

LABOUR FORCE PARTICIPATION IN NORTHERN ONTARIO



2001 Census Research Paper Series: Report #5

March 7, 2003

A report prepared for:



*Northern Ontario
Local Training and
Adjustment Boards*

- Muskoka, Nipissing, Parry Sound
- Sudbury and Manitoulin
- Far Northeast
- North Superior
- Northwest

The Training Boards of Northern Ontario

Labour Force Participation in Northern Ontario

2001 Census Research Paper Series: Report #5

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Executive Summary

Background to the Report:

This study has been prepared for the 5 existing Local Training and Adjustment Boards in Northern Ontario. Due to the particular economic conditions in Northern Ontario, it is very important for the Northern Boards to properly understand the demographic and economic trends occurring in their region. This is the fifth research report in a series that examines the current trends in Northern Ontario using data from the 2001 Census. Based on concerns expressed in Environmental Scans, this report attempts to examine current trends in labour force participation in Northern Ontario.

Methodology:

This report is based on newly released data from the 2001 Census as prepared by Statistics Canada. Data is also used from other Census years as compiled by Statistics Canada.

Findings:

The analysis of the 2001 Census data for labour force participation has shown us several important facts about trends in Northern Ontario. They are as follows:

- Employment in Northern Ontario declined from 1996 to 2001
 - This decline has been occurring since 1991
 - Employment declined in all areas of Northern Ontario except the District of Kenora and the southern districts of Muskoka, Parry Sound, and Manitoulin
- Labour Force Participation in Northern Ontario differs from that of Ontario as a whole
 - The participation rates for Northern Ontario are lower than for Ontario
 - The employment rates for Northern Ontario are lower than for Ontario
 - The unemployment rates for Northern Ontario are higher than for Ontario
- Labour Force Rates within Northern Ontario vary
 - The Muskoka District Municipality and Northwestern Ontario have the highest employment rates
 - The Muskoka District Municipality tends to have the lowest unemployment rates and the District of Sudbury tends to have the highest unemployment rates
- Youth Unemployment is higher in Northern Ontario than in Ontario as a whole
 - The gap in youth unemployment rates between Ontario and Northern Ontario has grown wider from 1991 to 2001
- Differences between Ontario and Northern Ontario in numbers of self-employed are decreasing
- Self-employment is highest in the more southerly districts of Muskoka, Parry Sound, and Manitoulin and lowest in the more urbanized districts of Thunder Bay, Greater Sudbury, and Algoma
- The Communities with the highest unemployment rates are Aboriginal communities.

Section One: Introduction

1.1 Background to the Report

This study has been prepared for the 5 existing Local Training and Adjustment Boards in Northern Ontario. The Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board (Board #20), the Sudbury and Manitoulin Training and Adjustment Board (Board #21), the Far Northeast Training Board (Board #23), the North Superior Training Board (Board #24) and the Northwest Training and Adjustment Board (Board #25) are among the 25 Local Training and Adjustment Boards established in Ontario in 1994.¹ These Boards were created to assist in assessing the training needs and issues of each area. Each Board is made up of representatives of the key labour market partner groups including primarily business and labour but also including educators and trainers, women, persons with disabilities, francophones, and racial minorities. The Boards also have non-voting representatives from the municipal, provincial, and federal governments. The Boards are sponsored by Human Resources and Development Canada and the Ontario Ministry of Training, Colleges and Universities.

Due to the particular economic conditions in Northern Ontario, it is very important for the Northern Boards to properly understand the demographic and economic trends occurring in their region. Economic growth in Northern Ontario has been significantly less than the provincial average since the 1970s. Since training is seen as an important development tool by most people in the region, regional Boards are therefore necessarily involved in economic development discussions. Labour force participation trends are an indicator of economic development. These trends also have an important impact on future development decisions. It, therefore, becomes very important for the Training Boards of Northern Ontario to understand what economic participation trends exist in their region.

This is the fifth research report in a series that examines the current trends in Northern Ontario using data from the 2001 Census. The first report analyzed the general population trends following release of that data in March, 2002. The second report looks at trends in youth out-migration using the 2001 Census data released in July, 2002. The third report looked at the extent to which the population of Northern Ontario is aging. The fourth report examined trends in migration patterns.

Section Two: Background to the Issue in Northern Ontario

2.1 Introduction to Northern Ontario

Northern Ontario comprises almost 89% of the land mass of Ontario but represents only 7.4% of the total population of the province (2001 Census). As the region has no legislated boundaries, the definition of the region varies, especially as concerns its southern border. Currently, for the purpose of statistical analysis, the federal government has defined Northern Ontario as comprising the Greater Sudbury Division and the following districts: Kenora, Rainy River, Thunder Bay, Algoma, Cochrane, Manitoulin, Sudbury, Timiskaming, Nipissing, and Parry Sound. Prior to 2000, this definition of Northern Ontario was also used by the provincial government for program delivery. In 2000, however, the Ontario government decided to also include the Muskoka District Municipality in its definition of Northern Ontario. This inclusion is somewhat problematic in that the socio-economic characteristics of the Muskoka District Municipality differ from that of the other Districts in Northern Ontario. Despite this, this study will use the provincial definition of Northern Ontario since one of the Northern Ontario Training Boards (LTAB #20) also includes the Muskoka District Municipality.

The history of continuous settlement by non-Natives in Northern Ontario is relatively recent when compared to the rest of Ontario. Settlement in earnest started with the construction of the Canadian Pacific Railway in the late 1870s and 1880s. This was soon followed by the construction of the Canadian Northern Railway and the Grand Trunk and National Transcontinental Railways. Most non-Native communities in the region were initially railway towns.

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Following the building of the railways, the region's growth has been driven primarily by the forest industry and by mining. For the most part, communities were developed by large resource extraction corporations based outside the region rather than by local entrepreneurs. This fact has meant that the social and economic structure of this region exhibits several unique characteristics such as:²

1) An overdependence on natural resource exploitation - This has meant a high degree of vulnerability to resource depletion, world commodity prices, corporate policy changes, the boom and bust cycles of the resource industries, changes in the Canadian exchange rate, and changes in government policies regarding Northern Ontario.³

2) A high degree of dependency on external forces - The fact that most communities were developed by outside forces means that local entrepreneurship has been more limited than in other areas. This has served as a barrier to the cultivation of an entrepreneurial culture in these communities. This dependence is also seen in the area of political decision-making. Unlike most areas of Ontario, Northern Ontario is made up of Districts instead of Counties. Unlike Counties, Districts do not have regional governments. Northern Ontario is unique in Ontario in that unlike the Counties of Southern Ontario there is no regional government serving as an intermediary between the provincial government and municipalities.⁴

While all communities in the region share some common characteristics, Northern Ontario can be divided internally into three different types of communities:

Small and Medium-sized cities - Northern Ontario includes 5 cities with over 40,000 inhabitants. They are, in order of size, Sudbury (155,219), Thunder Bay (109,016), Sault Ste. Marie (74,566), North Bay (52,771), and Timmins (43,686).⁵ While these centers are heavily dependent on resource industries they are also relatively diversified in that they tend to be important centers for health, education, and other services for the outlying regions.

Resource Dependent Communities - The vast majority of the remaining non-Native communities in the region are resource dependent communities, or single industry towns, which share many distinct characteristics.⁶ These communities are smaller and less diversified economically than the small and medium-sized cities. They are much more directly dependent on resource industries.

First Nations Communities - The region of Northern Ontario is unique in terms of its large number of Aboriginal communities. The Aboriginal population makes up almost 8 percent of the population of the region.⁷ The population in the area of the region north of the 50th parallel is almost entirely made up of these communities. First Nations communities face the greatest number of social and economic challenges of all the communities in the region.

2.2 The Importance of Understanding Labour Force Participation Trends

This report deals with the most general indicators of the economic situation of a region: the number of people in the labour force, the number of people employed, the percentage of people who actively participate in the economy, the percentage who are currently employed, and the percentage who are unemployed. It also deals with the class of worker: it examines the percentage of self-employed workers.

By studying these indicators we can find out if the size of the labour force is growing or shrinking. We can determine if jobs are on the increase or on the decrease. These indicators also tell us how Northern Ontario's general economic situation compares to Ontario as a whole. The indicators dealing with class of worker tells us whether Northern Ontario is following the same general trends as Ontario as a whole.

2.3 Labour Force Trends in Canada

Since 1991 the labour force in Canada has grown to almost 15.6 million people, up 9.5%. Most of this increase was among women whose rate of increase was 13.8% to 7.3 million. Over this period the number of men in the labour force increased by 6% to 8.3 million.⁸

Among the provinces, Alberta, at 22.9%, had the largest gain in employment. All provinces except Newfoundland and Labrador experienced growth in employment. Between 1991 and 2001 jobs decreased by 2.1% in this province. Ontario experienced the third highest job growth rate of all the provinces. From 1991 to 2001 employment in Ontario increased by 13.3%.⁹

Section 3: Methodology

This report attempts to describe the labour force trends in Northern Ontario. This report is based on newly released data from the 2001 Census as prepared by Statistics Canada. Data is also used from other Census years as compiled by Statistics Canada.

Data for Northern Ontario from both the 1996 and 2001 Census is from special profiles ordered from Statistics Canada by the researcher. Data from the 1991 and 1986 Census was downloaded from the Census Profiles CDs created by Statistics Canada.

3.1 Potential problems with our method

Our method has four potential problems which must be mentioned: sampling error, the “random rounding” technique used by Statistics Canada, problems with data for Aboriginal communities in Northern Ontario, and the limitations of census labour force data due to seasonal variations.

Unlike the first three reports in this series, the data used in this report is not from 100% of the population. Statistics Canada has two census forms; a short one that goes to all residences, and a long one, Form 2B, which goes to 20% of residences. The data analyzed here is from Form 2B which went to 20% of homes. This data is therefore a “sample” of total possible responses. It is meant to represent 100% of the population but, being a sample, it often does not. When the responses from the sample differ from what the responses would be from the entire population, we say there is “sampling error”.¹⁰

Using statistical analyses, we can calculate what the likelihood of sampling error is for a given number of responses. Generally speaking, the larger the number of respondents, the less sampling error is a problem. In our study, the data from smaller communities has a higher possibility of sampling error.

Another potential problem is the use of random rounding by Statistics Canada in its census data.¹¹ In order to ensure confidentiality, census data is round up or down to the nearest 5 count. This has an insignificant effect on large numbers. On very small numbers however this process can introduce a significant degree of error. This limits our ability to be confident about the percentage of people 65 years of age or older for very small communities in Northern Ontario.

The third problem was mentioned in the first report in this series dealing with population change. The population figures for the census divisions in Northern Ontario are not as reliable as the census divisions in most of Ontario. This is due to the large number of Aboriginal communities which, for various reasons, are improperly counted. If Statistics Canada can not properly count a community, the population of that community is not included in the population totals for that census division. As a result, the population figures for almost all the census divisions in Northern Ontario are incomplete. Comparison from census year to census year becomes difficult when a particular community was not counted in one year but counted in another year.

In the report on population change, the statistics were “adjusted” to try and deal with this problem. This was not done for this report. This means that there is a certain degree of error in the statistics used in the report.

The fourth problem that needs to be mentioned is the limitations of census labour force data due to seasonal variations. Job situations vary considerably throughout the year. Often, employment varies a lot from season to season. The labour force data collected in the 2001 census, as was the case previously,

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do not account for seasonal variations or rapid shifts in employment. It represents the situation on May 15th, 2001.

As such, census labour force data for such things as employment and unemployment rates have many problems associated with it. It is very dangerous to make generalizations about over all unemployment rates in a region based solely on census rates. Participation rates, which include those working and those unemployed, are more reliable as they are less likely to be impacted by seasonal variations. Also, generalizations over a series of census years are more reliable as seasonal variations are not relevant if the census recording is done in the same season in every year.

In this report, labour force data from the census has been more reliable by cross-checking this data with data from the monthly Labour Force Survey done by Statistics Canada. This data is less reliable than census data in terms of sampling error, but more reliable from a seasonal perspective.

Section 4: Labour Force Trends in Northern Ontario

4.1 Employment in Northern Ontario declined from 1996 to 2001

In Figure 1 we see that while the number of people employed and the number of people in the labour force increased from 1996 to 2001 in both Canada and Ontario, these numbers decreased in Northern Ontario. In Ontario as a whole, the number of employed increased by 12.5%. In Northern Ontario the number of employed decreased by 0.4%. In Ontario as a whole, the number of people in the labour force, the employed and unemployed actively looking for work, increased by 8.9% from 1996 to 2001. In Northern Ontario the number of people in the labour force decreased by 3.3%.

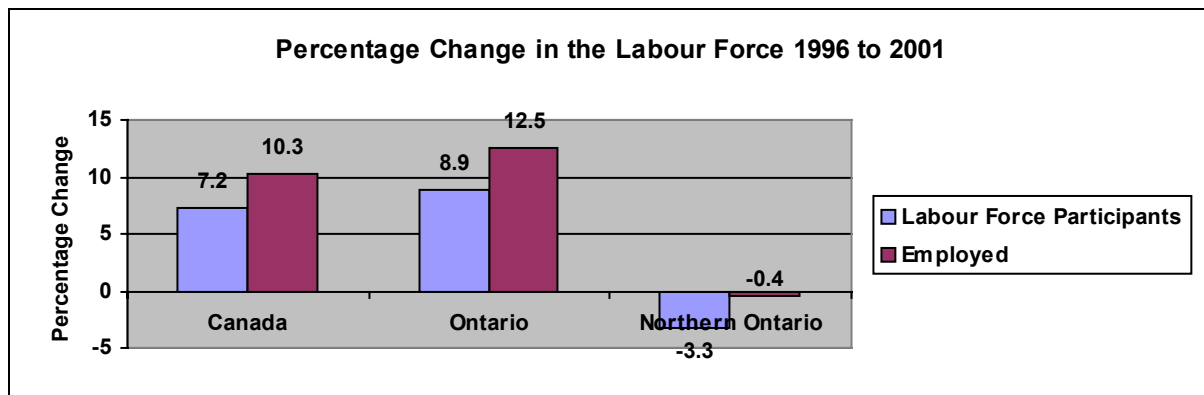


Figure 1 Source: Statistics Canada, Census of Canada, 1996 and 2001.

4.1.1 This decline has been occurring since 1991

In Figure 2 we see that the labour force for Ontario as whole increased continuously since 1986, although growth between 1991 and 1996 was relatively slow. Northern Ontario experienced growth in its labour market until 1991. From 1991 to 2001, the labour force of Northern Ontario has declined by 5.1%, from 433,025 in 1991, to 411,135 in 2001. From 1991 to 2001 the number of employed in Northern Ontario decreased by 4.6%, from 390,390 to 372,460. It is interesting to note that this decrease was more than twice the percentage decrease in the number of jobs in Newfoundland and Labrador over this same period.

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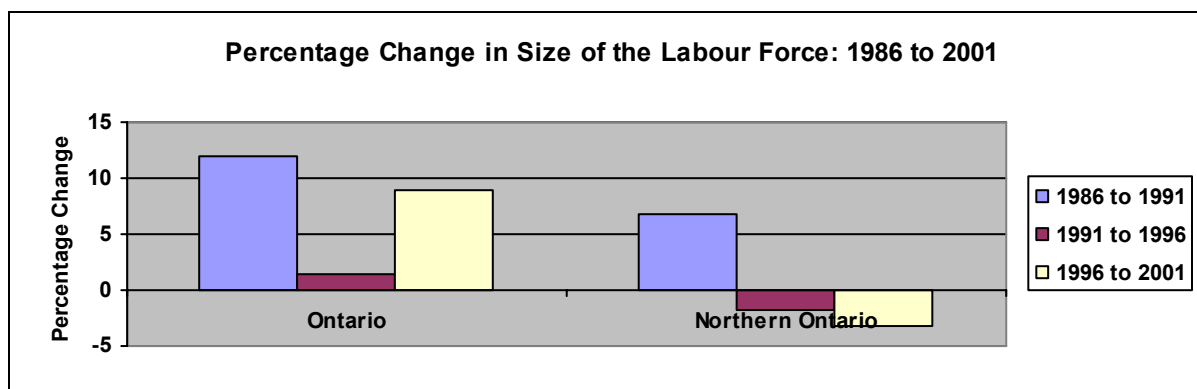


Figure 2 Source: Statistics Canada, Census of Canada, 1986, 1991, 1996, and 2001.

4.1.2 Employment declined in all areas of Northern Ontario except the District of Kenora and the southern districts of Muskoka, Parry Sound, and Manitoulin

Table 1 lists the percentage changes in employment and labour force participation for the districts of Northern Ontario. It shows that these two indicators declined in all the districts of the region except the District of Kenora and the southern “cottage country” districts of Muskoka, Parry Sound and Manitoulin. The largest declines occurred in the Sudbury, Timiskaming and Cochrane Districts. The largest increases in employment occurred in the Muskoka District Municipality followed by Manitoulin and Parry Sound.

Table 1: Change in Employment and Labour Force Participation 1991 to 2001

	Employed 1991	Employed 2001	Percentage Change	In the Labour Force 1991	In the Labour Force 2001	Percentage Change
Canada	13005500.0	14695135	13.0	14474940.0	15872075	9.7
Ontario	5041940.0	5713900	13.3	5511235.0	6086815	10.4
Northern Ontario	390390	372460	-4.6	433025	411135	-5.1
Thunder Bay District	75980.0	70575	-7.1	83915.0	77725	-7.4
Rainy River District	10170	9870	-2.9	11285	10910	-3.3
Kenora District	26380	27085	2.7	28790	30460	5.8
Muskoka District Municipality	21985	25290	15.0	24000	26330	9.7
Nipissing District	37185	36015	-3.1	41215	39625	-3.9
Parry Sound District	16300	17695	8.6	17945	19045	6.1
Manitoulin District	4495	5140	14.3	4950	5745	16.1
Sudbury District	11340	9265	-18.3	12735	10585	-16.9
Sudbury Regional Municipality	75695	70410	-7.0	82815	77500	-6.4
Timiskaming District	16350	14525	-11.2	18315	16130	-11.9
Cochrane District	40005	36930	-7.7	45510	41715	-8.3
Algoma District	54505	49660	-8.9	61550	55365	-10.0

Source: Statistics Canada, Census of Canada, 1991 and 2001.

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4.2 Labour Force Participation in Northern Ontario Differs from that of Ontario as a whole

Data from the 2001 Census shows that the patterns of labour force participation in Northern Ontario differ from that of Ontario as a whole. Northern Ontario has lower participation rates, lower employment rates, and higher unemployment rates. These differences have changed little between 1986 and 2001.

4.2.1 The participation rates for Northern Ontario are lower than for Ontario as a whole

The participation rate is the percentage of a population 15 years and over that are either employed or unemployed and actively looking for employment. This is an important indicator of a labour force in that it is less subject to seasonal variations in employment than other indicators and it indicates the size of a the labour force that is ready for employment. Figure 2 shows that while the participation rate for Ontario as a whole was 67.3%, for Northern Ontario it was 61.3% - a difference of almost 9%. This divergence of participation rates is the highest since at least 1981. While the participation rates of Ontario as a whole increased from 1996 to 2001, the participation rates of Northern Ontario decreased slightly.

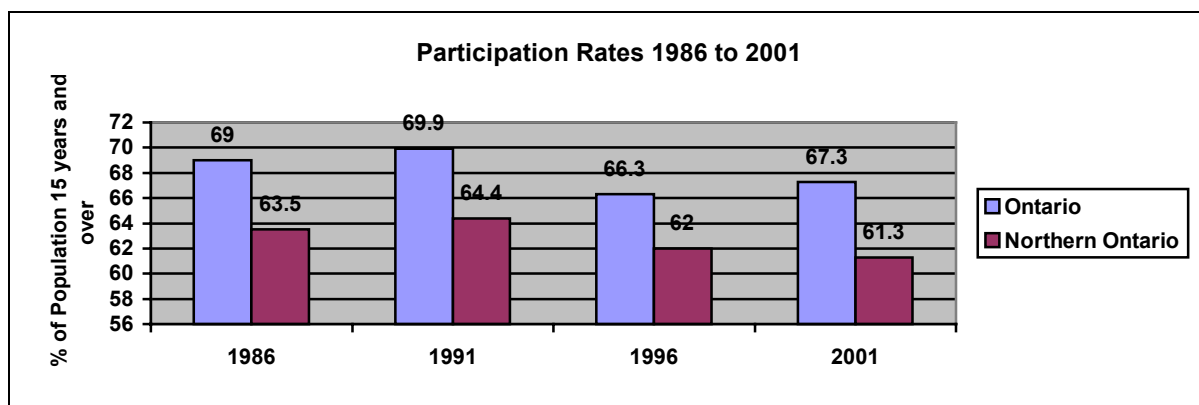


Figure 3 Source: Statistics Canada, Census of Canada, 1986, 1991, 1996, and 2001.

These census reports are meant to be descriptive as opposed to analytical. The question of why things are is better left to the annual Environmental Scans done by each of the local training boards. Still, a quick analysis of reasons for the difference in participations rates, using regression analysis, shows that there are probably several reasons. One is that many in the North stop actively looking for employment due to the unlikelihood of finding employment. This is especially true of older male workers. Another reason is that a larger percentage of older female workers are not actively employed or looking for work. This is likely a historical vestige of the period when there was little or no employment opportunities for women in the resource dependent communities of Northern Ontario.¹²

As well, it should also be pointed out, as was done in an earlier report, that in 2001, Northern Ontario had a population that had a higher percentage of people over 65 years of age than Ontario as a whole. This is undoubtedly a partial explanation for the increase in differences in participation rates from 1996 to 2001.

4.2.2 The employment rates for Northern Ontario are lower than for Ontario as a whole

The employment rate is the percentage of people 15 years of age and older who are actually employed. As noted above, it is more subject to variances than the participation rate. Figure 3 shows that while the employment rate for Ontario as a whole was 63.2%, in Northern Ontario this figure was 55.6%. This figure is over 12% lower than that of Ontario. Once again, the difference between the 2001 employment rates for Ontario and that of Northern Ontario was the highest since at least 1981. While employment rates for both Ontario and Northern Ontario increased from 1996 to 2001, the increase for Ontario was 5% while the increase for Northern Ontario was 2%.

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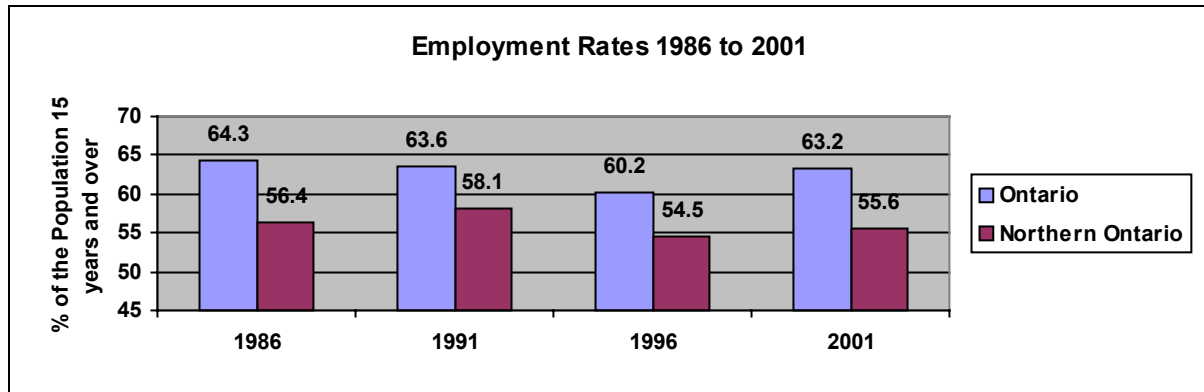


Figure 4 Source: Statistics Canada, Census of Canada, 1986, 1991, 1996, and 2001.

4.2.3 The unemployment rates for Northern Ontario are higher than for Ontario as a whole

The unemployment rates measure the percentage of people who are unemployed and are labour force participants. As such it includes only those unemployed who are actively looking for work. Once again, unemployment rates are subject to seasonal variations. Figure 4 shows that while the unemployment rate for Ontario as a whole was 6.1%, the rate for Northern Ontario was 9.4%. The unemployment rate for Northern Ontario is 54% higher than the rate for Ontario as a whole. Figure 4 also shows that since 1991, the difference in the unemployment rates between Northern Ontario and Ontario have been widening.¹³

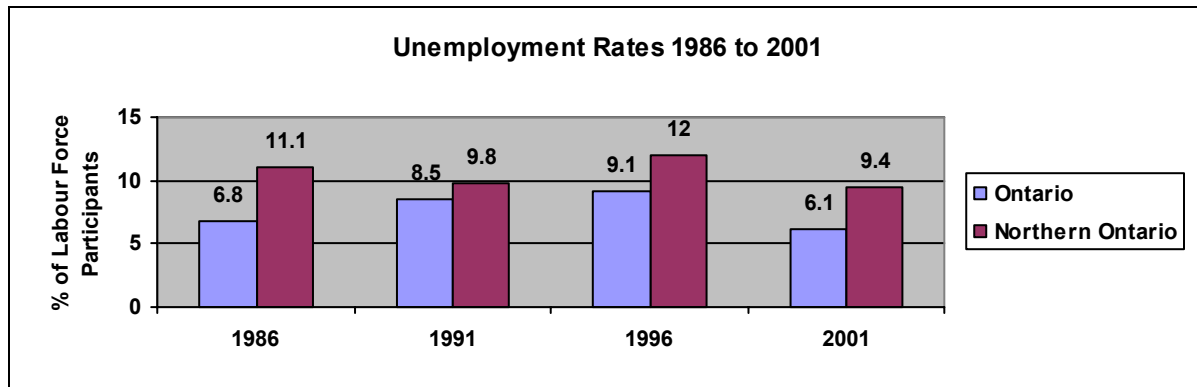


Figure 5 Source: Statistics Canada, Census of Canada, 1986, 1991, 1996, and 2001.

4.3 There are Variations in Northern Ontario in Terms of Labour Force Participation

Table 2: Labour Force Participation Rates by District

	Participation rate 1996	Participation rate 2001	Empl. rate 1996	Empl. rate 2001	Unempl. rate 1996	Unempl. rate 2001
Canada	65.5	66.4	58.9	61.5	10.1	7.4
Ontario	66.3	67.3	60.2	63.2	9.1	6.1
Northern Ontario	62	61.4	54.5	55.6	12	9.4
Muskoka District Municipality	61.5	62.1	54.8	59.6	10.8	4
Nipissing District	60.6	59.9	53.3	54.5	12	9.1
Parry Sound District	57.8	58.2	50.3	54.1	12.9	7.1
Manitoulin District	60.4	58.8	52.5	52.6	13.1	10.5
Sudbury District	58	57	49.4	49.9	14.8	12.5
Greater Sudbury Division	62.3	61.9	54.8	56.3	12.1	9.1

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	Participation rate 1996	Participation rate 2001	Empl. rate 1996	Empl. rate 2001	Unempl. rate 1996	Unempl. rate 2001
Timiskaming District	59.1	58.5	51.5	52.7	12.9	10
Cochrane District	62.5	62.3	55.3	55.2	11.6	11.5
Algoma District	58.9	57.6	51	51.7	13.3	10.3
Thunder Bay District	65.4	64.3	58.1	58.4	11.1	9.2
Rainy River District	64.7	63.4	57.6	57.4	10.9	9.5
Kenora District	65.6	65.8	57.7	58.5	12	11.1

Source: Statistics Canada, Census of Canada, 1996 and 2001.

4.3.1 The Muskoka District Municipality and Northwestern Ontario have the highest employment rates

In Table 2 we see the variations in labour force participation rates among the districts of Northern Ontario. In terms of participation rates, the districts of Kenora, Thunder Bay, and Rainy River had the highest rates. This has been fairly constant since 1986. The districts of Sudbury, Algoma and Parry Sound had the lowest rates. This too has been fairly constant since 1986.

In terms of employment rates, the districts with the highest rates in the 2001 census were first the Muskoka District Municipality, followed by the Northwestern Ontario districts of Kenora and Thunder Bay. This has been fairly constant since 1986 with the district of Rainy River replacing the Muskoka District Municipality in the top three ranking in 1996 and 1986. Those districts that had the lowest employment rates in 2001 were the districts of Sudbury, Algoma, and Manitoulin. These rankings are less constant than is the case with the previous indicators and tend to vary from census year to census year.

4.3.2 The Muskoka District Municipality tends to have the lowest unemployment rates and the District of Sudbury tends to have the highest unemployment rates

The unemployment rates show the greatest degree of change from census year to census year. In 2001, the districts with the lowest unemployment rates were, in order, the Muskoka District Municipality, the District of Parry Sound, and the Greater Sudbury Division. The districts with the highest unemployment rates were the District of Sudbury, the District of Kenora, and the District of Cochrane.

These rankings vary considerably from census year to census year. There are few general trends from 1986 to 2001 other than the Muskoka District Municipality tends to constantly have the lowest unemployment rates while the District of Sudbury tends to constantly have the highest rates.

4.4 Youth Unemployment is higher in Northern Ontario than in Ontario as a whole

Figure 5 shows the labour force participation rates for youths 15 to 24 years of age from the 2001 census. It is interesting to note that the participation rates for youths in Northern Ontario are essentially the same as for Ontario as a whole. Almost the same percentage of youths in Northern Ontario are either working or looking for a job as the youths in all of Ontario.

Despite this similarity, the employment rates differ. This difference in employment rates is due to the higher rates of unemployment among the youth of Northern Ontario. In the 2001 census the unemployment rate for 15 to 24 years old for Ontario as a whole was 12.9%. The unemployment rate for 15 to 24 year olds in Northern Ontario was 19%. The unemployment rate for youths in the North was 47% higher than youths in all of Ontario.

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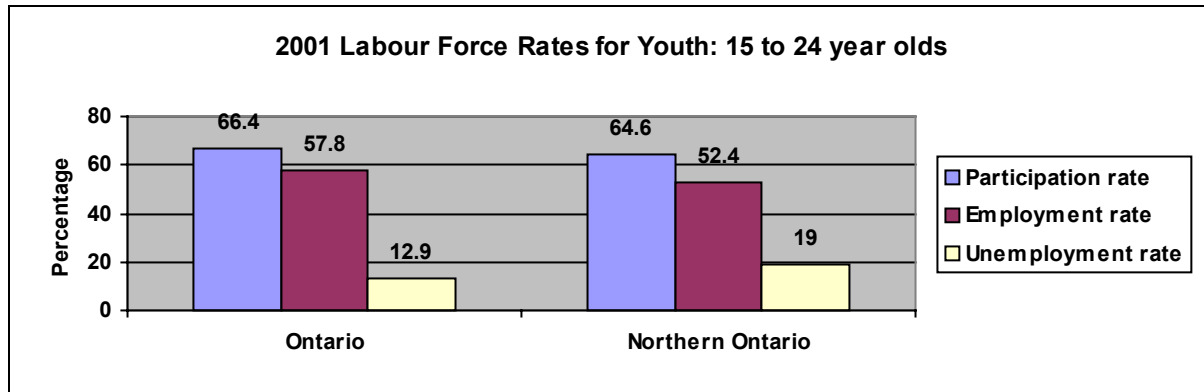


Figure 6 Source: Statistics Canada, Census of Canada, 2001.

4.4.1 The gap in youth unemployment rates between Ontario and Northern Ontario has grown wider from 1991 to 2001

In Figure 6 we see that while the unemployment rate for youth in Northern Ontario in 2001 is higher than the rate for 1991, it declined from 1996 to 2001. This represents a decline of 21% during this period. This decline, while positive, is considerably less than the decline for youth in Ontario as a whole which fell by 38% over this same period.

Since 1991 we see the gap in youth unemployment rates between Ontario and Northern Ontario widening. In 1991 the youth unemployment rate in the North was 11% higher. In 1996 it was 29% higher. By 2001 the youth unemployment rate in Northern Ontario was 47% higher than for youths in all of Ontario.

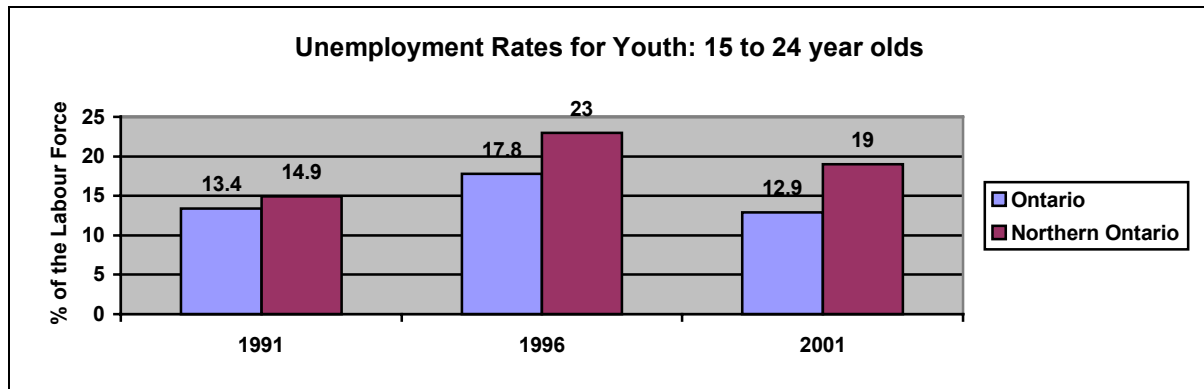


Figure 7 Source: Statistics Canada, Census of Canada, 1991, 1996, and 2001.

4.5 Differences between Ontario and Northern Ontario in Numbers of Self-Employed are decreasing

In the Northern Ontario Training Boards' Regional Outlook for 2000 it was noted that there has been a general increase in the level of self-employment in Northern Ontario since 1986. While this increase was substantial it was also pointed out that the averages for Ontario as a whole increased even more - from 5.7% in 1986 to 12% in 1996.¹⁴ In 2001, the percentage of workers in Northern Ontario who were self-employed remained the same as for 1996, at 10.2%. The percentage of self-employed in Ontario as a whole decreased from 12% in 1996 to 11.4% in 2001. This means that the differences in the percentages of self-employed between Northern Ontario and Ontario as a whole are declining, an important trend for a region such as Northern Ontario which has traditionally relied on wage labour.

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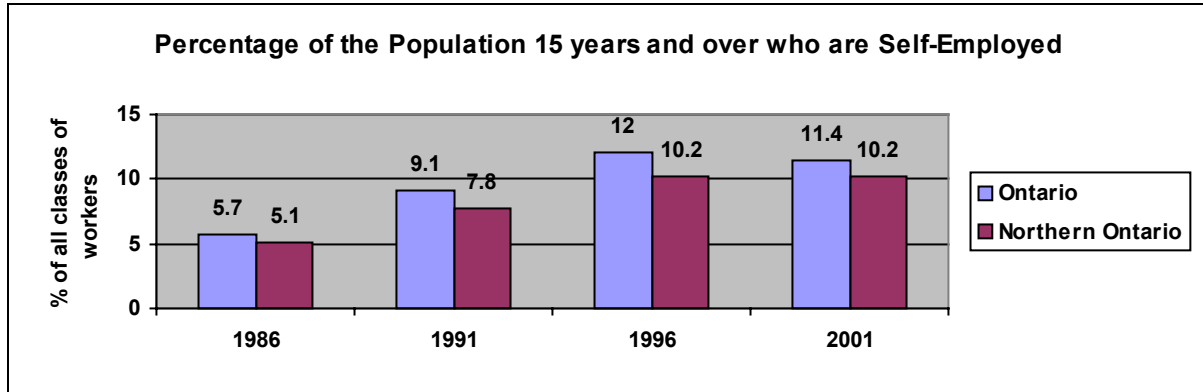


Figure 8 Source: Statistics Canada, Census of Canada, 1986, 1991, 1996, and 2001.

4.6 Self-Employment is Highest in the More Southerly Districts of Muskoka, Parry Sound, and Manitoulin and Lowest in the More Urbanized Districts of Thunder Bay, Greater Sudbury, and Algoma

Figure 8 shows the percentage of workers in Northern Ontario who are self-employed according to the districts of the region. The districts with the highest percentage of self-employed are in the more southerly districts of Muskoka, Parry Sound, and Manitoulin. This situation has varied little since 1986. It should also be pointed out that self-employment rates generally tend to be higher than the regional norms in those districts that have a traditional reliance on agriculture: notably in the District of Timiskaming and the District of Rainy River.

Those districts that have the lowest percentage of self-employed are the districts that contain the largest cities in Northern Ontario: the District of Thunder Bay, Greater Sudbury Division, and the District of Algoma. The District of Cochrane, which contains the City of Timmins, also has levels of self-employment lower than the regional norm. The one exception to this tendency is the Nipissing District which, despite containing the City of North Bay, has levels of self-employment superior to the regional average.

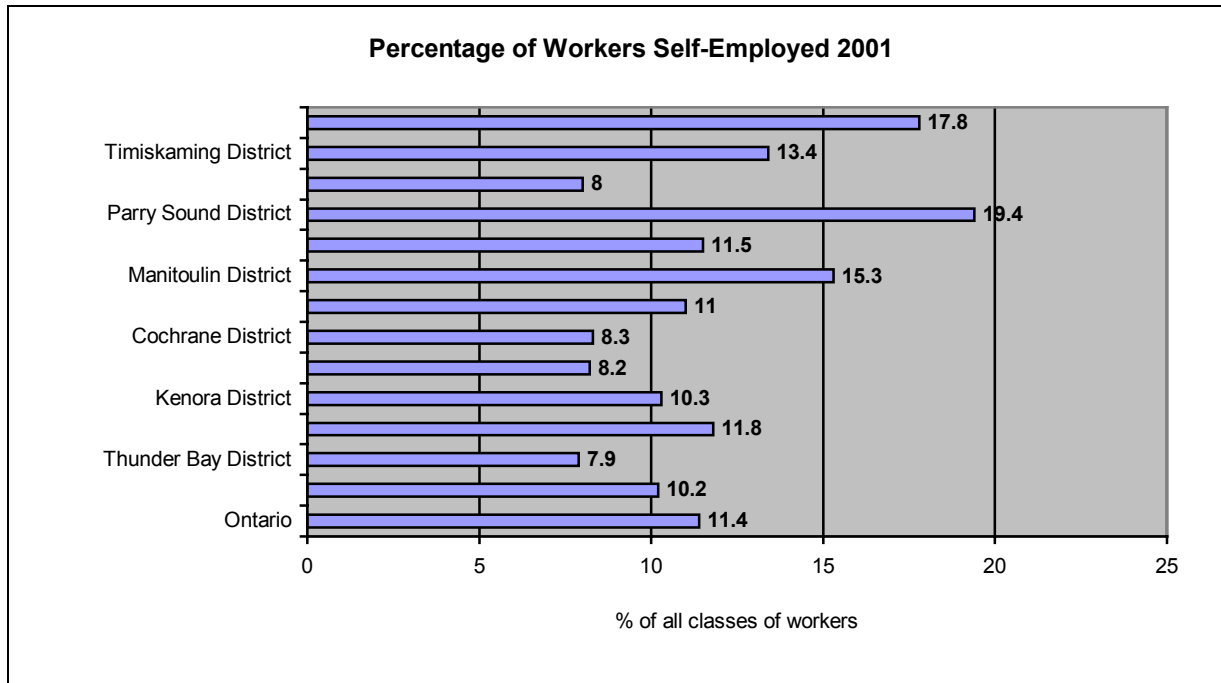


Figure 9 Source: Statistics Canada, Census of Canada, 2001.

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4.7 The Communities with the Highest Unemployment Rates are Aboriginal Communities

In looking at the labour force participation trends among communities in Northern Ontario there is one fact which is the most glaring: that the communities in Northern Ontario with the highest rates of unemployment are Aboriginal communities. Table 3 represents those communities with more than 200 people 15 years of age and over with the highest unemployment rate. Of the 15 communities with the highest rates of unemployment, 12 are Aboriginal communities. The same trends occur as far as youth unemployment is concerned.

Table 3: Communities with the Highest Rates of Unemployment in Northern Ontario*

	Local Board	Type of Community	Participation rate	Employment rate	Unemployment rate
English River 21	25	R	59.4	26.6	57.9
Webeque	24	R	44.6	28.9	37.8
Shedden	22	TP	45.9	27.9	37.5
Fort Hope 64	24	R	50	33.1	35.6
Aroland 83	24	R	57.8	40	30.8
Attawapiskat 91A	23	R	48.7	33.8	29.3
Sucker Creek 23	21	R	58.5	41.5	29.2
Matachewan	23	TP	40.7	31.5	27.3
Lac Seul 28	25	R	55.2	40.6	26.4
Sagamok	22	R	54.8	40.9	25.4
Shoal Lake (Part) 39A	25	R	69.6	52.2	25
Deer Lake	25	R	53.8	40.7	24.5
Poplar Hill	25	R	53.7	43.9	22.7
Parry Island First Nation	20	R	62	46	22.6
Dorion	24	TP	62.5	48.6	22.2

Source: Statistics Canada, Census of Canada, 2001. *These represent only those communities of at least 200 people 15 years and over.

Section 5: Comparing the Training Board Areas of Northern Ontario

Table 4: Labour Force Rates by Local Board

	Participation rate	Employment rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #20	60.2	55.9	7.1	16.2	15.2
Local Board #21	61.0	55.2	9.6	18.9	8.8
Local Board #22	57.5	51.5	10.4	22.7	8.3
Local Board #23	61.3	54.5	11.1	21.6	9.6
Local Board #24	64.2	58.2	9.4	18.3	7.9
Local Board #25	65.7	59.0	10.1	17.3	10.9

Source: Statistics Canada, Census of Canada, 2001.

5.1 The Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board (Board #20)

Table 4 shows the labour force participation rates for 2001 for each of the Local Boards in Northern Ontario. The Board with the lowest unemployment rate is Local Board #20 which includes the District Municipality of Muskoka and the Districts of Parry Sound and Nipissing. The communities in this area are

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characterized by their relative proximity to the major urban areas of Southern Ontario and by the presence in the area of a large number of seasonal residences.

Table 5: Labour Force Participation Rates for Communities in the Board 20 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #20		60.2	7.1	16.2	15.2
Gravenhurst	T	57.5	4.1	5.1	19.0
Bracebridge	T	66.3	3.4	9.5	14.0
Lake of Bays	TP	53.1	2.2	5.9	23.8
Huntsville	T	65.1	4.3	9.2	16.5
Muskoka Lakes	TP	60.7	4.7	12.9	25.9
Georgian Bay	TP	49.8	5.1	6.7	17.3
Moose Point 79	R	68	11.8	0	0.0
South Algonquin	TP	58.1	18	33.3	11.6
Papineau-Cameron	TP	63.1	14.9	25	12.6
Mattawan	TP	78.9	13.3	0	0.0
Mattawa	T	50.1	15.3	27.5	9.6
Calvin	TP	71	0	0	19.4
Bonfield	TP	62.2	9.3	14.3	16.8
Chisholm	TP	58.9	5	0	19.5
East Ferris	TP	70.1	7.3	21.7	14.3
North Bay	C	61.4	8.3	20.8	10.4
West Nipissing	T	51.8	12.3	27.6	11.9
Temagami	T	65.8	8	18.2	25.5
Nipissing 10	R	56.8	15.7	28.6	6.7
Nipissing, Unorganized, South Part	UNO	50	0	0	0.0
Nipissing, Unorganized, North Part	UNO	57.4	3.5	0	12.4
Seguin	TP	63.7	3.1	6.1	28.6
The Archipelago	TP	50.6	14.3	0	38.1
McMurrich/Monteith	TP	60.2	8.1	0	18.6
Perry	TP	60.6	7.7	11.8	23.5
Kearney	T	42.2	5.3	30	14.0
Armour	TP	55.1	6.5	10.5	17.9
Burk's Falls	VL	53.8	2.4	14.3	10.8
Ryerson	TP	50	6.9	0	27.8
McKellar	TP	60	4	11.8	17.2
McDougall	TP	63.7	3.7	4.4	20.2
Parry Sound	T	60.2	6.1	20.7	12.4
Carling	TP	45.7	5.8	0	19.8
Whitestone	TP	58.7	8	30.8	29.9
Magnetawan	TP	49.4	8.8	13.3	24.8
Strong	TP	54.1	7.6	12.5	23.9
Sundridge	VL	50.9	8.2	15.8	6.0
Joly	TP	66.7	8.8	0	21.2
Machar	TP	52.6	12.7	75	29.6
South River	VL	38.9	10.8	16.7	14.1

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Powassan	T	63	5	11.5	15.7
North Himsworth	TP	69	7.9	17	14.8
Nipissing	TP	67	8.6	18.5	21.5
Shawanaga 17	R	66.7	31.2	66.7	13.3
Parry Island First Nation	R	62	22.6	50	11.1
French River 13	R	50	37.5	0	0.0
Dokis 9	R	60	38.9	0	11.1
Magnetewan 1	R	60	33.3	0	0.0
Parry Sound, Unorganized, North East Part	UNO	51.7	0	0	0.0
Parry Sound, Unorganized, Centre Part	UNO	45.9	11.8	13.3	32.0

Source: Statistics Canada, Census of Canada, 2001.

5.2 Sudbury and Manitoulin Training and Adjustment Board (Board #21)

Local Board #21, also known as the Sudbury and Manitoulin Training and Adjustment Board, includes the District of Manitoulin, the Greater Sudbury Division, and most of the District of Sudbury. Most of the indicators of labour force participation for this Board lay at or close to the regional averages.

Table 6: Labour Force Participation Rates for Communities in the Board 21 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #21		61.0	9.6	18.9	8.8
Tehkummah	TP	75.4	0	0	44.9
Central Manitoulin	TP	51.7	7.4	25	17.3
Assiginack	TP	54.8	3.5	22.2	21.4
Northeastern Manitoulin and the Islands	T	60	8.5	21.1	14.2
Billings	TP	58.1	0	0	12.7
Gordon	TP	69.6	3.6	66.7	24.1
Gore Bay	T	60	4.8	22.2	21.4
Burpee and Mills	TP	66.7	5.3	0	12.8
Killarney	T	62.2	21.6	0	10.2
Whitefish River	R	61.1	13.6	0	9.5
Sucker Creek 23	R	58.5	29.2	50	9.1
Sheguiandah 24	R	58.8	30	0	0.0
Sheshegwaning 20	R	57.1	25	100	0.0
M'Chigeeng 22 (West Bay 22)	R	66	18.2	25	6.3
Manitoulin, Unorganized, West Part	UNO	40.5	33.3	0	27.3
French River	T	52.9	14	20	19.4
St.-Charles	T	50.7	6.7	50	13.9
Markstay-Warren	T	50.6	13.4	24.2	8.6
Sables-Spanish Rivers	TP	53.2	14.5	33.3	10.0
Espanola	T	60.2	11	27.5	8.5

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Baldwin	TP	58.3	6.7	25	12.1
Nairn and Hyman	TP	60.3	4.9	0	5.0
Whitefish Lake 6	R	62.8	11.1	0	7.4
Mattagami 71	R	66.7	25	66.7	0.0
Sudbury, Unorganized, North Part	UNO	55.5	18.2	37.9	13.1
Greater Sudbury	C	61.9	9.1	18	8.0
Wahnapitei 11	R	62.5	40	0	0.0

Source: Statistics Canada, Census of Canada, 2001.

5.3 Local Board #22 ¹⁵

Local Board #22 comprises most of the District of Algoma. This area has the lowest participation rates and lowest employment rates of all the Training Board areas in Northern Ontario. It also had the second highest unemployment rate. Its youth unemployment rate is the highest in the region and the percentage of self-employed is the lowest.

Table 7: Labour Force Participation Rates for Communities in the Board 22 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #22		57.5	10.4	22.7	8.3
Jocelyn	TP	54.2	7.7	0	14.8
Hilton	TP	60	22.2	0	42.9
Hilton Beach	VL	66.7	10	0	0.0
St. Joseph	TP	58.8	2.6	0	19.5
Laird	TP	62.6	9.8	22.2	13.1
Tarbutt and Tarbutt Additional	TP	74.3	12.7	0	11.1
Johnson	TP	45.3	16.7	0	14.6
Plummer Additional	TP	55.2	6.2	0	18.5
Bruce Mines	T	55.9	14	27.3	5.5
Thessalon 12	R	66.7	20	0	0.0
Thessalon	T	54	7	13	9.7
Huron Shores	TP	56.3	9.5	12.5	16.8
Blind River	T	59.5	13.5	23.2	7.4
Shedden	TP	45.9	37.5	77.8	12.2
North Shore	TP	52.5	9.6	100	9.8
Elliot Lake	C	38	13	25.4	9.9
Macdonald, Meredith and Aberdeen Additional	TP	61.3	11.8	47.8	9.4
Sault Ste. Marie	C	59.4	9.5	23.4	7.1
Prince	TP	67.8	7.8	25	10.3
Sagamok	R	54.8	25.4	42.9	8.3
Serpent River 7	R	55.3	19.2	50	12.0
Mississagi River 8	R	64.6	16.1	0	6.9
Garden River 14	R	58.5	13.9	12.5	5.6

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Michipicoten	TP	70.8	9.2	13.6	10.8
Gros Cap 49	R	70	0	0	0.0
Dubreuilville	TP	81.5	8.1	19	6.5
White River	TP	70.3	8.1	12.5	3.6
Algoma, Unorganized, North Part	UNO	57.7	14.3	23	10.6

Source: Statistics Canada, Census of Canada, 2001.

5.4 The Far Northeast Training and Adjustment Board (Board #23)

Local Board #23, also known as the Far Northeast Training and Adjustment Board, comprises the Districts of Cochrane and Timiskaming and small parts of the Districts of Kenora, Algoma, and Sudbury. This area had the highest rate of unemployment of the Training Boards of Northern Ontario in 2001 and the second highest youth unemployment rate.

Table 8: Labour Force Participation Rates for Communities in the Board 23 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #23		61.3	11.1	21.6	9.6
Coleman	TP	58.2	3.8	28.6	7.5
Latchford	T	44.4	0	0	20.7
Cobalt	T	46	13	0	5.6
Haileybury	T	59.2	9.9	23.4	12.3
Harris	TP	65.5	3.5	0	21.4
Dymond	TP	72.5	2.9	0	16.2
New Liskeard	T	60.4	5.8	14	12.4
Hudson	TP	80.8	4.8	28.6	21.3
Kerns	TP	72.2	0	0	28.2
Harley	TP	75.3	6	22.2	23.9
Casey	TP	62.5	5	50	12.5
Brethour	TP	62.5	0	0	60.0
Hilliard	TP	64.9	0	40	0.0
Armstrong	TP	67.2	6.3	12.5	17.7
Thornloe	VL	47.1	25	0	22.2
James	TP	66.7	16	0	8.5
Dack	TP	69.6	8.3	28.6	25.0
Charlton	T	50	15	0	10.0
Evanturel	TP	66.7	11.7	0	32.2
Englehart	T	58.9	16.4	43.3	10.2
Chamberlain	TP	75	7.1	50	11.9
Matachewan	TP	40.7	27.3	0	10.0
Matachewan 72	R	50	0	0	40.0
McGarry	TP	44	21.8	42.9	3.8
Larder Lake	TP	49.6	19.7	66.7	13.8
Gauthier	TP	58.3	28.6	0	0.0
Kirkland Lake	T	56.1	13.7	22.8	8.4
Timiskaming.	UNO	52.4	9.4	24.4	20.5

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Unorganized, West Part					
Black River-Matheson	TP	54.7	13.1	8.3	13.7
Timmins	C	63.9	11.2	23.6	7.8
Iroquois Falls	T	56.8	13.3	34.6	8.3
Cochrane	T	62.8	9.4	25.3	10.4
Smooth Rock Falls	T	61.1	10.3	24.1	11.5
Fauquier-Strickland	TP	40.8	16.3	33.3	4.1
Moonbeam	TP	55.4	19.6	23.5	9.5
Kapuskaing	T	60.2	9.9	17.2	7.7
Val Rita-Harty	TP	59.4	7.1	0	13.5
Opasatika	TP	53.7	13.8	0	10.7
Hearst	T	70.7	9	16.3	9.0
Mattice-Val Côté	TP	55.2	16.5	21.4	13.2
Cochrane, Unorganized, North Part	UNO	66.7	13.7	17	9.8
Fort Albany (Part) 67	R	51.8	17.2	0	0.0
Hornepayne	TP	70.7	5	13.3	2.9
Duck Lake 76B	R	73.3	27.3	0	0.0
Chapleau 75	R	69.2	22.2	0	0.0
Chapleau	TP	67.4	9.1	23.5	8.6
Attawapiskat 91A	R	48.7	29.3	36.8	0.0
Peawanuck	R	46.4	23.1	66.7	0.0

Source: Statistics Canada, Census of Canada, 2001.

5.5 North Superior Training Board (Board #24)

Local Board #24 is also known as the North Superior Training Board. It comprises the District of Thunder Bay and several Aboriginal communities just north of the boundaries of the District of Thunder Bay. The labour force indicators for this area show high rates of labour force participation and high employment rates. The area also had the lowest percentage of self-employed workers in Northern Ontario.

Table 9: Labour Force Participation Rates for Communities in the Board 24 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #24		64.2	9.4	18.3	7.9
Neebing	TP	70.5	7.9	17.1	10.7
Thunder Bay	C	63.1	8.8	17.1	7.3
Oliver Paipoonge	TP	70.1	8.2	20.6	12.1
Gillies	TP	49.4	5	0	10.0
O'Connor	TP	74.1	10	0	3.8
Conmee	TP	82.9	5.7	33.3	5.7
Shuniah	TP	66.8	8.9	26.8	15.9
Dorion	TP	62.5	22.2	0	27.3
Red Rock	TP	58.3	4.5	16.7	2.7
Nipigon	TP	64.2	6.4	18.4	8.9
Schreiber	TP	63.8	4.1	21.7	7.6
Terrace Bay	TP	68.8	5.3	8	2.9

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Marathon	T	73.4	5.8	13.1	4.3
Manitouwadge	TP	67.9	13.9	34	7.8
Ginoogaming First Nation	R	73.1	10.5	0	0.0
Greenstone	T	67.8	12.1	13.7	9.9
Aroland 83	R	57.8	30.8	60	0.0
Osnaburgh 63A	R	45	22.2	0	25.0
Thunder Bay, Unorganized	UNO	65.9	13.1	21.8	11.7
Fort Hope 64	R	50	35.6	54.5	4.0
Lansdowne House	R	62.5	45	50	0.0
Webequie	R	44.6	37.8	36.4	0.0

Source: Statistics Canada, Census of Canada, 2001.

5.6 The Northwest Training and Adjustment Board (Board #25)

Local Board #25 is also known as the Northwest Training and Adjustment Board. It is comprised of the District of Rainy River and most of the District of Kenora. This area had the highest rate of participation in Northern Ontario and the highest employment rate. It also had the second lowest youth unemployment rate despite the fact that its overall unemployment rate is above the average for Northern Ontario.

Table 10: Labour Force Participation Rates for Communities in the Board 25 Area

	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Local Board #25		65.7	10.1	17.3	10.9
Atikokan	TP	61.7	12	23.1	8.4
Alberton	TP	78.1	8.8	12.5	14.2
Fort Frances	T	62.5	7.1	15.2	6.2
La Vallee	TP	67.1	9.4	17.6	13.5
Emo	TP	59	5.8	0	15.8
Chapple	TP	73.9	6.7	13	26.9
Morley	TP	65.1	4.9	0	29.3
Dawson	TP	61.8	14.3	0	19.0
Rainy River	T	48.7	12	33.3	12.3
Lake of the Woods	TP	56.4	12.9	0	29.0
Big Grassy River 35G	R	61.5	100	100	0.0
Rainy Lake 18C	R	80	0	100	0.0
Rainy Lake 26A	R	81.8	22.2	0	0.0
Seine River 23A	R	57.1	18.8	0	0.0
Rainy River, Unorganized		64.9	5.7	10	24.9
Ignace	TP	66.4	20.9	48.5	14.7
Whitefish Bay 33A	R	57.1	0	0	0.0
Sioux Narrows Nestor Falls	TP	64.9	7.9	0	30.2
Kenora	C	66.6	8.5	12.5	9.3
Machin	TP	70.7	9.2	11.1	14.2

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	Type of Community	Participation rate	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Dryden	C	67.5	6.9	14.5	9.8
Ear Falls	TP	71.3	8.7	14.3	7.9
Sioux Lookout	T	71	3.8	7.2	11.1
Red Lake	T	74.2	6.9	13.1	11.2
Slate Falls	R	72.2	23.1	0	0.0
Pickle Lake	TP	84.9	6.7	0	20.9
Osnaburgh 63B	R	51.4	33.3	40	0.0
Lac Seul 28	R	55.2	26.4	45.5	3.9
Wabigoon Lake 27	R	60.9	14.3	100	15.4
English River 21	R	59.4	57.9	45.5	0.0
Lake Of The Woods 37	R	81.8	33.3	0	0.0
Kenora 38B	R	52.9	33.3	100	0.0
Poplar Hill	R	53.7	22.7	28.6	0.0
Shoal Lake (Part) 39A	R	69.6	25	37.5	0.0
Rat Portage 38A	R	66.7	18.8	0	0.0
Deer Lake	R	53.8	24.5	40	4.3
Sandy Lake 88	R	53.3	20.8	34.8	5.2
Fort Severn 89	R	56	21.4	0	14.8
Wabauskang 21	R	100	33.3	0	0.0
		58.5	20.8	28.6	0.0
The Dalles 38C	R	52.9	22.2	0	0.0
Kenora, Unorganized	UNO	68.9	7.7	13.9	17.4
Muskrat Dam Lake	R	75	0	0	0.0
Kee-Way-Win	R	42.4	14.3	0	0.0

Source: Statistics Canada, Census of Canada, 2001.

Section 6: Observations

The analysis of the 2001 Census data for labour force participation has shown us several important facts about trends in Northern Ontario. They are as follows:

- Employment in Northern Ontario declined from 1996 to 2001
 - This decline has been occurring since 1991
 - Employment declined in all areas of Northern Ontario except the District of Kenora and the southern districts of Muskoka, Parry Sound, and Manitoulin
- Labour Force Participation in Northern Ontario differs from that of Ontario as a whole
 - The participation rates for Northern Ontario are lower than for Ontario
 - The employment rates for Northern Ontario are lower than for Ontario
 - The unemployment rates for Northern Ontario are higher than for Ontario
- Labour Force Rates within Northern Ontario vary
 - The Muskoka District Municipality and Northwestern Ontario have the highest employment rates
 - The Muskoka District Municipality tends to have the lowest unemployment rates and the District of Sudbury tends to have the highest unemployment rates
- Youth Unemployment is higher in Northern Ontario than in Ontario as a whole
 - The gap in youth unemployment rates between Ontario and Northern Ontario has grown wider from 1991 to 2001
- Differences between Ontario and Northern Ontario in numbers of self-employed are decreasing
- Self-employment is highest in the more southerly districts of Muskoka, Parry Sound, and Manitoulin and lowest in the more urbanized districts of Thunder Bay, Greater Sudbury, and Algoma
- The Communities with the highest unemployment rates are Aboriginal communities.

Endnotes

¹ As this report is being written, Board #22, covering most of the Algoma District, does not actually exist as a formal training board, having been dissolved in 2001. Despite this, the report includes data for this Board area.

² This has been pointed out by several government studies undertaken over the past 30 years including the Royal Commission on the Northern Environment (Fahlgren Commission). Final Report, Toronto, 1985 and the Task Force on Resource Dependent Communities in Northern Ontario, (the Rosehart Report) Final Report., 1986.

³ For an elaboration on these points see Dadgostar, B., Jankowski, W.B., and Moazzami, B. The Economy of Northwestern Ontario: Structure, Performance and Future Challenges, Thunder Bay: Centre for Northern Studies, Lakehead University, 1992.

⁴ For a detailed discussion of this aspect of Northern Ontario see McBride, Stephen, McKay, Sharon, and Hill, Mary Ellen. "Unemployment in a Northern Hinterland: The Social Impact of Political Neglect" in Chris Southcott (ed.) A Provincial Hinterland: Social Inequality in Northwestern Ontario, Halifax: Fernwood, 1993.

⁵ Canada, 2001 Census.

⁶ An elaboration on these unique characteristics can be found in Randall, James and R. G. Ironside "Communities on the Edge: An Economic Geography of Resource-Dependent Communities in Canada" The Canadian Geographer 40(10):17-35, 1996.

⁷ Census population statistics for First Nations communities tend to be less reliable than those for non-Native communities.

⁸ Statistics Canada, "The Changing Profile of Canada's Labour Force", 2001 Census: Analysis Series, Ottawa, Feb. 2003. p.7.

⁹ Statistics Canada, "The Changing Profile of Canada's Labour Force", 2001 Census: Analysis Series, Ottawa, Feb. 2003. p.18.

¹⁰ The following is the explanation of sampling error found in the 2001 Census Dictionary:

Sampling Errors

Estimates obtained by weighting up responses collected on a sample basis are subject to error due to the fact that the distribution of characteristics within the sample will not usually be identical to the distribution of characteristics within the population from which the sample has been selected.

The potential error introduced by sampling will vary according to the relative scarcity of the characteristics in the population. For large cell values, the potential error due to sampling, as a proportion of the cell value, will be relatively small. For small cell values, this potential error, as a proportion of the cell value, will be relatively large.

The potential error due to sampling is usually expressed in terms of the so-called "standard error". This is the square root of the average, taken over all possible samples of the same size and design, of the squared deviation of the sample estimate from the value for the total population.

The following table provides approximate measures of the standard error due to sampling. These measures are intended as a general guide only.

Table: Approximate Standard Error Due to Sampling for 2001 Census Sample Data
Cell Value Approximate Standard Error

50 or less 15
100 - 20
200 - 30
500 - 45

1,000 - 65
2,000 - 90
5,000 - 140
10,000 - 200
20,000 - 280
50,000 - 450
100,000 - 630
500,000 - 1,400

Statistics Canada, 2001 Census Dictionary, Ottawa: Ministry of Industry, 2002, p. 295,296.

¹¹ The following is the explanation of random rounding found in the 2001 Census Dictionary:

Confidentiality and Random Rounding The figures shown in the tables have been subjected to a confidentiality procedure known as **random rounding** to prevent the possibility of associating statistical data with any identifiable individual. Under this method, all figures, including totals and margins, are randomly rounded either up or down to a multiple of "5", and in some cases "10". While providing strong protection against disclosure, this technique does not add significant error to the census data. The user should be aware that totals and margins are rounded independently of the cell data so that some differences between these and the sum of rounded cell data may exist. Also, minor differences can be expected in corresponding totals and cell values among various census tabulations. Similarly, percentages, which are calculated on rounded figures, do not necessarily add up to 100%. Order statistics (median, quartiles, percentiles, etc.) and measures of dispersion such as the standard error are computed in the usual manner. When a statistic is defined as the quotient of two numbers (which is the case for averages, percentages, and proportions), the two numbers are rounded before the division is performed, except for income, owner's payments, value of dwelling, hours worked, weeks worked and age. For these variables, the two numbers in the quotient are not rounded. The sum is invariably defined as the product of the average and the rounded weighted frequency. It should also be noted that small cell counts may suffer a significant distortion as a result of random rounding. Individual data cells containing small numbers may lose their precision as a result. Statistics Canada, 2001 Census Dictionary, Ottawa: Ministry of Industry, 2002, p. 296.

¹² Elementary regression analysis was done using the variables available in the 2001 census profile data. This analysis found that the groups of people in Northern Ontario that had the largest differences in participation rates between Northern Ontario and Ontario were males 15 years and over with no children at home (most of whom one would assume are older since difference in participation rates for youth 15 to 24 are negligible) at 13% and women 15 years and over with no children at home at 15.6%.

¹³ It should be noted that the latest Labour Force Survey results show the unemployment rates of Ontario and Northern Ontario converging in late 2002 and early 2003. See the data at the Ontario HRDC website at http://www.on.hrdc-drhc.gc.ca/english/lmi/eaid/survey_e.html.

¹⁴ Southcott, Chris. A Regional Outlook for Northern Boards: A Northern Approach to Regional Labour Force Development, Dryden: Training Boards of Northern Ontario, 2000, p. 7.

¹⁵ Once again, as this report is being written the Local Board #22 does not actually exist as a formal training board, having been dissolved in 2001.

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Appendix A

**Census Sub-divisions of Northern Ontario by Labour Force Participation Indicators
Ranked by Unemployment Rate**

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Big Grassy River 35G	25	R	100	100	0.0
English River 21	25	R	57.9	45.5	0.0
Lansdowne House	24	R	45	50	0.0
Lansdowne House	25	R	45	50	0.0
Wahnapitei 11	21	R	40	0	0.0
Dokis 9	20	R	38.9	0	11.1
Webequie	25	R	37.8	36.4	0.0
Webequie	24	R	37.8	36.4	0.0
French River 13	20	R	37.5	0	0.0
Shedden	22	TP	37.5	77.8	12.2
Fort Hope 64	24	R	35.6	54.5	4.0
Osnapurgh 63B	25	R	33.3	40	0.0
Kenora 38B	25	R	33.3	100	0.0
Magnetewan 1	20	R	33.3	0	0.0
Wabauskang 21	25	R	33.3	0	0.0
Manitoulin, Unorganized, West Part	21	UNO	33.3	0	27.3
Lake Of The Woods 37	25	R	33.3	0	0.0
Shawanaga 17	20	R	31.2	66.7	13.3
Aroland 83	24	R	30.8	60	0.0
Sheguiandah 24	21	R	30	0	0.0
Attawapiskat 91A	23	R	29.3	36.8	0.0
Sucker Creek 23	21	R	29.2	50	9.1
Gauthier	23	TP	28.6	0	0.0
Matachewan	23	TP	27.3	0	10.0
Duck Lake 76B	23	R	27.3	0	0.0
Lac Seul 28	25	R	26.4	45.5	3.9
Sagamok	22	R	25.4	42.9	8.3
Thornloe	23	VL	25	0	22.2
Sheshegwaning 20	21	R	25	100	0.0
Shoal Lake (Part) 39A	25	R	25	37.5	0.0
Mattagami 71	21	R	25	66.7	0.0
Deer Lake	25	R	24.5	40	4.3
Peawanuck	23	R	23.1	66.7	0.0
Slate Falls	25	R	23.1	0	0.0
Poplar Hill	25	R	22.7	28.6	0.0
Parry Island First Nation	20	R	22.6	50	11.1
Hilton	22	TP	22.2	0	42.9
Dorion	24	TP	22.2	0	27.3
The Dalles 38C	25	R	22.2	0	0.0

Labour Force Participation in Northern Ontario

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Osnaburgh 63A	24	R	22.2	0	25.0
Rainy Lake 26A	25	R	22.2	0	0.0
Chapleau 75	23	R	22.2	0	0.0
McGarry	23	TP	21.8	42.9	3.8
Killarney	21	T	21.6	0	10.2
Fort Severn 89	25	R	21.4	0	14.8
Ignace	25	TP	20.9	48.5	14.7
Sandy Lake 88	25	R	20.8	34.8	5.2
Wapekeka 2	25	R	20.8	28.6	0.0
Thessalon 12	22	R	20	0	0.0
Larder Lake	23	TP	19.7	66.7	13.8
Moonbeam	23	TP	19.6	23.5	9.5
Serpent River 7	22	R	19.2	50	12.0
Rat Portage 38A	25	R	18.8	0	0.0
Seine River 23A	25	R	18.8	0	0.0
Sudbury, Unorganized, North Part	21	UNO	18.2	37.9	13.1
M'Chigeeng 22 (West Bay 22)	21	R	18.2	25	6.3
South Algonquin	20	TP	18	33.3	11.6
Fort Albany (Part) 67	23	R	17.2	0	0.0
Johnson	22	TP	16.7	0	14.6
Mattice-Val Côté	23	TP	16.5	21.4	13.2
Englehart	23	T	16.4	43.3	10.2
Fauquier-Strickland	23	TP	16.3	33.3	4.1
Mississagi River 8	22	R	16.1	0	6.9
James	23	TP	16	0	8.5
Nipissing 10	20	R	15.7	28.6	6.7
Mattawa	20	T	15.3	27.5	9.6
Charlton	23	T	15	0	10.0
Papineau-Cameron	20	TP	14.9	25	12.6
Sables-Spanish Rivers	21	TP	14.5	33.3	10.0
Wabigoon Lake 27	25	R	14.3	100	15.4
The Archipelago	20	TP	14.3	0	38.1
Algoma, Unorganized, North Part	22	UNO	14.3	23	10.6
Kee-Way-Win	25	R	14.3	0	0.0
Dawson	25	TP	14.3	0	19.0
French River	21	T	14	20	19.4
Bruce Mines	22	T	14	27.3	5.5
Manitouwadge	24	TP	13.9	34	7.8
Garden River 14	22	R	13.9	12.5	5.6
Opasatika	23	TP	13.8	0	10.7
Cochrane, Unorganized, North Part	23	UNO	13.7	17	9.8

Labour Force Participation in Northern Ontario

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Kirkland Lake	23	T	13.7	22.8	8.4
Whitefish River	21	R	13.6	0	9.5
Blind River	22	T	13.5	23.2	7.4
Markstay-Warren	21	T	13.4	24.2	8.6
Iroquois Falls	23	T	13.3	34.6	8.3
Mattawan	20	TP	13.3	0	0.0
Thunder Bay, Unorganized	24	UNO	13.1	21.8	11.7
Black River-Matheson	23	TP	13.1	8.3	13.7
Elliot Lake	22	C	13	25.4	9.9
Cobalt	23	T	13	0	5.6
Lake of the Woods	25	TP	12.9	0	29.0
Machar	20	TP	12.7	75	29.6
Tarbutt and Tarbutt Additional	22	TP	12.7	0	11.1
West Nipissing	20	T	12.3	27.6	11.9
Greenstone	24	T	12.1	13.7	9.9
Rainy River	25	T	12	33.3	12.3
Atikokan	25	TP	12	23.1	8.4
Parry Sound, Unorganized, Centre Part	20	UNO	11.8	13.3	32.0
Macdonald, Meredith and Aberdeen Additional	22	TP	11.8	47.8	9.4
Moose Point 79	20	R	11.8	0	0.0
Evanturel	23	TP	11.7	0	32.2
Timmins	23	C	11.2	23.6	7.8
Whitefish Lake 6	21	R	11.1	0	7.4
Espanola	21	T	11	27.5	8.5
South River	20	VL	10.8	16.7	14.1
Ginoogaming First Nation	24	R	10.5	0	0.0
Smooth Rock Falls	23	T	10.3	24.1	11.5
O'Connor	24	TP	10	0	3.8
Hilton Beach	22	VL	10	0	0.0
Kapusking	23	T	9.9	17.2	7.7
Haileybury	23	T	9.9	23.4	12.3
Laird	22	TP	9.8	22.2	13.1
North Shore	22	TP	9.6	100	9.8
Huron Shores	22	TP	9.5	12.5	16.8
Sault Ste. Marie	22	C	9.5	23.4	7.1
Cochrane	23	T	9.4	25.3	10.4
La Vallee	25	TP	9.4	17.6	13.5
Timiskaming, Unorganized, West Part	23	UNO	9.4	24.4	20.5
Bonfield	20	TP	9.3	14.3	16.8
Machin	25	TP	9.2	11.1	14.2
Michipicoten	22	TP	9.2	13.6	10.8

Labour Force Participation in Northern Ontario

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Greater Sudbury	21	C	9.1	18	8.0
Chapleau	23	TP	9.1	23.5	8.6
Hearst	23	T	9	16.3	9.0
Shuniah	24	TP	8.9	26.8	15.9
Magnetawan	20	TP	8.8	13.3	24.8
Alberton	25	TP	8.8	12.5	14.2
Joly	20	TP	8.8	0	21.2
Thunder Bay	24	C	8.8	17.1	7.3
Ear Falls	25	TP	8.7	14.3	7.9
Nipissing	20	TP	8.6	18.5	21.5
Northeastern Manitoulin and the Islands	21	T	8.5	21.1	14.2
Kenora	25	C	8.5	12.5	9.3
North Bay	20	C	8.3	20.8	10.4
Dack	23	TP	8.3	28.6	25.0
Oliver Paipoonge	24	TP	8.2	20.6	12.1
Sundridge	20	VL	8.2	15.8	6.0
Dubreuilville	22	TP	8.1	19	6.5
White River	22	TP	8.1	12.5	3.6
McMurrich/Monteith	20	TP	8.1	0	18.6
Whitestone	20	TP	8	30.8	29.9
Temagami	20	T	8	18.2	25.5
Sioux Narrows Nestor Falls	25	TP	7.9	0	30.2
Neebing	24	TP	7.9	17.1	10.7
North Himsworth	20	TP	7.9	17	14.8
Prince	22	TP	7.8	25	10.3
Perry	20	TP	7.7	11.8	23.5
Kenora, Unorganized	25	UNO	7.7	13.9	17.4
Jocelyn	22	TP	7.7	0	14.8
Strong	20	TP	7.6	12.5	23.9
Central Manitoulin	21	TP	7.4	25	17.3
East Ferris	20	TP	7.3	21.7	14.3
Val Rita-Harty	23	TP	7.1	0	13.5
Fort Frances	25	T	7.1	15.2	6.2
Chamberlain	23	TP	7.1	50	11.9
Thessalon	22	T	7	13	9.7
Dryden	25	C	6.9	14.5	9.8
Red Lake	25	T	6.9	13.1	11.2
Ryerson	20	TP	6.9	0	27.8
Pickle Lake	25	TP	6.7	0	20.9
St.-Charles	21	T	6.7	50	13.9
Baldwin	21	TP	6.7	25	12.1
Chapple	25	TP	6.7	13	26.9
Armour	20	TP	6.5	10.5	17.9
Nipigon	24	TP	6.4	18.4	8.9

Labour Force Participation in Northern Ontario

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Armstrong	23	TP	6.3	12.5	17.7
Plummer Additional	22	TP	6.2	0	18.5
Parry Sound	20	T	6.1	20.7	12.4
Harley	23	TP	6	22.2	23.9
Emo	25	TP	5.8	0	15.8
New Liskeard	23	T	5.8	14	12.4
Marathon	24	T	5.8	13.1	4.3
Carling	20	TP	5.8	0	19.8
Rainy River, Unorganized	25		5.7	10	24.9
Conmee	24	TP	5.7	33.3	5.7
Kearney	20	T	5.3	30	14.0
Burpee and Mills	21	TP	5.3	0	12.8
Terrace Bay	24	TP	5.3	8	2.9
Georgian Bay	20	TP	5.1	6.7	17.3
Hornepayne	23	TP	5	13.3	2.9
Casey	23	TP	5	50	12.5
Powassan	20	T	5	11.5	15.7
Chisholm	20	TP	5	0	19.5
Gillies	24	TP	5	0	10.0
Morley	25	TP	4.9	0	29.3
Nairn and Hyman	21	TP	4.9	0	5.0
Hudson	23	TP	4.8	28.6	21.3
Gore Bay	21	T	4.8	22.2	21.4
Muskoka Lakes	20	TP	4.7	12.9	25.9
Red Rock	24	TP	4.5	16.7	2.7
Huntsville	20	T	4.3	9.2	16.5
Gravenhurst	20	T	4.1	5.1	19.0
Schreiber	24	TP	4.1	21.7	7.6
McKellar	20	TP	4	11.8	17.2
Sioux Lookout	25	T	3.8	7.2	11.1
Coleman	23	TP	3.8	28.6	7.5
McDougall	20	TP	3.7	4.4	20.2
Gordon	21	TP	3.6	66.7	24.1
Nipissing, Unorganized, North Part	20	UNO	3.5	0	12.4
Assiginack	21	TP	3.5	22.2	21.4
Harris	23	TP	3.5	0	21.4
Bracebridge	20	T	3.4	9.5	14.0
Seguin	20	TP	3.1	6.1	28.6
Dymond	23	TP	2.9	0	16.2
St. Joseph	22	TP	2.6	0	19.5
Burk's Falls	20	VL	2.4	14.3	10.8
Lake of Bays	20	TP	2.2	5.9	23.8
Hilliard	23	TP	0	40	0.0
Matachewan 72	23	R	0	0	40.0

Labour Force Participation in Northern Ontario

	Local Board	Type of Community	Unemployment rate	Youth Unemployment rate	Percentage of Self-Employed
Whitefish Bay 33A	25	R	0	0	0.0
Rainy Lake 18C	25	R	0	100	0.0
Brethour	23	TP	0	0	60.0
Kerns	23	TP	0	0	28.2
Billings	21	TP	0	0	12.7
Tehkummah	21	TP	0	0	44.9
Parry Sound, Unorganized, North East Part	20	UNO	0	0	0.0
Latchford	23	T	0	0	20.7
Nipissing, Unorganized, South Part	20	UNO	0	0	0.0
Calvin	20	TP	0	0	19.4
Muskat Dam Lake	25	R	0	0	0.0
Gros Cap 49	22	R	0	0	0.0