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Government of Nunavut
University Feasibility Study

Phase 1 Analysis

February 22, 2016

Contents

Introduction

KPMG was engaged by the Government of Nunavut to conduct a feasibility study for the potential establishment of a university in Nunavut.

KPMG proposed a phased approach beginning with an initial analysis of potential delivery options. This report presents the findings of this initial analysis. The activity for this phase was split into three connected work streams:

Data Analysis	Stakeholder Consultation	Desktop Research
▪ This included analysis of: ▪ Demographic analysis of Nunavut population ▪ Current and forecast high school achievement rates ▪ Current post-secondary levels and destinations ▪ Current trends in International Student recruitment ▪ Current trends in movement of students across Canada ▪ Current Labour market information regarding skills demand	▪ This included interviews with key stakeholders to get their qualitative input into the study. Stakeholders included: ▪ Government of Nunavut including Departments of Finance, Community and Government Services, and Education. ▪ Nunavut Tunngavik ▪ Universities Canada ▪ Nunavut Arctic College ▪ Canadian High Arctic Research Station	▪ This included research into: ▪ Similar standalone models being operated around the globe. ▪ Alternatives models of delivery including research into indigenous models of post-secondary education. ▪ Review of economic plans and forecasts for Nunavut. ▪ Potential funding sources & financing options ▪ Potential Programming options

Leveraging the findings of the three work streams, a summary of the options analysis has been prepared within this report based on a range of criteria which could influence the success of a new university.

Key Questions

In order to determine the feasibility of a new university there are a number of questions that need to be considered;

- How is a university defined in Canada?
- How many students will the university be able to recruit and from what locations?
- What other factors need to be considered in terms of policy and organizations that already exist?
- What programs and curriculum should the university offer?
- Where else are universities operating in remote locations and serving low population levels?
- What would it cost to build a university?
- What will it cost to operate our definition of a university?
- Who will pay the costs of operating the university?
- How is quality assurance managed in Canadian universities?
- What options should we consider to meet our context?
- What are the advantages and disadvantages of each of the options?

These questions all need to be considered against the overall strategies, policies, targets and resource position of the Government of Nunavut. This report has been produced with input from a number of departments within Government but in the absence of objectives or policies related to higher education.

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Definition of a University in Canada

It is important that we have a common understanding of what a University is, in order to provide a basis to determine its feasibility.

Universities Canada criteria

There are a number of definitions of a University. The Oxford dictionary defines this as:

> "an educational institution designed for instruction, examination, or both, of students in many branches of advanced learning, conferring degrees in various faculties, and often embodying colleges and similar institutions."

The definition has been operationalized across Canada by Universities Canada in the criteria required to become an Institutional member. It should be noted that it is optional to become a member but that those institutions who are considering moving to university status such as Yukon College are planning on achieving these criteria:

1. It has the powers it purports to exercise pursuant to authority granted by the Crown or by Statute or by formal agreement with its affiliated or federated university, or the university of which it is a constituent portion;

2. It has governance and an administrative structure appropriate to a university, including:
Authority vested in academic staff for decisions affecting academic programs including admissions, content, graduation requirements/standards, and related policies and procedures through membership of an elected academic senate or other appropriate elected body representative of academic staff;
An independent board of governors, or appropriate equivalent, that:

- is committed to public accountability and functions in an open and transparent manner
- has control over the institution's finances, administration and appointments
- includes appropriate representation from the institution's external stakeholders (including the general public), from academic staff, from students and from alumni
- and uses the institution's resources to advance its mission and goals.

A senior administration normally including a president and vice-presidents and/or other senior officers appropriate to the size of the institution and the range of its activities.

3. It has an approved, clearly articulated and widely known and accepted mission statement and academic goals that are appropriate to a university and that demonstrate its commitment to:
teaching and other forms of dissemination of knowledge;
research, scholarship, academic inquiry and the advancement of knowledge;
service to the community.

Universities Canada criteria

4. It has as its core teaching mission the provision of education of university standard with the majority of its programs at that level.
5. It offers a full program or programs of undergraduate and/or graduate studies that animate its mission and goals, and that lead to a university degree or degrees conferred by itself or, if federated or affiliated with, or a constituent of a university, by the parent institution. Indicators will include:

- Highly qualified academic staff holding the PhD or other appropriate terminal degree, and relevant professional experience where appropriate
- Undergraduate programs taught by senior academic staff
- A quality assurance policy that results in cyclical or continuous assessment of all of its academic programs and support services, and which includes the participation by those directly involved in delivery of the program or service, as well as by other institutional colleagues and external experts and stakeholders
- Provision for the periodic evaluation of the performance of academic staff including a student assessment component
- Access to library and other learning resources appropriate to the institution's mission, goals and programs
- The periodical monitoring of graduate outcomes, and established and transparent processes for disseminating this information inside and outside the institution
- Academic counselling and other student services appropriate to its programs
- Financial resources to meet its mission statement and goals

6. Its undergraduate degree programs are characterized by breadth and depth in the traditional areas of the liberal arts and/or sciences, and first degrees of a professional nature – such as medicine, law, teacher education, engineering – have a significant liberal arts and/or sciences component.

7. It has a proven record of scholarship, academic inquiry and research, expects its academic staff to be engaged in externally peer reviewed research and to publish in externally disseminated sources, and provides appropriate time and institutional support for them to do so. Indicators of this commitment will include policies and programs pertaining to the creation of knowledge, the development of curriculum and the execution of research projects.

8. Its approach to the protection of academic freedom respects the spirit of the Universities Canada Statement on Academic Freedom which was approved by the membership on October 25, 2011 and as may be amended by the membership from time to time.

Universities Canada criteria

9. If it is a freestanding institution, neither in a formal relationship of affiliation or federation nor a constituent portion of a member university, it has in the academic year in which it makes application for membership, and has had in the two preceding years, an enrolment of at least 500 FTE. For further certainty, institutions that are not freestanding institutions are not required to have an enrolment of at least 500 FTE

10. If it is a constituent of an Institutional Member, its application for membership is supported by its parent institution.

11. It operates on a not-for-profit basis.

12. It satisfies the Board, after receiving a report by a visiting committee appointed by the Board, that it is providing education of university standard and meets the criteria for membership in the Association.
An institution that does not meet all of the criteria for membership may not re-apply for a period of three (3) years

Summary

We believe that it is appropriate to adopt the criteria for the purposes of our report, as we believe that establishing a new University in Nunavut without conforming to these criteria will challenge the perceived legitimacy of the institution, in comparison to other universities in Canada. In order to attract and retain students, the new institution will need to reassure them that the quality of their learning experience adheres to expected standards.

It will also be important that the qualifications are recognized as being equivalent to those offered in Universities across Canada to enable transition of students who progress to qualifications that may not be offered in the new university. The qualifications would also need to be regarded equally by potential employers of those who graduate.

We have discussed with Universities Canada the potential for them to relax some of their criteria particularly point 9 around 500 FTE equivalent students and they have indicated that due to the need for consistency with their other members that this would not be possible. This will be critical to the success of any proposed new university.

Definition:

A full-time equivalent (FTE) measure attempts to standardize a student's actual course load against the normal course load.

Calculating the full-time/part-time status requires information on the time periods for actual and normal course loads. Calculating the full-time/part-time status requires information on the time periods for actual and normal course loads.

Context:
For the reduction of head-count data to FTEs, where data and norms on individual participation are available, course load is measured as the product of the fraction of the normal course load for a full-time student and the fraction of the school/academic year.

[FTE = (actual course load/normal course load) * (actual duration of study during reference period/normal duration of study during reference period).]

When actual course load information is not available, a full-time student is considered equal to one FTE

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Potential Student Demand

Given the likely costs and the requirements of student numbers from Universities Canada, it is essential to identify what demand could be for a possible University.

Key factors that affect student demand

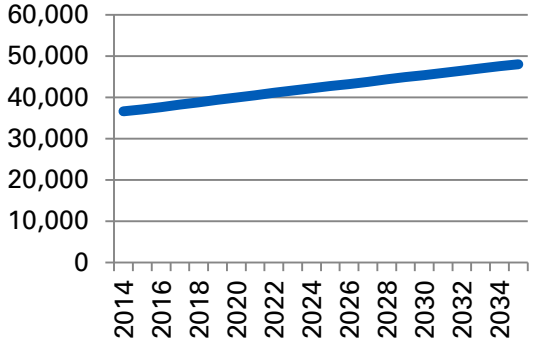
In order to determine potential demand for a new University there are a number of factors that need to be considered which allows us to model the number of students. These are:

- Change in demography – is the population likely to grow significantly to generate more learners.
- How many of the population currently graduate from high school and how this might be increased to create greater volume of possible learners.
- What is the current participation rate in Higher Education by those who currently graduate High School and can this be increased so a greater proportion go on to attend University.
- What is the potential demand for students from across Canada and other countries who might want to study at the new University.
- What is the potential demand for adult learners to return to study or who may be supported to study by their employer to obtain a degree.

Note : We have found it difficult to obtain reliable data across a number of these issues and are still awaiting data from Nunavut Artic College on the current number of students enrolled in degree programs. We have therefore modelled our projections based on the best available data.

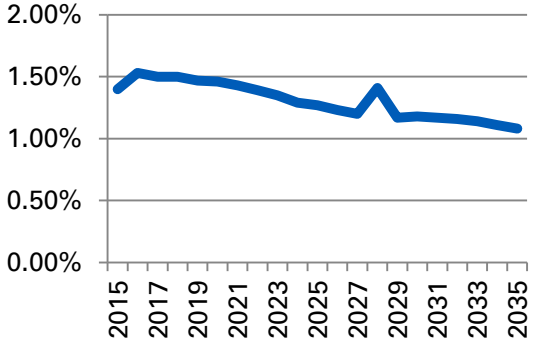
Demographic Trends

Nunavut Population Projection



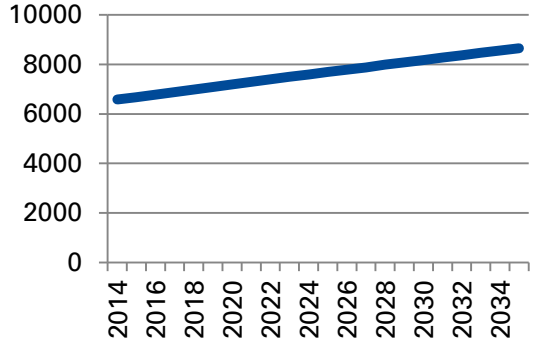
The total population of Nunavut is expected to continue to grow reaching 48,042 people in 2035 – up from 37,099 in 2015.

Nunavut Population Growth (%)



Population growth is estimated to increase at an **average rate of 1.30%** over the next 20 years.

Nunavut Population Age 15-24



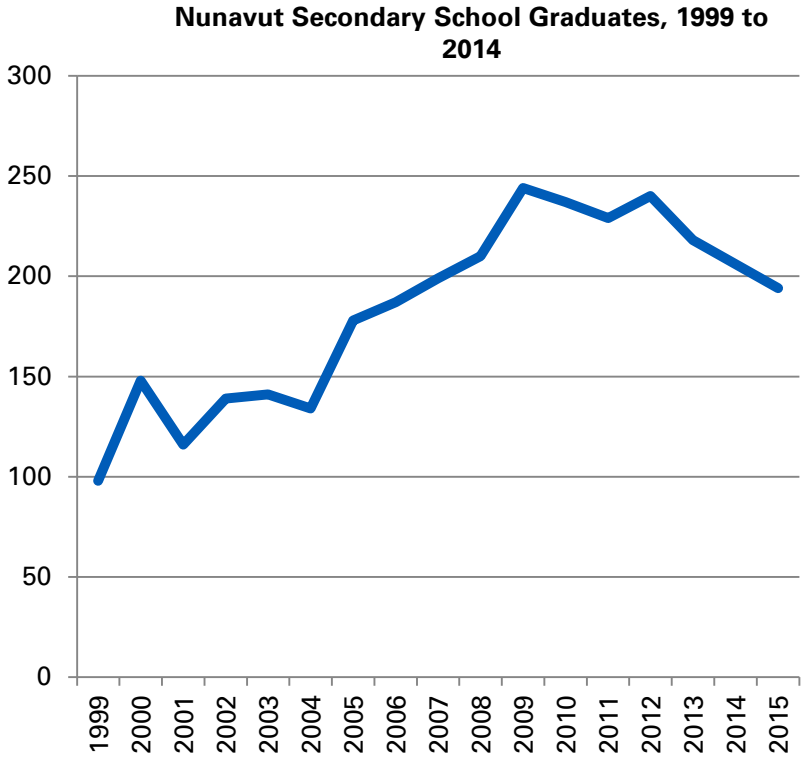
Over the last 8 years, the population increase in 15-24 year olds **has averaged 1.17%.** Assuming that this age group increases at the same rate as the overall population over the next 20 years, the total population of 15-24 year olds would increase from 6,554 in 2014 to 8,648 in 2035.

The population of Nunavut is projected to continue to grow slowly, notably the 15-24 year old age group is growing at a lower rate than the overall population, indicating only marginal growth in this key demographic for University recruitment.

Education & Enrollment

Secondary School

- There were 194 secondary school graduates across the territory in 2015, 96% of whom were Inuit.
- The 2015 net graduation rate is 30.4%, **a decrease from 31.5 % in 2014**; Despite this small drop, a continued positive growth in both the number of graduates and in the overall graduation rate is expected.
- Nunavut's graduation rate **has increased at roughly 2.6%** annually since 2001.
- Public school attendance rates have **decreased steadily from 74.5% in 2001/02 to 71.1% in 2013/14**.
- The attendance rates for grades 9-12 have averaged 61.1% since 2001, and average 65.9% in 2013/14.
- We are not currently aware of any targets set by the Government of Nunavut to improve this key measure.

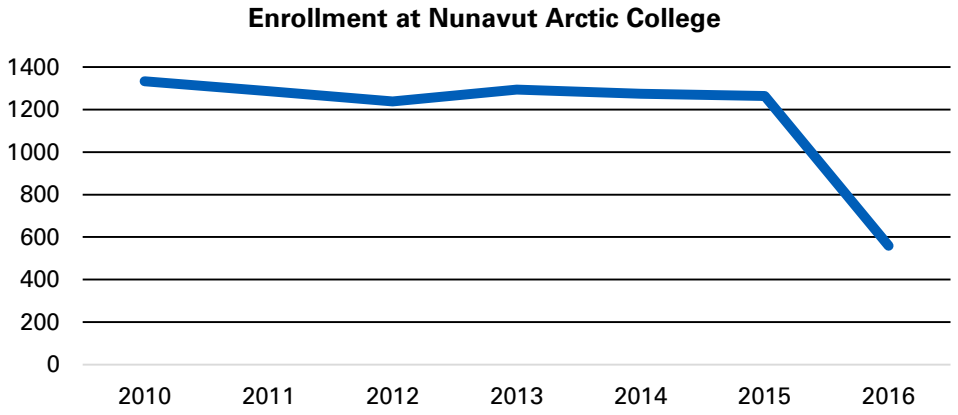


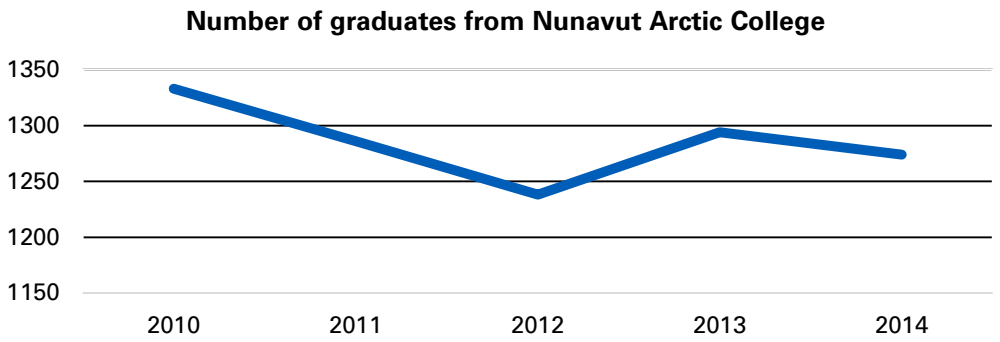
Nunavut graduation and attendance rates have not grown consistently over time. The overall performance of K-12 is a key determinant in participation in Higher Education.

Education & Enrollment

Nunavut Arctic College

- The average full-time enrollment equivalent for the past six academic years is 1,282 students.
- This includes students covering the whole range of their programming from adult basic education to degree programs.
- The number of graduates in the 2014 academic year decreased by 30% from the previous year to 222.
- The reason for the decline in 2016 is due to partial year data.
- From the data provided we believe that an average of 68 students per year have been studying degree programs.

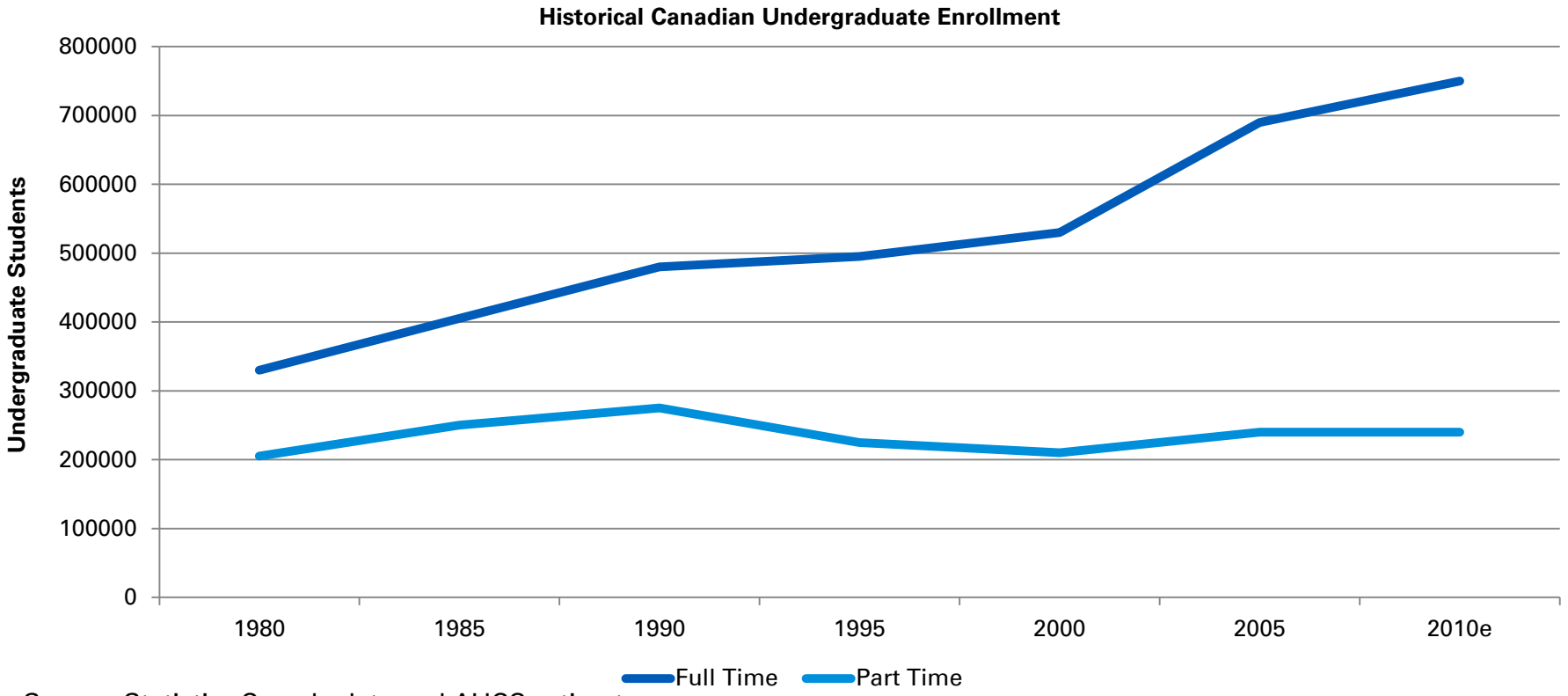




Enrollment and graduation rates at Nunavut Arctic College have experienced a marginal decline in recent years. This can be seen as potential proxy for the university market and also an indicator of growing demands as they develop students to progress to university studies.

University Enrollment Trends in Canada

Canada wide average HE participation is 42%
For Nunavut this would equal 92 students per year given High School graduate rates.
First Nations HE participation in Canada is 23%
For Nunavut this would equal 51 students per year



Source: Statistics Canada data and AUCC estimates

Undergraduate enrollment in Canada has seen steady growth since 1980, but is anticipated to decrease in the short to medium term, with Ontario experiencing its first decline in 15 years in 2015, and the population of 18-24 year olds in Canada declining until 2021. There is a view that there is potentially oversupply of university spaces across the country suggesting increasing competition to attract students across Canada.

Calculating potential demand

It is important to understand the size of demand of learners for the new university in order to determine feasibility. This is also important given the Universities Canada criteria of 500 FTE. We have made a number of assumptions in order to model scenarios on how the proposed university could meet this criteria.

The figures used in the following models have been derived as follows:

- **Nunavut Arctic College numbers:** The average full time equivilant students studying degrees at NAC over the last 5 years is 68. Dividing this number by 4 years of study gives us an estimate of the number of FTE in each year of study (17).
- **Financial support (FANS):** We have been given overall numbers of financial support given to residents of the territory for studies. This does not identify individual students but it is possible to identify the number of students that are studying degrees and diplomas outside of NAC. We have averaged this across 4 years of study.
- **Adult learner numbers:** Given that there are an average of 17 FTEs at NAC and 23 FTEs studying outside the territory, we believe that 18 adult learners starting in 2017 is a reasonable assumption. We have not received data from NAC on the actual number of adult learners and it is not possible to determine this in more detail with the available data.

Calculating potential demand

Other Assumptions:

- From the research into comparative universities across the globe it is reasonable to assume that the proposed university would be attractive to students across Canada and internationally. The actual number of students that could be attracted will depend on the curriculum and teaching offered as well as the cost of tuition and residence etc. We have assumed a maximum in take per year of 75 FTE in these categories as we believe that taking this figure any higher than this would place great pressure on infrastructure and would also lead to the proposed university serving more students from outside Nunavut than those in it.
- We have assumed that the 75 FTE could be achieved from the start of year 1 operations for our model. This however would present a significant challenge for a new university to achieve.
- We have worked on the assumption that this would all start from day one whereas in reality this will be much more phased. For example, we will not get 75 international/out-of-territory students from day 1. More detailed modelling would be required when a preferred option(s) is determined.
- There are a range of annual attrition rates for Universities from 90%+ for established institutions such as University of Toronto with others showing rates below 66%. To recognize the new status of the proposed university we have applied 80% to our modelling.

Student Number – Nunavut Only

Assumptions:
Current high school achievement rate: 30%
Current university participation rate: 20%
High school achievement rate increase per year: 0%
University participation rate increase per year: 0%

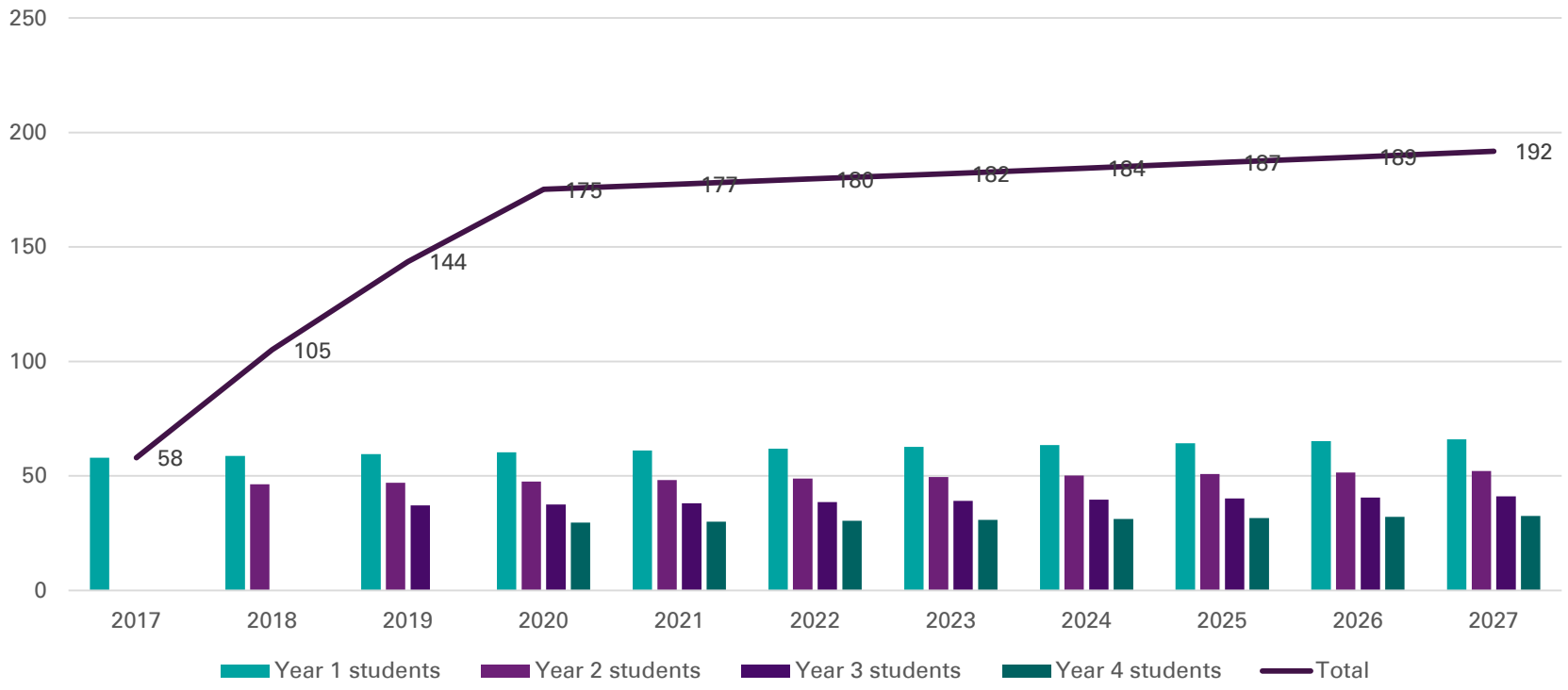
The model below shows the potential number of FTE's by 2027 assuming enrollment increases at the rate of population increase of 1.3%, and no change in high school achievement and university participation rate over the next 10 years. We have assumed student drop out of 20% per year.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Average FTE at AC	17	17	17	18	18	18	18	19	19	19	19
Students studying outside NU (based on FANS data)	23	23	24	24	24	25	25	25	26	26	26
Adult Learners	18	18	18	19	19	19	19	20	20	20	20
Total number of students starting each year	**58**	**59**	**60**	**60**	**61**	**62**	**63**	**63**	**64**	**65**	**66**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Year 1 students	58	59	60	60	61	62	63	63	64	65	66
Year 2 students		46	47	48	48	49	49	50	51	51	52
Year 3 students			37	38	38	39	39	40	40	41	41
Year 4 students				30	30	30	31	31	32	32	33
Total	**58**	**105**	**144**	**175**	**177**	**180**	**182**	**184**	**187**	**189**	**192**

With no change in high school achievement and university participation rates over the next 10 years, FTE would reach only 192 by 2027, assuming no international or out-of territory students.

Student Enrollment Model: Nunavut Students Only



- Based on current population trends, high school achievement, university participation rates, the university would have 58 FTEs in their first year of operation
- After 4 years of operation, the university would reach 175 FTEs, and would grow by 2-3 FTEs per year thereafter.

Based on the above calculation, FTE Enrollments would not be anticipated to reach 500 until 2130

Student Number – Including Out-of Territory Students

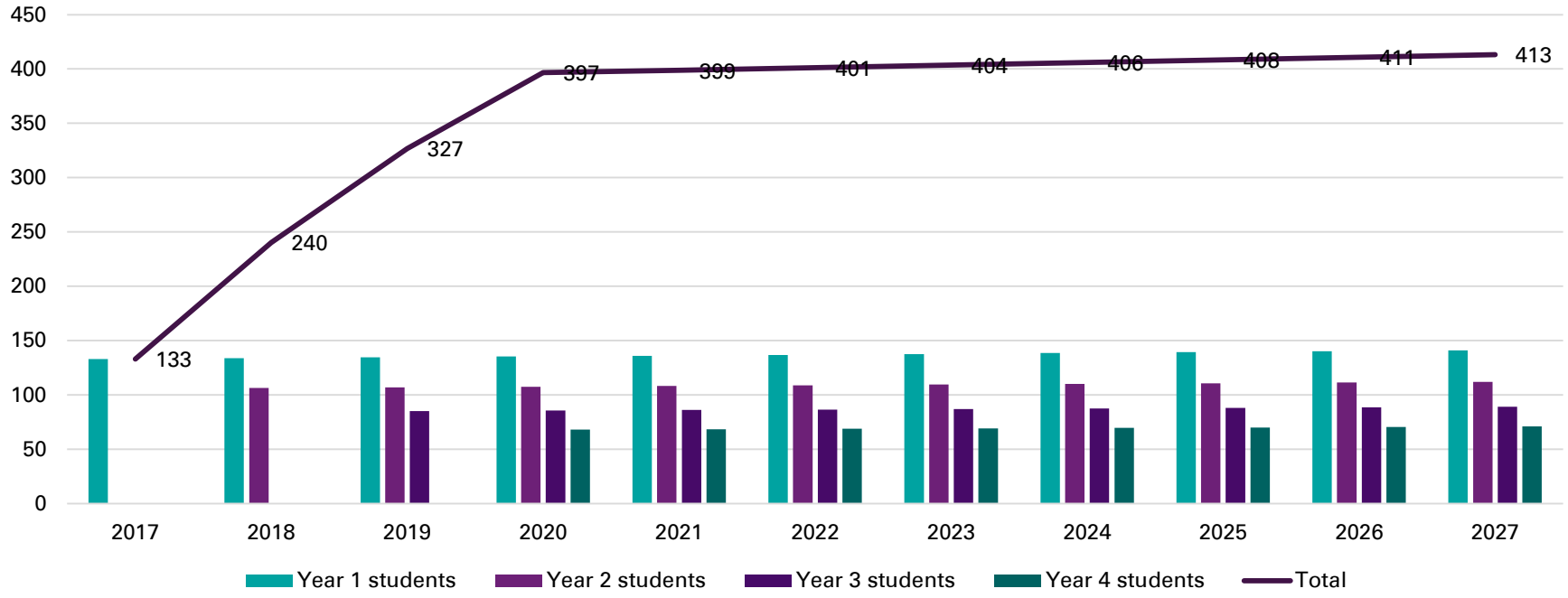
The model below shows the potential number of FTE's by 2027 assuming enrollment increases at the rate of population increase of 1.3%, and no change in high school achievement and university participation rate over the next 10 years. We have assumed student drop out of 20% per year.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Average FTE at NAC	17	17	17	18	18	18	18	19	19	19	19
Students studying outside NU (based on FANS data)	23	23	24	24	24	25	25	25	26	26	26
Adult Learners	18	18	18	19	19	19	19	20	20	20	20
International /Rest of Canada Students	75	75	75	75	75	75	75	75	75	75	75
Total number of students starting each year	**133**	**134**	**135**	**135**	**136**	**137**	**138**	**138**	**139**	**140**	**141**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Year 1 students	133	134	135	135	136	137	138	138	139	140	141
Year 2 students		106	107	108	108	109	109	110	111	111	112
Year 3 students			85	86	86	87	87	88	88	89	89
Year 4 students				68	68	69	69	70	70	70	71
Total	**133**	**240**	**327**	**397**	**399**	**401**	**404**	**406**	**408**	**411**	**413**

With no change in high school achievement and university participation rates over the next 10 years, FTE would reach only 413 by 2027 even with the addition of 75 students commencing studies per year from outside of the territory from day 1.

Student Enrollment Model: Including Out-of-Territory Students



- Based on current population trends, high school achievement, university participation rates, and the influx of 75 international/out-of-territory students, the university would have 133 FTEs in their first year of operation
- After 4 years of operation, the university would reach 397 FTEs, and would grow by 2 FTEs per year thereafter.

Based on the above calculation, FTE Enrollments would not be anticipated to reach 500 until 2070

Student Numbers

Under current population growth, high school graduation rates, and university participation scenarios, university enrollment will grow very slowly over the years. However, it would be possible to increase student numbers by improving both high school graduation rates, and university participation rates.

High school graduation trends in other territories:

Yukon: The six-year competition rate (percentage of students who complete high school over six years starting in Grade 8) was 65.5% in 2013-14, down from 72.2% in 2012-13 and 70.7% in 2011-12. But the general trend in recent years seems to show graduation rates improving - The number of students staying in school after six years is climbing - 13.67% in 2013 compared to 9.8% in 2012 and 5.71% in 2011.

NWT: High school enrollment rates have dropped at an average of 1.5% over the last 5 years. The graduation rate in 2013-14 was 64.6%, up from 63.3% in 2012-13, and 55% in 2011-12.

Yukon		
Year	# of Graduates	Graduation Rate
2012	336	70.7%
2013	257	72.2%
2014	308	65.5%

Northwest Territories		
Year	# of Graduates	Graduation Rate
2012	409	55%
2013	437	63.3%
2014	463	64.6%

Nunavut		
Year	# of Graduates	Graduation Rate
2012	240	40%
2013	216	34.3%
2014	206	28%

Canada	
Average High School Graduation Rate	85%
Average Post Secondary Education Participation Rate	42%
Average Post Secondary Education Participation Rate for First Nations	23%

We have estimated average high school graduation rates of 30% and post secondary education participation rates of 23% for Nunavut

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Highlights from interviews

We interviewed a number of people to identify key facts that could influence the options appraisal of the proposed university. These questions were designed to avoid any bias but specifically were to get a view focused on:

- Potential demand for university education from students.
- Possible curriculum that could be provided.
- Infrastructure and finance issues that could influence potential success.

Highlights from interviews

We are very grateful for those who provided some commentary and have captured the key points below:

- There are significant pressures to improve government services across the territory with access to affordable housing, improving K-12 education, reducing suicide rates and drug dependency that were regarded as competing for funding with a proposed university.
- There would be significant pressure on infrastructure – (e.g. the airport, etc) if the university was to have significant numbers of students flying in to study and that government should focus funding on meeting the needs of the people in the territory.
- That a university is required to protect and expand the history and culture of the territory and that the university should be "nation" building and could help to raise aspirations.
- That any proposed university would have to address the need for cultural studies as well as broad needs from the labour market.
- That a number of students who currently leave the territory to study in other universities in Canada struggle to adjust to life in other areas and often return without completing their program.
- There is $5m ($1m per annum) offered from Agnico to support the development of a university. Their board has currently approved this on the basis that this would be for an autonomous university.
- There is some belief that funding will be identified should a university be built from donors and other sources.
- That it will be difficult to build a quality university with sustainable class sizes focused on meeting the needs of the territory.
- There is potential for greater alignment across government departments, the college, CHAR and other organizations that will maximize the investments that have already been made by both the territory and federal governments.

Housing

The Government of Nunavut currently dedicates 12% of its total capital budget to new public housing and related supports, and does not have sufficient funding to address Nunavut's 3,000 unit housing shortage without federal investment. Nunavut's population growth alone in requires the construction of an estimated 90 new housing units per year.

Core housing need in Nunavut*: 39.3%

Average core housing need across Canada*: 12.5%

Overcrowding rate in Nunavut*: 30%

Overcrowding rate in Canada*: 6%

Overcrowding in public housing in Nunavut: 38%

# of public housing units in the Territory: 5,153 units

# of Nunavummiut living in public housing: 19,138 (52% of total population)

Income of public housing tenants: 80% are at or below $22,880/year income

# of households on the public housing wait-list: 2,313 households

* Taken from the 2011 Census/National Household Survey

Housing availability represents a key constraint, with an indicative cost of housing of $500,000 per home per staff member based on our modelling this could represent a cost of $20m+ for staff housing.

Research

The Nunavut Research Institute

The number of research license requests filed under the Nunavut Scientists Act has remained steady in the past decade and averages 130 applications per year.

The bulk of the applications are in the physical and natural sciences but the number of requests in the social sciences and health research fields are increasing.

Canadian High Arctic Research Station (CHAR)

Creating a world class research station - partnering nationally and internationally (scope currently excludes social science research)

Recruiting to move up to a complement of 40 staff - but has capacity for 80 people, with transient accommodation for up to 50 researchers.

Have been able to attract PhD researchers by providing budget and offering more responsibility than an individual may receive elsewhere

Offered to loan space and/or host the entity that could become a "University" research capability in the territory - help to create an "Intellectual Hub"

Capacity exists for additional researchers within established research institutes in the territory.

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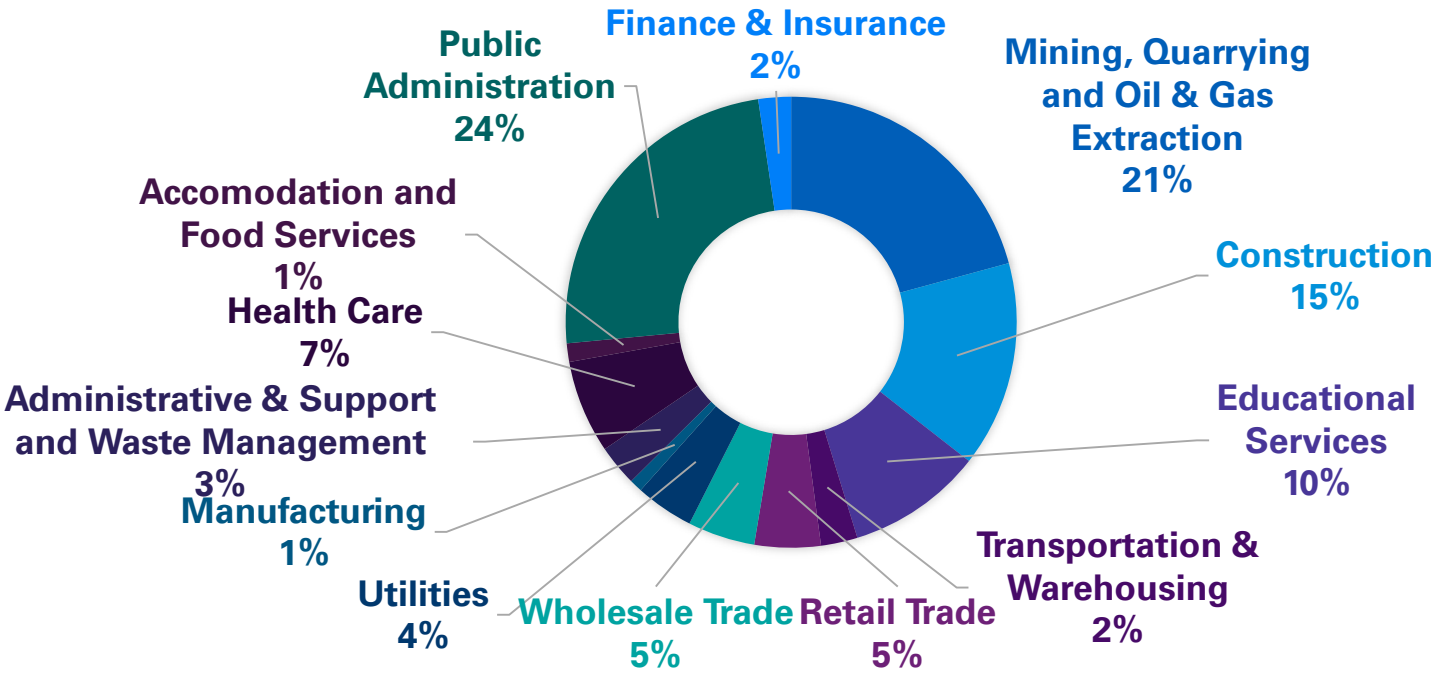
Potential Program Areas

At this stage of the analysis it is only possible to highlight the potential program areas that would be most relevant to the proposed University. These are largely based on meeting the future employment needs of Nunavut but also reflect possible areas to address the history and culture of the territory. It has not yet been possible to quantify what the latter of these areas would be and the potential demand.

Employment

Total Labour Force: 15,400	**Employed:** 12,900	**Unemployment Rate:** 17.2%

Nunavut Employment by Sector



Combined public administration, mining, quarrying and oil and gas extraction, and construction account for 60% of employment.

Employment Trend Forecast

The table below provides a 15 year employment forecast trend. The forecasts assume current proportion of employment for the top 5 employment sectors, and based on average employed Labour growth of 1.3%.

		Forecasted Employment													
	2015 (current)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Public Administration	3,096	3,136	3,177	3,218	3,260	3,303	3,345	3,389	3,433	3,478	3,523	3,569	3,615	3,662	3,710	3,758
Construction	1,935	1,960	1,986	2,011	2,038	2,064	2,091	2,118	2,146	2,174	2,202	2,230	2,259	2,289	2,319	2,349
Retail and wholesale trade	1,290	1,307	1,324	1,341	1,358	1,376	1,394	1,412	1,430	1,449	1,468	1,487	1,506	1,526	1,546	1,566
Educational Services	1,290	1,307	1,324	1,341	1,358	1,376	1,394	1,412	1,430	1,449	1,468	1,487	1,506	1,526	1,546	1,566
Healthcare	903	915	927	939	951	963	976	988	1,001	1,014	1,028	1,041	1,054	1,068	1,082	1,096

Growth in key employment sectors represent an opportunity for university level education.

Potential Program Areas

Combined public administration, mining, quarrying and oil and gas extraction, and construction account for 60% of employment.

Growth in key employment sectors represent an opportunity for university level education.

The below outlines a number of likely candidate programs, based on an assessment of Labour market needs.

- Bachelor of Public Administration
- Justice Studies
- Healthcare
- Tourism Management
- Social Work
- Inuit Studies
- Project Management
- Environmental Studies
- Education
- Accounting and Business Administration
- Facilities Operations

Potential Program Areas

Any of the various institutional options described in the options section entail choosing program areas on which to focus support for building new or expanding existing infrastructures and agreements. This should include collaborative possibilities with partners in the south, but as well, both Yukon and Aurora Colleges. Because the Nunavut Arctic College will necessarily have a significant (and possibly significantly modified) role to play in any of the options, that choice should reflect future consultation with the faculty and administration of the college. Nevertheless, a number of likely candidate programs, based on an assessment of Labour market needs, can be outlined, as examples or assumptions.

These include:

Bachelor of Public Administration	given that government is a significant employer in the area, introducing this degree makes a lot of sense. It could build from the existing Municipal Administration program to widen the opportunities for graduates. The local presence of government offices means there would be ample opportunities to establish experiential or co-op learning programs with governments at both the federal and territorial levels. In addition, the college appears to have an agreement with the University of Alaska for the delivery of an MPA distance-learning program via satellite and over the internet. Thus this undergraduate program would provide a pool of students from which the graduate program could potentially recruit
Justice Studies	definitely a program area of interest to students in the south, and one of the most popular majors in universities. This could have strong resonance with the law program previously delivered in cooperation with the University of Victoria, or the proposed one with University of Ottawa.

Potential Program Areas

Healthcare	an existing B. Sc. Nursing arrangement in is place with Dalhousie. Aurora College also offers a Bachelor of Science in nursing in partnership with the U of S. Is there room to think about professional programs for other types of health professionals, e. g. health advocates, nurse practitioners, physiotherapists?
Tourism Management	the existing diploma program could be built or extended into a commerce or business degree, either by the college or in collaboration with a partner.
Social Work	currently the college offers a two-year diploma program: the social service worker program. It might be desirable to collaborate with Yukon College, as they have a bachelor of social work program, in which they offer all of the courses and the degree is awarded by University of Regina.
Intuit Studies	students currently have to leave the territory to obtain an actual degree in this subject. Are there sufficient courses to mount a credential in this area? What are the gaps? This should be a degree that the college could seek authority to grant. There is also significant interest in offering instruction and certification in local cultural arts, crafts, and techniques. Such programs would need to have appropriately rigorous entrance and exit requirements (a good example of a successful effort along these lines would be the Duodji programs at Norway's Sami University College).
Project Management	there is strong demand for training in the oversight and administration of projects ranging from construction to government to social services and healthcare.

Potential Program Areas

Environmental Studies*	the existing diploma program in environmental technology is a natural, given the location. There is a strong link with existing research facilities and the opportunity for extending this given the planned expansion of the research facilities. The possibility of creating a degree program should be explored. Meanwhile, a program in mining or resource extraction might also be well-aligned with the territorial economy, but the specialized instruction and technical resources and equipment necessary to deliver such programs are quite costly, and demand for degree-level graduates is still relatively low; this is probably a program area best left to a later phase of the post-secondary plan.
Education*	this is an important area for the territory, in terms of the training of teachers at all levels, but also principals, early childhood educators, and educational assistants. There is an existing early childhood program, and the Nunavut Teacher Education program offered in conjunction with U of Regina. Has there been exploration of collaboration?
Accounting and Business	there will always be a need for qualified accountants and business managers. This is true for existing companies and organizations, as well as the development and establishment of new businesses and ventures. Strategically it might be possible to develop 2+2 programs with a university partner, or offer a degree locally, with the possibility of specialization in the upper years in areas like accounting, finance, or entrepreneurship.
Facilities Operations	there appears to be a need to have trained personnel in the areas of facilities management. The potential is there for the credential to be a combination of business administration with added specialization in facilities and operations.

* Indicates current / planned program area offered by NAC

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Global Comparator Analysis

We undertook an international scan based on our experience of the operation of Universities that served sparse populations and remote areas in order to determine any lessons that could be learned for the proposed University.

Global Comparator Analysis

The below seven comparator institutions were identified based on similarity to a potential Nunavut university including: remote location, regional economic development and cultural demands, development of strong, relevant curricula, and potential for research collaborations and international activities.

Global Comparator Institutions: Rationale for Inclusion
Ilisimatusarfik/Uuniversity of Greenland • A close mode of interest to Nunavut, with strategic objectives for regionally, culturally relevant programmes • Membership of the University of the Arctic Circle enables an expanded research agenda*
Arctic University of Norway, Tromso • A large, well established institution with campus-based delivery. • Extensive international collaborations underpin research agenda
The University of Lapland • Consortium model with a remit for local/regional relevance and a line-up of collaborations
The National Research Tomsk State University, Siberia, Russia • Campus-based location serving very remote locations, now developing distance learning capabilities. State engagement.
The University of the South Pacific • Unique challenges of delivery in multiple, remote locations which include challenges to offer broad but relevant curriculum and study levels
The University of Southern Queensland • An innovative distance learning provider, with an excellent staff recruitment programme
University of the Highlands and Islands (Scotland) • A relatively new University established with the specific intention to contribute to the development of the region.

* The University of the Arctic is not an accreditation body like Universities Canada. It is a cooperative network of universities, colleges, research institutes and other organizations concerned with education and research in and about the North.

Ilisimatusarfik/Uuniversity of Greenland

Element	Summary
Location and populations served	• Physical campus located in Nuuk, capital of Greenland. • A relatively new institution, established in 1984-1987 • As the only University in Greenland, covers a wide geographical area. Population 57,000. • Staff numbers 115 (60 academic staff), 650 students
Mission and Vision	• The Strategic Plan indicates that the University delivers "research and education activities focused on arctic cultures, languages, and health and social conditions". • Related to the issue of location, the Strategic Plan states that the ability to contribute to the regional development goals: "One of the means by which Ilisimatusarfik will be able to realize this objective is to gather the university in a strong, single campus area". • The strategic plan talks in some detail about the university's contribution to the betterment and development of Greenlandic society.
Structural model and collaborations	• One physical campus in the capital • Member of the University of the Arctic
Delivery methodologies	• Most courses are taught in Danish, a few in Greenlandic and classes by exchange lecturers often in English • In-person on-campus delivery
Curriculum (relevant to local economic needs and to cultural/historic populations)	• Institutes of Learning, Nursing & Health Science; Social Science; Economics & Journalism; Culture, Language & History • Delivers region-specific/relevant curriculum in Greenlandic culture and history; Greenlandic political system; Greenlandic literature and media; Health science in the Arctic; Climate and society • Delivering at undergraduate and masters levels. Research collaborations through membership of the University of the Arctic
Research	• Limited research projects, but a specific strategic priority • Research delivered primarily in collaboration, focussing on regional development needs/goals.
Enrolments	• 650 students • Promotes to international students and offers semester study to visiting students, and participates in Erasmus (European exchange).
Faculty and Staff recruitment	• No specific information provided about promoting working or researching at the University.
Highlights	• **Relevance to interests of Nunavut as an institution located in the capital city with collaborative and growth goals, with a specific objective of serving the needs of the local communities**

The University of Highland and Islands (UHI) Scotland

Element	Summary
Location and populations served	• Mainland and islands. Well-connected. • 448,000 total population across 15,000 square miles. 50% are under 44. • Local delivery through multiple colleges (13) and teaching centres, but with significant use of online delivery methods. Central UHI Management and Administration based in Inverness.
Mission and Vision	• An integrated University providing further and higher education. " To have a transformational impact on the prospects of our region, its economy, its people and its communities". Corporate documents available in Gaelic and English.
Structural model and collaborations	• 13 Colleges and Research Centres. 70 local learning centres. Colleges retain their own names alongside the UHI brand. Online delivery is critical to this model. Creation of a sense of community amongst students across wide areas clearly an issue UHI are addressing. • Connections: 13 Local Colleges - low international profile. Research partnership with University of Aberdeen raises profile by proxy.
Delivery methodologies	• In person and online (all courses use 'virtual classroom technology').
Curriculum (relevant to local economic needs and to cultural/historic populations)	• Pre-degree certificates, UG, PGT and professional qualifications offered. Apart from Quantity Surveying, all programmes offered on PT basis. Not all are available full-time. • Research specialisms include Land Resources, Marine, Environmental and Technology. Programmes include Tourism and Hospitality, Aircraft engineering and air traffic management, arboriculture, archaeology, marine sciences, golf, sustainability, • Research specialisms include Gaelic Language and Culture, Nordic Studies. Programmes in and about Gaelic are available, alongside Scottish history and culture.
Research	• Established and developing research presence 69* "world leading" or "internationally excellent". Four broad themes presented: Marine and Environmental Science; Culture, Heritage, Language and History; Health; Landscape, Economy and Society. PGR programmes offered through collaboration with University of Aberdeen. (Research students are Associate students of U Aberdeen.)
Enrolments	• 7,899 HE students (40% part time) 32,077 FE students (87% part time) • 94% UG. 74.8% come from catchment area • 3% non-UK (1% EU, 2% Int'l)
Faculty and Staff recruitment	• Highlands and Islands Enterprise presents key selling points of region and desirability of Inverness in particular. Strong connections to 'Talent Scotland' and other development organisations aimed at promoting Scotland's Highland and Islands as a destination to live and work, Scottish government has supported investment in internet capability to facilitate business and education development in the region.
Highlights	• **UHI has presented the opportunity to upgrade teaching to include HE in partner colleges which may hitherto have focused on further education.**

Arctic University of Norway, Tromsø, Norway

Element	Summary
Location and populations served	• 72,000 Tromsø municipality, Alta 14,500, Hammerfest 7,500. • Northern mainland. 3 campuses. Remote. • 11,811 students. 2,700 staff. 7 Faculties.
Mission and Vision	• The northernmost university in the world. USP is "Explore global issues from close-up perspective" - climate change, exploitation of Arctic resources and environmental threats. "An international hub".
Structural model and collaborations	• All campuses work under the broad institutional banner/brand; relatively simple premise of a single institution with multiple locations. • Access to the 140 Uarctic institutions, as well as 200 institutional agreements for student and staff mobility.
Delivery methodologies	• 3 physical campuses. All programmes delivered in person, with a single Bachelors programme in Northern Studies offered online.
Curriculum (relevant to local economic needs and to cultural/historic populations)	• Taught programmes reflect the key research specialisms of the institution and its associated research centres, although the full portfolio contains a wide range of programmes in order to appeal to as broad a market as possible. • Little reflection of indigenous peoples or cultures in curriculum (Sami).
Research	• Significant research presence through institutional institutes (137 active research groups). Centres of national importance are housed at the University, including the ARCTOS network (marine arctic ecosystems), partnership with the Norwegian Polar Institute, High North Research Centre for Climate and the Environment, and Norwegian Centres of Excellence in Theoretical Linguistics and Theoretical and Computational Chemistry. Key research focuses on the polar environment.
Enrolments	• 110 registered PhD students. Other information not supplied: Awarded degrees 2014 indicate approximately 1,100 UG, 800 Masters. • 3,119 - Faculty of Humanities, Social Sciences and Education • 3,010 - Faculty of Health Sciences • 1,690 - Faculty of Biosciences, Fisheries and Economics • 1,317 - Faculty of Science and Technology • 757 - Faculty of Law • 187 - Fine Arts • 1,731 - Unattributed to a Faculty or allocated to 'unspecified subunit' • 10% non-Norwegian students, 20% non-Norwegian staff. International market considered through UG and Masters programs delivered in English medium.
Faculty and Staff recruitment	• No information from the institution to present the region to attract prospective staff. Open vacancies are advertised through the Norwegian government.
Highlights	• **Partnerships and research collaborations are key, supporting a clear strategic intent in specific Arctic-related areas.**

The University of Lapland

Element	Summary
Location and populations served	• 5.4 million (Finland), 181,000 (Lapland). • The northernmost University in Finland and the EU, located in Rovaniemi in the Artic Circle. Single institutional site plus other centres of research and collaboration. Remote. Well connected to other centres on Lapland. • 652 Staff members (Academic and Administrative); 63 Professors. 4,978 Students on campus, plus 4,886 registered through continuing education, U3A and Open University delivery methods.
Mission and Vision	• "For the North, for the world". To be internationally recognised as an Arctic and Northern Science and Art University. The institution's entire premise is on its relevance to the Arctic region. • Strategic profile for 4 key areas: Sustainable development, law and justice; Northern well-being, education and work; Responsible Tourism; Culture-centred service design. • These areas are each underpinned by a central focus on 'Research on Change in the Arctic and the North.'
Structural model and collaborations	• Combination of traditional institutional model plus the 'Lapland University Consortium'. Brings together three Finnish Lapland HEIs in collaborative areas of research, education and culture 'serving Lapland, Finland and the global community'. • The Consortium incorporates a shared Library, Multidimensional Tourism Institute, Support Services Centre (IT, R&D, Open University), the Institute for Northern Culture and Sociopoli - a shared centre focusing on social and welfare needs regionally. • Close relationships with other institutions within the Arctic Circle in order to deliver quality research. Host U of the Arctic Secretariat.
Delivery methodologies	• In person for full degree and exchange programmes. Evening, weekend and online delivery is offered through the Open University system, enabling accumulation of credit towards full degree status. Most of the OU courses are taught in Finnish.
Curriculum (relevant to local economic needs and to cultural/historic populations)	• UG (460 Bachelor's degrees) PGT (442 Masters degrees), PGR (27 Doctoral degrees). Adult Education • Extensive regional influence on curriculum, particularly in research areas. • Collaborative research focusing on the history, traditions, rights, politics, pedagogies and religions of indigenous peoples of the Arctic and Arctic environmental change and biodiversity. There are research projects in collaboration with the Universities of Tromso and Oulu, as well as the Sami Education Institute, on Sami-related issues. Sami Language classes are available. Initiatives with the University of Oulu to bring UG and PG programmes to the Sami regions, in collaboration with the Sami Education Institute. The classes are offered through the Open University, via a virtual classroom and contact teaching takes place in Inari.
Research	• A key aspect of the University's purpose. Disciplines and research themes include Education, Tourism and Business, Law, Art and Design, Social Sciences, and Northern and Arctic Issues. The University claims an 'internationally recognised role in matters pertaining to the Arctic'. The EU Parliament has approved support for the establishment of the EU Arctic Information Centre in the Arctic Centre of the University. • The University's Arctic Centre provides a multidisciplinary platform for research in global change, sustainable development, and the rights of indigenous peoples.

The University of Lapland (cont'd)

Element	Summary
Enrolments	• 4,240 UG; 338 PG; 268 Incoming Exchange; 153 Outgoing Exchange. 4,886 Adult Education • 132 Internationals registered (UG and PG). • 'International Programmes' are defined as a series of electives, taught in English, available for exchange/study abroad students and all current students, in addition to their chosen course of study. • 6 Masters programmes area offered specifically under 'International Programmes'.
Faculty and Staff recruitment	• Focus given to an institution that provides a young and vibrant community that supports personal and professional development for international staff. The location is presented as one which can support a 'well-rounded and enjoyable life', with the University offering comprehensive health care and sports vouchers. • Comprehensive information is given regarding arrival and settling at ULapland, supported by national and governmental information about Finland as a professional destination.
Highlights	• **Finnish Government stipulates that Universities must seek to serve the country's needs first. This is a strong example of addressing the needs of indigenous population as well as delivering research and teaching into regionally important topics.** • **It also indicates a balanced approach to bricks and mortar, flexible learning and collaborative partnerships and consortia.** • **Clarity of purpose and priorities.**

National Research Tomsk State University, Siberia, Russia

Element	Summary
Location and populations served	• Siberia incorporates 40 million people (27% of country's population), over 77% of Russia's land area. • Central mainland. Remote - equidistant from the Kazakh and Mongolian borders. • Large, single-location campus in Tomsk City with 9,887 students . 1,294 Academic staff (128 International)
Mission and Vision	• To promote the ideals of science, education and culture in the vast Asian part of the country. "To educate broad-minded and cultured individuals". Primarily to serve the needs of the Russian state - both its people in providing education, and the country more widely in promoting its research and pedagogy on the world stage.
Structural model and collaborations	• Traditional institution; state-run (was the first Siberian Imperial University, 1878). • Large numbers of connections to high-quality institutions (Europe, UK, USA, South Korea) for research, collaborative programmes, exchange and mobility.
Delivery methodologies	• Delivery predominantly on Tomsk campus (or in collaboration with institutional partners internationally where appropriate). Institute of Distance Education has expanded since its creation in 1998 to include MOOCs, DL programmes and E-Learning technologies. Programmes cater for a wide range of learner, from school age to professional diploma. Part of the Siberian Open University
Curriculum (relevant to local economic needs and to cultural/historic populations)	• Siberian and North Asian biology; significant work in the Faculty of Geology and Geography (including training centre, modelling laboratories, and research centres); Petrochemistry; Catastrophe modelling and forecasting, ecology; geoinformation technologies; Law (recruiting lawyers from the East of Russia, analysing labour market, and legal issues for R&D in the region); Presidential program for Management Training for Enterprises of the National Economy of the Russian Federation. • New Centre for Research of Siberia established in 2015: informed by years of research and collections: plants, minerals, archaeological and paleontological findings, and dictionaries of local dialects. • Specialist areas include: Museology and Protection of Cultural and Natural Heritage; Russian Regional Studies; Russian Philology, Linguistics, History and Literature.
Research	• Fundamental part of institutional positioning. with 'National Research' in its title. • 1,032 of total 1,294 academic staff have a PhD. • Significant research presence through schools, research centres and innovation enterprises aimed at furthering institutional research outputs and profile. Major national and international collaborations are established with universities and research centres. TSU highlights its staff who have been awarded, or worked with those bestowed by Russian Academy of Sciences, Russian Academy of Medical Sciences, State Prize winners, Nobel Prize winners.
Enrolments	• 1,430 International (CIS and Non-CIS) students - 63% UG, 37% PG. • UG, PGT, PGR, on campus, plus School-level, pre-degree and professional qualifications online. 63% UG, 37% UG
Faculty and Staff recruitment	• Student testimonials highlight Tomsk as 'the real Russia', and a College city such as Boston or Cambridge. The city's history is considered a selling point, but no further information is given for applicants for professional vacancies.
Highlights	• **Focus on quality partnerships to maintain and augment the profile and position of the institution. Heavily state-influenced.** • **Has recently acknowledged and is investing in range of delivery technologies**

University of the South Pacific

Element	Summary
Location and populations served	• 1.3 million, spread over 33 million square kilometres of ocean. Over half of the Pacific region's population is under 24. • 14 island campuses, co-owned by member states. • Wide geographical area covered. Remote and very remote. Largest campuses are well connected, others require boat transfer. • Total headcount 21,500 (FTE 11,500). Staff numbers 1,800.
Mission and Vision	• "Achieving excellence and innovation for sustainable development of the Pacific Island Countries". • To provide Pacific people with a comprehensive range of excellent and relevant tertiary qualifications; • To deliver the benefits of advanced research and its applications; • To provide communities and countries in the Pacific region with relevant, cost-effective and sustainable solutions, including entrepreneurship, to their main challenges; • To be an exemplar of tertiary education for the Pacific Islands in quality, governance, application of technology and collaboration with national tertiary institutions. • Addressing youth unemployment and net emigration flows of educated professionals are key issues USP is seeking to address.
Structural model and collaborations	• Complex system of co-ownership among 12 stakeholders, underneath the overarching institutional brand. Complexities are deepened through differing levels of country investment in facilities, and a combination of central and localised management and administration. • Brand power is maximised through shared ownership of a single institution.
Delivery methodologies	• Learning and Teaching policy: face-to-face teaching, online, print-based, and carried out at various campuses. • All registered locations are bricks and mortar campuses. A number of programmes are delivered through in-person, distance and online provision, and with varying levels of investment in key facilities according to country.
Curriculum (relevant to local economic needs and to cultural/historic populations)	• Curriculum content appears a secondary issue to that of local and regional need to provide a wide level of programmes from basic tertiary education upwards. PGT and research areas to some extent reflect regional priorities (Pacific Studies, Tourism, Agriculture, Marine Science, Climate Change). • Strategic Plan indicates ambitions to lead in '….. Pacific societies and cultures, oceans and marine resources'
Research	• Oceania Development Network is currently housed at USP Fiji ('A Pacific Island research community with the capacity to fulfil the development needs of their countries and region and informing policy.'
Enrolments	• 7,600 pre-degree, 18,825 UG, 2,400 PG (both PGT and PGR) • Pacific Technical and Further Education (TAFE), Certificate, Diploma, UG, PGT, PGR

University of the South Pacific (cont'd)

Element	Summary
Faculty and Staff recruitment	• Comprehensive information given, along with specific incentives: USP offers living quarters for up to 4 months to allow new staff to find accommodation; information and links to rental properties are supplied; staff members are entitled to free University medical coverage; an allowance for school fees; extensive information is given for newcomers. FAQs confirm USP reimbursement of relocation costs, organisation of visas, meeting on arrival at the airport, and home passage at the end of contract.
Highlights	• **Example of using the strength of a single institutional brand to bring together multiple delivery points.** • **Addressing regional needs by delivering pre-HE qualifications as well as traditional degree programmes.**

University of Southern Queensland, Australia

Element	Summary
Location and populations served	• 3.4 million total population of South Queensland. 70% of population are located in the Southeast of the territory. • 4 mainland campuses (Toowoomba, Fraser Coast, Springfield, Ipswich) and online options presented with equal weighting. Additional premises available through partnership with Queensland College of Wine Tourism. • Remote, relatively well connected (to Brisbane only) in terms of campus locations. Online delivery enables access to remote locations • Toowoomba campus 4,700 students; Fraser Coast campus 890; Springfield 2,000; • 1,654 staff (704 Academic).
Mission and Vision	• Providing educational excellence, focused research on issues vital to regions and engaged service to the community. A university built on relationships. Renowned for our capacity to connect people, our leadership in providing higher education opportunities to a diverse student population, our unique contribution to regionally relevant research. 4 key strategic principles underpinning mission: personalised learning; focused research; enriched communities; engaged enterprise.
Structural model and collaborations	• Single institution operating over three sites. Significant investment in online delivery, upon which the institution is heavily reliant for the majority of its enrolments, and for its position as a leading deliverer and practitioner in this area. • Balance of recruitment indicates that in-person delivery and maintenance of physical campuses is essential for profile and credibility of institution with industry, government, funders and 25% of its student market. However, institutional investment in the infrastructure and technologies for continuation of its online delivery is paramount for its continued position, and in order to serve the disparate market it attracts. • Connections to industry: Consultancy and contract research yields $792,000 per annum. Much is made of the employability rates of USQ graduates, but it is unclear the extent to which industry are collaborators in key research areas or curriculum development. • Strategic Plan references research development that is 'grounded in our communities and industries' in such a way that that attracts investment and partnership. • 22 partners across Australia and internationally listed; relatively low-ranked institutions or private organisations which facilitate institutional profile-raising in key markets, and student mobility across partner institutions.
Delivery methodologies	• Majority online delivery. Significant investment in innovative approaches to online delivery.
Curriculum (relevant to local economic needs and to cultural/historic populations)	• The interdisciplinarity of research areas allows for focus to be given to regional need, based on understanding of indigenous peoples and communities as applied to a range of research areas. • Application of policy for improving higher education and employment outcomes for indigenous Australians is a key institutional priority. This affects access and outreach, participation and retention, curriculum development and employment strategy. • Key approaches of note: mapping indigenous languages onto university catchments; specific funding streams for Aboriginal or Torres Strait Islander backgrounds; programmes in Indigenous Studies; pathway provision aimed specifically at these indigenous groups, and specialised knowledge and student support services within the College for Indigenous Studies, Education and Research. • Indigenous Research, and Regional Communities form key strands of institutional research activity.

University of Southern Queensland, Australia (con'td)

Element	Summary
Research	• A key tenet of the institution's profile and future standing, in particular its core strengths in agriculture and the environment. Emerging strengths are identified in digital futures, mathematical sciences, biomedical sciences, and regional systems. • 10 Research Centres listed.
Enrolments	• Total student enrolments: 28,095 - FTE 14,400. • FTEs: Non awards: 69; Cross-Institutional: 116; Enabling: 1082; Sub-Degree: 890; Bachelor: 8,932; Other PG: 955; Higher Degree Coursework: 2001; Higher Degree Research: 342 • FTEs by discipline: Agriculture, Environmental and Related Sciences: 68.3; Architecture and Building: 17.4; Creative Arts: 1252.8; Education: 2881; Engineering and Related Technologies: 1912; Health: 1173.8; Information Technology: 1004.1; Management and Commerce; 2365.5; Natural and Physical Sciences: 1087.5; Society and Culture: 2571.4. • Offshore enrolments: 2,706 • On campus enrolments: 2,138 • 1.6% market share of Australian international student enrolments (Australian providers). • 39% of international external enrolments. • Offshore delivery takes place through international partnerships, as well as through Sydney Education Centre.
Faculty and Staff recruitment	• Messages focus primarily on the ethos, values and community of the institution rather than its location. • 'Fast facts' about each of the campus locations serve to provide a geographical context to any job opportunities, including travel time to major cities (Brisbane, Toowoomba), along with natural features and attractions, and lifestyle selling points. • Comprehensive benefits package has been established to attract staff: • Financial: generous superannuation; competitive salary rates; heritage bank discounts • Career: Internal career opportunities; professional development programs; wide variety of reward and recognition programs • Lifestyle: work/life balance initiatives; discounted personal travel; range of health services available. • http://www.usq.edu.au/jobs/benefits/detail
Highlights	• **Excellent example of package to attract staff. Comprehensive approach to addressing the needs of indigenous peoples.** • **Significant majority of delivery through online methods, enabling very wide market access.**

Global Comparator Analysis: Summary and Recommendations

Key Finding	Relevance / Impact
All of the institutions considered serve populations larger than that in Nunavut with the next smallest, Greenland serving close to double the population of Nunavut.	It will be challenging to operate a quality viable university given the small numbers involved.
All comparator institutions have collaborative agreements in place to support research and student exchange	Collaborations should be considered to achieve a robust and relevant curriculum and research activities
Nunavut-based Colleges are members of UArctic	Any institution created should consider membership of this consortium to establish profile/brand and form strategic alliances
Staffing Infrastructure identified as a critical component in recruiting and retaining talented staff to remote locations	USQ a strong model to consider as a leading practice related to staffing in remote locations.
All comparator institutions have strong offerings in topics relevant to the economic development needs of the region, and cultural topics to support historical importance and cultural identity of the region, alongside disciplines relevant to wider global research activities	Balance in programming and curricula offerings to meet regional needs should be considered, U Lapland seen as a strong example
Remote delivery technologies utilized broadly by comparator institutions	Balance between remote delivery and campus-based delivery is important, Tomsk State seen as a strong example
Institutional student engagement is typically achieved through participation in frameworks such as Erasmus and development of programme structures such as visiting student exchanges.	Consideration of development or participation in international student engagement activities, U of Greenland seen as a strong example

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Costing Analysis

We have developed some high level financial models which reflect the proposed University being able to reach the minimum size proposed by the Universities Canada criteria of 500 full time equivalent students. We have not yet modelled any phasing of this approach but have quantified what final costs could be in order to determine what overall budget requirements could be.

Facility Requirements

Facility requirements are likely to include at minimum the following:

- Academic space: classrooms and laboratories
- Residence facilities
- Recreational service facilities
- Administrative space
- Library
- Cultural facilities
- Ancillary services: food services, bookstore, etc.
- Plant maintenance facilities

Estimated cost of $8,000 to 10,000/ square metre

- Based on recent educational facility infrastructure projects in Nunavut

Facility Requirements

To estimate the space required for the University, the Council of Ontario University Space Guidelines were used as a benchmark[2]. The space guidelines consist of three components:

- A classification scheme that describes the range of facilities that make up a university;
- A series of input measures that serve as proxies for demand such as enrollments, faculty and staff, and programming considerations; and,
- Space utilization factors that predict space requirements based on the size and target use of facilities.

A summary of the above is provided on the following slide.

The Council of Ontario University Space Guidelines were selected for the following key reasons:

- Reflect a wide range of institutions based in Ontario;
- Are consistent with the variety and complement of programs being considered;
- Provide a Canadian-based perspective;
- Are publicly available as a benchmark; and,
- Are considered to be well understood by Canadian policy makers.

Due to limited information available at this time, analysis focused on a range of estimated costs to provide sensitivity related to assumptions on student and faculty levels, and construction costs. At this time, these figures represent estimates only, and are expected to be further refined as decisions are made on the program areas that the proposed university will offer along with the desired learning environment to further refine the required compliment of facilities required to deliver on programs and services.

[2] Inventory of Physical Facilities of Ontario Universities 2013-14, published May 2015, http://cou.on.ca/wp-content/uploads/2015/05/COU-Inventory-of-Physical-Facilities-of-Ontario-Universities-2013-14.pdf

Facility Requirements

Council of Ontario Universities Physical Space Requirements Formula

Space Category	Space Factor	Input Measure
Classroom Facilities	1.11*NASM[1]	FTE Students
Laboratory – Instructional	Average of 0.55 NASM	Weekly Student Laboratory Contact Hours
Laboratory – Graduate & Faculty	Average of 21.2 NASM	FTE Faculty + 0.5 FTE Other Research Appointments +0.5 FTE Graduates
Office – Academic	12*NASM+25%	FTE Faculty, Research Staff, Grad Students
Central Administrative Offices	12*NASM+50%	FTE Non-Academic Staff
Library Facilities	0.005 NASM+25%	Traditional Static Shelving
Campus Study Space	0.6 NASM	FTE Students
Recreation / Athletic Space	0.9 NASM	FTE Students
Plant Maintenance	0.015 x Total NASM Inventory	Total NASM Inventory
Student & Central Services	1.5*NASM	FTE Students
Food Service	0.5 to 0.7 NASM	FTE Students
Bookstore and Other Merch. Services	0.1 to 0.2 NASM	FTE Students
Central Services	0.15 to 0.4 NASM	FTE Students
Health Service Facilities	0.03 to 0.05 NASM	FTE Students
Common Use and Activity Space	0.5 to 0.7 NASM	FTE Students
Assembly & Exhibition	0.15 to 0.4 NASM	FTE Students

1 - Net Assignable Square Meters - NASM

Facility Requirements

Low Scenario

# of Students	400			
# of Staff and Faculty	150			
	Factor	NASM	Cost / m^2	Estimated Cost
Classroom	1.11	444	$8,000	$3,552,000
Lab Space	0.55	220	8,000	1,760,000
Academic Offices	15	900	8,000	7,200,000
Library Space	0.00625	2.5	8,000	20,000
Study Space	0.6	240	8,000	1,920,000
Recreation / Athletic Space	0.9	360	8,000	2,880,000
Plant Maintenance	0.015 *NASM	3,295	8,000	26,361,580
Administrative Space	12	1,080	8,000	8,640,000
Student and Central Services	1.5* NASM	4,870	8,000	38,958,000
Total		**11,411**		**$91,291,580**

High Scenario

# of Students	600			
# of Staff and Faculty	225			
	Factor	NASM	Cost / m^2	Estimated Cost
Classroom	1.11	666	$10,000	$660,000
Lab Space	0.55	330	10,000	3,300,000
Academic Offices	15	1,350	10,000	13,500,000
Library Space	0.00625	4	10,000	37,500
Study Space	0.6	360	10,000	3,600,000
Recreation / Athletic Space	0.9	540	10,000	5,400,000
Plant Maintenance	0.015 *NASM	4,943	10,000	49,427,963
Administrative Space	12	1,620	10,000	16,200,000
Student and Central Services	1.5* NASM	7,305	10,000	73,046,250
Total		**17,117**		**$171,171,713**

Based on benchmark information described, it is anticipated that a capital cost of $91 to $171 million would be required. This excludes potential costs for faculty housing and student accommodation.

Facility Requirements - Next Steps

In order to further refine the capital costs associated, the following types of information would be required:

- Anticipated programs and services to be offered
- General site conditions
- Number of residence spaces desired
- Anticipated timeline
- Financing requirements
- Market availability
- Key scope requirements and/or specifications
- External support/guidance requirements

Forecasted Operated Costs- Selection of Comparators

Forecast based on an analysis of actual operating costs in Canadian dollars of a sample of smaller universities *(University of Alaska Southeast; First Nations University of Canada; University Center in Svalbard; Brandon University; Cape Breton University; Lakehead University; Royal Roads University; University College of the North; Vancouver Island University).*

The comparator universities selected to forecast potential operating costs were selected based on the below key criteria:

- Comparability of enrollment numbers to those which are being considered
- Consistency in the variety and complement of programs being considered
- Maturity of the institution, classification, and role within the broader Canadian university landscape

Forecasted Operated Costs – Key Findings

- Based on the analysis which suggests an estimated 201 FTE students would be expected by a Nunavut university by 2025, the forecasted operating costs assume an overall enrollment of 500 FTE students (approximately 200 students per year for four year study programs, less an allowance of 30% for attrition);
- Based on data from comparator universities on student enrollment and employee headcount, the forecast is based on 41 employees supporting 500 FTE students.
- Forecasted operating costs based on average cost per student for comparator universities. Forecasts based on average costs, and at 25% and 50% percentiles above average.

25% and 50% percentiles above average were chosen to reflect the sensitivity in the range of cost estimates. It is intended to show the possible deviation in costs. The range chosen was based on an understanding that the benchmarks at comparators would be sound and to use figures higher than this would reduce the validity of that data.

Comparator University Data

Details	University of Alaska Southeast	First Nations University of Canada	University Centre in Svalbard	Brandon University	Cape Breton University	Lakehead University	Royal Roads University	University College of the North	Vancouver Island University
Location	AK, US	SK, Canada	Norway	MB, Canada	NS, Canada	ON, Canada	BC, Canada	MB, Canada	BC, Canada
Students Enrolled (year)	2,689 (2014)	760 (2014)	599 (2014)	4,203 (2015)	3,500 (2015)	8,526 (2015)	2,782 (2015)	2,400 (2015)	17,694 (2015)
Full-time Faculty / Staff / Employees	304	41	106	257	350	882	400	314	700
Financials ($'000 currency units)									
Currency	USD*	CAD	NOK*	CAD	CAD	CAD	CAD	CAD	CAD
Total Expenditures	78,238	18,914	21,477	59,666	63,940	168,424	55,308	43,162	133,237
Total Revenues	79,029	18,112	21,822	59,707	63,805	170,967	58,840	43,987	134,802
Financial Ratios ($)									
Expenditures per Student	26.18	24.89	35.86	14.20	18.27	19.75	19.88	17.98	7.53
Expenditures per FTE	257.36	461.32	202.62	232.16	182.69	190.96	138.27	137.46	190.34
Operating Revenues per Student	26.44	23.83	36.43	14.21	18.23	20.02	21.15	18.33	7.62
Operating Revenues per FTE	205.87	441.77	205.87	232.32	182.30	193.84	147.10	140.09	192.57

* Converted to CAD

Forecasted Operating Costs – Nunavut University

Details	Costing Model – Nunavut University (average cost per student model)	Costing Model – Nunavut University (average cost per student model, 25% above average)	Costing Model – Nunavut University (average cost per student model, 50% above average)
Location	NU, Canada	NU, Canada	NU, Canada
Students Enrolled (year)	500 (2025)	500 (2025)	500 (2025)
Full-time Faculty / Staff / Employees	41	41	41
Financials ($'000 currency units)			
Currency	CAD	CAD	CAD
Total Expenditures	13,072	14,852	16,633
Total Revenues	13,072	14,852	16,633
Financial Ratios ($)			
Expenditures per Student	26.14	29.70	33.27
Expenditures per FTE	318.82	362.25	405.67
Operating Revenues per Student	26.14	29.70	33.27
Operating Revenues per FTE	318.84	362.24	405.69

Estimated Capital and Operating Costs - Summary

Estimated Capital Cost

Based on NASM benchmark space data, and capital cost estimates from the Government of Nunavut it is anticipated that a capital cost of $91 to $171 million would be required. This excludes potential costs for faculty housing and student accommodation.

Capital cost $91 to $171 million

Estimated Operating Cost

Operating costs assuming a 500 FTE student enrollment are forecast to be in the range of $13.1 million to $16.6 million annually.

- Financial plans for the university should be set at the high end of the cost range given a likely cost premium associated with operating in the North. In addition, a premium may be required on faculty salaries to attract specialists to the North.
- Annual operating costs would need to be covered primarily by revenues from student tuitions, and grants.
- Based on the average revenue components from comparator universities, approximately 50% of the University's revenues would come from student tuitions and fees. Assuming revenues funding operating costs of $16.6 million, this represents revenues from tuitions and fees of $5.0 million annually, or $16,600 per FTE student.
  - Average student fees in Canada range from $2,660 in NL, to $7,868 in Ontario, with an average of $6,191 across Canada. It would therefore require greater investment from the Government to make this an attractive to students.

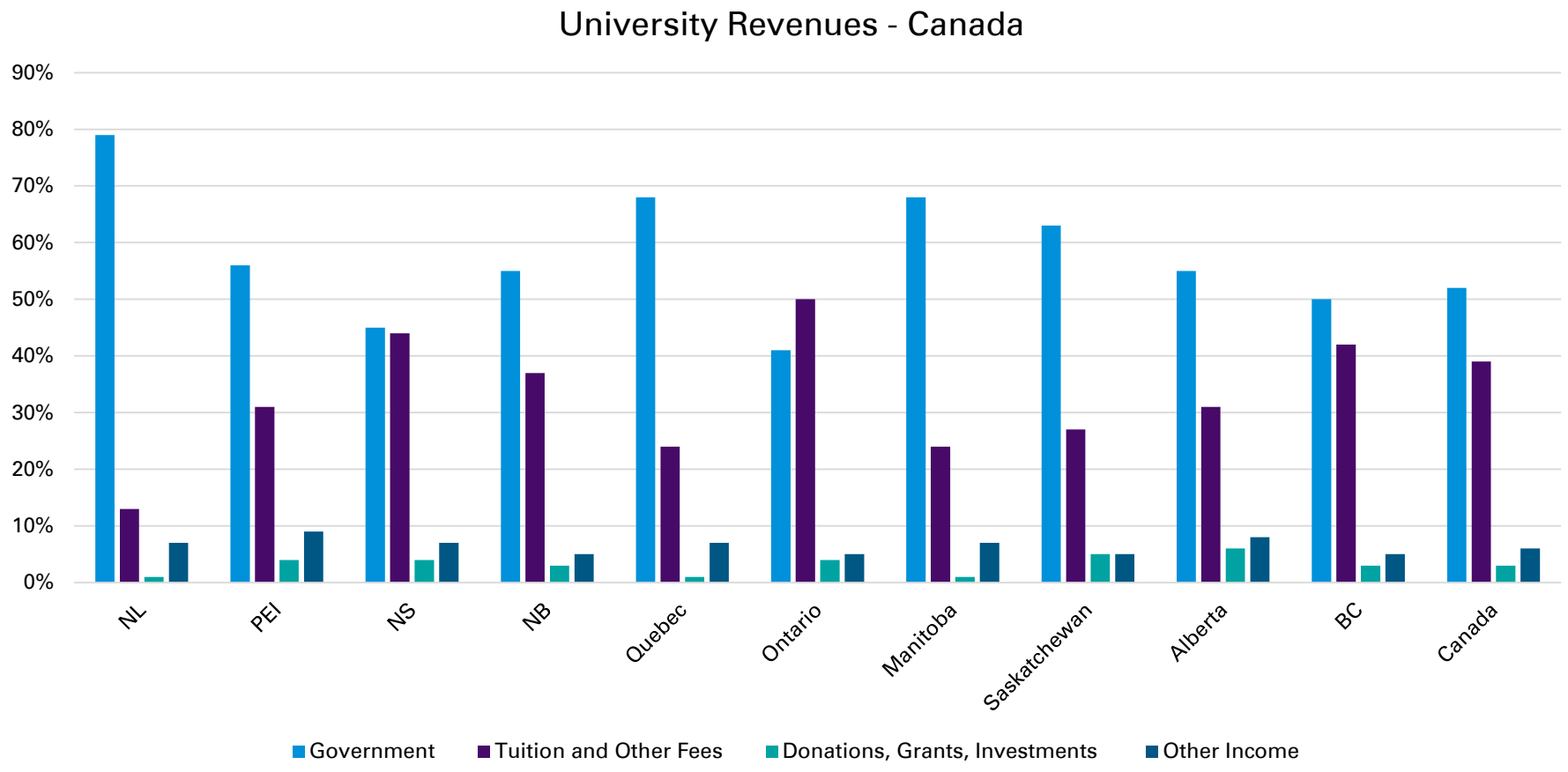
Operating cost $13.1 to $16.6 million annually

It is important to note that there will be additional costs incurred for the Government of Nunavut in establishing and operating appropriate governance, funding, reporting and monitoring processes for any proposed model.

University Revenues – Canada, US, & UK

It is important to consider who will meet the costs of the proposed University. The following section details how higher education is currently funded across Canada and the level of fees that are paid by students. We have also included comparison with the US and UK to demonstrate how other jurisdictions operate. These demonstrate a trend in increasing tuition fees for students. The pricing and funding policy in Nunavut would need to be determined to consider both affordability for government and students as well as a desire to increase participation. Funding structures for Greenland universities has not been included due to a lack of publicly available information.

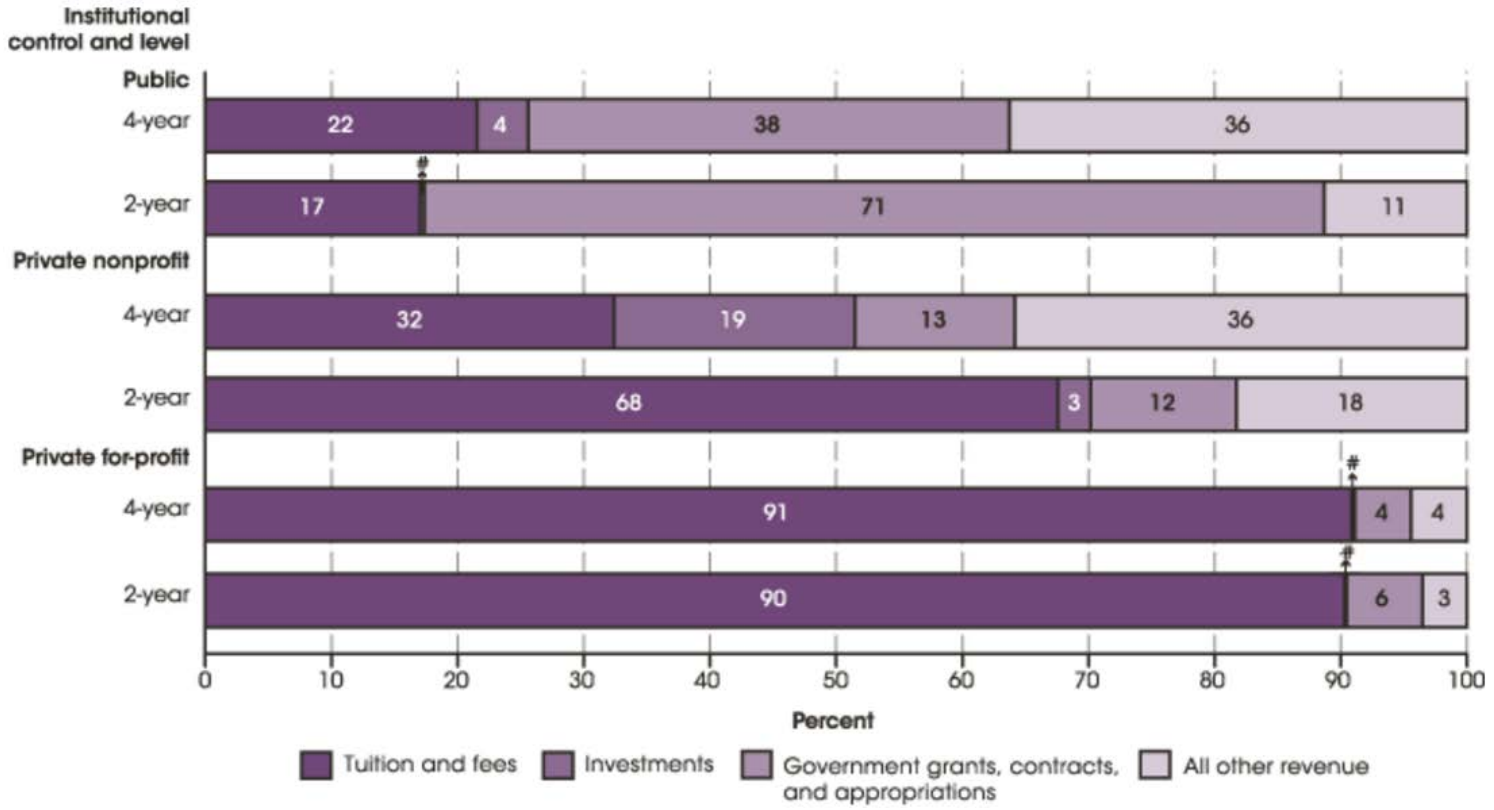
Canada



Universities in Canada are typically funded 52% by government and government agencies, 39% by tuition and other fees, 3% by donations, grants and investment income, and 6% sale of products and services and other income.

United States

The US funding structure was chosen due to the proximity of various northern universities and colleges in Alaska, such as the University of Alaska

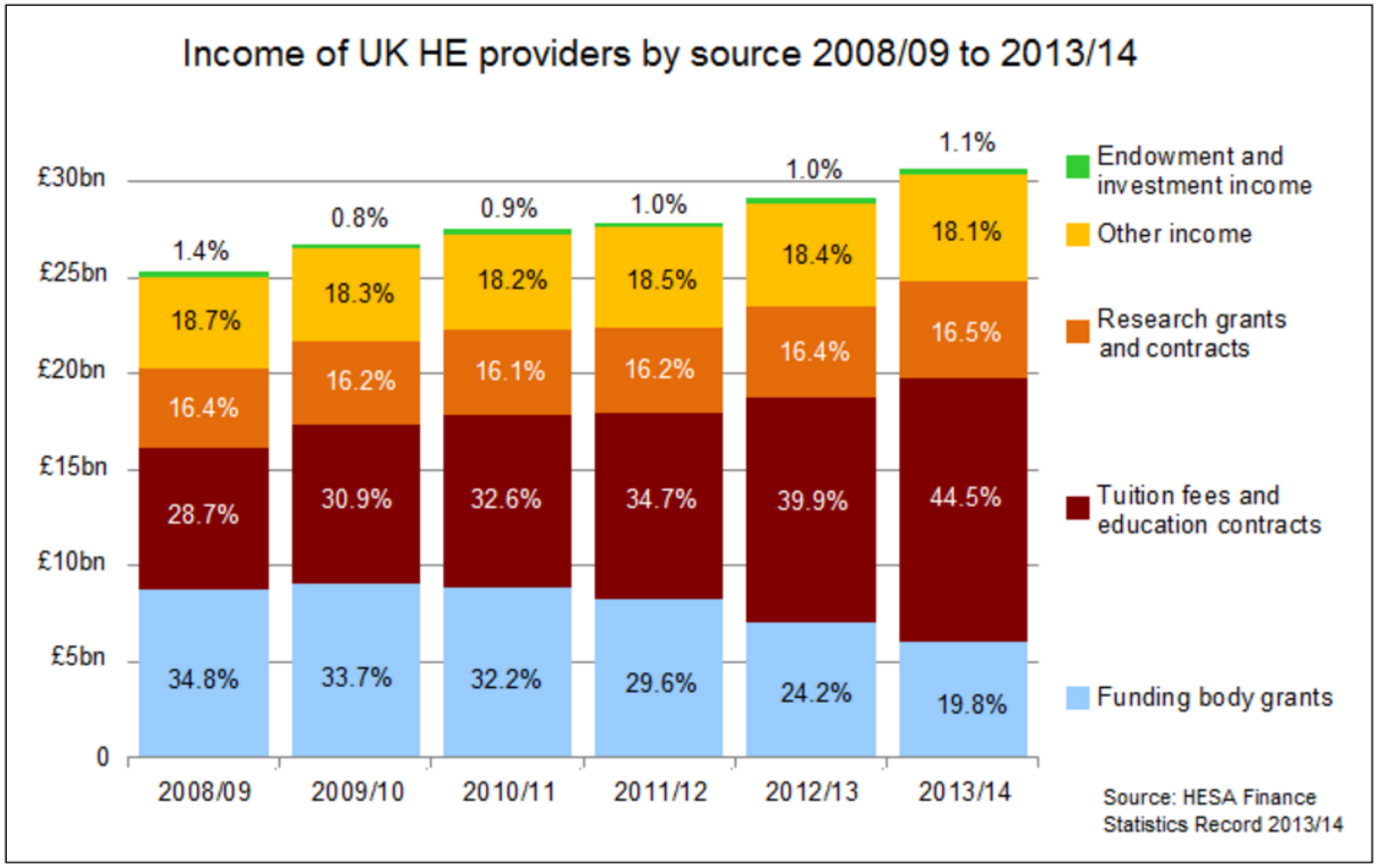


SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2014

In 1988, public colleges and universities received 3.2 times as much in revenue from state and local governments as they did from students. They now receive about 1.1 times as much from states and localities as from students. Today, tuition revenue now outweighs government funding for higher education in 23 states.

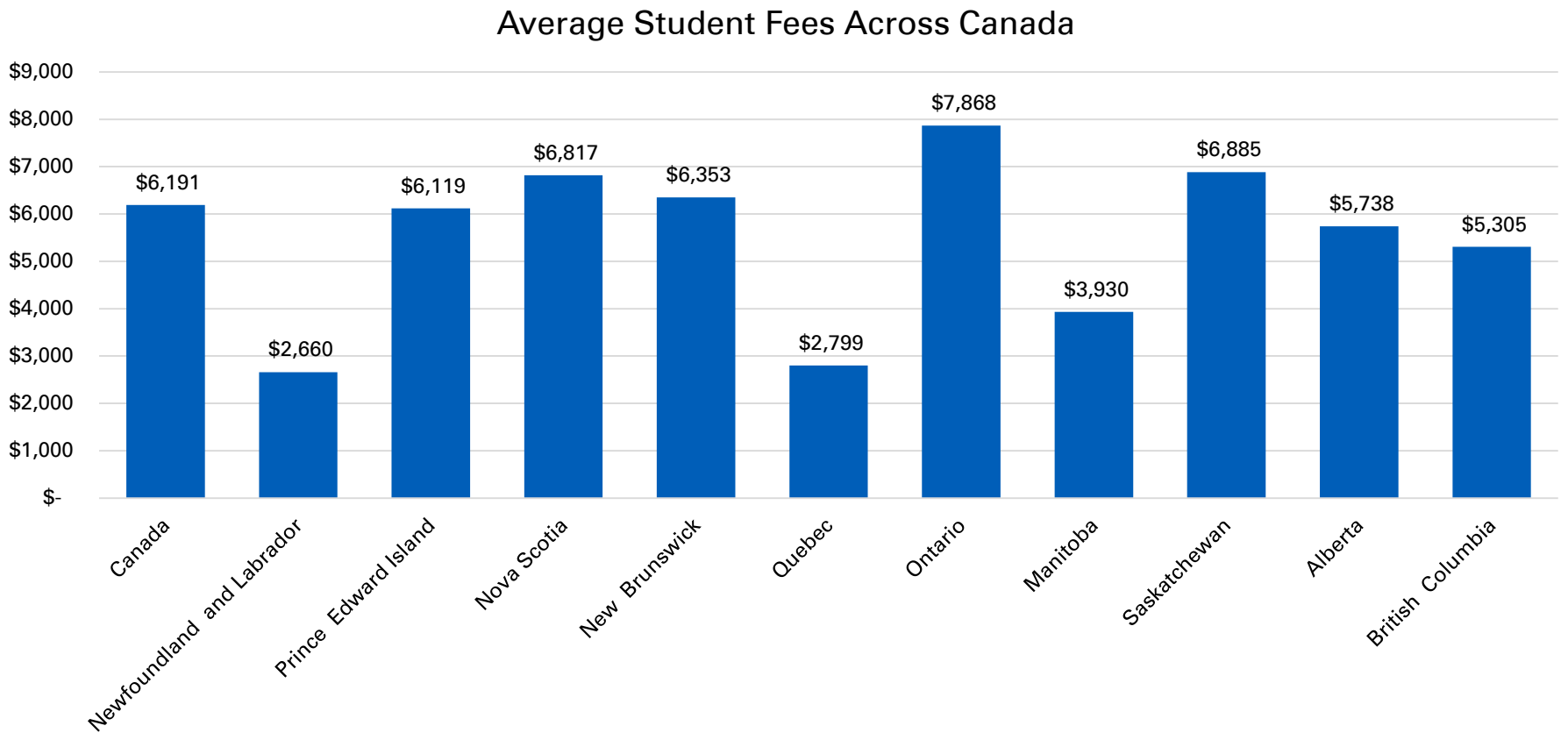
United Kingdom

The UK funding structure was chosen due this system undergoing the greatest amount of change over the last 5 years.



Tuition fees amount to an increasing portion of university revenues in the UK – up from less than 29% in 2008/09 to almost 45% in 2013/14, whereas government funding has reduced from 35% in 2008/09 to under 20% in 2013/14.

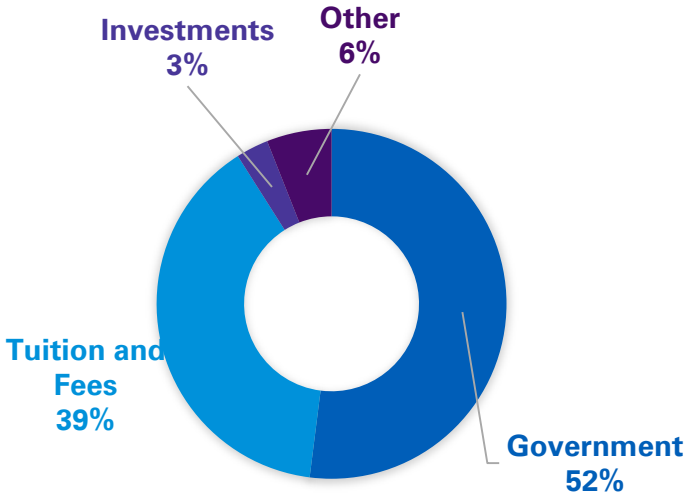
Average Fees in Canada



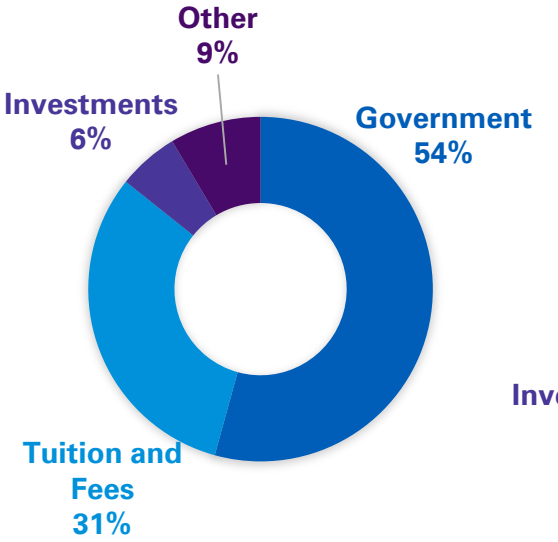
Average student fees in Canada range from $2,660 in NL, to $7,868 in Ontario, with an average of $6,191 across Canada. It will be a key policy and financial decision to make for the government around the level of tuition fees versus government funding. This could heavily influence student recruitment both in Nunavut, across Canada and internationally.

Comparison of University Revenue Proportions

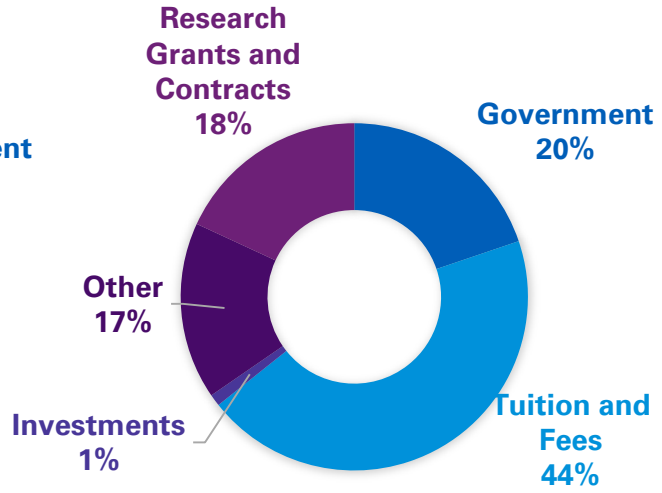
Details	Canada	US	UK
Government	52%	38%	19.8%
Tuition and Fees	39%	22%	44.5%
Investments	3%	4%	1.1%
Research Grants and Contracts			16.5%
Other	6%	36%	18.1%



Canada



US



UK

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Quality Assurance in Higher Education in Canada

How Quality Assurance Works in Canada

Canada's system of university quality assurance is multi-layered, comprehensive, and rigorous.

As higher education in Canada falls under the jurisdiction of the country's 10 provinces and three territories, Canadian universities generally receive the authority to grant degrees from provincial legislation (a few universities still retain charters).

Under this authority, each Canadian university is autonomous in academic matters and determines its own quality assurance standards and procedures. These institutional policies and procedures are formal and transparent, and are coupled with an external review by the relevant provincial quality assurance authorities. For some professional programs, institutional policies and processes also undergo professional accreditation.

In addition, there is support for a Canadian Degree Qualifications Framework and a commitment to a common framework of quality standards across all Canadian provinces and territories. This means that Canadian universities have a shared understanding of the value of one another's academic credentials and that our high quality standards are recognized internationally.

Professional programs accreditation

In addition to institutional quality assurance processes of the institution, some academic programs in professional fields are subject to accreditation by professional bodies at the provincial, Canadian or international levels (for example, in the fields of nursing, architecture and engineering).

Professional bodies review programs to ensure that the content of university programs, teaching resources and research outputs are of consistently high quality to meet competency expectations and to support future professionals in their area of expertise.

Provincial Quality Assurance Systems

Each Canadian province has its own established system of higher education quality assurance. These systems may be managed by an organization representing universities, an agency, a provincial government, or a combination of actors. While the approaches differ, provincial quality assurance systems generally review programs to ensure the quality of degrees offered, monitor the frequency and efficacy of institutional reviews, and/or set guidelines to audit existing programs.

Alberta

Higher education in Alberta falls under the jurisdiction of the provincial Ministry of Innovation and Advanced Education. The quality of academic programs is maintained and enhanced in Alberta's universities through internal program reviews and new program proposal review procedures. All new degree granting programs, with the exception of divinity programs, are reviewed and approved by the Minister of Enterprise and Advanced Education.

The Campus Alberta Quality Council provides an external quality assurance review. It is mandated to conduct quality reviews of new degree program proposals and to monitor them once approved to ensure they continue to meet high standards of quality. The council is an arm's length quality assurance agency, established through the Post-Secondary Learning Act. Its members are appointed by the Minister of Enterprise and Advanced Education. Applications from universities seeking to offer new degree programs are reviewed by the council based on established standards. The council then makes a recommendation to the Minister.

British Columbia

Higher education in British Columbia falls under the jurisdiction of the provincial Ministry of Advanced Education.

Quality is maintained and enhanced in British Columbia's universities through internal academic program reviews. This process includes a mandatory review of all new and substantively revised programs by each university senate. Public universities annually report their quality assurance activities for new and existing programs to the Minister of Advanced Education.

The external review of university quality assurance processes is done by the Degree Quality Assessment Board, an independent body appointed by the Minister and established through the Degree Authorization Act.

Following the internal review by the university's senate, the Board performs a second review to ensure that new degree programs and substantially revised degree programs meet consistent and high quality criteria.

Manitoba

Higher education in Manitoba falls under the jurisdiction of the provincial Ministry of Advanced Education.

The quality of university academic programs in Manitoba is ensured through each institution's own internal program review processes and internal governing bodies.

The Council on Post-Secondary Education (COPSE) was dissolved in January 2015, and replaced with the Advanced Education Advisory Committee.

The minister responsible for The Advanced Education Administration Act is also given authority to approve all changes to programs of study, services or facilities proposed by a university or college. In approving new programs, the minister is required to consider credit transfer arrangements, quality assurance processes and procedures and other relevant factors. Regulations may be made that exclude prescribed changes from requiring ministerial approval.

Provincial Quality Assurance Systems

New Brunswick

Higher education in New Brunswick falls under the jurisdiction of the provincial Ministry of Post-Secondary Education, Training and Labour.
The 2001 New Brunswick Degree Granting Act established a framework to evaluate the quality of programs leading to a degree. Under the Act, universities must submit program proposals prior to designation and every five years following designation. Universities that were created by an Act of the New Brunswick Legislature prior to the implementation of the Degree Granting Act are exempt.
Quality is maintained and improved in New Brunswick's universities through internal policies and procedures for program review and self-study.
The external review of quality assurance in all publicly funded universities in the Maritime provinces (New Brunswick, Nova Scotia and Prince Edward Island) is done by the Maritime Provinces Higher Education Commission (MPHEC). The MPHEC is an arm's length organization accountable to the ministers responsible for postsecondary education in the Maritime provinces, which assists institutions and governments in enhancing the postsecondary learning environment. The Commission uses the Maritime Degree Level Qualifications Framework to ensure common structures and outcomes for academic programs at the undergraduate and graduate degree level within the Maritime provinces.

Newfoundland and Labrador

Higher education in Newfoundland and Labrador falls under the jurisdiction of the provincial Ministry of Advanced Education and Skills.
The 1990 Memorial University Act establishes Newfoundland and Labrador's one university, Memorial University of Newfoundland. Quality is maintained and improved at Memorial University through a program review process for new programs, with final program approval laying with the University Senate. The quality of existing university programs is assessed through an internal process of self-study and review.
The university's quality assurance processes are reviewed externally when Memorial University's Board of Regents reports annually to the Minister of Advanced Education and Skills. The report is tabled in the Government of Newfoundland and Labrador legislature.

Nova Scotia

Higher education in Nova Scotia falls under the jurisdiction of the provincial Ministry of Labour and Advanced Education. Quality is maintained and improved in Nova Scotia's universities through internal policy and procedures for program review and self-study. The 1989 Nova Scotia Degree Granting Act grants the Minister the authority to create regulations to ensure the quality of programs, instructors, facilities and academic standards of an institution.
The external review of quality assurance in all publicly funded universities in the Maritime provinces (New Brunswick, Nova Scotia and Prince Edward Island) is done by the Maritime Provinces Higher Education Commission (MPHEC). The MPHEC is an arm's length organization accountable to the ministers responsible for postsecondary education in the Maritime provinces, which assists institutions and governments in enhancing the postsecondary learning environment.

Provincial Quality Assurance Systems

Ontario

Higher education in Ontario falls under the jurisdiction of the provincial Ministry of Training, Colleges and Universities.
The rigorous quality of Ontario's publicly assisted university undergraduate and graduate university programs is ensured through a combination of each university's institutional quality assurance processes and an external review of these processes, as set out in Ontario's Quality Assurance Framework.
An independent body, the Ontario Universities Council on Quality Assurance (the Quality Council), is responsible for approving all new undergraduate and graduate programs offered by the publicly assisted universities. All new program proposals are also subject to external review by disciplinary experts prior to program approval. The Quality Council also audits each university's quality assurance processes on an eight-year cycle to ensure that each university is operating in conformity with Ontario's Quality Assurance Framework when it is reviewing or modifying its existing programs. All programs are reviewed against Degree Level Expectations and all must identify learning outcomes and how their achievement will be assessed in undergraduate and graduate programs. The Quality Council communicates its decisions to the Ministry of Training, Colleges and Universities.
Public or private degree-granting organizations, either for-profit or non-profit, which are based outside the province and offer all or part of a degree program in Ontario, must apply for ministerial consent through the Post-Secondary Education Quality Assessment Board , an arms-length organization which makes recommendations to the Minister of Training, Colleges and Universities, under the terms of the Post-Secondary Education Choice and Excellent Act, 2000. Ministerial consent is also required by all private organizations and by public organizations not empowered to grant degrees by Ontario statute, and to use the word "university" relating to an educational institution.

Prince Edward Island

Higher education in Prince Edward Island falls under the jurisdiction of the provincial Department of Workforce and Advanced Learning.
The 1969 University Act establishes PEI's only university, the University of Prince Edward Island. Quality is maintained and improved at the University of Prince Edward Island through internal review and self-study policies and procedures.
The external review of quality assurance in all publicly funded universities in the Maritime provinces (New Brunswick, Nova Scotia and Prince Edward Island) is done by the Maritime Provinces Higher Education Commission (MPHEC). The MPHEC is an arm's length organization accountable to the ministers responsible for postsecondary education in the Maritime provinces, which assists institutions and governments in enhancing the postsecondary learning environment.

Quebec

Higher education in Quebec falls under the jurisdiction of the provincial Ministry of Education, Higher Education and Research.
The quality of university academic programs in Quebec is ensured through each institution's own internal program review processes.
External quality assurance for Quebec's universities is managed by the Bureau de coopération interuniversitaire; university program assessment policies are reviewed by the Program Evaluation Review Commission.

Provincial Quality Assurance Systems

Saskatchewan
Higher education in Saskatchewan falls under the jurisdiction of the provincial Ministry of Advanced Education. Individual provincial statues established the University of Regina in 1979 and the University of Saskatchewan in 1995 and outline the authority of each institution to govern itself and grant degrees. In accordance with the new legislation, the Ministry of Advanced Education established the Saskatchewan Higher Education Quality Assurance Board (SHEQAB). SHEQAB is authorized by The Degree Authorization Act to oversee a quality assurance review of institutions seeking degree-granting status in Saskatchewan. The quality assurance review process ensures that new degree programs in Saskatchewan meet high quality standards that promote the recognition of Saskatchewan graduates both nationally and internationally for their academic achievements.

Universities Canada Membership

Each institution in Canada has developed and maintains periodic internal quality assurance policies and procedures that foster a culture of quality at the university. As responsibility for the quality of Canadian university programs is shared with respective provincial governments, these internal policies take place in the context of external reviews by provincial or regional authorities.

Every university is also a member of Universities Canada which also maintains it's own principles of institutional quality assurance in Canadian higher education. Membership in Universities Canada requires each university to have formal and comprehensive quality assurance policies. Members must also affirm their commitment to the Association's principles of institutional quality assurance in Canadian higher education.

In the absence of any formal national accreditation framework, Universities Canada membership serves as de facto accreditation, and thus provides the stamp of legitimacy. Without membership in Universities Canada, it is not likely that an institution would be to be recognized as a legitimate, reputable university by students, other institutions or employers. The reputational value to the territory of hosting a 'university' will not be achieved if that university is one in name only, and not recognized outside the territory.

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Strategic Options

Spectrum of Options

There is a spectrum of opportunities for the further development of post-secondary education options in Nunavut, ranging from the status quo to the establishment of a new, autonomous University. This proposal reflects a clearly- stated and understandable desire for the territory to move beyond the existing options available at Nunavut Arctic College, which are generally well-founded but inherently limited in scope and impact. But entirely new institutions are non-trivial undertakings, which require long-term planning to meet stringent requirements. We believe that the immediate focus should be on improving and expanding the provision of quality higher education in the territory, in a way that leads smoothly toward new institutional arrangements and establishments when and as they can be sustained and contribute effectively to the intellectual, social, and economic health and well-being of the territory and its people.

This document outlines some of the possible configurations on that continuum, and the necessary steps that would need to be undertaken at each point. In every option, we acknowledge that programs need to incorporate a significant experiential learning component, as a bridge between traditional and western ways of learning, and as a reflection of the participatory, communal society these new options would serve as primary stakeholder.

We also anticipate that all of these options would include modules, courses, and programs that would be offered on- line—some completely, others in a hybrid model combining on-line learning and face-to- face instruction. This assumes that issues in the territory with adequate bandwidth and internet infrastructure can be addressed, and that prospective students have sufficient access to computers or other devices. It is anticipated that some of the on-line courses might be developed locally, and that others could be accessed from other institutions, with students taking the courses through letters of permission, or perhaps through the negotiation of an agreement with a provincial partner. For example, the newly created Ontario on-line portal houses hundreds of on-line courses for students in Ontario to take for credit at their home institution. An arrangement that gains access to this or a similar inventory of courses would be an efficient way to proceed, especially at first, since initial course development costs would be negligible.

Autonomous University

The most ambitious goal, and the most demanding, the creation of a new University of Nunavut (to coin an obvious name for the sake of discussion) would require an institutional framework that could meet and sustain numerous expectations and conditions. These are best summed up as eligibility requirements for membership in Universities Canada, which include:

- An absolute minimum sustained enrolment of 500 FTE (Full-Time Equivalent) students: effectively 2,500 full-credit course enrolments
- Conditions on faculty quality, notably including the proportion that hold Ph.D.s or other terminal degrees
- Standards for breadth of programming
- A bicameral system of governance with a university Senate having purview over all academic matters
- A rigorous program quality assurance process, overseen by independent authorities
- Demonstrated evidence of protection of academic freedom

Since establishment of a university-level option would not supersede or supplant the college level, this option would commit the territory to maintaining a two-tier PSE system.

It would be possible to establish a university without meeting the requirements of Universities Canada if the territory chose to give degree awarding powers to the new institution. In order for the degrees to be recognized across Canada it would be essential that the same robust quality assurance processes were put in place or it could lead to qualifications not being recognized by employers or by other institutions.

As there is no national accreditor across Canada it is not possible to know how this would operate in practice but it may be that students are required to undertake a qualifying year or semester should they try to transfer to another institution for example to undertake a post graduate qualification.

It is important to note that the two organizations that are planning on becoming universities in Canada (Yukon and Sheldon College) are both planning on meeting the Universities of Canada criteria to ensure that their learning is regarded as valid across Canada and the globe.

Joint Venture

A potentially less demanding option that still leads to the clear establishment of a University in the territory would be to draw upon the successful model of the University of Guelph-Humber in Toronto, and create a joint venture with an existing university. A new legal entity (for the sake of discussion, the "University of X-Nunavut") would be created from the contributions of two complementary and cooperating institutions: Nunavut Arctic College and a university partner. Faculty from both college and university would deliver programs in the combined institutions as well as their home institution, and the curriculum would be fully integrated, with a balance of both theoretical and applied emphasis. Students would graduate with two credentials: An Arctic College diploma and a University of X degree. There would be natural incentives to facilitate pathways and degree-completion within the three-way collaborative system thus created, and opportunities to draw upon the existing resources of the university partner for program enhancement at the new site (and within Arctic College), including potentially on-line courses.

Just considering existing partners this option might lead to, for example, a University of Regina-Nunavut; University of Prince Edward Island-Nunavut; or Dalhousie University-Nunavut.

Satellite Campus

A University of Nunavut could also be established as a satellite campus of an existing University. This differs from the joint venture option in that all the responsibility for quality and resourcing would come from the main University and the degree would be conferred from the main campus. This could be achieved with no link to NAC.

Arctic Confederation

Nunavut is not the only northern territory confronting the desire to promote local higher education for its citizens in the face of significant demographic and geographic challenges. With appropriate participation by the NWT and/or the Yukon, the Nunavut Arctic College could establish a "University of the Canadian Arctic" (since "University of the Arctic" is already an established brand). This would entail additional cooperation among Nunavut Arctic College, Yukon College, and Aurora College to coordinate programs and pathways to for degree-completion. The existing colleges would continue to only offer diploma, certificate, and continuing education, but the new university would offer opportunities for differentiation of mission and the prospect of introducing graduate program opportunities. This option would spread the resource burden of supporting a university tier, and widen the natural enrolment and program catchment area for the resulting institution, but also naturally lead to discussions about whether multiple campuses would be needed to reflect each territorial stakeholders' interests.

Nunavut Arctic University College

Nunavut could proceed on its own to expand PSE options without initially establishing a formal 'university' by enhancing the programs, capabilities, resources, and degree-granting authority of Arctic College. The first step would be to invest in quality enhancement of existing programs, including a more rigorous quality assurance process, involving cyclical review of existing programs, with external peer assessors conducting both desk audits and on-site visits to ascertain the quality of the program offerings, the faculty, student learning, and resources in support of the program.

It would also be important to establish and/or extend bridging programs and pathways that lead to degree qualification at the College. By improving overall preparedness these kinds of programs can not only increase student success in the transition to post-secondary education, but also expand the pool of potential college (and eventually, university) attendees. Expanded distance and on-line learning programs and infrastructure would also be a priority, and help increase course availability and program delivery.

The College could also focus on creating more degree-completion opportunities for its programs (with the College offering either the first two or the last two years of programs involved). This essentially expands existing arrangements already in place with Dalhousie, Regina, UPEI and elsewhere. New arrangements could be made with these existing partners (to widen the scope of programs offered), with additional university partners, or with Yukon College or Aurora College in the areas in which they have been authorized to grant degrees. As with a satellite campus, the partner institution would confer the final degree.

Ultimately, it may be reasonable for the legislature to consider endowing Arctic College with full degree-granting authority in specified program areas. This is something both Yukon College and Aurora College have been able to achieve in a few areas. This option would mean that degrees would be conferred by Arctic College rather than a partner university in the south, which is currently the case for some programs, like teacher education, nursing, leadership and learning. If the degree programs are created in areas where there are already diploma offerings (and where bridging and other demand-increasing programs are in place), a captive feeder pool of students already exists who could potentially transfer into any new degree programs.

Over the long term it may be possible to evolve this into a full University.

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Options Analysis

Considerations for Expanding Higher Education

The following considerations were utilized in determining the most appropriate strategic option for expanding Higher Education in Nunavut.

Will the option:

- Increase the ease of access to education for more of the population
- Increase participation rates, primarily considering Nunavut students, but also with consideration to those recruited from elsewhere in Canada, and from other countries
- Improve the quality of higher education offered in the territory
- Recognize the historic and cultural needs of the territory and the implications of the Truth and Reconciliation
- Align efficiently with other organizations – e.g. Nunavut Arctic College and CHARs
- Be affordable for the Government of Nunavut and sustainable overtime
- Meet the requirements of Universities Canada (over time)
- Be able to provide learning to meet employment needs
- Reflect on the successful approaches of other remote Universities
- Be easy to implement

Weighting of options against criteria

Rationale	Option 1: Autonomous University	Option 2: Joint Venture	Option 3: Satellite Campus	Option 4: Arctic Confederation	Option 5: Nunavut Arctic College
Priority Criteria					
Increase Nunavut Participation	2	2	1	2	2
Improve Quality of Education	1	2	2	1	1
Recognize & implement historical and cultural priorities	2	1	1	1	2
Meet Universities Canada Criteria	0	2	2	1	0
Demand for Government of Nunavut funding	1	2	1	2	2
Sub-total	**6**	**9**	**7**	**7**	**7**
Ranking for priority criteria	**3**	**1**	**2**	**2**	**2**
Other Criteria					
Provide learning to meet employment needs	1	2	2	2	1
Reflect on successful approaches	1	2	2	2	1
Increase Access	2	2	1	2	2
Increase Canadian Participation	2	2	2	1	1
Increase International Participation	2	2	2	0	1
Align efficiently with others	0	2	0	2	2
Implementation	0	0	0	1	2
Sub total	**8**	**12**	**9**	**10**	**10**
Ranking for other criteria	**5**	**2**	**4**	**1**	**3**
Overall score	**14**	**21**	**16**	**17**	**107**
Overall ranking	**4**	**1**	**3**	**2**	**2**

Option Analysis – Autonomous University

There are a number of positive reasons to consider the development of an autonomous university.

These include:

- Greater potential to influence the institution via mandates from government and to appoint members to the board of the University.
- Clear opportunity to implement curriculum that reflects the historical and cultural priorities.
- Potential to align with the employment needs of the territory.
- Potential appeal across Canada and the globe to attract Canadian and International Students

There are also a number of major challenges that would need to be overcome in order for this to operate effectively. These include:

- Ability to meet the Universities Canada criteria especially the minimum of 500 FTE and attracting appropriate qualified staff.
- The need to cover a range of subject areas to meet employment needs with likely small class sizes. The comparator group of Universities all draw on collaborations and partnerships to be effective.
- Ongoing sustainability based on low student numbers and the need to invest in technology and ongoing course and campus development.
- The need for significant government funding at a time when there may be other priorities such as housing, K-12 education and other social infrastructure and support.
- The potential duplication of resources available via CHARs and other Universities. In addition to the risk of destabilizing NAC by either providing a competitor in the local market or the removal of its ability to deliver higher education.

Option Analysis – Joint Venture

There are a large number of positive reasons to consider the development of a joint venture in comparison to an autonomous university.

These include:

- The ability to meet Universities Canada criteria through working with an existing University that is already recognized and meets the FTE and Academic staff requirement.
- High potential to align with the employment needs of the territory by being able to access the broader curriculum and learning offerings of a larger institution.
- There is potentially increased appeal across Canada and the globe to attract Canadian and International Students by linking with an established brand and being able to access their existing marketing and recruitment channels.
- Greater opportunity for student exchanges and staff sharing.
- Through the careful selection of a partner for the joint venture it should be possible to create alignment with NAC and still access the facilities on offer at CHAR.
- The potential for cost sharing and joint investment from the partner.

The potential negatives of this approach are:

- The reduced potential to influence the mandate and ability to appoint members to the board by government.
- Potential partners may not be as willing to reflect the historical and cultural priorities but this could be tested through a selection process.
- The interest in establishing a joint venture in Nunavut has not been tested in the market but given the current financial pressures that Universities across Canada are facing it may be difficult to attract a joint venture partner .

Option Analysis – Satellite Campus

There is the potential of inviting in an existing University to establish a satellite campus in the territory shares similar advantages to those presented in the joint venture. It presents the additional advantages of:

- Greater commitment from the selected university and potentially greater investment.

However the potential negatives of this approach are:

- The potential even greater loss of influence on the mandate and ability to appoint board members by government.
- Greater challenge in attracting someone to take on the full responsibility given the potentially small number of students.
- Lack of alignment with NAC and CHAR which could lead to duplication and have a destabilizing affect.
- The interest in establishing a satellite campus in Nunavut has not been tested in the market but given the current financial pressures that Universities across Canada are facing it may be difficult to attract an existing University.

Option Analysis – Arctic Confederation

This model recognizes the commonality that the three territories in Canada's north face around increasing higher education to remote populations as well as facing similar needs in terms of employment.

It provides the advantages of:

- Retaining the potential to influence the mandate and appoint board members to the University locally.
- Sharing costs of curriculum development and academic staff.
- Being able to offer a broader curriculum as the development and recruitment of students would be across a broader resource pool and population.
- It would be more likely to be able to meet the 500FTE criteria as this could be shared.
- Aligns with NAC and does not present the risk of destabilizing.

The potential disadvantages include:

- The willingness of all parties to co-operate.
- The loss of influence to mandate and appointment to the board of governors of the broader confederation.
- Potential perceptions from students, faculty and employers around quality of education and the interest in studying at a institution that has such a broad curriculum offer and market – e.g. adult basic education to post graduate.

Option Analysis – Nunavut Arctic University College

This option provides the potential for an incremental approach and could see NAC move to becoming a University College and potentially over time create sufficient size and rigor to become a full University.

It provides the advantages of:-

- Retaining local ownership and ability to appoint the board.
- Building on the current work of the college and capitalizing on the current investment in growing the campus.
- Clear alignment to the plans of NAC, Char etc and the potential to build progression routes to increase demand for HE.

The potential disadvantages include:-

- Similar to an autonomous University attempting to do this on its own the college will face significant challenges in being able to meet the Universities Canada criteria.
- Slower development of a broader curriculum as the organization would have to do itself.
- Lower potential demand and access to markets for recruitment across Canada and globally.
- Current perceived quality challenges at the college may mean it struggles to attract students and faculty.
- The challenge of offering the breadth of curriculum from adult basic education to post graduate may be difficult to manage and also reduce the attractiveness to potential students.

Option Analysis – Do nothing

There is an argument that given the relatively small numbers involved and current demand that the government could simply accept the status quo with students either continuing to study at both NAC and in other universities across Canada.

This has the advantages of:-

- Affordability
- Not destabilizing or duplicating efforts of other organizations.

However, the disadvantages detailed below leave us to believe that this is not an appropriate option at this time:-

- Need to increase participation in post secondary education
- Need to provide increased access to study in the territory
- Need to increase quality of post secondary education
- Need to meet the historical and cultural priorities

Implementing the preferred option

For all of the options presented, other than do nothing there is a requirement for more detailed analysis. We have outlined the potential next steps and how each of the options would be implemented.

	Autonomous University	Joint Venture	Satellite Campus	Arctic Confederation	Nunavut Arctic University College
Key Analysis in detailed feasibility	• More detailed analysis on student demand and curriculum offer. • Agreement on market focus (local versus international) • Detailed analysis of campus and accommodation requirements • Detailed financial modelling • Approach to potential funders / finance options to determine likely sources.	• More detailed analysis on student demand and curriculum offer. • Market testing of joint venture concept with small number of potential partners. • Potential financial modelling of input required • Outline governance considerations established. • Development of high level time line and action plan	• More detailed analysis on student demand and curriculum offer. • Market testing of satellite concept with small number of potential partners. • Potential financial modelling of input required • Outline governance considerations established. • Development of high level time line and action plan	• More detailed analysis on student demand and curriculum offer. • Meetings / interview with additional colleges to determine interest and level of commitment. • Outline governance considerations established. • Development of potential model of working and high level action plan for implementation.	• More detailed analysis of the current college performance and its existing partnerships with Universities. • Development of curriculum plan to expand degree offerings. • Production of a high level development plan which details how issues such as governance and quality can be addressed over time in line with Universities Canada criteria.
Potential approach to implementation	• Appointment of a project team. • Development of detailed plans.	• Possible options would be issuing of RFP to invite potential partners. • Or could approach specific universities. • Development of implementation plan, joint venture agreement and costing analysis	• Possible options would be issuing of RFP to invite potential partners. • Or could approach specific universities. • Development of implementation plan, joint venture agreement and costing analysis	• Development of detailed plan with agreement from all parties which detailed responsibilities, budgets and timelines.	• Detailed review of the college and development of plan. • Determination of additional resource requirements.

Summary - Answers to the Key Questions

In order to determine the feasibility of a new university there are a number of questions that we have considered. We have set out a brief summary of what we believe are the key issues against each one of these:

- How is a university defined in Canada?
  - Universities Canada has defined the criteria which must be met in order to become a member of their association in Canada and have indicated that there is no flexibility within them. It will be challenging for any new university to be able to meet these. Whilst it is possible to see how a university in Nunavut could achieve a number of these around governance, the ability to meet the 500 FTE will be the most challenging given the demographics of Nunavut. There is no requirement for a university to become a member but it could be challenging for the success of the new institution if it was not able to demonstrate parity with these criteria in order to attract students. We understand that Yukon College and one other college who are both planning on moving to university status are planning on meeting the requirements to become members.
- How many students will the university be able to recruit and from what locations?
  - There is only limited growth forecast in Nunavut population and therefore limited growth in demand. Therefore additional demand would need to come from increasing high school achievement rates and participation in Higher Education. We have produced a model which shows how these numbers would have to increase in order to meet the 500 FTE required. These achievements are based only on mathematical modelling as there are currently not target sets for either of these areas by government and therefore could be extremely difficult to achieve.
  - Even with the modelled improvements in high school achievement and participation in higher education the university would be dependent on recruiting students from across Canada and internationally to achieve the FTE target.
- What other factors need to be considered in terms of policy and organizations that already exist?
  - The context of Nunavut identified a number of issues that should be considered around the availability of housing, the need for improvement in k-12 education, the establishment of CHAR and also the challenges that current higher education students face in studying at another university outside of the territory. It also highlighted the importance of the history and culture of the territory.
  - It is clear that there are potential opportunities for synergy with organizations such as NAC and CHAR and also that the introduction of separate stand alone university could risk duplication and potentially destabilizing destabilize the college.
- What programs and curriculum should the university offer?
  - From an analysis of employment it was possible to identify a number of areas that programs could be developed to meet employment needs with particular focus on those that would supply qualified people to the public sector. However, this would be expensive and difficult to deliver in all of the program areas given potentially small class sizes.
  - We have touched on the potential to develop program focused on the history and culture of the territory and there is clearly interest in this being part of the offer for a new university. However, it is not possible at this stage to identify specific subject areas, likely volumes and how these would become accredited programs.

Summary - Answers to the Key Questions

- Where else are universities operating in remote locations and serving low population levels?
  - We examined a number of case studies to show that universities can successfully operate in remote locations and serve low populations. However, the studies clearly showed that each of the models was working in collaboration with other institutions and also even University of Greenland which has just over 600 students has close to twice the population of Nunavut as a market to serve.
- What would it cost to be a university to meet the requirements of our definition of university?
  - We have based our initially modelling on what a campus would likely be to accommodate 500 FTE students and costs of between $91m to $171m identified. It is not possible to be more accurate without having further defined the curriculum offer but it would be reasonable to assume that a total budget would be somewhere between these figures.
  - This figure represents the total overall cost and actually costs and growth of the campus could be done on a phased approach.
  - This excludes the cost of student and faculty accommodation which would also need to be considered.
- What will it cost to operate our definition of a university?
  - We have modelled what annual costs could be for a new university based on comparable sized universities elsewhere and then reflecting costs for Nunavut. This has generated a range between $13.1m and $16.3m per annum. This excludes student and faculty housing costs.
- Who will pay the costs of operating the university?
  - The pattern of who pays for higher education across Canada, US and UK has seen a move where government is now paying less of the overall total. However, this would still be in the region of 50% of the total if the Canadian average was considered. At this level this could result in fees around $16,600. per year. This needs to be considered in terms of affordability for residents of Nunavut and also the impact it would have on participation.
  - It could be possible to stimulate greater participation by offering low cost / free education but this would lead to a greater percentage of the cost for government. The current model of funding would provide a barrier to attracting students.
- What options should we consider to meet our context?
  - We have explored a spectrum of options from a stand alone new university to the more gradually development of NAC to become a University College.
- What are the advantages and disadvantages of each of the options?
  - We have produced analysis of each of the options against a range of criteria and highlighted particular strengths and weaknesses of each approach. The merits of each approach could vary if different priority was given to the criteria we have identified by the Government of Nunavut. it is important that the criteria and their relative importance are considered by government in determining its preferred options to move forward.

These questions all need to be considered against the overall strategies, policy's, targets and resource position of the Government of Nunavut. This report has been produced with input from a number of departments within Government but in the absence of clear documents that articulate some of the key issues such as policy.

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Next Steps

Next Steps

- Support Government of Nunavut is reviewing the analysis to date and reaching a decision on preferred option(s) and appropriate next steps.
- Any of the options identified other than do nothing would require more detailed study to assess feasibility, source better data and be able to provide more accurate financial information.
- Depending on the preferred option(s) it may be necessary to agree a revised approach for the delivery of phase 2
- Implementation of phase 2 to revised timeline – current target is March 31st but progress will be dependent on the timing of a decision and which option(s) are to be investigated.

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