Council research funding bodies, NSERC, CIHR, and SSHRC, along with other agencies such as Genome Canada, have programs that demand or encourage partnerships between the private sector and academia with the intent of promoting innovation.

- Unique funding opportunities for universities such as the Canada First Excellence Research Fund require a strong plan for innovation in order to be successful in competition.
- The Department of Innovation, Science and Industry has recently initiated a new program, the Strategic Innovation Fund, where opportunities for universities to lead consortia that include the private sector are available.
- The National Research Council has an important Industrial Research Assistance Program available only to companies, but under the program companies can contract for research assistance from members of the post-secondary education system.
- The Scientific Research and Experimental Development program, available through the Canada Revenue Agency, is a major program to support innovation by firms. It provides tax credits or refunds of expenditures to companies for research and development, and it can be used for partnerships between academia and the private sector.

Outside of funds provided by the three major federal granting councils, all the funding sources require requests from institutions and the private or public sector. Access to the Scientific Research and Experimental Development program and some programs under the Strategic Innovation Fund is restricted to firms.

Provincial Government Support

All provinces have programs that encourage research. In Newfoundland and Labrador there is a program within the Department of Industry, Energy and Innovation, Innovate Newfoundland and Labrador, through which support for research and development can be obtained by the post-secondary system. Those seeking funding for projects are encouraged to do so with a private sector lens. The program does not seem to have any specific processes for

application on its website, other than to make contact with its representatives. The processes to obtain support from the fund have been described to The Committee as being slow, opaque and ponderous. Reports that indicated the amount of money invested in post-secondary institutions were not made available to the Review Committee.

5.4.3 The challenges

Full development of innovations that will improve the socioeconomic position of Newfoundland and Labrador will require a concerted and ongoing commitment for financial and operational cooperation, and support from all stakeholders in the process. The challenge for the post-secondary education system is to respond to the need for innovation as expressed by governments and the private sector in order to promote social and economic development.

The challenge for the private sector is to be open to and supportive of innovation and avoid complacency in the face of short-term financial success.

The challenge for the provincial government is to have policies that seek and support innovation in all sectors of the economy, and ensure that sufficient new knowledge is produced to enhance innovation and sustainability. The government must invest in this area; its policies and investments will be crucial to providing a way for innovations, large and small, to succeed in the province. A single effective, efficient and accountable provincial government fund to support research and innovation should be created. This fund must make investments only after it has received knowledgeable external expert advice. The fund must be operated transparently with defined processes and timelines.

The challenge for all is to find the niches where Newfoundland and Labrador can establish a competitive advantage over other jurisdictions nationally and internationally, and ensure adequate funding is available to stay competitive through innovation.

Recommendations

Government

41. Provide fundamental research support to the university so that it can increase its investment in crucial areas such as startup funding and expenditures for infrastructure to support new and existing faculty. The university will need to find additional internal and external funds to facilitate and sustain the research enterprise.
42. Lever the transformational power of the post-secondary system in the socioeconomic life of the province. Increase investments in targeted research and development:
 - a. as an investment in the future establish a research and development fund which would build to a value of no less than 0.2% of the GDP of the province within five years;
 - b. make the fund accessible to the post-secondary system and the private sector;
 - c. operate the fund using an arm's length mechanism that is accountable to government and governed by a board that has appointees from the private and academic sectors from within and outside the province;
 - d. make investments from the fund only after proposals for funding have been vetted by an external committee of academic and business experts who advise the board on the relative value of the investments; and
 - e. assess performance including effectiveness, efficiency, accountability and timeliness of investments on a five-year cycle using provincial and extra-provincial experts from business, academia and government including referees from governmental agencies in other jurisdictions.
43. Initiate a five-year pilot for a small proportion, possibly \$5 million of the research and development fund that is targeted to projects that must have co-leaders from each of MUN and CNA. Evaluate the activity at year five for effectiveness of outputs and outcomes and judgment of the usefulness of continuing with the funding mechanism.
44. Increase the direct stipendiary support for graduate students, including foreign students and postdoctoral fellows, who are essential to successful research projects in most disciplines. This will also support the provincial immigration strategy and targets.

Memorial University

45. Maintain opportunities and base institutional operational support for research and scholarship in a broad range of domains that is consistent with being a highly credible Canadian university. Beyond those base investments, however, MUN must choose to focus additional support on a limited number of strategically chosen areas in order to increase its stature among peer institutions and its relevance to the province.
46. Identify, in consultation with government, five or six fields where MUN can most effectively assist with social and economic development and growth in the province:
 - a. government and MUN invest in these agreed upon targeted areas;
 - b. identify meaningful targets and indicators of achievement before investments are made;
 - c. make investments for no more than ten years; and
 - d. conduct evaluations for effectiveness at five and ten years.

College of the North Atlantic

47. Identify, in consultation with government, five or six fields where CNA can most effectively assist with social and economic development and growth in the province:
 - a. government and CNA invest in these agreed upon targeted areas;
 - b. identify meaningful targets and indicators of achievement before investments are made;
 - c. make investments for no more than ten years; and
 - d. conduct evaluations for effectiveness at five and ten years.
48. Increase the number of faculty appointments with responsibility solely for the performance of applied research.
49. Create faculty positions that carry joint responsibilities for teaching and research.
50. Apply for a Technology Access Centre (TAC) within twelve months.

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Chapter 6: Creating a Supportive and Inclusive Environment

A supportive and inclusive community is one that is engaged with and responsive to the needs of its members. Post-secondary education communities are comprised mainly of students, faculty/educators and staff and each of these groups requires support in order to succeed. Within and across these groups there are individuals who have faced barriers to participation in post-secondary education systems due to other factors such as gender, ethnicity and disabilities and these individuals often require additional and different types of support. This chapter is organized in two sections: (a) general supports available to students, faculty/instructors and staff; and (b) supports available to groups identified as under-represented, including women, visible minorities, Indigenous peoples, persons with disabilities, and LGBTQ2+ people.

Given that the composition of university and college communities varies widely, institutions develop systems and supports that respond to their unique circumstances. They also group and describe these services differently. While this approach can enhance responsiveness within institutions to the particular needs of the community they serve, it poses challenges when attempting to make comparisons across institutions and jurisdictions, for both universities and colleges; it is difficult to obtain precise data that would allow meaningful comparison. Samples of data that were available from jurisdictional comparators are provided in the companion document. This chapter therefore relies heavily on information available from consultations with stakeholders within the province and data obtained from Memorial University of Newfoundland and the College of the North Atlantic.

6.1 General supports available to students, faculty/instructors, and staff

Examples of institution-level documents that address general supports for students, faculty/instructors, and staff at Memorial University include the Mission, Vision and Value Statements; the Teaching and Learning Framework (2011, 2018); the Strategic Research Framework (2011); and the Public Engagement Framework (2012-2020). The strategic plan for CNA highlights the importance of general supports for students, faculty/instructors, and staff. During consultations, the Review Committee learned about plans to develop additional frameworks, including a teaching and learning framework and a student engagement framework for the college.

This section presents examples of general supports available to all members of the public post-secondary education system. It is not a complete inventory. It is followed by examples of supports designed specifically for each of the three main stakeholder groups within PSE: students, faculty/instructors, and staff.

Information and communication technology (ICT)

ICT encompasses digital and electronically-mediated interactions in the institutional environment. Such activities include, but are not limited to, communication, e-mail, virtual learning, and e-learning. ICT infrastructure provides support for all members of the institution who rely on these resources to successfully pursue their education, research, and work activities.

Bandwidth has an impact on access to and adoption of digital technologies, especially in rural and remote areas. Newfoundland and Labrador continues to be challenged with a lack of bandwidth to support connection to the internet. During consultations, this issue was identified as a major barrier for students, faculty/instructors, and staff.

The federal government is investing nearly 2 billion dollars to expand high speed internet to communities across Canada. This investment will connect 98 percent of Canadians to high speed internet by 2026, with the goal of connecting all Canadians by 2030. Enhanced internet access will have a profound effect on the delivery of library and instructional services throughout the post-secondary education system, particularly within rural communities.

Communications

Internal communications to students, faculty/instructors, and staff at MUN are facilitated through various online channels such as Newsline, the Gazette, the MUNSafe APP and social media. CNA relies on similar media. Students, faculty/instructors, and staff are alerted to news events through the school messenger app. Campaigns and advancement activities are driven by the “constant contact” and “campaigner” applications. Social media platforms such as Twitter, Facebook, and Instagram are used to push communications out to the campus communities. Consultations at various campuses of CNA with students and faculty/instructors indicated that both groups felt a need for more timely and fulsome communications from academic and administrative leadership.

Library and commons

The library and commons provide support for employees and students of both institutions.

Memorial University’s library plays an integral role in post-secondary education. With over eight libraries, Memorial boasts a comprehensive collection of digital and print resources that connect students, faculty, and staff with the information they require in pursuit of their academic and research programs.

In addition to a suite of services for research, writing, and computing support which are available electronically across all campuses, Memorial’s Commons provides gathering spaces in several locations.

The CNA has fewer library resources. However, in 2017 CNA began to transform its libraries into modern learning spaces, blended with traditional libraries that support learning. The libraries/learning commons provide students with access to resources and technology that support academic success. During consultations students expressed concern about their access to libraries and computer rooms being limited outside of regular hours (evenings and weekends).

Centre for Innovation in Teaching and Learning (CITL)

The Centre for Innovation in Teaching and Learning (CITL) is Memorial's lead on the delivery of the university's online education offerings, the use of educational technologies in teaching and learning, and the provision of educator development programs.²³

CITL provides services to students, faculty/instructors, and staff. For example, CITL manages and provides the support for Memorial's learning management system (LMS), Brightspace, the platform for all online delivery of courses/programs. Shared multimedia classrooms, and teaching and meeting spaces on the St. John's campus, are designed and developed by CITL.

CITL is guided by a strategic plan, and an advisory council which fosters the engagement of students, faculty/instructors, and staff in the development of approaches to innovation in the development and delivery of courses/programs. CITL also provides their expertise outside the university community through partnerships with the College of Registered Nurses of Newfoundland and Labrador, College of the North Atlantic, Department of Education (K-12 and Centre for Distance Learning and Innovation (CDLI) and the Public Health Agency of Canada.

Connected Learning Network (CLN)

CNA's Connected Learning Network (CLN) supports all activities on the distributed learning (DL) platform, such as provision of support for all digital learning technologies, including the learning management system (LMS) for all campuses. The CLN includes the teaching and learning innovation centre which supports faculty and students. CLN provides services to students, faculty/instructors, and staff as outlined in sections below.

23 CITL website

Centre for Innovation in Teaching and Learning, MUN

CITL has received numerous national awards. Most recently, in 2019-2020, CITL, along with the School of Pharmacy, received an Award of Excellence in Instructional Design from the Canadian Network for Innovation in Education.

School of Graduate Studies

Memorial's School of Graduate Studies (SGS) is a central academic unit that provides supports to graduate students, faculty, and staff. Graduate students are supported from admission to graduation. The SGS also provides graduate student enrolment management, as well as leadership on academic matters.

Public transportation

Public transportation is available to students, faculty/instructors, and staff in the St. John's and Corner Brook areas. However, there are limitations in both regions. Consultations revealed that students in rural Newfoundland had limited or no access to public transportation. This was identified as a challenge for many students and a major issue for international students.

Food services

Food services are available at all campuses at MUN and most campuses at CNA. The variety of foods available differs across institutions and campuses. Consultations revealed that this was a concern for many international students.

Food bank

The campus food bank at Memorial University, St. John's campus, is a registered food bank with the Community Food Sharing Association. Many departments, clubs, societies, and other groups hold food drives and fundraisers throughout the year in support of its activities. The food bank is staffed by volunteers, most of whom are students. The food bank is for MUN students, employees, and pensioners with financial need who cannot afford to buy the food they require.

Child care

A child care centre is available at the St. John's campus of Memorial University. The College of the North Atlantic offers child care facilities at the Corner Brook, Prince Philip Drive, and HVGB campuses. The St. Anthony campus has a private child care centre on site that provides child care services. Child care spaces are available for students, faculty/instructors, and staff and if capacity permits, members of the general public.

Both institutions are expanding the percentage of enrolment for international and graduate students (MUN). These students are often accompanied by family members and therefore increased demand for access to adequate child care facilities is anticipated.

Health and wellness

The Okanagan Charter: An International Charter for Health Promoting Universities and Colleges (1) stresses the importance of campus cultures that embrace compassion, well-being, equity and social justice. MUN has signed the Charter. Post-secondary education institutions would be well served by ensuring that there is access to wellness resources at all campuses such as resources at all campuses, such as exercise and recreation facilities, and mental wellness supports.

There are varying degrees of access to wellness resources at MUN and CNA. Specific examples are highlighted in the sections which follow.

6.1.1 General supports for students

A variety of offices are responsible for the delivery of supports to students at MUN and CNA. For example, MUN has a student support office, a residence life coordinator, a health and wellness centre, and a career development unit. Services available include peer mentoring, academic advising, financial assistance, and scholarships/bursaries. MUN also provides access to interdenominational spiritual guidance and prayer/reflection spaces. At CNA, services include health and well-being programs and

Student Life, MUN

Student Life is focused on student success and supports students through various programs and opportunities. A central communication hub, ASK, provides students with the answer to a campus-related question. The units in Student Life include the Blundon Centre, Career Development Centre, Student Experience Centre, and the University Chaplaincy.

supports, academic advising, financial assistance, scholarships/bursaries, child care and residences at some campuses. Both institutions also have student councils/governing bodies that are responsible for ensuring that all Canadian students have access to health and dental insurance.

At both MUN and CNA, students expressed the need for greater access to scholarship and bursary assistance. At CNA, many students identified delays in student loan processing that were causing significant concern and in some cases hardship. Memorial relies on a highly automated system; CNA has not adopted this process.

Mental health

Educational institutions around the world are experiencing an increase in demand for student supports in the area of mental wellness. A recent report titled Thinking Well: Supporting Post-Secondary Student Mental Wellness in Newfoundland and Labrador (2) outlines a number of key areas to promote student mental wellness. The role of faculty/instructors and staff in triage, wellness, and connecting students with available supports is highlighted as particularly important.

Enhanced Development of the Graduate Experience (EDGE)

EDGE is an agreement with Athabasca University's Faculty of Graduate Studies and Memorial's School of Graduate Studies(SGS) to offer over 100 professional and academic skills development workshops such as: Thesis Writing, Creating Your Individual Development Plan, Practicing Your Presentation Skills and Understanding Intellectual Property. All workshops are recorded and are accessible to graduate students.

Both MUN and CNA have reported increased demand for services related to mental health. Responding to increased demand requires intensive planning and financial support but response is essential for ensuring students' success.

Academic support services for students

MUN's Academic Success Centre provides access to various supports and services for academic success. Undergraduate and graduate students can participate in writing and research clinics, and specific learning events such as résumé writing and introduction to remote learning. Several discipline-specific help centres (i.e., math, chemistry, French, engineering) also provide support to students.

Stepped Care Mental Health Model at MUN

The Stepped Care model provides rapid same day, flexible access to wellness and counselling. This model was developed at Memorial's Counselling Centre. This model of care offers the level of care appropriate for the intensity of the health need. Stepped Care has served as a model for a new community-based mental health service which is funded by the provincial government.

The Office of Student Success at CNA is responsible for creating and fostering a supportive academic and experiential learning environment for students, leading to student retention and success. Specific areas include counselling and academic advising, academic assessment and experiential learning opportunities, and services to students with accessibility needs, including provision of assistive technologies.

During consultations, the Review Committee heard from faculty/instructors and staff at both MUN and CNA that incoming students lacked the academic and social preparedness for post-secondary study. In addition to overall academic preparedness, students are perceived as experiencing challenges with time management, organization, oral and written communication, and expectations for engagement in university and college level programming. Faculty/instructors at both institutions noted a clear lack of transitional support for students entering from high school.

Two other areas of concern were identified at CNA. While the college offers a peer tutoring model, students reported the administrative barriers and timeliness of being matched with adequate resources were issues. In addition, timely access to textbooks at the beginning of the academic term was problematic at various campuses of CNA. Students also reported an inconsistent use of textbooks. For example, use of different textbooks for: (a) the online versus on campus versions of courses; and (b) within the same course across different campuses.

MUN Minds

MUN Minds is a student volunteer initiative committed to reducing the stigma surrounding mental illness both on campus and in the community at large. Activities include peer support, advocacy and awareness campaigns.

Academic accommodations

Some students experience barriers accessing post-secondary education. Academic accommodations are a fundamental aspect of ensuring equal access to education for students with disabilities (3). According to The Human Rights Act of Newfoundland and Labrador, a disability includes the following: a degree of physical disability; a condition of mental impairment or a developmental disability; a learning disability or a dysfunction in one or more processes involved in understanding or using symbols or language; a mental disorder (4).

Some students come to post-secondary education having received academic accommodations or supports in high school that need to be continued. Others look for ways to reduce barriers related to mobility, ways of learning, vision and hearing, mental health and wellness, and temporary or chronic illnesses or injuries once they arrive.

MUN's Blundon Centre supports all students who experience barriers to accessing post-secondary education. This includes students with disabilities or other accessibility-related challenges.

CNA's Accessibility Services (part of the services provided by the Office of Student Success described above) provides an inclusive learning environment that promotes equal access. However, accessibility coordinators, student development officers and guidance counsellors have multi-campus responsibilities. The jurisdictional analysis indicates that in most comparator colleges these positions are dedicated to each distinct campus within the college.

Centre for Innovation in Teaching and Learning (CITL)

CITL assists MUN's undergraduate and graduate students from around the globe to connect with MUN resources. Students are provided access to various supports such as a semester start-up and technical how-to guides to support online learning as well as a 24/7 Help Desk. CITL supports graduate students in their development of teaching through seminars and workshops (for example, the Teaching Skills Enhancement Program).

Connected Learning Network (CLN)

CLN connects students to the College of the North Atlantic and facilitates multi-campus online instruction. The network provides many supports to students such as a help desk, library services and access to e-guidance counselling.

Residences at MUN St. John's Campus and Grenfell Campus

Memorial provides a variety of residences for students and their families at their campuses. Given the rise in graduate international enrolment, Memorial will need to ensure that residence space for families is a priority.

There is collaboration between MUN and CNA to provide students with access to residence accommodations in both St. John's and Corner Brook.

Residences at CNA

Three residences are available throughout the province, at HVGB, Bay St. George, and Burin campuses, and HVGB is the only CNA residence that provides space for families. Consultations with students revealed concerns with the conditions of aging infrastructure and the timeliness of repair work. In addition, international students reported difficulty in accessing accommodations in the community close to the education facilities and accommodations that include space for families.

Student Self-Directed Learning Award, MUN

The Memorial University Award for Outstanding Self-directed Learning celebrates undergraduate students with the qualities and skills that enable them to manage their own learning and successfully undertake self-directed learning projects.

Awards and recognition

There are numerous awards that recognize student achievement at both the faculty/school level and institution-wide at Memorial University and CNA.

Student associations

Memorial University provides many avenues for students to participate in student associations, special interest groups, societies, and clubs. A variety of groups are established at the university to enable increased engagement in campus life. CNA provides different platforms that advance the interests and needs of the student population through their provincial student association and local councils.

Support for Indigenous students

Memorial University of Newfoundland has a number of offices and committees responsible for supporting Indigenous students. These include: Special Advisor to the President on Aboriginal Affairs; Aboriginal Resource Office, St. John's Campus; Aboriginal Resource Centre, Grenfell Campus; School of Graduate Studies Diversity Committee; and Grenfell Campus Students' Union Indigenous Student Caucus.

The College of the North Atlantic has two designated support positions for Indigenous students, both located at the Happy Valley-Goose-Bay (HVG) campus: (a) Aboriginal Support Coordinator and (b) Aboriginal Resource Specialist. Indigenous engagement is one of the many priorities for the College of the North Atlantic, including the delivery of culturally relevant curriculum, provision of training to rural communities, and support for relevant programming.

Assessing Alternative Academic Readiness Pathways

CNA through its partnership with Newfoundland and Labrador Workforce Innovation Centre (NLWIC) is undertaking a research project to examine best practices in alternative admissions, academic preparedness, assessment, and pathways that are culturally relevant for Indigenous students. Findings will inform admissions practices at the College of the North Atlantic.

President's Medal of Excellence, CNA

The President's Medal of Excellence is awarded annually to a full-time student in a certificate program and a student in a diploma program who attains the highest weighted/overall average in their program. This award is campus based.

Support for international students

Memorial has a series of supports for international students. All international students are automatically enrolled in the foreign health insurance plan (GuardME). Other supports include immigration advising, an arrival support program, support for families and children, and linkages to community-based organizations such as the Association for New Canadians. Currently the self-isolation peer support program is available to foster student integration and connectedness to the campus community upon arrival and during the mandatory quarantining period due to COVID-19.

International students at CNA, who hold an official study permit and are registered in a recognized PSE institution in the province, can make application to the Newfoundland and Labrador Medical Care Plan (MCP) for medical and dental coverage. Insurance for CNA students and their dependents may be available if they meet the eligibility criteria for MCP.

CNA has significant experience in providing education and training to students in countries around the world.

A more recent strategic direction focuses on increasing international student enrolment here in the province. However, processes to recruit international students to campuses in Newfoundland and Labrador and to support these students once they arrive are in an early stage of development. Consultations at CNA with international students, faculty/instructors, and staff identified concerns regarding the lack of general supports available to international students. Services are not well organized and are dependent on individual efforts within campuses. There are also significant challenges for international students in many communities with respect to acceptance of their different cultural practices.

Global Learning Centre

The Global Learning Centre, MUN

St. John's campus, provides a range of supports to international students. A virtual MUN mentorship program connects a new international student with a current MUN student for their first semester. In addition, a Family Support Program, immigration advising, academic supports, and career and employment services are available.

Development of recruitment and support services at CNA can be advanced more speedily if the College leverages the existing expertise available. MUN has been involved in international student recruitment and support for a longer period of time and has more fully developed processes and support systems which could be adapted to meet the needs of international students and their families attending other PSE institutions,

including CNA. CNA should also consider enrolling international students in locations which already have community supports for new Canadians. The Association for New Canadians (ANC) offers resettlement services to newcomers, including community connections, diversity training, and English as a Second Language (ESL) training.²⁴ ANC satellite offices are located at Labrador West, HVGB, Grand Falls, Corner Brook, and St. John's.

6.1.2 General supports for faculty and instructors

Human resources departments at both CNA and MUN offer employee assistance program support, professional development, wellness clinics as well as other supports to faculty/instructors and staff.

MUN's CITL provides a range of services for faculty/instructors including: support for the development and delivery of online courses and programs; access to a teaching-learning exchange to support the teaching and learning process and educator development; and support for the on-campus use of educational technologies such as classroom support and media services. Shared multimedia classrooms, and teaching and meeting spaces on the St. John's campus are designed and developed by CITL.

CNA's CLN provides supports to faculty/instructors through the Centre for Innovation. Supports include: providing faculty with tips and tutorials; access to training; access to a teaching-learning exchange to support the teaching and learning process; and educator development opportunities for using Brightspace, the college's electronic learning management system.

Memorial is the only university in Canada to offer a formal, blended-learning training program for faculty to help them become excellent graduate student supervisors and mentors. The program is offered free of charge for Memorial faculty. (A fee is charged to academic staff outside of Memorial).

²⁴ Memorial University and CNA are listed as community partners on the ANC webpage.

Memorial University offers a number of awards to faculty members that recognize outstanding performance in teaching, research, and public engagement. Consultations at CNA revealed that there is a widespread perception that mechanisms for formal recognition of faculty/instructor excellence were lacking.

There are various bargaining units that support faculty/instructors at MUN such as Memorial University of Newfoundland Faculty Association (MUNFA), Teaching Assistants' Union of Memorial University of Newfoundland (TAUMUN), the Lecturers' Union of Memorial University of Newfoundland (LUMUN) and the Newfoundland and Labrador Association of Public and Private Employees (NAPE) at the Marine Institute. Memorial University of Newfoundland Pensioners' Association (MUNPA) supports retired employees (faculty and staff). Post-employment benefits such as continued access to health and wellness insurance and services, internet, library access, building access, and parking privileges are extended to retirees of Memorial University.

CNA employees participate in various bargaining units such as the Newfoundland Association of Public Employees (NAPE) and the Canadian Union of Public Employees (CUPE). The college provides various post-employment benefits such as severance.

Feedback from consultations identified several areas of concern with respect to supports for faculty/instructors:

Support for Faculty at Memorial University

Faculty are provided with support from Student Life. Examples include: workshops on enhancing classroom accessibility or procedures to hire a student; experiential learning projects including community-engagement opportunities; and supports to augment course material, such as adding a Student Life workshop seminar or integrating career outcomes into a course.

- Faculty at the Marine Institute and CNA are required to complete the post-secondary teaching credential which is awarded by the Department of Education, Government of Newfoundland and Labrador. One component of the credential is the post-secondary education teaching program, which is composed of six courses and is delivered online by Memorial University's Faculty of Education. Consultations revealed that faculty/instructors at both CNA and MI were experiencing challenges with the relevancy of the teaching program content and program delivery.
- At both MUN and CNA, when contracts for faculty/instructors do not specifically include time allocations for course preparation, the significant amount of work required is not recognized nor are faculty/instructors compensated.
- At CNA, concerns were identified with respect to hiring practices for faculty/instructors. These include: (a) The last minute hiring of contractual employees was repeatedly highlighted as having a negative effect on the startup of courses for students and instructional readiness for faculty/instructors; (b) CNA faculty/instructors indicated that there is a perceived bias in hiring practices at the college which privilege some types of credentials above others without due consideration of the skill sets required for the position (for example, Red Seal certification versus a university degree in a non-related field).
- At CNA, concerns were expressed by faculty/instructors regarding: (a) the need for more frequent and accessible professional development opportunities; and (b) the lack of dedicated resources to support accreditation activities at the campus level, especially in the trades programs.

**School of Graduate Studies
(SGS) Rockstar Supervisor Award**

Memorial University's SGS, with input from graduate students, provides an annual award that celebrates outstanding faculty supervision.

6.1.3 General supports for staff

Human resources departments at both the CNA and MUN offer employee assistance program (EAP) support, limited professional development, wellness clinics, as well as other supports to staff.

There are numerous examples of staff awards at MUN: two President's Awards, the Vice-President Staff Award at Grenfell Campus, the Marine Institute Award for Exceptional Service, and the School of Graduate Studies Dean's Award. No comparable awards for staff were identified for CNA.

President's Awards for Staff, MUN

Memorial University offers the President's Award for Exemplary Service to a non-academic staff member who has made significant contributions to the university. The President's Award for Exceptional Community Service is awarded to staff who have demonstrated outstanding service to the broader community.

Staff at Memorial University participate in bargaining units such as the Newfoundland Association of Public Employees (NAPE) and the Canadian Union of Public Employees (CUPE). Memorial University of Newfoundland Pensioners' Association (MUNPA) supports retired employees (faculty and staff). Post-employment benefits such as continued access health and wellness insurance and services, internet, library access, building access, and parking privileges are extended to retirees of Memorial University.

Employees of CNA participate in the NAPE bargaining unit. The college provides post-employment benefits such as severance.

6.1.4 Alumni support

Both MUN and CNA provide alumni support through engagement and outreach activities that support continued connections with graduates of the institutions.

The Office of Alumni Engagement at Memorial University operates under the Office of Public Engagement. The office supports alumni chapters in Halifax, Ottawa, Calgary, Houston and London, England. Engagement includes numerous events and reunions, and other specialized activities to promote continued participation in the Memorial community. For example, Alumni Engagement provides a virtual book club that focuses on Newfoundland and Labrador literature. Also, connection with alumni is achieved through a monthly Luminus Express e-newsletter.

CNA has an alumni office that provides a wide range of services and benefits such as career services (employment opportunities, job finder) and continuing education (customized training, certificate opportunities).

Feedback received during consultations suggested that there was room for both MUN and CNA to improve outreach and engagement of their respective alumni.

Recommendations:

51. CNA conduct a review of internal communications for students, faculty and staff.
52. CNA increase student access to libraries and computer rooms during evening and weekend hours.
53. MUN and CNA work with student unions and municipalities to improve student access to public transportation.
54. CNA review availability of diverse food options in their food services.
55. MUN and CNA explore options to increase available child care spaces on campus.
56. MUN and CNA explore options to increase the number and dollar amount of scholarships and bursaries available to students.
57. CNA explore options to ensure health and dental coverage is accessible for international students.
58. MUN and CNA collaborate in the enhancement of mental health supports available to students, building on the success of the Stepped Care Model at MUN
59. CNA introduce automation of student loans processing

60. MUN and CNA enhance the level of transitional supports available to students entering these institutions.
61. CNA explore options to increase student access to peer tutoring.
62. CNA enhance its level of resources in the area of student accessibility and accommodations.
63. MUN and CNA review supports available to students taking courses online in light of feedback received during the COVID pandemic.
64. MUN and CNA review supports available to faculty/instructors teaching courses online in light of feedback received during the COVID pandemic.
65. MUN and CNA explore options for increasing availability of family-oriented housing.
66. MUN and CNA collaborate in recruitment of international students and development of enhanced supports for international students.
67. CNA consider enrolling international students in communities that have high levels of support for new Canadians.
68. CNA increase recognition and awards for faculty/instructors and staff.
69. CNA and MUN (MI and the Faculty of Education) review the Post-Secondary Education Teaching Program offered by Memorial University and identify options for improvement.
70. CNA enhance options for professional development for faculty/instructors and staff.
71. CNA review supports provided to campus faculty/instructors for accreditation.
72. MUN and CNA explore options for improving outreach to and engagement of their respective alumni.

6.2 Supports available to under-represented groups

Individuals face different advantages and barriers; not everyone starts from the same place. In order to treat everyone fairly, people need different types of support to make their opportunities equal to those of others. Equity is a process that begins with recognition of differences in starting places and includes consistent efforts to address the imbalances (5).

One of the key approaches to building equity is to ensure that individuals who are members of one or more groups that have traditionally faced barriers to participation in society are afforded opportunities to participate fully in post-secondary study and the labour market. For example, in

terms of participation in the workforce, the Canadian Federal Employment Equity Act identifies under-represented groups as: women, visible minorities, Aboriginal peoples, and persons with disabilities, as well as but not limited to, LGBTQ2+ people, and men in female-dominated disciplines. The inclusion of people identifying with one or more of these groups creates diversity (variety) in human resources available to institutions and other societal structures and is an important step along the path to greater equity in Canadian society.

To quote a noted equity, diversity, and inclusion (EDI) educator²⁵ “if diversity is being invited to the party, inclusion is being asked to dance” (6). Merely including individuals from diverse backgrounds and identities does not ensure equity. Inclusion means individuals have access to resources necessary for success and everyone is valued and appreciated.

The public post-secondary education system plays a key role achieving equity in the economy and society as a whole. Increasing the diversity of the student body provides a gateway to improved social and economic opportunity for traditionally disadvantaged groups. Increasing the diversity of the post-secondary education sector (student body, faculty/educators, and staff) exposes all members of the learning community to multiple perspectives, cultures and ways of knowing. Post-secondary institutions foster respectful and constructive debate and an appreciation for the benefits that different ideas and perspectives bring to institutions, workplaces, and communities.

To build a truly inclusive environment in post-secondary education, it is important to provide equal access to opportunities and appropriate resources to people who identify as a member of one or more of the under-represented groups described above.

This section presents an overview of the types of organizational structures and services that focus on equity, diversity and inclusion (EDI) at both Memorial University of Newfoundland (MUN) and the College of the North Atlantic (CNA). Examples of supports available to members of the post-secondary education system are provided. It is not a complete inventory.

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Institutional focus on equity, diversity and inclusion

The mission statement for Memorial University of Newfoundland (MUN) includes a specific reference to inclusion. Diversity and inclusion are referenced in the core values statements for both MUN and the College of the North Atlantic (CNA). Overall accountability for actions undertaken in support of these values rests with the Board of Regents (MUN) and the Board of Governors (CNA) and the senior administration of each institution. Currently neither governance entity has a committee focused on EDI issues for their respective institutions; the Review Committee urges both the Board of Regents and Board of Governors to take note of and pay special attention to EDI and consider adding EDI to a Risk Register for both institutions.

MUN has a number of institution-level documents that address EDI issues specifically. Recent examples include:

- Memorial University Equity, Diversity and Inclusion in Employment Policy (approved 2016 — focuses on Indigenous, visible minorities and persons with disabilities)
- A Special Obligation: Report of the Presidential Task Force on Aboriginal Affairs (2009)
- Academic Mission Statement on Equity, Diversity and Inclusion (Endorsed by Dean's Council, September 2020)
- Indigenization Strategy (developed in draft and under review)
- Strategic Internationalization Plan (January 5, 2015)
- Research Impacting Indigenous Groups: Policy and Procedure (2020)

The College of the North Atlantic has fewer institution-level documents but has recently (a) partnered with the CEO of Diversity NL on a contractual basis for 12 months, effective October 2020, to develop a Diversity and Inclusion Plan for CNA; and (b) signed a Memorandum of Understanding (MOU) with the Qalipu First Nation, aimed at solidifying the partnership and support for transition to and participation in post-secondary education.

Several senior level positions are dedicated to improving EDI for under-represented groups at MUN and CNA (see companion document).

Multiple initiatives at the federal/national organization level have focused on increasing access for and inclusion of under-represented groups in post-secondary education, particularly in the area of research. In 2017, the Canada Research Chairs program instituted a requirement that all institutions with five or more chairs maintain an EDI action plan. In 2019, the Government of Canada launched the voluntary Dimensions Charter and Pilot Project to foster increased research excellence, innovation and creativity through EDI. Memorial University is currently conducting a search for an Indigenous Chair holder and is planning a targeted search for a chair holder with a disability.

In the area of teaching and learning, Universities Canada has formally adopted statements of principle with respect to Indigenous Education and Inclusive Excellence, and in 2019 launched its first EDI member survey, in which Memorial University participated. Colleges and Institutes Canada has adopted an Indigenous Education Protocol for Colleges and Institutes which to date has 67 signatories. CNA is one of four of the nine comparator institutions that has not yet become a signatory.

Increasing diversity in apprenticeship and trades has also received attention. The Office to Advance Women Apprentices (OAWA) is a non-profit organization created in 2009 to work with stakeholders (employers, unions, government and training institutions) to assist female apprentices in non-traditional trades to find employment opportunities, with the ultimate goal of achieving journeyperson status.

The Labrador Office for Indigenous and Northern Skilled Trades is a 3rd party contract that the Government of Newfoundland and Labrador, through the Department of

Indigenization Strategy 2020-2025, MUN

A draft Indigenization strategy is under review. The strategy was developed following extensive consultation with Indigenous communities and across campuses of MUN in Newfoundland and Labrador.

The strategic framework sets out priorities under four pillars: leadership and partnership, teaching and learning, research, and student success.

Immigration, Skills and Labour, has entered into a partnership with Trades NL. The office is located in Labrador and has as its goals: promoting skilled trades as a viable career; mentoring Indigenous skilled trades workers through the apprenticeship-journeyperson process; and assisting individuals in finding employment opportunities.

Designated seats for under-represented groups

The Faculty of Medicine was the first academic unit in the university to institute designated seats for qualified Indigenous students in their undergraduate medical program. Today there are designated seats in a number of programs: Faculty of Business Administration (3); Faculty of Education (3); Faculty of Engineering and Applied Science (3); Faculty of Medicine (3); School of Human Kinetics and Recreation (3); School of Nursing (3); School of Social Work (3); Marine Institute (5); Division of Fine Arts, Visual Arts, Grenfell Campus (2); and Master of Arts in Environmental Policy, Grenfell Campus (1).

At the College of the North Atlantic, admissions regulations stipulate that the college may reserve space for Indigenous, international and out-of-province applicants in any of its regularly funded programs. CNA does not have a policy that guarantees or reserves seats for persons who identify with any particular group.

Targeted academic programs

One approach to improving access for under-represented students is to provide programming tailored to their needs. Both MUN and CNA offer academic programs/courses of this nature (see companion document).

CNA and Labrador Aboriginal Training Partnership

Customized and Continuous Learning (CCL) designed and facilitated a Mining Foundation program in 2018. This six-week program was developed in partnership with Labrador Aboriginal Training Partnership to increase Indigenous participation in the mining workforce.

The Truth and Reconciliation Commission of Canada (8) presented a series of recommendations around Indigenizing the Academy and these provide useful guidance to both institutions.

Support services

As discussed above, an important dimension of equity is inclusion. Offices focused on supporting individuals who identify with under-represented groups enhance inclusion for these individuals. Memorial University of Newfoundland has a number of offices and committees responsible for EDI, including an Aboriginal Resource Centre on both the St. John's and Grenfell campuses, an International Office, and a Sexual Harassment Office.

The College of the North Atlantic has two designated support positions for Indigenous students, both located at the Happy Valley-Goose-Bay (HVG) campus: an Aboriginal Support Coordinator; and an Aboriginal Resource Specialist. There is also one dedicated position for international student supports. There is no sexual harassment office.

Feedback received during consultations suggested that: (a) more dedicated supports for Indigenous students are needed at the Grenfell Campus of MUN, given the high proportion of the student body who are Indigenous; (b) supports for Indigenous and international students are inadequate across most campuses of CNA, and (c) procedures regarding sexual harassment complaints at CNA require a significant review.

6.3 Snapshot of EDI in the PSE system in Newfoundland and Labrador

Efforts to enhance equity, diversity and inclusion in the two public post-secondary education institutions are ongoing. To date, limited data are available to indicate changes that have occurred in the diversity of the student body and the institutions' workforce.

Diversity of the student body: MUN

Gender

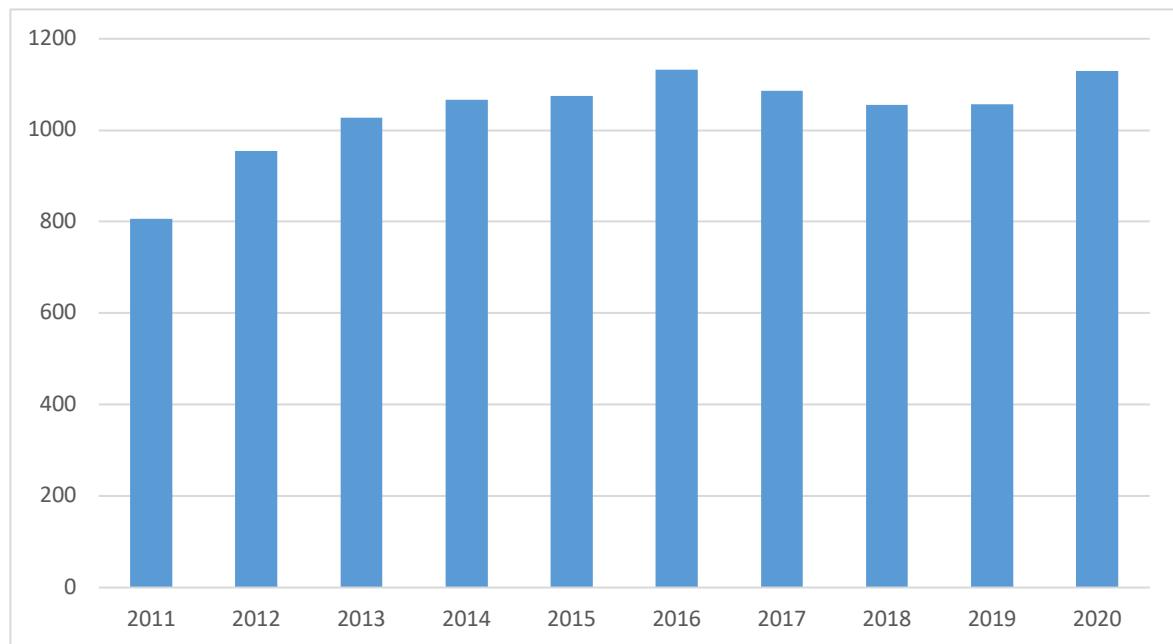
The total number of undergraduate students at MUN declined by 1,198 students (8.1%) between 2010 and 2019 and most of this decline was in the female demographic. In 2010, 60.4% of undergraduates were female and 39.6% were male. In 2019, 56.8% were identified as female, 42.4% as male and 0.7% undisclosed.

While the total number of graduate students increased by 1,092 (37%) over the same period, a similar shift in gender percentage was observed. In 2010, the graduate student population was 56.3% female and 43.7% male. In 2019, 51.9% of the graduate student population identified as female, 47.9% as male and 0.2 not disclosed. Much of the growth in graduate female students has been in the Engineering faculty (63 females in 2010 versus 160 females in 2019) and the Marine Institute (8 females in 2010 versus 188 in 2019). Much of the growth in graduate male students has also been in these two faculties (265 male students in 2010 versus 641 in 2019 in Engineering; 28 male students in 2010 versus 133 in 2019 at the Marine Institute).

Indigenous students

Figure 6.1 below indicates an increase of 40.1% in enrolment of self-identified Indigenous students at Memorial University from the Fall of 2011 (806) to Fall 2020 (1129). These figures include all students. While some of this change may be due to increased self-identification, it is reasonable to conclude that the number of Indigenous students attending Memorial is increasing.

Figure 6.1 Number of self-identified Indigenous students, MUN, 2011-2020



Source: Office of Indigenous Affairs, MUN

Student place of origin

In the period 2010-2019 the composition of the undergraduate student body shifted significantly with respect to place of student origin. Students from Newfoundland and Labrador declined by 1433 (12.2%) and students from the rest of Canada declined by 890 (8.7%). In contrast, the number of international students increased by 1125 (151.4%).

In the same time period, graduate students from Newfoundland and Labrador declined by 287 (16.3%) while increases occurred in graduate students from Canada (296, 45%) and from other countries (1083, 204%). The increase in the number of international students suggests that the student body at Memorial is likely becoming more diverse.

Persons with disabilities

Memorial University supports students with disabilities and coordinates academic accommodations and services through the Blundon Centre. Blundon Centre staff promote a social model of accessibility for students. Accessibility coordinators assess individual needs, complete intake and assessment activities, collect required documentation such as medical certificates and psychoeducational assessments and design an accommodation plan. Registration with the centre is required. Students have online access to a wide range of services and academic accommodations to meet their needs.

College of the North Atlantic Accessibility Services are available for students who are registered for both in-class and online learning. CNA provides services to students with disabilities through the provision of Assistive Technology and related supports to ensure academic success. CNA recently made available “Read and Write” literacy software to support reading, writing, studying, and research activities. This program is accessible to all students participating in college programming.

Diversity of the student body: CNA

Available information about the diversity of the student body at CNA was limited and summarized below. Forty percent (40%) of students are female and 60% are male. Less than five percent (4.4%) self-identify as Indigenous. Two percent of students are international. The types and complexities of disabilities that require academic accommodations have increased substantially at CNA; 12% of students are registered as needing accessibility services.

Diversity of the workforce (faculty/instructors and staff): MUN

Tables 6.1 and 6.2 below provide an overview of the composition of the MUN workforce by designated groups, as determined by a self-identification survey in 2019 (response rate 70%) as compared to labour market availability for each group (7). Gender participation in the workforce as a whole and within the faculty group is close to market availability. Within the faculty group, participation of persons who identify as Indigenous is also close to market availability but this is not the case for the workforce as a whole. Participation of individuals of minority racial

backgrounds and persons with disabilities is lower than labour market availability for the total workforce and within the faculty group.

Table 6.1 Workforce composition by designated groups, MUN, 2019

Designated groups	Representation of MUN workforce ¹	Labour market availability ²
Women	54.1%	51.3%
Indigenous	1.7%	5.0%
Members of minority racial groups	5.0%	12.8%
Persons with disabilities	2.2%	9.0%

Sources:

(1) MUN Self Identification Survey, 2019
 (2) Labour force census data, obtained through the Workforce Information Management System

Table 6.2 Faculty composition by designated groups, MUN, 2019

Designated Groups	Representation of MUN workforce ¹	Labour market availability ²
Women	41.6%	44.0%
Indigenous	1.2%	1.4%
Members of minority racial groups	9.6%	21.1%
Persons With disabilities	2.0%	8.9%

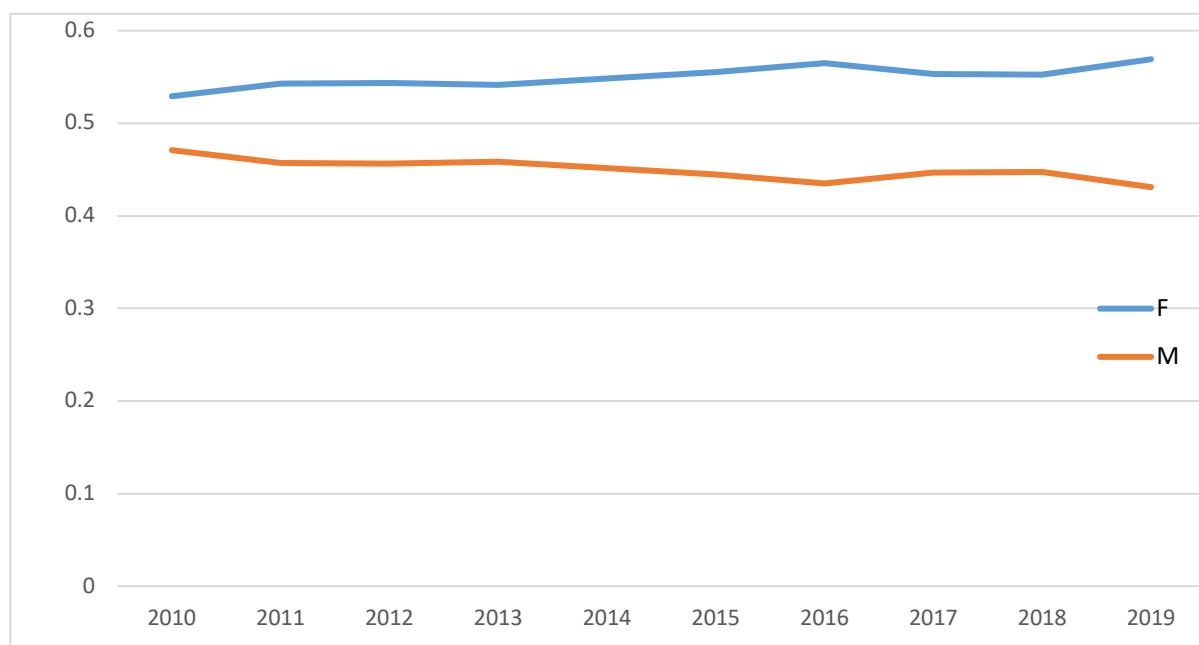
Sources:

(1) MUN Self Identification Survey, 2019
 (2) Labour force census data, obtained through the Workforce Information Management System

Diversity of the workforce (faculty/instructors and staff): CNA

College of the North Atlantic data related to workforce composition were available only for gender. As shown in Figure 6.2 below, the gender balance of the workforce at CNA in 2019 was 57% female and 43% male, compared to 53% female and 47% male in 2010. Additional analysis of the CNA workforce broken down by gender and classification (companion document) indicates that females are the largest percentage of support staff, management, and non-union/non-management categories. Males outnumber females in the instructor/faculty category. While the number of instructors/faculty declined from 826 in 2010 to 612 in 2019, the relative percentages by gender remained essentially the same (43% female, 58% male in 2010 compared to 44% female and 56% male in 2019).

Figure 6.2 Percentage of workforce, CNA, by gender, 2010-2019



Source: CNA Annual Reports

Challenges

EDI is acknowledged throughout various departments and agencies of the Government of Newfoundland and Labrador (Women's Policy Office; Labrador Affairs Secretariat; Disability Office; Department of Immigration, Skills and Labour; and the Department of Education). Many

references to EDI are included in The Way Forward documents, particularly those addressing innovation, post-secondary education, and technology. However, activities and initiatives are not centrally coordinated at the provincial government level.

Both post-secondary institutions and the apprenticeship program are moving forward to address EDI issues related to students from under-represented groups but the needs are great and resources are inadequate, particularly at the College of the North Atlantic.

There is also a dearth of information available to administrators to assist them with decision making around resource requirements and allocations. For example, Universities Canada recommends the following types of data be collected on a consistent basis:

- diversity among board members, senior administration, staff, and students;
- equity information regarding salaries and benefits (payroll audits);
- training provided for all post-secondary education community members around EDI issues;
- cultural audits of the institution;
- surveys or other forms of data collection to ask questions about the experience for individuals who are the minority within organizations and about strategies to address barriers that interfere with their feelings of belonging and being welcomed.

There are many challenges for data collection and analysis such as self-identification by members of under-represented groups and the resources required to put appropriate systems in place. However increased efforts to transparently collect and report on these data can go a long way in creating a truly equitable post-secondary education community. For example, Dalhousie University publishes annual progress reports on its Diversity and Inclusiveness Strategy, which centres on four pillars of campus activity: climate, student access and success, education and research, and governance. By showcasing the progress made to date and identifying areas for action, the annual progress report provides a valuable tool for advancing equity, diversity and inclusion for students. Similar initiatives are required for faculty/instructors and staff.

Recommendations

73. CNA consider becoming a signatory to the Indigenous Education Protocol for Colleges and Institutes.
74. CNA consider designated seats for qualified Indigenous students in its academic programs.
75. MUN enhance supports for Indigenous students at Grenfell Campus.
76. CNA enhance supports for Indigenous students.
77. CNA enhance supports for international students.
78. MUN and CNA explore the possibility of shared services with respect to:
 - a. international student recruitment;
 - b. international student support;
 - c. indigenous student recruitment; and
 - d. indigenous student support.
79. CNA review and enhance its procedures for addressing sexual harassment issues for students, faculty/instructors and staff.
80. MUN and CNA review resources allocated to accessibility services for students in light of increasing demand for these services.
81. MUN, CNA and the Government of Newfoundland and Labrador work together to develop common tools/databases to monitor progress on EDI issues for students and members of the workforce (including faculty/instructors and staff in PSE institutions as well as the members of the workforce in other sectors).

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Chapter 7: A Post-secondary Education System for the 21st Century

7.1 Vision

The public post-secondary education system in Newfoundland and Labrador is valued and celebrated for the quality of its graduates, the inclusive and innovative culture of its institutions, and the positive impact of its programs on individuals, communities, the province, the nation, and the world. It is recognized and respected as an effective partner in efforts to address both local and global challenges.

As part of the vision for a 21st century post-secondary education system in Newfoundland and Labrador the Review Committee proposes that all graduates of a post-secondary education institution should:

- be knowledgeable and competent in their field;
- be critical and practical thinkers;
- be responsible citizens;
- demonstrate ethical, moral, and intellectual integrity;
- be creative and responsive problem solvers;
- have enthusiasm for learning;
- be supportive collaborators with particular regard to diversity of interests;
- communicate effectively with others; and
- be passionate and industrious individuals.²⁶

²⁶ As part of the extensive consultation process that led to the development of the first Teaching and Learning Framework for Memorial University of Newfoundland in 2011, 90 members of the university community, including deans and directors, students and staff, met to identify the qualities that all of Memorial's students should demonstrate after they complete their studies at MUN. These qualities of the graduate are also frequently referenced in the literature with respect to the value of a post-secondary education in both universities and colleges.

In order to foster the development of these qualities in graduates, the provincial post-secondary system must collectively adopt the core values identified in planning documents provided by the College of the North Atlantic and Memorial University of Newfoundland. These values include a commitment to: supporting students, faculty/instructors, and staff; fostering an inclusive culture; being responsive to the needs of key stakeholders; and being transparent and accountable in decision-making. Embracing these values will ensure that the post-secondary education system will be a microcosm of the world we all want to live in.

7.2 Challenges

Newfoundland and Labrador is facing serious economic and social challenges and these challenges have implications for the post-secondary education system in the province.

However, these challenges can also be addressed in major ways by leveraging the talents and expertise of the post-secondary education system. The greatest resource that Newfoundland and Labrador has is its people, who through ingenuity, generosity and hard work have enabled the province to develop and progress over many generations. The PSE system has been a major enabler of success for people of the province as they faced challenges in the past and with proper support will continue to be a major asset as they face the current and future challenges of the 21st century.

7.2.1 Financial capacity of the province

Until the recent downturn in oil prices, government revenues per capita in Newfoundland and Labrador exceeded those for every other province and territory in Canada.

However, like most provinces in Canada, spending and borrowing by the Newfoundland and Labrador government consistently exceed revenue. Over the last decade in Newfoundland and Labrador, spending and borrowing, together with unfunded pension liabilities, have contributed to levels of provincial debt per capita which are the highest in Canada (1). The deficit in the province's current account has led to an accumulated net debt in fiscal year 2020 of \$14.4 billion. Funds required for debt repayment are not available to support the major economic and social sectors of the province, including the post-secondary education system

Increasing the GDP of Newfoundland and Labrador would provide some of the fiscal means for the province to reduce or avoid deficits. The post-secondary sector can be the fundamental engine for a more diversified and resilient economy by: (a) ensuring the population has the skills required in the 21st century as well as access to lifelong learning, and (b) fostering the development of new ideas and innovations required to improve productivity in major sectors of the Newfoundland and Labrador economy.

7.2.2 Population decline

The Newfoundland and Labrador population has been declining since 2016, largely due to falling birth rates and out-migration. Of particular concern for the post-secondary education system is the decline in population of the largest segment of their potential enrolment, individuals 19 years of age and younger (see companion document).

Declining populations: (a) result in a reduced tax base from which resources for public services can be drawn; and (b) are associated with increased costs per capita, as efficiencies related to size of the population are lost.

Increased immigration is a key strategy for addressing declining populations. Currently, rates of immigration to Newfoundland and Labrador are lower than for the other Atlantic Provinces and the rest of Canada. Rates of retention of immigrants to the province are similarly low. The province has an Immigration Strategy (The Way Forward on Immigration) which recognizes that the post-secondary system is an important partner in attracting and retaining newcomers to the province as students, faculty/instructors, and staff. The challenge for the province as a whole and the post-secondary education system is to work together to create the conditions necessary to maximize the attraction and retention of immigrants to the province.

7.2.3 Aging infrastructure

The province of Newfoundland and Labrador faces challenges maintaining much of its public infrastructure for health care, education, transportation, and communication and the PSE system shares this challenge. From both environmental and financial

sustainability perspectives there is an imperative to reduce the number and footprint of physical structures which are costly to operate and expensive to replace.

In the current PSE system, at both MUN and CNA, some of the physical infrastructure is outdated, inefficient, and/or not suitable for current purposes. The PSE system can provide leadership in this area by demonstrating its commitment to sustainable environmental practices. The utility of the existing footprint can be evaluated to determine what should be enhanced or have its purpose changed. Where possible and appropriate, sharing physical spaces between MUN and CNA and/or between PSE institutions and community or government agencies should be thoroughly examined before investment in new infrastructure occurs. Expansion of the total footprint can be minimized by reducing or eliminating structures as new facilities come online. Future infrastructure can be reduced in size, multi-purpose, green, and technologically enhanced.

7.2.4 Workforce participation

Unemployment and underemployment have been chronic problems facing the province. Participation in post-secondary education has been shown consistently to improve the likelihood of successful workforce participation (2). The review identified several major issues that have an impact on: (a) participation in both PSE and the workforce; and (b) responsiveness of PSE to workforce needs.

Participation in PSE and the workforce

A high number of K-12 students do not complete high school in Newfoundland and Labrador. The 2017 review of the K-12 education system in Newfoundland and Labrador cited a figure of 1300 dropouts per year on average (3). This represents a significant loss of potential post-secondary enrolment, resulting in an uncertain future for the young people involved and a less well-prepared workforce for the province. The PSE system, and in particular, the College of the North Atlantic, can help address this issue by developing innovative student-focused transition programming targeted at learners who have not been successful in traditional secondary environments or programs.

Participation of under-represented groups in both (a) PSE (as students, faculty/instructors, and staff and (b) the provincial workforce is improving but much needs to be done. Greater collaboration among PSE institutions, government departments, employers, and communities will strengthen the equity, diversity and inclusiveness of the Newfoundland and Labrador PSE system, workforce and society.

Limitations in technology infrastructure create barriers to post-secondary participation and workforce participation, both within institutions and across the province. There is a need for ongoing renewal of technology infrastructure in all sectors of the province.

Response to the COVID-19 pandemic focused on remote delivery of programming across the K-12 system, Memorial University, and the College of the North Atlantic. Many businesses also transitioned to online delivery of services and programs. The challenges encountered during this period highlighted the need for improved bandwidth for all communities in the province, access to user-friendly and current technology programs, and improved supports for all users of online platforms. The PSE system can play a vital role in bringing ICT infrastructure to communities and in providing much needed training and support to users in the PSE system and the community at large.

Responsiveness of PSE to workforce needs

The post-secondary education system provides the education and training for the majority of the workforce in the province. However, given the highly changeable technical, economic, and social environment of the 21st century, the need for industry and employee access to re-skilling and/or upskilling post-secondary programming will continue to grow locally, nationally, and internationally. Capacity of the PSE in Newfoundland and Labrador to respond to these needs will be enhanced by improved access to:

- a. Flexible programming options. New approaches to skills development, including technical and soft skills, available in just-in-time and flexible formats, are needed. These programs require collaboration across PSE providers to avoid duplication, and

input from employers, to ensure relevance of the content and employer recognition of employee participation.

- b. Accurate and timely labour market information (LMI). In addition to difficulties in obtaining and distributing LMI, there are limitations in the nature of the data in that it focuses on current macro-trends rather than more granular data that would be useful for PSE planning, including decisions to terminate or modify programming that is no longer relevant. Generating the type of information that would be most useful will require collaboration across many sectors of the province, including industry sectors, government departments, information/data analytics programs, and PSE institutions.
- c. Lifelong Learning. One thing that is known about labour markets is that future trends are hard to predict and therefore there will be a continuous need for lifelong learning so that citizens can adapt to changes in the economy. Some barriers to access for lifelong learning arise from less than seamless transition points (i) between the K-12 system and the post-secondary system and (ii) among institutions within the post-secondary education system. Others, such as barriers to advanced block training in apprenticeship programs, involve industry and government departments. Addressing these issues involves collaboration across all the key stakeholder groups.

7.2.5 Information management

Given the current fiscal crisis facing the province, all major stakeholders are seeking evidence that taxpayer dollars are being spent wisely. Efforts of the Review Committee to more fully explore the effectiveness of post-secondary education were hampered on many fronts by lack of access to information in both the PSE institutions and government departments. The challenge for the province as a whole and the post-secondary education system is to ensure that transparent and high quality information is available to support decision making with respect to investment in post-secondary education.

7.3 Opportunities

Many challenges facing the province at this time require new ways of thinking and working together as a province and across sectors within the province. Lifelong learning, knowledge creation, and innovation are key requirements in the 21st century. The post-secondary education sector is uniquely positioned to help the province identify opportunities to address these challenges, as noted in the preceding discussion and presentation of recommendations throughout this report.

During the course of the review, it became apparent that there is an opportunity to create innovative structures and processes that will enhance the likelihood of effective collaboration on many of the key challenges faced by both the province and the PSE system. Two of these are highlighted below.

7.3.1 Community Access Centres

The College of the North Atlantic has 17 campuses located throughout the province. Many of the rural campuses of CNA are currently underutilized in terms of enrolment in traditional programming. Most of these facilities have been well-maintained and are important portals for community engagement in their regions. There is a pressing need for new and innovative program offerings in support of: (a) professional development and skills acquisition for members of the workforce, and (b) lifelong learning for everyone, especially with respect to technical skills required to fully participate in the economic, social and cultural life of the 21st century.

There is an opportunity to repurpose currently underutilized campuses as Community Access Centres (CAC). These centres would be accessible to entities such as the College of the North Atlantic, Memorial University, private training institutions, not-for-profit groups, charities, and individuals who wish to offer periodic learning services and programs. Given the environmental and economic imperatives to reduce infrastructure footprints and costs, the feasibility of co-locating all government-funded services, such as the public libraries/commons and public service offices, on the same physical site

should be explored. Consolidation of services in one place would reduce maintenance costs and allow future investment in infrastructure to focus on information technology enhancements and environmentally sustainable practices. In communities where college campuses have not been repurposed, college campuses could continue to serve as portals for engagement and relationship building among PSE institutions and communities.

CACs can be the focal point for ICT infrastructure in smaller communities, providing access to high speed internet and current technology and offering instruction and support for its use. Students, members of community groups, and businesses could avail of the space to come together physically or to join in online meetings as a group. PSE institutions could use the space to deliver programming, on an as needed basis, which is tailored to meet the needs of the important economic sectors in the community such as fisheries, mining, agriculture, and tourism. A CAC could also provide support for under-represented groups such as immigrants or Indigenous people, either directly or through provision of gathering space for the Association of New Canadians or the Indigenous Friendship Centres to bring people together and share cultures.

The programming and services offered at each Community Access Centre should be developed in response to the identified needs of each community and region. The CAC can provide the space, time, and opportunity for interactions among multiple stakeholders who will help identify what the real needs of their community are and how they can best be addressed. Bringing people together is often a spark for innovative activities in education, business, and cultural and government processes. A CAC would also be an optimal environment for promoting research efforts between post-secondary institutions and the community.

While the physical space the CACs occupy would continue to be owned by the government in the near term, the management and operations of the CACs should devolve to the communities/municipalities over time. Staffing complements for each CAC

would be determined in accordance with the agreed upon programs and services that would be provided at each centre, but the focus should remain on the scheduling and housing of dynamic activities that foster community engagement with lifelong learning.

Recommendation

82. The Government of Newfoundland and Labrador and the College of the North Atlantic repurpose some CNA campuses as Community Access Centres.

7.3.2 A Post-Secondary Education Secretariat

As noted in this report, the public post-secondary system in Newfoundland and Labrador is supported by and accountable to the people of the province. In order to fulfill its responsibilities to students, faculty/instructors, staff, industry, and society as a whole, Memorial University and the College of the North Atlantic must work in partnership with each other as well as with municipal, provincial, and federal government departments, communities, industry, and private training institutions.

While recognizing that the unique mission and priorities of each institution need to be respected and supported, this report identifies several other key strategic initiatives needed to ensure that the public post-secondary education system is an effective tool to address the challenges of the 21st century. These initiatives require a consistent and focused effort to shape collaboration not only between the two public post-secondary institutions, but also among a myriad of other stakeholders.

The Review Committee recommends the creation of a PSE Secretariat whose mandate would be to: (a) ensure sharing of expertise and resources between the two public post-secondary institutions and governments, industry, and society as a whole; (b) support the PSE institutions and other key stakeholders as they act on the recommendations contained in this report; (c) evaluate the effectiveness of any initiatives undertaken and (d) report to the public on an annual basis.

Four broad principles would guide the activities of the Secretariat:

- Post-secondary education contributes to sustainable socioeconomic development and quality of life.
- Access to lifelong learning is required for citizens to fully participate in the economic, social and cultural life of the 21st century society.
- Effective use of resources requires: (a) increased collaboration across PSE institutions, governments, industry and society as a whole; and (b) access to adequate information on resource utilization and outcomes achieved (consistent, reliable and individual-level data collection and analysis).
- Accountability for PSE requires transparent public reporting.

While not intended as an inclusive list, the Review Committee recommends a number of key initiatives that should be prioritized under each guiding principle. As noted below, each of these initiatives requires a high degree of collaboration among a variety of stakeholders in order to succeed. No one institution or sector can do it alone and the PSE secretariat can play a crucial role in leveraging and coordinating the expertise and resources of key stakeholders to achieve maximum impact in priority areas.

Sustainable socioeconomic development and quality of life

Demographic challenges facing the province related to declining population and subsequently a declining workforce can be partially addressed through immigration and PSE has a significant role to play. Recruitment of national and international students by PSE institutions can be a significant contributor to overall provincial immigration policy. The recruitment strategy will be enhanced if all partners (government, industry, municipalities, and PSE institutions) collaborate on its development and implementation. Government departments, industry sectors, and the PSE system can provide valuable insight as to the “brand” the province wishes to establish for its economic development strategy. PSE institutions can then build these branding components into their marketing and recruitment efforts. PSE institutions can also support the brand by working together to ensure that a significant portion of their academic programming and

research is directed to providing a world class academic experience in these priority areas for all students (local, national, and international).

Recruitment of national and international students to PSE institutions is not enough to ensure that they remain in the province post-graduation. If newcomers find a welcoming and supportive environment in the institutions, the community, and the province, they will be more likely to remain in Newfoundland and Labrador, and, for international students, to explore paths to citizenship. PSE institutions can ensure new students have a good experience academically and acquire the skills needed in the Newfoundland and Labrador workforce, but more is needed. Industry can ensure that co-op or other work-integrated learning opportunities are available to facilitate transition to the provincial workforce. Government departments can provide services and resources to support citizenship. Municipalities can ensure access to housing and appropriate social supports are in place.

Quality of life in the province is substantially enhanced by the expansion of diversity and inclusion. There is a high proportion of the Newfoundland and Labrador population that is of Indigenous heritage. Many Indigenous people wish to have greater opportunities to benefit from and contribute to the prosperity and quality of life of the province, while maintaining important connections to their culture, heritage and traditions. It is incumbent on the PSE system to be welcoming of Indigenous people and seek to learn from their culture and history. The Truth and Reconciliation Commission (4) provides a guide for implementation of institutional policies and actions. While its journey is not complete, MUN has achieved more progress in this area than CNA, and there is an opportunity for collaboration and mutual learning between the institutions in this area.

Expansion of diversity and inclusion also includes women, men in female dominated professions, persons from different racial and cultural backgrounds, persons who identify as LGBTQ2+, and persons with disabilities. Post-secondary institutions not only recruit students from under-represented groups, they also provide employment to members of these groups as faculty/instructors or staff. Members of the PSE community have become more aware of

the diversity of cultures and processes across the world and the importance of equity and inclusion in an economy and society that is increasingly diverse. In many ways, the PSE sector, in particular MUN, has led the way in Newfoundland and Labrador for increasing diversity of the workforce and the population at large. CNA, employers and community groups can further increase their supports for members of these under-represented groups by collaborating with and leveraging the resources of MUN, a variety of government departments, and advocacy groups. More supports for diversity, equity and inclusion are needed within all PSE institutions and the community.

Access to lifelong learning

Lifelong learning is a continuum of formal and informal learning that occurs throughout one's life. The review has identified providing enhanced access to lifelong learning as a key strategic initiative for the PSE system.

Across post-secondary systems in other jurisdictions there are many formal agreements, programs and processes that foster lifelong learning. These occur both within and between institutions, in particular, between public colleges and universities. Feedback received during consultations indicated that the PSE system in Newfoundland and Labrador has a long way to go in this regard. While some progress has been made in laddering of CNA diploma credits towards an undergraduate degree at MUN (mostly at the Grenfell and MI campuses) much more can be done. Prior learning assessment and recognition (PLAR) is an essential component of most formal agreements and achieving cooperation among various institutional stakeholders can be challenging. The proposed PSE secretariat will be able to provide focused leadership and support to these efforts, by bringing together the necessary personnel and resources from the registrars' offices of MUN and CNA, faculty/instructors from selected faculties and schools in both MUN and CNA, Department of Education representatives, industry stakeholders, and representatives from the Canadian Association for Prior Learning Assessment (CAPLA). While the efforts required to achieve more laddering options may be complex and time-consuming, the ultimate goal is to make the process of lifelong learning through this particular pathway student focused (i.e., seamless and user-friendly to the learner).

A similar process of key stakeholder engagement across the PSE institutions, government departments, industry and community groups, facilitated and led by the PSE secretariat, could help ensure that development of new programs and approaches in support of lifelong learning, such as micro-credentials: (a) are designed with end user needs in mind (both the learner and the employer for example); and (b) use resources in the PSE system wisely by building on each institution's strengths to collaboratively develop and deliver programs where appropriate, thereby avoiding unnecessary competition and/or duplication of effort.

Effective use of resources

As noted above, effective use of resources requires increased collaboration of key stakeholders within the PSE system and other sectors. In addition to the examples provided above under quality of life and lifelong learning there are numerous opportunities for PSE institutions and various government departments to collaborate in the development and sharing of: library and other academic supports; professional development for faculty/instructors, particularly with respect to online course development and delivery; mental health and wellness supports for students, faculty/instructors, and staff; equity, diversity and inclusion supports for students, faculty/instructors, and staff; and ICT infrastructure, to name but a few. The PSE secretariat could also: (a) support efforts currently underway to build a provincial portal for students so they can access needed information about options for courses, programs, and work-integrated learning experiences; and (b) facilitate cooperation around research and innovation initiatives for agreed upon provincial priorities.

Effective use of resources also requires access to data on outcomes achieved by learners. An information system that can deliver this information will require introduction of a unique education number (UEN) for all students, assigned at birth (similar to the MCP number for health). A UEN will enable tracking of learner progress through pre-school, secondary school and post-secondary programs. In addition, through database linkages with other systems, outcomes such as employment, income earned, and other forms of economic and social impact of PSE can be measured.

A more complete picture of revenues and expenditures is required to support evidence-informed and transparent decision making with respect to resource allocation in PSE. Alignment of data collection processes and key data fields across PSE institutions and government departments will require substantial collaboration from the key stakeholders and access to expertise in database development and linkage.

The PSE system could leverage existing expertise to develop this crucial component of a 21st management information system, relying on: (a) offices within PSE institutions such as the RAnLab and the Centre for Institutional Analysis at MUN, and the Centre for Institutional Research at CNA; (b) government departments, such as the Newfoundland and Labrador Statistical Agency and Treasury Board; and (c) the Newfoundland and Labrador Centre for Health Information.

The PSE Secretariat will be accountable to all key stakeholders for progress made on the priority areas within its mandate. Clear and transparent reports should be made publicly available on an annual basis.

Recommendation

83. Create a PSE Secretariat with the following organizational features:
 - a. a direct reporting line to the Clerk of the Executive Council, Cabinet Secretariat;
 - b. a small core staff consisting of an Executive Head, communications officer, and administrative assistant;
 - c. additional personnel resources obtained primarily by secondment of individuals with expertise in priority areas for the duration of a particular initiative, and/or creation of working groups wherein participation by individuals with required expertise is part of their regular duties in their respective institutions;
 - d. an advisory council consisting of senior representatives from government departments, key industry sectors, community partners, and the post-secondary institutions; and
 - e. an initial term of five years, after which it will be evaluated and renewed, reconfigured or disbanded.

In addition to the commentary and recommendations presented above, the Review Committee has additional suggestions for consideration. The Executive Head will be responsible for: leading a strategic planning process to confirm priority initiatives for the secretariat; the clear articulation and communication of the agreed upon strategic initiatives; creation of teams or networks to address each strategic area; oversight/management and support of the team leaders; regular communication with the advisory council and the Clerk of the Executive Council; and presentation of a publicly available annual report. A strategic hire at the level of Deputy Minister is suggested.

Each team should be led by a staff member with expertise in the specific area and proven ability to create successful collaborations. The team/network leaders would be responsible for recruiting team members from the relevant stakeholder groups, establishing a set of deliverables and a work plan, and reporting semi-annually on the progress made towards those deliverables. Wherever appropriate and feasible it is suggested that the team members be seconded on a part-time or full-time basis from their current employer for the duration of their specific project.

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Closing Remarks

The Review Committee consulted with the three essential groups of stakeholders in the post-secondary education system that it identified in Chapter One – the post-secondary institutions, the provincial government and the people of the province. It found that there was a universal high regard for the post-secondary education system. This was consistent with the public investment that has been made by individuals and provincial governments over the past seven decades.

Information that emerged in the Review Committee's studies and consultations revealed that there were specific aspects of the post-secondary system that were not optimal and that there are ways in which the activities of the post-secondary institutions and the government could be improved to add more value to the system. The Review Committee has reflected on these findings and has made a series of recommendations to the institutions and the government which, when implemented, will result in a much stronger post-secondary system in the future.

Acting upon these recommendations will ensure that the post-secondary education system will increase its accountability, accessibility, effectiveness and sustainability.

The Review Committee recognizes that this report was written in a time of significant financial stress for the government of the province. It is the Review Committee's strongly held view that a vibrant and vigorous post-secondary system is essential for the province's future financial and social well-being.



Appendices

Appendix A: Terms of Reference

Independent Review of the Public Post-Secondary Education System in Newfoundland and Labrador

Rationale

Whereas Memorial University and College of the North Atlantic were founded in order to provide high-quality and accessible education to people in Newfoundland and Labrador;

Whereas Memorial University and College of the North Atlantic are well-known for being national and international leaders in degree and diploma programs in arts and sciences and in areas such as health, ocean technology, engineering, business, creative and other industries specific to our province;

Whereas capitalizing on these strengths to further increase the province's profile as a global leader in and contributor to these industries and facilitating the development of a skilled workforce and pursuit of research activities to support key sectors will contribute to economic growth; and

Whereas our post-secondary institutions contribute to a vibrant culture of creativity and innovation that is reflected in teaching, research and engagement with community partners and key stakeholders, and will strengthen opportunities for growth of our industries and communities;

Government is establishing an independent review of the public post-secondary education system to provide a long-term vision for the next decade and beyond. This review will explore how our system compares to other jurisdictions and recommend options to achieve better outcomes in a more cost-efficient manner to help ensure our institutions are well-positioned

as we build for our future. This includes ensuring our public post-secondary system can meet the educational and vocational needs of students, is responsive to emerging labour market demands and diversification opportunities, and will continue to contribute to the province's social, cultural and economic development and growth.

Background

Newfoundland and Labrador's public post-secondary education system consists of two diverse institutions, Memorial University (MUN) and College of the North Atlantic (CNA).

MUN is established under the Memorial University Act and was originally founded in 1925 as a memorial to Newfoundlanders who lost their lives on active service during the First World War and has a special obligation to the people of the province. MUN is the province's only university and includes St. John's Campus, Signal Hill Campus, and Marine Institute, all in St. John's; Grenfell Campus in Corner Brook; the Labrador Institute in Happy Valley-Goose Bay; and a residential campus in Harlow, England. MUN has made substantial contributions to the province's history and culture and is a comprehensive teaching and research university, enrolling approximately 18,000 full- and part-time undergraduate and graduate students annually. MUN is recognized worldwide as a top-tier post-secondary institution in teaching and learning, research, scholarship and public engagement. MUN conducts leading research in areas such as oceans, health, natural resources, energy and the environment, social sciences, culture and heritage contributing to the province's social and economic development and global competitiveness.

CNA is Newfoundland and Labrador's public college and one of the largest post-secondary educational and skills training centres in Atlantic Canada, with a history dating back 50 years to the first district vocational school in 1963. The College system evolved over the years and, in 1997, CNA was established under the College Act, 1996, which amalgamated the five colleges of applied arts and technology that existed across the province into one public college. CNA enrolls approximately 9,000 students annually in regular and contract training programs. CNA operates 17 campuses across the province and a campus in the Middle East State of

Qatar. In addition to offering labour market relevant training programs, CNA contributes to applied research and development activities of the province by working with local industry and community partners to solve practical problems and facilitate social and economic development and growth.

Government is operating in a challenging fiscal environment with decreased revenues and the highest per capita spending among provinces. To address economic, social and fiscal challenges, Government has developed The Way Forward, a roadmap to achieving a strong, diversified province with a high standard of living supported by responsive, innovative and efficient programs and services. We are driven by the goals of: managing our fiscal situation; delivering valuable programs and services; getting better outcomes for our investments; creating an environment which supports economic development, cultural diversity and job creation; and, creating opportunities for individuals to excel in their careers.

Guiding Principles

Budget Speech 2018 and phase three of The Way Forward committed to a review of the public post-secondary education system. This will help ensure our institutions are well-positioned to meet the educational and personal needs and expectations of students well into the future, are responsive to emerging labour market demands and diversification opportunities, and continue to contribute to the province's growth.

The results of this review will provide a long-term vision for the next decade and beyond for a public post-secondary education system that is effective, sustainable, accountable, accessible, delivers high quality education, contributes to knowledge creation and transfer, and prepares post-secondary students for their future personal and professional lives.

Scope

The independent review and subsequent report will provide the strategic vision for public post-secondary education in the province for the next decade and beyond. Areas for review will include:

1. Effectiveness

Effectiveness is the degree to which objectives are achieved to meet the expected outcome.

For consideration: Is the public post-secondary system meeting the needs of Newfoundland and Labrador and are there opportunities to do more?

In the overall review of effectiveness, committee members will want to consider, among other things:

- Teaching and learning resources;
- Program flexibility;
- Success of learners;
- Employment success of graduates;
- Alignment with labour-market demands;
- Professional development;
- Implementation of the Truth and Reconciliation Commission of Canada's Calls to Action;
- Institutional involvement in international education;
- Contribution to immigration;
- Aging infrastructure;
- Accreditation standards;
- Experiential and work-integrated learning;
- Research and innovation capacity;
- Knowledge creation, transfer and application; and
- Contributions to societal change

2. Sustainability

Sustainability is the capacity to be supported and maintained and often refers to sufficiency of funds.

For consideration: What is reasonable in terms of the size, scope and structure of the public post-secondary education system and its capacity for sustainability?

In the overall review of sustainability, committee members will want to consider, among other things:

- Revenue generation;
- Public investment to ensure appropriate capacity;
- Administrative/service/program integration and renewal;
- Institutional differentiation and system reach;
- Knowledge creation, transfer, and application;
- Role in research and development;
- Entrepreneurship opportunities;
- Community revitalization and diversification; and
- Optimal system footprint.

3. Accountability

Accountability is the obligation of an organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent manner.

For consideration: What is the optimal model for the province's public post-secondary system to deliver high quality education?

In the overall review of accountability, committee members will want to consider, among other things:

- Governance models;
- Institutional mandates and autonomy;
- Institutional administration;
- Legislation;
- Relationship with Government;
- Compliance with relevant legislation, policies and procedures;
- Indicators and reporting requirements; and
- Development and performance of internal controls.

4. Accessibility

Accessibility is the quality of being able to be reached or entered or being easy to obtain or use.

For consideration: How can the province's public post-secondary education system best ensure opportunities for all to achieve greater diversity, increase accessibility and support more inclusiveness?

In the overall review of accessibility, committee members will want to consider, among other things:

- Academic preparedness;
- Student career/transitions;
- Supports and services;
- Inclusive education;
- Recruitment practices;
- Student financial assistance;
- Articulation agreements and processes to facilitate learner mobility;
- Lifelong learning opportunities; and
- Physical location, access to and usability of facilities.

Roles and Responsibilities

- Guided by the Terms of Reference, The Committee of Experts will undertake a significant review of the province's public post-secondary education system, considering the diverse nature of Memorial University and College of the North Atlantic, informed by a stakeholder consultation process to be undertaken by The Committee of Experts, and resulting in the development of a comprehensive report and recommendations.
- The Committee of Experts will consider The Way Forward in the development of a strategic and comprehensive vision of public post-secondary education for the next decade and beyond. Through the development of measurable educational goals, as guided through the scope of the review, the Review Committee will help ensure our public post-secondary system is well-positioned as we build for our future.

- MUN, CNA and Government will respond to requests for information from the Review Committee as needed.

Deliverables

The Committee of Experts will provide Government of Newfoundland and Labrador with a final report during 2020.

Appendix B: Bibliography

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Ontario Colleges of Applied Arts and Technology Act, 2002, S.O. 2002, c. 8, Sched. G & F. n.d.

Post-Secondary Education Choice and Excellence Act, 2000, S.O. 2000, c. 36, Sched. n.d.

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Appendix C: Comparator Institutions – Universities

Memorial University of Newfoundland, Newfoundland and Labrador

Dalhousie University, Nova Scotia

University of New Brunswick, New Brunswick

University of Prince Edward Island, Prince Edward Island

University of Guelph, Ontario

University of Regina, Saskatchewan

University of Saskatchewan, Saskatchewan

University of Calgary, Alberta

Simon Fraser University, British Columbia

Appendix D: Comparator Institutions – Colleges

College of the North Atlantic, Newfoundland and Labrador

Nova Scotia Community College, Nova Scotia

New Brunswick Community College, New Brunswick

Holland College, Prince Edward Island

Conestoga College, Ontario

Red River College, Manitoba

Grande Prairie College, Alberta

Lethbridge College, Alberta

College of New Caledonia, British Columbia

Appendix E: Discussion Guide for Public Consultation Sessions

Public Post-Secondary Education Review (PPSER)

Budget Speech 2018 and phase three of “The Way Forward: Building for our Future” committed to a review of the public post-secondary education system. A Committee of Experts to guide this review was recommended by the Independent Appointments Commission and announced on March 7th, 2019, by The Honourable Bernard Davis, Minister of Advanced Education, Skills and Labour. The Committee of Experts includes Karen Kennedy (Chair), Doreen Neville and Kevin Keough. The Review Committee is supported by a small secretariat and guided by the Terms of Reference for the review. The Terms of Reference can be found at www.ppser.ca

Public Post-Secondary Education System in Newfoundland and Labrador

Newfoundland and Labrador’s public post-secondary education system consists of two diverse institutions, Memorial University (MUN) and College of the North Atlantic (CNA).

MUN is the province’s only university and includes St. John’s Campus, Signal Hill Campus, and Marine Institute, all in St. John’s; Grenfell Campus in Corner Brook; the Labrador Institute in Happy Valley-Goose Bay; and, a residential campus in Harlow, England. MUN is a comprehensive teaching and research university, enrolling approximately 18,000 full- and part-time undergraduate and graduate students annually. MUN is recognized worldwide as a top-tier post-secondary institution in teaching and learning, research, scholarship and public engagement. MUN conducts leading research in areas such as oceans, health, natural resources, energy and the environment, social sciences, culture and heritage contributing to the province’s social and economic development and global competitiveness.

CNA is Newfoundland and Labrador’s only public college and one of the largest post-secondary educational and skills training centres in Atlantic Canada. CNA enrolls approximately 9,000

students annually in regular and contract training programs. CNA operates 17 campuses across the province. It also operates a campus in the Middle East State of Qatar funded through a contract with the Qatari government. In addition to offering labour market relevant training programs, CNA contributes to applied research and development activities of the province by working with local industry and community partners to solve practical problems and facilitate social and economic development and growth.

Why a Review of the Public Post-Secondary Education System?

The goal of this review is to help ensure that our post-secondary institutions are well positioned to continue their contribution to the province's social, cultural and economic development and growth. In order to achieve this goal, it is important that our system is **effective, sustainable, accountable, and accessible**.

The results of the review will provide a strategic vision for the next decade and beyond for a public post-secondary education system that: delivers high quality education, contributes to knowledge creation and transfer, and prepares post-secondary students for their future personal and professional lives.

The information received will be reviewed by The Committee of Experts conducting the Independent Public Post-Secondary Review. All feedback will be considered as the Review Committee fulfills its mandate.

The Review Process

The process will include a review of the relevant publications, comparison with other jurisdictions, analysis of available data and documentation, and interviews with key stakeholders within the post-secondary education system, government, industry and the broader community across the province. In particular, public consultation sessions will be held in all communities which are home to a campus of Memorial University or the College of the North Atlantic. It is anticipated that the review will be completed in the fall of 2020.

Discussion Questions

The Review Committee is interested in your feedback on 3 key questions:

1. What is working well within our public post-secondary education system?
2. What is not working well within our public post-secondary education system and how can we address these concerns?
3. What additional ideas do you have to support the future of post-secondary education in the province?

In your response to these questions, please keep in mind the 4 key considerations of effectiveness, sustainability, accountability and accessibility.

Effectiveness: Is the public post-secondary system meeting the needs of Newfoundland and Labrador (e.g. success of learners, contribution to social and economic change, knowledge creation, transfer and application, and alignment with labor market demands)?

Sustainability: What is reasonable in terms of the size, scope and structure of the public post-secondary education system (e.g. optimal system footprint, public investment, and revenue generation)?

Accountability: What is the optimal governance model for the province's public post-secondary system (e.g. consider autonomy, relationship with government and oversight/ reporting requirements)?

Accessibility: How can the province's public post-secondary education system best ensure opportunities for all (e.g. tuition, student financial aid, supports for diversity and inclusiveness)?

- 1. What is working well within our public post-secondary education system?**
(Effectiveness, sustainability, accountability, accessibility)

2. **What is not working well within our public post-secondary education system and how can we address these concerns?**
(Effectiveness, sustainability, accountability, accessibility)

3. **What additional ideas do you have to support the future of post-secondary education in the province?**

(Effectiveness, sustainability, accountability, accessibility)

Thank you for your participation and contribution

If you would like to provide additional input, you can:

- Visit our website at www.ppsr.ca
 - Click on “Provide Feedback”
 - Scroll down to the bottom of the page to the web form – complete and submit
- Email a submission to input@ppsr.ca
- Mail a submission to the Review Committee

Attention:

Karen Kennedy, Chair
Public Post-Secondary Education Review
PO Box 8700
St. John's, NL
A1B 4J6

All feedback received as a part of this review will be considered as the Review Committee prepares its recommendations for the public post-secondary education system in Newfoundland and Labrador. Any personal information that may be received will be governed in accordance with the Access to Information and Privacy Act, 2015 and will only be used for the purpose of informing the review of the post-secondary education system.

Please contact us at our toll-free number, 1-833-245-5869 if you have any questions or concerns.

Appendix F: Consultation Schedule

Memorial University Consultations

Campus	Faculty	Staff	Students
Labrador Institute	October 8, 2019	October 8, 2019	N/A
Grenfell Campus	November 20, 2019	November 20, 2019	November 19-20, 2019
St. John's Campus	February 27, 2020 March 11, 2020 October 20, 2020	February 27, 2020 March 11, 2020	February 27, 2020 March 11, 2020
Marine Institute	September 28-29, 2020	September 28-29, 2020	September 30-October 1, 2020

Memorial University Key Informants	
Name and Position	Date(s)
Lori Pike, Director of Budgets	June 5, 2019 April 22, 2020
Keith Matthews, Director, Centre for Institutional Analysis and Planning	June 5, 2019
Dean's Council, St. John's Campus	June 25, 2019
Neil Bose, Vice-President (Research)	June 26, 2019
Michelle Simms, President & CEO Fred Cahill, Chair, Board of Directors, Genesis Centre	June 26, 2019
Glenn Blackwood, Vice-President, Marine Institute	June 27, 2019
Rob Shea, Associate Vice-President (Academic and Student Affairs), Marine Institute	June 27, 2019 February 5, 2020

Memorial University Key Informants	
Name and Position	Date(s)
Noreen Golfman, Provost and Vice-President (Academic)	July 30, 2019
Iris Petten, Chair, Board of Regents; Denis Mahoney, Vice-Chair, Board of Regents; and Glenn Collins, Executive Director, Office of the Board of Regents	August 2, 2019
Gary Kachanoski, President and Vice-Chancellor	August 6, 2019
Kent Decker, Vice-President (Administration and Finance)	August 28, 2019 November 26, 2020
Ashley Consolo, Director, Labrador Institute	October 8, 2019
Strategic Task Force, Labrador Institute	October 8, 2019
Jeff Keshen, Vice-President, Grenfell Campus	November 19, 2019
Academic leadership, Grenfell Campus: Michelle Piercey-Normore, Dean, Science and Environment; Todd Hennessey, Interim Dean, Fine Arts; Ken Jacobson, Dean, Arts; Carolyn Parsons, Registrar and Director, Student Services	November 19, 2019
Administrative leadership, Grenfell Campus: Ken Carter, Director, Engagement; Laura Edwards, Director, Marketing and Alumni Development; Newton Pritchett, Director, Information Technology; Rayna Luther, Director, Facilities; Jessica Couture, Manager, Human Resources; Shannon Jennings, Director, Finance	November 19, 2019
Kelly Vodden, Associate Vice-President (Grenfell Campus), Research and Graduate Studies; and Ken Carter, Director, Engagement (Grenfell Campus)	November 19, 2019
Grenfell Campus Student Union Executive, Grenfell Campus,	November 19, 2019
Representatives of International Student Programming Unit, Grenfell Campus,	November 19, 2019
Kelly Anne Butler, Student Affairs Officer — Indigenous Affairs, Grenfell Campus,	November 20, 2019

Memorial University Key Informants	
Name and Position	Date(s)
Glenn Blackwood, Vice-President (Marine Institute) & administration team	February 3, 2020
MUN Student Union (MUNSU) Executive, St. John's Campus	February 4, 2020
Leslie Noftall, Registrar, Marine Institute	February 5, 2020
Fred Quinton, Associate Vice-President, Administration and Finance, Marine Institute	February 5, 2020
Fabian Lambert, Head, School of Maritime Studies, Marine Institute	February 5, 2020
Fred Anstey, Head, School of Fisheries, Marine Institute	February 5, 2020
MUN Graduate Student Union Executive, St. John's Campus	February 17, 2020
Computer Engineering Working Group	February 17, 2020
Paul Brett, Head, School of Ocean Technology, Marine Institute	February 21, 2020
Angie Clarke, Director, Academic and Student Affairs, Marine Institute	February 21, 2020
Sean Cadigan, Associate Vice-President, Academic, St. John's Campus	February 24, 2020
Jennifer Dove, University Auditor	February 26, 2020
Catharyn Andersen, Special Advisor on Indigenous Affairs, St. John's Campus	March 3, 2020
Graduate Students, St. John's Campus	March 4, 2020
Roxanne Millan, Director, Academic Support Services	March 5, 2020
Glenn Collins, Executive Director, Board of Regents	April 23, 2020
Michael Fowler, Interim Chief Risk Officer, St. John's Campus	April 24, 2020

Memorial University Key Informants	
Name and Position	Date(s)
David Miller, Director, Research Grants and Contract Services, St. John's Campus	April 24, 2020
Ray Gosine, Associate Vice-President (Research), St. John's Campus	April 27, 2020
Max Liboiron, Associate Vice-President (Indigenous Research), St. John's Campus	April 27, 2020
Richard Meaney, Director of Technical Services, St. John's Campus	April 28, 2020
Rob Greenwood, Associate Vice-President (Public Engagement and External Relations) and Director, Harris Centre, St. John's Campus	April 29, 2020
Steve Greene, Chief Information Officer and Director of Information Technology, St. John's Campus	April 30, 2020
Vianne Timmons, President & Vice-Chancellor	April 30, 2020 June 4, 2020 November 26, 2020
Jennifer Browne, Associate Director, Student Life, St. John's Campus	April 30, 2020
Susan Cleyle, University Librarian, St. John's Campus	May 1, 2020
Keith Matthews, Director, Centre for Institutional Analysis and Planning, St. John's Campus	May 1, 2020
Mark Bradbury, MUN Board of Regents	May 1, 2020
Victoria Collins, Executive Director, Marketing and Communications, St. John's Campus	May 4, 2020
Keith Bowden, Director, Facilities, St. John's Campus	May 4, 2020
Thomas Nault, Registrar, St. John's Campus	May 5, 2020

Memorial University Key Informants	
Name and Position	Date(s)
Bruce Belbin, Director of Student Residences, St. John's Campus	May 5, 2020
Sonja Knutson, Director, Internationalization, St. John's Campus	May 6, 2020
Donna Hardy-Cox, Associate Vice-President (Academic) Students, St. John's Campus	May 6, 2020
Paula Mendonca, Director, Innovation & Entrepreneurship, St. John's Campus	May 7, 2020
Neil Bose, Vice-President (Research), St. John's Campus	May 8, 2020
Lynn Morrissey, Faculty Advisor, Enactus Memorial, St. John's Campus	May 14, 2020
Deborah Collis, Director, Finance and Administration, St. John's Campus	May 19, 2020
Florian Villaume, Director, Memorial Centre for Entrepreneurship, St. John's Campus	May 19, 2020
Penny Blackwood, Executive Director, Alumni Development, St. John's Campus	May 20, 2020
Executive Committee, Board of Regents	May 21, 2020
Stephen Dodge, Director, Human Resources, St. John's Campus	May 22, 2020
Travis Fridgen, Acting Dean of Science, St. John's Campus	May 22, 2020
Kelly Neville, Interim Director, Student Wellness & Counselling Centre, St. John's Campus	May 25, 2020
Alice Gaudine, Dean, Faculty of Nursing, St. John's Campus	May 26, 2020
Kim Crosbie & Jamie Ward, Harris Centre, St. John's Campus	May 26, 2020
Isabelle Dostaler, Dean, Faculty of Business, St. John's Campus	May 28, 2020
Aimee Suprenant, Dean, Graduate Studies, St. John's Campus	May 28, 2020

Memorial University Key Informants	
Name and Position	Date(s)
Ian Sutherland, Dean, Faculty of Music, St. John's Campus	May 29, 2020
Mark Abrahams, Provost and Vice-President (Academic) Pro Tempore, St. John's Campus	May 29, 2020 November 26, 2020
Ross Klein, Acting Dean, Faculty of Social Work, St. John's Campus	June 1, 2020
Alison Randell, Director of Information Management and Protection, St. John's Campus	June 2, 2020
Greg Naterer, Dean, Faculty of Engineering, St. John's Campus	June 4, 2020
Linda Rohr, Dean, School of Human Kinetics and Recreation, St. John's Campus	June 8, 2020
Shona Perry-Maidment, Deputy Registrar, St. John's Campus	June 9, 2020
Ann Browne, Associate Vice-President (Facilities), St. John's Campus	June 11, 2020
Karen Goodnough, Dean, Faculty of Education, St. John's Campus	June 12, 2020
Shawn Bugden, Dean, School of Pharmacy, St. John's Campus	June 15, 2020
Margot Brown, Executive Director, Office of the President, St. John's Campus	June 16, 2020
Geoff Williams, Director, Faculty Relations, St. John's Campus	June 26, 2020
Margaret Steele, Dean, Faculty of Medicine St. John's Campus	June 26, 2020
Deans' Council, St. John's Campus	June 30, 2020
MUN Alumni Affinity Group	July 8, 2020
Kent Decker, Vice-President (Administration and Finance), Greg McDougall, Chief Risk Officer	September 8, 2020

College of the North Atlantic Consultations

Campus	Administration	Faculty	Staff	Students
Baie Verte	November 7, 2019	November 7, 2019	November 7, 2019	November 7, 2019
Bay St. George	September 24, 2019	September 24, 2019	September 25, 2019	September 25, 2019
Bonavista	October 22, 2019	October 22, 2019	October 22, 2019	October 22, 2019
Burin	October 24, 2019	October 25, 2019	October 25, 2019	October 24, 2019
Carbonear	November 26, 2019	November 26, 2019	November 26, 2019	November 26, 2019
Clarenville	October 23, 2019	October 23, 2019	October 23, 2019	October 23, 2019
Corner Brook	November 18, 2019	November 18, 2019	November 18, 2019	November 18, 2019
Gander	October 30, 2019	October 30, 2019	October 30, 2019	October 30, 2019
Grand Falls-Windsor	November 5, 2019	November 5, 2019	November 5, 2019	November 5, 2019
Happy Valley-Goose Bay	October 9, 2019	October 9, 2019	October 9, 2019	October 9, 2019
Labrador West	October 16, 2019	October 16, 2019	October 16, 2019	October 16, 2019
Placentia	June 5, 2020	August 28, 2020	August 20, 2020	October 14, 2020
Port aux Basques	September 27, 2019	September 26, 2019	September 26, 2019	September 26, 2019
Prince Philip Drive	January 13, 2020	January 14-15, 2020	January 14, 2020	January 14-15, 2020
Ridge Road	January 16, 2020	January 16, 2020	January 16, 2020	January 16, 2020

Campus	Administration	Faculty	Staff	Students
Seal Cove	November 28, 2019	November 28, 2019	November 28, 2019	November 28, 2019
St. Anthony	November 13, 2019	November 14, 2019	November 13, 2019	November 14, 2019

College of the North Atlantic Key Informants	
Name and Position	Date(s)
Alistair O'Rielly, Chair, Board of Governors, and Bruce Hollett, Interim President and Chief Executive Officer	June 28, 2019
Trudy Barnes, Vice-President, Partnerships and Innovation; and Mike Long, Associate Vice-President, Applied Research and Innovation	July 19, 2019
Theresa Pittman, Associate Vice-President, Connected Learning	August 1, 2019
Bruce Hollett, Interim President and Chief Executive Officer, and Brian Tobin, Vice-President, Academic	August 29, 2019
College Executive, Bay St. George Campus	September 24, 2019
Jan Peddle, Campus Director, Bay St. George Campus	September 24, 2019
Ranjan Patro and Craig Baker, Campus Directors, Happy Valley-Goose Bay Campus	October 9, 2019
Lisa Downey, Campus Director, Labrador West Campus	October 16, 2019
Post-Secondary Advisory Council, Bonavista Campus	October 21, 2019
Jamie Best, Campus Director, Bonavista Campus	October 22, 2019
Shelly Humby, Student Council President, Bonavista Campus	October 22, 2019

College of the North Atlantic Key Informants	
Name and Position	Date(s)
Maisie Caines, Campus Director; Stephanie King, Manager, Academic Planning and Accreditation; and Theresa Pittman, Associate Vice-President, Connected Learning, Clarenville Campus	October 23, 2019
Janice Moulton, Campus Director, Burin Campus	October 24, 2019
Steve Warren, Dean, Business and IT, Burin Campus	October 24, 2019
Mike Graham, Director, Special Projects, Burin Campus	October 24, 2019
Fergus O'Brien and Jeff Weeks, Campus Directors, Gander Campus	October 30, 2019
Joan Pynn, Campus Director, Grand Falls–Windsor Campus	November 5, 2019
Brenda Tobin, Dean, Academics, Applied Arts and Tourism	November 6, 2019
Joan Pynn, Campus Director, Baie Verte Campus	November 7, 2019
Alistair O'Rielly, Chair, Board of Governors; Bruce Hollett, Interim President and Chief Executive Officer; and Brian Tobin, Vice-President Academic	November 15, 2019
Chad Simms, Campus Director, and Tanya Kelly, Manager, Human Resources, Corner Brook Campus	November 18, 2019
Brent Howell, Dean, Engineering Technology and Industrial Trades	November 18, 2019
Elizabeth Chaulk, Vice President, Student Engagement	November 21, 2019
Terry Murphy, Campus Director, Carbonear Campus	November 26, 2019
Ed Christopher, Seal Cove Campus	November 28, 2019
Board of Governors	December 3, 2019
Trudy O'Neill, Campus Director, Prince Philip Drive	January 8, 2020

College of the North Atlantic Key Informants	
Name and Position	Date(s)
Trudy O'Neill, Ranjan Patro, Laurie Chaulk, Davida Smith, and George Michelau, Campus Directors/Administration, Prince Philip Drive Campus	January 13, 2020
Irene O'Brien, Dean, School of Health Sciences	January 13, 2020
Student Executive, Ridge Road Campus	February 18, 2020
Elizabeth Kidd, former Chief Operating Officer, President and Chief Executive Officer as of May 25, 2020	March 3, 2020 June 18, 2020 November 27, 2020
Mark Bradbury, CNA Board of Governors (cross appointed to Board of Regents, Memorial University	May 1, 2020
Karen Antle, Director, Student Success	June 8, 2020
Greg Hovey, Manager of Institutional Research	June 9, 2020
Jordan Charron, Registrar	June 11, 2020
Jason Rolls, Director of Program Development	June 18, 2020
Deidre Dunne, Associate Vice-President, Human Resources	June 19, 2020
David Chow, Director, Information Technology	June 24, 2020
Judy Dobson, Director, Customized and Continuous Learning	June 25, 2020
CNA Executive: Elizabeth Kidd, President and Chief Executive Officer; Brian Tobin, Vice-President Academic; Trudy Barnes, Vice-President, Partnerships and Innovation; Heidi Staben-Simmons, Associate Vice-President, Public Affairs	July 16, 2020

Public Consultations

Community	Date(s)
Baie Verte	December 11, 2019
Bonavista	October 22, 2019
Burin	October 24, 2019
Carbonear	November 26, 2019
Clarenville	October 23, 2019
Corner Brook (MUN)	November 20, 2019
Gander	October 30, 2019
Grand Falls-Windsor	November 4, 2019
Happy Valley-Goose Bay	October 19, 2019
Labrador City	October 16, 2019
Placentia	October 7, 2020
Port aux Basques	September 26, 2019
Seal Cove	November 28, 2019
Stephenville	September 24, 2019
St. Anthony	November 13, 2019
St. John's	January 13, 2020 March 5, 2020

Appendix G: Meetings with Key Stakeholders

Organization	Attendee(s)	Date
Intergovernmental and Indigenous Affairs Secretariat	Aubrey Gover, Deputy Minister , Judy White, Assistant Deputy Minister, Brian Harvey, Director	May 7, 2019
Premier's Task Force on Improving Educational Outcomes	Alice Collins, Task Force Chair, and Task Force members David Philpott, Margaret Wakeham and Marian Fushell	May 8, 2019
Department of Education and Early Childhood Development, Executive	Bob Gardiner, Deputy Minister and Eldred Barnes, Associate Deputy Minister	June 6, 2019
Department of Advanced Education, Skills and Labour, Apprenticeship and Trades Certification Division	Sandra Bishop, Director	June 6, 2019
Department of Advanced Education, Skills and Labour, Literacy and Institutional Services Division	Scott Jones, Director	June 11, 2019
Department of Advanced Education, Skills and Labour, Student Financial Services Division	Robert Feaver, Director	June 12, 2019
Skills Canada	John Oates, President	June 13, 2019
White Paper on Education 2004-05	Wayne Ludlow, Commissioner	June 14, 2019
Department of Tourism, Culture, Industry and Innovation, Executive	Gillian Skinner, Director and Judith Hearn, Assistant Deputy Minister	June 15, 2019

Organization	Attendee(s)	Date
Department of Health and Community Services, Executive	Karen Stone, Deputy Minister; Heather Hanrahan, Assistant Deputy Minister; Adam Churchill, Manager, Health and Workforce Planning	June 21, 2019
NL Statistics Agency	Robert Reid, Director	June 27, 2019
Philosopher	Evan Simpson	June 28, 2019
Department of Immigration and Multiculturalism	Remzi Cej, Director	July 4, 2019
St. John's Board of Trade	Nancy Healey, CEO, and Board of Trade Representatives	July 17, 2019
Carpenter Millwright College	Shawn Skinner, Training Director, Carpenter Millwright College	July 22, 2019
Academy Canada	James Loder, Director	July 24, 2019
Post-Secondary Education Sector	Dr. Peter MacKinnon, former President, Dalhousie University	July 29, 2019
Department of Advanced Education, Skills and Labour, Workforce Development Secretariat	Jennifer Meadus, Director	August 5, 2019
Eastern and Western Regional Health Authorities	David Diamond, Chief Executive Officer, Eastern Health; and Cynthia Davis, Chief Executive Officer, Western Health	August 14, 2019
The Murphy Centre	Tim Thorne, Director, and Kim Sturge, Academic Services Coordinator	August 14, 2019
First Light Friendship Centre	Daniel Pottle, Executive Director	August 15, 2019

Organization	Attendee(s)	Date
Department of Tourism, Culture, Industry and Innovation	Charles Bown, Deputy Minister; Judith Hearn, Assistant Deputy Minister; and Gillian Skinner, Director	August 15, 2019
Association of Registered Nurses of NL	Lynn Power, Executive Director	August 22, 2019
Canadian Federation of Students	Bailey Howard and Alyse Stuart, Executive	August 23, 2019
C-Core, Memorial University	Paul Griffin, Chief Executive Officer, and David Oake, Board Member	August 26, 2019
Post-Secondary Education Sector	Marilyn Luscombe, Former President, New Brunswick Community College	August 30, 2019
First Light Friendship Centre	Stacey Howse, Interim Executive Director and Director of Programs	September 10, 2019
People of the Dawn Friendship Centre	Patrick Park-Tighe, Executive Director, and Paul Pike, Director of Community and Cultural Programming	September 25, 2019
Council on Higher Education	Council on Higher Education Executive	September 30, 2019
Innovation and Business Investment Corporation (IBIC)	Mark Dobbin, Chair, and Members	October 1, 2019
Center for Innovation in Teaching and Learning (CITL)	Gavan Watson, Associate Vice-President, Teaching and Learning, and Director CITL	October 2, 2019
Post-Secondary Education Sector	Cheryl Robertson, Inaugural Chair, New Brunswick Community College	October 3, 2019
Labrador Community Strategic Task Force (Happy Valley-Goose Bay)	Strategic Task Force Members	October 8, 2019

Organization	Attendee(s)	Date
Friendship Centre — Happy Valley-Goose Bay	Jennifer Elson, Executive Director, and Darlene Curl, Business Manager	October 10, 2019
Labrador Aboriginal Training Partnership (LATP)	Keith Jacque, Executive Director, Colleen Baikie, Executive Assistant, and Carol Best, Manager of Programs and Learner Supports	October 10, 2019
Iron Ore Company of Canada	Rob Branton, Manager of Integrated Operations	October 17, 2019
Tacora Mines	Graham Letto, Chief Executive Officer, and Marilyn North, Director, Human Resources	October 17, 2019
Post-Secondary Advisory Council (PSAC), Bonavista	PSAC Members: Jamie Best, Campus Director, CNA; Donna Butt, Rising Tide Theatre and member; John Norman, Mayor of Bonavista; Marilyn Hayley-Coles, Chair, PSAC	October 21, 2019
Miawpukek First Nation, Conne River	Cyrus Lambert, Director, Tourism, Culture and Recreation; Siobhan Jaddore, Finance Officer/Career Practitioner; Eddie O'Keefe, Educator; Phoebe Keeping, Partnership Manager; Colleen Lambert, Acting Director	November 6, 2019
B.N. Collaborative Program, Western School of Nursing	Students	November 22, 2019
Post-Secondary Education Sector	Lois Scott, Former Board Chair, New Brunswick Community College	December 5, 2019
Keyin College	Craig Tucker, President; Will Durocher, Vice-President Academic; Deanne Greene, Vice-President, Student Success and Alumni Affairs	December 11, 2019

Organization	Attendee(s)	Date
Francophone Association of NL (ACFSJ)	Gael Corbineau, General Manager; Roxanne Leduc, Deputy Director	December 17, 2019
Post-Secondary Education Sector	Mary Butler, President, New Brunswick Community College	January 8, 2020
B.N. Collaborative Program, Centre for Nursing Studies (CNS)	Administration, Centre for Nursing Studies	January 9, 2020
B.N. Collaborative Program, Centre for Nursing Studies	Faculty, Centre for Nursing Studies	February 19, 2020
Springboard	Darryl Genge, President and Chief Executive Officer	February 25, 2020
Atlantic Colleges Atlantique (ACA)	Byron James, Executive Director	April 6, 2020
Post-Secondary Education Sector	Harvey Weingarten, Higher Education Quality Council of Ontario	April 6, 2020
Post-Secondary Education Sector	Axel Meisen, Former President, Memorial University	April 16, 2020
Post-Secondary Education Sector	Eddy Campbell, Former President, Memorial University and University of New Brunswick	April 17, 2020
Administrative Council of Nursing, B.N. Collaborative Program	Alice Gaudine, Dean, Memorial University Faculty of Nursing; Kathy Watkins, Director, Centre for Nursing Studies; and Peggy Colbourne, Director, Western Regional School of Nursing.	April 27, 2020
Deloitte	Craig Robinson, Higher Education Consultant	May 5, 2020
B.N. Collaborative Program	Faculty, School of Nursing MUN	May 8, 2020

Organization	Attendee(s)	Date
Post-Secondary Education Sector	Alex Usher, President, Higher Education Strategy Associates	May 19, 2020
Department of Tourism, Culture, Industry and Innovation	Paul Mills, Consultant	May 27, 2020
Department of Advanced Education, Skills and Labour	Derrick Barrett, Manager, Labour Market Information	June 1, 2020
Atlantic Canada's Opportunities Agency	Karen Skinner, Vice President	June 1, 2020
Post-Secondary Education Sector	Jeffrey Taylor, Associate Vice-President, Applied Research and Innovation, Nova Scotia Community College	June 2, 2020
Newfoundland and Labrador Association of Technology and Innovation (NATI)	Paul Preston, Chief Executive Officer, and Members of Talent Committee	June 2, 2020
B.N. Collaborative Program	Administration, Western Regional School of Nursing	June 5, 2020
B.N. Collaborative Program	Faculty, Western Regional School of Nursing	June 5, 2020
Verafin	Marvin Chaulk, Vice-President, Administration	June 5, 2020
Association for New Canadians	Eileen Kelly-Freake, Director of Employment Services	June 9, 2020
Innovation Consultant	Peter Nicholson	June 12, 2020
Department of Tourism, Culture, Industry and Innovation	Gillian Skinner, Director, Judith Hearn, Assistant Deputy Minister	June 15, 2020

Organization	Attendee(s)	Date
C-Core, Memorial University	Charles Randell, Former Chief Executive Officer	June 19, 2020
Ocean Supercluster	Kendra MacDonald, Chief Executive Officer	June 29, 2020
Intergovernmental and Indigenous Affairs Secretariat	Patricia Hearn, Deputy Minister	June 29, 2020
Post-Secondary Education Sector	Chris Loomis, former Acting President, Memorial University	July 3, 2020
Department of Health and Community Services	John McGrath, Departmental Controller	July 10, 2020
Department of Education and Early Childhood Development	Eldred Barnes, Associate Deputy Minister	July 22, 2020
NL English School District	Regional Assistant Directors	August 18, 2020
Municipalities NL (MNL)	Craig Pollett, Chief Executive Officer	September 16, 2020
Office for the Status of Women	Linda Ross, Deputy Minister	September 24, 2020
Disability Policy Office	Catherine Shortall, Director	September 30, 2020
Department of Immigration, Skills and Labour, Employment Services Division	Heather Craniford, Director, and Joe Mercer, Regional Manager	October 6, 2020
B.N. Collaborative Program, Centre for Nursing Studies	Students	October 14, 2020

Appendix H: Submissions Received from Groups

Canadian Mining Schools Committee of Canadian Institute of Mining
Centre for Nursing Studies
CNA Board of Governors
College of the North Atlantic (CNA) Board of Governors: "The Landscape of CNA"
Faculty of Education, Memorial University
Faculty of Medicine, Memorial University
Faculty of Nursing, Memorial University
Francophone Association of Newfoundland and Labrador
Gander and Area Chamber of Commerce
Health Science Deans, Memorial University
Mathematics of Information Technology and Complex Systems (MITACS)
Memorial University Faculty Association – MUNFA
Memorial University Teaching Assistants' Union
Memorial University Grenfell Campus
Post-Secondary Advisory Committee — Bonavista
Research Portfolio, Memorial University
School of Graduate Studies, Memorial University
School of Human Kinetics and Recreation, Memorial University
School of Music, Memorial University
Senior Leadership, Memorial University
Western Regional School of Nursing

Total Group Submissions	21
Total Individual Submissions	57
Total Submissions	78

