2011 Transportation Tomorrow Survey

Data Presentation
Participating Agencies

- The City of Barrie
- City of Brantford
- City of Peterborough
- City of Guelph
- City of Brant
- City of Kawartha Lakes
- City of Hamilton
- Orillia
- City of Simcoe
- City of Toronto
- Metrolinx
- Ministry of Transportation
- Region of Peel
- Region of Waterloo
- York Region
- Durham Region
- Halton Region
- Niagara Region
- Orangeville

2011 transportationtomorrow datamanagementgroup
DEPARTMENT OF CIVIL ENGINEERING - UNIVERSITY OF TORONTO
Conduct of the Survey
## Supporting Agencies of TTS

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# 2011 TTS Interview Phases

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<td>65,449</td>
<td>198</td>
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<td>2. September 2012</td>
<td>93,708</td>
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Sample Control

Telephone Listings from Cornerstone

• August – Preliminary lists of Survey Area
• October – Complete listing to cover 5% sample
• Supplementary lists as necessary

5% Sample across survey area controlled by Canada Post’s Forward Sortation Areas

Preliminary data expanded to 2011 Census dwelling units

Final data adjusted to 2011 Census population by age
Survey Procedure

• Advance Letter

• Web survey and/or Telephone Interview (maximum of 8 attempts)

• Geocode all Location Information

• Call Back if necessary
Survey Questions in 2011 TTS

**Household**
- Home Location
- # of People
- # of Vehicles
- Dwelling Type

**Person**
- Age & Gender
- Licence to Drive
- Transit Pass
- Employment & Student Status
- Occupation
- Availability of Free Parking at Work
- Work at Home on Survey Day

**Trip**
- Origin & Destination Locations
- Purpose
- Start time
- Mode of Travel
- Details of Transit Trips: Access, Egress & Routes
- Details of Auto Driver Trips: Use of Hwy 407 & Carpool
Interview Process in 2012

Equipment

- 120 interview stations, 8 monitoring stations, 8 call-in stations, and 10 coding stations on a local area network

Four interview teams

- Interviewing hours:
  - Evenings: 5:30 p.m. – 9:30 p.m.
  - Saturdays: 10:00 a.m. – 4:00 p.m.

Daytime Interview Team

- Schedule Call-backs
- Respondent Call-ins
- Visual review of completed interviews
Geocoding Process in 2012

All Location Data
• Home Address
• Usual Place of Work and School
• Location of every trip origin and trip destination

UTM (Universal Transverse Mercator) Coordinates

X-Y Coordinates Assigned to
• 2001 and 2006 Traffic Zone System
Quality Control

• Logic checks in interview and geocode software
• Silent Telephone Monitoring
• Validation Checks Run Nightly
• Visual Review of Printouts of Completed Interviews
• Extensive Logic and Validation Checks Processed on Completed Database
2011 TTS Data Summary
## 2011 TTS - Number of Records

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<th>Households</th>
<th>Persons</th>
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Population Distribution by Age Cohort

- Toronto
- Rest of GTHA
- External

Proportion of Population
Age

0-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 >96

Proportion of Population

2011
Population Distribution and Median Age

Region of Household and Median Age

- Kawartha Lakes - 48.6
- Peterborough - 47.8
- Orillia - 44.9
- Dufferin - 44.5
- Simcoe - 44.3
- Niagara - 44.2
- Wellington - 43.8
- Peterborough City - 43.0
- Brant - 42.9
- Hamilton - 40.7
- Toronto - 40.2
- Halton - 39.4
- York - 39.4
- Brantford - 39.3
- Durham - 39.0
- Waterloo - 37.7
- Guelph - 37.4
- Barrie - 37.1
- Peel - 37.0
- Orangeville - 36.2

Proportion

- 1-18
- 19-34
- 35-64
- >65
Proportion of Adults (>=16) Without a Driver's Licence

Region of Household: Wellington, Dufferin, Peterborough, Kawartha Lakes, Brant, Simcoe, Halton, Orangeville, Guelph, York, Durham, Niagara, Waterloo, Barrie, Peterborough City, Peel, Brantford, Hamilton, Orillia, Toronto
Proportion of Adults (>=16) Without a Driver's Licence

Region of Household

- Toronto
- Orillia
- Hamilton
- Peterborough City
- Brantford
- Barrie
- Peel
- Guelph
- Waterloo
- Niagara
- Durham
- York
- Simcoe
- Orangeville
- Brant
- Peterborough
- Halton
- Kawartha Lakes
- Wellington
- Dufferin

Proportion

- Female
- Male
Employed Labour Force Participation Rate

Proportion of Population (Aged 19-64)

Region of Household:
- Orangeville
- Dufferin
- Brant
- Wellington
- Halton
- Guelph
- York
- Durham
- Waterloo
- Barrie
- Simcoe
- Peel
- Peterborough
- Kawartha Lakes
- Brantford
- Toronto
- Hamilton
- Niagara
- Orillia
- Peterborough City

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2011
Trips by Trip Purpose

- **Home-Based Work**
- **Home-based School**
- **Home-based Discretionary**
- **Non Home-based**

**Region of Household**

- Toronto
- Peel
- Orangeville
- York
- Brant
- Guelph
- Dufferin
- Waterloo
- Durham
- Wellington
- Halton
- Barrie
- Brantford
- Simcoe
- Hamilton
- Peterborough
- Kawartha Lakes
- Niagara
- Orillia
- Peterborough City

**Proportion of Total Trips**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Transit Mode Split by Toronto Residents

Proportion of Total Daily Trips

- Aged 16-25
- Aged 26-34
- Aged 35-44
- Aged 46-55
- Female
- Male
- Without Licence
- With Licence
Auto Trip Rate (Driver and Passenger)

Age Cohort

Auto Driver
Auto Passenger

Auto Trips per Person

11-15
16-20
21-23
26-30
31-35
36-40
41-45
46-50
51-55
56-60
61-65
66-70
71-75
76-80
81-85
86-90
91-95
Median Trip Length
(Transit does not include GO Rail)

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<th>Non-GTHA</th>
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<td>Transit</td>
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First Trip to Work
(Medium Trip Length)

Region of Household

Kilometres

Orangeville  Dufferin  Wellington  Durham  Kawartha Lakes  Halton  Peterborough  Simcoe  York  Brant  Peel  Hamilton  Niagara  Toronto  Barrie  Waterloo  Guelph  Brantford  City of Peterborough  Orillia
Trip Start Time

Proportion of Total Daily Trips

Beginning of 1-Hour Window of Start Time

GTHA
Non-GTHA

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2011 TTS Data Validation
2011 Population

Region of Household
- Toronto
- Peel
- York
- Durham
- Hamilton
- Waterloo
- Halton
- Niagara
- Simcoe
- Barrie
- Guelph
- Brantford
- Peterborough
- Kawartha Lakes
- Wellington
- Peterborough County
- Brant
- Orillia
- Dufferin
- Orangeville

Total Population
- Census
- TTS

0 500,000 1,000,000 1,500,000 2,000,000 2,500,000 3,000,000
2011 Dwelling Units

Region of Household

- Toronto
- Peel
- York
- Durham
- Hamilton
- Waterloo
- Halton
- Niagara
- Simcoe
- Barrie
- Guelph
- Brantford
- Peterborough
- Kawartha Lakes
- Wellington
- Peterborough County
- Orillia
- Brant
- Orangeville
- Dufferin

Total Dwelling Units

- Census
- TTS
Age Distribution

Total Population vs Age Cohort

Census
TTS

Age Cohort:

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transportationtomorrow 2011
Proportion of Population Aged 19 to 64

Region of Household


Toronto Durham York Peel Halton Hamilton
Daily Trips to Work per Person (Employed Part-Time)

Region of Household

Toronto  Durham  York  Peel  Halton  Hamilton

Trips

Daily Trips to School (Full-Time Students)

Region of Household:
- Toronto
- Durham
- York
- Peel
- Halton
- Hamilton

Years:
- 1986
- 1991
- 1996
- 2001
- 2006
- 2011

Trips
Total Trip Rate: GTHA Residents

- **Trips per Person**

The chart shows the total trip rate for GTHA residents across different age cohorts and years.
Total Daily Trip Rate: Non-GTHA Residents

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Daily Transit Trip Rates (Including GO Rail)

Toronto Residents

Transit Trips per Person

Age Cohort

11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75

Inbound Traffic Towards Toronto
AM Peak Period (6:15 a.m. to 8:15 a.m.)

- Peel > Toronto
- York > Toronto
- Durham > Toronto/York
- Peel > York
- Halton > Peel
- Hamilton > Halton

Private Auto Vehicles

Screen Line

Cordon Count
TTS
Outbound Traffic Away from Toronto
AM Peak Period (6:15 a.m. to 9:15 a.m.)

- Toronto > Peel
- Toronto > York
- Toronto/York > Durham
- York > Peel
- Peel > Halton
- Halton > Hamilton

Private Auto Vehicles

Screen Line

Cordon Count
TTS
13 Hour Traffic Volumes
(6:00 a.m. to 7:00 p.m.)

Private Auto Vehicles

Screen Line

- Peel > Toronto
- Toronto > Peel
- York > Toronto
- Durham > Toronto/York
- Toronto/York > Durham
- Peel > York
- York > Peel
- Halton > Peel
- Peel > Halton
- Hamilton > Halton
- Halton > Hamilton

Cordon Count
TTS

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2011
TTC Streetcar

Weekday Boardings

Route

King
Spadina
Queen
Carlton
St. Clair
Dundas
Bathurst
Harbourfront
Downtowner
Kingston
Lake Shore

Count
TTS

0
10,000
20,000
30,000
40,000
50,000
60,000
TTC Subway Ridership

Weekday Boardings

- Yonge-University-Spadina
- Bloor-Danforth
- Sheppard
- Scarborough RT

Yonge-University-Spadina: 700,000
Bloor-Danforth: Approximately 350,000
Sheppard: Less than 100,000
Scarborough RT: Less than 100,000
Mississauga Transit - 10 Busiest Routes

Weekday Boardings

Route

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<td>Bloor</td>
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<td>University Exp</td>
<td>6,000</td>
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<td>Hurontario Exp</td>
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TransportationTomorrow 2011
Time Series Analysis
GTHA
5-Year Population Growth

5-Year Population Growth
(Proportion of Total GTHA Growth)

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</table>
The image contains a bar chart titled "Median Age". The chart shows the median age for various regions (Toronto, Durham, York, Peel, Halton, Hamilton) across different years: 1986, 1991, 1996, 2001, 2006, and 2011. The x-axis represents the regions, and the y-axis represents the age. The bars indicate the median age for each region and year, allowing for a comparison over time.
Age Distribution
GTHA Residents

Population

Age Cohort

0-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 96+

Datamanagement Group
Department of Civil Engineering - University of Toronto
Employed Labour Force

Proportion of Total Population

Region of Household

Toronto  Durham  York  Peel  Halton  Hamilton


0% 10% 20% 30% 40% 50% 60%
Employment minus Employed Labour Force
(GTHA Residents to GTHA Employment)

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Vehicle Availability
GTHA Residents

Vehicles per Adult (≥16 years old)

Region of Household

Toronto  Durham  York  Peel  Halton  Hamilton

Proportion of Females (16 - 21 years old) Without a Driver's Licence

Region of Household

- Toronto
- Durham
- York
- Peel
- Halton
- Hamilton

Proportion

- 1986
- 1991
- 1996
- 2001
- 2006
- 2011

Proportion of Females (16 - 21 years old) Without a Driver's Licence
Proportion of Males (16 - 21 years old) Without a Driver's Licence

Region of Household: Toronto, Durham, York, Peel, Halton, Hamilton

Proportion:
- 1986
- 1991
- 1996
- 2001
- 2006
- 2011
### Inter-Regional Work Trips

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All Trips by Mode
GTHA Residents

Mode of Travel

Proportion of Total Trips

1986
1991
1996
2001
2006
2011

Auto Driver
Auto Passenger
Transit
Other
GTHA Mode Split

Proportion of Total Daily Trips

Age Cohort

1986: Automobile • 1986: Public Transit • 1986: Other
1996: Automobile • 1996: Public Transit • 1996: Other
2001: Automobile • 2001: Public Transit • 2001: Other
2006: Automobile • 2006: Public Transit • 2006: Other
2011: Automobile • 2011: Public Transit • 2011: Other

transportationtomorrow

2011

datamanagementgroup

DEPARTMENT OF CIVIL ENGINEERING - UNIVERSITY OF TORONTO
Transit Mode Split
(including GO Rail)

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Transit Mode Split
(excluding GO Rail)

Region of Household:
- Toronto
- Durham
- York
- Peel
- Halton
- Hamilton

Proportion of Total Trips:
- 1986
- 1991
- 1996
- 2001
- 2006
- 2011
Time Series Analysis
Non-GTHA
* These areas were not included in all surveys.

** County of Simcoe was only partially surveyed in 1996.
5-Year Population Growth

- **Niagara**: Growth from 1996-2001
- **Waterloo**: Growth from 1996-2001
- **Guelph**: Growth from 1996-2001
- **Wellington**: Growth from 1996-2001
- **Orangeville**: Growth from 1996-2001
- **Barrie**: Growth from 1996-2001 and 2001-2006
- **Simcoe**: Growth from 1996-2001 and 2001-2006
- **Orillia**: Growth from 1996-2001
- **Dufferin**: Growth from 1996-2001 and 2001-2006
- **Brantford**: Growth from 1996-2001 and 2001-2006
- **Brant**: Growth from 1996-2001 and 2001-2006

* These areas were not included in all surveys.
** County of Simcoe was only partially surveyed in 1996.
Employed Labour Force

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* These areas were not included in all surveys.
** County of Simcoe was only partially surveyed in 1996.
Employed Labour Force Participation Rate

Proportion of Population (Aged 19-64)

Region of Household

* These areas were not included in all surveys.
** County of Simcoe was only partially surveyed in 1996.
Non-GTHA Employment
(Survey Area Residents)

- These areas were not included in all surveys.
- County of Simcoe was only partially surveyed in 1996.
Employment minus Employed Labour Force

- These areas were not included in all surveys.
- County of Simcoe was only partially surveyed in 1996.
Vehicle Availability
Non-GTHA Residents

Vehicle per Adult (>=16 years old)

Region of Household

* These areas were not included in all surveys.
** County of Simcoe was only partially surveyed in 1996.
Proportion of Non-GTHA Adults (>=16 years old) With a Driver's Licence

Proportion

Age Cohort

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95

Female: 1996 Male: 1996
Female: 2001 Male: 2001
Female: 2006 Male: 2006
Female: 2011 Male: 2011
First Trip to Work
Median Trip Length

* These areas were not included in all surveys.
** County of Simcoe was only partially surveyed in 1996.
All Trips by Mode
Non-GTHA Residents

Mode of Travel

Proportion of Total Trips

Auto Driver
Auto passenger
Transit
Other

1996
2001
2006
2011
Data Access

Email: info@dmg.utoronto.ca