

**CITY OF STRATFORD**

**OFFICIAL PLAN REVIEW  
BACKGROUND REPORT**

**DEMOGRAPHIC AND  
ECONOMIC PROFILE AND  
POPULATION AND HOUSING  
GROWTH FORECAST**

NOVEMBER 21, 2012

IN ASSOCIATION WITH:

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 **Planning for growth**

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# 1. INTRODUCTION

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# 1. INTRODUCTION

Watson & Associates Economists Ltd., in association with Macaulay Shiomi Howson (MSH), was retained by the City of Stratford to undertake an Official Plan (OP) Review for the City. As part of the background review, a key component of this assignment was to prepare a demographic and economic profile of the City.

This profile examines recent housing, population, demographic and economic trends for the City of Stratford within a broader regional and Provincial context. This analysis is used as a basis to explore how current and future demographic and economic trends will influence future housing and population growth throughout Stratford over the next 20 years. Building on this analysis and considering growth drivers and growth potential for the City, a long-term (i.e. 2012-2032) population and housing forecast is also presented for the City of Stratford.

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## **2. POPULATION, HOUSING AND DEMOGRAPHICS PROFILE**

## 2. POPULATION, HOUSING AND DEMOGRAPHICS PROFILE

### 2.1 Population

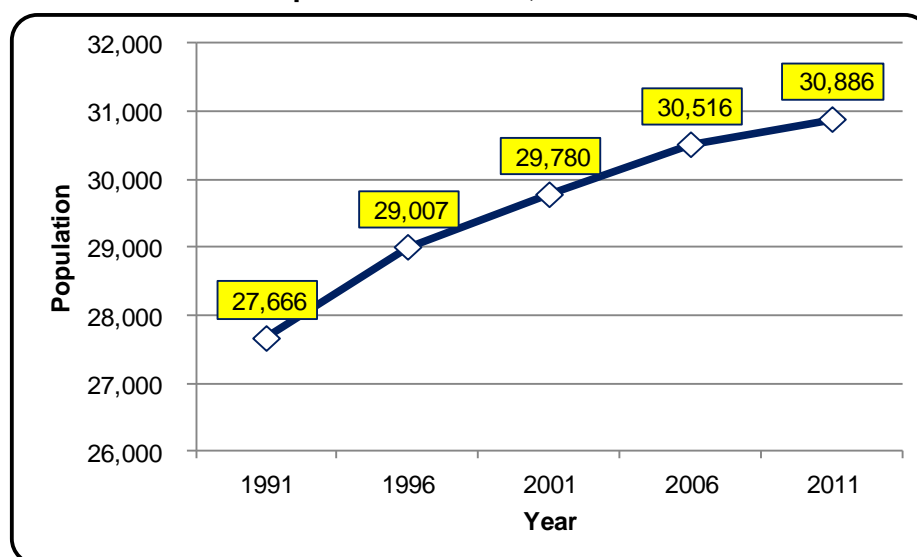
The following section explores population growth trends for the City of Stratford over the past 20 years. An analysis of historical net migration and population by major age group is also provided. This review is based on various Statistics Canada data sources. The historical time period investigated varies, subject to data availability.

#### 2.1.1 *Population Change within Stratford, 1991-2011*

Figure 2-1 summarizes historical population growth trends for the City of Stratford from 1991 to 2011. Figure 2-2 provides a summary of average annual population growth rates for Stratford, the County of Perth and the Province over the 1991-2011 period. Key observations include:

- The City of Stratford's population has grown from 27,666 in 1991 to 30,886 in 2011, an increase of 3,220; and
- The population growth rate in Stratford has gradually declined over the 1991-2011 period, decreasing from an average annual rate of 1.0% between 1991 and 1996, to 0.2% between 2006 and 2011. Over the last 20 years, Stratford's population growth rate has been marginally higher than Perth County but lower than the Provincial average.

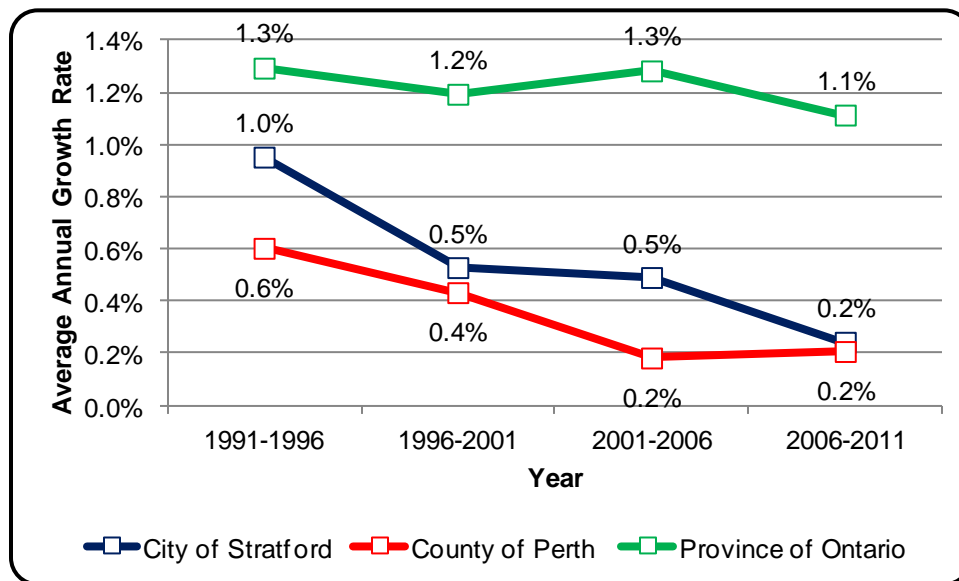
**Figure 2-1**  
**City of Stratford**  
**Population<sup>1</sup> Growth, 1991-2011**



<sup>1</sup> Excludes Census Undercount

Source: Statistics Canada Census

**Figure 2-2**  
**City of Stratford**  
**Average Annual Population Growth Rate, 1991-2011**



Source: Statistics Canada Census

### 2.1.2 Stratford Population by Age Cohort , 1991-2011

Figure 2-3 summarizes historical trends in population age structure over the 1991 through 2011 period. Figure 2-4 summarizes the 2011 population age structure in Stratford compared to Perth County and the Province. For the purposes of this study, Stratford's population base has been grouped into four major age categories (i.e. cohorts):

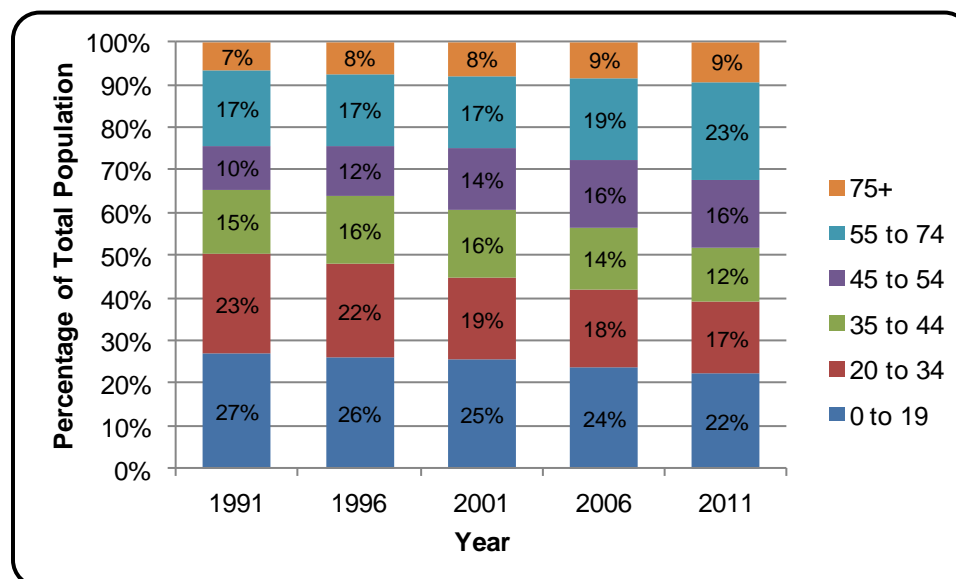
- Youth (0-19);
- Young adult/adult (20-54);
- Empty-nesters/younger seniors (55-74); and
- Older Seniors (75+).

Key observations include:

- In 2011, the 0-19 age cohort (youth population) in Stratford accounted for 22% of the total population. Proportionately, the population share of this age cohort has decreased moderately from 27% in 1991;
- Stratford's young adult/adult population (20-54) has declined marginally over the same time period, comprising 45% of the population in 2011:
  - The 20-34 age cohort (young adults), which comprised 17% of the population in 2006, has decreased from 23% in 1991;
  - The 35-44 age group has decreased from 15% in 1991 to 12% in 2011; and

- 45-54 year olds account for 16% of the 2006 population, up from 10% in 1991;
- The 55-74 age group (empty-nesters/younger seniors) increased by 6% between 1991 and 2011, from 17% to 23%, with the majority of the increase occurring between 2006 and 2011;
- The 75+ age group (seniors) has increased from 7% in 1991 to 9% in 2006;
- A higher proportion of the population in both Stratford and the County of Perth is concentrated towards the 45-54 and 55-74 age groups (i.e. baby-boomers and younger seniors) in comparison to the Province of Ontario as a whole;
- On the other hand, both Stratford and the County of Perth have a lower concentration of children (0-19) and adults between the ages of 20 and 44 when compared to the Province;
- Stratford's 2011 age structure is older than that of the Provincial average, as a result of the proportionately higher number of persons in the 55-74 and 75+ age groups; and
- Comparatively, Stratford's 55+ population is larger in proportion and has increased at a faster rate than the Ontario average. This trend in the 55+ age group is expected to continue as the baby-boom population continues to age over the next 20+ years.

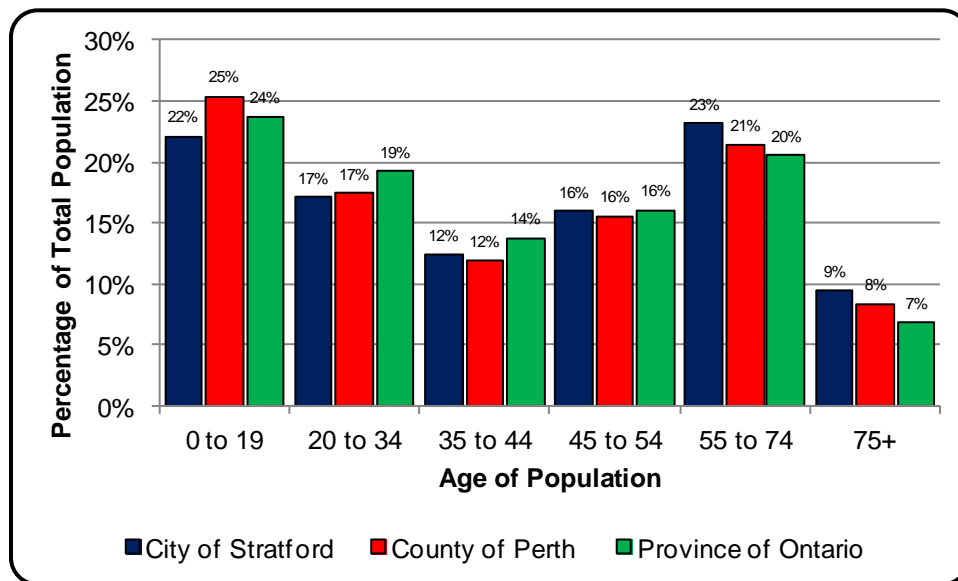
**Figure 2-3**  
**City of Stratford**  
**Population Composition by Age Cohort, 1991-2011**



Source: Statistics Canada Census



**Figure 2-4**  
**City of Stratford**  
**Population Age Structure, 2011**



Source: Statistics Canada Census

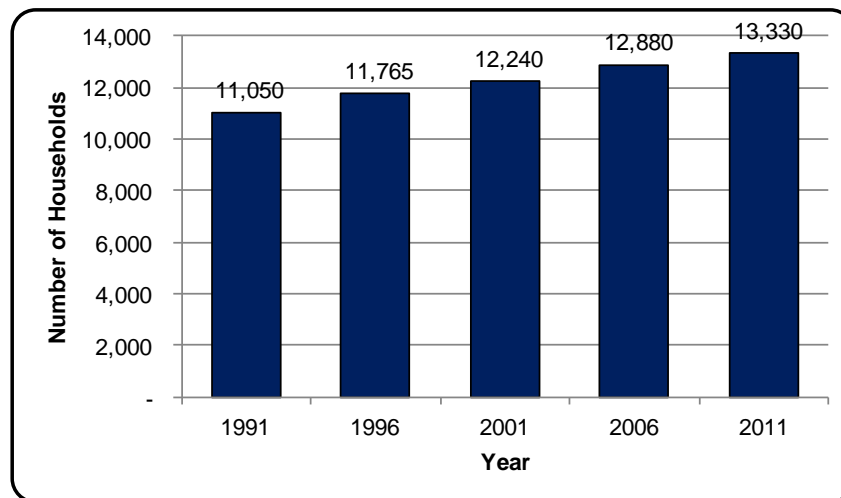
## 2.2 Housing Growth

### 2.2.1 *Permanent Housing Growth*

Figure 2-5 summarizes permanent housing stock for the City of Stratford over the 1991 to 2011 Census period. Figure 2-6 summarizes annual average housing growth rates for Stratford in comparison to the County of Perth and the Provincial average. Key findings include:

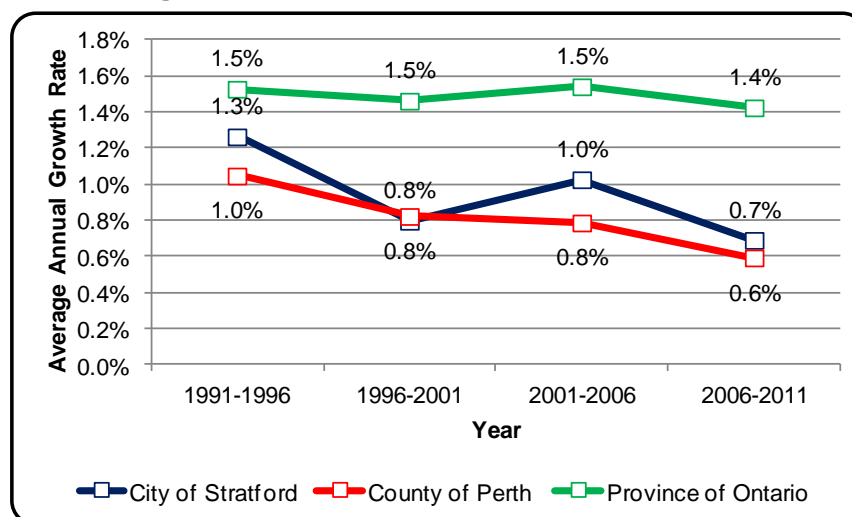
- During the 1991 to 2011 period, Stratford's housing stock increased from 11,050 to 13,330 units; and
- During this period, the City's and County's housing growth rate averaged under 1% annually. In comparison, the Province as a whole averaged marginally higher at approximately 1.5% per year.

**Figure 2-5**  
**City of Stratford**  
**Permanent Housing Growth, 1991-2011**



Source: Statistics Canada Census

**Figure 2-6**  
**City of Stratford**  
**Average Annual Household Growth Rate, 1991-2011**

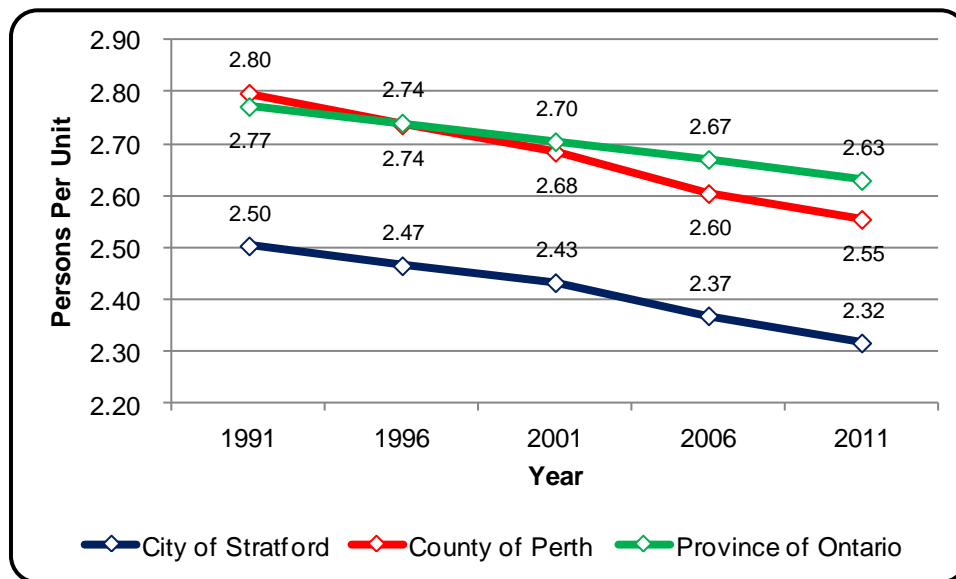


Source: Statistics Canada Census

## 2.2.2 Housing Occupancy Trends

Over the past two decades, Stratford's population has grown at a slower rate than households, due to a decline in the average number of persons per dwelling unit (PPU), as illustrated in Figure 2-7. As shown, the average PPU in Stratford has declined from 2.50 in 1991 to 2.32 in 2011, following the Provincial and County trend. Stratford's average PPU is moderately lower than the County and the Provincial average.

**Figure 2-7**  
**City of Stratford**  
**Historical PPU Trends, 1991-2011**

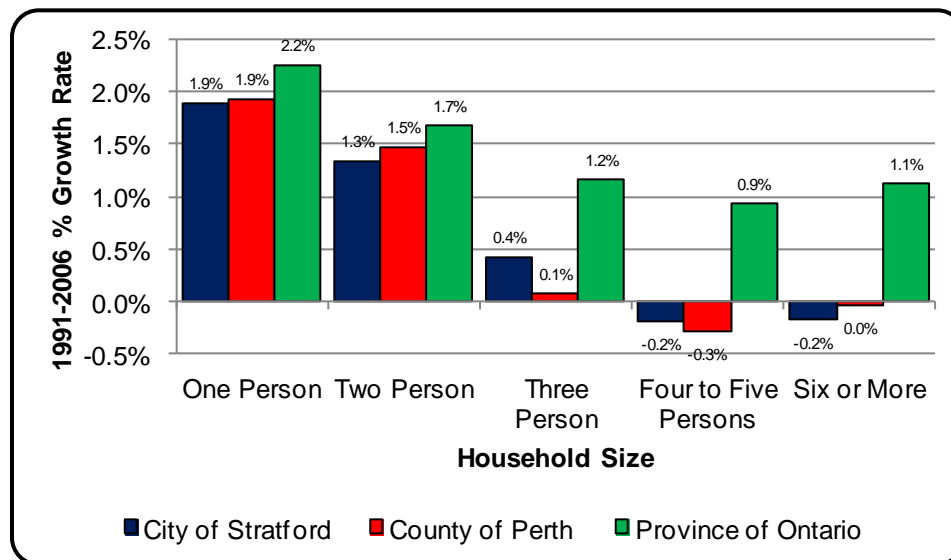


Source: Statistics Canada Census

Figure 2-8 summarizes housing growth by household size in Stratford over the 1991 to 2006 period in comparison to the County of Perth and the Provincial average. Over this period:

- The average annual growth rate in one- and two-person households was slightly higher than the City average at 1.9% and 1.3%, respectively;
- Meanwhile, growth in three-person households was moderately lower than the City average, while four-five person households and households with six or more persons showed negative growth (-0.2%); and
- Growth in households in Stratford has been comparable to the County of Perth, but lower than the Provincial average, particularly in large households (i.e. three persons or greater).

**Figure 2-8**  
**City of Stratford**  
**Households – Average Annual Growth Rate by Size, 1991-2006**



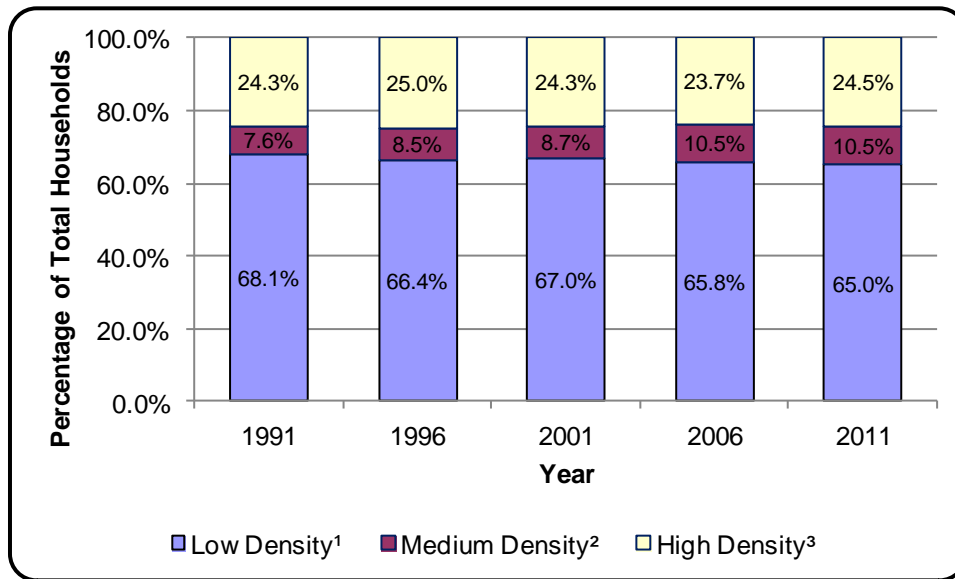
Source: Statistics Canada Census

### 2.2.3 Housing Mix by Unit Type

Figure 2-9 summarizes historical housing trends for the City of Stratford by housing type (i.e. density) from 1991 to 2006. An estimate of the City's 2011 housing mix, based on recent building permits, is also provided. Figure 2-10 summarizes the comparison of housing in Stratford compared to the County of Perth and Ontario in 2006. Key observations include:

- Low density housing (single, semi-detached) is the dominant form of housing in Stratford, representing approximately 65% of the housing stock in 2011. Medium density (townhouses, row houses) and high density (apartments) comprise 11% and 24% of housing, respectively. In addition, less than 1% are movable dwellings and other detached;
- Stratford has a lower proportion of low density housing than the County of Perth, but has a slightly higher share than the Provincial average; and
- Over the 1991-2011 period, the share of low, medium and high density housing in Stratford has remained relatively consistent.

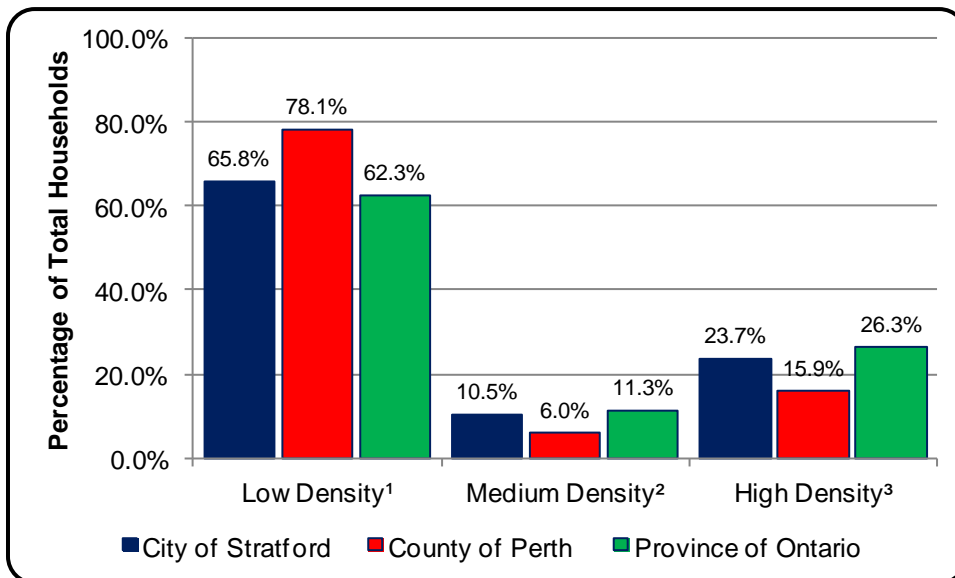
**Figure 2-9**  
**City of Stratford**  
**Household Unit Mix, 1991-2011**



Source: Statistics Canada Census

1. Includes other detached dwellings
2. Includes townhomes and apartments in duplex
3. Includes bachelor, 1 bedroom and 2 bedroom+ apartments

**Figure 2-10**  
**City of Stratford**  
**2006 Household by Density Type**



Source: Statistics Canada Census

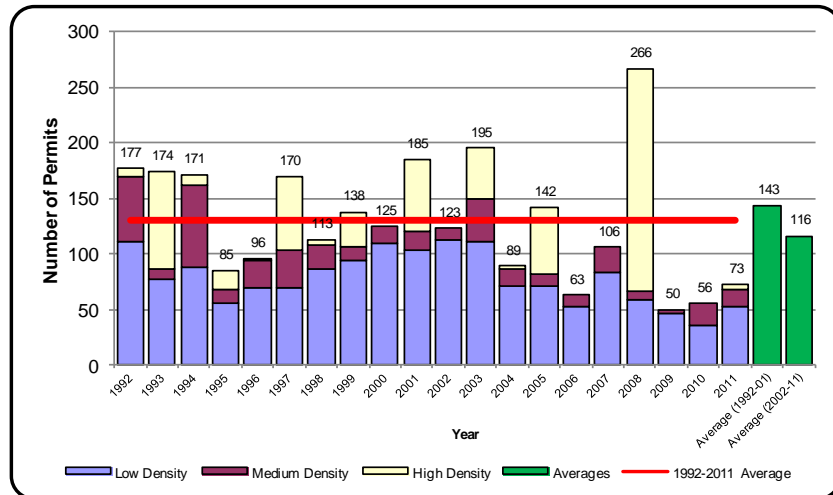
1. Includes other detached dwellings
2. Includes townhomes and apartments in duplex
3. Includes bachelor, 1 bedroom and 2 bedroom+ apartments

### 2.2.4 Residential Building Permit Activity, 1992-2011

Figure 2-11 summarizes recent residential building permit activity (new housing units only) between 1992 and 2011. Figure 2-12 illustrates the residential building permit activity over the past decade (i.e. 2002-2011) by dwelling type. Key highlights include:

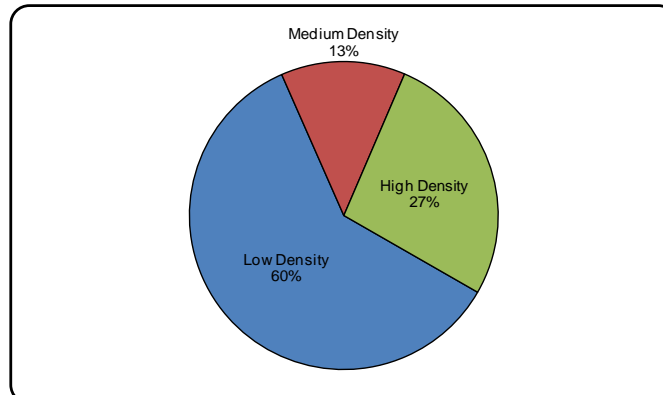
- Over the 1992-2011 period, residential building permit activity (new housing units) averaged 130 units per year; and
- Over the past decade (i.e. 2002-2011), low density dwellings have accounted for 60% of residential building permit activity. This is compared to 13% and 27% for medium and high density dwellings, respectively.

**Figure 2-11**  
**City of Stratford**  
**Residential Building Permits, 1992-2011**



Source: City of Stratford Planning Department, 2012

**Figure 2-12**  
**City of Stratford**  
**Residential Building Permit Activity by Housing Type, 2002-2011**



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### **3. ECONOMIC AND SOCIOECONOMIC PROFILE**

### 3. ECONOMIC AND SOCIOECONOMIC PROFILE

The following section summarizes recent economic and socioeconomic conditions for the City of Stratford within a regional and Provincial context. Specific attention is also given to recent trends within existing and emerging economic sectors which are anticipated to drive economic growth and residential development in Stratford over the short- and longer-term period.

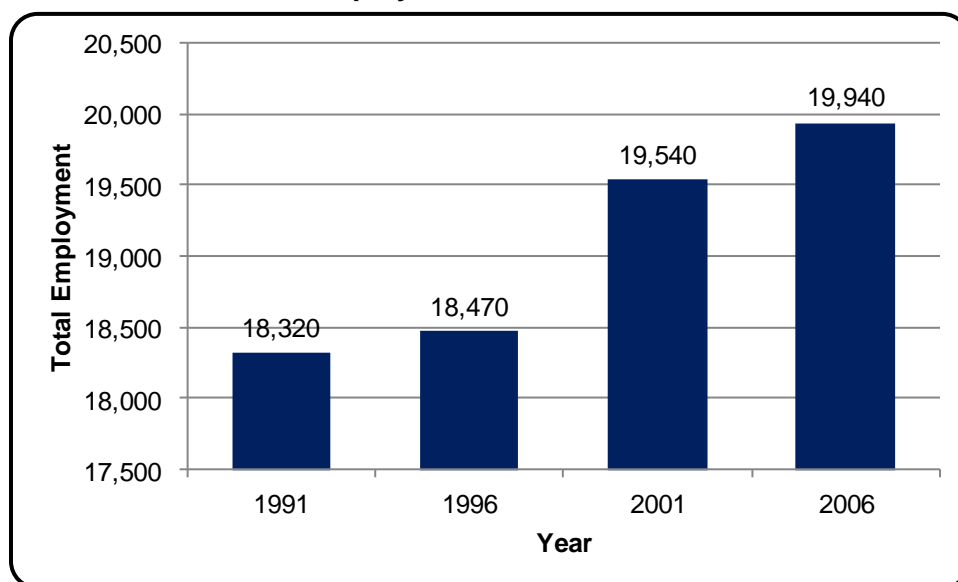
#### 3.1 Employment

##### 3.1.1 *Employment Growth, 1991-2006*

Figure 3-1 summarizes total employment growth for the City of Stratford from 1991 to 2006. Figure 3-2 illustrates average annual employment growth for the City, in comparison to the County and the Provincial average during the 1996-2006 period. 2011 Census employment data will not be available until 2013. Key observations include:

- Stratford's total employment has increased from 18,320 in 1991 to 19,940 in 2006; and
- The City experienced strong employment growth between 1996 and 2001, but slowed significantly in 2001-2006, averaging 214 and 80 jobs per year, respectively. This represented an average annual growth rate of 1.1% and 0.4%, respectively, which was lower than both the County and the Provincial average.

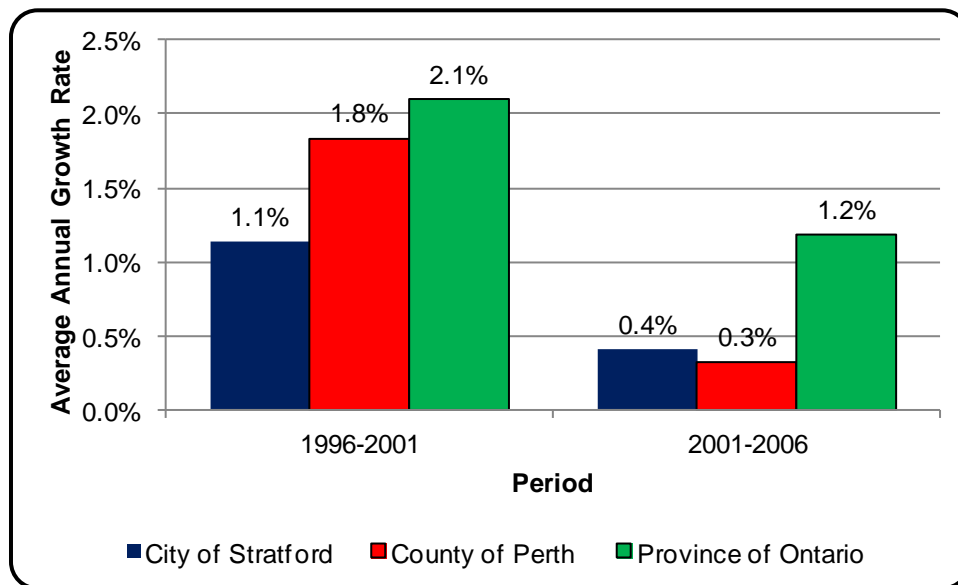
**Figure 3-1**  
**City of Stratford**  
**Total Employment Growth, 1991-2006**



Source: Statistics Canada Census, 1991-2006



**Figure 3-2**  
**City of Stratford**  
**Average Annual Employment Growth, 1996-2006**



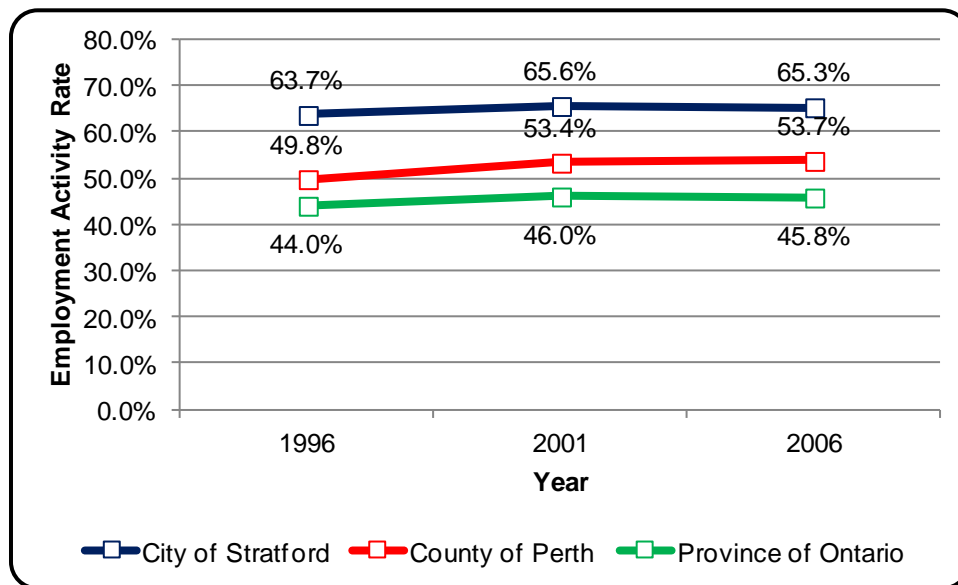
Source: Statistics Canada Census, 1996-2006

### 3.1.2 Employment Activity Rates, 1996-2006

An employment activity rate is defined as the number of local jobs in a municipality divided by the resident population. An increasing employment activity rate indicates that the local employment base is increasing at a faster rate than the local population. On the other hand, a declining activity rate indicates the opposite trend. Figure 3-3 summarizes the historic employment activity rate from 1996 through 2006. For comparative purposes, the historical employment activity rates for the County of Perth and the Provincial average are also provided. Key observations include:

- In 2006, Stratford's activity rate was 65.3%, moderately higher than the County and the Provincial average; and
- Stratford's employment activity rate has remained relatively constant over the 1996-2006 period.

**Figure 3-3**  
**City of Stratford**  
**Employment Activity Rates, 1996-2006**



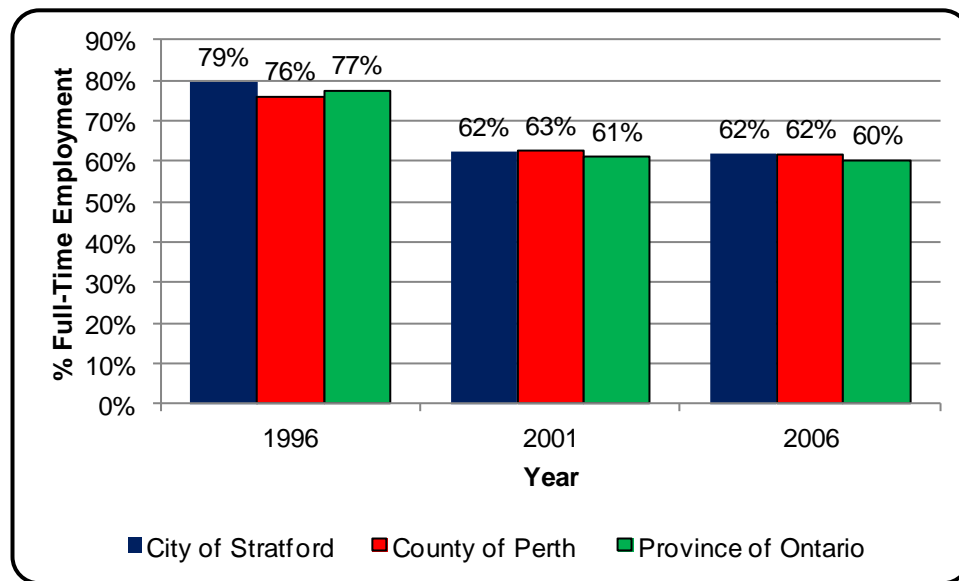
Source: Statistics Canada Census, 1996-2006

### 3.1.3 Full-Time Employment

Figure 3-4 summarizes full-time employment as a proportion of total employment (full-time and part-time employment) for Stratford, the County of Perth and the Province from 1996 to 2006. Over this time period:

- Full-time employment in Stratford declined from 79% to 62%; and
- Stratford's full-time employment share of total employment has been generally comparable with the County and the Provincial average.

**Figure 3-4**  
**City of Stratford**  
**Full-Time Employment, 1996-2006**



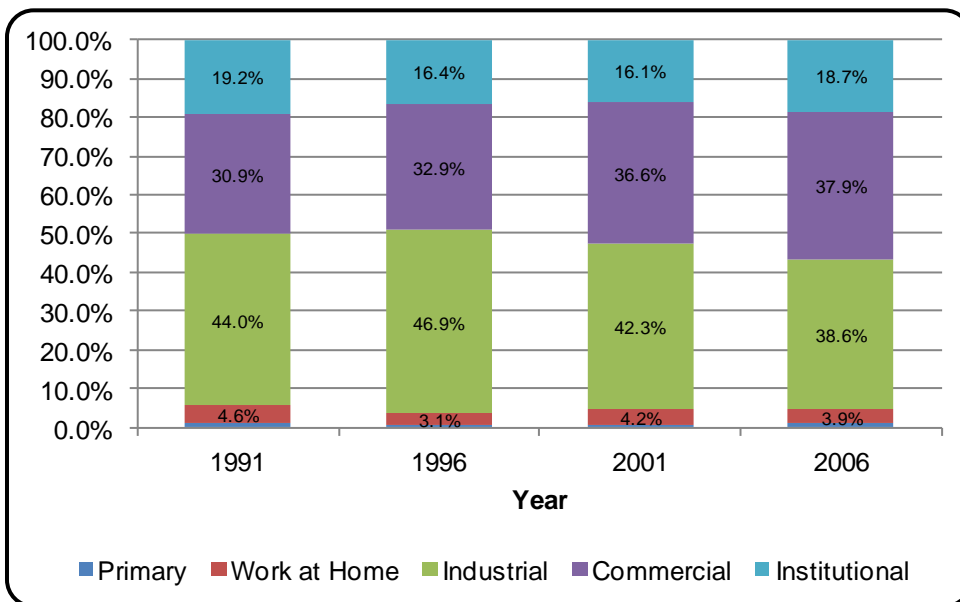
Source: Statistics Canada Census

### 3.1.4 Employment by Sector, 1991-2006

Figure 3-5 summarizes Census employment by major sector for Stratford from 1991 through to 2006. Figure 3-6 summarizes net employment growth by sector over the 1991-2006 period. Over this time period:

- The commercial and industrial sectors represent the largest components of the City's employment base, with an employment share of 38% and 39%, respectively, in 2006;
- The institutional and work at home sectors represent 19% and 4% of total employment, respectively;
- The primary sector has accounted for less than 1% of total employment; and
- In terms of absolute employment growth, population-related employment has seen the largest increase, driven by the City's historical population growth. The commercial sector experienced significant gains in employment over the 1996-2001 period, while the institutional sector has also been relatively strong, especially during the 2001-2006 period. On the other hand, the industrial sector experienced a decline in absolute employment (i.e. commercial/institutional) over the 1996-2006 period.

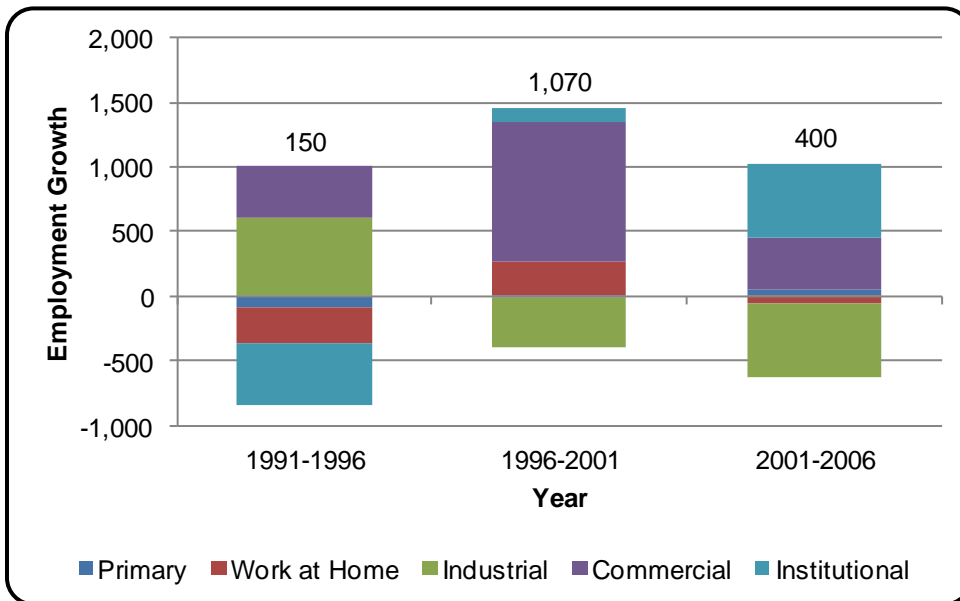
**Figure 3-5**  
**City of Stratford**  
**Employment by Sector, 1991-2006**



Source: Statistics Canada Census, 1991-2006

Note: Primary employment accounts for 1% or less of total employment in each year

**Figure 3-6**  
**City of Stratford**  
**Employment Growth by Sector, 1991-2006**



Source: Statistics Canada Census, 1991-2006

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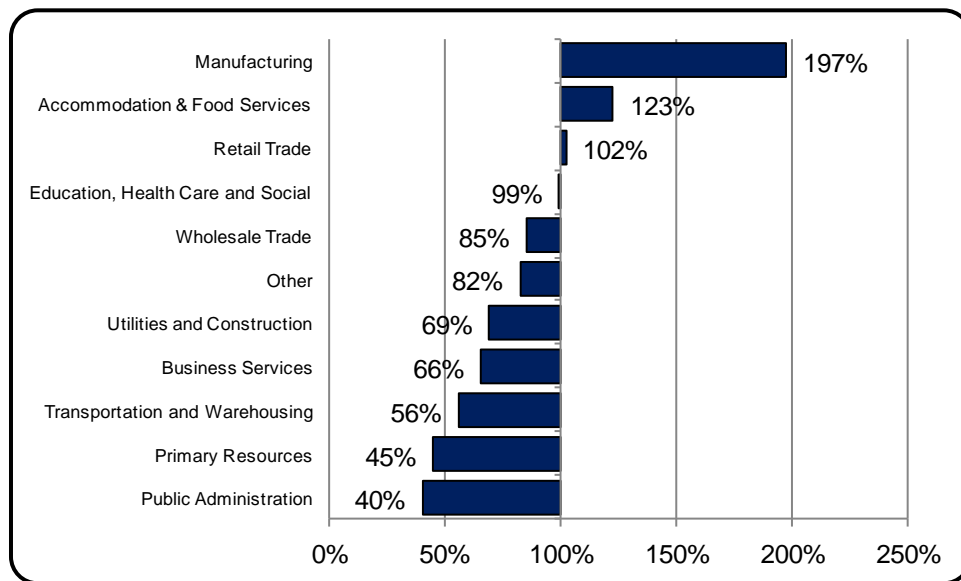
### 3.1.5 *Employment Structure*

Figure 3-7 illustrates the strength of employment sectors in Stratford relative to the Province using Location Quotients (LQ).

Location Quotients are a commonly used tool in regional economic analysis. They assess the concentration of economic activities within a smaller area relative to the overarching region in which it resides. The LQ for a given municipality is calculated by dividing the percentage of total local employment represented by a sector, with the percentage of the total Provincial employment represented by the sector. An LQ of 100% identifies that the concentration of employment by sector is consistent with the Provincial average. An LQ of greater than 100% identifies that the concentration of employment in a given employment sector is higher than the Provincial average, which suggests a relatively high concentration of a particular employment sector or “cluster.” Employment sectors with a relatively high LQ generally serve both the local population base as well as employment markets which extend beyond the boundaries of the municipality. On the other hand, employment sectors with an LQ of less than 100% identify particular employment sectors which have relatively lower concentrations (as compared with the needs of the local market). Key observations from the LQ analysis include:

- Stratford’s economy is highly oriented towards manufacturing and accommodation and food services sectors;
- In relation to the Provincial average, Stratford has a balanced concentration of employment in retail trade and education, health care and social services; and
- On the other hand, Stratford has a relatively low concentration of employment in public administration, primary resources, transportation and warehousing, business services and utilities and construction services.

**Table 3-7**  
**City of Stratford**  
**Employment Location Quotient, 2006**



Source: Statistics Canada, 2006 Total Employment by North American Industrial Classification System (NAICS)

Note: Location Quotient compared against Province of Ontario

### **3.2 Trends in Employment vs. Labour Force**

Table 3-8 summarizes the change in historical employment (full-time/part-time) versus labour force for the City of Stratford over the 1996-2006 period. The labour force represents the number of Stratford residents who are employed regardless of where they work. Employment represents the number of jobs located within Stratford, regardless of where the employee lives. Key observations include:

- The City of Stratford is a net importer of jobs. In other words, in-commuters exceed out-commuters; and
- Over the 1996 to 2006 Census period, the proportion of employment (jobs) in Stratford to total labour force decreased from 128% to 122%.

**Table 3-8**  
**City of Stratford**  
**Historical Employment vs. Labour Force, 1996-2006**

Year	Total Labour Force	Total Employment	Net Difference	Employment as % of Labour Force
1996	14,430	18,470	4,040	128.0%
2001	15,840	19,540	3,700	123.4%
2006	16,320	19,940	3,620	122.2%
Increase (1996-2006)	1,890	1,470	(420)	
% Increase (1996-2006)	13.1%	8.0%	-10.4%	

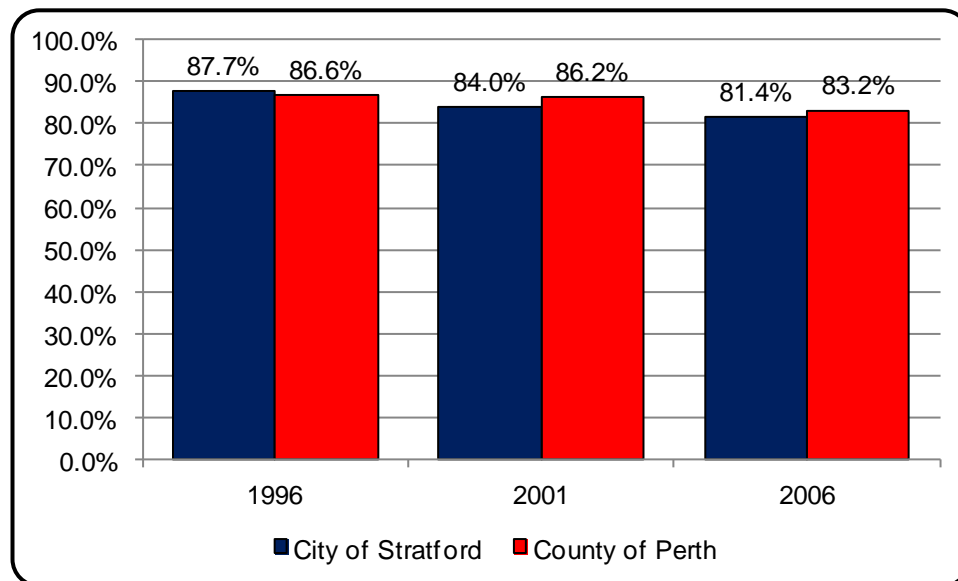
Source: Statistics Canada Census

### 3.2.1 Live-Work Ratio

Figure 3-9 illustrates the strength of the employment base in the City by summarizing the location of employment relative to location of residence. From an economic perspective, a high live-work ratio is desirable as it ensures that the local labour force (i.e. residents of Stratford) is well served by the opportunities available in the local employment market (i.e. jobs in Stratford). Key observations include:

- The City of Stratford is generally “self-contained” with 81.4% of local residents employed within the City in 2006. However, the City’s live-work ratio has steadily declined from 87.7% in 1996; and
- Stratford’s live-work ratio is slightly lower than the County of Perth.

**Figure 3-9**  
**City of Stratford**  
**Live-Work Ratio, 1996-2006**



Source: Statistics Canada Employment by Place of Work

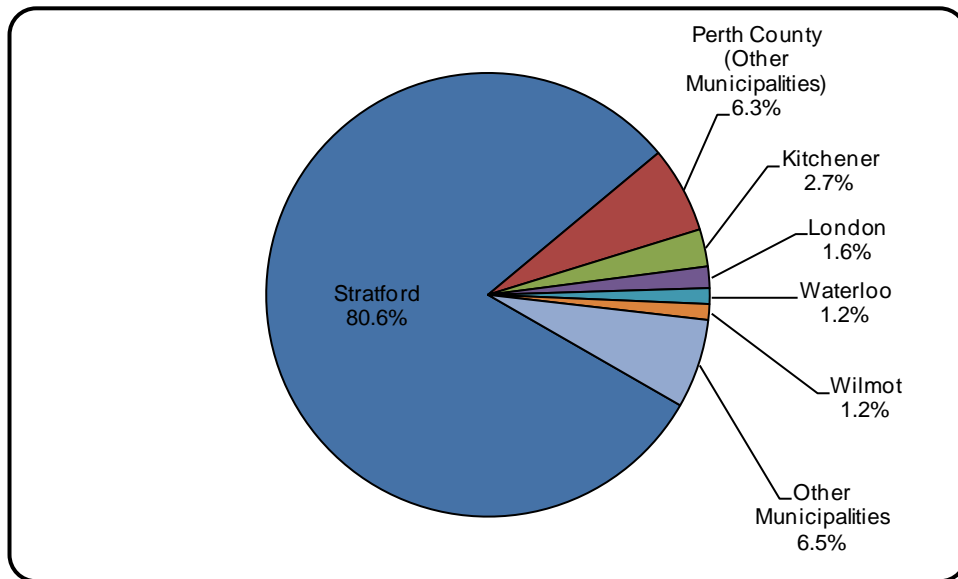
### 3.2.2 Commuting Trends

Figure 3-10 summarizes where those employed in Stratford commute from. Figure 3-11 illustrates where Stratford residents commute to for work. Key observations include:

- Of the employed Stratford labour force, approximately 81% work within Stratford. Meanwhile, approximately 6% commute to the rest of the County of Perth and the remaining 13% commute to other areas outside the County;
- Of the total employment base in Stratford, 60% are held by Stratford residents while 22% commute from the rest of the County of Perth and 18% from beyond the County.

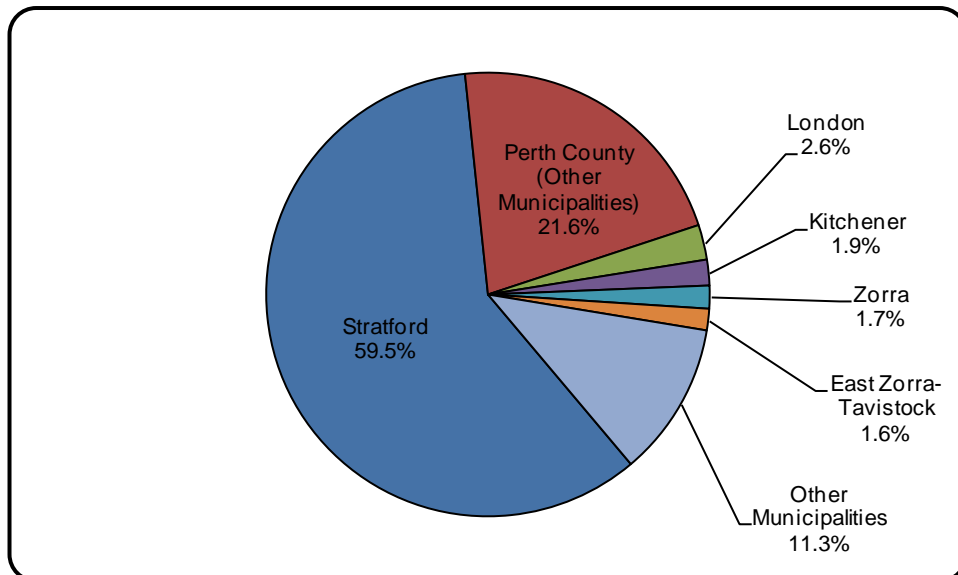


**Figure 3-10**  
**City of Stratford**  
**Where Stratford Residents Commute To For Work, 2006**



Source: Statistics Canada Employment by Place of Work

**Figure 3-11**  
**City of Stratford**  
**Where Stratford Employees Commute From, 2006**



Source: Statistics Canada Employment by Place of Work

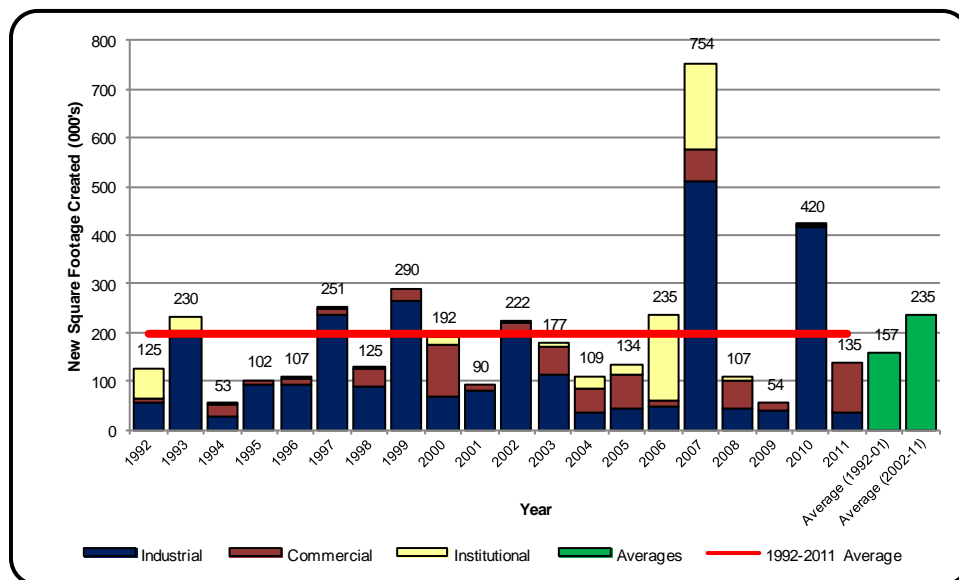
### 3.3 New Non-Residential Construction Activity, 1992-2011

Figure 3-12 illustrates non-residential gross floor area by sector from 1992 to 2011 within the City of Stratford. Figure 3-13 summarizes the non-residential construction by sector over the past five years. Highlights include:

- During 1992-2011, Stratford averaged approximately 196,000 square feet of non-residential floor space construction annually;
- The industrial sector has accounted for 71% of all non-residential floor space construction over the past five years;
- The industrial development activity during the 2007-2011 period was largely associated with a handful of large scale projects, including the Hayashi Canada auto parts plant and the RBC data centre; and
- 2007 and 2010 were strong years with a combined 1,174,000 square feet of construction floor space.

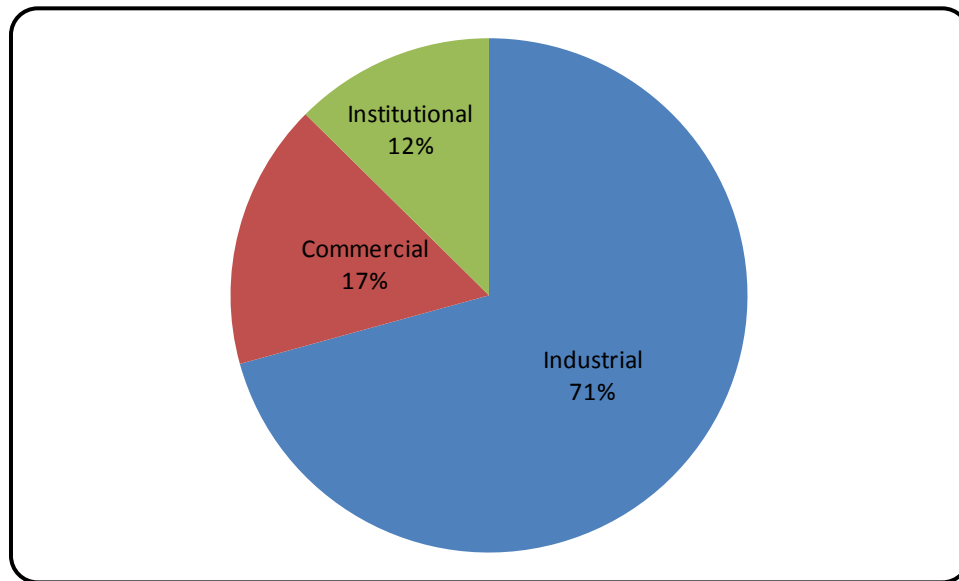
**Figure 3-12**  
**City of Stratford**

#### **New Non-Residential Gross Floor Area Construction, 2002-2011**



Source: Adapted from Stratford Planning Department building permit statistics by Watson & Associates Economists Ltd.

**Figure 3-13**  
**City of Stratford**  
**Non-Residential Square Footage Share, 2007-2011**



Source: Adapted from Stratford Planning Department building permit statistics by Watson & Associates Economists Ltd.

### 3.4 Household Income

Figure 3-14 summarizes average household income growth for Stratford, the County of Perth and the Province over the 1996-2006 Census periods. Key observations include:

- In 2006, household income in Stratford averaged \$65,000 per year, slightly lower than the County average and moderately lower than the Provincial average;
- Over the 1996-2001 and 2001-2006 periods, annual household income growth in Stratford averaged 3.6% and 2.8%, respectively, which is comparable to the County, but lower than the Provincial average; and
- The City's average annual household income growth rate declined slightly from the 1996-2001 period to the 2001-2006 period, which is consistent with the County and the Province.

**Figure 3-14**  
**City of Stratford**  
**Average Household Income, 1996-2006**

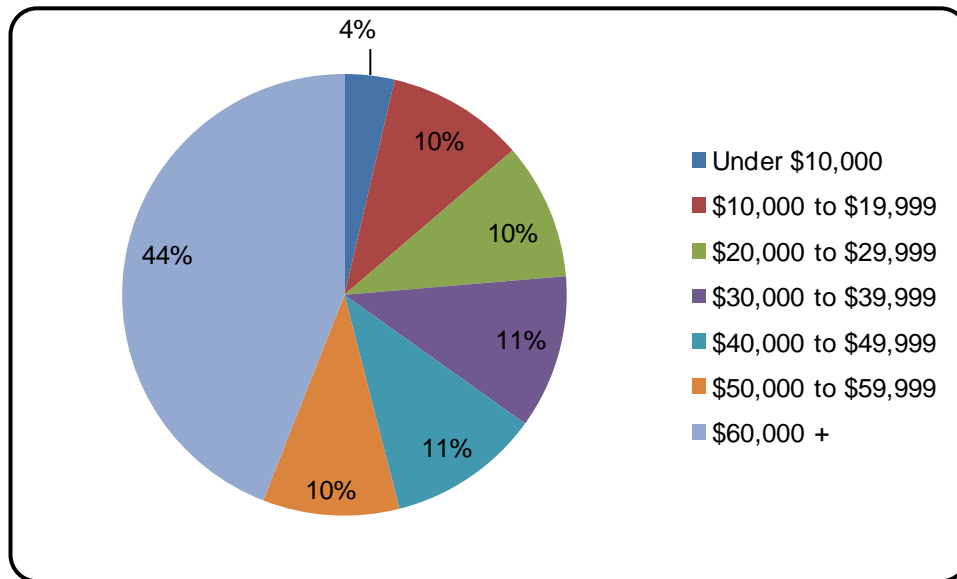
Year	City of Stratford	County of Perth	Province of Ontario
	Household Income		
1996	\$47,363	\$49,557	\$54,291
2001	\$56,552	\$60,277	\$66,836
2006	\$65,046	\$67,241	\$77,967
Period	Average Annual Growth		
1996-2001	\$1,838	\$2,144	\$2,509
2001-2006	\$1,699	\$1,393	\$2,226
Period	Average Annual Growth Rate		
1996-2001	3.6%	4.0%	4.2%
2001-2006	2.8%	2.2%	3.1%

Source: Statistics Canada Census

Figure 3-15 summarizes the distribution of households within the City of Stratford by income class. Key observations include:

- In 2006, 44% of Stratford households had an annual income of \$60,000 or greater; and
- Households earning an income of less than \$30,000 per year account for 24% of the total.

**Figure 3-15**  
**City of Stratford**  
**Household Distribution by Income, 2006**



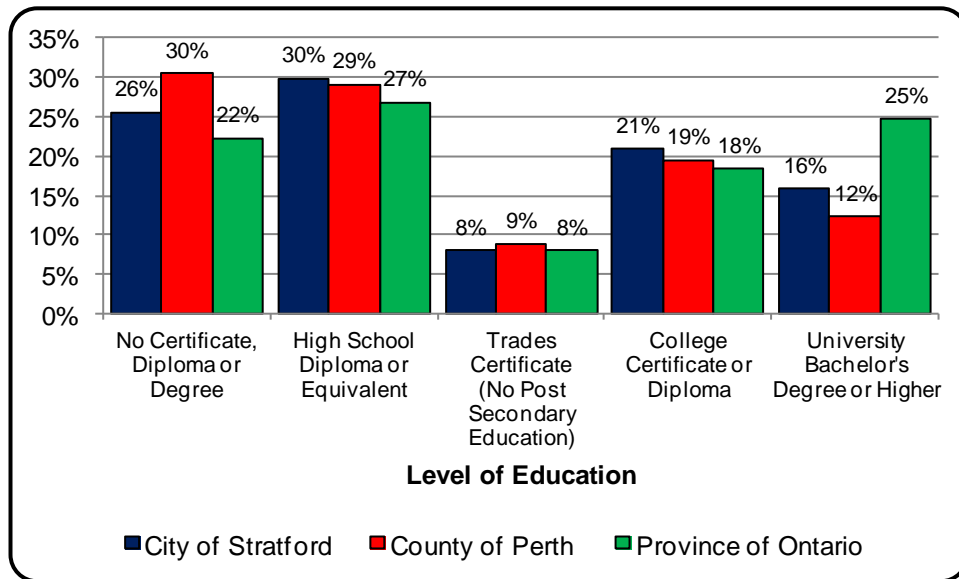
Source: Statistics Canada Census

### 3.5 Education Attainment

Figure 3-16 summarizes the highest level of education achieved by Stratford residents compared to the County of Perth and the Provincial average in 2006. Key findings include:

- Generally, Stratford compares favorably with the County of Perth and the Provincial average in terms of education attainment;
- Of the Stratford population, 74% has a high school education or higher, compared to 70% for the County of Perth and 78% in the Province; and
- Stratford has a higher share of residents that have a University certificate, diploma or degree compared to the County (37% vs. 31%).

**Figure 3-16**  
**City of Stratford**  
**Highest Level of Education, 2006**



Source: Statistics Canada Census

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## 4. POPULATION AND HOUSING FORECAST

## 4. POPULATION AND HOUSING FORECAST

The growth analysis provided herein builds on the findings detailed in Chapters 2 and 3, and the population and housing forecast presented in the City of Stratford 2008 Development Charge Background Study by Watson & Associates Economists Ltd. The population and household forecast approach/methodology is detailed in Appendix A. The forecast housing and population growth is detailed in Appendix B and summarized below:

### 4.1 Forecast Housing Growth, 2012-2031

Figure 4-1 provides a summary of forecast housing growth for the City of Stratford from 2012 to 2032 by dwelling type (i.e. low, medium and high density). Over the 20-year forecast period, the City's total number of housing units is forecast to increase from 13,400 in 2012 to 15,400 in 2032, an increase of 1,995 units.

**Figure 4-1**  
**City of Stratford**  
**Housing Growth Forecast Summary, 2012-2032**

Year	Housing Units				
	Singles & Semi's (Low Density)	Townhomes (Medium Density)	Apartments (High Density)	Other	Total Households
2006 <sup>1</sup>	8,385	1,355	3,045	80	12,865
2011 <sup>2</sup>	8,625	1,410	3,215	80	13,330
2012 <sup>3</sup>	8,678	1,425	3,220	80	13,403
2022 (Forecast)	9,227	1,604	3,527	80	14,438
2032 (Forecast)	9,751	1,766	3,801	80	15,398
2012-2022	549	179	307	0	1,035
2012-2032	1,073	341	581	0	1,995

Source: Watson & Associates Economists Ltd.

1. Statistics Canada 2006 Census

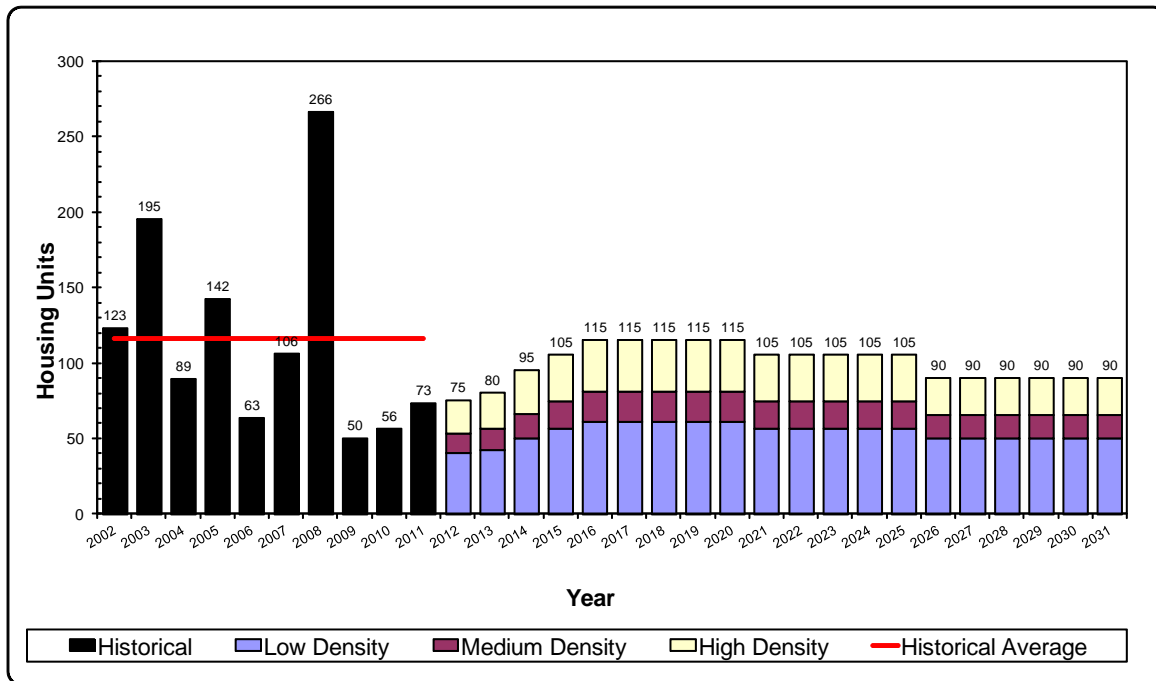
2. Total housing units derived from 2011 Census. Units mix estimated by Watson & Associates based on building permit activity

3. Watson & Associates Economists Ltd. estimate

Figure 4-2 graphically illustrates the annual housing growth forecast for the City of Stratford over the 2012 to 2032 period against historical building permit activity over the past 10-year period (2002-2011). Over the next 20 years, annual housing growth is forecast to average approximately 100 units per year, slightly lower than the historical building permit activity over the past 10 years (see discussion in Section 2.2 for more details on historical housing trends).



**Figure 4-2**  
**City of Stratford**  
**Forecast Housing Growth by Year,<sup>1</sup> 2012-2032**



Source: Historical housing activity (2001-2010) based on Statistics Canada building permits, Catalogue 64-001-XIB

1. Growth Forecast represents start year.

Housing growth is anticipated to increase moderately over the 2012-2015 period, assuming a gradual recovery in macro and local economic conditions. Housing growth is expected to peak at 115 units per annum on average for the 2016-2020 period. Housing growth during the latter half of the forecast period is expected to decline due to the gradual aging of the population and labour force.

With regard to housing by unit type, low density households (i.e. single detached and semi-detached units) are expected to represent approximately 54% of total new construction over the forecast period. Medium and high density households are forecast to comprise the remaining 17% and 29% of the new housing stock, respectively.

## 4.2 Forecast Population Growth, 2012-2032

This section provides an analysis of population growth for the City of Stratford over the 2012-2032 period. Figure 6-3 summarizes forecast population growth for Stratford in ten-year increments from 2012 to 2032. Figure 6-4 illustrates the forecast population growth in comparison to the historical population growth. Key highlights include:

- By 2032, Stratford’s population is anticipated to reach 33,600, representing an increase in population from 2012 to 2032 of approximately 2,650; and
- Stratford’s population growth is expected to average 0.4% per annum over the 20-year period, slightly lower than the trend observed over the 1996-2011 period; and
- During the forecast period, the City’s institutional population is expected to increase by 320.

**Figure 4-3  
City of Stratford  
Population Forecast Growth, 2012-2032**

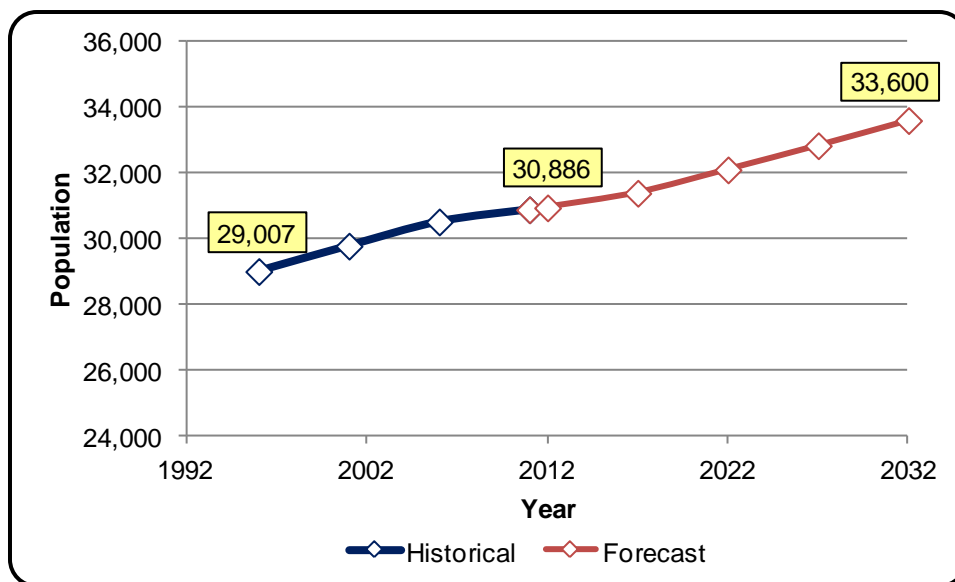
Year	Total Population <sup>1</sup>	Institutional Population <sup>2</sup>	Population in Households
2006	30,516	741	29,775
2011	30,886	821	30,065
2012	30,950	837	30,107
2022 (Forecast)	32,100	997	31,128
2032 (Forecast)	33,600	1,157	32,422
2012-2022	1,150	160	1,021
2012-2032	2,650	320	2,316

Source: Watson & Associates Economists Ltd.,

1. Excludes Census undercount estimated at approximately 4%.

2. Reflects largely persons in collective dwellings (e.g. assisted living facilities)

**Figure 4-4  
City of Stratford  
Historical and Forecast Population, 1996-2032**



Source: Watson & Associates Economists Ltd.

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## 5. CONCLUSIONS

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## 5. CONCLUSIONS

Highlights regarding the City of Stratford demographic and economic profile and population and housing forecast are as follows:

Demographic and economic profile findings:

- Stratford is a mature medium sized City which has seen its population increase from 27,700 in 1991 to 30,900 in 2011;
- The City's population growth rate over the period has been significantly lower than the provincial average;
- Stratford's age structure is older than the provincial average and is aging at a faster rate than the provincial average;
- The City of Stratford's housing growth rate has also been below the Provincial average, with total housing units increasing from 11,050 in 1991 to 13,330 in 2011;
- Average household size in Stratford is lower than the provincial average and the City has experienced relatively strong growth in one and two person households, weak growth in three person households and negative growth in four, five and six or more person households;
- Stratford's existing housing stock is dominated by low density built form with 65% of the existing housing stock consisting of single family and semi-detached units. The City's housing mix has remained relatively unchanged during the 1991-2011 period, though recent housing development activity indicates a gradual shift towards a moderately higher proportion of medium and high density units;
- The City's employment base has grown from 18,300 in 1991 to 19,900 in 2006, representing a growth rate of approximately half of the Provincial average;
- Stratford's employment activity rate of 65%, which has remained stable over the 1996 through 2006 period, is considerably higher than the Provincial average;
- The commercial and industrial sectors represent the largest component's of the City's employment base;
- The City's employment base is highly oriented to manufacturing, accommodation and food services and retail trade;
- Between 1991 and 2006, the employment base shifted towards a greater share of institutional and commercial/population-related jobs from industrial jobs. During this period, the share of full-time employment has also declined;
- Non-residential building construction has been strong in the past five years, dominated by the industrial sector; and
- The City is "self-contained," characterized by a high live-work ratio;

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Population and Housing Forecast:

- Over the 2012-2032 period, Stratford's population is forecast to grow from 30,950 in 2012 to 33,600 in 2032, an increase of 2,650;
- Housing growth over the period is expected to total 1,995 units, averaging 100 units per year, slightly lower than the building activity over the past decade; and
- Of the forecast housing units, 53% are expected to be low density, 17% medium density and 30% high density.

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**APPENDIX A  
POPULATION AND HOUSEHOLD FORECAST  
METHODOLOGY**

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## APPENDIX A - POPULATION AND HOUSING FORECAST METHODOLOGY

In the development of the respective growth forecasts, a comprehensive review of current and evolving demographic and economic trends, as well as future development opportunities/constraints, was undertaken. Several factors were considered in the development of each growth forecast. These include:

- Historical housing and employment activity (i.e. residential building permits, housing completions, non-residential building permit values);
- A review of active housing units in the development approvals process;
- Prospective housing growth trends by type (i.e. single/semi-detached, townhomes, apartments);
- Forecast population age structure;
- The impacts of an aging population base on long-term housing needs;
- Recent employment trends and the medium- to long-term economic outlook for Stratford and the surrounding area;
- Prospective employment growth by major sector (i.e. *primary*, work at home, industrial, commercial and institutional); and
- Discussions with municipal staff regarding recent housing trends and the short-term outlook for the housing market and outlook for non-residential sector.

### **Population and Housing Forecast Methodology**

The population and household forecast methodology is based on a combined approach, which incorporated a review of Watson's in-house cohort-survival model and an update to the firm's household formation-based growth forecasting methodology and review of previous in-house cohort-survival model. The following provides a discussion on each of the above-mentioned approaches to residential growth forecasting.

- i) *Household Formation Forecast Methodology*** - This "bottom-up" approach focuses on the rate of historical housing construction in the municipality and surrounding area, adjusted to incorporate factors such as servicing constraints and units in the development process. The population is then forecast by developing assumptions on average household size by unit type, taking into consideration the higher average occupancy of new units, and the decline in persons per unit over time within existing households. The housing market model approach is recognized in the Province's 1995 "Projection Methodology Guidelines," as the "Simpler Methodology."<sup>1</sup>

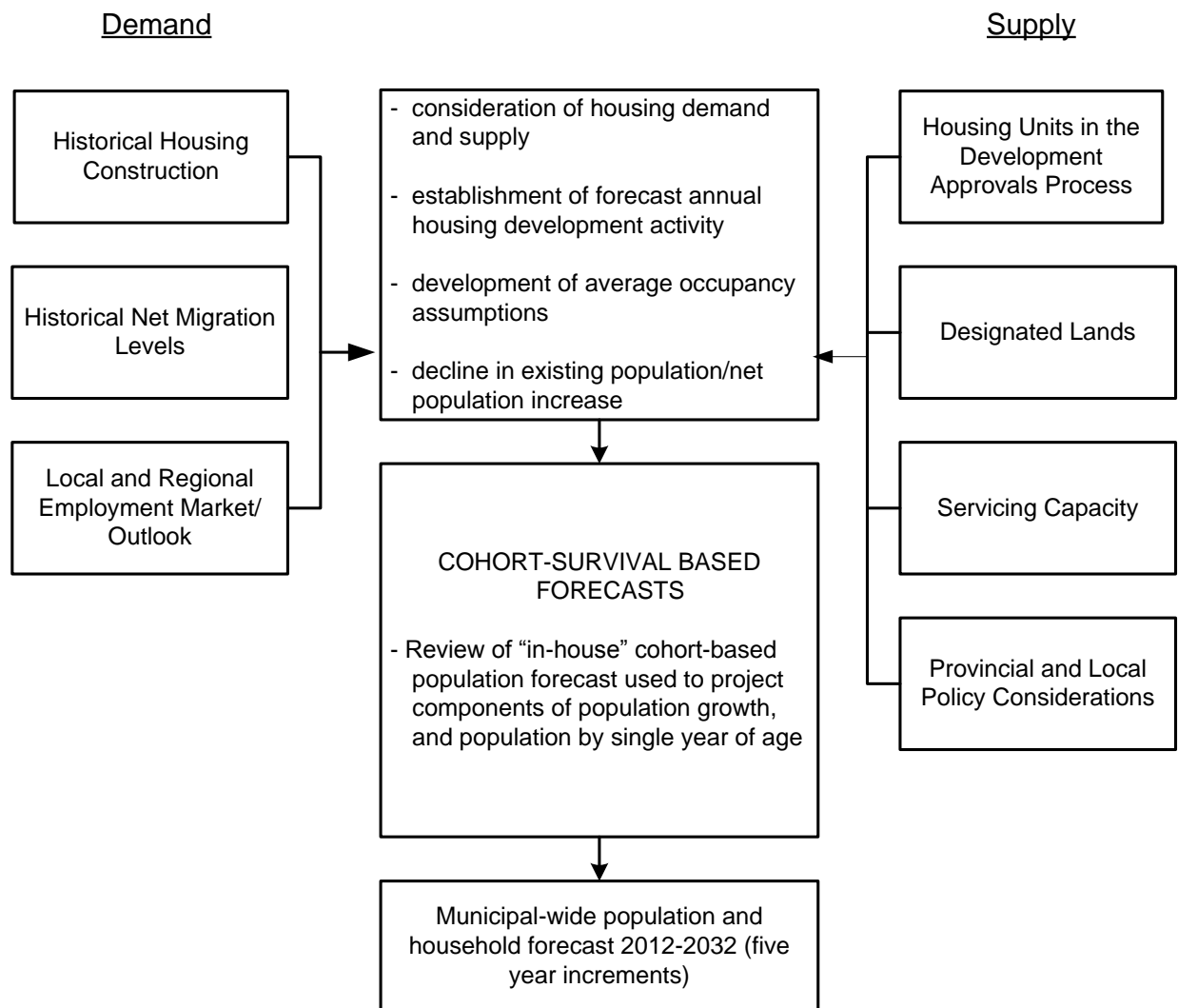
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<sup>1</sup> Projection Methodology Guideline: A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements, 1995.

ii) **Cohort-Survival Forecast Methodology** - This “top-down” approach uses, as its base, five-year population age groups by sex and ages each group over time, taking into consideration age-specific death rates and age-specific fertility rates for the female population in the appropriate years (to generate new births). To this total, an estimated rate of *net migration* is added (in-migration to the municipality less out-migration, by age group).

Forecast population and housing growth is provided in five-year increments from 2012 to 2032. The attached schematic diagram (Figure A-1) graphically illustrates the residential growth forecast methodology.

**Figure A-1  
City of Stratford  
Population and Housing  
Forecast Methodology**





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## **APPENDIX B**

# **POPULATION AND HOUSEHOLD FORECAST**

**TABLE B-1  
CITY OF STRATFORD  
RESIDENTIAL GROWTH FORECAST SUMMARY**

Year	Population (Excluding Census Undercount)	Institutional Population	Population in Households	Housing Units					
				Singles & Semi- Detached	Multiple Dwellings <sup>2</sup>	Apartments <sup>3</sup>	Other	Total Households	Person Per Unit (PPU)
<i>Mid 1996</i>	29,007	552	28,455	7,725	1,005	2,945	85	11,760	2.47
<i>Mid 2001</i>	29,780	785	28,995	8,170	1,065	2,970	30	12,235	2.43
<i>Mid 2006</i>	30,516	741	29,775	8,385	1,355	3,045	80	12,865	2.37
<i>Mid 2011</i>	30,886	821	30,065	8,625	1,410	3,215	80	13,330	2.32
<i>Mid 2012</i>	30,944	837	30,107	8,678	1,425	3,220	80	13,403	2.31
<i>Mid 2017</i>	31,389	917	30,472	8,927	1,506	3,360	80	13,873	2.26
<i>Mid 2022</i>	32,125	997	31,128	9,227	1,604	3,527	80	14,438	2.23
<i>Mid 2027</i>	32,834	1,077	31,757	9,501	1,691	3,676	80	14,948	2.20
<i>Mid 2032</i>	33,579	1,157	32,422	9,751	1,766	3,801	80	15,398	2.18
<b>Mid 1996 - Mid 2001</b>	<b>773</b>	<b>233</b>	<b>540</b>	<b>445</b>	<b>60</b>	<b>25</b>	<b>-55</b>	<b>475</b>	
<b>Mid 2001 - Mid 2006</b>	<b>736</b>	<b>-44</b>	<b>780</b>	<b>215</b>	<b>290</b>	<b>75</b>	<b>50</b>	<b>630</b>	
<b>Mid 2006 - Mid 2011</b>	<b>370</b>	<b>80</b>	<b>290</b>	<b>240</b>	<b>55</b>	<b>170</b>	<b>0</b>	<b>465</b>	
<b>Mid 2011 - Mid 2012</b>	<b>58</b>	<b>16</b>	<b>42</b>	<b>53</b>	<b>15</b>	<b>5</b>	<b>0</b>	<b>73</b>	
<b>Mid 2012 - Mid 2022</b>	<b>1,181</b>	<b>160</b>	<b>1,021</b>	<b>549</b>	<b>179</b>	<b>307</b>	<b>0</b>	<b>1,035</b>	
<b>Mid 2012 - Mid 2032</b>	<b>2,636</b>	<b>320</b>	<b>2,316</b>	<b>1,073</b>	<b>341</b>	<b>581</b>	<b>0</b>	<b>1,995</b>	

Source: Watson & Associates Economists Ltd., June, 2012.

1. Census Undercount estimated at approximately 4%. Note: Population Including the Undercount has been rounded.
2. Includes townhomes and apartments in duplexes.
3. Includes bachelor, 1 bedroom and 2 bedroom+ apartments.