

# 2006 TRANSPORTATION TOMORROW SURVEY CITY OF HAMILTON SUMMARY BY WARDS



# datamanagementgroup

DEPARTMENT OF CIVIL ENGINEERING UNIVERSITY OF TORONTO

# 2006 TRANSPORTATION TOMORROW SURVEY CITY OF HAMILTON SUMMARY BY WARDS

Prepared for the Transportation Information Steering Committee

by the

Data Management Group Department of Civil Engineering University of Toronto July 2009

### **ACKNOWLEDGMENTS**

The 2006 Transportation Tomorrow Survey (TTS) was conducted on behalf of 21 local, regional, provincial and transit operating agencies in the Greater Toronto and surrounding areas. The members of the TTS Survey Technical Committee are represented by the following agencies:

City of Barrie	GO Transit
City of Brantford	Ministry of
City of Guelph	Regional M
City of Hamilton	Regional M
City of Kawartha Lakes	Regional M
City of Peterborough	Regional M
City of Toronto	Regional M
County of Dufferin	Regional M
County of Peterborough	Toronto Tra
County of Simcoe	Town of Or
County of Wellington	

GO Transit Ministry of Transportation Ontario Regional Municipality of Durham Regional Municipality of Halton Regional Municipality of Niagara Regional Municipality of Peel Regional Municipality of Waterloo Regional Municipality of York Toronto Transit Commission Town of Orangeville

This report was prepared for the Transportation Information Steering Committee (TISC) by the Data Management Group (DMG) at the Department of Civil Engineering, University of Toronto. The Steering Committee, formerly known as the Toronto Area Transportation Planning Data Collection Steering Committee (TATPDCSC), which also conducted the 1986, 1991, 1996 and 2001 TTS, is represented by the Ontario Ministry of Transportation, Cities of Toronto and Hamilton, Regional Municipalities of Durham, Halton, Peel and York, GO Transit and the Toronto Transit Commission. The contributions of the above supporting agencies to the production of this report and to the ongoing work of the DMG are gratefully acknowledged.

# **FURTHER INFORMATION**

The Transportation Tomorrow Surveys (TTS) are parts of an ongoing data collection program by the Transportation Information Steering Committee (TISC). The survey data (2006, 2001, 1996, 1991 and 1986) are currently under the care of the Data Management Group. This group is responsible for maintaining the TTS databases and making available appropriate travel information for any urban transportation study in the area. Requests for information from the TTS, or enquiries related to the contents of this report, should be directed to the address below.

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A list of other TTS publications and technical reports is included in this report.

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### BACKGROUND

The 2006 Transportation Tomorrow Survey (TTS) is the largest and most comprehensive travel survey ever conducted in Ontario or perhaps anywhere in North America. The 2006 survey is the fifth in a series of surveys conducted every five years in the Greater Toronto and Hamilton Area (GTHA). The TTS contains detailed demographic information on all members of a surveyed household and a ledger of travel information over an entire weekday.

The first Transportation Tomorrow Survey, conducted in 1986, collected information for more than 61,700 households in the GTHA. It was the most comprehensive travel survey in the Toronto area since the 1964 Home Interview Survey for the Metropolitan Toronto (now City of Toronto) and Region Transportation Study (MTARTS).

The 1991 TTS was an update of the 1986 survey data. Approximately 22,300 households in the GTHA and 2,200 households at the fringe of the GTHA were successfully interviewed. The survey captured the travel condition in the GTHA after five years of active changes, with particular emphasis on areas that experienced rapid population growth between 1986 and 1991. The 1991 survey data provided a clear measure of global trends on urban travel characteristics. One of the most significant observations was the shift of urban population and employment growth from the City of Toronto to the surrounding regions and its impact on travel demands and modal choice.

In 1996, municipalities adjacent to the GTHA were invited to participate in the TTS survey. Ten municipalities elected to be included, expanding the survey area to cover a large part of south central Ontario. The resulting survey now involved co-operation from sixteen local and regional governments, two transit operators and one provincial ministry. Based on Census information, the survey area covered 60% of Ontario's total population. Altogether 115,200 households, or five percent of all households in the survey area, were successfully interviewed. The survey provided sample information on an estimated 13 million daily trips in the survey area.

The 2001 TTS survey covered much of the same area as the 1996 survey excluding the Regional Municipality of Waterloo whilst expanding some other counties outside of the GTHA. The survey again involved the co-operation from sixteen local and regional governments, two transit operators and one provincial ministry. Altogether approximately 137,000 households were successfully interviewed. The survey provided sample information on an estimated 14 million daily trips in the survey area.

The 2006 TTS covered all of the area involved in the 2001 survey plus the Regional Municipality of Waterloo, which had previously been surveyed in 1996 but not 2001, and an additional two new areas, the City of Brantford and the County of Dufferin, which had not been covered in any previous surveys. The survey involved co-operation from 19 local and regional governments, two transit operators and one provincial ministry. Altogether approximately 149,000 households were successfully interviewed. The survey provides sample information on an estimated 16.5 million daily trips in the survey area.

Unlike data sources such as regular traffic counts which measure the change in magnitude of travel demand, the TTS provides information on the characteristics of these changes. As a transportation time series database, the TTS enables analysis on how factors such as flexible work hour programs, relocation of manufacturing employment, increasing female participation in the labour force, and aging population influence how people travel, how often and the purpose of their trips.

In addition to providing time series travel information for the GTHA, the 2006 data is useful in identifying the dynamic and increasing socio-economic influences between the GTHA and its surrounding regions.

### PURPOSE OF THIS REPORT

The purpose of this report is to summarize the 2006 Transportation Tomorrow Survey data at the local ward boundary level for the City of Hamilton. The summary is presented in tabular and graphic formats at different levels of detail, namely the entire Greater Toronto and Hamilton Area, the City of Hamilton and its wards. The information presented includes socio-demographic and travel characteristics. In addition to presenting the magnitude of the trips coming into and leaving an area, the summary tables and figures also describe travel characteristics such as travel purpose, trip start time, travel distance and travel mode choice.

The information presented in this report is based on Version 1.0 of the 2006 TTS database. For more historical TTS data, please refer to the fourth and fifth reports of the 2006 TTS Transportation Tomorrow Survey Series respectively entitled 2006, 2001 & 1996 Travel Survey Summaries and the 2006, 2001, 1996 and 1986 Travel Survey Summaries for the Greater Toronto and Hamilton Area and the series of 2001 TTS Ward Reports.

### **DESIGN AND CONDUCT OF THE SURVEYS**

The 2006 TTS, with approximately 149,000 household interviews, is one of the largest surveys ever undertaken anywhere. The 2006 survey covered a great part of south central Ontario and consisted of the Cities of Toronto (formerly Metropolitan Toronto), Hamilton (formerly the Regional Municipality of Hamilton-Wentworth), Barrie, Brantford, Guelph, Kawartha Lakes (formerly County of Victoria), Peterborough, the Regional Municipalities of Durham, Halton, Niagara, Peel, Waterloo and York, the Town of Orangeville, the County of Simcoe and partial coverage of Peterborough and Wellington. In order to provide continuous coverage in the area surveyed, Brant County was surveyed during the training of interview staff.

The 2006 TTS was completed over two time periods. Areas external to the Greater Toronto and Hamilton Area (GTHA) were surveyed in the fall of 2005 and the Greater Toronto and Hamilton Area was surveyed in the fall of 2006.

A random sample of households in the study area was selected from Bell Canada's files containing information on residential subscribers. The Bell files contain the name, address and telephone number of households listed in the telephone directory. Households with unlisted telephone numbers were not included in the sample of five percent of the households in the study area. The actual sampling rate in each Forward Sortation Area (defined by the first three characters of the postal code) was reviewed to ensure an even distribution of samples across the study area.

An advance letter was mailed to the sample household before the actual interview took place. The purpose was to introduce the survey, outline the survey process and impress upon the household the legitimacy and importance of information that would be collected in the interview.

Interviewers telephoned each sample household to collect travel information for the preceding day and recorded the data directly on computer files using a direct data entry software package. As the information was entered, the program carried out spelling checks on street names, validation checks on transit route information and checks on the consistency and completeness of the information. The sample rates were monitored daily by sample control software to ensure even

coverage of the study area during the survey period. The locations of households, places of work and school, trip origins and destinations were coded to a geographic reference system.

Geographic coding enables the survey results to be studied at aggregate levels which are both flexible and accurate.

In the City of Hamilton, approximately 10,000 households were interviewed in the 2006 survey. With the 2006 Census count of approximately 194,000 households, the survey achieved its target of a five percent sample rate.

Detailed documentation of the planning and implementation of the 2006 survey is contained in the 2006 Transportation Tomorrow Survey report: Design and Conduct of the Survey. The sampling procedure for this survey is described in the 2006 TTS working paper: Data Expansion.

### **INFORMATION COLLECTED**

Through the years, the TTS has collected demographic and travel information. Demographic data were collected for the household and each member of the household. Travel information was usually for the weekday just prior to the day of the interview. The 2006 database may be summarized as follows:

### **Demographic Information**

- Household Characteristics
  - Location of residence
  - Dwelling unit type
  - Number of persons living in the household
  - Number of vehicles available for personal use
- Person Characteristics
  - Age

- Gender
- Employment and student status
- Possession of a driver's licence
- Possession of Transit pass
- Location of usual place of work
- Location of usual place of school
- School Name
- Availability of free parking at usual place of work
- Occupation Type
- Whether or not person worked at home on the trip day (only asked if a person employed full time outside the home did not make a work trip on the survey day)

# Travel Information

- Nature of trip
  - Start time
  - Purpose of trip
  - Origin and destination points
- Means of travel
  - Travel mode
  - Detailed transit routes including boarding and alighting stations for all GO Train and subway trips

A trip is defined as a one-way movement between two locations for a single purpose. For example, a trip may be made to work, to serve the needs of a passenger, or to return home. The survey collected information on all persons of age 11 or older over a 24-hour period. To reflect travel activities on an average work day, only trips made on Monday to Friday were recorded. The survey results indicate an approximate equal coverage of trips on each of the five weekdays.

All children between the ages of 6 and 11 were assumed to be full time students.

A comprehensive description of the contents and structures of the 2006 TTS database is contained in the 2006 TTS report entitled Data Guide Version 1.0.

# SAMPLE EXPANSION METHODS

There were approximately 112,500 households in the GTHA and 37,100 households outside of the GTHA successfully interviewed in the 2006 TTS. Based on the 2006 Census, there were 2,160,100 households in the GTHA and 711,200 households in the remaining survey area. Therefore, the target of a five percent sample was achieved for the entire survey area.

The initial sample selection and sample control process were based on Forward Sortation Areas (FSAs) - the first three characters of the postal code. Expansion factors were applied to the data at the FSA level. Within most FSAs, according to past experience, apartment buildings are under-represented in TTS. Hence, a higher sampling rate for apartments was used. Unlike the 2001 TTS, no differential expansion process was used for apartments.

Institutions such as retirement homes and reformatories were not included in the survey. As a result, the overall population count for the GTHA by TTS is 3.1% less than that reported by Census.

The sample expansion procedures are described in detail in the third report of the 2006 TTS working paper series entitled Data Expansion.

# **QUALITY OF THE DATA**

Analysis of the 2006 survey data indicates that the quality of the data is consistent with that from the previous surveys and can be used with confidence. Peak period travel corresponds with the 2006 Cordon Count data and transit trips are comparable to the ridership data provided by transit agencies.

As in previous surveys, population was under-represented by the 2006 TTS as compared to the Census data. The under-representation in infants and elderly persons is likely to be contributed by the exclusion of collective homes such as hospitals and nursing homes from the survey. There is also an under-representation of people aged 18 to 27. This can be attributed to the timing and definition of the survey relative to the census and its effect on post-secondary school students. The growing use of cell phone in place of land lines in this age group might also be accountable for the under-representation.

For further discussion on the validation of the 2006 data, refer to the 2006 TTS report, Data Validation.

### **OVERVIEW**

The data in this report provides demographic characteristics and travel pattern information. The data is presented by ward and summarized for the City of Hamilton and the entire GTHA. In total there are 15 wards in the City of Hamilton.

To reflect the fact that all numbers presented in this report are estimates based on expanded survey data, all numeric figures are rounded. Totals and subtotals are rounded to the nearest 100 for all data presented in this report. All percentages are rounded to the nearest integer. No information is presented for categories that have less than four observations or survey records. These categories are denoted by an asterisk (\*).

Invalid survey responses are dealt with in two ways. The response is grouped under the "other" category if one is available (travel mode, for example). Otherwise, invalid responses are distributed proportionately (based on the valid responses) between the available categories.

### **GENERAL SUMMARY TABLES**

### **Demographic Characteristics**

Demographic data are presented in two tables on the top half of the page, one summarizes the data by household and the other summarizes the data by person.

Household characteristics include:

- Total number of households in the area. The data expansion procedure ensures a close match with the census
- · Distribution of households by dwelling type: house, townhouse or apartment
- · Distribution of households by number of persons in residence at the time of the interview
- Distribution of households by number of vehicles available to the household for personal

### use

- A series of ratios that reflect the general characteristics of households in the area:
  - Persons Total population divided by total number of households
  - Workers Total number of employed persons (full-time, part-time or work at home) divided by total number of households
  - Drivers Total number of persons in possession of a driver's licence divided by the total number of households
  - Vehicles Total number of vehicles available for personal use divided by total number of households
  - Trips/day Total number of trips by persons of age 11 and over divided by total number of Households

Personal characteristics include:

- Total population in private residence in the area at the time of the interview
- Population by gender
- The percentage of persons in possession of a transit pass by gender
- The percentage of persons in possession of a valid driver's licence by gender
- The percentage of persons who are students (full-time or part-time) by gender
- Employment status by gender. Categories are full-time out side the home, parttime outside the home, work at home (full or part-time)
- The percentage of persons who made a trip to work on the survey day by employment status
- Median age, the age where 50 percent of the population is older and 50 percent is younger
- Distribution by age cohort
- Daily trips per person calculated by the number of trips made by persons aged 11 and over divided by the number of persons aged 11 and over

### **Travel Patterns**

The two tables on the lower half of the page present travel pattern information in two categories: trip purpose and mode of travel. In each category, the information is summarized by trips that were made by residents of the area and by trips with a destination in the area. Trips made by residents of an area are a measure of mobility and thus all trips regardless of trip origin or destination are included. The number of trips made to an area is a measure of the area's attractive-ness and therefore includes trips made by both residents and non-residents of the area. Note that trips made by residents include trips in and out of the GTHA and that trips made to the area include only trips made by GTHA residents.

The time periods dealt with are the 24-hour period and a 3-hour morning peak period. The morning peak period has been chosen to minimize the number of non-work trips that are included in the summary. In general, the composition of the morning peak is dominated by trips to work and school. Although the period chosen for the morning peak is indicated as 6:00 a.m. to 9:00 a.m., the data actually comprises trips starting at 6:00 a.m. to 8:59 a.m. The reason for excluding trips starting at exactly 9:00 a.m. is that respondents tend to round off the times they reported to the nearest quarter or half hour. If data for both 6:00 a.m. and 9:00 a.m. are included the actual number of morning peak period trips would be overrepresented.

### Trip Purpose

For trips made by residents of an area, the home location is the link between the commuter and the area of interest. Consequently, trip purpose categories are defined as:

- Home to work and work to home (home-based work, HB-W) trips
- Home to school and school to home (home-based school, HB-S) trip
- All other home-based (home-based discretionary, HB-D) trips
- All trips where neither trip end is the home (non-home-based, N-HB)

The magnitude of the trips made to an area gives an indication of the attraction of land use in the area. The destination purposes are defined as:

- Work
- School
- Home bound
- Other or discretionary trips such as shopping, entertainment, etc.

### Mode of Travel

The travel mode categories are:

- Automobile driver
- Automobile passenger
- Local transit
- GO Train
- Walk and Bicycle
- Other, which includes motorcycle, taxi, school bus and other modes

If a trip uses more than one mode category, public transit is given preference. In cases where both GO Train and local transit were used, GO Train is the dominant classification.

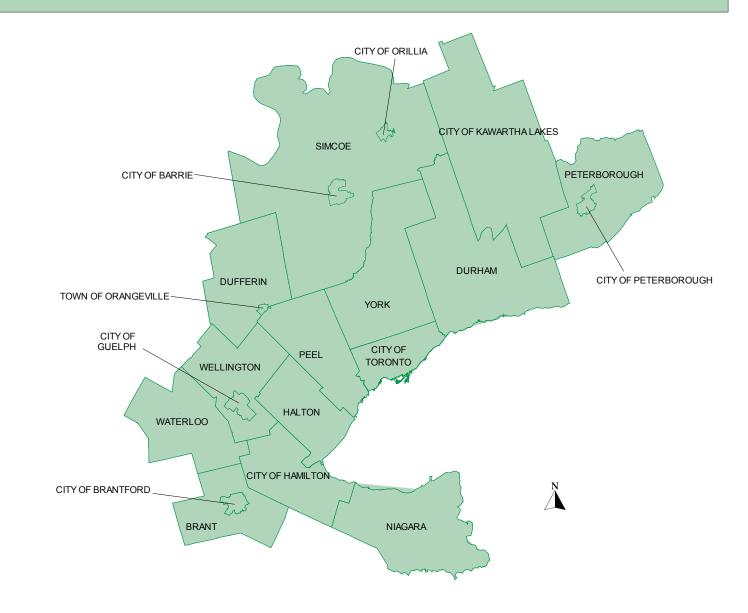
In general, only walk trips to and from work or school are included.

# Trips Made by Residents of an Area

In addition to the travel information by trip purpose and travel mode, the summary tables also include statistics on the percentage of internal trips and median trip lengths.

The percentage of trips made entirely within an area by residents of the same area is a measure of the degree of self-containment for the area of interest. The percentages are calculated for the 24-hour period and a 3-hour morning peak period.

Median trip lengths are calculated as the trip distance of which 50 percent of the trips are longer and 50 percent are shorter. Trip length is measured as the straight line distance between origin and destination points. Trips with origin or destination outside the GTHA are not included in the Median calculation. The figures presented are by travel modes for the 24-hour period.



AREA SUMMARIES

# **GREATER TORONTO AND HAMILTON AREA**

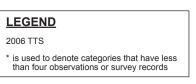
# DEMOGRAPHIC CHARACTERISTICS

TOTAL NUMBE	R OF HOL	ISEHOLD	<b>S:</b> 2,10	60,100		TOTAL	POPULATIO	<b>DN:</b> 5,87 <sup>2</sup>	1,900					
Dwelling Type	House 63%		Townhous 8%	ie A	Apartment 29%	Male	Population 2,831,500	Transit Pass 7%	Licence Drivers 69%	S Stude		II Part ie time	F/T	<b>s</b> at Home <u>P/T</u> 1%
Household Size (persons)	 21%	2 32%	3 18%	<u>4</u> 18%	<u>5+</u> 11%	Female		9% survey day	59% · Made v	22% vork trip	6 32 87			1% 20%
No. of Available Vehicles	0 16%	1 40%	2 35%	<u>3</u> 7%	<u>4+</u> 2%	Age	Me			<u>11-15</u> 7%	<u>16-25</u> 11%	<u>26-45</u> 29%	<u>46-64</u> 25%	<u>65+</u> 15%
Household Averages	Persons 2.7	Workers 1.3	Drivers 1.7	Vehicles 1.4	Trips/Day 5.7	Daily tri	ips/Person (a		2.4					

# DURHAM YORK PEEL TORONTO HALTON HAMILTON

TRIPS MAD	DE BY RESI	DENTS OF	GTHA										
			Trip	o Purpo	se Category	/		• •	• •	Mode of 1			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	2,901,200	23.7%	48%	22%	20%	10%		58%	13%	14%	2%	9%	4%
24 hours	12,244,700		32%	12%	40%	16%		63%	16%	12%	1%	6%	2%
Percentage c	of trips made v	within district:	6-9 a.m. =	99%	24 hours =	98%	Median Trip Length (km)	5.6	4.1	6.3	30.2		

			D	estination	Purpose		• •	• •	Mode of 1			
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	2,865,000	23.6%	53%	23%	6%	19%	58%	13%	14%	2%	9%	4%
24 hours	12,118,800		18%	6%	43%	33%	62%	16%	12%	1%	6%	2%









# **CITY OF HAMILTON**

# DEMOGRAPHIC CHARACTERISTICS

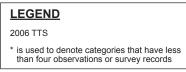
												Employr	ment Statu	s
Dwelling Type	House	-	Townhouse	e A	partment		Population	Transit Pass	Licenced Drivers	Student	Full time	Part time		at Home P/T
	68%		8%		24%	Male	236,800	6%	69%	23%	39%	6%	3%	1%
Household Size	1	2	3	4	5+	Female	250,300	7%	61%	22%	28%	12%	2%	1%
(persons)	25%	35%	16%	15%	9%									
							On su	urvey day:	Made wor	rk trip	84%	54%	41%	17%
No. of Available	0	1	2	3	4+									
Vehicles	16%	41%	34%	7%	2%	Age	Medi	an (	D-10 11	-15 16	-25	26-45	46-64	65+
							41	.1	12%	7% 1	2%	26%	25%	18%
Household Performance Performa	ersons <u>V</u> 2.5	Vorkers 1.2	Drivers \ 1.6	/ehicles 1.4	Trips/Day 5.4	Daily trip	os/Person (age	: 11+):	2.5					



# **TRAVEL PATTERNS**

TRIPS MAD	E BY RESI	DENTS OF	CITY OF H		ON								
			Trip	o Purpo	se Category	/				Mode of 1			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	221,000	21.0%	46%	24%	20%	9%		63%	12%	7%	1%	10%	6%
24 hours	1,054,300		28%	12%	44%	16%		67%	17%	7%	0%	6%	3%
Percentage of	f trips made v	vithin district:	6-9 a.m. =	79%	24 hours =	= 80%	Median Trip Length (km)	4.9	4.1	4	60.2		

			D	estination	Purpose		Mode of Travel							
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe		
6 - 9 a.m.	190,100	19.6%	43%	29%	7%	21%	60%	12%	8%	0%	12%	7%		
24 hours	970,300		13%	7%	45%	35%	65%	17%	7%	0%	7%	3%		



RANSPORTATION

2 2 0





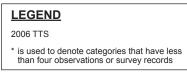
# DEMOGRAPHIC CHARACTERISTICS

										Employr	ment Statu	s
House	Townhous	e A	Apartment		Population	Transit Pass	Licenced Drivers	Student	Full time	Part time	Work a F/T	at Home P/T
58%	3%		39%	Male	14,000	16%	73%	29%	37%	10%	3%	1%
1 2	3	4	5+	Female	15,500	17%	64%	30%	25%	13%	2%	1%
35% 369	6 15%	11%	4%									
					On si	urvey day:	Made wo	ork trip	87%	45%	31%	20%
0 1	2	3	4+									
24% 51%	% 22%	3%	*	Age				-		26-45	46-64	65+
	·		Trips/Day	Daily trip				5%	19%	21%	24%	17%
3	<u>1 2</u> 55% 36% 0 <u>1</u> 4% 51% ns <u>Workers</u>	1         2         3           55%         36%         15%           0         1         2           44%         51%         22%           ns         Workers         Drivers	1         2         3         4           55%         36%         15%         11%           0         1         2         3           44%         51%         22%         3%           ns         Workers         Drivers         Vehicles	1       2       3       4       5+         55%       36%       15%       11%       4%         0       1       2       3       4+         4%       51%       22%       3%       *         ns       Workers       Drivers       Vehicles       Trips/Day	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{5+}$ Female $\frac{0}{14\%} = \frac{1}{25\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4+}{3\%}$ Age $\frac{1}{14\%} = \frac{1}{25\%} = \frac{1}{22\%} = \frac{1}{3\%} = \frac{1}{5+}$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{5+}$ Female 15,500 0 1 2 3 4+ $\frac{1}{10\%} = \frac{3}{30\%} = \frac{4+}{3}$ No supervised by the second	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{5+}$ $\frac{1}{25\%} = \frac{2}{36\%} = \frac{4}{15\%}$ Female = 15,500 = 17\% On survey day: $\frac{0}{14\%} = \frac{12}{22\%} = \frac{3}{3\%} = \frac{4+}{3}$ Age = $\frac{\text{Median}}{39.5} = \frac{0}{2}$ $\frac{1}{39.5} = \frac{1}{2}$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{5+}$ Female 15,500 17% 64% On survey day: Made we $\frac{0}{14\%} = \frac{1}{22\%} = \frac{3}{3\%} = \frac{4+}{*}$ Age Median 0-10 1 $\frac{1}{39.5} = \frac{0-10}{8\%}$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{11\%} = \frac{5}{4\%}$ $\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{11\%} = \frac{5}{4\%}$ Female = 15,500 = 17\% = 64\% = 30\% On survey day: Made work trip $\frac{0}{14\%} = \frac{1}{22\%} = \frac{3}{3\%} = \frac{4}{3\%}$ Age = $\frac{\text{Median}}{39.5} = \frac{0.10}{8\%} = \frac{11.15}{10\%}$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{5+}$ $\frac{1}{15\%} = \frac{2}{36\%} = \frac{4}{15\%} = \frac{5+}{11\%}$ $\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4+}{4\%}$ $\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{3\%} = \frac{4+}{3\%}$ $\frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{10\%}$ $\frac{1}{10\%} = \frac{1}{10\%} = \frac{1}{$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{11\%} = \frac{5+}{4\%}$ $\frac{0}{14\%} = \frac{1}{22\%} = \frac{3}{3\%} = \frac{4+}{4\%}$ $\frac{0}{14\%} = \frac{1}{22\%} = \frac{3}{3\%} = \frac{4+}{3\%}$ Age $\frac{\text{Median}}{39.5} = \frac{0-10}{8\%} = \frac{10-10}{11-15} = \frac{16-25}{16-25} = \frac{26-45}{26-45}$	$\frac{1}{15\%} = \frac{2}{36\%} = \frac{3}{15\%} = \frac{4}{11\%} = \frac{5+}{4\%}$ $\frac{0}{14\%} = \frac{1}{22\%} = \frac{3}{3\%} = \frac{4+}{*}$ $\frac{0}{14\%} = \frac{2}{51\%} = \frac{3}{22\%} = \frac{4+}{3\%}$ $Age = \frac{Median}{39.5} = \frac{0-10}{8\%} = \frac{11-15}{16-25} = \frac{26-45}{26-45} = \frac{46-64}{24\%}$

### MMY: 403 MAIN ST. MAIN S

TRIPS MADE	BI RESI	DENIS OF								Mode of <sup>-</sup>	Travol		
Time Period	Trips	% of 24 hr.	HB-W	p Purpo HB-S	se Category HB-D	y N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	13,000	19.5%	45%	26%	19%	9%		53%	10%	13%	1%	21%	2%
24 hours	66,700		26%	18%	42%	14%		55%	14%	12%	0%	17%	2%
Percentage of t	rips made v	vithin district:	6-9 a.m. =	41%	24 hours =	= 39%	Median Trip Length (km)	3.6	2.8	2.9	60.2		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	21,300	25.6%	40%	40%	3%	17%	50%	13%	19%	0%	12%	6%
24 hours	83,200		15%	18%	34%	33%	55%	14%	15%	0%	14%	2%









# DEMOGRAPHIC CHARACTERISTICS

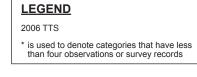
												Employ	ment Statu	s
Dwelling Type	House		Townhous	e A	partment	    <u>F</u>	Population	Transit Pass	Licenced Drivers	Student	Full time	Part time	Work a F/T	at Home P/T
	27%		2%		71%	Male	18,500	10%	64%	21%	36%	7%	4%	0%
Household Size	1	2	3	4	5+	Female	19,400	13%	47%	21%	24%	9%	2%	1%
(persons)	45%	32%	11%	7%	6%									
							On s	urvey day:	Made wo	ork trip	83%	56%	30%	
No. of Available	0	1	2	3	4+									
Vehicles	39%	45%	14%	2%	0%	Age	Med				6-25	26-45	46-64	65+
							38	5.6	11%	5%	12%	32%	23%	17%
Household <u>I</u> Averages	Persons 2.0	Workers 0.8	Drivers 1.1	Vehicles 0.8	Trips/Day 3.5	Daily trips	s/Person (age	e 11+):	2.0					

# **TRAVEL PATTERNS**

			Tri	p Purpo	se Category	/				Mode of 1			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	13,900	20.6%	54%	24%	15%	6%		46%	10%	17%	2%	21%	4%
24 hours	67,900		31%	14%	41%	14%		49%	16%	18%	1%	13%	3%
Percentage of t	rips made v	vithin district:	6-9 a.m. =	26%	24 hours =	= 22%	Median Trip Length (km)	4.2	3.5	3.3	59.2		

			D	estination	Purpose				Mode of	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Oth
6 - 9 a.m.	23,800	26.7%	66%	13%	3%	17%	62%	10%	13%	*	13%	1
24 hours	89.100		24%	4%	33%	39%	56%	15%	16%	0%	10%	2

# BURLINGTON BARTON ST. WELLINGTON ST. MAIN ST. QUEEN ST. ST. Γ CLAREMONT AC. JAMES ST.







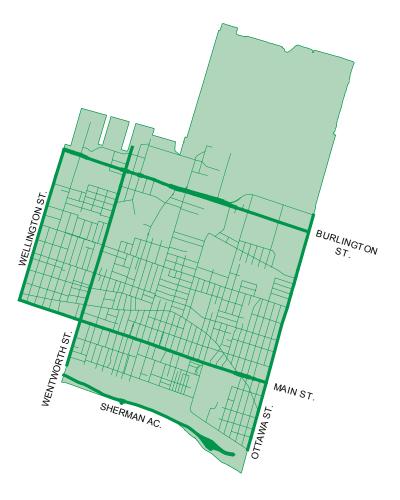
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# DEMOGRAPHIC CHARACTERISTICS

												Employr	ment Status	s
Dwelling Type	House	-	Fownhouse	e A	partment		Population	Transit Pass	Licenced Drivers	Student	Full time	Part time	Work a F/T	at Home P/T
	69%		1%		30%	Male	19,300	8%	61%	21%	37%	4%	4%	1%
Household Size	1	2	3	4	5+	Female	21,200	11%	46%	22%	27%	8%	1%	1%
(persons)	31%	31%	18%	11%	8%									
							On s	urvey day:	Made wor	k trip	83%	53%	37%	
No. of Available	0	1	2	3	4+									
Vehicles	32%	41%	21%	5%	1%	Age	Medi 39				-25 3%	26-45 27%	46-64 24%	65+ 17%
				(-  - : -	Tria (Davi		38	.3	13%	0% I	3%	2170	24%	1770
Household <u>P</u> Averages	ersons V 2.4	Vorkers 1.0	Drivers V 1.3	/ehicles 1.0	Trips/Day 4.6	Daily tr	ips/Person (age	11+)	2.2					

TRIPS MADE	BY RESI	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 3							
			Trii	o Purpo	se Category	,				Mode of <sup>-</sup>	Travel		
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	16,000	20.4%	44%	25%	20%	11%		55%	13%	14%	*	15%	3%
24 hours	78,300		28%	12%	44%	15%		57%	18%	14%	0%	9%	2%
Percentage of t	rips made v	within district:	6-9 a.m. =	22%	24 hours =	: 18%	Median Trip Length (km)	4.2	3.9	4.1	58.6		

			D	estination	Purpose				Mode of 1	Travel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	15,800	22.7%	54%	23%	7%	17%	62%	10%	10%	*	15%	4%
24 hours	69,500		18%	6%	47%	29%	60%	16%	12%	0%	10%	2%











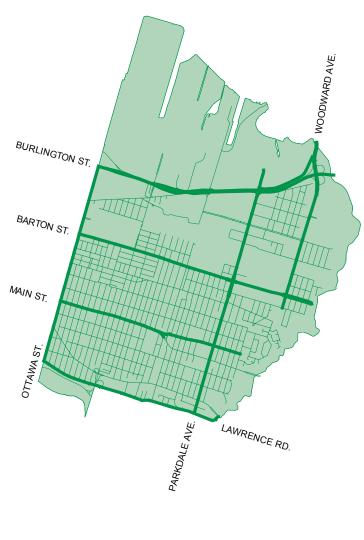
# DEMOGRAPHIC CHARACTERISTICS

												Employr	nent Statu	s
Dwelling Type	House		Townhous	e A	partment	   Р	opulation	Transit Pass	Licenced Drivers	Student	Full time	Part time		at Home P/T
	82%		3%		15%	Male	17,700	6%	65%	20%	43%	4%	2%	×
Household Size	1	2	3	4	5+	Female	18,200	9%	54%	20%	32%	12%	1%	1%
(persons)	26%	34%	18%	13%	8%									
							On s	urvey day:	Made wo	rk trip	84%	54%	53%	*
No. of Available	0	1	2	3	4+									
Vehicles	18%	48%	28%	5%	2%	Age	Med	ian (	D-10 1	1-15 1	6-25	26-45	46-64	65+
							40	.4	13%	6%	12%	28%	26%	15%
Household <u>F</u> Averages	Persons 2.5	Workers 1.2	Drivers 1.5	Vehicles 1.3	Trips/Day 5.2	Doily tripo	/Person (age	\ 11 <b>+</b> \·	2.4					

# **TRAVEL PATTERNS**

			Tri	p Purpo	se Category	/				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	15,600	20.7%	46%	23%	21%	10%		62%	10%	13%	*	14%	2%
24 hours	75,400		31%	10%	42%	16%		63%	17%	11%	0%	8%	1%
Percentage of t	rips made v	vithin district:	6-9 a.m. =	29%	24 hours =	26%	Median Trip Length (km)	4.1	3.8	4.6	56.6		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	15,200	20.7%	52%	21%	7%	19%	68%	9%	5%	*	16%	29
24 hours	73.400		18%	5%	43%	34%	66%	16%	8%	0%	8%	19



**LEGEND** 

\* is used to denote categories that have less than four observations or survey records

RANSPORTATION

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2006 TTS

datamanagementgroup DEPARTMENT OF CIVIL ENGINEERING UNIVERSITY OF TORONTO

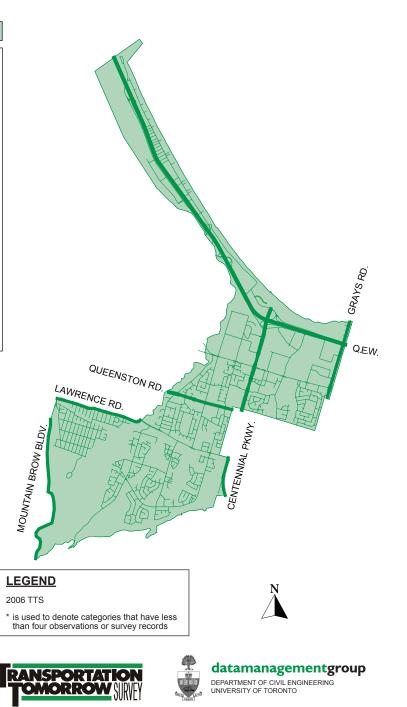
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# DEMOGRAPHIC CHARACTERISTICS

												Employ	ment Statu	s
Dwelling Type	House	e	Townhous	ie A	Apartment		Population	Transit Pass	Licenced Drivers	Student	Full time	Part		at Home P/T
	50%	)	14%		37%	Male	18,600	4%	69%	21%	36%	6%	2%	0%
Household Size	1	2	3	4	5+	Female	19,300	6%	59%	16%	25%	. 10%	o 1%	1%
(persons)	24%	40%	15%	14%	8%									
							On si	urvey day:	Made wo	ork trip	83%	62%	43%	
No. of Available	0	1	2	3	4+									
Vehicles	13%	50%	31%	5%	1%	Age	Medi	an	0-10 1	1-15 1	6-25	26-45	46-64	65+
							44	.3	11%	5%	11%	24%	26%	22%
	Persons	Workers	Drivers	Vehicles	Trips/Day									
Averages	2.4	1.0	1.6	1.3	4.8	Daily trip	os/Person (age	: 11+):	2.2					

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 5							
			Trij	p Purpo	se Categor	/				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	15,300	20.6%	42%	22%	24%	11%		63%	15%	8%	1%	10%	3%
24 hours	74,300		27%	11%	48%	14%		67%	19%	7%	0%	5%	2%
Percentage of tr	ips made v	vithin district:	6-9 a.m. =	30%	24 hours =	= 30%	Median Trip Length (km)	4.3	3.7	6.1	57		

			D	estination	Purpose				Mode of <sup>•</sup>	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	13,900	18.9%	43%	26%	8%	23%	62%	14%	6%	*	11%	70
24 hours	73,300		12%	5%	43%	39%	67%	18%	7%	0%	5%	2%

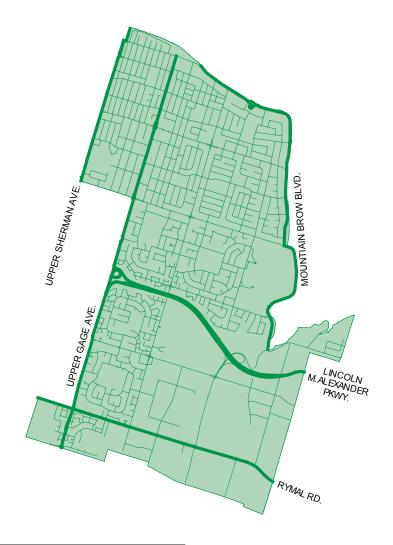


# DEMOGRAPHIC CHARACTERISTICS

TOTAL NUMBE	R OF HOUS	SEHOLDS	<b>S:</b> 1	16,000		TOTAL	POPULATION	: 38	,100					
Dwelling Type	House 67%		Townhous 12%	e A	Apartment 20%	Male	Population 18,100	Transit <u>Pass</u> 8%	Licenced Drivers 73%	Studer 21%	_	Part e time	F/T	<b>s</b> at Home <u>P/T</u> *
Household Size (persons)		2 36%	3 15%	4 16%	<u>5+</u> 5%	Female		8%	61%	17%				1%
No. of Available Vehicles	0 17%	1 43%	2 32%	<u>3</u> 7%	<u>4+</u> 2%	Age	On si <u>Medi</u>	irvey day: an (		·	83% <u>16-25</u>	% 50% <u>26-45</u>	47%	65+
Household Averages	Persons 2.4	Workers 1.1	Drivers 1.6	Vehicles 1.3	Trips/Day 5.3	Daily tri	44 ps/Person (age		10% 2.5	6%	11%	23%	26%	24%

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 6							
			Tri	p Purpo	se Categor	v				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	HB-W	 HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	17,800	20.8%	42%	23%	24%	11%		65%	15%	9%	0%	8%	3%
24 hours	85,400		26%	11%	47%	16%		68%	18%	8%	0%	4%	2%
Percentage of t	trips made v	vithin district:	6-9 a.m. =	24%	24 hours =	= 22%	Median Trip Length (km)	4.4	3.9	4.3	60.5		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	10,500	15.6%	33%	30%	12%	25%	60%	11%	10%	*	14%	5
24 hours	67.100		8%	5%	53%	34%	67%	18%	7%	0%	5%	29











# DEMOGRAPHIC CHARACTERISTICS

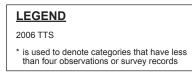
	R OF HOUS	EHOLDS	: 2	1,200		TOTAL	POPULATION	l: 56	,100					
Dwelling Type	House 75%		Townhouse 9%	e A	partment 16%	Male	Population 26,800	Transit <u>Pass</u> 6%	Licenced Drivers 69%	Student 26%	Full time 40%	Part time	F/T	<b>s</b> at Home <u>P/T</u> 0%
Household Size (persons)	 23%	2 33%	<u>3</u> 17%	<u>4</u> 17%	<u>5+</u> 10%	Female		8%	58%	24%	28%			1%
No. of Available Vehicles	0	1	2	3	<u>4+</u> 1%		On si	urvey day:	Made wo	ork trip	83%	55%	48%	*
	13%	45%	34%	0%	1%	Age	Medi 40		0-10 1 12%	1-15 1 9%	6-25 12%	26-45 25%	46-64 24%	65+ 18%
Household <u>F</u> Averages	Persons V 2.6	<u>Vorkers</u> 1.2	Drivers 1.7	<u>/ehicles</u> 1.4	<u>Trips/Day</u> 5.8	Daily tr	ps/Person (age	e 11+):	2.5					

### **TRAVEL PATTERNS**

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 7							
			Trij	p Purpo	se Category	/		A 1 -	A	Mode of		\A/= II-	
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	27,600	22.3%	42%	26%	22%	9%		63%	15%	8%	0%	10%	4%
24 hours	123,800		28%	13%	43%	16%		67%	17%	6%	0%	6%	3%
Percentage of t	trips made v	within district:	6-9 a.m. =	30%	24 hours =	31%	Median Trip Length (km)	3.9	3.1	3.7	61.7		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	19,300	15.9%	31%	30%	11%	28%	57%	15%	7%	*	14%	79
24 hours	121.400		9%	5%	43%	44%	65%	19%	7%	0%	6%	39







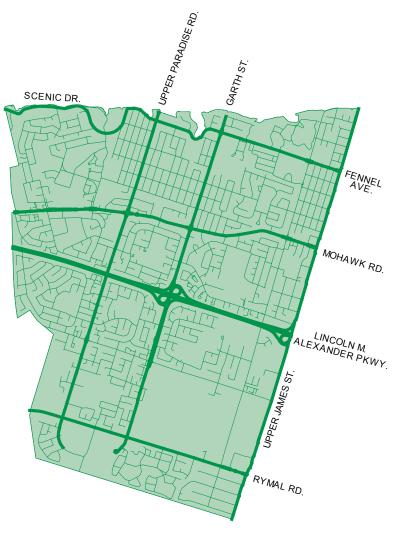


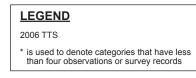
# DEMOGRAPHIC CHARACTERISTICS

								Transit	1.1.4.4.4.4	1	Full		nent Statu	<b>s</b> at Home
Dwelling Type	House		Townhous	e A	partment	P	opulation	Transit Pass	Licenc Driver				F/T	P/T
	74%		15%		11%	Male	21,700	5%	71%	6 25%	39%	6 8%	3%	0%
Household Size	1	2	3	4	5+	Female	22,700	7%	63%	% 22%	‰ 29%	6 14%	1%	1%
(persons)	20%	35%	17%	18%	10%									
							On s	urvey day	Made	work trip	84%	60%	46%	26%
No. of Available	0	1	2	3	4+									
Vehicles	8%	43%	39%	7%	3%	Age	Med	ian	0-10	11-15	16-25	26-45	46-64	65+
							41	.0	12%	7%	13%	25%	24%	20%
	Persons	Workers	Drivers	Vehicles	Trips/Day									
Averages	2.7	1.3	1.8	1.5	6.2	Daily trips	/Person (age	e 11+):	2.6					

			Tri	p Purpo	se Category	/				Mode of 1	ravel		
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	21,000	20.2%	44%	23%	23%	11%		66%	14%	7%	1%	10%	2%
24 hours	104,200		27%	11%	46%	16%		69%	18%	6%	0%	5%	1%
Percentage of	trips made v	vithin district:	6-9 a.m. =	36%	24 hours =	28%	Median Trip Length (km)	4.2	3.6	3.9	64.1		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	20,200	21.0%	24%	46%	5%	25%	54%	18%	10%	*	11%	7
24 hours	96.400		8%	12%	45%	35%	66%	18%	7%	0%	6%	39











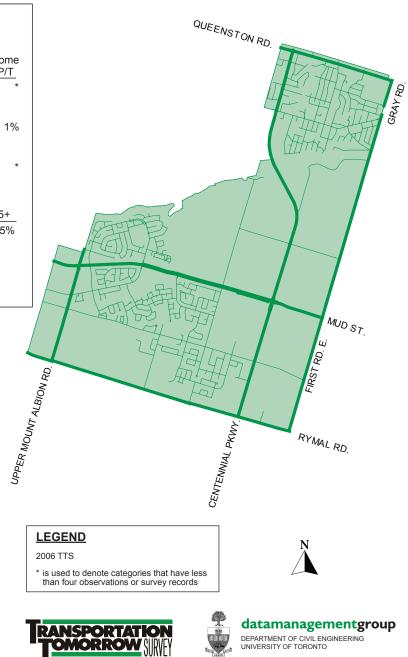
# DEMOGRAPHIC CHARACTERISTICS

												Employ	ment Statu	s
Dwelling Type	House		Townhous	e A	partment		Population	Transit Pass	Licenced Drivers	Studen	Full t <u>time</u>	Part	Work a F/T	
	66%		11%		23%	Male	12,400	4%	70%	25%	43%	5%	3%	
Household Size	1	2	3	4	5+	Female	13,600	5%	64%	24%	30%	5 13%	2%	1%
(persons)	19%	32%	21%	17%	11%									
							On si	urvey day:	Made wo	ork trip	84%	55%	46%	
No. of Available	0	1	2	3	4+									
Vehicles	9%	35%	43%	11%	2%	Age	Medi			-	16-25	26-45	46-64	65+
							39	.4	14%	7%	11%	26%	26%	15%
Household <u>P</u> Averages	ersons V	Vorkers 1.3	Drivers 1.8	Vehicles 1.6	Trips/Day 6.1	Daily trip	s/Person (age	: 11+):	2.6					

### **TRAVEL PATTERNS**

			Trij	o Purpos	se Categor	v				Mode of 1	Fravel	
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle
6 - 9 a.m.	12,400	21.5%	47%	23%	20%	10%		69%	11%	3%	*	10%
24 hours	57,700		29%	11%	43%	17%		71%	17%	3%	0%	5%
Percentage of t	rips made v	within district:	6-9 a.m. =	26%	24 hours :	= 23%	Median Trip Length (km)	6.2	4.9	8.2	56.9	

			D	estination	Purpose				Mode of 1			
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Oth
6 - 9 a.m.	8,700	17.6%	31%	39%	7%	24%	54%	14%	2%	*	16%	14
24 hours	49.300		9%	7%	48%	36%	68%	18%	3%	*	7%	5



Other

7%

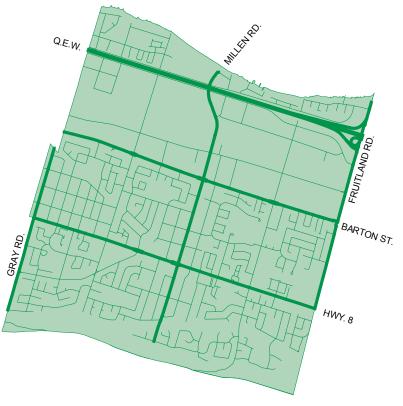
3%

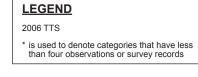
# DEMOGRAPHIC CHARACTERISTICS

TOTAL NUMBE	r of hou	SEHOLD	S:	8,600		ΤΟΤΑΙ	POPULATIO	N: 24	,000					
												Employ	vment Statu	IS
Dwelling Type	House	•	Townhous	e A	Apartment		Population	Transit Pass	Licenceo Drivers		Fu nt tim			at Home P/T
	75%		15%		10%	Male	11,900	3%	72%	22%	42	2% 5%	<b>4%</b>	1%
Household Size	1	2	3	4	5+	Female	e 12,100	3%	68%	21%	o 31	1% 12%	6 1%	1%
(persons)	15%	36%	19%	18%	12%									
							On s	urvey day:	Made w	ork trip	87	7% 55%	64%	*
No. of Available Vehicles	0	1	2	3	4+									
Venicies	6%	33%	44%	13%	4%	Age	Med	ian	0-10 <sup>-</sup>	11-15	16-25	26-45	46-64	65+
							42	2.1	11%	8%	10%	26%	28%	18%
Household Averages	Persons 2.8	Workers 1.3	Drivers 2.0	Vehicles 1.8	Trips/Day 5.8	Daily tr	ips/Person (ag	e 11+):	2.3					

TRIPS MADE	BY RESI	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 10							
			Trij	p Purpo	se Category	/		Auto	Auto	Mode of Local	<b>Fravel</b> GO	Walk	
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Driver	Passng.	Transit	Train	& Cycle	Other
6 - 9 a.m.	11,600	23.3%	53%	21%	18%	8%		70%	12%	2%	*	8%	8%
24 hours	49,900		33%	12%	41%	14%		74%	15%	2%	0%	4%	4%
Percentage of t	rips made v	vithin district:	6-9 a.m. =	26%	24 hours =	: 19%	Median Trip Length (km)	5.1	3.6	12.4	55.8		

			D	estination	Purpose				Mode of 1			
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	7,900	21.3%	48%	27%	7%	18%	67%	14%	3%	*	8%	99
24 hours	37.000		15%	6%	58%	21%	73%	15%	2%	*	5%	5%











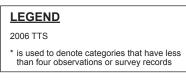
# DEMOGRAPHIC CHARACTERISTICS

												Employ	ment Status	3
Dwelling Type	House		Townhous	e A	partment	P	opulation	Transit Pass	Licenced Drivers	Student	Full time	Part time	Work a F/T	
	86%		9%		4%	Male	12,200	2%	76%	20%	40%	5%	5%	1%
Household Size	1	2	3	4	5+	Female	12,800	3%	72%	21%	29%	11%	2%	1%
(persons)	16%	39%	16%	19%	10%									
							On s	urvey day:	Made wo	rk trip	84%	55%	32%	•
No. of Available	0	1	2	3	4+									
Vehicles	1%	31%	52%	10%	6%	Age	Med	ian (	D-10 1 <sup>2</sup>	1-15 16	6-25	26-45	46-64	65+
							42	2.1	13%	7%	9%	27%	25%	20%
Household <u>F</u> Averages	Persons <u>\</u> 2.7	Norkers 1.3	Drivers 2.0	Vehicles 1.9	Trips/Day 5.9	Daily trips	/Person (age	a 11+)∙	2.5					

# Will BROOK RD. - Will be will

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WARE	D 11							
			Trij	p Purpo	se Category			• •	• •	Mode of T			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	11,300	20.7%	53%	22%	17%	7%		74%	8%	2%	1%	1%	15%
24 hours	54,500		27%	10%	44%	19%		76%	16%	1%	0%	0%	6%
Percentage of tr	ips made v	within district:	6-9 a.m. =	13%	24 hours =	11%	Median Trip Length (km)	8.7	7.3	6.9	53.4		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe
6 - 9 a.m.	5,300	14.9%	59%	9%	11%	21%	79%	10%	3%	*	2%	6%
24 hours	35.600		13%	1%	62%	23%	76%	16%	1%	0%	1%	6%









# DEMOGRAPHIC CHARACTERISTICS

TOTAL NUMBER	R OF HOU	SEHOLDS	<b>5:</b> 1	0,100		TOTAL P	POPULATION	I: 29	,100					
Dwelling Type	House 83%		Townhouse 11%	e A	Apartment 6%	Male	Population 14,700	Transit Pass 3%	Licenced Drivers 70%	Student 27%	Full time 40%	Part time	F/T	<b>s</b> at Home <u>P/T</u> 1%
Household Size (persons)	 15%	2 34%	<u>3</u> 16%	4 21%	<u>5+</u> 14%	Female	14,300 On S	3% urvey day:	71% Made wo	24%	29% 87%			1%
No. of Available Vehicles	0 5%	1 25%	2 54%	3 13%	<u>4+</u> 4%	Age	Med 41	ian (			16-25	26-45 22%	46-64 28%	<u>65+</u> 15%
Household Averages	Persons 2.9	Workers 1.4	Drivers	<u>/ehicles</u> 1.9	Trips/Day 7.1	Daily trips	s/Person (age	e 11+):	2.9					

### HWY 403 HWY 40

TRIPS MADE I	BY RESI	DENTS OF	CITY OF H		ON - WAR	D 12							
			Trij	o Purpo	se Category	,				Mode of 1			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	14,900	21.0%	45%	25%	21%	9%		69%	11%	2%	1%	5%	11%
24 hours	71,100		26%	11%	44%	18%		73%	17%	2%	1%	3%	5%
Percentage of trip	os made v	vithin district:	6-9 a.m. =	33%	24 hours =	38%	Median Trip Length (km)	6.2	4.5	5.4	66.5		

			D	estination	Purpose				Mode of 1	Fravel		
							Auto	Auto	Local	GO	Walk	
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Driver	Passng.	Transit	Train	& Cycle	Othe
6 - 9 a.m.	11,100	16.2%	37%	32%	6%	25%	63%	11%	3%	*	6%	16%
24 hours	68.700		10%	6%	42%	42%	71%	18%	2%	0%	3%	5%

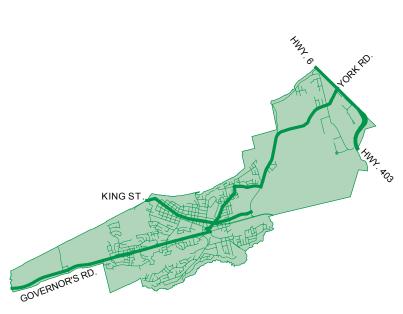






# DEMOGRAPHIC CHARACTERISTICS

												Employ	ment Statu	s
Dwelling Type	House		Townhous	se A	partment		Population	Transit Pass	Licenced Drivers	Student	Full time	Part time	Work a F/T	at Home P/T
	70%		9%		21%	Male	11,000	5%	74%	23%	41%	5 7%	3%	1%
Household Size	1	2	3	4	5+	Female	12,000	6%	70%	20%	30%	5 13%	3%	19
(persons)	24%	38%	15%	17%	6%									
							On s	urvey day:	Made wo	rk trip	86%	<b>55%</b>	32%	
No. of Available	0	1	2	3	4+									
Vehicles	11%	36%	42%	8%	3%	Age	Med	ian (	0-10 1 <sup>-</sup>	1-15 1	6-25	26-45	46-64	65+
							44	.7	10%	7%	12%	22%	29%	20%
Household Averages	Persons 2.4	Workers 1.2	Drivers 1.8	Vehicles 1.6	Trips/Day 6.2	Daily tri	ps/Person (age	<u>• 11+)</u> ·	2.8					



TRIPS MADE	BY RESI	DENTS OF	CITY OF H	AMILT	ON - WAR	D 13							
			Trip	o Purpos	se Category	/				Mode of 1			
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	11,700	20.2%	47%	20%	21%	11%		68%	11%	3%	1%	9%	7%
24 hours	57,900		25%	10%	46%	19%		72%	16%	3%	1%	5%	3%
Percentage of tr	rips made v	within district:	6-9 a.m. =	29%	24 hours =	: 28%	Median Trip Length (km)	5	4.5	6.3	63.2		

			D	estination	Purpose				Mode of 1	Fravel		
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	6,900	15.7%	37%	31%	8%	24%	58%	10%	3%	*	14%	15%
24 hours	43.900		9%	5%	53%	33%	70%	16%	2%	0%	6%	5%









# DEMOGRAPHIC CHARACTERISTICS

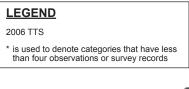
												Fmplov	nent Statu	s
Dwelling Type	House		Townhous	se A	Apartment	Р	opulation	Transit Pass	Licenced Drivers	Student	Full time	Part		at Home P/T
	96%		*		3%	Male	7,300	*	73%	20%	42%	5%	6%	1%
Household Size	1	2	3	4	5+	Female	7,400	1%	73%	25%	24%	12%	3%	2%
(persons)	14%	42%	17%	14%	13%									
							On s	urvey day:	Made wo	rk trip	77%	47%	32%	34%
No. of Available	0	1	2	3	4+									
Vehicles	2%	30%	48%	15%	6%	Age	Med	ian (	D-10 1 <sup>-</sup>	1-15 16	-25	26-45	46-64	65+
							40	).6	15%	8% 1	0%	24%	25%	18%
	Persons	Workers	Drivers	Vehicles	Trips/Day									
Averages	2.8	1.3	2.0	2.0	5.7	Daily trips	Person (age	e 11+):	2.4					

# HWY.6 GORE RD. SAFARI RD. HWY. 97 轉合 MMY-8 HWY.5 SAGER RD. BROCK RD. HWY. 403

### **TRAVEL PATTERNS**

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 14							
			Tri	p Purpo	se Category	/							
Time Period	Trips	% of 24 hr.		HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Other
6 - 9 a.m.	6,400	21.1%	51%	25%	16%	7%		71%	7%	*	*	1%	20%
24 hours	30,400		28%	11%	43%	18%		74%	16%	0%	*	1%	8%
Percentage of tr	ips made v	within district:	6-9 a.m. =	13%	24 hours =	= 12%	Median Trip Length (km)	11.6	7.4	7.5	*		

			D	estination	Purpose		Mode of Travel							
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe		
6 - 9 a.m.	2,900	14.9%	46%	23%	10%	21%	65%	13%	*	*	3%	20%		
24 hours	19,300		9%	3%	64%	23%	72%	17%	1%	*	1%	10%		





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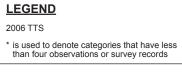
# DEMOGRAPHIC CHARACTERISTICS

TOTAL NUMBER	r of hou	SEHOLD	S:	8,500		TOTAL	POPULATION	<b>l:</b> 24	,900					
Dwelling Type	House 88%		Townhouse Apa 4%		<u>partment</u> 9%	Male	Population 12,500	Transit Pass 2%	Licenced Drivers 70%	Student 28%	Full time 41%	Part time	F/T	s at Home <u>P/T</u> 1%
Household Size (persons)	1 14%	2	3 17%	4	<u>5+</u> 13%	Female		1%	70%	26%	31%			2%
No. of Available Vehicles		1	2	3	4+		On s	urvey day:	Made wo	rk trip	86%	48%	41%	*
	3%	23%	55%	10%	4%	Age	Medi 37		0-10 1 <sup>-</sup> 16%	1-15 1 9%	10%	26-45 28%	46-64 23%	65+ 13%
Household <u>I</u> Averages	Persons 2.9	Workers 1.5	Drivers 2.1	Vehicles 2.0	Trips/Day 6.7	Daily tri	ps/Person (age	e 11+):	2.7					

# TRAVEL PATTERNS

TRIPS MADE	<b>BY RESI</b>	DENTS OF	CITY OF H	IAMILT	ON - WAR	D 15							
			Trij	p Purpo	se Categor	у		Auto	Auto	Mode of 1		Walk	
Time Period	Trips	% of 24 hr.	HB-W	HB-S	HB-D	N-HB		Auto Driver	Auto Passng.	Local Transit	GO Train	& Cycle	Other
6 - 9 a.m.	12,400	21.7%	48%	28%	16%	8%		68%	9%	*	2%	5%	17%
24 hours	57,000		30%	13%	41%	17%		73%	16%	*	1%	3%	7%
Percentage of t	rips made v	vithin district:	6-9 a.m. =	34%	24 hours =	= 31%	Median Trip Length (km)	9.1	7.7	*	55.5		

			D	estination	Purpose		Mode of Travel						
Time Period	Trips	% of 24 hr.	Work	School	Home	Other	Auto Driver	Auto Passng.	Local Transit	GO Train	Walk & Cycle	Othe	
6 - 9 a.m.	7,400	17.0%	39%	33%	8%	19%	60%	12%	*	*	8%	20%	
24 hours	43.200		10%	6%	54%	30%	71%	17%	*	0%	4%	8	



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