



# 2005 Edmonton Household Travel Survey

Summary Report on Weekday Travel  
by Edmonton Residents

Submitted to:



Prepared By:



Banister Research & Consulting Inc.

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# 1.0 Introduction

In the fall of 2005, the City of Edmonton, together with Alberta Infrastructure and Transportation, undertook an extensive survey of households in the Edmonton region to determine the nature of current travel patterns. The collected information will be used to assess the transportation needs of the City of Edmonton and surrounding region, and to help develop plans to meet those needs.

The first step in determining the need for transportation infrastructure and services is gaining an understanding of current travel patterns and the underlying elements which affect these patterns. Once these are known, transportation planning models can be developed to project future transportation needs based upon various assumptions about the type and magnitude of regional growth and the location of these developments.

This report provides an overview of the information collected from the 2005 Household Travel Survey. It is intended to be illustrative of the pattern and intensity of travel in the Edmonton region at the time of the survey, as well as the variables which underlie these travel patterns. While some regional information is presented in this report, the primary focus is on weekday travel in Edmonton.

## 1.1 Overview of the Household Travel Survey

Between September 26, 2005 and December 15, 2005, approximately 9,300 households in the Edmonton region participated in a survey which collected information about the household, the residents of the household, and travel information for each member of the household for a 24 hour weekday or weekend period. Some 6,600 of the surveyed households in the city provided information on their weekday travel, as compared to approximately 6,000 in 1994.

The main objectives of the 2005 Household Travel Survey were to:

- Provide current demographics and travel data, including origin and destination, trip purpose, mode choice, time of day, activities undertaken, and trip frequency for

updating the regional travel forecasting model being used to forecast travel in the Edmonton area and to assess future transportation policies and strategies.

- Provide current empirical data and stated preference data on travel choices, including cost, mode, and time of day, by a representative sample of households.

The survey participants were selected at random from published telephone lists for the Edmonton region. Those households who agreed to participate in the survey were assigned a travel day and each member of the household was asked to record their travel information on travel diaries, which were provided in an information package mailed to each participating household. Household, person, and travel information was collected by trained surveyors following the assigned travel day. The survey results were coded and entered into an electronic data base for analysis.

## **1.2 Study Area**

The study area for the Household Travel Survey corresponds to the Edmonton Census Metropolitan Area (CMA) which encompasses the City of Edmonton, the City of St. Albert, Strathcona County (including Sherwood Park), the City of Fort Saskatchewan, M.D. of Sturgeon, Parkland County (including City of Spruce Grove and Town of Stony Plain), and Leduc County (including the City of Leduc, Town of Devon, and Town of Beaumont). The study area is illustrated in Figure 1.1. For the purpose of presenting the findings of the survey, the study area has been divided into seventeen sectors. The City of Edmonton, together with St. Albert and Sherwood Park, make up fifteen of the seventeen sectors, while the remaining area has been divided into two sectors: “region-urban” and “region-rural”. Figure 1.2 illustrates the study area encompassing Edmonton, St. Albert and Sherwood Park. The boundaries are consistent with those used in 1994. Figure 1.3 illustrates the locations of the households surveyed in the City of Edmonton.

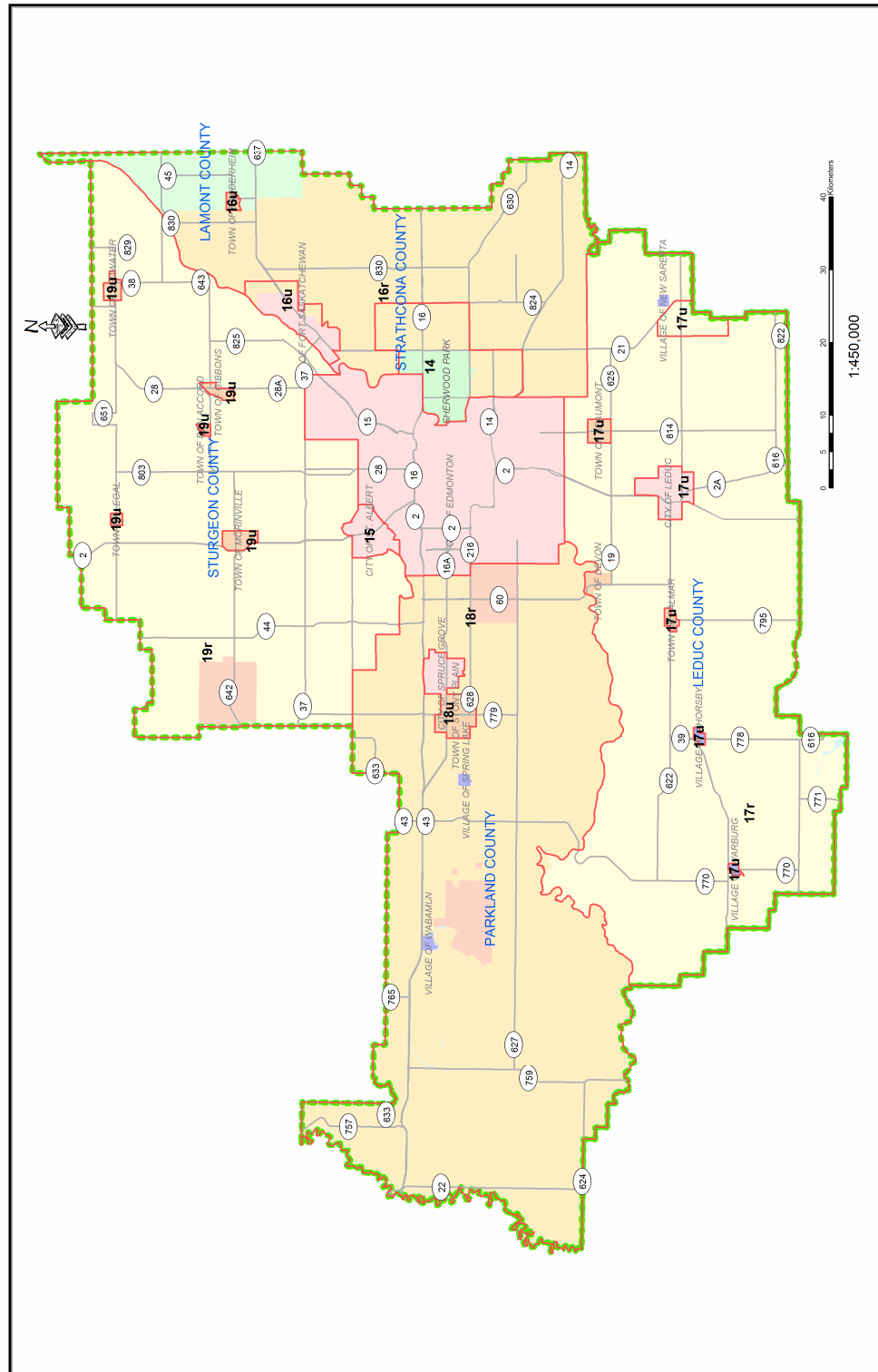


Figure 1.1: Study Area

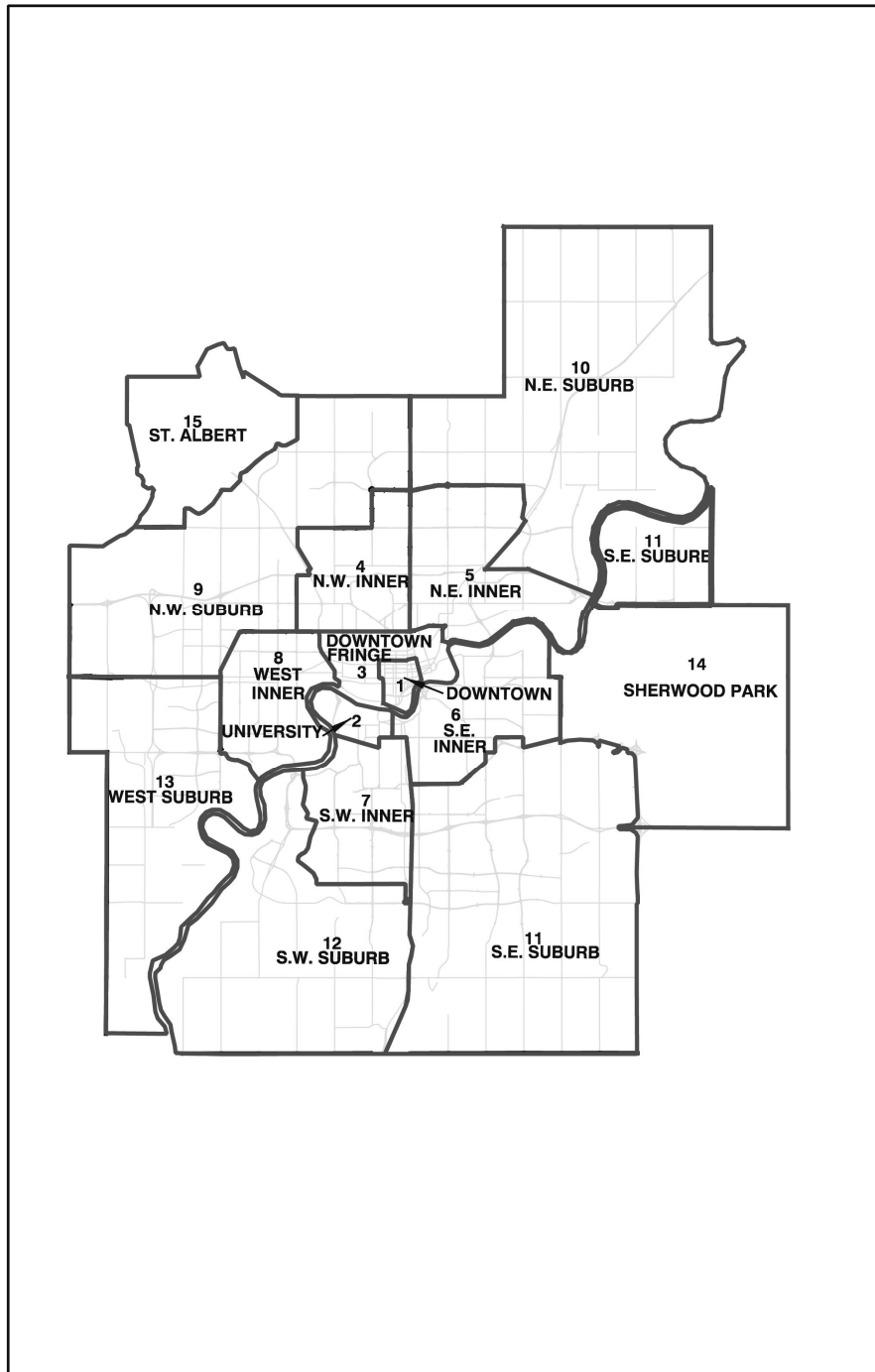
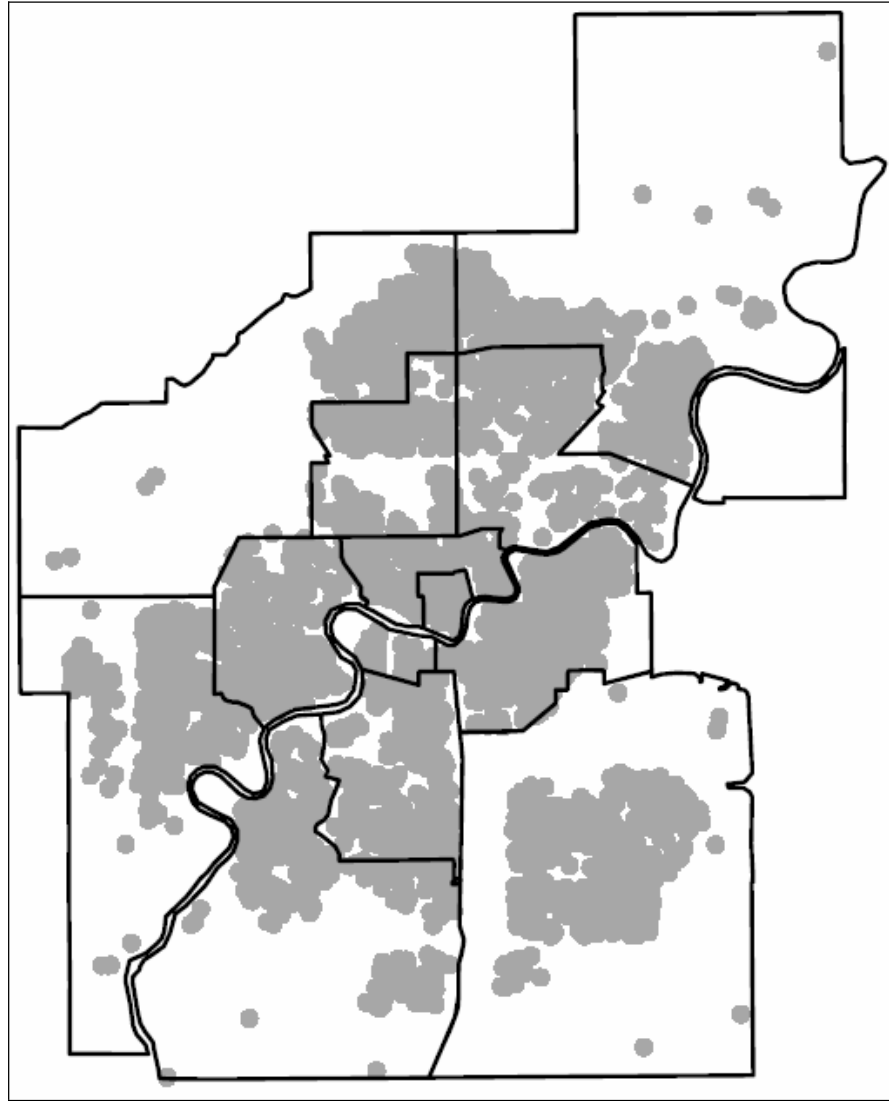


Figure 1.2: Edmonton Area Sectors





*Figure 1.3: Distribution of Surveyed Households*

### **1.3 Scaling**

A sample survey approach was used in this study. The relevant information was gathered from a sample of households and then scaled, or factored up, to represent the full population of households in the Edmonton Region.

In order to ensure that the scaled survey results best represent the population, a separate scaling factor was developed for each sample household so that the scaled sample matches the actual population. The scaling factors cause the sample to match

the real world across several variables including: population, income, dwelling type, households, household size, age, gender, and employment status by geographic area.

On average, each household in the sample is used to represent the behaviour of 65 households in the full population. Using the scaling methodology some households in the sample have a scaling factor higher than 65 and some lower than 65, depending on the rate that households of their type were in the sample, compared to the full population. The result is a scaled survey which compares favourably with the available totals, and the survey results regarding travel can therefore be used with confidence.

## **1.4 Sample Accuracy**

Because the scaled survey results are based on a sample, they are subject to a form of imprecision or 'sample error'. A difference of one or two households in the sample is magnified in the scaled values. Consequently, the numbers reported here for the population – such as the number of trips made by transit or the number of car drivers – must be interpreted with the understanding that they are estimates of the population values influenced by the random chance that one or two more or less households of one type or another may be included, and the true population value may be slightly different from the calculated value.

This lack of precision, the 'sample error', is typically reported as a +/- range about the calculated value that is expected to contain the population value with some specified probability. For example, the number of trips per person for the population of Edmonton is calculated to be 3.63 using the full sample of 10,935 persons – with a +/- range of 0.047 expected to contain the actual population value 19 times out of 20. The magnitude of this +/- range for a given estimate, and the resulting precision of the estimate, is influenced by the number of observations in the sample. Consequently, the number of trips per household for the population of Edmonton households with 4 cars is calculated to be 13.86 using the sample of such households (just 103 out of the full set of 4,595 households) – but in this case with a +/- range of 1.528 expected to contain the actual population value 19 times out of 20. Note that with the smaller sample the +/- range increases, reflecting a greater imprecision.

The same sort of sample error arises with the population proportions estimated using the sample: there is a +/- range about the calculated value that is influenced by the size of the sample used. For example, the proportion of all trips made using transit for the full population of Edmonton residents is calculated to be 8.58% using the full sample of 40,716 trips overall - with a +/- range of 0.272% expected to contain the actual population proportion value 19 times out of 20. The proportion of trips from the West End to the Central City made using transit for the full population is calculated to be 18.2% using the sample of 560 trips going from the West End to the Central City - with a +/- range of 3.19% expected to contain the actual population value 19 times out of 20. As the available sample size decreases, the sample error, as indicated by the +/- range, increases.

In general, the samples available for calculating the values reported here are comparatively large, with hundreds and even thousands of observations, and the associated sample error is consequently fairly small and not a matter for concern. But increasing caution needs to be used when the sample is smaller, which happens as smaller and more detailed components of the full system are considered.

## 2.0 Demographic Characteristics

The Household Travel Survey captured detailed travel and demographic information from residents living in the Edmonton Census Metropolitan Area (CMA). Information was collected about the household and about the people living in each household. The majority of the information presented in this section is derived from the travel survey. The total number of households and total population in the City of Edmonton is based on the 2005 City of Edmonton Census.

The survey captured travel information which illustrates current travel patterns and behaviours. A number of key changes in travel patterns and behaviours have emerged which appear to be strongly related to demographic changes and shifts.

### 2.1 Population, Employment and Related Information

#### 2.1.1 Population

The 2005 population statistics presented in Table 2.1 below were obtained from the 2005 City of Edmonton Census, not from Household Travel Survey data. As shown in Table 2.1, Edmonton had a 2005 population of 712,400, an increase of 13% over the 1994 population. Likewise, the population of the entire Edmonton region has grown some 16% to a total of 1,005,500 in 2005.

Table 2.1: Population of the Edmonton Census Metropolitan Area (CMA) by Sector, 1994 and 2005

Sector	Description	1994	2005	Difference	% Difference
1	Downtown	7,000	9,900	2,900	41%
2	University	11,600	14,300	2,700	23%
3	Downtown Fringe	43,900	46,600	2,700	6%
4	Northwest Inner	44,400	42,600	-1,800	-4%
5	Northeast Inner	96,600	89,200	-7,400	-8%
6	Southeast Inner	59,300	58,600	-700	-1%
7	Southwest Inner	54,000	52,100	-1,900	-4%
8	West Inner	57,300	55,200	-2,100	-4%
	<b>INNER CITY</b>	<b>374,100</b>	<b>368,500</b>	<b>-5,600</b>	<b>-1%</b>
9	Northwest Suburb	36,800	47,700	10,900	30%
10	Northeast Suburb	44,200	65,000	20,800	47%
11	Southeast Suburb	85,300	100,800	15,500	18%
12	Southwest Suburb	39,500	64,000	24,500	62%
13	West Suburb	53,300	66,400	13,100	25%
	<b>SUBURB CITY</b>	<b>259,100</b>	<b>343,900</b>	<b>84,800</b>	<b>33%</b>
	<b>CITY</b>	<b>633,200</b>	<b>712,400</b>	<b>79,200</b>	<b>13%</b>
14	Sherwood Park	38,700	55,000	16,300	42%
15	St Albert	45,200	56,300	11,100	25%
16	Region - Urban	76,700	94,700	18,000	23%
17	Region - Rural	74,000	87,100	13,100	18%
	<b>REGION</b>	<b>234,600</b>	<b>293,100</b>	<b>58,500</b>	<b>25%</b>
	<b>CMA</b>	<b>867,800</b>	<b>1,005,500</b>	<b>137,700</b>	<b>16%</b>

Table 2.1 illustrates that the Edmonton CMA population has grown by 137,700 people with Edmonton gaining 79,200 people and the surrounding region gaining 58,500 people. Within Edmonton, the highest population increases have occurred in suburban areas with the northeast and southwest suburbs (sectors 10 and 12) showing the highest amounts of growth, both in absolute and percentage terms. In contrast, the mature inner areas of Edmonton showed small declines in population since 1994. The exceptions to these inner area declines are the University and Downtown areas. The growth in Downtown population is attributed to the significant increase in residential development that has occurred in the Downtown since 1994. Figure 2.1 provides a graphical illustration of population growth.

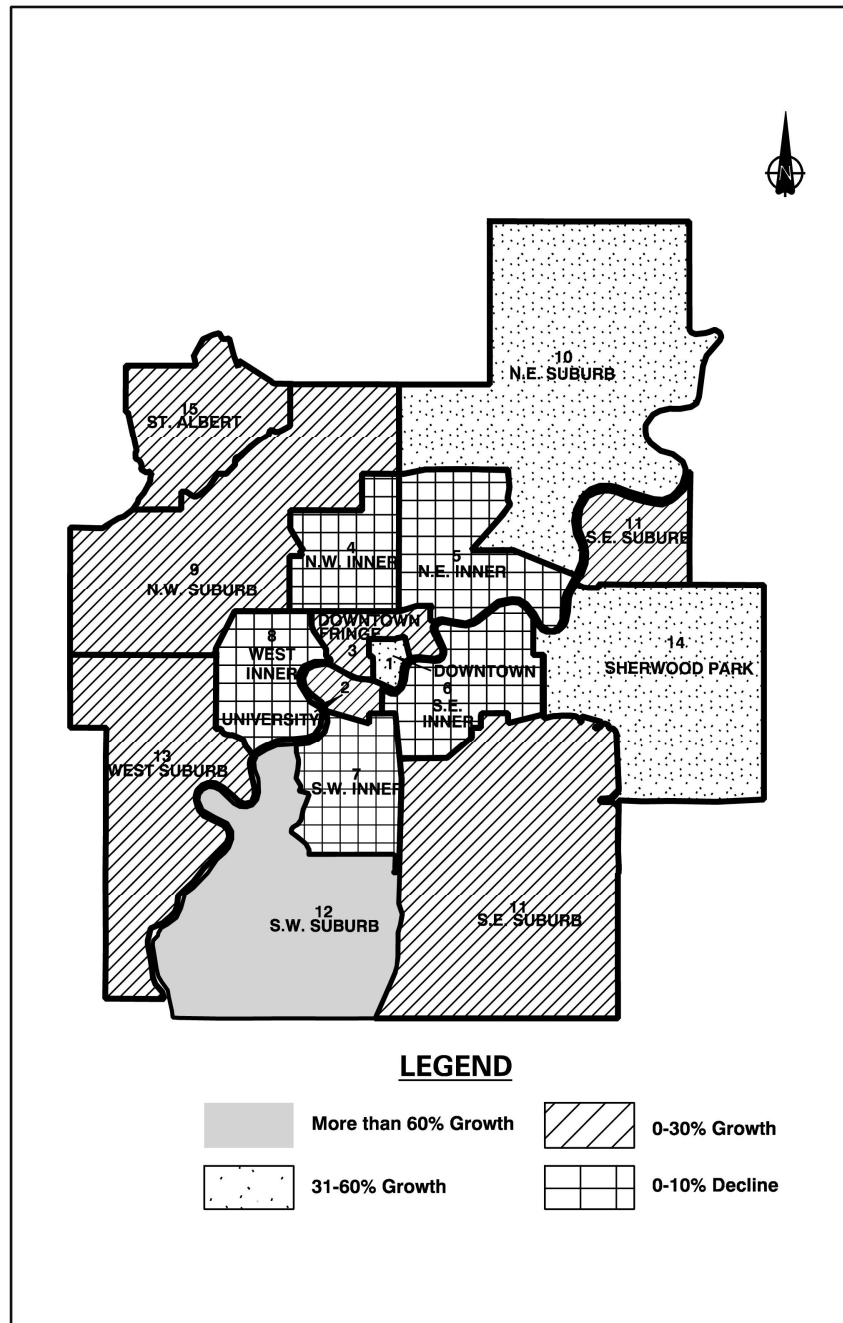


Figure 2.1: Population Growth in Edmonton from 1994 to 2005

### 2.1.2 Age Profile of Edmonton's Population

Information retrieved from Edmonton's 2005 Civic Census on the age profile of Edmonton residents has uncovered significant changes that have implications for travel

patterns and behaviours. Figure 2.2 illustrates the distribution of Edmonton's population by age category in 2005. Figure 2.3 shows the percentage changes in each age category.



Figure 2.2: Population Age Distribution, 2005

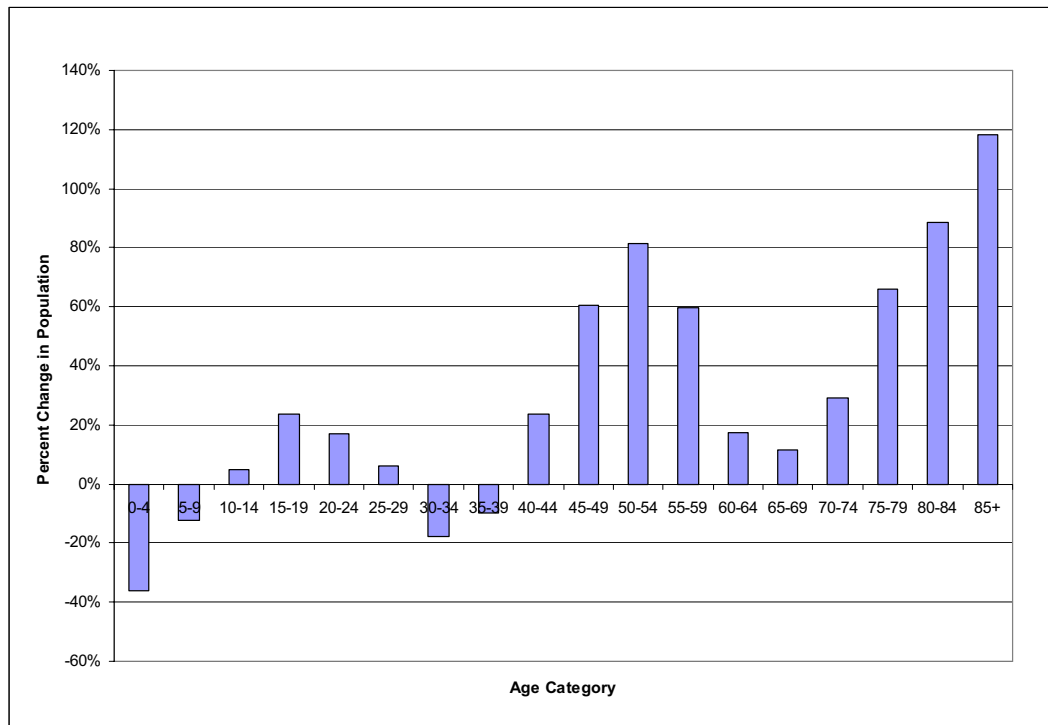


Figure 2.3: Change in Population Age Distribution, 1994 - 2005

Figures 2.2 and 2.3 indicate that Edmonton’s population has matured significantly since 1994. The number of people over 45 years of age has increased by 52%, a disproportionately high rate when compared to the 13% population increase. In addition, some of the younger segments have diminished as a proportion of the total population.

### 2.1.3 Primary Employment or School Status

Another dimension of Edmonton’s population is each person’s primary “occupation” or school status. Reference to Figure 2.4 illustrates that there has been a marked increase in people employed full time, an increase in “retired” people, and decreases in pre-school/elementary school children and homemakers. These changes are fully consistent with the previous references to an older population.



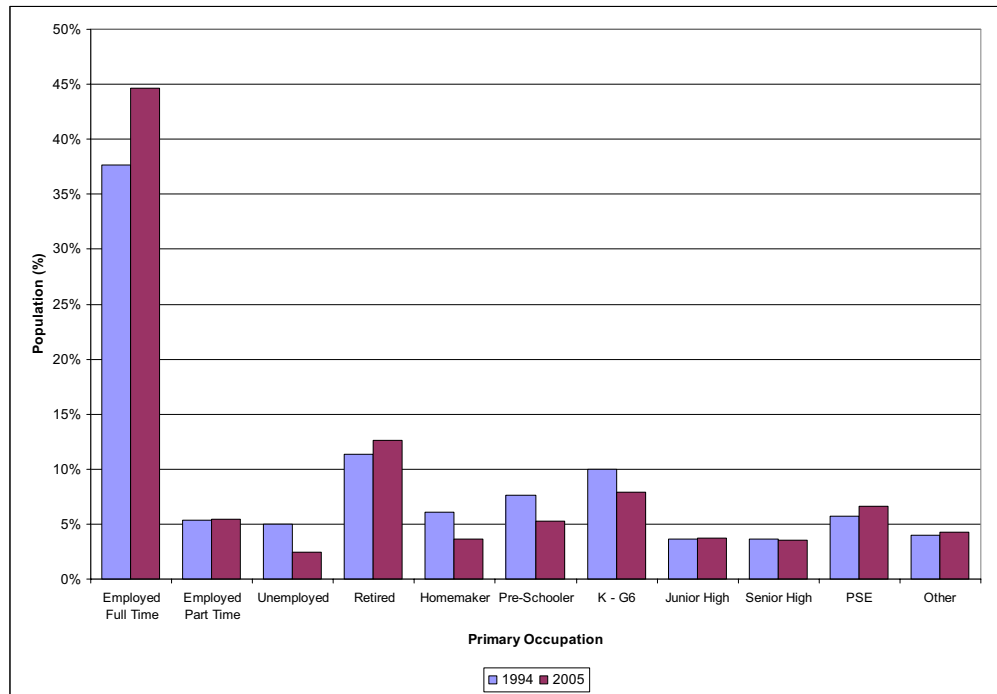


Figure 2.4: Primary Occupation or School Status, 1994 and 2005

### 2.1.4 Household Size

In 2005, there were approximately 295,000 households in the City of Edmonton, an increase of almost 50,000 households, or 20%. Figure 2.5 illustrates the distribution of Edmonton households by sector and household size. As indicated, in virtually all sectors in the City, household size has declined. The average household size in Edmonton in 2005 was 2.38 as compared with 2.56 in 1994. This represents a notable decline in household size and is consistent with the decline in the number of children and the increase in the number of person over 65 years of age, who typically reside in small households consisting of one or two persons.

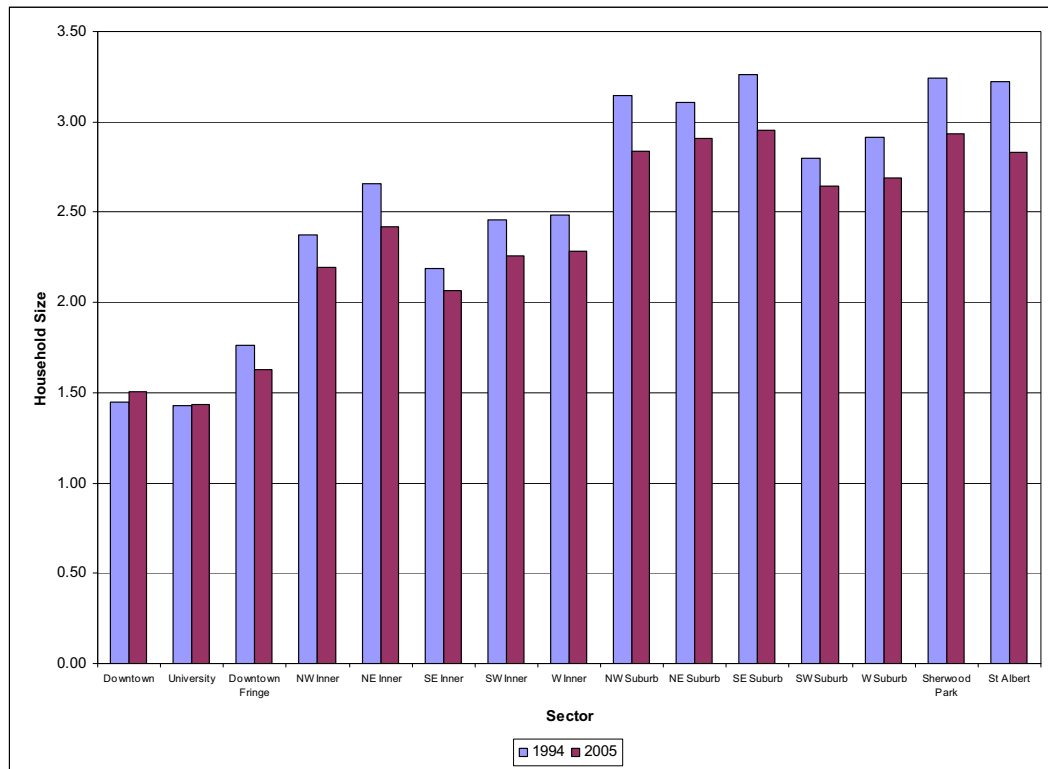


Figure 2.5: Household Size by Sector, 1994 and 2005

### 2.1.5 Household Income

Household income is defined as the combined annual gross income (before taxes) for all members of the household for the 2005 calendar year. Household income is known to have a strong influence on travel characteristics and it is therefore useful to understand the level and distribution of household incomes that prevail in Edmonton. Figure 2.6 illustrates the distribution of household incomes in Edmonton and indicates that in Edmonton, about 55% of households earn less than \$60,000 per annum, while about 20% of households earn more than \$100,000.

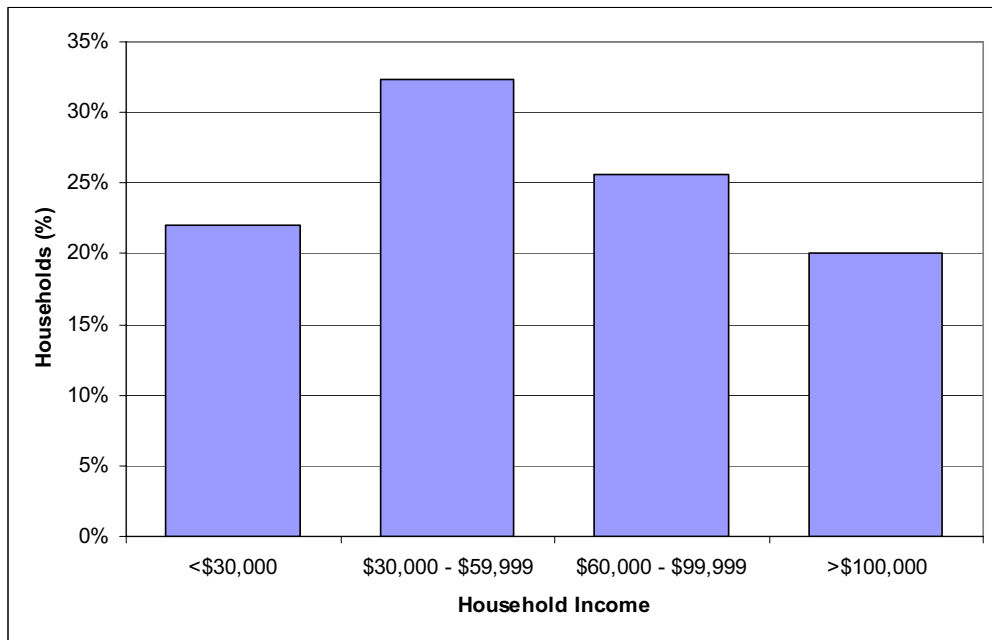


Figure 2.6: Household Income Distribution, 2005

### 2.1.6 Employment

Work related travel forms a significant portion of daily travel activities and places very high demands on the transportation system over relatively short periods of the day. As a consequence, it is important to understand the extent and spatial distribution of employment. Figure 2.7 provides a graphical illustration of the extent and locations of employment growth in the Edmonton area. Employment growth has been strongest in the downtown (sector 1), southeast suburb (sector 11) and northwest suburb (sector 9). The strength of employment growth in suburban locations coupled with the already mentioned strong suburban population growth has significant travel implications.

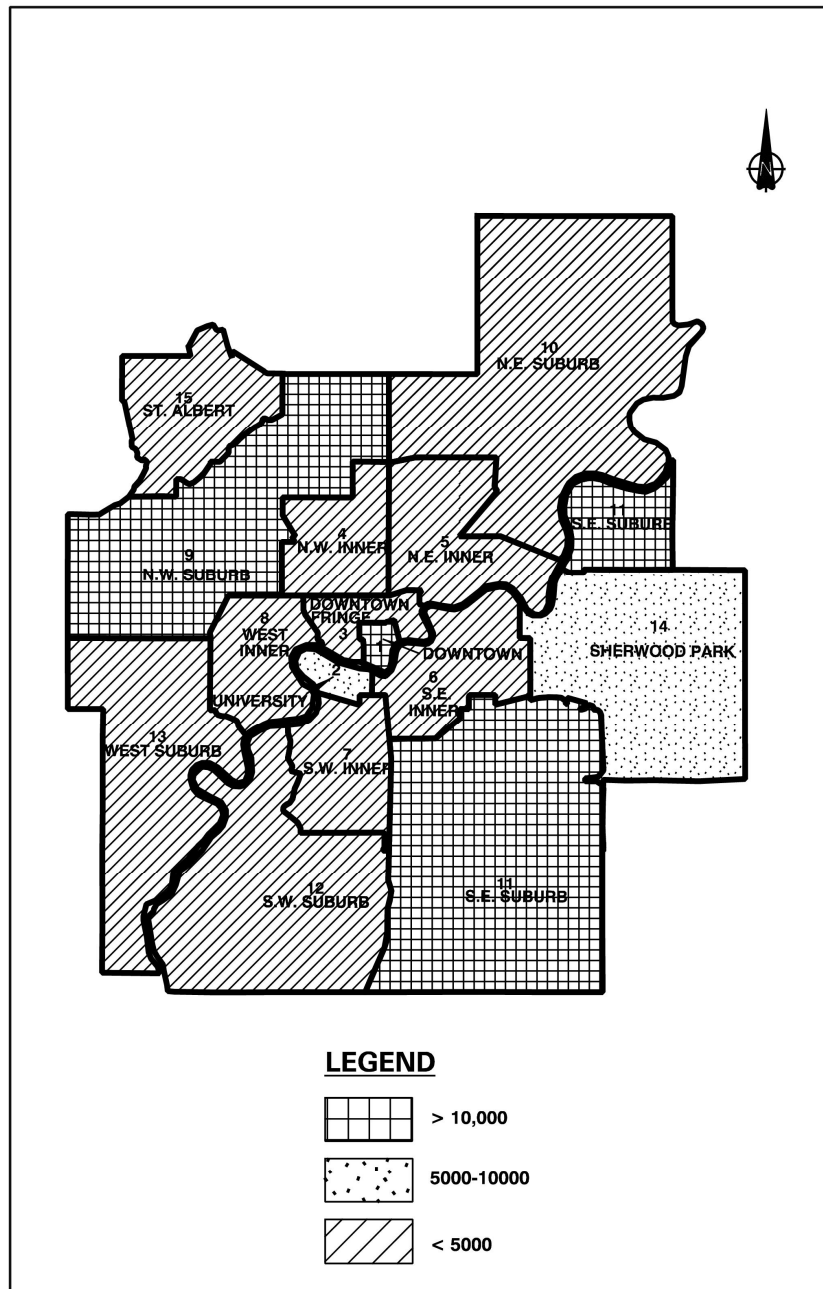


Figure 2.7: Extent and Distribution of Employment Growth

### 2.1.7 Household Car Availability

Cars are defined as all passenger cars, pickups, motorcycles, and vans which are available for use by the persons residing in the household. The extent to which a car is available for use is known to have an influence on travel mode choices. Car availability

is tracked by vehicle registrations in the City of Edmonton, and are shown in Figure 2.8. As can be seen, there has been a slight decline in car availability over time, although the decline is not seen as dramatic.

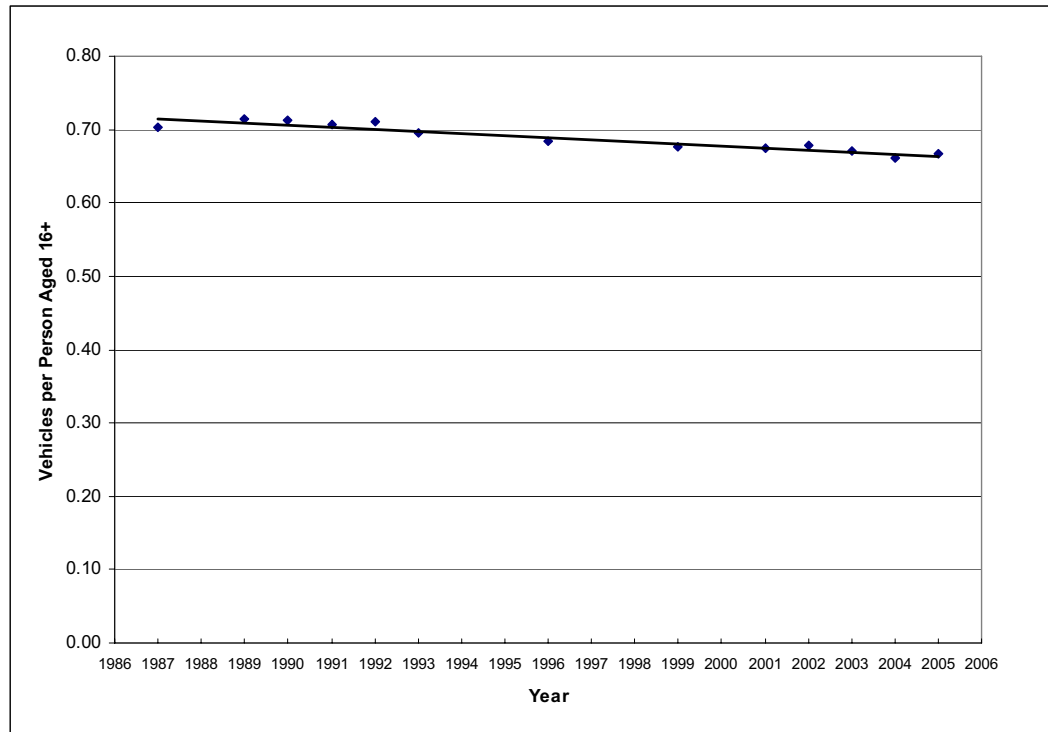


Figure 2.8: Passenger Vehicles per Person Aged 16+

### 2.1.8 Travel Costs

Travel costs and any changes to those costs can have an influence on travel choices and patterns. As a backdrop to the travel information being presented in this report, the following information on car travel and transit travel costs is provided:

- The price of gasoline in Edmonton has risen from 39.9 cents/litre in October 1994 to 91.0 cents/litre in October 2005. When inflation is accounted for, the increase in the cost of gasoline amounts to approximately 80%.
- The Adult cash transit fare in Edmonton was \$1.60 in 1994. In 2005, the cash fare was \$2.00. When the 1994 fare is adjusted for inflation, the 1994 and 2005 adult transit fares are on par with each other.

The above comparison of travel costs indicates that between 1994 and 2005, the cost of travel to the user has risen significantly for car drivers but has remained stable for transit users.

## 3.0 Travel Behaviour

The 2005 Household Travel Survey collected information on all trips generated by all persons residing in the surveyed household during a 24 hour period. This section of the report describes the various characteristics of weekday trips in terms of the:

- Trip generation rates;
- Choice of travel mode;
- Average trip length (km) and travel time (minutes).

### 3.1 Weekday Trip Generation

#### 3.1.1 Weekday Daily Trip Generation Rates for Persons

Figure 3.1 illustrates the trip generation rate of people in different age groups by gender. The number of trips made by each person tends to increase by age up until 65, at which point trip rates decrease. There are also differences in trip making by gender. Males and females make about the same number of trips per day below the age of 25, but between the ages of 25 and 44, females tend to make more trips per day than males. Beyond the age of 65 males make more daily trips than females.

On an average weekday, people in Edmonton make 3.63 trips per day, which is an increase from 3.61 trips per day in 1994.

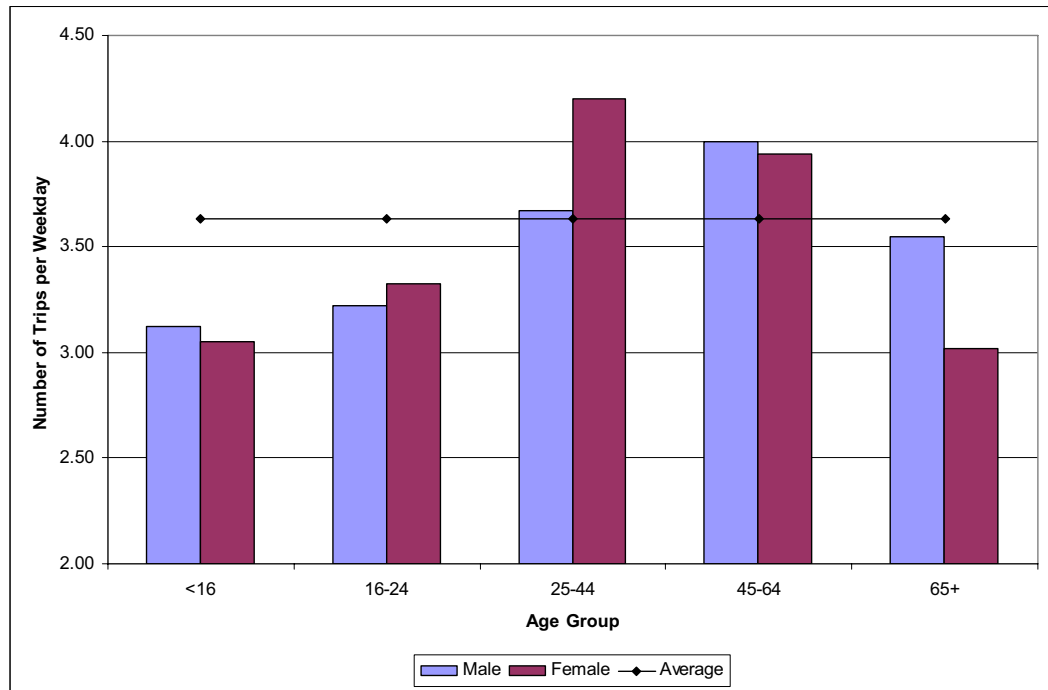


Figure 3.1: Weekday Trips per Person by Age and Gender, 2005

### 3.1.2 Daily Trip Generation Rates for Households

Household size, income levels, and the availability of cars are all important factors that influence the number of trips generated by a household. Figures 3.2, 3.3 and 3.4 illustrate the daily person trip generation rates by these three factors.

On average, households in Edmonton generate 8.6 trips per day, which is a decrease from 9.2 trips per day in 1994. The decrease in trips per household is a result of the decreasing household size rather than fewer actual trips being made.



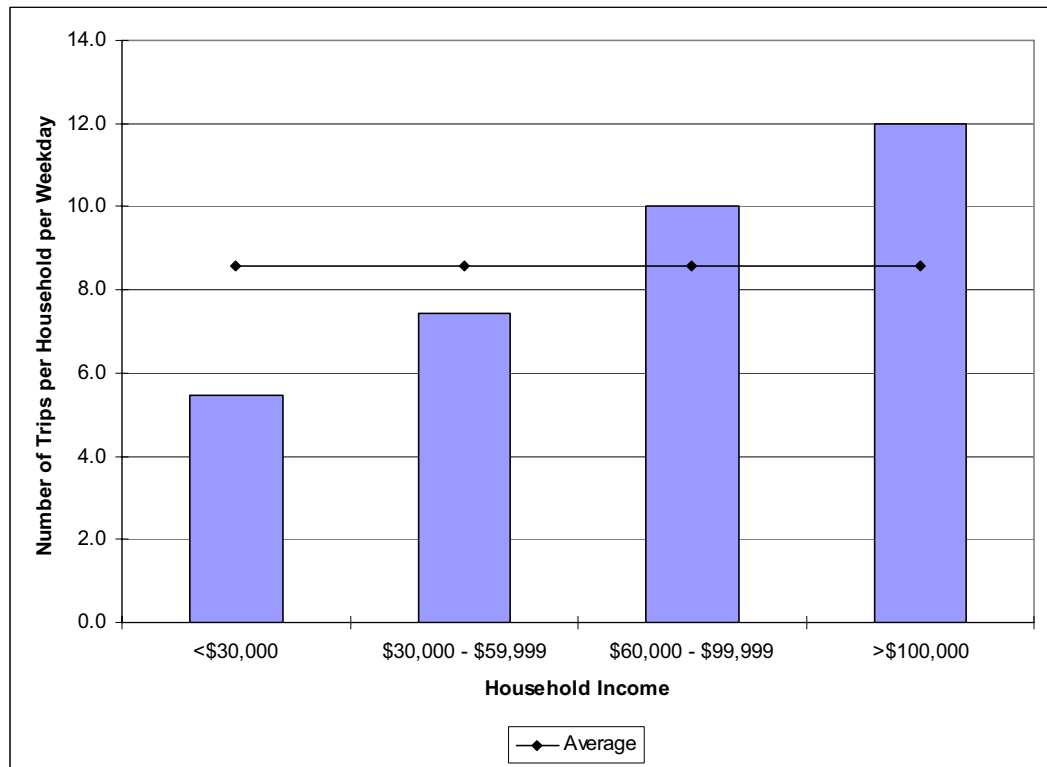


Figure 3.2: Trips per Weekday by Household Income, 2005

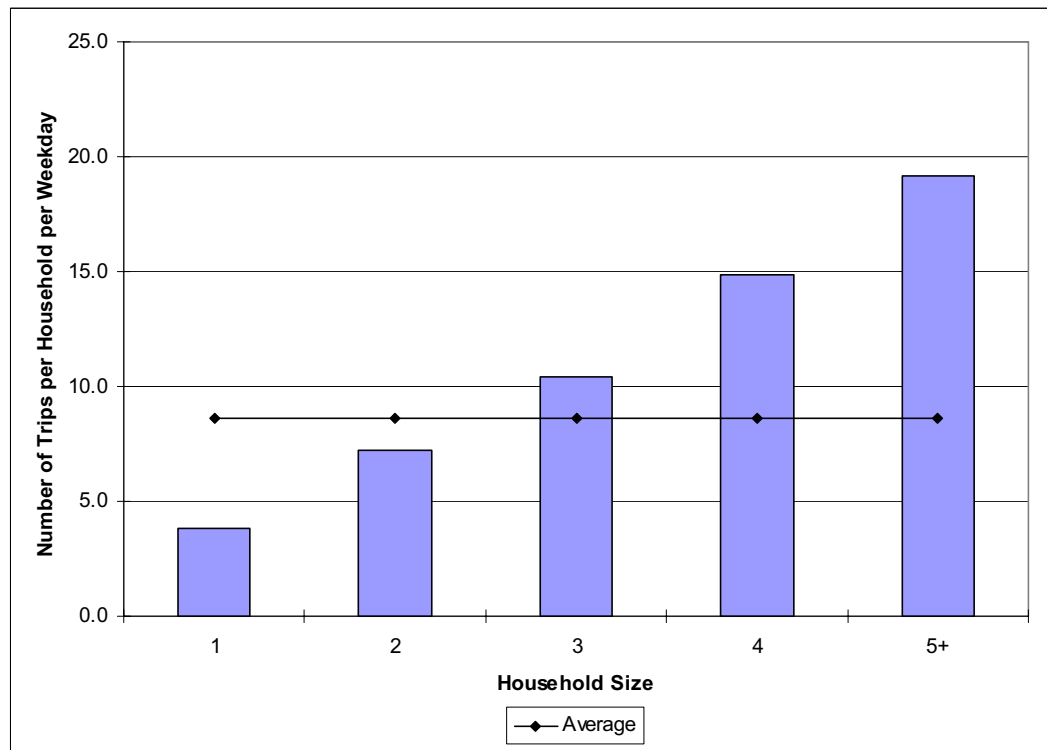


Figure 3.3: Trips per Weekday by Household Size, 2005

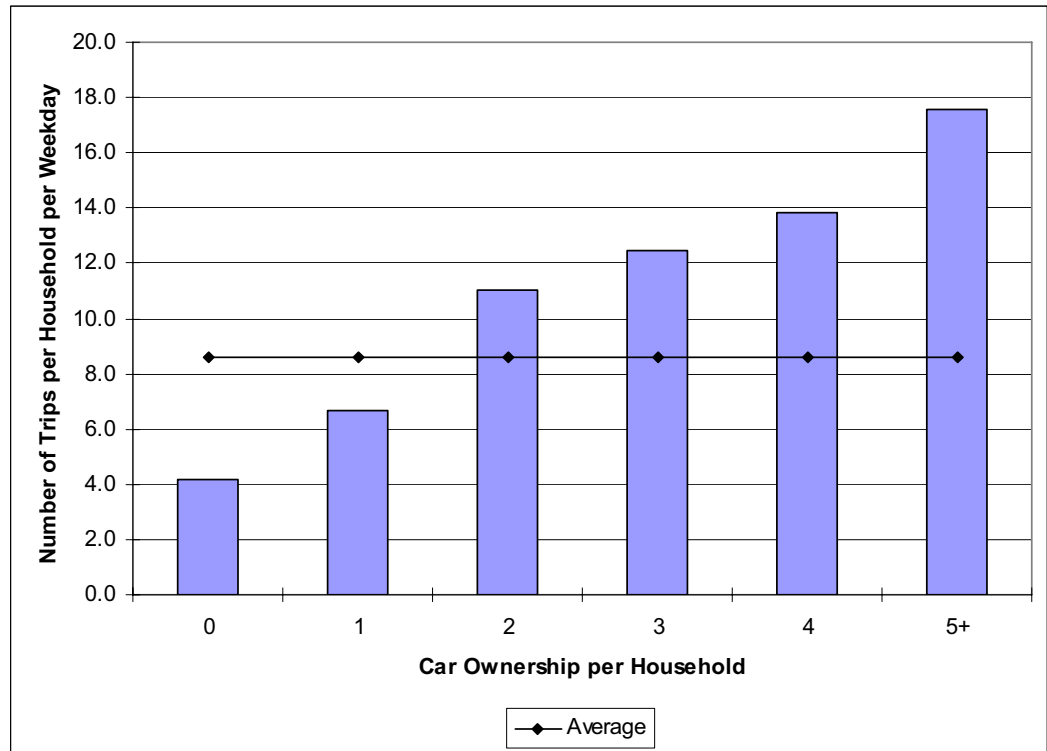


Figure 3.4: Trips per Weekday by Car Ownership, 2005

The following observations are drawn from Figures 3.2, 3.3 and 3.4:

- The number of trips made per weekday increases with household income;
- The number of trips made per weekday increases with household size;
- The number of trips made per weekday increases with car ownership.

These relationships are consistent with those observed in 1994 and confirm the strong influence of income, household size, and car ownership on the number of trips made by a household.

### 3.2 Weekday Travel Mode Share

The mode by which people travel is an extremely important element of a transportation system as it affects the type and nature of transportation facilities and services that need to be provided. Accordingly, Figures 3.5, 3.6, 3.7 and Table 3.1 illustrate the relationship between mode choice and a number of variables such as age, gender, income, and car ownership.

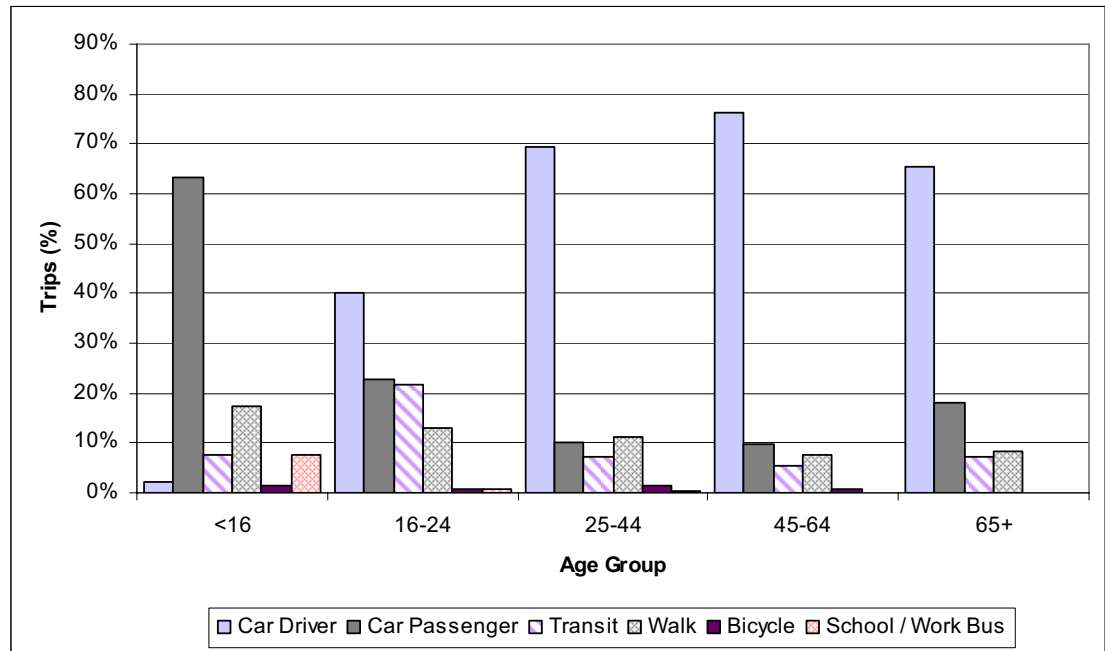


Figure 3.5: Mode Share by Age Group, 2005

Table 3.1a: Mode Share by Age Group and Gender, 2005

Table 3.1a: Mode Share by Age Group and Gender, 2005

Mode	Age Group					Gender		TOTAL
	<16	16-24	25-44	45-64	65+	Male	Female	
<b>Car Driver</b>	2%	40%	69%	76%	65%	61%	54%	57%
<b>Car Passenger</b>	63%	23%	10%	10%	18%	17%	24%	20%
<b>Transit</b>	8%	22%	7%	5%	7%	8%	9%	9%
<b>Walk</b>	17%	13%	11%	8%	8%	11%	11%	11%
<b>Bicycle</b>	1%	1%	1%	1%	0%	1%	1%	1%
<b>School / Work Bus</b>	8%	1%	0%	0%	0%	2%	1%	1%
<b>Other</b>	0%	1%	1%	0%	1%	1%	0%	0%

Table 3.1b: Change in Mode Share by Age Group and Gender, 1994-2005

Mode	Age Group					Gender		TOTAL
	<16	16-24	25-44	45-64	65+	Male	Female	
<b>Car Driver</b>	2%	-4%	-5%	3%	5%	-1%	6%	3%
<b>Car Passenger</b>	1%	1%	-1%	-3%	1%	-2%	-4%	-3%
<b>Transit</b>	0%	0%	1%	-1%	-3%	1%	-1%	0%
<b>Walk/Bicycle</b>	-3%	1%	2%	1%	-1%	0%	0%	0%
<b>Walk</b>	-7%	2%	4%	1%	-2%	0%	-1%	0%
<b>Bicycle</b>	1%	0%	1%	1%	0%	0%	1%	1%
<b>School / Work Bus</b>	3%	0%	0%	0%	0%	1%	0%	0%
<b>Other</b>	0%	0%	0%	0%	-1%	0%	0%	0%

Section 3.1.2 demonstrated a strong correlation between trip generation rates and household income and household size. When transit mode share was compared for different household income levels, it was observed that transit mode share was inversely correlated with household income. Figure 3.6 indicates that transit mode share declines with increasing household incomes. This figure also indicates an average transit mode share of 8.6%.

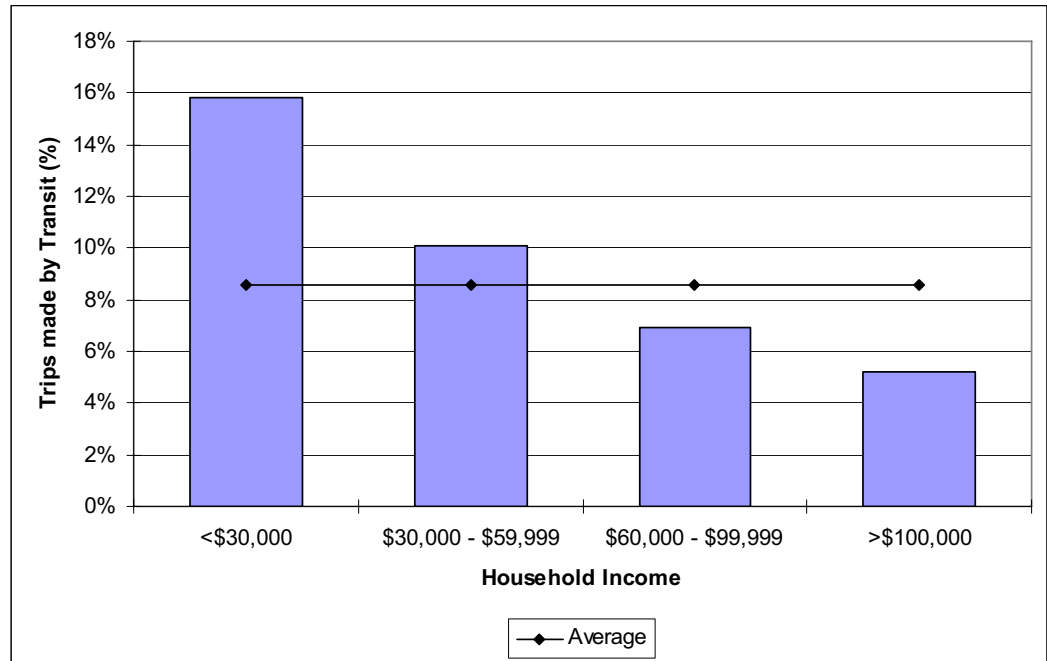


Figure 3.6: Transit Mode Share by Household Income, 2005

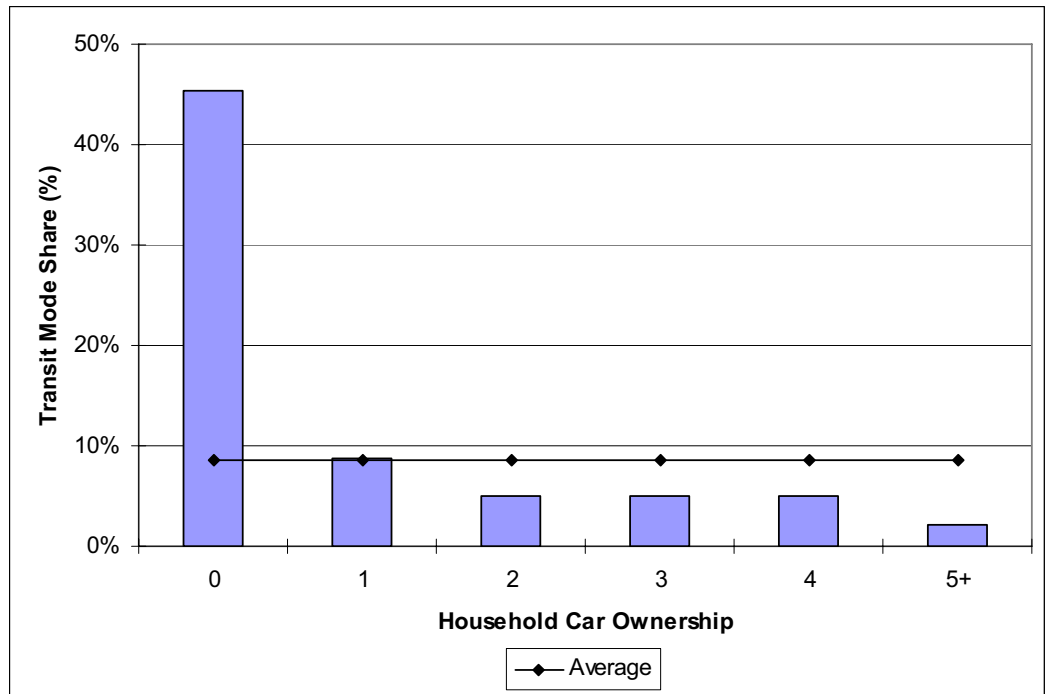


Figure 3.7: Transit Mode Share by Car Ownership, 2005

### 3.3 Weekday Person Trip Lengths

The length of trips taken is an indicator of the spatial characteristics of travel and the extent to which people are willing or forced to travel to complete activities. Figure 3.8 illustrates the average trip length for different trip purposes in 2005 and in 1994. The trip purposes match the categories used in the 1994 travel survey; a home based trip is a trip that starts or ends at home while non home based trips start or end elsewhere.

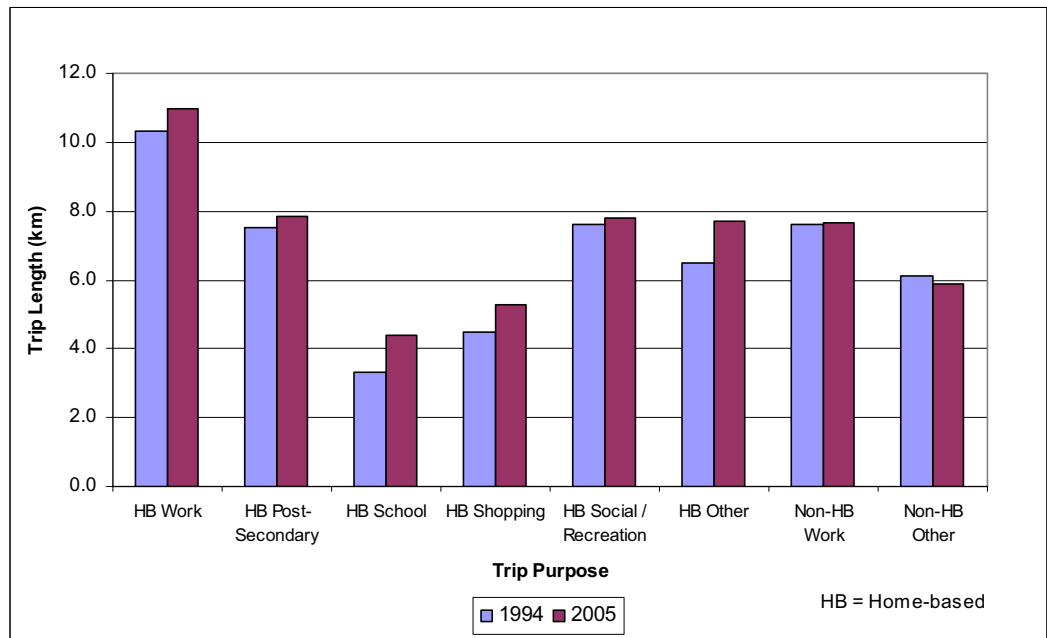


Figure 3.8: Trip Lengths by Trip Purpose, 1994 and 2005

There has been an increase in trip lengths across virtually all trip purposes, indicating that Edmontonians are having to or willing to travel further to complete their daily activities. Longer trips mean increased use of the transportation system and reflect a geographically more dispersed population. This is consistent with the high levels of population growth in suburban areas. The actual values and percent differences are shown in Table 3.2.

Table 3.2: Average Trip Length (km) by Purpose, 1994 and 2005

Purpose	1994	2005	Difference	% Difference
HB Work	10.3	11.0	0.7	7%
HB Post-Secondary	7.5	7.9	0.4	5%
HB School	3.3	4.4	1.1	33%
HB Shopping	4.5	5.3	0.8	18%
HB Social / Recreation	7.6	7.8	0.2	3%
HB Other	6.5	7.7	1.2	18%
Non-HB Work	7.6	7.6	0.0	1%
Non-HB Other	6.1	5.9	-0.2	-3%
<b>Average</b>	<b>6.7</b>	<b>7.2</b>	<b>0.5</b>	<b>10%</b>

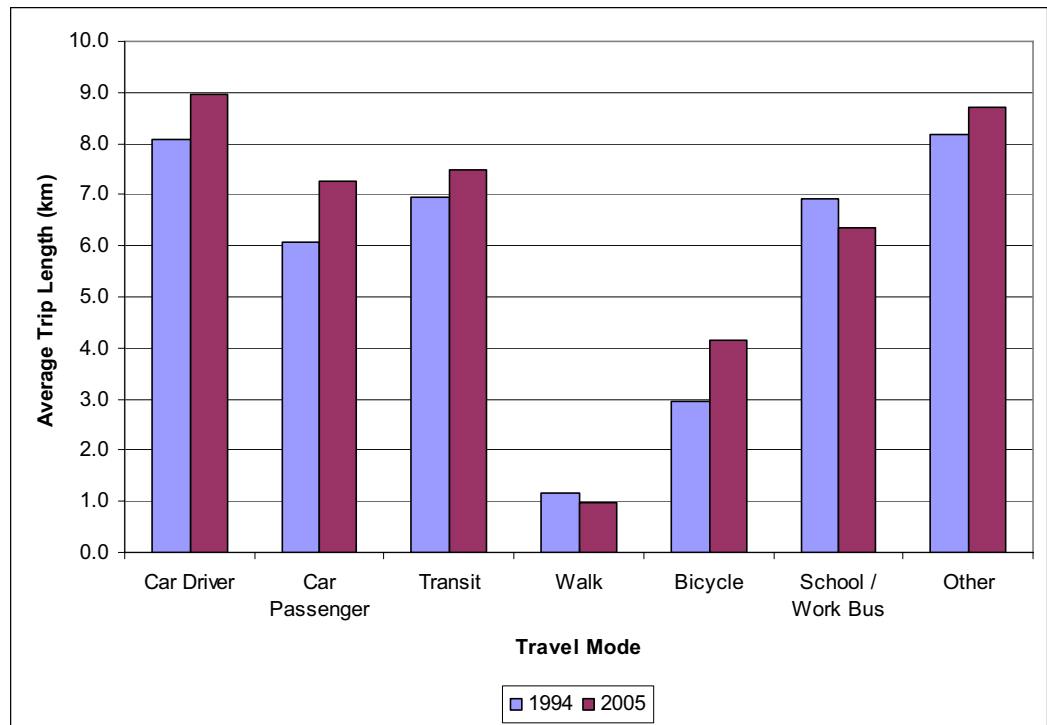


Figure 3.9: Average Trip Length (km) by Travel Mode, 1994 and 2005

Table 3.3: Average Trip Length (km) by Mode, 1994 and 2005

Mode	1994	2005	Difference	% Difference
Car Driver	8.1	9.0	0.9	11%
Car Passenger	6.1	7.3	1.2	20%
Transit	6.9	7.5	0.6	8%
Walk	1.2	1.0	-0.2	-18%
Bicycle	2.9	4.1	1.2	40%
School / Work Bus	6.9	6.4	-0.6	-8%
Other	8.2	8.7	0.5	7%
<i>Average</i>	6.7	7.5	0.8	12%

Figure 3.9 and Table 3.3 illustrate trip length by mode for 1994 and 2005. All modes except for school/work bus and walk have experienced an increased average trip length. Car driver and car passenger modes experienced a notable increase.

## 4.0 Aggregate Trips

The number of trips made by Edmonton residents has risen from 2.25 million trips per weekday in 1994 to 2.56 million in 2005, an increase of approximately 14%. This increase is in line with the city population increase of 13%. The aggregate trip characteristics described in this section allow an assessment of the characteristics of this increase in demand and the effect on the transportation system.

### 4.1 Total Weekday Person Trips and Mode Share

Of the 2.56 million trips per weekday made by Edmonton residents, 1.98 million are made by car, a share of approximately 78%, while 220,000 are made by transit, a share of almost 9%. Figure 4.1 illustrates the mode share of all person trips in 1994 and 2005.

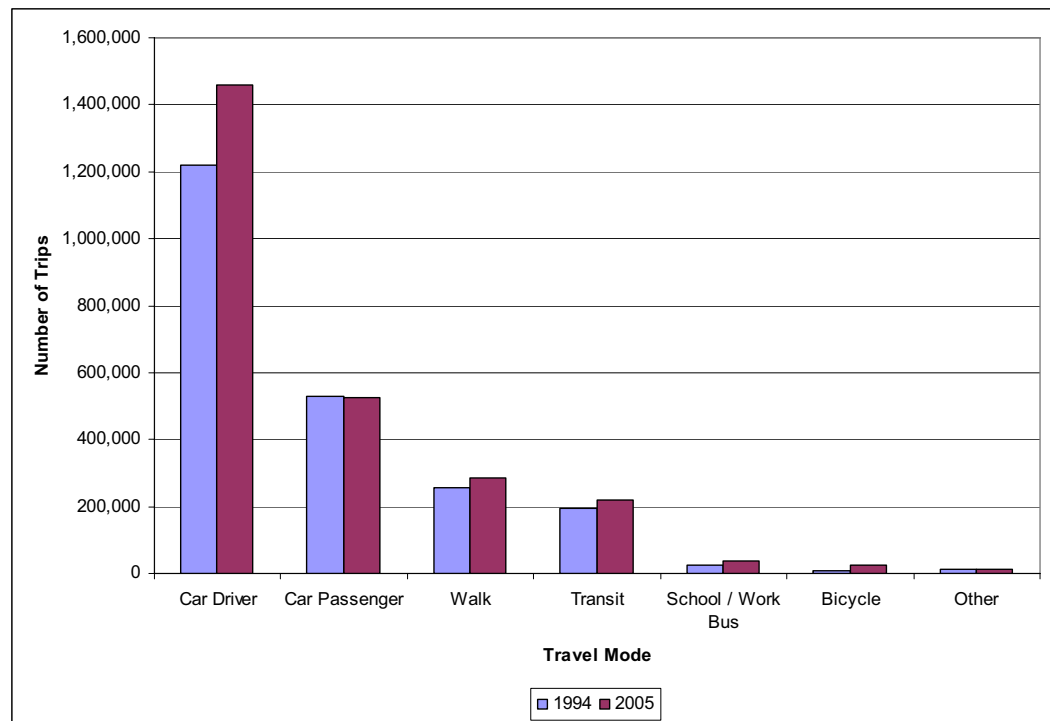


Figure 4.1: Mode Share by Number of Trips, 1994 and 2005



From Figure 4.1 the largest change in the number of trips since 1994 is by car driver, which today account for nearly 1.5 million trips per weekday made by Edmonton residents, an increase of 23% over 1994. There has also been a drop in car passengers, which can be attributed to the overall decline in household size and the relative decline in the school age population. Figure 4.2 shows the relative mode shares in terms of percent of all weekday trips.

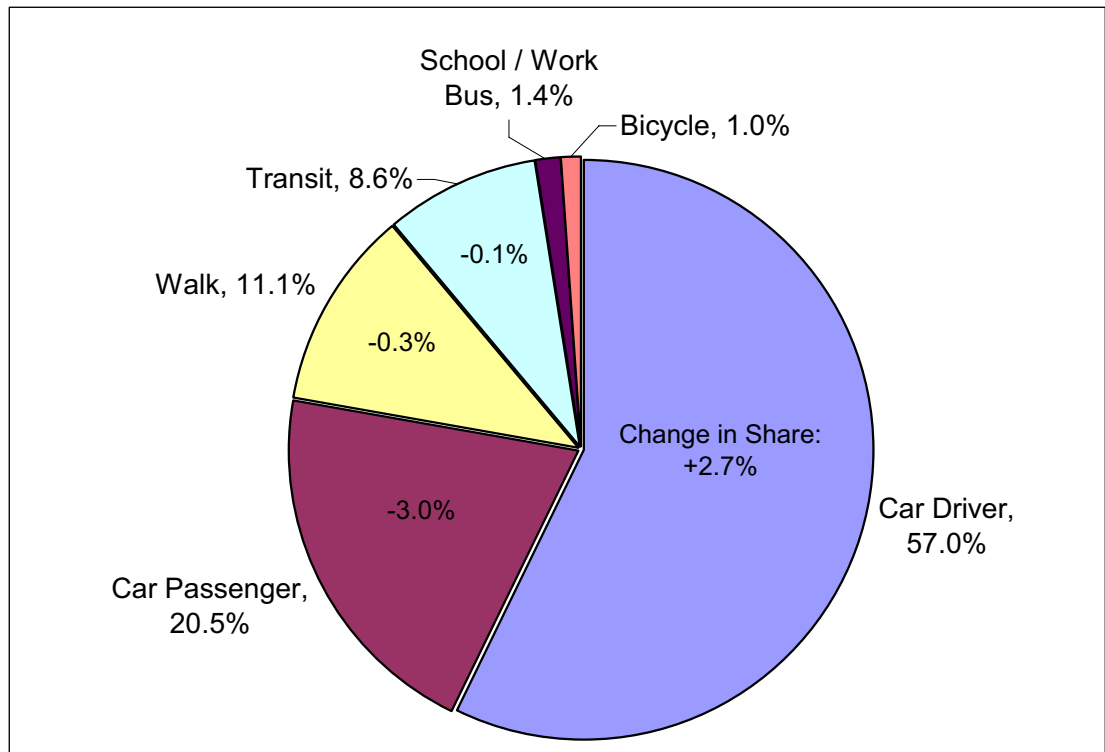


Figure 4.2: Mode Share by Percent of All Trips, 2005

Figure 4.2 illustrates percentage mode share in 2005 and the change in share since 1994. The figure shows a decrease in car passenger and a corresponding increase in car driver percentages. The overall share of car trips has remained constant at just under 78%. Transit is shown to have maintained a constant 8.6% mode share since 1994. It is therefore clear that transit is attracting new trips at a rate equal to its mode share, and proportional to the overall growth in the number of trips.

This distinction between the total number of trips and the percentages of trips also highlights the increasing demand on the transportation system: the number of daily transit trips has increased by approximately 25,000, and the number of car trips has increased by almost 240,000 since 1994.

## 4.2 Total Weekday Daily Trips by Purpose

In transportation planning it is useful to categorize trips by the purpose of travel; different trip purposes have different sensitivities to travel elements such as cost, mode use, and time constraints.

The trip purposes used in the 2005 travel survey are the same as those used in 1994. These include Home-Based Work and Home-Based School purposes. Home based trips either start or end at home. In other words, two trips, one from home to work and the other from work to home, are each counted as home-based work trips.

Table 4.1 lists the total trips by purpose in 2005 and changes from 1994 to 2005.

*Table 4.1: Weekday Daily Trips by Trip Purpose, 1994 and 2005*

<b>Purpose</b>	<b>1994 Trips</b>	<b>1994 % of Trips</b>	<b>2005 Trips</b>	<b>2005 % of Trips</b>	<b>Difference in Trips</b>	<b>% Difference</b>
HB-Work	429,000	19%	516,000	20%	87,000	20%
HB-Post-Secondary	71,000	3%	72,000	3%	1,000	1%
HB-School	241,000	11%	176,000	7%	-65,000	-27%
HB-Shopping	238,000	11%	331,000	13%	93,000	39%
HB-Social / Recreation	209,000	9%	336,000	13%	127,000	61%
HB-Personal Business	179,000	8%	147,000	6%	-32,000	-18%
HB-Pick Up / Drop Off	132,000	6%	168,000	7%	36,000	27%
HB-Other	188,000	8%	209,000	8%	21,000	11%
<b>HB-Sub-Total</b>	<b>1,687,000</b>	<b>75%</b>	<b>1,955,000</b>	<b>76%</b>	<b>268,000</b>	<b>16%</b>
Non-HB-Work	77,000	3%	141,000	6%	64,000	83%
Non-HB-Other	486,000	22%	464,000	18%	-22,000	-5%
<b>Non-HB-Sub-Total</b>	<b>563,000</b>	<b>25%</b>	<b>605,000</b>	<b>24%</b>	<b>42,000</b>	<b>7%</b>
<b>TOTAL</b>	<b>2,250,000</b>	<b>100%</b>	<b>2,559,000</b>	<b>100%</b>	<b>309,000</b>	<b>14%</b>

HB = Home-based

From Table 4.1, 20% of trips in 2005 are to and from work, and if school trips are added to work trips the total is 30%. This ratio highlights the need to plan transportation facilities considering more than just peak period trips to or from work. It is also worth noting that the Federal Census only considers the AM peak period home to work trips, and therefore lacks important information for planning and evaluation purposes that are captured by this survey.

There are several changes in trips by trip purpose since 1994. First is a shift away from home based school trips to other purposes. This is likely a result of the changing demographics and aging of the population. Personal Business trips have also decreased, perhaps reflecting growth in internet banking and other social changes. Social and recreation trips have experienced the biggest increase, followed by shopping trips. These changes might be attributed to income growth, a move towards a healthier lifestyle, and an increase in the retired population. In general, the other changes can be attributed to a number of causes including social changes, new trends, or differences in survey questions and responses.

#### **4.2.1 Weekday Mode Share by Trip Purpose**

Home to work is an important part of overall transportation demand because of the prevalence of the car driver mode and the hope of attracting commuters to transit facilities. Figure 4.3 has the home to work trips broken down by travel mode. As expected, car driver trips are the dominant mode, however a transit share of approximately 12% is higher than the overall transit share of 8.6%.

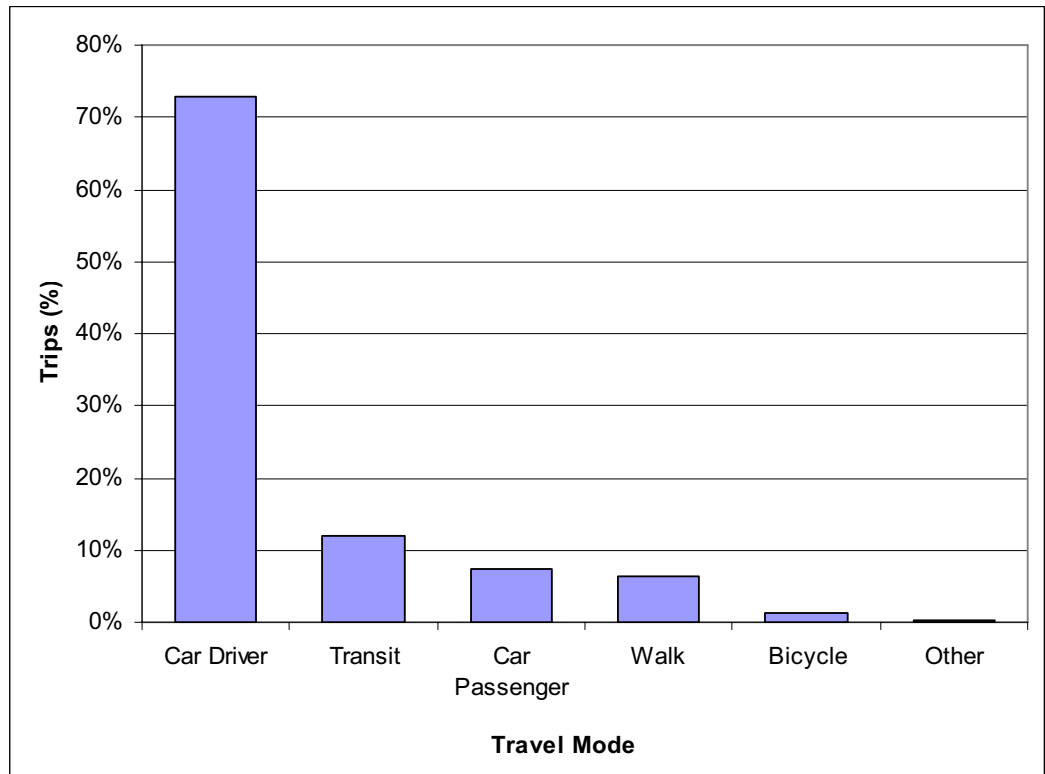


Figure 4.3: Commute to Work Mode Share, 2005

Figures 4.4 through 4.7 have mode share for travel from home to different school types. There are several patterns in the data including the proportions of trips that are passenger, walk, and transit. At elementary and junior high levels, Figures 4.4 and 4.5 confirm the trend that driving children to school has become more popular particularly given the city's open border policy on school enrolment. At a senior high school level there are nearly as many car drivers as walkers, and bicycle riding only captures a small fraction of total trips. Transit is also the most popular mode for senior high and post secondary students.

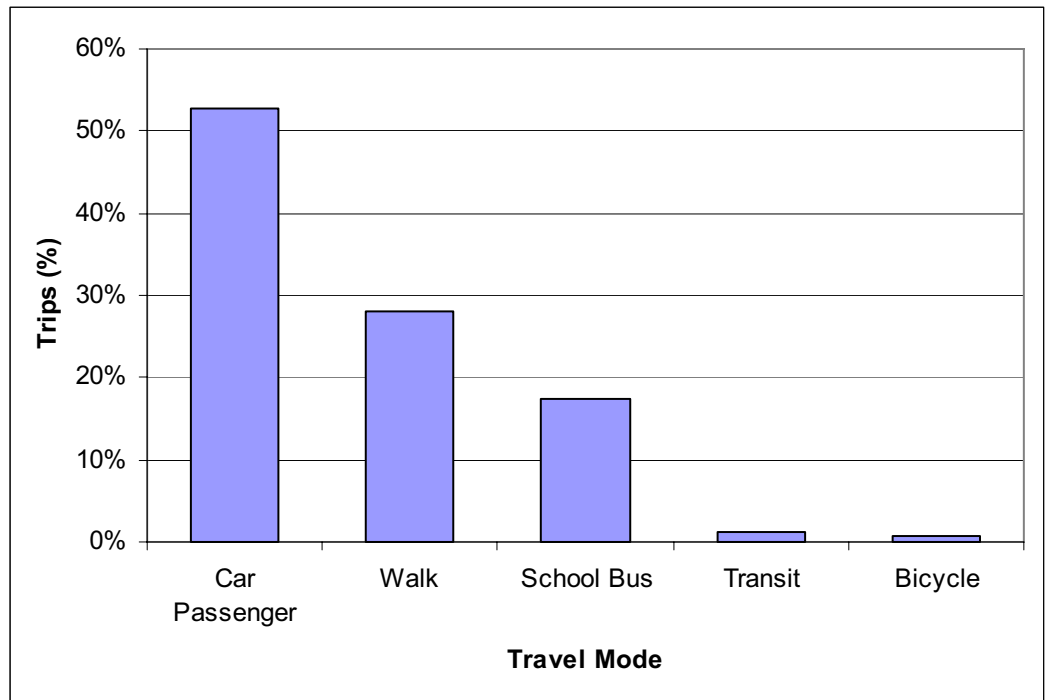


Figure 4.4: Commute to Elementary School by Mode Share, 2005

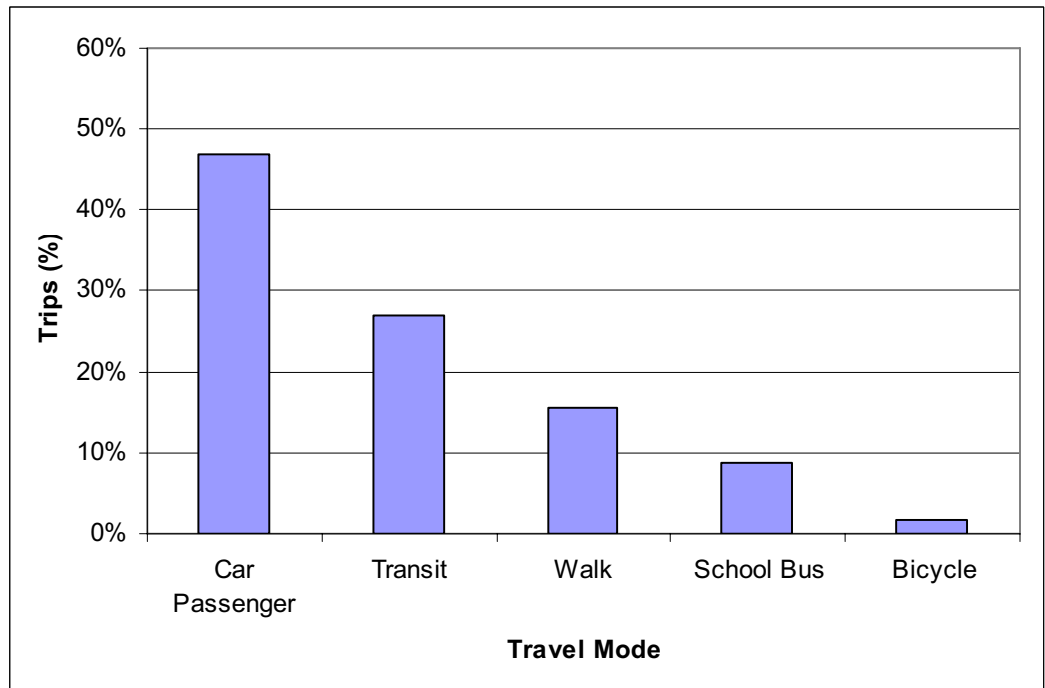


Figure 4.5: Commute to Junior High School by Mode Share, 2005

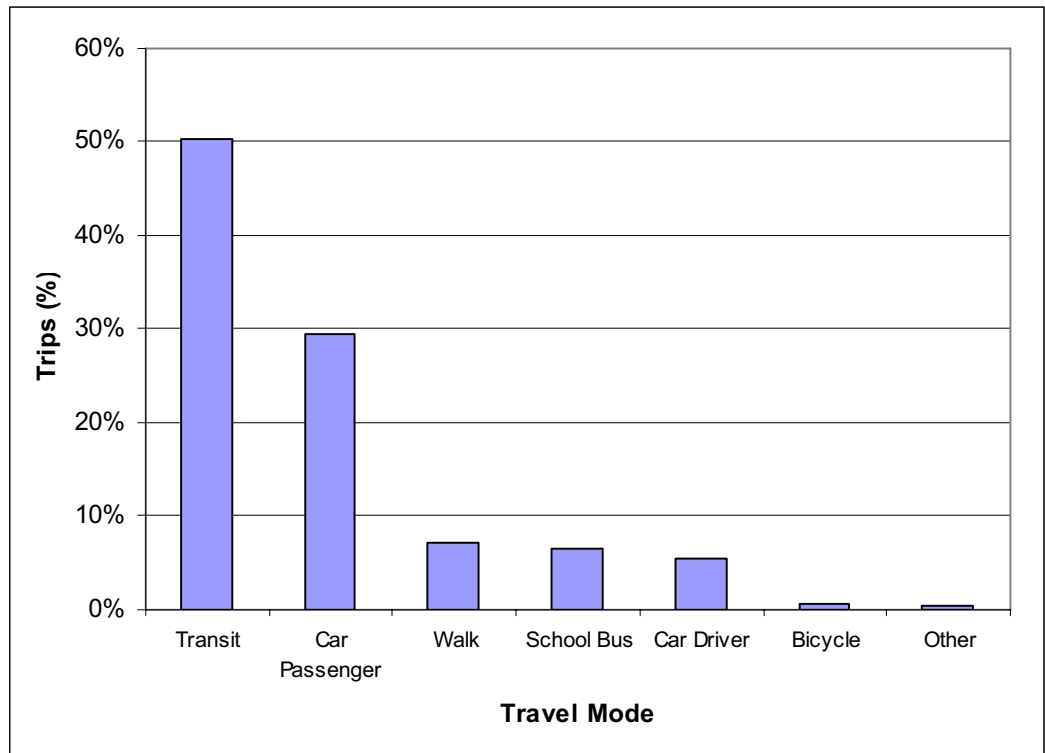


Figure 4.6: Commute to Senior High School by Mode Share, 2005

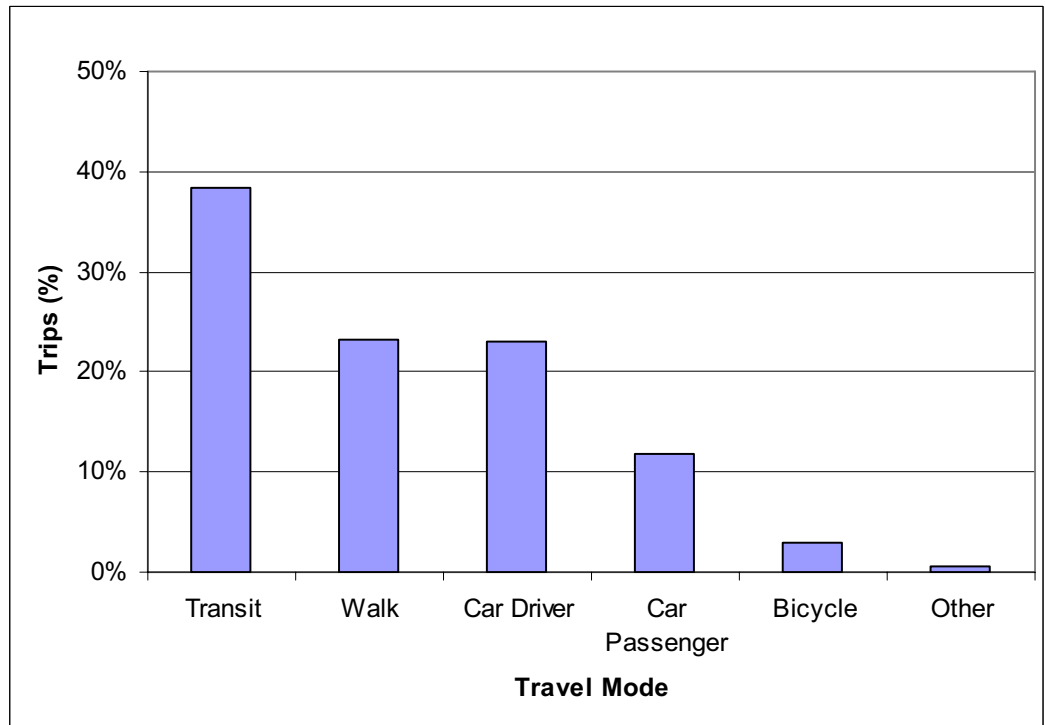


Figure 4.7: Commute to Post-Secondary School by Mode Share, 2005

### 4.3 Weekday Travel Distances

The aggregate distance traveled combines the distance traveled on trips and the number of trips. The result is the total person-km, which is an indicator of demand. Figure 4.8 has the person-km of travel by mode.

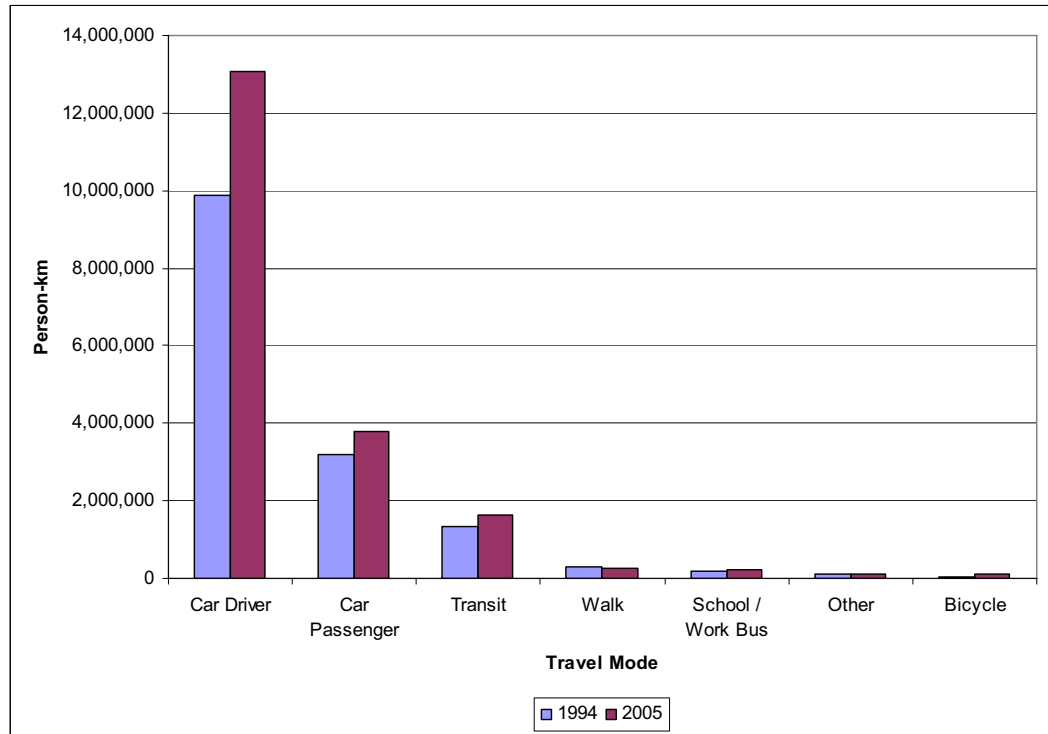


Figure 4.8: Person-km Traveled by Mode, 1994 and 2005

As shown in the above figure the person-km has increased for both car driver and transit users. In particular, the car driver person-km has risen from 9.9 million person-km in 1994 to 13.1 million person-km in 2005, an increase of over 32%. This increase illustrates how the demand on the City's roads has increased much faster than either the number of trips or the trip length when viewed independently.

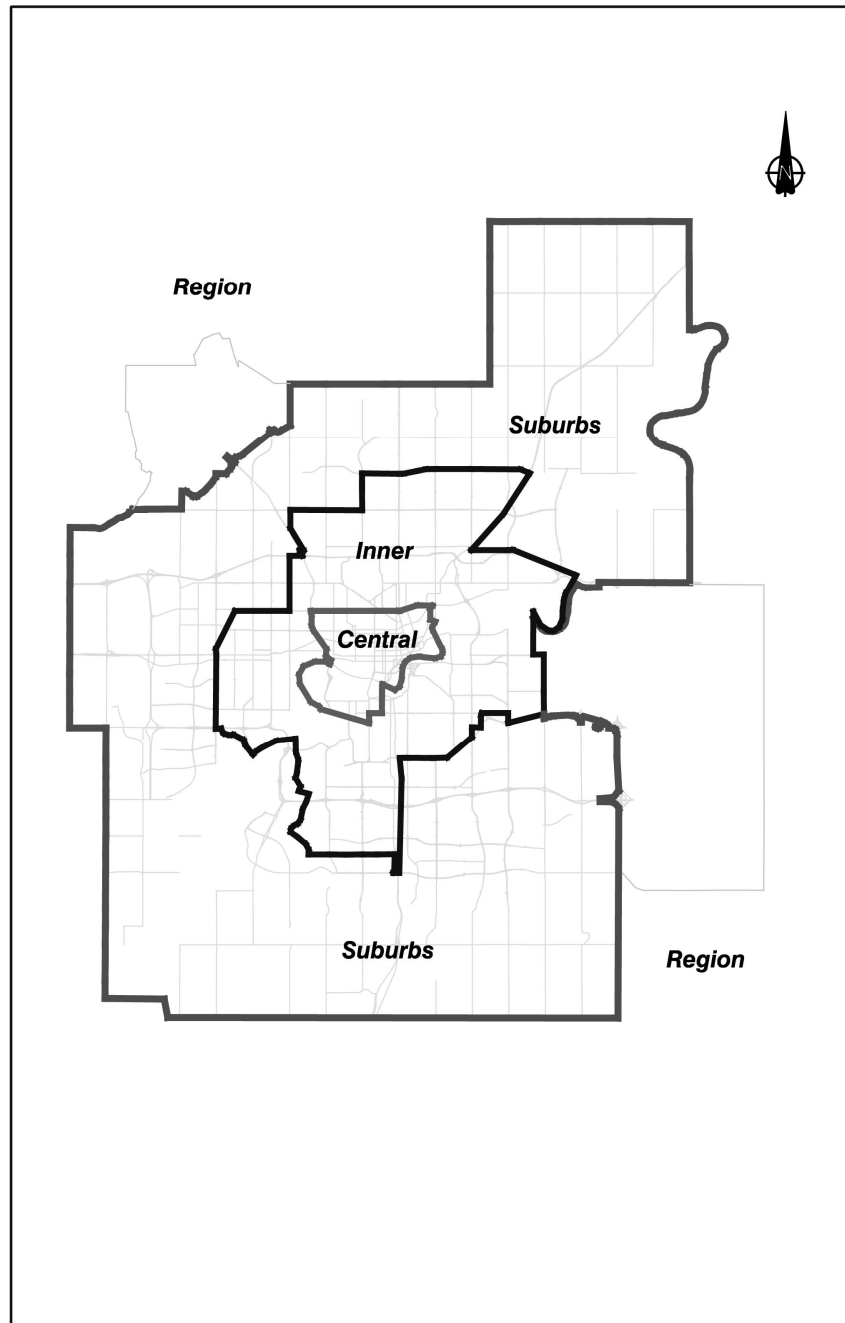
The increase for transit was from 1.3 million person-km in 1994 to 1.6 million in 2005, an increase of 23%. Walking has seen a slight decrease in person-km, perhaps reflecting the changing demographics.

In general, the increase in trip length is expected for increasing city size and development on the periphery. People in suburbs have to travel further to get to desired locations in the city, and there is a higher tendency towards car mode in these areas.



## 5.0 Weekday Travel Patterns

In the 2005 Household Travel Survey, trip origins and destinations were tracked so that area to area flows could be evaluated. For the purposes of reporting overall trends, the city and region were divided into large areas as shown in Figure 5.1.



*Figure 5.1: Four Sector Map*

The intra-regional travel (travel within and between these sectors) illustrates the impacts of suburbanization and growth on travel patterns. Figure 5.2 shows the total daily trips for 1994 and 2005 while Figure 5.3 shows the differences.

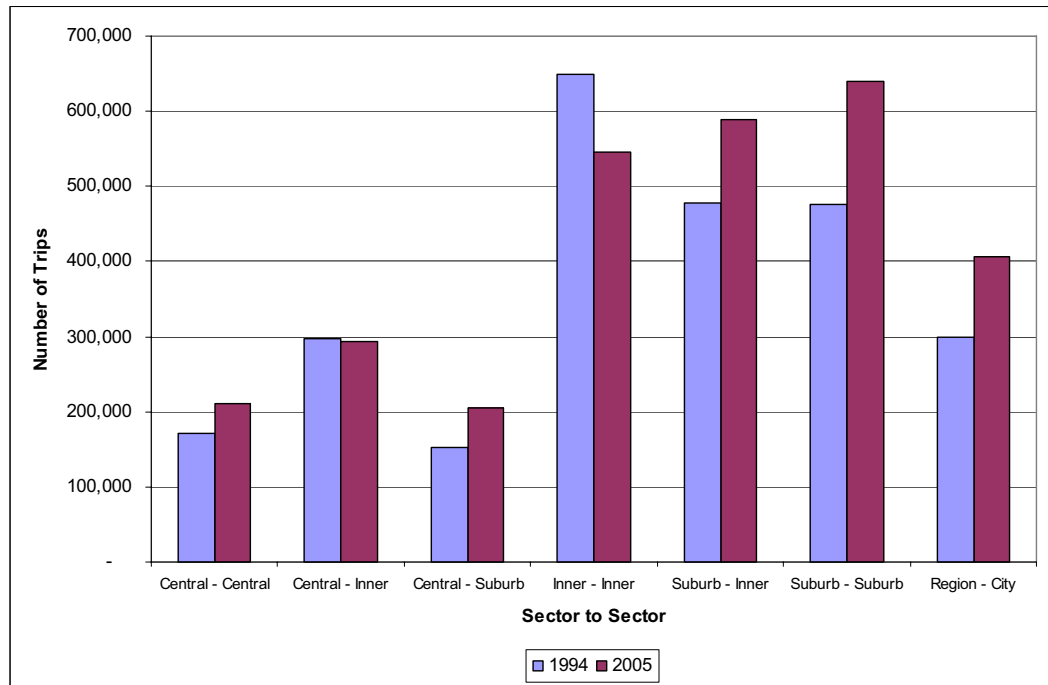


Figure 5.2: Total Daily Trips for Intra-Regional Travel, 1994 and 2005

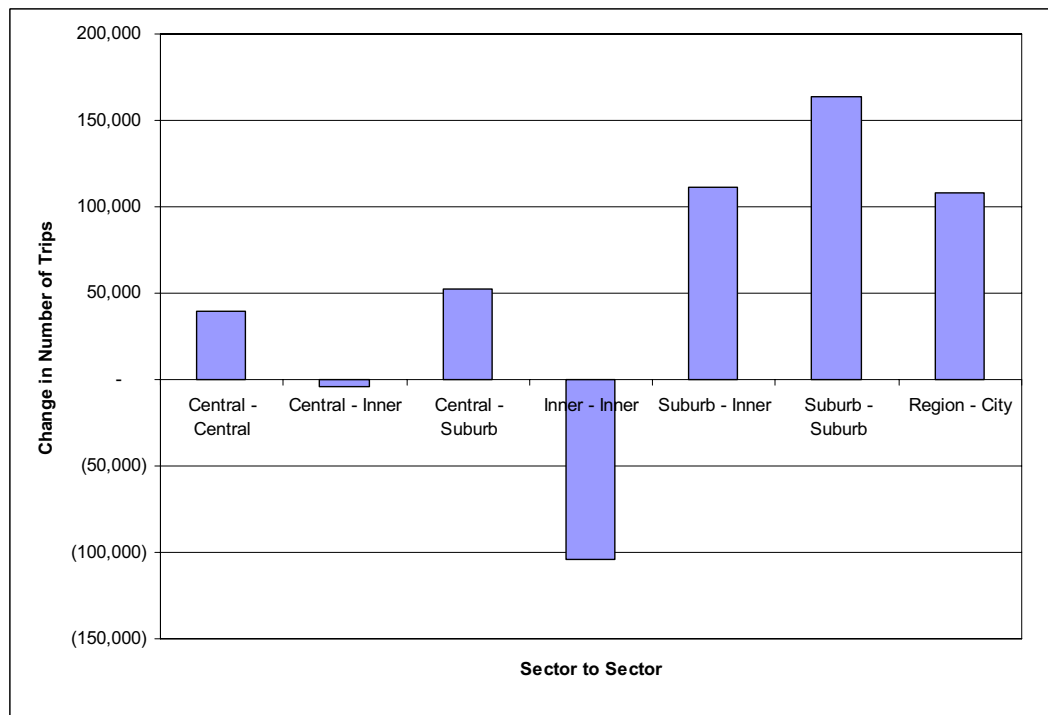


Figure 5.3: Change in Daily Trips for Intra-Regional Travel, 1994 - 2005

Figures 5.2 and 5.3 show a major trend to suburban and regional travel in the Edmonton CMA. With an overall growth of 310,000 trips per weekday in the City of Edmonton, travel to and from the suburbs has grown by approximately 330,000 trips. In other words, not only are new trips being made from and to the suburbs, but other trips which were shorter distance Inner City travel in 1994, have now redistributed to start or end in the suburbs.

Central Edmonton, consisting of the Downtown and University, has experienced a growth of approximately 95,000 trips per weekday, roughly half of which is from the suburbs and half from within the same area, which corresponds to the population growth in these areas.

There has also been a major increase in travel from the city to the region and in intra-regional travel. In particular, trips from the region to the city have increased by 110,000, while trips within the region have increased by 150,000 per weekday.

In general, these travel patterns are the expected result of the changing land uses in and around Edmonton and the demographics shown in Section 2.0. There has been notable employment growth in southeast Edmonton as well as in the northwest light industrial areas. In the region, there has been employment growth south of Edmonton, and in the counties east and northeast of the city. Residential growth has occurred in many areas, predominantly in the fringes of the city.

Figure 5.4 illustrates the car driver and transit shares for intra-regional trips in 2005. The figure demonstrates how transit is a major mode for trips to and from the Central Sectors, and used less for suburban travel.

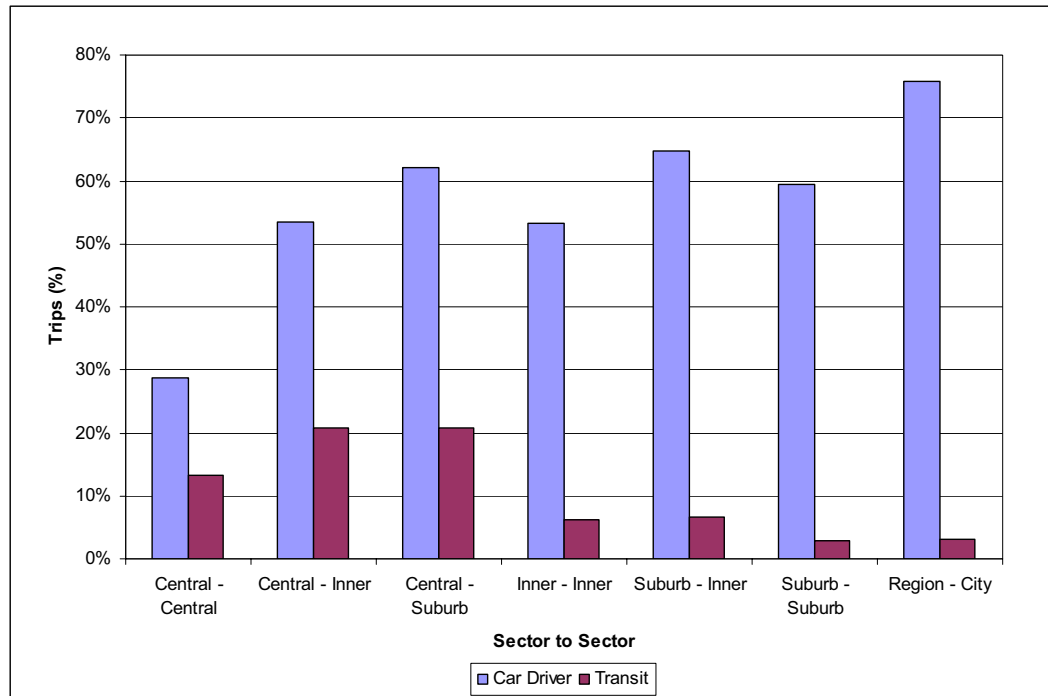


Figure 5.4: Percentage of Car Driver and Transit Trips for Intra-Regional Travel, 2005

## 5.1 Weekday Trips to Central Edmonton

It is useful to isolate the trips to Central Edmonton to show the travel patterns for commuters to the Downtown and University. Figure 5.5 is a map showing the seven sectors used, while Figure 5.6 has the total number of trips from these sectors.

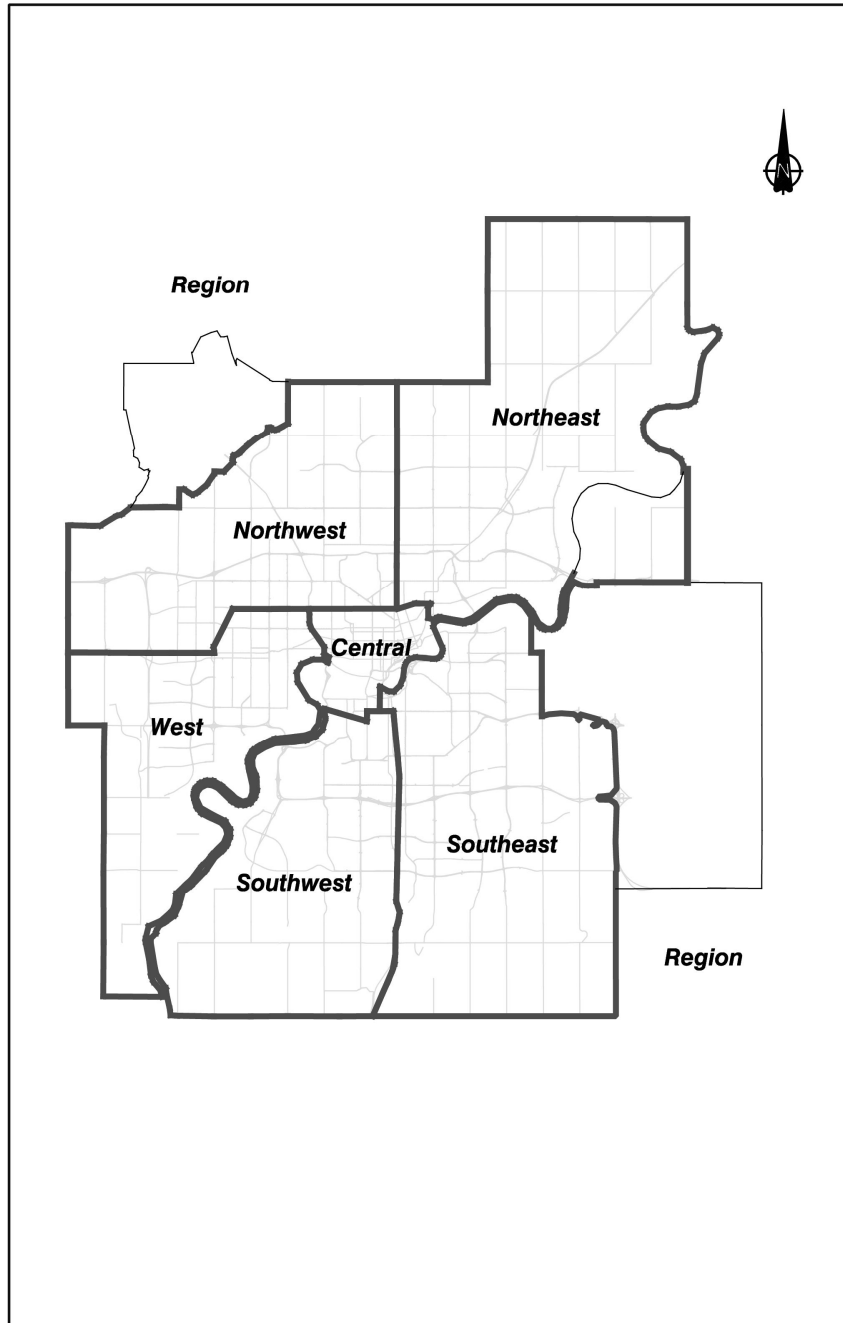


Figure 5.5: Seven Sector Map

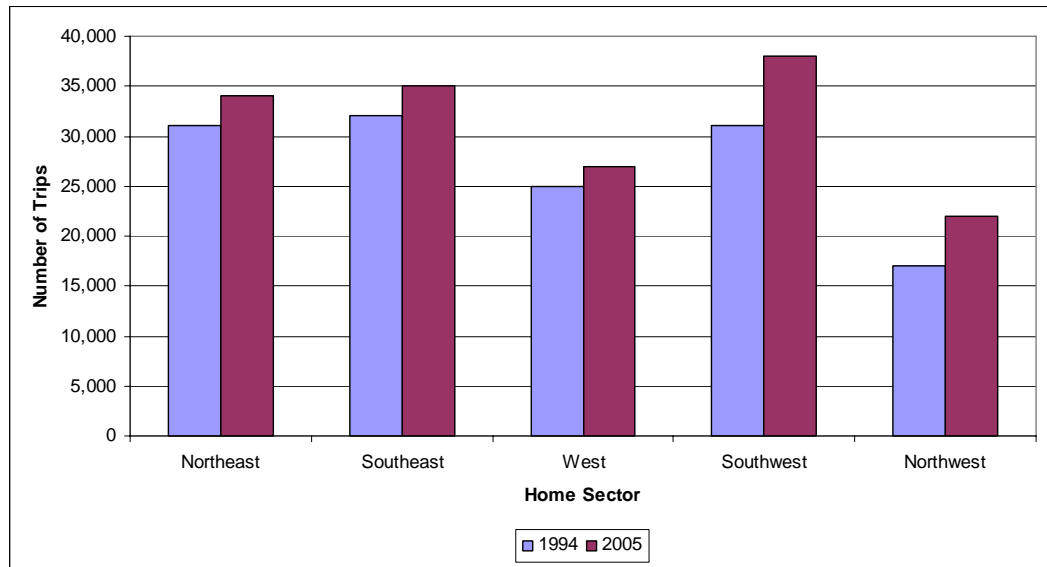


Figure 5.6: Trips to Central Edmonton from Home, 1994 and 2005

Figure 5.6 demonstrates that Southwest Edmonton now accounts for more trips to Central Edmonton than the other sectors, compared to 1994 when the Southeast accounted for the most trips. Figure 5.7 has the number of car driver and transit trips from the same sectors to Downtown.

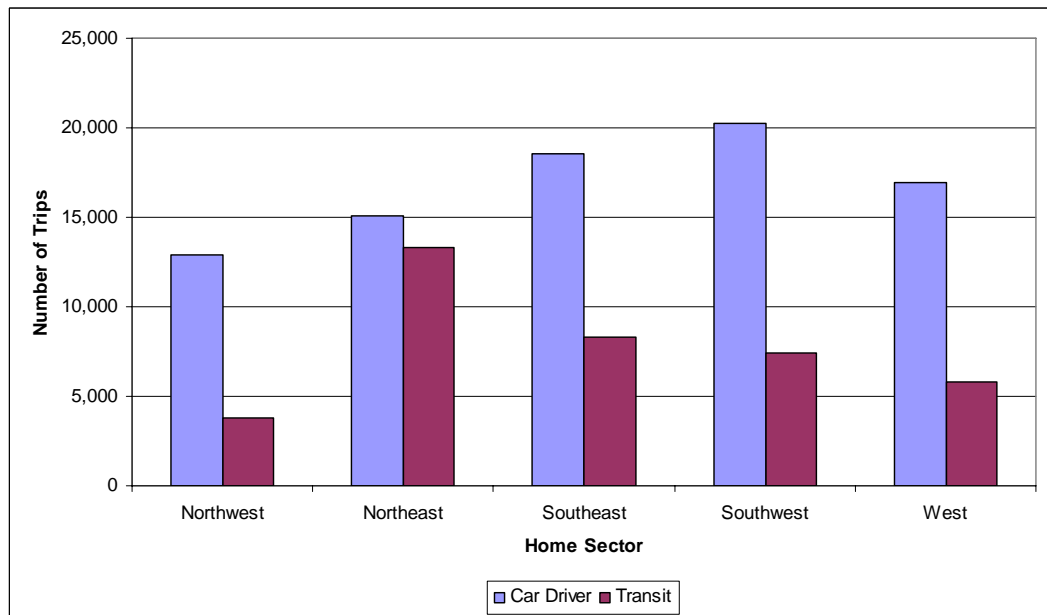


Figure 5.7: Car Driver and Transit Trips to Central Edmonton from Home, 2005

Figure 5.7 shows that the transit trips from the Northeast sector to Central Edmonton are significantly higher than other home sectors. This can be attributed to the LRT line serving northeast Edmonton. Following the Northeast, the Southeast has the highest number of transit trips, followed by the Southwest, the West, and the Northwest. The ratio between transit trips and other trips is shown in Table 5.1.

*Table 5.1: Trips to Central Edmonton from Home, 2005*

<b>From</b>	<b>2005 Trips</b>	<b>Change from 1994</b>	<b>2005 Transit Share</b>
<b>Northeast</b>	34,000	3,000	39%
<b>Southeast</b>	35,000	3,000	23%
<b>West</b>	27,000	2,000	21%
<b>Southwest</b>	38,000	7,000	20%
<b>Northwest</b>	22,000	5,000	18%

Table 5.1 illustrates that for trips to Central Edmonton from the Northeast, transit share is 39%. The Southeast quadrant has the next highest transit share at 23%.

These figures have implications for planning high speed transit, which was shown to be most applicable to travel to Central Edmonton. The potential market for high speed transit is a combination of demand for travel from an area to the Downtown and the existing number of transit users.



## 6.0 Conclusions

The 2005 Household Travel Survey provided a very rich poll of data on the travel patterns of Edmonton and area residents. The information that has been collected reveals significant changes in travel patterns and behaviours that will be assessed and applied towards transportation policies and strategies for Edmonton over the coming years.

There are a number of changes to travel patterns and behaviours that need to be highlighted as follows:

### 6.1 Growth

Part of the change in travel patterns observed can be attributed to growth. Edmonton has experienced significant population growth since the last travel survey was carried out in 1994. The majority of growth has occurred in suburban areas of Edmonton, including the Southwest (62% growth) and Northeast (47% growth) suburban areas.

While there have been slight declines in the population of the inner city sectors (a 4% to 8% decrease), the Downtown proper has grown significantly since 1994, with a population increase of almost 6,000 people in the Downtown and Downtown Fringe and 2,700 people in the University area. In total, the population of the metropolitan area has increased from 867,800 to 1,005,500, a 16% increase.

There has also been strong employment growth. Southeast Edmonton, the Northwest industrial areas, Downtown, and University have all experienced employment growth. Sherwood Park has also seen a notable increase.

### 6.2 Demographic Changes

One of the most significant areas of change since 1994 is the change in the demographic characteristics in Edmonton's population. The proportion of the population over 45 years of age has increased by 52%, a disproportionate increase

compared to the City of Edmonton's population growth of 13%. Furthermore, the population aged 15 years or less has declined in relative terms.

Household size, which is a key variable in the number of trips made in a day, has declined significantly in 13 of 15 sectors. The average household size is now 2.38 as compared to 2.56 in 1994.

A review of occupations and school status shows higher level of full time employment, greater incidence of retired people and lower levels of children in grade school.

## **6.3 Weekday Travel Changes**

### **6.3.1 Trip Rates and Demographics**

The number of trips made per weekday by a household in Edmonton has decreased from 9.2 to 8.6. This is mainly a result of the changing demographics (such as smaller household size) rather than a change in the trip rates per person, which has slightly increased from 3.61 to 3.64. Trip rates were also shown to be strongly influenced by household income and the number of cars available to the household. Also, in the 25 to 44 age category, females now make more trips per day than males do.

Demographics were shown to have an impact on mode share. Households with no car available use transit for 45% of daily trips, which drops to 5% or less for households with 2 or more cars.

Average trip lengths were also shown to be increasing. Edmonton students now travel 4.4 km on average to get to school from home versus 3.3 km in 1994. There has also been an increase in the home to work average trip length from 10.3 km to 11.0 km on average.

### **6.3.2 Weekday Aggregate Trips**

The number of trips made in Edmonton has increased from 2.25 million trips per weekday in 1994 to 2.56 million in 2005, an increase of approximately 14%. The largest change in the number of trips is by car driver, which account for nearly 1.5 million trips per day, an increase of 23% over 1994. This increase is a result of growth as well as a

mode shift from car passenger to car driver, car drivers now account for 57% of all trips in the city.

Transit mode share has remained constant at 8.6% of all trips, demonstrating that transit is attracting riders in proportion to overall growth in trips.

When trips are categorized by trip purpose, it becomes clear that trips from home to work and back are only a fraction of the travel that occurs in Edmonton. Trips for shopping and social/recreation purposes have experienced the biggest percent change since 1994, and now account for 26% of all trips, more than work trips and post-secondary trips combined.

Mode share by trip purpose is also revealing; transit is the dominant mode of travel for senior high and post secondary students, while 72% of home to work trips are by car driver.

Coupled with increased suburban travel there has been a disproportionately strong growth in vehicle-kilometres of travel. All weekday car trips account for 13.1 million person-km, an increase of 32% compared to the 9.9 million person-km driven in 1994. This illustrates how the demand on the City's roads has increased much faster than growth in population, in the number of trips, or growth in average trip length when viewed independently.

Transit is also accounting for more trips that are longer; on a weekday basis transit moves 1.6 million person-km, an increase of 23% over 1994.

### **6.3.3 Implications**

Overall, the mode share of trips between cars, transit, walking, and cycling is relatively unchanged since 1994. Car travel accounts for about 78% of all trips while transit trips account for about 9%.

Transit continues to show strength in trips oriented to the central area of the city. It is notable that the Northeast sector to Downtown has significantly more transit trips than

other sectors. The Northeast is also the only sector that has a high-speed transit service (LRT) with travel times competitive with the private car.

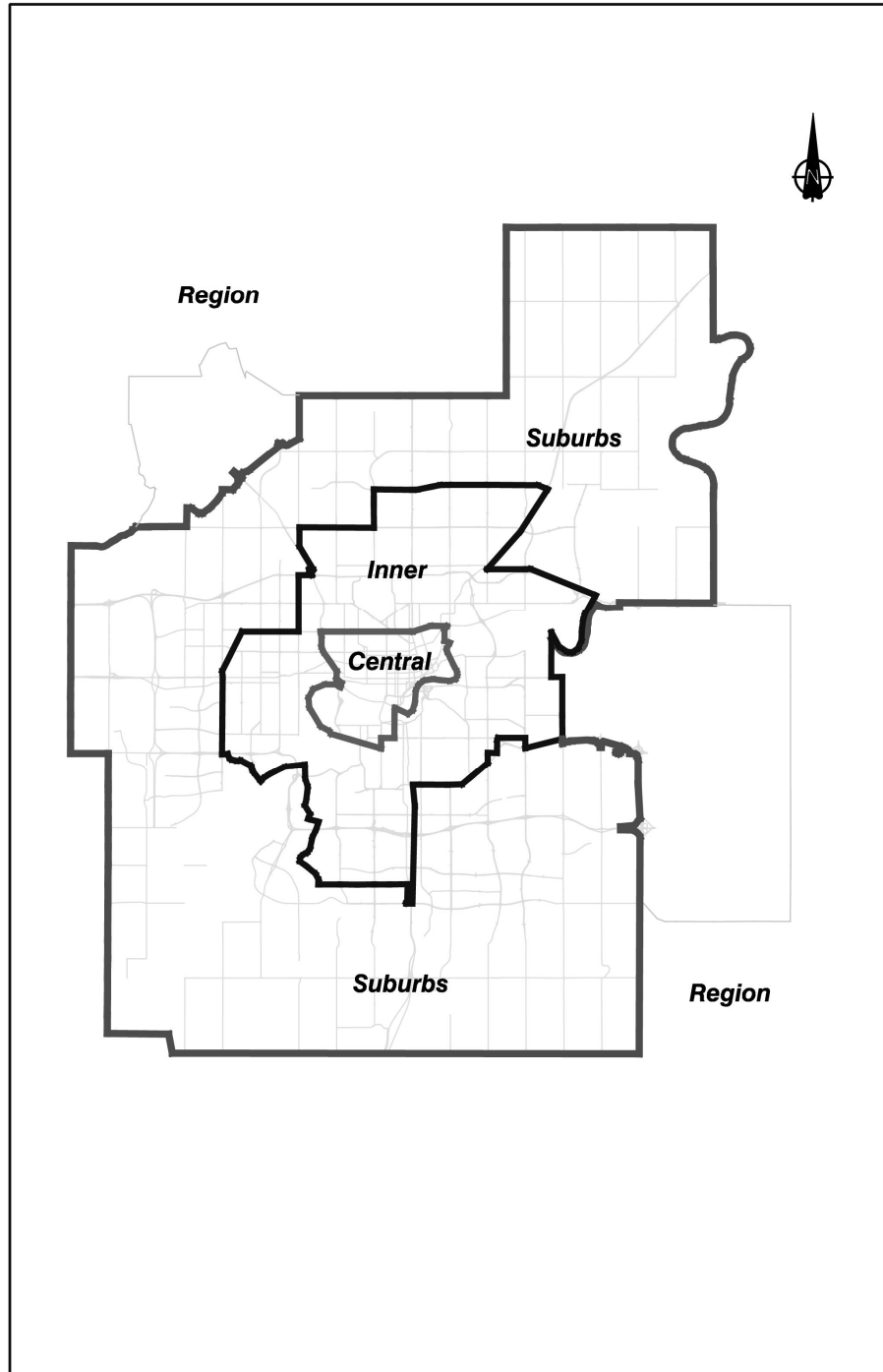
Edmonton roads are accommodating 32% more travel in 2005 compared to 1994. This has implications on the congestion levels experienced by drivers and illustrates a need to plan for traffic levels that increase faster than population growth.

The majority of growth in travel was observed for suburban origins or destinations. This has implications on the City's ring road system; growth in trips serviced by these roads is occurring much faster than the otherwise notable population growth.

Travel from the suburbs to Downtown is also increasing. All sectors of Edmonton experienced growth in the number of trips to Central Edmonton, with the Southwest experiencing the greatest increase. While the Southwest has the greatest overall demand for travel to Central Edmonton, the Southeast was identified as having a higher transit share for trips Downtown compared to other sectors, not including the Northeast.

# Appendix A

## Weekday Daily Trips, 4 Sectors



**A1: Weekday Daily Person Trips, 2005**

Sector	Central	Inner	Suburb	Region	TOTAL
Central	210,200	148,800	101,200	39,600	<b>499,800</b>
Inner	144,000	545,700	296,400	66,500	<b>1,052,600</b>
Suburb	103,100	292,600	640,000	96,700	<b>1,132,400</b>
Region	43,100	65,100	95,800	692,200	<b>896,200</b>
<b>TOTAL</b>	<b>500,400</b>	<b>1,052,200</b>	<b>1,133,400</b>	<b>895,000</b>	<b>3,581,000</b>

**A2: Weekday Daily Car Driver Trips, 2005**

Sector	Central	Inner	Suburb	Region	TOTAL
Central	60,400	79,400	62,600	29,400	<b>231,800</b>
Inner	77,500	290,200	192,500	48,900	<b>609,100</b>
Suburb	64,400	189,200	379,800	74,900	<b>708,300</b>
Region	31,700	48,600	74,500	401,300	<b>556,100</b>
<b>TOTAL</b>	<b>234,000</b>	<b>607,400</b>	<b>709,400</b>	<b>554,500</b>	<b>2,105,300</b>

**A3: Weekday Daily Transit Trips, 2005**

Sector	Central	Inner	Suburb	Region	TOTAL
Central	28,000	30,200	21,500	4,500	<b>84,200</b>
Inner	30,800	33,800	20,000	2,000	<b>86,600</b>
Suburb	20,900	19,100	17,900	300	<b>58,200</b>
Region	4,200	1,700	200	3,100	<b>9,200</b>
<b>TOTAL</b>	<b>83,900</b>	<b>84,800</b>	<b>59,600</b>	<b>9,900</b>	<b>238,200</b>

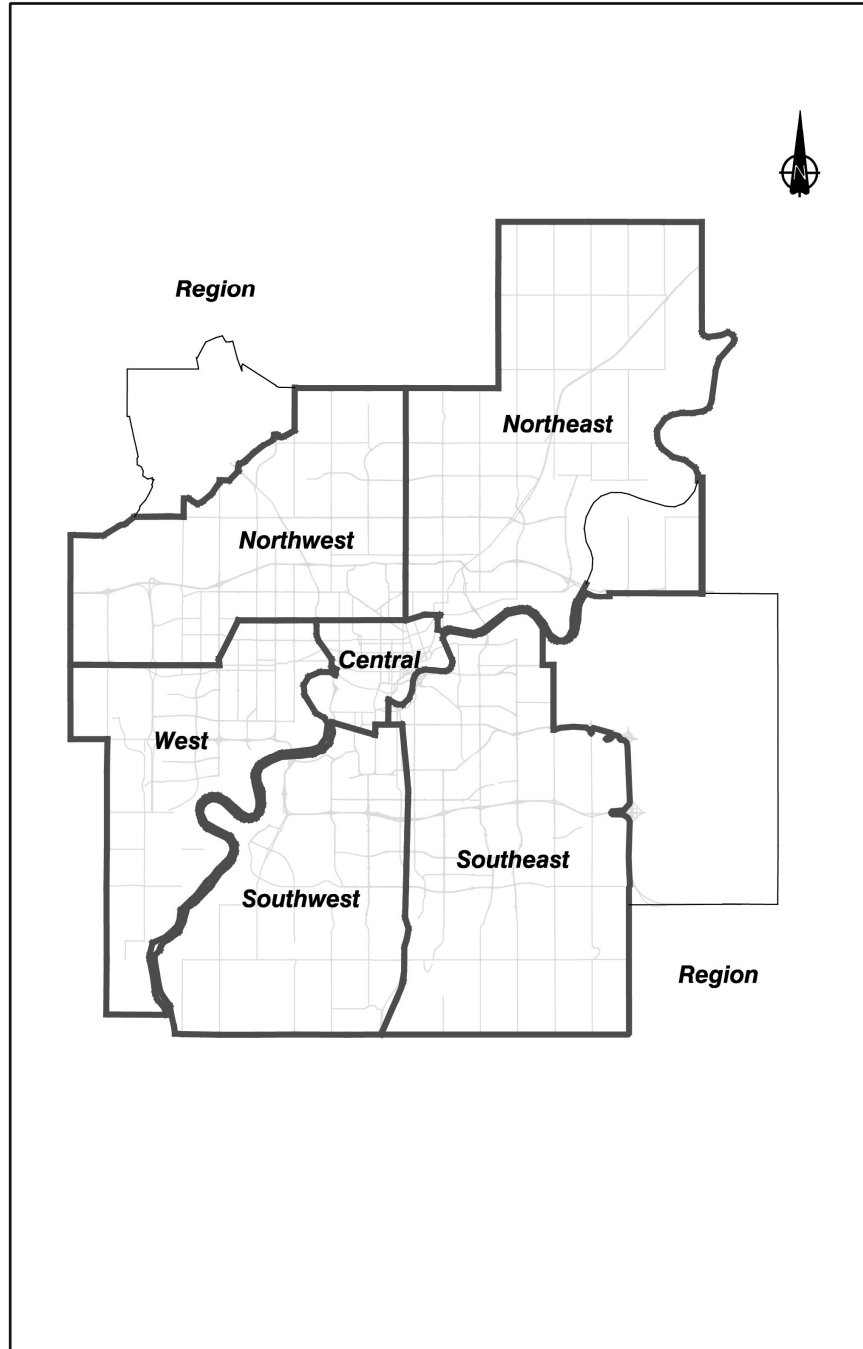
**A4: Weekday Transit Mode Split, 2005**

Sector	Central	Inner	Suburb	Region	TOTAL
Central	13%	20%	21%	11%	<b>17%</b>
Inner	21%	6%	7%	3%	<b>8%</b>
Suburb	20%	7%	3%	0%	<b>5%</b>
Region	10%	3%	0%	0%	<b>1%</b>
<b>TOTAL</b>	<b>17%</b>	<b>8%</b>	<b>5%</b>	<b>1%</b>	<b>7%</b>

# Appendix B

## Weekday Daily Trips, 7 Sectors





City of Edmonton - Transportation Department  
**Summary Report on Weekday Travel in the City of Edmonton**

**B1: Weekday Daily Trips, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	210,200	48,900	48,500	56,300	57,300	39,000	460,200	39,600	499,800
Northwest	48,000	159,900	65,600	27,600	12,800	45,300	359,200	43,100	402,300
Northeast	46,400	66,500	239,000	31,200	11,300	12,000	406,400	34,900	441,300
Southeast	58,000	25,400	33,600	332,400	65,300	20,500	535,200	45,600	580,800
Southwest	54,500	13,600	9,900	66,700	195,300	16,600	356,600	19,300	375,900
West	40,200	44,400	11,600	21,000	16,300	230,900	364,400	20,300	384,700
<b>CITY</b>	<b>457,300</b>	<b>358,700</b>	<b>408,200</b>	<b>535,200</b>	<b>358,300</b>	<b>364,300</b>	<b>2,482,000</b>	<b>202,800</b>	<b>2,684,800</b>
<b>Region</b>	<b>43,100</b>	<b>44,100</b>	<b>32,000</b>	<b>45,500</b>	<b>18,100</b>	<b>21,200</b>	<b>204,000</b>	<b>692,200</b>	<b>896,200</b>
<b>TOTAL</b>	<b>500,400</b>	<b>402,800</b>	<b>440,200</b>	<b>580,700</b>	<b>376,400</b>	<b>385,500</b>	<b>2,686,000</b>	<b>895,000</b>	<b>3,581,000</b>

**B2: Weekday Daily Car Driver Trips, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	60,400	31,700	22,600	31,200	31,500	25,000	202,400	29,400	231,800
Northwest	31,000	93,700	44,900	21,400	9,300	32,400	232,700	34,300	267,000
Northeast	22,200	44,700	128,000	20,700	7,800	7,900	231,300	25,600	256,900
Southeast	32,900	19,400	21,900	180,900	44,200	15,300	314,600	35,100	349,700
Southwest	30,100	10,600	6,700	45,100	101,700	11,200	205,400	13,700	219,100
West	25,700	32,000	8,000	15,700	11,200	117,000	209,600	15,100	224,700
<b>CITY</b>	<b>202,300</b>	<b>232,100</b>	<b>232,100</b>	<b>315,000</b>	<b>205,700</b>	<b>208,800</b>	<b>1,396,000</b>	<b>153,200</b>	<b>1,549,200</b>
<b>Region</b>	<b>31,700</b>	<b>35,700</b>	<b>23,900</b>	<b>34,100</b>	<b>13,200</b>	<b>16,200</b>	<b>154,800</b>	<b>401,300</b>	<b>556,100</b>
<b>TOTAL</b>	<b>234,000</b>	<b>267,800</b>	<b>256,000</b>	<b>349,100</b>	<b>218,900</b>	<b>225,000</b>	<b>1,550,800</b>	<b>554,500</b>	<b>2,105,300</b>

**B3: Weekday Daily Transit Trips, 2005**

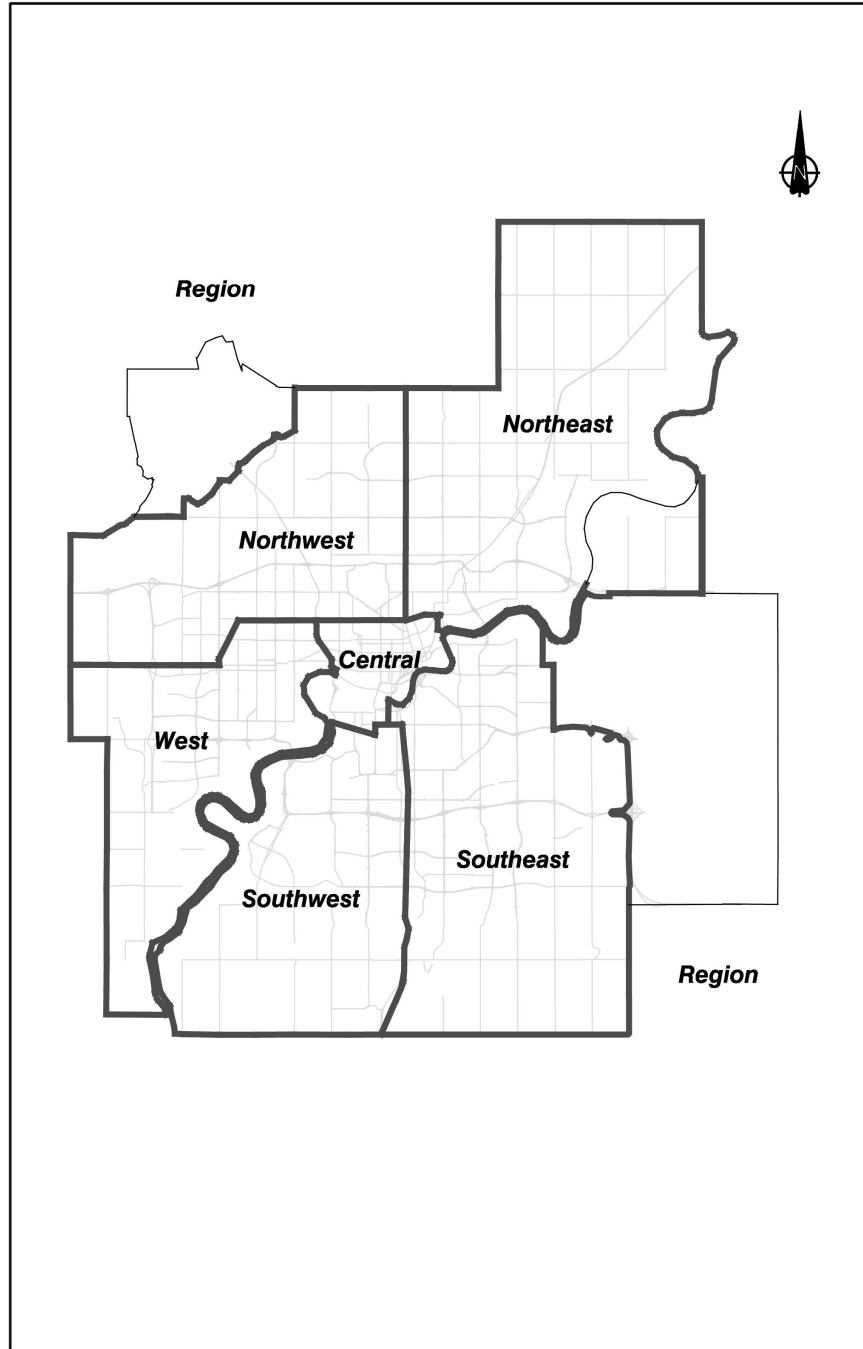
Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	28,000	6,300	18,300	10,000	10,300	6,800	79,700	4,500	84,200
Northwest	5,900	5,700	2,900	1,300	600	1,600	18,000	800	18,800
Northeast	17,100	3,000	14,600	2,800	1,200	500	39,200	700	39,900
Southeast	11,700	1,500	2,800	19,300	2,800	1,100	39,200	600	39,800
Southwest	9,700	400	1,200	3,100	8,700	700	23,800	0	23,800
West	7,300	2,400	800	1,200	600	10,000	22,300	200	22,500
<b>CITY</b>	<b>79,700</b>	<b>19,300</b>	<b>40,600</b>	<b>37,700</b>	<b>24,200</b>	<b>20,700</b>	<b>222,200</b>	<b>6,800</b>	<b>229,000</b>
<b>Region</b>	<b>4,200</b>	<b>700</b>	<b>700</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>6,100</b>	<b>3,100</b>	<b>9,200</b>
<b>TOTAL</b>	<b>83,900</b>	<b>20,000</b>	<b>41,300</b>	<b>38,200</b>	<b>24,200</b>	<b>20,700</b>	<b>228,300</b>	<b>9,900</b>	<b>238,200</b>

**B4: Weekday Transit Mode Split, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	13%	13%	38%	18%	18%	17%	17%	11%	17%
Northwest	12%	4%	4%	5%	5%	4%	5%	2%	5%
Northeast	37%	5%	6%	9%	11%	4%	10%	2%	9%
Southeast	20%	6%	8%	6%	4%	5%	7%	1%	7%
Southwest	18%	3%	12%	5%	4%	4%	7%	0%	6%
West	18%	5%	7%	6%	4%	4%	6%	1%	6%
<b>CITY</b>	<b>17%</b>	<b>5%</b>	<b>10%</b>	<b>7%</b>	<b>7%</b>	<b>6%</b>	<b>9%</b>	<b>3%</b>	<b>9%</b>
<b>Region</b>	<b>10%</b>	<b>2%</b>	<b>2%</b>	<b>1%</b>	<b>0%</b>	<b>0%</b>	<b>3%</b>	<b>0%</b>	<b>1%</b>
<b>TOTAL</b>	<b>17%</b>	<b>5%</b>	<b>9%</b>	<b>7%</b>	<b>6%</b>	<b>5%</b>	<b>8%</b>	<b>1%</b>	<b>7%</b>

# Appendix C

## Weekday Daily Trips from Home, 7 Sectors



City of Edmonton - Transportation and Streets  
**Summary Report on Weekday Travel in the City of Edmonton**

**C1: Weekday Daily Trips FROM Home, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	52,900	12,700	3,700	8,000	5,200	4,400	<b>86,900</b>	2,800	<b>89,700</b>
Northwest	21,700	55,300	17,200	8,300	1,800	7,700	<b>112,000</b>	8,200	<b>120,200</b>
Northeast	34,000	35,000	94,000	17,800	7,100	5,100	<b>193,000</b>	13,200	<b>206,200</b>
Southeast	35,400	12,200	7,900	123,400	20,300	6,000	<b>205,200</b>	12,300	<b>217,500</b>
Southwest	37,900	8,000	2,400	23,900	75,800	7,200	<b>155,200</b>	5,700	<b>160,900</b>
West	27,300	24,600	3,700	11,300	6,200	90,900	<b>164,000</b>	6,600	<b>170,600</b>
<b>CITY</b>	<b>209,200</b>	<b>147,800</b>	<b>128,900</b>	<b>192,700</b>	<b>116,400</b>	<b>121,300</b>	<b>916,300</b>	<b>48,800</b>	<b>965,100</b>
<b>Region</b>	<b>32,700</b>	<b>28,000</b>	<b>13,900</b>	<b>23,900</b>	<b>8,800</b>	<b>10,100</b>	<b>117,400</b>	<b>283,800</b>	<b>401,200</b>
<b>TOTAL</b>	<b>241,900</b>	<b>175,800</b>	<b>142,800</b>	<b>216,600</b>	<b>125,200</b>	<b>131,400</b>	<b>1,033,700</b>	<b>332,600</b>	<b>1,366,300</b>

**C2: Weekday Daily Car Trips FROM Home, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	11,800	8,400	2,000	5,200	3,200	2,500	<b>33,100</b>	2,300	<b>35,400</b>
Northwest	12,900	29,000	11,100	6,100	1,400	4,300	<b>64,800</b>	6,300	<b>71,100</b>
Northeast	15,100	23,000	45,400	12,000	4,700	3,400	<b>103,600</b>	10,500	<b>114,100</b>
Southeast	18,500	9,500	5,300	61,500	13,300	4,200	<b>112,300</b>	9,200	<b>121,500</b>
Southwest	20,300	6,000	1,600	16,200	35,100	4,900	<b>84,100</b>	4,700	<b>88,800</b>
West	16,900	18,600	2,100	8,900	4,300	42,000	<b>92,800</b>	5,100	<b>97,900</b>
<b>CITY</b>	<b>95,500</b>	<b>94,500</b>	<b>67,500</b>	<b>109,900</b>	<b>62,000</b>	<b>61,300</b>	<b>490,700</b>	<b>38,100</b>	<b>528,800</b>
<b>Region</b>	<b>24,500</b>	<b>23,200</b>	<b>9,700</b>	<b>18,400</b>	<b>6,000</b>	<b>7,500</b>	<b>89,300</b>	<b>156,400</b>	<b>245,700</b>
<b>TOTAL</b>	<b>120,000</b>	<b>117,700</b>	<b>77,200</b>	<b>128,300</b>	<b>68,000</b>	<b>68,800</b>	<b>580,000</b>	<b>194,500</b>	<b>774,500</b>

**C3: Weekday Daily Transit Trips FROM Home, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	10,400	1,600	1,100	1,000	500	600	<b>15,200</b>	0	<b>15,200</b>
Northwest	3,800	2,600	900	600	0	400	<b>8,300</b>	0	<b>8,300</b>
Northeast	13,300	1,800	6,500	2,000	1,000	100	<b>24,700</b>	500	<b>25,200</b>
Southeast	8,300	800	200	8,400	700	400	<b>18,800</b>	200	<b>19,000</b>
Southwest	7,400	400	400	1,700	3,700	200	<b>13,800</b>	0	<b>13,800</b>
West	5,800	1,600	600	600	300	4,200	<b>13,100</b>	0	<b>13,100</b>
<b>CITY</b>	<b>49,000</b>	<b>8,800</b>	<b>9,700</b>	<b>14,300</b>	<b>6,200</b>	<b>5,900</b>	<b>93,900</b>	<b>700</b>	<b>94,600</b>
<b>Region</b>	<b>3,500</b>	<b>600</b>	<b>200</b>	<b>200</b>	<b>0</b>	<b>100</b>	<b>4,600</b>	<b>1,300</b>	<b>5,900</b>
<b>TOTAL</b>	<b>52,500</b>	<b>9,400</b>	<b>9,900</b>	<b>14,500</b>	<b>6,200</b>	<b>6,000</b>	<b>98,500</b>	<b>2,000</b>	<b>100,500</b>

**C4: Weekday Transit Mode Split FROM Home, 2005**

Sector	Central	Northwest	Northeast	Southeast	Southwest	West	CITY	Region	TOTAL
Central	20%	13%	30%	13%	10%	14%	<b>17%</b>	0%	<b>17%</b>
Northwest	18%	5%	5%	7%	0%	5%	<b>7%</b>	0%	<b>7%</b>
Northeast	39%	5%	7%	11%	14%	2%	<b>13%</b>	4%	<b>12%</b>
Southeast	23%	7%	3%	7%	3%	7%	<b>9%</b>	2%	<b>9%</b>
Southwest	20%	5%	17%	7%	5%	3%	<b>9%</b>	0%	<b>9%</b>
West	21%	7%	16%	5%	5%	5%	<b>8%</b>	0%	<b>8%</b>
<b>CITY</b>	<b>23%</b>	<b>6%</b>	<b>8%</b>	<b>7%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>	<b>1%</b>	<b>10%</b>
<b>Region</b>	<b>11%</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>	<b>4%</b>	<b>0%</b>	<b>1%</b>
<b>TOTAL</b>	<b>22%</b>	<b>5%</b>	<b>7%</b>	<b>7%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>	<b>1%</b>	<b>7%</b>