

(E) SOCIAL AND ECONOMIC DESCRIPTION



This supplementary documentation is divided into
two parts:

Part 1) Socio-Economic Description &
Demographic Profiles

Part 2) Socio-Economic Assessment (LTMD)



SUPPLEMENTARY DOCUMENTATION

BANCROFT MINDEN FOREST 2021-31 FMP Prepared by: Corinne Arthur, MNRF

SUPPLEMENTARY DOCUMENTATION (E)

(Part 1) Socio-Economic Description & Demographic Profiles

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1.0. DEMOGRAPHIC PROFILES

The complete social and economic description for the Bancroft-Minden Forest is included in Appendix I.

1.1. OVERVIEW OF SOCIAL AND ECONOMIC CONTEXT

Forests provide substantial commercial benefits, including both timber and non-timber forest products. They also provide significant non-commercial benefits, such as wildlife, recreation, aesthetics, and wilderness values. Although not always measurable in monetary terms, these activities are highly valued by Ontarians and provide significant benefits to society. Sustainable forest management requires that forests be managed to provide a broad range of goods and services for all generations of Canadians. This includes balancing the social, economic and ecological benefits derived from forests. A summary of the socio-economic aspects for the Bancroft-Minden Forest is presented in the following three sections.

There are eleven communities that derive substantial employment and economic benefits related to forest management activities in the Bancroft-Minden Forest Management Unit (FMU) as per the standard geographic units identified in the FMU in the Statistics Canada Census of Population (Statistics Canada, 2017). These communities are:

- Bancroft
- Brudenell, Lyndoch and Raglan
- Faraday
- Hastings Highlands
- Havelock-Belmont-Methuen
- Madawaska Valley
- Minden Hills
- North Algona Wilberforce
- Papineau-Cameron
- Quinte West
- South Algonquin

The Bancroft-Minden Forest overlaps with the traditional territory of the Williams Treaties First Nations (WTFN); the Algonquins of Ontario (AOO) and the Kawartha-Nishnawbe. As per the Statistics Canada Census of Population (Statistics Canada, 2017), there are nine First Nations communities within or adjacent to the Bancroft-Minden FMU whose interests or traditional uses, including established or credibly asserted Aboriginal or treaty rights, may be affected by the preparation and implementation of the FMP. These nine First Nations include:

- Alderville
- Algonquins of Ontario (Algonquins of Pikwakanagan)
- Beausoleil

- Chippewas of Georgina Island
- Chippewas of Rama
- Curve Lake
- Hiawatha
- Kawartha-Nishnawbe
- Mississaugas Scugog Island

1.2. SUMMARY OF DEMOGRAPHIC PROFILES

The key findings from the demographic profiles for the eleven listed communities are summarized below. The full demographic profiles and local economic profiles can be found in Appendix I.

The demographic profiles included in the social and economic descriptions for the Bancroft-Minden Forest were prepared by the MNRF using statistical data sourced from the 2016 Statistics Canada Census of Population (Statistics Canada, 2017). Statistics Canada uses standard geographic units for statistical purposes.

Statistics Canada census data was not available for all the First Nations communities listed in the above section. As such, full demographic profiles could only be retrieved for four of the listed First Nations, while local economic profiles could be retrieved for only three of the listed First Nations¹. For the communities where data was available, the demographic and local economy profiles are likewise included in Appendix I.

Key Findings:

Population Trends (Table 1): Between 2011 and 2016 the size of most communities decreased with the average rate of growth being (-1.36), which is a stark contrast to the provincial rate of population growth (4.6). With respect to individual communities, the population of Minden Hills saw the most growth (7.66), while South Algonquin experienced the largest reduction (-10.0).

Table 1. Population trends for communities within the Bancroft Minden Forest.

Community	Bancroft	Brudenell, Lyndoch and Raglan	Faraday	Hasting Highlands	Havelock-Belmont-Methuen	Madwaska Valley	Minden Hills	North Algona Wilberforce	Papineau-Cameron	Quinte West	South Algonquin
Population (2016)	3881	1505	1401	4078	4530	4123	6088	2915	1016	43575	1095
% Male	46.5%	52.2%	49.3%	51.1%	49.7%	48.2%	49.8%	51.3%	52.7%	50%	53%
% Female	53.5%	47.8%	50.7%	48.9%	50.3%	51.8%	50.2%	48.7%	47.3%	50%	48%
Population Change (2011-2016)	0.03%	-9.30%	-4.56%	-2.16%	0.15%	-3.71%	7.66%	1.46%	3.89%	1%	-10%

¹ Demographic profiles could not be found for Algonquins of Ontario, Beausoleil, Chippewas of Rama, Hiawatha and Kawartha-Nishnawbe. Economic profiles could not be found for Algonquins of Ontario, Beausoleil, Chippewas of Rama, Hiawatha, Kawartha-Nishnawbe and Mississaugas of Scugog Island.

Community Diversity (Table 2): The birthplace (country of birth) of residents was used as a measure of community diversity, with a greater proportion of foreign-born residents corresponding to a greater level of community diversity. Based on the 2016 census data, the proportion of foreign-born residents was on average 5.7%. This is relatively low in comparison to the provincial level of diversity where over a quarter of the population is foreign-born (approx. 30%). Hasting Highlands was the only community in which more than a tenth (10.1%) of the population was foreign born, whereas Brudenell, Lyndoch and Raglan had the lowest level of diversity with less than 3% of the population being foreign-born.

Table 2. Community diversity within the Bancroft Minden Forest.

Community	Bancroft	Brudenell, Lyndoch and Raglan	Faraday	Hasting Highlands	Havelock-Belmont-Methuen	Madwaska Valley	Minden Hills	North Algona Wilberforce	Papineau-Cameron	Quinte West	South Algonquin
% of Population Born in Canada	91.6	98.7	92.5	89.9	93.5	93.9	92.0	95.0	95.9	97.1	97.3
% of Population Foreign-Born	8.4	1.3	7.5	10.1	6.5	6.1	8.0	5.0	4.1	2.9	2.7

Household Income (Table 3): With respect to income in 2016, the average household income within the Bancroft-Minden Forest was less than that of the provincial average (\$80,322). The average household income for the eleven communities ranged from a low \$59,446 for Brudenell, Lyndoch and Raglan, to a high \$78,733 for Papineau-Cameron, and an overall average of \$68,088.

Table 3. Average household income for the Bancroft Minden Forest.

Community	Bancroft	Brudenell, Lyndoch and Raglan	Faraday	Hasting Highlands	Havelock-Belmont-Methuen	Madwaska Valley	Minden Hills	North Algona Wilberforce	Papineau-Cameron	Quinte West	South Algonquin
Average Household Income	\$ 60,093.00	\$ 59,446.00	\$ 70,590.00	\$ 76,581.00	\$ 68,734.00	\$ 63,520.00	\$ 72,548.00	\$ 75,431.00	\$ 78,733.00	\$ 77,363.00	\$ 62,761.00

Employment (Table 4): Statistics on employment are measured by both labour force participation (defined as the percentage of the working age population – 15 years of age and older – that is part of the labour force i.e. employed or actively seeking employment) and employment rate (defined as the number of people of working age in the population who are employed and is expressed as a percentage of the labour force). In 2016, seven of the eleven communities had a labour force participation rate exceeding 50%, with North Algona Wilberforce and Quinte West being the only communities to exceed 60%. Four communities had a labour force participation rate lower than 50%, with the lowest participation rate in Bancroft at 46.1%. The majority of the eleven communities had an employment rate below 90%. Papineau-Cameron had the lowest employment rate at 87.1% whereas Quinte West had the greatest employment rate at 93.7%.

Table 4. Employment by labour force, employment rate and participation rate.

Community	Bancroft	Brudenell, Lyndoch and Raglan	Faraday	Hasting Highlands	Havelock-Belmont-Methuen	Madwaska Valley	Minden Hills	North Algona Wilberforce	Papineau-Cameron	Quinte West	South Algonquin
Labour Force	1500	645	590	1725	1800	1750	2745	1550	505	21635	490
Employment Rate	88.7%	89.1%	91.5%	91.9%	92.0%	88.6%	90.9%	89.3%	87.1%	93.7%	88.8%
Participation Rate	46.1%	51.8%	47.4%	48.7%	45.9%	52.6%	51.0%	61.8%	55.8%	60.3%	50.5%

Forest Dependency (Table 5): Many communities within the Bancroft-Minden Forest are dependent on the forest industry for employment. Consequently, most communities hold a greater proportion of forest industry workers compared to the provincial average. The relative importance of the forest industry to the local economy is defined as the “forest dependency ratio” and is calculated as the percentage of forest industry jobs in the local labour force divided by the percentage of forest industry jobs in the provincial labour force (Statistics Canada, 2017). South Algonquin holds the highest proportion of their work force in the forest industry at 32.6%, followed by Madawaska Valley at 15.6%. Refer to table 5 below for a full list of forest dependency ratios for communities within the BMF.

Table 5. Forest dependency ratio.

Community	Bancroft	Brudenell, Lyndoch and Raglan	Faraday	Hasting Highlands	Havelock-Belmont-Methuen	Madwaska Valley	Minden Hills	North Algona Wilberforce	Papineau-Cameron	Quinte West	South Algonquin
Forest Dependency Ratio	5.0%	8.8%	6.1%	6.4%	1.0%	15.6%	1.3%	9.6%	3.8%	2.3%	32.6%

2.0 INDUSTRIAL AND NON-INDUSTRIAL USES OF THE FOREST

2.1 INDUSTRIAL USES OF THE FOREST

The main industrial users of the Bancroft-Minden Forest are forestry, mining and mineral exploration, aggregate extraction and power generation.

2.1.1 FORESTRY AND WOOD PRODUCTS

The major consumptive use of forest resources on the Bancroft-Minden Forest is commercial timber harvesting. An average of 137, 886m³ was harvested annually from the forest (from 2010/11-2019/20 TREES Reports).

The Bancroft-Minden Forest provides wood to sawmills, hardwood veneer mills, pulp mills, a paperboard mill, a medium density fibreboard mill, and a coated bleached board and chemicals facility. These companies wholly or partly depend on the raw material from the Bancroft-Minden Forest. The Bancroft-Minden Forest provides roundwood to a total of 51 mills, several of which reside in Quebec. Eight of these mills receive almost 70% of all wood harvested on the FMU, shown in table 6.

Table 6 also details the total flow of harvested timber from the Bancroft-Minden Forest for the five-year period between 2012 and 2017. It identifies the mills receiving greater than 2% of the timber from the FMU, the volume they are receiving, and the community the mill is located in. The information was accessed through the Crown Roundwood Report.

Table 6. 10-year average wood volume flow from the Bancroft Minden Forest (2010/11-2019/20 TREES Reports).

Mill	Community	% Share of BMF Volume	Volume from BMF (m³)
Murray Brothers Lumber Co. Ltd.	Madawaska	19.8%	27,358
Freymond Lumber Ltd. (sawmill)	Bancroft	12.8%	17,616
McRae Mills Ltd.	Whitney	10.3%	14,232
Cascades Canada ULC	Quinte West	9.9%	13,714
Fortress Specialty Cellulose Inc.	Thurso	5.5%	7,588
Rayonier A.M. Canada Industries Inc.	Timiskaming	4.2%	5,783
Leonard Rumleskie & Sons Lumber Co.	Madawaska	3.0%	4,092
Neilson Lumber Ltd.	Hastings	2.2%	3,043

The Bancroft-Minden Forest Company has 13 shareholders and two open markets. There are no active wood supply commitments on the Bancroft-Minden Forest. Table 7 below shows the processing facility, the agreement type and the projected amount of merchantable wood volume by species group utilization projected for each for the 2021-2031 FMP.

1 **Table 7. Projected wood volume for processing facilities in the Bancroft Minden Forest.**

Processing Facility	Agreement Type	Location	Total Merchantable Volume (m ³)
Ben Hokum and Son Ltd. (Sawmill)	Shareholder	Killaloe	40,000
Cascades Canada ULC (Pulp)	Shareholder	Trenton	140,000
Chisholms's Ltd. (Sawmill)	Shareholder	Roslin	16,050
Commercial Fuelwood	Open Market	N/A	24,500
Freymond Lumber Ltd. (Sawmill)	Shareholder	Bancroft	106,350
Freymond Wood Products (Pulp)	Shareholder	Bancroft	110,000
George Stein Ltd. (Sawmill)	Shareholder	Palmer Rapids	34,000
Huntsville Forest Products Inc. (Sawmill)	Shareholder	Huntsville	40,700
Len Rumleskie & Son Lumber (Sawmill)	Shareholder	Barry's Bay	27,650
McRae Mills Ltd. (Sawmill)	Shareholder	Whitney	60,500
Murray Brothers Lumber Co. Ltd. (Sawmill)	Shareholder	Madawaska	241,800
Neilson Lumber Ltd. (Sawmill)	Shareholder	Hastings	12,500
Thomas J. Neuman Ltd. (Sawmill)	Shareholder	Palmer Rapids	17,000
Wilson's Forest Products Ltd. (Sawmill)	Shareholder	Madoc	20,550
Other Utilization	Open Market	SR	210,162

2

3 Figure 2 below shows the location of the mills utilizing wood from the Bancroft-Minden Forest, including

4 2 pulp mills and 11 sawmills.

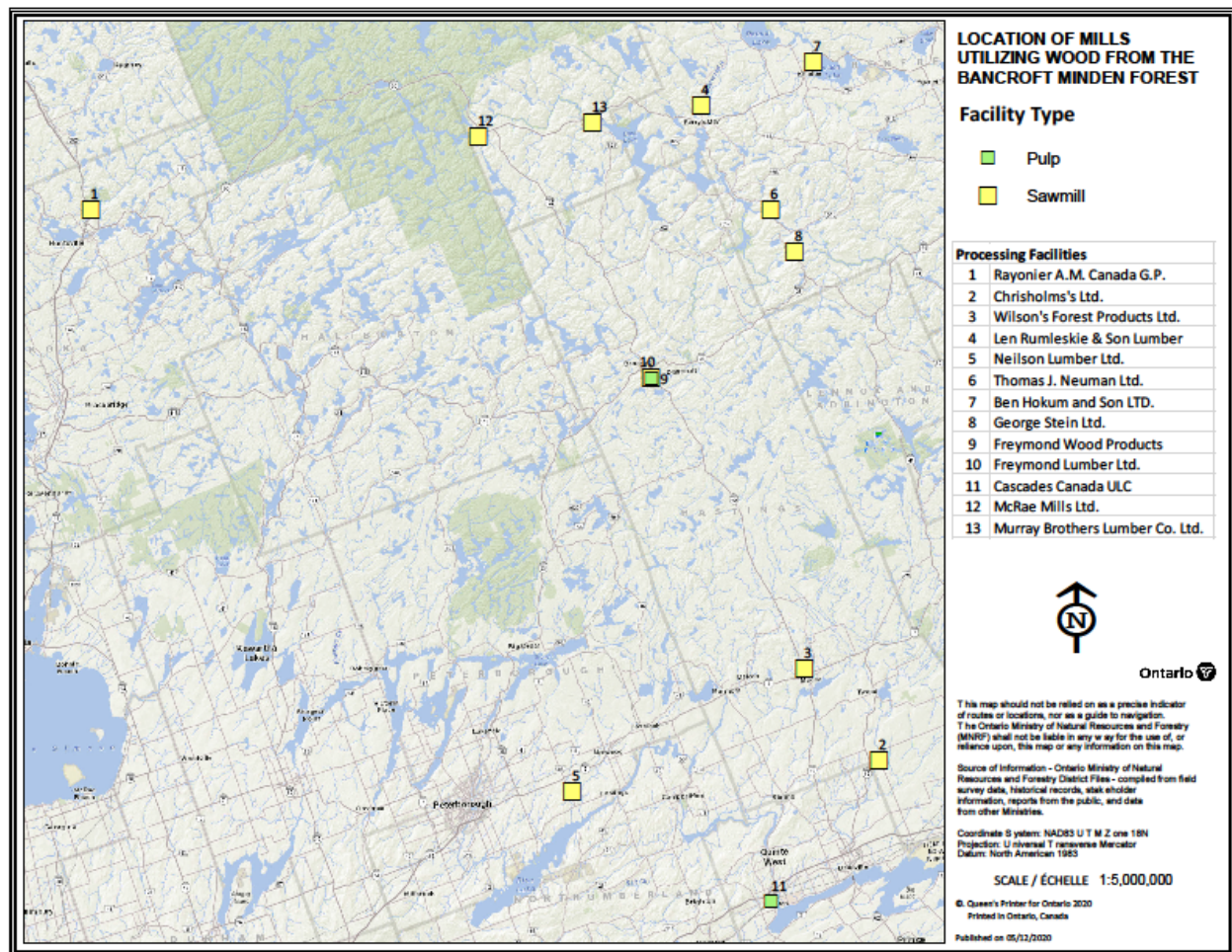


Figure 1. Location of mills utilizing wood from the Bancroft Minden Forest.

2.1.2 MINING AND MINERAL EXPLORATION

The Bancroft-Minden Forest has an estimated 2,649 active mining cell claims recorded throughout the FMU based on the mineral resource information taken from the Ministry of Energy, Northern Development and Mines' (ENDM) Mineral Deposit Inventory (MDI). The claims represent an investment in the management unit of approximately \$507,950 CDN for claim staking, which directly relates to its mineral potential. In addition, there is an estimated expenditure of \$980,000 CDN per year related to mineral exploration work required to keep the claims in good standing. Current claim staking targets areas with potential for zinc, graphite, cobalt, vermiculite, rare earth elements, uranium, gold, talc, copper, nickel, building stone and mineral specimens. The claims are located within the townships of Airy, Anstruther, Carlow, Cardiff, Cashel, Cavendish, Chandos, Dungannon, Faraday, Galway, Glamorgan, Harvey, Herschel, Hindon, Limerick, Mayo, Methuen, Monmouth, Murchison, Snowdon, and Wollaston.

Utilizing the Abandoned Mines Information System (AMIS) to identify sites of potential hazard including sites under the *Mining Act* and *Aggregate Resources Act* requires varying levels of field and data

inspections. Sites with commodities designated under the *Mining Act* require a 1-kilometer buffer to surround each mining hazard.

2.1.3 AGGREGATE EXTRACTION

Aggregate resources include any combination of sand, gravel, or crushed stone in a natural or processed state. Aggregates are used in the construction of highways, dams and airports, as well as residential, industrial and institutional buildings.

Aggregates are critical ingredients in numerous manufactured products such as glass (silica sand), coated paper, paint and pharmaceuticals (calcium carbonate). Aggregates are a component in several manufacturing processes including the processing of steels, aluminum and plastic.

Although the actual tonnage of operations within the forest is not available, the socio-economic benefits that aggregate extraction gives to the surrounding communities are expansive. Some of these benefits are present in the form of wages, purchases of large equipment (haul trucks, front end loaders, bulldozers, etc.) as well as fuel and parts/repairs of the equipment. Taxes, fees and royalties paid may also be of benefit to the government and taxpayers. The forest industry uses extracted aggregates to build roads for forest operations and therefore provides benefits to the public in the form of increased access to areas not previously accessible in the Bancroft-Minden FMU.

There are 59 active ARA (Aggregate Resources Act) Permits on Crown land in the FMU, and 227 active ARA Licences on private land.

2.1.5 POWER GENERATION

Within the boundaries of the Bancroft-Minden Forest, Bracebridge Generation has several dams used to generate hydroelectricity. Numerous generating stations are located within the FMU as well. None of the generating stations adversely affect forest operations in the Bancroft-Minden Forest.

Small scale community-based wind power and solar power have increased in the past ten years. Several wind power applications for sites on Crown land within the Bancroft-Minden Forest have been submitted. The sites currently are in the beginning stages, testing to determine suitability.

2.2 NON-INDUSTRIAL USES OF THE FOREST

The main non-industrial commercial uses of the Bancroft-Minden Forest include trapping, hunting and fishing guide services and tourism.

2.2.1 TRAPPING ACTIVITIES

The Bancroft-Minden forest has 128 trapping zones, with the majority located in the townships of Cardiff, Glamorgan, Anstruther, Cavendish, and Burleigh. The trapping zones are comprised of both Crown and private lands. The main species trapped are beaver, otter, muskrat, and fisher.

Fur harvested from the species can be sold to the fur auction house, providing supplemental income to trappers and their families. Some species are also targeted to manage human wildlife conflicts. Canids are routinely targeted to manage conflicts with livestock, and the routine trapping of beaver prevents flooding and protects critical Crown road infrastructure.

Some of the trapline zones have been in families for multiple generations, providing a heritage activity for trappers to pass down to their children and keeping people connected to the land. Mandatory harvest data gathered each year allows the Ministry to monitor wildlife population levels and judge the health of the landscape.

It is estimated that the financial value of fur harvested in the FMU is \$35,000 annually.

2.2.2 HUNTING ACTIVITIES

Hunting is an important recreational activity in the FMU. It provides substantial economic benefits to communities in the area, including through direct expenditures such as licenses and hunting related equipment, and indirect expenditures such as travel (gas, food) and lodging.

The FMU contains all or portions of 7 Wildlife Management Units (WMUs) in which hunting for many species occurs (WMU 55A, 57, 61, 60, 75, 56 and 54). Figure 3 below shows a map of the WMU areas that are within or partially within the Bancroft-Minden Forest. Open seasons for big game include moose, white-tailed deer, black bear, and elk. There are resident and non-resident hunters/seasons with different licenses and conditions for hunting on Crown/private land. Commercial operators, such as moose tourist outfitters and Bear Management Area operators also exist within the FMU. Some hunt camps are located on Crown land, for which Land Use Permits are issued. There are an estimated 249 private recreation camps on Crown land within Bancroft-Minden forest.

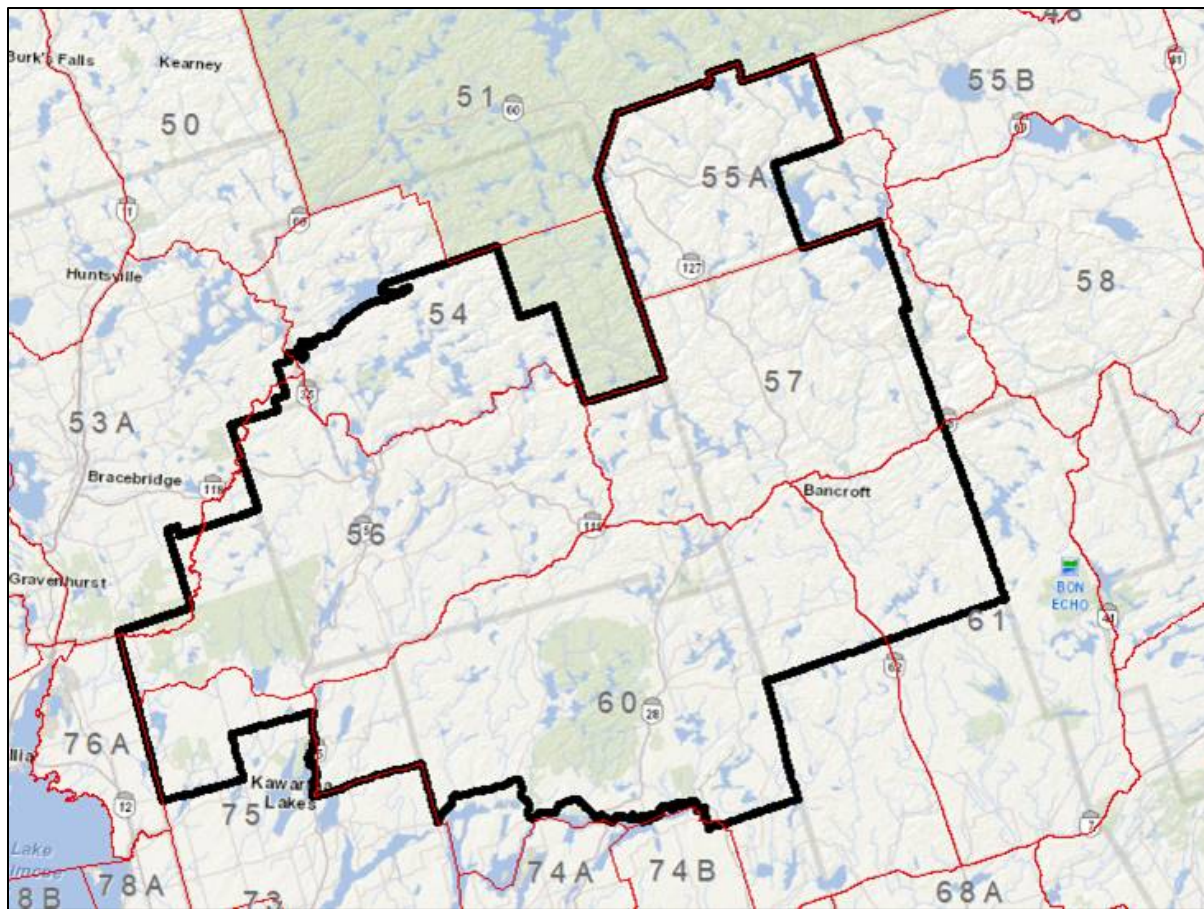


Figure 2. WMUs in which hunting occurs on the Bancroft Minden Forest.

Small game seasons are open for species such as wild turkey, wolf and coyote, ruffed grouse, spruce grouse, sharp-tailed grouse, ring necked pheasant, gray partridge, cottontail rabbit, European and snowshoe hare, gray and fox squirrels, raccoon, red fox, skunk, and weasels. Migratory bird species with open seasons include ducks, geese, woodcock, snipe and mourning doves.

Data is collected by MNRF on the numbers of applicants, hunters and harvest of big game species per WMU through the provincial mandatory reporting system. An estimate of the number of hunters per species was obtained using the provincial mandatory report data and the estimated percent area of each WMU within the Bancroft-Minden FMU. The estimated area of each WMU within the FMU and the number of hunters per WMU are shown in Table 9 below. Small game species licenses are not specific to WMUs, thus no estimates of hunter numbers are available for small game species (including wild turkey). Estimates of WMU area within Bancroft FMU and numbers of hunters per WMU, provincially per species and number of resident and non-resident bear hunters are estimated below in Table 9.

Table 8. Estimated area of each WMU within the Bancroft Minden Forest.

WMU	Approximate % Area within FMU	# Moose Hunters	# Moose hunters prov	# Moose Hunters FMU	# Deer Hunters	# Deer Hunters Prov	# Deer Hunters FMU	# Bear Hunters (Res and NR)	# Bear Hunters Prov	# Bear Hunters FMU
60	70	2350		1645	8517		5962	1386		970
61	25	1556		389	5009		1252	877		219
75	20	0		0	1475		295	241		48
56	100	1734		1734	3360		3360	782		782
54	50	2215		1108	1393		697	524		262
55A	75	695		521	1257		943	260		195
57	90	663		597	4167		3750	501		451
Total			64645	5994		189128	16259		56509	2927

2.2.2.1 Hunter number estimates for large game species

White-tailed Deer

White-tailed deer are one of the most sought-after big game species in Ontario. They hold strong ecological, social and economic importance in Ontario and generate millions of dollars in economic activity each year, through hunting, viewing and tourism.

There are an estimated 16,259 white tailed deer hunters (includes residents (res) and non-residents (NR)), which represents 8.6% of deer hunters within the province.

Moose

Moose are an important species ecologically as well as socially. Like white-tailed deer, moose generate millions of dollars annually through hunting, viewing and tourism. There are an estimated 5994 moose hunters within the FMU (includes residents and non residents), which represents 9.3% of moose hunters within the province. In addition to the resident hunt, non-residents must hunt through a licensed tourist outfitter. Within the Bancroft-Minden Forest, there are four moose tourist outfitters in operation.

Black Bear

There are an estimated 2927 bear hunters hunting within Bancroft-Minden FMU (includes residents which make up 94% of bear hunters and non-residents at 6%). This represents 5.2% of bear hunters within the province. Recently a new spring bear season was re-instated; 78% of bear hunters hunted in the fall and 22% in the spring. There are 77 Bear Management Areas (BMA) within the FMU.

Elk

A modern-day elk hunt came into effect in 2011 in the Bancroft area following the successful re-introduction of elk to the area. Elk may be hunted in 8 “elk harvest areas”, half of which are within Bancroft-Minden FMU (harvest areas 1, 2, 4 and 5). There is a maximum group size of 4 hunters per elk tag issued. This was used to estimate the number of elk hunters within the FMU. It is estimated up to 132 hunters participated in the elk hunt within Bancroft-Minden FMU, based on 2019 elk tag numbers.

2.2.3 RECREATION/TOURISM ACTIVITIES

Tourism plays a major role to the economy of the area within the Bancroft-Minden Forest. Located half way between Toronto and Ottawa, the Bancroft-Minden Forest expands across two tourism regions; region 8: Kawarthas Northumberland, and region 11: Haliburton Highlands to the Ottawa Valley. The information collected on the tourism statistics in these regions was accessed using the region tourism profiles available on the Government of Ontario's Ministry of Tourism, Culture and Sport website.

The natural resources found on both Crown and private lands are extremely important in promoting the area as a tourism destination. There is a vast network of active and inactive roads and trails on the management unit that provide access to Crown lands for fishing, hunting, hiking, canoeing, boating, cross-country skiing, wildlife viewing and for recreational vehicles such as snowmobiles and off-road vehicles. The opportunities that are provided on Crown land support a variety of local and commercial tourism establishments, such as resorts, lodges and guiding companies, which exist mainly on private lands within the FMU.

The tourism industry within the Bancroft-Minden Forest has approximately 7,500 establishments ranging in categories from accommodation, arts, entertainment and recreation, food and beverage, transportation, travel services, retail, and other shown in Figure 4 below. The majority of the resource-based tourism operations within and adjacent to the management unit operate during the summer months when there is an influx of seasonal residents and tourists seeking outdoor recreation opportunities.

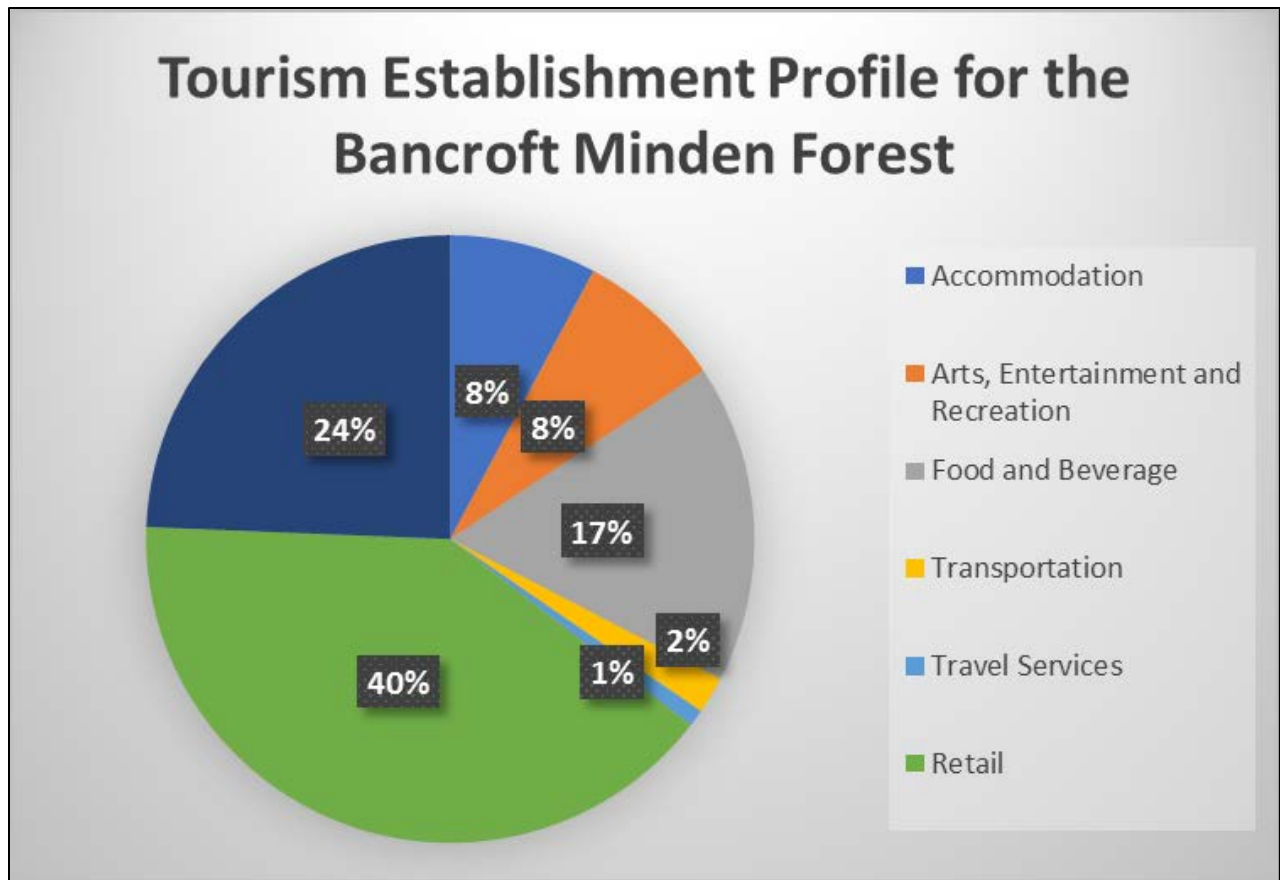


Figure 3. Total tourism establishment profile for the Bancroft Minden Forest.

Aside from timber harvesting, outdoor recreation activities such as hunting, fishing, trapping, camping, canoeing and snowmobiling are important commercial uses of the Bancroft-Minden Forest. Figure 5 below shows the number of people who participated in a variety of tourism activities available on the forest in 2016. The largest number of people participated in boating in the Bancroft-Minden Forest, followed by fishing and then hiking.



Figure 4. Tourism activities participated in on the Bancroft Minden Forest.

One of the main considerations in forest operations, when non-timber values are involved, is roads and access. Depending on the economic activity, access may be encouraged or discouraged. In recognizing the interests of other stakeholders, the management plan will strive to ensure existing access rights are not unduly affected. Decisions concerning new road development and access are considered on a case by case basis, comply with the Crown Land Use Policy and approved standards of various Area of Concern prescriptions.

Forest operations occurring on Crown forest as regulated by the *Crown Forest Sustainability Act (1994)*, must not impede social and economic values including that of recreational values. The forest management plan for the Bancroft-Minden Forest will have regard for all recreational and tourism values within the forest and ensure the values identified will contribute to the long-term sustainability of the forest.

2.2.4 PARKS AND PROTECTED AREAS

Parks and protected areas include Crown lands that are not available for forest management purposes. These areas include Provincial Parks and Conservation Reserves regulated under the Provincial Parks and Conservation Reserves Act (PPCRA). The objectives of the PPCRA are:

- To permanently protect representative ecosystems, biodiversity and provincially significant elements of Ontario's natural and cultural heritage and to manage these areas to ensure that ecological integrity is maintained.
- To provide opportunities for ecologically sustainable outdoor recreation opportunities and encourage associated economic benefits.
- To provide opportunities for residents of Ontario and visitors to increase their knowledge and appreciation of Ontario's natural and cultural heritage.
- To facilitate scientific research and to provide points of reference to support monitoring of ecological change on the broader landscape.

There are 11 regulated provincial parks and 6 conservation reserves where forest management activities cannot occur within the Bancroft-Minden FMU as listed in Table 9 and Table 10 below. These parks and conservation reserves encompass a total of approximately 850,000 hectares.

Table 9. Parks on (or adjacent to) the Bancroft Minden Forest.

Name	CLUPA Reference ID* _	Designation (Class)	Area (ha) **
Upper Madawaska River Provincial Park	P394	Waterway	1,085
Opeongo River Provincial Park	P392	Waterway	955
Egan Chutes Provincial Park	P56e	Nature Reserve	322
Algonquin Provincial Park	P1915	Natural Environment	772,300
Petroglyphs Provincial Park	P393	Cultural Heritage	1,643
Egan Chutes Provincial Park Addition	P56	Waterway	778
Carden Alvar Provincial Park	P4716	Natural Environment	1,917
Lake St. Peter Provincial Park	P391	Recreation	478
Silent Lake Provincial Park	P20e	Natural Environment	1,610
Queen Elizabeth II Wildlands Provincial Park	P34	Natural Environment	33,505
Kawartha Highlands Signature Site Park	P26	Natural Environment	37,587

* - MNRF's Crown Land Use Planning Atlas (CLUPA) reference identification number

** - Areas according to CLUPA or LIO warehouse data

Table 10. Conservation reserves on (or adjacent to) the Bancroft Minden Forest.

Name	CLUPA Reference ID*	Area (ha) **
Clear Lake Conservation Reserve	C368	1,307
Little Mississippi River Conservation Reserve	C55	916
Crowe River Swamp Conservation Reserve	C10	190
Conroys Marsh Conservation Reserve	C54	2, 049
Plastic Lake and Dawson Ponds Conservation Reserve	C69	291
Sharpe Bay Fen Conservation Reserve	C24	636

In addition to regulated parks and conservation reserves, there are other protected area within the management unit that may have restrictions on permitted activities and uses. These include 39 areas of natural and scientific interest (ANSIs), 2 Crown game preserves, 2 significant ecological areas and 1 parcel of federal land.

All parks and protected areas offer local environmental, social and economic values, although these values can be impacted by land use decisions that occur within, adjacent and beyond the protected area boundary. They provide places where people can enhance their health and well-being through enjoyment and recreational use of the outdoors, while developing a greater appreciation for Ontario's natural diversity. The following are important benefits and help to demonstrate ways in which parks and protected areas support our quality of life:

- Protection and contribution to ecological functions (air quality, water quality, flood control, soil stabilization),
- Biodiversity contributions (genetic material, protection of species at risk, connectivity),
- Protection of natural and cultural resource integrity,
- Health effects from use of parks (mental, physical, spiritual benefits),
- Worker productivity (healthy and happy workers tend to be more productive - a visit to a Provincial Park can contribute),
- Educational benefits (learning about natural and cultural heritage),
- Scientific benefits (research and monitoring in Provincial Parks),
- International responsibilities to protect natural settings, features and wildlife, and
- Business location decisions (quality of life/business) and community cohesion.

Ontario Parks reports on the following indicators of economic impact for operating parks:

- Initial expenditure
- Value Added
- Wages & Salaries
- Provincial Person-years of Employment

1 Economic impacts are based on expenditures such as those made by the park on operations and capital,
2 as well as average visitor trip expenditures (camper and day visitor).

3 As well, public and municipal officials should be aware that Provincial Parks help to make their
4 communities attractive for business as well as for tourists and retirees. Communities with attractive
5 waterfronts, low crime, recreational activities and healthy environments are sought out by the
6 retirement community.

1 **3.0 REFERENCES**

- 2 Statistics Canada. 2017. National Household Survey (NHS) 2016. Statistics Canada Catalogue no. 98-316-
- 3 X2016001. Version November 29, 2017. Ottawa.
- 4 Statistics Canada. 2017. National Household Survey (NHS) 2016. Statistics Canada Catalogue custom
- 5 query. Version November 2017. Ottawa.

1

2

3

Population

3,881

Male	1,805	46.5%
Female	2,076	53.5%

change in past 5 years 0.03%

Avg Income:	\$28,815
Avg Male Income:	\$31,088
Avg Female Income:	\$26,588

Distribution

Trend

1986 1991 1996 2001 2006 2011 2016

Bancroft
Ontario

Households

1,944

Avg Income:	\$60,093
rate of Low Income	25.4%
avg persons/ household:	2.1

Household Income

\$1000's

over 100	14.0%
80 to 100	4.5%
60 to 80	13.0%
40 to 60	28.6%
20 to 40	24.1%
under 20	15.9%

Household Size

1	35.9%
2	37.9%
3	11.7%
4	8.8%
5+	5.7%

Dwellings

1,944

Avg Value:	
Avg Monthly Rent:	\$836
Housing Affordability Index:	

Tenure

owned	63.0%
rented	37.0%
band housing	0.0%

When constructed

1961-1980	44.7%
1981-1990	26.4%
1991-2000	15.3%
2001-2005	2.6%
2006-2010	7.7%
2011-2016	3.4%

Education

Highest Level	University:	10.6%
	College:	21.5%
	Trade:	5.9%
	Secondary:	28.1%
	Primary:	33.9%

Labour Force

1,500

Labour Force:	
Male:	48.8%
Female:	51.2%
Participation Rate:	46.1%
Employment Rate:	88.7%
Wage and Salary:	37.6%
Self-Employed:	7.8%
Unpaid:	54.6%

Occupation

management	10.6%
finance	14.1%
natural	3.0%
health	6.5%
social	2.7%
culture	2.7%
sales	33.5%
trades	22.8%
primary	3.4%
processing	0.8%

Language

English:	95.5%
French:	0.0%
Both:	4.2%
Neither:	0.3%

Community Diversity

Migration	
1 year: non-movers	85.8%
1 year: movers	14.2%
from where:	
other country	5.7%
other province	1.9%
within province	54.7%
locally	37.7%
5 year: non-movers	59.4%
5 year: movers	40.6%
from where:	
other country	3.8%
other province	2.4%
within province	59.4%
locally	34.4%

Canadian Born	91.6%
Foreign Born	8.4%
When immigrated	
prior to 1981	56.5%
1981 to 1990	6.5%
1991 to 2000	4.8%
2001 to 2011	21.0%
2011 to 2016	11.3%
Cdn citizen	97.7%
Aboriginal	12.6

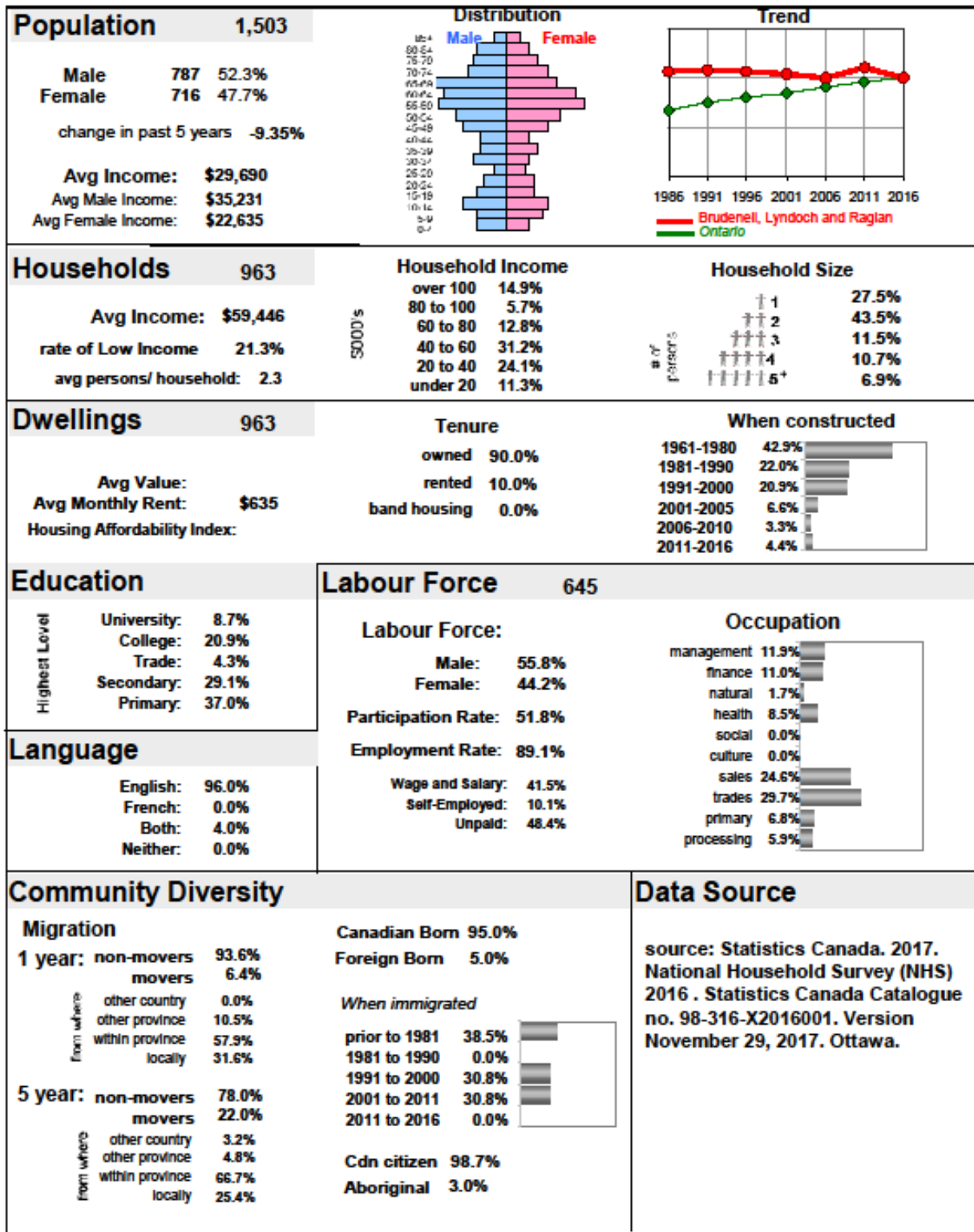
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source: Statistics Canada. 2017. National Household Survey (NHS) 2016 . Statistics Canada Catalogue no. 98-316-X2016001. Version November 29, 2017. Ottawa.

2016

Brudenell, Lyndoch and Raglan

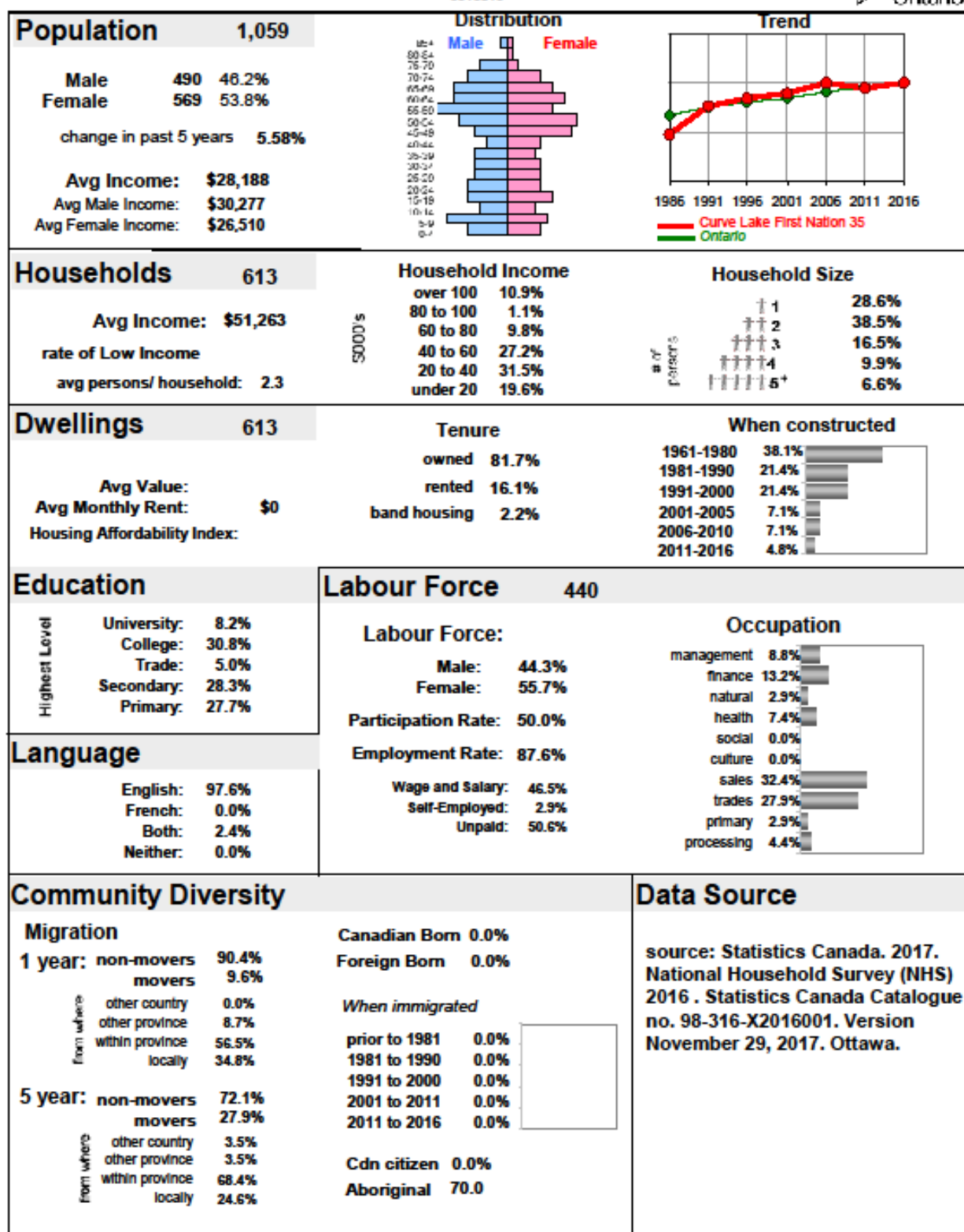
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Ontario 

2016

Curve Lake First Nation 35

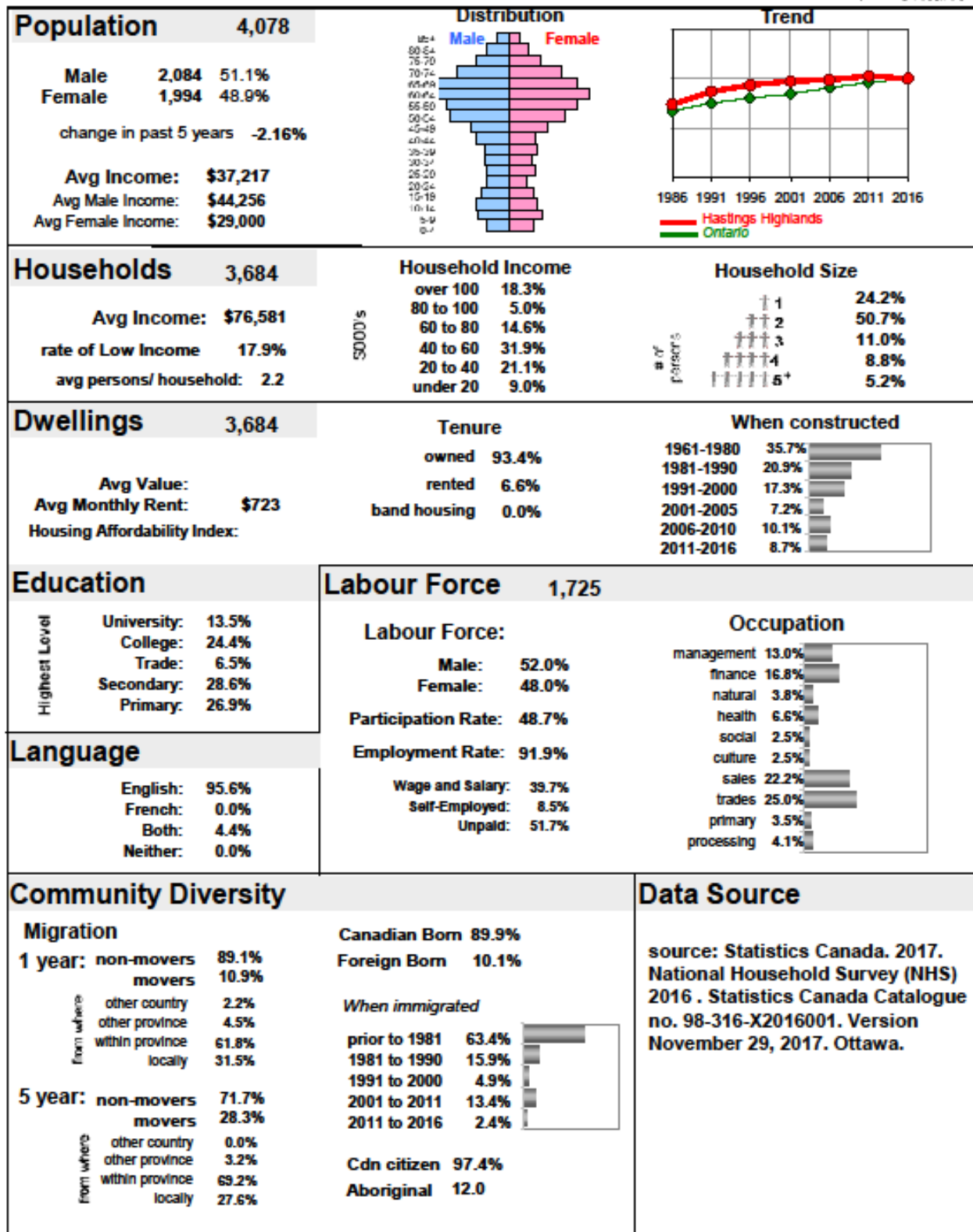
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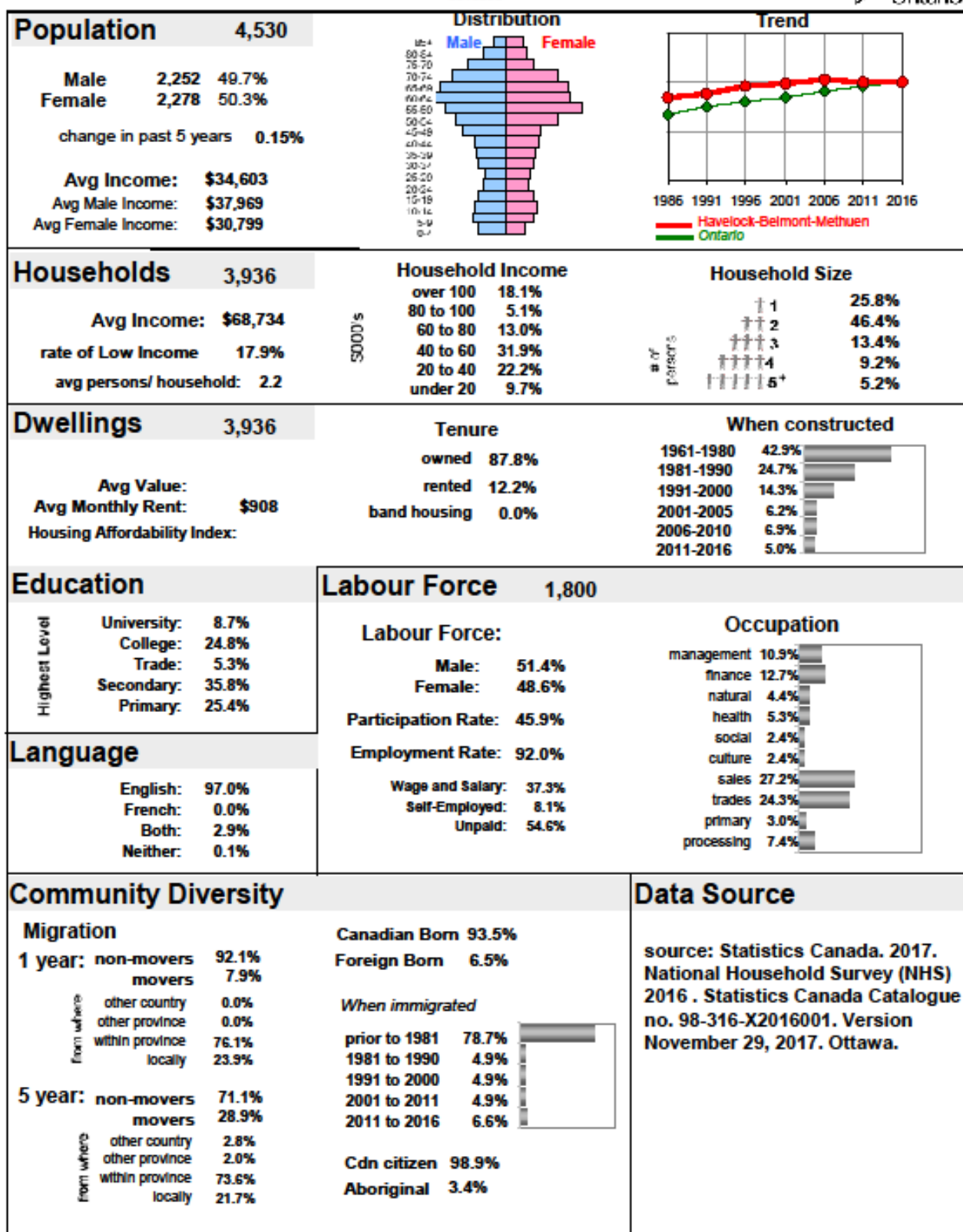


2016

Hastings Highlands

3512076

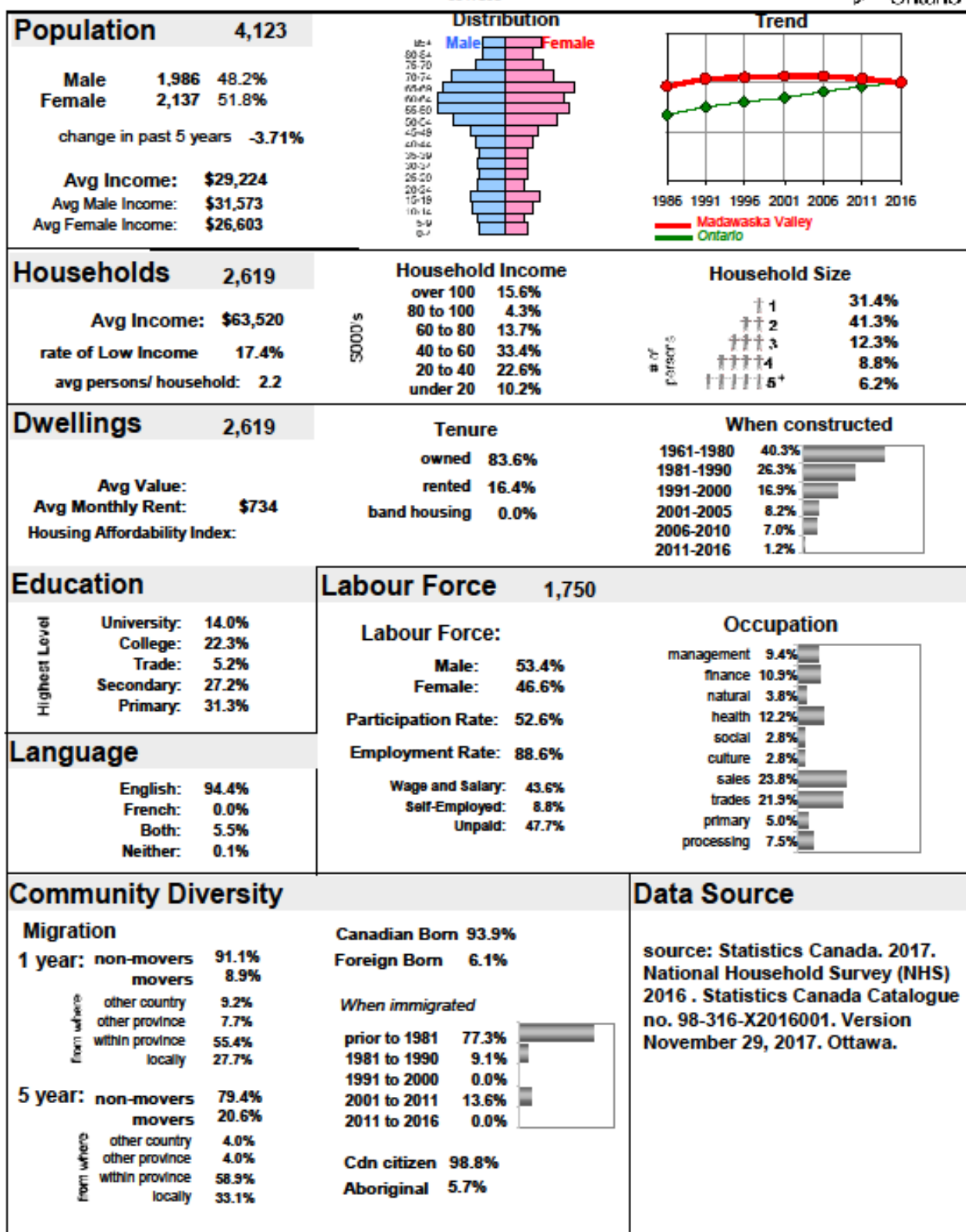




2016

Madawaska Valley

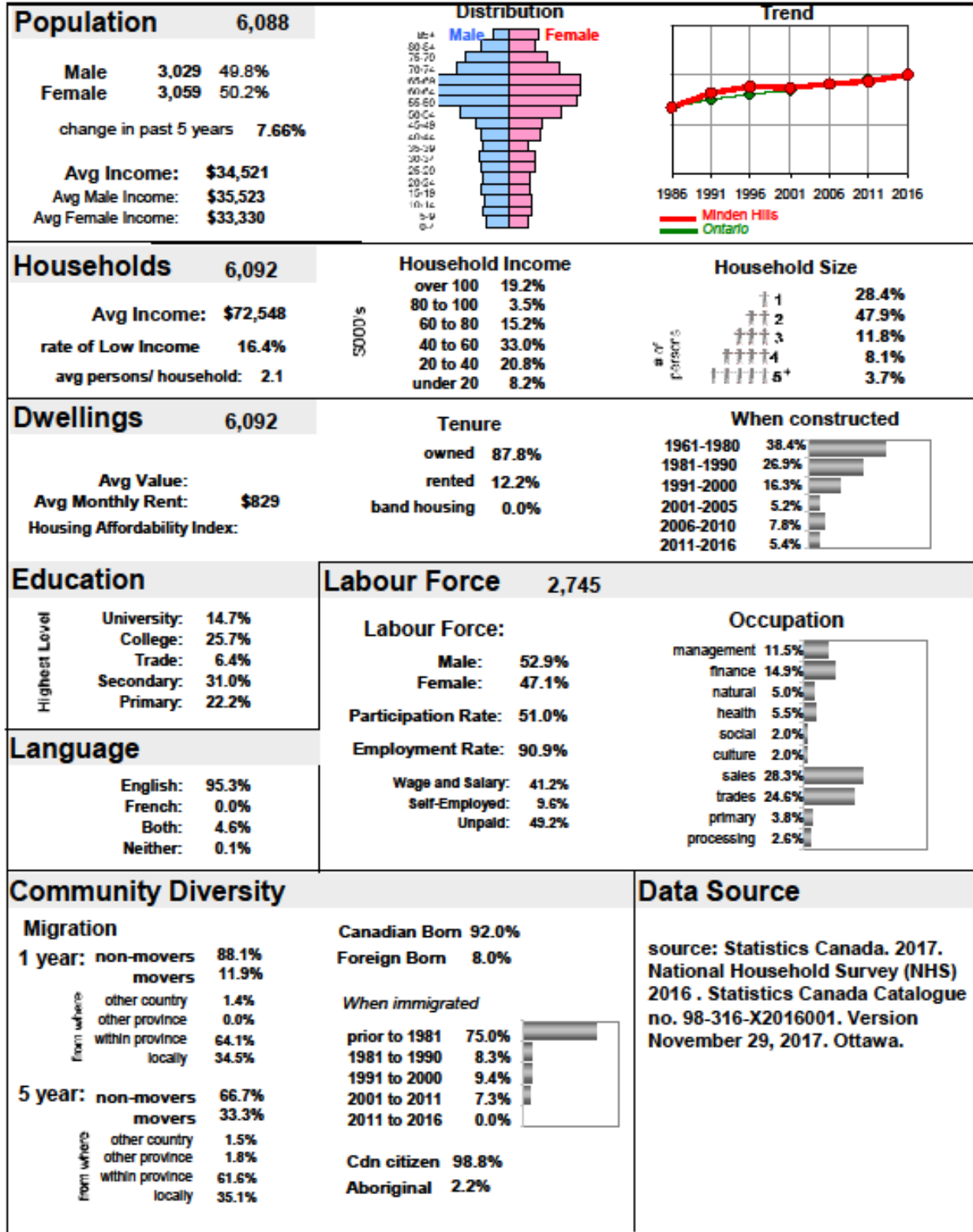
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2016

Minden Hills

3546015



Population

2,915

Male	1,495	51.3%
Female	1,420	48.7%

change in past 5 years 1.46%

Avg Income: \$34,447

Avg Male Income: \$39,916

Avg Female Income: \$28,377

Distribution

Trend

1986 1991 1996 2001 2006 2011 2016

North Algona Wilberforce

Ontario

Households

1,752

Avg Income: \$75,431

rate of Low Income 11.1%

avg persons/ household: 2.3

Household Income

\$1000's

over 100	22.3%
80 to 100	8.6%
60 to 80	14.0%
40 to 60	34.6%
20 to 40	14.0%
under 20	6.5%

Household Size

1	23.1%
2	47.4%
3	12.1%
4	10.5%
5+	6.9%

Dwellings

1,752

Avg Value:

Avg Monthly Rent: \$847

Housing Affordability Index:

Tenure

owned	94.0%
rented	6.0%
band housing	0.0%

When constructed

1961-1980	30.6%
1981-1990	23.5%
1991-2000	21.8%
2001-2005	10.0%
2006-2010	8.8%
2011-2016	5.3%

Education

Highest Level	University:	9.5%
	College:	27.3%
	Trade:	5.9%
	Secondary:	32.4%
	Primary:	24.9%

Labour Force

1,550

Labour Force:

Male:	52.4%
Female:	47.6%

Participation Rate: 61.8%

Employment Rate: 89.3%

Wage and Salary: 51.9%

Self-Employed: 8.9%

Unpaid: 39.1%

Occupation

management	12.5%
finance	13.6%
natural	2.7%
health	5.7%
social	1.9%
culture	1.9%
sales	22.7%
trades	31.1%
primary	2.7%
processing	5.3%

Language

English:	90.9%
French:	0.0%
Both:	8.9%
Neither:	0.2%

Community Diversity

Migration

1 year: non-movers 91.1%

movers 8.9%

from where

other country	0.0%
other province	3.9%
within province	52.9%
locally	43.1%

5 year: non-movers 75.8%

movers 24.2%

from where

other country	0.0%
other province	6.7%
within province	63.0%
locally	30.4%

Canadian Born 95.0%

Foreign Born 5.0%

When immigrated

prior to 1981	69.2%
1981 to 1990	15.4%
1991 to 2000	0.0%
2001 to 2011	0.0%
2011 to 2016	15.4%

Cdn citizen 98.6%

Aboriginal 10.7

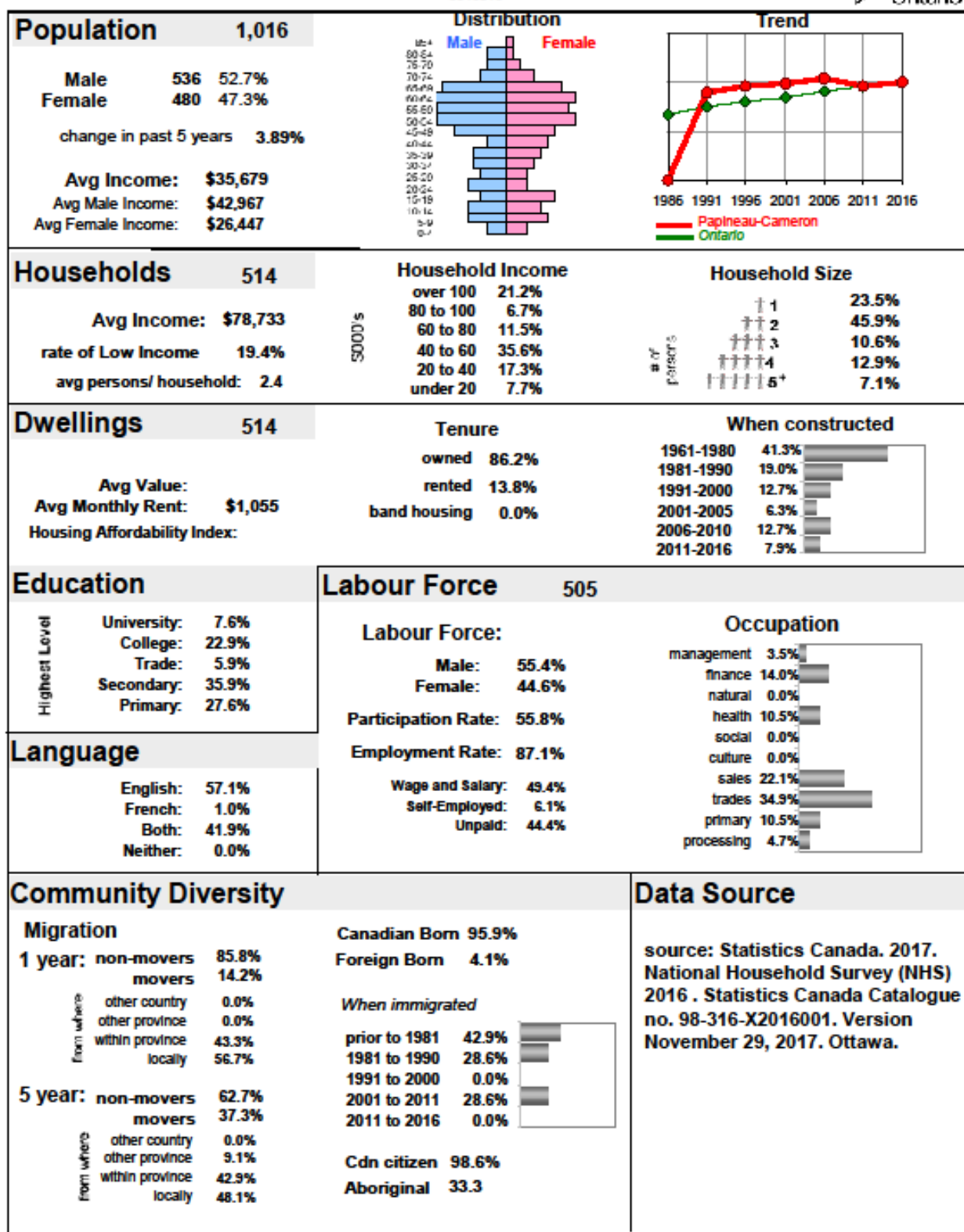
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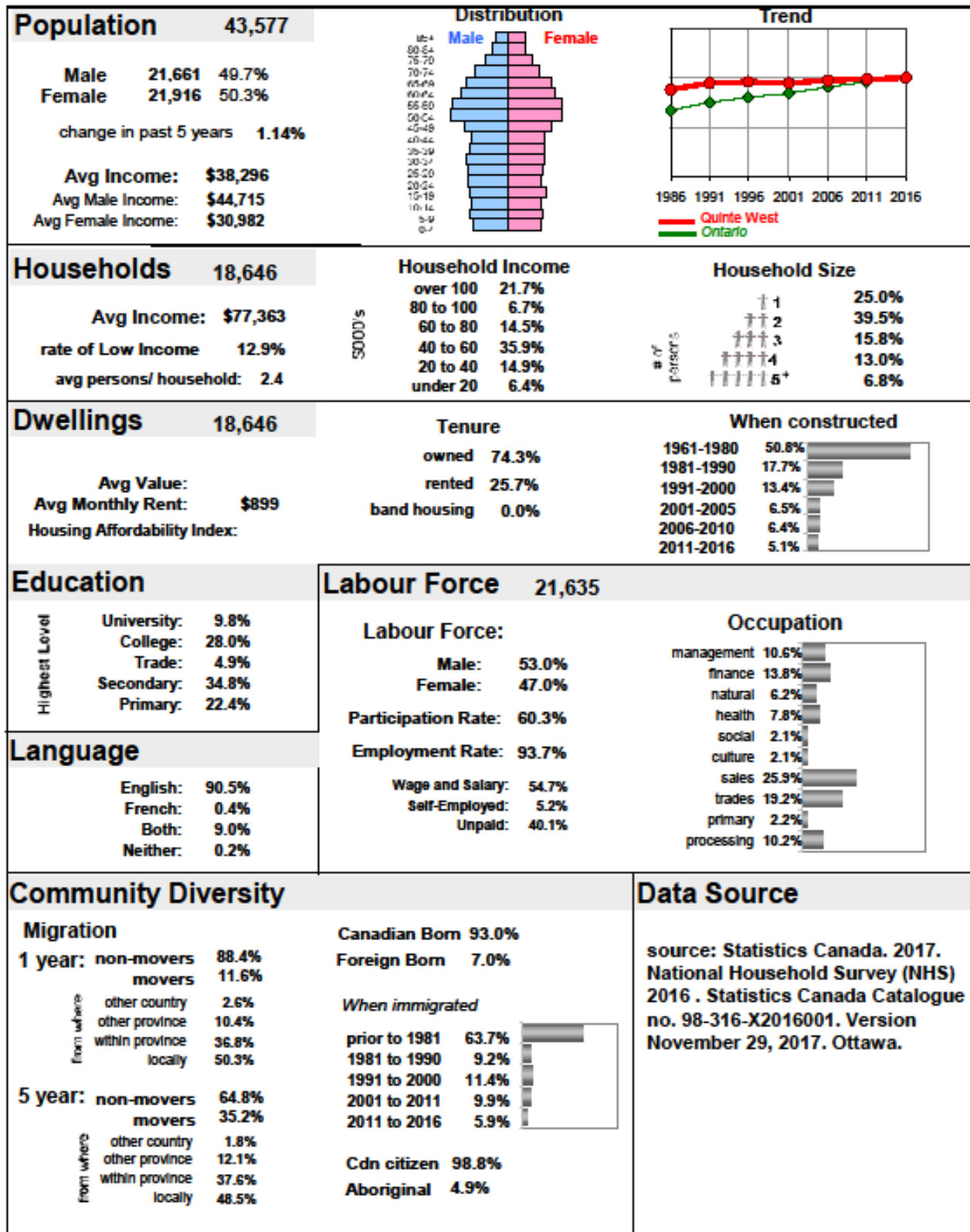
source: Statistics Canada. 2017. National Household Survey (NHS) 2016 . Statistics Canada Catalogue no. 98-316-X2016001. Version November 29, 2017. Ottawa.

2016

Papineau-Cameron

3548013

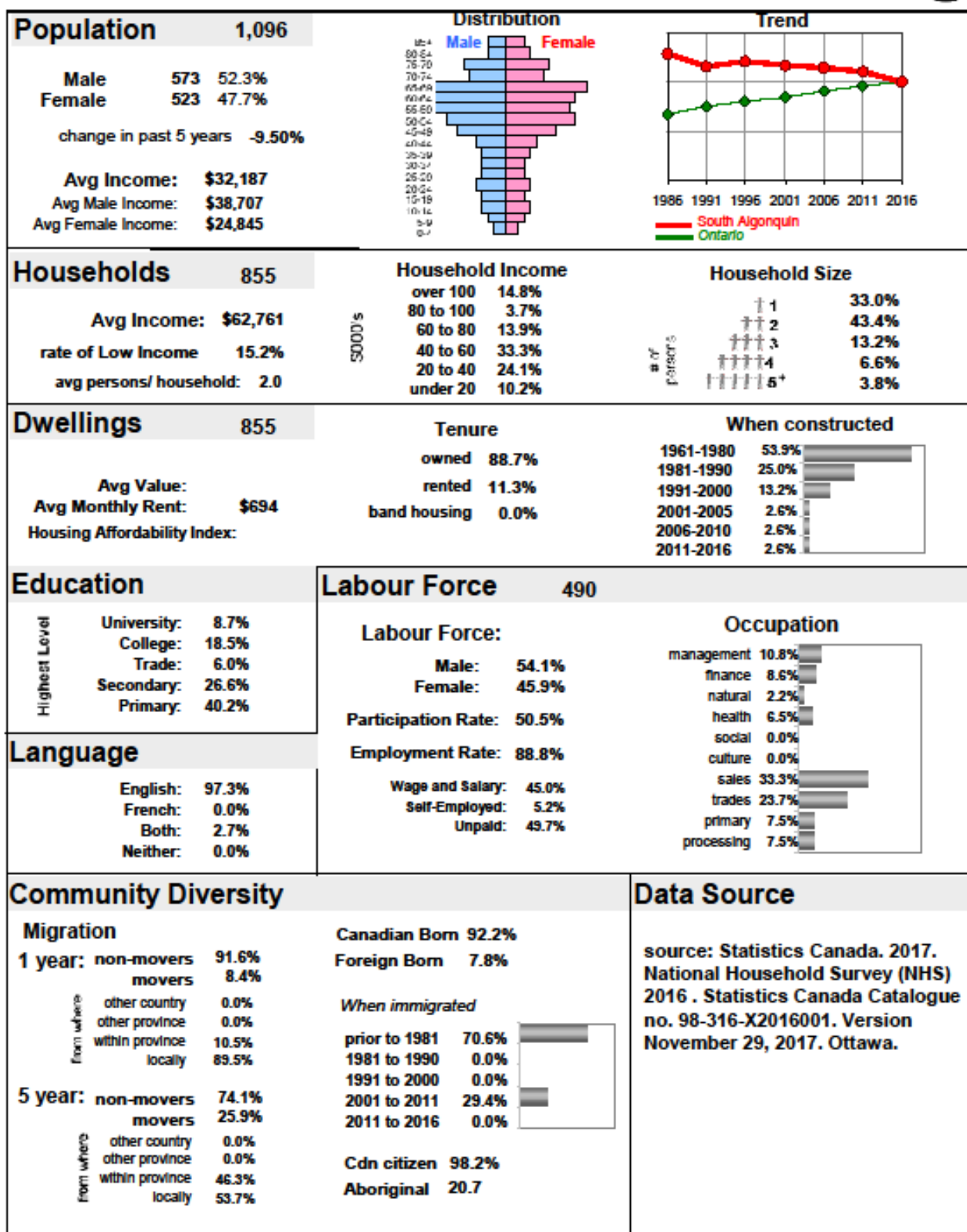


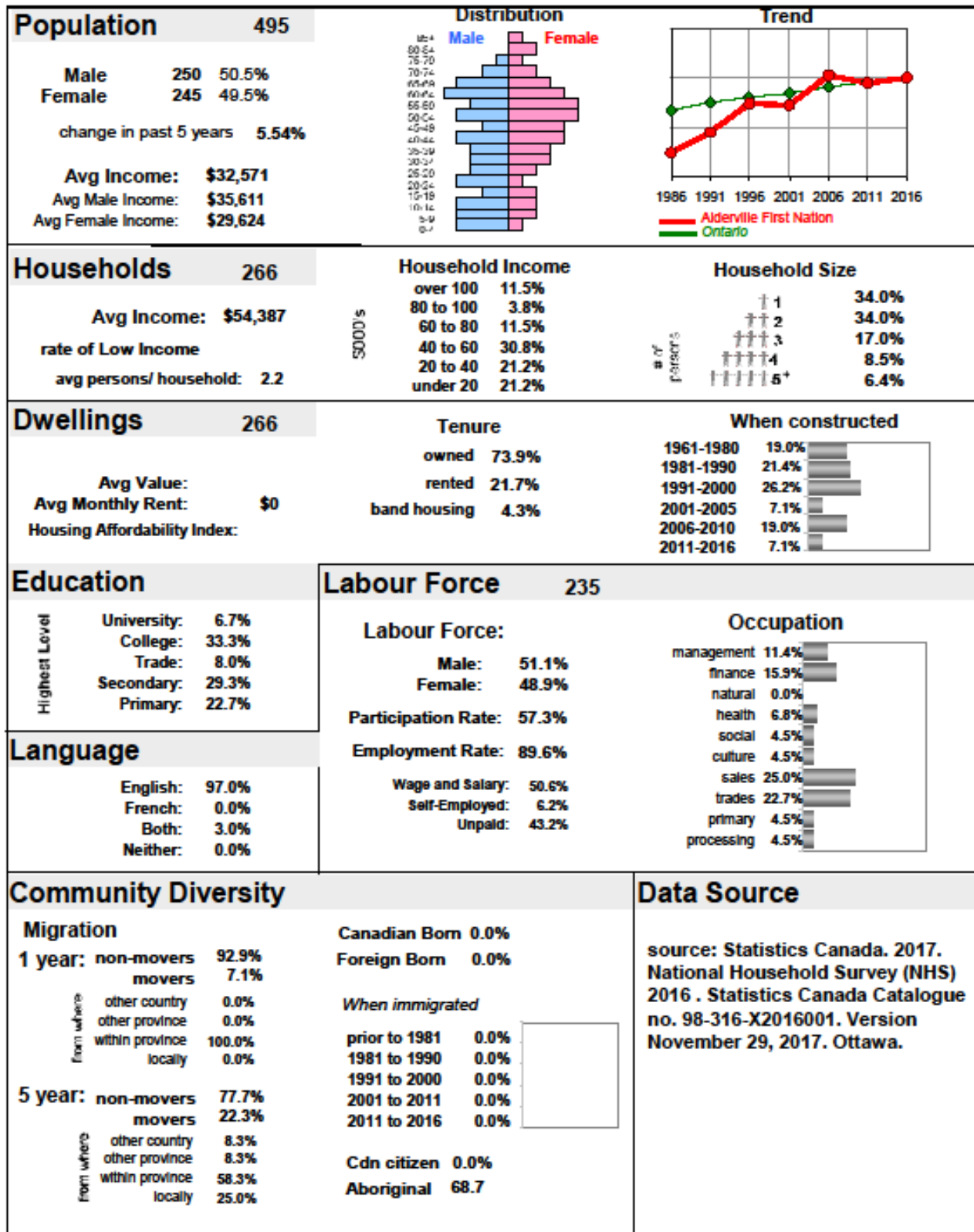


2016

South Algonquin

3548001

Ontario 

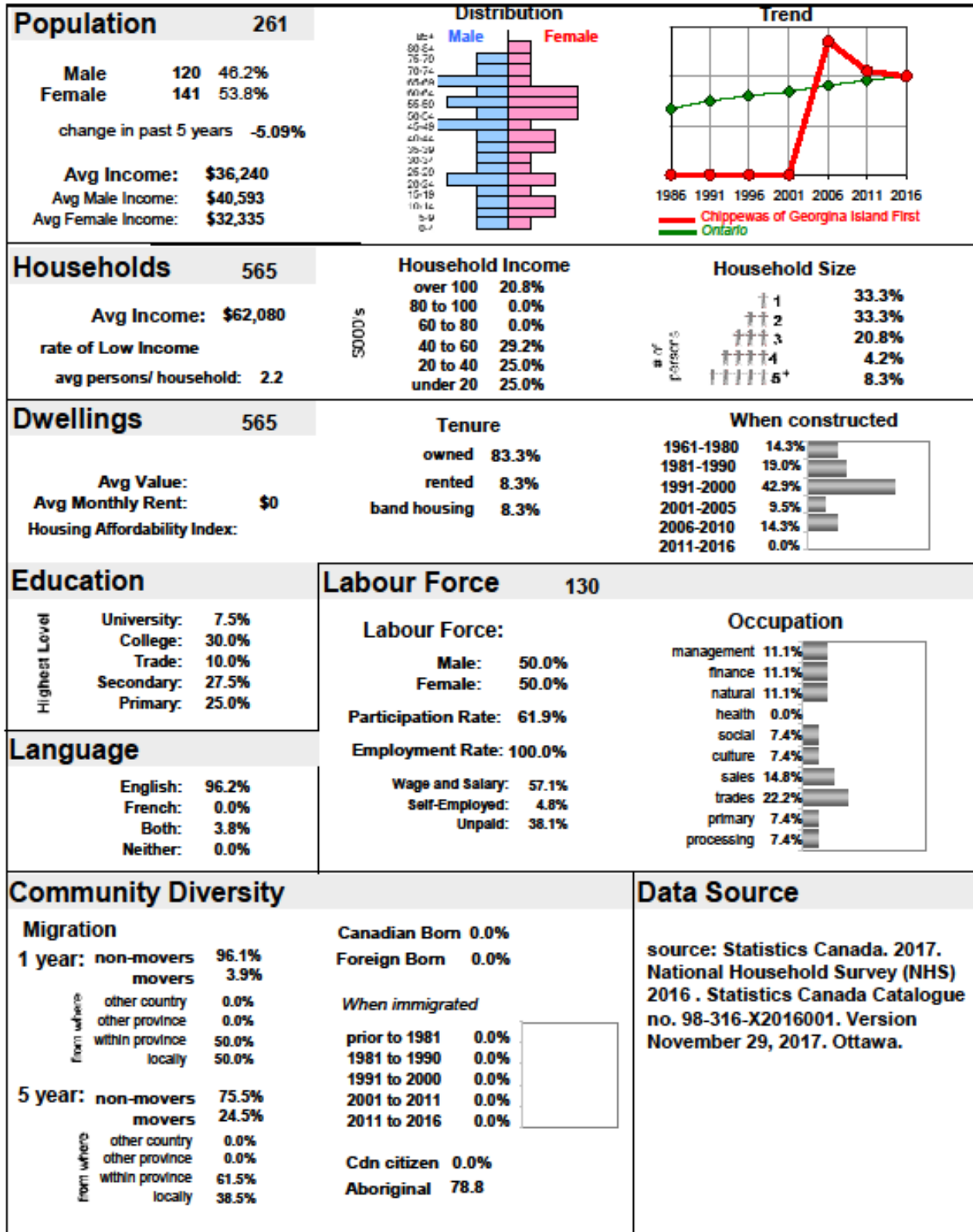


2016

Chippewas of Georgina Island First Nation

Ontario

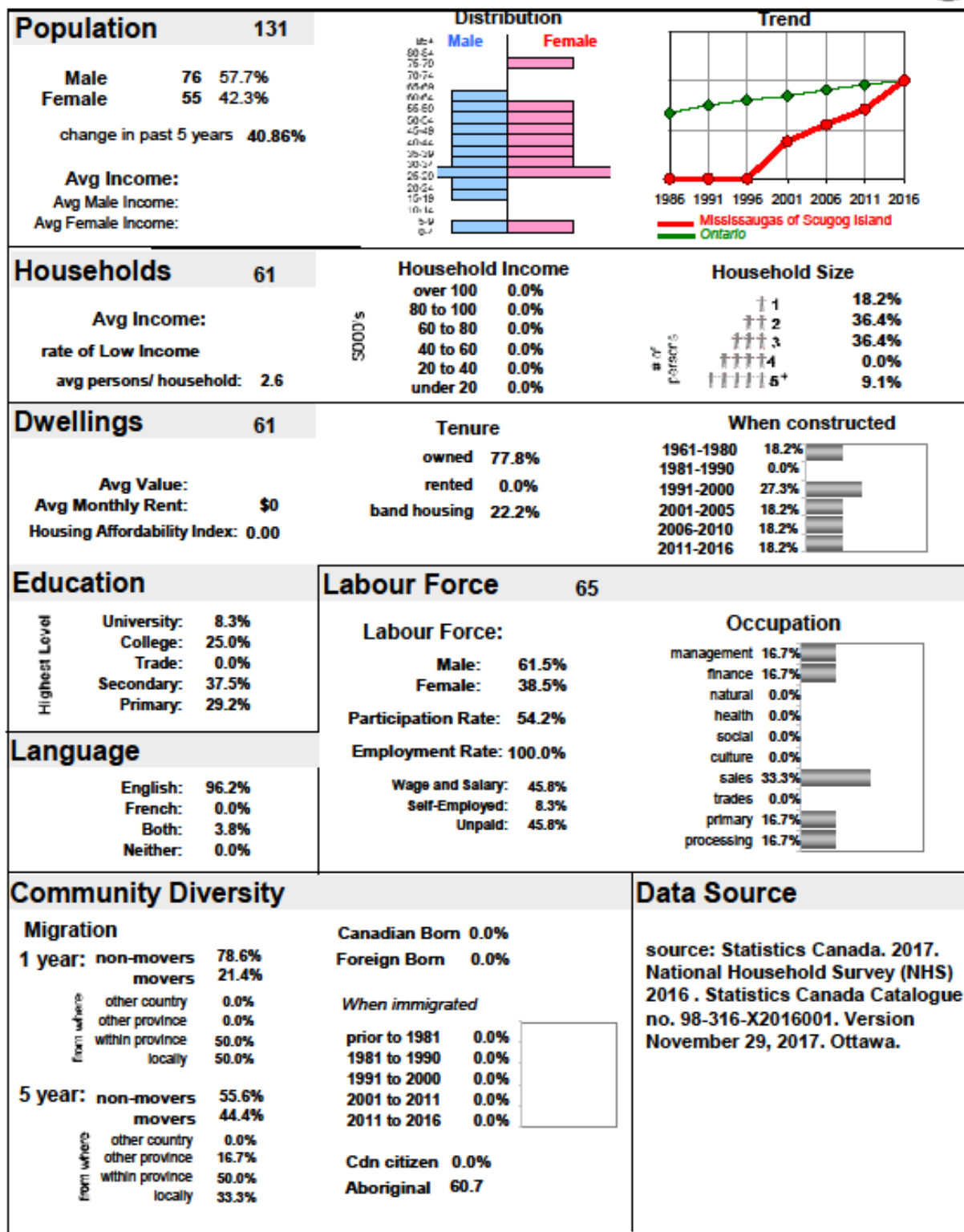
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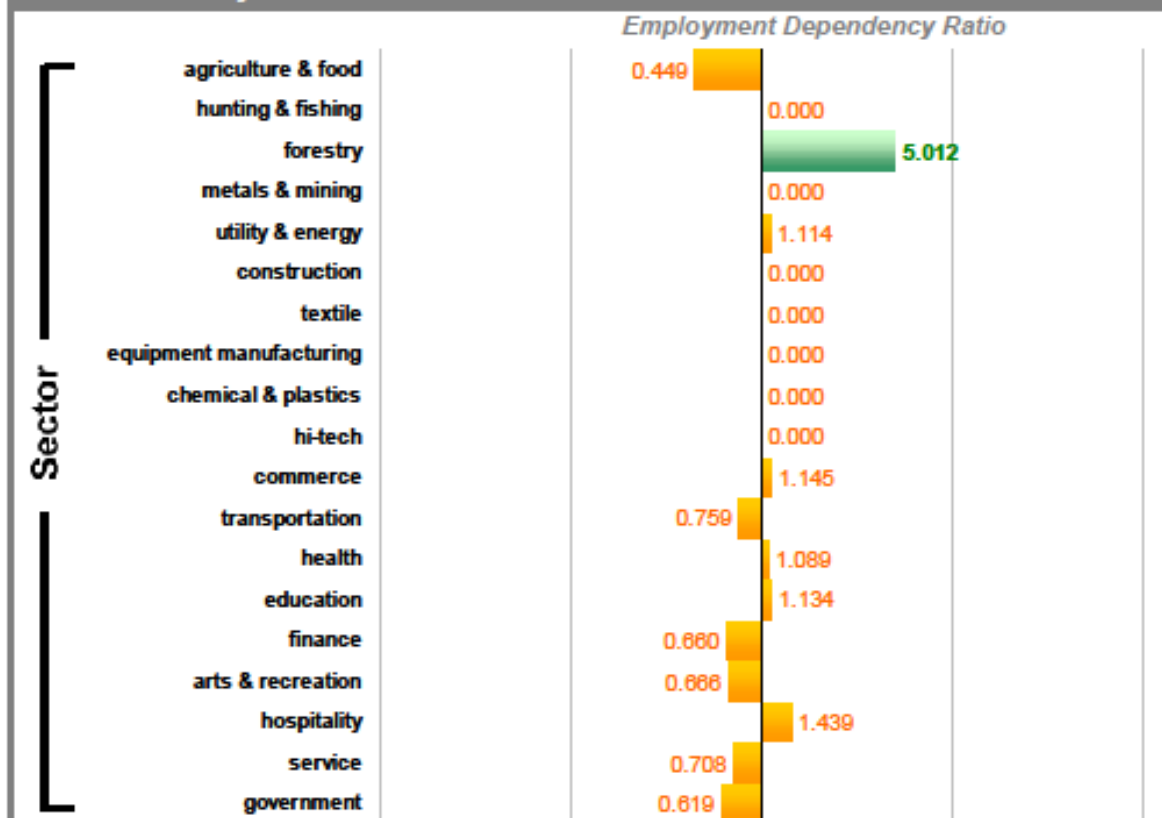
2016

Mississaugas of Scugog Island

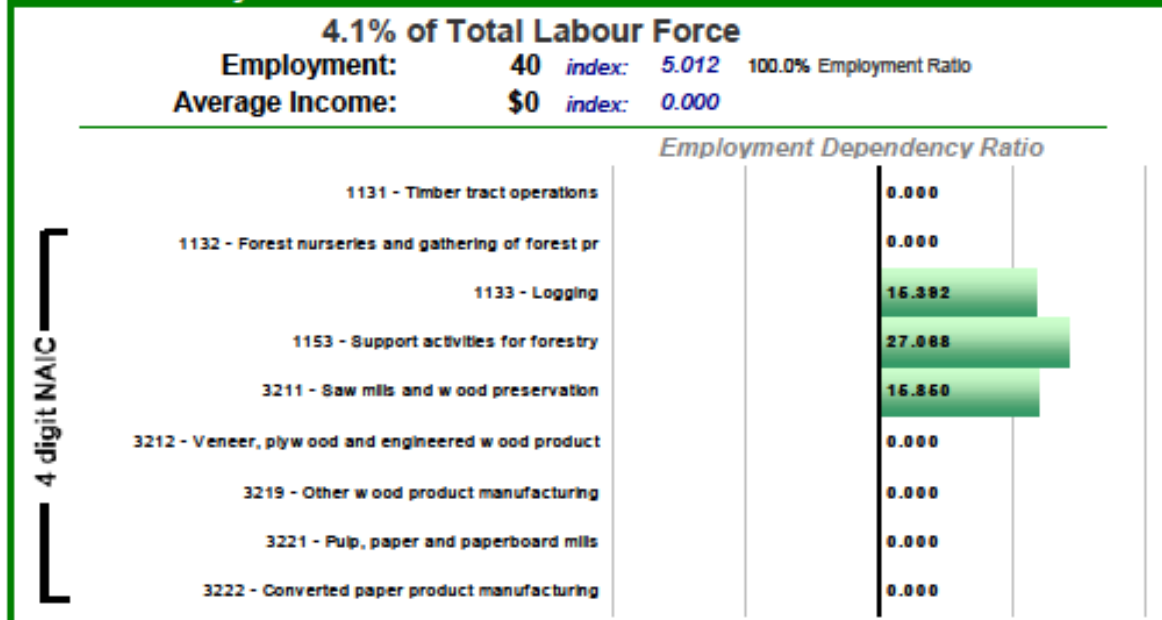
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Ontario 

Local Economy

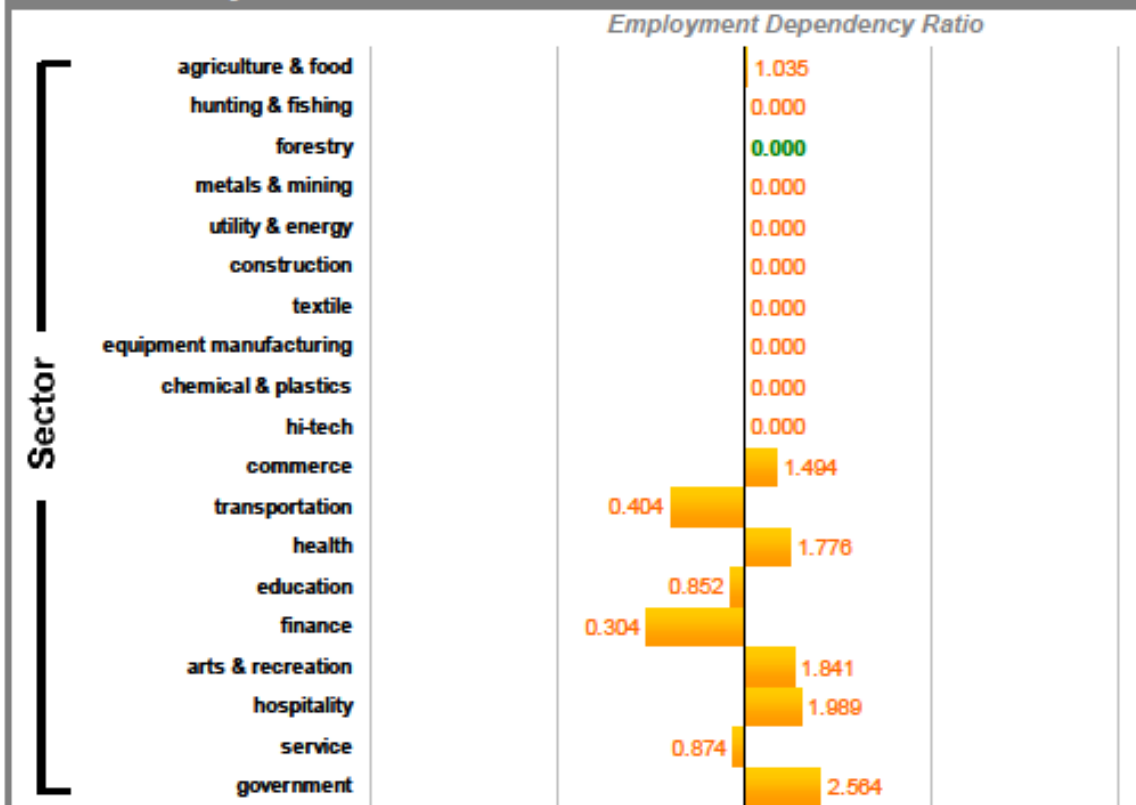


Forest Industry

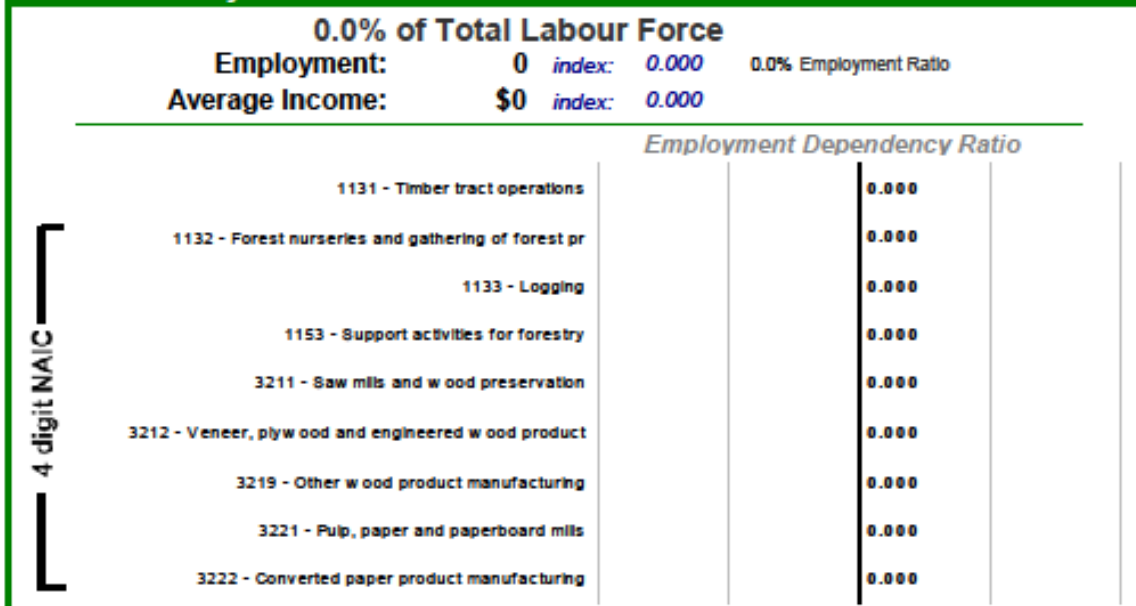


source: Statistics Canada Census of Population

Local Economy

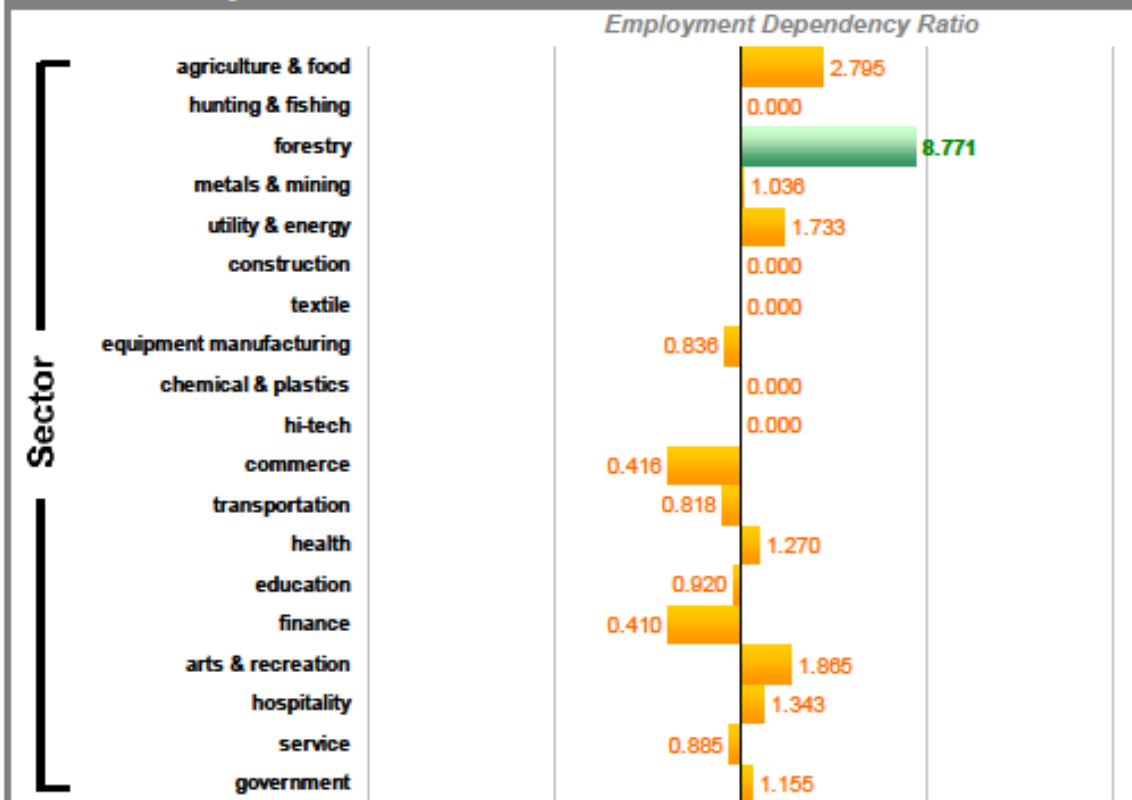


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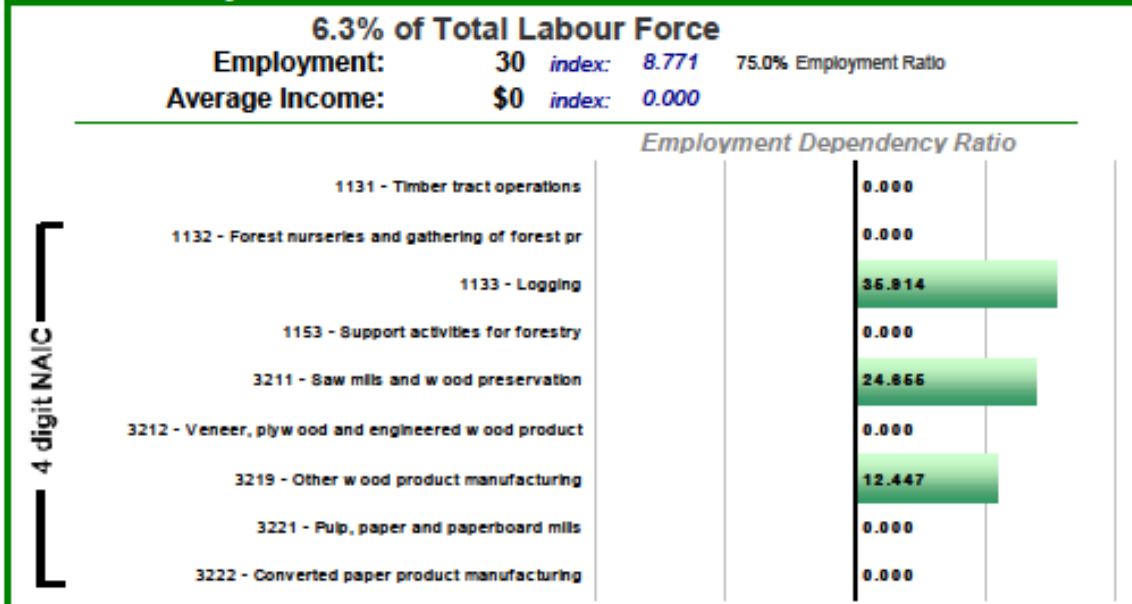


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Local Economy

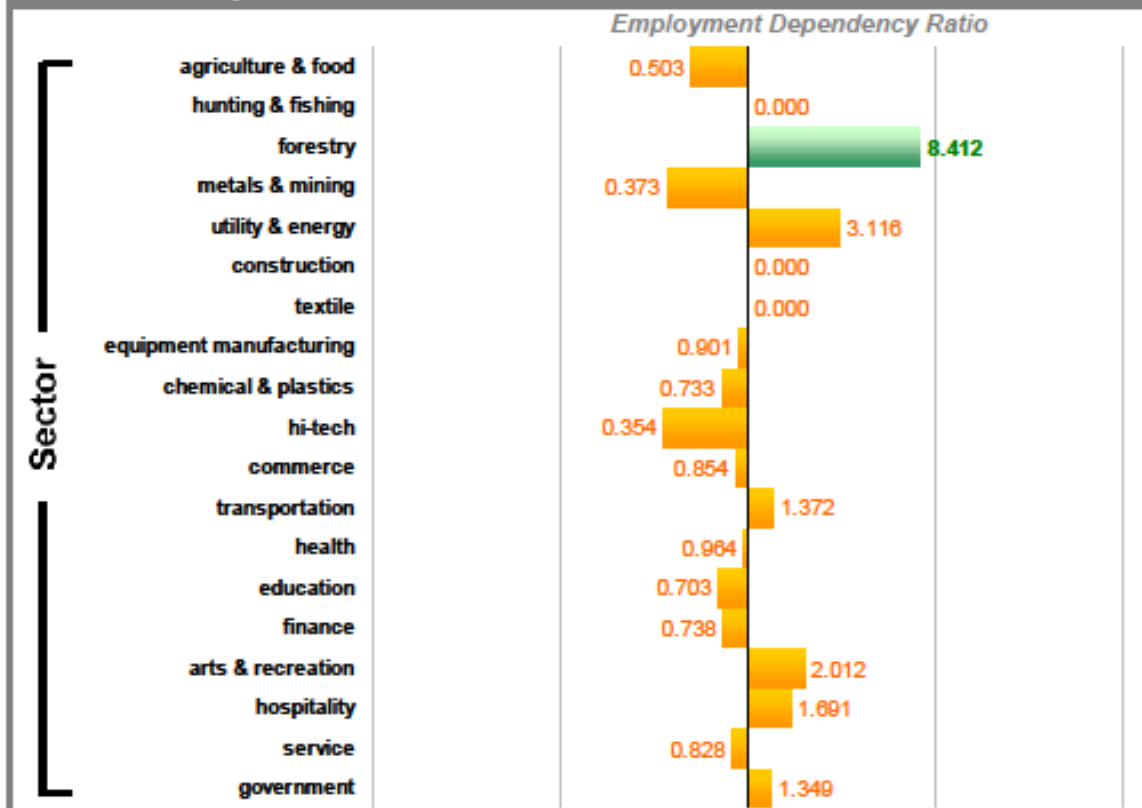


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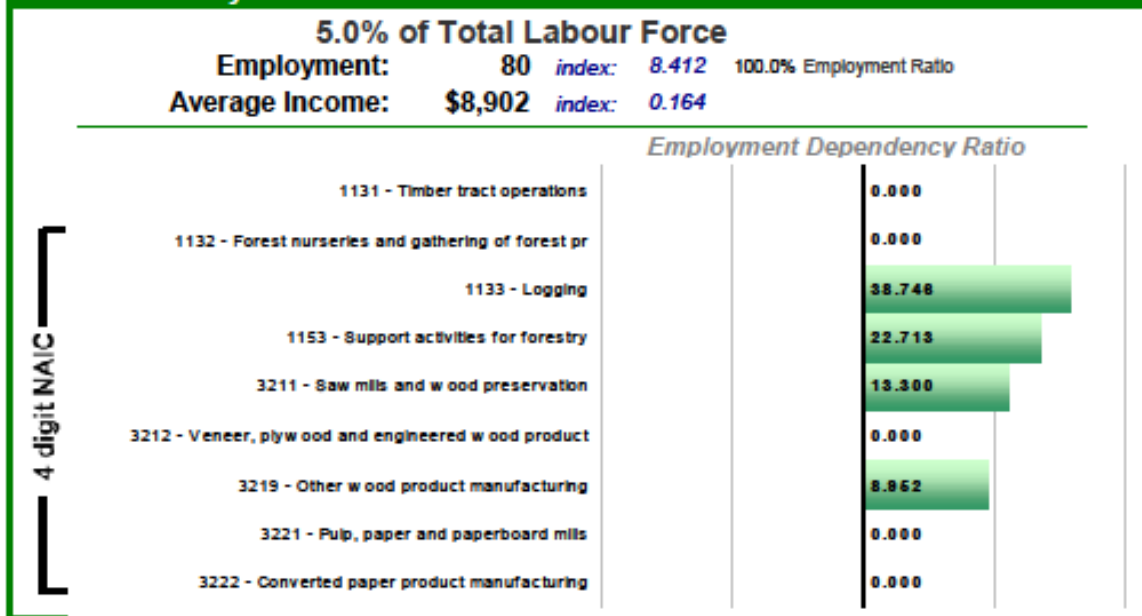


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Local Economy

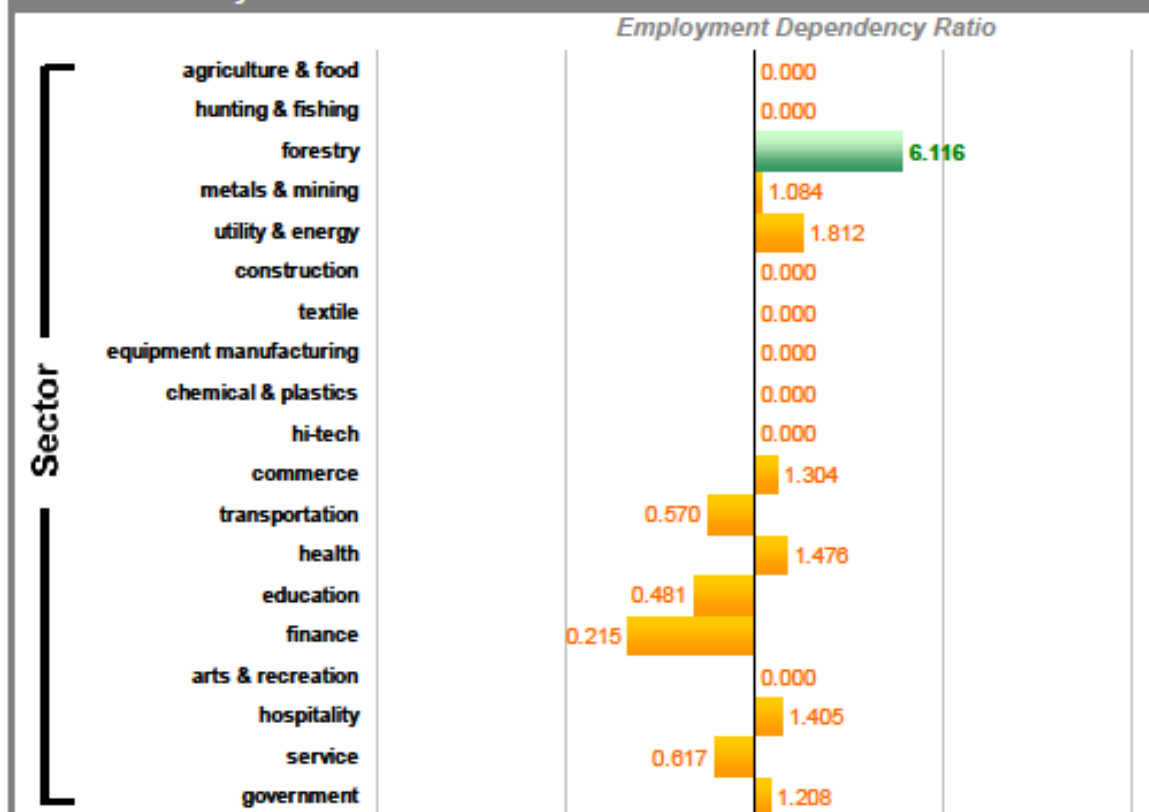


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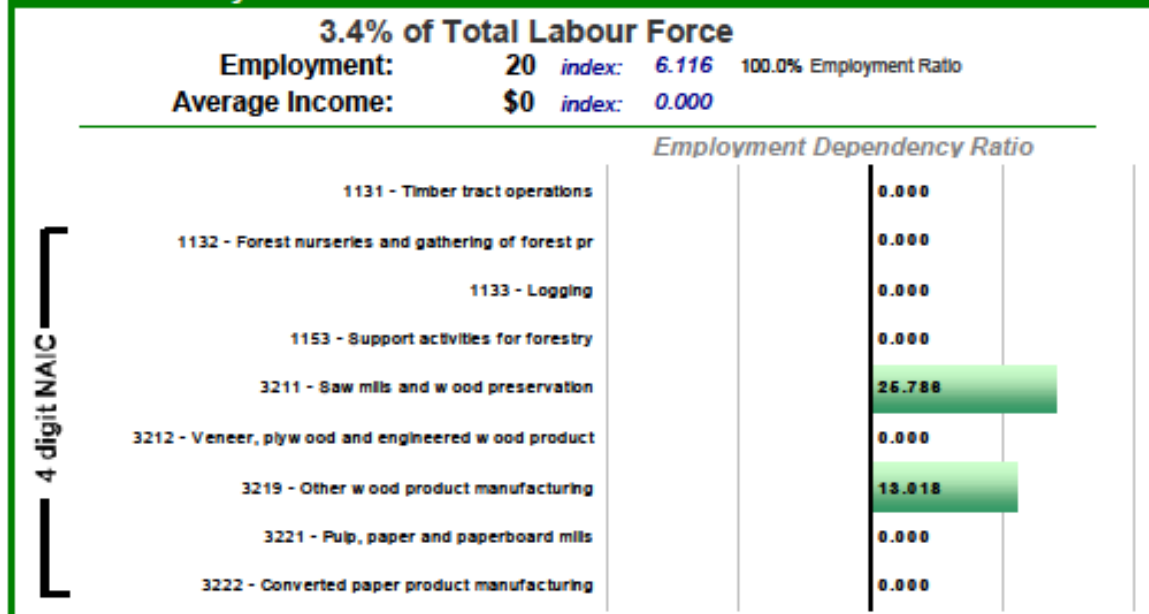


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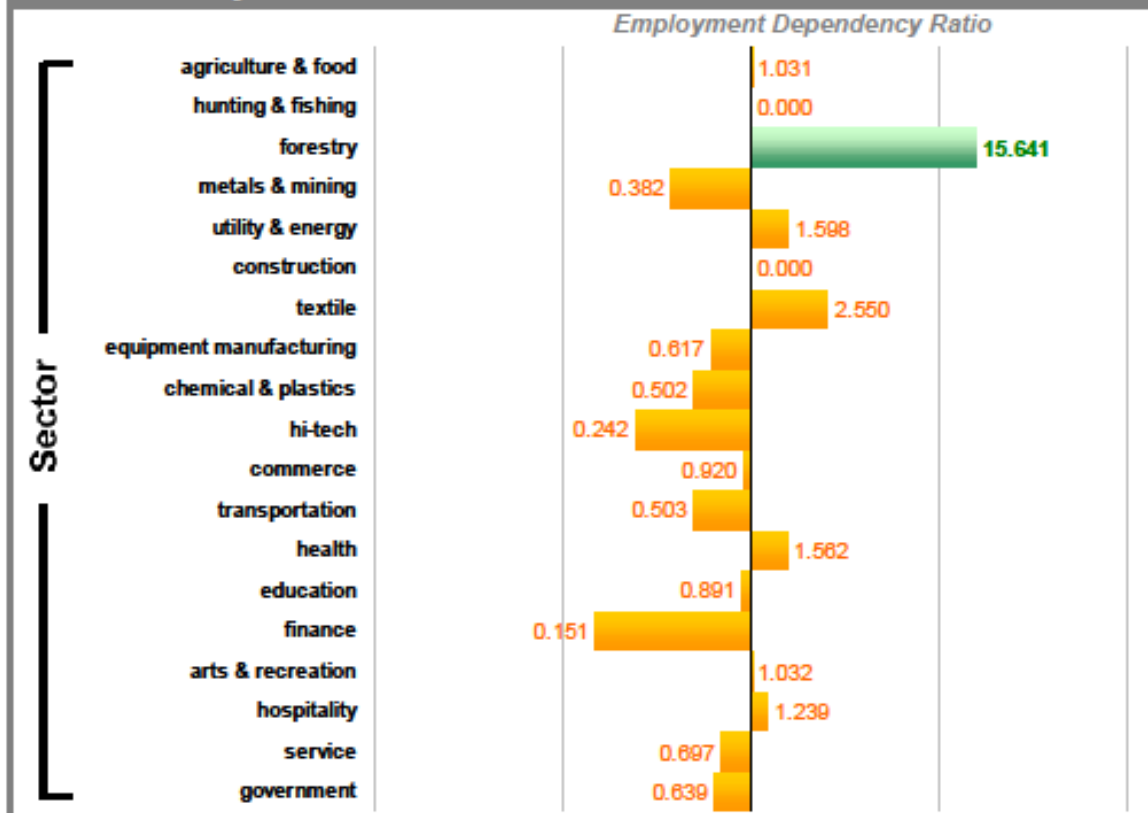


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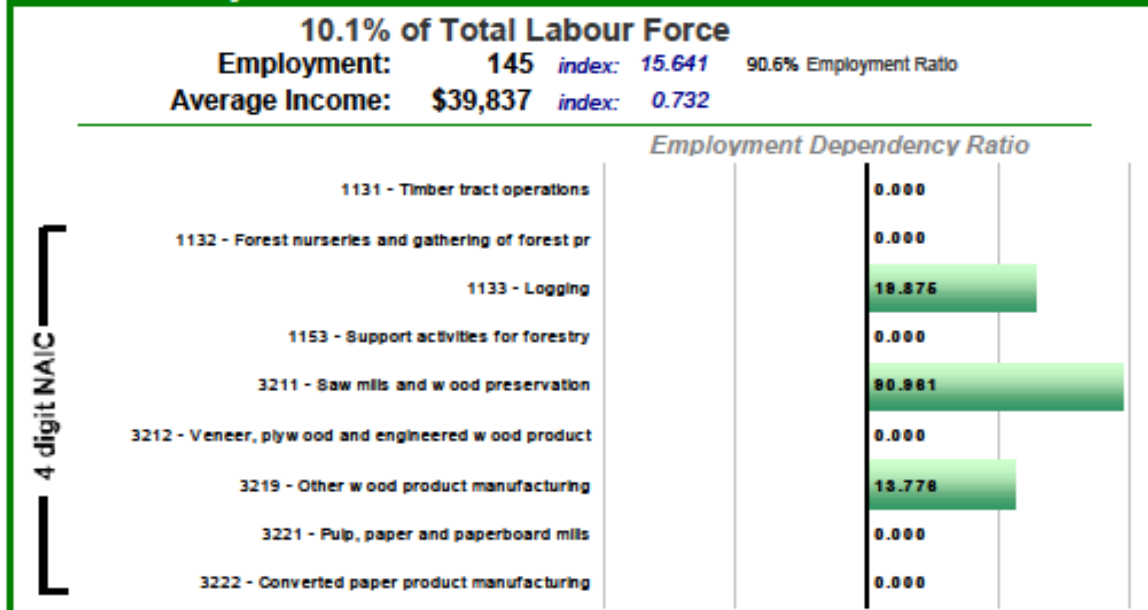


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Local Economy

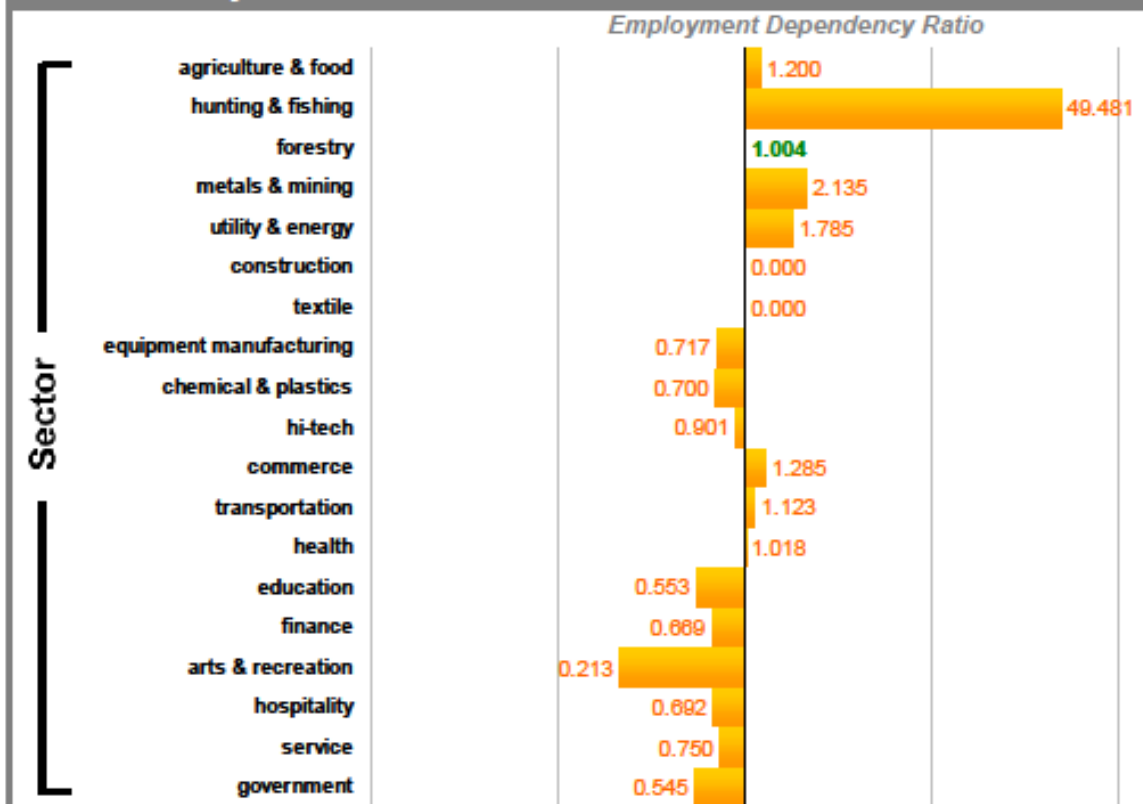


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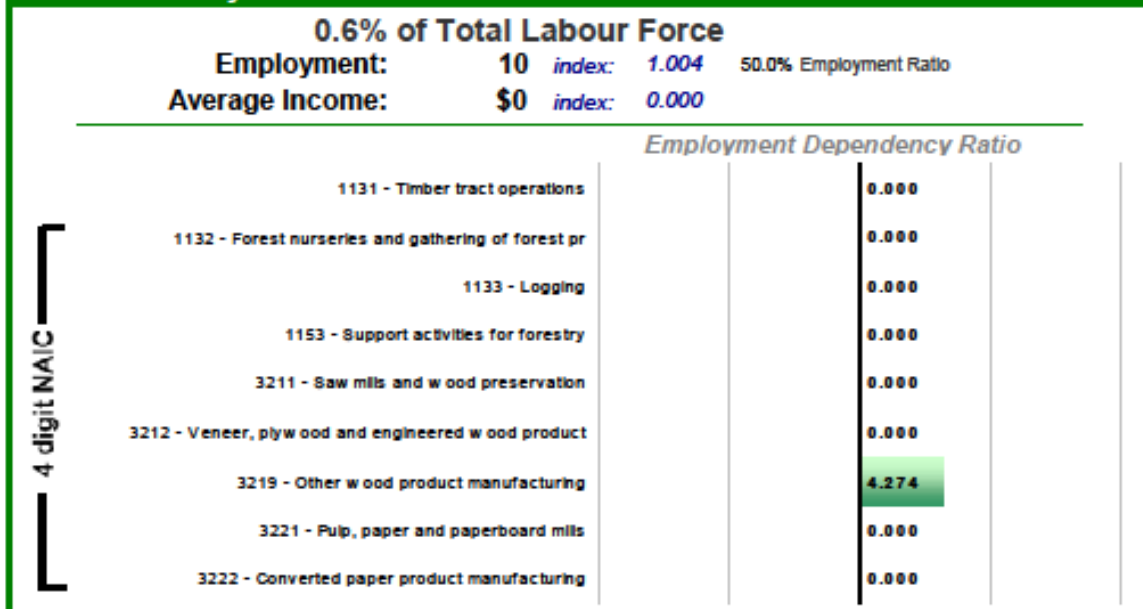


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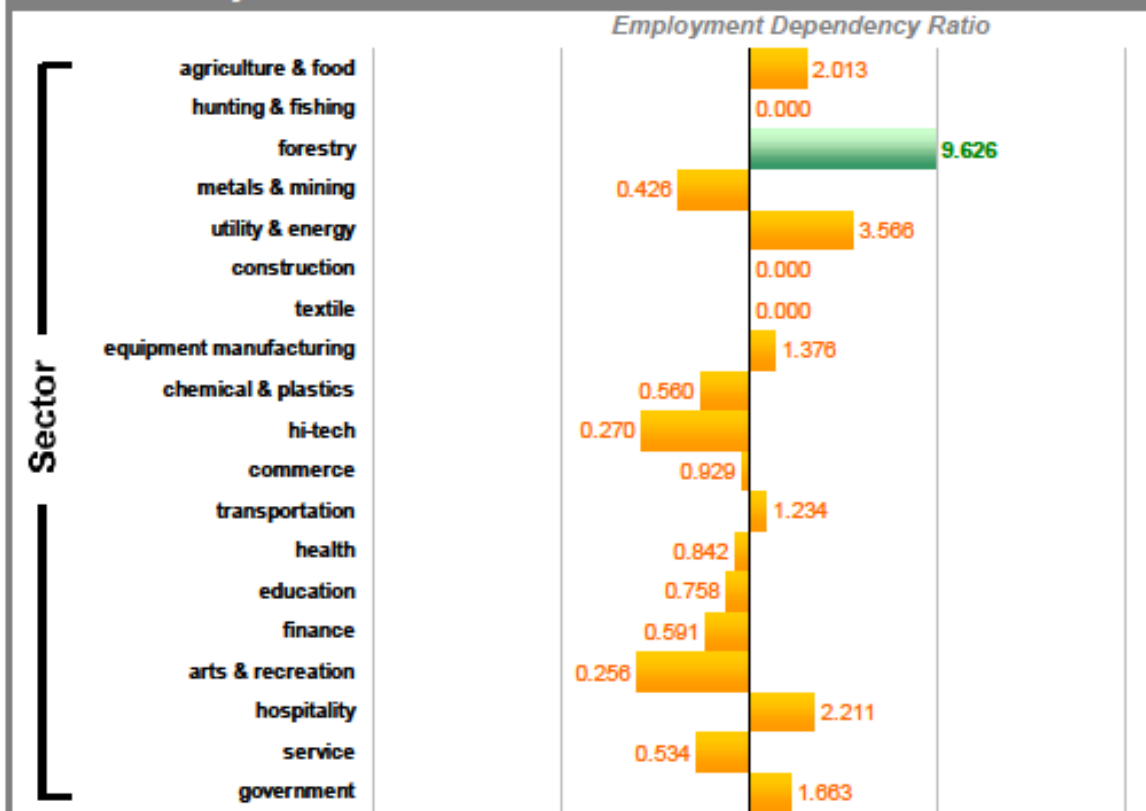


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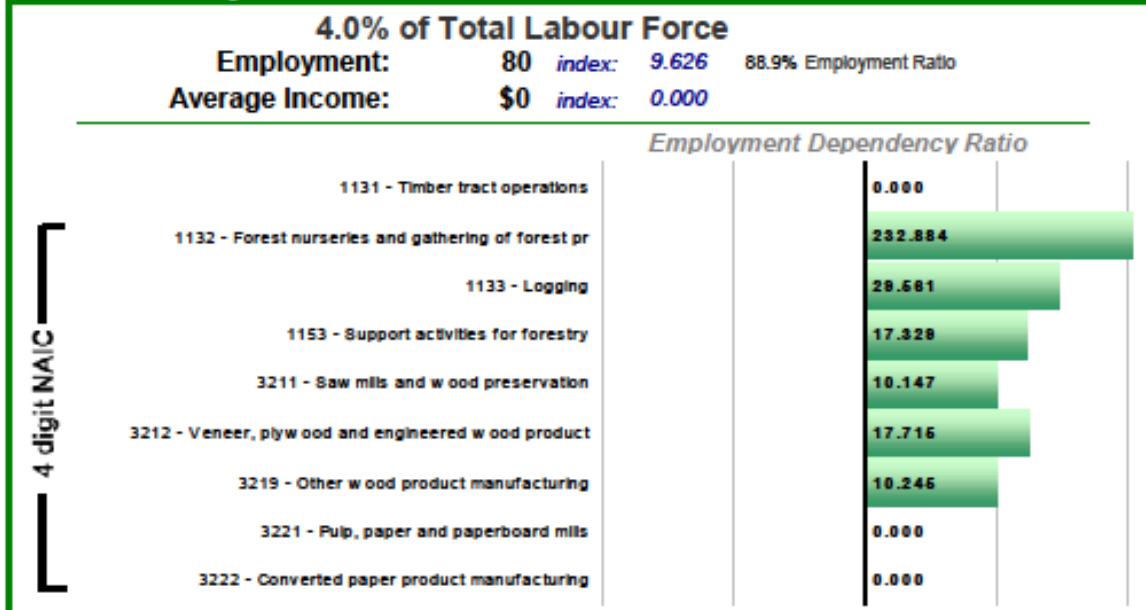


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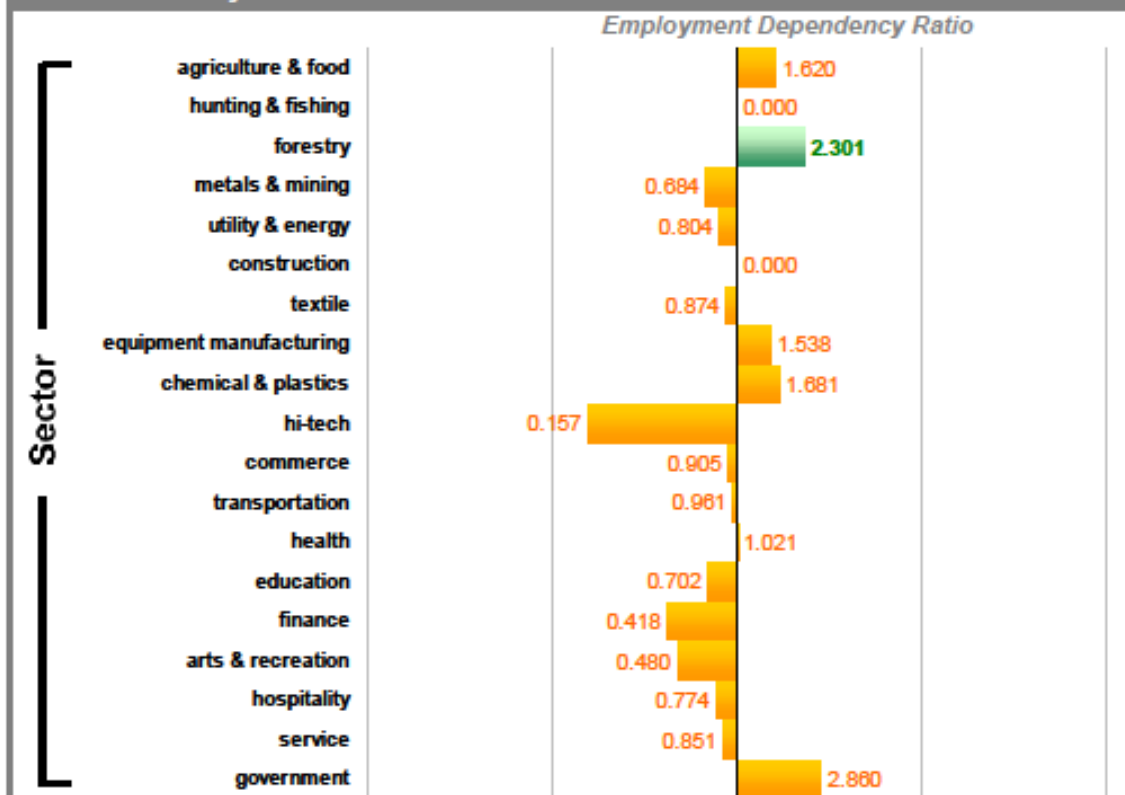


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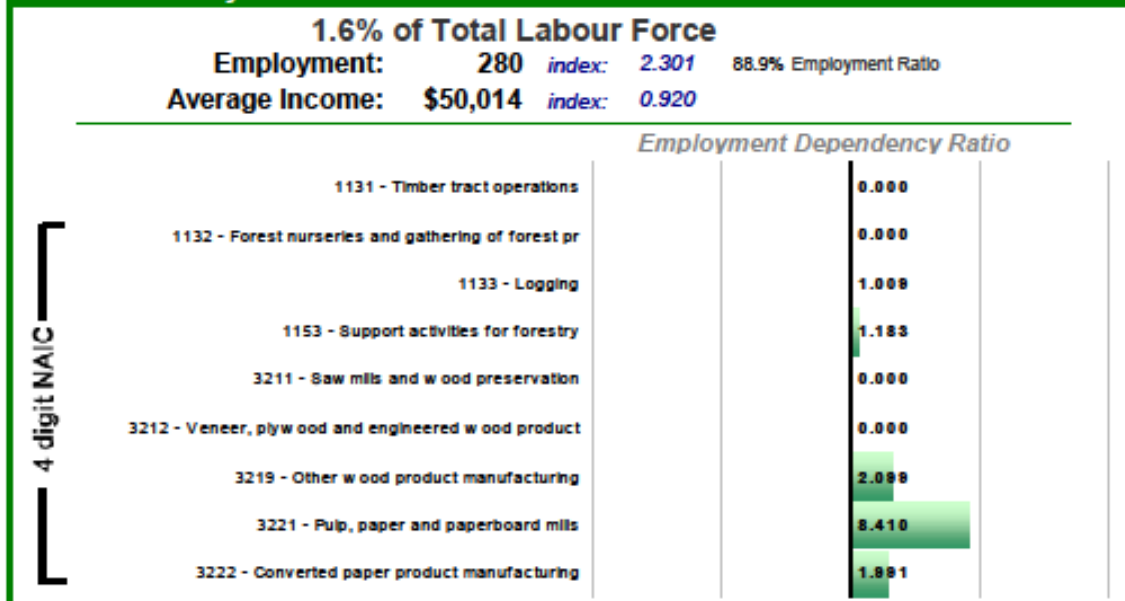


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Local Economy

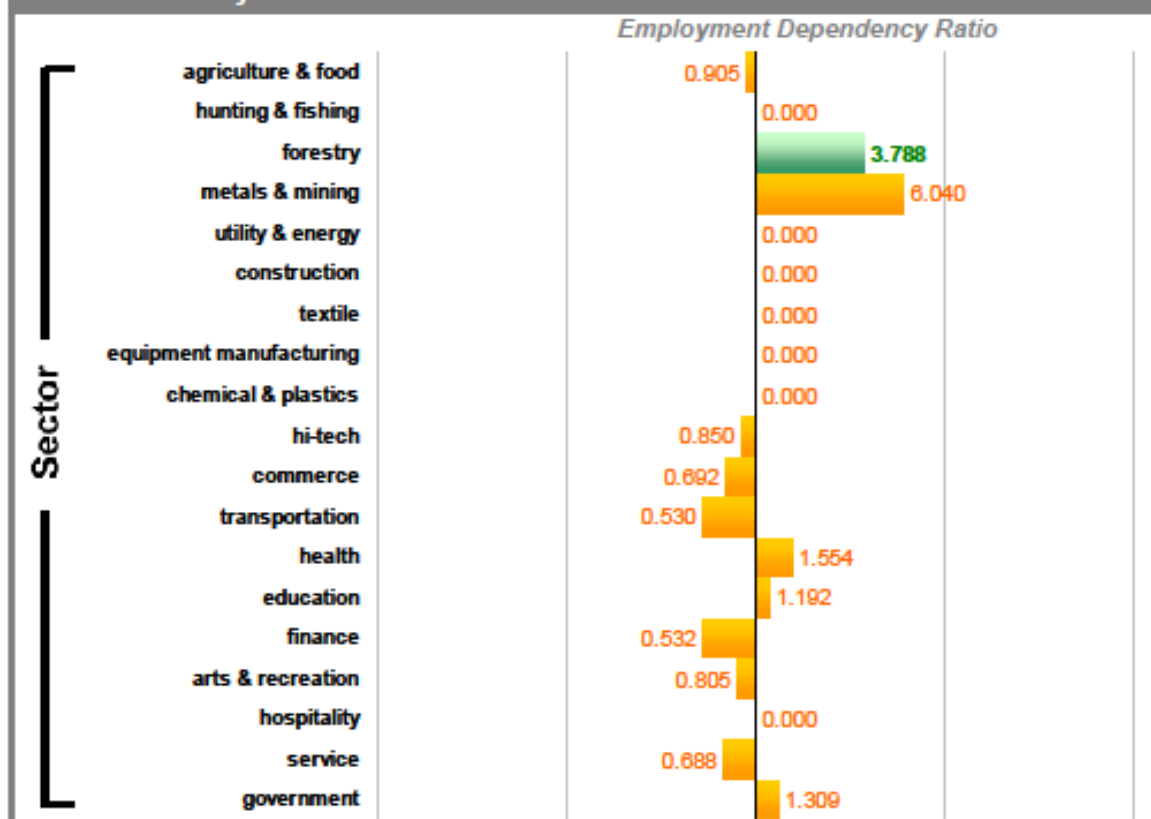


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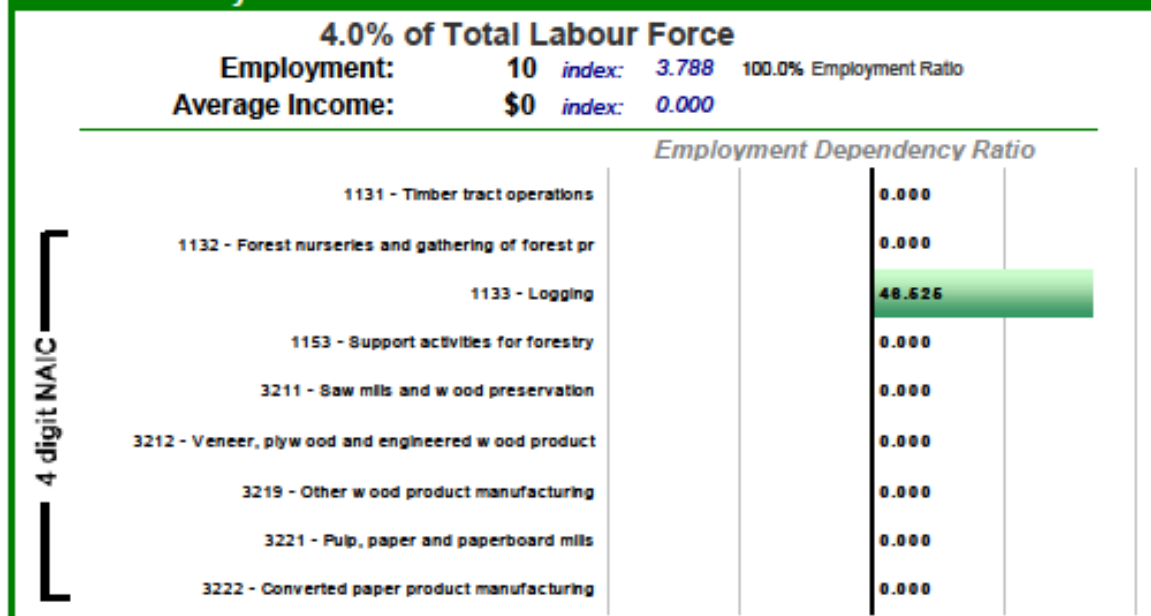


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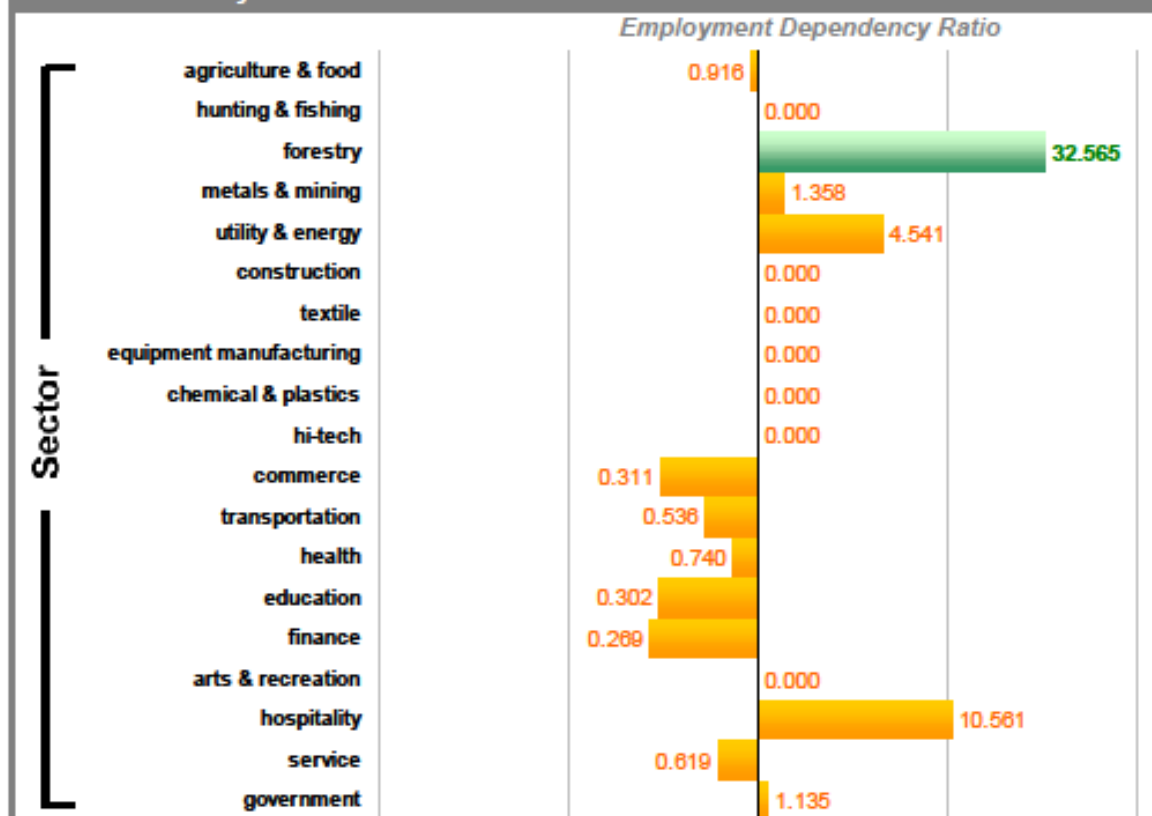


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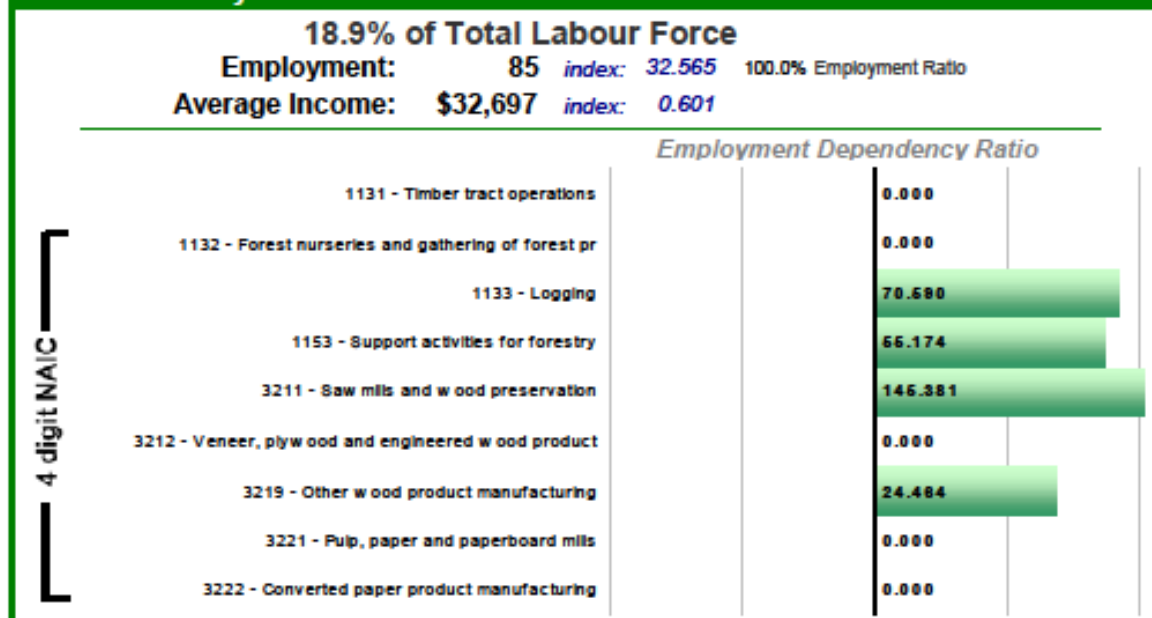


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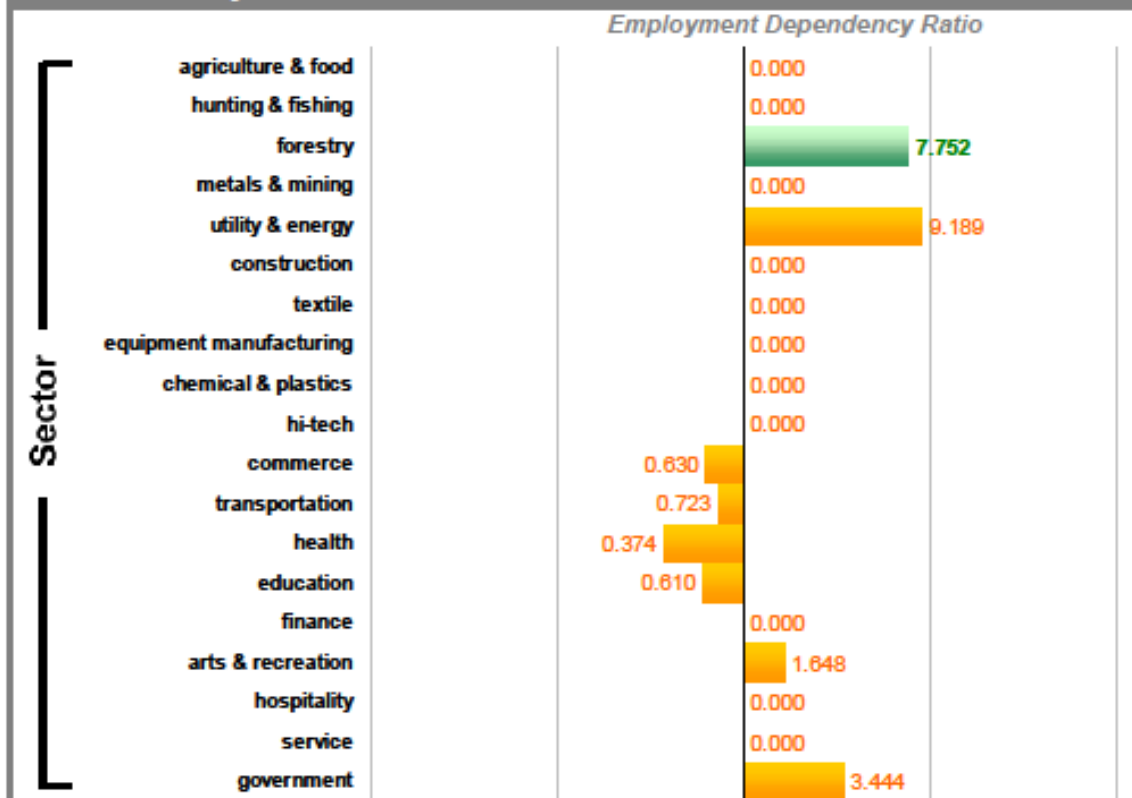


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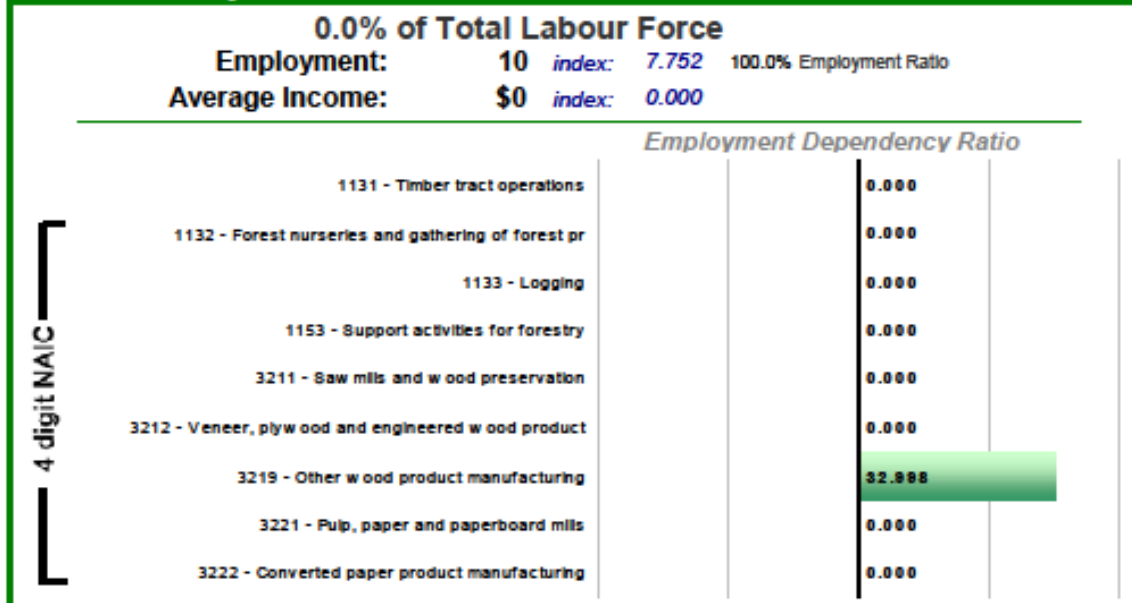


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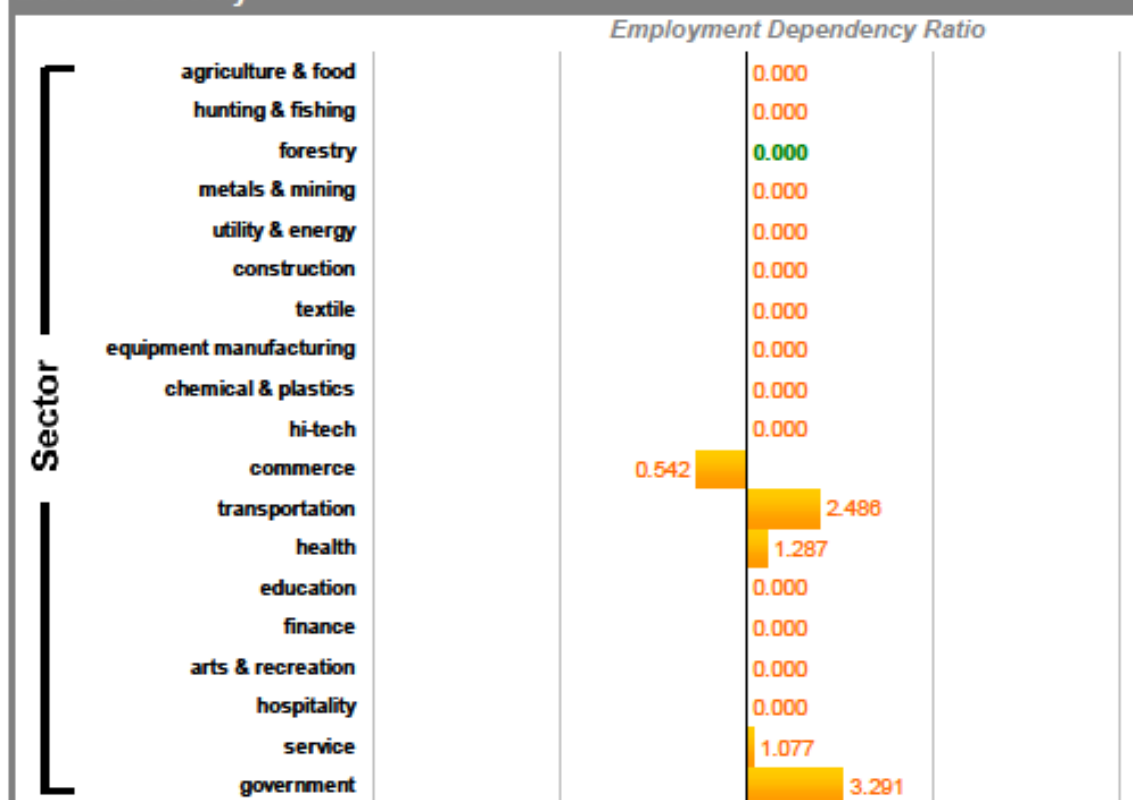


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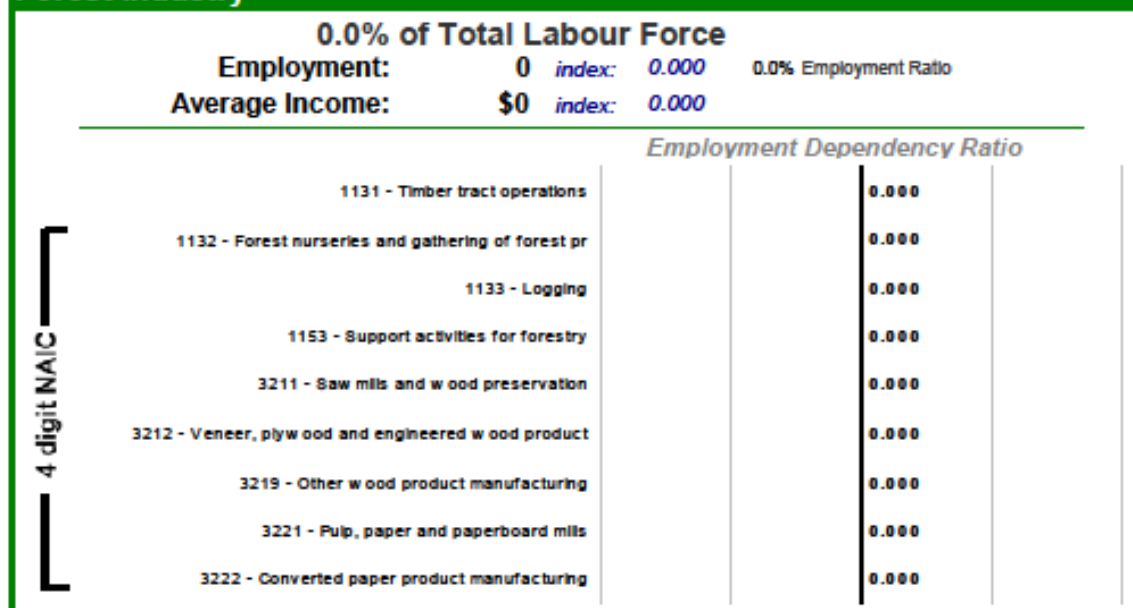


source: Statistics Canada Census of Population

Local Economy



Forest Industry



source: Statistics Canada Census of Population

SUPPLEMENTARY DOCUMENTATION (E)

(Part 2) Socio-Economic Assessment (LTMD)

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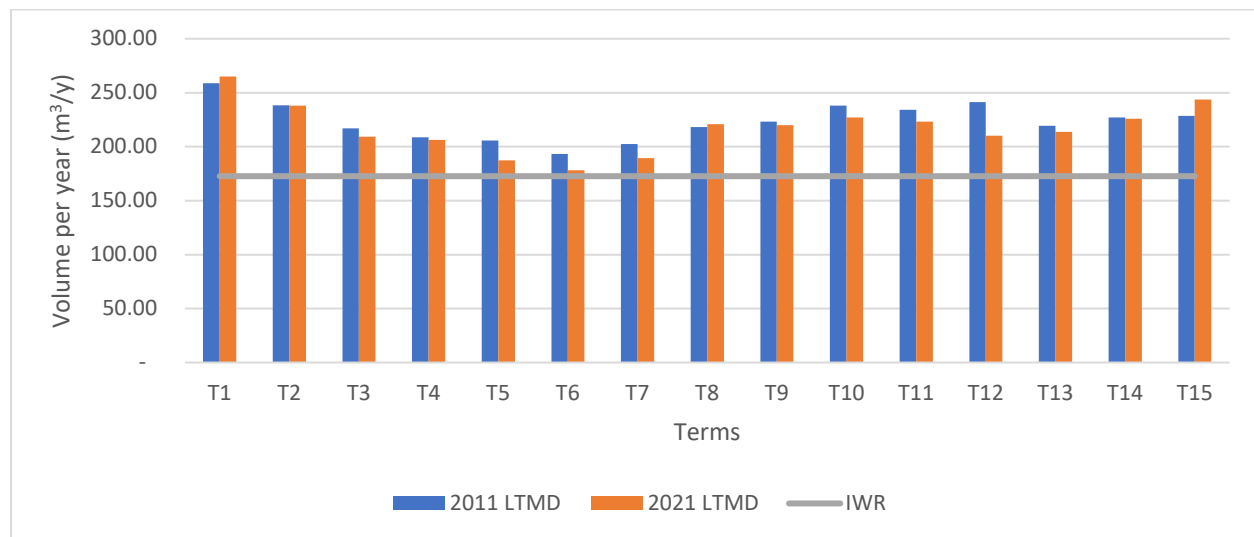
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1 QUALITATIVE SOCIAL AND ECONOMIC ANALYSIS

2 A qualitative social and economic assessment is provided here to compare the 2021-2031 FMP
3 to the 2011-2021 FMP in terms of identifying overall social and economic impacts and changes.
4 The assessment focuses on the first 10-year term of the FMPs with a few longer-term horizon
5 comparisons.

6 1.1 ANNUAL AVAILABLE HARVEST VOLUME

7 In terms of overall annual available harvest volume, the projected harvest volume level for all
8 merchantable species groups is 265,000 m³/yr for the first 10-year term of the 2021 FMP
9 (Figure 1). This volume is slightly higher (2.3%) than the levels for term 1 of the 2011 FMP
10 (258,807 m³). Wood volumes after term 1 see a steady decline until term 6 where volumes dip
11 just below 200,000 m³/yr and then slowly rise and remain between 200,000-250,000 m³/yr
12 from terms 8 to 15. The overall industrial wood requirement volume of 172,650 m³ is achieved
13 over all terms as shown below in Figure 1. This implies that in terms of overall wood volume the
14 economic impacts to local mills and employment would remain similar to the 2011 FMP in the
15 short-term (10-yrs) and long-term (100-yrs).



16
17 **Figure 1.** Annual Available Harvest Volume ('000 m³/yr) from terms 1-15 for the 2021 LTMD in
18 relation to the 2011 LTMD and the Industrial wood requirements (IWR).

19 The following table (Table 1) is a summary of the planned harvest volume on overall annual
20 employment per 1000 m³ of timber harvested and the estimated employment income
21 generated for the 2021 FMP in relation to the 2011 FMP. Note that this table assumes that

100% of the wood volume is harvested so this information is more of a reflection of the potential economic impacts if all volume was utilized in both time periods.

Table 1. Direct employment and employment income calculation for the Bancroft-Minden Forest.

	2011-2021 FMP	2021-2031 FMP	Difference
Planned annual harvest volume (m³)	258,807	265,000	6,193
Average estimated annual forest industry employment per 1000 m³ harvested	1.686	1.686	0
Total estimated annual forest industry employment	436	447	11
Average annual income in forest industry based on all communities dependent on Bancroft Minden Forest timber harvest	\$32,547	\$40,850	\$8,303
Total estimated employment income generated from Bancroft Minden Forest	\$14,190,492	\$18,259,950	\$4,069,458

1.2 ANNUAL AVAILABLE HARVEST VOLUME BY SPECIES GROUP

Overall available harvest volume is projected to be higher in the 2021 FMP, but some species groups that have a projected higher available harvest volume, followed by some with a lower available harvest volume for term 1 (Figure 2). The species group white and red pine (PWR) has an increase from 46,859 m³ to 61,158 m³ (30%) and spruce-fir (SPF) from 23,433 m³ to 28,675 m³ (22.3%) in annual harvest volume compared to the 2011 FMP (Figures 2 & 3). This is beneficial to the local economy over the next decade as the PWR species group consists of valuable species that are harvested from the Bancroft-Minden Forest. The SPF group, while less preferred, can also be utilized by some of the same mills so overall the volume increase will benefit these specific softwood mills.

However, there is a significant decrease in tolerant hardwood volume (Figure 2) in term 1 from 109,156 m³ to 67,739 m³ (-37.9%), so some of the tolerant hardwood sawmills will see a decrease in potential volume. This may impact mills such as McRae who rely predominately on tolerant hardwood from the Bancroft-Minden Forest. The lower tolerant hardwood volumes may require wood from other management units to meet demand which would include longer

trucking distances and an increase in wood supply cost or alternative species may need to be sought after. The new projected tolerant annual hardwood volume (67,739 m³) is above the target level of >=64,000 m³/yr for the 2021 FMP and slightly higher than the average utilization of 65,189 m³/yr (2011-2019 average).

For the Other Conifers (OC) species group there is a decrease from 10,274 m³ to 6,219 m³ (-39.5%) per year in the first term of the new FMP (Figure 2). This may seem like a significant decrease in volume available but in 2018/2019 OC volume utilized was only 600 m³ and the 10 year overall average utilization is approximately 5,222 m³. This implies that the available harvest volume for OC is still more than adequate for current demands. Poplar (Po) volume has a slight increase from 82,683 m³ to 85,936 m³ (3.9%) per year in the first term of the new FMP (Figure 2). In 2018/2019 the Po total volume utilized was 53,300 m³ suggesting there is adequate supply for the future. White birch volume has a slight decrease in projected annual available harvest volume from 19,998 m³ to 15,273 m³ (-23.6%). In 2018/2019 the Bw total volume utilized was 1,450 m³ – suggesting that the future supply will be adequate for the level of demand.

Overall at a species group level, the only potential concern is with tolerant hardwood volume. All other species groups seem to have adequate future volume given projected future demand.

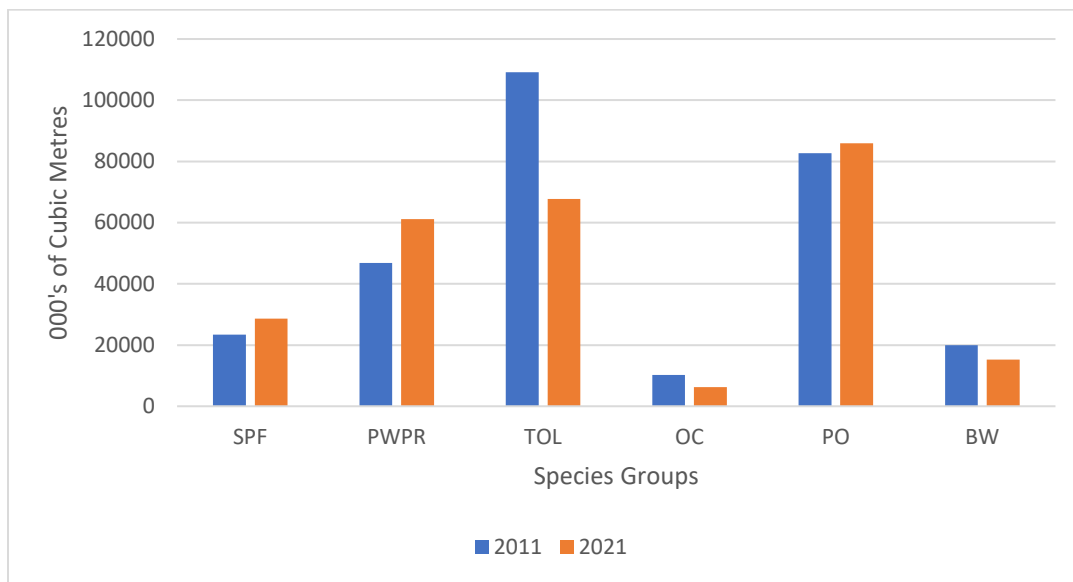


Figure 2. Annual Available Harvest Volume by Species Group (‘000 m³/yr) for term 1 from the 2011 and 2021 FMPs.

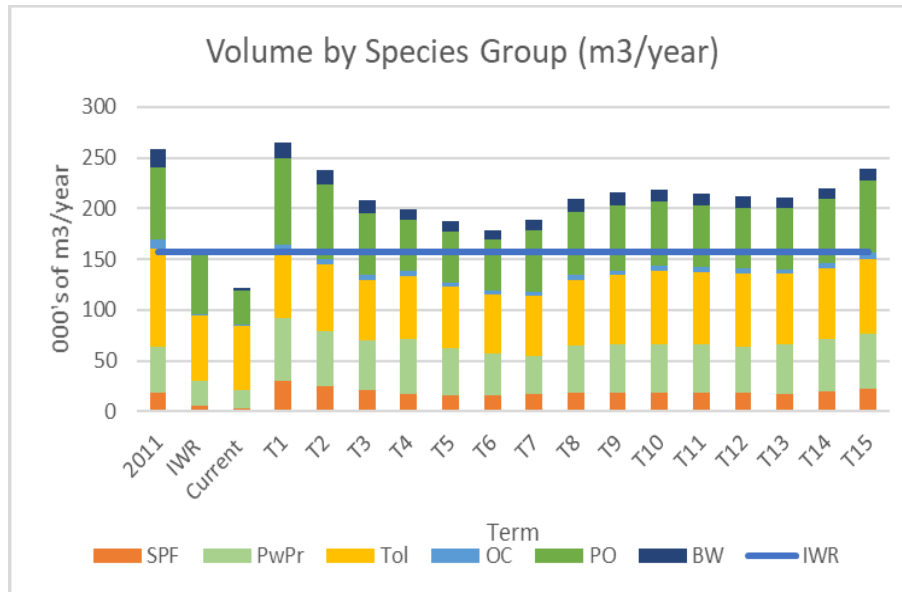


Figure 3. Available harvest volume by species group for terms 1 to 15 in relation to 2011 volumes, industrial wood requirements (IWR), and current utilization.

1.3 ANNUAL AVAILABLE HARVEST VOLUME BY PRODUCT

In addition to comparing total volume and volume by species, it is also important to compare volume by product (and species) as most local mills are utilizing specific products (e.g. sawlogs) only.

For white and red pine (PWR) saw logs (Figure 4) the 2021 term 1 volume is 52,475 m³ compared to the 2011 term 1 volume of 30,576 m³, this is an increase of 41.7%. Longer term trends show sufficient supply to meet the target (20,000 m³) even though there is a slight decreasing trend towards term 7 in volume, volumes rebound and increase to current levels by term 15.

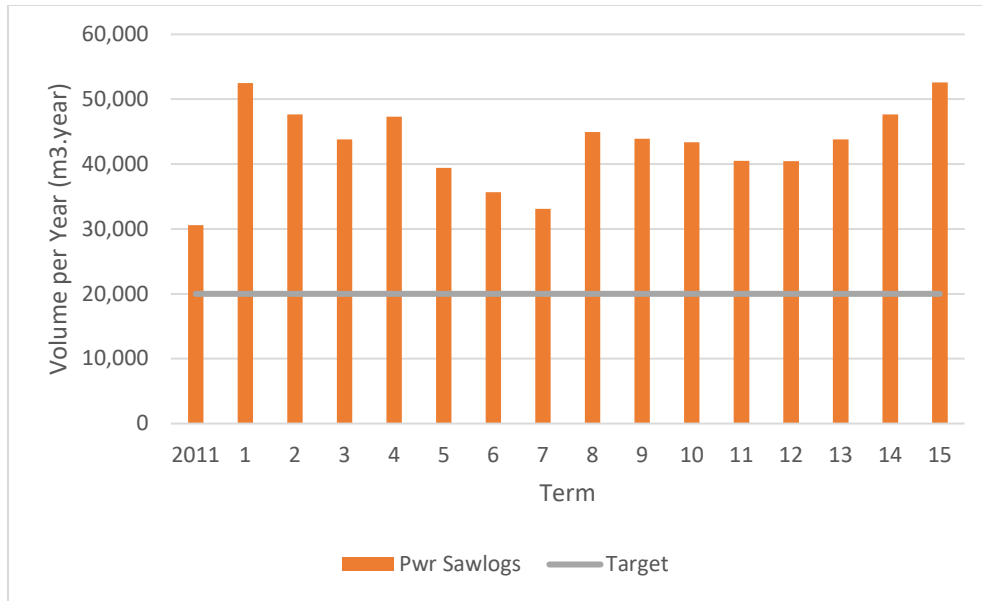


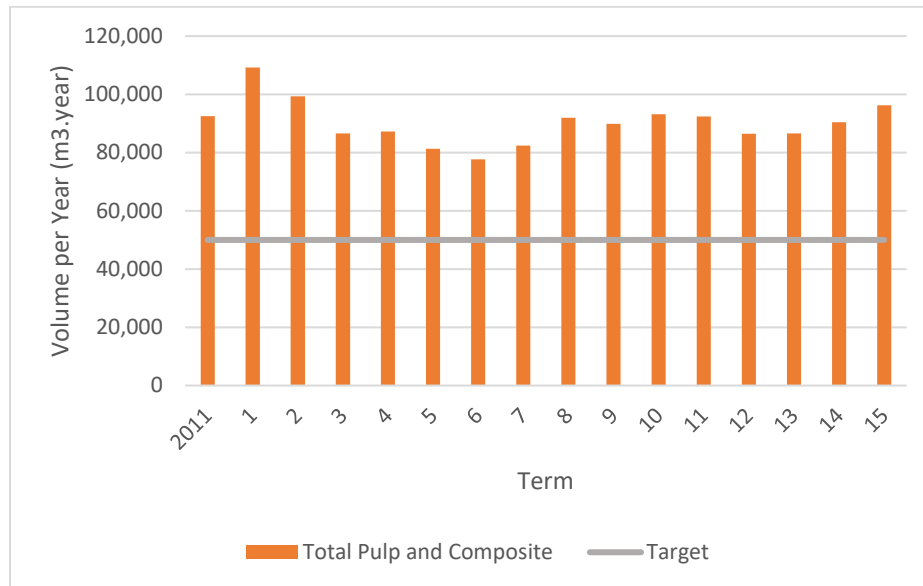
Figure 4. Predicted PWR sawlog volume available for the 2021 LTMD terms 1 to 15 in relation to the target and the 2011 LTMD.

For hardwood sawlog volume (Figure 5), the 2021 term 1 volume is 82,513 m³ compared to the 2011 term 1 volume of 97,173 m³, a decrease of 15%. The target level (50,000 m³) is easily achievable for the 2021 FMP across all 15 terms.



Figure 5. Predicted hardwood sawlog volume available for the 2021 LTMD terms 1 to 15 in relation to the target and the 2011 LTMD.

1 Total pulp volumes for the 2021 LTMD are projected to increase to 109,217 m³ for term 1
2 (Figure 6) in comparison to 92,485 m³ from 2011. There is more than adequate supply to meet
3 the target level (50,000 m³) for all 15 terms.



4
5 **Figure 6.** Predicted pulp volume available for the 2021 LTMD terms 1 to 15 in relation to the
6 target and the 2011 LTMD.

7 Finally, projected total available harvest volume for sawlog and veneer product for 2021 term 1
8 is 155,513 m³ compared to 2011 term 1 volume of 148,007 m³. This is an increase of 4.8 % in
9 total harvest volume for sawlog and veneer product (Figure 7). There is more than adequate
10 supply to meet the target level (70,000 m³) for the 2021 FMP all the way to term 15.

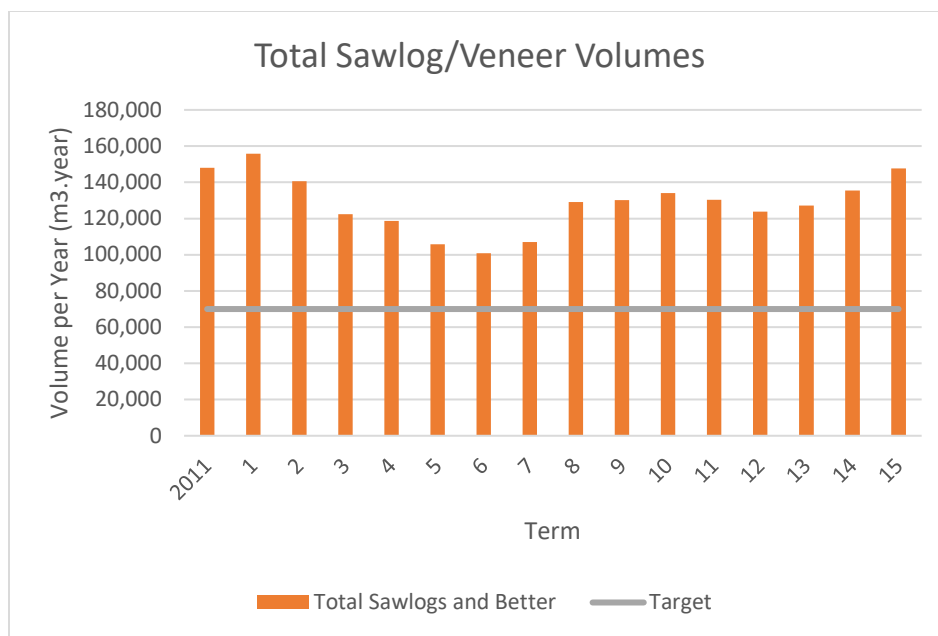


Figure 7. Predicted sawlog/veneer volume available for the 2021 LTMD terms 1 to 15 in relation to the target and the 2011 LTMD.

1.4 SILVICULTURE INVESTMENT REQUIREMENTS

In comparison to the 2011 FMP, there is expected to be an increase in both silvicultural revenue (Figure 8) and expenditures (Figure 9). Silviculture revenues in term 1 are projected to increase by 23% from the current 2011 plan. This increase in revenue is due to higher renewal rates compared to 2011. Silviculture expenditures in term 1 for the new 2021 FMP have a projected 23% increase from the 2011 plan. This increase is due to higher renewal costs compared to 2011 with more PWUS silviculture. The increased revenue and expenditures for silvicultural activities will benefit local contractors and the economy through forestry employment, spin off benefits and ultimately more future harvest volume to support local mills.

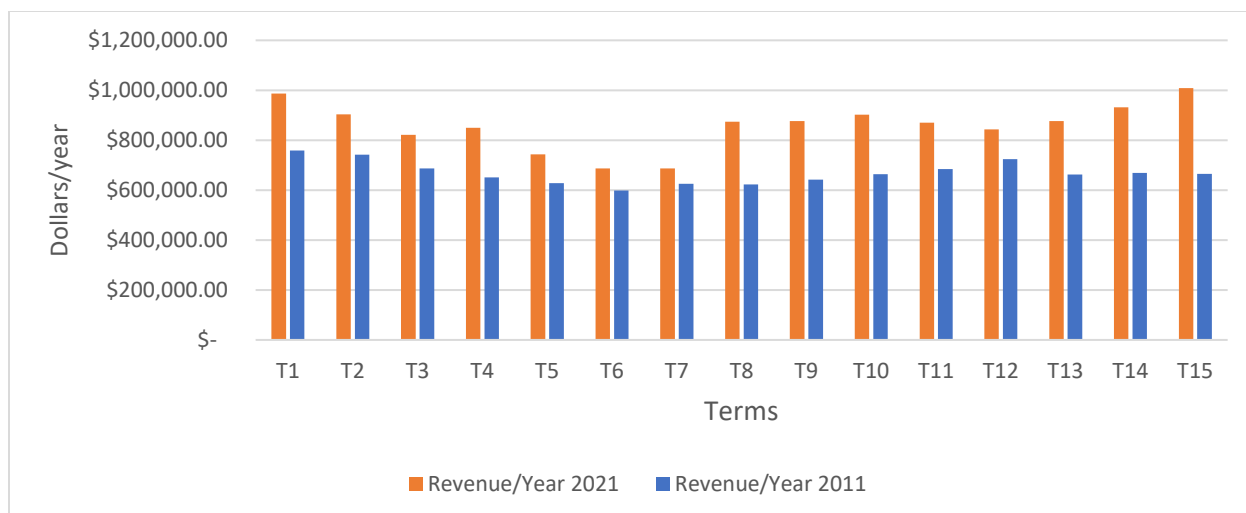


Figure 8. Predicted silviculture revenues for the 2021 FMP in relation to the current 2011 FMP.

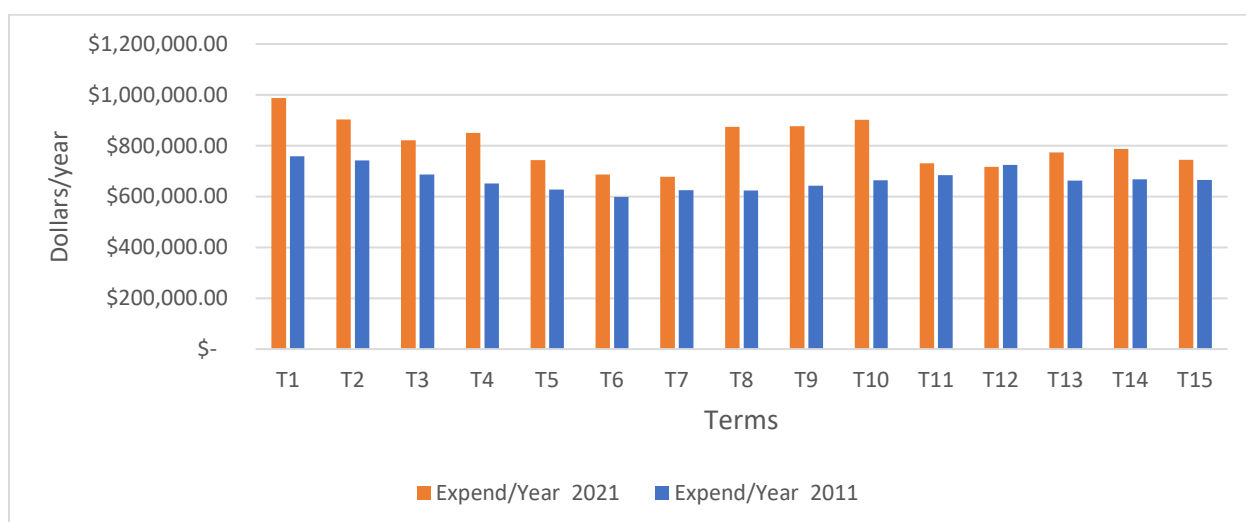


Figure 9. Predicted silviculture expenditures for the 2021 FMP in relation to the current 2011 FMP.

1.5 NON-TIMBER VALUES

Bancroft Minden Forest (BMF) is used by a diverse group of forest-based industries and groups such as tourism operators, aggregate and mining activities, hunters and trappers. The unique southerly location of the BMF also provides regular recreational use of parks and reserves in the area where canoeists, hikers and cottagers frequent. Table 2 below outlines the potential positive and negative impacts of forestry on non-timber value resources as well as approaches to mitigate impacts over the course of forest management planning and plan implementation.

1 **Table 2.** Impacts of forest management activities and other forest-based industries and
2 activities in the Bancroft Minden Forest.

Sector	Activity	Potential Positive and Negative Impacts	Mitigation
Recreation and Tourism	Commercial Tourism (Parks, Protected Areas and Crown Land)	Positive: Maintained forest access roads for public access Negative: Remote access appeal diminished with increase in forest access roads, especially for backcountry tourists and outfitters Visual aesthetics of forest operations in vicinity Noise levels from forest operations in vicinity	Area of Concern (AOC) prescriptions and planning, public consultation and Road Use Management Strategies.
	Hunting	Positive: Increased access may provide hunting opportunities Maintenance of habitat in harvesting activities through required guides and policies may help maintain game species 'populations in some areas Negative: Increased access may lead to overharvesting of wildlife Restrictions on access following decommissioning of roads may restrict hunting opportunities	Road planning and public/indigenous consultation Stand and Site Guide Forest Management Guide for Great Lakes St. Lawrence Landscapes Road Use Management Strategies
	Fishing	Positive: Increased access to remote lakes and rivers Negative: Increased access may lead to overfishing of sensitive lakes	Consultation with indigenous communities and the public; use of values data to determine risk. Road Use Management Strategies.
	Cottaging	Positive: road maintenance Negative: Visual aesthetics of forest operations within the vicinity as well as noise levels from forest operations within the vicinity; increased traffic on cottage roads.	Public Consultation; information centres, signs, open houses. AOC prescriptions

1 Table 2 continued.

Sector	Activity	Potential Positive and Negative Impacts	Mitigation
Recreation and Tourism	Eco-tourism	Positive: Some tourism providers may benefit from increased access as additional opportunities to access new routes or activities for clients. Negative: Remote tourism may be negatively impacted by forestry roads and increased access. Increased noise when within the vicinity of operations. Visual aesthetics may also be impacted.	Public Consultation; information centres, signs, open houses. AOCs that may include specific management zones and restrictions on timing of operations. Road Use Management Strategies.
Mining, Aggregate and Power Generation	Mining	Positive: Road access created by forest management activities is generally perceived positively within the mining sector; prospectors can more easily access claims, stake new claims or carry out advanced exploration. Negative: The potential removal of mining survey lines and disturbance to claim posts by forest harvesting activities	BMF Mining Land Tenure and AMIS Sites map and notification of planned and scheduled operations to claim holders.
	Aggregate	Positive: access creation and maintenance, can potentially create additional access to aggregates and may lead to additional discovery of resources.	
	Power Generation	Positive: Access for hydro generation activities may be provided or maintained through forest management.	

1 Table 2 continued.

Sector	Activity	Potential Positive and Negative Impacts	Mitigation
Other	Trapping Activities	Positive: access roads may result in increased or refurbished access which can assist trappers in accessing traplines. Negative: Road access may, however, disrupt wildlife or draw in other forest users that might hamper trapping activities. Forest harvesting and silviculture can also potentially damage trails.	AOC/CRO; public information centres, notification of planned and scheduled operations to bear management area and trapping licence holders Road Use Management Strategies.
	Baitfish	Positive: Road development and maintenance for forest management activities may provide motorized access for operators. Negative: Harvest operations close to shorelines or riparian areas	AOC Prescriptions and Conditions on regular operations Notification of planned and scheduled operations to baitfish operators.

3 1.6 CONCLUSION

4 The proposed available harvest volume for the 2021 Bancroft-Minden Forest FMP will be higher
 5 than the current plan by 6,193 m³/yr, or an increase of 2.3%. However, tolerant hardwood, one
 6 of the most valuable and sought-after species in the Bancroft-Minden forest will see a
 7 significant decrease in volume. This will lead to some potential economic impacts and may lead
 8 to the utilization of other hardwood species. The Planning Team was responsible for balancing
 9 the achievement of each management objective/indicator/target against the ability of the
 10 current forest to deliver a desired forest structure/composition and desired levels of goods and
 11 services. Reaching an equitable balance was often a matter of considering conflicting objectives
 12 and attempting to find the best compromise. This “trade-off” exercise resulted in the harvest
 13 levels shown in Table 1. This table suggests that the increase in harvest levels should have a
 14 positive effect on potential levels of employment and employment income at the primary wood
 15 processing facilities. Other external influences on the forest industry (e.g. market conditions,
 16 currency exchange, business costs, contractor availability, etc.) may influence achievement of
 17 these levels. The implementation of the Proposed Management Strategy will hypothetically
 18 result in a slight increase of job opportunities. Table 1 indicates a similar differential with
 19 respect to total employment and total income levels. Every dollar generated by forest
 20 management activities resulting from the Proposed Management Strategy will circulate and re-

1 circulate within the economy, thereby multiplying the effects of original expenditures on overall
2 economic activity. With all other factors remaining equal, these direct impacts will lead to the
3 maintenance of jobs, wages, tax revenues and other economic and social indicators for the
4 dependent communities surrounding the Bancroft-Minden Forest, providing support for the
5 social and economic sustainability of local economies.