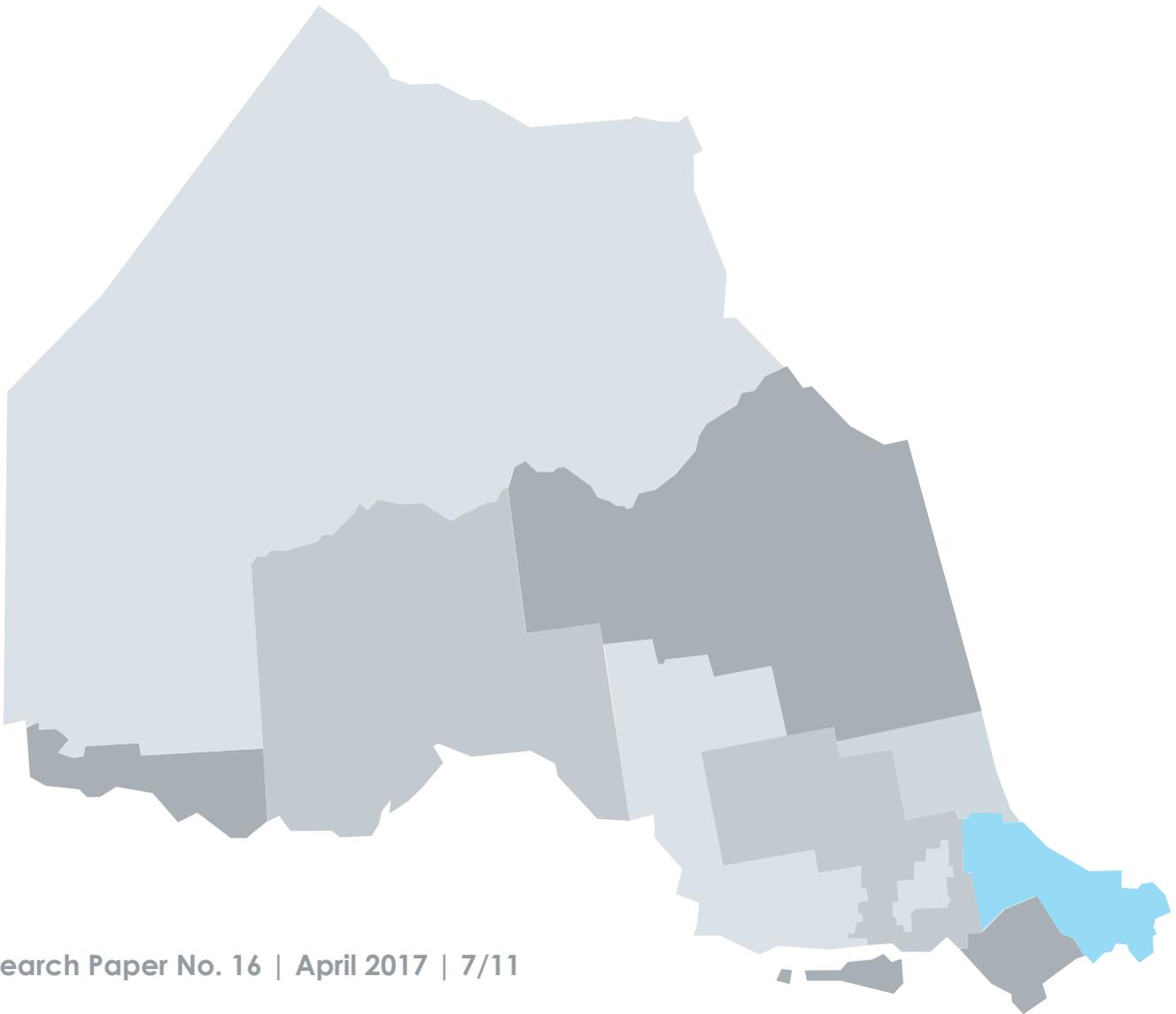


NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD



NORTHERN
ONTARIO
WORKFORCE PLANNING



Research Paper No. 16 | April 2017 | 7/11

Northern Projections Human Capital Series - NIPISSING DISTRICT

Who We Are - Northern Ontario Workforce Planning

Workforce Planning Ontario is a network of 26 Workforce Planning Boards covering four regions across the province. Workforce Planning Boards gather intelligence about the supply and demand side of the local labour market and work in partnership with employers, employment services, educators, researchers, economic development, government and other stakeholders to identify, understand and address labour market issues. This includes supporting and coordinating local responses to meet current and emerging workforce needs.

Given the unique geography and labour market issues that impact Northern Ontario, all 6 planning boards in the north have collaborated to form Northern Ontario Workforce Planning. They include: Algoma Workforce Investment Corporation (AWIC); Far Northeast Training Board (FNETB); The Labour Market Group (LMG); Northwest Training and Adjustment Board (NTAB); North Superior Workforce Planning Board (NSWPB); and Workforce Planning for Sudbury & Manitoulin (WPSM). FNETB and NSWPB are currently pilot sites for Local Employment Planning Councils (LEPC).



Jonathan Coulman - Executive Director
www.awic.ca
Algoma District



FAR NORTHEAST TRAINING BOARD (FNETB)
your **Local Employment Planning Council**

COMMISSION DE FORMATION DU NORD-EST (CFNE)
votre **Conseil Local de Planification de l'Emploi**

Julie Joncas - Executive Director
www.fnetb.com
Cochrane & Timiskaming Districts



The Labour Market Group

Guiding partners to workforce solutions.

Stacie Fiddler - Executive Director
www.thelabourmarketgroup.ca
Nipissing & Parry Sound Districts



Local Employment Planning Council

Madge Richardson - Executive Director
www.nswpb.ca
Thunder Bay District



Sonja Wainio - Executive Director
www.ntab.on.ca
Kenora & Rainy River Districts



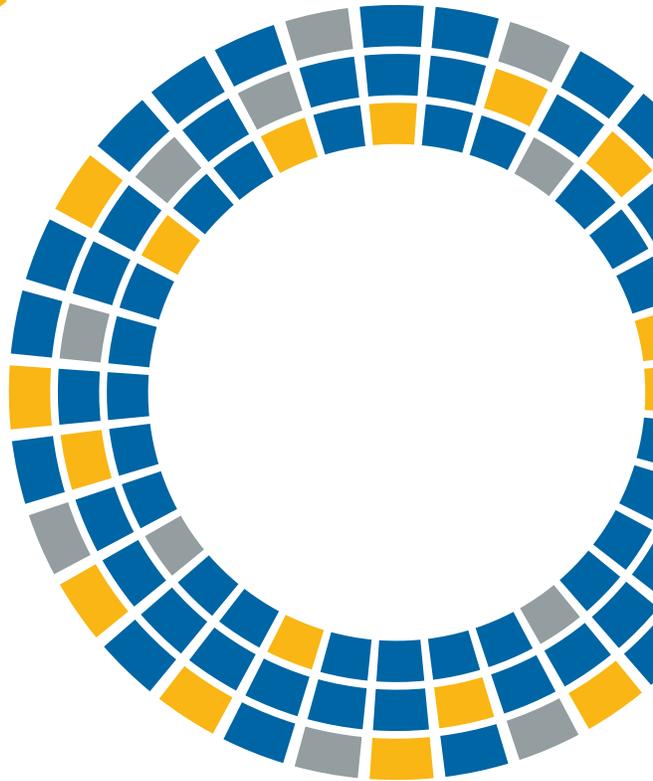
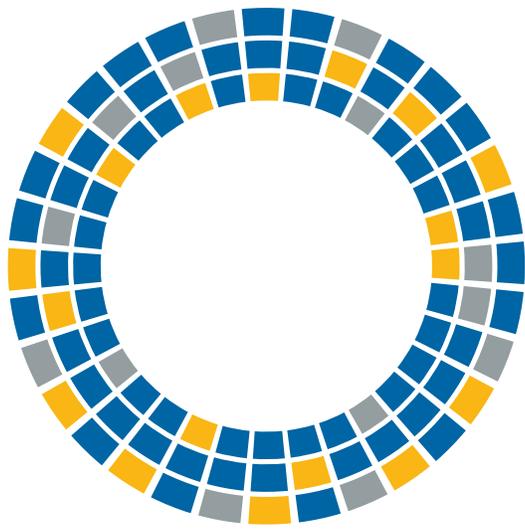
Sudbury & Manitoulin

Workforce Planning
Planification en main-d'oeuvre

Reggie Caverson - Executive Director
www.planningourworkforce.ca
Sudbury & Manitoulin Districts



This project is funded in part by the Government of Canada and the Government of Ontario.



Who We Are

Some of the key players in this model, and their roles, are as follows:

Board: The Board of Directors sets strategic direction for Northern Policy Institute. Directors serve on operational committees dealing with finance, fundraising and governance, and collectively the Board holds the CEO accountable for achieving our Strategic Plan goals. The Board's principal responsibility is to protect and promote the interests, reputation, and stature of Northern Policy Institute.

President & CEO: Recommends strategic direction, develops plans and processes, and secures and allocates resources to achieve it.

Advisory Council: A group of committed individuals interested in supporting, but not directing, the work of Northern Policy Institute. Leaders in their fields, they provide advice on potential researchers or points of contact in the wider community.

Research Advisory Board: A group of academic researchers who provide guidance and input on potential research directions, potential authors, and draft studies and commentaries. They are Northern Policy Institute's formal link to the academic community.

Peer Reviewers: Ensure specific papers are factual, relevant and publishable.

Authors and Research Fellows: Provide independent expertise on specific policy areas as and when needed.

Standing engagement tools (general public, government stakeholders, community stakeholders): Ensure Northern Policy Institute remains responsive to the community and reflects THEIR priorities and concerns in project selection.

President & CEO

Charles Cirtwill

Board of Directors

Martin Bayer (Chair)	Alex Freedman
Michael Atkins	Dr. George Macey (Vice Chair & Secretary)
Pierre Bélanger	Dawn Madahbee Leach
Thérèse Bergeron-Hopson (Vice Chair)	Hal J. McGonigal
Lucy Bonanno	Gerry Munt
Terry Bursey	Emilio Rigato (Treasurer)
Dr. Harley d'Entremont	Dr. Brian Tucker

Advisory Council

Kim Jo Bliss	Seppo Paivalainen
Don Drummond	Allyson Pele
John Fior	Duke Peltier
Ronald Garbutt	Kathryn Poling
Jean Paul Gladu	Peter Politis
Audrey Glibeau	Tina Sartoretto
Peter Goring	Keith Saulnier
Frank Kallonen	David Thompson

Research Advisory Board

Dr. John Allison	Dr. Iain Davidson-Hunt
Dr. Hugo Asselin	Dr. Livio Di Matteo
Dr. Randy Battocchio (Chair)	Dr. Morley Gunderson
Dr. Stephen Blank	Dr. Anne-Marie Mawhiney
Dr. Gayle Broad	Leata Rigg
George Burton	Brenda Small
Dr. Robert Campbell	J.D. Snyder
	Dr. Lindsay Tedds

This report was made possible through the support of our partners Lakehead University, Laurentian University and Northern Ontario Heritage Fund Corporation and the financial support of Northern Ontario Workforce Planning Boards. Northern Policy Institute expresses great appreciation for their generous support but emphasizes the following: The views expressed in this report are those of the authors and do not necessarily reflect the opinions of the Institute, its Board of Directors and its supporters, Northern Ontario Workforce Planning Boards or the Government of Ontario. Quotation with appropriate credit is permissible.

Author's calculations are based on data available at the time of publication and are therefore subject to change.

© 2017 Northern Policy Institute
Published by Northern Policy Institute
874 Tungsten St.
Thunder Bay, Ontario P7B 6T6

ISBN: 978-1-988472-16-4

Contents

Partners	2
Who We Are	4
About the Authors	5
Summary of Findings	6
Introduction	7
Demographic Change: The Past Three Decades	8
Demographic Change: The Next Three Decades	12
Nipissing District's Labour Force: Past, Present and Future Trends	15
Productivity and the Human Capital Composition of the Workforce	21
The Consequences of Shifting the Composition of the Employed Labour Force in Nipissing District	28
Recommendations	33
Related Research	35

About the Authors

James Cuddy



James Cuddy is a market analyst at the Canada Mortgage and Housing Corporation (CMHC). He has over 5 years of experience conducting research on various economic issues, with a particular focus on labour market and socioeconomic analysis and regional and urban economics.

Prior to his role at CMHC, Cuddy served as Northern Policy Institute's in-house Economist, where he played the role of principal in-house researcher who helped to expand and implement research priorities and assist in quality control.

James is a graduate of Carleton University with a B.A. in Economics (2013) and the University of Ottawa with a M.A. in Economics (2015).

Dr. Bakhtiar Moazzami



Dr. Moazzami has taught Economics and Econometrics at Lakehead University since 1988. He is well known for his research activities particularly related to Northern Ontario. He has written many reports on Northern Ontario's economic development challenges and opportunities. He was commissioned by the Ministry of Northern Development and Mines to undertake a comprehensive study of Northern Ontario's economy as a part of the research conducted for the Growth Plan for Northern Ontario. Included in the study were the identification of growing, declining and emerging industrial clusters in the region. Professor Moazzami has also written extensively on Northern Ontario's Aboriginal people and Northern Aboriginal economy. Dr. Moazzami's expertise and influence reaches beyond Lakehead University and Northern Ontario. He has been a regular guest speaker at the University of Waterloo's Economic Development Program.

Summary of Findings

The economy in the Nipissing district has undergone some significant transformations and will continue to do so in the years ahead. The authors find that there are several trends – both positive and negative – unfolding that will impact the Nipissing district's economy and the standard of living of residents within the area. The main findings in this report include the following:

1. A growing and aging population

The Nipissing district's population has remained relatively steady from 1991 to 2011, however the district's population is expected to increase from 87,362 in 2013 to 90,250 in 2041.

The district is one of the few areas in Northern Ontario that is expected to experience population growth. On the other hand, the district's population is expected to continue aging. In fact, individuals under age 20 are expected to decline from 20.4 percent in 2013 to 18.7 percent in 2041, the share of working-age people (ages 20 to 64) is projected to decline from 61 percent in 2013 to 51 percent in 2041, and the share of seniors is expected to rise from 18 percent in 2013 to 30 percent in 2041. The aging population and declining working-age population has important implications for the district's future labour market.

2. Positive net intraprovincial migration

The Nipissing district has experienced positive net intraprovincial migration for the last decade, meaning that more individuals from Ontario have been moving into the district than out of the district. On the other hand, interprovincial migration – the movement of individuals from one province to another – has been negative during this period. However, since intraprovincial in-migration has been exceeding interprovincial out-migration, the region's migration flows have been contributing positively to population growth. As such, the Nipissing district has established itself as a hub for attracting individuals.

3. High Indigenous and immigrant human capital

The human capital composition of the working-age population in the district of Nipissing is above that in Northeastern Ontario, but below provincial and national levels. Meanwhile, the human capital indexes for immigrants in the district are higher than in Ontario and Canada, and notably higher than the total working-age population across all jurisdictions. In addition, human capital among the Indigenous population is notably higher in the district than in

Ontario and Canada. This is largely the result of the Indigenous population having higher education levels. Importantly, however, the current overall skill level in the district is below the current estimated skill requirements of about 63.4 percent, suggesting that if the current level of educational achievement continues, then labour productivity will decline.

4. Employment growth is positive

Total employment in the Nipissing district grew by over 7 percent from 2001 to 2011, largely as a result of growth in the services-producing sector more than offsetting declines in the goods-producing sector. The district's decline in employment in manufacturing had contributed most to the decline in the goods-producing sector, however, exceptionally strong growth in mining, quarrying, and oil and gas extraction had partially offset manufacturing losses. In terms of the services-producing sector, growth in wholesale trade and health care and social assistance have been instrumental in supporting job gains.

Overall, while the district of Nipissing is not without challenges, it does have relatively stronger growth prospects compared to other districts in Northern Ontario. Many of the demographic and economic trends unfolding can be mitigated by investing in its human capital and immigration attraction and population retention strategies. Given that the Indigenous population will comprise a larger share of the future workforce, more investment in rural education is needed to reverse the declining human capital composition of the future labour force. Emphasis should not only be put on increased investment, but also on improving the quality of education delivered in urban as well as rural areas. The district's long-term prosperity lies in its ability to develop a comprehensive plan that addresses these fundamental labour market and socioeconomic challenges.

Introduction

The objective of this report is to examine past and present trends and characteristics in the Nipissing district's economy and to forecast its future challenges and opportunities. The report focuses primarily on the supply side of the economy. The authors examine the district's labour market, including its human capital composition, employment trends, the shifting occupational composition of the employed workforce, the shifting of the district's industrial composition from goods-producing to services-producing sectors, the declining share of the private sector, the region's rising dependency on the public sector, and declining labour income and gross domestic product (GDP).

The report begins by examining demographic change in the district over the past three decades and by defining and estimating various dependency indicators.

The study looks into the future and provides projections for the total and Indigenous populations of the district of Nipissing over the next three decades. From these population projections, the study estimates past, present and future trends in the size and composition of the regional labour force.

In the following section, the study defines and quantitatively measures the human capital composition of the Nipissing district's workforce in the coming years. This section also discusses the implications of the growing application of technology in the production process and, accordingly, the future skill requirements of the workforce.

The report then moves on to discuss the consequences of shifting the composition of the employed labour force in Northeastern Ontario from goods-producing, dominated by private businesses, to services-producing, predominantly financed by the public sector. The study also examines the shifting occupational composition of the employed workforce, and the implication thereof for total regional income and GDP in the district.

The study concludes with a summary and discussion of some policy implications.

Data Sources

Most of the data used is based on detailed information regarding individual census subdivisions (CSDs) in the Nipissing district and Northeastern Ontario obtained through special tabulations from Statistics Canada. Except for the population data, the 2011 data is based on the 2011 National Household Survey (NHS). Total population forecasts are based on data made available by the Ontario Ministry of Finance. Census 2016 data are being released in stages between

February, 2017 and November 2017. At the time of publication, only population and dwelling count data had been released. Population figures have been added to this publication, where applicable, however, the vast majority of the data presented in this publication rely on Census 2016 data that will be released later in 2017. Thus, the majority of the data presented in this report are based on the 2011 National Household Survey.

Population Groups Studied

The report provides information on the following four population groups:

- The total population;
- The Francophone population, defined as individuals who report their mother tongue to be French;
- The Indigenous population, defined by Statistics Canada as persons who reported identifying with at least one Indigenous group – that is, North American Indian, Metis or Inuit – and/or those who reported being a Treaty Indian or a registered Indian, as defined by the *Indian Act*, and/or those who reported they were members of an Indian band or First Nation; and
- The immigrant population defined as persons who are, or have ever been, landed immigrants in Canada.

The Geographical Specification of Northeastern Ontario

Northern Ontario is subdivided into Northwestern and Northeastern Ontario. The three most western Census districts – namely Rainy River, Kenora and Thunder Bay – constitute Northwestern Ontario. The region that lies north and east of Lakes Superior and Huron constitutes Northeastern Ontario. It is defined to include the following census divisions: Cochrane, Timiskaming, Algoma, Sudbury, Nipissing, Manitoulin, Parry Sound and Greater Sudbury. The federal government and FedNor also include Muskoka district in their definition of Northeastern Ontario. The provincial government removed the district of Muskoka from the jurisdictional area of the Ministry of Northern Development and Mines and the Northern Ontario Heritage Fund in 2004, but has continued to include Parry Sound as a Northern Ontario division.¹

¹ The analysis in this study is based on these jurisdictional and geographical parameters.

Demographic Change: The Past Three Decades

The Nipissing district covers 17,104 square kilometers and recorded a population of 83,150 in 2016. It has a population density of 4.9 persons per square kilometer which is well below that of Ontario (14.8). According to Statistics Canada's census of population, the Nipissing district grew from 1986 to 1991, and has remained relatively steady since then (Figure 1).

In terms of net migration flows, the district has experienced positive net intraprovincial migration for the last decade, as more individuals from Ontario have moved into the district than out of the district. Interprovincial migration, known as the movement of individuals from one province to another, has been negative during this period, but has been declining in the last decade. Thus, the total net domestic migration in 2014-15 was 158, meaning that the district experienced more individuals entering the district than leaving. (Figure 2). Also contributing to population levels is low and declining immigration in the district (Figure 2). As of 2015, the district attracted 5.1 immigrants per 10,000 people compared to 64.8 in Ontario, which translates into nearly 13 times less immigrants attracted per capita compared to the province as a whole (Figure 3).

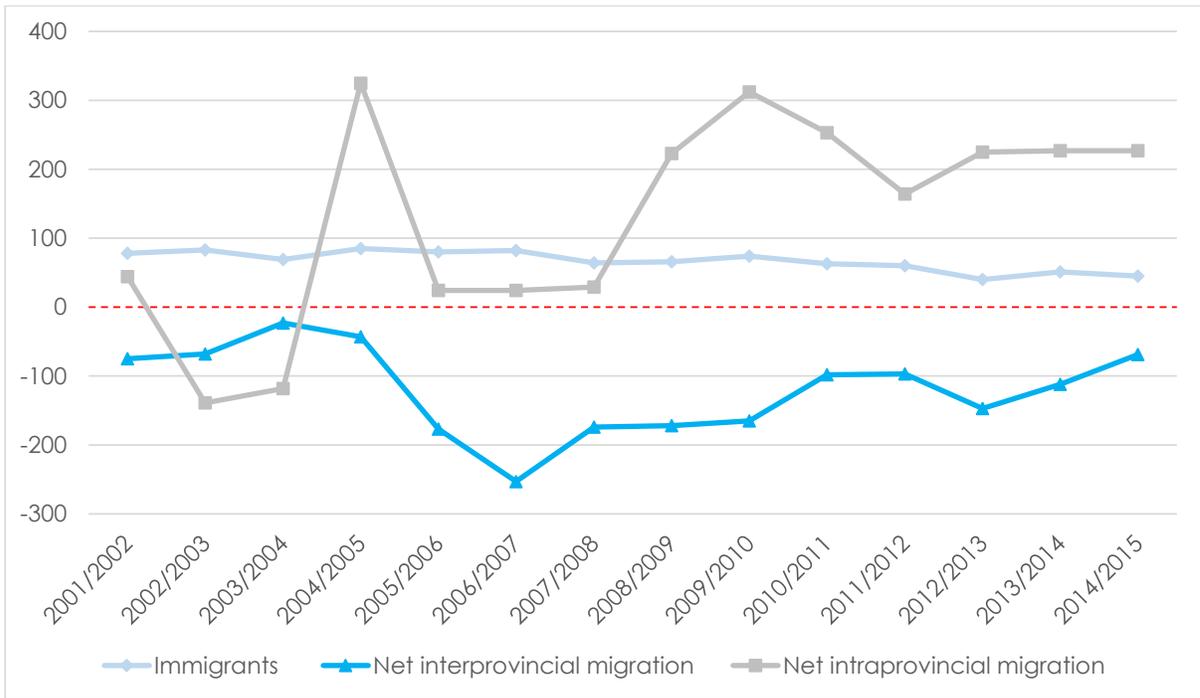
Figure 1: Population, Nipissing District, 1986–2016



Source: Statistics Canada, *Census of Canada*; and *idem*, *National Household Survey*.

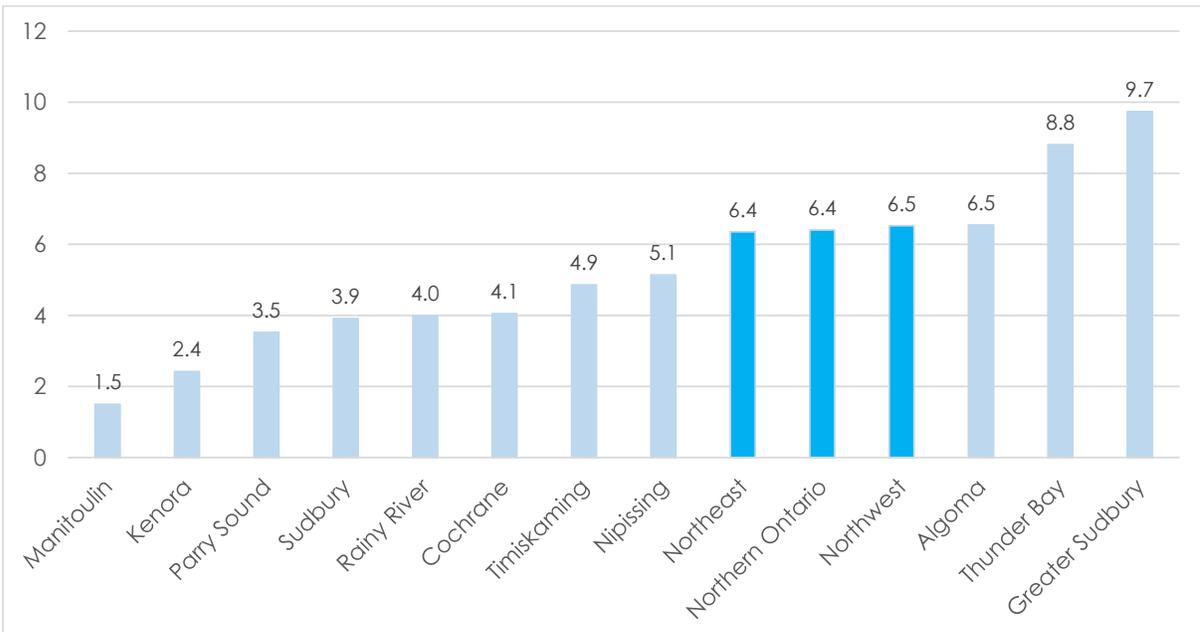


Figure 2. Net Domestic Migration and Immigration, Nipissing District, 2001/2002–2014/2015



Source: Author's calculations based on Statistics Canada, CANSIM database, table 051-0063.

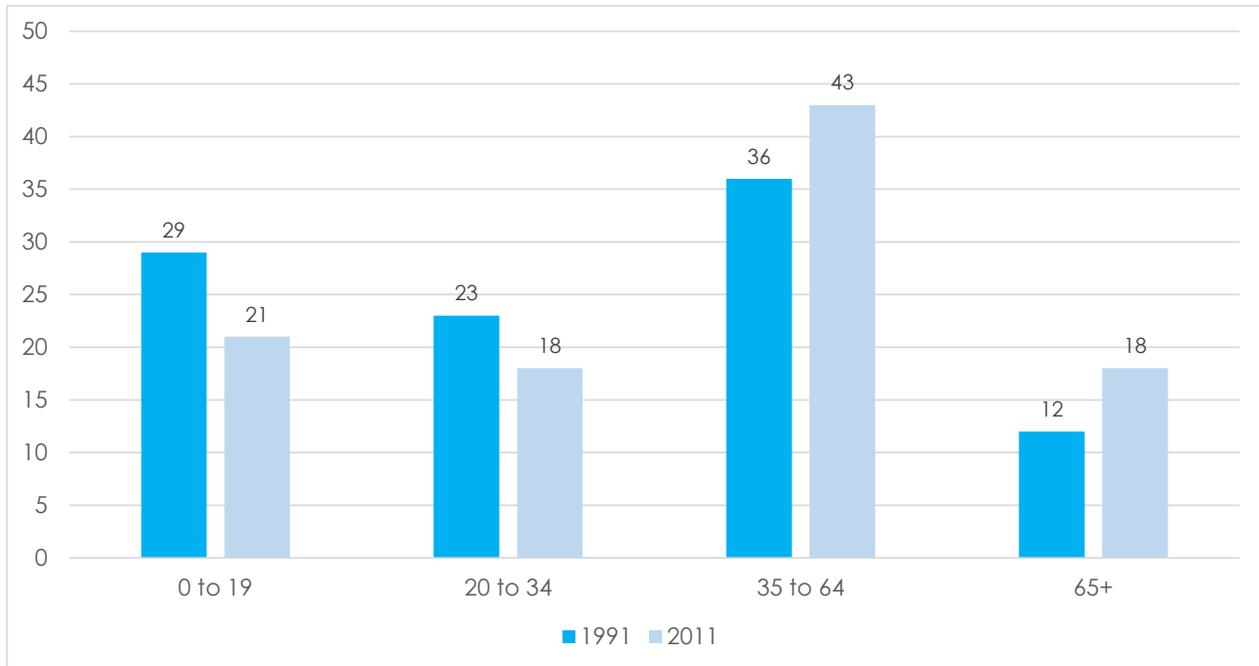
Figure 3. Number of Immigrants per 10,000 people, Northern Ontario Districts, 2014/2015



Source: Author's calculations based on Statistics Canada, CANSIM database, table 051-0062 and 051-0063.

In addition to migration patterns and low levels of immigration in the region, rising life expectancy and lower fertility rates have resulted in the aging of the district of Nipissing's population. At the same time, the large baby-boom generation, born in the two decades following the Second World War, is now beginning to retire. The generations that followed were much smaller, primarily due to a declining fertility rate. As a result, the share of individuals in the district below the age of 20 has declined from 29 percent in 1991 to 21 percent in 2011 while the share of seniors rose from 12 percent in 1991 to 18 percent in 2011 (Figure 4). During the same period, the share of individuals between the ages of 20 to 34 declined from 23 to 18 percent, while individuals aged 35 to 64 increased from 36 to 43 percent.

Figure 4: Age Distribution of Population, Nipissing District, 1991 and 2011



Source: Author's calculations based on Statistics Canada, Census of Canada, and National Household Survey, custom tabulation.

These demographic changes have had a significant impact on social and economic conditions in the district. The population will continue to age in the foreseeable future, with implications for the supply of labour, production capacity, and the ability of the district to stay economically viable. One important aspect of the aging population relates to the relationship between economically active and economically dependent age groups – that is, between the working population on the one hand and the young and elderly on the other.

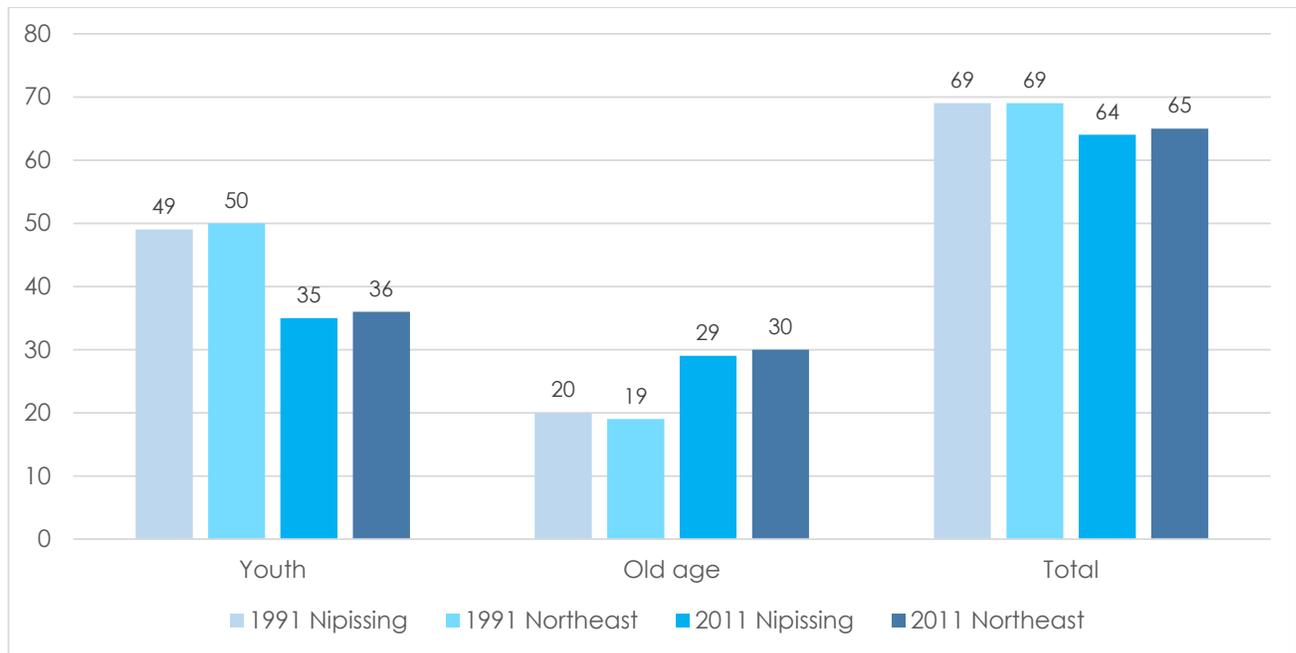
This study examines three dependency ratios: old age dependency, defined as the number of persons ages 65 years and older relative to the working-age population (ages 20 to 64); youth dependency, defined as the ratio of the number of persons ages 20 years and younger to the working-age population; and total dependency ratio, defined as the ratio of the total dependent population, which is essentially the number of mouths to feed, to the working-age population. This last ratio is a crude measure of the burden or cost associated with demographic change in terms of raising and educating children as well as taking care of the elderly at any given time. Assuming jobs are available for the working-age population, a rising dependency ratio suggests that there are more dependent persons per each member of the working-age population. A declining dependency rate implies that there are more working persons per dependent, enabling a region to reap the benefits of increased production capacity, therefore lowering the costs associated with the declining proportion of dependents.

Figure 5 shows that, in the Nipissing district, the youth dependency ratio declined from 49 persons per every 100 working-age persons in 1991 to 35 in 2011 due to the fact that the number of youth declined much faster than the number of working age persons. During the same period, the youth dependency index declined from 44 to 38 youth to every 100 working age persons in Ontario.

At the same time, the old age dependency rose from 20 to every 100 working age individuals in 1991 to 29 in 2011 due to an increasing number of seniors relative to the working age population. In other words, there were 5 working persons in 1991 per each senior, but only 3.4 working persons per senior in 2011. The ratio of seniors to working age population in the district (29) is notably above the provincial value of 24 to every 100 working age persons in 2011. Having higher old age dependency ratios can have budgetary implications related to health care and other expenditures required to care for the seniors in the coming years. This ratio is expected to continue to rise as working age persons retire and change their status from working to retired in the future.

Overall, the total dependency rate – the number of youths and seniors relative to those of working age – declined from 69 in 1991 to 64 in 2011, suggesting the district increased its capacity to support its non-working population over the period, although this rate was still above the provincial average of 62 in 2011. This ratio is expected to rise as the baby boomers start to retire in the coming years. Decreasing the gap between the dependency ratios in the Nipissing district and those of the province as a whole could be a goal the district might strive to achieve in the long term.

Figure 5: Ratio of the Working-Age Population to Other Age Groups, Nipissing District, 1991 and 2011



Source: Author's calculations based on Statistics Canada, Census of Canada, and National Household Survey, custom tabulation.

Demographic Change: The Next Three Decades

This part of the study provides population projections for the district of Nipissing, both for the total population and for the Indigenous population. Estimates for the former are based on projections by the Ontario Ministry of Finance; estimates for the latter are based on Northern Ontario's Demographic Model, developed by Bakhtiar Moazzami.

A few words regarding the Ministry of Finance projections are in order. First, the Ministry's 2011 population estimates are about 2,867 greater than those reported by the 2011 census, having been adjusted for net undercoverage by the census, especially of the district's Indigenous population.

Second, the Ministry's estimated parameters for fertility at the census division level were modelled to maintain regional differences. The census division-to-province ratio for mean age at fertility in the most recent period was assumed to remain constant.

Third, the Ministry's mortality estimates at the census division level were developed using a ratio methodology. The government applied the Ontario-level mortality structure to each census division's age structure over the most recent three years of comparable data and calculated the expected number of deaths. It then compared these estimates to the actual annual number of deaths in each census division over this period to create ratios of actual-to-expected numbers of deaths. These ratios were then multiplied by provincial age-specific death rates to create death rates for each census division. These were then applied to the corresponding census division population to derive the number of deaths for each census division.²

Population Projections

The Nipissing district's total population is expected to increase from 87,362 in 2013 to 90,250 in 2041 (Table 1). The continuing aging of the district's population is also evident from the Ministry of Finance's projections (Figure 6 and Table 2), with the share of individuals under age 20 expected to decline from 20.4 percent in 2013 to 18.7 percent in 2041, the share of working-age people (ages 20 to 64) projected to decline from 61 percent in 2013 to 51 percent in 2041, and the share of seniors is expected to rise from 18 percent in 2013 to 30 percent in 2041.³ As the next part of the study will show, the dramatic decline in the working-age population has important implications for the future availability of a qualified labour force in the district.

Table 1: Population Projections by Age Group, Nipissing District, 2013-2041

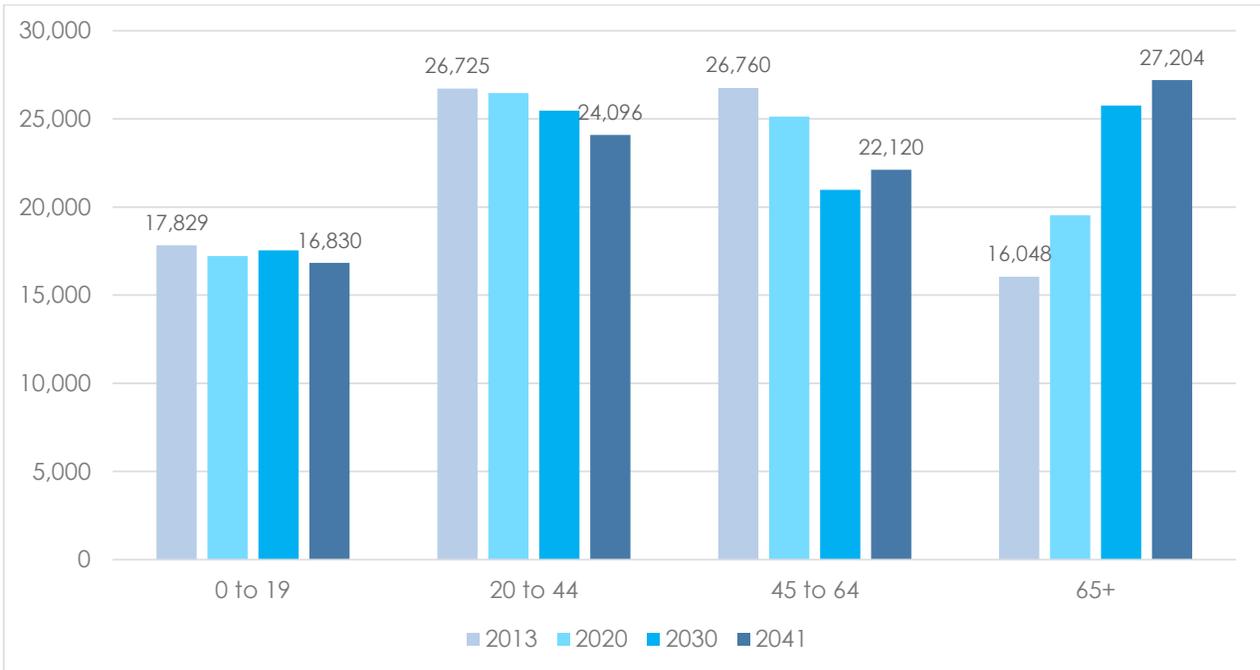
	0 to 19	20 to 44	45 to 64	65+	Total
2013	17,829	26,725	26,760	16,048	87,362
2020	17,228	26,459	25,129	19,530	88,346
2030	17,541	25,472	20,980	25,762	89,755
2041	16,830	24,096	22,120	27,204	90,250

Source: Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

² See Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

³ Focus is placed on individuals aged 20 to 64 as the core working-age population since there has been a declining trend in the labour force participation rate of Ontario's youth in recent years primarily due to a significant rise in enrolment rates in postsecondary education institutions.

Figure 6: Population Projections by Age Group, Nipissing District, 2013–41



Source: Author's calculations based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

Table 2: Population Projections by Age Distribution, Nipissing District, 2013–2041

	0 to 19	20 to 44	45 to 64	65+
2013	20.41	30.59	30.63	18.37
2020	19.50	29.95	28.44	22.11
2030	19.54	28.38	23.37	28.70
2041	18.65	26.70	24.51	30.14

Source: Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

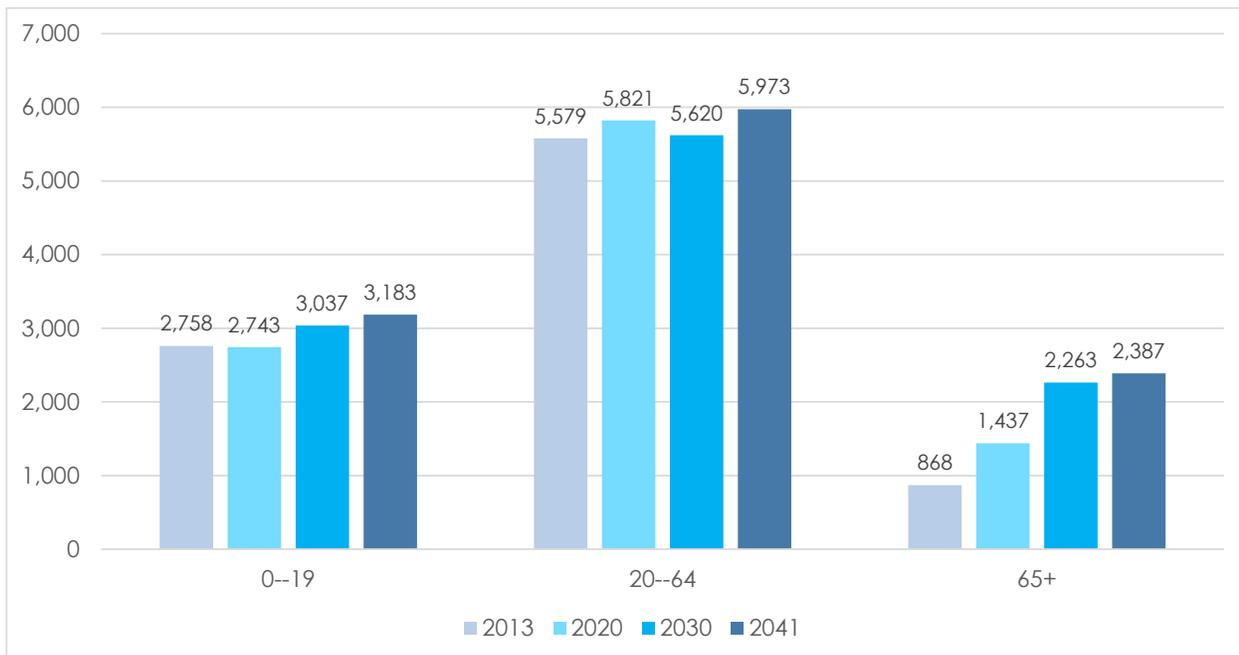
Indigenous Population Projections

In making projections for the Indigenous population in the district of Nipissing out to 2041, this study employs Northern Ontario's Demographic Forecasting Model, which is based on the Cohort Component method.⁴ The base year data for the projection are from Statistics Canada's National Household Survey for 2011. In projecting the future Indigenous population, this study does not adjust for the undercoverage of Indigenous people in the region — as mentioned above, there were 2,867 omitted persons in the Nipissing district alone — so the projections should be considered conservative. This study also assumes zero net migration of Indigenous people over the forecast period, since the existing evidence suggests there is relatively low mobility among the region's Indigenous population. The fertility rate for the Indigenous population is assumed equal to that in rural Northeastern Ontario, and the mortality rate to equal the rate for the general population of Canada based on the 2011 census.

Based on these assumptions, Figure 7 shows that the Indigenous population in this district is expected to increase from 9,205 in 2013 to 11,543 in 2041, a growth rate of about 25.4 percent. The number of individuals under age 20 are expected to increase by 425 during this period, while working-age Indigenous people are expected to rise from 5,579 in 2013 to 5,973 in 2041. The number of individuals aged 65 and over are expected to rise from 868 in 2013 to 2,387 in 2041, an increase of 175 percent.

The Indigenous population's share of total district's population is expected to increase from 10.5 percent in 2013 to 12.8 percent in 2041 (Figure 8). The share of prime-working-age (those ages 20 to 44) is expected to increase from 11 percent in 2013 to 14.3 percent in 2041. Similarly, the share of working-age Indigenous people (those ages 20 to 64) is expected to increase from 10.4 percent in 2013 to 12.9 percent in 2041. The share of Indigenous seniors is expected to rise from 5.4 percent in 2013 to 8.8 percent in 2041.

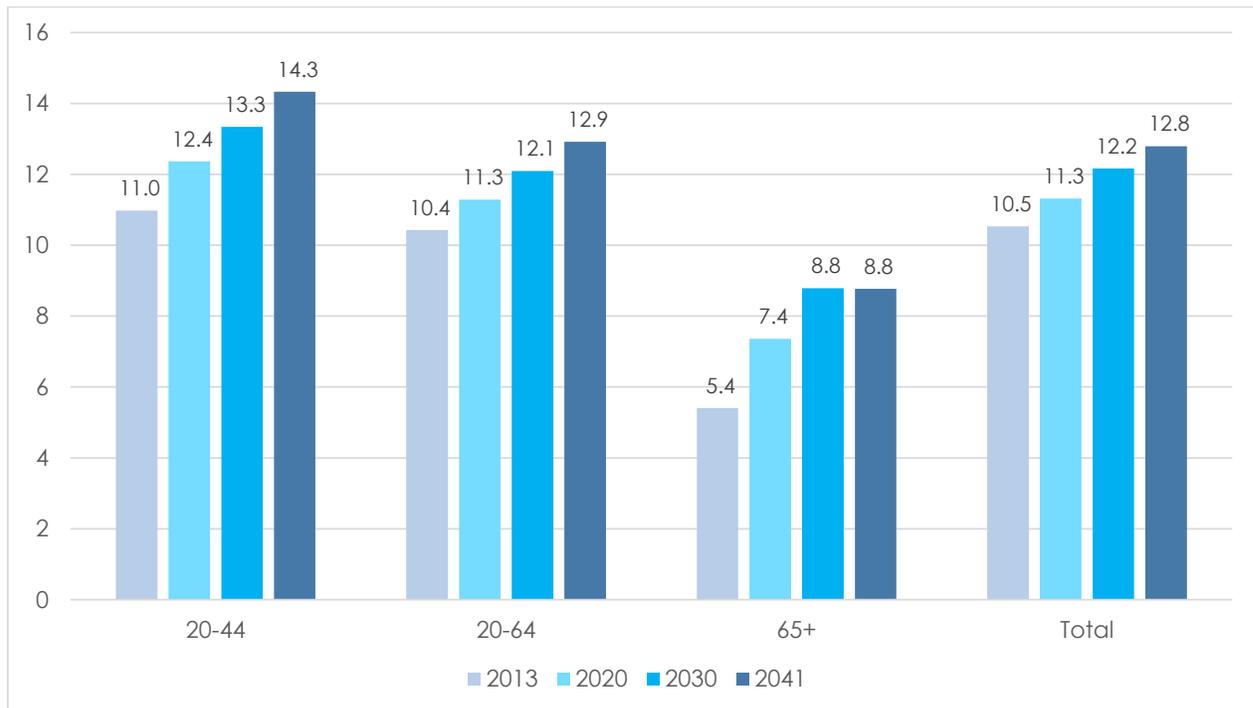
Figure 7: Indigenous Population Projections by Age Group, Nipissing District, 2013–2041



Source: Author's calculations based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

⁴ For a complete discussion of this model, see B. Moazzami, "It's What You Know (and Where You Can Go): Human Capital and Agglomeration Effects on Demographic Trends in Northern Ontario" (Thunder Bay, ON: Northern Policy Institute, 2015).

Figure 8: Projections of the Share of the Indigenous Population, Nipissing District, 2013–2041



Source: Author's calculations based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

Nipissing District's Labour Force: Past, Present and Future Trends

Demographic changes have a direct impact on the supply side of the economy through their influence on the labour force. An aging population and a declining share of working-age people can seriously restrain future economic development unless productivity growth accelerates or steps are taken to increase participation of older workers, youth and other underrepresented groups in the labour force.

This study has shown that the Indigenous population represents a growing segment of the Nipissing district's total population and its working-age population. A significant gap exists, however, between the level of educational achievement of Indigenous individuals and that of the general population, resulting in a severe labour market outcome disparity that affects the current and future productive capacity of the Nipissing district's labour force.

Labour Market Trends in Nipissing District

Table 3 shows various labour market indicators for Northeastern Ontario in 2001 and 2011. The total core working-age population (ages 15 to 64) in the region declined from 365,020 in 2001 to 364,100 in 2011. The Francophone and immigrant population both declined during this period while the Indigenous population grew. During the same period, the labour force participation rate among women rose by 3.8 percent resulting in an increased number of people in the labour force. The Ontario Ministry of Finance reports that, "[t]he most significant trend driving the aggregate labour force participation rate in Ontario has been the increase in the number of women in the workforce. Labour force participation rates for adult women have risen dramatically, from 57.0 percent in 1976 to 82.0 percent in 2013."⁵ Total employment among men declined while that among women increased from 2001 to 2011. The unemployment rate among men and women both declined slightly during this period.

5 Ontario Ministry of Finance, "Ontario's Long-Term Report on the Economy", 2014.

The labour force participation rate of Indigenous men declined from 70.3 percent in 2001 to 66.6 percent in 2011. On the other hand, the participation rate among Indigenous women increased from 49.2 percent in 2001 to 55.1 percent in 2011. The unemployment rate among Indigenous men declined from 21.3 percent in 2001 to 16.4 percent in 2011, which can be attributed partly to some previously unemployed persons having stopped participating in the labour force. The unemployment rate among Indigenous women also declined from 16.5 percent in 2001 to 11.0 percent in 2011. The labour market outcome for Indigenous people who live on reserve is different from those who live off-reserve, where those living on-reserve have lower participation rates and much higher unemployment rates.

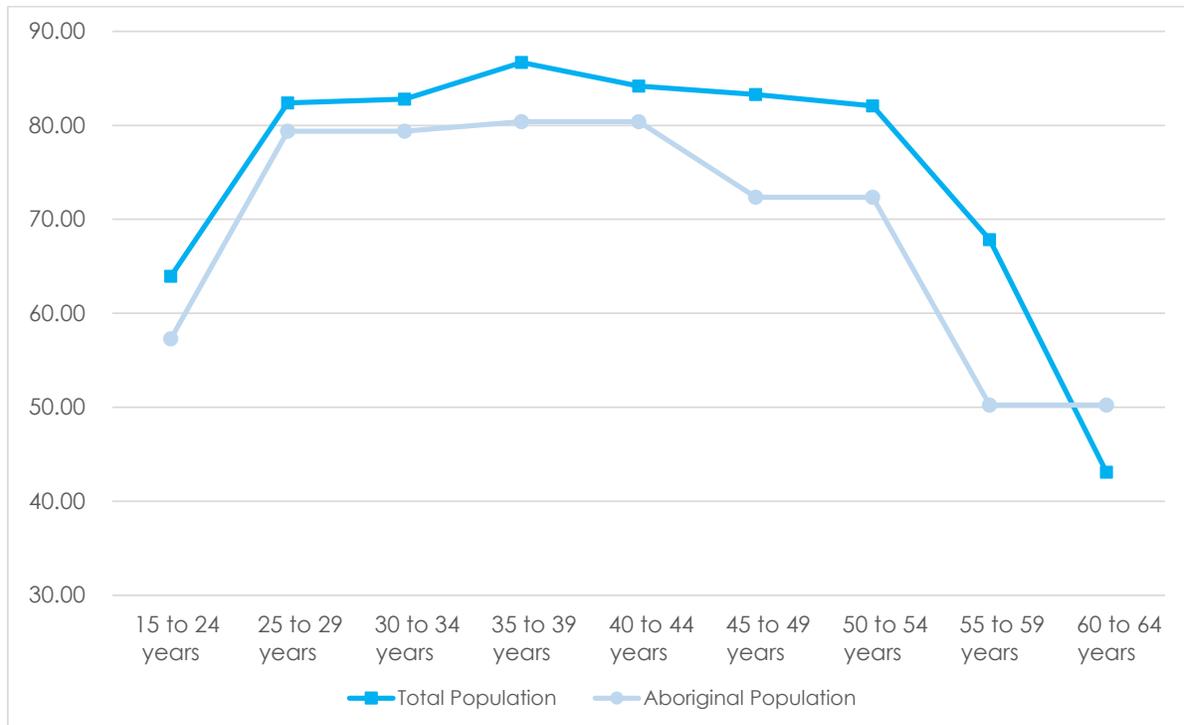
Table 3: Labour Market Trends, Ages 15-64 years, Northeastern Ontario, 2001 and 2011

Labour Market Outcome	Men		Women	
	2001	2011	2001	2011
Total Regional Population				
Total population 15 to 64 years of age	179,755	180,120	185,265	183,980
In the labour force	137,045	135,580	123,265	129,300
Employed	122,290	121,260	112,320	118,615
Unemployed	14,760	14,320	10,945	10,680
Not in the labour Force	42,705	44,540	61,995	54,680
Participation Rate	76.2	75.3	66.5	70.3
Employment Rate	68.0	67.3	60.6	64.5
Unemployment Rate	10.8	10.6	8.9	8.3
Francophones				
Total population 15 to 64 years of age	44,465	37,800	46,575	40,405
In the labour force	33,855	28,640	30,285	27,975
Employed	30,060	26,125	28,230	26,390
Unemployed	3,795	2,510	2,060	1,585
Not in the labour Force	10,605	9,155	16,285	12,430
Participation Rate	76.1	75.8	65.0	69.2
Employment Rate	67.6	69.1	60.6	65.3
Unemployment Rate	11.2	8.8	6.8	5.7
Immigrants				
Total population 15 to 64 years of age	9,555	7,345	10,650	8,660
In the labour force	7,165	5,415	6,440	5,480
Employed	6,670	5,055	6,070	5,080
Unemployed	495	355	370	400
Not in the labour Force	2,390	1,930	4,205	3,175
Participation Rate	75.0	73.7	60.5	63.3
Employment Rate	69.8	68.8	57.0	58.7
Unemployment Rate	7.0	6.6	5.8	7.3
Indigenous				
Total population 15 to 64 years of age	13,015	19,135	13,855	20,635
In the labour force	9,145	12,740	8,155	12,765
Employed	7,195	10,655	6,810	11,360
Unemployed	1,950	2,085	1,345	1,410
Not in the labour Force	3,870	6,400	5,700	7,870
Participation Rate	70.3	66.6	58.9	61.9
Employment Rate	55.2	55.7	49.2	55.1
Unemployment Rate	21.3	16.4	16.5	11.0

Source: Statistics Canada, 2001 Census and 2011 NHS, custom tabulation.

According to the available data, Indigenous peoples tend to participate less in the formal labour force as compared to the non-Indigenous population. It is important to note that these findings do not necessarily take into account alternative and traditional economies that Indigenous populations historically and presently participate in. As Figure 9 shows, their labour force participation rate was below the regional average in 2011. Their unemployment rate was also significantly higher than the regional average. In fact, their lower labour force participation rate is partly attributable to the high unemployment rate among the Indigenous workforce and partly related to the fact that their level of educational attainment is below the regional average.

Figure 9: Labour Force Participation Rates (%), Total and Indigenous Population, by Age Group, Northeastern Ontario, 2011



Sources: Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

Figure 10 compares labour force characteristics among various demographics of the population in the Nipissing district and Northeastern Ontario.⁶ The labour force participation rate among men is 74.8 percent in the district compared to 75.3 percent in Northeastern Ontario and 76.0 percent in Ontario in 2011. The Indigenous population living on-reserve have the lowest participation rates followed by those living off-reserve in both the Nipissing district and the Northeast as a whole. The participation rate among women was 71.5 percent in the district compared to 70.3 in Northeastern Ontario and 72.6 in Ontario. The participation rate among Indigenous women in the district is generally lower than levels across Northeastern Ontario.

The unemployment rate among men was 10.3 percent compared to 10.6 and 8.4 in Northeastern Ontario and Ontario, respectively. The unemployment rate among women was 8.5 percent compared to 8.3 percent

in both Northeastern Ontario and the province as a whole. The unemployment rate among on-reserve Indigenous men are the highest in the district at 21.8 percent.

The employment rate which represents the share of the working-age population who were employed was 67.2 percent for men in the Nipissing district compared to 67.3 percent in Northeastern Ontario in 2011. Again, the employment rates are generally lower for the Indigenous population. The employment rate among working-age women is 65.4 percent compared to 64.5 percent in the Northeast.

6 Note that the indicators for population groups with fewer than 500 individuals are not very reliable.

Figure 10: Labour Force Participation, Employment and Unemployment Rates (%), Ages 15 to 64 years, Nipissing District and Northeast Ontario, 2011



Note: Missing bars indicate that data was not available.

Sources: Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

Size and Composition of the Future Labour Force

To forecast the future labour force in the district of Nipissing and Northeastern Ontario, this study uses detailed population projections along with information regarding labour force participation rates for men and women in different age groups. It is assumed that participation rates during the projection period (out to 2041) stay constant at their 2011 level. Different assumptions regarding participation rates would alter the labour force estimates, but only to a limited extent. The main determinants of the future labour force are the size and age distribution of the population in each jurisdiction.

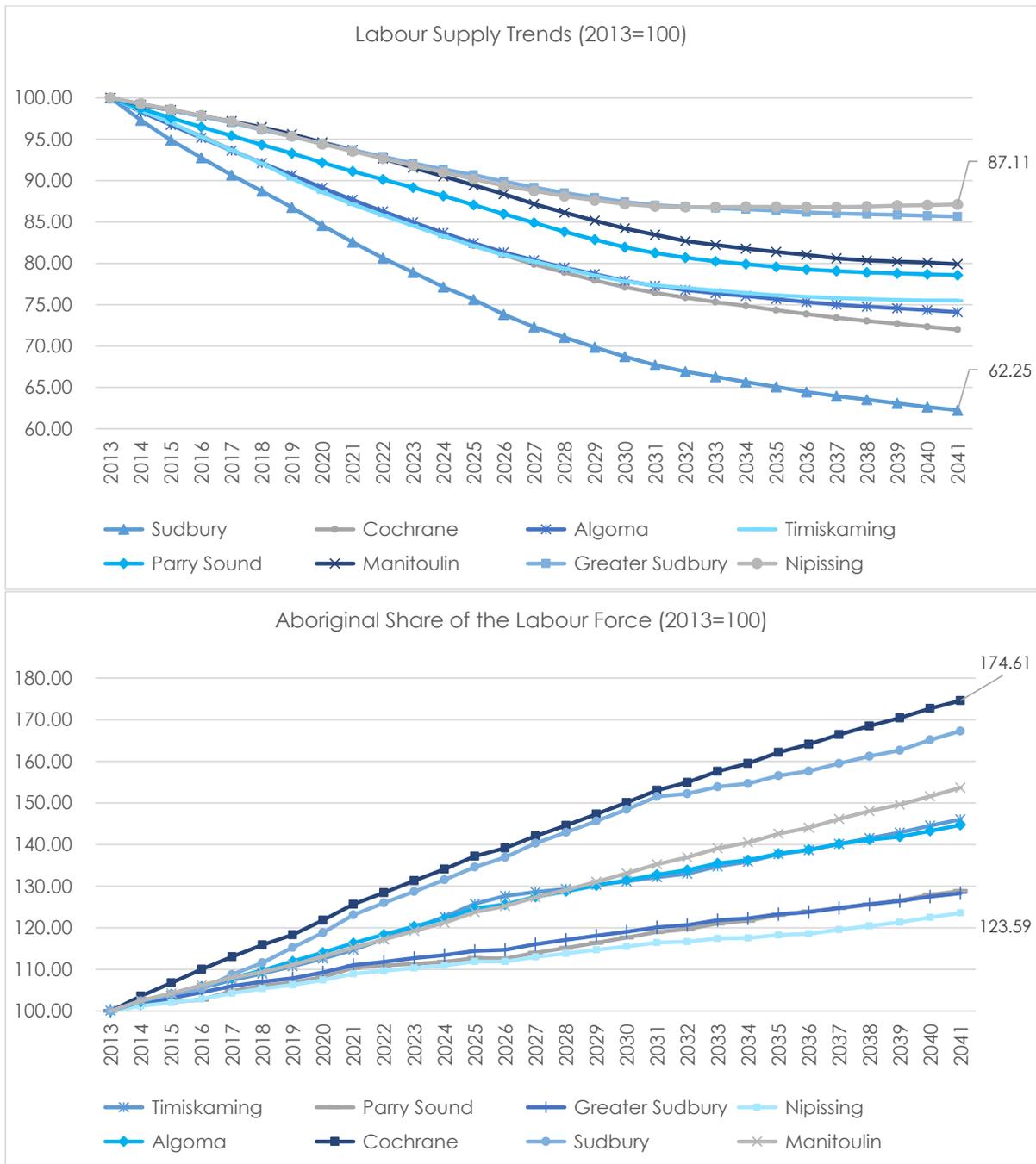
Table 4 Figure 11 provide labour supply projections for the Nipissing district and Northeast Ontario for the period from 2013 to 2041. The district's labour force is expected to decline by about 13 percent over the period, while the Indigenous labour force is expected to increase by about 8 percent. As a result, the share of Indigenous people in the total regional labour force is expected to increase from 10.3 percent in 2013 to 12.8 percent in 2041.

Table 4: Projected Labour Supply, Total and Indigenous, Nipissing District and Northeastern Ontario, 2013–2041

Year	Nipissing District			Northeast Ontario		
	Total Labour Force	Indigenous Labour Force	Indigenous Share (%)	Total Labour Force	Indigenous Labour Force	Indigenous Share (%)
2013	41,495	4,289	10.34	264,860	27,372	10.33
2014	41,203	4,313	10.47	261,674	27,632	10.56
2015	40,918	4,317	10.55	258,626	27,751	10.73
2016	40,617	4,321	10.64	255,558	27,874	10.91
2017	40,312	4,346	10.78	252,470	28,059	11.11
2018	39,933	4,352	10.9	249,289	28,142	11.29
2019	39,569	4,349	10.99	246,155	28,200	11.46
2020	39,174	4,353	11.11	242,891	28,327	11.66
2021	38,818	4,373	11.26	239,896	28,554	11.9
2022	38,461	4,360	11.34	236,948	28,590	12.07
2023	38,100	4,347	11.41	234,070	28,611	12.22
2024	37,764	4,332	11.47	231,333	28,627	12.37
2025	37,425	4,330	11.57	228,687	28,737	12.57
2026	37,090	4,292	11.57	226,057	28,594	12.65
2027	36,830	4,302	11.68	223,711	28,695	12.83
2028	36,570	4,304	11.77	221,550	28,741	12.97
2029	36,363	4,313	11.86	219,616	28,813	13.12
2030	36,174	4,321	11.94	217,788	28,885	13.26
2031	36,062	4,341	12.04	216,402	29,033	13.42
2032	36,021	4,344	12.06	215,433	29,087	13.5
2033	36,024	4,375	12.14	214,669	29,304	13.65
2034	36,034	4,381	12.16	213,998	29,374	13.73
2035	36,032	4,406	12.23	213,288	29,586	13.87
2036	36,022	4,415	12.26	212,569	29,671	13.96
2037	36,026	4,454	12.36	211,992	29,880	14.09
2038	36,050	4,490	12.46	211,538	30,067	14.21
2039	36,088	4,527	12.54	211,198	30,240	14.32
2040	36,119	4,576	12.67	210,792	30,497	14.47
2041	36,147	4,619	12.78	210,397	30,706	14.59

Source: Author's estimates based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

Figure 11: Future Supply of Labour, Total and Indigenous Share, Northeastern Ontario Districts, 2013–2041



Source: Author's estimates based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

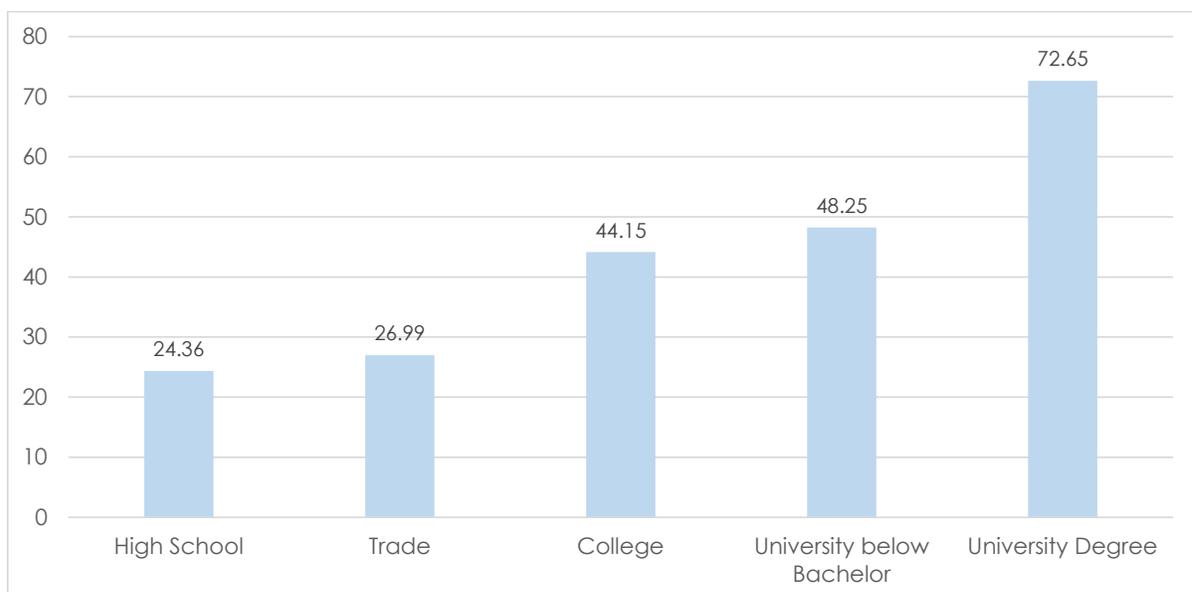
Productivity and the Human Capital Composition of the Workforce in Nipissing District and Northeastern Ontario

Productivity growth is directly linked to the human capital composition of the workforce. Human capital is defined as the stock of knowledge, skills and abilities embodied in individuals that directly affects their level of productivity. Since knowledge and skills are acquired through education and experience, investing in human capital represents an avenue through which Nipissing district can enhance productivity and minimize the impact of its declining labour force.

To estimate the human capital composition of the regional workforce, one needs to specify and measure a proxy for human capital that also reflects and incorporates a measure of productivity of the workforce in the district of Nipissing and Northeastern Ontario. To obtain such an index, this study first estimated a standard earnings model using the 2006 census micro-data file.⁷ This study used data pertaining to all working Canadians between the ages of 15 and 64 who were not attending school and whose employment earnings were greater than \$1,000 and less than \$1 million. The benchmark or reference group is those with less than a high school diploma.

The estimated return-to-schooling coefficients (Figure 12) show the increased earnings, compared to the reference group, of obtaining different levels of education. Therefore, they represent the average rate of return to schooling at the national level. For example, obtaining a high school diploma increases a person's earnings by 24.4 percent above the earnings of those without a high school diploma. Similarly, obtaining a trade or college diploma increases earnings by 27.0 and 44.1 percent respectively. A university degree increases earnings by 72.6 percent. The return to schooling estimates reflect higher productivity resulting from an increased level of education. In short, the return to education increase as the level of schooling rises, reflecting higher earnings commensurate with higher productivity as the level of education increases.

Figure 12: The Return to Education (%), by Level of Educational Attainment, Canada, 2006



Note: Persons with an education who do not have a job are not included.

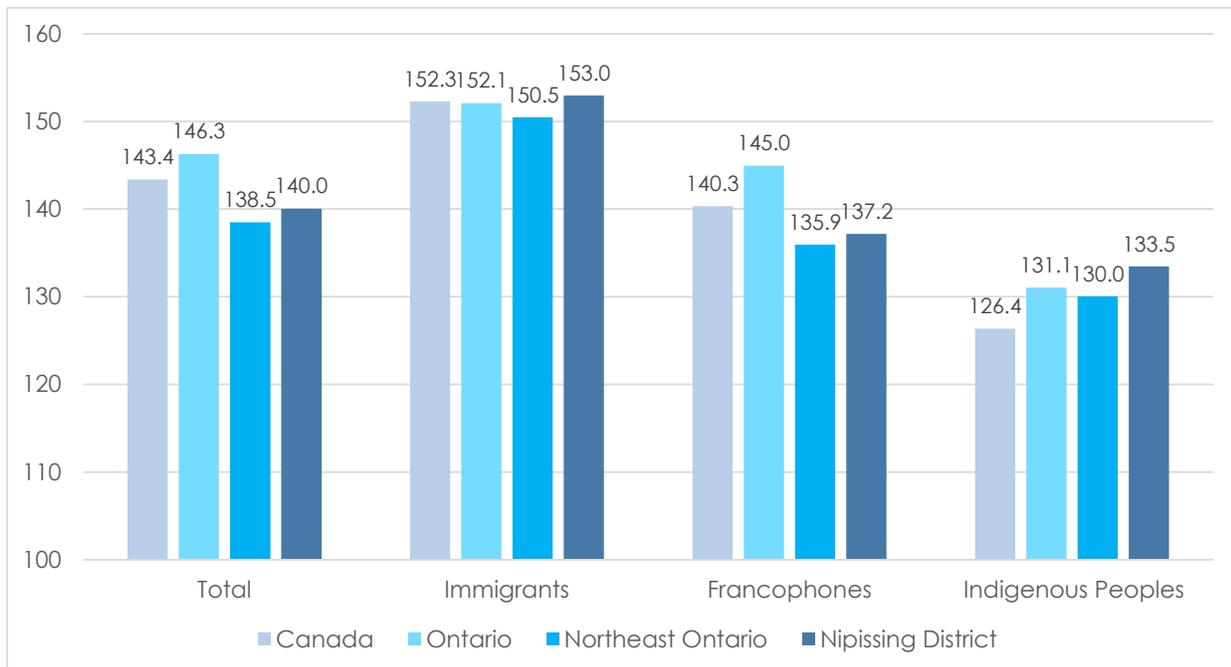
Source: Author's estimates based on Statistics Canada's 2006 Census Microdata file.

7 The earnings model is of the form: $\ln Wage = a + \sum \beta_i S_i + \sum \delta_j X_j + \epsilon$, where S_i are the highest level of schooling, X_j are other control variables which include age categories, marital status, etc. and ϵ is an error term.

This study then used the estimated return-to-schooling coefficients as weights to calculate a weighted average index of the share of individuals aged 15 to 64 with different levels of schooling for each of the districts in Northeastern Ontario.⁸ Figure 13 shows estimated human capital indices for working-age Indigenous people, immigrants, Francophones and the total population in Canada, Ontario, Northeastern Ontario and Nipissing.⁹ The estimated indexes range from 100 if none of the area's residents have completed high school to about 200 if all residents have obtained a university degree.

As Figure 13 shows, the human capital composition of the working-age population in Nipissing is above that in Northeastern Ontario, but below provincial and national levels. Meanwhile, the human capital indexes for immigrants in Nipissing are higher than in Ontario and Canada, and notably higher than the total working-age population across all jurisdictions. In addition, the indexes for the Indigenous labour force, while below the rest of the population, are higher in Nipissing compared to Ontario and Canada.

Figure 13: Human Capital Index for the Working-Age Population, Canada, Ontario, Northeastern Ontario and Nipissing District, 2011



Source: Author's estimates based on Statistics Canada's 2006 Census Microdata file.

8 HCl = $\exp\{\sum \beta_i \cdot S_i \text{ shares}\}$, where HCl stands for Human Capital Index, exp stands for exponential, and S_i shares are the share of the population ages 15 to 64 with S_i level of education in a given census subdivision. The formulation of the human capital measure is based on R.E. Hall and C.I. Jones (1999), "Why Do Some Countries Produce So Much More Output per Worker than Others?" *Quarterly Journal of Economics* 114 (1, 1999): 83–116. See also Francesco Caselli, "Accounting for Cross-Country Income Differences", First Draft, November 2003.

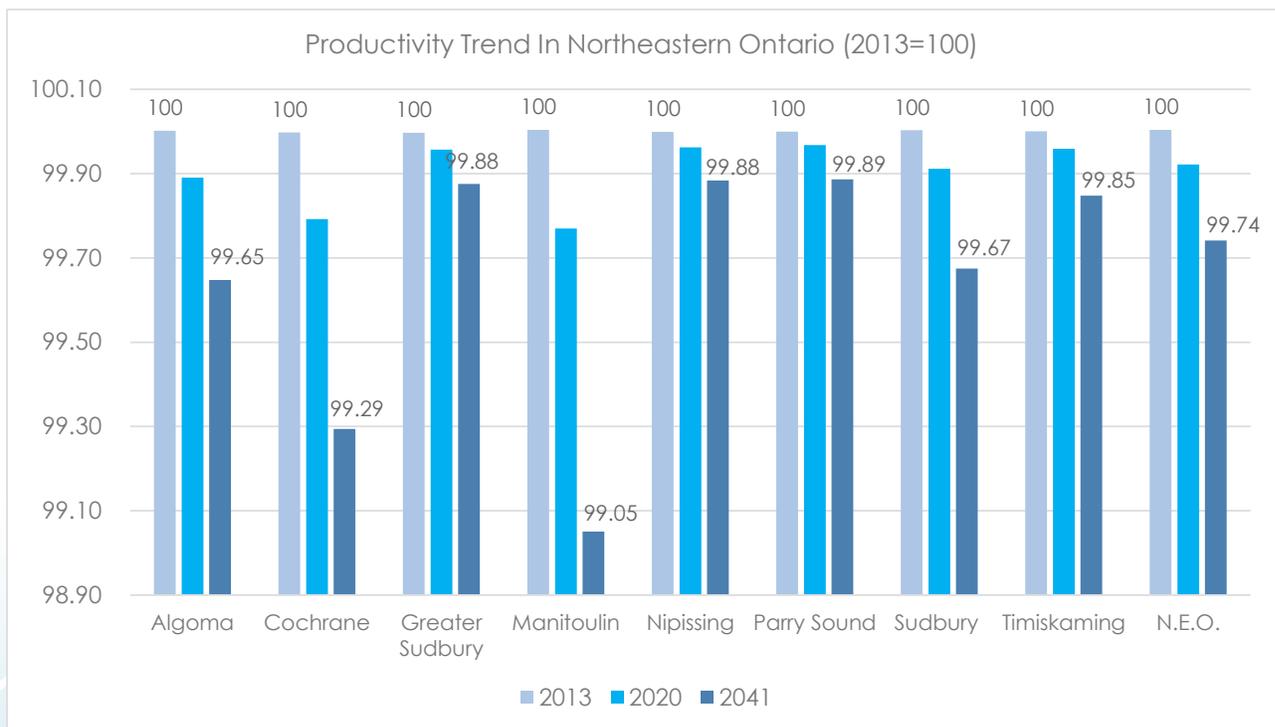
9 Note that the human capital indexes reported here are numerically different from the ones reported in my previous report since I have used return to education or productivity measure in Canada as a benchmark in calculating the above indexes where Ontario was the benchmark in my previous report. Using Canada as a benchmark has an advantage of making the indexes comparable to other provinces as well.

A Perfect Storm: Declining Labour Supply and Labour Productivity in Nipissing District

Earlier, this study identified two important demographic trends in Nipissing. First, the working-age population is declining; as a result, the supply of labour is expected to decline over the coming years. Second, a growing Indigenous labour force potentially could offset that trend, but the human capital composition of the Indigenous workforce is lower than the rest of the population, so if the current situation continues, future labour productivity will decline.

To estimate the human capital composition of the future regional workforce, this study combined the labour force projections with the human capital indexes for various segments of the workforce. As Figure 14 shows, that if the current level of educational achievement continues, the human capital composition of the workforce will decline in the coming years in both the Nipissing district, however it is expected to decline at a slower rate than almost all other districts in Northeastern Ontario. This index is positively correlated with labour productivity, labour income and output in the region.

Figure 14. Human Capital Composition of the Workforce in Northeastern Ontario Districts, 2013–2041

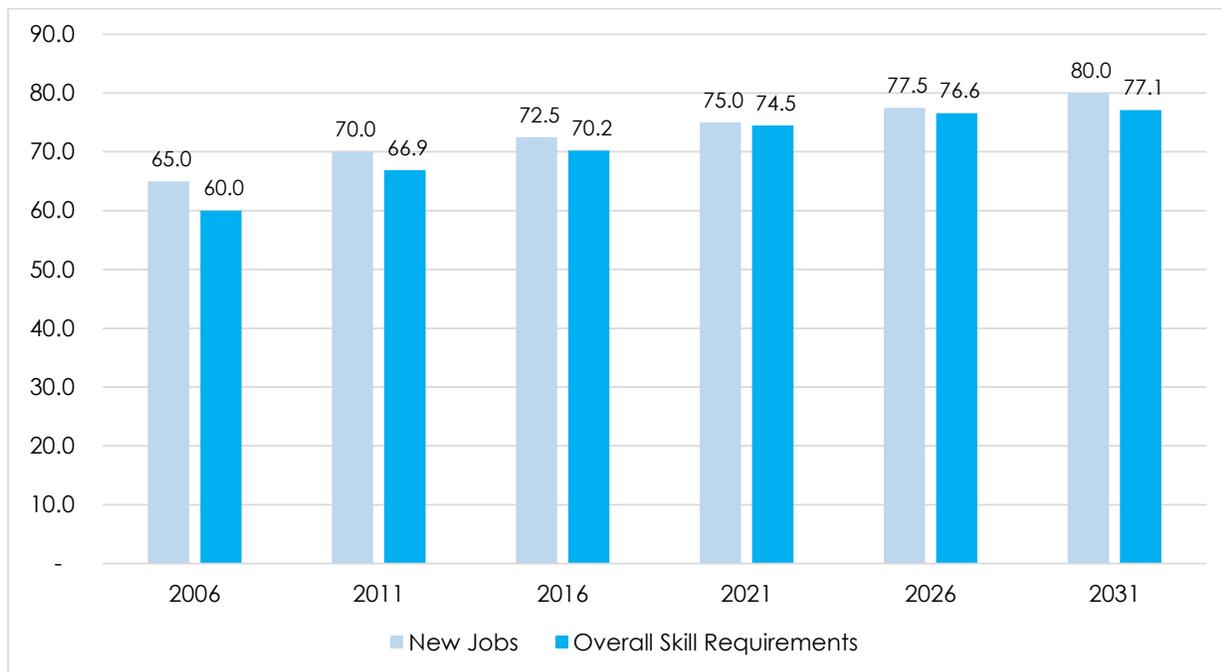


Source: Author's estimates based on Ontario, Ministry of Finance, "Ontario Population Projections, 2013-2041" (Toronto, 2014).

The declining supply of labour and declining labour productivity in the district of Nipissing is only half of the story. Technological changes and the emergence of the knowledge economy have altered the requirements of the labour market. Various studies suggest that, by 2031, about 80 percent of the workforce need to have post-secondary credentials such as an apprenticeship, college or university degree. Currently, 70 percent of the new jobs and an average of 63.4 percent of all jobs require some post-secondary credential.¹⁰

Based on various studies by the Ontario Ministry of Education, Human Resources and Skills Development Canada, the British Columbia Ministry of Skills, Training and Education, the British Columbia Ministry of Advanced Education and Labour Market Development and other government agencies, Miner Management Consultants provides estimates of the percentage of new jobs that will require post-secondary education in the coming years (Figure 15). Yet, as Figure 16 shows, the skill levels of the prime-working-age population in the Nipissing district are lower than the skill levels in Ontario and Canada for the total population, while the Indigenous population has notably higher levels of skills compared to provincial and national levels. Importantly, however, the present skill level in Nipissing overall is well-below the current estimated skill requirements of about 63.4 percent.

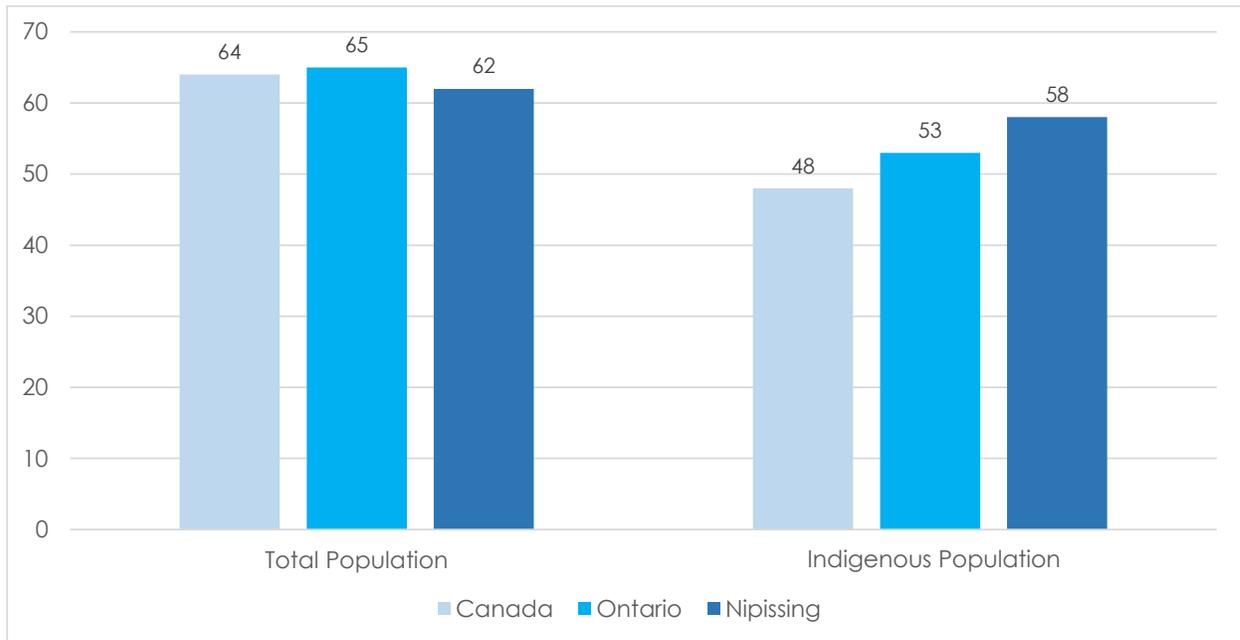
Figure 15. Percentage of Jobs Requiring Post-Secondary Education, Canada, 2006–2031



Source: Rick Miner, "People without Jobs, Jobs without People: Canada's Future Labour Market" (Toronto: Miner Management Consultants, 2010).

10 Miner Management Consultants, 'Ontario's Labour Market Future- People without Jobs, Jobs without People', February 2010.

Figure 16: Percentage of the Labour Force Ages 25–64 with Postsecondary Credentials, Nipissing District, Ontario and Canada, 2011



Source: Author's estimates based on Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

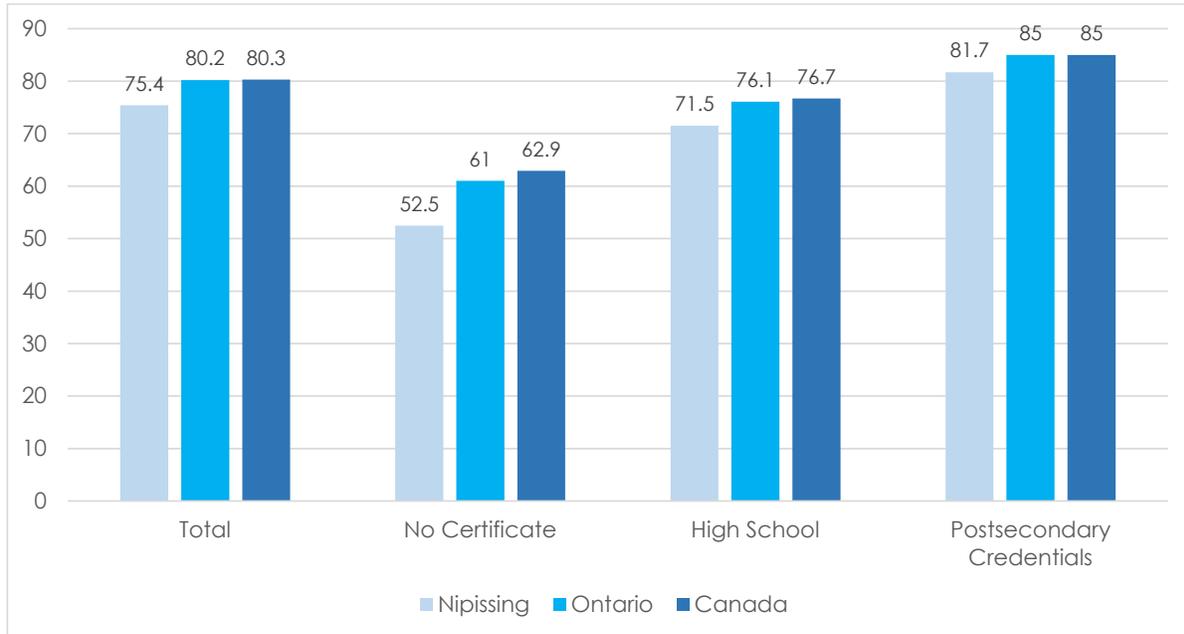
Since the Indigenous labour force will account for a significant and growing share of the district's future workforce, it is vital for the social and economic viability of the region to adopt education policies that enable this segment of the labour force to meet the requirements of the future labour market.

Does the level of skills affect labour market performance – that is, the likelihood of employment, labour force participation and unemployment rates? Figure 17 shows that a higher skill level increases the likelihood of participation in the workforce. In the district of Nipissing in 2011, the participation rate of the prime working age population (25-64) without a high school diploma was 52.5 percent compared to 71.5 percent for those with a high school diploma and 81.7 percent for those with postsecondary credentials. Figure 17 also shows that total labour force participation rates in this district lag behind the provincial and national averages.

Similarly, as shown in Figure 18, the average unemployment rate among those without a high school diploma was 10.9 percent compared to 9.9 percent for those with a high school diploma and 5.3 percent for those with a postsecondary credentials. Overall, the total unemployment rate in 2011 in the Nipissing district of 6.9 percent was slightly higher than in Ontario and Canada.

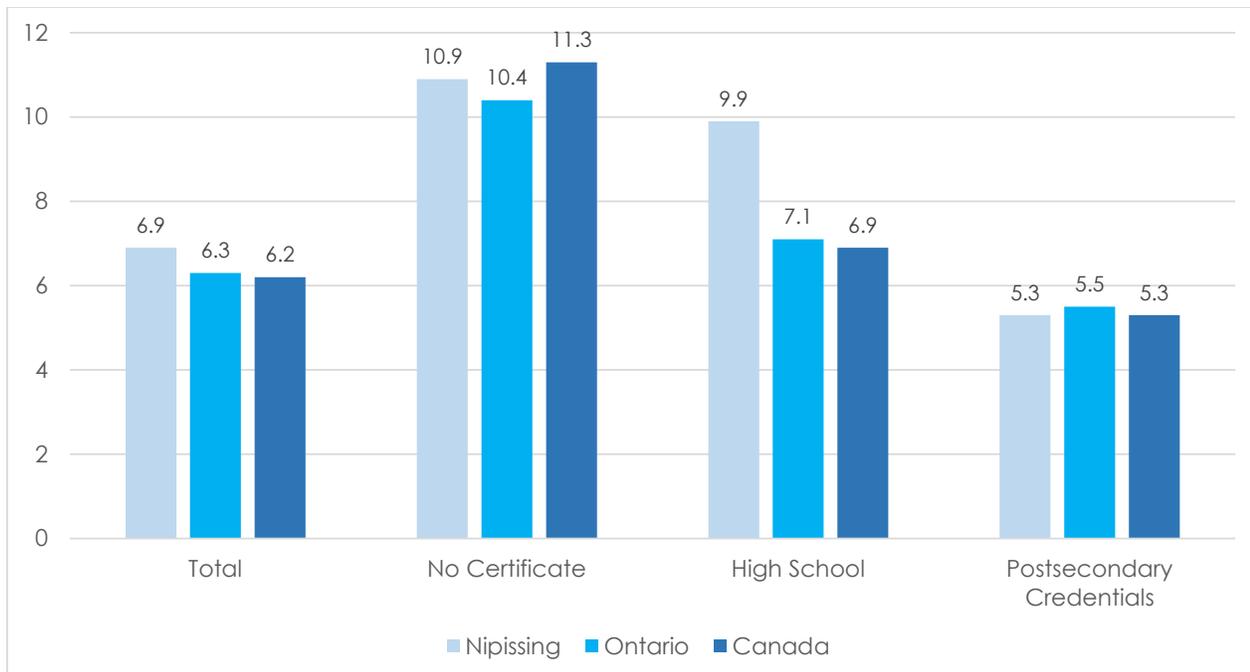
The employment rate – defined as the percentage of the prime working age population who are employed – was 46.8 percent for those without a high school diploma, which increases to 64.4 percent for those with a high school diploma and 77.4 percent for those with a postsecondary credential (Figure 19). Again, the employment rates in this district lag behind provincial and national averages.

Figure 17: Labour Force Participation Rate by Level of Educational Attainment (%), Canada, Ontario and Nipissing District, 2011



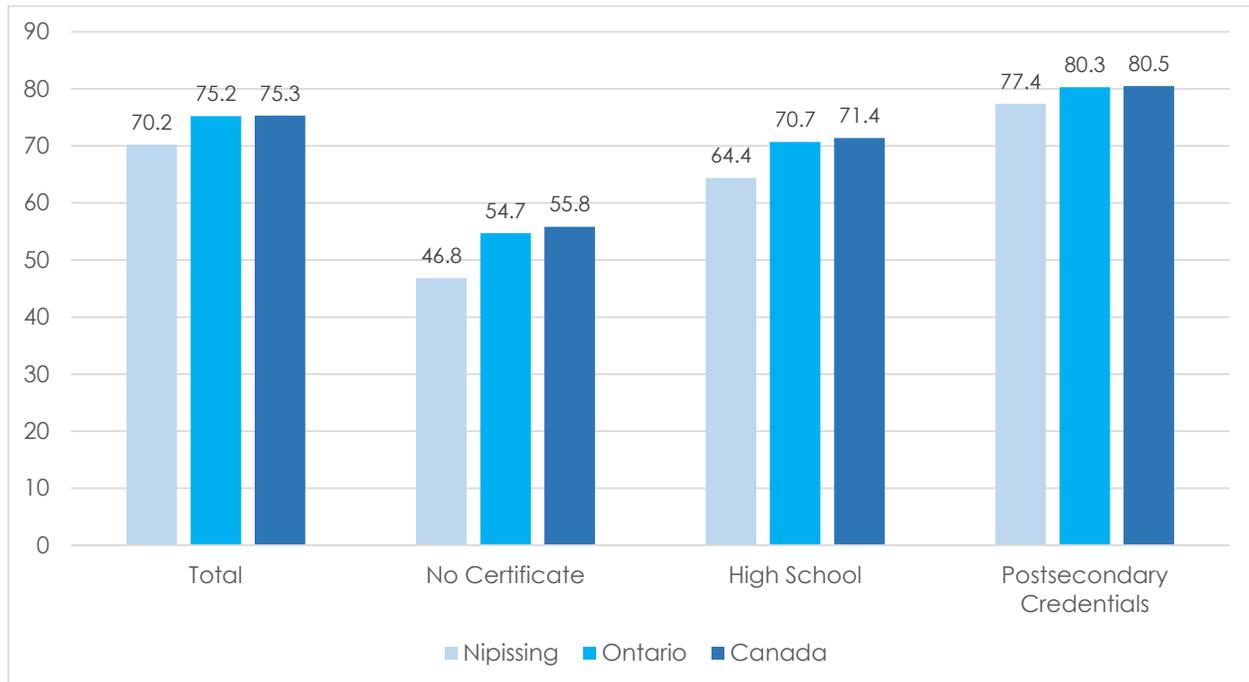
Source: Author's calculations based on Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

Figure 18: Likelihood of Unemployment by Highest Level of Schooling (%), Canada, Ontario and Nipissing District, 2011



Source: Author's calculations based on Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

Figure 19: Labour Force Employment Rate by Level of Educational Attainment (%), Canada, Ontario and Nipissing District, 2011



Source: Author's calculations based on Statistics Canada, Census of Canada 2011, and National Household Survey 2011, custom tabulation.

In short, individuals who do not have post-secondary credentials have a higher likelihood of non-participation in labour force and face a greater probability of unemployment, and these probabilities will only increase in the coming years. To the extent that the skill level of the workforce in the district is below the estimated requirement needed for emerging occupations, the district will face a situation of workers with qualifications that do not match the existing jobs and of jobs that cannot find qualified workers — Miner's "People without Jobs, Jobs without People." Even if markets adjust to bring labour demand and supply into balance, the social impact of having many unemployable people in the region will be enormous.

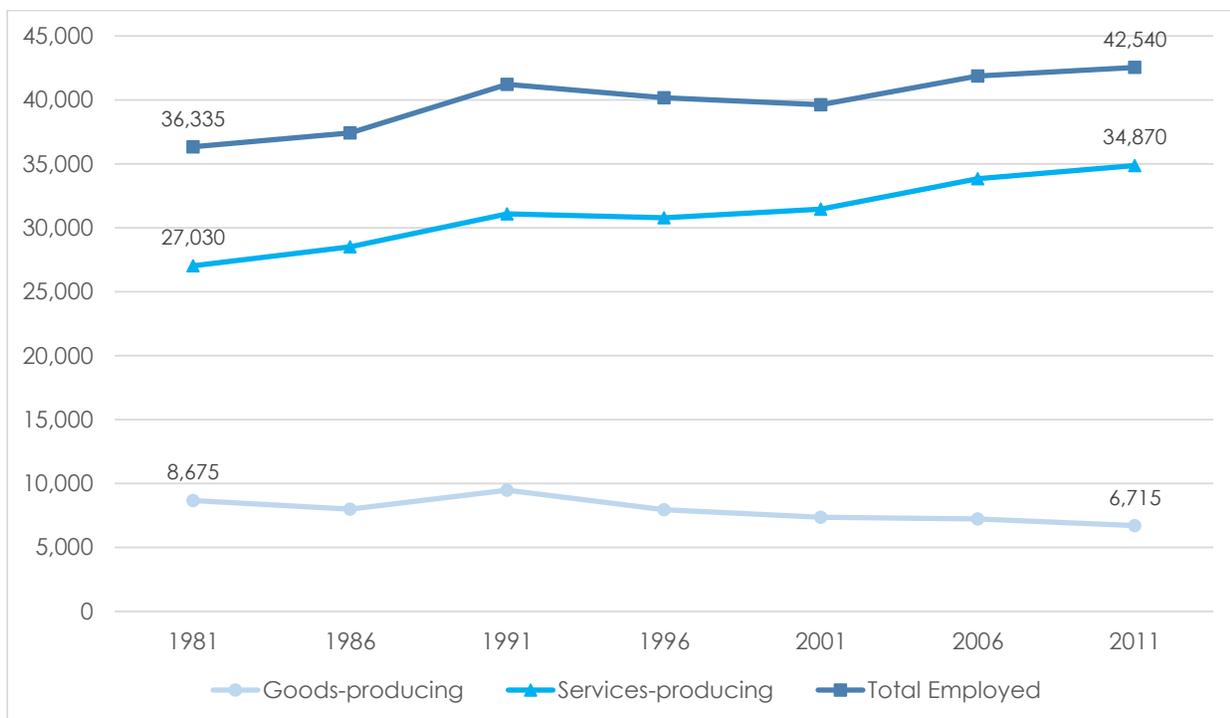
The evidence above suggests that one potential solution to the district of Nipissing's declining workforce size and productivity is to promote higher education through increased access to services, especially for the Indigenous population who experience lower

levels of educational achievement. One of the benefits of investing in education is a lower likelihood of unemployment and dependency on government transfer payments. In addition, agreements such as the Trans-Pacific Partnership will continue to make labour more mobile among various countries, increasing the importance of achieving higher levels of education. In this case, workers in Northern Ontario will not only be competing with other workers in Ontario and Canada, but will be facing competition from other countries as well. To the extent that the skill level of the workforce in the Nipissing district is below the estimated skill requirement needed for the emerging occupations, the region will face workers whose qualifications do not match the existing jobs and jobs that cannot find qualified workers.

The Consequences of Shifting the Composition of the Employed Labour Force in Nipissing District

The structure of the district's workforce has been changing due to a population that is simultaneously declining and aging. At the same time, the industrial and occupational composition of the employed workforce is shifting due to changing market conditions. As a result, the size and industrial makeup of the employed workforce has changed over the past three decades. There has been a continuous shift away from the goods-producing sector dominated by private businesses to the service-producing sector, a large portion of which is publicly funded. Using data from various Censuses of Canada as well as the 2011 NHS, Figure 20 and Table 5 show the changing industrial composition of the employed workforce in the Nipissing district.

Figure 20: Employment in the Goods- and Services-Producing Industries, Nipissing District, 1986–2011



Source: Author's calculations based on Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.

The shift away from the goods-producing sector has resulted in a net employment loss of nearly 2,000 jobs since the early-1980s. From 2001 to 2011, total employment in agriculture, forestry, fishing and hunting sector declined by 7 percent, while manufacturing employment declined by 43 percent and utilities declined by 20 percent. On the other hand, employment in the mining and oil and gas sector increased by 155 percent and construction employment increased by 15 percent over this period. It is imperative to acknowledge that the goods-producing sector is a major component of Northeastern Ontario's economic base and its change in employment can have serious impacts on the region's long-term economic growth potential. The multiplying effect between employment in goods-producing industries and total regional employment equals 1.87, meaning that one job in the goods-producing sector supports 1.87 jobs in the regional economy.¹¹

11 Author's calculations based on data from Statistics Canada.

Employment in the services-producing sector grown by 29 percent since the early-1980s. Since 2001, service-producing industries that experienced notable growth included wholesale trade (46 percent), health care and social assistance (33 percent), administrative and support services (30 percent), professional, scientific and technical services (24 percent), and public administration (22 percent). On the other hand, industries that experienced a decline during this period

included management of companies, finance and insurance, and information and cultural industries. The growth of healthcare and public administration, which are referred to as quasi-base sectors since they are financed from outside the region, has to a large extent mitigated the decline in the traditional base sectors of the economy (i.e., manufacturing and primary industries).

Table 5: Industrial Composition of the Employed Workforce Ages 15 and Older, Nipissing District, 2001–2011

	2001	2006	2011	Employment change from 2001 to 2011	
	(number)			(number)	(percent)
Total	39,625	41,875	42,540	2,915	7.36
Industry - not applicable	775	790	930	155	20.00
All industries	38,845	41,085	41,605	2,760	7.11
Goods-producing sector	7,375	7,230	6,715	-660	-8.95
Agriculture, forestry, fishing and hunting	745	735	690	-55	-7.38
Mining, quarrying, and oil and gas extraction	335	535	855	520	155.22
Utilities	450	395	360	-90	-20.00
Construction	2,555	2,605	2,950	395	15.46
Manufacturing	3,290	2,960	1,860	-1,430	-43.47
Services-producing sector	31,470	33,850	34,870	3,400	10.80
Wholesale trade	1,000	1,270	1,455	455	45.50
Retail trade	5,555	5,425	6,170	615	11.07
Transportation and warehousing	2,585	2,700	2,390	-195	-7.54
Information and cultural industries	660	640	550	-110	-16.67
Finance and insurance	1,235	990	810	-425	-34.41
Real estate and rental and leasing	585	700	595	10	1.71
Professional, scientific and technical services	1,395	1,650	1,730	335	24.01
Management of companies and enterprises	60	15	0	-60	-100.00
Administrative and support, waste management and remediation services	1,455	2,160	1,895	440	30.24
Educational services	3,160	3,345	3,625	465	14.72
Health care and social assistance	4,870	5,335	6,500	1,630	33.47
Arts, entertainment and recreation	620	610	575	-45	-7.26
Accommodation and food services	3,295	3,645	2,860	-435	-13.20
Other services (except public administration)	1,655	2,030	1,640	-15	-0.91
Public administration	3,340	3,335	4,075	735	22.01

Source: Author's calculations based on Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.

The changing industrial composition of the workforce has also been accompanied by a shift in the occupational structure of the employed workforce (Table 6). Since 2001, some occupations experienced notable growth, including occupations in education, law and social, community and government services (77 percent), health occupations (39 percent), and natural and applied sciences and related occupations (12 percent). On the other hand, occupations that experienced decline included occupations in manufacturing and utilities (28 percent), management occupations (9.0 percent), and sales and service occupations (5.7 percent).

Table 6: Employed Workforce by Occupation, Nipissing District, 1996–2011

	1996	2001	2006	2011	Employment change from 2001 to 2011	
	(number)				(number)	(percent)
Total	40,160	39,625	41,875	42,540	2,915	7.36
Occupation - not applicable	1,410	780	790	930	150	19.23
All occupations	38,755	38,845	41,085	41,610	2,765	7.12
Management occupations	3,275	4,185	3,750	3,810	-375	-8.96
Business, finance and administration occupations	6,835	6,230	6,905	6,575	345	5.54
Natural and applied sciences and related occupations	1,435	1,825	1,780	2,035	210	11.51
Health occupations	2,220	2,465	2,655	3,415	950	38.54
Occupations in education, law and social, community and government services	3,060	3,225	3,920	5,715	2,490	77.21
Occupations in art, culture, recreation and sport	725	700	660	705	5	0.71
Sales and service occupations	12,260	11,050	11,645	10,420	-630	-5.70
Trades, transport and equipment operators and related occupations	6,025	6,630	6,890	6,860	230	3.47
Natural resources, agriculture and related production occupations	940	1,000	1,355	975	-25	-2.50
Occupations in manufacturing and utilities	1,965	1,525	1,515	1,105	-420	-27.54

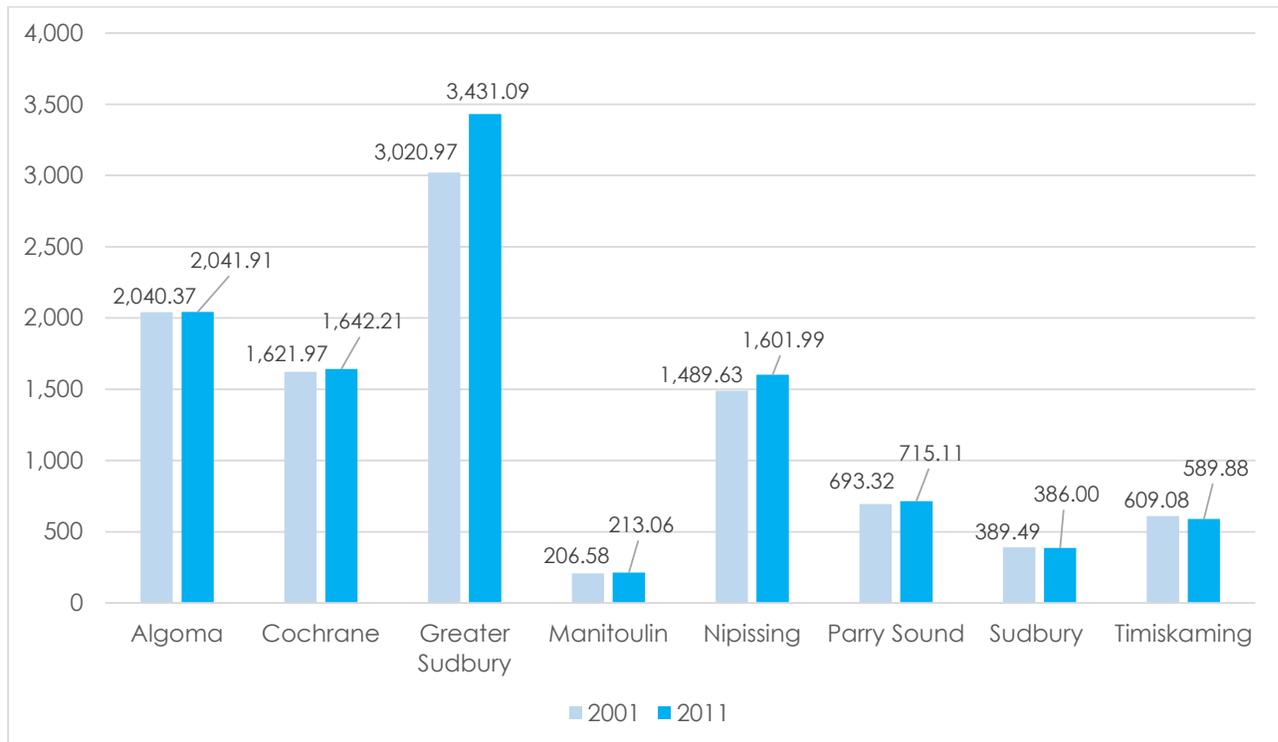
Source: Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.



Labour Income and Gross Domestic Product in Nipissing District

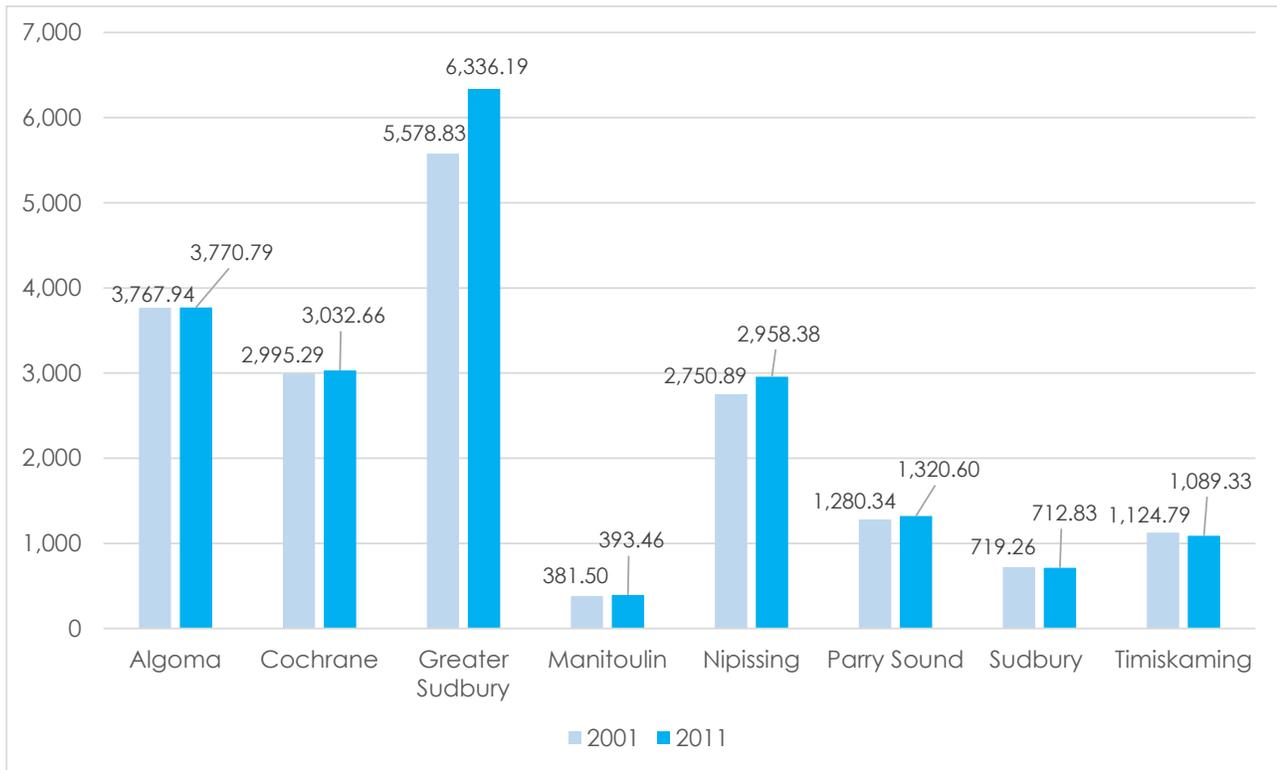
The changing size and composition of the district's employed workforce has also impacted total labour income and output. Using detailed employment by occupation and industry data along with average employment earnings by industry and occupation, this study estimated trends in total labour income in 2010 dollars in the district of Nipissing, shown in Figure 21. Labour income is influenced by size, productivity and the occupational composition of the employed workforce. From 2001 to 2011, labour income in the district increased by 7.5 percent from \$1.49 to \$1.60 billion, compared with a 6.7 percent increase in Northeastern Ontario during the same period. Assuming that the share of labour in regional gross domestic product (GDP) stayed relatively constant during 2001-2011, it is evident that the Nipissing district also experienced positive growth in GDP, from \$2.75 to \$2.96 billion, as show in Figure 22.

Figure 21: Total Labour Income (millions of 2010 dollars), Northeastern Districts, 2001–2011

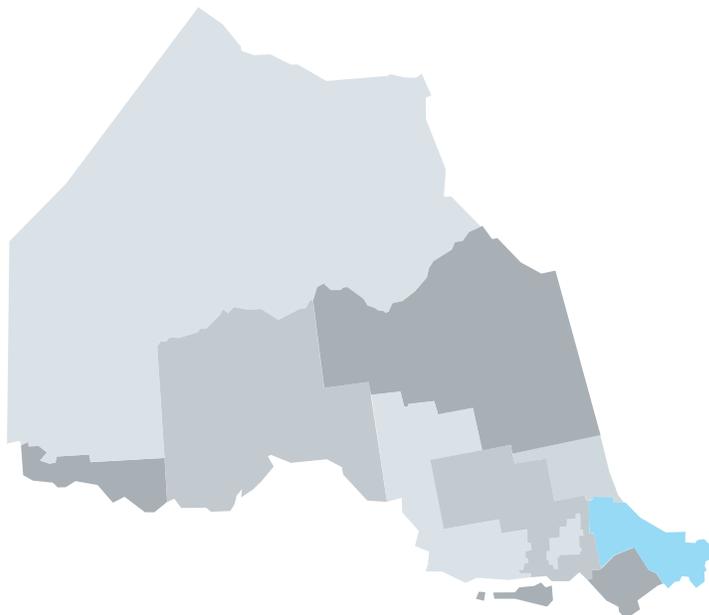


Author's calculations based on Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.

Figure 22: Regional Gross Domestic Product (millions of 2010 dollars), Northeastern District, 2001–2011



Author's calculations based on Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.



Recommendations

1. Market the district of Nipissing as a desirable destination for secondary migration in Ontario

The district of Nipissing has experienced positive net intra-provincial migration in recent years, as more individuals from Ontario have moved into the area than out of it. Meanwhile, the human capital indexes for immigrants in the Nipissing district are higher than in Ontario and Canada, and notably higher than the total working-age population across all jurisdictions. With significant numbers of unemployed and underemployed new Canadians in the Greater Toronto Area there is a real opportunity for this district to address its population challenges by playing to its demonstrated strength in supporting immigrant success.

2. Continue to build on Indigenous partnerships

The human capital indexes for the Indigenous labour force in the district of Nipissing, while below the rest of the population, are higher than in Ontario and Canada. As with new Canadians, there is a real opportunity for the district to be marketed as a destination for Indigenous migration within Canada. The district has a track record of delivering better social and education outcomes to its Indigenous population and, given the growth trends among this population across Northern Ontario, this is an opportunity that should continue to be aggressively pursued.

3. Eldercare may be the new Growth Sector

The population share of seniors in the Nipissing district is expected to rise from 18 percent in 2013 to 30 percent in 2041. The aging population and declining working-age population has important implications for the region's future labour market. Given proximity to larger centres with similar aging trends, serving the needs of an aging population could become a niche market for the district. Allowing it to draw new population to both deliver, and receive, programs and services designed to deliver a high quality of life for an aging population.

References

Ontario. 2014. Ministry of Finance. "Ontario Population Projections, 2013–2041." Toronto.

Moazzami, B. 2015. "It's What You Know (and Where You Can Go): Human Capital and Agglomeration Effects on Demographic Trends in Northern Ontario." Thunder Bay: Northern Policy Institute.

Ontario. 2014. Ministry of Finance. "Ontario's Long-Term Report on the Economy." Toronto.

Hall, R.E., and C.I. Jones. 1999. "Why Do Some Countries Produce So Much More Output per Worker than Others?" *Quarterly Journal of Economics* 114 (1): 83–116.

Caselli, F. 2003. "Accounting for Cross-Country Income Differences." Unpublished first draft, November.

Miner, R. 2010. "People without Jobs, Jobs without People: Canada's Future Labour Market." Toronto: Miner Management Consultants.

Moazzami, B. 2012. "Multi-national and Multi-locational Enterprise Initiative, Survey of Northern Ontario Companies and Analysis of the Results." Prepared for the Federal Economic Development Initiative for Northern Ontario.

Canadian Council of Chief Executives. "Taking Action for Canada: Jobs and Skills for the 21st Century." Ottawa.

About Northern Policy Institute

Northern Policy Institute is Northern Ontario's independent think tank. We perform research, collect and disseminate evidence, and identify policy opportunities to support the growth of sustainable Northern Communities. Our operations are located in Thunder Bay, Sudbury, and Sault Ste. Marie. We seek to enhance Northern Ontario's capacity to take the lead position on socio-economic policy that impacts Northern Ontario, Ontario, and Canada as a whole.

Related Research

It's What You Know (And Where You Can Go): Human Capital and Agglomeration Effects on Demographic Trends in Northern Ontario

Dr. Bakhtiar Moazzami

From Laggard to Leader (Almost): Northeast Showing Potential for Growth

James Cuddy

Show me The Money: Some Positive Income Trends in Northern Ontario

Kyle Leary

Northern Projections: Human Capital Series - Parry Sound District

James Cuddy
and Dr. Bakhtiar Moazzami

To stay connected or get involved, please contact us at:

1 (807) 343-8956 info@northernpolicy.ca www.northernpolicy.ca



NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD

northernpolicy.ca