The Conference Board of Canada

N.W.T. Labour Market Information Resource Module 4

State of Education

Impact Paper | April 1, 2022

Contents

Key Findings

- This module reviews indicators of educational achievement in the territory. It also examines recent data on the relative income advantage of possessing different post-secondary certificates, diplomas, and degrees.

- Notably, high school graduation rates are consistently lower in small remote communities and have been declining over the last 15 years. Data also suggest that N.W.T. students are increasingly taking longer to complete their high school education.

- In addition, Indigenous students have lower high school and post-secondary graduation rates than their non-Indigenous counterparts. And this discrepancy was greatest for Indigenous males. Better aligning primary and secondary school curricula with Indigenous cultures and languages has the potential to improve student attendance and graduation rates.

- Inequalities between women and men and between Indigenous and non-Indigenous workers are evident when we examine the relative income advantage of education attainment. These inequalities persist even when we compare different identity groups at the same level of education attainment—with non-Indigenous men often making more income than their peers from other identity groups.

An education helps to improve labour market prospects for individuals, reduces their risk of unemployment, and boosts earnings.

The territory continues to lag behind Canada in both high school and post-secondary education (PSE) attainment rates. Our findings also indicate different attainment rates for women and men and different rates for Indigenous and non-Indigenous people in the territory. Indigenous and non-Indigenous women and men in the territory also choose different paths into post-secondary, with some more concentrated on university and college and others on apprenticeships and trades.

With a clearer understanding of high school and post-secondary attainment rates, we examine the relative advantage that education attainment confers on workers in the territory. Our proxy for understanding the labour market benefits of an education is the relative income advantage associated with higher levels of education. To calculate this proxy, we use cross-referenced data on educational attainment and median incomes from the 2016 Census. The analysis reveals labour market inequalities between gender and identity groups.

Success in PSE is closely connected to one's experiences early on in life. Schools in the N.W.T. apply a variety of measures to better understand those experiences and the impacts they have on childhood development and student achievement in primary and secondary school. Our analysis in this module includes several key indicators from primary and secondary schools in the territory, including the Early Development Instrument (EDI) and Middle Years Development Instrument (MDI).

These instruments indicate that the vulnerability of children in the N.W.T. is among the highest in Canada and is particularly pronounced for children and youth living in smaller remote communities. Furthermore, the results from the Alberta Achievement Tests in secondary school suggest that a greater emphasis on mathematics and numeracy is needed throughout N.W.T. schools. Evidence suggests that success in this area is being hampered by the fact that the average N.W.T. student misses the equivalent of more than two full years in the classroom over the course of their school journey.

To close off the module, we then examine the pathways taken by post-secondary students attending the territory's only local PSE option, Aurora College. Each year between 2014–15 and 2018–19, the highest number of graduates were from the School of Business & Leadership, followed by the School of Health & Human Services.

High School Attainment in the N.W.T.

Having a high school diploma is an important prerequisite for post-secondary education and an essential driver of workforce readiness. And the importance of having a high school diploma in the N.W.T. has not changed since 2014. From the 2019 N.W.T. Community Survey, we see that

almost 90 per cent of working adults held a job that required at least a high school diploma (i.e., the number employed at NOC Skill levels A through C). (See Module 2 and Table 7(2) in the data download.)

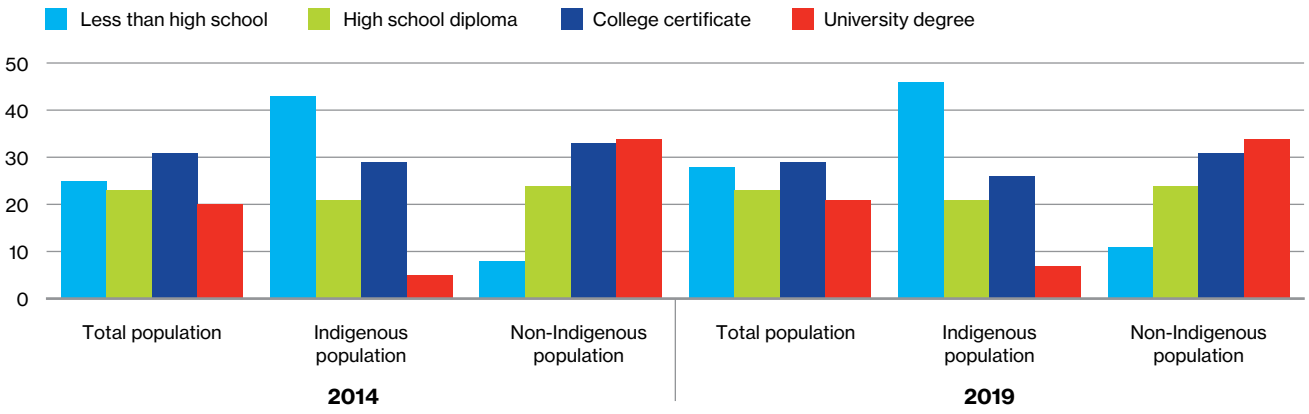
High school attainment rates remained unchanged in the N.W.T. between 2014 and 2019. (See Chart 1, as well as Chart 1(4) in the data download.)

Data from the 2019 N.W.T. Community Survey provide the following territorial high school attainment rates for populations aged 15 and over: almost 75 per cent attainment for the total population, 54 per cent attainment for the Indigenous population, and 89 per cent attainment for the non-Indigenous population.

Year-to-year graduation rates in the N.W.T. have fluctuated over the last 15 years.[1] (See Table 1(4) and Chart 2(4) in the data download.) But, on average, the graduation rate between 2007 and 2018 was 61 per cent. Rates do, however, differ between identity groups and across school locations in the territory. (See Chart 2, as well as tables 1(4) and 2(4) and charts 2(4) and 3(4) in the data download.)

Chart 1

Highest Level of Education for the Northwest Territories Population age 15 and Over, by Identity
(per cent)



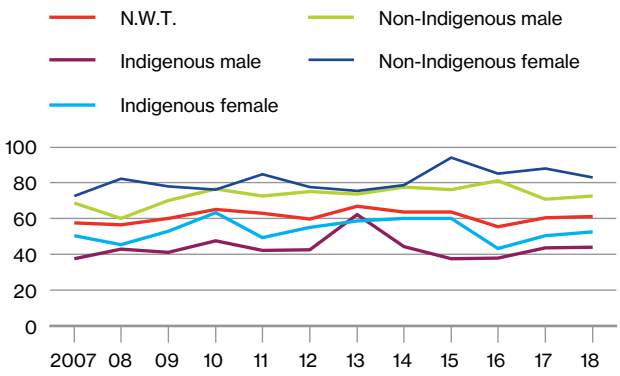
Sources: N.W.T. Community Survey; The Conference Board of Canada.

1 These results are calculated using the N.W.T.'s new method of high school graduation rate. Graduation rate is calculated by dividing the number of high school graduates (who are enrolled in grade 12 for the first time) by the total number of first-time grade 12 students. High school graduates up to 21 years of age are included in the count.

Notably, as Chart 2 indicates, graduation rates are consistently lower in small communities and have been declining over the last 15 years. In addition, Indigenous students have much lower graduation rates than their non-Indigenous counterparts. And this discrepancy was greatest for Indigenous males.

Data also suggest that more N.W.T. students are taking longer to complete their high school education. Comparing "on time" graduation rates between the N.W.T. and the rest of Canada in 2017–18, we see that the on-time rate for high school students in Canada as a whole is 81 per cent, compared with only 52 per cent in the N.W.T.[2,3]

Chart 2
Northwest Territories' High School Graduation Rate, by Gender and Identity
(per cent)



Note: Theses results are calculated using N.W.T.'s new method of high school graduation rate. Graduation rate is calculated by dividing the number of high school graduates (who are enrolled in grade 12 for the first time) by the total number of first-time grade 12 students. High school graduates up to 21 years of age are included in the count.
Sources: Department of Education, Culture and Employment, Northwest Territories; The Conference Board of Canada.

N.W.T. Post-Secondary Education Attainment Compared With Other Territories

Post-secondary attainment indicators measure the share of the working-age population with a college diploma, an apprenticeship certificate, trade certificate, or university degree. In 2019, approximately two-thirds of the N.W.T. workforce had an occupation that required a post-secondary diploma—a finding that had not changed from 2014.

In 2019, 29 per cent of the overall population held a college diploma or trades certificate, and approximately 21 per cent of the population held a university degree. (Due to data limitations, we are not able to break this down further into the various university degrees.) Similar to 2014, there remains some discrepancy in the proportion of the Indigenous population with a post-secondary education, compared with the non-Indigenous population. In the territory, non-Indigenous people are much more likely than Indigenous people to hold a university degree. In 2019, only 7 per cent of the Indigenous population had a university degree, compared with 34 per cent of the non-Indigenous population. The proportion of Indigenous people with a college diploma or trades certificate was also slightly lower in the Indigenous population (26 per cent) than in the non-Indigenous population (31 per cent).

2 "On-time graduation rate" refers to true cohort graduation, where the students graduate within three years of beginning Grade 10/Secondary 3.

3 Statistics Canada, "Table A.2.1 True Cohort High-School Graduation Rate."

Furthermore, the female population in the N.W.T. is more likely to hold a university degree, compared with the male population. (See charts 4(4) and 5(4) in the data download.) And this difference exists in both the Indigenous and the non-Indigenous female populations. In 2019, 40 per cent of non-Indigenous females held a university degree, compared with 28 per cent of non-Indigenous males. At the same time, 9 per cent of the female Indigenous population held a university degree, while only 5 per cent of the male Indigenous population did so.

In contrast, the male population in the N.W.T. is more likely to have a college certificate. But broken down by identity, this difference is only observed for the non-Indigenous population. In the Indigenous population in 2019, 26 per cent of males and 26 per cent of females held a college certificate. On the other hand, 35 per cent of non-Indigenous males held a college certificate, while only 27 per cent of non-Indigenous women did so.

Gender Gap in Territorial Post-Secondary Attainment

In examining the gender gap in 2016, we see that women in the N.W.T. made up a larger share of the population with a tertiary education. The gender gap is calculated by comparing the ratio of males to females in the population to the ratio of males to females with a post-secondary education. When we exclude apprenticeships and trades certificates from the calculation, we see that the gender gap is larger in the N.W.T. than it is for the Canadian population as a whole. This discrepancy is driven by the Indigenous population in the Northwest Territories. Indigenous women in the N.W.T. account for a higher share of the Indigenous population with a tertiary education than do women in the overall Canadian Indigenous population. In the N.W.T., the non-Indigenous gender gap is comparable to what we see in Canada as a whole. (See Table 3(4) in the data download.)

The gender gap drops dramatically when we include apprenticeships and trades certificates in the calculation. (See Table 4(4) in the data download.) This drop is greatest for the Indigenous population, indicating that, in the territory, a larger number of Indigenous males than females pursue apprenticeships and trades certificates in their tertiary education—a finding that is consistent with the results from our previous Labour Market Information Resource.[4]

Comparing the gender gap over a five-year period, we see that in the N.W.T. the gender gap among the Indigenous population has gotten more pronounced since 2011. In 2016, even when including apprenticeships and trades certificates, women still hold a higher share of tertiary

4 The Conference Board of Canada, *Labour Market Information Resource*.

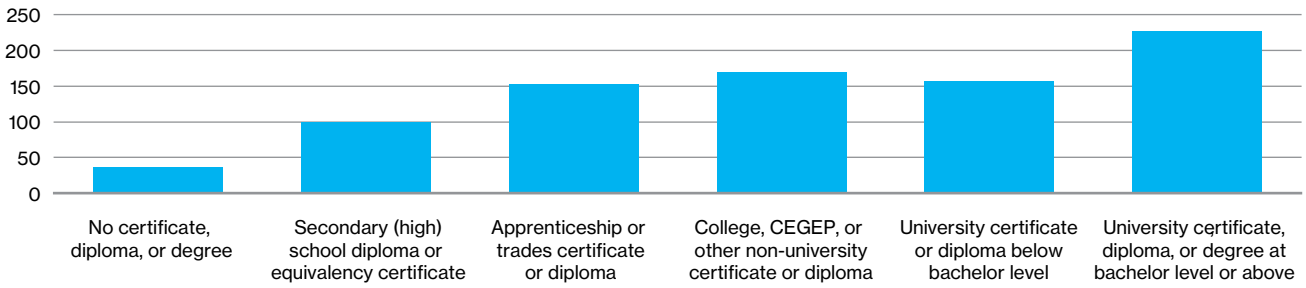
education in the Northwest Territories. (See Table 5(4) in the data download.)

Income Advantages Linked to Post-Secondary Degrees and Certification in the Territory

An education helps to improve labour market prospects for individuals, reduces their risk of unemployment, and boosts earnings. One proxy for understanding these benefits is the relative income advantage associated with higher levels of education. To calculate this proxy, we use cross-referenced data on educational attainment and median incomes from the 2016 census.[5] For example, we can calculate the income advantage of different levels of education relative to the attainment of a high school certificate. As shown in Chart 3, for every $100 earned by the median worker with a high school certificate, their employed counterpart with no certificate, diploma, or degree earns $36. By contrast, their employed counterpart with a university degree at a bachelor level or above earns $227. (See also Chart 6(4) in the data download.)

We next take the analysis further by presenting the relative income advantage of workers who have equivalent levels of education but differences in genders and Indigenous identity. This time we take the median incomes of non-Indigenous males as our baseline. The following sections discuss the results. (See Chart 7(4) in the data download.)

Chart 3
Income Advantage of High School Attainment Relative to Other Levels of Education, Full-Time Employees, 2016
(amount earned by level of education, index, secondary diploma = 100)



Sources: Statistics Canada 2016 Census; The Conference Board of Canada.

5 The Conference Board of Canada, *Income Advantage for University Graduates*.

Income Advantage for High School Diploma

Looking across gender and identity groups, there is a large disparity in incomes for those with no certificate, diploma, or degree. In particular, Indigenous females earned $37 for every $100 that a non-Indigenous male earned. The numbers are not much better for Indigenous males; they earned $51 dollars. By contrast, while non-Indigenous females earned $82 for every $100 earned by their non-Indigenous male counterpart, their gap was narrower. (See Chart 7(4) in the data download.)

A look at those who hold a high school diploma or equivalent shows a smaller gap in incomes between females and males—in particular, Indigenous females earned $42 for every $100 that a non-Indigenous male earned, while Indigenous males earned $54 and non-Indigenous females earned $51. (See Chart 7(4) in the data download.)

Income Advantage for College, Apprenticeships, and Trades Certification

At the college, apprenticeships, and trades level, we see that non-Indigenous males continue to dominate when it comes to income advantages. Notably, for every $100 that a non-Indigenous male with an apprenticeship earned, a non-Indigenous female earned $60 and an Indigenous female earned just $25. Furthermore, Indigenous males earned roughly $56 for every $100 that a non-Indigenous male with the same qualification earned. (See Chart 7(4) in the data download.)

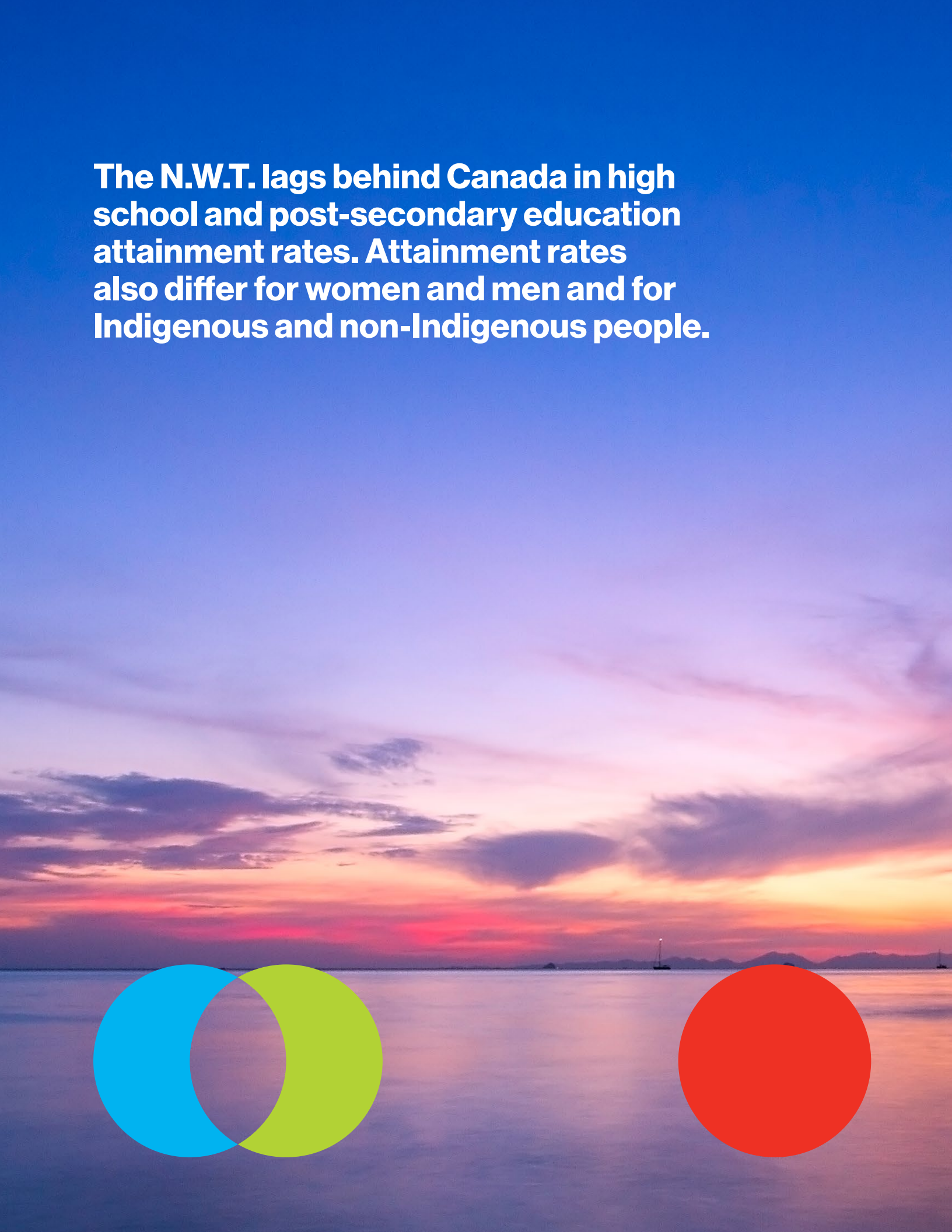
At the level of a college, CEGEP, or other non-university certificate or diploma, the inequalities become narrower, with non-Indigenous women making $78 for every $100 made by a non-Indigenous male, and Indigenous women making $67. Indigenous males at this level made $83. (See Chart 7(4) in the data download.)

Income Advantage for University Graduates

When comparing the median incomes of university graduates with a bachelor's degree or higher, we see that, while there is a significant gap between Indigenous and non-Indigenous people, the overall gap is much smaller than it is for post-secondary attainment below the bachelor's level. Notably, for every $100 a non-Indigenous male earned with a university degree at the bachelor's level or above, an Indigenous male with the same qualification earned $111. Both Indigenous and non-Indigenous females earned under $90 for each $100 that a non-Indigenous male with the same level of education earned. In this case, Indigenous females' median incomes are slightly higher than those of non-Indigenous females. (See Chart 7(4) in the data download.)

Income Advantage of Post-Secondary Degrees for Indigenous Populations

In median income terms, Indigenous post-secondary graduates earned considerably more than Indigenous high school graduates in 2016. At the bottom end, Indigenous workers with an apprenticeship or trades certificate or diploma earned $148 for every $100 earned by an Indigenous high school graduate. For


The N.W.T. lags behind Canada in high school and post-secondary education attainment rates. Attainment rates also differ for women and men and for Indigenous and non-Indigenous people.

Indigenous workers with a college, CEGEP, or other non-university certificate or diploma, the relative advantage expands to $227. And for their counterparts with a university certificate, diploma, or degree at bachelor level or above, the advantage rises to $370. (See Chart 7(4) in the data download.)

Primary and Secondary School Performance

Overview of JK–12 Demographics

The 2016 Census found that nearly 28 per cent of the population in the N.W.T. was under the age of 20, a proportion that is higher than for the overall Canadian population at 22 per cent.[6] Children and youth play an important role in filling the future skills needed in the N.W.T. labour market. To foster their development, it is important to build and maintain an engaging and skills-based curriculum for students in the territory. This section addresses how students are performing in the JK–12 school system in the Northwest Territories.

Early Development and JK

Healthy development in the early years is an important factor for future success in school. And in the N.W.T., many factors can play a role in healthy early development. These can include (but are not limited to) prenatal care, poverty, nutrition, trauma, and access to services.[7]

The Early Development Instrument (EDI) is used in the N.W.T. to assess developmental readiness prior to children entering the first grade. Students fall into three categories—"on track," "at risk," or "vulnerable." Being identified as vulnerable indicates that a child is at a higher risk of having problems. And without extra support, the child may continue to face challenges.

The vulnerability of children in the N.W.T. is the highest in Canada. (However, Nunavut does not use the Early Development Instrument and is not included in the provincial and territorial comparisons made across Canada.) For the 2015–17 period, 27 per cent of children in Canada were identified as vulnerable, compared with 42 per cent of children in the Northwest Territories.[8] The data indicate that many children across the N.W.T. are in need of extra support, but the rates are highest among children in small communities. (See Chart 8(4) in the data download.) In fact, six out of 10 children in small communities were identified as vulnerable. Yellowknife has the lowest proportion of children identified as vulnerable, at 28 per cent. This number is on par with Canada's overall population.

Looking at the changes between 2012–14 and 2015–17, we can see an increase in the vulnerability of students in the regional centres and small communities. However, the rates have remained relatively stable in Yellowknife.

The results from the EDI assessment guide decision-making related to curriculum development and changes in support programs

6 Statistics Canada, "Census Profile - Age, Sex, Type of Dwelling."
7 Government of Northwest Territories, *JK–12 Education Review Performance Measures Technical Report*.
8 Nunavut is not included in the overall score for Canada.

for children in kindergarten through to Grade 3 across the territory. The introduction of JK (junior kindergarten) in small communities in the N.W.T. starting in the 2014–15 school year, and territory-wide starting in 2017–18, has had a positive impact on vulnerability. The data indicate that children who had attended JK were less likely to be vulnerable than children who did not attend. (See Chart 9(4) in the data download.)

Primary School

The overall well-being of elementary-aged students is measured by the Middle Years Development Instrument (MDI) in Grade 4 and Grade 7. Across the N.W.T., approximately one in three students in Grade 4 or Grade 7 were identified as thriving, according to the MDI. (See charts 10(4) and 11(4) in the data download.) But in smaller communities, the rates were much lower, at approximately one in five students. In addition, the number of Grade 4 and Grade 7 students that were thriving decreased between 2015–16 and 2017–18. The largest declines were in the regional centres, but with fewer children in these schools, fluctuations are to be expected.

By using the MDI to capture the overall well-being of elementary-aged students, the expectation is that "thriving" scores should increase over time as the N.W.T. JK–12 school system embraces ways to better incorporate the culture of the N.W.T. into the curriculum.[9]

Student Enrolment in Indigenous Languages Programs

The N.W.T. has nine official Indigenous languages. Schools can help foster a culture of respect and support for these languages by providing regular, accessible Indigenous language programming as part of their curriculum. The N.W.T. is piloting the Our Languages Curriculum in junior kindergarten to Grade 12.

Between 2013 and 2018, approximately 3,000 students per year across the N.W.T. were enrolled in Indigenous language courses. Fluctuation in enrolment numbers is evident when this number is broken down by grade and community type. Here our analysis looks at student enrolment in Indigenous language courses during 2017–18. (See Chart 12(4) in the data download.) Enrolment is much lower for Grades 10 to 12 in all community types, compared with JK–Grade 9. Across the N.W.T.,

9 Government of Northwest Territories, *JK-12 Education Review Performance Measures Technical Report*.

approximately one in two students is enrolled in Indigenous language courses in JK to Grade 9, compared with one in 10 students in Grades 10 to 12.

Looking at community type, enrolment is notably low in Yellowknife. However, most schools in Yellowknife do not offer Indigenous language courses. Nearly all students in small communities are enrolled in Indigenous language classes between JK and Grade 9. However, this number drops dramatically in Grades 10 to 12 for students in small communities.

It will be valuable to monitor these numbers moving forward. As Indigenous languages become more a part of the N.W.T. school experience, the hope is to see enrolment increase.

Alberta Achievement Test Scores

During the period of our retrospective analysis, the N.W.T. has been using Alberta Achievement Test scores (ATTs) to monitor student academic achievement in language arts and mathematics. In this context, N.W.T. schools administer AATs for English Language Arts (ELA) and mathematics (MATH) annually in Grades 6 and 9.

Comparative test results indicate that Alberta students are outperforming N.W.T. students in both language and math. (See Chart 13(4) in the data download.). Across both domains and grades, at least 20 per cent more students in Alberta than in the N.W.T. are scoring in the acceptable or higher range. (Alberta may not be the best fit as a comparison point to measure the performance of N.W.T. students in English Language Arts and Math. Unfortunately, data from the other territories that use the Alberta Achievement Tests are not publicly available.)

More students earn acceptable marks in ELA than in MATH across all community types. (See Charts 14(4) and 15(4) in the data download.) Looking at the territory as a whole, in 2017–18, 54 per cent of students scored acceptable on the ELA test, while 45 per cent of students scored acceptable on the MATH test. But these numbers drop substantially in the smaller communities. In these communities, only 20 per cent of students scored in the acceptable range on the ELA test and only 15 per cent on the MATH test. These results suggest that there needs to be a greater emphasis on mathematics and numeracy in the Northwest Territories. More work is needed to address the low scores in the small communities.[10]

Student Support Plans (SSPs) are used in the N.W.T. schools to document a plan for any student working below their grade level. In the N.W.T., 16 per cent of students require modified programming due to their working below their grade level. This number is much higher in smaller communities—roughly 30 per cent. While it is beneficial for students to receive individualized programming to support their needs and foster success, a large proportion of students requiring SSPs adds substantially to teacher workloads in small communities.

10 Ibid.

Diploma Exam Results

The N.W.T. has also been using Alberta diploma examinations to track academic achievement for select Grade 12 courses. Our analysis examines the proportion of students who scored acceptable or higher on language, social studies, math, and science courses in 2017–18 in the Northwest Territories. (See Chart 16(4) in the data download.) Across the N.W.T., a higher percentage of students earn acceptable marks on their language and social studies diploma exams than they do for math and science.[11]

Data are not available for all courses across community types, making comparisons difficult. But for courses with complete data, Grade 12 students in smaller communities are less likely to be scoring acceptable or higher on their diploma exams.

Attendance and Re-enrolment

For the 2017–18 school year, students in the N.W.T. had an average attendance rate of 82 per cent. (See Table 6(4) in the data download.) While this appears high, it implies that students miss an average of one day of school per week, which adds up to missing over two full years of school over the course of a student's elementary school journey.

Yellowknife and regional centres have higher overall average attendance rates than small communities. Across all community types, attendance is higher between JK and Grade 9 than between Grades 10 and 12.

The Transition to Post-secondary Education

A successful transition out of the education system is the ultimate goal for each and every student in the Northwest Territories. Our analysis examines the percentage of 2013–14 high school graduates who went on to pursue a post-secondary program within three years of graduating from high school. (See Chart 17(4) in the data download.) The numbers show that the majority of N.W.T. high school graduates go onto post-secondary training, at 65 per cent. But in the smaller communities, students are less likely to pursue a post-secondary education. Here, approximately 50 per cent of students go on to pursue a post-secondary program within three years.

At the same time, just over 20 per cent of students who graduated in 2013–14 returned to high school for upgrading within three years after graduation. These results suggest high school students may need more guidance in choosing a career path and preparing them with the requirements needed to pursue a post-secondary education. There is also an ongoing need for programming to help graduating students update their knowledge base and skills to successfully enter a post-secondary training program or the job market after completing high school.[12]

These numbers are evidence that achieving a high school diploma is important for N.W.T. students, as it is a gateway to further education and training. And many N.W.T. high school graduates are making positive transitions into the next stage in their lives.

11 An "acceptable or higher score" is considered a score of 50 per cent or higher on the Alberta diploma examinations.

12 Government of Northwest Territories, *JK–12 Education Review Performance Measures Technical Report*.

Student Enrolment in Post-Secondary Education

Our forecast, presented in modules 5 and 6, provides an account of the skills that will be required in the coming years in the territory. Knowing the post-secondary programs that N.W.T. students are enrolling in can help to determine if the required skills will be available among the resident population.

Data on students enrolled at Aurora College can provide some insight into what types of programs post-secondary students who remain in the N.W.T. are studying. But it is important to recognize that post-secondary options are limited in the Northwest Territories. And many students leave the territory to pursue a post-secondary education. Data from the student loans provided by Student Financial Aid in the N.W.T. can also provide insight into what programs students from the N.W.T. are studying outside the territory.

Aurora College Enrolment

The data gathered for this section come solely from the Aurora College annual reports.[13] Our analysis examines the enrolment of students by program division over five academic years from 2014–15 to 2019–20. (See Table 7(4) in the data download.) In the 2019–20 academic year, the highest number of students were enrolled in the Developmental Studies division program. Two out of every five students at Aurora College were enrolled in this division. The next highest enrolment was in the Health & Human Services division, where approximately one in five students was enrolled. The Arts & Sciences division had the lowest enrolment at only 3 per cent, or 18 full-time equivalent students.

There were some changes in program enrolment between the 2014–15 and the 2019–20 academic years. (See Chart 18(4) in the data download.) In particular, there was a decrease in the proportion of students enrolling in the Developmental Studies division (although it remains the top division). Since 2014–15, there has also been a decrease in the share of students enrolling in the Continuing Education division, while there has been an increase in the share of students enrolling in Business & Leadership.

We next examined the number of graduates by program division. (The reader should note that our analysis is not exhaustive and reflects only the core set of programs captured in the college's annual reports. See Table 8(4) in the data download.) Each year between 2014–15 and 2018–19, the highest number of graduates were from the School of Business & Leadership. This school offers both business administration

13 Aurora College, *Annual Report 2019-20*.

and office administration skills. There was also a high number of graduates from the School of Health & Human Services, which offers training in community health, personal support work, social work, and nursing. Over the same period, the Arts & Sciences division had a relatively small number of graduates.

Insights into the programs that students are pursuing outside the N.W.T. come from data on the student loans issued by Student Financial Aid in the Northwest Territories. Data from this source were available for the programs of study and the location of study for the loans given out between 2016–17 and 2020–21. Our analysis also examines the level of study the student loans were issued for in the Northwest Territories. (See Table 9(4) in the data download.) In 2020–21, approximately 50 per cent of student loans were issued for undergraduate degrees, while 24 per cent were for diploma degrees and 13 per cent for certificate degrees. (The number of loans issued for certificate degrees dropped significantly in 2020–21, likely as a result of COVID-19. These types of programs require hands-on training that would have been limited due to COVID-19 restrictions across the country.)

Post-secondary Education Outside the N.W.T.

Looking at where students are pursuing their education, we see that each year between 98 and 99 per cent of all student loans were issued for studies within Canada. (See Table 10(4) in the data download.) And between 2016 and 2020, there was little change in the location of study in Canada. In 2020–21, only 21 per cent of all student loans were issued for studies in the Northwest Territories. Alberta (39 per cent), B.C. (19 per cent), and Ontario (9 per cent) were the top locations for study outside of the territory. The data also suggest that students who leave the territory for post-secondary education are completing more advanced degrees. (See Table 11(4) in the data download.) In fact, in 2020–21, just over 85 per cent of the loans granted for an undergraduate degree were for studies outside the N.W.T, while just over half of the loans granted for certificates were for studies inside the territory. Furthermore, in 2020–21, the majority of student loans issued for studies in the N.W.T. were for certificates (32 per cent) or diploma degrees (34 per cent). This contrasts with Alberta, B.C., and Ontario, where the majority of loans issued for studies in those provinces were for undergraduate degrees. (See Table 12(4) in the data download.)

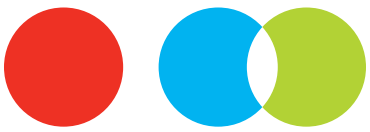
The data on the student loans issued in the N.W.T. also show that students studying in the N.W.T. are more likely to be studying for arts degrees. Each year between 2016 and 2020, approximately two-thirds of student loans were issued for BHASE (business, humanities, health, arts, social science, education) programs, while less than 20 per cent were issued for STEM (science, technology, engineering, and math and computer sciences) programs. (See Table 13(4) in the data download.)

In 2020–21, 45 per cent of loans issued for studying in the health care field were for programs in the N.W.T., followed by 35 per cent for programs in the trades, services, natural resources, and conservation field; 27 per cent for business and administration; and 21 per cent for education and teaching. More than 98 per cent of loans issued in the arts and humanities field, social and behavioural sciences field, and the legal professions were for programs outside the Northwest Territories. (See Table 14(4) in the data download.)

There is little opportunity for students to study in STEM programs in the territory. And the data reflect that most students looking to study in this field are pursuing their post-secondary education outside the Northwest Territories. (See Table 15(4) in the data download.) In 2020–21, for loans issued for studies in STEM programs, we see that approximately 10 per cent of the loans issued for science and science technology programs were for programs in the territory. But for programs in the field of engineering and engineering technology and the field of mathematics and computer and information sciences, no loans were issued for studies within the Northwest Territories.

Our occupational forecast in Module 6 provides insights into the jobs and skills that will be in demand from 2021 to 2040. As Aurora College continues its transformation into a polytechnic university, it will have an important role to play in helping to train the workforce needed to satisfy future demand. Over 60 per cent of job openings in our baseline forecast to 2040 will typically require a college diploma, trades certificate, or university degree.

Download the data



Appendix A
Methodology

This research project applied a mixed-methods approach that includes qualitative analysis, cross-sectional data analysis, historical time series, and forecasting.

Our analysis of factors shaping the contemporary Northwest Territories labour market combined quantitative and qualitative research activities. These activities included a collaboration with the Northwest Territories Bureau of Statistics and engagement with Education, Culture, and Employment and other Government of the Northwest Territories (GNWT) stakeholders to access relevant internal reports and administrative data. Specific research activities included:

- A review of academic and grey literature (public policy, industry, etc.) on key labour market issues in the territory and Northern economies. The review included over 400 documents from academic, public (federal, territorial, and Indigenous governments), and private sector sources.
- A review of data sources, including databases maintained by Statistics Canada and relevant federal and territorial government departments.

  – An exploratory analysis of data sets from Statistics Canada, including custom data from the National Household Survey, Census, Aboriginal Peoples Survey, Labour Force Survey, and Canadian Business Patterns.

  – An exploratory analysis of custom data sets from the Northwest Territories Bureau of Statistics (linked to the N.W.T. Community Survey), as well as program data from ECE.

The Conference Board of Canada's Territorial Forecasting Model (TFM) was used to produce three sets of economic forecasts up to the year 2040. The model relies on a core set of consistent assumptions formed from our global, Canadian, and provincial forecasts, in addition to ongoing monitoring of international, national, and territorial events. Specific territorial forecasting assumptions were then developed through engagement with the GNWT, industry experts, and through research of publicly available information on the status of project plans and capital investments in the territory. The forecasts were completed on June 15, 2021.

Definitions

National Occupational Classification System (NOCs) 2016 Version 1.0 Classification System

NOCs Skill Level Criteria

Each skill level represents the type and/or amount of education or training required to enter into and work in an occupation.

Skill level	Education/training required
Skill level A:	These occupations can be classified as either "management occupations" or "professional occupations."
Management occupations	These occupations are characterized by a high level of responsibility, accountability, and subject matter expertise. Expertise can be acquired either through formal education or extensive subject matter expertise.
Professional occupations	These occupations require a university degree (i.e., a bachelor's, master's, or doctorate).
Skill level B: College/apprenticeship training	These occupations usually require college education or apprenticeship training.
Skill level C: Occupational training	These occupations usually require secondary school and/or occupation-specific training (up to two years).
Skill level D: On-the-job training	These occupations usually revolve around on-the-job training.

NOCs Skill Type

Each skill type refers to the type of work performed in an occupation or the field of study needed to enter into an occupation.

Skill type	Description
Management occupations	These occupations are considered to be at the top of the organizational hierarchy of workplaces or businesses. Decision-making that affects the organization as a whole, or departments within organizations, is undertaken by management.
Business, finance, and administration occupations	This category contains occupations that are concerned with providing financial and business services, administrative, and regulatory services and clerical supervision and support services.
Natural and applied sciences and related occupations	This category contains professional and technical occupations in the sciences, including physical and life sciences, engineering, architecture, and information technology.
Health occupations	This category includes occupations concerned with providing health care services directly to patients and occupations that provide support to professional and technical staff.

(continued...)

NOCs Skill Type

Skill type	Description
Occupations in education, law, and social, community, and government services	This skill-type category includes a range of occupations that are concerned with law, teaching, counselling, conducting social science research, developing government policy, and administering government and other programs.
Occupations in art, culture, recreation, and sport	This skill-type category includes professional and technical occupations related to art and culture, including the performing arts, film and video, broadcasting, journalism, writing, creative design, libraries, and museums. It also includes occupations in recreation and sport.
Sales and service occupations	This skill-type category contains sales occupations, personal and protective service occupations, and occupations related to the hospitality and tourism industries.
Trades, transport and equipment operators, and related occupations	This skill-type category includes construction and mechanical trades, trades supervisors and contractors, and operators of transportation and heavy equipment. These occupations are found in a wide range of industrial sectors, with many occurring in the construction and transportation industries.
Natural resources, agriculture, and related production occupations	This category contains supervisory and equipment operation occupations in the natural resource-based sectors of mining, oil and gas production, forestry and logging, agriculture, horticulture, and fishing. Most occupations in this category are industry specific and do not occur outside of the primary industries.
Occupations in manufacturing and utilities	This category contains supervisory and production occupations in manufacturing, processing and utilities.

Note: We did not include the occupations in manufacturing and utilities category in our analysis. In all but one year, there were no GNWT employees in these occupations.
Source: Statistics Canada, "Introduction to the National Occupational Classification (NOC) 2016 Version 1.3."

Appendix B
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