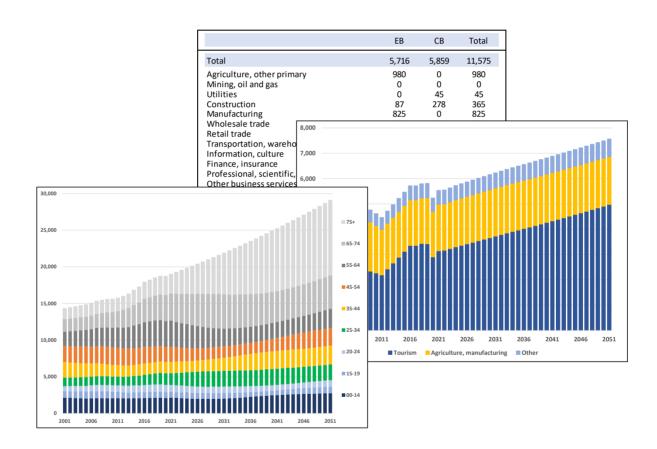
Economic and Demographic Prospects Niagara-on-the-Lake, Ontario





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Economic and Demographic Prospects for Niagara-on-the-Lake, Ontario

Introduction

This report was prepared by *metroeconomics* at the request of the Town of Niagara-on-the-Lake. It assesses the economic and demographic potential of NOTL against the backdrop of expected trends in the immediate area and Ontario-wide.

metroeconomics' approach to the development of population projections for an area such as NOTL starts with assessing the breadth, depth, and growth potential of its economy since population growth is most often correlated with economic expansion. Also considered are the extent to which residents commute to nearby centres for employment and shopping purposes, the degree to which there is a local need to replace retiring Baby Boomers and the extent to which Covid interrupted economic and demographic trends in the area.

Applying our standard approach to assessing NOTL's growth potential revealed a disconnect between NOTL's economic base and its demographic base. Whereas the population of most communities does not grow unless the local economy is creating jobs and attracting migrants, NOTL's situation is quite different as explained in the remainder of this report.

Despite the disconnect NOTL's demographic and economic prospects are bright.

Demographic Profile of Niagara-on-the-Lake

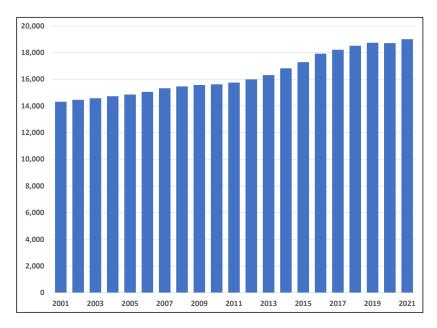
Post-censal population estimates released in January 2022 for Canada's municipalities¹ indicate the population of NOTL grew from 14,318 in 2001 to 19,003 in 2021 (though there was a slight Covid-induced slowdown in 2020; Exhibit 1). Over that period NOTL's population grew at an average annual rate of 1.4 percent well in excess of Ontario's 1.1 percent pace.

Exhibit 2 compares the age and gender distribution of NOTL's population in 2021 to that of Ontario. The chart clearly indicates NOTL's population is decidedly skewed toward people aged 55 and over. Those 55 and over accounted for 32 percent of the population of Ontario compared to 52 percent for NOTL.

¹ Post-censal estimates adjust the census counts for its estimated undercount and alter the date of estimation from the census day (mid-May) to the mid-point of the year (July 1st). These adjustments typically add about 3 percent to the census count of most areas. Post-censal estimates also provide estimates for the years between censuses and for the years after the most recent census with the trends estimated based on administrative data. 2021 census data will be released gradually over the course of 2022 with the first release – the total population only, no details – slated for February 9th of 2022. Statistics Canada positions its post-censal estimates as the "official" counts of the population up to 2021 and will not release post-censal estimates based on the 2021 census results until sometime in 2023 or thereafter.

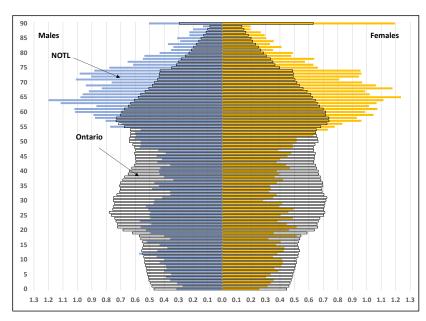


Exhibit 1
Total Population of Niagara-on-the-Lake
Annual Estimates 2001 to 2021



Source: Statistics Canada Post-censal population estimates.

Exhibit 2
Populations of Niagara-on-the-Lake and Ontario in 2021
Single Year Age and Gender Groups (Vertical Axis)
Percent Share of the Total Population (Horizontal Axis)



Source: Statistics Canada Post-censal population estimates.

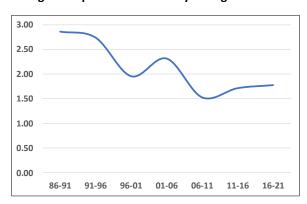
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Baby Boom Generation members are currently 55 to 74 years of age so Boomers account for NOTL's high share of those 55-and-over. But most of the Boomers in NOTL did not "age in place" there as they have throughout the rest of Canada. Rather most of NOTL's Boomers moved there in recent years to retire, a major factor in raising its population growth to a pace exceeding that of the province.

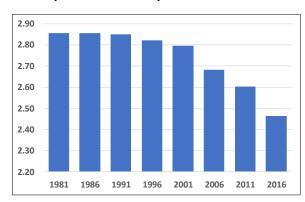
With seniors dominating NOTL's in-migration the number of *new* people per *new* dwelling unit has fallen from almost 3 in between 1986 and 1991 to 1.75 between 2011 and 2016. The overall ratio of persons per unit fell in tandem from 2.86 in the 1980s to 2.46 in 2016.

Exhibit 3
Persons per Unit in NOTL 1981 to 2016

Change in Population Divided by Change in Units



Total Population Divided by Total Units



Source: Statistics Canada and metroeconomics

Economic Profile of Niagara-on-the-Lake

NOTL employers provided a total of 11,575 jobs on a place-of-work basis in NOTL in 2016.

An area's employment by industry can be decomposed into its economic base jobs (those that drive or underpin the overall economy) and its community base jobs (those that serve the population). The decomposition is normally useful as a starting point in developing population projections because (a) the population growth of an area usually depends on its potential for growing jobs in its economic base while (b) its potential for growing jobs in its community base usually depends on its potential for growing its population.

Exhibit 4 decomposes the jobs in NOTL in 2016 into their economic base (EB) and community base (CB) components. The decomposition is carried out using a location quotient (LQ) procedure (explained in detail in the accompanying Appendix).



Simply stated the LQ procedure involves (a) calculating the number of jobs per capita by industry in an area, (b) comparing the per capita values to the provincial values, then (c) assigning the excess jobs (those beyond normal local needs revealed by the calculations) to the economic base category. It is assumed all goods-producing jobs are part of the area's economic base since the goods are mostly shipped to and consumed in other parts of the country. If per capita jobs in any service industry in an area exceeds the norm the excess workers must be serving visitors. If the excess jobs are in retail, entertainment and/or food and accommodation they are considered to be supporting tourism. If they are in health care or education they are considered to be supplying visiting patients or temporary-resident students with higher order health or education services.

Exhibit 4 reveals half the jobs provided by employers in NOTL can be considered economic base jobs. In most communities EB jobs account for between 15 and 25 percent of the total. So NOTL's almost 50 percent EB share is exceptionally high.

NOTL's EB jobs in 2016 totaled 5,716 out of a total of 11,575 jobs overall. The contributors to NOTL's economic base in order of total jobs are:

- Accommodation and food 1,628
- Retail 1,254
- Agriculture 980
- Manufacturing 825
- Arts, entertainment, recreation 470
- Wholesale trade 275
- Other business services 95
- Construction 87

The strong presence of EB jobs in accommodation and food; retail; and arts, entertainment, recreation – which together account for 3,351 of NOTL's total of 5,716 EB jobs – implies tourism is the most important economic base or export base of NOTL.

The traditional economic base industries of agriculture and manufacturing are the next most important contributors to NOTL's economic base:

- The 980 jobs in agriculture are split between 525 on farms and 440 on greenhouse, nursery and floriculture; this breakdown supports the view a significant share of NOTL's agriculture production relates to its wine industry activities.
- A total of 425 of NOTL's 825 jobs in manufacturing are accounted for by beverage manufacturers. The remaining manufacturing jobs are scattered among dozens of other manufacturing industries with none exceeding 35 workers. In other words much of NOTL's manufacturing production also relates to its wine industry activities.

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Exhibit 4
Niagara-on-the-Lake Employment by Place-of-Work in 2016
Economic Base and Community Base Decomposition

	EB	СВ	Total
Total	5,716	5,859	11,575
Agriculture, other primary	980	0	980
Mining, oil and gas	0	0	0
Utilities	0	45	45
Construction	87	278	365
Manufacturing	825	0	825
Wholesale trade	275	310	585
Retail trade	1,254	921	2,175
Transportation, warehousing	103	302	405
Information, culture	0	90	90
Finance, insurance	0	365	365
Professional, scientific, technical services	0	450	450
Other business services	95	305	400
Education	0	595	595
Health, social services	0	770	770
Arts, entertainment, recreation	470	155	625
Accommodation, food	1,628	547	2,175
Other services	0	320	320
Government	0	405	405

Source: Statistics Canada and metroeconomics

The Demographic and Economic Disconnect

The disconnect between the demographic base and economic base of NOTL referenced at the beginning of this report is illustrated as follows:

- NOTL's total population in 2016 was 17,511² according to the Census that year.
- 9,060 of NOTL's residents worked at some point during the calendar year 2015. Of that total 4,190 (46 percent) worked full-time and 4,870 (54 percent) worked part-time.
- 8,370 worked or were looking for work (i.e. they were in the labour force) as of the Census date in mid-May 2016. 6,390 (76 percent) worked for an employer while the rest (24 percent) were self-employed.
- 8,000 had jobs as of the Census date in mid-May 2016 so the rest (370 or 4.4 percent) were unemployed. 1,335 (17 percent) worked at home.

² It was 17,918 in 2016 according to StatCan's post-censal estimate. The estimated undercount of 417 is equal to 2.3 percent of the total post-censal estimate, a lower undercount share than in most communities of Canada.



- Of the 8,000 working on the day of the Census 4,565 (57 percent) either worked at home, worked at an employer's location in NOTL or had a job to which no fixed workplace was attached (construction, sales and repairs occupations).
- Thus 43 percent of NOTL's employed residents worked outside of NOTL with the largest numbers accounted for by St. Catharines (1,365), Niagara Falls (840), Toronto (160), Hamilton (130), Thorold (120) and Lincoln (100).

On the day of the Census in 2016 a total of 8,000 NOTL residents were working while employers in NOTL provided a total of 11,575 jobs.

- That means NOTL was a net daily importer of 3,575 workers to jobs in NOTL.
- On a gross flows basis, however, the net flows total is accounted for by a gross daily outflow of 4,295 NOTL working residents to jobs elsewhere and a gross daily inflow of 7,910 non-residents to jobs in NOTL.

On balance these significant flows in all directions mean only 31 percent of the jobs in NOTL were occupied by NOTL residents.

The conclusion:

- NOTL's population growth is not being fueled by growth in its economic base jobs.
- NOTL's economic growth is not being fueled by its residents nor are most of the jobs in NOTL being filled by its residents.

The Economic and Demographic Future of Niagara-on-the-Lake

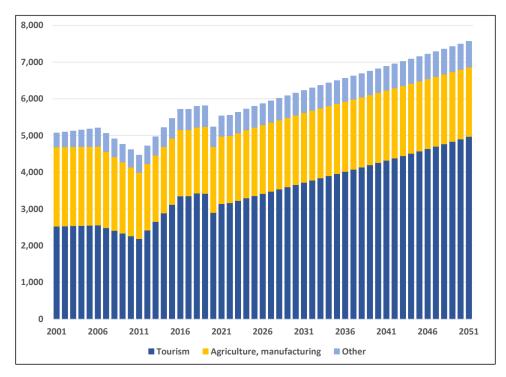
For all intents and purposes NOTL's economic and demographic potential are not linked.

We built a Base Case economic projection for NOTL assuming its EB jobs in tourism, agriculture, manufacturing and the other EB industries will grow in the future at the pace we project each to grow province-wide. That means the major role played by tourism in the Town's economic base at this time will become even more dominant in the decades ahead because jobs in agriculture and manufacturing are not expected to grow. Real GDP (output) will grow in agriculture and manufacturing but output per worker (productivity) will grow even faster so jobs in both will be at a standstill. These trends are illustrated in Exhibit 5.

The Base Case economic projection calls for EB jobs in NOTL to increase from about 5,500 currently to about 7,500 in 2051 with tourism jobs increasing from 3,100 to 5,000 and all other EB jobs holding steady at around 2,500.



Exhibit 5
Niagara-on-the-Lake Economic Base Employment
Actual 2001 to 2020, Projected 2021 to 2051



Source: Statistics Canada and metroeconomics

We built a Base Case demographic projection for NOTL assuming its population in the future will average 1.4 percent per year, the pace it achieved on average from 2001 to 2021. We assumed migration to NOTL will continue to be driven by people 55 years of age and older. The Base Case foresees NOTL's population increasing from 19,000 currently to 29,000 in 2051 or a gain of 10,000.

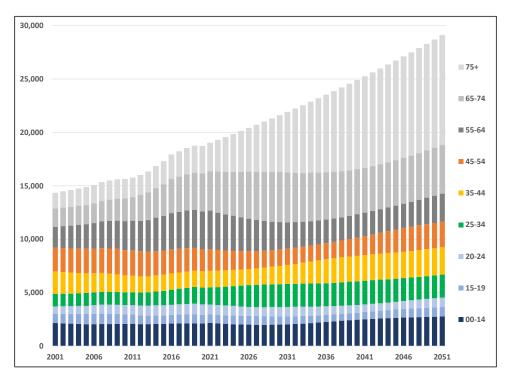
In the Base Case the number of dwellings will need to increase from about 7,600 as of 2021 to 12,600 as of 2051 for a gain of 5,000. The ratio of increased population to increased dwellings over that span is 2 persons per unit reflecting the over 55 age orientation of the projected population growth.

Exhibit 6 illustrates the projected Base Case population of NOTL by major age group.

It reveals the population of NOTL aged 65 and over will dominate its total population growth across the projection horizon.



Exhibit 6
Niagara-on-the-Lake Population by Major Age Group
Actual 2001 to 2021, Projected 2022 to 2051



Source: Statistics Canada and metroeconomics

Conclusion

The assessment of NOTL's future developed here indicates:

- Its economic and demographic growth can and will occur independently.
- Alternative futures are possible.
- Whether economics or demographics grow in tandem or whether one dominates is a choice that NOTL faces.

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Appendix: Location Quotients and Economic and Community Base Jobs

Employment by industry in any given area can be decomposed into economic base jobs (those that drive the overall economy) and community base jobs (those that serve the local population). The population growth of an area typically depends on its potential for growth in economic base employment while an area's growth in community base employment depends on its population growth. In recognition of this interdependence between population and employment growth *metroeconomics* developed a community-based projection system that takes account of the economic and demographic factors influencing an area's growth potential. The system takes these factors into account as follows:

- The economic base of the community is identified through the de-composition of local jobs on a place of work basis by industry into those that are *economic base* jobs and those that are *community base* jobs; this is achieved using a location quotient process.
- Economic base industries produce goods and services consumed primarily by businesses or people outside of the local community; these industries also called export-based industries produce agriculture, mining, or manufactured products for consumption elsewhere or provide tourism or higher-order education/health care services to visitors/temporary residents.
- The potential for growth of a local community's economic base jobs is identified through assessing how many such jobs exist today and how many might exist in the future drawing on *metroeconomics'* extensive forecasts of economic base industrial job trends nation-wide and province-wide.
- An assessment is also made of the potential for residents to commute to jobs in nearby employment locations
 drawing on existing patterns and on metroeconomics' base case forecasts of such jobs by sub-provincial area across
 the country.
- The potential for job growth within the local area and for job growth in nearby locations determines the potential for job growth among residents.
- The metroeconomics system ties this resident job growth potential to the demographic side of the community; if
 potential job growth among residents exceeds the current supply of workers (based on an age and gender assessment
 of the current population, age specific rates of labour force participation, the level of unemployment, and the need to
 replace retiring workers), in-migration occurs; thus job growth potential determines population growth potential
 recognizing each new job-holding resident typically brings along one or two dependents.
- The system further considers the fact that each new resident jobholder increases the need for workers who service the local population the community base jobs and that these additional community base jobs, in turn, create the need for more workers, more residents, etc.
- Growth in employed residents, in other words, drives the community's net in-migration requirements which, along with standard assumptions regarding fertility and mortality rates, provide the parameters needed to develop local area population projections by age and gender.
- Projected economic base jobs by industry are added to projected community base jobs by industry to determine the
 total number of jobs by place of work that will exist in the community in the decades ahead.

The Location Quotient procedure is carried out as follows:

- All jobs in agriculture and forestry, in mining and oil and gas extraction, and in manufacturing are economic base jobs
 as most of their production is consumed by businesses and people outside of the area.
- For all other industries, the number of jobs per 1,000 residents in the area is compared to that ratio across the
 relevant province. Where the ratio in an industry in the area exceeds that of the province it is assumed the excess
 jobs in the area are providing services to people or businesses outside of the area. These excess jobs are defined as
 export-based service jobs and their output as exportable services.

