

# Norfolk County

## Population & Employment Projections Final Report



Issue-Specific Research Report Leading to the  
Preparation of a Growth Strategy

Planning  
Together  
Norfolk County  
Official Plan

January 2004  
D14-03016



January 6, 2004  
File No. 14.02138.01.P01

Mr. J. McIntosh  
Manager, Community Planning Services  
Planning and Economic Development Department  
Norfolk County  
50 Colborne Street South  
Simcoe, Ontario  
N3Y 4N5

Dear Mr. McIntosh:

Subject: **Norfolk County Official Plan  
Population & Employment Projections Final Report**

Marshall Macklin Monaghan Limited is very pleased to provide you with our Population & Employment Projections Final Report as part of the Norfolk County Official Plan project.

Please feel free to contact us if you have any questions.

Yours very truly,

**MARSHALL MACKLIN MONAGHAN LIMITED**



J. D. Kennedy, M.C.I.P., R.P.P.  
Senior Planning Consultant



C. A. Tyrrell, M.C.I.P., R.P.P.  
Senior Planner / Project Manager  
Associate





# Table of Contents

**Executive Summary ..... v**

    Population Projections ..... v

    Employment Projections.....vi

**1. Introduction ..... 1**

    1.1 The Norfolk County Official Plan Project ..... 1

    1.2 Report Purpose ..... 2

    1.3 Organization of the Report..... 2

    1.4 Method of Analysis..... 2

**2. Background ..... 5**

    2.1 Cohort Survival Method ..... 5

    2.2 Current Population..... 6

    2.3 Historic Population..... 7

    2.4 Natural Increase..... 8

    2.5 Net Migration ..... 8

    2.6 Historical Average Annual Growth Rate ..... 8

**3. Population Projection Scenarios ..... 11**

    3.1 Low Scenario Population Projection .....11

    3.2 Reference Scenario Population Projection .....13

    3.3 High Scenario Population Projection .....15

    3.4 Urban Area Population Projections.....17

**4. Employment Projection Scenarios ..... 19**

    4.1 Tobacco Industry Assumptions .....19

    4.2 Employment Sector Breakdown .....21

**5. On-Going Work ..... 25**

    5.1 Issues & Options Report .....25

    5.2 Directions Report - Preferred Option(s) Report.....25

    5.3 Growth Strategy.....25

    5.4 Official Plan .....25



# List of Tables

Table A:	Population Projection Summary .....	v
Table B:	Employment by Sector Breakdown for 2026 .....	vii
Table 1:	Historical Population .....	7
Table 2:	Historical Annual Average Growth Rate for Haldimand-Norfolk.....	9
Table 3:	Low Scenario Population Projection .....	12
Table 4:	Reference Scenario Population Projection .....	14
Table 5:	High Scenario Population Projection .....	16
Table 6:	Historic Population of the Urban Areas and Rural Area.....	18
Table 7:	Low Scenario by Employment Sector Breakdown.....	21
Table 8:	Reference Scenario by Employment Sector Breakdown.....	22
Table 9:	High Scenario by Employment Sector Breakdown .....	23

# List of Figures

Figure 1: Norfolk County .....	1
Figure 2: Low Scenario Population Projection.....	13
Figure 3: Reference Scenario Population Projection .....	15
Figure 4: High Scenario Population Projection.....	17
Figure 5: Norfolk County Population Urban-Rural Split (2001).....	18
Figure 6: Population Distribution by % Share (2001).....	18



# Executive Summary

**T**he development of the new Norfolk County Official Plan will comprehensively address growth management. As a precursor to the development of a growth strategy, discussion of population and employment targets is warranted to review projection methods and assumptions, and other growth-related parameters.

## POPULATION PROJECTIONS

The population projections undertaken represent a composite method using a technique usually referred to as the “cohort survival model”. Put simply, the cohort survival method is calculated as the current population, plus the natural increase, plus the net migration. This model assists in interpreting the underlying forces of population change, and is frequently used in estimating future demands for specific services, such as health care, education and recreational services, for example.

Three population projection scenarios are presented in this report. Table A provides a summary of the projections.

**Table A: Population Projection Summary**

<b>Year</b>	<b>Low</b>	<b>Reference</b>	<b>High</b>
<b>2006</b>	64,190	68,600	70,970
<b>2011</b>	67,060	75,820	80,520
<b>2016</b>	63,720	72,410	77,060
<b>2021</b>	61,560	70,180	74,810
<b>2026</b>	60,650	74,260	81,990

*Note: Numbers Rounded*



When the three population projections were analyzed, it was observed that the younger cohorts experienced a net out-migration of population between 1991 and 2001. As those cohorts age into their child-bearing years, there are fewer people to sustain the aggregate population. The results of this, if left as a trend to repeat itself in the model, are seen in the Low Scenario Population Projection. By adjusting the migration rate for the 20-39 year cohorts, the population forecast for these same ages is adjusted, thereby impacting the aggregate population projection.

The Low Scenario assumes that there is no change in the local net migratory trends, the birth rate or the death rate. The Reference Scenario assumes that there is no change in the birth rate or death rate, but assumes a migration rate which results in a population that, in aggregate, has risen by about 0.8% annually, or the historical average annual growth rate for Haldimand-Norfolk. The High Scenario Population Projection assumes a growth rate that is based on the forecasts made by the Ministry of Finance for the Province as a whole.

## **EMPLOYMENT PROJECTIONS**

The largest employment sector in the Low, Reference and High employment scenarios is the sales and service sector. Trades, transport and equipment operators is the second largest employment sector, followed by occupations unique to primary industry. Other large employment sectors include business, finance and administrative occupations and occupations in processing, manufacturing and utilities. Table B provides a summary of the employment breakdown by sector for the 2026 horizon.

**Table B: Employment by Sector Breakdown for 2026**

<b>Occupation</b>	<b>Low</b>	<b>Reference</b>	<b>High</b>
Management occupations	2,310	2,920	3,270
Business, finance and administrative occupations	3,590	4,530	5,080
Natural and applied sciences and related occupations	880	1,110	1,240
Health occupations	1,290	1,630	1,830
Occupations in social science, education, government service and religion	1,780	2,240	2,510
Occupations in art, culture, recreation and sport	420	530	600
Sales and service occupations	6,370	8,040	9,010
Trades, transport and equipment operators and related occupations	5,730	7,230	8,110
Occupations unique to primary industry	5,020	6,330	7,110
Occupations unique to processing, manufacturing and utilities	3,480	4,400	4,930
<b>All Occupations</b>	<b>30,870</b>	<b>38,960</b>	<b>43,690</b>
Occupation - Not applicable	300	370	420
<b>Total Labour Force</b>	<b>31,170</b>	<b>39,320</b>	<b>44,120</b>

*Note: Numbers Rounded*



# 1. Introduction

## 1.1 THE NORFOLK COUNTY OFFICIAL PLAN PROJECT

The Norfolk County Official Plan project presents an exciting opportunity for residents and other members of the community to be involved in shaping their own future by helping to set the foundation and direction of the Official Plan. The Official Plan project is in response to the January 1, 2001 amalgamation of Norfolk County into a single tier municipality (Figure 1). This project will consolidate the five official plans currently in effect, which are the Official Plans of the Regional Municipality of Haldimand-Norfolk (insofar as it affects Norfolk County), the Town of Simcoe, the City of Nanticoke (insofar as it affects Norfolk County), the Township of Delhi and the Township of Norfolk.



Figure 1: Norfolk County



The Official Plan will address the unique issues within the County. The development of the Official Plan requires specific research and consultation to determine the most effective policies to guide change over the next 20 years. The Official Plan project is subdivided into three phases. Phase I involves a comprehensive public consultation program and the development of issues and options to address the critical planning issues facing Norfolk County. Phase II of the project will integrate the results of Phase I leading to the preparation of a Growth Strategy. Phase III will integrate results from Phases I and II, culminating in the preparation of the Official Plan.

## **1.2 REPORT PURPOSE**

This report provides three population projection scenarios to the year 2026 (i.e., the proposed planning horizon for the new Norfolk County Official Plan), and the associated employment projections. The population and employment projection scenarios are provided as background to the Growth Strategy and subsequent Official Plan, as well as the County's Development Charge Study.

This report will be followed-up in the subsequent Growth Strategy (Phase II of the Official Plan process) with detailed housing/dwelling projections and growth and settlement recommendations to the County.

## **1.3 ORGANIZATION OF THE REPORT**

This Report is subdivided into five sections:

Section 1: Introduction

Section 2: Background

Section 3: Population Projection Scenarios

Section 4: Employment Projection Scenarios

Section 5: On-Going Work

## **1.4 METHOD OF ANALYSIS**

Preliminary work was undertaken using the Statistics Canada Census data as well as statistical data provided by Norfolk County. This was required to ensure that a cohort survival method of analysis could be undertaken to

## population & employment projections - final report

project population growth to 2026. The model employed was the "cohort model" written by Ned Levine, (Richard E. Klosterman, Richard K. Brail, and Earl G. Bossard, eds SPREADSHEET MODELS FOR URBAN AND REGIONAL ANALYSIS, New Brunswick, NJ: Center for Urban Policy Research, 1993). Section 2 provides details of the cohort-survival model employed for the projections.



## 2. Background

### 2.1 COHORT SURVIVAL METHOD

**T**here are a number of methods to complete population projections. The two principal families of techniques for projecting population are called the "simple" and "composite" models.

Simple projections describe changes in aggregate population and return a single number that is the population estimate for a specified period. Simple projections operate by describing the overall direction and magnitude of past change, and applying that same trend to the recent data. A good example is a "straight-line" projection that fits a single trend line to the trends in past data, and applies that "trend line" to the most recent data available.

Composite projections describe the direction and magnitude of the variables that affect population change. Composite projections describe the changes in the various elements of population growth or decline. They are based on the theory that population can increase in only two ways: natural increase and net migration. The more sophisticated models provide estimates of the natural increase and net migration not just for the aggregate population, but also for age cohorts within the population. This technique is usually called the "cohort survival method." As mentioned in Section 1.4, this report presents population projections using a "cohort survival model", which is a "composite method" of projection.

The advantage to using a cohort model is that the causal dynamics underlying population change can be better understood, which allows the model to deal with forces of change. For instance, these models make finer distinctions between which age groups are changing in the population mix. This finer-grained analysis is frequently very useful in estimating future demands for specific services, such as health care, education and recreational services, for example.

In its basic form, the cohort survival method is very simple:

**Population in the future =**

**Current Population + Natural Increase + Net Migration**



The following sections describe the three components that determine population in the future using the cohort survival method.

## **2.2 CURRENT POPULATION**

In a cohort survival method of analysis, the age cohorts determine the time interval for the projection. The smallest time interval for which an estimate can be made is the length of time it takes all the members of an age cohort (i.e., everyone age 10-14) to pass on to the next age grouping (i.e., 15-19 year-old group). Since Statistics Canada commonly aggregates their population figures in five-year cohorts, most cohort survival models run at five-year projection increments.

The model employed requires 10 years worth of historical population data. This assignment, therefore, involved acquiring and analyzing data from the 1991, 1996 and 2001 Censuses from Statistics Canada.

The change in municipal boundaries resulting from the restructuring of the Regional Municipality of Haldimand-Norfolk in January of 2001, and the fragmentation of the former City of Nanticoke, made the compilation of past population data difficult. The boundaries for the statistical areas changed between the 1996 and 2001 Censuses. An additional difficulty was encountered with the 2001 Census data. The geographic data references used by Statistics Canada were switched from enumeration areas (EAs) to dissemination areas (DAs), and the spatial boundaries do not necessarily relate to each other. As such, enumeration area population data was acquired from Statistics Canada and manually related to census maps of Norfolk County to estimate the population of Norfolk County in 1991 and 1996 in relation to present-day municipal boundaries.

The figures that are presented in this report do not precisely coincide with the population figures that the County has historically used, however, they are extremely close. This is likely due to the random rounding that Statistics Canada employs to ensure confidentiality. For example, the County has used a 1996 population projection figure of roughly 60,500 based on today's municipal boundary. However, MMM's analysis places the 1996 population at roughly 60,400, or about a 0.2% difference. The 0.2% difference is an

acceptable margin of error for the purposes of long-term population projections.

### 2.3 HISTORIC POPULATION

Based on the 1991, 1996 and 2001 Census, the following Table 1 provides the historical population data.

**Table 1: Historical Population Data**

<b>Age Intervals</b>	<b>1991</b>	<b>1996</b>	<b>2001</b>
<b>0-4</b>	4,030	3,700	3,140
<b>5-9</b>	4,420	4,320	3,850
<b>10-14</b>	4,380	4,700	4,490
<b>15-19</b>	4,180	4,370	4,650
<b>20-24</b>	3,710	3,400	3,270
<b>25-29</b>	4,240	3,260	2,760
<b>30-34</b>	4,800	4,320	3,400
<b>35-39</b>	4,810	5,010	4,460
<b>40-44</b>	4,160	4,800	5,060
<b>45-49</b>	3,420	4,110	4,960
<b>50-54</b>	2,970	3,380	4,240
<b>55-59</b>	2,960	2,980	3,550
<b>60-64</b>	3,050	2,910	3,100
<b>65-69</b>	2,800	2,810	2,850
<b>70-74</b>	2,100	2,520	2,650
<b>75+</b>	3,380	3,810	4,420
<b>TOTAL</b>	<b>59,410</b>	<b>60,400</b>	<b>60,850</b>

Source: Statistics Canada  
 Note: Numbers Rounded



## **2.4 NATURAL INCREASE**

Natural increase is the difference between the number of children born and the number of people who die during one time interval. Obviously, children can only be born into the 0-4 year cohort. People, however, die in all cohorts.

Briefly, the model employs a survival rate to calculate how many persons will likely die in each cohort. Further, the model employs a birthrate that estimates the number of babies born as the original population ages. For the purposes of this analysis, we have assumed that the birthrate will be the same as that generated in the Province over the 1991 to 2001 period. Currently, the crude birth rate is extremely low at 10.53 births per 1,000 population in Ontario. It would be reasonable to expect that this rate may not drop substantially from this level. We have applied the Provincial survival rate to Norfolk County and we have assumed that this number will not change over the analysis period. This method was chosen based on a comparison of the former Regional Municipality of Haldimand-Norfolk's birthrates from 1991 to 1999, which were generally consistent with those of the Province over a similar period. The use of the Provincial rate is also based on a large, stable population that may better represent births and deaths over the long-term planning horizon.

## **2.5 NET MIGRATION**

Net migration is the difference between the number of people moving in and the number of people moving out of Norfolk County. The model employed in this analysis assumes that the difference between the calculated number of survivors for a given cohort over the 1991 to 2001 period and the actual number of people in that cohort counted by the Census is the net number of migrants. Like all rates and variables in this model, this figure is calculated at the cohort level. This analysis uses the net migration statistic to perform the sensitivity analysis, resulting in "low", "reference" and "high" forecasts.

## **2.6 HISTORICAL AVERAGE ANNUAL GROWTH RATE**

For the purposes of this analysis, the historical average growth rate was also considered as a factor in the population projections. Specifically, the Reference Scenario Population Projection considers, as part of the analysis, the

historical average annual growth rate. Table 2 presents the historical average annual growth rate for the former Regional Municipality of Haldimand-Norfolk. The High Scenario Population Projection considers the Provincial-level average annual growth rate which is forecast to be 1.2% over the 1999 to 2028 period.

**Table 2: Historical Annual Average Growth Rate  
for Haldimand-Norfolk**

<b>Time Period</b>	<b>Annual Average Growth Rate (%)</b>
1976 - 1986	0.1
1986 - 1991	2.1
1991 - 1996	0.8
<b>1976 - 1996</b>	<b>0.8</b>

*Annual Average Growth Rate =  $\frac{\text{Annual Average Population Increase} \times 100}{1976 \text{ Population}}$*

*Base Data Source: Statistics Canada, Census Population, Area Profiles*



# 3. Population Projection Scenarios

**I**nterpreting the results of a cohort survival analysis would appear to be straightforward. Without adjustment by the user, the model provides estimates of population for the various age groups and it assumes that all past forces remain the same. It is, essentially, a straight-line projection of past trends in migration, births and deaths. However, events may intervene to affect these assumptions.

When the projections of population were analyzed, it was concluded that the 10-24 year cohorts experienced a net out-migration of population between 1991 and 2001. As those cohorts age into their child-bearing years, there are fewer to have babies and sustain the aggregate population figures. The results of this, if left as a trend to repeat itself in the model, are seen in the low population projection. By adjusting the migration rate for the 10-24 year cohorts, the population forecast for these same ages, is by definition, adjusted as well.

In order to account for the factors that could influence future populations, the cohort model has been applied to three possible scenarios – low, reference and high. The Low Scenario leaves the migration rate unchanged. The Reference Scenario uses a migration rate that results in an aggregate, or total population, that is reflective of the average annual growth rate for Haldimand-Norfolk of 0.8%. The High Scenario uses a migration rate that will allow the population to mimic the average annual growth rate for the Province, which is approximately 1.2%.

## 3.1 LOW SCENARIO POPULATION PROJECTION

The Low Scenario assumes that there is no change in the local net migratory trends, the birth rate or the death rate. The total population, if trends continue, would rise slightly in the short-term but would consistently decline through the rest of the planning horizon as the larger “baby boom” demographic ages. Compounding this problem is the net out-migration in child-bearing cohorts. While the historical trend is that the area is attractive



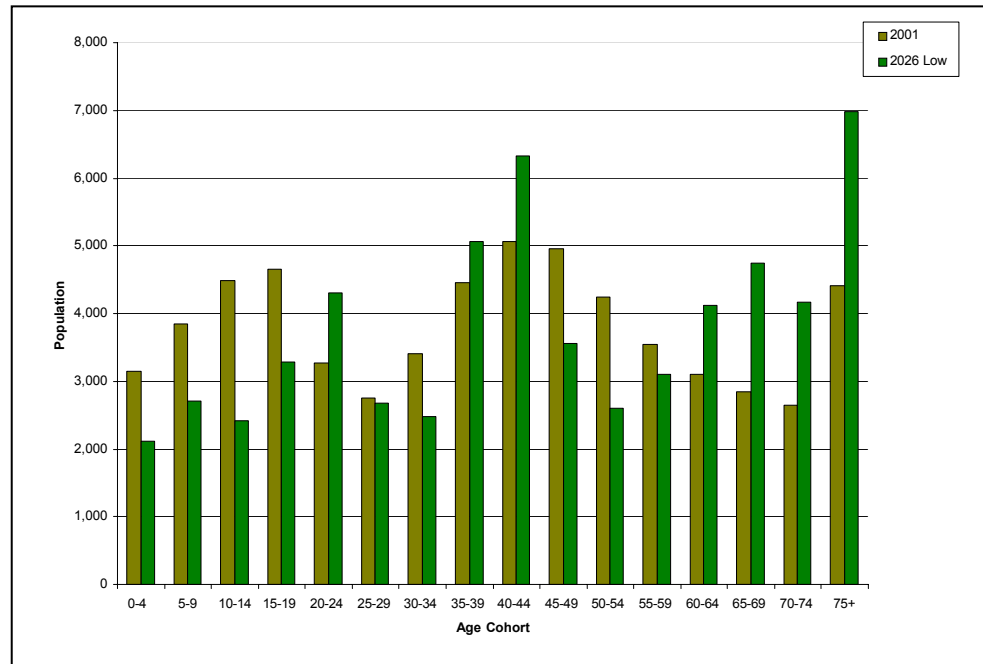
to seniors, the increase in numbers in these cohorts will not be large enough to mitigate out-migration and a low crude birth-rate. Table 3 provides the Low Scenario Population Projection, which is also illustrated as a graph in Figure 2.

**Table 3: Low Scenario Population Projection**

Age Intervals	Expected Total Population					
	2001	2006	2011	2016	2021	2026
0-4	3,140	3,110	3,010	2,530	2,090	2,120
5-9	3,850	4,040	3,690	3,220	2,560	2,710
10-14	4,490	3,650	2,710	3,880	3,360	2,420
15-19	4,650	4,380	3,640	2,810	3,880	3,290
20-24	3,270	5,210	5,620	3,290	2,020	4,300
25-29	2,760	4,050	6,200	4,990	2,400	2,670
30-34	3,400	2,880	3,520	5,970	5,150	2,480
35-39	4,460	3,320	2,600	3,670	6,500	5,070
40-44	5,060	4,330	3,170	2,700	3,720	6,320
45-49	4,960	4,930	4,230	3,200	2,680	3,560
50-54	4,240	4,820	4,820	4,240	3,240	2,600
55-59	3,550	4,020	4,570	4,850	4,380	3,100
60-64	3,100	3,270	3,750	4,630	5,030	4,120
65-69	2,850	2,920	3,260	3,630	4,400	4,750
70-74	2,650	2,700	2,950	2,930	3,240	4,170
75-79	4,420	2,480	2,750	2,400	2,400	3,100
80-84	N/A	1,850	2,430	1,950	1,770	2,190
85+	N/A	2,230	4,140	2,840	2,730	1,690
<b>Total</b>	<b>60,850</b>	<b>64,190</b>	<b>67,060</b>	<b>63,720</b>	<b>61,560</b>	<b>60,650</b>

Note: Numbers Rounded

**Figure 2: Low Scenario Population Projection**



### 3.2 REFERENCE SCENARIO POPULATION PROJECTION

The Reference Scenario, as in all the scenarios in this study, assumes that there is no change in the birth rate or death rate, but assumes a migration rate which, by 2026, generates what is considered a likely estimate of aggregate growth. Similar to the Low Scenario, the total population would drop through the planning horizon as the larger “baby boom” demographic ages, if survivorship trends continue. However, this scenario illustrates the issue of the net out-migration of child-bearing cohorts. The use of a 0.8% average annual growth rate is historically accurate but, importantly, it will require the in-migration, in the short term, of more young people of child bearing age. Consequently, in 20 to 25 years’ time, there would exist, in this environment, a larger population base to have children, thereby maintaining and/or boosting the population. Table 4 provides the Reference Scenario Population Projection, which is also illustrated as a graph in Figure 3.

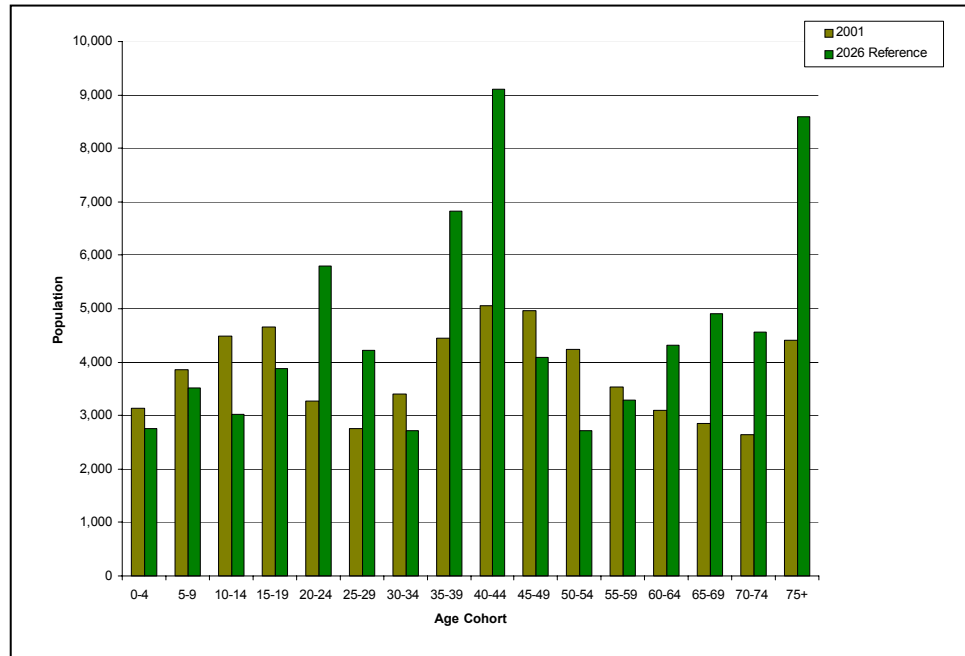


**Table 4: Reference Scenario Population Projection**

Age Intervals	EXPECTED TOTAL POPULATION					
	2001	2006	2011	2016	2021	2026
<b>0-4</b>	3,140	3,350	3,500	2,990	2,520	2,750
<b>5-9</b>	3,850	4,370	4,280	3,800	3,080	3,510
<b>10-14</b>	4,490	3,770	2,960	4,500	3,900	3,020
<b>15-19</b>	4,650	4,450	3,770	3,070	4,510	3,870
<b>20-24</b>	3,270	6,140	7,490	3,390	2,210	5,800
<b>25-29</b>	2,760	5,340	8,790	6,840	2,490	4,220
<b>30-34</b>	3,400	3,100	3,940	8,480	6,870	2,710
<b>35-39</b>	4,460	3,360	2,690	4,170	9,220	6,820
<b>40-44</b>	5,060	4,390	3,300	2,810	4,180	9,100
<b>45-49</b>	4,960	4,990	4,340	3,330	2,780	4,080
<b>50-54</b>	4,240	4,880	4,920	4,360	3,370	2,720
<b>55-59</b>	3,550	4,110	4,750	4,960	4,500	3,280
<b>60-64</b>	3,100	3,380	3,960	4,810	5,150	4,320
<b>65-69</b>	2,850	2,960	3,340	3,830	4,570	4,910
<b>70-74</b>	2,650	2,840	3,250	3,000	3,430	4,570
<b>75-79</b>	4,420	2,740	3,280	2,660	2,460	3,720
<b>80-84</b>	N/A	2,190	3,120	2,340	1,920	2,710
<b>85+</b>	N/A	2,230	4,140	3,080	3,040	2,160
<b>TOTAL</b>	<b>60,850</b>	<b>68,600</b>	<b>75,820</b>	<b>72,410</b>	<b>70,180</b>	<b>74,260</b>

Note: Numbers Rounded

**Figure 3: Reference Scenario Population Projection**



### 3.3 HIGH SCENARIO POPULATION PROJECTION

The High Scenario projection assumes a growth rate that is similar to the Provincial average annual growth rate introduced in Section 2.5. A 1.2% annual rate of growth would see the County growing to a total population of roughly 82,000 by the end of the planning horizon. The key to this growth rate can be seen if the high scenario age cohort breakdown is compared to the Low Scenario analysis. The High Scenario assumes a net in-migration of approximately 5,000 people, between the ages of 20 and 39. These new residents would generate enough children to ensure future natural increases in population that would sustain the total. This rate of growth, however, is likely optimistic insofar as the Provincial rate is largely driven by growth in the Greater Toronto Area. Table 5 provides the details of the High Scenario Population Projection, which are also illustrated as a graph in Figure 4.

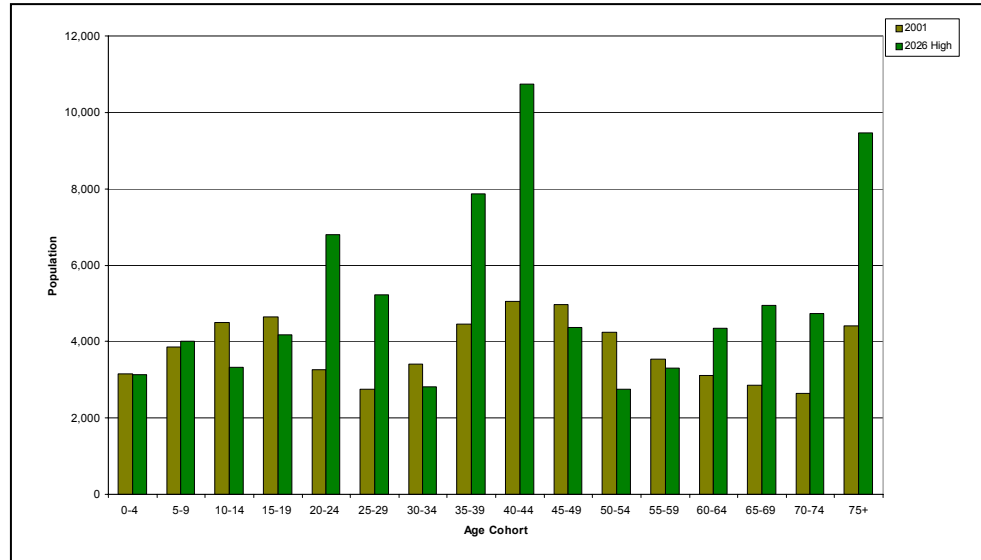


**Table 5: High Scenario Population Projection**

Age Intervals	EXPECTED TOTAL POPULATION					
	2001	2006	2011	2016	2021	2026
<b>0-4</b>	3,140	3,490	3,770	3,260	2,760	3,140
<b>5-9</b>	3,850	4,550	4,620	4,120	3,380	4,000
<b>10-14</b>	4,490	3,790	3,000	4,850	4,200	3,330
<b>15-19</b>	4,650	4,460	3,790	3,120	4,860	4,170
<b>20-24</b>	3,270	6,710	8,620	3,400	2,240	6,790
<b>25-29</b>	2,760	6,130	10,360	7,970	2,500	5,220
<b>30-34</b>	3,400	3,230	4,200	10,000	7,910	2,810
<b>35-39</b>	4,460	3,370	2,710	4,470	10,870	7,870
<b>40-44</b>	5,060	4,410	3,320	2,830	4,460	10,750
<b>45-49</b>	4,960	5,000	4,360	3,360	2,790	4,370
<b>50-54</b>	4,240	4,890	4,940	4,370	3,390	2,750
<b>55-59</b>	3,550	4,130	4,780	4,980	4,520	3,310
<b>60-64</b>	3,100	3,390	4,000	4,840	5,170	4,350
<b>65-69</b>	2,850	2,970	3,360	3,860	4,600	4,940
<b>70-74</b>	2,650	2,930	3,410	3,010	3,460	4,740
<b>75-79</b>	4,420	2,900	3,600	2,810	2,470	4,010
<b>80-84</b>	N/A	2,400	3,530	2,580	2,000	3,010
<b>85+</b>	N/A	2,230	4,140	3,220	3,220	2,440
<b>TOTAL</b>	<b>60,850</b>	<b>70,970</b>	<b>80,520</b>	<b>77,060</b>	<b>74,810</b>	<b>81,990</b>

Note: Numbers Rounded

**Figure 4: High Scenario Population Projection**



### 3.4 URBAN AREA POPULATION PROJECTIONS

Based on the aggregate population projection scenarios for the County, the following provides a breakdown of the population projections for the principal urban areas. Table 6 provides the historic population and urban areas' percentage share of the historic population for the purposes of establishing the urban area projections for the planning horizon.



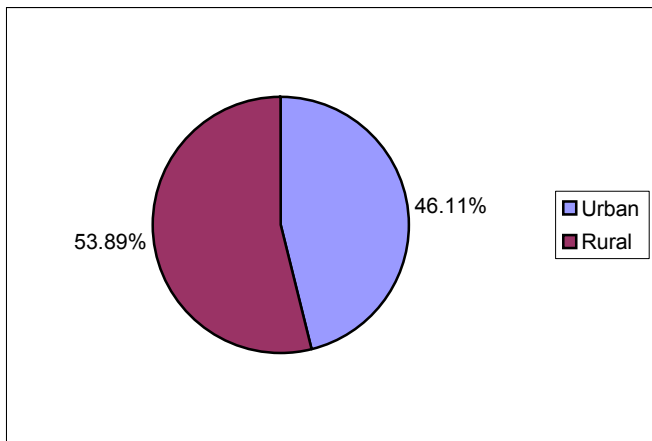
**Table 6: Historic Population of the Urban Areas and Rural Area**

Area	1991	% Share	1996	% Share	2001	% Share
Courtland	800	1.34%	920	1.53%	700	1.15%
Delhi	4,500	7.57%	4,720	7.82%	4,000	6.58%
Port Dover	5,230	8.78%	5,470	9.06%	5,530	9.08%
Port Rowan	910	1.52%	800	1.31%	790	1.29%
Simcoe	14,070	23.65%	14,490	23.99%	14,180	23.29%
Waterford	2,880	4.84%	3,210	5.31%	2,870	4.72%
<b>Urban Area</b>	<b>28,390</b>	<b>47.70%</b>	<b>29,610</b>	<b>49.01%</b>	<b>28,070</b>	<b>46.11%</b>
<b>Rural Area</b>	<b>31,130</b>	<b>52.30%</b>	<b>30,790</b>	<b>50.99%</b>	<b>32,780</b>	<b>53.89%</b>
<b>TOTAL</b>	<b>59,520</b>	<b>100%</b>	<b>60,400</b>	<b>100%</b>	<b>60,850</b>	<b>100%</b>

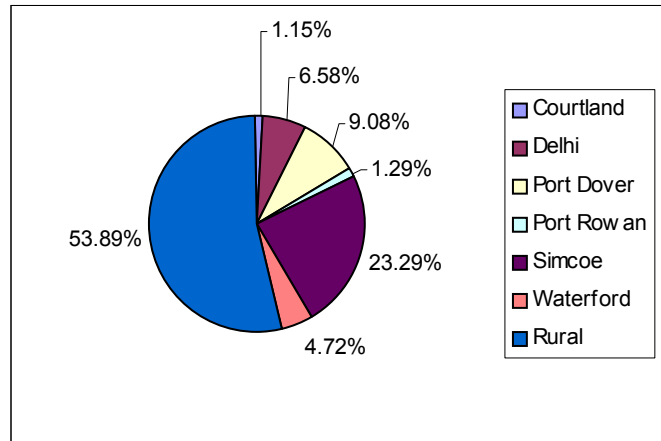
Source: Statistics Canada  
 Note: Numbers Rounded

Figures 5 and 6 provide the urban-rural population split and a detailed breakdown of the urban population distribution, as of 2001, respectively. Through the work on the Growth Strategy the urban-rural population split may change in the future. Additionally, the population distribution between the urban areas may change.

**Figure 5: Norfolk County Population Urban-Rural Split (2001)**



**Figure 6: Population Distribution by % Share (2001)**



# 4. Employment Projection Scenarios

**S**tatistics Canada maintains records of the participation rate of employment-aged Canadians. The County's 2001 participation rates by age cohort were:

- **70.9%** for the 15-24 age cohorts;
- **87.7%** for the 25-34 age cohorts;
- **88.8%** for the 35-44 age cohorts;
- **85.1%** for the 45-54 age cohorts;
- **57.5%** for the 55-64 age cohorts; and
- **11.6%** for 65+ (Statistics Canada, 2001).

If the participation rates are indicative of the workforce required to support a given population, it follows that a larger or smaller population requires a larger or smaller employment base. The following breakdown of employment opportunities by sector provides a view to the types of employment opportunities that should be encouraged in order to retain a strong labour force in the future. The information used in the following employment analysis is based on local employment sector numbers that were made available from Statistics Canada and the participation rates above. The projections represent strictly a share analysis.

## 4.1 TOBACCO INDUSTRY ASSUMPTIONS

Beyond the application of participation rates to the population projections, a series of assumptions have been made related to tobacco production and employment levels as this sector has been targeted by the County as one requiring attention, given a declining employment base due to dropping production levels.

It is assumed that the following rates of employment decline will occur on an annual basis for the tobacco farming community:

- a 15% reduction in the Low Scenario;



- a 10% reduction in the Reference Scenario; and
- a 5% reduction in the High Scenario.

Consequently, the following assumptions have been made with regard to the impacts of the projected employment decline:

- The annual production will decline to a minimum of 50 million pounds;
- The farms currently under tobacco production will begin producing "something else". We have made no assumptions about what the "something else" might be (i.e. ginseng, etc.). Therefore, the 10% family labour component will never disappear;
- The 47% foreign seasonal labour will decline or grow at a rate of 0.307% for every 1% decline or growth in tobacco production. This is based on a 13% decline in production from 2002 to 2003 contributing to a 4% reduction in foreign seasonal labour;
- The 43% domestic seasonal labour will also decline or grow at a rate of 0.307% for every 1% decline or growth in tobacco production. The assumption is that the rate of decline or growth would not be discernibly different than that of the foreign labour component, given the nature of the work. Therefore it is based on a 13% decline in production from 2002 to 2003 contributing to a 4% reduction in foreign seasonal labour;
- Direct tobacco full-time equivalent (FTE) jobs that are lost are assumed to be partly taken up (in this analysis, 50%), by other sectors of the economy. We have assumed an even distribution among the other sectors;
- Indirect and induced FTE jobs (16% of the total according to Exhibit 3 of the Economic Contribution of the Tobacco Farming Industry in the Tobacco-Growing Region of Ontario in 2001, Final Report (KPMG, 2002)), are assumed to be lost at the same rate as direct jobs. Indirect and induced FTE jobs that are lost are assumed to be partly taken up (in this analysis, 50%), by other sectors of the economy. We have assumed an even distribution among the other sectors; and
- Of those tobacco (direct, indirect, induced), jobs lost, 50% are assumed to be irretrievably lost.

## 4.2 EMPLOYMENT SECTOR BREAKDOWN

Based on the foregoing assumptions, the breakdown of employment opportunities are predicted using data on employment sector distribution are summarized in Tables 7, 8 and 9.

**Table 7: Low Scenario by Employment Sector Breakdown**

<b>Occupation</b>	<b>2001</b>	<b>2006</b>	<b>2011</b>	<b>2016</b>	<b>2021</b>	<b>2026</b>
Management occupations	2,370	2,500	2,570	2,440	2,350	2,310
Business, finance and administrative occupations	3,680	3,880	3,990	3,790	3,650	3,590
Natural and applied sciences and related occupations	900	950	970	920	890	880
Health occupations	1,330	1,400	1,430	1,360	1,310	1,290
Occupations in social science, education, government service and religion	1,820	1,920	1,970	1,870	1,800	1,780
Occupations in art, culture, recreation and sport	440	460	470	450	430	420
Sales and service occupations	6,530	6,880	7,070	6,720	6,470	6,370
Trades, transport and equipment operators and related occupations	5,870	6,190	6,360	6,040	5,820	5,730
Occupations unique to primary industry	5,270	5,420	5,580	5,300	5,100	5,020
Occupations unique to processing, manufacturing and utilities	3,570	3,770	3,870	3,670	3,540	3,480
<b>All Occupations</b>	<b>31,780</b>	<b>33,370</b>	<b>34,280</b>	<b>32,560</b>	<b>31,360</b>	<b>30,870</b>
Occupation - Not applicable	310	320	330	310	300	300
<b>Total Labour Force</b>	<b>32,070</b>	<b>33,690</b>	<b>34,620</b>	<b>32,870</b>	<b>31,650</b>	<b>31,170</b>

*Note: Numbers Rounded*



**Table 8: Reference Scenario by Employment Sector Breakdown**

<b>Occupation</b>	<b>2001</b>	<b>2006</b>	<b>2011</b>	<b>2016</b>	<b>2021</b>	<b>2026</b>
Management occupations	2,370	2,690	2,940	2,820	2,750	2,920
Business, finance and administrative occupations	3,680	4,170	4,560	4,370	4,270	4,530
Natural and applied sciences and related occupations	900	1,020	1,110	1,070	1,040	1,110
Health occupations	1,330	1,500	1,640	1,570	1,530	1,630
Occupations in social science, education, government service and religion	1,820	2,060	2,260	2,160	2,110	2,240
Occupations in art, culture, recreation and sport	440	490	540	510	500	530
Sales and service occupations	6,530	7,390	8,100	7,760	7,570	8,040
Trades, transport and equipment operators and related occupations	5,870	6,650	7,280	6,980	6,810	7,230
Occupations unique to primary industry	5,270	5,880	6,370	6,100	5,950	6,330
Occupations unique to processing, manufacturing and utilities	3,570	4,040	4,430	4,240	4,140	4,400
<b>All Occupations</b>	<b>31,780</b>	<b>35,890</b>	<b>39,230</b>	<b>37,580</b>	<b>36,670</b>	<b>38,960</b>
Occupation - Not applicable	310	350	380	360	350	370
<b>Total Labour Force</b>	<b>32,070</b>	<b>36,250</b>	<b>39,610</b>	<b>37,930</b>	<b>37,020</b>	<b>39,320</b>

*Note: Numbers Rounded*

**Table 9: High Scenario by Employment Sector Breakdown**

<b>Occupation</b>	<b>2001</b>	<b>2006</b>	<b>2011</b>	<b>2016</b>	<b>2021</b>	<b>2026</b>
Management occupations	2,370	2,790	3,140	3,020	2,970	3,270
Business, finance and administrative occupations	3,680	4,330	4,880	4,690	4,610	5,080
Natural and applied sciences and related occupations	900	1,060	1,190	1,150	1,130	1,240
Health occupations	1,330	1,560	1,760	1,690	1,660	1,830
Occupations in social science, education, government service and religion	1,820	2,140	2,410	2,320	2,280	2,510
Occupations in art, culture, recreation and sport	440	510	580	550	540	600
Sales and service occupations	6,530	7,670	8,660	8,320	8,180	9,010
Trades, transport and equipment operators and related occupations	5,870	6,900	7,790	7,490	7,360	8,110
Occupations unique to primary industry	5,270	6,150	6,880	6,560	6,440	7,110
Occupations unique to processing, manufacturing and utilities	3,570	4,200	4,740	4,550	4,480	4,930
<b>All Occupations</b>	<b>31,780</b>	<b>37,310</b>	<b>42,030</b>	<b>40,340</b>	<b>39,650</b>	<b>43,690</b>
Occupation - Not applicable	310	360	400	390	380	420
<b>Total Labour Force</b>	<b>32,070</b>	<b>37,660</b>	<b>42,430</b>	<b>40,730</b>	<b>40,030</b>	<b>44,120</b>

*Note: Numbers Rounded*

Generally, the largest sectors of the economy, which provide a majority of the employment opportunities in the County, are agriculture, manufacturing and retail trade. Although it is commonly believed that occupations unique to primary industry or agriculture provide the greatest number of jobs, the largest employment sector in the Low, Reference and High employment scenarios is the sales and service sector. Trades, transport and equipment operators is the second largest employment sector, followed by occupations unique to primary industry. Other large employment sectors include business, finance and administrative occupations, and occupations in processing, manufacturing and utilities.



## 5. On-Going Work

**T**here is additional work required prior to the development of the new Official Plan. Through the process of preparing the new Official Plan, the population and employment projections will be used in the development of subsequent reports and as one of several bases for the Official Plan. The following outlines the on-going work to be completed on this issue.

### **5.1 ISSUES & OPTIONS REPORT**

Once the Strategic Plan is complete, the Issues and Options Report will present preliminary alternatives to address the population and employment projections, and other growth and development-related matters, in the new Official Plan. At this point, the implications of the three population and employment projection scenarios will be described as preliminary options to consider for incorporation in the new Official Plan.

### **5.2 DIRECTIONS REPORT - PREFERRED OPTION(S) REPORT**

Technically preferred options will be identified in relation to the population and employment projection scenarios. This will be based, in part, on professional recommendation and the outcome of the Strategic Plan exercise.

### **5.3 GROWTH STRATEGY**

The Strategic Plan and the Growth Strategy include background technical information on growth-related issues. The Growth Strategy will also articulate where growth will be directed, in what form and at what density. It will also address the servicing of existing settlements and new growth, both in terms of hard services and community services. The population and employment projections are an important underlying component of this work.

### **5.4 OFFICIAL PLAN**

The draft Official Plan to be prepared in Phase III of the project will present the proposed land use, economic development and settlement area policies that rise, in part, out of the population and employment projections.