

PSE & HUMAN CAPITAL IN NORTHERN ONTARIO

CONTINUING EDUCATION SCHOOL BOARD
ADMINISTRATORS

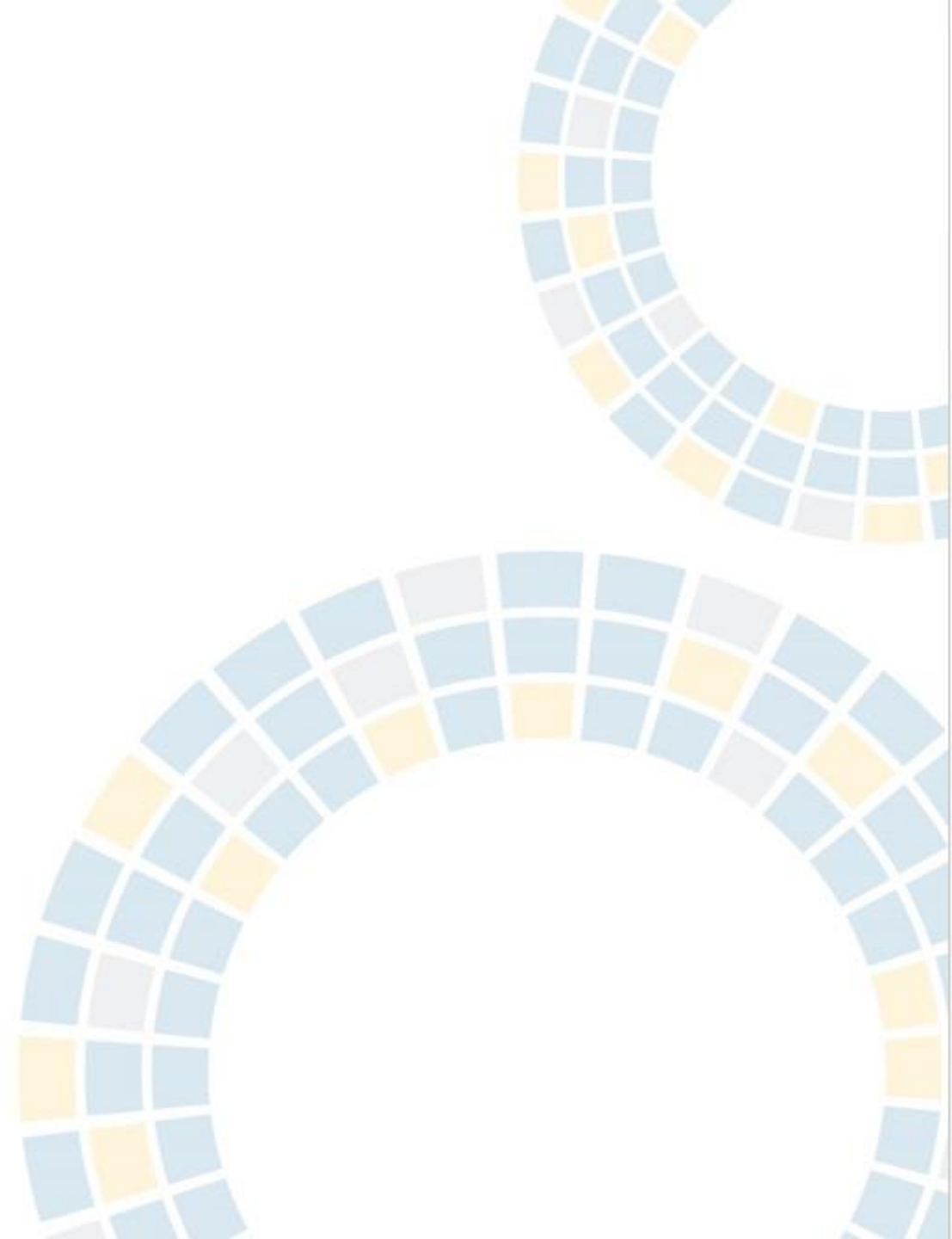
JAMES CUDDY & MIKE COMMITO

10 MAY 2016, SUDBURY



Overview

- Introduction to Northern Policy Institute
- Post-secondary landscape in Northern Ontario
 - College and university enrolment
 - Domestic and international enrolment
 - Direct and non-direct enrolment
- Post-secondary educational attainment (Northbnumbers demo)
- Underlying factors driving enrolment and educational attainment
 - Population and demographics
 - Human capital and productivity
- Summary and conclusions
- Q/A & Discussion



What is NPI?

- “Think tank”
- Independent – authors are free from interference from everyone, including US
- Non-partisan – we do not take “sides”
- Evidence based – we collect, measure and interpret data
- IN the North – we deal with local, regional, provincial, national and international issues from a northern perspective
- Not an advocacy group

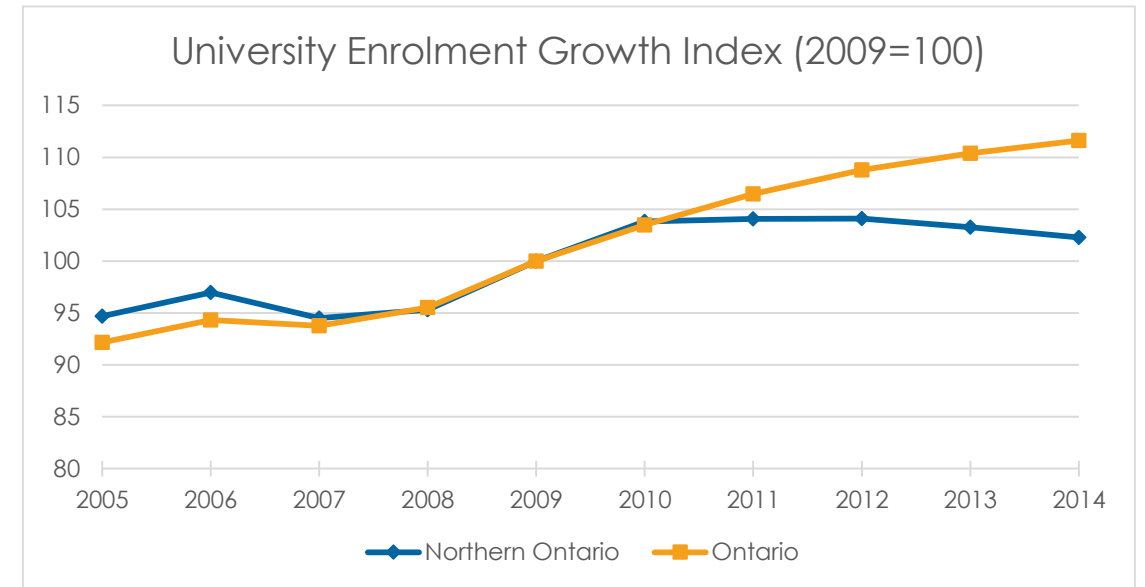
A Lay of the PSE Land

Colleges	Main Campus	Number of Secondary Locations	Secondary Locations
Cambrian College	Sudbury	5	Espanola, Litter Current, Thunder Bay, Toronto, West Bay
Canadore College	North Bay	5	Kitchener, Mississauga, Parry Sound, Tyendinaga
College Boreal	Sudbury	8	Hearst, Kapuskasing, New Liskeard, Niagara, Nipissing, Timmins, Toronto, Windsor
Confederation College	Thunder Bay	8	Dryden, Fort Frances, Geraldton, Kenora, Marathon, Red Lake, Sioux Lookout, Wawa
Northern College	Timmins	3	Haileybury, Kirkland Lake, Moosonee
Sault College	Sault Ste. Marie	0	

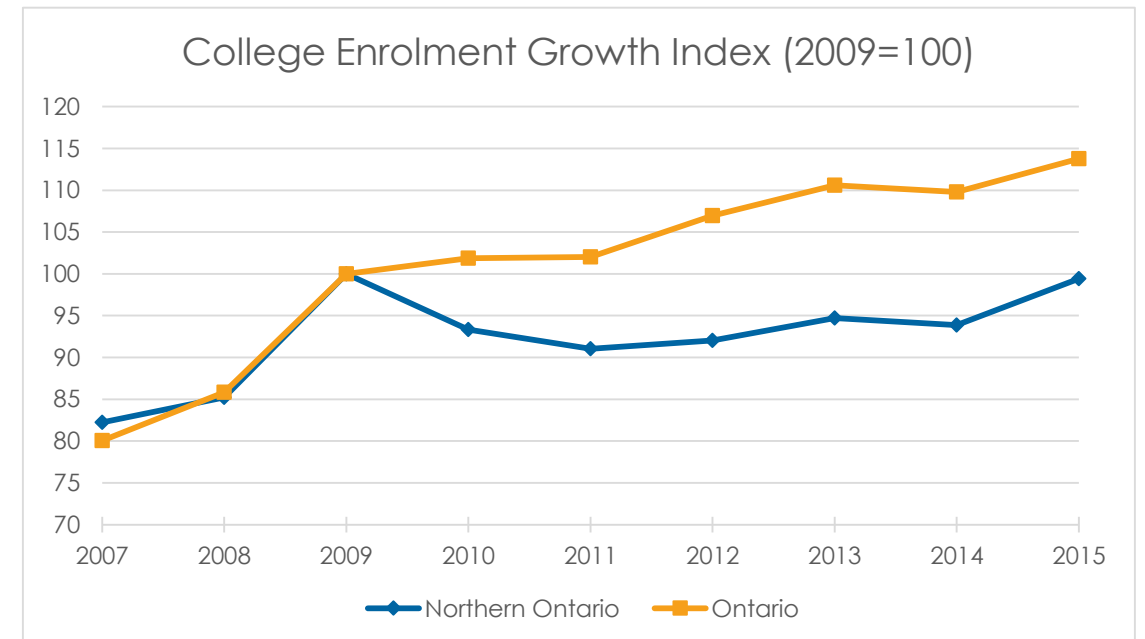
Universities	Main Campus	Number of Secondary Locations	Secondary Locations
Algoma University	Sault Ste. Marie	2	Brampton, Timmins
Lakehead University	Thunder Bay	1	Orillia
Laurentian University	Sudbury	2	Hearst, Barrie
Nipissing University	North Bay	2	Brantford, Bracebridge

PSE Enrolment in the North

- University enrolment is based on fall-term, full-time head counts and includes students from secondary campuses, and excludes enrolment at Algoma University
- College enrolment excludes students from secondary campuses located outside of Northern Ontario
- From 2005 to 2014, university enrolment increased by 7.6% in Northern Ontario compared to 19.5% in Ontario
 - In recent years, university enrolment in the North has declined modestly (roughly 2% from 2012 to 2014)
- From 2007 to 2015, college enrolment in the North increased by 17.2% compared to 33.7% in Ontario
 - Since 2011, northern enrolment has increased steadily by 8%



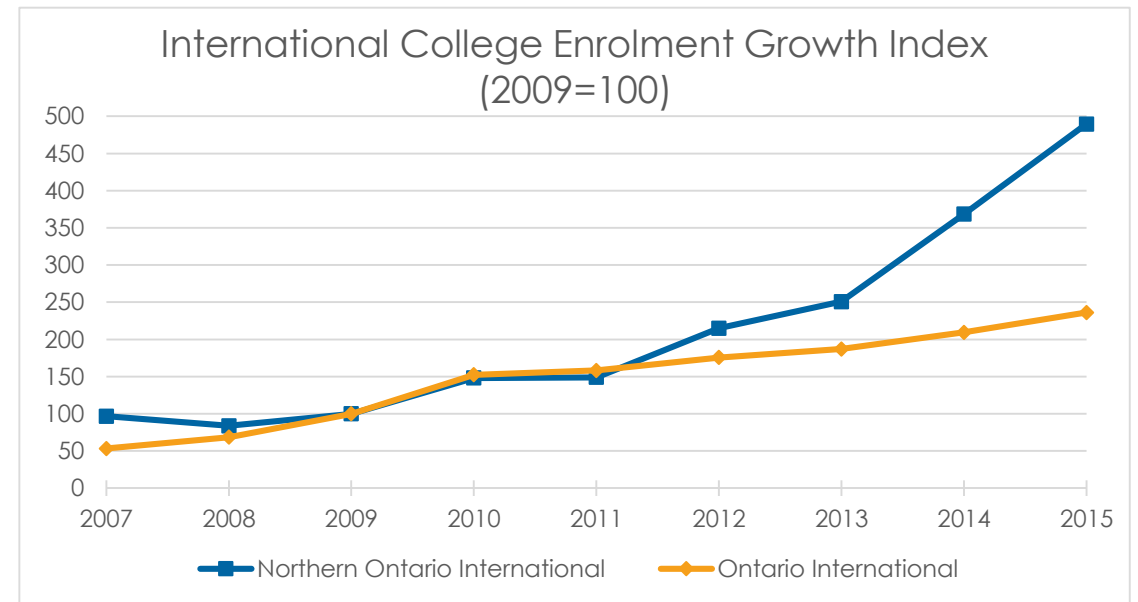
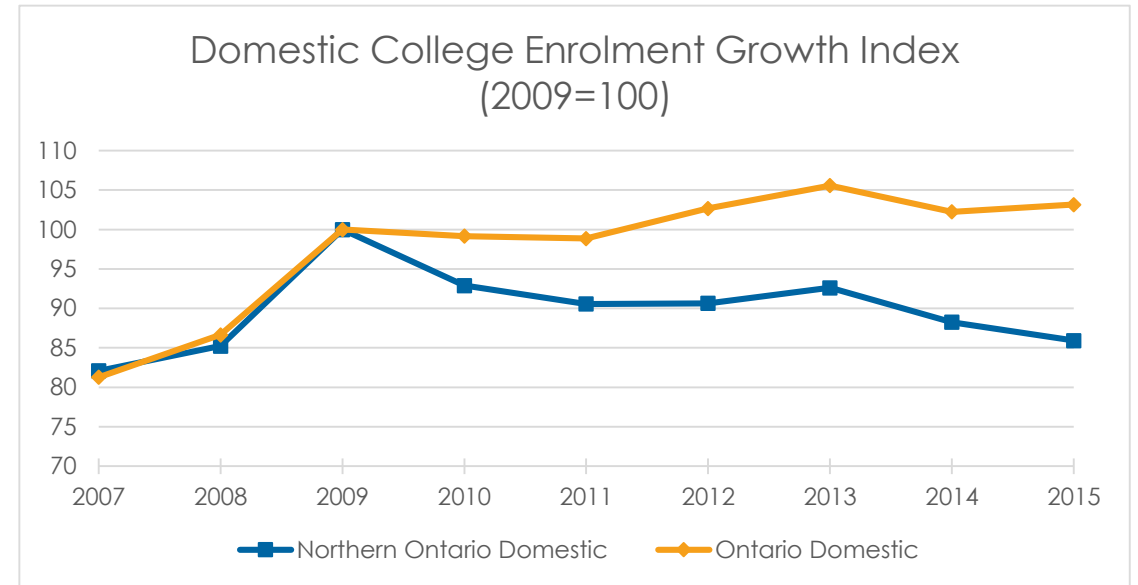
Source: Council of Ontario Universities, NPI calculations.



Source: Ontario College Application Service, NPI calculations.

College – Domestic and International Enrolment

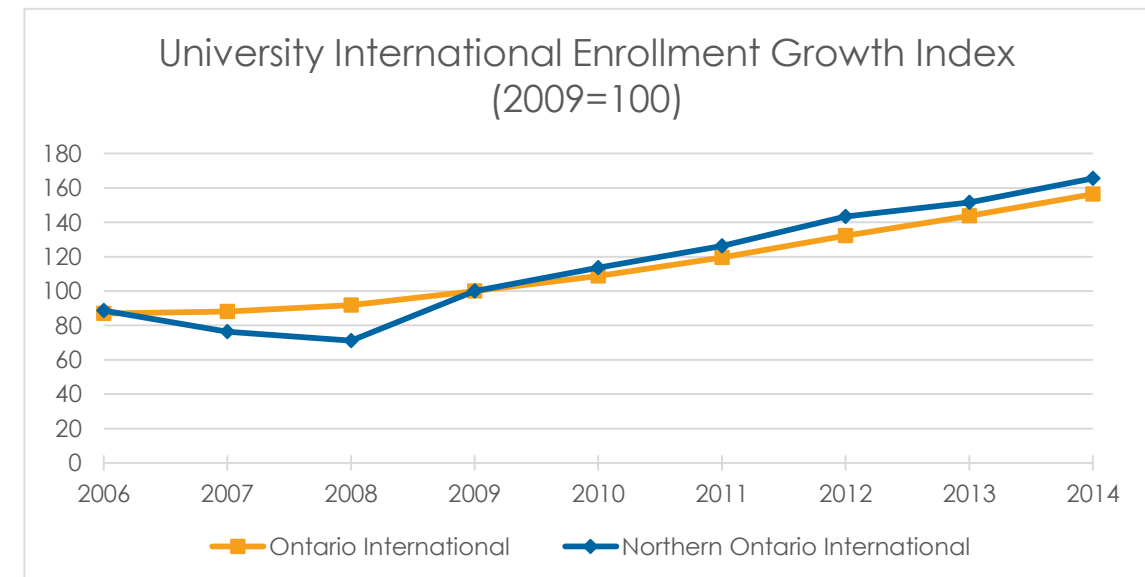
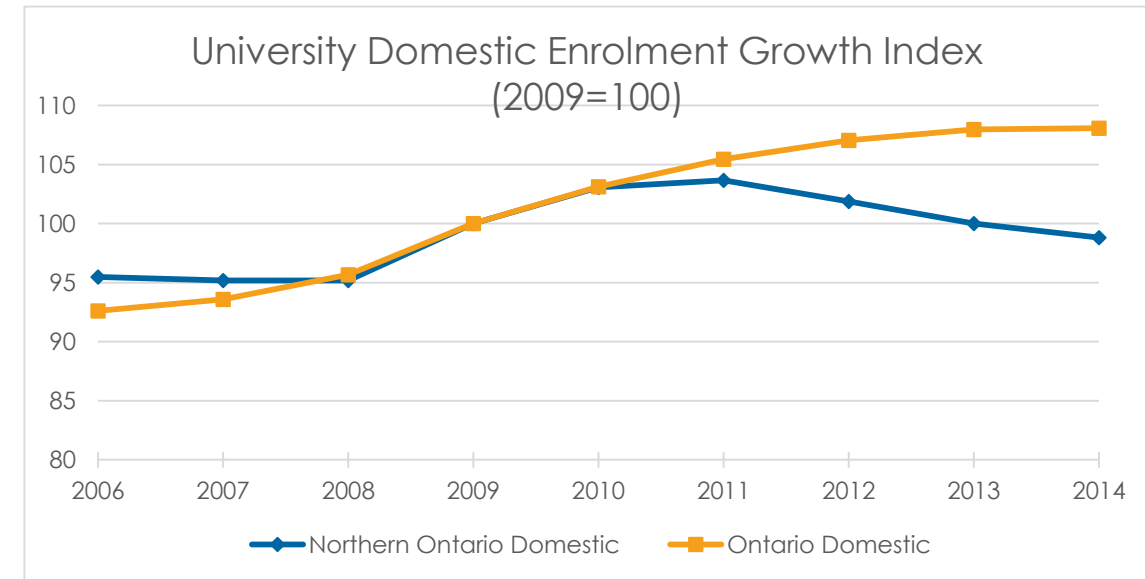
- Domestic enrolment in the North has declined by roughly 14% since 2009, compared with a 3% increase in Ontario
- From 2007 to 2015, international enrolment grew by 393% in Northern Ontario, compared to 183% in Ontario
- In 2007, international students made up less than 1% of total college enrolment in Northern Ontario, compared to 4% in Ontario
- As of 2015, international students grew to over 13% of total enrolment in the North, compared to nearly 15% in Ontario



Source: Ontario College Application Service, NPI calculations.

University – Domestic and International Enrolment

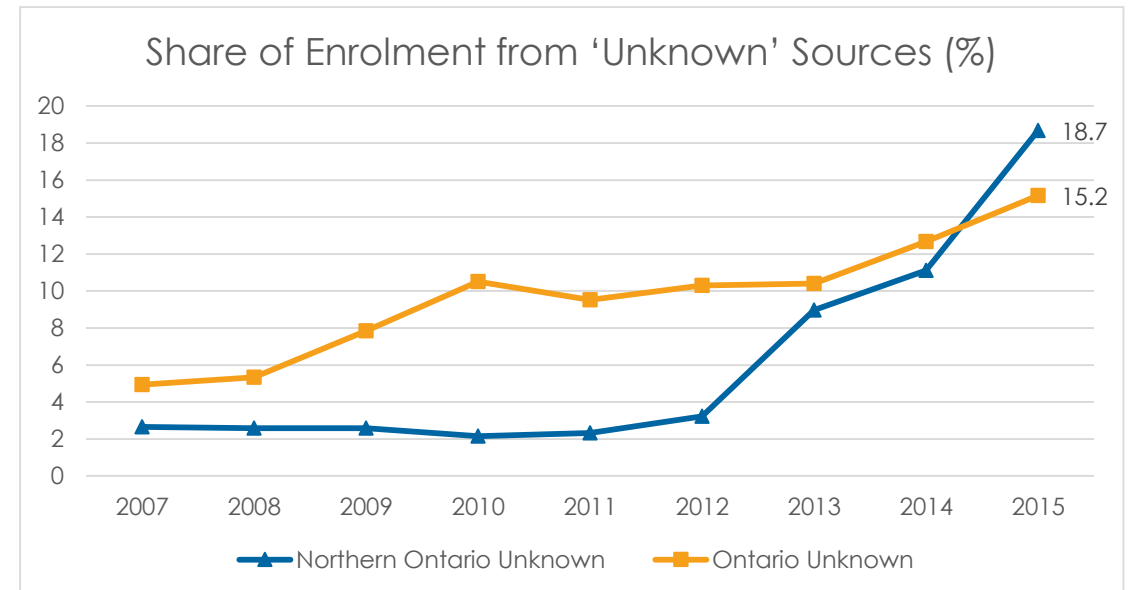
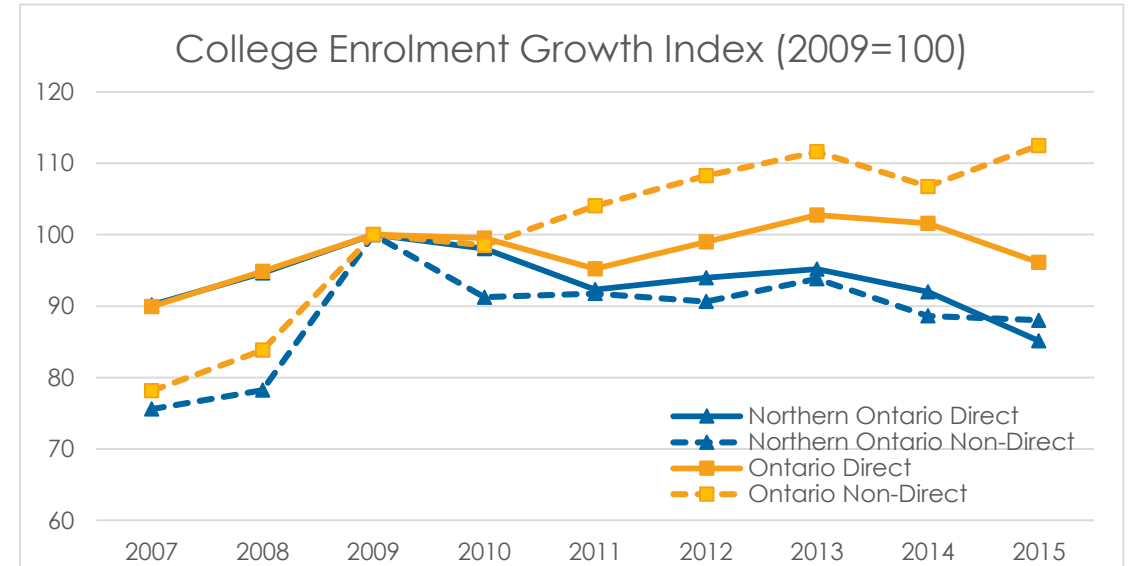
- Domestic enrolment in the North has decreased by nearly 5% since 2011, while enrolment in Ontario has experienced constant growth since 2006.
- International enrolment in the north has grown by almost 40% since 2008 – roughly the same rate as Ontario.
- In 2006, international students made up roughly 2.5% of total enrolment in the North, compared to 7% in Ontario.
- By 2014, international enrolment made up close to 5% of the total in the North, compared to 11% in the province.



Source: Council of Ontario Universities, NPI calculations.

College – Direct vs Non-Direct Enrolment

- Students across Ontario are increasingly coming from non-direct sources
 - From 2007 to 2015, non-direct enrollment in Ontario increased by 34%
- While Northern Ontario experienced 12% growth in non-direct enrolment from 2007 to 2009, it has since been declining.
- These numbers should be used cautiously given the increasingly large share of enrolment that is coming from unknown sources



Source: Ontario College Application Service, NPI calculations.



NORTH BY NUMBERS.ca

EXPLORING NORTHERN ONTARIO'S COMMUNITIES

Northern Ontario data is now just a click away. Northern Policy Institute, North Superior Workforce Planning Board, and the Sault Ste. Marie Innovation Centre are pleased to launch Northbynumbers.ca, an **interactive data tool** that displays Northern Ontario census data from between 2001 and 2011.

Identity, income, housing, education, employment, mobility, age and population statistics – at the District, community and even neighborhood level!*

* - where available

Northern Ontario's population is declining

From 2001 to 2015, Northern Ontario's population declined by 2.8%

1. Low fertility rates

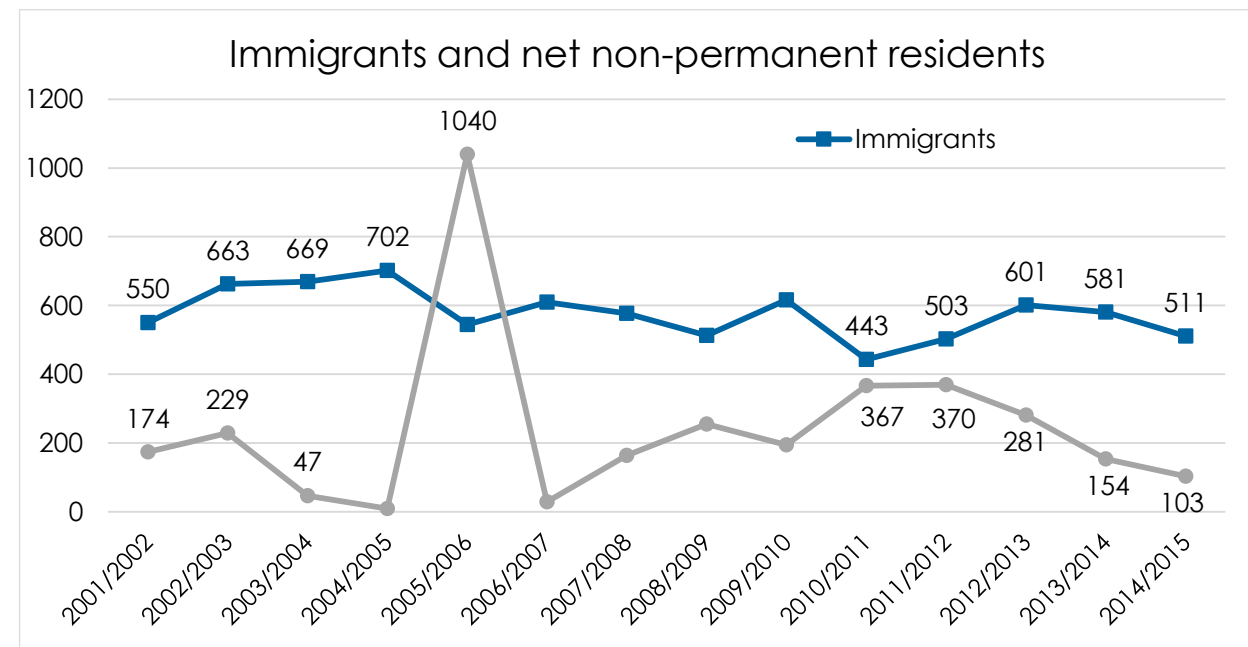
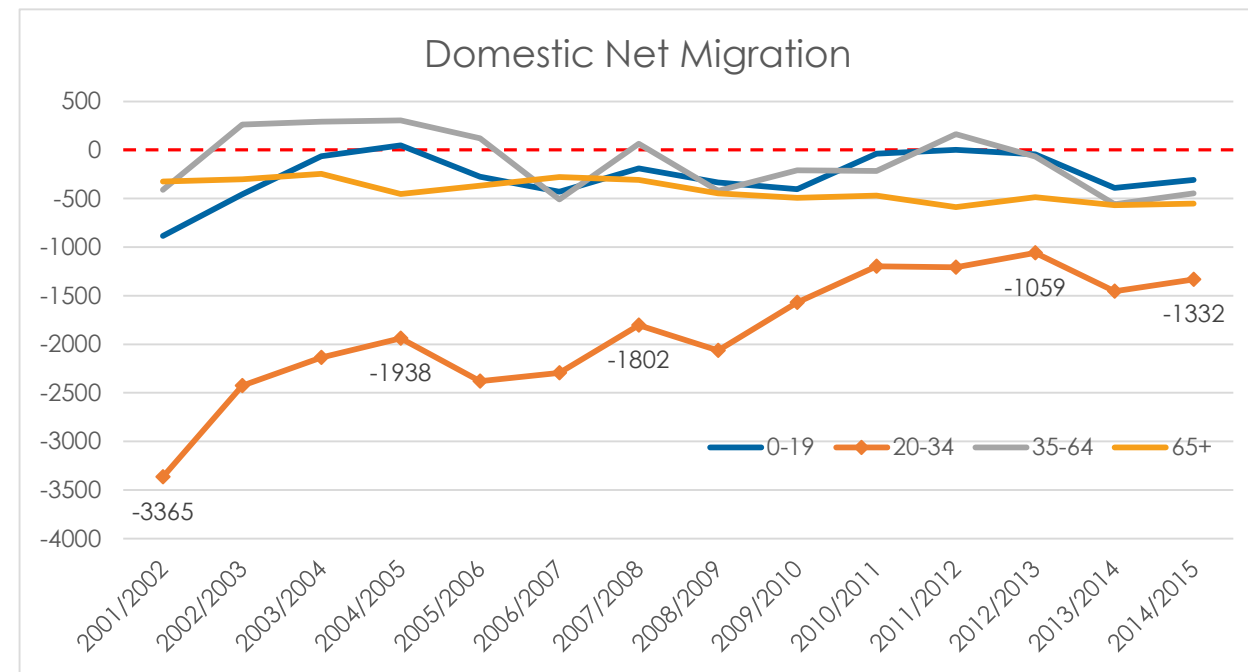
- Northeast Ontario = 1.60
- Northwest Ontario = 1.77
- Generational Replacement Rate = 2.1

2. Out-migration

- In 2014/2015, over 2,600 more people moved to Southern Ontario or another province than those who moved to the North from these areas

3. Low rates of immigration

- As of 2015, Northern Ontario had 6.4 immigrants per 10k people, compared with 64.8 in Ontario
- The number of immigrants in Northern Ontario has been declining on average for over decade
- Net non-permanent residents are positive but have been declining since 2011 (note these are 'net' numbers)

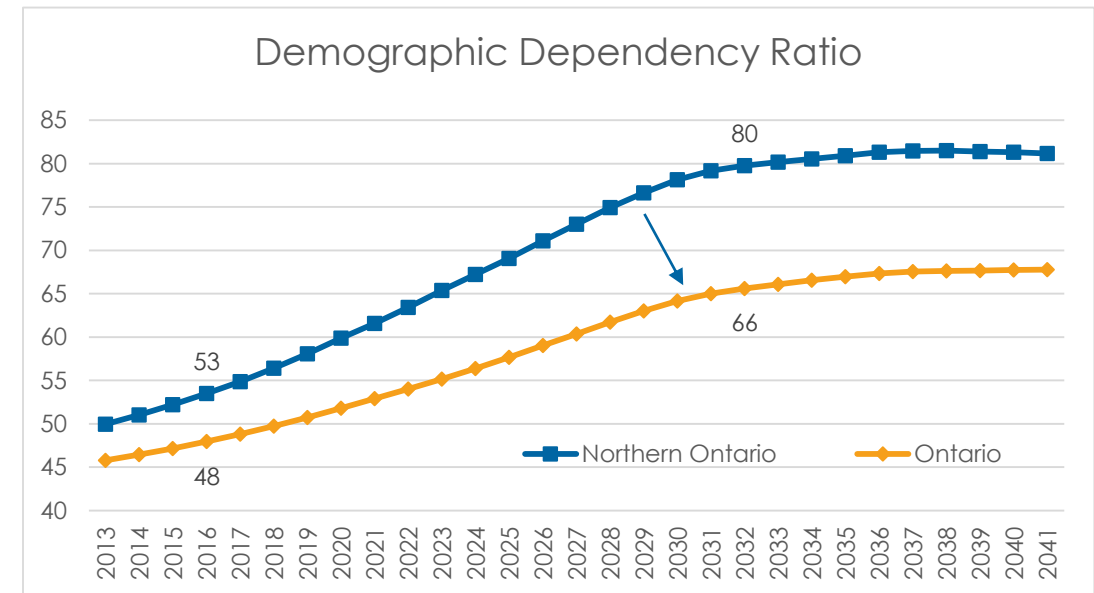
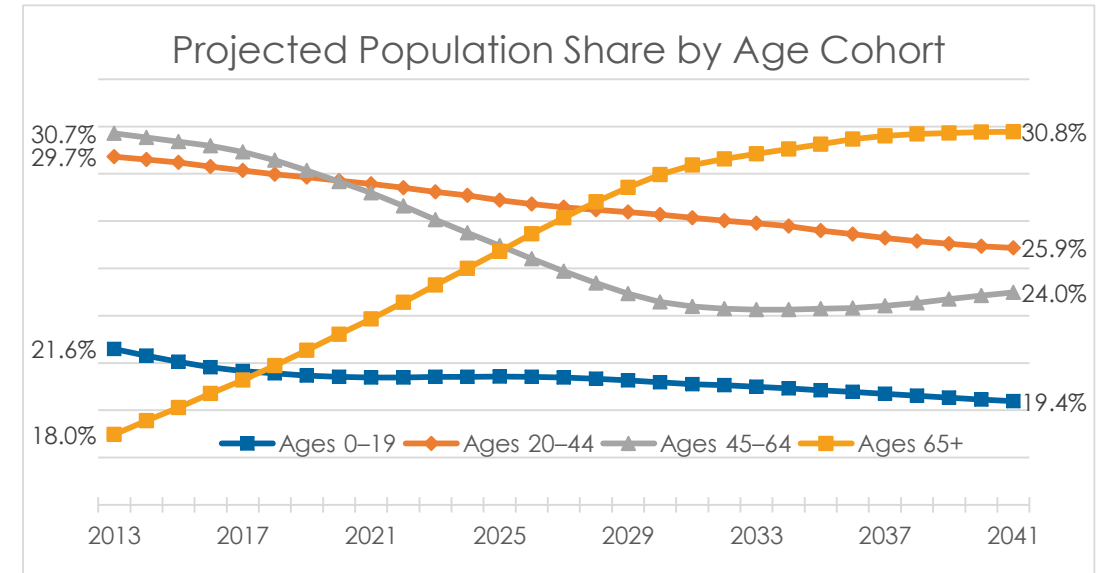


Source: Statistics Canada, NPI calculations.

Northern Ontario's population is getting older, faster

By 2041, people aged 65+ will make up over 30% of the population in Northern Ontario.

- In the next 15 years, non-working-age individuals will increase from 53 to 80 for every 100 working-age individuals, compared to 66 in the Ontario.
- Closing the dependency gap with Ontario by bolstering working-age population levels is one strategy that can be used to target levels of in-migration, immigration and youth retention.
- This is an opportunity for PSEs – in collaboration with communities – to be front and centre in reversing one of Northern Ontario's biggest challenges.



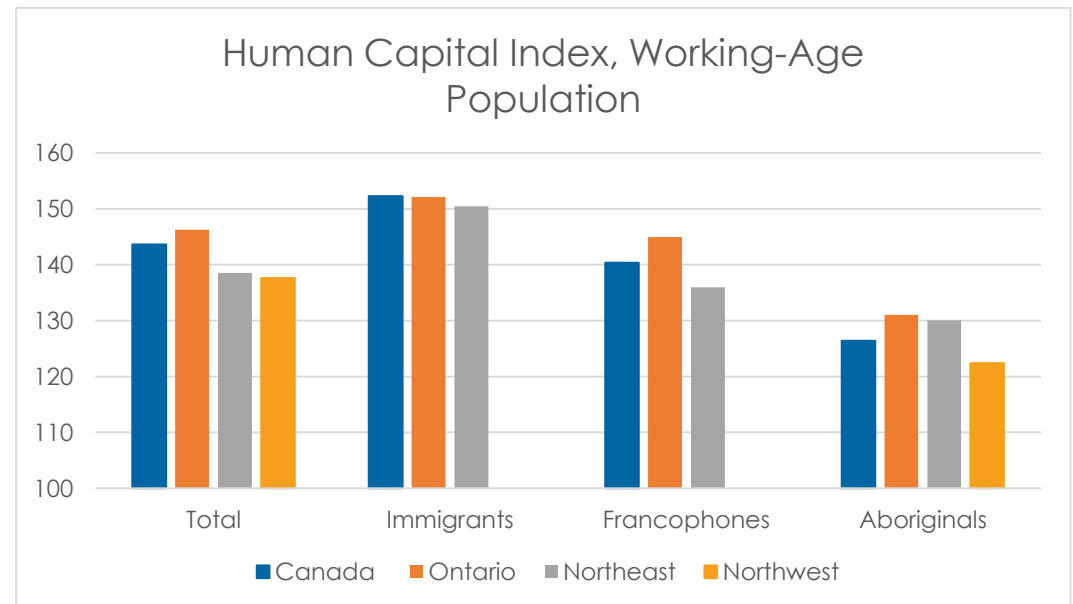
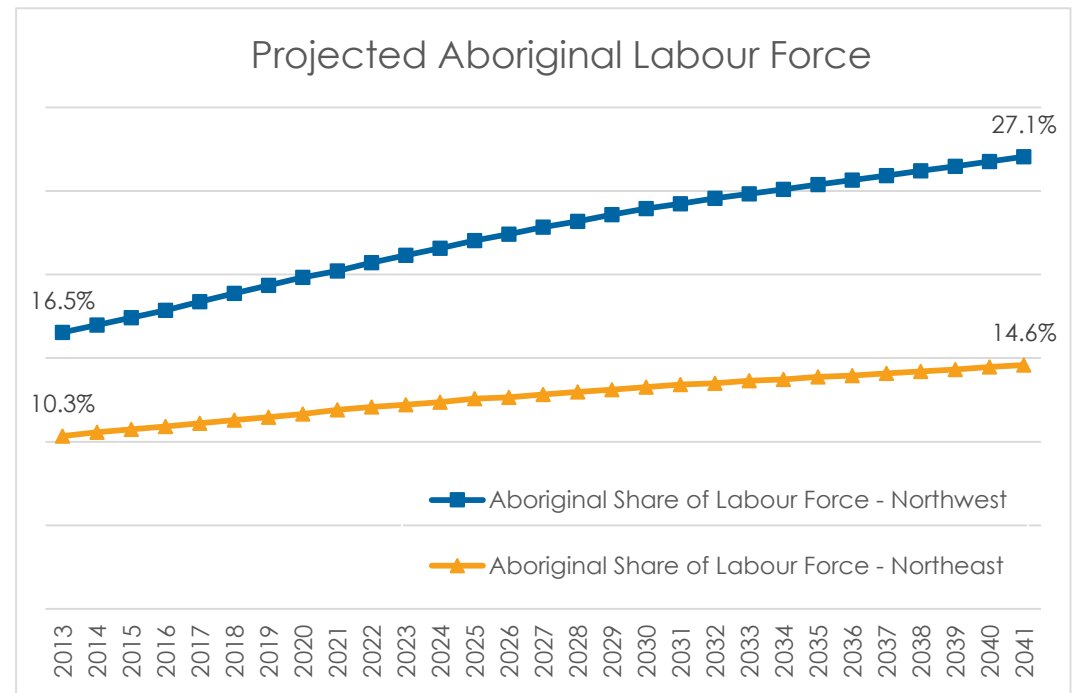
Source: Ministry of Finance, NPI calculations.

Northern Ontario's Aboriginal population is growing

From 2013 to 2041, the Aboriginal population is expected to increase by 32%, from 102,000 to 135,000

- Aboriginal labour force is expected to increase considerably.
- In districts such as Kenora and Rainy River, the Aboriginal share of the labour force is expected to exceed 40% by 2040
- Human capital among the Aboriginal population is lower than the rest of the population
- Immigrants have relatively high levels of human capital across Ontario and in the North

Educational levels – among the Aboriginal population in particular – will be one of the most important drivers of growth in the North going forward.

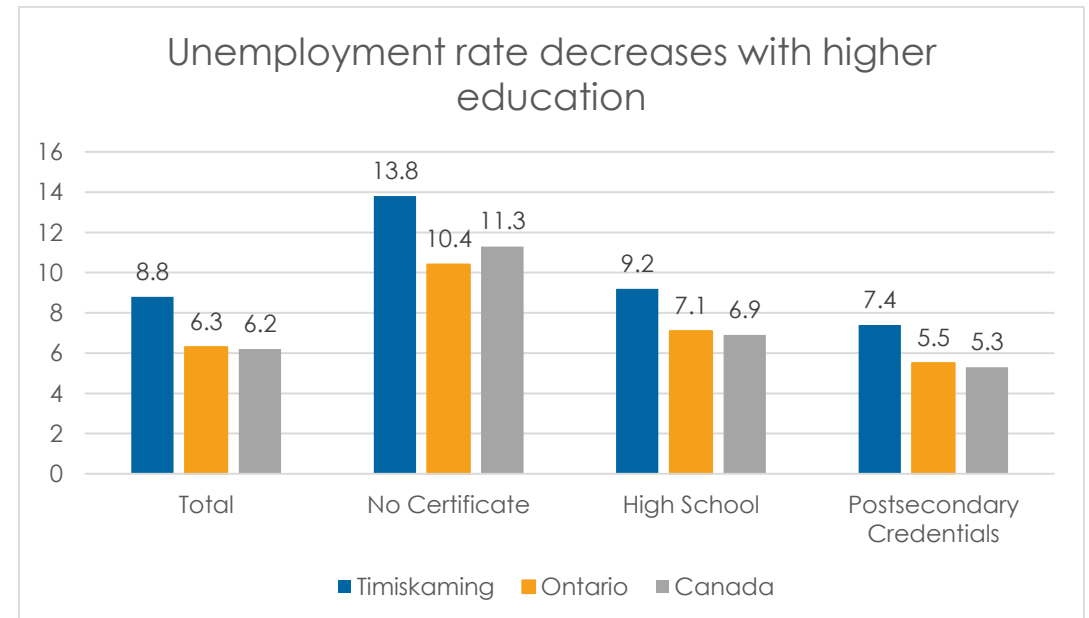
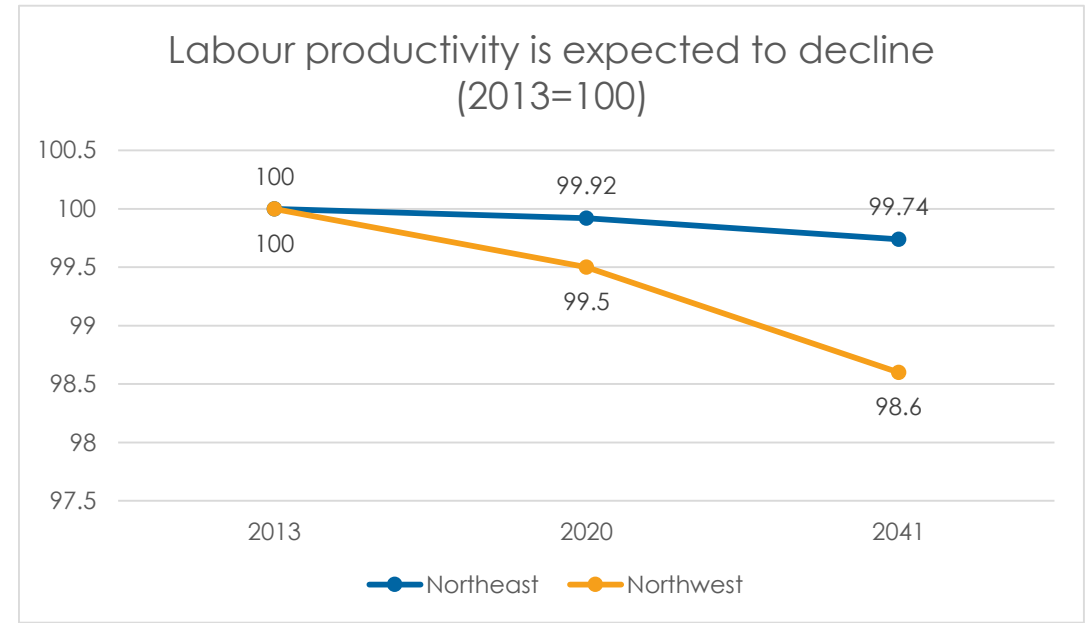


Source: NPI calculations based on Statistics Canada and Ministry of Finance.

Education is key to a productive economy

- Future productivity in Northern Ontario is expected to decrease as a result of:
 1. Declining overall population
 2. Increasing Aboriginal population with low education levels
- Productivity is expected to decline in all districts, but most prominently in Kenora, Rainy River and Manitoulin districts
- This is only part of the story...
- Currently, 63.4 percent of jobs require some post-secondary credentials in Canada (77-80% by 2031)
 - Northern Ontario, and the Aboriginal population in particular, is well below this number

If education levels in Northern Ontario remain at their current level or decline in the future while skill requirements of the workforce rise, the region will end up with people without jobs and jobs without people.



Source: NPI calculations based on Statistics Canada.

But will there be any jobs after graduation?

- Aging population isn't all bad
- Replacement demand represents job openings from retirements
- Expansion demand represents economic growth in the industry
- A lot more work to be done
- Align current and future labour supply and demand

The key is to align job seekers (i.e., graduates) with job openings

Health care and social services	2011-2020			2011-2030		
	Expansion Demand	Replacement Demand	Total	Expansion Demand	Replacement Demand	Total Demand
Professional occupations (except nursing)	423	950	1,373	1,119	2,100	3,219
Family physicians	82	270	352	219	470	689
Nursing occupations	828	1,780	2,608	2,198	4,375	6,573
Technical occupations	722	1,090	1,812	1,910	2,970	4,880
Assisting occupations	627	875	1,502	1,657	2,870	4,527
Total	2,682	4,965	7,647	7,103	12,785	19,888
Percentage demand (%)	35%	65%		36%	64%	

Trades	Replacement Demand	
	2011-2020	2011-2030
Industrial, electrical and construction trades	3,560	11,700
Maintenance and equipment operation trades	3,070	10,415
Other installers, repairers and servicers and material handlers	470	1,630
Transport and heavy equipment operation and related maintenance occupations	4,720	13,640
Trades helpers, construction labourers and related occupations	690	2,290
Total	12,545	39,715

Source: NPI calculations based on Statistics Canada.

Where to go from here?

1. Bolster the population in Northern Ontario
 - i. Immigration
 - ii. Non-permanent residents (i.e., foreign workers, foreign students)
 - iii. In-migration (both from within Ontario and from other provinces)
 - iv. Youth retention
 - v. Use dependency ratios to target population growth

2. Increase educational levels among the Aboriginal population
 - i. Enhance access in both rural and urban areas
 - ii. Community-based and cultural-tailored methods
 - See NPI publications: "[Picking up the Pieces](#)" and "[A Strategy for Change](#)"
 - iii. Personal tutors
 - See new research from NBER: "[The Production of Human Capital in Developed Countries](#)"

PSE's in Northern Ontario may be front and centre of these strategies

Stay informed!



/ NorthernPolicy



@ NorthernPolicy



Northern Policy Institute

Thank you. Merci. Miigwetch.

NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD

www.northernpolicy.ca