

First Nations
Post-Secondary
Education Review



INSTITUTIONS COSTING

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Executive Summary

This report was developed for the Assembly of First Nations (AFN) to support the process of achieving a funded and recognized sector of First Nations Institutes of Higher Learning (First Nations Institutes) in Canada. This report presents a high-level costing model for First Nations Institutes that has been built following analysis of a regional selection of three First Nations Institutes, analysis of international Indigenous post-secondary systems in the United States and New Zealand/Aotearoa, and a broad consideration of the cost-drivers of post-secondary education (PSE) across Canadian jurisdictions and in international context. The costing model

presented in this report can serve as a starting point, reference and tool in on-going policy development processes for First Nations Institutes, including regional research and costing efforts, which can define at a greater level of specificity local costing and requirements.

First Nations Organizations have consistently pointed to the lack of stable funding, capital funding, and pathways for recognition and accreditation as a barrier to growth of a First Nations Institutes sector. They have similarly pointed to the essential role that First Nations Institutes play in expanding educational opportunity, capacity building, and cultural revitalization. With limited exceptions, existing funding sources for First Nations Institutes are not intended to support on-going institutional sustainability, but rather to support specific and time-limited program delivery. As a result, analysis of current expenditure in the case of most First Nations Institutes does not yield what we would consider a metric of institutional cost within a stably supported sector.

Our profiles of three First Nations Institutes: Six Nations Polytechnic (Ontario), First Nations University of Canada (Saskatchewan), and Red Crow Community College (Alberta) reveal diverse bases of current funding, institutional structure, and program offerings. They have also revealed robust visions for institutional development that help us to understand potential futures for First Nations Institutes. Similarly, they have highlighted that there are research and development costs associated with building these futures. These profiles have similarly highlighted interrelated, unique cost elements vital to First Nations Institutes' missions and success: language and culture, student support in a First Nations context, and community engagement and pathways (lifelong learning). Building on this information, by investigating international Indigenous PSE systems in the United States and New Zealand/Aotearoa, we develop a base of knowledge and data to support cost modelling.



The concept of “cost” is itself challenging to define. In practice, post-secondary institutions around the world are engaged in working with available budgets and designing their institutions to do the most with whatever resources are available. Depending on how they are resourced, current expenditure can significantly over or under-state “cost”, in so far as it reflects underlying need. That being said, it is possible to look at the range of budgets within which different types of institutions work, and examine how costs differ across institutions and why. In addition to the unique cost elements for First Nations Institutes noted above, we examine six variables that drive costs in post-secondary education. We ultimately build a costing model that embeds recognition of the unique cost elements identified for First Nations Institutes and that utilizes four cost variables to produce differentiated institutional cost outputs. These four cost variables are: research mission, program offerings, institutional size, and rural/remote status. By using cost weightings applied to an initial formula input, the costing model produces predictive outputs regarding the likely per-student cost of First Nations Institutes with differences in orientation, context and structure.

A key concept used throughout this report is the Full Time Equivalency (FTE) measure of student enrollment. Student FTE counts are an important concept in PSE as they are a generally standardized measure of what spending at institutions enables in terms of educational opportunity for students, accounting for full and part-time enrollment in a single calculation. The output of the costing model we present is a per-FTE cost.

Utilizing the costing model, we produce four institutional scenarios that reflect four among many potential institutional structures for First Nations Institutes. The per-FTE cost outputs for these four scenario institutions range from roughly \$22,000 per-FTE to \$67,600 per-FTE. This diverse cost range reflects the significant impact that research mission, program offerings, institutional size, and rural/remote status can have on institutional cost within the overall context of First Nations PSE. The costing model can produce per-FTE cost prediction outputs that are both higher and lower than the upper and lower ends of this range, based on consideration of institutional conditions that differ from those utilized.

A key way in which the costing model should be assessed is through First Nations Institutes considering their own present and planned institutional structures through the model and determining the alignment of model outputs with their own understanding of institutional requirements. We can also establish approaches to assessment based on broader contextual data. We have conducted an analysis of expenditure and enrollment data from 23 member institutions of the American Indian Higher Education Consortium (AIHEC) adjusted to account for AIHEC’s assessment of federal underfunding. The per-FTE cost output of this analysis aligns with per-FTE cost for a likely First Nations institutional structure produced by our costing model.

The costing model itself is geared toward predicting costs within a steady-state of operation, given differing sets of institutional conditions. The founding of potential new First Nations Institutes will demand up-front expenditure for both capital and start-up requirements. We discuss one



approach to modeling operational start-up requirements and similarly present selected relevant capital cost precedents. Start-up costs for any potential new institution will be significantly context-dependent.

The costing model presented in this report is designed as a tool to support further policy work regarding the cost and funding of First Nations Institutes. It is not intended to make determinations with respect to operational needs of any specific existing or future First Nations Institute. Among other limitations of the model discussed in this report, there is scope to refine consideration of unique cost elements for First Nations Institutes based on more detailed engagement with First Nations Institutes and as institutional approaches themselves further develop. In this regard, First Nations Institute-led regional policy processes can play a key role. This report concludes with questions that emerge from this research which could serve as a resource for such processes.

Introduction

Following Federal Budget 2017's commitment to "undertake a comprehensive and collaborative review with Indigenous partners of all current federal programs that support Indigenous students who wish to pursue post-secondary education," Assembly of First Nations (AFN) Resolution 14/2017 called on the federal government to ensure a collaborative First Nations-specific review led by the Chiefs Committee on Education in partnership with Indigenous Services Canada and Employment and Social Development Canada.

The First Nations Post-Secondary Review Technical Group has since met three times between November 2017 and March 2018. The focus of the technical group's work has been on both First Nations students' needs and the needs of First Nations post-secondary institutions. The review has produced an interim report completed in July 2018 that was accepted by the Chiefs-in-Assembly through AFN Resolution 29/2018. The interim report and Resolution 29/2018 address both the student-level and institutional funding priorities of the technical group.

Resolution 29/2018 directs the AFN, Chiefs Committee on Education (CCOE) and National Indian Education Council to "work in partnership with Indigenous Services Canada to develop an honourable, joint process" that will include, among other critical features:

- "Processes to work directly with First Nations and their mandated institutes of higher learning on a regional basis, in order to develop core institute funding models, address the historical lack of funding, move towards accreditation and ensure that First Nations without institutes have access to the resources required to bring post-secondary programming into their community.



- Funding to support the regional engagement processes, including support for research and costing for each region to undertake region specific work on, but not limited to: student funding, First Nations institute funding, funding allocation methodologies and community-based delivery.”

This report presents a high-level costing model for First Nations Institutes of Higher Learning (First Nations Institutes) along with four institutional scenarios produced using the model. The costing model has been built following analysis of a regional selection of three First Nations Institutes, international Indigenous post-secondary institutions in the United States and New Zealand/Aotearoa, and a broad consideration of the cost of post-secondary education (PSE) across Canadian jurisdictions and in international context.

Key Concept: Full Time Equivalency (FTE) Measure of Student Enrollment

A key term used in this section and throughout this report is the Full Time Equivalency (FTE) measure of student enrollment. FTE student enrollment is a way of measuring total full-time student “equivalents” enrolled in an institution, incorporating both full and part-time students. So, for example, if an institution has 8,000 full-time students and another 4,000 students taking half a course load, the institution could be said to enroll “10,000 FTEs”. Student FTE counts are an important concept for post-secondary institution costing as they are a generally standardized measure of what spending at institutions enables in terms of educational opportunity for students. Total “expenditure per-FTE” is a key metric of institutional cost around which this report is centred. Across institutions and jurisdictions there are different methods of calculating FTEs, but the concept is broadly consistent. Whenever possible, we will refer to FTE-based cost and expenditure.

The costing model presented in this report is intended as a reference to stimulate further analysis and development. Its output scenarios are not designed to communicate what any individual new or existing First Nations Institute should cost (or how it should be funded), but rather to illustrate central factors that drive costs in the broader Canadian and international context of PSE. In every individual institutional context, local factors will require institutional approaches to be distinct from the reference point scenarios we present. The costing model can support envisioned regional research and costing efforts, which can define at a greater level of specificity local costing and requirements, as envisioned by Resolution 29/2018. We conclude with questions that emerge from this research which could serve as a resource for regional processes.

The Cost of First Nations Post-Secondary Institutions: First Nations Organizations’ Findings

This section briefly profiles high-level findings of the First Nations Post-Secondary Education Review with respect to institutional costing, in addition to selected findings and statements from regional organizations of First Nations Institutes.



The Review's interim report outlines the broad parameters for "Supporting First Nations Post-Secondary Institutions" (SFNPSI). An SFNPSI framework would "facilitate the growth of a First Nations post-secondary education system within each respective region", backed by funding guaranteed on a statutory basis. As described in the Review's interim report:

*"First Nations-controlled institutions have been delivering programs since the 1970's without the recognition and proper supports from governments that are available to provincially and federally mandated post-secondary institutions. In fact, there has never been a federal policy to support the development or operations of First Nations-controlled post-secondary institutions or a First Nations post-secondary education system."*¹

The interim report defines components of an SFNPSI framework that would begin to rectify this historic lack of funding and policy. In one section, the report considers "Categories of Core Support for First Nations PSE Institutions". These are presented in the interim report as follows:

- Governance
- Student Services/Wrap Around Services (as identified by First Nations)
- Program Development and Delivery (everything not high-school)
- First Nations Languages
- Multi-Lingual Capacity
- Innovation, Research and Development
- Infrastructure
- Operations and Maintenance
- Additional Supports for First Nations-controlled institutions (e.g. community agency linkages, hubs)

These categories represent one important reading of the costs associated with operating a First Nations Institute. We will return to these and other areas of cost throughout this report. Some of these categories are common to all post-secondary institutions. Others are unique to the First Nations Context.

At a regional level, organizations of First Nations Institutes have similarly undertaken efforts to explore the cost of operating First Nations Institutes.

¹ Karihwakeron Tom Thompson and Gayado:wehs LuAnn Hill-MacDonald, "First Nations Post-Secondary Education Review: 2018 Interim Report," 35.



Indigenous Institutes Consortium (IIC) – Ontario

In 2014, the Indigenous Institutes Consortium (IIC) released a position paper focused on engaging the Ontario Government: A Roadmap to Recognition for Aboriginal Institutes in Ontario. This paper outlined the negative outcomes of lacking operational and capital funding for Indigenous Institutes in Ontario, which at the time were referred to as Aboriginal Institutes (AIs):

1. AIs lack secure operational funding. They rely primarily on annual grant proposals, which provide unpredictable funding from year to year. Most grant money does not cover operational expenses, so institutes rely on tuition, private funding, training contracts, and other sources, which added together fall short of the resources public post-secondary institutions can access. The lack of operational funding affects AIs' capacity to:

- a. ensure that courses or whole programs will be offered from year to year;
- b. plan effectively over the short and long term;
- c. hire and retain qualified staff and faculty;
- d. acquire and maintain technology, library and other resources;
- e. provide effective student and ancillary services; and
- f. focus resources on serving students, as seeking out and applying for grant funding requires substantial effort.

2. AIs lack access to capital grants that public post-secondary institutions qualify for. As with operational funding, the grant funding that AIs receive cannot be used for capital projects. AIs struggle to build and maintain adequate facilities for their students, which in turn hampers their ability to grow.”²

These outcomes of insufficient funding can be read, in reverse, as a list of the underlying costs that must be met in operating a First Nations Institute and to a degree, any PSE institution. All PSE institutions require funding capacity to support the activities the IIC has outlined.

Since the publication of the *Roadmap*, the Indigenous Institutes Consortium (IIC) has had important successes working with Ontario on recognition, funding and program accreditation.

²Indigenous Institutes Consortium, “A Roadmap to Recognition for Aboriginal Institutes in Ontario Position Paper,” 3. Communication with Indigenous Institutes Consortium, August 2018.

³Communication with Indigenous Institutes Consortium, August 2018.



This work continues in the form of an Indigenous Institutes-led funding framework consultation and development process coordinated by the IIC, with support from Ontario. This process is designed to assess more comprehensively existing and future underlying costs essential in supporting the successful operations and future growth for a diverse group of Indigenous Institutes in Ontario. The IIC has provided the following update with respect to its on-going funding framework consultation:

“In addition to, and indeed more foundational to the described practical needs for operational support and funding of underlying costs identified in the Ontario position paper (Roadmap), preliminary considerations in this funding framework consultation process have consistently highlighted what can be referred to as the heart and purpose of all Indigenous Institutes: embedding within and being able to implement an Institute’s particular goals within a broad spectrum of culture-based education philosophy and practices which need to be supported within any new funding framework. Indigenous Institutes in Ontario prioritize and have as their strength an ability for quick and direct responsiveness to continuously evolving community needs using education as the key to long term Indigenous community development success.

Indigenous Adult and Higher Learning Association (IAHLA) – British Columbia

In 2010 IAHLA published a study titled, *Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits*, prepared by Juniper Consulting. This report contains an analysis of funding and expenditures of three First Nations Institutes and five mainstream institutions in BC, utilizing data from 2008-09.

The study’s overarching findings align with the IIC’s 2014 *Roadmap*:

“Based on the financial analysis, the single greatest challenge facing the case study institutes, and IAHLA institutes in general, is the lack of stable core funding. This can impede the ability of these institutes to offer a broad range of programs and services to their communities... Related to the issue of lack of core funding is the lack of capital funding. All granting sources specifically exclude the use of the program funds for capital projects, such as facilities and equipment (e.g., computers).”⁴

⁴ IAHLA - Juniper Consulting, “Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits,” 46.



A key takeaway from this study is that surface-level funding parity can be deceiving. The study found that, “the amount of operational funding received by Aboriginal-controlled institutes on a per student basis is in line with public post-secondary institution funding on a per FTE basis”, however, it also concluded that, “the overall funding available to Aboriginal-controlled post-secondary institutes falls short of meeting the needs of Aboriginal students and institutes in BC.”⁵ These two statements may on the surface appear contradictory. How they can be true simultaneously will begin to become clearer as we discuss the underlying costs of operating PSE institutions and the effect of institutional size, rural/remoteness, and other cost factors, as well as unique cost elements for First Nations Institutes. We will return to the institutional data presented in this 2010 IAHLA study in the “Cost Drivers of Post-Secondary Education” section of this paper.

Existing Funding Sources for First Nations Institutes

First Nations Institutes currently access federal and provincial funding as well as partnership revenues (from joint programming with mainstream institutions), tuition, and First Nations’ own-source revenues. Not all First Nations Institutes access each source. While awareness of existing funding sources is important for this discussion of institutional costing, expenditures through existing funding sources are not generally helpful to gauge underlying costs for First Nations Institutes. This is because, with limited exceptions, existing funding sources for First Nations Institutes are not intended to support on-going institutional sustainability, but rather to support specific and time-limited program delivery.



Federal

The primary source of federal funding for Indigenous post-secondary institutions in Canada is the Post-Secondary Partnerships Program (PSPP). According to Indigenous Services Canada (ISC), the program operates through, “a competitive, proposal-driven process based on merit and focused on meeting labour market needs. It supports projects that deliver a program of study or develop new courses and programs tailored for First Nations and Inuit students.”⁶ Institutions that are eligible for PSPP funding are defined by ISC as such:

⁵ IAHLA - Juniper Consulting, 47.

⁶ Government of Canada, “Post-Secondary Partnerships Program.”



“Canadian post-secondary institutions and post-secondary education institutions affiliated with or operating in a formal partnership with a degree, diploma or certificate granting institution recognized by a province or territory can apply. In Quebec only, First Nations and their organizations, in partnership with eligible post-secondary institutions, are eligible recipients. In other provinces and territories, First Nations post-secondary institutions are encouraged to develop partnerships with eligible post-secondary institutions to enable them to access this funding and take advantage of best practices.”

Following these criteria, First Nations Institutes must partner with mainstream institutions in order to be eligible to apply for PSPP funding (unless they have been provincially recognized to deliver credentialed programs). Similarly, PSPP funding is also accessible to mainstream institutions operating programs, independent of First Nations Institutes. The distribution of PSPP funding to mainstream institutions versus First Nations Institutes differs by funding cycle and by province.

Total federal funding for PSPP was \$23.4 million in 2016-17 and \$14.3 million in 2017-18. New PSE programs were not funded in 2017-18 in anticipation of having a new overall funding program in place for the following year. The 2018 Interim Report of the First Nations Post-Secondary Review notes that participants were, “generally of the opinion that the PSPP failed to adequately address Institute needs and the group was eager to proceed with a new approach”, as opposed to reviewing existing PSPP guidelines.⁷

Not all First Nations Institutes receive PSPP funding. They must apply in each application cycle and PSPP funds programs on a multi-year basis. If a First Nations Institute is not allocated funds, they could go without federal support for multiple years and this can put them and their services in jeopardy. Expenditures at current PSPP levels and with existing competitive program-based parameters, especially on a national basis, cannot be a foundation for sustainability of any potential range of federally supported First Nations Institutes.

Beyond PSPP, some First Nations Institutes access program-based funding from federal departments for program delivery in areas including human resource development in the health sector, employment readiness, trades training, adult education, and Indigenous languages. This program-focused funding is generally application based and not delivered for the purpose of on-going institutional operations and sustainability.

The federal government does provide on-going operating funding to one First Nations post-secondary institution: First Nations University of Canada (FNUC). We will discuss FNUC in greater detail in the “Institutional Profiles” section of this report.

⁷ Karihwakeron Tom Thompson and Gayado:wehs LuAnn Hill-MacDonald, “First Nations Post-Secondary Education Review: 2018 Interim Report,” 7.



Provincial and Other

Some provincial governments provide direct support to First Nations Institutes. As with the federal PSPP, this funding is generally program-delivery based and not geared toward institutional growth and sustainability.

In addition, a small number of First Nations Institutes are provincially supported through their direct inclusion in the public system. In these cases, funding is delivered with an underlying goal of institutional sustainability and governance and accountability procedures generally align with those of mainstream institutions. Institutions in this category include First Nations University of Canada, the Saskatchewan Indian Institute of Technology and the Nicola Valley Institution of Technology. Other Indigenous post-secondary institutions that are consolidated within public post-secondary systems include the Gabriel Dumont Institute and Nunavut Arctic College.

Beyond federal and provincial funding, other sources of funding for First Nations Institutes include tuition, partnership agreement funding from delivery of programs with mainstream institutions, and community-level investments from First Nations' own-source revenues.

First Nations Institutes: Select Profiles

In this section we profile three First Nations Institutes: Six Nations Polytechnic (Ontario), First Nations University of Canada (Saskatchewan), and Red Crow Community College (Alberta). The section begins with narrative profiles of each institution before presenting a comparative enrolment, staffing and expenditure table. For Six Nations Polytechnic and Red Crow Community College, a description of institutional growth visions and projected costs from each institutions' plans and analysis follows. Engagement with these institutions and review of financial and other organizational documents (e.g. annual reports, course catalogues, strategic plans) has formed the basis for this section. In turn, these institutional analyses have helped inform our identification of unique cost elements for First Nations Institutes and have supported development of the costing model that follows.

Six Nations Polytechnic, Ontario

Six Nations Polytechnic (SNP) was originally founded as the Grand River Polytechnical Institute in 1993. The first program was a "Preparation for Employment program which was funded through a Jobs Ontario project administered by Grand River Employment and Training."⁸ In its second year of operation, SNP began programming to support university access for Six Nations community members. This was done through the formation of a University Consortium with five universities in

⁸ History."



Southern Ontario. An articulation agreement between SNP and these universities allowed students to complete their first year of studies in their home community, Six Nations of the Grand River First Nation, before transferring to one of the partner universities, by way of transfer credits. The University Consortium partnership and program continues to this day and has grown to six university partners.

Since its founding, SNP has successfully partnered with many Ontario colleges and universities to deliver programming that meets an identified community capacity or labour market need. SNP developed and is now delivering its own accredited Bachelor of Arts in Ojwehoweh Languages program. The history included on SNP's website ⁹ highlights important milestones in the institution's history:

- In 1999, a focus on health programming began. Through a partnership with an Ontario college, nursing and other health care degree and diploma programs began to be offered.
- Recognized Additional Qualification (AQ) courses for licensed Ontario teachers began to be offered in 2014.
- In 2016 the Ontario Ministry of Training, Colleges and Universities approved SNP's Bachelor of Arts in Ojwehoweh Languages program, fulfilling a vision that originated in 1994 to have a full Language Degree program. This is the first independently accredited BA program offered by a First Nations Institute in Ontario.

SNP has reached other significant milestones in its recent history. In 2015, SNP opened its second campus, located in Brantford, Ontario. This campus provides SNP with the opportunity to deliver additional programming in response to local demand, especially programs that are enhanced and supported by high speed internet and IT infrastructure that is not sufficient on Six Nations territory, and as a result, are challenging to deliver at the Ohsweken campus (SNP's home since 1993). The Brantford Campus also facilitates access for Indigenous students who live off-reserve in surrounding locations such as Brantford and the County of Brant. A \$5 million grant from Innovation, Science and Economic Development Canada's Post-Secondary Institutions Strategic Investments Fund (SIF), beginning in 2016, has supported SNP to make substantial capital improvements and IT investments at the Brantford Campus. Access to this grant was made possible in part by strong support from Ontario's Ministry of Training, Colleges and Universities.

Launched at the Brantford campus in September 2017 with support from Canada, the SNP STEAM Academy offers an integrated high school and college curriculum focusing on Science, Technology, Engineering, Arts and Mathematics (STEAM); with language and culture integrated throughout the curriculum. The first cohort of grade nine students completed their first year and a second cohort will enter the school for the 2018-19 academic year. Students of SNP's STEAM Academy have the opportunity to earn both an Ontario Secondary School Diploma and a two-year College Diploma. 2017 also saw SNP co-host the World Indigenous Peoples Conference on Education

⁹ See: www.snpolytechnic.com



(WIPCE), with 3,000 participants from around the world attending. In the same year, SNP earned a ten-year accreditation from the World Indigenous Nations Higher Educations Consortium (WINHEC), which validates SNPs commitment to maintain the integrity of Indigenous knowledge systems, values, world views, knowledge, languages and ways of knowing and being.

PSE programs planned by SNP in the 2018-19 academic year are listed below:¹⁰

- BA Ogwehoweh Language - Cayuga
- BA Ogwehoweh Language - Mohawk
- SNP University Consortium Year 1 Program
- Community and Justice Services (Diploma)
- Early Childhood Education (Diploma)
- Indigenous Wellness and Addictions Prevention (Diploma)
- Personal Support Worker (Certificate)
- Practical Nursing with Aboriginal Communities (Diploma)
- Recreation Therapy (Diploma)
- Additional Qualification (AQ) Courses for members of the Ontario College of Teachers ¹¹

As noted, the BA program in Ogwehoweh Languages is SNP's own accredited program. Other programs are delivered in partnership with Ontario colleges and universities.

SNP is a lifelong learning institution and its post-secondary programming is supported by and connected to broader community engagement, including language and cultural activities, in important ways. As noted, SNP is now engaged in delivering high school programming. In addition, SNP is a service provider of the Ontario Literacy and Basic Skills Program through the Six Nations Achievement Centre. SNP similarly offers life skills courses such as "Personal Sustainability". This course covers "communication, time management, budgeting, job readiness, nutrition, personal portfolio development and more" and is built to help participants understand root causes of poverty and develop strategies for "breaking the cycle". Another initiative, the Hodinohso:ni Ambassador Program, is a paid summer leadership development opportunity for youth aged 18-24 (this SNP-developed program has been adapted and implemented by other First Nations Institutes in Ontario). SNP also offers an evening homework support program four nights a week for students in grades 5-12 and reports that parents in post-secondary programs often attend the homework program with their children, concurrently working on assignments. The depth and breadth of SNP's initiatives (not an exhaustive list) are fundamentally about supporting community members to succeed. In so doing, they create pathways to PSE.

¹⁰ Nations Polytechnic 2018-19 View Book."

¹¹ AQ courses are professional learning opportunities for educators who are registered with the Ontario College of Teachers. Six Nations Polytechnic is an approved AQ provider and delivers ten courses. Example programs included a principal's qualification program with a focus on preparing teachers to become principals of First Nations schools, teaching Cayuga, teaching Mohawk, and programs focused on teaching mathematics to Indigenous students. For a full listing of AQ courses offered by SNP, please see: <https://www.oct.ca/members/services/findanaqstart/findanaq?searchBy=provider>



SNP also offers a range of community Indigenous Knowledge learning opportunities that are designed and developed through Deyohahá:ge: (Two Roads) SNP's Indigenous Knowledge Centre, which has archival, research, publication, and protocol/ethics functions. SNP maintains its own formal Indigenous Education Recognition Program that includes Indigenous Knowledge Guardians, Community Scholars, Research Supporters and Post-secondary Partners. Indigenous Knowledge activities serve as a foundation for curriculum development for SNP's PSE and life-long learning programs. Regular meetings with language speakers and community lunch and learn sessions while benefitting immediate participants, help inform curricular development for integration of language into programming offered at all levels. Indigenous Knowledge research activities also support AQ course development, which in turn help equip teachers to support Indigenous youth and improve the quality of Indigenous-focused educational programming for all Ontarians.

First Nations University of Canada, Saskatchewan

First Nations University of Canada was originally founded in 1972 as the Saskatchewan Indian Cultural College (SICC) by the Federation of Saskatchewan Indians (FSI). Following the development of a proposal and advocacy by FSI for development of a culturally-focused college aimed at preservation of traditions, the then Department of Indian Affairs provided a grant of \$500,000 for institutional development. In 1976, SICC became a federated college of the University of Regina and was renamed as the Saskatchewan Indian Federated College (SIFC). College leadership sought this arrangement with University of Regina in order to offer accredited, credentialed programs to students.

The first accredited credentials offered by the new SIFC were a BA in Indian Studies and a two-year certificate program in social work. These accredited programs grew from and integrated the institution's focus on Indigenous Knowledge. The number of professionally focused credentialed programs soon grew, building on the culturally focused roots of the institution, "In the late 1970s and early, 1980s, SIFC added new academic programs to its curricula, including a Bachelor of Indian Education degree, a Bachelor of Indian Social Work degree, and a Bachelor of Indian Art Degree".¹² In 1983, a Centre for International Indigenous Studies and Development was founded, bringing international Indigenous students to study alongside First Nations students.

In 2003, SIFC became First Nations University of Canada (FNUC) reflecting the "growth and diversification of the institution".¹³ The same year, the university moved to a new 150,000 square foot purpose-built central campus building. Today, FNUC has campuses in Saskatoon and Prince Albert, in addition to its Regina home campus.

¹² Crum, "A History of the First Nations College Movement of Canada 1969-2000."

¹³ Crum.



Programs in FNUC's 2017-18 catalogue include certificate, bachelor's and master's programs at the university level, delivered across three departments. Credentials are granted in partnership with University of Regina. FNUC Departments and programs are listed below:

- Department of Indigenous Languages, Arts and Cultures
 - English
 - Indian Communication Arts
 - Indian Fine Arts and Indian Art History
 - Indigenous Languages, Literatures, and Linguistics
 - Indigenous Studies

- Department of Indigenous Science, the Environment and Economic Development
 - Business and Public Administration
 - Resource and Environment Studies
 - Science
 - Environmental and Health Science

- Department of Indigenous Education, Health and Social Work
 - Indigenous Health Studies
 - Indigenous Education
 - Indigenous Health Practice
 - Indigenous Social Work

FNUC reports that it is growing its out-of-province enrollment, including through delivery of social work programs in Manitoba and Alberta, in part utilizing online course access and video-conferenced courses from FNUC's Saskatchewan campuses.

FNUC's 2013-18 Strategic Plan articulated four strategic themes:

- Indigenous Languages, Cultures and Traditions
- Innovative Student Learning Experience
- Sustainable Growth
- Enhanced Stakeholder Engagement

The Strategic Plan notes that, "These themes are aligned with the University's vision and mission, which speak to the institution's foundational and ongoing mandate to deliver accessible, high quality education while fostering and promoting Indigenous tradition, culture and values"¹⁴. The President's Message in FNUC's 2016-17 Annual Report notes that, "When the then National Indian Brotherhood called for *Indian Control of Indian Education* there was recognition that Indigenous peoples needed an education that not only prepared them for mainstream careers, but also rooted them in their traditional knowledge and culture. This university was created to meet that need."¹⁵

¹⁴ First Nations University of Canada, "Lighting the Path: 2013-18 Strategic Plan."

¹⁵ First Nations University of Canada, "2016-17 Annual Report."



2016-17 was FNUC's 40th year of operation and saw phase one completed of a new "Traditional Campus" located in Prince Albert. According to FNUC, the Traditional Campus, "will allow our Elders and educators to use traditional knowledge and land based practices to enhance academic programming". FNUC has expressed a goal of launching similar Traditional Campuses in Regina and Saskatoon. 2016-17 also saw FNUC host an inaugural Elders' Conference. FNUC describes Elders as "integral to every part of our university", supporting students, and helping staff "incorporate traditional knowledge, teachings, and concepts into their classrooms and online course development." An Elders' Council that, "informs all the activities and teachings at First Nations University" was founded in 2014.¹⁶

Red Crow Community College, Alberta

With support of the Government of Alberta, Red Crow Community College (RCCC) developed a Comprehensive Institutional Plan (CIP) in 2017 that outlines its vision for the future - a document from which much of the information in this section is drawn.

RCCC began operations in 1986 by offering adult education and academic upgrading to members of the Blood Tribe (Kainai First Nation) on the Blood Reserve. In 1995, the Blood Tribe transferred the following responsibilities to the RCCC Board of Governors:

- Adult Education
- Post-Secondary Education
- Continuing community education
- Vocational and technical education¹⁷

While maintaining an open door policy for all learners, the Board of Governors has emphasized, "curriculum designed to meet the special needs of Kainai for the Blackfoot nation". RCCC has defined success factors for the college's delivery of First Nations post-secondary education. These factors include the following:

- An Indigenized curriculum
- Every learner is funded
- Every learner has equal opportunity to access educational opportunities
- Every learner has more choice
- Every learner understands their culture
- Elders play a key role in education and training
- Partnership and strong relationship with Campus Alberta creates opportunity for Red Crow to contribute and add value
- Stable funding so long-term planning can be implemented

¹⁷ Red Crow Community College, "Comprehensive Institutional Plan," 14.



- Opportunity to increase enrolment on the Reserve with collaborative partnerships with Campus Alberta
- Wrap around services are available to those who need the ¹⁸

RCCC has two campuses. The main campus is in Standoff on the Blood Reserve and a satellite campus is located in the City of Lethbridge. Until 2015, RCCC operated in a former residential school. Fire destroyed this building in 2015 and RCCC has since had its interim campus in a portion of a former school. This interim space has many limitations and RCCC has a vision for capital expansion to facilitate its growth, to which we will return.

RCCC delivers on-site programming to community members and is also the Post-Secondary Student Support Program (PSSSP) administrator for the Blood Reserve. As a result, a major component of its current activity is in supporting “off-site” students to attend programs at other colleges and universities as their funding administrator. RCCC delivers the majority of its onsite programming to Adult Education students.

The following on-site PSE programs were offered by RCC in 2016-17:

- Health Care Aide
- Licensed Practical Nurse
- Community Health Promotion
- Niitsitapi Arts and Science

These were accompanied by the following on-site non-PSE programs:

- Niitsitapi Foundation Learning and Literacy Program
- Adult Academic Upgrading and Education
- Indigenous Workplace Literacy and Pre-Apprenticeship Program

The Niitsitapi Arts and Science Program is a notable achievement of RCCC and is key to the institution’s vision for future growth. Niitsitapi Arts and Science is a 2 + 2 program through which students complete their first two years on-site at RCCC, earning a diploma, before being eligible to transfer to partner institutions to complete a BA through an additional two years. The credits and credential delivered in the first two years by RCCC are recognized by partner institutions through the Alberta Council on Admissions and Transfer. RCCC courses recognized for transfer include: 19 courses in Arts and Science, 11 courses in Niitsitapi Studies, and five courses in Indigenous Studies. The development of this program is strongly linked to the College’s research program which is “fundamentally based on the promotion of traditional knowledge to students and the community.” ¹⁹

¹⁸ Red Crow Community College, 11.

¹⁹ Research at the College proceeds through an Ethics Board (through a reciprocal agreement with Blue Quills First Nations College, any appeals are heard by its Research Ethics Board).



RCC describes the origins of the 2+2 Niitsitapi Arts and Science program as such:

“In 2002, Red Crow Board of Governors passed a resolution to establish the School of Kainai Studies based on specific components of Blackfoot Knowledge disciplines. The perspectives of the Kainai Studies program are the provision of a unique post-secondary program that is not found anywhere else with an emphasis on decolonization of the Blackfoot people with the understanding that the provision for Niitsitapi Knowledge is rooted in a liberal arts program.

In 2010, the Niitsitapi Arts & Science Program was integrated with the Kainai Studies Program to incorporate Nittsitapisshka'takssinn, the Blackfoot Knowledge Paradigm, which is the core indigenous cultural content of the program. The Program enhances the transformative education process through the revitalization and renewal of Indigenous ways of knowing and the transfer of sacred sciences and practices.”²⁰

Like SNP, RCCC is also accredited by the World Indigenous Nations Higher Education Consortium.

RCCC offers a range of student services and supports. Class sizes are kept to an average of 1:15 for university and college programs. Four counsellors who “are well versed in Blackfoot Culture, know Blackfoot values and can speak the Blackfoot language” are available to support students. “Cultural events and ceremonies are also coordinated by the College such as Pow Wows, the Sundance, Sweat Lodges, All-night smoke ceremony (Kanotsissin), Face painting and naming ceremonies.”²¹ The role of Elders is described at the college as such:

“Elders are the source of Knowledge that is used to govern the College, to culturally infuse the programs that are delivered, and provide the values and beliefs that help staff and students live a strong and productive life. Elder participation is a requirement of post-secondary and adult upgrading courses and instructors engage with Elders and facilitate student interaction.”²²

RCCC is similarly engaged in supporting students with material challenges in accessing education. For example, the Blood Reserve is vast and many students lack transportation. The college currently operates a passenger school bus and van, but has identified a need for additional transportation services to help students get to campus.

²⁰ Red Crow Community College, “Comprehensive Institutional Plan,” 21.

²¹ Red Crow Community College, 21.

²² Red Crow Community College, 11.



Profiled Institutions: By the Numbers

Table 1 outlines expenditure, staffing and enrolment at the First Nations Institutes profiled above. It is important to note that while current expenditure is one indicator of cost, the degree to which expenditure aligns with an approximation of cost is variable. First Nations University of Canada operates as part of a public post-secondary education system. Six Nations Polytechnic and Red Crow Community College do not have stable operating funding from government. While we profile their current expenditures, in the following section, we outline their growth

visions and their projections of budgetary requirements to achieve development objectives. In other words, their present expenditures, enrollment, and staffing should not be read as a reflection of a desired state within an adequately funded First Nations PSE sector.

The activities, resources, size, and funding arrangements for First Nations Institutes in Canada are highly variable and often unstable. This small selection of existing institutions demonstrates this fact clearly and examination of a broader number of institutions would undoubtedly reveal greater diversity. An eventual funding model for First Nations Institutes needs to recognize the diverse current starting points of funded institutions and also the diversity of their orientations and objectives, along with other drivers of cost, which we will focus upon in sections that follow.

Institutional budgets are structured in different ways and documented expenditure areas do not align precisely across institutions. First Nations Institutes were asked to do their best to identify expenditures within categories provided. To the best of our ability we have noted where information for each First Nations Institute aligns or does not align completely with the categories in the table, by inserting language from First Nations Institutes' own budget line-item categories. First Nations Institutes noted that they do not have access, in many cases, to funding for expenditure elements covered in table 1. Expenditure elements do not sum to total presented budgets.



Table 1: Profiled First Nations Institutes – Expenditure Overview

Expenditure Element	Six Nations Polytechnic (2017-18)	First Nations University of Canada (2017-18)	Red Crow Community College (2016-17)
Total Budget	\$6.4 million: This figure includes SNP's high school, community engagement, and other non-PSE life-long learning programming	\$21.3 million	\$11.3 million: This figure includes \$7.7 million in PSSSP student funding that RCCC administers for Blood Reserve members studying at other PSE institutions and \$2 million for Adult Education; The program budget for on-site PSE delivery is currently \$550,000
Direct PSE Government Funding	Ontario (Ministry of Training, Colleges and Universities) Student Success Fund: \$2.85 million (45% total budget); Canada (ISC) PSPP: \$975,000 (15% total budget)	Canada (ISC) annual grant (separate from PSPP): \$7 million (33% total budget); Saskatchewan (Ministry of Advanced Education) Grant: \$3.7 million (17% total budget)	Canada (ISC) PSSSP: \$7.7 million (68% total budget - unlike the other institutions profiled, RCCC is a PSSSP administrator, funding students to attend other institutions); Alberta (Ministry of Advanced Education) Grant: \$640,000 (6% total budget)
Enrolment	175 PSE students. SNP is significantly engaged in other lifelong learning activities, including operation of the SNP STEAM Academy (integrated high school-college program) – 32 students	897 PSE FTEs (University of Regina 4th week of classes head count - 2017). FNUC reports a total headcount enrolment of over 5,000, which includes University of Regina students who take FNUC courses for their programs	46 on-site PSE students in RCCC-delivered programming (including 30 students in 2+2 Niitsitapi Art & Science). PSSSP administrator for 231 university and 165 college students "off-site". 145 Adult Ed students on-site
Staffing	57 full-time and 48 part-time staff spread across all areas of institutional activity (not just PSE). PSE faculty are all part-time/contract. Total salaries and benefits cost: \$2.8 million (not just PSE)	82 staff (32 are faculty). In addition, 86 sessional instructors (Winter 2018 term). Total salary and benefits costs: \$10.8 million across six categories: Academic Instruction (\$6.9 million), Student Services (\$1.2 million), Physical Plant (\$512,000), Library (\$293,000), Computing and Communications (\$217,000), Administration (\$1.8 million)	42 full and part-time staff working at the College. This includes nine full-time teachers (Eight in Adult Ed and one in Niitsitapi Studies), four sessional teachers (Niitsitapi Studies), 24 administrative staff, three operations staff and two in student transportation
Operation and Maintenance	Facilities and Supplies: \$872,000	Physical Plant: \$2.7 million	Maintenance for main campus where onsite PSE programs housed: \$335,000



Table 1: Profiled First Nations Institutes – Expenditure Overview

Expenditure Element	Six Nations Polytechnic (2017-18)	First Nations University of Canada (2017-18)	Red Crow Community College (2016-17)
Governance and Administration	General and Administrative: \$670,000	Administration: \$2.9 million	General and Administrative: \$1 million
Program Development and Program Delivery	\$223,000 for program development; \$614,000 for instruction fees; \$43,000 for education materials; \$800,000 for tuition and program fees (payments to partner institutions). These categories may not be exhaustive of expenditure in this category. For example, salaries and benefits - a separate budget line item - may also be part of this cost category. Note that these figures include delivery of non-PSE programming	Academic Instruction: \$7.5 million; development activities may be supported by expenditure through other institutional line items	2+2 Niisitapi Arts and Science and on-site Trades and Health Care Programs delivery budget: \$550,000; development activities may be supported by expenditure through other institutional line items
Research and data collection	Not a specific budget line item, but activities are underway and costs would be captured within other line items	Research Projects: \$311,000. This figure is for special, funded research projects. As a university with academic faculty with research-enabling teaching loads, FNUC's primary research expense is embedded in academic staffing costs	Not a specific budget line item, but activities are underway and costs would be captured within other line items
Student Services	Student Services: \$268,000. Institutional activities across other cost categories may also be for student services	Student Services: \$1.2 million. Institutional activities across other cost categories may also be for student services	Total Student Services: \$261,000. For on-site PSE programming: \$31,000. Institutional activities across other cost categories may also be for student services
Language and Culture	Cultural Support: \$40,000. This cost category only includes one area of SNP's language and cultural activities. Language and cultural activities are embedded across categories, e.g. program development and delivery, student services.	Special Projects: \$3.6 million. This category includes a large number of initiatives. The largest is the National Centre for Collaboration in Indigenous Education (\$2.2 million). Outreach and youth engagement activities are included in this category (e.g. Aboriginal Youth Entrepreneurship Camp; Math/Science Camp), and also culture and language initiatives	Not captured in budget line items, but an active area of focus embedded in other line items. Development of Niisitapi Arts and Science program (also a program development cost) a central example.



Table 1: Profiled First Nations Institutes – Expenditure Overview

Expenditure Element	Six Nations Polytechnic (2017-18)	First Nations University of Canada (2017-18)	Red Crow Community College (2016-17)
		(e.g. Pow Wow, Traditional Campus, Traditional Activities, Elder Traditional Crafts). Not an exhaustive category; language and culture activities are embedded across budgetary line items, including Academic Instruction, Research, Library costs, etc.	
Capital and infrastructure	See operations and maintenance (above) and “Growth and Development Vision” section	See operations and maintenance (in table) and historic capital costs referenced in “Institutional Start-up Cost” section	See operations and maintenance (above) and “Growth and Development Vision” section
FTE / Cost	Presently unable to calculate for PSE. Overall budget line items include both PSE and other lifelong learning activities (e.g. STEAM Academy, Literacy and Basic Skills, Youth Programming).	\$23,700 - (This figure is based on total expenditures / FTE).	Presently unable to calculate for PSE. Overall budget line items include costs for delivery of Adult Education and administration/ student support for PSSSP-funded students attending other institutions.

We have conducted this analysis of institutional budgets for the purpose of better understanding the profiled First Nations Institutes’ activities, exploring unique cost elements for First Nations Institutes, and investigating variables that may be utilized in order to develop costing models. In the following section we explore RCCC and SNP’s growth and development visions which help us to understand their desired future budgets and cost structures. Ultimately, rather than assembling a costing model through a budget line-item driven process, we utilize broader functional and contextual features of institutions to model how costs increase with differing conditions likely to come into play for First Nations Institutes. This exploration of expenditures and activities of the three profiled First Nations Institutes has helped us to construct the costing model.



Growth and Development Visions

Six Nations Polytechnic and Red Crow Community College have outlined growth and development visions, select elements of which are briefly profiled here. These visions provide indications of the institutions' views on resources required to achieve their institutional goals as stably funded PSE institutions.

SNP: Growth and Development Vision

SNP has a vision to become a Polytechnic University, substantially growing its program offerings, enrollment and facilities.

Over five years, this vision includes growing to a total enrolment of 1,000 students in PSE programs and expanding from 18 to 33 total PSE programs. Total funding/operational expenditure would increase from the current roughly \$6.4 million to \$26.5 million. Staffing would grow from 105 to 151, with a bolstered student service and research capacity. Note that total budget and staffing figures are inclusive of non-PSE activities, such as the growth of the SNP STEAM Academy.

To support its growth vision, SNP has outlined a phased capital plan over 10 years that would include, among other elements, purchase of the Brantford Campus (presently rented), construction of a Brantford Campus Gymnasium, a new commercial and residential facility in Ohsweken, an Indigenous Knowledge Centre building, IT infrastructure improvements for the Ohsweken campus, and development of an Environmental Education Building. The total cost of this phased plan is projected at roughly \$53 million.

RCCC: Growth and Development Vision

RCCC's Comprehensive Institutional Plan provides both a cost and revenue-based model for financial projections supporting its growth vision over the next 15 years. Here we refer to the cost-based model.

In 2016-17, thirty students were enrolled in the 2 + 2 Niitsitapi Arts and Science Program. At the same time, RCCC had 165 "offsite" college students (Blood Reserve students attending other post-secondary institutions with PSSSP funding administered by RCCC). RCCC's primary vision for growth lies in substantially growing enrolment in the 2 + 2 Niitsitapi Arts and Science Program, increasing total Blood Tribe participation in PSE, while proportionally decreasing the number of students studying in colleges offsite. The vision for 2021-22 is to reach 400 onsite 2+2 Niitsitapi Arts and Science students, while moderately decreasing the number of students studying at colleges offsite. By 2031-32, the vision is to reach 1,015 onsite 2+2 Niitsitapi Arts and Science



students and have 58 offsite college students (additional students would be in other, smaller on-site programs, in addition to offsite undergraduate and graduate studies). Total operational expenditure would increase over 15 years, from the current \$11 million to \$40 million. In the first two years, funding would increase by 20% and 25%, respectively, to cover ramp-up costs.

To support its growth vision, RCC has outlined a phased capital plan that would see the eventual construction of core facilities, a classroom space addition to these facilities, a trades building, a New Learning Building, and an Agricultural Centre. The total vision is estimated to cost roughly \$41.5 million, with the initial core/central facilities projected to cost \$14.1 million from within this multi-phase total.

Unique Cost Elements for First Nations Institutes

Our profile of a selection of First Nations Institutes' activities and expenditures has underscored unique cost elements for First Nations Institutes. These cost elements could be seen to fall within the following three interrelated categories:

- I. Language and Culture
- II. Student Support in a First Nations Context
- III. Community Engagement and Pathways (life-long learning)

Below we discuss some ways in which these unique cost element categories find expression at First Nations Institutes based on our institutional profiles as well as engagement with representatives of the IIC and IAHLA.

Language and Culture

First Nations Institutes undertake curriculum development, program delivery, and general operations in a language and culture infused context.

The most obvious example of language and cultural cost is development and delivery of language and culture-focused post-secondary programming (e.g. language programs). An overall goal expressed by many First Nations Institutes is to train First Nations language speakers to teach and revive language. However, language and culture curricula are not restricted to language and culture-specific programs. First Nations Institutes are actively engaged in reframing curricula for all program types (e.g. health, business, trades, etc.) through a culturally relevant lens. Language and cultural costs may also pertain to programming that is envisioned, but that has not yet been developed and delivered. For example, some institutions have a vision for delivery of language-immersion programming at the PSE level, but costs associated with operating such future programs have not yet been defined.



Similarly, many of the research activities we heard about at First Nations Institutes were efforts focused on language, culture, and pedagogy: exploring how to build programs, curricula, and services to form a cornerstone of community capacity building and cultural revitalization. Such development and the community-based research that can underlie it carry costs.

The three institutions we profiled reported engaging in land-based and site-specific learning. First Nations University has recently launched a Traditional Campus. Six Nations Polytechnic implements land-based learning camps. Red Crow Community College takes students on educational trips to sites of significance to Blackfoot history in Alberta, Saskatchewan and the US. These activities are core to the institutions' mandates and carry cost. Each of the three institutions profiled plans to expand them.

The institutions we profiled reported engaging elders and Knowledge Keepers both for student support purposes and for guiding institutional activities, program development, and pedagogy. One institution emphasized that while mainstream institutions are also now bringing Elders into their institutional spaces, First Nations Institutes' engagement runs deeper with Elders participating in classes "so that business students understand the significance of land and its values and social work courses can be delivered in a manner grounded in culture". Elders are generally compensated for their time and spaces are often established for their student support activities. Ceremonial spaces are also maintained by institutions.

First Nations Institutes also regularly host cultural events, which carry costs. Such activities are also part of community engagement and student support and can differ significantly by community. According to one institutional leader and IAHLA representative, "In BC many ceremonies involve gifting and feasts, recognizing elders and land. When you talk to a mainstream PSE institution, they won't see that as relevant. That these are core costs has been hard to get across". Traditional practices and adherence to broader community protocols can also carry costs (discussed further in the "Student Support" section).

Associated is the role that First Nations Institutes play in working with mainstream PSE institutions, public, and private organizations on "Indigenization" or reconciliation projects. First Nations Institutes support on-going work and partnership projects in this area despite a lack of dedicated funding and capacity.

Comparator: Official Languages Support in Post-Secondary Education

There is precedent for government investment in support of Official Languages (English and French) in post-secondary education. While not an indicator of language cost for First Nations Institutes, awareness of this funding could support development of potential funding approaches in a First Nations context, especially in light of on-going development of a proposed Indigenous Languages Act.



Bilateral agreements are in place between federal and provincial/territorial governments for the promotion and teaching of Official Languages. Among a range of expenditure areas, these agreements provide for joint federal-provincial/territorial investment in post-secondary education for minority-language speakers. For example, the *Canada-Ontario Agreement on Minority-Language Education and Second Official-Language Instruction 2013-2014 to 2017-2018* provides for \$96.5 million in joint federal-provincial investment over five years in PSE initiatives for minority-language speakers in Ontario (i.e. Franco-Ontarians studying in French).²³

In 2017, the Planning Board for a French Language University delivered a report to the Government of Ontario: *From Local Innovation to Global Excellence: Proposal for a French Language University in Ontario*, fulfilling its mandate from the Government of Ontario to develop a proposal for a new French Language University in the province. The Planning Board estimated that the proposed university would receive \$1 million annually over its first three years of operation in French-language support and \$8 million annually in French-language support thereafter. The Planning Board reported that these amounts were calculated based on projected enrolment and grants that other universities in Ontario serving francophone student populations receive for French-language support.²⁴

Student Support

First Nations Institutes provide student supports unique to a First Nations context. As described in the IIC's 2014 position paper, "Aboriginal Institutes increase access to and success in PSE for Aboriginal students who would not otherwise attend a mainstream post-secondary institution. There are many reasons these students may be unable to attend a mainstream college or university, including low incomes and insufficient funding, low education of parents, family or work obligations, lack of childcare, distance, desire to be educated in a culturally sensitive environment, and scars from historic racism and assimilationist pressures"²⁵. Supports delivered by First Nations Institutes in this context interweave academic support and First Nations pedagogical practices with cultural restoration and personal support activities.

First Nations Institutes provide cultural support and personal counselling through access to Elders and dedicated spaces for ceremony. They similarly include academic supports for students, many of whom may be returning to PSE as working-age adults or who required academic upgrading before beginning studies. First Nations Institutes provide other unique supports as well, like keeping campuses open late so students with crowded housing or a lack of home internet have a place to work and providing concurrent programming for students' children. They also provide transportation (bus and van services) for students to get to campus, provide on-site child care,

²³"Canada-Ontario Agreement on Minority-Language Education and Second Official-Language Instruction 2013-2014 to 2017-2018," 42.

²⁴French Language University Planning Board, "From Local Innovation to Global Excellence: Proposal for a French-Language University in Ontario," 35.

²⁵Indigenous Institutes Consortium, "A Roadmap to Recognition for Aboriginal Institutes in Ontario Position Paper," 7. French-Language University in Ontario," 35.



re-run courses and pay instructors to help individual students complete when they are facing hardship, host a large number of events with free meals, and provide meals for students as a regular service.

Institutions also report running clothing exchanges and food banks. One institution reports operating a foodbank stocked with traditional foods (wild game, fish) maintained by elders to support students from remote communities facing difficulty affording good food for themselves and their families. Costs include dedicated space and freezers. These are not costs that would be traditionally associated with delivery of PSE, but are important to supporting students from remote communities to succeed.

Student support, academic delivery, and cultural support interrelate in many ways. One institution reported building crisis counselling for students into social work and chemical addictions worker programs as a base cost. This is because the “trigger points” in the material covered by these programs frequently resurface personal traumatic experiences for students. Crisis counselling embedded into these programs supports students to achieve relevant professional designation, and begin practice in communities.

Another student support area is travel costs associated with First Nations kinship and family responsibilities. For many students who are far from home, the death of a “great aunt or esteemed elder” in home communities can necessitate a mid-semester trip. Some First Nations Institutes have resources to fund such travel costs on a limited basis. In the absence of support, students with limited funds may return home to meet familial and kinship responsibilities, not returning to complete the semester. One institution similarly described the cost of pausing institutional activities to engage in traditional practices in the event of a death in the institutional community.

The range of student supports provided by First Nations Institutes is unique in each institution but can be summarized as doing as much as possible to help students succeed and complete their studies from a “whole person” perspective that is grounded in a deep understanding of social, economic, and cultural context.

Community Engagement and Pathways (Life Long Learning)

Many First Nations Institutes describe their operations as taking place within a lifelong learning continuum in which the institutions must take an active role not just in PSE, but in preparing students to enter PSE, sometimes from a young age. This can mean academic upgrading and adult education. It can also mean youth outreach and leadership programming. It can similarly involve community cultural events, which can support adults to learn about the institution and potentially see themselves having a future in PSE.



In a context of lower high school graduation rates amongst First Nations students and often negative associations with educational institutions, First Nations Institutes must reach out to their communities to support and inspire students to pursue PSE. For some First Nations Institutes this is a localized activity, while for others serving large and/or remote territories it can include substantial travel costs and staff time. In some cases this means flying regularly to visit remote communities to engage potential students, build trust, and ultimately enrol students. Program delivery itself often takes place in communities distant from the institution. While many mainstream institutions are engaged in outreach and bridging programming for communities with lower PSE transition rates, for First Nations Institutes, this is core business and occurs in a unique context. Many First Nations Institutes take on a more active, long-term role.

There are costs to implementing community engagement and pathways, which interpreted to a full spectrum of lifelong learning, could reach back to delivery of early childhood education. Some First Nations Institutes are already engaged in delivering high school and youth programming that falls outside the standard funded activities of a PSE institution. It is clear that community engagement and pathways development activities are cost elements for First Nations Institutes. To the extent that these activities become more formal delivery of non-PSE forms of education (e.g. K-12, early childhood), separate funding would be required to align with the generally separate government funding approaches for delivery of early childhood education, K-12 education, and PSE.

Unique Cost Elements: Observations

First Nations Institutes are fundamentally engaged in responding to unique community needs and goals, in context of unique nations, cultures, languages, practices, and protocols. With key overlapping areas and themes, the expression of the unique cost elements identified here has been different in each of the limited number of institutional contexts we have explored and it is reasonable to assume that an even larger sample of First Nations Institutes would reveal a greater breadth of activity.

While some budgetary line items at the First Nations Institutes we profiled directly represent aspects of the unique cost elements, e.g. “cultural support”, our engagement with institutions suggests that, more frequently, unique cost elements are in fact embedded across multiple budgetary line items. For example, underneath line items such as “program development” can be activity to re-craft curricula for a First Nations context. “Special Projects” can include cultural activities or community engagement (categories that themselves are often interwoven). While the cost of small class sizes would be captured in staffing or program delivery, the choice (and cost) to deliver small classes is sometimes a distinct student support measure. First Nations Institutes see these areas of activity as a foundation of their work, fundamental to their reasons for existing as distinct institutions.



Following a discussion of international models of Indigenous PSE we return to the question of overarching cost-drivers in post-secondary education. In the case of First Nations Institutes, unique cost elements that we have discussed in this section are a foundation to and embedded within these.

Two International Models of Indigenous PSE

There are Indigenous higher education institutions in many parts of the world. Australia, Norway and Taiwan, for instance, all have Indigenous higher education institutions, as do a number of Latin American countries. But the two most developed international systems of Indigenous post-secondary education – the ones which have had formal recognition and public funding the longest, are Tribal Colleges and Universities in the United States of America, and New Zealand/Aotearoa’s Wānangas (sometimes known as Maori Polytechnics). In this section we look at how these two systems work, what they cost to operate and how they are funded.

US Tribal Colleges and Universities

The story of US Tribal College and Universities (TCUs) mirrors that of Canadian First Nations Institutes in many respects. The “Self Determination (or Sovereignty Movement)” beginning in the late 1960s played a significant part in the founding of TCUs, along with influence of the broader societal “Community College Movement”, which had in common with the movement for TCUs, a desire to “offer occupational education, guidance, and counselling programs run by and for the community in order to best respond to local needs”²⁶. Most TCUs began life as platforms for delivering programs of partner mainstream institutions, scraping together money from various sources with no core-funding of their own. Only gradually, over time did they become independent degree-granting institutions delivering their own programming.

There were, however, a few differences between the Canadian and American experiences. First of all, reservations in the US tend to be larger than reserves in Canada, both in terms of land and population. This different scale made it somewhat easier for tribal governments to piece together the base funding needed to start institutions. Second, TCUs were able to access a much more diverse funding landscape. Since 1978, they have received federal money through the *Tribally Controlled Colleges and Universities Assistance Act (TCCUA)*, which, through a formula, authorizes annual funding per American Indian student at TCUs.²⁷ Note, however, that this stream of funding accounts for only about a third of federal funds received; TCUs also receive funds from a variety of other federal sources, including, notably, the National Science Foundation through its Minority Science Improvement program and the US Department of Agriculture. Some US states – notably North Dakota and Montana – provide state appropriations to TCUs, while Minnesota has incorpo-

²⁶ Jenkins, “Indigenous Post-Secondary Institutions in Canada and the U.S.,” 11.

²⁷ Funds actually released are often lower than what the formula dictates. In 2015, TCCUA funding was allocated at \$6,355 per student, though the formula figure was \$8,000. Additionally, on average, 16 percent of the student population at TCUs is not American Indian, leaving these students generally un-funded. See: Nelson and Frye (2016).



rated a tribal institution – Fond Du Lac Tribal and Community College – directly into its state community college system (in consequence Fond du Lac is both the country’s largest Tribal College, and the only one whose student population is not majority American Indian²⁸).

The American Indian Higher Education Consortium (AIHEC) represents 25 TCUs nationally, 24 of whom submit data to the Department of Education.²⁹ In total, these institutions enrolled 16,820 students in fall 2016, which is down substantially from 21,255 in fall 2010 (the cause of this decline in recorded enrolments would require further investigation). The average number of full-time students at TCUs is just under 500 FTEs, but institutions range in size from about 100 FTEs to just over 2000. The academic scope of these institutions varies significantly – some focus more on trades, others more on liberal arts; some focus on their own programming while others provide transfer credits towards degrees at other local institutions, and still others act as community delivery platforms for programs of other institutions. A few institutional profiles will provide a glimpse at the diversity of institutions which come under the AIHEC umbrella:

Navajo Technical University is a career and technical institution based in New Mexico which also possesses sites in Arizona. It is one of the oldest and largest TCUs, with nearly 1,700 students. Roughly two-thirds are seeking certificates (that is, credentials below the level of a two-year associate’s degree³⁰). Most of the rest are seeking associate’s degrees, with fewer than ten per cent seeking a four-year degree. Male students tend to be concentrated in the trades (Carpentry, Automotive Technology and Construction Technology) while female students tend to be in health/social service programs (pre-Nursing, Early Childhood Multicultural Education), though the Administrative Assistant program is also significant.

Fond du Lac Tribal and Community College, located in northern Minnesota is the only Tribal College which is part of a State system of education, as it is jointly chartered by the Fond Du Lac Band and the state. Initially, the college was set up mostly to teach Anishnaabe language courses – over time, it has come to have a varied set of associate’s degree programs, in areas such as nursing, education, social work, corrections, environmental science, business, art, and American Indian studies. In terms of enrolment it is the largest of the Tribal Colleges (over 2,200 in 2015-16); however, its student body is no longer majority-American Indian.

Cankdeska Cicana Community College is a small Tribal College (enrollment under 200) located on the Spirit Reserve in North Dakota. It provides some certificates courses in the trades, but is mostly focussed on providing associate’s degree-level training in the Arts and Sciences. The college has a general credit transfer agreement with the North Dakota University System which allows graduates to take their credits from an associate’s degree and apply it to further study at one of the state’s six universities or five community colleges.

²⁸ In this report we use the term “American Indian” following the language of the American Indian Higher Education Consortium, the representative body of TCUs in the United States.

²⁹ Nelson and Frye reported in 2016 that there were 37 TCUs in total in the US.

³⁰ Associate’s degrees are two-year PSE credentials in the United States similar, but not identical to Canadian college diplomas. Associate’s degrees often transfer more readily as the first two years of bachelor’s studies than do Canadian college diplomas and are frequently less vocationally specific than Canadian college diplomas.



Stone Child Community College. One of seven TCUs in Montana, Stone Child began with the dual aim of preserving Chippewa-Cree language and culture, and of providing Chippewa with basic education and job training. Unlike some TCUs, Stone Child does not offer trades and vocational certificates, preferring to concentrate instead in associate's degrees in the Arts, Science, Business and Human Services. It has an enrolment of just under 500 students.

The diverse institutional profile of AIHEC member institutions is illustrated well by these select profiles. TCUs are generally small institutions – mostly under 1000 students. The education and training they provide is primarily at an associate's degree level, not a bachelor's degree level, though in many instances, they deliver credits could be applied towards study at a bachelor's level credential at partner institutions. They also in some cases provide trades certificate programming. In the Canadian context, what this means is that they are mostly providing college-level education. The fields of study are reasonably comprehensive across Arts, basic sciences (mainly in fields related to environment and agriculture) and human services. The preservation of language and culture were very important drivers in the creation of these institutions. We will return to a discussion of expenditures per-student at AIHEC members institutions which forms an important basis for our costing model in the "Cost Drivers of Post-Secondary Education" section of this report.

New Zealand/Aotearoa's Wānangas

The Maori journey in higher education was similar to the TCU experience in that it involved creating separate institutions and only later seeking government recognition. This story similarly has parallels in the First Nations experience in Canada. The result, in the Maori case, was a class of institutions called "Wānangas" (a term that roughly equates with "knowledge").

The first Wānangas were created in the mid-to-late 1980s, as part of a linguistic and cultural renaissance among the Maori people of New Zealand/Aotearoa. Like their North American counterparts, these institutions were financially precarious for quite some time. However, in the late 1980s, the *Education Act* was written by a pro-free-market Labour government which was both interested in restoring the spirit of the Treaty of Waitangi and in breaking the monopolies of certain public service providers. These two ideas converged in the notion of creating a "fourth order" of public PSE institution, alongside universities, polytechnics, and private institutions. This change secured Wānangas permanent annual funding but not access to grants for capital. An appeal regarding the lack of capital funding to the Waitangi tribunal - the body which adjudicates disputes regarding the implementation of the Treaty of Waitangi - on grounds of discrimination was successful though it was traded in part by the Wānangas for a more advantageous per-student funding formula.

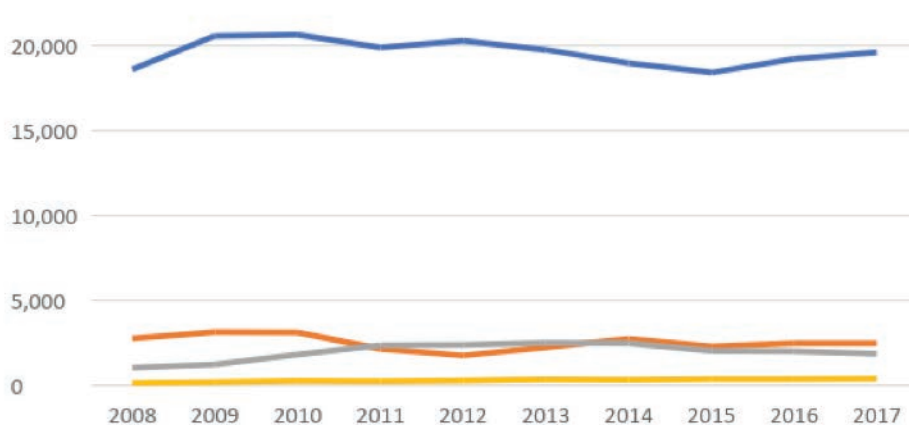


The very first Wānanga (Te Wānanga o Raukawa) was and is located in the town of Otaki, north of Wellington. From the beginning, it focused mostly on language and culture, and had relatively small enrolments (it is still today the smallest of the three Wānangas, with just over 1,600 FTEs, though a headcount of over 4,000). It has kept this focus to the present day, with programs in Maori language, history, culture/art/performance, with a small amount of human services with a Maori focus (e.g. social work, sport, wellbeing).

The second institution, Te Whare Wānanga O Awanuiarangi (2,500 FTE students, headcount over 7,000), is located east of Auckland in a small town called Whakatane, and has a similar profile, albeit with more of a focus on preparing teachers through its bachelor of education programs. Both of these two institutions have roughly 25% of their students enrolled in bachelor's programs, with the remainder in shorter diploma and certificate programs.

The third Wānanga is by some distance the largest: Te Wānanga o Aotearoa (TWOA). Like the others, it began teaching mainly Maori arts, but once public funding became available it switched strategies and began focussing much more on labour-market oriented courses, especially short-term certificates, particularly in information and communication technology, tourism, and trades. By taking advantage of a funding formula which (at the time) paid institutions on a per student basis with no cap, this Wānanga took an extremely entrepreneurial approach and went from having 1,000 students in 1998 to having 65,000 students in 2002 (in 2016 it had the equivalent of 20,000 FTEs). Among these were many non-Maori students, including many immigrants, and as of last year, 40% of TWOA students were "Pakeha" (i.e. New Zealand European). The scope of courses widened, as well, and community delivery was a major component of its appeal. Though based in Auckland, TWOA has campuses around the country. Unlike the other two Wānangas, it is much less focussed on bachelor's level education, with only 5% of students taking university-level courses. Figure 1 outlines the overall credential mix at Wānangas.

Figure 1: Enrolments at New Zealand/Aotearoa's Wānangas by Credential Type, 2008-2017



Note: Certificates 1-4 are essentially one-term courses. Certificates 5-6 build on coursework at the 1-4 levels, as do Diplomas at levels 5-7: these programs are at least a year each. Bachelor's degrees typically take three years. Source: New Zealand Ministry of Education. "Education Counts".



Wānangas and TCUs in the US are similar in that the vast majority of their programming is delivered at what in Canada is called the college level, though the average length of programs is somewhat longer in the US than in New Zealand/Aotearoa. Indigenous PSE institutions in both countries provide some support for studies at the bachelor's level, as well as some support in the Trades, and for post-graduate studies. TCUs are somewhat heavier on science/agricultural programming than their New Zealand counterparts. Where they differ primarily is in size and organization. TCUs are for the most part linked geographically to single tribes, and so have very small catchment areas. This results in higher per-student costs. Wānangas, on the other hand, are much larger; the largest, Te Wānanga o Aotearoa, is effectively a single national institution, offering courses in all parts of the country. This permits them to reap economies of scale and operate at much lower per-student operating costs. We return to this discussion of the effect of size on costs, including the per-student costs of Wānangas and TCUs in particular, in the following section.

Cost Drivers of Post-Secondary Education

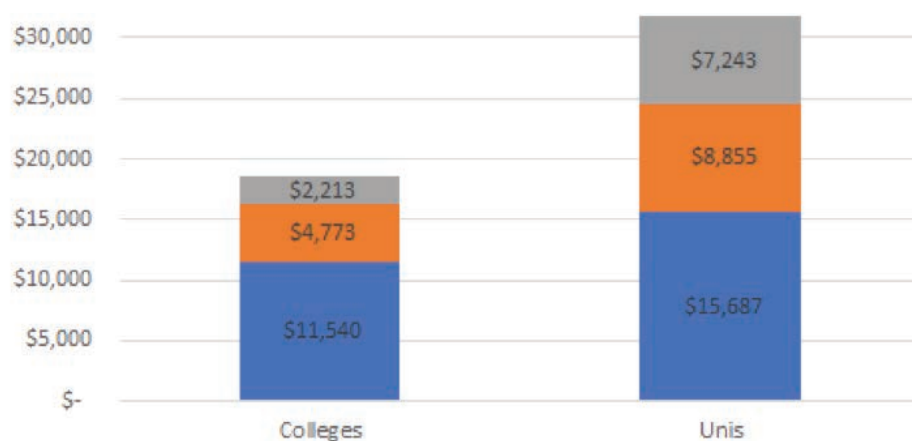
Institutional cost-structures vary enormously around the world. This in part has to do with cost-drivers: some programs cost more than others because of material reasons, academics are paid differently in different parts of the world, education benefits from economies of scale, in that it is cheaper to teach in large urban institutions than it is in small, rural institutions, etc. But it also has to do with resources because higher education structures can be tailored to fit very different available budgets. Across the world's rich economies (defined here as members of the Organization for Economic Co-operation and Development), average per-student expenditures on post-secondary education can vary from under US\$10,000 (C\$12,000) per student to over US\$25,000 (C\$30,000) per student. For comparison, Canadian colleges expenditures are about C\$18,500 per student and Canadian universities about C\$32,000 – see Figure 2.³¹

Post-secondary institutions around the world with significantly different levels of expenditure produce credentials which are considered roughly comparable. Classes may be larger in some institutions than in others, grounds and facilities may be less extensive, research agendas may be more modest and student services less comprehensive: but in the end they all hand out credentials of similar value. As a result, there is no single formula that can be applied to answer the question “how much will a post-secondary institution cost?” In practice, institutions are engaged in working with available budgets and designing their institutions to do the most with whatever resources are available.

³¹ It is important to note that there is often some discrepancy between Statistics Canada's and PSE institutions' own per-FTE cost figures. We will discuss this further in the context of Statistics Canada per-student college cost data.



Figure 2: Average Expenditure and Funding Sources at Canadian Colleges and Universities per FTE, 2015-16



Source: Statistics Canada, FIUC and FINCOL Surveys

We know that stable sources of financial resources are a requirement and within the context of Anglophone countries generally and Canada specifically, it is possible to look at the range of budgets within which different types of institutions work, and examine how cost-bases differ across institutions and why. Effectively, it comes down to six factors:

- I. Research Mission
- II. Program Offerings
- III. Student Services
- IV. Facilities and Amenities
- V. Institutional Size
- VI. Rural/Remote Status

In the case of First Nations Institutes, as a foundation to and embedded within this list are the interrelated, unique cost elements that we have previously discussed: language and culture, student support (in a First Nations context), and community engagement and pathways (life-long learning).

Research Mission

Institutions with research missions cost more than ones that do not. This is partly because research tends to have costs attached to it in terms of materials, laboratories, etc., but also because professors at research-intensive institutions teach less to enable time for research, and therefore institutions focused on research require more instructors to teach the same number of students



as a less research-intensive institution. For cost reasons, this mostly involves hiring sessional or adjunct staff, at lower expense than full-time tenured staff, but even so it still represents an additional cost to the institution. Research missions also tend to raise costs by increasing the number of non-academic staff required. In some respects, “research mission” can simply be seen as short hand for “teaching load”. Institutions whose faculty teach more hours have reduced budget pressures relative to institutions whose faculty teach less, holding salaries constant.

This overall dynamic assumes that a full-time academic faculty is in place. Among the First Nations Institutes we profiled, this is the case for FNUC, but not currently for SNP and RCCC, though their visions for growth include an increased research capacity and permanent faculty.

The First Nations Institutes we profiled also discussed institutionally-led research and development efforts focused on defining and bringing their unique approach to PSE to full expression. For example, program and pedagogical development in a language and cultural context, cultural standards development, and establishing research ethics frameworks. We will discuss such First Nations PSE research and development activities further within the costing model.

Program Offerings

A number of program-related factors affect institutional costs. The most inexpensive programs to deliver are those which mostly involve classroom instruction. Programs which involve some kind of handling of materials in a dedicated space (e.g. trades or technical programs in colleges, or laboratory programs in universities) are somewhat more expensive, while programs that involve clinical placement such as medical, dental or veterinary programs are the most expensive. The level of the course matters as well: graduate courses tend to cost more than undergraduate ones because the supervision burden is higher (see also: “Size”, below).

Institutions typically do not publish their costs on a per-program basis, which makes it difficult to determine the exact ratio of costs between different program types. We can develop a rough idea of costs by looking at funding formulae, which provide differential amounts of money to institutions based on students’ field of study. Such funding formulae are widely used in PSE internationally, though less so in Canada, where only Ontario, Quebec, Nova Scotia and Saskatchewan have formula-driven PSE funding systems. The program weights within funding formulae should only be considered rough approximations of the actual relative cost of different program types for two central reasons: First, once PSE institutions receive funding from government, they can generally divide up funds internally more or less how it suits them: they are not required to spend money on the specific programs for which it was allocated. Second, governments use formulae as incentive mechanisms as well as compensation mechanisms, and may “overpay” in some fields in order to incentivize institutions to enrol more students in a given area. Still, for indicative purposes, it is worthwhile looking at these structures, which we will rely on for our costing model.



For universities, table 1 shows the main weightings for programs in Ontario. A program with a weighting of 1 receives 1 “basic income unit” (currently worth about \$5,400 per year) per student. A program with a weighting of 2 would therefore receive \$10,800, and so on. Most programs fit into one of the four categories noted below. A small number of programs have their own individual custom weighting. Weightings for graduate students vary, but as a general rule a graduate student is funded at 50% more than an undergraduate student. A quick glance confirms that classroom-based programming is funded at the lowest level, while programs involving laboratory work and clinical placement are funded at higher levels.

Program Weightings for Ontario Universities

Weight	Programs
1.0	Theology, First year arts and science at most universities, Journalism
1.5	Upper year arts/science, business, Fine Arts, law, Public Administration, Social Work, first year Engineering
2.0	Agriculture, Architecture, Nursing, most Education programs, Public Health, upper-year Engineering
5.0	Dentistry, Medicine, Veterinary Medicine

Manitoba college system recommended a set of weights for college programs based on an analysis of several dozen program cost reports from around the college system. It recommended a 4-weight system, with business programs set at 1.0, health and human service programs at 1.5, trades programs at 1.75 and technology programs at 2.0.³² This suggests a similar dynamic at work as in universities, though cost variation is less extensive.

Student Services

Different levels of student services can introduce some cost variation, though in a mainstream institutional context it is usually not very large. At Canadian universities and colleges, student services tend to run at about 10% of total expenses (more at smaller institutions – see below: “Size”). Having a more or less extensive system of student services generally only raises costs by 2-3% in total. At a mid-sized university (15,000 students) that would mean extra costs of about \$1,000 per student; at a college, where per-student expenditures tend to be more modest, it would probably mean more like \$600 per student. However, the per-student costs may be much more significant at smaller institutions. If we imagine an institution of 500 students, then hiring extra staff members to help with student services – counsellors perhaps – could be quite

³² Pelletier and Usher, Alex, “Government of Manitoba: Manitoba College Review (System-Wide Report).”



expensive. At \$85,000 per staff member (including benefits), simply hiring two staff raises costs by \$340 per student. As we have discussed, First Nations Institutes have unique student support costs and the fact that First Nations Institutes tend to be small could make this factor more significant.

Facilities and Amenities

The quantity and quality of an institution's facilities and amenities are obvious cost-drivers. In the United States, much has been written about the ways in which the competition for students and faculty has driven institutions to invest in ever-more expensive buildings with more amenities, which in turn has had a great effect on institutional cost structures. It is not merely the cost of construction which drives per-student cost, though this is not trivial; it is perhaps more importantly meeting operating costs which can be challenging. On average at Canadian universities and colleges, expenditures per student on physical plant is between \$2,000 and \$2,500.

Size

Size drives costs in two ways. First, additional students cost money to educate, so each additional student adds to overall cost. But there are also a great number of fixed costs at universities and colleges, so the marginal amount required to educate each new student tends to fall as institutional size increases.

At very small institutions the biggest fixed costs are those involved in hiring. An institution needs a minimum number of academic and non-academic staff to function, regardless of the number of students. It needs a president, a finance/operations manager, someone in charge of recruitment/marketing, as well as enough staff to teach a range of courses. These functions do not change appreciably from an institution with 100 students to one with 500 students: but in the latter case, costs can be split among five times more students. To take just one simple example: a college President paid \$200,000 per year is being paid \$1,000 per student at an institution with 200 students, but just \$100 per student at one with 2,000 students. Replicate this example a number of times with some standard positions and one quickly sees how having small numbers of student can drive per-student expenditures upward.

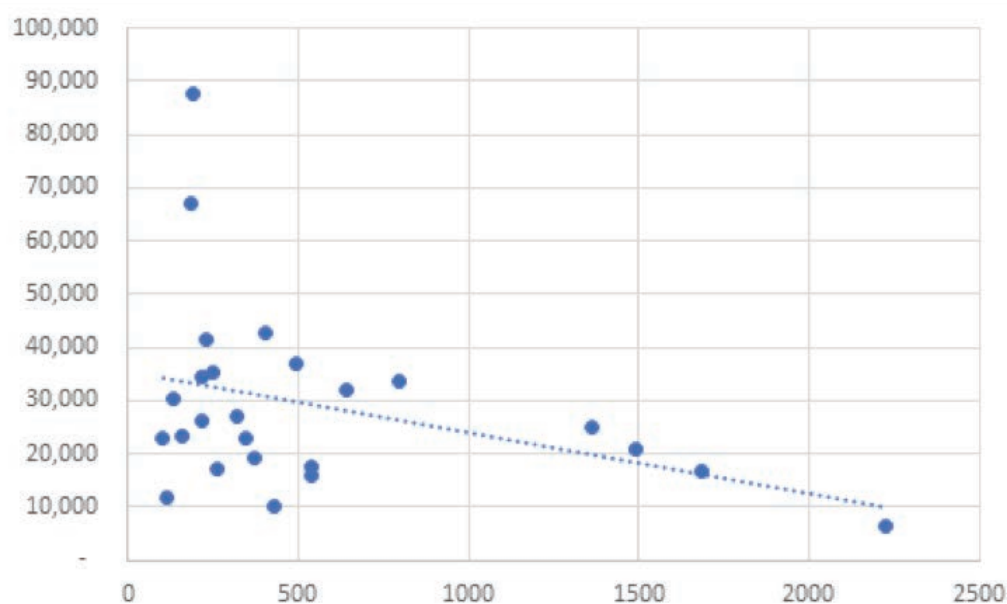
To illustrate this, figure 3 shows the total expenditures per student, in US dollars, at the 25 US TCUs for which both cost and enrolment data is available for 2014-2015. Note also that because these figures represents total expenditures rather than just operational ones, the figures may include ancillary enterprises that play a role in student support, such as daycares.

What figure 3 shows is that at very low levels of enrolment (i.e. below 500 students), the cost per student varies widely, from \$10,000 per student to almost \$90,000 per student, with an average of somewhere near \$30,000 (based on analysis of institutional annual reports, it seems as though the very highest cases here are always one-time anomalies due to construction costs; operating



costs seem to top out at \$40,000 per student). However, as enrolments increase to 1,500 or 2,000 students, the operating expenditures fall to \$20,000 or even \$10,000 per student— closer to the level seen at New Zealand/Aotearoa Wānangas (see below).

Figure 3: Total Expenditures per Student as a Function of FTE enrolment, US Tribal Colleges and Universities, 2014-2015



Source: US Department of Education, Integrated Post-Secondary Education Data Survey

In New Zealand/Aotearoa, Wānangas benefit from stable operating funding; however, the funding in New Zealand/Aotearoa is substantially less generous than that available in the US on a per-student basis, and on average Wānanga operate on funding which is about a quarter of that available to TCUs in the US. In 2017, total expenditures per student at Te Whare Wānanga O Awanuiarangi was NZ\$11,558, at Te Wānanga o Raukawa it was NZ\$8,447 and at Te Wānanga o Aotearoa (by large measure, the largest Wānanga) it was only NZ\$7,624. But this is where economies of scale can enable institutions to do much more with lower per-student funding. With much larger student bodies over which to spread costs, Wānangas are strong institutions and international models in Indigenous PSE, even at these relatively low levels of expenditure (especially in the case of Te Wānanga o Aotearoa).

Another illustration of the effects of size and economies of scale, which includes mainstream system reference points, can be found in IAHLA's 2010 study, *Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits*. This IALHA study looked at one institution in particular that helps illustrate the point clearly. The Nicola Valley Institute of Technology (NVIT) is funded as part of the BC mainstream system, however, it has a mandate to



service Indigenous students and 80% of its students were Indigenous for the 2008-09 academic year.³³ The IAHLA study found NVIT to have expenditures per FTE that were roughly double those of mainstream comparator colleges in BC that also serve rural areas, noting that “NVIT’s higher expenditures per FTE ratio is likely due to economies of scale—NVIT had 384 full-time student equivalents in 2008-09, as compared to the other four comparative institutions which ranged from 1,934 to 2,535 FTEs”³⁴. NVIT’s 2008-09 per-FTE cost of \$28,430 at 384 FTEs (\$32,982 in 2018 Canadian dollars) would place it squarely within the size-cost relationship observable for TCUs in the US in Figure 3.³⁵

Table 2 contains enrolment and per-student cost data presented in the IAHLA study in 2008-09 Canadian dollars. As we noted earlier in this report, IAHLA described how First Nations Institutes profiled had per-student expenditures roughly equivalent to comparator institutions in the mainstream system, but were still significantly underfunded. Unlike the other First Nations Institutes IAHLA profiled, NVIT is funded from within a public system that is more adequately aligning funding to an approximation of operational requirements. The First Nations Institutes in Table 2 that fall outside a public framework approximating funding to operational requirement, can have both per-FTE expenditures more equivalent to far-larger mainstream institutions and simultaneously struggle at current expenditure levels.³⁶

Table 2: Selected Data from Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits

Aboriginal-Controlled Case Study Institutions (2008/2009)	Students*	Expenditure per student
Chemainus Native College	28	\$ 10,466
Heiltsuk College	42	\$ 14,754
En’owkin Centre	91	\$ 16,272
Comparative BC Public Post-Secondary Institutions (2008/2009)	FTEs	Expenditure per FTE
Nicola Valley Institute of Technology	384	\$ 28,430
College of the Rockies (COTR)	2,273	\$ 14,270
Selkirk College	2,535	\$ 17,360
Northwest Community College (NWCC)	1,934	\$ 16,400
North Island College (NIC)	2,235	\$ 15,670

Student numbers are not necessarily consistent with the definition of full-time equivalent (FTE) used by BC.
 Source: IAHLA (2010). *Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits*.

³³ IAHLA - Juniper Consulting, “Aboriginal-Controlled Post-Secondary Institutes in British Columbia: Issues, Costs and Benefits,” 35.

³⁴ IAHLA - Juniper Consulting, 45.

³⁵ First Nations University of Canada, for which we calculated a per-FTE cost of \$23,700 with 897 FTEs, would sit close to the trend line in Figure 3 as well.

³⁶ Table 2 contains un-inflation adjusted 2008-09 dollar figures. Note that NVIT now has 579 FTEs (2017-18). Since 2008-09, NVIT has roughly tripled in-community delivery of programming, in BC and beyond. In BC, many IAHLA member institutions are in-community delivery partners. 21% of NVIT FTEs currently represent programming delivered in community.



In the US, TCUs are often small because they are designed to meet very local needs for small communities. This landscape in the US aligns broadly with First Nations Institutes in Canada. This is very different than New Zealand/Aotearoa, where the Maori/Pasifika population is 900,000 living in a relatively concentrated area (Auckland alone has a Maori/Pasifika population of 200,000). In New Zealand/Aotearoa, it is notable that the number of Wānanga is limited and their priorities specialized. Thus, a single institution does the bulk of the labour market-oriented training and does so for the most part by distributed, community-based learning across the country from a single main campus in Auckland. This allows the Wānangas to educate many more Maori/Pasifika students than they otherwise could by benefiting from economics of scale. Such an approach would be difficult to imagine in Canada, with its very different geographic, political and cultural landscape, and diversity of nations; but the benefits of scale to reducing cost and increasing efficiency can be taken into consideration in future planning for First Nations Institutes in Canada as well, if not through a small number of large institutions, than through consideration of methods of shared resourcing and collaboration.

Rural/Remoteness

The other major factor which affects costs is what might be called the rural/remote factor: campuses which serve small towns or have wide rural/remote catchment areas tend to have much higher per-student costs than those which serve large urban centres. To a significant degree, this is a function of size/economies of scale, but that is not the only factor at play. Three other sets of costs, on top of simple economies of scale, may come into play. First, the students these institutions attract tend to be less prepared than students from more urban areas, which then raises costs related to student support and academic upgrading. Many First Nations Institutes in particular have to address the support needs of students entering PSE from remote communities with inadequately resourced K-12 education systems. Second, to the extent these institutions choose or are required to support satellite campuses, their per-student costs will increase. Though community-based teaching can be a relatively inexpensive way to provide services in rural/remote areas, to the extent they are accompanied by expensive communications technology or rely on expensive purpose-built physical facilities and infrastructure to deliver, costs will rise.³⁷ Third, institutions located in remote areas, particularly in the North, usually find it necessary to pay a premium to attract staff. All of these factors accentuate the problem of economies of scale. In a First Nations institutional context, we have discussed how serving large, remote catchment areas can increase community engagement and student support costs as well.

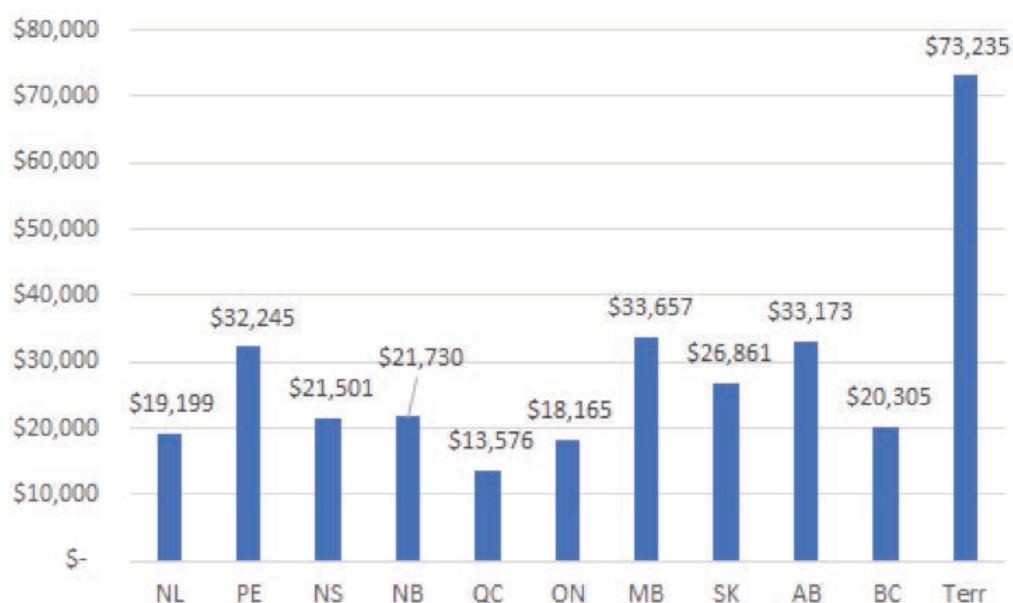
The effects of remoteness in particular are strongly illustrated by an examination of expenditure per-student at colleges across Canadian jurisdictions, as shown in Figure 3. By a far measure, the college systems that are most expensive to operate are located in the three territories. Each college in the territories is responsible for teaching roughly 1,000 students. These institutions reach small populations distributed over vast territories by operating numerous delivery sites. Yukon College delivers programming across 13 campuses. Aurora College has three campuses

³⁷ In Manitoba, for instance, costs increased significantly when University College of the North built a second campus in Thompson without any real increase in enrolments.



and eight community learning centres. Nunavut Arctic College has five campuses and 25 community learning centres. The structural costs for First Nations Institutes in terms of institutional size and rural/remoteness may in some cases make them more akin to institutions in the territories.

Figure 3: Average College Expenditures Per FTE Student, 2015-16



Source: Statistics Canada, FINCOL survey

The average FTE costs presented in figure 3 are in some cases driven up by institutions with particularly high cost structures. It should also be noted that Statistics Canada FTE cost figures can at times skew higher than what institutions themselves report, particularly in the case of colleges. This is because while expenditure figures are generally complete, the student numbers used in Statistics Canada calculations can be based on one-time counts, which in the context of colleges, do not capture the rotation of a larger number of students in shorter courses of study at other times of the year.

Modelling Cost Per Student at First Nations Institutes

The foregoing has demonstrated that there can be no simple, reliable, accurate and nationally consistent per-student cost for post-secondary institutions. Costs can, however, be estimated in different institutional contexts. Of the six areas described above in the “Cost Drivers of Post-Secondary Education” section, the four most influential on overall institutional cost are: research mission, program offerings, size, and rural/remote status. Utilizing these four variables, with



consideration of unique cost elements for First Nations Institutes as a foundation, we can develop a high-level costing model for estimating per-FTE cost for First Nations Institutes. In this section, we present the costing model and develop structural scenarios for First Nations Institutes.

Initial Formula Input. To begin a costing estimation exercise, we must first choose an initial formula input, a dollar figure to which we can add additional cost based on varying institutional conditions. From the analysis in this report, the cost structure seen in New Zealand/Aotearoa's largest Wānanga – that is, about \$8,000 per FTE – appears to be, internationally, the floor in terms of cost for delivery of PSE by Indigenous Institutions. In order to derive an initial formula input, and in consideration of the unique cost factors for First Nations Institutes that we have identified as embedded across institutional activities – language and cultural costs, student support in a First Nations context, and community engagement and pathways (lifelong learning) – we add \$2,500 per FTE to this \$8,000 figure for an **initial formula input of \$10,500 per FTE.**

As we have noted, unique cost factors for First Nations Institutes can vary across institutional contexts and many First Nations Institutes themselves are presently undertaking intensive work to define and bring their unique approach to PSE to full expression (a reality reflected in this costing model). We believe that this initial formula input supports a costing model that derives credible cost estimates for First Nations Institutes in context of the breadth of unique activities they must undertake to fulfill their distinct mandates (See “Unique Cost Elements” section and “Cost Drivers” section). A more refined consideration of unique cost elements for First Nations Institutes could be developed, allowing for greater inter-institutional diversity in cost modelling, based on broader engagement with First Nations Institutes and as institutional approaches themselves further develop.

It is important to state that we do not believe that any likely structure for a First Nations Institute in Canada could operate on \$10,500 per FTE. This is the starting point for a formula, the outputs of which should be the point of focus. As will be demonstrated, the costing model is based on compounding factors, meaning that this initial formula input and the consideration of unique cost elements for First Nations contained within it are multiplied as other institutional conditions are considered.

Research Mission. As we have discussed, in addition to material costs, research missions generally raise costs by decreasing the time spent by core academic staff in teaching (necessitating more academic staff) and also increasing requirements for non-academic support staff. Such structures are common to universities. Some First Nations Institutes may eventually envision such independent faculty-driven research cost structures. First Nations University of Canada is a current example. There are many factors that affect the cost of being more research intensive, but we would project that a research approach more akin to a university (but excluding some lab-based research in hard sciences) would raise per-student costs by 20%, or a cost factor of 1.2.



Through the process of developing this report, we have identified another form of research mission which could be described broadly as *First Nations PSE Research and Development*. This is a form of institutionally-led R&D activity that many First Nations Institutes are presently undertaking. It is diverse in scope, but fundamentally about building and planning for the future of First Nations PSE. Activities within this area include: curriculum and program development, cultural standards development, partnership building (e.g. employers, mainstream institutions, reconciliation initiatives), accreditation and program quality assurance process development, establishing community research ethics frameworks, development of pathways programming (K-12/Adult Education linkages), development of language programs (including immersion), and designing approaches to land-based learning. In summary, these activities are about defining institutional missions, working with communities and partners, and setting foundations for expanded delivery of PSE as part of a broader project of capacity building and cultural revitalization. These activities are likely to continue for a significant period of time for many First Nations Institutes as they build their roles, taking time away from teaching for academic staff and necessitating other resources. We would foresee a First Nations PSE Research and Development focus raising per-student cost by 10%, or a cost factor of 1.1.

Table 3: Model Weights for Research Mission

Research Approach	Cost Factor
No Research Function	1.0
First Nations PSE Research and Development	1.1
Faculty-Driven (university-type model)	1.2

Program offerings. Based on our analysis of program weighting approaches, including in the Ontario university systems and recent recommendations for the Manitoba college system, we adopt the following set of assumptions: To the extent that institutions are teaching classroom-based subjects (e.g. social sciences), their per-student costs would not increase as a result of program subject matter (cost factor: 1.0). Health and human service programs and trades programs would be set at a cost factor of 1.6, and science and technology programs at 2.0.

Table 4: Model Weights for Program Offerings

Subject Category	Cost Factor
Classroom-based programs	1.0
Health, Human Services and Trades	1.6
Science and Technology	2.0



These factors would be applied to the breadth of the institution's programming to derive the appropriate institutional weight. For example, assuming an institution had a mix of 25% classroom-based programs, 50% health, human services and trades programs, and 25% science and technology programs, then the blended, weighted cost factor for institutional program offerings would be 1.55.

Size. This is a challenging element to model because it is not purely institutional size which matters but also the breadth of program offerings in context of size: an institution of under 100 students with only one or two programs will be significantly less costly to operate than an institution of similar size delivering five or ten programs. However, our assumption, based on evidence from New Zealand/Aotearoa, is that moving from an institution teaching several thousand students to one teaching around two thousand students would tend to increase per-student costs by about 15%. Based on evidence from the United States, with which our more limited data for First Nations Institutes in Canada aligns, we project that falling below 1,000 students probably raises per-student costs by another 40%, and going below 500 probably increases costs by another 40%. Based on these cumulative percentage increases, we outline size cost factors below.

Table 5: Model Weights for Institutional Size

Size Category (FTEs)	Cost Factor	Per-Student Cost Increase
More than 2,000	1.0	+ 0%
Less than 2,000	1.15	+ 15%
Less than 1,000	1.61	+ Additional 40%
Less than 500	2.25	+ Additional 40%

Note that this approach is based on institutions having a relative breadth of programs. As discussed, institutions which offer fewer programs to smaller student populations would be less expensive to operate and would not see cost factor increases equivalent to what we have modelled here. Additionally, it should be noted that while we have made hard distinctions between size categories of institutions in order to assign cost factors, the impact of size lies along a continuum. As a result, this model should not be read to suggest that an institution with 510 FTEs would have a radically different cost structure than an institution with 490 FTEs, or that an institution with 1,100 FTEs is in precisely the same boat as an institution with 1,900.

Rurality/Remoteness. To the extent that an institution is mostly operating in locations which are readily accessible by car from urban centres of 100,000 people or more, no extra rural/remote costs will likely be incurred. Extra costs are incurred through the operation of multiple campuses across broad areas and from the cost of delivering courses in fly-in communities (recall the learning centres operated by colleges in the territories). Judging by the experience in the three territories, we would suggest that operating in a rural/remote context without highway access to urban centres results in additional cost factor of 2.0.



Table 6: Model Weight for Rurality/Remoteness

Remote Status	Cost Factor
Not Remote	1.0
Remote	2.0

Rurality/Remoteness is an area of this model that could benefit from further refinement. We are aware that this variable is not an on/off switch and that First Nations are engaged in work to express varying levels of rurality/remoteness for communities.

Four Institutional Scenarios

Based on the above cost factors, below we present institutional scenarios considering different potential structural conditions for First Nations Institutes. These scenarios are presented on a per-FTE basis. To derive these per FTE cost figures, relevant cost factors, drawn from the array presented above, are applied cumulatively to the initial formula input of \$10,500. The four scenarios presented below are four outputs of this costing model. In the discussion of these scenarios, we will outline how adjustment of cost factors underlying the scenarios can be used to consider the effects of differing structural conditions.

SCENARIO 1: Larger, Blended Programming, Research-Intensive

In this scenario we consider an institution with 1,200 FTEs that has a blend of programming and that features faculty-driven (university type) approach to research. The institution is located within easy driving access of major centres and may feature other campuses in addition to a central campus site. The greatest percentage of its programs are in health and human services (45%), following by classroom-based subjects (30%), and science and technology (25%). As a function of its size, it would likely attract students from a large number of communities and the student population likely includes some proportion of non-First Nations students. Of current First Nations Institutes, this scenario institution is most reflective of FNUC.

This institution features i) faculty driven research (cost factor: 1.2), ii) a 30-45-25 split between regular classroom courses, health/human services courses, and science/technology programs (cost factor 1.52) and iii) enrolment below 2,000 (cost factor: 1.15) and iv) is on a highway with access to an urban centre (cost factor: 1.0).

Per FTE cost is calculated as follows: \$10,500 * 1.2 * 1.52 * 1.15 * 1.0 = \$22,025 per FTE.



Table 7: Institution Scenario One

Element	Cost Factor	Per-FTE Cost Increasing from Input \$10,500 by Cost Factors
Research	1.2	\$12,600
Program Mix	1.52	\$19,152
Size	1.15	\$22,025
Remote Status	1.0	\$22,025 FTE COST

The effect of size can be demonstrated by imagining this institution growing to above 2,000 FTEs. This would result in the reduction of the size cost factor from 1.15 to 1.0, yielding a per-FTE cost of \$19,152 achieved through greater economies of scale.

SCENARIO 2: Medium, Trades Focus

In this scenario we consider an institution with 650 FTEs that is exclusively focused on trades training. This institution is not currently undertaking extensive First Nations PSE research and development activities, though it is exploring expanded ways to partner on bringing language into the curriculum in partnership with other First Nations Institutes that have a larger curriculum R&D focus in this area. It is located within driving distance of major centres and sites of significant trades-intensive employment. Students/apprentices are attracted from a broad area and its scale has been achieved in part through union and employer partnerships.

This institution features i) no research functions (cost factor: 1.0), ii) an exclusive focus on trades (cost factor 1.6) and iii) enrolment below 1,000 (cost factor: 1.61) and iv) is on a highway with access to an urban centre (cost factor: 1.0).

Per FTE cost is calculated as follows: $\$10,500 * 1.0 * 1.6 * 1.61 * 1.0 = \$27,048$ per FTE.

Table 8: Institution Scenario Two

Element	Cost Factor	Per-FTE Cost Increasing from Input \$10,500 by Cost Factors
Research	1.0	\$10,500
Program Mix	1.6	\$16,800
Size	1.61	\$22,025
Remote Status	1.0	\$27,048 FTE COST



The effect of program mix can be demonstrated by imagining that this institution delivered 20% of its programming in science and technology (instead of 100% in trades). This would result in a program cost factor of 1.68 and overall FTE cost increase to \$28,400. By contrast, delivery of 20% of programming in classroom based subjects would result in a program cost factor of 1.48 and an overall FTE cost decrease to \$25,019.

SCENARIO 3: Smaller, Blended Programming, Focus on First Nations PSE Research and Development

In this scenario we consider an institution with 200 FTEs that has blended programming (a 30-50-20 split between regular classroom courses, health/human services courses, and science/technology programs). The institution has extensive First Nations PSE Research and Development functions with a focus on developing language immersion programming, cultural standards development, and quality assurance/accreditation in a First Nations context. It delivers programming at a main, on-reserve campus and at a second campus in a nearby urban centre. Students include local residents (on-reserve and in the nearby urban centre) as well as from some more distant communities who have come to the institution for their PSE studies. With variation in FTE counts and programming blend, the structure of this institution as described is broadly reflective of the trajectory of SNP and RCCC.

This institution features i) extensive First Nations PSE Research and Development Functions (cost factor: 1.1), ii) a 30-50-20 programming blend (cost factor 1.5) and iii) enrolment below 500 (cost factor: 2.25) and iv) is on a highway with access to an urban centre (cost factor: 1.0).

Per FTE cost is calculated as follows: $\$10,500 * 1.1 * 1.5 * 2.25 * 1.0 = \$38,981$ per FTE.

Table 9: Model Institution Three

Element	Cost Factor	Per-FTE Cost Increasing from Input \$10,500 by Cost Factors
Research	1.1	\$11,550
Program Mix	1.5	\$17,325
Size	2.25	\$38,981
Remote Status	1.0	\$38,981 FTE COST



With a multiplying size cost factor of 2.25, changes to program mix would have significant impact on projected FTE cost for this institution. For example, moving to a program mix with a 50-50 split between classroom based subjects & health, human services and trades would change the program cost factor to 1.3, causing projected FTE cost to decrease to \$33,784. Likewise, moving to a 50-50 split between health, human services and trades & science and technology would increase the program cost factor to 1.8, resulting in a projected FTE cost of \$46,778.

SCENARIO 4: Smaller, Classroom-Based Subjects & Health, Human Services and Trades, Focus on First Nations PSE Research and Development, Remote

In this scenario we consider an institution with 300 FTEs that delivers a 50-50 split of programming between classroom-based subjects & health, human services and trades. The institution delivers programming across a large remote territory with many fly-in communities, operating multiple physical learning centres, in addition to a central campus located in a hub for the region. The institution has extensive First Nations PSE Research and Development functions with a focus on culturally-relevant training approaches for applied health fields, with a goal of building local, relevant health human resource capacity for the region. This requires development and inclusion of material in multiple languages in health program curricula.

This institution features i) extensive First Nations PSE Research and Development Functions (cost factor: 1.1), ii) a 50-50 programming split between classroom based subjects & health, human services and trades (cost factor 1.3) and iii) enrolment below 500 (cost factor: 2.25) and iv) maintains many learning centres over a remote physical geography (cost factor: 2.0).

Per FTE cost is calculated as follows: $\$10,500 * 1.1 * 1.3 * 2.25 * 2.0 = \$67,568$ per FTE.

Table 10: Model Institution Four

Element	Cost Factor	Per-FTE Cost Increasing from Input \$10,500 by Cost Factors
Research	1.1	\$11,550
Program Mix	1.3	\$15,015
Size	2.25	\$33,784
Remote Status	2.0	\$67,568 FTE COST



For this institution, remoteness is a central cost factor. Operation in a non-remote context would reduce projected per-FTE cost by half, to \$33,784. Changes increasing other cost factors would compound the projected effect of remoteness. For example, establishing a science and technology program base of 20% in context of remote delivery (and reducing the other program areas to 40% each) would increase the program cost factor to 1.44, resulting in a projected per FTE cost of \$74,844.

Assessing the Model

A key way in which the costing model should be assessed is through First Nations Institutes considering their own present and planned institutional structures through the model and determining the alignment of model outputs with their own understanding of institutional requirements.

We can also establish other approaches to assessment based on data utilized in this report. Below, we have produced a summary “cost reference point” for TCUs in the US that can be used to assess the costing model from one vantage point. This cost reference point for TCUs has been produced utilizing expenditure and FTE enrollment data for TCUs and increasing the figure proportionate to an assessment of federal under-funding, as represented by federal budget requests from AIHEC, the representative organization of TCUs in the US.³⁸ The resulting figure is an average per-FTE cost reference point for 23 US TCUs that accounts for budgetary requests from AIHEC for the 2019 fiscal year, presented in 2018 Canadian dollars.³⁹

Table 11: Weighted Average per-FTE Cost at 23 TCUs Applying Escalator for 2019 AIHEC Budget Request, CA\$ 2018

Per-FTE Cost	\$35,736
# TCUs in calculation	23
Average # FTEs at TCUs in calculation	491
FTE Count Range at TCUs in calculation	102 to 1,686

³⁸ American Indian Higher Education Consortium, “Tribal Colleges and Universities: 115th Congress Information Packet.”

³⁹ The following procedure was used to arrive at this cost reference point for TCUs in the US. First we removed the highest and lowest outlying per-FTE expenditure TCUs from the calculation (utilizing 23 of the 25 institutions for which we have data in 2014-15). We then produced an average per-FTE expenditure figure for the 23 institutions weighted by their FTE enrollment. Next, we analyzed AIHEC’s 2019 legislative priorities overview, which addresses 18 separate, legislatively authorized areas of federal expenditure for TCUs in the US. This legislative priorities overview similarly presents AIHEC-requested levels of federal funding for 2019, shown alongside enacted federal funding figures for the 2018 fiscal year. Our analysis of 2018 budget actuals and AIHEC’s 2019 budget request shows that AIHEC is requesting an overall 27% federal funding increase for 2019. We know that an average of 72% of TCUs’ total revenues are from “federal appropriates, grants, and contracts” (See Nelson and Frye, 2016). With this in mind, we apply a 27% escalator (accounting for AIHEC requests) to 72% of the average per-FTE expenditure figure for the 23 TCUs (accounting for the average portion of budgets from federal sources). This has the effect of increasing the per-FTE cost figure to account for an assessment of underfunding of the TCU sector, as represented by AIHEC’s budget submission. As we are using 2014-15 per-FTE cost data for TCUs, we converted this output to 2014 Canadian dollars, then applied a Canadian escalator for inflation between 2014 and 2018. The resulting figure is a cost reference point for US TCUs that accounts for budgetary requests from AIHEC for the 2019 fiscal year, presented in 2018 Canadian dollars.



The average FTE count for institutions included in this analysis of 23 TCUs is 491. Within our costing model, an institution with fewer than 500 FTEs that is not remote, that has significant First Nations PSE Research and Development Functions, and that has a 45-45-10 percent split between classroom-based programs, health, human services and trades programs & science and technology programs, would have a projected per-FTE cost of \$35,603, a figure quite close to the output of this analysis of cost for TCUs. Of course, adjustment to program mix could send this per-FTE cost figure up or down in our costing model. We present this case to demonstrate how one likely cost structure for a non-remote First Nations Institute based on our costing model aligns with an assessment of cost for TCUs in the US.

Limitations

The costing model presented in this report is intended to be used for high-level consideration of costs. It has been constructed based on observation and analysis of cost-precedents in the United States, New Zealand, and Canada and analysis and engagement with a selection of three First Nations Institutes in Canada. The model is designed as a tool to support further policy work regarding the cost of First Nations Institutes. It is not intended to make determinations with respect to operational needs of any specific existing or future First Nations Institute. More ground-up approaches to evaluating the needs and future trajectories of First Nations Institutes, such as the funding model consultation currently being implemented by the IIC in Ontario, can provide a greater breadth of data and perspectives drawn directly from a wider range of First Nations Institutes.

Within the presentation of the costing model, we have discussed limitations with respect to specific cost elements it utilizes:

- Unique cost elements for First Nations Institutes can vary across institutional contexts and many First Nations Institutes themselves are presently undertaking intensive work to define and bring their unique approach to PSE to full expression. We have accounted broadly for identified unique cost elements for First Nations Institutes principally in the size of the initial formula input and also in the cost factor for First Nations PSE Research and Development. There is scope to refine consideration of unique cost elements for First Nations Institutes based on more detailed engagement.
- With respect to size, while in the model we have made hard distinctions between size categories of institutions in order to assign cost factors, the impact of size lies along a continuum. As a result, the model should not be read to suggest that an institution with 510 FTEs would have a radically different cost structure than an institution with 490 FTEs, or that an institution with 1,100 FTEs is in precisely the same boat as an institution with 1,900.



- We have noted that Rurality/Remoteness is an area of the model that could benefit from further refinement. We are aware that this variable is not an on/off switch and that First Nations are engaged in work to express varying levels of rurality/remoteness for communities.

Discussion: Institutional Start-up Costs

This section considers start-up costs for new institutions. Start-up costs are significantly context-dependent. For instance, does the institution have suitable space already provided within an existing community facility, or is new construction required? If new construction is required, what are the overall costs of construction in the community generally? Is the institution truly a ground-up effort, or is it evolving from an existing program or partnership, with an existing student base and initial program or programs? Due to the high variability of start-up scenarios, we present this section as separate from the cost modelling, which assumes an established steady state of operation. We briefly consider operating start-up below, before turning to select precedents for institutional start-up capital.

Operating

New institutions generally do not attain their full, mature FTE count and as a result, full revenues, within their first years of operations. They must rely on some form of external support while they ramp up capacity.

One start-up model comes from the recent process of planning for a proposed French Language University in Ontario. The French Language University Planning Board considered many aspects of starting a new institution, including what the proposed university's financial needs would be before reaching a full projected FTE count within 10 years. The Planning Board's report outlined a staged approach in which funding begins prior to the arrival of students, noting that "it is anticipated that public investments will be required to support the institutional start-up and emergence of the university for an initial period of seven years"⁴⁰. In table 12 we analyze the French Language University Planning Board's 10-year revenue and FTE projections to demonstrate how revenue requirements are staged ahead of student population growth in the Planning Board's approach. Note that this analysis excludes start-up capital.

⁴⁰ French Language University Planning Board, "From Local Innovation to Global Excellence: Proposal for a French-Language University in Ontario," 99-100.



Table 12: Projected Revenues and FTE Count: French Language University Proposal

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Projected FTEs	0	0	348	630	883	1117	1356	1502	1675	1931
Projected Revenue Needs	\$12.5M	\$12.5M	\$25M	\$27M	\$29M	\$31M	\$30M	\$32M	\$36M	\$40M
Current Year Revenue as % of 10-Year Revenue Projection	31%	31%	63%	68%	73%	78%	75%	80%	90%	100%
Current year FTE Count as % of 10-Year Student FTE Projection	0%	0%	18%	33%	46%	58%	70%	78%	87%	100%

Source: Authors calculation from: *From Local Innovation to Global Excellence: Proposal for a French Language University in Ontario*. Fig. 5B.

Note: Revenue project excludes start-up capital

As demonstrated in table 12, the French Language University Planning Board estimated a need for 31% of the proposed university’s full projected revenues in the first two years of the institution’s start-up phase, prior to the arrival of any students. Revenues continue to ramp-up ahead of growth in student numbers until Year 8. At that time, the percentage of full projected revenues and FTEs begin to closely align.

This is just one model, but the principle holds that new institutions will need support to launch activities before students first arrived and that until a critical mass of students is achieved, funding will have to exceed what would be expected based on a mature FTE count. In the context of potential new First Nations Institutes, funded start-up periods would be important for activities such as curriculum development, accreditation and quality assurance, partnership building, and also activities vital to positioning the role of a new First Nations Institute within overall projects of community capacity building and cultural revitalization, discussed within the framework of costs for First Nations PSE Research and Development. Specific start-up provisions (expenditure levels, timelines) would likely need to be distinct in each case, but for modelling purposes, it would be possible to calculate “at-scale” institutional costs utilizing our costing model and then project what phased implementation would look like based on the French Language University Planning Board 10-year model, as presented in table 12.



Capital

Some institutions may begin in existing, rented spaces with minimal up-front cost, but many First Nations Institutes presently operate in unsuitable spaces that are not conducive to current programming and that cannot facilitate growth. Support for growth of existing First Nations Institutes and creation of new institutions will require capital investment. Capital costs for building are highly context dependent. Student numbers, programmatic focus and the availability of community amenities for students will all condition what is needed in a building, not to mention design choices. Construction costs also vary depending on location. Reference points for consideration of start-up capital costs are presented below.

The Innovation, Science and Economic Development Canada (ISED) Strategic Investment Fund (SIF) is providing capital funding to PSE institutions across Canada for projects under development between 2016-17 to 2018-19. This was a competitive time-limited program. All funds have been committed. Colleges and universities were eligible to have 50% of project costs covered by the program with a requirement to cover the remainder of costs from own-source revenues. However, “In cases where the Post-Secondary Institutions Strategic Investment Fund is supporting eligible projects at institutions accredited by an Aboriginal government, the total funding limit from federal sources will be up to one hundred percent (100%)”.⁴¹

Nine First Nations Institutes across Canada are currently undertaking SIF-supported capital projects. Of these nine projects, based on information from ISED, three are new-builds that will house a significant portion of institutional activities (and in one case, all):

- In Northern Ontario, Seven Generations Educational Institute is building the Centre for Advance Technology and Skills at a total project cost of \$8,681,659. “The Centre for Advanced Technology and Skills (CATS) at the Nanicost campus in Fort Frances will be a state of the art trades and technology facility replacing the aging buildings at the Nanicost complex. The CATS will allow Seven Generations Education Institute to integrate the Apprenticeship, Essential Skills, Trades Training, First Nation Student Success and Post-Secondary Programs in order to respond to emerging regional economic opportunities.”
- In Northern Ontario Shingwauk Kinomage Gamig is building the Anishinabek Discovery Centre at a total project cost of \$11,949,725. “A combined education, research and cultural centre, the Anishinabek Discovery Centre (ADC) will house a National Chiefs Library, a Training Centre of Excellence, interpretive teaching and cultural spaces, and state of the art event hosting facilities. Programs and services will support and enhance the ability of First Nations, Métis, and Inuit people in areas such as governance, community development, education, research and innovation, and commercialization opportunities, which positively impacts the Canadian economy.”

⁴¹ Innovation, Science and Economic Development Canada, “Post-Secondary Institutions Strategic Investment Fund.”



- In Central BC the Ts'zil Learning Centre is building a full replacement for its facilities at a total project cost of \$7,313,000. "This project will replace the outdated Ts'zil Learning Centre that currently resides in portable classroom trailers, with an energy efficient and culturally relevant post-secondary facility. The project will grant easier access to accredited post-secondary education and certified industry skills training for Aboriginal community members from Lil'wat Nation, N'quat'qua, Skatin, Samahmquam, Douglas/Tipella, and Whistler/Pemberton."

Though the three First Nations Institutes undertaking these new-builds have all been operational for some time – they are not start-ups – the breadth of activities that they intend to undertake within their new buildings makes these projects helpful cost reference points, though the full capital plans we are aware of at First Nations Institutes are more extensive. In "Growth Visions" under the First Nations Institutional Profiles section of this paper, we profiled SNP's and RCCC's visions for capital development to support their growth plans:

- SNP has outlined a phased capital plan over 10 years. The total cost of this phased plan is projected at roughly \$53 million.
- RCCC has outlined a phased capital plan with a total cost of \$41.5 million and an initial cost of \$14.1 million for core/central facilities.

As another reference point, FNUC's building was constructed at a cost of roughly \$35 million in 2002-03, but construction costs would be higher today.

The Planning Board for a French Language University in Ontario envisioned the proposed French Language University occupying 100,000 square feet in downtown Toronto leased within a new 350,000 square foot Francophone Hub of Knowledge and Innovation, requiring \$12 million in start-up capital. Notably, the cost presented is not for new construction, but for the cost of outfitting space for the university within the envisioned Francophone Hub, with the assumption that the far-higher costs for construction of the Hub would come be separately covered from outside an institutional budget.

As noted, the drivers of capital cost are highly variable, with regional construction costs and institutional needs being central factors. Notably, none of the above capital examples could be considered remote. Remoteness would be a significant driver of new-build cost. Additionally, transitional rental costs would be required for institutions operating prior to construction completion, with leasing costs and the availability of appropriate space being highly variable by community.



Conclusion and Regional Considerations

This study has presented a costing model based on observation and analysis of cost-precedents in the United States, New Zealand/Aotearoa, and Canada and analysis and engagement with a selection of three First Nations Institutes in Canada. What we have presented is a high level model designed as a tool to support further policy work regarding the cost and funding of First Nations Institutes. With noted limitations, we believe that it offers a grounded starting point from which to consider costs. We have outlined areas in which further work could improve the model's ability to present a range of cost scenarios for First Nations Institutes that reflect diverse institutional activities, contexts, and unique cost elements.

AFN Resolution 29/2018 envisions regional processes, as described in this report's introduction, that have as one central goal development of First Nations Institute funding models, supported by regional-level research and costing work. The costing model presented in this report can support envisioned regional research and costing efforts which can define at a greater level of specificity local costs and requirements. Based on the work contained herein, we suggest the following high-level questions as a potential resource for regional research processes focused on cost:

- What are the envisioned goals for First Nations Institutes in the Region in terms of enrolment? How many First Nations students are currently enrolled on a per-FTE basis at First Nations Institutes, and what role might First Nations Institutes play in expanding PSE access for First Nations students (e.g. how many more students might potentially be enrolled in First Nations Institutes over a multi-year period)?
- Do communities in the region envision serving additional students through existing institutions and/or through the founding of a new institution(s)? If through a new institution(s), what would the characteristics of the institution(s) be in terms of research functions, program mix, size, and rural/remoteness? If through both, what would the anticipated ratio be between new enrollment at new institutions and new enrollment at existing institutions?
- What are the characteristics and future visions of existing First Nations Institutes envisioned as part of sector growth in terms of research functions, program mix, size, and rural/remoteness?



- What are the self-assessed operational needs of new and or/existing First Nations Institutes envisioned as part of sector growth?
- What are the self-assessed capital needs of new and or/existing First Nations Institutes envisioned as part of sector growth?
- What regional characteristics or priorities would influence unique cost elements for First Nations Institutes (e.g. distinct language priorities)?
- How can economies of scale be leveraged to provide as much service as possible to students across new and or/existing First Nations Institutes?





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