

# Final Report National Capital Region Travel Trends

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Prepared for the TRANS Committee by IBI Group April 5, 2016

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## 1 Introduction

### 1.1 The National Capital Region at a Glance

This report presents and analyzes transportation trends in Canada's National Capital Region (NCR), an area roughly coincident with the cities of Ottawa and Gatineau. From its origins as a centre for the lumber trade, the NCR has rapidly expanded into one of Canada's major administrative and institutional hubs. Outward expansion of the region has been a dominant theme since the end of the Second World War, beginning in earnest with the annexation of land from Nepean and Gloucester that expanded the City of Ottawa fivefold in 1950. Gatineau became a city in its own right in 1950, as did Hull in 1975. The amalgamations of Ottawa and Gatineau, in 2001 and 2002, respectively, expanded the cities even farther beyond their riverside beginnings.

Today, the NCR is home to more than 1.2 million people and encompasses more than 4,700 km<sup>2</sup> across Ontario and Québec. According to the 2011 OD Survey, these residents (aged 11+) made approximately 2.9 million trips per day, 70% of which were by private automobile. An overview map of the region is shown in Exhibit 1.1.



Exhibit 1.1: Map of the National Capital Region

### 1.2 Purpose

The primary objective of this study is to track changes in travel behaviour and trends in the NCR as recorded in four major origin-destination (OD) travel surveys conducted in 1986, 1995, 2005, and most recently, in 2011. These surveys present a snapshot of travel demand on a typical day in the NCR by surveying a large sample of its residents about where, why, when, and how they travelled. This, coupled with demographic information about travellers, portrays the changing state of travel in the NCR.

This report updates and builds upon previous NCR Travel Trends studies by presenting the relationship between travel trends and changing economic and demographic conditions. Updated information from the 2011 Census and other sources help establish a holistic picture of the emerging, shifting and established trends within the NCR.

On the basis of the observed trends, this report also provides forward-looking analysis about the likely changes in travel behaviour that will manifest themselves in the coming years. This has the aim of informing TRANS member agencies of transportation pattern changes they can expect to see in the short- to medium-term.

### 1.3 Report Structure

The report is structured as follows:

- Chapter 2 puts the NCR in the context of national and international economic and transportation trends with the aim of providing a broader context for the trends presented in the remainder of the report;
- Chapter 3 presents demographic and land use trends in the NCR, including intensification, transit-oriented development, and suburbanization;
- Chapter 4 discusses travel behaviour trends, including interprovincial travel, mode shares and trip distance;
- Chapter 5 covers transportation performance trends across the region, including congestion, transit ridership and peak spreading;
- Chapter 6 provides a summary of transportation outlooks for the medium- and longterm; and
- Chapter 7 presents a summary of the main conclusions of the study.

# 2 National and Global Context

### 2.1 Economic Trends

### Household and Family Income

On the basis of median household income, Ottawa-Gatineau was the wealthiest of Canada's six largest census metropolitan areas (CMAs) in 2011. As illustrated in Exhibit 2.1, pre-tax household income was some 35% higher than in Vancouver, Montreal, and Toronto, and marginally higher than in Calgary and Edmonton. At 55%, the Ottawa-Gatineau CMA also has the highest percentage of census families making above \$60,000 per annum. This is some 19 percentage points higher than in Montreal and 16 percentage points higher than in Toronto. The distribution of census family income is shown in Exhibit 2.2.



Exhibit 2.1: Median 2011 Pre-Tax Household Income by Census Metropolitan Area

Source: Canadian Socioeconomic Information Management (CANSIM) Table 111-0009





Source: CANSIM Table 202-0408

This is not to suggest that the country's wealthiest individuals reside in the NCR. Rather, the NCR is home to a relatively small number of low-income households and a large number of moderate- to high-income households. As such, a high percentage of households are able to own homes and autos, and a relatively low percentage live in social housing and are captive to transit.

### Unemployment

As illustrated in Exhibit 2.3, the NCR's unemployment rate has remained relatively stable in comparison to the other five large Canadian CMAs. For example, when all other Canadian CMAs saw unemployment increases of two percentage points or more at the outset of the 2008-2009 recession, Ottawa-Gatineau's jobless rate increased by only 0.8 percentage points. This is most likely attributable to the large percentage of Ottawa's workforce that is employed in the public service, which was less readily affected by the recession. This is corroborated by the fact that, since 2011, Ottawa-Gatineau's jobless rate has been rising at the same time that the federal government has introduced concerted programs to reduce the size of the public service. In major centres like Toronto, Montreal, and Vancouver, meanwhile, unemployment rates have been declining.



Exhibit 2.3: Unemployment Rate Among Residents Aged 15 and Above—2001–2014

### **Energy Prices and Housing Prices**

The price of energy and the price of housing are both important determinants of people's transportation decisions. Energy prices—particularly the price of gasoline—directly impact the cost of travelling by both private auto and by public transit. Although the relationship is inelastic (i.e. an increase in the cost of travel does not result in a proportional decrease in the amount of travel that occurs), there are still observable impacts. Housing prices have a less direct impact on travel behaviour. Increases to the cost of home ownership make auto-oriented detached and semi-detached housing less affordable, potentially shifting some homebuyers to higher-density housing that is more readily served by transit. However, increases in suburban housing prices may drive some homebuyers even further out of the city, resulting in more travel by private auto.

Exhibit 2.4 illustrates how the average price of gasoline in Canada and the housing price index have changed since 1999 relative to median family income. As shown, the increase in gasoline and housing prices is more than twice that of family income, meaning that the cost of buying a home and the cost of operating a vehicle are less affordable today than they were in 1999.



Exhibit 2.4: Canadian Median Family Income, Average Gasoline Price, and Housing Price—1999–2011

Sources: Teranet Housing Price Index; CANSIM Table 326-0021; CANSIM Table 202-0603

### 2.2 Transportation Trends

### Motorization

There is a growing body of evidence that North America has reached "peak" motorization, as measured by a number of different indicators. As an illustration of this, statistics published by the United States Federal Highway Administration (and illustrated in Exhibit 2.5) show that the number of licensed drivers per capita, vehicles per capita, and vehicle-miles driven per capita have all been in decline since the first decade of the 21<sup>st</sup> century. The number of vehicle-miles driven in particular has seen a substantial decline, dropping nearly 9% from its 2004 peak. This suggests that, at least on a proportional basis, Americans are driving less.

There are likely a number of drivers behind this trend. First, there is increasing recognition that the generation currently coming of age (known as the "Millennials") exhibit different tastes and preferences when it comes to housing and transportation decisions. Anecdotally, they are more likely to value urban living and are less willing to drive than earlier generations. This will be explored more fully in section 4.2. Another influence on motorization could be feedback from an increasingly congested transportation system. Worsening congestion in major centres could be discouraging long commutes and, as a result, leading to less driving overall.

There are two caveats that should be considered when considering these statistics.

- First, these statistics are based exclusively on data from the United States.
   Although Canadians and Americans do exhibit similar behaviour when it comes to transportation, there are differences (among them, much higher transit usage north of the border) that may contribute to different trends occurring in Canada.
- Second, much of the drop in motorization has coincided with the largest economic contraction in North America since the Great Depression of the 1930s. It may be that reductions in travel are resulting from greater unemployment. However, most motorization metrics—and particularly vehicle-miles per capita—peaked before the recession occurred, suggesting this is a broader behavioural shift.





Source: United States Federal Highways Administration

### **Transit Use**

Every five years, the Census of Canada asks a large portion of Canada's population about their commute to work, including where they work and what mode they use. This provides for a useful and consistent comparison between the commuting habits in different Canadian CMAs. As illustrated in Exhibit 2.6, transit mode share has (with a couple of exceptions) been consistently increasing in Canada's six largest CMAs since 1996. There is a large range between the lowest 2011 transit share (11% in Edmonton) and the highest (23% in Toronto); the largest centres tend to exhibit the highest share of transit trips.

Despite its high median income, the NCR's commuting transit share is quite high—only two percentage points lower than Montreal and approximately the same as Vancouver, a metropolitan area with nearly twice as many residents and with multiple rail rapid transit lines. In this regard the NCR benefits from a relatively centralized workforce (19% of Ottawa-Gatineau's jobs are located in the CBD, compared to approximately 15% in the Greater Toronto Area) and an efficient Bus Rapid Transit system.





Source: 1996, 2001, and 2006 Census of Population; 2011 National Household Survey

# 3 Demographic and Land Use Trends

### 3.1 Population and Employment

Since 1986, the NCR has grown by 427,000 residents and 294,000 jobs, increases of 53% and 76% respectively. This is equivalent to adding the entire city of Halifax into the NCR over the course of 25 years. Approximately 74% and 83% of population and employment growth, respectively, has occurred on the Ontario side of the Ottawa River. Exhibit 3.1 presents a summary of how population and employment have changed on both sides of the Ottawa River since 1986.

	1986	1995	2005	2011	Growth: 1986-2011	% Growth: 1986-2011
Population	•				•	
Ontario Side	606,700	723,900	865,100	921,900	315,200	52%
Québec Side	200,300	256,200	279,200	312,200	111,900	56%
NCR TOTAL	807,000	980,100	1,144,300	1,234,100	427,100	53%
Employment					-	
Ontario Side	322,000	388,300	514,200	565,200	243,200	76%
Québec Side	65,500	77,100	98,600	116,200	50,700	77%
NCR TOTAL	387,500	465,400	612,800	681,400	293,900	76%

#### Exhibit 3.1: NCR Population and Employment Trends—1986–2011

Source: City of Ottawa and City of Gatineau Population and Employment Estimates

Exhibit 3.2 provides a breakdown of the figures above into individual TRANS districts. The greatest population growth has occurred in the outer suburbs of Ottawa, which added approximately 208,000 new residents. This is equivalent to nearly half of the total growth seen in the region. These new suburban areas also saw significant increases in employment, accounting for a third of the new jobs in Ottawa and almost half of the new jobs on the Québec side.

Exhibit 3.3 highlights the growth experienced in the outer suburbs by mapping the increase in urban density (population plus jobs per hectare) seen between 1995 and 2011. On the Ontario side of the Ottawa River, significant increases in density are seen outside the Greenbelt, particularly in Kanata, South Nepean, and Orleans. Large increases in density can also be seen scattered inside the Greenbelt and in the downtown core. It is interesting to note, however, that several locations inside the Greenbelt experienced decreases in density. These can likely be attributed to neighbourhood "turnover", whereby children age and leave their parents' house, lowering the population of the area. On the Québec side, the largest density increases are seen in the most recent development locations in Aylmer, the Plateau and Gatineau Centre.

#### Exhibit 3.2: Population and Employment by TRANS District, 1986–2011

		1986			1995			2005			2011		1986-2011 Change				
			Urban Density			Urban Density			Urban Density			Urban Density			Urban Density		
District	Denviation	Labo	(Pop + Emp	Demulation	laha.	(Pop + Emp	Denvilation	laba	(Pop + Emp	Denvilation	lebe	(Pop + Emp	Denviletion	lebe	(Pop + Emp	0/ <b>D</b> am	0/ 1-6-
District	Population		per na)	Population	JODS	per na)	Population	JODS	per na)	Population	JODS	per na)	Population	JODS	per na)	%Pop	% JODS
Ottawa Centre	6,000	80,400	343.8	7,200	87,200	375.6	7,500	92,800	399.1	9,600	70,300	437.3	3,600	19,900	93.5	60%	25%
Ottawa Inner Area	74,200	49,100	74.9	74,400	56,000	79.3	86,100	65,200	92.0	87,600	70,400	96.0	13,400	21,300	21.1	18%	43%
Ottawa East	48,300	19,200	40.8	50,900	20,000	42.9	53,700	24,400	47.3	51,900	25,000	46.5	3,600	5,800	5.7	7%	30%
Beacon Hill	31,400	9,000	18.7	30,500	14,600	20.9	32,200	21,100	24.7	31,300	26,500	20.8	(100)	17,500	8.1	0%	194%
Alla Vista	72,900	46,900	31.5	15,400	12 200	32.9	79,100	05,700	37.5	F4 100	25,500	30.4	4,000	18,000	0.9	0%	43%
Marinala	20,000	7,500	0.9	40,300	12,200	11.1	76,500	23,500	14.9	54,100	25,500	15.2	25,300	10,000	0.2	00%	240%
	10,000	34,400	27.0	10,500	41,000	20.0	10,500	35,900	33.5	F0 400	37,400	34.7	0,900	23,000	1.1	10%	07.70
Bayshoro / Codaniow	72 200	23,400	39.3	78 600	26,800	40.9	40,500	33,100	40.9	70,200	40,500	47.7	6,000	17,500	2.1	10%	20%
Orloops	57,000	5 000	7.2	80,200	12,000	9.3	109 200	21,000	14.5	117 400	24,000	15.0	50,500	19,500	2.1	10.2%	21.4%
South Gloucester / Leitrim	2 100	200	0.3	3 200	3 100	0.8	9,400	5 800	14.5	17,400	6 600	3.1	15 500	6 400	2.8	738%	3200%
South Nenean	14 100	700	2.7	30,400	1 700	5.8	55,000	7 200	11.3	72 700	11 300	15.3	58 600	10,400	12.6	/16%	151/%
Kanata / Stittsville	30,500	8 600	47	57 600	14 200	8.7	88,800	43 600	16.0	105 200	51 300	18.9	74 700	42 700	14.2	245%	497%
Rural Southwest	19,600	1,500	0.3	22 100	5 300	0.4	24 000	6 100	0.4	26,500	6,300	0.4	6 900	4 800	0.2	35%	320%
Rural Fast*	7 900	500	0.3	10,800	1 000	0.4	11 700	2,300	0.5	11 400	2 400	0.5	3 500	1,000	0.2	44%	380%
Rural Southeast	14.000	2,600	0.3	17,700	3,700	0.4	24.000	4,300	0.6	26.800	4,700	0.6	12,800	2,100	0.3	91%	81%
Rural West*	13.000	1,100	0.2	18.000	3,400	0.3	22,700	4,300	0.4	25.000	4,700	0.4	12.000	3.600	0.2	92%	327%
Île de Hull	8,600	26,200	72.1	12,500	28,300	84.5	11,500	25,100	75.8	10,100	29,000	81.0	1,500	2,800	8.9	17%	11%
Hull Périphérie	47,500	16,200	21.9	47,500	18,700	22.7	46,900	27,800	25.6	41,900	30,800	24.9	(5,600)	14,600	3.1	-12%	90%
Plateau	1,300	500	1.6	5,200	400	4.9	14,200	1,800	13.9	22,200	2,500	21.4	20,900	2,000	19.9	1608%	400%
Aylmer	29,200	3,400	3.4	35,600	5,100	4.2	39,400	8,300	5.0	50,200	8,100	6.1	21,000	4,700	2.7	72%	138%
Gatineau Centre	41,600	6,500	18.3	51,900	6,600	22.3	51,700	15,800	25.7	54,400	21,800	29.0	12,800	15,300	10.7	31%	235%
Gatineau Est	33,400	6,700	7.0	48,500	9,600	10.1	49,200	9,800	10.2	54,100	10,600	11.2	20,700	3,900	4.3	62%	58%
Rural Northwest**	14,900	2,200	0.1	16,700	2,500	0.2	18,300	2,400	0.2	20,300	4,400	0.2	5,400	2,200	0.1	36%	100%
Rural Northeast**	10,200	1,200	0.1	19,300	2,200	0.2	25,100	2,400	0.3	34,600	3,200	0.4	24,400	2,000	0.3	239%	167%
Masson-Angers**	13,600	2,600	2.0	19,000	3,700	2.8	22,900	5,200	3.4	24,400	5,800	3.7	10,800	3,200	1.7	79%	123%
Total Ontario Side	606,700	322,000	3.2	723,900	388,300	3.8	865,100	514,200	4.8	921,900	565,200	5.1	315,200	243,200	1.9	52%	76%
Total Quebec Side	200,300	65,500	1.0	256,200	77,100	1.3	279,200	98,600	1.5	312,200	116,200	1.7	111,900	50,700	0.6	56%	77%
Grand Total	807,000	388,000	2.2	980,000	465,000	2.6	1,144,000	613,000	3.2	1,234,000	681,000	3.5	427,000	294,000	1.3	53%	76%

Source: City of Ottawa and City of Gatineau Population and Employment Estimates

Note:

\* Starred districts used supplementary data from the 1986 and OD Survey

\*\* Double-starred districts did not have employment estimates for 1986. Employment totals were estimated from 1986–1995 population trends

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#### Exhibit 3.3: Change in Urban Density in NCR, 1995-2011



Exhibit 3.4 shows the population and job/resident ratios for the Ontario and Québec sides of the NCR and illustrates that the average annual population and employment growth rates in the NCR have fallen steadily. However, the job-resident balance has consistently improved as employment growth has outpaced population growth in the Region. The Ontario side has outpaced the Outaouais in this regard, although both sides have seen improvements.





The outer suburbs of the NCR have shown notable improvement. The average job-to-resident ratio of these outer suburban districts increased from around 0.15 in 1986 to approximately 0.28 in 2011. The Travel Behaviour Trends section beginning on page 21 of this report discusses how this change has influenced travel trends in these districts.

### **Generational Shifts**

Baby Boomers, the generation born between 1945 and 1964, drove growth and suburban expansion in North America in the post-Second World War era. As they age, their transportation needs will change and new strategies will have to be developed to accommodate them.

While the Boomers are moving into retirement, the Millennials (defined in this study as those aged 15 to 34 in 2011) are coming of age. This cohort is just now entering the workforce, getting married and purchasing homes. The Boomers and Millennials represent age cohorts that are in the process of significant lifestyle changes that directly impact their housing location and travel choices.

Exhibit 3.5 illustrates how the population age structure has changed between the first OD Survey in 1986 and the most recent 2011 instalment. The 355,000 people in the 45-64 cohort represented 29% of the NCR population in 2011, while the 15-34 age group consisted of 336,600 people, or 27% of the population. Whereas the overall population increase between 1986 and 2011 was 53%, the number of people in the 45-64 cohort grew at almost three times this rate. It is not surprising then that the median age of the NCR increased from 31.5 in 1986 to 39.1 in 2011.



Exhibit 3.5: Population Distribution of the NCR by Age Group, 1986 and 2011

Exhibit 3.6 shows how the Baby Boomers and Millennials are distributed across the Region in 2011. Millennials are more likely to live in denser, multi-unit housing in the inner city while the Baby Boomers are more likely to be found in the older suburban districts with more detached housing. It is not new for young adults to prefer downtown locations. In 1986, the 15-34yr old cohort—who make up the younger ranks of the Baby Boomers—represented close to 42% of the NCR inner city population. As the suburbs developed, this generation relocated and by 2011, only 25% of the inner city population consisted of members of the Baby Boom generation.

The extent to which today's young adults will follow the housing location and travel choices made by the Baby Boomers remains to be seen. However, the Travel Behaviour Trends section beginning on page 21 of this report discusses some of the differences between these generations that are already emerging. Beyond mere age demographics, there are almost certainly other factors at play in these patterns, including housing and transportation affordability.



Exhibit 3.6: Distribution of 15-34yr olds (top) and 45-64yr olds (bottom) across the NCR in 2011



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### **Changing Employment Patterns**

Overall, the NCR has a healthy economy that has been growing at a slow and steady pace. Employment and per capita Gross Domestic Product (GDP) have grown at an average of 2% per year since 1995, while unemployment has remained below that of the Ontario and Québec provincial averages.

Exhibit 3.7 shows how the region's employment by sector changed between 1986 and 2011. At this macroscopic level, sector-by-sector employment is largely stable. There have, however, been small changes in the breakdown of employment sectors. Proportionally more people work in the health sector now than did in 1986, while proportionally less work in education. The public sector also employs a slightly smaller percentage of workers than it did in 1986. However, the importance of the public sector is clear in that it employs nearly a quarter of the NCR's labour force.



Exhibit 3.7: NCR Employment by Sector-1986-2011

Source: Data provided by City of Ottawa (TRANS)

While economic trends in the Region have been generally positive, this has not translated into higher trip rates. The average number of non-work trips per person has been stable around 2.25 trips on an average weekday as Exhibit 3.8 shows. Counter-intuitively, the exhibit also reveals that the average number of work trips per resident has been falling despite the higher job-resident ratios illustrated in Exhibit 3.4 and declining unemployment rates.



#### Exhibit 3.8: Economic and Trip-making Trends in Ottawa-Gatineau Census Metropolitan Area, 1995-2011

It is not clear why the work trip rate is declining. There is likely a combination of factors at play, including greater proportions of people working from home for at least some part of the work week, or unintentional biases in the surveys. The trend of declining trip rates is further discussed on page 32.

### 3.2 Suburban Expansion and Employment Decentralization

The majority of population and employment growth in the NCR has occurred, and continues to occur, in the suburbs. This follows a trend that has been the driver of development of land in 20<sup>th</sup> century North America: growth occurs at the urban fringes where land is plentiful and relatively inexpensive.

As originally shown in Exhibit 3.2, the most rapid rate of population growth has occurred in suburban districts. In Ottawa, the population of districts outside the greenbelt increased by 153% between 1986 and 2011, while districts inside the greenbelt grew by only 16%. Similar trends are observed in Gatineau where urban districts (Ile de Hull and Hull Périphérie) decreased in population by 7%, while suburban districts (Plateau, Aylmer, Gatineau Centre, and Gatineau Est) increased by 71%.

Sources: Statistics Canada Census, 1996 – 2011; 1995-2011 O-D Surveys

Though residential suburbanization is a long-term trend, there is also an increasing tendency for more new jobs to be created outside the central business districts of Ottawa and Gatineau. As originally illustrated in Exhibit 3.2, 40% of all NCR jobs were located within the urban cores of Gatineau and Ottawa in 1986, but by 2011 this had fallen to 29%. Exhibit 3.9 shows how the distribution of jobs in TRANS districts changed between 1986 and 2011. Although Ottawa Centre remained the top employment centre in the Region, it experienced less growth than many other districts. The highest levels of employment growth were in suburban districts, notably Kanata/Stittsville, Merivale, and Alta Vista.

	1986 Jobs	1986 Rank	2011 Jobs	2011 Rank	∆ Jobs	∆ Rank
Ottawa Centre	80,400	1	100,300	1	19,900	-
Alta Vista	48,900	3	71,000	2	22,100	▲1
Ottawa Inner Area	49,100	2	70,400	3	21,300	▼1
Merivale	34,400	4	57,400	4	23,000	-
Kanata / Stittsville	8,600	11	51,300	5	42,700	▲6
Bayshore / Cedarview	23,000	7	40,500	6	17,500	▲1
Ottawa West	29,400	5	36,900	7	7,500	₹2
Hull Périphérie	16,200	9	30,800	8	14,600	▲1
Île de Hull	26,200	6	29,000	9	2,800	▼3
Beacon Hill	9,000	10	26,500	10	17,500	-

Exhibit 3.9: Top	10 Employment	Districts:	1986 and	<b>20</b> 11
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The federal government has traditionally been the largest tenant of office space in downtown Ottawa and Gatineau. However, recent acquisitions of office space in Kanata (former Nortel facilities) and South Nepean (former JDS Uniphase facilities) signal that the downtown may no longer be the sole focus of the government's offices. This is illustrated in Exhibit 3.10. Although federal employment is clearly still concentrated in the central area and inside the Greenbelt, one can begin to see the emergence of federal employment in more suburban areas.

Exhibit 3.10: Geographic Distribution of Fe	ederal Government Jobs in the NCR (	2006-12)
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Area	Employment 2006	% Distribution 2006	Employment 2012	% Distribution 2012	% Job Growth 2006-12
Central Area	50,586	44%	61,413	46%	+21%
Inside Greenbelt (outside Central Area)	59,583	52%	65,011	48%	+9%
On Greenbelt	4,150	4%	5,098	4%	+23%
Outside Greenbelt	274	0.2%	2,956	2%	+980%

Source: City of Ottawa 2012 Employment Survey

As will be discussed in the Decentralization and Reverse Commuting section starting on page 25, the increase in jobs—including the federal government—in the outer suburbs is helping these districts to become more self-contained. This decentralization helps to explain why a greater proportion of trips were destined for the outer suburbs in 2011 compared to 1986.

### 3.3 Density, Rapid Transit, and Transit-Oriented Development

Promoting development within 600 m of rapid transit stations is an important part of Ottawa and Gatineau's broader intensification strategies. This type of development facilitates access to and from rapid transit, thus making it more appealing for travellers. There have been several examples of development projects influenced by their proximity to rapid transit in Ottawa, including the Riverside Health Centre, the Longfields neighbourhood (Barrhaven), the Minto Metropole development in Westboro, and the redevelopment of Baseline Station.

Exhibit 3.11 shows how population and employment changed within 600 m of the Transitway in the City of Ottawa between 2001 and 2011. Population growth near rapid transit stations has increased at a faster rate than the rest of the City, but employment growth has not kept pace.

Exhibit 3 11 Po	nulation and Fm	nlovment Growth	Within 600m of	Ottawa Ranid	Transit Stations
EXHIBIL S.TT. FU	pulation and Em	pioyment Growth		Ollawa Kapiu	Transit Stations

	2001	2011	% increase	Citywide change 2001-11
Total Population	104,491	122,964	17.7%	14.1%
Total Jobs	262,700	289,864	10.3%	16.6%
Overall density (pop+emp)/ha	73.12	81.16	11%	15%

Source: City of Ottawa

Below, Exhibit 3.12 lists all the Transitway station catchment areas that saw increases of over 1,000 residents and jobs between 2001 and 2011. Much of the increase in density that was observed has occurred either downtown (e.g. Albert/Slater, MacKenzie King) or in new urban areas (e.g. Nepean Woods, Strandherd, Marketplace) rather than on brownfield sites. There is, however, evidence of new development at existing developed areas at Baseline (Algonquin College), Smyth (the Ottawa Hospital), and Bayshore stations.

Exhibit 3.12: Transitway	/ Stations with Highest	Absolute Population and Er	mployment Growth Betw	ween 2001 and 2011
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Station	2001 Population	2001 Employment	2011 Population	2011 Employment	Δ Pop+Emp	% Change
Albert/Slater	13,671	92,576	14,803	102,428	10,984	10.3%
Nepean Woods	724	19	4,673	370	4,300	578.7%
Strandherd	1,600	578	2,891	2,684	3,397	156.0%
Marketplace	536	483	1,368	2,710	3,059	300.2%
Baseline	1,577	5,349	1,876	7,806	2,756	39.8%
Smyth	2,628	1,167	4,184	2,011	2,400	63.2%
Bayshore	4,117	2,233	5,816	2,326	1,792	28.2%
Terry Fox	1,278	1,032	2,018	1,965	1,673	72.4%
MacKenzie King	2,270	40,672	3,342	41,146	1,546	3.6%
Blair	288	5,879	629	6,987	1,449	23.5%
Tunney's Pasture	4,407	14,023	4,205	15,458	1,233	6.7%
Confederation	264	6,250	229	7,503	1,218	18.7%
Train	0	3,556	110	4,460	1,014	28.5%

In general, density around transit stations is increasing, but it is being driven primarily by greenfield residential growth and employment growth in the downtown core.

### 3.4 Intensification and Diversifying Housing Stock

While suburban growth has been unquestionably predominant in the NCR, it is important to note that efforts to promote intensification have also been showing promise. That is to say, urban intensification is occurring concurrent with suburban expansion.

### Intensification

Urban intensification is one of the most important tenets of both the City of Ottawa's Official Plan and la Ville de Gatineau's Urban Management and Development Plan. Ottawa established phased-in targets, aiming to have 36% "brownfield" development within the urban area from 2007-12, rising to 38% from 2012-17, continuing in increments until reaching 44% by 2031. In Gatineau, density targets are established for different parts of the city, ranging from 100 households per hectare in the downtown to 40 households per hectare in more outlying areas with access to public transportation.

Intensification in the inner suburban and inner city districts that were already well established in 1986 is clear. Exhibit 3.2 indicates that inner suburban districts in the NCR saw an average 29% increase in urban density (residents + jobs per hectare) from 18.3 in 1986 to 23.6 in 2011. The NCR's inner city districts saw a similar proportional increase, climbing from 102.8 residents and jobs per hectare in 1986 to 129.0 in 2011.

### **Housing Stock**

Concurrent with intensification efforts is a shift in the housing market itself. The single-detached family home, once the dominant form of new housing in the NCR (and in North America), now accounts for less than a third of all housing starts in the region. Exhibit 3.13 shows that, among new housing starts, the percentage of single-detached dwellings has dropped to 33% in Ottawa and 25% in Gatineau in 2013. As recently as 2000, this percentage was over 50% on both sides of the Ottawa River. This decreasing trend is consistent with what was observed in other Canadian Census Metropolitan Areas over the same time period.

This is not to suggest that the majority of new residential development in the NCR is in the form of condominiums. Rather, the most common form of new dwelling is now the semi-detached or row house. These types of residences are being constructed both in new developments on the urban fringes and as infill development in existing urban areas.

The observed shift in new housing starts has, however, only just begun to show itself in the breakdown of dwelling types recorded in the Census. Although the percentage of residents residing in semi-detached homes or townhouses increased from 21% to 25% in Ottawa between 1986 and 2011, the percentage of residents living in single detached houses has remained more or less consistent. This is a result of the very large pool of existing single detached houses in the City. However, if the new housing start trends shown in Exhibit 3.13 continue, the overall share of single-detached dwellings will slowly drop. The percentage breakdown of housing types in Gatineau has also remained largely unchanged.





Source: CANSIM Table 027-0034 (from Canadian Mortgage and Housing Corporation)

Exhibit 3.14: NCR Dwelling Units by Type: 1996-2011



#### **Ontario Part**





Source: Census of Canada

# 4 Travel Behaviour Trends

Alongside the changes in land use described in the previous section, the Region has also seen interesting, if not counter-intuitive, travel behaviour trends, some of which are highlighted in Exhibit 4.1:

- Public transit mode share is recovering from the 1995 low of 10%, topping 13% in 2011 while active transportation has stabilized since 1995. The result is a slow but consistent decline in auto mode share since 1995.
- Transit trips are getting longer, approaching 8.5km on average in 2011 from 7.5km in 1995. In contrast, people are driving shorter distances to their destinations, with the average auto trip declining about 14% to 7.6km in 2011.
- While vehicle ownership increased steadily between 1986 and 2005, there was a slight decline from 0.83 vehicles per licensed driver in 2005 to 0.81 in 2011. Concurrently, the average trip rate in the Region fell by 16% (relative to 1986 levels) to a low of 2.69 trips per person in 2011.

Exhibit 4.1: Mode Share, Trip Length, and Trip Rate Trends in NCR, 1986-2011



B. Change in Average Trip Length by Mode, 1995-2011



C. Change in Trip Rate and Vehicles per Licensed Driver, 1986-2011



#### Notes:

Excludes persons under the age of 11.

Trip lengths represent average straight line distance from origin zone centroid to destination zone centroid weighted by total trips using a given mode.

The remainder of this section discusses these observed trends in greater detail. Note that while the 2011 survey included persons 5 years and older, previous surveys did not include those under 11 years old. For consistency, the analysis presented in this section is limited to trips made by persons 11yrs and older.

### 4.1 Travel Flows

NCR residents (aged 11 and above) made just over 2.9 million total daily trips in 2011, up 4% since 2005 and 36% since 1986. This rate of increase is notably slower than population growth, which was 8% since 2005 and 53% since 1986—a trend which will be discussed later in this document. Destinations on the Ontario side have dominated total trip-making in the NCR, accounting for between 75% and 80% of trips in every survey conducted between 1986 and 2011.

The Ottawa Inner Area district remained the top destination among the NCR's districts, drawing about 275,000 daily trips in 2011. However, as shown in Exhibit 4.2, outer suburban districts on both sides of the river are becoming more important trip destinations. This is shown by the fact that the outer suburbs accounted for 33% of all trip destinations in 2011 as compared to 25% in 1995.



Exhibit 4.2: Percentage of Daily Trips Destinations In Each NCR Land Use Type, 1995 and 2011

While some jobs are shifting to the suburbs, Ottawa Centre remains the dominant employment hub, with 17% of the 539,000 work trips on an average weekday heading there in 2011. Exhibit 4.3 illustrates the flow of these trips in 1986 and 2011 and shows that the patterns are quite similar. Most notable is the fact that a greater proportion of workers in Ottawa Centre now make the commute from the outer suburbs on both sides of the river (34% in total in 2011 versus 18% in 1986) and from Québec (19% in 2011 versus 14% in 1986). Given that the outer suburban population grew from 210,100 in 1986 to 493,800 in 2011—surpassing the inner suburban population of 464,000 in 2011—it is not surprising that a large share of Ottawa Centre workers now live in the outer suburbs.

It is worth noting that while the number of work trips to Ottawa Centre has recovered from the 1995 low of 64,500, reaching 93,700 in 2011, there is however an overall decline of about 11,000 trips compared to 1986.



#### Exhibit 4.3: Work Trip Flows on Average Weekday to Ottawa Centre, 1986 (top) and 2011 (bottom)

IBI GROUP FINAL REPORT NATIONAL CAPITAL REGION TRAVEL TRENDS Prepared for the TRANS Committee

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### **Decentralization and Reverse Commuting**

Some outer suburbs are emerging as employment hubs and are showing rising self-containment for work trips. Exhibit 4.4 shows the number of work trips that both start and end in a given district as a percentage of all the work trips that either start or end in that district. Self-containment in the outer suburban districts on the Ontario side has risen steadily from 8% in 1986 to 15% in 2011. Other urbanized areas were either stable or showed some decline.

Among these increasingly self-contained districts, South Nepean and Kanata / Stittsville stand out, each posting nine percentage point gains in self-containment respectively between 1986 and 2011. South Nepean, formerly the second least self-contained district on the Ontario side, is now comparable to older urbanized areas such as Alta Vista and Merivale in this regard.

	Self-Containment			Change (Percentage Points) <sup>2</sup>		
District	1986	1995	2005	2011	1986-2011	2005-2011
Ottawa Centre	11%	4%	9%	8%	▼3	▼1
Ottawa Inner Area	14%	11%	13%	14%	▲0	▲1
Inner City - Ontario Side <sup>1</sup>	12%	7%	11%	11%	▼1	▼0
Ottawa East	10%	8%	9%	10%	▲0	▲1
Beacon Hill	12%	9%	9%	11%	▼1	▲2
Alta Vista	15%	11%	12%	14%	₹2	▲2
Hunt Club	9%	11%	8%	10%	▲1	▲2
Merivale	15%	10%	12%	12%	▼3	▲0
Ottawa West	10%	9%	12%	10%	▲0	▼2
Bayshore / Cedarview	18%	13%	11%	13%	▼5	▲2
Inner Suburb - Ontario Side <sup>1</sup>	13%	10%	10%	11%	▼1	▲1
Orleans	13%	15%	14%	17%	▲4	▲3
South Gloucester / Leitrim	0%	2%	3%	7%	▲7	▲4
South Nepean	4%	5%	8%	13%	▲9	▲5
Kanata / Stittsville	15%	19%	23%	24%	▲9	▲2
Outer Suburb - Ontario Side <sup>1</sup>	8%	10%	12%	15%	▲7	▲3
Rural Southwest	16%	16%	14%	14%	₹2	▲1
Rural East	12%	10%	9%	13%	▲1	▲3
Rural Southeast	9%	11%	12%	18%	<b>▲</b> 10	▲6
Rural West	13%	14%	10%	17%	▲4	▲7
Rural - Ontario Side <sup>1</sup>	12%	13%	11%	16%	▲3	▲4
TOTAL - Ontario Side	84%	82%	84%	84%	▲0	▲0
Île de Hull	8%	4%	4%	5%	▼3	▲1
Inner City - Québec Side <sup>1</sup>	8%	4%	4%	5%	▼3	▲1
Hull Périphérie	23%	20%	17%	16%	▼7	▼1
Inner Suburb - Québec Side <sup>1</sup>	23%	20%	17%	16%	₹7	▼1
Plateau	4%	0%	2%	3%	▼1	▲1
Aylmer	17%	17%	12%	16%	₹2	▲3
Gatineau Centre	14%	15%	13%	16%	▲1	▲3
Gatineau Est	19%	13%	12%	17%	▼2	▲6
Outer Suburb - Québec Side <sup>1</sup>	14%	11%	10%	13%	▼1	▲3
Rural Northwest	29%	17%	15%	21%	▼8	▲6
Rural Northeast	17%	7%	7%	13%	▼4	▲6
Masson-Angers	38%	39%	22%	30%	▼8	▲8
Rural - Québec Side <sup>1</sup>	28%	21%	15%	21%	▼7	▲7
TOTAL - Québec Side	47%	49%	49%	54%	▲7	▲6

#### Notes:

<sup>1</sup>Sub-totals represent the average for the districts in the category <sup>2</sup>Overall percentage point changes may not sum due to rounding Along with the increased self-containment evident in some districts (particularly on the Ontario side of the Ottawa River), the outer suburbs are emerging as significant attractors of work trips from the inner city and inner suburbs. In 1986 less than 3% of morning peak period work trips that started inside the Greenbelt in Ottawa ended in the outer suburbs. By 2011, that proportion had more than doubled to about 8%. A similar trend is evident in the Outaouais, where the outer suburbs attracted 22% of a.m. peak period work trips from the inner city and inner suburbs in 2011, up from 15% in 1986.

### **Inter-Provincial Trip Making**

The proportion of trips that both start and end in the Outaouais is still significantly lower than the proportion of trips that start and end in Ottawa. Exhibit 4.5 shows that in the Outaouais, this proportion has varied between 12% and 15% for work trips between 1986 and 2011 and has not shown any particular trend. While the Outaouais is maturing, many of its residents are still crossing the river for work. Cross-border travel has been largely unchanged, varying between 6% and 8% of total trips over the 25 year period (13% to 14% for work trips).

	Destination							
	1986		1995		2005		2011	
Origin	Ontario	Québec	Ontario	Québec	Ontario	Québec	Ontario	Québec
All Trips								
Ontario	76%	4%	72%	4%	74%	4%	74%	3%
Québec	4%	14%	4%	18%	4%	17%	3%	17%
Work Trips								
Ontario	73%	5%	70%	7%	72%	4%	71%	4%
Québec	8%	12%	7%	15%	10%	13%	9%	15%

Exhibit 4.5: Origin-Destination Matrix of Daily Inter-Provincial Trips, 1986-2011

Taken together, job decentralization and self-containment trends indicate that the NCR is now faced with the challenge of facilitating trip-making within several increasingly self-contained communities rather than orienting infrastructure to primarily serve downtown Ottawa.

### 4.2 Mode Share Trends

Travel by private automobile has been the dominant mode of transportation in the NCR since 1986 and, indeed, for many years before that. However, auto usage as a percentage of total trips peaked in the mid-1990s and has been slowly declining since then. As the region grows and as bus service becomes increasingly ubiquitous, trips that would have previously been made by car are now being made by transit. As shown in Exhibit 4.6, this trend is occurring NCR-wide, although the decrease in auto share is more pronounced on the Ontario side.

This section will disaggregate these figures to explore what parts of the region are responsible for mode share changes and how demographic shifts are influencing these changes.

Exhibit 4.6: NCR Mode Share by Province of Trip Or	rigin (Daily trips by residents ages 11+), 1986–2011
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	1986	1995	2005	2011
Ontario	•	•		•
Auto	73.1%	74.1%	72.7%	71.8%
Transit	18.2%	12.2%	14.1%	15.0%
Active	8.7%	13.7%	13.3%	13.1%
Québec				
Auto	81.4%	82.6%	81.8%	81.5%
Transit	11.5%	6.4%	8.8%	10.2%
Active	7.1%	11.1%	9.4%	8.3%

### Transit Mode Share: Millennials Versus Baby Boomers

Exhibit 4.7 charts the change in auto and transit mode share by age group between 1986 and 2011. It shows that young adults are making proportionally more transit trips than similarly aged adults did in 1986, and that older adults are making proportionally less transit trips today than older adults did 25 years earlier. The transit mode share for youth aged 19–24 almost doubled from 14% in 1995 to 26% in 2011—a significantly higher swing than other age groups. Much of this is due to this age cohort using transit for school trips, where the mode share reached 55% in 2011 compared to 39% and 36% in 1986 and 1995 respectively. Seniors 65 years+ are unique in continuing to shift away from transit since the 1995 low point in transit use, which aligns with observations on driver's licensure rates and auto trip rates (as discussed later in this section).



Exhibit 4.7: Change in Auto and Transit Mode Shares by Age Group, 1986 to 2011

Interestingly, in 2011 people between the ages of 35 and 49 were slightly less likely to use either auto or transit modes than the same age group was in 1986. The difference has been offset by an average 4 percentage point increase in active mode share in this age group.

Youth aged 19-29, who made up about 20% of the population and 27% of transit users in 1986, accounted for 15% of the population in 2011 but 31% of transit users. In contrast, persons aged 45-64 made up about 19% of the population and 21% of transit users in 1986, growing to 29% of the population and 25% of transit users by 2011. It is clear that the growth in the proportion of 45-64 year old transit users is largely due to the rapid growth in the size of that age cohort rather than shifts to transit.

The exhibit also highlights a key trend: older residents (50+) were more likely to drive in 2011 than they were in 1986, while younger residents (under 34) were more likely to take transit in 2011 than they were in 1986. The exception to this is for residents aged 11-18, who are increasingly likely to be driven to school rather than walking, cycling, or taking transit. Their auto mode share for school trips was 22% in 2011 versus 15% 25 years earlier.

Exhibit 4.8 looks more specifically at mode share changes between generations in the NCR. The chart compares trip rates by mode for a consistent age group (25–34) in 1986 and 2011 for work trips and all trips. The results show a marked difference between generations: Millennials use transit and active modes substantially more frequently than their parents for both work and non-work trips. This is especially noteworthy because, as shown in Exhibit 4.6, overall transit mode share is down in 2011 compared to 1986. This supports the assertion that these differences are due to generational preferences and not just changes in built form and infrastructure. It is also worth noting that Millennials make fewer trips per day. However, as will be noted later in this section, this is a general trend observed across all generations.



#### Exhibit 4.8: Daily Trip Rates and Mode Share Among NCR Residents Aged 25-34 in 1986 and 2011

#### Transit Growth is Coming from the Suburbs

Exhibit 4.9 charts the change in work trip transit mode share between the 1995 low and 2011. The predominant trend is that the established urban areas of the region have not been leading in the re-emergence of transit use and, rather, predominantly suburban areas have increased their transit share by the greatest amount.

Exhibit 4.9 Daily	v Work Trin	Transit Mode	Share by	Geographie	c Area of Tri	o Origin	1995-2011
LAINDIL 4.9. Dan		mansit would	Share by	Geographin		o ongin,	1333-2011

	Year	1995-2011 Percentage		
Geographic Area	1995	2005	2011	Point Change
Inner City, Ontario	30%	16%	20%	▼10
Inner City, Québec	29%	17%	23%	▼6
Inner Suburb, Ontario	17%	22%	26%	▲9
Inner Suburb, Québec	9%	17%	22%	▲13
Outer Suburb, Ontario	13%	15%	20%	▲8
Outer Suburb, Québec	10%	17%	21%	▲11
Rural, Ontario	2%	1%	7%	▲5
Rural, Québec	2%	4%	8%	▲6

As will be explored in the following subsection, the trends in transit use comes in the context of rapidly increasing active transportation mode shares in established urban areas of the region. Although the region as a whole is shifting away from the automobile, the established urban areas are moving primarily to active modes, while suburban districts are shifting to transit.

#### Active Transportation is Growing in Popularity—Except Among Children

Active mode share has increased for all age groups except youth aged 11-18, which saw marginal 0.6 percentage point decline to 20% in 2011. This decline is due to a decrease in cycling trips from 8,500 in 1986 to about 7,000 trips for this age group in 2011—a decline in mode share of about two percentage points. This age group still had the highest active share, but Exhibit 4.10 indicates that walking and cycling are increasingly being seen as viable alternatives by residents of all ages.



Exhibit 4.10: Increasing Active Mode Share by Age Group, 1986-2011

The swing toward active modes is also evident for work trips, and Exhibit 4.11 indicates that every district has shown either stable or increasing active mode share between 1986 and 2011. As expected, the inner city districts maintained the highest active mode shares of all districts, with Ottawa Centre just over 50%—an increase of about 20 percentage points. Comparing Exhibit 4.9 with Exhibit 4.11 makes it clear that many districts have seen increases in both active and transit mode shares alongside decreasing auto mode share. The shift to active modes is particularly strong in the inner city districts of Ottawa Centre, Ottawa Inner Area and Ile de Hull.



Exhibit 4.11: Mode Shifts to Active Modes by District of Origin for Daily Work Trips, 1986-2011

### **Driving Later in Life**

There is a clear trend towards seniors driving much later in life today than their counterparts 25 years ago. In 1986, the proportion of persons aged 60 and older holding a driver's licence was 68%; by 2011, it had climbed to 81% as Exhibit 4.12 illustrates.





The exhibit also shows that persons in this age group are making use of those licences—auto trip rates per person for those 60 years and older have increased from 1.87 to 1.91 in the 25 year timeframe. This is consistent with observations made in other North American jurisdictions where increased availability of vehicles, better physical health and mental acuity in old age, and higher licensure rates has allowed people to continue driving as they age. Exhibit 4.7 showed that in the NCR, this increased car usage has come at the detriment of transit use by seniors.

### 4.3 Increasing Vehicle Ownership and Availability

Vehicle ownership has traditionally been one of the best indicators that an individual will make a trip by car. In essence, if a vehicle is available to make the trip, there is a high likelihood that it will be put to use. Since 1986, the average number of vehicles owned by NCR households has increased 5% from 1.30 to 1.37 which, as Exhibit 4.13 indicates, is largely due to single-vehicle households choosing to purchase a second vehicle.

	Number of House	Percentage Change				
Vehicles	1986	1995	2005	2011	1986-2011	2005-2011
0	42,000 (14%)	57,900 (15%)	57,400 (12%)	72,800 (14%)	74%	27%
1	154,000 (51%)	181,800 (49%)	206,900 (44%)	229,300 (45%)	49%	11%
2	85,100 (28%)	114,500 (31%)	164,300 (35%)	167,100 (33%)	96%	2%
3	14,600 (5%)	16,100 (4%)	28,500 (6%)	30,700 (6%)	110%	8%
4	3,500 (1%)	3,300 (1%)	6,200 (1%)	7,500 (1%)	115%	22%
5+	2,300 (1%)	800 (0%)	2,100 (0%)	2,500 (0%)	7%	19%

Exhibit 4.13: Vehicle Ownership Levels across the NCR, 1986-2011

The proportion of households that choose not to own a car has remained relatively stable. This is despite the significant 135% growth in the population of the outer suburbs between 1986 and 2011—districts traditionally thought of as car-oriented. Between 2005 and 2011, the proportion of 0-vehicle households actually increased slightly, from 12% to 14%. The trend in vehicle availability (i.e. the number of vehicles per licensed driver) has increase from 0.76 in 1986 to 0.81 in 2011.

Exhibit 4.14 highlights that inner city and inner suburban districts, mostly on the Ontario side, have either been stable or have shown declining vehicle availability. This has helped to offset increasing vehicle ownership in the outer suburbs. A notable exception to the trend is seen in South Gloucester / Leitrim, where vehicle availability has declined from 1.03 in 1986 to 0.94 in 2011. This value is still higher than the regional average of 0.81, which is expected for an outer-suburban district. The decline, however, is partly explained by the fact that this is a rapidly urbanizing area where suburban households are outnumbering rural communities that have relatively high vehicle ownership.





The relationship between vehicle availability and mode choice for NCR residents can be seen in Exhibit 4.15. The exhibit shows that districts with higher average vehicle availability such as South Gloucester / Leitrim and Kanata / Stittsville also tend to have higher auto mode shares.



Exhibit 4.15: Vehicle Availability and Auto, Transit, and Daily Active Mode Shares by District, 1986 and 2011

It is also notable that some districts saw increases in vehicle availability between 1986 and 2011 without matching increases in auto mode share. South Nepean is one example where vehicle availability climbed from 0.77 to 0.89 while auto mode share fell from 82% to 77% between 1986 and 2011.

### 4.4 Declining Trip Rates

The overall number of trips per NCR resident has been declining for all age groups, as has the trip rate for work and school trips. The 1986 OD survey indicated a trip rate of 3.19 and by 2011, that figure fell to 2.69—a 16% decline. The work trip rate fell by a third from 0.75 to 0.50 over the same period. These figures are at odds with the falling unemployment rate and rising per capita GDP shown in Exhibit 3.8, and are inconsistent with the rising enrolment numbers at the Region's post-secondary institutions.

Reviewing the number of trip chains, indicated by the number of trips that end at a traveller's home, shows a less stark change as Exhibit 4.16 indicates. The number of trip chains per person has fallen by about 4% since 1986, suggesting that NCR residents are not necessarily less mobile than in 1986.


Exhibit 4.16: Number of Daily Trips and Trip Chains per NCR Resident, 1986-2011

On average, districts in the Outaouais have all shown increases in the rate of trip-chaining since 1986, with Ile de Hull residents showing the strongest change—they made 29% more trip-chains in 2011 than in 1986. In contrast, all residents on the Ontario side except inner-city residents showed a decline in trip-chains over this period, as presented in Exhibit 4.17. It is also interesting that Ontario residents appear to make more trip chains than Québec residents.

Exhibit 4.17: Change in Nun	nber of Daily Trip Chain	s per Resident by Ge	ographical Area, 1986-2011

	Trip-Chain Rate	1		Percentage Change		
<b>Geographical Area</b>	1986	1995	2005	2011	1986-2011	2005-2011
Ontario						
Inner City	1.16	1.26	1.27	1.21	▲4%	▼5%
Inner Suburb	1.18	1.22	1.16	1.09	▼8%	▼6%
Outer Suburb	1.28	1.27	1.18	1.15	▼10%	▼3%
Rural	1.13	1.12	1.11	1.02	▼10%	▼8%
Québec						
Inner City	0.76	1.08	1.08	0.98	▲29%	▼9%
Inner Suburb	1.01	1.23	1.12	1.01	▼0%	▼10%
Outer Suburb	1.03	1.21	1.12	1.06	▲3%	▼5%
Rural	0.79	1.04	1.02	0.93	<b>▲</b> 18%	▼9%

The exhibit also highlights that there has been a steady decline in trip-chain rates since 1995. One factor considered was the increased prevalence of working from home over the past three decades. Statistics Canada's 2008 General Social Survey revealed that 23% of workers in the Ottawa-Gatineau census metropolitan area (CMA) worked from home—second only to Vancouver's 24%<sup>1</sup>. However, data going back to 1995 suggests that working from home in Canada has only shown relatively minor increases<sup>2</sup>. No consistent time-series data specific to the NCR was available at the time of writing this report so it is not clear how much the impact of working from home has changed trip-making behaviour in the NCR over the decades. Another potential factor is the (anecdotally) increased prevalence of "flex days", particularly by workers in the public sector. At workplaces with such programs, employees are permitted to work extra hours in order to bank time towards additional days off. Taken as a whole, this may be contributing to a reduction in the overall trip rate.

<sup>&</sup>lt;sup>1</sup> "Working from home" in this survey meant that the respondent usually worked at home for some of their paid hours.

<sup>&</sup>lt;sup>2</sup> In 1995 about 17% of respondents reported working from home compared to 19% in the 2008 survey. *Evolution of the Canadian Workplace: Work from Home (2001)* published by Statistics Canada cautions that the General Social Surveys conducted between 2000 and 2008 and the Survey of Work Assignments conducted in 1991 and 1995 are not directly comparable, although the surveys asked similar questions regarding working from home.

A further contributor could be unintentional biases introduced through the reliance on telephone surveys, which have become less effective as cell phone-only households become more prevalent. The 2011 survey Final Execution Report noted that cell phone numbers were removed due to lack of productivity, resulting in potential under-representation of younger households and single-person households. The data expansion process accounted for some of this under-representation but it is not clear how significant the impact has been.

#### 4.5 Trip Length

The average straight-line distance of trips in the NCR fell by just over 1.1 km from 1995 values, reaching 6.7 km in 2011<sup>3</sup>. Work trips also saw similar declines from 10.3 km in 1995 to just over 9 km in 2011. Exhibit 4.1 indicated, however, that all modes are not being affected equally, with transit trips getting longer and auto trips shortening.

Exhibit 4.18 shows that while all areas of the NCR have seen a decline, the inner city districts on both sides of the river have shown the highest percentage change, falling by 21% in Ottawa and 23% in Ile de Hull. Work trips showed similar overall declines, although the most pronounced changes were in the suburban Outaouais districts, which saw declines of 25% in the inner suburbs and 20% in the outer suburbs. The inner and outer suburbs in Ottawa saw 11% and 14% declines respectively. On both sides of the river, inner city work trip lengths fell by 11%.

The exhibit shows that there is no discernible difference across age groups and all age cohorts saw trip lengths shorten between 1995 and 2011.





Note: Rural trip lengths show more variability due to higher than average sampling errors, and more dispersed nature of rural development.

There is likely a combination of factors to which the declines may be attributed, both in the NCR and on a wider scale. Despite the record-high gas prices seen over the past decade, the elasticities found with fuel costs suggest this is not a major factor in people traveling shorter distances, particularly in the short term. Maturing suburban districts is likely one important factor, as earlier data highlighted that these districts are becoming more self-contained. As more jobs, schools, and discretionary destinations emerge in the suburbs, people no longer need to travel long distances into the inner city and inner suburbs for daily activities.

Evidence has also highlighted the shifts being made away from the auto to active modes, which could be shortening trips. The correlation is emerging but the causation is not clear: people could have a higher preference for sustainable modes than in the past, leading them to choose closer destinations, or the proximity of destinations could be making these modes more practical. There is also, however, the possibility that this observation is related to differences in

<sup>&</sup>lt;sup>3</sup> In this section, trip lengths are the straight line distance from origin to destination zone and does not represent the distance actually travelled on the transportation network.

zone systems between 1995 and 2011. The 1995 zones were, on average, larger than in 1995, meaning that trip lengths may have been partially inflated in comparison to 2011.

#### 4.6 Auto Occupancy

There has been a steady decline in auto occupancy levels in the NCR since 1986. The number of occupants per vehicle has decreased from 1.28 in 1986 to 1.22 in 2011. For work trips, the decline is more evident, falling from 1.17 to 1.10 in the same period. Carpooling is declining, with the auto passenger mode share for work trips falling approximately three percentage points from 10% in 1986 to 7% in 2011. This is consistent with the increasing vehicle ownership and availability discussed earlier—people have more cars available to them and are making use of them for their daily commute.

Exhibit 4.19: Daily Auto	Passenger and Driv	ver Mode Shares, 1986-201	1
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	Auto Passenger Shares		Auto Driver Shares		
Year	Work Trips	All Trips	Work Trips	All Trips	
1986	10%	16%	61%	57%	
1995	11%	16%	62%	58%	
2005	8%	14%	65%	58%	
2011	7%	13%	63%	58%	

What is also clear from Exhibit 4.19 is that *all* shifts from the auto passenger mode are not going to the auto driver mode, which has been increasing at a slower rate than would be expected. With the strong swings toward active transportation (up over two percentage points to 9% since 1986 for work trips), and the re-emergence of public transit since the lows of 1995 (increasing by over two percentage points since 1995 for work trips), NCR commuters are making greater use of all the transportation options available to them.

The decline in auto occupancy is observed across most districts in the NCR but no particularly striking pattern emerges in the suburbs and inner city. The declines observed between 1986 and 2011 are on the order of 3% to 5%.



Exhibit 4.20: Average Auto Occupancy for All Trips by District of Origin, 1986-2011

District

## 5 Congestion and Performance

While the OD Survey provides critical information about NCR residents' travel choices and behaviour, it does not explicitly record the performance of the transportation system. As such, it is useful to supplement the data from this survey with observations "from the field" that may shed additional light on transportation trends in the region.

#### 5.1 Traffic Volumes

TRANS agencies regularly conduct 12-hour traffic counts to record changes in traffic volume along key screenlines. For the purposes of this analysis, a number of these screenlines were combined into four cordons corresponding to different locations in the NCR:

- Greenbelt (screenlines 7, 8, 9, 10, 14, 16, and 55);
- Central Ottawa (screenlines 19, 27, 28, 29, 32, and 33);
- Downtown Ottawa (screenlines 35, 36, 37, and 38); and
- Ottawa River (screenlines 2, 3, and 4).

The location of these cordons is shown in Exhibit 5.1. On the following pages Exhibit 5.2, Exhibit 5.3, Exhibit 5.4, and Exhibit 5.5 illustrate the inbound (towards Parliament Hill) and outbound (away from Parliament Hill) volumes crossing these cordons in the a.m. (7:00–9:30), the p.m. (15:30–18:00) peaks, and over the entire 12-hour duration of the counts. The total percentage growth from 1995 to 2011 is presented by direction and time period along with the average annual growth (the total percentage growth divided by the number of years analyzed). Less extensive data is also available for stations crossing the Gatineau River (screenline 65). This data is presented in Exhibit 5.6 in a similar format to the cordons listed above. It should, however, be noted that the analysis only covers two stations (the Alonzo-Wright Bridge and the Draveurs Bridge) and that counts covered only the a.m. and p.m. peak periods.

When interpreting the results, it is important to consider that the counts often represent a single day's worth of data and that conditions on those days may not always reflect typical conditions. Furthermore, not every screenline is sampled every year. It was occasionally necessary to interpolate to show the overall trend.

Exhibit 5.1: Cordon Location Map



#### Exhibit 5.2: Traffic Volumes Crossing Cordon 1 (Greenbelt)

![](_page_40_Figure_2.jpeg)

![](_page_40_Figure_3.jpeg)

1995 1997 1999 2001 2003 2005 2007 2009 2011

	Inbound			Outbound			
	12-hour	AMPKPD	PMPKPD	12-hour	AMPKPD	PMPKPD	
1995	147,030	47,270	29,020	142,490	21,880	50,660	
2011	246,440	83,780	54,110	270,240	46,330	94,690	
Total Growth	99,410	36,510	25,090	127,750	24,450	44,030	
% Growth	67.6%	77.2%	86.5%	89.7%	111.7%	86.9%	
Avg. Annual %	3.3%	3.6%	4.0%	4.1%	4.8%	4.0%	

Exhibit 5.3: Traffic Volumes Crossing Cordon 2 (Ottawa Central)

![](_page_40_Figure_7.jpeg)

![](_page_40_Figure_8.jpeg)

	Inbound			Outbound		
	12-hour	AMPKPD	РМРКРД	12-hour	AMPKPD	PMPKPD
1995	220,820	55,450	51,510	214,490	43,640	61,020
2011	222,880	61,640	56,360	221,000	53,060	56,980
Total Growth	2,060	6,190	4,850	6,510	9,420	-4,040
% Growth	0.9%	11.2%	9.4%	3.0%	21.6%	-6.6%
Avg. Annual %	0.1%	0.7%	0.6%	0.2%	1.2%	-0.4%

![](_page_41_Figure_1.jpeg)

#### Exhibit 5.4: Traffic Volumes Crossing Cordon 3 (Ottawa Downtown)

	Inbound			Outbound			
	12-hour	AMPKPD	PMPKPD	12-hour	AMPKPD	PMPKPD	
1995	140,830	37,910	32,130	136,970	25,920	40,780	
2011	123,640	36,040	25,830	117,550	22,800	33,670	
Total Growth	-17,190	-1,870	-6,300	-19,420	-3,120	-7,110	
% Growth	-12.2%	-4.9%	-19.6%	-14.2%	-12.0%	-17.4%	
Avg. Annual %	-0.8%	-0.3%	-1.4%	-1.0%	-0.8%	-1.2%	

Exhibit 5.5: Traffic Volumes Crossing Cordon 4 (Ottawa River)

![](_page_41_Figure_5.jpeg)

	Inbound			Outbound			
	12-hour	AMPKPD	PMPKPD	12-hour	AMPKPD	PMPKPD	
1995	72,910	23,220	15,270	74,840	13,460	26,510	
2011	73,910	25,830	17,220	71,240	14,310	23,540	
Total Growth	1,000	2,610	1,950	-3,600	850	-2,970	
% Growth	1.4%	11.2%	12.8%	-4.8%	6.3%	-11.2%	
Avg. Annual %	0.1%	0.7%	0.8%	-0.3%	0.4%	-0.7%	

12-hour

**PMPKPD** 

AMPKPD

![](_page_42_Figure_1.jpeg)

#### Exhibit 5.6: Traffic Volumes Crossing Screenline 65 (Gatineau River)

AMPKPD **PMPKPD** AMPKPD **PMPKPD** 2000 16,024 7,723 5,459 18,004 2015 14,548 8,052 6,601 17,159 **Total Growth** 329 -1,476 1,142 -844 % Growth -9.21% 4.26% 20.93% -4.69% Avg. Annual % -0.61% 0.28% 1.40% -0.31%

#### Note:

\* An asterisk denotes a count year in which data was interpolated or extrapolated

As shown in the preceding figures, the Greenbelt cordon is the only set of screenlines to show a substantive increase in traffic volumes in the years between 1995 and 2011. This is largely a result of the rapid increases in both population and employment experienced outside of the Greenbelt during this time. As illustrated earlier, population in the NCR's outer suburbs has increased substantially, while it has grown much slower (or, in some cases, declined) elsewhere. This is reflected in the high rate of increase in inbound trips during the a.m. peak period and increase in outbound trips during the p.m. peak period. However, it is also interesting to note that the rate of volume growth in the off-peak direction at the Greenbelt cordon exceeds that of the peak direction. This is evidence of a maturing employment market outside the Greenbelt that is increasingly attracting workers from more central areas.

The remaining three cordons show little growth and, in the case of the downtown cordon, negative growth since 1995. These observations could be resulting from:

- **Cordons reaching their peak period capacity:** None of these cordons saw a significant addition to their vehicular capacity between 1995 and 2011. Therefore, if their representative roadways have been operating at or near capacity since 1995, there is no room for peak volumes to grow. It should be noted, however, that off-peak volumes (i.e. 12-hour volumes) have also not shown any significant growth, suggesting that there are other factors at play.
- Increasing transit use: Preceding analysis has shown that a growing percentage of travellers are choosing to travel by public transit. This trend is particularly pronounced for trips destined for the downtown core, which showed an increase in a.m. peak period transit mode share from 40% in 1995 to 50% in 2011. The OD Survey also showed that the absolute number of auto driver trips to the downtown core (TRANS district 1) has decreased in absolute terms since 1995.

#### 5.2 Travel Time

As part of the 2005 and 2011 OD Surveys, travel times along key roadway corridors in the NCR were obtained using "floating" GPS-enabled vehicles that tracked their time, speed, and location. A sample of these vehicle runs are used here to illustrate the change in travel times along six major corridors, as shown in Exhibit 5.7.

To ensure consistency between the two years, only peak hour runs from the same time of year (Labour Day through the end of November) were used for this analysis. As a result, however, the number of samples available for analysis is somewhat limited—particularly for 2005 data. The results should be interpreted with caution.

During the a.m. peak hour, increases in inbound travel time are shown along the Airport Parkway, 417 West, Autoroute 5, and Gréber corridors. The 417 West corridor shows the highest increase, but it is also the corridor with the greatest amount of variability in its travel times. This could be a result of the low sample size, or it could be a reflection of unstable traffic flow along the corridor. Travel time decreases are observed along the OR 174/417 East and Champlain/OR Parkway corridors. However, in both cases there is only one travel time run available for 2005, thus limiting the validity of the sample.

The recorded increase in travel times is more pronounced in the p.m. peak hour. The OR 174/417 East and Gréber corridors show the largest increases, and in both cases the increase exceeds the variance explained by a single standard deviation. Only one corridor—417 West— is shown to have a lower travel time in 2011.

It is also worth noting that 2011 p.m. peak hour variance (as calculated by the standard deviation) is higher than in the a.m. peak hour. This could be a reflection of less predictable traffic conditions at this time of day.

![](_page_44_Figure_1.jpeg)

#### Exhibit 5.7: Average Corridor Travel Times: 2005 and 2011 AM and PM Peak Hours

	2005 2011			Growth				
Route	# Runs	Avg. Time	St. Dev.	# Runs	Avg. Time	St. Dev.	Absolute	%
Inbound (7:30-8:30)	•	•		•		•	•	
1) OR 174/417 East	1	55.1	N/A	4	30.2	5.3	-25.0	-45%
2) Airport Parkway	2	18.6	1.1	4	20.6	3.6	2.0	11%
3) 417 West	3	28.1	10.3	4	38.2	7.9	10.1	36%
4) Champlain/OR Parkway	1	15.9	N/A	4	14.7	2.9	-1.3	-8%
5) Autoroute 5	3	13.5	1.3	4	13.7	0.3	0.2	1%
6) Gréber	1	26.3	N/A	4	30.1	5.2	3.8	14%
Outbound (16:00-17:00)								
1) OR 174/417 East	3	17.9	4.4	3	34.9	9.7	17.0	95%
2) Airport Parkway	1	24.8	N/A	4	30.2	4.5	5.4	22%
3) 417 West	2	28.7	3.5	5	28.3	13.0	-0.4	-1%
4) Champlain/OR Parkway	2	14.1	1.0	4	17.1	4.4	3.0	21%
5) Autoroute 5	2	12.7	0.5	4	18.0	6.2	5.3	42%
6) Gréber	2	14.3	0.5	4	37.8	5.1	23.5	164%

Source: 2005 and 2011 TRANS Travel Time Surveys

Notes:

Data taken exclusively from the survey runs completed between Labour Day and November 30<sup>th</sup>. Owing to the small number of data points, results should be interpreted with caution

#### 5.3 Peak Spreading

"Peak spreading" is the term used to describe the lengthening of periods of high travel demand as a result of increasing traffic congestion. Fixed start times for activities like school and work mean that many people want to travel at approximately the same time. This, among many other factors, results in congestion. This is enough to encourage some travellers to change their departure times and travel earlier or later than they otherwise would have. As more and more people shift their travel times, congestion begins to occur over a longer and longer period of time and a longer "peak" is the result. For the purposes of this analysis, this peak is defined as the period of time that travel demand exceeds the daily (5:00–24:00) average.

Exhibit 5.8 charts 1986 and 2011 trip departures throughout the day as recorded in the OD Survey. It is clear that both the magnitude and duration of the a.m. and p.m. peaks increased in the 25 years between the two surveys. In 1986, the a.m. peak period was 2.25 hours, while the p.m. peak period was 4.75 hours. By 2011, this had increased to 2.5 hours and 5.25 hours, respectively. There is also evidence that the peaks are becoming less pronounced. The peak hour scaling factor—the ratio between the busiest 2.5 hours and the busiest hour—increased from 1.85 to 2.03 in the a.m. peak and from 2.32 to 2.38 in the p.m. peak. This is an indication that the traditional 2.5 hour peak period is spreading and, by extension, that periods of pronounced demand are getting longer. Finally, it is worth noting that the volume in the shoulder peak (one hour before and one hour after the 2.5 hour peak period) is growing at a higher rate in both the a.m. and p.m. Again, this is indicative of increasingly lengthy periods of high demand.

![](_page_45_Figure_4.jpeg)

![](_page_45_Figure_5.jpeg)

	AM Peak			PM Peak			
Year	Volume: 7:00–9:30	Peak Hour Scaling Factor	Volume: Shoulder Peak	Volume: 15:00–17:30	Peak Hour Scaling Factor	Volume: Shoulder Peak	
1986	440,000	1.85	160,000	523,000	2.32	244,000	
1995	503,000	1.89	160,000	592,000	2.43	300,000	
2005	597,000	1.94	199,000	678,000	2.38	359,000	
2011	602,000	2.03	226,000	717,000	2.38	373,000	

#### 5.4 Transit Ridership

Transit ridership in the NCR has been in a state of flux since the first OD survey was undertaken in 1986. The annual number of riders carried by OC Transpo and the STO declined in the decade after this first survey and hit an all-time low in1996. Ridership then increased consistently to 2011 (with the exception of strike-impacted 2008 and 2009) before declining once again. This subsection attempts to explain this recent decline by relating transit ridership trends to other trends observed in the NCR over the same time period.

Exhibit 5.9 charts total annual transit ridership in the NCR against five explanatory variables for the years 2003 through 2014:

- the federal government workforce located in the NCR;
- the total NCR employed workforce;
- the NCR unemployment rate;
- the number of revenue service hours by STO and OC Transpo; and
- the average annual gas price in the City of Ottawa.

Examination of this data shows that the trend in transit ridership most closely matches the trend in the NCR's federal government workforce. This suggests that recent cuts to the federal public service have been an important contributor to the observed decreases in NCR transit ridership. There is anecdotal evidence to support this assertion. A large percentage of the federal workforce in the NCR (46% on the Ottawa side) is located in downtown areas where parking is scarce and/or expensive and transit service is very high. Therefore, a decrease in federal workers implies a decrease in the downtown workers that are a key market for the NCR's transit agencies. It is also interesting to note that the decline in transit patronage began in the same year that the federal job cuts began (2012).

The trend in transit ridership is less correlated to other region-wide employment trends. The overall size of the employed labour force in the NCR has actually continued to increase while transit ridership has decreased, suggesting that these new jobs are not located in transit-supportive areas. Furthermore, transit ridership continued to increase even as region-wide unemployment jumped from 4.9% in 2008 to 6.6% in 2011.

Service hours are often used as an explanatory variable for transit ridership. The number of revenue service hours provided by OC Transpo and STO do closely match the trend in observed ridership. For example, both ridership and service hours hit their peak in 2011. However, two observations suggest that service is not the primary driver of ridership in this instance. Firstly, ridership continued to decline even after the decline in service hours was reversed. But more importantly, service productivity (the number of riders per revenue service hour) has decreased substantially, indicating that fewer riders are being attracted for each service hour provided. To illustrate, it took approximately 12.5% more service hours in 2013 to attract roughly the same number of passengers that rode the system in 2010.

Finally, it is shown that changes in gas prices were likely not the primary driver of ridership changes. Average prices continued to increase even as ridership declined.

#### Exhibit 5.9: Annual Transit Ridership and Explanatory Variables

![](_page_47_Figure_2.jpeg)

Year	NCR Transit Riders	NCR Federal Workforce	NCR Total Workforce	NCR Unemp.	NCR Transit Service Hrs.	Average Gas Price
2003	103,000,000	92,000	608,000	6.8%	2,000,000	66.0
2004	103,900,000	94,000	608,000	6.7%	2,000,000	65.9
2005	105,200,000	94,000	615,000	6.8%	2,000,000	70.2
2006	108,400,000	97,000	641,000	5.3%	2,100,000	77.2
2007	112,700,000	100,000	651,000	5.3%	2,200,000	88.5
2008	112,100,000	105,000	678,000	4.9%	2,200,000	92.2
2009	101,600,000	111,000	671,000	5.7%	2,100,000	98.1
2010	117,700,000	115,000	686,000	6.6%	2,400,000	108.7
2011	122,700,000	116,000	687,000	6.3%	2,800,000	87.3
2012	120,100,000	115,000	706,000	6.2%	2,700,000	100.5
2013	116,700,000	108,000	696,000	6.4%	2,700,000	122.4
2014	116,000,000	107,000	707,000	6.7%	Not available	123.8

**Source:** Statistics Canada; Canadian Urban Transit Agency; Treasury Board Secretariat **Notes:** 

- Dashed lines on the ridership curves denote interpolated growth during the 2008-2009 OC work stoppage.

 Charts without vertical axes are indexed and plotted at the same scale. Vertical offsets have been employed to emphasize trends.

### 6 Future Outlooks

Data from past OD surveys and other sources have shown that travel patterns in the NCR are changing: people are making fewer trips per day, auto occupancy is down, and young people are less likely to drive while the elderly are more likely to drive. These changes, among others, have produced new patterns of congestion, spurred changes to highway and transit infrastructure, and indirectly influenced land use development. Changes of this magnitude will no doubt continue in the future as new demographic patterns, tastes and preferences, and technology influence day-to-day life in Canada's capital region. This chapter hypothesizes which changes are likely to occur in the future and explores how they will influence transportation planning in Ottawa-Gatineau.

As with any forward-looking information, this analysis is limited to the knowledge and tools currently at our disposal. No single source of information or analytical method—such as extrapolation of existing trends or computer simulation—will be able to predict how people will view and treat travel in the future. As such, our outlook is based on a synthesis of current trends, future land use projections, our knowledge of the region, and a general understanding of how global transportation trends will affect travel at the local scale.

#### 6.1 The Major Agents of Change

Transportation is a demand derived from the activities that make up day-to-day life. As such, future travel trends are best understood by forecasting the basic motivators for and agents of travel, not the travel itself. The following four themes are seen to be the primary drivers of transportation trends, and will be explored in the remainder of this chapter:

- **Demographic shifts:** A common refrain in planning circles is that Canada's population is aging and travel behaviour is changing as a result. The region's largest demographic group—the "Baby Boomers"—will no longer be regularly commuting to work in the near future, potentially skewing the distribution of travel demand throughout the day. Furthermore, continued "empty nesting" of Baby Boomer households will lead to continued population declines in certain suburban neighbourhoods, influencing trip distribution. There are, however, other demographic changes that will influence travel. For example, the first Millennials are now beginning to have children. The coming years will reveal whether their penchant for urban living will continue and be passed on to a new generation.
- Changing tastes and preferences: OD Survey data has revealed that young adults today have different travel preferences than their parents did at the same age. They are travelling less, and they are much less likely to drive than previous generations at the same age. As the Baby Boom generation retires, peak period travel will slowly begin to be dominated by a new generation that is more likely to view public transit and active modes as viable means of transportation. There is, however, a risk that, without appropriate and sufficient infrastructure to support this desire, Millennials and later generations may revert to the habits of their parents.
- The continued influence of the federal government: The NCR is home to a mix of employment types, but the dominant employer is, and will continue to be, the federal government. As such, the region's growth is tied to the growth of the public sector. Aside from the influence of its overall size, its influence also extends to how and where the public sector chooses to grow. Policies to locate employment in cheaper office space in the suburbs could have significant region-wide impacts on both trip distribution and mode choice. This will be a key variable in the realization of the NCR's transportation planning objectives.

**Technology:** It is not often that the impacts of new transportation technology live up to the expectations of their proponents. Consider, for example, past promises of nuclear-powered cars, personal rapid transit, and the revolutionary nature of the Segway. However, some technologies—such as street railways and the private automobile—have succeeded in exacting significant change on travel choices and behaviour. The autonomous vehicle (driverless car) is an emerging technology that is being touted by some as being able to live up to its claims. Proponents argue that removing humans from the driver's seat means that reaction time is improved, which, in turn, means more vehicular throughput. By reducing congestion in this way, travel times could be shortened and could encourage shifts away from public transit and support a renewed focus on suburbanization. However, this result would be dependent on a very high rate of market penetration and, furthermore, may simply induce new demand to the point where a new congested state is reached. In short, although the potential impacts of this technology are significant, specific outcomes are at best difficult to predict.

#### 6.2 Population and Employment

Municipalities on the Ontario and Québec sides of the Ottawa River have produced forecasts for population and employment in 2031. These forecasts, summarized in Exhibit 6.1, are driven by a mix of policy (i.e. where growth is encouraged/legislated to occur) and market forces (i.e. the demand for new housing and employment) using established land use modelling techniques. As previously discussed, however, growth in the NCR is correlated to the size of the federal public service and other economic factors that are difficult to predict. As such, these figures represent a "best guess" for the future based on past patterns and current trends.

	Population				Jobs				
	2011	2031	Growth	% Growth	2011	2031	Growth	% Growth	
Ontario									
Inner Area	97,200	116,400	19,200	20%	170,700	201,800	31,100	18%	
Inner Suburbs	422,100	449,100	27,000	6%	282,800	352,100	69,300	25%	
Outer Suburbs	312,900	460,500	147,600	47%	93,600	130,200	36,600	39%	
Rural	89,700	109,900	20,200	23%	18,100	19,000	900	5%	
OTTAWA TOTAL	921,900	1,135,900	214,000	23%	565,200	703,100	137,900	24%	
Québec									
Inner Area	10,100	16,200	6,100	60%	29,000	34,900	5,900	20%	
Inner Suburbs	41,900	48,900	7,000	17%	30,800	43,200	12,400	40%	
Outer Suburbs	180,900	202,900	22,000	12%	43,000	58,700	15,700	37%	
Rural	79,300	93,100	13,800	17%	13,400	14,900	1,500	11%	
GATINEAU TOTAL	312,200	361,100	48,900	16%	116,200	151,700	35,500	31%	
NCR TOTAL	1,234,100	1,496,900	262,900	21%	681,400	854,700	173,300	25%	

#### Exhibit 6.1: 2031 TRANS Population and Employment Forecasts

Source: TRANS Travel Forecasting Model

Note: Geographic designations in the table represent the following TRANS district aggregations:

Inner Area = Ottawa Centre, Ottawa Inner Area (Ontario side);

Île de Hull (Québec side).

Inner Suburbs = Ottawa East, Beacon Hill, Alta Vista, Hunt Club, Merivale, Ottawa West, Bayshore/Cedarview (Ontario side); Hull Périphérie (Québec side).

Outer Suburbs = Orleans, South Gloucester/Leitrim, South Nepean, Kanata/Stittsville (Ontario side); Plateau, Aylmer, Pointe Gatineau, Gatineau Est (Québec side).

Rural = Rural East, Rural Southeast, Rural Southwest, Rural West (Ontario side); Masson-Angers, Rural Northwest, Rural Northeast (Québec side). These forecasts show that population intensification is planned for parts of the NCR that have already been developed. For example, more than 59,000 new residents are planned to move into the "Inner Areas" and "Inner Suburbs" of Ottawa and Gatineau. However, the vast majority (~77%) of new residents are forecast to settle in the "Outer Suburbs" and rural areas, predominantly in new greenfield developments. This has clear implications on travel behaviour, as auto ownership is high and transit mode share low in these outer-suburban neighbourhoods. This increases the likelihood that these new residents will choose to travel by private auto.

The "Outer Suburbs" will also see the fastest rate of employment growth. The number of jobs in these districts (on both sides of the Ottawa River) will increase by more than 40% by 2031, bringing the total to nearly 190,000. The largest absolute increase in jobs, however, will be in the districts that make up the "Inner Suburbs". By 2031, nearly 80,000 new jobs are forecast for these districts. This will have implications on trip distribution because of the changing balance between population (or, more accurately, labour force) and employment in these districts. This will be explored further in sub-section 6.4.

Changes to the distribution of population age by 2031 will also influence travel behaviour in the NCR. Exhibit 6.2 illustrates these changes in two different ways: by political geography (top row) and by land use type (bottom row).

![](_page_50_Figure_4.jpeg)

![](_page_50_Figure_5.jpeg)

![](_page_50_Figure_6.jpeg)

Gatineau

![](_page_50_Figure_7.jpeg)

Inner Suburbs

![](_page_50_Figure_9.jpeg)

![](_page_50_Figure_10.jpeg)

200

-10%

+9%

100

Ottawa

+87%

+14%

2011

2031

300 400

+27%

65+

45-64

25-44

15-24

5-14

0

![](_page_50_Figure_11.jpeg)

#### Source: TRANS Travel Forecasting Model

Unsurprisingly, the data show that the largest change in population across all municipalities and land use types will be the increase in population over the age of 65. Across the whole of the NCR, this amounts to a near doubling of senior citizens between 2011 and 2031. This could have a broad range of transportation impacts. For one, this segment of the population will be far less likely to work regular hours, reducing pressure on the transportation network during peak periods. An increase in aged individuals could also increase demand for public transit and specialized transit service as health problems force older residents to give up their driver's licences. However, OD Survey trends have shown a substantial rise in elderly drivers since 1986, and this is likely to continue into the future.

It is also worth noting that the absolute number of residents aged between 15 and 24 is forecast to decrease across the NCR, and particularly so in the "Inner Suburbs". This is an important observation for travel behaviour because it is this segment of the population that is most likely to use public transportation and among the most likely to use active transportation. Declines in this demographic segment could put downward pressure on transit ridership.

#### 6.3 Trip Rates

Between 1986 and 2011, the average number of trips made per person per day in the NCR decreased from 3.19 to 2.69. The primary driver of this decrease was home-based work trips, which decreased by a third from 0.75 to 0.50 despite greater female participation in the labour force over the same time period. Similar observations have been made in the Greater Toronto Area, where work trip rates have decreased from 0.77 to 0.65 over the same period. This suggests that this is likely a broader cultural trend not unique to the NCR.

As discussed in section 4.4, the root of this phenomenon could stem from a number of factors. First, advances in technology are making it easier for many office workers to work remotely or work from home. This does not necessarily mean that certain segments of the population are always working from home, but that more and more workers are able to work from home if they need to. However, as previously noted, there is little empirical evidence to suggest that NCR residents did, in fact, work from home more frequently in 2011 than in past years. Demographic factors may also be affecting influencing trip rates. An aging of the population has resulted in a greater proportion of trip-makers being past retirement age, meaning that they are less likely to make work trips.

Looking forward, it is difficult to predict how trip rates will change in the future. While it is likely that congestion will continue to worsen and that travel will become increasingly costly, a very high percentage of the workforce does not have the choice to work at home. Even among office workers, there is an increasing realization that teleconferences, email, and webinars are not a substitute for presence in an office environment. As such, if teleworking is putting downward pressure on trip rates, it is unlikely that such declines will continue at the rate that has been observed over the past 25 years. However, continued aging of the population will mean that work trips will likely make up an increasingly small percentage of daily trips. This will likely contribute to a moderate decline in trip rates.

#### 6.4 Travel Flows

During peak periods, and particularly during the a.m. peak period, trip distribution patterns in the NCR are primarily driven by work trips. Fundamentally, the distribution of these trips is determined by the balance of population (labour force) and employment (jobs). If an area's labour force increases at a faster rate than the number of jobs, there will be an increased amount of outbound trips from that area destined to areas that have a surplus of jobs. It is therefore instructive to compare the balance of residents and jobs in 2011 and 2031 to see how trip distribution patterns are likely to change in the future. This is illustrated in Exhibit 6.3.

	2011	2031	Δ
Ontario			
Inner Area	1.76	1.73	-0.02
Inner Suburbs	0.67	0.78	0.11
Outer Suburbs	0.30	0.28	-0.02
Rural	0.20	0.17	-0.03
OTTAWA TOTAL	0.61	0.62	0.01
Québec			0
Inner Area	2.87	2.15	-0.72
Inner Suburbs	0.74	0.88	0.15
Outer Suburbs	0.24	0.29	0.05
Rural	0.17	0.16	-0.01
GATINEAU TOTAL	0.37	0.42	0.05
NCR TOTAL	0.55	0.57	0.02

Exhibit 6.3: 2011 and 2031 Jobs Per Resident by Land Use Type

Source: TRANS Travel Forecasting Model

As previously discussed, the most substantial increase in employment will occur in the inner suburbs, which, combined with a relatively stable number of residents, will result in trip inflow from other areas of the region during the a.m. peak. In Ottawa, the number of jobs per resident is forecast to increase by 11% to 0.78, while in Gatineau the increase is forecast to be 15% to 0.88. This means that, on a percentage basis, there is likely to be a greater inflow of trips from other parts of the region to the inner suburbs than there was in 2011.

This is not to say, however, that the absolute number of trip interchanges between other parts of the region will not increase. There are still a substantial number of new jobs forecast to be added to the inner areas of Ottawa and Gatineau over the next 20 years (nearly 40,000) that will increase overall travel demand to the downtowns. There is also reason to believe that trips, and in particular non-work trips, will become increasingly internalized by 2031. Outer suburban centres are rapidly maturing and developing cultural, community, educational, and employment nodes of their own. These nodes will only continue to increase in the future as the size of these suburban neighbourhoods increases.

#### 6.5 Mode Share

One of the most prominent goals of transportation plans in Gatineau and Ottawa is to reduce the amount of single-occupant car use from present levels. Much of this shift is planned to be absorbed by transit, with the goal of increasing the share of a.m. peak period trips made on transit from 22% today to 26% in Ottawa, and from 18% today to 24% in Gatineau (in both cases, the goal is to achieve the shift by 2031). It is important to emphasize, however, that there is a significant difference between increasing the *number* of transit trips and increasing the *share* of transit trips. Using historical ridership data, the 2011 OD Survey, and the TRANS forecasting model, Exhibit 6.4 illustrates the amount annual transit ridership in the NCR will have to increase in order to:

- maintain the ~21% a.m. peak period transit mode share observed in the 2011 OD Survey; and
- increase a.m. peak period transit mode share four percentage points to 25%.

The chart shows that, to maintain the 2011 mode share, transit ridership will have to increase by 37% above 2014 levels. To increase transit share to 25% will require ridership to grow at a far faster rate than has been observed over the last 20 years: 65% above 2014 levels.

![](_page_53_Figure_1.jpeg)

Exhibit 6.4: Historical and Forecast NCR Transit Ridership (OC Transpo and STO)

Source: CUTA Statistics; TRANS Travel Forecasting Model

Some of the factors affecting the likelihood of achieving this shift are discussed below:

- As previously explored, members of the Millennial generation are beginning to reveal different tastes and preferences than their parents when it comes to urban transportation. Millennials are less likely to choose to drive than their parents were at the same age in 1986, and transit ridership increases may result as more and more of them enter the workforce. However, it is not clear whether this behaviour is actually because they prefer to not drive (due to lifestyle choices or improved transit options), or if they are not driving because they cannot afford to, or because congestion has increased to the point where it is not practical for them to drive. The coming years will confirm whether the Millennial generation will grow up to act more like their parents or if they will continue to drive less even after finding employment and starting families.
- Mode share is also heavily dependent on the distribution of population and employment throughout the NCR. Suburban residents tend to travel by car more frequently than their urban counterparts, and continued suburban growth will likely mean continued growth in auto trips. However, it is the distribution of employment that is perhaps even more important in determining mode split. Consider, for example, a suburban resident who works in downtown Ottawa. Although they likely own a car and drive for trips within their neighbourhood, they can easily take transit to work because the downtown is easily accessed by transit and parking is expensive. If the home and work locations are reversed, however, a resident of the downtown may be forced to buy a car if they start a job in the suburbs because transit service is far less competitive in the counter-peak direction. Not only would this influence their choice of mode for their journey to and from work, but it means that-since they have already made the investment in a car-they would also be more likely to drive for other purposes as well. As shown in Exhibit 6.1, the NCR is forecast to see substantial increases in both suburban residents and suburban jobs, both of which will pose challenges to decreasing auto use.
- Finally, continued and sustained investments in transit infrastructure and operations will be essential to encourage transit ridership growth. Money for infrastructure is an integral method of ensuring that transit maintains (or, ideally, improves) its travel time competitiveness relative to the car. The more infrastructure is built, the greater the number of trips for which this competitiveness exists. Secondly, and perhaps more importantly, funding for operations is critical to the maintenance of ridership

since the accessibility and frequency of transit service is an important determinant of rider convenience. A similar logic can be applied to making active transportation attractive. As has been demonstrated recently with the rapid growth of bicycles on facilities such as the Laurier Avenue cycle tracks, there is a latent demand for new cycling infrastructure. Once built, increases in trips are likely to follow.

It is important to note that the ridership growth presented in Exhibit 6.4 is based on a number of assumptions which may be different from other forecasts done for other studies. There are a number of reasons for such differences:

- Exhibit 6.4 reflects transit ridership for the entire National Capital Region, while forecasts for the City of Ottawa and City of Gatineau typically correspond to each City's respective transit agency (OC Transpo or STO).
- The values in Exhibit 6.4 are based on the level of growth required to achieve the blended transit mode share targets for the City of Ottawa and City of Gatineau. In the case of the City of Ottawa, this is the transit modal share identified by the 2013 Transportation Master Plan "concept" network, which is somewhat higher than the transit modal share estimated for the "affordable" network.
- Exhibit 6.4 focuses on a horizon year of 2031; other forecasts may use a different horizon, or assume a delay in when the projected ridership is achieved based on recent trends of ridership decline.
- The TRANS model used to develop the transportation projections is continually updated and refined. Exhibit 6.4 reflects the version of the model used to develop the City of Ottawa 2013 Transportation Master Plan, while newer versions of the model have been used for more recent forecasting studies.

## 7 Conclusions

This report has reached the following conclusions about changing travel patterns since 1986:

- **The suburbs are maturing:** Between 1986 and 2011, the population of the outer suburbs increased by more than 135%, while the number of jobs more than quadrupled. This growth has brought increased trip internalization which, if current trends continue, could result in decreases in average trip length.
- Changing tastes and preferences are having an observable impact on travel behaviour: Millennials in the NCR travel less and are less likely to drive compared to Baby Boomers at the same age. Compared to 1986, young adults are more likely to take transit, while the middle-aged and elderly are more likely to drive.
- NCR residents are making fewer trips per day: The number of trips made per resident per day in the NCR has decreased from 3.19 in 1986 to 2.69 in 2011. The number of trip chains per resident per day has also decreased, albeit by a much smaller percentage.
- Transit mode share is increasing, but decreasing transit ridership will pose challenges for future growth: Between 1995 and 2011, 24-hour transit mode share in the NCR increased from 12% to 15% in Ottawa and 6% to 10% in Gatineau. However, since 2011 OC Transpo and STO ridership has decreased, meaning that continuation of transit share growth will be a major challenge.
- Active transportation is becoming increasingly popular—except among children: Between 1986 and 2011, the share of trips made by active modes has increased for every age group except among youth aged 11 to 18. This could be symptomatic of an increasingly sedentary lifestyle, or it could indicate that children are more frequently being driven to their destinations by their parents.
- **The "peak" is spreading:** The a.m. and p.m. peak periods were longer in 2011 than they were in 1986. The peaks were also flatter in 2011, meaning that the intensity of the peak is more evenly spread.
- There is a strong link between federal public service employment and transit ridership: Transit ridership in the NCR was found to be most closely related to the number of NCR residents employed in the public service. This means that federal policy regarding the public service has impacts on the ability of NCR municipalities to achieve their transportation policy goals.
- Future travel flows will be dictated by imbalances between jobs and workers in the Inner Suburbs: Over the next 15 to 20 years, the Inner Suburbs are forecast to experience only a moderate increase in population while adding a significant amount of employment. This imbalance will lead to increase worker inflow into these districts, with implications on congestion patterns and mode choice.

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## Appendix A

**Travel Trend Summary Sheets** 

### Notes

All travel data presented in the summary sheets originates from the 1986, 1995, 2005, and 2011 TRANS Origin-Destination Surveys. Population data is sourced from the Census of Canada, while employment is obtained from a mix of municipal employment surveys and OD Survey expansion.

Only records from trip makers 11+ years old are presented.

The AM peak period is defined as 6:30-9:00AM.

While every effort has been made to ensure internal consistency, trip totals may not match in some cases due to rounding.

#### **AM Peak Period OD Plots**

A "Trips From Region" dot represents the destination traffic zone of a trip. A "Trips To Region" dot represents the origin traffic zone of the trip.

Dot density plots present aggregations of trip origins or destinations at the 2011 Traffic Zone level. This may result in some trips appearing to originate from within the greenbelt, water, or other non-urbanized areas, due to the inherent divisions of the traffic zone.

Trip Purpose	1986	1995	2005	2011
Work	Go to work (2) Work-related (3)	Home-based work (W)	Work usual (1) Work-related (2) Work on road (3)	Travel to work (1) Work related (2) Work on road (3)
School	Go to school (5)	Home-based school (S)	School (4)	School (4)
Shopping	Go shopping (4)	Home-based shopping (M)	Shopping (5)	Shopping (5)
Other	Pick up/drop off (1) Personal (6) Leisure/social (7) Return home (8) Other (0)	Non home-based (N) Home-based other (O)	Recreation (7) Restaurant (8,9) Visit (10) Medical (11) Dropoff/pickup (12,13) Return home (14) Other (15)	Restaurant (6) Recreation (7) Visit (8) Health (9) Dropoff/pickup (10,11) Return home (12) Other (13)

#### **Trip Purposes Category Definitions**

Note: Number/letter in brackets refers to the coding standard used in OD Survey

Mode Category	1986	1995	2005	2011
Auto Driver	Driver (1)	Auto Driver (D)	Car driver (1)	Car driver (1)
Auto Passenger	Passenger (2)	Auto Pass (P)	Car pass (2)	Car pass (2)
Transit	OC Bus (3) CTCRO Bus (4) Both (5)	Public transit (T) OC Bus (3) Urban STO bus (4) O-Train (7)		Urban transit (6)
Cycle	Bicycle (8)	Bicycle (B)	Bicycle (11)	Bicycle (5)
Walk	Walk (9)	Walk (W)	Walk (12)	Walk (13)
Other	Other Bus (6) Taxi (7) Other (10)	Motorcycle (M) Schoolbus (S) Taxi (X) Other (O)	School bus (6) Ferry (8) Taxi (9) Paratransit (10) Motorcycle (15) Other bus (5) Other (16)	Taxi (3) Motorcycle (4) School bus (7) Other bus (8) Paratransit (9) Intercity/charter (10) VIA (11) Plane (12) Ferry (14) Other (15)

#### **Mode Share Category Definitions**

Note: Number/letter in brackets refers to the coding standard used in OD Survey.

#### **Demographic Definitions**

- A "student" is defined as an individual who is in:
  - Full time school
  - Full time school and part time work
  - Part time school and part time work
- A "worker" is defined as an individual who is in:
  - Full time work
  - Full time work and part time school
  - Full time work and full time school

A "senior" is defined as: Age 65+.

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# **National Capital Region** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_61_Picture_2.jpeg)

Po

#### **Population & Employment**

![](_page_61_Figure_4.jpeg)

#### **Total AM Peak Period Trips**

1986

![](_page_61_Figure_6.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_61_Figure_8.jpeg)

![](_page_61_Figure_9.jpeg)

### Trip Destinations by Purpose (2011)

![](_page_61_Figure_11.jpeg)

![](_page_61_Figure_12.jpeg)

1% 2%

1995

## **National Capital Region**

## Demographic Trends

Demographics	1986	1995	2005	2011
Population	807,000	980,100	1,144,300	1,234,100
Employ ment	387,500	465,400	612,800	681,400
Students	182,000	184,200	199,200	276,900
Workers	446,400	450,600	540,000	588,000
Seniors	78,300	93,500	202,200	158,200
Jobs / Worker	0.9	1.0	1.1	1.2
% Student	23%	19%	17%	22%
% Workers	55%	46%	47%	48%
% Seniors	10%	10%	18%	13%

#### Trip Making Trends

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from National Capital	Region							
Mode								
Auto Driver	229,500 (51%)	267,700 (54%)	305,900 (53%)	316,600 (54%)	1,202,600 (57%)	1,412,800 (58%)	1,617,100 (58%)	1,684,100 (58%)
Auto Passenger	51,700 (11%)	61,800 (12%)	65,700 (11%)	57,600 (10%)	334,500 (16%)	388,900 (16%)	376,000 (13%)	374,800 (13%)
Transit	107,600 (24%)	78,100 (16%)	102,100 (18%)	113,800 (19%)	349,500 (16%)	259,100 (11%)	347,100 (12%)	392,000 (14%)
Cycle	6,300 (1%)	7,500 (2%)	9,300 (2%)	13,500 (2%)	27,100 (1%)	32,800 (1%)	37,100 (1%)	52,000 (2%)
Walk	28,900 (6%)	47,000 (9%)	52,500 (9%)	48,900 (8%)	145,800 (7%)	279,200 (11%)	298,500 (11%)	289,700 (10%)
Other	25,700 (6%)	33,100 (7%)	44,600 (8%)	37,600 (6%)	64,200 (3%)	79,300 (3%)	111,100 (4%)	93,800 (3%)
TOTAL	449,700	495,200	580,000	588,000	2,123,700	2,452,000	2,786,900	2,886,300
Purpose								
School	85,100 (19%)	108,600 (22%)	139,200 (24%)	120,900 (21%)	125,900 (6%)	277,000 (11%)	189,300 (7%)	167,000 (6%)
Shopping	4,100 (1%)	4,800 (1%)	7,200 (1%)	11,400 (2%)	234,700 (11%)	326,500 (13%)	276,800 (10%)	349,000 (12%)
Work	287,000 (64%)	230,300 (47%)	319,500 (55%)	322,400 (55%)	497,500 (23%)	633,300 (26%)	541,000 (19%)	539,000 (19%)
Other	73,500 (16%)	151,500 (31%)	114,000 (20%)	133,100 (23%)	1,265,600 (60%)	1,215,200 (50%)	1,779,700 (64%)	1,831,500 (63%)
TOTAL	449,700	495,200	580,000	588,000	2,123,700	2,452,000	2,786,900	2,886,300
Trips to National Capital Re	egion							
Mode								
Auto Driver	226,700 (51%)	262,900 (54%)	302,300 (53%)	313,100 (54%)	1,201,500 (57%)	1,412,000 (58%)	1,617,300 (58%)	1,684,900 (58%)
Auto Passenger	51,400 (12%)	61,000 (12%)	65,100 (11%)	57,200 (10%)	334,100 (16%)	388,500 (16%)	376,500 (14%)	375,100 (13%)
Transit	107,600 (24%)	78,200 (16%)	102,100 (18%)	113,600 (19%)	349,500 (16%)	259,200 (11%)	347,200 (12%)	392,000 (14%)
Cycle	6,300 (1%)	7,500 (2%)	9,300 (2%)	13,500 (2%)	27,200 (1%)	32,700 (1%)	37,100 (1%)	52,000 (2%)
Walk	28,900 (6%)	47,000 (10%)	52,500 (9%)	48,800 (8%)	145,800 (7%)	279,100 (11%)	298,600 (11%)	289,700 (10%)
Other	24,700 (6%)	32,600 (7%)	44,100 (8%)	37,100 (6%)	63,900 (3%)	79,200 (3%)	111,200 (4%)	93,900 (3%)
TOTAL	445,600	489,200	575,300	583,400	2,122,000	2,450,700	2,787,800	2,887,600
Purpose								
School	84,400 (19%)	108,000 (22%)	138,200 (24%)	119,700 (21%)	125,200 (6%)	277,000 (11%)	188,900 (7%)	166,300 (6%)
Shopping	4,000 (1%)	4,500 (1%)	7,000 (1%)	11,100 (2%)	233,700 (11%)	326,800 (13%)	276,200 (10%)	347,400 (12%)
Work	284,100 (64%)	226,800 (46%)	316,600 (55%)	319,600 (55%)	493,500 (23%)	632,600 (26%)	535,700 (19%)	534,100 (18%)
Other	73,000 (16%)	149,800 (31%)	112,600 (20%)	132,000 (23%)	1,269,600 (60%)	1,214,300 (50%)	1,787,000 (64%)	1,839,800 (64%)
TOTAL	445,600	489,200	575,300	583,400	2,122,000	2,450,700	2,787,800	2,887,600

## **Ontario Side of National Capital Region**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_63_Picture_2.jpeg)

Population & Employment

![](_page_63_Figure_4.jpeg)

#### **Total AM Peak Period Trips**

![](_page_63_Figure_6.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_63_Figure_8.jpeg)

Trip Origins by Purpose (2011)

![](_page_63_Figure_10.jpeg)

## Trip Destinations by Purpose (2011)

![](_page_63_Figure_12.jpeg)

![](_page_63_Figure_13.jpeg)

## **Ontario Side of National Capital Region**

### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	606,700	723,900	865,100	921,900
Employ ment	322,000	388,300	514,200	565,200
Students	134,700	140,100	156,700	210,400
Workers	332,800	332,300	401,100	436,200
Seniors	66,500	74,700	163,600	122,600
Jobs / Worker	1.0	1.2	1.3	1.3
% Student	22%	19%	18%	23%
% Workers	55%	46%	46%	47%
% Seniors	11%	10%	19%	13%

#### Trip Making Trends

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Ontario Side								
Mode								
Auto Driver	173,300 (49%)	195,500 (52%)	224,800 (51%)	231,100 (52%)	959,300 (55%)	1,079,900 (57%)	1,249,900 (57%)	1,291,400 (57%)
Auto Passenger	38,300 (11%)	44,300 (12%)	49,600 (11%)	42,200 (10%)	271,500 (16%)	294,700 (15%)	295,700 (13%)	294,800 (13%)
Transit	93,200 (26%)	66,400 (18%)	82,500 (19%)	90,000 (20%)	306,200 (18%)	226,300 (12%)	299,000 (14%)	332,700 (15%)
Cycle	5,600 (2%)	6,400 (2%)	7,500 (2%)	10,800 (2%)	23,000 (1%)	26,900 (1%)	31,100 (1%)	43,600 (2%)
Walk	24,400 (7%)	38,700 (10%)	44,200 (10%)	41,400 (9%)	123,100 (7%)	227,500 (12%)	252,300 (11%)	248,600 (11%)
Other	17,500 (5%)	21,500 (6%)	30,500 (7%)	26,500 (6%)	45,900 (3%)	53,200 (3%)	79,600 (4%)	68,600 (3%)
TOTAL	352,200	372,700	439,100	441,900	1,729,000	1,908,400	2,207,600	2,279,700
Purpose								
School	65,500 (19%)	80,900 (22%)	106,000 (24%)	90,400 (20%)	97,200 (6%)	209,600 (11%)	147,800 (7%)	128,100 (6%)
Shopping	3,100 (1%)	3,300 (1%)	5,300 (1%)	9,100 (2%)	197,900 (11%)	256,100 (13%)	223,300 (10%)	284,300 (12%)
Work	228,200 (65%)	174,400 (47%)	240,800 (55%)	242,100 (55%)	396,200 (23%)	492,300 (26%)	412,100 (19%)	405,900 (18%)
Other	55,400 (16%)	114,100 (31%)	87,000 (20%)	100,100 (23%)	1,037,700 (60%)	950,500 (50%)	1,424,300 (65%)	1,461,400 (64%)
TOTAL	352,200	372,700	439,100	441,900	1,729,000	1,908,400	2,207,600	2,279,700
Trips to Ontario Side								
Mode								
Auto Driver	181,300 (50%)	208,200 (53%)	238,400 (52%)	239,800 (52%)	960,500 (56%)	1,079,400 (57%)	1,251,000 (57%)	1,291,400 (57%)
Auto Passenger	42,100 (12%)	48,900 (13%)	53,200 (12%)	44,800 (10%)	271,900 (16%)	294,300 (15%)	296,100 (13%)	294,700 (13%)
Transit	92,800 (26%)	67,500 (17%)	87,700 (19%)	97,100 (21%)	305,800 (18%)	226,400 (12%)	298,100 (13%)	333,400 (15%)
Cycle	5,400 (1%)	6,400 (2%)	7,900 (2%)	11,600 (3%)	22,900 (1%)	26,900 (1%)	31,200 (1%)	43,700 (2%)
Walk	24,200 (7%)	38,500 (10%)	44,100 (10%)	41,000 (9%)	123,300 (7%)	227,400 (12%)	252,400 (11%)	248,500 (11%)
Other	16,800 (5%)	21,100 (5%)	30,400 (7%)	26,300 (6%)	45,600 (3%)	53,300 (3%)	79,700 (4%)	69,000 (3%)
TOTAL	362,500	390,600	461,700	460,600	1,730,100	1,907,800	2,208,400	2,280,700
Purpose								
School	66,500 (18%)	82,200 (21%)	108,100 (23%)	92,500 (20%)	99,500 (6%)	210,100 (11%)	151,800 (7%)	132,500 (6%)
Shopping	3,300 (1%)	3,200 (1%)	5,400 (1%)	8,900 (2%)	199,900 (12%)	255,700 (13%)	223,900 (10%)	285,100 (13%)
Work	234,500 (65%)	187,200 (48%)	260,300 (56%)	258,800 (56%)	406,400 (23%)	493,500 (26%)	443,400 (20%)	431,200 (19%)
Other	58,200 (16%)	117,900 (30%)	87,900 (19%)	100,300 (22%)	1,024,300 (59%)	948,600 (50%)	1,389,300 (63%)	1,431,900 (63%)
TOTAL	362,500	390,600	461,700	460,600	1,730,100	1,907,800	2,208,400	2,280,700

## Alta Vista AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_65_Figure_1.jpeg)

Popu

#### **Population & Employment**

![](_page_65_Figure_3.jpeg)

#### **Total AM Peak Period Trips**

![](_page_65_Figure_5.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_65_Figure_7.jpeg)

Trip Origins by Purpose (2011)

![](_page_65_Figure_9.jpeg)

Trip Destinations by Purpose (2011)

![](_page_65_Figure_11.jpeg)

![](_page_65_Figure_12.jpeg)

## Alta Vista

#### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	72,900	73,400	79,100	77,500
Employ ment	48,900	53,700	65,700	71,000
Students	14,900	13,900	16,200	17,500
Workers	36,300	28,900	31,300	34,100
Seniors	10,700	11,800	18,600	13,200
Jobs / Worker	1.3	1.9	2.1	2.1
% Student	20%	19%	21%	23%
% Workers	50%	39%	40%	44%
% Seniors	15%	16%	24%	17%

## Trip Making Trends

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Alta Vista								
Mode								
Auto Driver	20,300 (49%)	20,100 (54%)	18,700 (49%)	18,800 (51%)	131,000 (62%)	132,000 (61%)	136,600 (60%)	136,100 (60%)
Auto Passenger	4,500 (11%)	4,600 (12%)	4,700 (12%)	4,100 (11%)	34,000 (16%)	35,600 (17%)	31,300 (14%)	31,000 (14%)
Transit	13,300 (32%)	7,700 (21%)	9,200 (24%)	9,100 (24%)	34,800 (16%)	25,400 (12%)	34,000 (15%)	33,600 (15%)
Cycle	600 (1%)	500 (1%)	800 (2%)	1,000 (3%)	1,600 (1%)	2,100 (1%)	2,700 (1%)	3,400 (2%)
Walk	1,700 (4%)	3,400 (9%)	3,500 (9%)	2,800 (8%)	8,100 (4%)	16,900 (8%)	17,800 (8%)	15,000 (7%)
Other	800 (2%)	1,000 (3%)	1,400 (4%)	1,400 (4%)	2,800 (1%)	3,700 (2%)	6,400 (3%)	6,100 (3%)
TOTAL	41,200	37,400	38,400	37,300	212,200	215,900	228,700	225,200
Purpose								
School	7,900 (19%)	7,700 (21%)	8,800 (23%)	7,400 (20%)	11,700 (6%)	20,700 (10%)	14,200 (6%)	11,000 (5%)
Shopping	500 (1%)	400 (1%)	500 (1%)	800 (2%)	27,800 (13%)	29,000 (13%)	26,200 (11%)	30,400 (13%)
Work	25,500 (62%)	14,900 (40%)	20,900 (54%)	19,400 (52%)	45,700 (22%)	55,500 (26%)	36,400 (16%)	33,400 (15%)
Other	7,300 (18%)	14,300 (38%)	8,200 (21%)	9,600 (26%)	126,900 (60%)	110,700 (51%)	151,900 (66%)	150,400 (67%)
TOTAL	41,200	37,400	38,400	37,300	212,200	215,900	228,700	225,200
Trips to Alta Vista								
Mode								
Auto Driver	28,300 (62%)	33,000 (62%)	33,600 (59%)	33,200 (61%)	131,500 (62%)	132,400 (61%)	137,100 (60%)	136,500 (61%)
Auto Passenger	5,600 (12%)	7,800 (15%)	6,800 (12%)	6,000 (11%)	34,000 (16%)	36,200 (17%)	32,200 (14%)	30,900 (14%)
Transit	9,200 (20%)	7,100 (13%)	9,100 (16%)	8,800 (16%)	34,600 (16%)	25,100 (12%)	32,800 (14%)	32,900 (15%)
Cycle	500 (1%)	600 (1%)	900 (2%)	1,100 (2%)	1,600 (1%)	2,100 (1%)	3,000 (1%)	3,400 (2%)
Walk	1,600 (3%)	3,500 (7%)	3,800 (7%)	2,900 (5%)	8,000 (4%)	17,000 (8%)	17,600 (8%)	15,000 (7%)
Other	700 (2%)	1,400 (3%)	2,500 (4%)	2,800 (5%)	2,600 (1%)	3,700 (2%)	6,600 (3%)	6,600 (3%)
TOTAL	45,900	53,500	56,700	54,600	212,400	216,500	229,200	225,400
Purpose								
School	7,200 (16%)	9,600 (18%)	11,600 (20%)	8,700 (16%)	8,800 (4%)	20,900 (10%)	13,800 (6%)	9,900 (4%)
Shopping	400 (1%)	400 (1%)	500 (1%)	800 (1%)	26,500 (12%)	28,800 (13%)	23,800 (10%)	30,500 (14%)
Work	29,200 (63%)	25,700 (48%)	33,400 (59%)	33,700 (62%)	53,200 (25%)	57,700 (27%)	56,400 (25%)	57,400 (25%)
Other	9,200 (20%)	17,800 (33%)	11,200 (20%)	11,400 (21%)	123,900 (58%)	109,200 (50%)	135,200 (59%)	127,700 (57%)
TOTAL	45,900	53,500	56,700	54,600	212,400	216,500	229,200	225,400

## **Bayshore / Cedarview**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_67_Picture_2.jpeg)

Po

#### Population & Employment

![](_page_67_Figure_4.jpeg)

#### **Total AM Peak Period Trips**

![](_page_67_Figure_6.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_67_Figure_8.jpeg)

Trip Origins by Purpose (2011)

![](_page_67_Figure_10.jpeg)

### Trip Destinations by Purpose (2011)

![](_page_67_Figure_12.jpeg)

![](_page_67_Figure_13.jpeg)

## **Bayshore / Cedarview**

## Demographic Trends

Demographics	1986	1995	2005	2011
Population	72,300	78,600	82,400	79,200
Employ ment	23,000	26,800	37,900	40,500
Students	15,700	14,500	14,700	17,500
Workers	39,000	34,700	36,300	35,600
Seniors	8,200	9,000	18,800	13,300
Jobs / Worker	0.6	0.8	1.0	1.1
% Student	22%	18%	18%	22%
% Workers	54%	44%	44%	45%
% Seniors	11%	12%	23%	17%

#### Trip Making Trends

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Bayshore / Ced	arview							
Mode								
Auto Driver	20,900 (52%)	20,400 (52%)	19,300 (52%)	18,100 (52%)	111,700 (62%)	135,000 (61%)	112,100 (62%)	108,300 (61%)
Auto Passenger	3,700 (9%)	4,900 (13%)	4,500 (12%)	3,400 (10%)	29,100 (16%)	37,600 (17%)	24,700 (14%)	24,000 (14%)
Transit	12,000 (30%)	8,900 (23%)	7,700 (21%)	8,200 (23%)	26,600 (15%)	23,900 (11%)	20,100 (11%)	22,200 (13%)
Cycle	400 (1%)	400 (1%)	500 (1%)	700 (2%)	1,400 (1%)	1,800 (1%)	1,600 (1%)	2,400 (1%)
Walk	2,100 (5%)	3,100 (8%)	2,600 (7%)	2,700 (8%)	7,500 (4%)	17,700 (8%)	14,200 (8%)	15,200 (9%)
Other	1,400 (3%)	1,200 (3%)	2,700 (7%)	1,800 (5%)	3,700 (2%)	4,400 (2%)	6,800 (4%)	5,100 (3%)
TOTAL	40,400	39,000	37,400	34,900	179,900	220,500	179,500	177,100
Purpose								
School	7,900 (20%)	8,500 (22%)	9,800 (26%)	7,000 (20%)	10,900 (6%)	20,400 (9%)	13,000 (7%)	10,100 (6%)
Shopping	300 (1%)	300 (1%)	400 (1%)	700 (2%)	23,400 (13%)	43,100 (20%)	20,500 (11%)	23,300 (13%)
Work	26,700 (66%)	18,800 (48%)	20,100 (54%)	19,200 (55%)	42,000 (23%)	48,500 (22%)	34,300 (19%)	33,000 (19%)
Other	5,600 (14%)	11,300 (29%)	7,000 (19%)	7,900 (23%)	103,500 (58%)	108,500 (49%)	111,700 (62%)	110,600 (62%)
TOTAL	40,400	39,000	37,400	34,900	179,900	220,500	179,500	177,100
Trips to Bayshore / Cedary	/iew							
Mode								
Auto Driver	16,200 (63%)	21,100 (59%)	19,800 (62%)	19,800 (63%)	112,900 (62%)	135,400 (61%)	111,400 (62%)	108,100 (61%)
Auto Passenger	2,200 (9%)	4,600 (13%)	3,200 (10%)	2,700 (9%)	29,100 (16%)	37,400 (17%)	24,400 (14%)	24,100 (14%)
Transit	3,400 (13%)	4,300 (12%)	3,100 (10%)	3,000 (10%)	26,300 (15%)	24,100 (11%)	20,300 (11%)	22,200 (13%)
Cycle	100 (0%)	400 (1%)	400 (1%)	600 (2%)	1,400 (1%)	1,900 (1%)	1,600 (1%)	2,300 (1%)
Walk	1,900 (7%)	3,300 (9%)	2,400 (7%)	2,600 (8%)	7,600 (4%)	17,400 (8%)	14,400 (8%)	15,100 (9%)
Other	2,000 (8%)	2,300 (6%)	3,200 (10%)	2,700 (9%)	3,900 (2%)	4,400 (2%)	7,000 (4%)	5,400 (3%)
TOTAL	25,800	36,000	32,200	31,400	181,200	220,600	179,200	177,100
Purpose								
School	5,600 (22%)	8,900 (25%)	7,100 (22%)	5,900 (19%)	6,900 (4%)	20,700 (9%)	7,800 (4%)	6,700 (4%)
Shopping	300 (1%)	600 (2%)	300 (1%)	600 (2%)	32,200 (18%)	41,200 (19%)	22,000 (12%)	23,800 (13%)
Work	15,500 (60%)	15,900 (44%)	18,800 (58%)	17,500 (56%)	29,300 (16%)	48,200 (22%)	32,500 (18%)	29,800 (17%)
Other	4,400 (17%)	10,700 (30%)	6,000 (19%)	7,500 (24%)	112,900 (62%)	110,500 (50%)	116,800 (65%)	116,900 (66%)
TOTAL	25,800	36,000	32,200	31,400	181,200	220,600	179,200	177,100

## **Beacon Hill** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_69_Picture_1.jpeg)

Por

#### Population & Employment

![](_page_69_Figure_3.jpeg)

#### **Total AM Peak Period Trips**

![](_page_69_Figure_5.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_69_Figure_7.jpeg)

Trip Origins by Purpose (2011)

![](_page_69_Figure_9.jpeg)

#### Trip Destinations by Purpose (2011)

![](_page_69_Figure_11.jpeg)

![](_page_69_Figure_12.jpeg)

## **Beacon Hill**

### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	31,400	30,500	32,200	31,300
Employ ment	9,000	14,600	21,100	26,500
Students	9,000	6,300	5,500	6,400
Workers	16,900	14,100	14,100	13,700
Seniors	1,900	3,100	6,900	6,300
Jobs / Worker	0.5	1.0	1.5	1.9
% Student	29%	21%	17%	20%
% Workers	54%	46%	44%	44%
% Seniors	6%	10%	21%	20%

### Trip Making Trends

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Beacon Hill								
Mode								
Auto Driver	7,800 (42%)	7,500 (48%)	8,200 (50%)	7,800 (55%)	37,500 (53%)	43,400 (57%)	47,800 (57%)	47,300 (58%)
Auto Passenger	2,200 (12%)	2,200 (14%)	2,000 (12%)	1,300 (9%)	12,500 (18%)	12,600 (16%)	11,400 (14%)	11,500 (14%)
Transit	5,900 (32%)	3,700 (24%)	4,200 (26%)	2,900 (20%)	11,800 (17%)	10,400 (14%)	15,000 (18%)	11,400 (14%)
Cycle	400 (2%)	300 (2%)	100 (1%)	300 (2%)	1,400 (2%)	1,100 (1%)	700 (1%)	900 (1%)
Walk	1,500 (8%)	1,500 (10%)	1,300 (8%)	1,300 (9%)	4,800 (7%)	6,500 (9%)	6,500 (8%)	7,100 (9%)
Other	700 (4%)	500 (3%)	500 (3%)	700 (5%)	3,200 (4%)	2,400 (3%)	2,400 (3%)	2,700 (3%)
TOTAL	18,400	15,700	16,300	14,300	71,200	76,400	83,700	80,900
Purpose								
School	5,000 (27%)	3,900 (25%)	3,700 (23%)	2,700 (19%)	6,700 (9%)	10,800 (14%)	5,600 (7%)	4,000 (5%)
Shopping	100 (1%)	100 (1%)	200 (1%)	300 (2%)	8,200 (12%)	10,600 (14%)	8,800 (11%)	10,400 (13%)
Work	11,400 (62%)	7,000 (45%)	9,100 (56%)	8,200 (57%)	17,300 (24%)	17,800 (23%)	14,400 (17%)	13,300 (16%)
Other	1,900 (10%)	4,700 (30%)	3,300 (20%)	3,100 (22%)	39,000 (55%)	37,200 (49%)	54,900 (66%)	53,100 (66%)
TOTAL	18,400	15,700	16,300	14,300	71,200	76,400	83,700	80,900
Trips to Beacon Hill								
Mode								
Auto Driver	6,700 (48%)	8,900 (52%)	10,000 (48%)	10,600 (54%)	37,800 (53%)	43,400 (57%)	47,600 (57%)	47,400 (58%)
Auto Passenger	1,400 (10%)	2,100 (12%)	2,300 (11%)	2,300 (12%)	12,500 (18%)	12,700 (17%)	11,600 (14%)	12,000 (15%)
Transit	1,700 (12%)	2,400 (14%)	5,200 (25%)	3,700 (19%)	11,100 (16%)	10,200 (13%)	14,800 (18%)	11,400 (14%)
Cycle	300 (2%)	400 (2%)	300 (1%)	200 (1%)	1,400 (2%)	1,100 (1%)	600 (1%)	900 (1%)
Walk	1,500 (11%)	1,600 (9%)	1,400 (7%)	1,500 (8%)	4,600 (6%)	6,400 (8%)	6,600 (8%)	7,000 (9%)
Other	2,500 (18%)	1,700 (10%)	1,500 (7%)	1,400 (7%)	3,800 (5%)	2,400 (3%)	2,400 (3%)	2,500 (3%)
TOTAL	14,100	17,100	20,900	19,700	71,200	76,300	83,600	81,200
Purpose								
School	5,600 (40%)	6,000 (35%)	7,900 (38%)	6,400 (33%)	6,700 (9%)	11,300 (15%)	9,600 (11%)	8,300 (10%)
Shopping	100 (1%)	100 (1%)	100 (0%)	300 (2%)	6,800 (10%)	10,200 (13%)	8,700 (10%)	10,100 (12%)
Work	6,700 (48%)	6,600 (39%)	9,600 (46%)	9,300 (47%)	12,100 (17%)	17,900 (23%)	15,300 (18%)	15,200 (19%)
Other	1,600 (11%)	4,400 (26%)	3,300 (16%)	3,600 (18%)	45,600 (64%)	37,000 (48%)	50,000 (60%)	47,600 (59%)
TOTAL	14,100	17,100	20,900	19,700	71,200	76,300	83,600	81,200

## Hunt Club AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey

![](_page_71_Figure_1.jpeg)

Popu

#### **Population & Employment**

![](_page_71_Figure_3.jpeg)

#### **Total AM Peak Period Trips**

![](_page_71_Figure_5.jpeg)

#### Change in AM Peak Period Origin Mode Share

![](_page_71_Figure_7.jpeg)

Trip Origins by Purpose (2011)

![](_page_71_Figure_9.jpeg)

Trip Destinations by Purpose (2011)

![](_page_71_Figure_11.jpeg)

![](_page_71_Figure_12.jpeg)
# Hunt Club

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	28,800	46,300	54,800	54,100	
Employ ment	7,500	12,200	23,500	25,500	
Students	7,300	10,000	11,600	14,500	
Workers	16,600	21,700	25,300	24,200	
Seniors	1,400	2,500	8,200	5,800	
Jobs / Worker	0.5	0.6	0.9	1.1	
% Student	25%	22%	21%	27%	
% Workers	58%	47%	46%	45%	
% Seniors	5%	6%	15%	11%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Hunt Club								
Mode								
Auto Driver	8,400 (53%)	12,200 (51%)	14,600 (50%)	14,300 (50%)	35,000 (63%)	53,300 (62%)	67,400 (62%)	70,000 (63%)
Auto Passenger	2,400 (15%)	3,600 (15%)	3,900 (13%)	2,600 (9%)	10,500 (19%)	15,000 (18%)	15,900 (15%)	13,900 (12%)
Transit	4,200 (26%)	4,800 (20%)	7,000 (24%)	7,700 (27%)	6,300 (11%)	7,700 (9%)	13,400 (12%)	15,400 (14%)
Cycle	200 (1%)	200 (1%)	300 (1%)	300 (1%)	500 (1%)	600 (1%)	1,000 (1%)	900 (1%)
Walk	200 (1%)	1,000 (4%)	1,400 (5%)	1,400 (5%)	1,400 (3%)	6,000 (7%)	7,000 (6%)	7,100 (6%)
Other	600 (4%)	1,900 (8%)	2,100 (7%)	2,400 (8%)	1,500 (3%)	3,100 (4%)	3,700 (3%)	4,300 (4%)
TOTAL	15,900	23,800	29,200	28,600	55,200	85,900	108,400	111,700
Purpose								
School	2,900 (18%)	6,100 (26%)	8,800 (30%)	7,300 (25%)	4,200 (8%)	8,700 (10%)	11,300 (10%)	9,700 (9%)
Shopping	200 (1%)	200 (1%)	400 (1%)	600 (2%)	6,200 (11%)	11,300 (13%)	10,900 (10%)	13,100 (12%)
Work	10,200 (64%)	10,700 (45%)	15,100 (52%)	14,500 (51%)	15,400 (28%)	24,200 (28%)	23,700 (22%)	23,300 (21%)
Other	2,600 (16%)	6,800 (29%)	4,900 (17%)	6,300 (22%)	29,400 (53%)	41,700 (49%)	62,500 (58%)	65,600 (59%)
TOTAL	15,900	23,800	29,200	28,600	55,200	85,900	108,400	111,700
Trips to Hunt Club								
Mode								
Auto Driver	5,700 (71%)	7,900 (73%)	9,800 (69%)	12,100 (75%)	35,100 (64%)	53,100 (62%)	66,700 (62%)	69,900 (63%)
Auto Passenger	1,300 (16%)	1,100 (10%)	1,400 (10%)	1,100 (7%)	10,100 (18%)	14,700 (17%)	14,900 (14%)	13,500 (12%)
Transit	400 (5%)	300 (3%)	1,000 (7%)	900 (6%)	6,600 (12%)	8,000 (9%)	14,200 (13%)	15,300 (14%)
Cycle	100 (1%)	100 (1%)	200 (1%)	200 (1%)	500 (1%)	600 (1%)	1,000 (1%)	900 (1%)
Walk	200 (3%)	900 (8%)	1,300 (9%)	1,200 (7%)	1,400 (3%)	6,000 (7%)	7,200 (7%)	7,100 (6%)
Other	300 (4%)	500 (5%)	500 (4%)	700 (4%)	1,400 (3%)	3,100 (4%)	3,800 (4%)	3,800 (3%)
TOTAL	8,000	10,700	14,200	16,200	55,200	85,500	107,800	110,600
Purpose								
School	200 (3%)	1,000 (9%)	1,500 (10%)	1,300 (8%)	400 (1%)	8,100 (9%)	1,700 (2%)	1,400 (1%)
Shopping	100 (1%)	200 (2%)	400 (3%)	700 (4%)	5,200 (9%)	11,700 (14%)	13,700 (13%)	15,800 (14%)
Work	5,900 (74%)	5,000 (47%)	8,300 (58%)	8,800 (54%)	12,300 (22%)	23,400 (27%)	15,700 (15%)	16,500 (15%)
Other	1,800 (23%)	4,500 (42%)	4,100 (29%)	5,400 (33%)	37,400 (68%)	42,300 (49%)	76,800 (71%)	76,900 (70%)
TOTAL	8,000	10,700	14,200	16,200	55,200	85,500	107,800	110,600

## Kanata / Stittsville

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



#### Population & Employment



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





# Kanata / Stittsville

### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	30,500	57,600	88,800	105,200	
Employ ment	8,600	14,200	43,600	51,300	
Students	8,900	10,600	14,100	27,000	
Workers	16,500	29,000	40,200	49,700	
Seniors	1,600	2,700	14,200	11,300	
Jobs / Worker	0.5	0.5	1.1	1.0	
% Student	29%	18%	16%	26%	
% Workers	54%	50%	45%	47%	
% Seniors	5%	5%	16%	11%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Kanata / Stittsv	ille							
Mode								
Auto Driver	10,200 (55%)	18,500 (57%)	25,900 (58%)	29,300 (59%)	43,400 (65%)	82,600 (65%)	134,000 (66%)	157,000 (68%)
Auto Passenger	2,200 (12%)	4,300 (13%)	6,100 (14%)	5,000 (10%)	11,100 (17%)	20,900 (16%)	32,100 (16%)	34,700 (15%)
Transit	3,900 (21%)	4,200 (13%)	5,400 (12%)	7,300 (15%)	6,400 (10%)	7,400 (6%)	12,000 (6%)	15,900 (7%)
Cycle	100 (1%)	200 (1%)	400 (1%)	300 (1%)	400 (1%)	1,000 (1%)	1,200 (1%)	1,200 (1%)
Walk	700 (4%)	2,700 (8%)	3,200 (7%)	4,100 (8%)	2,600 (4%)	10,400 (8%)	14,700 (7%)	16,400 (7%)
Other	1,500 (8%)	2,300 (7%)	3,700 (8%)	3,400 (7%)	3,100 (5%)	4,700 (4%)	8,700 (4%)	7,300 (3%)
TOTAL	18,600	32,200	44,600	49,500	67,000	126,900	202,700	232,500
Purpose								
School	3,800 (20%)	7,200 (22%)	11,400 (26%)	11,200 (23%)	4,900 (7%)	14,600 (11%)	14,800 (7%)	14,600 (6%)
Shopping	100 (1%)	200 (1%)	400 (1%)	900 (2%)	6,800 (10%)	17,800 (14%)	19,600 (10%)	27,600 (12%)
Work	12,000 (65%)	15,200 (47%)	23,100 (52%)	25,700 (52%)	17,200 (26%)	33,200 (26%)	38,400 (19%)	42,300 (18%)
Other	2,700 (15%)	9,600 (30%)	9,700 (22%)	11,700 (24%)	38,100 (57%)	61,400 (48%)	130,000 (64%)	148,000 (64%)
TOTAL	18,600	32,200	44,600	49,500	67,000	126,900	202,700	232,500
Trips to Kanata / Stittsville								
Mode								
Auto Driver	6,700 (58%)	13,700 (61%)	23,700 (61%)	25,200 (65%)	43,200 (64%)	82,500 (65%)	133,300 (66%)	157,500 (68%)
Auto Passenger	1,500 (13%)	2,900 (13%)	5,100 (13%)	3,600 (9%)	11,300 (17%)	20,700 (16%)	31,500 (16%)	34,300 (15%)
Transit	1,000 (9%)	1,100 (5%)	2,400 (6%)	2,400 (6%)	6,300 (9%)	7,500 (6%)	13,200 (7%)	16,000 (7%)
Cycle	100 (1%)	300 (1%)	400 (1%)	300 (1%)	400 (1%)	1,000 (1%)	1,200 (1%)	1,200 (1%)
Walk	700 (6%)	2,600 (12%)	3,300 (9%)	4,100 (11%)	2,700 (4%)	10,400 (8%)	14,700 (7%)	16,400 (7%)
Other	1,500 (13%)	1,900 (8%)	3,700 (10%)	3,000 (8%)	3,200 (5%)	4,700 (4%)	8,800 (4%)	7,300 (3%)
TOTAL	11,500	22,500	38,600	38,600	67,000	126,800	202,800	232,700
Purpose								
School	3,200 (28%)	5,800 (26%)	9,800 (25%)	8,300 (21%)	4,000 (6%)	14,400 (11%)	11,200 (6%)	9,800 (4%)
Shopping	0 (0%)	100 (0%)	500 (1%)	1,100 (3%)	5,900 (9%)	17,400 (14%)	20,100 (10%)	30,800 (13%)
Work	6,200 (54%)	8,900 (40%)	19,700 (51%)	18,400 (48%)	10,300 (15%)	32,100 (25%)	33,300 (16%)	31,500 (14%)
Other	2,100 (18%)	7,600 (34%)	8,600 (22%)	10,900 (28%)	46,700 (70%)	62,900 (50%)	138,300 (68%)	160,600 (69%)
TOTAL	11,500	22,500	38,600	38,600	67,000	126,800	202,800	232,700

## **Merivale** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Population & Employment



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





# Merivale

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	70,800	70,500	76,500	77,700	
Employ ment	34,400	41,600	53,900	57,400	
Students	13,200	14,000	15,300	17,600	
Workers	38,300	29,800	32,100	34,700	
Seniors	10,000	9,900	16,800	13,200	
Jobs / Worker	0.9	1.4	1.7	1.7	
% Student	19%	20%	20%	23%	
% Workers	54%	42%	42%	45%	
% Seniors	14%	14%	22%	17%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Merivale								
Mode								
Auto Driver	20,900 (50%)	18,700 (52%)	20,600 (54%)	20,700 (54%)	130,800 (60%)	121,200 (62%)	140,100 (62%)	142,700 (61%)
Auto Passenger	4,000 (10%)	4,600 (13%)	4,700 (12%)	3,900 (10%)	37,800 (17%)	30,300 (16%)	33,600 (15%)	30,900 (13%)
Transit	12,600 (30%)	6,600 (18%)	7,000 (18%)	8,400 (22%)	32,800 (15%)	20,300 (10%)	28,800 (13%)	34,200 (15%)
Cycle	800 (2%)	800 (2%)	700 (2%)	1,300 (3%)	3,100 (1%)	2,700 (1%)	3,200 (1%)	3,700 (2%)
Walk	1,900 (5%)	3,900 (11%)	3,400 (9%)	2,400 (6%)	8,600 (4%)	16,200 (8%)	16,600 (7%)	16,700 (7%)
Other	1,200 (3%)	1,100 (3%)	1,600 (4%)	1,300 (3%)	4,500 (2%)	3,600 (2%)	5,100 (2%)	3,900 (2%)
TOTAL	41,500	35,600	38,000	37,900	217,600	194,200	227,400	232,200
Purpose								
School	7,200 (17%)	8,000 (22%)	8,900 (23%)	7,200 (19%)	11,800 (5%)	22,800 (12%)	13,400 (6%)	11,500 (5%)
Shopping	300 (1%)	300 (1%)	600 (2%)	1,000 (3%)	26,400 (12%)	27,800 (14%)	26,300 (12%)	32,100 (14%)
Work	27,800 (67%)	16,600 (47%)	20,200 (53%)	20,900 (55%)	48,800 (22%)	47,300 (24%)	37,100 (16%)	35,100 (15%)
Other	6,300 (15%)	10,700 (30%)	8,300 (22%)	8,900 (23%)	130,700 (60%)	96,300 (50%)	150,600 (66%)	153,400 (66%)
TOTAL	41,500	35,600	38,000	37,900	217,600	194,200	227,400	232,200
Trips to Merivale								
Mode								
Auto Driver	24,100 (59%)	25,200 (62%)	28,100 (58%)	27,500 (59%)	130,800 (60%)	120,900 (62%)	140,500 (62%)	142,700 (61%)
Auto Passenger	4,800 (12%)	3,900 (10%)	6,000 (12%)	5,000 (11%)	37,800 (17%)	29,900 (15%)	33,500 (15%)	30,900 (13%)
Transit	8,200 (20%)	5,500 (14%)	8,900 (18%)	9,100 (20%)	31,800 (15%)	20,600 (11%)	28,900 (13%)	33,900 (15%)
Cycle	600 (1%)	700 (2%)	600 (1%)	1,100 (2%)	3,200 (1%)	2,700 (1%)	3,200 (1%)	3,700 (2%)
Walk	1,700 (4%)	3,100 (8%)	3,000 (6%)	2,400 (5%)	8,400 (4%)	16,100 (8%)	16,600 (7%)	16,700 (7%)
Other	1,600 (4%)	2,100 (5%)	1,900 (4%)	1,500 (3%)	4,300 (2%)	4,000 (2%)	5,100 (2%)	4,300 (2%)
TOTAL	41,100	40,500	48,400	46,600	216,200	194,300	227,800	232,300
Purpose								
School	10,000 (24%)	9,800 (24%)	13,100 (27%)	10,600 (23%)	15,200 (7%)	23,300 (12%)	19,700 (9%)	18,600 (8%)
Shopping	500 (1%)	500 (1%)	800 (2%)	1,100 (2%)	27,700 (13%)	27,200 (14%)	30,800 (14%)	38,500 (17%)
Work	23,100 (56%)	19,000 (47%)	25,600 (53%)	24,400 (52%)	42,400 (20%)	48,400 (25%)	45,600 (20%)	42,300 (18%)
Other	7,500 (18%)	11,200 (28%)	9,000 (19%)	10,600 (23%)	130,900 (61%)	95,400 (49%)	131,700 (58%)	132,900 (57%)
TOTAL	41,100	40,500	48,400	46,600	216,200	194,300	227,800	232,300

## **Orleans** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Por

#### Population & Employment



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## Orleans

### Demographic Trends

Demographics	1986 1995		2005	2011	
Population	57,900	89,200	108,300	117,400	
Employ ment	5,900	12,000	21,000	24,400	
Students	18,100	18,800	22,100	28,800	
Workers	32,100	43,000	54,200	57,400	
Seniors	1,100	3,700	13,600	11,500	
Jobs / Worker	0.2	0.3	0.4	0.4	
% Student	31%	21%	20%	25%	
% Workers	56%	48%	50%	49%	
% Seniors	2%	4%	13%	10%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Orleans								
Mode								
Auto Driver	15,900 (45%)	22,000 (48%)	28,400 (48%)	31,000 (53%)	60,700 (57%)	97,700 (58%)	125,000 (59%)	141,000 (62%)
Auto Passenger	4,400 (12%)	5,800 (13%)	7,000 (12%)	5,600 (10%)	18,300 (17%)	28,600 (17%)	32,900 (15%)	33,900 (15%)
Transit	9,900 (28%)	9,900 (21%)	15,400 (26%)	14,200 (24%)	15,600 (15%)	16,100 (10%)	26,600 (12%)	27,400 (12%)
Cycle	200 (1%)	700 (2%)	600 (1%)	700 (1%)	700 (1%)	2,100 (1%)	2,000 (1%)	1,700 (1%)
Walk	1,100 (3%)	4,300 (9%)	4,300 (7%)	3,900 (7%)	3,700 (3%)	16,300 (10%)	18,000 (8%)	15,900 (7%)
Other	4,100 (12%)	3,600 (8%)	3,600 (6%)	3,000 (5%)	7,100 (7%)	7,200 (4%)	8,400 (4%)	7,200 (3%)
TOTAL	35,700	46,400	59,300	58,300	106,100	168,100	212,800	227,200
Purpose								
School	8,800 (25%)	11,900 (26%)	17,000 (29%)	13,800 (24%)	10,600 (10%)	23,600 (14%)	21,500 (10%)	18,300 (8%)
Shopping	200 (1%)	200 (0%)	400 (1%)	1,000 (2%)	10,600 (10%)	26,500 (16%)	21,400 (10%)	30,000 (13%)
Work	20,900 (59%)	22,600 (49%)	31,100 (52%)	30,300 (52%)	30,000 (28%)	39,800 (24%)	46,800 (22%)	48,000 (21%)
Other	5,700 (16%)	11,600 (25%)	10,900 (18%)	13,100 (23%)	54,900 (52%)	78,200 (47%)	123,100 (58%)	130,800 (58%)
TOTAL	35,700	46,400	59,300	58,300	106,100	168,100	212,800	227,200
Trips to Orleans								
Mode								
Auto Driver	6,000 (47%)	8,900 (44%)	14,200 (47%)	16,600 (54%)	60,800 (58%)	97,700 (58%)	124,400 (58%)	141,400 (62%)
Auto Passenger	1,700 (13%)	2,200 (11%)	4,000 (13%)	3,700 (12%)	18,600 (18%)	28,700 (17%)	32,300 (15%)	33,700 (15%)
Transit	1,400 (11%)	1,200 (6%)	3,200 (11%)	2,900 (9%)	15,200 (14%)	16,000 (10%)	27,400 (13%)	27,100 (12%)
Cycle	100 (1%)	500 (2%)	500 (2%)	400 (1%)	700 (1%)	2,100 (1%)	2,000 (1%)	1,700 (1%)
Walk	1,000 (8%)	4,300 (21%)	4,300 (14%)	3,800 (12%)	3,700 (4%)	16,200 (10%)	18,000 (8%)	15,800 (7%)
Other	2,600 (20%)	3,100 (15%)	4,100 (14%)	3,500 (11%)	6,600 (6%)	7,100 (4%)	8,700 (4%)	7,200 (3%)
TOTAL	12,900	20,200	30,300	30,900	105,700	167,800	212,800	226,900
Purpose								
School	5,400 (42%)	9,000 (45%)	12,600 (41%)	9,500 (31%)	5,900 (6%)	23,000 (14%)	14,000 (7%)	10,100 (4%)
Shopping	100 (1%)	100 (0%)	500 (2%)	1,000 (3%)	9,000 (9%)	26,700 (16%)	21,600 (10%)	30,400 (13%)
Work	4,100 (32%)	4,200 (21%)	7,800 (26%)	8,600 (28%)	9,600 (9%)	37,500 (22%)	15,800 (7%)	16,800 (7%)
Other	3,200 (25%)	6,800 (34%)	9,500 (31%)	11,800 (38%)	81,200 (77%)	80,600 (48%)	161,400 (76%)	169,600 (75%)
TOTAL	12,900	20,200	30,300	30,900	105,700	167,800	212,800	226,900

## Ottawa Centre

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Population

Ottawa Cen

#### Population & Employment



### **Total AM Peak Period Trips**



#### Change in AM Peak Period Origin Mode Share





## Trip Destinations by Purpose (2011)





## **Ottawa Centre**

### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	6,000	7,200	7,500	9,600	
Employ ment	80,400	87,200	92,800	100,300	
Students	800	1,600	800	1,000	
Workers	4,500	4,100	4,700	5,900	
Seniors	400	600	1,900	1,300	
Jobs / Worker	18.0	21.4	20.0	17.0	
% Student	14%	22%	10%	10%	
% Workers	75%	57%	62%	62%	
% Seniors	7%	8%	25%	13%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Ottawa Centre								
Mode								
Auto Driver	5,800 (47%)	6,700 (60%)	4,000 (55%)	3,000 (36%)	65,200 (33%)	57,400 (35%)	54,900 (35%)	48,000 (30%)
Auto Passenger	700 (6%)	300 (3%)	200 (3%)	200 (2%)	22,600 (12%)	18,400 (11%)	13,200 (8%)	13,600 (9%)
Transit	2,500 (20%)	1,400 (13%)	800 (11%)	1,500 (18%)	66,800 (34%)	41,100 (25%)	44,300 (28%)	54,700 (34%)
Cycle	100 (1%)	100 (1%)	100 (1%)	100 (1%)	2,400 (1%)	2,200 (1%)	2,900 (2%)	4,300 (3%)
Walk	3,100 (25%)	2,600 (23%)	2,100 (29%)	3,400 (41%)	35,000 (18%)	40,600 (25%)	37,000 (24%)	36,200 (23%)
Other	200 (2%)	100 (1%)	100 (1%)	100 (1%)	4,200 (2%)	2,500 (2%)	3,800 (2%)	3,100 (2%)
TOTAL	12,500	11,200	7,300	8,500	196,100	162,100	156,000	159,900
Purpose								
School	500 (4%)	700 (6%)	200 (3%)	600 (7%)	3,500 (2%)	2,700 (2%)	1,500 (1%)	2,000 (1%)
Shopping	100 (1%)	100 (1%)	200 (3%)	300 (4%)	17,100 (9%)	11,600 (7%)	11,000 (7%)	13,800 (9%)
Work	9,900 (80%)	3,200 (29%)	5,000 (68%)	5,700 (67%)	32,100 (16%)	60,000 (37%)	19,000 (12%)	16,600 (10%)
Other	1,900 (15%)	7,100 (64%)	1,900 (26%)	1,900 (22%)	143,400 (73%)	87,900 (54%)	124,500 (80%)	127,500 (80%)
TOTAL	12,500	11,200	7,300	8,500	196,100	162,100	156,000	159,900
Trips to Ottawa Centre								
Mode								
Auto Driver	22,000 (28%)	22,400 (35%)	25,800 (38%)	20,200 (28%)	66,900 (33%)	57,400 (35%)	57,900 (37%)	48,100 (30%)
Auto Passenger	10,300 (13%)	8,500 (13%)	7,000 (10%)	5,600 (8%)	23,400 (12%)	18,700 (12%)	14,100 (9%)	13,500 (8%)
Transit	38,600 (48%)	24,500 (39%)	25,600 (37%)	34,800 (49%)	70,000 (35%)	41,900 (26%)	41,700 (27%)	57,000 (35%)
Cycle	1,000 (1%)	900 (1%)	1,600 (2%)	2,500 (4%)	2,400 (1%)	2,200 (1%)	3,000 (2%)	4,400 (3%)
Walk	7,200 (9%)	6,500 (10%)	7,800 (11%)	7,500 (11%)	35,000 (17%)	40,300 (25%)	36,700 (23%)	35,300 (22%)
Other	900 (1%)	400 (1%)	700 (1%)	500 (1%)	3,300 (2%)	2,000 (1%)	2,800 (2%)	2,400 (1%)
TOTAL	80,100	63,200	68,500	71,200	201,100	162,500	156,200	160,600
Purpose								
School	2,800 (3%)	700 (1%)	1,600 (2%)	2,100 (3%)	4,800 (2%)	2,600 (2%)	2,200 (1%)	2,600 (2%)
Shopping	500 (1%)	200 (0%)	500 (1%)	500 (1%)	27,800 (14%)	10,000 (6%)	14,100 (9%)	17,300 (11%)
Work	69,800 (87%)	47,300 (75%)	61,500 (90%)	64,000 (90%)	104,900 (52%)	65,500 (40%)	94,000 (60%)	93,700 (58%)
Other	7,000 (9%)	14,900 (24%)	4,900 (7%)	4,600 (6%)	63,500 (32%)	84,500 (52%)	45,900 (29%)	47,000 (29%)
TOTAL	80,100	63,200	68,500	71,200	201,100	162,500	156,200	160,600

## Ottawa East AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Po

#### **Population & Employment**



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Ottawa East**

### Demographic Trends

Demographics	1986 1995		2005	2011	
Population	48,300	50,900	53,700	51,900	
Employ ment	19,200	20,000	24,400	25,000	
Students	8,600	8,600	9,400	8,900	
Workers	25,900	21,800	24,700	23,900	
Seniors	7,700	7,600	12,200	8,800	
Jobs / Worker	0.7	0.9	1.0	1.0	
% Student	18%	17%	18%	17%	
% Workers	54%	43%	46%	46%	
% Seniors	16%	15%	23%	17%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Ottawa East								
Mode								
Auto Driver	11,600 (48%)	11,200 (50%)	10,800 (44%)	10,100 (45%)	75,700 (58%)	68,100 (55%)	71,900 (56%)	69,800 (55%)
Auto Passenger	2,400 (10%)	3,100 (14%)	2,500 (10%)	2,200 (10%)	22,500 (17%)	21,800 (17%)	17,800 (14%)	17,200 (14%)
Transit	8,000 (33%)	5,100 (23%)	6,900 (28%)	5,700 (26%)	22,000 (17%)	15,500 (12%)	19,700 (15%)	19,500 (16%)
Cycle	500 (2%)	400 (2%)	800 (3%)	1,300 (6%)	1,300 (1%)	1,300 (1%)	2,200 (2%)	3,500 (3%)
Walk	1,400 (6%)	2,400 (11%)	2,600 (10%)	1,800 (8%)	7,500 (6%)	16,500 (13%)	14,600 (11%)	12,900 (10%)
Other	200 (1%)	400 (2%)	1,200 (5%)	1,100 (5%)	1,700 (1%)	1,700 (1%)	3,300 (3%)	2,900 (2%)
TOTAL	24,100	22,600	24,900	22,200	130,600	124,900	129,400	125,800
Purpose								
School	4,300 (18%)	4,300 (19%)	5,500 (22%)	4,100 (18%)	6,200 (5%)	9,700 (8%)	7,100 (5%)	5,700 (5%)
Shopping	100 (0%)	300 (1%)	400 (2%)	600 (3%)	16,100 (12%)	22,400 (18%)	14,300 (11%)	18,400 (15%)
Work	15,800 (66%)	10,700 (47%)	13,900 (56%)	12,400 (56%)	29,000 (22%)	29,900 (24%)	25,000 (19%)	22,200 (18%)
Other	3,900 (16%)	7,300 (32%)	5,000 (20%)	5,100 (23%)	79,300 (61%)	62,900 (50%)	83,000 (64%)	79,500 (63%)
TOTAL	24,100	22,600	24,900	22,200	130,600	124,900	129,400	125,800
Trips to Ottawa East								
Mode								
Auto Driver	12,000 (58%)	12,200 (60%)	13,300 (58%)	12,500 (61%)	75,500 (58%)	68,200 (55%)	72,200 (56%)	69,200 (55%)
Auto Passenger	2,500 (12%)	3,100 (15%)	2,700 (12%)	2,000 (10%)	22,200 (17%)	21,700 (17%)	17,300 (13%)	16,900 (13%)
Transit	4,200 (20%)	2,500 (12%)	3,700 (16%)	3,500 (17%)	21,300 (16%)	15,400 (12%)	20,300 (16%)	20,100 (16%)
Cycle	300 (1%)	200 (1%)	300 (1%)	400 (2%)	1,300 (1%)	1,300 (1%)	2,200 (2%)	3,500 (3%)
Walk	1,200 (6%)	1,900 (9%)	2,000 (9%)	1,500 (7%)	8,000 (6%)	16,300 (13%)	14,500 (11%)	12,900 (10%)
Other	500 (2%)	600 (3%)	900 (4%)	700 (3%)	2,000 (2%)	1,900 (2%)	3,200 (2%)	3,200 (3%)
TOTAL	20,800	20,400	22,900	20,600	130,300	124,900	129,800	125,700
Purpose								
School	3,400 (16%)	3,400 (17%)	3,800 (17%)	2,400 (12%)	4,000 (3%)	9,300 (7%)	4,400 (3%)	3,300 (3%)
Shopping	400 (2%)	300 (1%)	500 (2%)	800 (4%)	27,200 (21%)	21,800 (17%)	20,800 (16%)	24,400 (19%)
Work	13,000 (63%)	9,400 (46%)	13,600 (59%)	12,200 (60%)	23,700 (18%)	29,100 (23%)	24,000 (18%)	21,900 (17%)
Other	4,000 (19%)	7,400 (36%)	5,000 (22%)	5,100 (25%)	75,500 (58%)	64,600 (52%)	80,700 (62%)	76,000 (61%)
TOTAL	20,800	20,400	22,900	20,600	130,300	124,900	129,800	125,700

## Ottawa Inner Area AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



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a Inner

**Population & Employment** 



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Ottawa Inner Area**

### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	74,200	74,400	86,100	87,600
Employ ment	49,100	56,000	65,200	70,400
Students	13,700	17,900	17,100	18,000
Workers	45,400	35,600	42,900	45,800
Seniors	9,900	8,800	16,400	11,300
Jobs / Worker	1.1	1.6	1.5	1.5
% Student	18%	24%	20%	21%
% Workers	61%	48%	50%	52%
% Seniors	13%	12%	19%	13%

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Ottawa Inner Ar	rea							
Mode								
Auto Driver	17,700 (40%)	15,700 (41%)	15,600 (35%)	15,000 (35%)	119,700 (48%)	112,100 (44%)	112,300 (40%)	100,800 (37%)
Auto Passenger	3,900 (9%)	3,600 (9%)	3,200 (7%)	3,100 (7%)	32,400 (13%)	33,700 (13%)	28,100 (10%)	26,800 (10%)
Transit	11,400 (26%)	6,300 (17%)	9,200 (21%)	9,100 (21%)	52,700 (21%)	39,000 (15%)	55,500 (20%)	59,300 (22%)
Cycle	1,800 (4%)	1,700 (4%)	1,800 (4%)	3,100 (7%)	8,000 (3%)	8,100 (3%)	8,400 (3%)	14,000 (5%)
Walk	8,900 (20%)	9,900 (26%)	13,800 (31%)	11,600 (27%)	34,500 (14%)	58,800 (23%)	72,400 (26%)	68,000 (25%)
Other	700 (2%)	700 (2%)	1,100 (2%)	1,100 (3%)	4,300 (2%)	3,900 (2%)	6,700 (2%)	5,400 (2%)
TOTAL	44,400	38,100	44,700	43,000	251,700	255,600	283,300	274,400
Purpose								
School	6,000 (14%)	6,800 (18%)	8,200 (18%)	6,800 (16%)	11,900 (5%)	44,400 (17%)	15,800 (6%)	12,200 (4%)
Shopping	600 (1%)	200 (1%)	600 (1%)	700 (2%)	26,100 (10%)	23,600 (9%)	23,800 (8%)	30,800 (11%)
Work	30,500 (69%)	19,200 (50%)	26,400 (59%)	26,400 (62%)	60,000 (24%)	59,000 (23%)	49,100 (17%)	44,700 (16%)
Other	7,300 (16%)	11,900 (31%)	9,500 (21%)	9,000 (21%)	153,700 (61%)	128,600 (50%)	194,600 (69%)	186,700 (68%)
TOTAL	44,400	38,100	44,700	43,000	251,700	255,600	283,300	274,400
Trips to Ottawa Inner Area								
Mode								
Auto Driver	27,800 (48%)	28,000 (49%)	26,100 (42%)	21,800 (37%)	119,600 (48%)	112,300 (44%)	113,800 (40%)	100,600 (37%)
Auto Passenger	6,300 (11%)	7,400 (13%)	6,700 (11%)	5,000 (8%)	31,800 (13%)	33,200 (13%)	29,600 (10%)	26,800 (10%)
Transit	16,000 (28%)	13,200 (23%)	17,500 (28%)	20,400 (35%)	51,900 (21%)	38,700 (15%)	52,900 (19%)	58,800 (21%)
Cycle	1,400 (2%)	1,400 (2%)	1,500 (2%)	3,300 (6%)	7,600 (3%)	8,200 (3%)	8,300 (3%)	13,900 (5%)
Walk	5,300 (9%)	6,500 (11%)	8,700 (14%)	7,400 (13%)	34,700 (14%)	59,300 (23%)	72,400 (26%)	68,900 (25%)
Other	800 (1%)	700 (1%)	1,500 (2%)	1,100 (2%)	4,800 (2%)	4,000 (2%)	6,700 (2%)	5,900 (2%)
TOTAL	57,700	57,300	62,000	59,100	250,300	255,700	283,700	274,900
Purpose								
School	15,300 (27%)	16,100 (28%)	20,300 (33%)	20,000 (34%)	33,600 (13%)	46,500 (18%)	45,600 (16%)	42,200 (15%)
Shopping	300 (1%)	300 (1%)	600 (1%)	500 (1%)	8,800 (4%)	24,400 (10%)	14,500 (5%)	19,300 (7%)
Work	33,500 (58%)	24,400 (43%)	30,300 (49%)	28,700 (49%)	61,800 (25%)	59,500 (23%)	55,100 (19%)	48,800 (18%)
Other	8,600 (15%)	16,500 (29%)	10,900 (18%)	9,900 (17%)	146,000 (58%)	125,200 (49%)	168,500 (59%)	164,500 (60%)
TOTAL	57,700	57,300	62,000	59,100	250,300	255,700	283,700	274,900

## Ottawa West

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Pop

#### **Population & Employment**



### **Total AM Peak Period Trips**



### Change in AM Peak Period Origin Mode Share



Trip Origins by Purpose (2011)



### Trip Destinations by Purpose (2011)





## **Ottawa West**

### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	42,900	43,100	48,900	50,400	
Employ ment	29,400	31,800	35,100	36,900	
Students	5,500	6,500	6,400	9,400	
Workers	22,400	19,300	22,700	22,900	
Seniors	10,000	8,400	13,800	9,700	
Jobs / Worker	1.3	1.6	1.5	1.6	
% Student	13%	15%	13%	19%	
% Workers	52%	45%	46%	46%	
% Seniors	23%	20%	28%	19%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Ottawa West								
Mode								
Auto Driver	12,200 (52%)	11,800 (52%)	12,600 (50%)	11,000 (46%)	80,700 (57%)	68,800 (57%)	81,200 (54%)	76,000 (53%)
Auto Passenger	2,300 (10%)	2,000 (9%)	2,500 (10%)	2,200 (9%)	22,700 (16%)	17,300 (14%)	20,000 (13%)	16,700 (12%)
Transit	6,500 (28%)	4,800 (21%)	5,200 (20%)	5,900 (25%)	26,600 (19%)	15,100 (13%)	20,100 (13%)	21,200 (15%)
Cycle	600 (3%)	800 (4%)	1,200 (5%)	1,500 (6%)	1,600 (1%)	2,600 (2%)	3,900 (3%)	5,900 (4%)
Walk	1,500 (6%)	2,800 (12%)	3,500 (14%)	2,700 (11%)	7,800 (6%)	15,300 (13%)	21,400 (14%)	21,700 (15%)
Other	500 (2%)	300 (1%)	400 (2%)	400 (2%)	1,600 (1%)	1,600 (1%)	2,400 (2%)	2,200 (2%)
TOTAL	23,600	22,500	25,400	23,600	140,900	120,600	148,900	143,700
Purpose								
School	2,800 (12%)	3,900 (17%)	4,300 (17%)	3,600 (15%)	5,100 (4%)	10,900 (9%)	6,500 (4%)	5,500 (4%)
Shopping	200 (1%)	400 (2%)	500 (2%)	400 (2%)	20,100 (14%)	14,100 (12%)	17,800 (12%)	19,900 (14%)
Work	16,400 (70%)	10,400 (46%)	14,300 (56%)	13,500 (57%)	28,600 (20%)	31,700 (26%)	24,100 (16%)	22,600 (16%)
Other	4,100 (17%)	7,800 (35%)	6,300 (25%)	6,200 (26%)	87,100 (62%)	63,900 (53%)	100,600 (68%)	95,700 (67%)
TOTAL	23,600	22,500	25,400	23,600	140,900	120,600	148,900	143,700
Trips to Ottawa West								
Mode								
Auto Driver	18,100 (55%)	15,800 (54%)	15,800 (50%)	15,400 (53%)	79,200 (57%)	68,400 (57%)	81,600 (55%)	76,200 (53%)
Auto Passenger	3,400 (10%)	3,900 (13%)	4,200 (13%)	3,400 (12%)	23,100 (17%)	17,500 (15%)	20,100 (13%)	16,900 (12%)
Transit	8,600 (26%)	5,200 (18%)	6,100 (19%)	5,700 (20%)	26,700 (19%)	14,800 (12%)	19,400 (13%)	21,300 (15%)
Cycle	600 (2%)	800 (3%)	800 (3%)	1,100 (4%)	1,800 (1%)	2,600 (2%)	3,800 (3%)	5,900 (4%)
Walk	1,600 (5%)	3,100 (11%)	3,600 (11%)	2,600 (9%)	7,600 (5%)	15,600 (13%)	21,600 (14%)	21,700 (15%)
Other	400 (1%)	700 (2%)	900 (3%)	600 (2%)	1,600 (1%)	1,700 (1%)	2,800 (2%)	2,200 (2%)
TOTAL	32,800	29,500	31,300	28,800	139,800	120,400	149,200	144,200
Purpose								
School	4,500 (14%)	5,100 (17%)	5,600 (18%)	3,900 (14%)	5,300 (4%)	10,700 (9%)	7,100 (5%)	4,900 (3%)
Shopping	300 (1%)	300 (1%)	400 (1%)	500 (2%)	18,300 (13%)	15,300 (13%)	18,600 (12%)	20,800 (14%)
Work	22,000 (67%)	14,300 (48%)	18,200 (58%)	17,900 (62%)	35,800 (26%)	32,600 (27%)	29,900 (20%)	28,700 (20%)
Other	5,900 (18%)	9,800 (33%)	7,100 (23%)	6,500 (23%)	80,400 (58%)	61,900 (51%)	93,600 (63%)	89,900 (62%)
TOTAL	32,800	29,500	31,300	28,800	139,800	120,400	149,200	144,200

## **Rural East** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Po

#### Population & Employment



### **Total AM Peak Period Trips**

1986



### Change in AM Peak Period Origin Mode Share

2%

1995

Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





# **Rural East**

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	7,900	10,800	11,700	11,400	
Employ ment	500	1,000	2,300	2,400	
Students	1,800	1,700	2,100	2,600	
Workers	4,900	5,200	5,700	5,500	
Seniors	400	800	1,600	1,400	
Jobs / Worker	0.1	0.2	0.4	0.4	
% Student	22%	16%	18%	23%	
% Workers	62%	49%	48%	48%	
% Seniors	5%	7%	14%	12%	

	AM Peak Period	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011	
Trips from Rural East									
Mode									
Auto Driver	2,400 (65%)	2,900 (63%)	3,200 (59%)	3,100 (63%)	6,400 (70%)	9,200 (71%)	11,400 (68%)	11,300 (68%)	
Auto Passenger	500 (14%)	600 (13%)	600 (11%)	800 (16%)	1,700 (18%)	2,100 (16%)	2,500 (15%)	2,800 (17%)	
Transit	200 (5%)	200 (4%)	100 (2%)	400 (8%)	200 (2%)	200 (2%)	500 (3%)	1,200 (7%)	
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	100 (1%)	
Walk	0 (0%)	100 (2%)	100 (2%)	0 (0%)	100 (1%)	400 (3%)	600 (4%)	400 (2%)	
Other	600 (16%)	800 (17%)	1,400 (26%)	600 (12%)	800 (9%)	1,000 (8%)	1,600 (10%)	900 (5%)	
TOTAL	3,700	4,500	5,300	5,000	9,100	12,900	16,700	16,700	
Purpose									
School	800 (22%)	1,100 (24%)	1,800 (34%)	1,200 (24%)	900 (10%)	1,400 (11%)	2,100 (13%)	1,300 (8%)	
Shopping	0 (0%)	0 (0%)	0 (0%)	100 (2%)	600 (7%)	1,200 (9%)	1,400 (8%)	1,600 (10%)	
Work	2,500 (68%)	2,200 (49%)	2,600 (49%)	2,700 (53%)	3,600 (40%)	4,100 (32%)	4,400 (27%)	4,400 (27%)	
Other	400 (11%)	1,200 (27%)	900 (17%)	1,100 (22%)	4,000 (44%)	6,300 (48%)	8,700 (52%)	9,300 (56%)	
TOTAL	3,700	4,500	5,300	5,000	9,100	12,900	16,700	16,700	
Trips to Rural East									
Mode									
Auto Driver	600 (75%)	800 (67%)	900 (56%)	1,300 (52%)	6,000 (69%)	9,200 (72%)	11,000 (67%)	11,300 (68%)	
Auto Passenger	100 (13%)	100 (8%)	100 (6%)	300 (12%)	1,600 (18%)	2,100 (16%)	2,500 (15%)	2,800 (17%)	
Transit	0 (0%)	0 (0%)	300 (19%)	600 (24%)	300 (3%)	200 (2%)	900 (5%)	1,200 (7%)	
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	
Walk	0 (0%)	100 (8%)	100 (6%)	100 (4%)	100 (1%)	400 (3%)	600 (4%)	400 (2%)	
Other	100 (13%)	200 (17%)	200 (13%)	200 (8%)	700 (8%)	900 (7%)	1,500 (9%)	900 (5%)	
TOTAL	700	1,200	1,700	2,500	8,800	12,900	16,500	16,700	
Purpose									
School	100 (14%)	200 (17%)	500 (29%)	900 (36%)	200 (2%)	1,200 (9%)	500 (3%)	900 (5%)	
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1,600 (12%)	400 (2%)	400 (2%)	
Work	400 (57%)	500 (42%)	800 (47%)	900 (36%)	1,000 (11%)	3,700 (29%)	1,600 (10%)	1,800 (11%)	
Other	200 (29%)	500 (42%)	400 (24%)	700 (28%)	7,600 (86%)	6,400 (50%)	14,000 (85%)	13,600 (81%)	
TOTAL	700	1,200	1,700	2,500	8,800	12,900	16,500	16,700	

## **Rural Southeast**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Pop

#### Population & Employment



### **Total AM Peak Period Trips**

2%



#### Change in AM Peak Period Origin Mode Share

2%

1995

67%

1986

Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Rural Southeast**

### Demographic Trends

Demographics	1986	1995	2005	2011
Population	14,000	17,700	24,000	26,800
Employ ment	2,600	3,700	4,300	4,700
Students	3,800	3,000	3,300	6,200
Workers	8,000	8,600	11,600	13,600
Seniors	700	1,200	4,000	3,200
Jobs / Worker	0.3	0.4	0.4	0.3
% Student	27%	17%	14%	23%
% Workers	57%	49%	48%	51%
% Seniors	5%	7%	17%	12%

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Rural Southeas	t							
Mode								
Auto Driver	3,800 (67%)	6,100 (66%)	7,400 (64%)	7,800 (66%)	9,900 (67%)	19,300 (65%)	25,400 (69%)	26,100 (69%)
Auto Passenger	800 (14%)	1,000 (11%)	1,300 (11%)	1,500 (13%)	3,000 (20%)	4,500 (15%)	4,700 (13%)	5,700 (15%)
Transit	0 (0%)	0 (0%)	0 (0%)	500 (4%)	0 (0%)	100 (0%)	100 (0%)	1,000 (3%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	200 (1%)	300 (1%)	200 (1%)	0 (0%)
Walk	100 (2%)	200 (2%)	400 (3%)	300 (3%)	200 (1%)	800 (3%)	1,100 (3%)	1,500 (4%)
Other	1,000 (18%)	2,000 (22%)	2,400 (21%)	1,700 (14%)	1,500 (10%)	4,700 (16%)	5,300 (14%)	3,300 (9%)
TOTAL	5,800	9,300	11,400	12,000	14,700	29,600	36,800	37,700
Purpose								
School	1,200 (21%)	2,500 (27%)	3,400 (30%)	2,800 (23%)	1,400 (10%)	5,300 (18%)	3,800 (10%)	3,400 (9%)
Shopping	0 (0%)	100 (1%)	100 (1%)	300 (3%)	1,200 (8%)	2,800 (9%)	3,200 (9%)	4,000 (11%)
Work	3,500 (61%)	4,600 (49%)	6,300 (56%)	6,100 (51%)	4,900 (33%)	8,200 (28%)	10,200 (28%)	10,500 (28%)
Other	1,000 (18%)	2,100 (23%)	1,500 (13%)	2,800 (23%)	7,200 (49%)	13,200 (45%)	19,600 (53%)	19,800 (53%)
TOTAL	5,800	9,300	11,400	12,000	14,700	29,600	36,800	37,700
Trips to Rural Southeast								
Mode								
Auto Driver	900 (53%)	2,000 (39%)	2,700 (43%)	2,700 (55%)	9,900 (68%)	19,200 (65%)	25,000 (68%)	26,000 (69%)
Auto Passenger	300 (18%)	400 (8%)	600 (10%)	500 (10%)	2,800 (19%)	4,500 (15%)	4,700 (13%)	5,700 (15%)
Transit	0 (0%)	0 (0%)	100 (2%)	0 (0%)	0 (0%)	100 (0%)	800 (2%)	1,000 (3%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	200 (1%)	300 (1%)	200 (1%)	0 (0%)
Walk	100 (6%)	200 (4%)	300 (5%)	300 (6%)	200 (1%)	800 (3%)	1,100 (3%)	1,500 (4%)
Other	400 (24%)	2,500 (49%)	2,600 (41%)	1,400 (29%)	1,400 (10%)	4,600 (16%)	5,100 (14%)	3,300 (9%)
TOTAL	1,700	5,100	6,300	4,900	14,500	29,500	36,900	37,500
Purpose			-	-		-		
School	600 (35%)	2,800 (56%)	3,100 (49%)	1,700 (35%)	600 (4%)	5,300 (18%)	3,300 (9%)	1,900 (5%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (2%)	3,400 (12%)	800 (2%)	1,100 (3%)
Work	600 (35%)	1,000 (20%)	2,300 (37%)	1,700 (35%)	1,200 (8%)	7,400 (25%)	3,700 (10%)	3,600 (10%)
Other	500 (29%)	1,200 (24%)	900 (14%)	1,500 (31%)	12,400 (86%)	13,400 (45%)	29,000 (79%)	30,900 (82%)
TOTAL	1,700	5,100	6,300	4,900	14,500	29,500	36,900	37,500

## **Rural Southwest**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Po

Rural So

#### **Population & Employment**



### **Total AM Peak Period Trips**

2%



#### Change in AM Peak Period Origin Mode Share

58%

1986

Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Rural Southwest**

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	19,600	22,100	24,000	26,500	
Employ ment	1,500	5,300	6,100	6,300	
Students	5,100	4,000	4,000	5,700	
Workers	10,200	10,700	11,200	12,600	
Seniors	1,500	1,900	4,300	3,700	
Jobs / Worker	0.1	0.5	0.5	0.5	
% Student	26%	18%	17%	22%	
% Workers	52%	48%	47%	47%	
% Seniors	7%	9%	18%	14%	

	AM Peak Period Daily							
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Rural Southwes	st							
Mode								
Auto Driver	6,000 (58%)	7,000 (66%)	7,800 (64%)	7,500 (67%)	22,600 (66%)	27,000 (69%)	32,400 (68%)	30,700 (71%)
Auto Passenger	1,700 (17%)	1,100 (10%)	1,300 (11%)	1,000 (9%)	6,200 (18%)	5,600 (14%)	7,000 (15%)	5,800 (13%)
Transit	500 (5%)	200 (2%)	100 (1%)	400 (4%)	700 (2%)	400 (1%)	900 (2%)	1,100 (3%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (1%)	300 (1%)	200 (0%)	300 (1%)
Walk	200 (2%)	400 (4%)	200 (2%)	200 (2%)	800 (2%)	2,300 (6%)	1,700 (4%)	1,500 (3%)
Other	1,900 (18%)	1,900 (18%)	2,700 (22%)	2,100 (19%)	3,600 (11%)	3,800 (10%)	5,200 (11%)	4,000 (9%)
TOTAL	10,200	10,600	12,200	11,200	34,200	39,400	47,400	43,500
Purpose								
School	2,300 (23%)	2,600 (25%)	3,600 (30%)	2,800 (25%)	2,800 (8%)	5,300 (13%)	4,100 (9%)	3,200 (7%)
Shopping	100 (1%)	100 (1%)	100 (1%)	200 (2%)	3,200 (9%)	4,600 (12%)	4,100 (9%)	5,400 (12%)
Work	6,200 (61%)	5,400 (51%)	6,400 (52%)	6,100 (54%)	9,000 (26%)	10,400 (26%)	10,700 (23%)	10,000 (23%)
Other	1,500 (15%)	2,500 (24%)	2,100 (17%)	2,100 (19%)	19,200 (56%)	19,200 (49%)	28,500 (60%)	24,900 (57%)
TOTAL	10,200	10,600	12,200	11,200	34,200	39,400	47,400	43,500
Trips to Rural Southwest								
Mode								
Auto Driver	2,600 (52%)	3,100 (53%)	4,300 (54%)	3,900 (60%)	22,400 (66%)	26,900 (69%)	32,300 (68%)	30,500 (70%)
Auto Passenger	400 (8%)	400 (7%)	600 (8%)	400 (6%)	6,200 (18%)	5,500 (14%)	6,900 (15%)	5,900 (14%)
Transit	0 (0%)	0 (0%)	400 (5%)	300 (5%)	600 (2%)	300 (1%)	1,100 (2%)	1,200 (3%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (1%)	300 (1%)	200 (0%)	300 (1%)
Walk	200 (4%)	600 (10%)	300 (4%)	200 (3%)	800 (2%)	2,400 (6%)	1,700 (4%)	1,500 (3%)
Other	1,800 (36%)	1,800 (31%)	2,300 (29%)	1,700 (26%)	3,700 (11%)	3,800 (10%)	5,200 (11%)	4,000 (9%)
TOTAL	4,900	5,900	7,900	6,600	33,900	39,200	47,500	43,300
Purpose	-		-	-	-	-	-	
School	1,900 (39%)	2,300 (39%)	3,000 (38%)	2,000 (30%)	2,200 (6%)	5,200 (13%)	3,100 (7%)	2,100 (5%)
Shopping	0 (0%)	100 (2%)	100 (1%)	100 (2%)	1,700 (5%)	5,100 (13%)	3,000 (6%)	3,000 (7%)
Work	2,400 (49%)	1,800 (31%)	3,400 (43%)	3,000 (45%)	4,800 (14%)	9,600 (24%)	7,100 (15%)	5,100 (12%)
Other	600 (12%)	1,700 (29%)	1,500 (19%)	1,500 (23%)	25,200 (74%)	19,300 (49%)	34,300 (72%)	33,100 (76%)
TOTAL	4,900	5,900	7,900	6,600	33,900	39,200	47,500	43,300

## **Rural West** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Population

### Population & Employment



### **Total AM Peak Period Trips**



#### Change in AM Peak Period Origin Mode Share

1% 1%

67%

1986

Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Rural West**

### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	13,000	18,000	22,700	25,000
Employ ment	1,100	3,400	4,300	4,700
Students	3,500	3,200	3,500	5,700
Workers	7,000	8,800	10,800	12,300
Seniors	600	1,200	4,200	2,700
Jobs / Worker	0.2	0.4	0.4	0.4
% Student	27%	18%	15%	23%
% Workers	54%	49%	48%	49%
% Seniors	5%	7%	19%	11%

AM Peak Period Daily								
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Rural West								
Mode								
Auto Driver	4,100 (67%)	5,200 (63%)	6,800 (64%)	6,600 (68%)	11,100 (73%)	18,300 (69%)	22,100 (71%)	25,000 (74%)
Auto Passenger	1,000 (16%)	900 (11%)	1,400 (13%)	800 (8%)	2,600 (17%)	4,000 (15%)	4,300 (14%)	4,300 (13%)
Transit	0 (0%)	100 (1%)	0 (0%)	600 (6%)	100 (1%)	200 (1%)	100 (0%)	800 (2%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (0%)	100 (0%)	200 (1%)
Walk	0 (0%)	100 (1%)	200 (2%)	100 (1%)	100 (1%)	900 (3%)	800 (3%)	700 (2%)
Other	1,000 (16%)	1,900 (23%)	2,300 (21%)	1,600 (16%)	1,300 (9%)	3,200 (12%)	3,900 (12%)	2,900 (9%)
TOTAL	6,100	8,200	10,700	9,800	15,300	26,600	31,400	33,800
Purpose								
School	1,400 (23%)	2,200 (27%)	3,000 (28%)	2,300 (23%)	1,500 (10%)	3,700 (14%)	3,500 (11%)	2,800 (8%)
Shopping	100 (2%)	100 (1%)	100 (1%)	200 (2%)	1,300 (8%)	2,200 (8%)	2,500 (8%)	3,800 (11%)
Work	3,300 (54%)	4,300 (52%)	5,900 (56%)	5,600 (57%)	5,200 (34%)	8,000 (30%)	9,200 (29%)	9,000 (27%)
Other	1,300 (21%)	1,600 (20%)	1,600 (15%)	1,700 (17%)	7,300 (48%)	12,700 (48%)	16,200 (52%)	18,200 (54%)
TOTAL	6,100	8,200	10,700	9,800	15,300	26,600	31,400	33,800
Trips to Rural West								
Mode								
Auto Driver	1,400 (78%)	2,000 (59%)	2,500 (51%)	3,300 (67%)	11,000 (73%)	18,200 (68%)	21,900 (70%)	24,900 (74%)
Auto Passenger	200 (11%)	100 (3%)	500 (10%)	400 (8%)	2,600 (17%)	4,100 (15%)	4,300 (14%)	4,400 (13%)
Transit	0 (0%)	0 (0%)	100 (2%)	0 (0%)	100 (1%)	200 (1%)	400 (1%)	700 (2%)
Cycle	0 (0%)	0 (0%)	100 (2%)	0 (0%)	0 (0%)	100 (0%)	100 (0%)	200 (1%)
Walk	0 (0%)	100 (3%)	200 (4%)	100 (2%)	100 (1%)	900 (3%)	800 (3%)	700 (2%)
Other	200 (11%)	1,200 (35%)	1,500 (31%)	1,100 (22%)	1,200 (8%)	3,100 (12%)	3,800 (12%)	2,800 (8%)
TOTAL	1,900	3,500	4,700	4,900	15,000	26,500	31,300	33,800
Purpose								
School	300 (15%)	1,300 (38%)	1,800 (39%)	1,200 (24%)	400 (3%)	3,500 (13%)	1,900 (6%)	1,300 (4%)
Shopping	100 (5%)	0 (0%)	0 (0%)	100 (2%)	200 (1%)	2,800 (11%)	500 (2%)	1,000 (3%)
Work	1,000 (50%)	1,300 (38%)	1,900 (41%)	2,600 (53%)	1,900 (13%)	7,200 (27%)	3,300 (11%)	4,200 (12%)
Other	600 (30%)	800 (24%)	900 (20%)	1,000 (20%)	12,600 (83%)	12,900 (49%)	25,600 (82%)	27,300 (81%)
TOTAL	1,900	3,500	4,700	4,900	15,000	26,500	31,300	33,800

# South Gloucester / Leitrim

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Po

#### Population & Employment



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





# **South Gloucester / Leitrim**

### **Demographic Trends**

Demographics	1986	1995	2005	2011
Population	2,100	3,200	9,400	17,600
Employ ment	200	3,100	5,800	6,600
Students	500	300	800	4,300
Workers	1,100	1,700	5,300	8,900
Seniors	100	300	1,500	1,000
Jobs / Worker	0.2	1.9	1.1	0.7
% Student	25%	9%	8%	24%
% Workers	51%	52%	57%	51%
% Seniors	4%	10%	16%	6%

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from South Gloucest	ter / Leitrim							
Mode								
Auto Driver	400 (57%)	700 (88%)	3,600 (75%)	6,300 (67%)	1,700 (77%)	4,000 (85%)	11,600 (76%)	20,300 (69%)
Auto Passenger	100 (14%)	100 (13%)	500 (10%)	1,300 (14%)	300 (14%)	500 (11%)	1,900 (13%)	4,200 (14%)
Transit	0 (0%)	0 (0%)	300 (6%)	900 (10%)	0 (0%)	0 (0%)	600 (4%)	1,700 (6%)
Cycle	0 (0%)	0 (0%)	0 (0%)	100 (1%)	0 (0%)	0 (0%)	100 (1%)	100 (0%)
Walk	0 (0%)	0 (0%)	100 (2%)	400 (4%)	0 (0%)	100 (2%)	600 (4%)	1,700 (6%)
Other	200 (29%)	0 (0%)	300 (6%)	400 (4%)	200 (9%)	100 (2%)	400 (3%)	1,300 (4%)
TOTAL	700	800	4,800	9,300	2,200	4,600	15,200	29,300
Purpose								
School	100 (14%)	100 (14%)	500 (11%)	1,500 (16%)	200 (10%)	100 (2%)	700 (5%)	1,900 (6%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (5%)	300 (7%)	1,500 (10%)	2,500 (9%)
Work	400 (57%)	400 (57%)	3,100 (66%)	5,200 (56%)	600 (29%)	2,100 (46%)	4,300 (28%)	7,100 (24%)
Other	200 (29%)	200 (29%)	1,100 (23%)	2,600 (28%)	1,200 (57%)	2,100 (46%)	8,600 (57%)	17,800 (61%)
TOTAL	700	800	4,800	9,300	2,200	4,600	15,200	29,300
Trips to South Gloucester	/ Leitrim							
Mode								
Auto Driver	200 (100%)	1,200 (86%)	1,500 (71%)	3,600 (67%)	1,700 (77%)	3,900 (85%)	11,500 (75%)	20,300 (70%)
Auto Passenger	0 (0%)	100 (7%)	200 (10%)	600 (11%)	300 (14%)	500 (11%)	2,000 (13%)	4,000 (14%)
Transit	0 (0%)	0 (0%)	200 (10%)	100 (2%)	0 (0%)	0 (0%)	700 (5%)	1,800 (6%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	100 (0%)
Walk	0 (0%)	0 (0%)	100 (5%)	400 (7%)	0 (0%)	100 (2%)	600 (4%)	1,700 (6%)
Other	0 (0%)	100 (7%)	100 (5%)	700 (13%)	200 (9%)	100 (2%)	400 (3%)	1,200 (4%)
TOTAL	200	1,400	2,000	5,400	2,300	4,600	15,200	29,200
Purpose								
School	0 (0%)	100 (7%)	100 (5%)	1,300 (25%)	0 (0%)	100 (2%)	100 (1%)	1,500 (5%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (7%)	600 (4%)	1,400 (5%)
Work	100 (100%)	900 (64%)	1,300 (65%)	2,200 (42%)	300 (13%)	2,100 (46%)	3,000 (20%)	4,000 (14%)
Other	0 (0%)	400 (29%)	600 (30%)	1,800 (34%)	2,000 (87%)	2,100 (46%)	11,600 (76%)	22,400 (76%)
TOTAL	200	1,400	2,000	5,400	2,300	4,600	15,200	29,200

# South Nepean

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



#### Population & Employment



### **Total AM Peak Period Trips**



### Change in AM Peak Period Origin Mode Share



#### Trip Origins by Purpose (2011)



### Trip Destinations by Purpose (2011)





# **South Nepean**

## Demographic Trends

Demographics	1986	1995	2005	2011
Population	14,100	30,400	55,000	72,700
Employ ment	700	1,700	7,200	11,300
Students	4,500	5,400	9,900	19,300
Workers	7,600	15,400	28,200	35,600
Seniors	300	1,100	6,600	4,900
Jobs / Worker	0.1	0.1	0.3	0.3
% Student	32%	18%	18%	27%
% Workers	54%	51%	51%	49%
% Seniors	2%	4%	12%	7%

	AM Peak Period	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011	
Trips from South Nepean									
Mode									
Auto Driver	5,000 (53%)	8,600 (59%)	17,500 (60%)	20,500 (56%)	16,200 (65%)	30,400 (69%)	63,800 (64%)	80,900 (63%)	
Auto Passenger	1,300 (14%)	1,600 (11%)	3,100 (11%)	3,300 (9%)	4,300 (17%)	6,100 (14%)	14,400 (15%)	17,700 (14%)	
Transit	2,200 (23%)	2,400 (16%)	4,000 (14%)	7,200 (20%)	2,800 (11%)	3,400 (8%)	7,400 (7%)	12,000 (9%)	
Cycle	0 (0%)	100 (1%)	200 (1%)	300 (1%)	200 (1%)	400 (1%)	700 (1%)	1,000 (1%)	
Walk	100 (1%)	300 (2%)	1,700 (6%)	2,300 (6%)	500 (2%)	1,900 (4%)	7,300 (7%)	10,700 (8%)	
Other	800 (9%)	1,600 (11%)	2,900 (10%)	3,100 (8%)	1,000 (4%)	1,800 (4%)	5,600 (6%)	5,900 (5%)	
TOTAL	9,400	14,700	29,200	36,700	25,100	44,100	99,100	128,300	
Purpose									
School	2,400 (25%)	3,400 (23%)	7,000 (24%)	8,400 (23%)	2,900 (12%)	4,400 (10%)	9,000 (9%)	10,900 (8%)	
Shopping	100 (1%)	100 (1%)	200 (1%)	900 (2%)	2,700 (11%)	7,300 (17%)	9,800 (10%)	17,100 (13%)	
Work	5,300 (56%)	8,000 (54%)	17,200 (59%)	20,300 (55%)	6,800 (27%)	12,700 (29%)	25,000 (25%)	30,400 (24%)	
Other	1,700 (18%)	3,200 (22%)	4,800 (16%)	7,100 (19%)	12,700 (51%)	19,700 (45%)	55,300 (56%)	69,900 (54%)	
TOTAL	9,400	14,700	29,200	36,700	25,100	44,100	99,100	128,300	
Trips to South Nepean									
Mode									
Auto Driver	1,800 (72%)	2,100 (72%)	6,200 (48%)	10,200 (54%)	16,100 (64%)	30,200 (69%)	62,700 (63%)	80,900 (63%)	
Auto Passenger	300 (12%)	200 (7%)	1,800 (14%)	2,400 (13%)	4,400 (18%)	6,100 (14%)	14,500 (15%)	18,300 (14%)	
Transit	0 (0%)	300 (10%)	900 (7%)	1,000 (5%)	2,900 (12%)	3,400 (8%)	8,200 (8%)	11,500 (9%)	
Cycle	0 (0%)	0 (0%)	200 (2%)	300 (2%)	200 (1%)	400 (1%)	700 (1%)	1,000 (1%)	
Walk	100 (4%)	200 (7%)	1,700 (13%)	2,300 (12%)	500 (2%)	1,900 (4%)	7,200 (7%)	10,800 (8%)	
Other	300 (12%)	100 (3%)	2,200 (17%)	2,600 (14%)	1,000 (4%)	1,900 (4%)	5,500 (6%)	5,900 (5%)	
TOTAL	2,500	2,800	12,900	18,800	25,100	43,900	98,700	128,500	
Purpose									
School	500 (20%)	200 (7%)	4,800 (37%)	6,400 (34%)	600 (2%)	4,200 (10%)	5,800 (6%)	7,100 (6%)	
Shopping	100 (4%)	0 (0%)	300 (2%)	800 (4%)	2,100 (8%)	7,600 (17%)	9,900 (10%)	16,500 (13%)	
Work	900 (36%)	1,000 (36%)	3,800 (29%)	5,000 (27%)	2,000 (8%)	11,700 (27%)	7,000 (7%)	9,900 (8%)	
Other	1,000 (40%)	1,600 (57%)	4,100 (32%)	6,600 (35%)	20,300 (81%)	20,400 (46%)	75,900 (77%)	95,000 (74%)	
TOTAL	2,500	2,800	12,900	18,800	25,100	43,900	98,700	128,500	

## **Quebec Side of National Capital Region**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



#### **Population & Employment**



### **Total AM Peak Period Trips**



### Change in AM Peak Period Origin Mode Share



Trip Origins by Purpose (2011)



## Trip Destinations by Purpose (2011)





## **Quebec Side of National Capital Region**

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	200,300	256,200	279,200	312,200	
Employ ment	65,500	77,100	98,600	116,200	
Students	47,300	44,100	42,500	66,400	
Workers	113,600	118,300	138,900	151,800	
Seniors	11,900	18,800	38,700	35,500	
Jobs / Worker	0.6	0.7	0.7	0.8	
% Student	24%	17%	15%	21%	
% Workers	57%	46%	50%	49%	
% Seniors	6%	7%	14%	11%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Quebec Side								
Mode								
Auto Driver	56,300 (58%)	72,200 (59%)	81,100 (58%)	85,500 (59%)	243,300 (62%)	332,900 (61%)	367,200 (63%)	392,800 (65%)
Auto Passenger	13,400 (14%)	17,500 (14%)	16,200 (11%)	15,400 (11%)	63,000 (16%)	94,200 (17%)	80,300 (14%)	80,000 (13%)
Transit	14,400 (15%)	11,800 (10%)	19,500 (14%)	23,800 (16%)	43,300 (11%)	32,800 (6%)	48,200 (8%)	59,300 (10%)
Cycle	700 (1%)	1,100 (1%)	1,800 (1%)	2,700 (2%)	4,100 (1%)	5,900 (1%)	6,000 (1%)	8,400 (1%)
Walk	4,500 (5%)	8,300 (7%)	8,200 (6%)	7,500 (5%)	22,700 (6%)	51,800 (10%)	46,200 (8%)	41,100 (7%)
Other	8,200 (8%)	11,600 (9%)	14,100 (10%)	11,200 (8%)	18,300 (5%)	26,000 (5%)	31,500 (5%)	25,200 (4%)
TOTAL	97,600	122,500	140,900	146,100	394,700	543,600	579,400	606,700
Purpose								
School	19,600 (20%)	27,700 (23%)	33,200 (24%)	30,400 (21%)	28,700 (7%)	67,500 (12%)	41,500 (7%)	38,800 (6%)
Shopping	1,000 (1%)	1,500 (1%)	1,900 (1%)	2,300 (2%)	36,800 (9%)	70,400 (13%)	53,600 (9%)	64,700 (11%)
Work	58,800 (60%)	55,900 (46%)	78,800 (56%)	80,300 (55%)	101,400 (26%)	141,000 (26%)	128,900 (22%)	133,100 (22%)
Other	18,200 (19%)	37,400 (31%)	27,000 (19%)	33,000 (23%)	227,800 (58%)	264,700 (49%)	355,400 (61%)	370,100 (61%)
TOTAL	97,600	122,500	140,900	146,100	394,700	543,600	579,400	606,700
Trips to Quebec Side								
Mode								
Auto Driver	45,500 (55%)	54,800 (56%)	63,900 (56%)	73,300 (60%)	241,000 (61%)	332,600 (61%)	366,300 (63%)	393,500 (65%)
Auto Passenger	9,300 (11%)	12,200 (12%)	11,900 (10%)	12,400 (10%)	62,200 (16%)	94,200 (17%)	80,400 (14%)	80,400 (13%)
Transit	14,800 (18%)	10,700 (11%)	14,400 (13%)	16,500 (13%)	43,700 (11%)	32,700 (6%)	49,000 (8%)	58,500 (10%)
Cycle	900 (1%)	1,000 (1%)	1,400 (1%)	1,900 (2%)	4,300 (1%)	5,800 (1%)	6,000 (1%)	8,300 (1%)
Walk	4,700 (6%)	8,500 (9%)	8,300 (7%)	7,800 (6%)	22,400 (6%)	51,600 (10%)	46,200 (8%)	41,300 (7%)
Other	7,900 (10%)	11,500 (12%)	13,700 (12%)	10,800 (9%)	18,300 (5%)	25,900 (5%)	31,600 (5%)	24,900 (4%)
TOTAL	83,100	98,600	113,600	122,800	391,900	542,900	579,400	606,900
Purpose								
School	17,900 (22%)	25,900 (26%)	30,100 (27%)	27,300 (22%)	25,800 (7%)	67,000 (12%)	37,100 (6%)	33,800 (6%)
Shopping	800 (1%)	1,300 (1%)	1,600 (1%)	2,200 (2%)	33,800 (9%)	71,100 (13%)	52,200 (9%)	62,300 (10%)
Work	49,600 (60%)	39,600 (40%)	56,300 (50%)	60,800 (50%)	87,100 (22%)	139,100 (26%)	92,400 (16%)	102,900 (17%)
Other	14,800 (18%)	31,800 (32%)	24,800 (22%)	31,700 (26%)	245,300 (63%)	265,700 (49%)	397,700 (69%)	407,900 (67%)
TOTAL	83,100	98,600	113,600	122,800	391,900	542,900	579,400	606,900

## **Aylmer** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Pop

#### **Population & Employment**



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





# Aylmer

## Demographic Trends

Demographics	1986	1995	2005	2011	
Population	29,200	35,600	39,400	50,200	
Employ ment	3,400	5,100	8,300	8,100	
Students	8,100	7,500	7,100	11,100	
Workers	16,300	15,500	18,900	24,900	
Seniors	1,100	2,200	5,500	4,700	
Jobs / Worker	0.2	0.3	0.4	0.3	
% Student	28%	21%	18%	22%	
% Workers	56%	44%	48%	50%	
% Seniors	4%	6%	14%	9%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Aylmer								
Mode								
Auto Driver	8,200 (57%)	9,100 (50%)	11,400 (55%)	12,000 (55%)	27,300 (62%)	39,100 (58%)	43,000 (63%)	45,700 (63%)
Auto Passenger	1,500 (10%)	2,600 (14%)	2,600 (13%)	2,700 (12%)	6,400 (15%)	11,400 (17%)	9,600 (14%)	9,200 (13%)
Transit	2,600 (18%)	2,500 (14%)	3,700 (18%)	4,300 (20%)	3,900 (9%)	3,700 (5%)	5,900 (9%)	7,500 (10%)
Cycle	300 (2%)	200 (1%)	200 (1%)	300 (1%)	1,200 (3%)	1,000 (1%)	700 (1%)	1,100 (2%)
Walk	600 (4%)	1,600 (9%)	1,000 (5%)	1,100 (5%)	2,500 (6%)	8,400 (12%)	6,200 (9%)	6,700 (9%)
Other	1,300 (9%)	2,300 (13%)	1,700 (8%)	1,300 (6%)	2,500 (6%)	3,900 (6%)	3,300 (5%)	2,400 (3%)
TOTAL	14,600	18,400	20,600	21,800	43,900	67,500	68,800	72,500
Purpose		-		-	-	-	-	
School	3,300 (23%)	5,300 (29%)	5,400 (26%)	4,800 (22%)	4,500 (10%)	10,200 (15%)	6,500 (9%)	5,800 (8%)
Shopping	200 (1%)	100 (1%)	300 (1%)	400 (2%)	3,500 (8%)	10,100 (15%)	6,700 (10%)	7,400 (10%)
Work	8,400 (58%)	8,000 (43%)	10,800 (53%)	11,700 (54%)	12,800 (29%)	15,200 (22%)	16,600 (24%)	18,100 (25%)
Other	2,700 (18%)	5,000 (27%)	4,000 (20%)	4,900 (22%)	23,200 (53%)	32,100 (47%)	39,000 (57%)	41,200 (57%)
TOTAL	14,600	18,400	20,600	21,800	43,900	67,500	68,800	72,500
Trips to Aylmer								
Mode								
Auto Driver	3,800 (58%)	3,900 (48%)	5,100 (54%)	6,700 (65%)	27,300 (61%)	38,900 (58%)	42,500 (62%)	46,000 (63%)
Auto Passenger	500 (8%)	1,000 (12%)	900 (10%)	900 (9%)	7,000 (16%)	11,400 (17%)	9,200 (13%)	9,700 (13%)
Transit	400 (6%)	100 (1%)	900 (10%)	600 (6%)	4,100 (9%)	3,600 (5%)	6,600 (10%)	7,000 (10%)
Cycle	200 (3%)	100 (1%)	100 (1%)	200 (2%)	1,200 (3%)	1,000 (1%)	700 (1%)	1,100 (2%)
Walk	700 (11%)	1,600 (20%)	1,000 (11%)	1,100 (11%)	2,600 (6%)	8,400 (13%)	6,200 (9%)	6,700 (9%)
Other	1,000 (15%)	1,400 (17%)	1,400 (15%)	800 (8%)	2,500 (6%)	3,800 (6%)	3,500 (5%)	2,300 (3%)
TOTAL	6,600	8,100	9,500	10,400	44,700	67,000	68,700	72,700
Purpose								
School	1,900 (29%)	3,100 (38%)	3,200 (34%)	2,700 (26%)	2,500 (6%)	9,900 (15%)	3,600 (5%)	2,900 (4%)
Shopping	100 (2%)	100 (1%)	200 (2%)	400 (4%)	3,000 (7%)	10,300 (15%)	5,900 (9%)	6,900 (9%)
Work	2,700 (41%)	1,900 (23%)	2,900 (31%)	3,400 (32%)	4,700 (11%)	14,300 (21%)	5,700 (8%)	6,400 (9%)
Other	1,900 (29%)	3,000 (37%)	3,100 (33%)	4,000 (38%)	34,500 (77%)	32,600 (49%)	53,500 (78%)	56,500 (78%)
TOTAL	6,600	8,100	9,500	10,400	44,700	67,000	68,700	72,700

## **Gatineau Centre** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



**Population & Employment** 



### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Gatineau Centre**

### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	41,600	51,900	51,700	54,400	
Employ ment	6,500	6,600	15,800	21,800	
Students	9,200	8,700	8,200	11,400	
Workers	25,500	24,400	25,700	24,300	
Seniors	1,900	2,800	6,800	8,400	
Jobs / Worker	0.3	0.3	0.6	0.9	
% Student	22%	17%	16%	21%	
% Workers	61%	47%	50%	45%	
% Seniors	5%	5%	13%	16%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Gatineau Centr	e							
Mode								
Auto Driver	9,900 (54%)	15,600 (60%)	14,900 (58%)	15,600 (57%)	42,700 (62%)	78,100 (63%)	75,400 (64%)	83,300 (65%)
Auto Passenger	3,000 (16%)	4,200 (16%)	3,000 (12%)	3,000 (11%)	12,000 (17%)	23,100 (19%)	18,700 (16%)	20,700 (16%)
Transit	3,000 (16%)	2,400 (9%)	4,000 (15%)	4,700 (17%)	6,200 (9%)	5,300 (4%)	8,000 (7%)	8,500 (7%)
Cycle	100 (1%)	100 (0%)	300 (1%)	600 (2%)	1,000 (1%)	1,100 (1%)	700 (1%)	1,600 (1%)
Walk	800 (4%)	1,800 (7%)	1,800 (7%)	1,800 (7%)	3,700 (5%)	10,400 (8%)	9,200 (8%)	8,500 (7%)
Other	1,500 (8%)	2,100 (8%)	1,900 (7%)	1,800 (7%)	3,400 (5%)	5,100 (4%)	6,100 (5%)	5,600 (4%)
TOTAL	18,300	26,300	25,700	27,500	69,100	123,100	118,200	128,200
Purpose								
School	3,600 (20%)	5,600 (21%)	5,100 (20%)	5,700 (21%)	5,500 (8%)	14,500 (12%)	6,700 (6%)	7,300 (6%)
Shopping	200 (1%)	400 (2%)	300 (1%)	400 (1%)	6,900 (10%)	20,800 (17%)	12,200 (10%)	15,600 (12%)
Work	11,500 (63%)	11,900 (45%)	15,200 (59%)	14,700 (53%)	18,400 (27%)	27,800 (23%)	24,200 (20%)	23,900 (19%)
Other	3,000 (16%)	8,400 (32%)	5,200 (20%)	6,700 (24%)	38,400 (55%)	60,100 (49%)	75,100 (64%)	81,400 (63%)
TOTAL	18,300	26,300	25,700	27,500	69,100	123,100	118,200	128,200
Trips to Gatineau Centre								
Mode								
Auto Driver	4,800 (51%)	10,500 (57%)	11,300 (54%)	13,700 (60%)	44,900 (62%)	78,100 (64%)	75,500 (64%)	83,300 (65%)
Auto Passenger	1,300 (14%)	2,100 (11%)	2,200 (11%)	2,600 (11%)	12,100 (17%)	22,800 (19%)	18,800 (16%)	20,600 (16%)
Transit	800 (8%)	1,000 (5%)	1,500 (7%)	1,300 (6%)	6,800 (9%)	5,400 (4%)	8,100 (7%)	8,800 (7%)
Cycle	100 (1%)	200 (1%)	200 (1%)	400 (2%)	1,100 (2%)	1,100 (1%)	700 (1%)	1,600 (1%)
Walk	800 (8%)	1,900 (10%)	1,900 (9%)	1,900 (8%)	3,600 (5%)	10,500 (9%)	9,100 (8%)	8,600 (7%)
Other	1,700 (18%)	2,600 (14%)	3,700 (18%)	3,100 (13%)	3,500 (5%)	5,000 (4%)	6,000 (5%)	5,700 (4%)
TOTAL	9,500	18,200	20,700	22,900	72,100	122,900	118,200	128,500
Purpose								
School	2,800 (29%)	6,000 (33%)	6,800 (33%)	6,600 (29%)	4,100 (6%)	14,700 (12%)	7,900 (7%)	7,700 (6%)
Shopping	200 (2%)	600 (3%)	600 (3%)	400 (2%)	9,500 (13%)	19,900 (16%)	17,600 (15%)	20,600 (16%)
Work	4,200 (44%)	5,100 (28%)	8,000 (39%)	8,600 (38%)	9,400 (13%)	27,100 (22%)	13,900 (12%)	16,400 (13%)
Other	2,300 (24%)	6,500 (36%)	5,200 (25%)	7,300 (32%)	49,000 (68%)	61,100 (50%)	78,800 (67%)	83,800 (65%)
TOTAL	9,500	18,200	20,700	22,900	72,100	122,900	118,200	128,500

## **Gatineau Est** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



### **Population & Employment**



### **Total AM Peak Period Trips**

1%



#### Change in AM Peak Period Origin Mode Share

Trip Origins by Purpose (2011)



### Trip Destinations by Purpose (2011)





# **Gatineau Est**

### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	33,400	48,500	49,200	54,100	
Employ ment	6,700	9,600	9,800	10,600	
Students	8,600	8,400	7,500	11,800	
Workers	18,600	23,500	24,800	26,700	
Seniors	1,500	2,400	5,700	5,000	
Jobs / Worker	0.4	0.4	0.4	0.4	
% Student	26%	17%	15%	22%	
% Workers	56%	48%	51%	49%	
% Seniors	5%	5%	12%	9%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Gatineau Est								
Mode								
Auto Driver	9,400 (58%)	13,600 (59%)	14,100 (58%)	13,800 (59%)	37,700 (66%)	52,000 (63%)	53,200 (64%)	59,200 (67%)
Auto Passenger	2,100 (13%)	3,500 (15%)	2,700 (11%)	2,500 (11%)	8,800 (16%)	14,900 (18%)	11,700 (14%)	11,900 (14%)
Transit	1,800 (11%)	1,900 (8%)	2,700 (11%)	3,000 (13%)	3,500 (6%)	2,900 (4%)	4,400 (5%)	5,500 (6%)
Cycle	100 (1%)	200 (1%)	200 (1%)	200 (1%)	300 (1%)	1,200 (1%)	500 (1%)	400 (0%)
Walk	600 (4%)	1,100 (5%)	1,500 (6%)	1,200 (5%)	2,100 (4%)	6,100 (7%)	7,000 (8%)	6,100 (7%)
Other	2,200 (14%)	2,700 (12%)	3,100 (13%)	2,600 (11%)	4,300 (8%)	5,600 (7%)	6,500 (8%)	5,000 (6%)
TOTAL	16,100	23,000	24,200	23,300	56,700	82,700	83,400	88,000
Purpose								
School	3,700 (23%)	5,500 (24%)	6,400 (26%)	5,400 (23%)	5,000 (9%)	12,000 (15%)	7,700 (9%)	6,900 (8%)
Shopping	200 (1%)	300 (1%)	400 (2%)	500 (2%)	4,900 (9%)	8,900 (11%)	7,800 (9%)	9,800 (11%)
Work	9,200 (57%)	10,300 (45%)	12,900 (53%)	12,400 (53%)	15,900 (28%)	21,500 (26%)	21,100 (25%)	22,000 (25%)
Other	3,000 (19%)	7,000 (30%)	4,500 (19%)	5,000 (21%)	30,900 (54%)	40,300 (49%)	46,800 (56%)	49,400 (56%)
TOTAL	16,100	23,000	24,200	23,300	56,700	82,700	83,400	88,000
Trips to Gatineau Est								
Mode								
Auto Driver	5,200 (57%)	6,600 (56%)	7,900 (56%)	10,000 (66%)	35,100 (65%)	51,900 (63%)	52,600 (63%)	59,200 (68%)
Auto Passenger	700 (8%)	1,100 (9%)	1,300 (9%)	1,400 (9%)	8,700 (16%)	14,900 (18%)	11,600 (14%)	12,000 (14%)
Transit	500 (5%)	100 (1%)	300 (2%)	400 (3%)	3,200 (6%)	2,700 (3%)	4,400 (5%)	5,100 (6%)
Cycle	200 (2%)	100 (1%)	100 (1%)	100 (1%)	300 (1%)	1,200 (1%)	500 (1%)	400 (0%)
Walk	600 (7%)	1,100 (9%)	1,400 (10%)	1,200 (8%)	2,300 (4%)	6,000 (7%)	7,300 (9%)	6,100 (7%)
Other	1,900 (21%)	2,700 (23%)	3,200 (23%)	2,100 (14%)	4,000 (7%)	5,800 (7%)	6,600 (8%)	4,900 (6%)
TOTAL	9,000	11,800	14,100	15,100	53,700	82,600	82,900	87,700
Purpose								
School	2,900 (32%)	4,300 (36%)	5,200 (37%)	3,700 (25%)	3,600 (7%)	11,600 (14%)	5,800 (7%)	4,200 (5%)
Shopping	100 (1%)	100 (1%)	100 (1%)	300 (2%)	3,300 (6%)	10,000 (12%)	4,700 (6%)	7,800 (9%)
Work	4,000 (44%)	3,300 (28%)	5,000 (35%)	5,800 (39%)	7,700 (14%)	20,500 (25%)	8,800 (11%)	9,800 (11%)
Other	2,000 (22%)	4,200 (35%)	3,800 (27%)	5,200 (35%)	39,200 (73%)	40,500 (49%)	63,600 (77%)	65,900 (75%)
TOTAL	9,000	11,800	14,100	15,100	53,700	82,600	82,900	87,700

## Hull Périphérie AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Population & Employment



### **Total AM Peak Period Trips**



### Change in AM Peak Period Origin Mode Share



Trip Origins by Purpose (2011)



## Trip Destinations by Purpose (2011)




## Hull Périphérie

#### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	47,500	47,500	46,900	41,900	
Employ ment	16,200	18,700	27,800	30,800	
Students	10,400	8,500	7,100	8,400	
Workers	26,500	21,400	23,300	19,700	
Seniors	3,800	5,500	8,600	5,900	
Jobs / Worker	0.6	0.9	1.2	1.6	
% Student	22%	18%	15%	20%	
% Workers	56%	45%	50%	47%	
% Seniors	8%	12%	18%	14%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Hull Périphérie								
Mode								
Auto Driver	12,300 (56%)	13,100 (58%)	13,800 (55%)	12,300 (55%)	69,000 (63%)	77,000 (60%)	86,600 (63%)	78,100 (64%)
Auto Passenger	3,100 (14%)	2,900 (13%)	2,600 (10%)	2,300 (10%)	17,300 (16%)	21,600 (17%)	17,100 (12%)	15,700 (13%)
Transit	4,600 (21%)	3,200 (14%)	5,500 (22%)	5,100 (23%)	13,200 (12%)	11,000 (9%)	15,700 (11%)	15,700 (13%)
Cycle	200 (1%)	300 (1%)	500 (2%)	600 (3%)	900 (1%)	1,100 (1%)	1,800 (1%)	1,800 (1%)
Walk	1,100 (5%)	2,200 (10%)	2,200 (9%)	1,400 (6%)	6,100 (6%)	14,400 (11%)	12,900 (9%)	8,400 (7%)
Other	700 (3%)	700 (3%)	500 (2%)	600 (3%)	3,000 (3%)	3,100 (2%)	4,000 (3%)	2,700 (2%)
TOTAL	21,900	22,500	25,100	22,400	109,500	128,100	138,100	122,400
Purpose								
School	4,000 (18%)	4,600 (21%)	5,000 (20%)	4,100 (18%)	6,900 (6%)	17,300 (14%)	7,000 (5%)	5,500 (4%)
Shopping	100 (0%)	300 (1%)	200 (1%)	400 (2%)	10,600 (10%)	17,600 (14%)	12,700 (9%)	12,800 (10%)
Work	13,700 (63%)	11,300 (50%)	14,900 (59%)	12,700 (57%)	25,600 (23%)	31,800 (25%)	25,300 (18%)	20,900 (17%)
Other	4,100 (19%)	6,200 (28%)	5,000 (20%)	5,200 (23%)	66,500 (61%)	61,400 (48%)	93,200 (67%)	83,200 (68%)
TOTAL	21,900	22,500	25,100	22,400	109,500	128,100	138,100	122,400
Trips to Hull Périphérie								
Mode								
Auto Driver	14,100 (61%)	16,000 (60%)	19,700 (60%)	18,800 (63%)	69,300 (63%)	76,900 (60%)	87,000 (63%)	78,500 (64%)
Auto Passenger	2,600 (11%)	3,000 (11%)	3,700 (11%)	3,100 (10%)	17,400 (16%)	21,700 (17%)	17,400 (13%)	15,400 (13%)
Transit	3,900 (17%)	3,500 (13%)	4,900 (15%)	5,100 (17%)	12,900 (12%)	11,100 (9%)	15,500 (11%)	15,700 (13%)
Cycle	0 (0%)	200 (1%)	500 (2%)	300 (1%)	900 (1%)	1,200 (1%)	1,800 (1%)	1,800 (1%)
Walk	1,200 (5%)	2,100 (8%)	2,000 (6%)	1,200 (4%)	5,900 (5%)	14,300 (11%)	13,000 (9%)	8,400 (7%)
Other	1,500 (6%)	1,800 (7%)	2,300 (7%)	1,300 (4%)	3,000 (3%)	3,200 (2%)	4,000 (3%)	2,700 (2%)
TOTAL	23,300	26,500	33,000	29,900	109,500	128,400	138,700	122,600
Purpose								
School	6,100 (26%)	7,800 (29%)	9,400 (28%)	8,300 (28%)	9,800 (9%)	17,600 (14%)	13,100 (9%)	11,800 (10%)
Shopping	200 (1%)	300 (1%)	400 (1%)	800 (3%)	13,100 (12%)	17,000 (13%)	12,900 (9%)	12,900 (11%)
Work	12,600 (54%)	10,700 (40%)	17,400 (53%)	14,900 (50%)	24,400 (22%)	31,700 (25%)	29,400 (21%)	27,100 (22%)
Other	4,500 (19%)	7,700 (29%)	5,800 (18%)	5,900 (20%)	62,200 (57%)	62,100 (48%)	83,300 (60%)	70,700 (58%)
TOTAL	23,300	26,500	33,000	29,900	109,500	128,400	138,700	122,600

### Île de Hull AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Po

#### Population & Employment



#### **Total AM Peak Period Trips**



#### Change in AM Peak Period Origin Mode Share



#### Trip Origins by Purpose (2011)



#### Trip Destinations by Purpose (2011)





# Île de Hull

#### **Demographic Trends**

Demographics	1986	1995	2005	2011	
Population	8,600	12,500	11,500	10,100	
Employ ment	26,200	28,300	25,100	29,000	
Students	1,600	1,900	1,500	1,400	
Workers	4,500	4,700	5,300	4,800	
Seniors	1,000	2,200	1,900	2,100	
Jobs / Worker	5.8	6.0	4.7	6.0	
% Student	19%	15%	13%	14%	
% Workers	53%	38%	47%	48%	
% Seniors	12%	18%	17%	20%	

	AM Peak Period	M Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011	
Trips from Île de Hull									
Mode									
Auto Driver	3,900 (53%)	4,100 (65%)	2,600 (49%)	2,500 (49%)	30,500 (49%)	27,000 (50%)	23,700 (51%)	24,500 (46%)	
Auto Passenger	1,000 (14%)	400 (6%)	400 (8%)	300 (6%)	8,900 (14%)	8,200 (15%)	4,900 (11%)	6,000 (11%)	
Transit	1,300 (18%)	700 (11%)	900 (17%)	1,100 (22%)	14,900 (24%)	8,500 (16%)	9,500 (20%)	13,200 (25%)	
Cycle	0 (0%)	100 (2%)	200 (4%)	300 (6%)	400 (1%)	800 (1%)	1,000 (2%)	1,900 (4%)	
Walk	1,000 (14%)	900 (14%)	1,000 (19%)	800 (16%)	6,600 (11%)	7,500 (14%)	5,300 (11%)	5,500 (10%)	
Other	200 (3%)	100 (2%)	200 (4%)	100 (2%)	1,500 (2%)	2,400 (4%)	2,100 (5%)	1,800 (3%)	
TOTAL	7,300	6,300	5,200	5,100	62,700	54,400	46,500	52,900	
Purpose									
School	1,100 (15%)	800 (13%)	700 (13%)	500 (10%)	2,500 (4%)	4,000 (7%)	1,200 (3%)	1,200 (2%)	
Shopping	100 (1%)	0 (0%)	100 (2%)	100 (2%)	5,300 (8%)	2,500 (5%)	3,400 (7%)	4,700 (9%)	
Work	4,900 (67%)	2,100 (33%)	3,200 (62%)	3,500 (69%)	12,100 (19%)	19,100 (35%)	6,200 (13%)	6,100 (12%)	
Other	1,200 (16%)	3,400 (54%)	1,200 (23%)	1,000 (20%)	42,900 (68%)	28,800 (53%)	35,600 (77%)	40,900 (77%)	
TOTAL	7,300	6,300	5,200	5,100	62,700	54,400	46,500	52,900	
Trips to Île de Hull									
Mode									
Auto Driver	12,100 (45%)	11,000 (47%)	10,500 (48%)	11,000 (42%)	30,600 (49%)	27,000 (50%)	24,100 (52%)	24,400 (46%)	
Auto Passenger	3,600 (13%)	3,900 (17%)	2,600 (12%)	3,000 (12%)	8,100 (13%)	8,400 (15%)	5,200 (11%)	6,200 (12%)	
Transit	9,200 (34%)	6,000 (25%)	6,300 (29%)	8,600 (33%)	15,100 (24%)	8,500 (16%)	9,100 (20%)	13,200 (25%)	
Cycle	300 (1%)	300 (1%)	400 (2%)	900 (3%)	500 (1%)	700 (1%)	1,000 (2%)	1,900 (4%)	
Walk	1,100 (4%)	1,100 (5%)	1,200 (5%)	1,400 (5%)	6,500 (10%)	7,400 (14%)	5,100 (11%)	5,400 (10%)	
Other	500 (2%)	1,300 (6%)	1,100 (5%)	1,100 (4%)	1,700 (3%)	2,400 (4%)	1,900 (4%)	1,700 (3%)	
TOTAL	26,800	23,500	22,100	26,000	62,500	54,300	46,400	52,800	
Purpose									
School	2,400 (9%)	2,300 (10%)	2,900 (13%)	3,000 (12%)	3,700 (6%)	4,000 (7%)	3,200 (7%)	3,400 (6%)	
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2,200 (4%)	2,800 (5%)	900 (2%)	1,900 (4%)	
Work	22,000 (82%)	14,700 (62%)	17,000 (77%)	20,500 (79%)	33,800 (54%)	21,200 (39%)	23,600 (51%)	28,200 (53%)	
Other	2,400 (9%)	6,600 (28%)	2,100 (10%)	2,500 (10%)	22,800 (36%)	26,300 (48%)	18,700 (40%)	19,400 (37%)	
TOTAL	26,800	23,500	22,100	26,000	62,500	54,300	46,400	52,800	

### Masson-Angers AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



#### Population & Employment



#### **Total AM Peak Period Trips**

1986



Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Masson-Angers**

#### Demographic Trends

Demographics	1986	1995	2005	2011
Population	13,600	19,000	22,900	24,400
Employ ment	2,600	3,700	5,200	5,800
Students	3,000	3,100	3,600	5,200
Workers	7,300	8,600	10,500	11,500
Seniors	1,300	1,400	3,200	2,700
Jobs / Worker	0.4	0.4	0.5	0.5
% Student	22%	16%	16%	21%
% Workers	53%	45%	46%	47%
% Seniors	9%	8%	14%	11%

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Masson-Angers	;							
Mode								
Auto Driver	3,900 (64%)	5,100 (63%)	5,700 (63%)	7,100 (68%)	14,000 (67%)	22,200 (64%)	23,900 (67%)	28,900 (70%)
Auto Passenger	800 (13%)	1,000 (12%)	1,000 (11%)	700 (7%)	3,600 (17%)	5,500 (16%)	4,900 (14%)	4,100 (10%)
Transit	400 (7%)	200 (2%)	400 (4%)	600 (6%)	600 (3%)	400 (1%)	900 (3%)	1,700 (4%)
Cycle	0 (0%)	0 (0%)	100 (1%)	100 (1%)	100 (0%)	300 (1%)	400 (1%)	400 (1%)
Walk	300 (5%)	700 (9%)	500 (6%)	700 (7%)	1,200 (6%)	3,700 (11%)	3,000 (8%)	3,300 (8%)
Other	700 (11%)	1,100 (14%)	1,300 (14%)	1,300 (12%)	1,300 (6%)	2,400 (7%)	2,500 (7%)	2,900 (7%)
TOTAL	6,200	8,200	8,900	10,500	20,700	34,500	35,600	41,300
Purpose	-			-	-	-	-	
School	1,200 (19%)	2,100 (26%)	2,400 (27%)	2,400 (23%)	1,500 (7%)	4,500 (13%)	2,800 (8%)	2,600 (6%)
Shopping	100 (2%)	100 (1%)	200 (2%)	200 (2%)	2,300 (11%)	4,400 (13%)	3,200 (9%)	4,300 (10%)
Work	3,500 (56%)	3,800 (47%)	4,700 (52%)	5,400 (51%)	5,200 (25%)	9,900 (29%)	9,000 (25%)	10,600 (26%)
Other	1,400 (23%)	2,100 (26%)	1,700 (19%)	2,500 (24%)	11,700 (57%)	15,700 (46%)	20,700 (58%)	23,900 (58%)
TOTAL	6,200	8,200	8,900	10,500	20,700	34,500	35,600	41,300
Trips to Masson-Angers								
Mode								
Auto Driver	3,000 (70%)	3,400 (60%)	3,200 (59%)	4,900 (65%)	14,100 (68%)	22,100 (64%)	23,900 (67%)	29,000 (70%)
Auto Passenger	300 (7%)	400 (7%)	400 (7%)	400 (5%)	3,400 (17%)	5,400 (16%)	4,800 (14%)	4,300 (10%)
Transit	100 (2%)	0 (0%)	100 (2%)	0 (0%)	500 (2%)	500 (1%)	1,000 (3%)	1,700 (4%)
Cycle	0 (0%)	0 (0%)	100 (2%)	100 (1%)	100 (0%)	300 (1%)	400 (1%)	400 (1%)
Walk	300 (7%)	700 (12%)	500 (9%)	700 (9%)	1,200 (6%)	3,700 (11%)	2,900 (8%)	3,300 (8%)
Other	600 (14%)	1,200 (21%)	1,100 (20%)	1,400 (19%)	1,300 (6%)	2,400 (7%)	2,500 (7%)	2,900 (7%)
TOTAL	4,400	5,700	5,400	7,500	20,600	34,400	35,500	41,500
Purpose								
School	1,000 (23%)	1,800 (32%)	1,600 (30%)	2,000 (27%)	1,100 (5%)	4,600 (13%)	1,900 (5%)	2,100 (5%)
Shopping	100 (2%)	100 (2%)	100 (2%)	200 (3%)	2,000 (10%)	4,400 (13%)	2,700 (8%)	4,300 (10%)
Work	2,200 (50%)	2,300 (40%)	2,300 (43%)	3,100 (41%)	3,500 (17%)	9,900 (29%)	4,100 (12%)	6,000 (14%)
Other	1,100 (25%)	1,500 (26%)	1,300 (25%)	2,200 (29%)	14,000 (68%)	15,600 (45%)	26,900 (76%)	29,200 (70%)
TOTAL	4,400	5,700	5,400	7,500	20,600	34,400	35,500	41,500

### **Plateau** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



Population

#### Population & Employment



#### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## Plateau

#### Demographic Trends

Demographics	1986 1995		2005	2011	
Population	1,300	5,200	14,200	22,200	
Employ ment	500	400	1,800	2,500	
Students	200	700	1,800	5,100	
Workers	1,000	2,900	8,000	12,000	
Seniors	100	200	1,500	1,400	
Jobs / Worker	0.5	0.1	0.2	0.2	
% Student	12%	14%	12%	23%	
% Workers	74%	56%	57%	54%	
% Seniors	4%	4%	11%	7%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Plateau								
Mode								
Auto Driver	1,100 (65%)	2,600 (62%)	5,100 (58%)	7,300 (54%)	2,900 (74%)	7,000 (69%)	18,800 (66%)	24,800 (66%)
Auto Passenger	300 (18%)	800 (19%)	1,100 (13%)	1,400 (10%)	500 (13%)	1,800 (18%)	4,200 (15%)	4,600 (12%)
Transit	200 (12%)	600 (14%)	2,100 (24%)	3,800 (28%)	400 (10%)	800 (8%)	3,000 (11%)	5,300 (14%)
Cycle	0 (0%)	0 (0%)	200 (2%)	600 (4%)	0 (0%)	100 (1%)	500 (2%)	700 (2%)
Walk	100 (6%)	0 (0%)	200 (2%)	200 (1%)	100 (3%)	200 (2%)	1,300 (5%)	1,500 (4%)
Other	0 (0%)	200 (5%)	100 (1%)	300 (2%)	0 (0%)	200 (2%)	600 (2%)	800 (2%)
TOTAL	1,700	4,200	8,900	13,600	3,800	10,100	28,400	37,600
Purpose								
School	100 (6%)	700 (17%)	1,400 (16%)	2,400 (18%)	200 (5%)	900 (9%)	1,900 (7%)	3,300 (9%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	500 (13%)	1,000 (10%)	2,700 (10%)	4,000 (11%)
Work	1,300 (76%)	2,300 (55%)	5,700 (65%)	8,300 (61%)	2,000 (53%)	3,600 (35%)	7,800 (27%)	11,100 (29%)
Other	300 (18%)	1,200 (29%)	1,700 (19%)	2,900 (21%)	1,100 (29%)	4,700 (46%)	16,000 (56%)	19,300 (51%)
TOTAL	1,700	4,200	8,900	13,600	3,800	10,100	28,400	37,600
Trips to Plateau								
Mode								
Auto Driver	300 (100%)	400 (80%)	1,700 (65%)	2,000 (65%)	2,700 (73%)	7,000 (69%)	18,700 (65%)	25,100 (66%)
Auto Passenger	0 (0%)	100 (20%)	300 (12%)	300 (10%)	600 (16%)	1,700 (17%)	4,400 (15%)	4,700 (12%)
Transit	0 (0%)	0 (0%)	100 (4%)	100 (3%)	300 (8%)	800 (8%)	3,000 (10%)	5,100 (13%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	500 (2%)	700 (2%)
Walk	0 (0%)	0 (0%)	200 (8%)	300 (10%)	100 (3%)	300 (3%)	1,300 (5%)	1,400 (4%)
Other	0 (0%)	0 (0%)	300 (12%)	400 (13%)	0 (0%)	300 (3%)	700 (2%)	800 (2%)
TOTAL	300	600	2,700	3,100	3,600	10,000	28,600	37,800
Purpose								
School	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (3%)	800 (8%)	600 (2%)	600 (2%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1,200 (12%)	4,900 (17%)	5,100 (14%)
Work	200 (67%)	200 (33%)	900 (33%)	800 (26%)	500 (14%)	3,200 (32%)	1,600 (6%)	1,900 (5%)
Other	100 (33%)	400 (67%)	1,800 (67%)	2,300 (74%)	3,100 (84%)	4,800 (48%)	21,500 (75%)	30,100 (80%)
TOTAL	300	600	2,700	3,100	3,600	10,000	28,600	37,800

## **Rural Northeast**

AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



#### Population & Employment



#### **Total AM Peak Period Trips**





Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Rural Northeast**

#### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	10,200	19,300	25,100	34,600	
Employ ment	1,200	2,200	2,400	3,200	
Students	2,800	2,800	3,500	7,900	
Workers	5,400	9,300	13,300	17,600	
Seniors	500	900	3,000	2,800	
Jobs / Worker	0.2	0.2	0.2	0.2	
% Student	27%	14%	14%	23%	
% Workers	53%	48%	53%	51%	
% Seniors	5%	5%	12%	8%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Rural Northeas	t i							
Mode								
Auto Driver	4,300 (72%)	4,400 (67%)	7,800 (58%)	9,000 (69%)	8,700 (71%)	15,000 (72%)	23,300 (69%)	27,000 (77%)
Auto Passenger	700 (12%)	900 (14%)	1,700 (13%)	1,300 (10%)	2,000 (16%)	3,800 (18%)	5,400 (16%)	3,700 (11%)
Transit	300 (5%)	0 (0%)	300 (2%)	800 (6%)	400 (3%)	100 (0%)	400 (1%)	1,500 (4%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	0 (0%)	200 (1%)	100 (0%)
Walk	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	400 (2%)	200 (1%)	500 (1%)
Other	700 (12%)	1,300 (20%)	3,700 (27%)	2,000 (15%)	900 (7%)	1,600 (8%)	4,300 (13%)	2,200 (6%)
TOTAL	5,900	6,700	13,600	13,100	12,200	20,900	33,800	35,100
Purpose								
School	1,100 (19%)	1,600 (24%)	4,600 (34%)	3,400 (26%)	1,100 (9%)	1,900 (9%)	5,000 (15%)	4,000 (11%)
Shopping	100 (2%)	200 (3%)	200 (1%)	200 (2%)	1,100 (9%)	3,100 (15%)	2,600 (8%)	3,300 (9%)
Work	3,200 (54%)	3,200 (47%)	6,700 (50%)	6,800 (52%)	4,200 (34%)	6,000 (29%)	11,500 (34%)	12,600 (36%)
Other	1,500 (25%)	1,800 (26%)	2,000 (15%)	2,700 (21%)	5,800 (48%)	9,900 (47%)	14,700 (43%)	15,300 (43%)
TOTAL	5,900	6,700	13,600	13,100	12,200	20,900	33,800	35,100
Trips to Rural Northeast								
Mode								
Auto Driver	1,100 (73%)	1,100 (79%)	2,200 (79%)	3,200 (84%)	7,400 (70%)	15,000 (72%)	22,900 (68%)	26,900 (77%)
Auto Passenger	200 (13%)	100 (7%)	300 (11%)	300 (8%)	1,800 (17%)	3,900 (19%)	5,300 (16%)	3,600 (10%)
Transit	0 (0%)	0 (0%)	0 (0%)	100 (3%)	300 (3%)	100 (0%)	1,000 (3%)	1,600 (5%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	100 (1%)	0 (0%)	200 (1%)	100 (0%)
Walk	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	400 (2%)	300 (1%)	500 (1%)
Other	200 (13%)	200 (14%)	300 (11%)	200 (5%)	1,000 (9%)	1,500 (7%)	4,200 (12%)	2,200 (6%)
TOTAL	1,500	1,500	2,900	3,800	10,700	20,900	33,800	35,000
Purpose								
School	200 (14%)	200 (14%)	400 (14%)	400 (11%)	300 (3%)	1,700 (8%)	500 (1%)	500 (1%)
Shopping	0 (0%)	0 (0%)	0 (0%)	0 (0%)	200 (2%)	3,100 (15%)	1,500 (4%)	800 (2%)
Work	900 (64%)	600 (43%)	1,300 (46%)	2,000 (53%)	1,200 (11%)	5,700 (27%)	2,300 (7%)	3,700 (11%)
Other	300 (21%)	600 (43%)	1,100 (39%)	1,400 (37%)	9,000 (84%)	10,400 (50%)	29,500 (87%)	30,000 (86%)
TOTAL	1,500	1,500	2,900	3,800	10,700	20,900	33,800	35,000

### **Rural Northwest** AM Peak Period Trips (6:30 - 8:59) from 2011 OD Survey



**Population & Employment** 



#### **Total AM Peak Period Trips**

2%



Trip Origins by Purpose (2011)



Trip Destinations by Purpose (2011)





## **Rural Northwest**

#### Demographic Trends

Demographics	1986	1995	2005	2011	
Population	14,900	16,700	18,300	20,300	
Employ ment	2,200	2,500	2,400	4,400	
Students	3,400	2,600	2,100	4,100	
Workers	8,500	7,800	9,000	10,200	
Seniors	700	1,200	2,500	2,400	
Jobs / Worker	0.3	0.3	0.3	0.4	
% Student	23%	15%	12%	20%	
% Workers	57%	47%	49%	50%	
% Seniors	5%	7%	14%	12%	

	AM Peak Period				Daily			
Trip Category	1986	1995	2005	2011	1986	1995	2005	2011
Trips from Rural Northwes	st							
Mode								
Auto Driver	3,200 (59%)	4,400 (63%)	5,700 (65%)	6,100 (68%)	10,400 (65%)	15,600 (71%)	19,300 (72%)	21,200 (74%)
Auto Passenger	1,000 (19%)	1,200 (17%)	1,100 (13%)	1,200 (13%)	3,600 (23%)	3,900 (18%)	3,800 (14%)	4,000 (14%)
Transit	200 (4%)	200 (3%)	100 (1%)	300 (3%)	400 (3%)	200 (1%)	300 (1%)	500 (2%)
Cycle	0 (0%)	0 (0%)	100 (1%)	100 (1%)	0 (0%)	200 (1%)	200 (1%)	400 (1%)
Walk	100 (2%)	100 (1%)	100 (1%)	100 (1%)	300 (2%)	700 (3%)	1,000 (4%)	800 (3%)
Other	900 (17%)	1,100 (16%)	1,700 (19%)	1,200 (13%)	1,300 (8%)	1,500 (7%)	2,200 (8%)	1,800 (6%)
TOTAL	5,400	7,000	8,700	9,000	16,000	22,200	26,600	28,600
Purpose								
School	1,500 (28%)	1,600 (23%)	2,300 (26%)	1,900 (21%)	1,700 (11%)	2,300 (10%)	2,700 (10%)	2,200 (8%)
Shopping	100 (2%)	100 (1%)	100 (1%)	200 (2%)	1,800 (11%)	2,100 (9%)	2,300 (9%)	3,000 (10%)
Work	2,900 (55%)	3,000 (43%)	4,700 (54%)	4,700 (52%)	5,200 (33%)	6,200 (28%)	7,300 (27%)	7,700 (27%)
Other	800 (15%)	2,300 (33%)	1,600 (18%)	2,200 (24%)	7,300 (46%)	11,600 (52%)	14,400 (54%)	15,700 (55%)
TOTAL	5,400	7,000	8,700	9,000	16,000	22,200	26,600	28,600
Trips to Rural Northwest								
Mode								
Auto Driver	1,100 (61%)	1,800 (67%)	2,300 (74%)	3,000 (73%)	9,600 (66%)	15,800 (71%)	19,200 (72%)	21,000 (74%)
Auto Passenger	200 (11%)	400 (15%)	200 (6%)	400 (10%)	3,000 (21%)	4,100 (18%)	3,800 (14%)	3,900 (14%)
Transit	100 (6%)	0 (0%)	100 (3%)	100 (2%)	400 (3%)	200 (1%)	400 (1%)	500 (2%)
Cycle	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	200 (1%)	200 (1%)	400 (1%)
Walk	0 (0%)	100 (4%)	100 (3%)	100 (2%)	300 (2%)	700 (3%)	1,000 (4%)	800 (3%)
Other	400 (22%)	400 (15%)	400 (13%)	500 (12%)	1,300 (9%)	1,400 (6%)	2,100 (8%)	1,700 (6%)
TOTAL	1,800	2,600	3,200	4,000	14,600	22,400	26,600	28,300
Purpose								
School	500 (29%)	500 (19%)	500 (16%)	500 (13%)	500 (3%)	2,000 (9%)	600 (2%)	600 (2%)
Shopping	0 (0%)	0 (0%)	0 (0%)	100 (3%)	400 (3%)	2,400 (11%)	1,100 (4%)	1,900 (7%)
Work	800 (47%)	900 (35%)	1,600 (52%)	1,900 (48%)	2,000 (14%)	5,500 (25%)	2,900 (11%)	3,400 (12%)
Other	400 (24%)	1,200 (46%)	1,000 (32%)	1,500 (38%)	11,600 (80%)	12,400 (56%)	22,000 (83%)	22,400 (79%)
TOTAL	1,800	2,600	3,200	4,000	14,600	22,400	26,600	28,300

### Appendix B

### District-to-District Origin-Destination Flows

IBI GROUP FINAL REPORT NATIONAL CAPITAL REGION TRAVEL TRENDS Prepared for the TRANS Committee

	Destination													
	Ottawa		Ottawa Inner	Ontario Inner	Quebec Inner	Ontario Outer	Quebec Outer	Ontario	Quebec	Total Inner	Total Inner	Total Outer		
Origin	Centre	Île de Hull	Area	Suburbs	Suburbs	Suburbs	Suburbs	Rural	Rural	City	Suburbs	Suburbs	Total Rural	Total
1995														
Ottawa Centre	33,000 (1%)	3,500 (0%)	32,800 (1%)	53,600 (2%)	4,400 (0%)	16,800 (1%)	11,100 (0%)	3,300 (0%)	2,700 (0%)	69,300 (3%)	58,000 (2%)	27,900 (1%)	6,000 (0%)	162,100 (7%)
Île de Hull	3,700 (0%)	9,700 (0%)	3,400 (0%)	8,700 (0%)	11,400 (0%)	2,400 (0%)	11,700 (0%)	500 (0%)	2,400 (0%)	16,800 (1%)	20,100 (1%)	14,100 (1%)	2,900 (0%)	54,400 (2%)
Ottawa Inner Area	33,100 (1%)	4,000 (0%)	91,500 (4%)	92,600 (4%)	4,100 (0%)	15,500 (1%)	7,300 (0%)	3,400 (0%)	1,800 (0%)	128,600 (5%)	96,700 (4%)	22,800 (1%)	5,200 (0%)	255,600 (10%)
Ontario Inner Suburbs	53,100 (2%)	8,800 (0%)	93,600 (4%)	717,600 (29%)	9,400 (0%)	95,100 (4%)	19,600 (1%)	27,400 (1%)	4,800 (0%)	155,500 (6%)	727,000 (30%)	114,700 (5%)	32,200 (1%)	1,038,400 (42%)
Quebec Inner Suburbs	4,000 (0%)	10,300 (0%)	4,200 (0%)	8,400 (0%)	63,600 (3%)	1,400 (0%)	28,400 (1%)	400 (0%)	6,100 (0%)	18,500 (1%)	72,000 (3%)	29,800 (1%)	6,500 (0%)	128,100 (5%)
Ontario Outer Suburbs	17,200 (1%)	2,800 (0%)	15,600 (1%)	94,900 (4%)	1,200 (0%)	189,000 (8%)	1,800 (0%)	15,900 (1%)	800 (0%)	35,600 (1%)	96,100 (4%)	190,800 (8%)	16,700 (1%)	343,700 (14%)
Quebec Outer Suburbs	11,400 (0%)	11,800 (0%)	7,300 (0%)	20,000 (1%)	27,100 (1%)	1,900 (0%)	184,000 (7%)	400 (0%)	14,600 (1%)	30,500 (1%)	47,100 (2%)	185,900 (8%)	15,000 (1%)	283,500 (11%)
Ontario Rural	3,300 (0%)	500 (0%)	3,800 (0%)	27,700 (1%)	300 (0%)	15,600 (1%)	300 (0%)	51,100 (2%)	100 (0%)	7,600 (0%)	28,000 (1%)	15,900 (1%)	51,200 (2%)	108,500 (4%)
Quebec Rural	3,000 (0%)	2,500 (0%)	1,700 (0%)	4,800 (0%)	6,200 (0%)	800 (0%)	13,800 (1%)	200 (0%)	41,900 (2%)	7,200 (0%)	11,000 (0%)	14,600 (1%)	42,100 (2%)	77,600 (3%)
Total Inner City	69,800 (3%)	17,200 (1%)	127,700 (5%)	154,900 (6%)	19,900 (1%)	34,700 (1%)	30,100 (1%)	7,200 (0%)	6,900 (0%)	214,700 (9%)	174,800 (7%)	64,800 (3%)	14,100 (1%)	472,100 (19%)
Total Inner Suburbs	57,100 (2%)	19,100 (1%)	97,800 (4%)	726,000 (30%)	73,000 (3%)	96,500 (4%)	48,000 (2%)	27,800 (1%)	10,900 (0%)	174,000 (7%)	799,000 (33%)	144,500 (6%)	38,700 (2%)	1,166,500 (48%)
Total Outer Suburbs	28,600 (1%)	14,600 (1%)	22,900 (1%)	114,900 (5%)	28,300 (1%)	190,900 (8%)	185,800 (8%)	16,300 (1%)	15,400 (1%)	66,100 (3%)	143,200 (6%)	376,700 (15%)	31,700 (1%)	627,200 (26%)
Total Rural	6,300 (0%)	3,000 (0%)	5,500 (0%)	32,500 (1%)	6,500 (0%)	16,400 (1%)	14,100 (1%)	51,300 (2%)	42,000 (2%)	14,800 (1%)	39,000 (2%)	30,500 (1%)	93,300 (4%)	186,100 (8%)
Total	162,000 (7%)	54,000 (2%)	254,000 (10%)	1,028,000 (42%)	128,000 (5%)	339,000 (14%)	278,000 (11%)	103,000 (4%)	75,000 (3%)	470,000 (19%)	1,156,000 (47%)	617,000 (25%)	178,000 (7%)	2,452,000 (100%)
2011														
Ottawa Centre	27,600 (1%)	2,600 (0%)	28,700 (1%)	50,700 (2%)	4,200 (0%)	24,800 (1%)	14,000 (0%)	3,800 (0%)	3,100 (0%)	58,900 (2%)	54,900 (2%)	38,800 (1%)	6,900 (0%)	159,900 (5%)
Île de Hull	2,600 (0%)	6,700 (0%)	3,200 (0%)	7,600 (0%)	8,700 (0%)	4,000 (0%)	15,200 (1%)	700 (0%)	3,800 (0%)	12,500 (0%)	16,300 (1%)	19,200 (1%)	4,500 (0%)	52,900 (2%)
Ottawa Inner Area	28,900 (1%)	3,100 (0%)	101,200 (3%)	94,600 (3%)	3,900 (0%)	26,200 (1%)	8,400 (0%)	5,000 (0%)	1,900 (0%)	133,200 (5%)	98,500 (3%)	34,600 (1%)	6,900 (0%)	274,400 (9%)
Ontario Inner Suburbs	50,600 (2%)	7,400 (0%)	94,700 (3%)	726,400 (25%)	9,900 (0%)	145,800 (5%)	22,100 (1%)	29,300 (1%)	7,900 (0%)	152,700 (5%)	736,300 (26%)	167,900 (6%)	37,200 (1%)	1,096,500 (38%)
Quebec Inner Suburbs	4,000 (0%)	8,800 (0%)	3,700 (0%)	8,100 (0%)	47,100 (2%)	3,200 (0%)	36,900 (1%)	400 (0%)	9,700 (0%)	16,500 (1%)	55,200 (2%)	40,100 (1%)	10,100 (0%)	122,400 (4%)
Ontario Outer Suburbs	25,000 (1%)	4,300 (0%)	26,600 (1%)	144,400 (5%)	3,200 (0%)	370,000 (13%)	4,100 (0%)	34,900 (1%)	1,400 (0%)	55,900 (2%)	147,600 (5%)	374,100 (13%)	36,300 (1%)	617,300 (21%)
Quebec Outer Suburbs	14,500 (0%)	15,300 (1%)	8,400 (0%)	21,400 (1%)	36,400 (1%)	3,800 (0%)	200,000 (7%)	700 (0%)	23,500 (18%)	38,200 (1%)	57,800 (2%)	203,800 (7%)	24,200 (1%)	326,300 (11%)
Ontario Rural	4,000 (0%)	800 (0%)	5,000 (0%)	30,300 (1%)	600 (0%)	33,600 (1%)	1,100 (0%)	50,400 (2%)	300 (0%)	9,800 (0%)	30,900 (1%)	34,700 (1%)	50,700 (2%)	131,700 (5%)
Quebec Rural	3,100 (0%)	3,800 (0%)	2,300 (0%)	7,600 (0%)	10,200 (0%)	1,500 (0%)	23,500 (1%)	400 (0%)	51,500 (2%)	9,200 (0%)	17,800 (1%)	25,000 (1%)	51,900 (2%)	105,000 (4%)
Total Inner City	59,100 (2%)	12,400 (0%)	133,100 (5%)	152,900 (5%)	16,800 (1%)	55,000 (2%)	37,600 (1%)	9,500 (0%)	8,800 (0%)	204,600 (7%)	169,700 (6%)	92,600 (3%)	18,300 (1%)	487,200 (17%)
Total Inner Suburbs	54,600 (2%)	16,200 (1%)	98,400 (3%)	734,500 (25%)	57,000 (2%)	149,000 (5%)	59,000 (2%)	29,700 (1%)	17,600 (1%)	169,200 (6%)	791,500 (27%)	208,000 (7%)	47,300 (2%)	1,218,900 (42%)
Total Outer Suburbs	39,500 (1%)	19,600 (1%)	35,000 (1%)	165,800 (6%)	39,600 (1%)	373,800 (13%)	204,100 (7%)	35,600 (1%)	24,900 (1%)	94,100 (3%)	205,400 (7%)	577,900 (20%)	60,500 (2%)	943,600 (33%)
Total Rural	7,100 (0%)	4,600 (0%)	7,300 (0%)	37,900 (1%)	10,800 (0%)	35,100 (1%)	24,600 (1%)	50,800 (2%)	51,800 (2%)	19,000 (1%)	48,700 (2%)	59,700 (2%)	102,600 (4%)	236,700 (8%)
Total	160,000 (7%)	53,000 (2%)	274,000 (11%)	1,091,000 (44%)	124,000 (5%)	613,000 (25%)	325,000 (13%)	126,000 (5%)	103,000 (4%)	487,000 (20%)	1,215,000 (50%)	938,000 (38%)	229,000 (9%)	2,886,000 (100%)
1995-2011														
Ottawa Centre	-5,400 (-20%)	-900 (-35%)	-4,100 (-14%)	-2,900 (-6%)	-200 (-5%)	8,000 (32%)	2,900 (21%)	500 (13%)	400 (13%)	-10,400 (-2%)	-3,100 (-1%)	10,900 (3%)	900 (0%)	-2,200 (-1%)
Île de Hull	-1,100 (-42%)	-3,000 (-45%)	-200 (-6%)	-1,100 (-14%)	-2,700 (-31%)	1,600 (40%)	3,500 (23%)	200 (29%)	1,400 (37%)	-4,300 (-1%)	-3,800 (-1%)	5,100 (1%)	1,600 (0%)	-1,500 (-3%)
Ottawa Inner Area	-4,200 (-15%)	-900 (-29%)	9,700 (10%)	2,000 (2%)	-200 (-5%)	10,700 (41%)	1,100 (13%)	1,600 (32%)	100 (5%)	4,600 (1%)	1,800 (0%)	11,800 (3%)	1,700 (0%)	18,800 (7%)
Ontario Inner Suburbs	-2,500 (-5%)	-1,400 (-19%)	1,100 (1%)	8,800 (1%)	500 (5%)	50,700 (35%)	2,500 (11%)	1,900 (6%)	3,100 (39%)	-2,800 (-1%)	9,300 (2%)	53,200 (12%)	5,000 (1%)	58,100 (5%)
Quebec Inner Suburbs	0 (0%)	-1,500 (-17%)	-500 (-14%)	-300 (-4%)	-16,500 (-35%)	1,800 (56%)	8,500 (23%)	0 (0%)	3,600 (37%)	-2,000 (0%)	-16,800 (-4%)	10.300 (2%)	3,600 (1%)	-5,700 (-5%)
Ontario Outer Suburbs	7.800 (31%)	1.500 (35%)	11.000 (41%)	49.500 (34%)	2.000 (63%)	181.000 (49%)	2.300 (56%)	19.000 (54%)	600 (43%)	20,300 (5%)	51.500 (12%)	183.300 (42%)	19.600 (5%)	273.600 (44%)
Quebec Outer Suburbs	3.100 (21%)	3.500 (23%)	1.100 (13%)	1.400 (7%)	9.300 (26%)	1.900 (50%)	16.000 (8%)	300 (43%)	8.900 (38%)	7,700 (2%)	10.700 (2%)	17.900 (4%)	9.200 (2%)	42.800 (13%)
Ontario Rural	700 (18%)	300 (38%)	1,200 (24%)	2,600 (9%)	300 (50%)	18.000 (54%)	800 (73%)	-700 (-1%)	200 (67%)	2,200 (1%)	2.900 (1%)	18.800 (4%)	-500 (0%)	23,200 (18%)
Quebec Rural	100 (3%)	1,300 (34%)	600 (26%)	2,800 (37%)	4,000 (39%)	700 (47%)	9,700 (41%)	200 (50%)	9,600 (19%)	2,000 (0%)	6,800 (2%)	10,400 (2%)	9,800 (2%)	27,400 (26%)
Total Inner City	-10,700 (-2%)	-4.800 (-1%)	5,400 (1%)	-2,000 (0%)	-3,100 (-1%)	20.300 (5%)	7,500 (2%)	2,300 (1%)	1,900 (0%)	-10,100 (-2%)	-5,100 (-1%)	27,800 (6%)	4,200 (1%)	15,100 (3%)
Total Inner Suburbs	-2.500 (-1%)	-2.900 (-1%)	600 (0%)	8,500 (2%)	-16.000 (-4%)	52.500 (12%)	11,000 (3%)	1,900 (0%)	6,700 (2%)	-4.800 (-1%)	-7.500 (-2%)	63.500 (15%)	8.600 (2%)	52,400 (4%)
Total Outer Suburbs	10,900 (3%)	5.000 (1%)	12,100 (3%)	50,900 (12%)	11,300 (3%)	182,900 (42%)	18,300 (4%)	19,300 (4%)	9,500 (2%)	28,000 (6%)	62,200 (14%)	201,200 (46%)	28,800 (7%)	316,400 (50%)
Total Rural	800 (0%)	1.600 (0%)	1.800 (0%)	5,400 (1%)	4,300 (1%)	18,700 (4%)	10.500 (2%)	-500 (0%)	9,800 (2%)	4,200 (1%)	9,700 (2%)	29,200 (7%)	9,300 (2%)	50.600 (27%)
Total	-2,000 (-1%)	-1,000 (-2%)	20,000 (8%)	63,000 (6%)	-4,000 (-3%)	274,000 (81%)	47,000 (17%)	23,000 (22%)	28,000 (37%)	17,000 (4%)	59,000 (5%)	321,000 (52%)	51,000 (29%)	434,000 (18%)