

2006 Transportation Tomorrow Survey

Data Presentation

PARTICIPATING AGENCIES



City of Barrie



County of Dufferin



Regional Municipality of Halton



City of Brantford



County of Peterborough



Regional Municipality of Niagara



City of Guelph



County of Simcoe



Regional Municipality of Peel



City of Hamilton



County of Wellington



Regional Municipality of Waterloo



City of Kawartha Lakes



GO Transit



Regional Municipality of York



City of Peterborough



Ministry of Transportation Ontario



Toronto Transit Commission



City of Toronto



Regional Municipality of Durham



Town of Orangeville

Seminar Agenda

- Conduct of the Survey
- 2006 Data Summary
(15 minute break)
- Data Validation
- Time Series Analysis (1986,1991,1996,2001,2006)
- Data Access

Conduct of the Survey

Supporting Agencies

Original (1986, 1991)

Cities of Toronto and Hamilton

Regional Municipalities of Durham, Halton, Peel, York

GO Transit, Ministry of Transportation Ontario, Toronto Transit Commission

Additions in 1996

Cities of Barrie, Guelph, Kawartha Lakes, Peterborough

Counties of Peterborough, Simcoe, Wellington

Regional Municipalities of Niagara, Waterloo

Town of Orangeville

Changes in 2001

City of Orillia

Regional Municipality of Waterloo (elected not to participate)

Changes in 2006

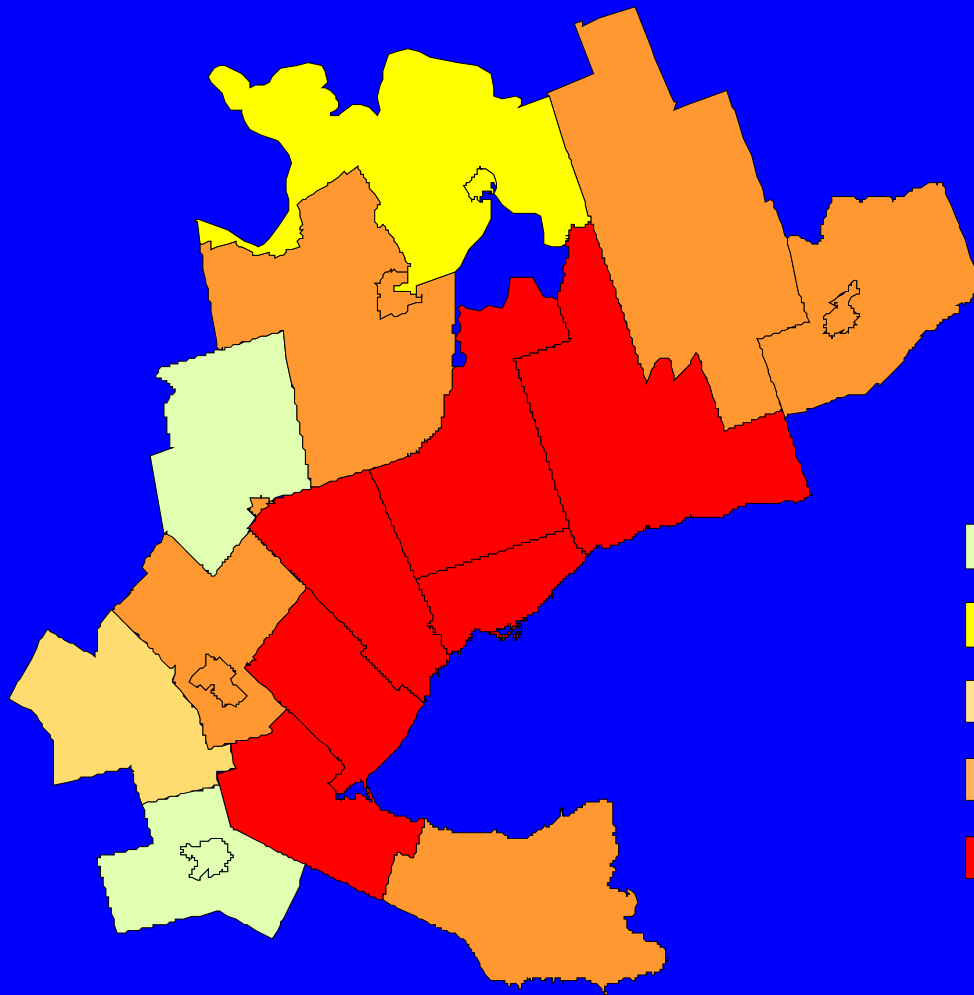
City of Brantford

County of Dufferin

Regional Municipality of Waterloo

City of Orillia (elected not to participate)

Survey Area



-  2006 only
-  2001 and 2006
-  1996 and 2006
-  1996, 2001 and 2006
-  1986, 1991, 1996, 2001 and 2006

2006 Survey Period

<u>Period</u>	<u>Area</u>	<u>Staff</u>
September 2005 - February 2006	External to GTAH	109
September 2006 - January 2007	GTAH	320

Sample Control

Telephone listings from InfoCanada

- 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 2006 Census Dwelling Units by Census tract

Survey Procedure

- Advance Letter
- Telephone Interview (maximum of 8 attempts)
- Geocode all Location Information
- Call Back if Necessary

Survey Questions in 2006

Household

- Home Location
- Number of People
- Number of Vehicles
- Dwelling Type

Person

- Age and Gender
- License to Drive
- Transit Pass
- Employment and Student Status
- Occupation
- Work and School Locations
- Availability of Free Parking at Work
- Work at Home on Survey Day

Trip

- Origin and Destination Locations
- Purpose
- Start time
- Mode of Travel
- Detail of Access, Egress and Route for Transit Trips

Interview Process in 2006

Equipment

- 120 interview stations, 8 monitoring stations, 12 coding stations on a Local Area Network

Four interviewing teams

- Interviewing hours:
 - ▶ Evenings: 5:30 p.m. - 9:30 p.m.
 - ▶ Saturdays: 10:00 a.m. - 2:00 p.m.

Daytime Interviewing Team

- Schedule Call-backs
- Respondent Call-ins
- Visual editing of completed interviews

Geocoding Process in 2006

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 Traffic Zone System

Quality Control

- Logic checks in Direct Data Entry Software
- Silent Telephone Monitoring
- Validation Checks Run Nightly
- Visual Editing of Printouts of Completed Interviews
- Extensive Logic and Validation Checks Processed on Completed Database

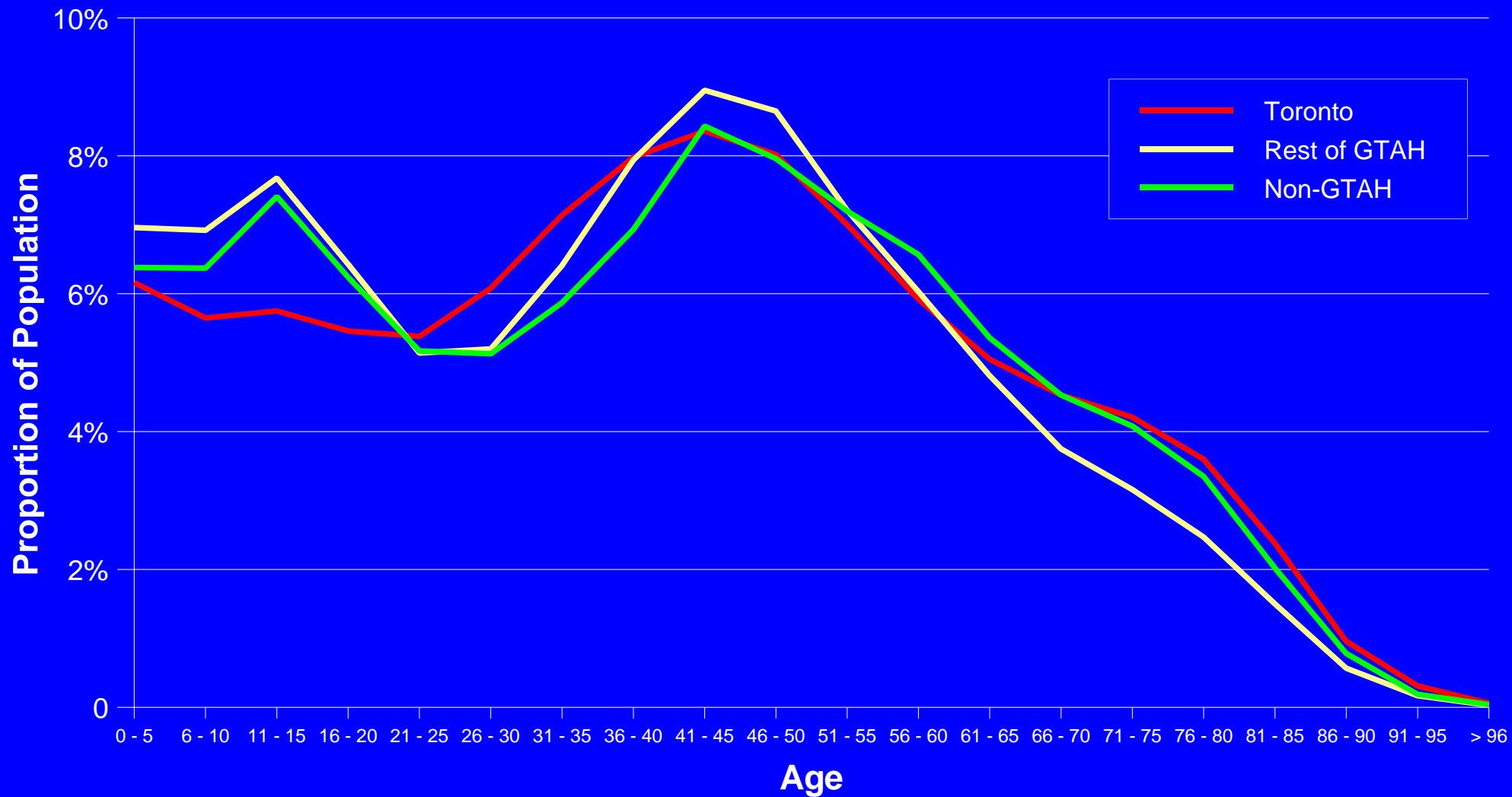
2006 Data Summary



2006 TTS - Number of Records

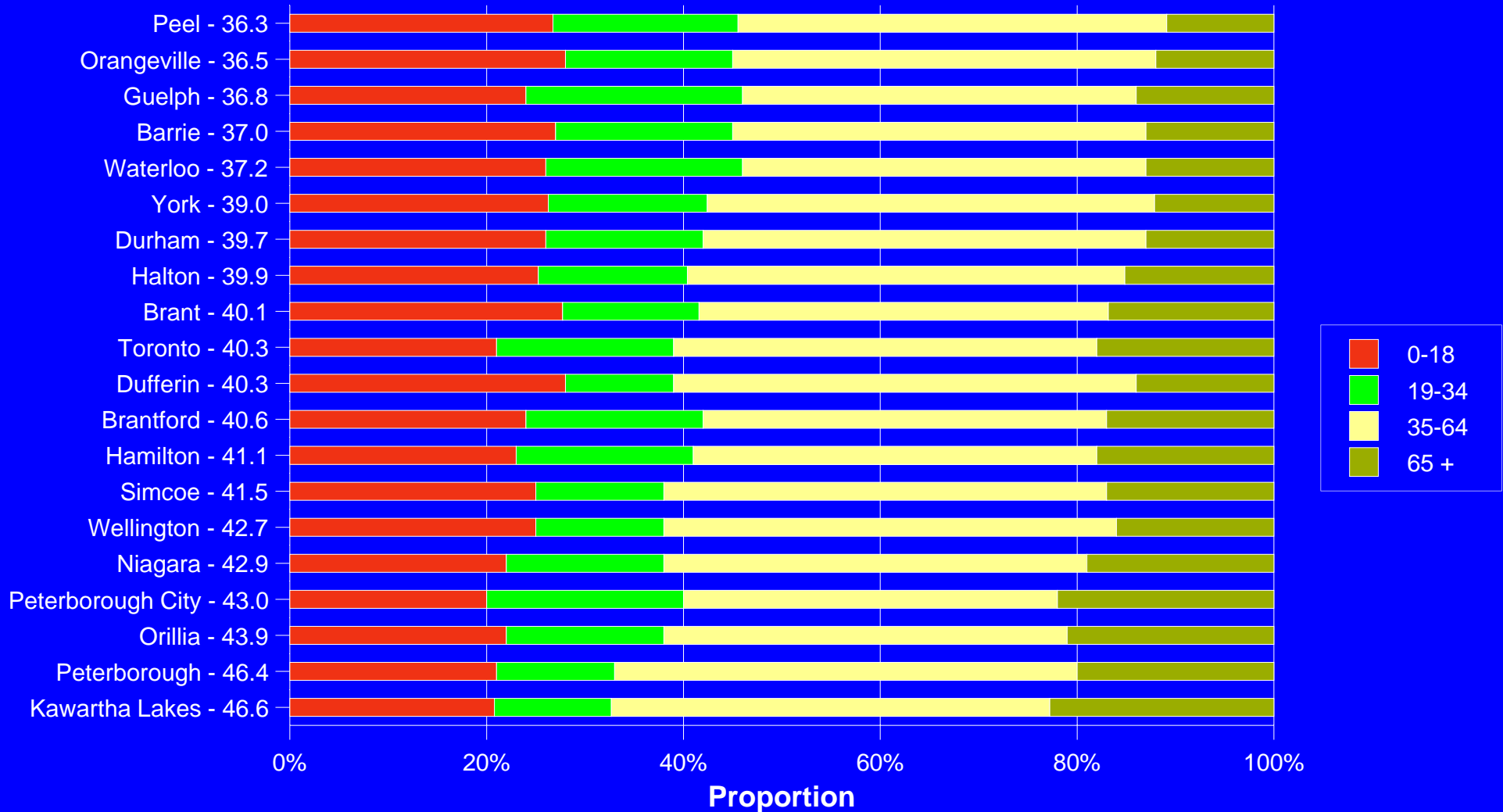
Participating Agency	Households	Persons	Trips
City of Toronto	51,600	129,300	253,900
Regional Municipality of Durham	9,500	26,400	59,800
Regional Municipality of York	14,200	44,000	95,300
Regional Municipality of Peel	17,900	56,100	117,600
Regional Municipality of Halton	9,200	24,700	58,000
City of Hamilton	10,000	25,200	54,900
Regional Municipality of Niagara	8,900	22,100	54,200
Regional Municipality of Waterloo	8,700	23,500	55,800
City of Guelph	2,300	6,000	14,500
County of Wellington	1,100	2,900	6,500
Town of Orangeville	500	1,500	3,500
City of Barrie	2,100	5,600	12,900
County of Simcoe	5,400	14,300	31,500
City of Kawartha Lakes	1,700	4,100	8,800
City of Peterborough	1,700	4,100	10,000
County of Peterborough	900	2,300	5,400
City of Orillia	600	1,500	3,400
County of Dufferin	800	2,100	4,400
City of Brantford	1,700	4,400	10,400
County of Brant	600	1,700	3,700
Total Survey Area	149,600	401,700	864,300

Population Distribution by Age Group

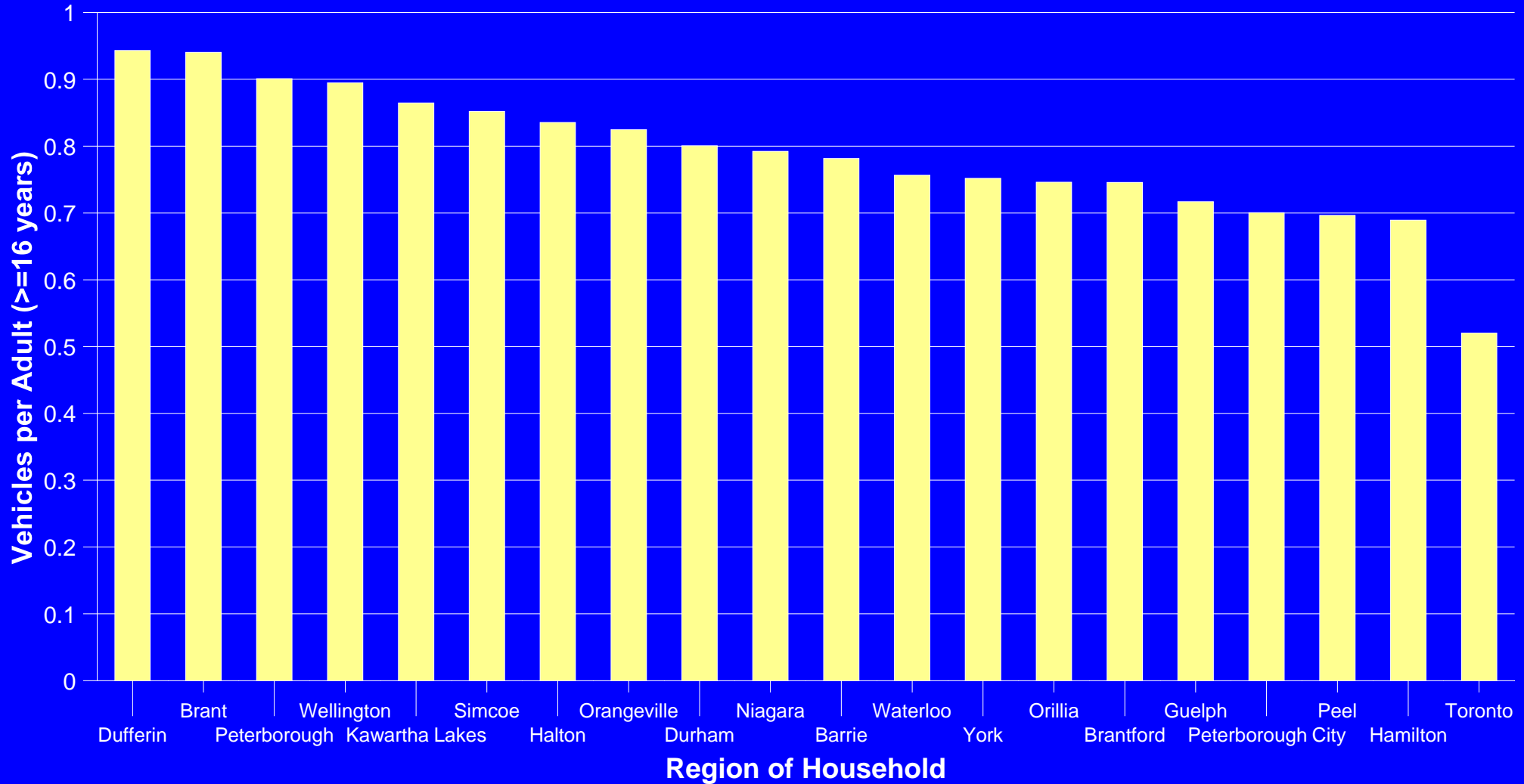


Population Distribution and Median Age

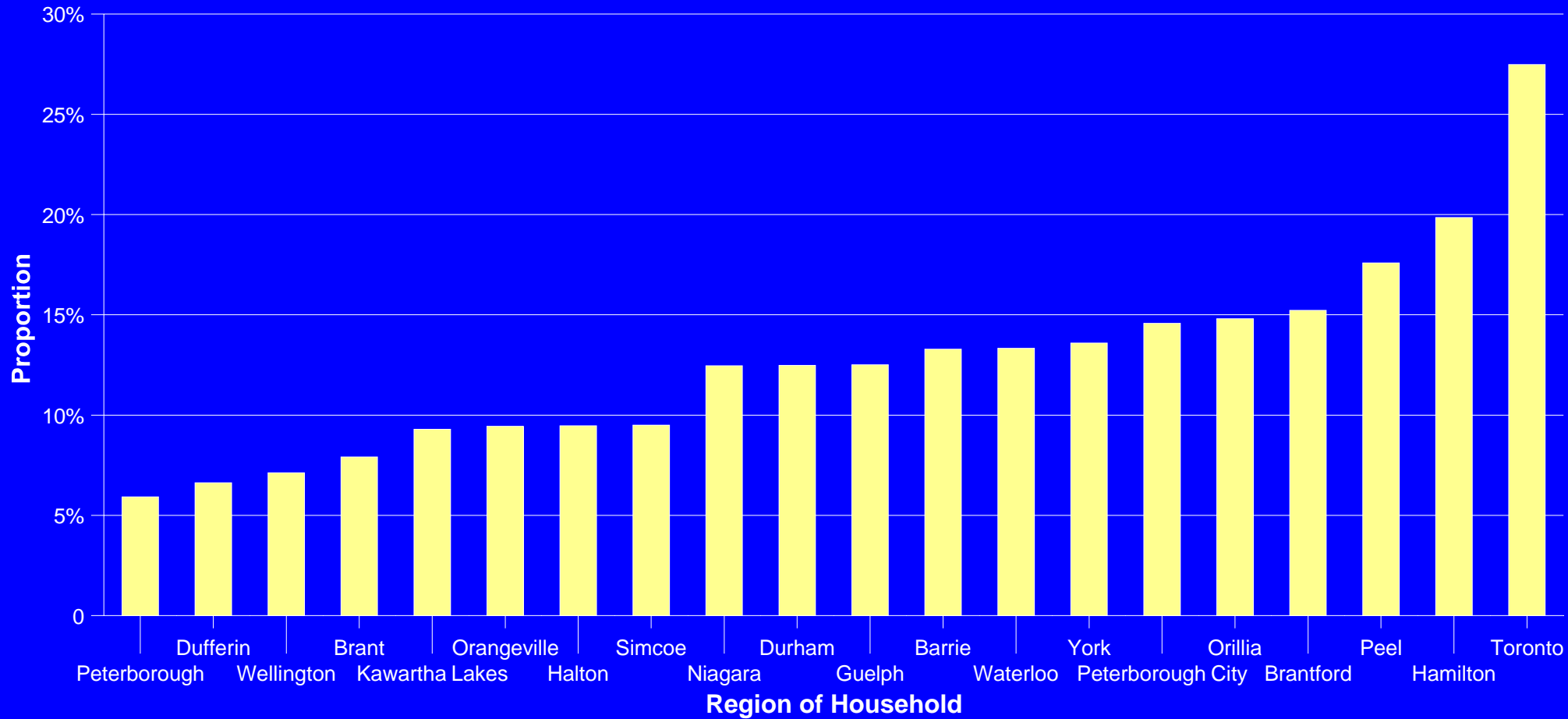
Region of Household and Median Age



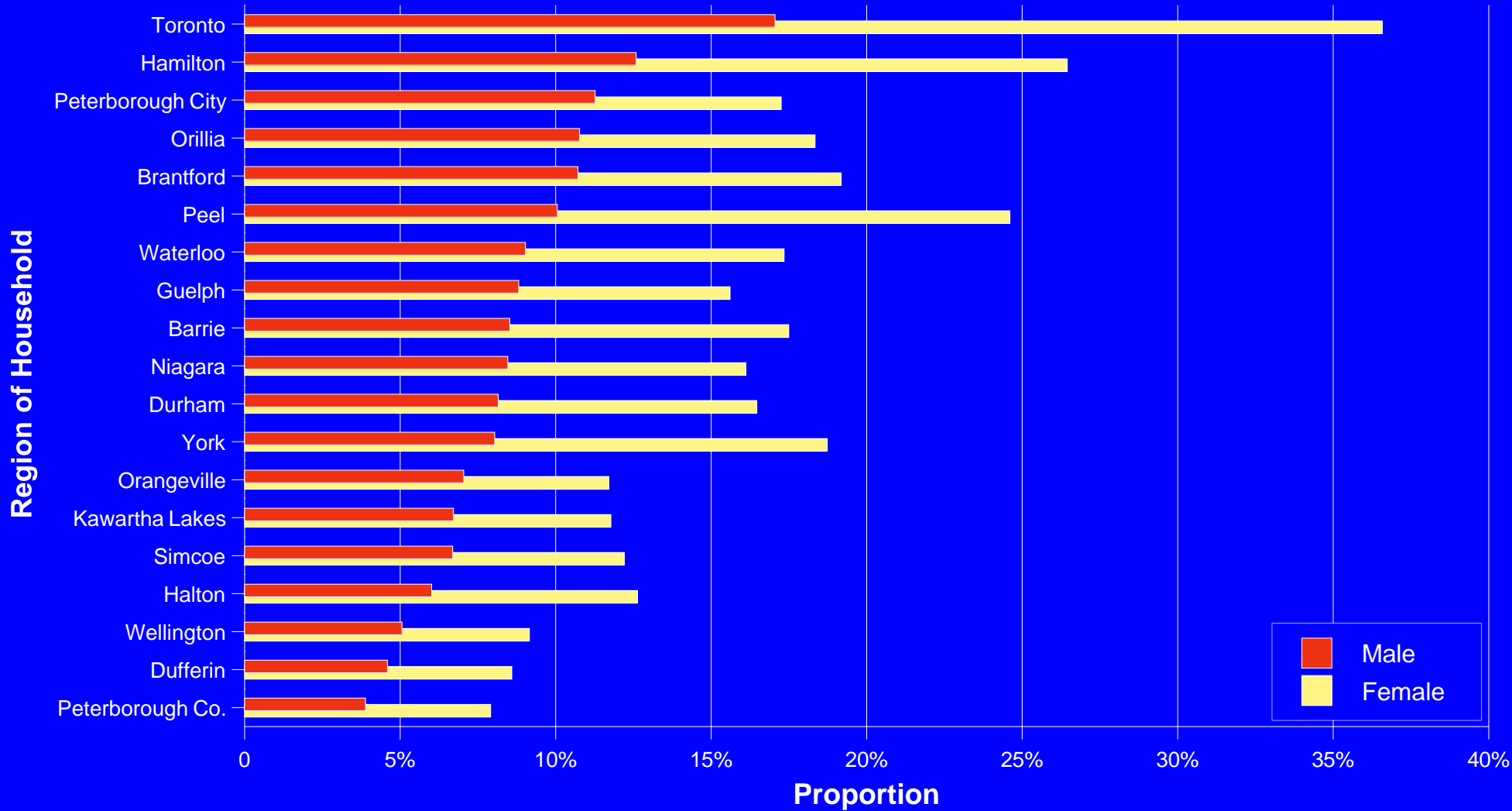
Vehicle Availability



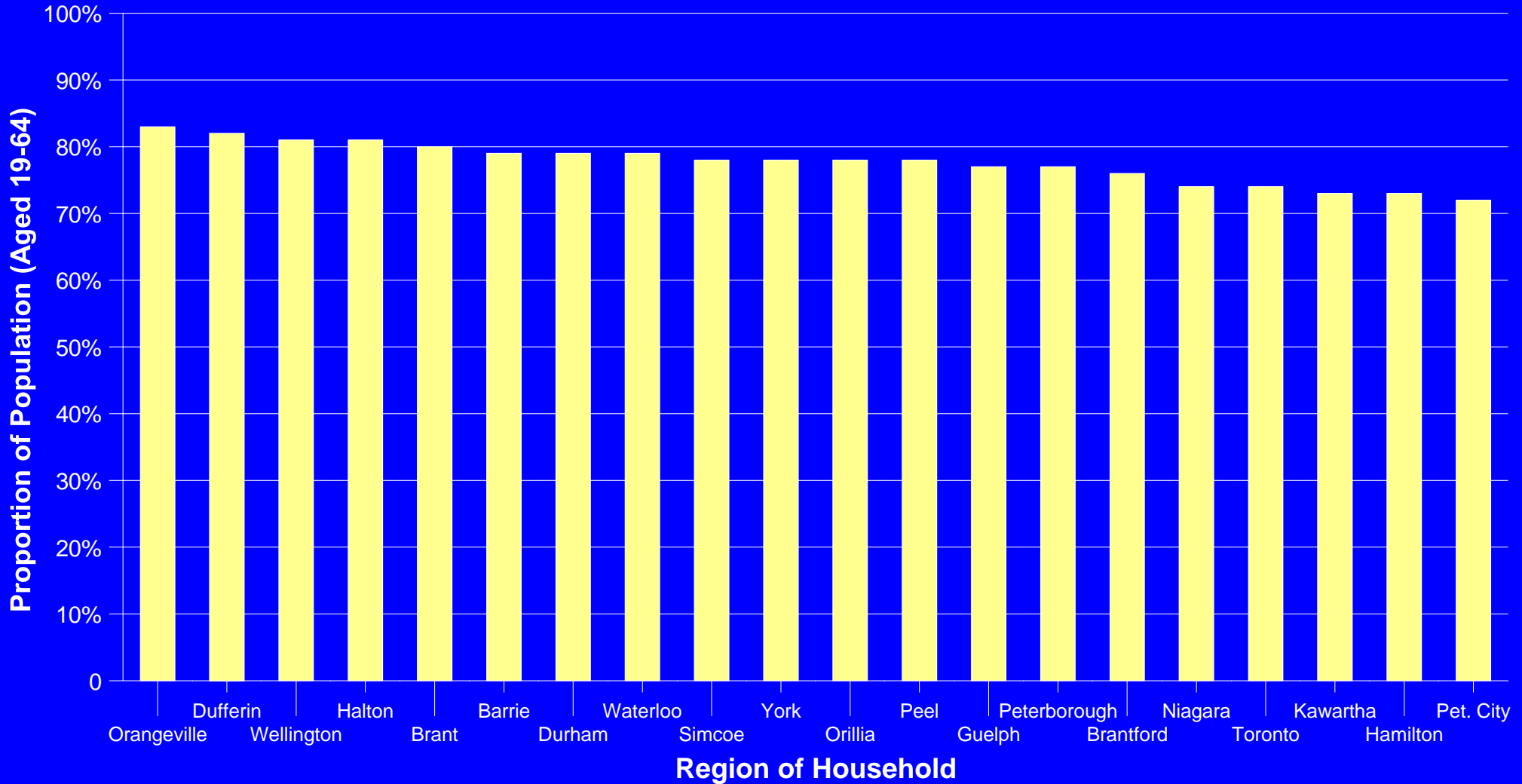
Proportion of Adults (≥ 16) Without a Driver's License



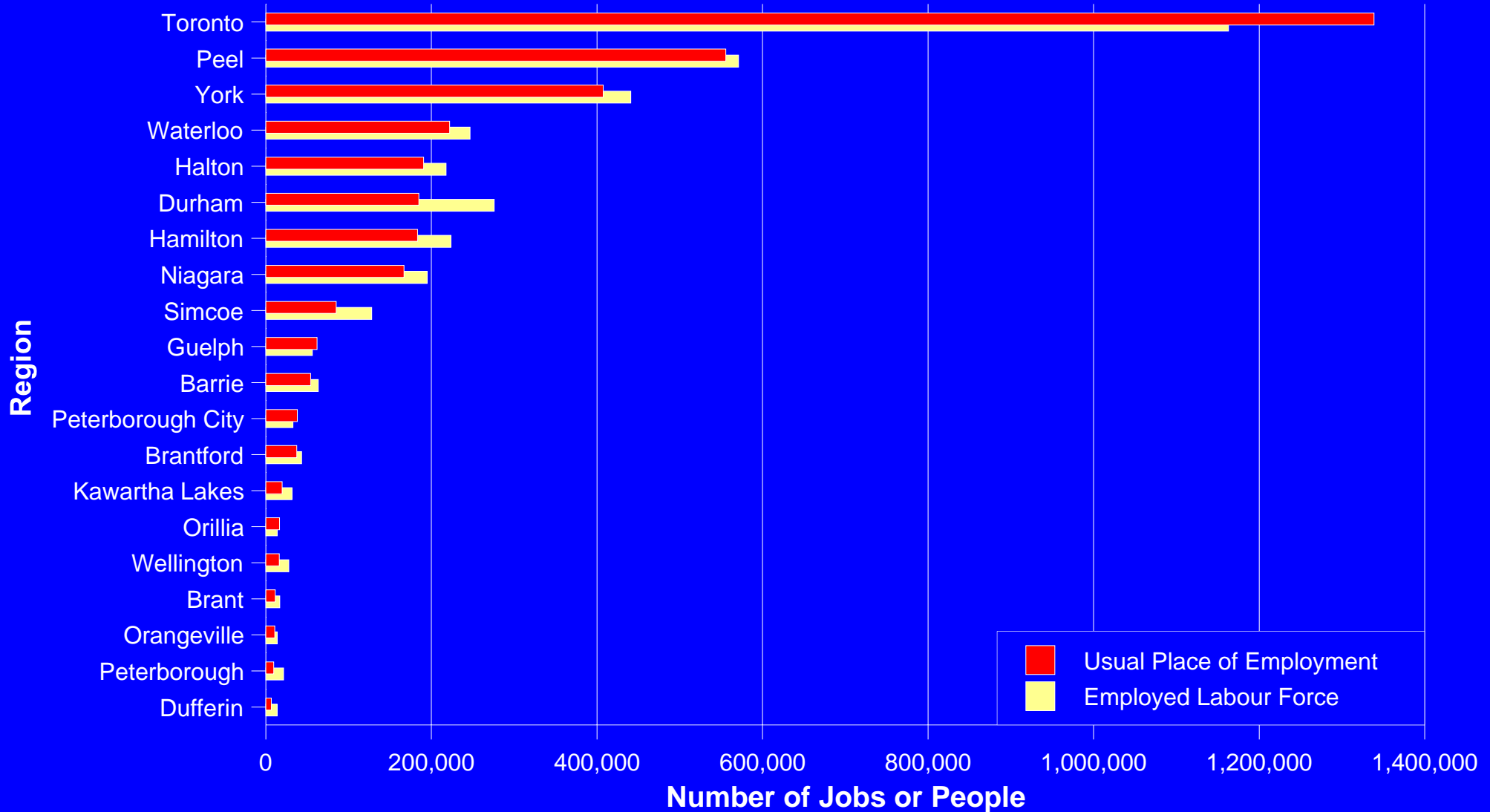
Proportion of Adults (>=16) Without a Drivers Licence



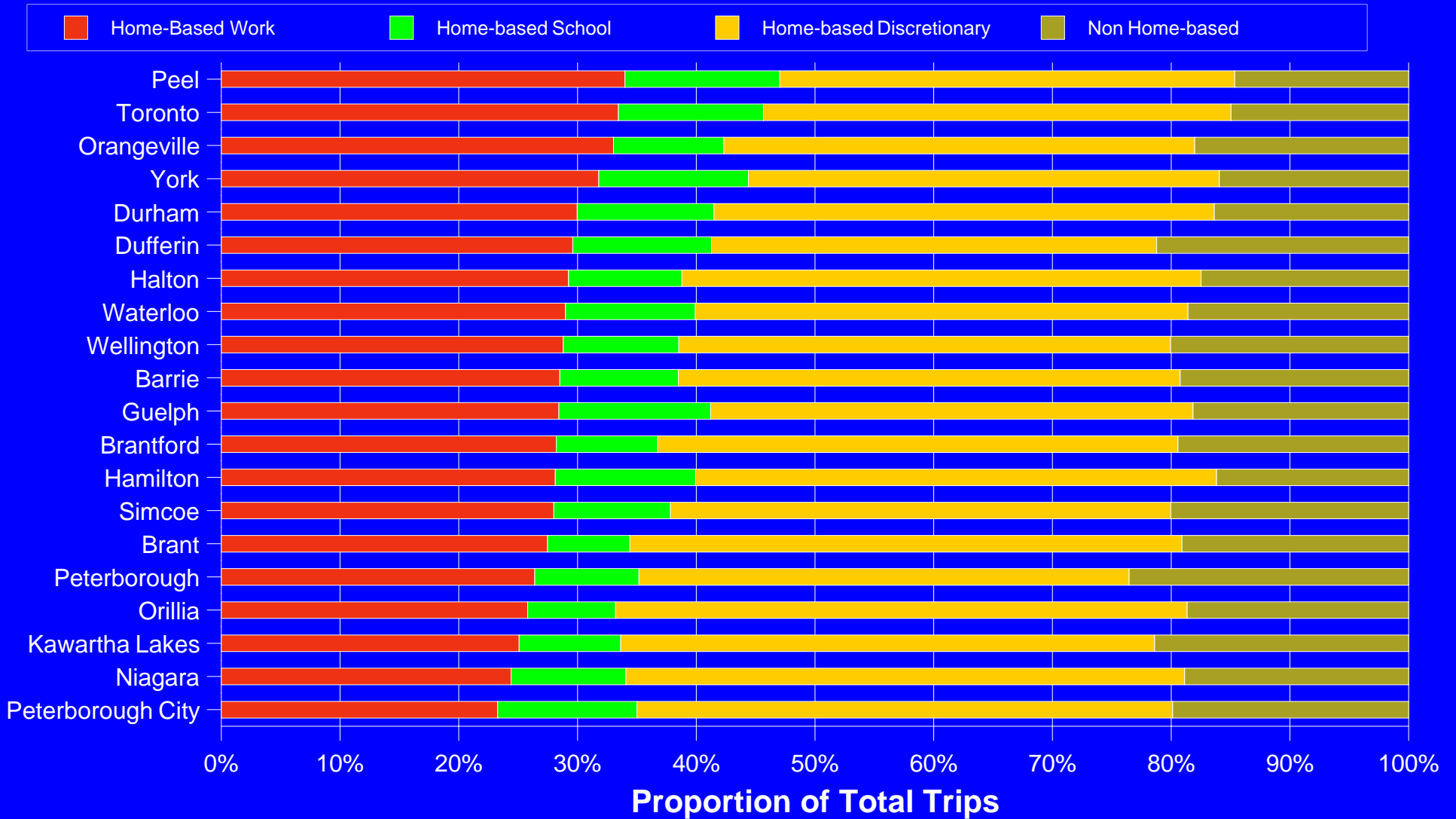
Employed Labour Force Participation Rate



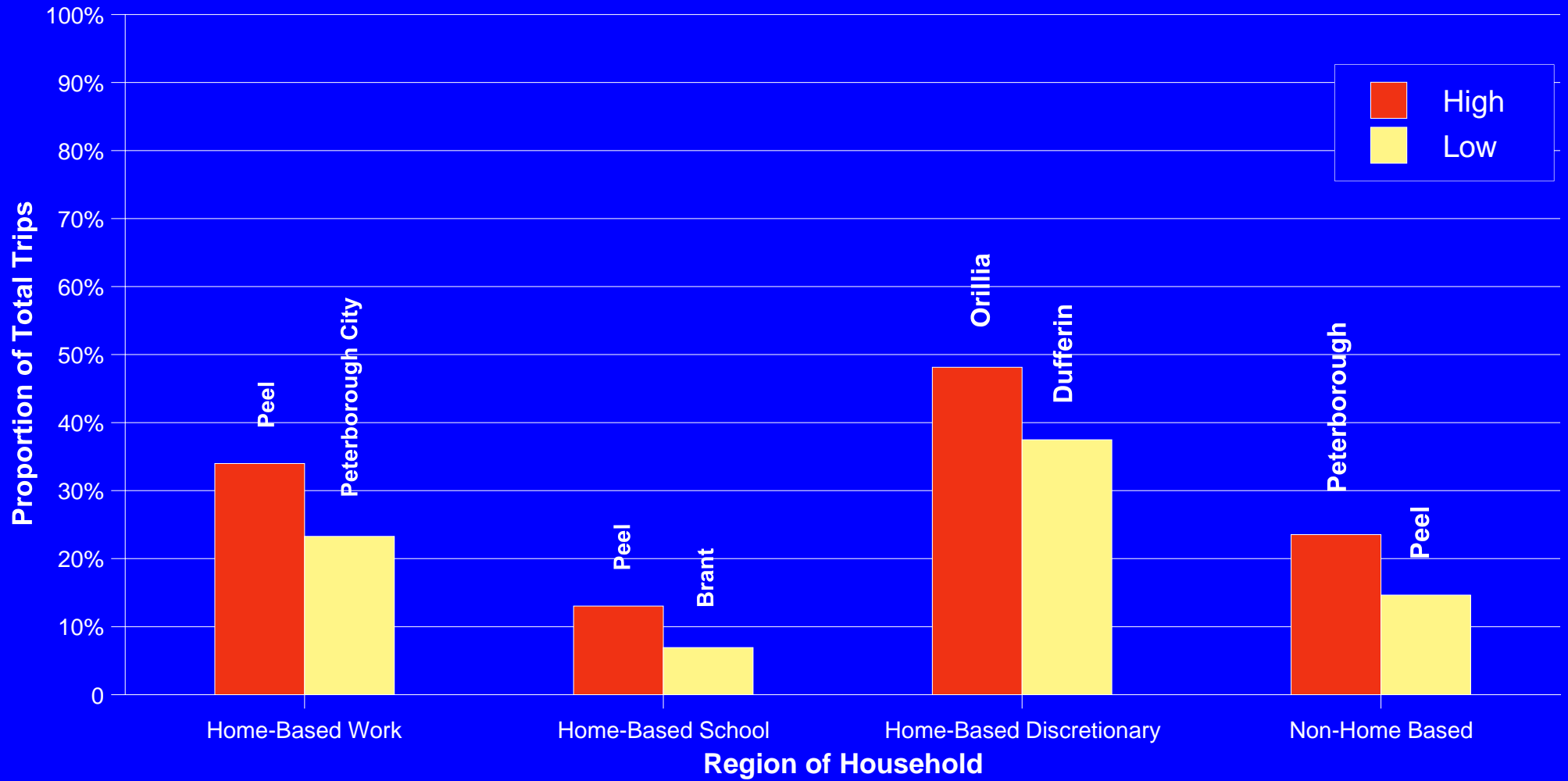
Employment vs. Employed Labour Force



Trips by Trip Purpose



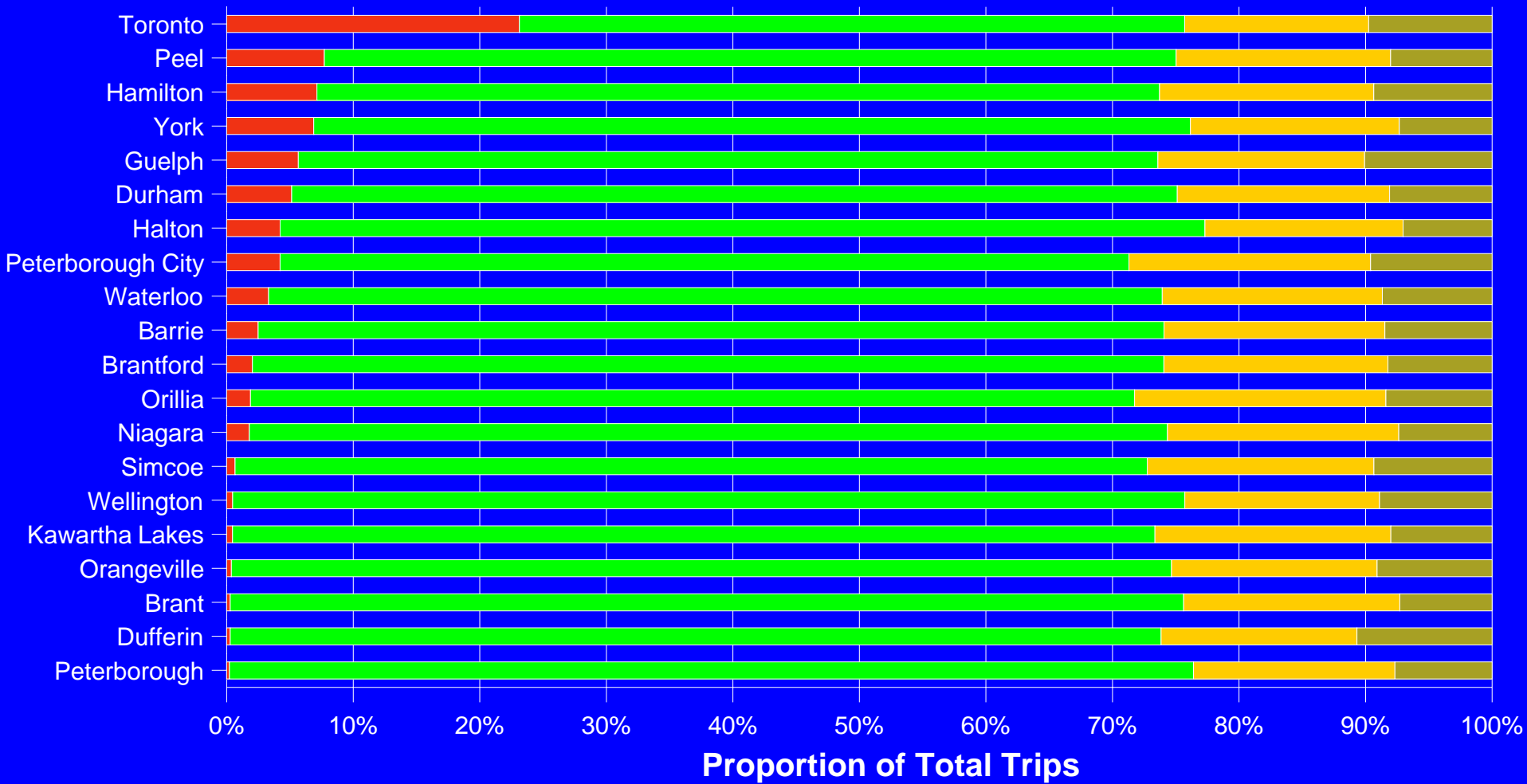
Trip Purpose



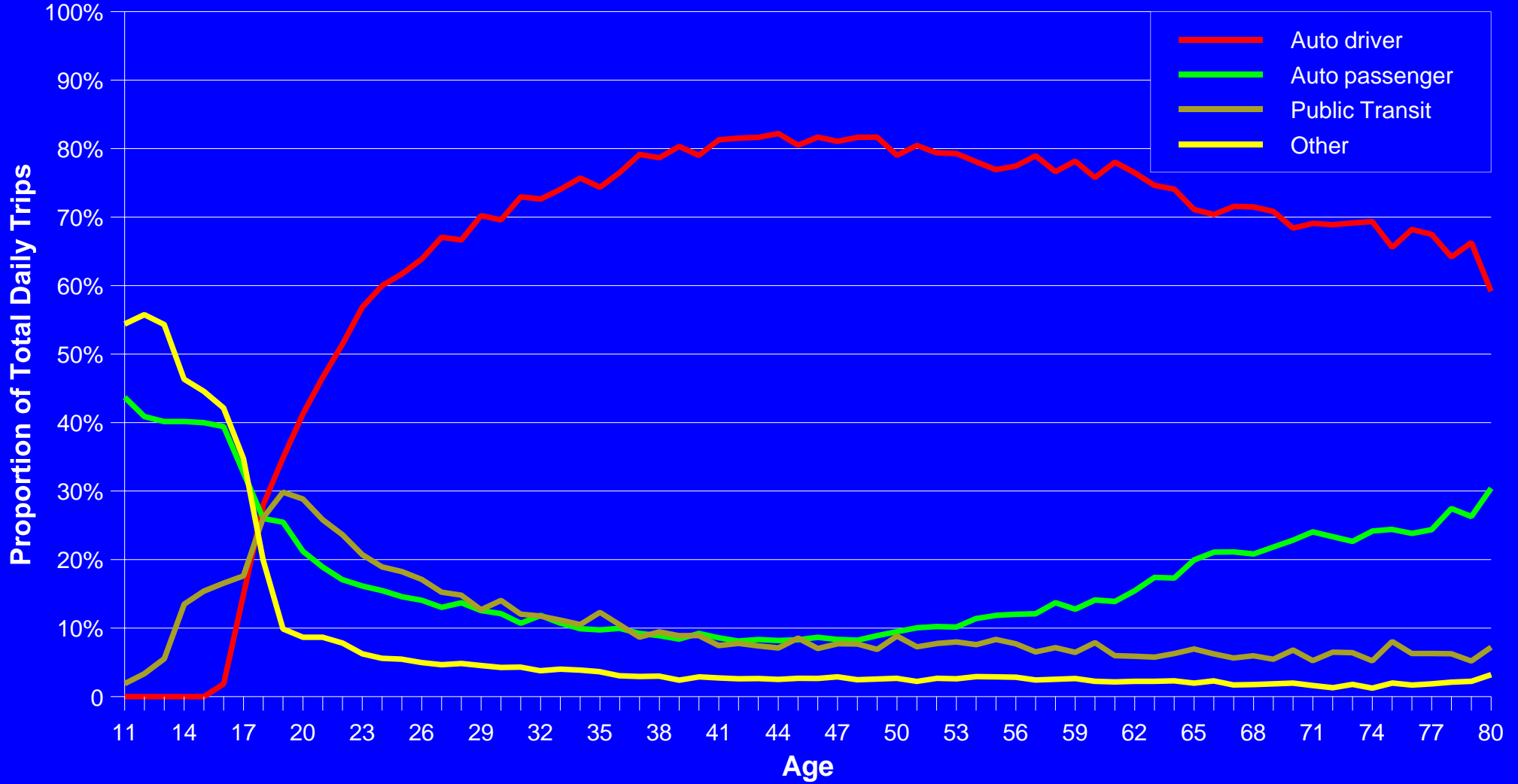
Mode Split - All Trips



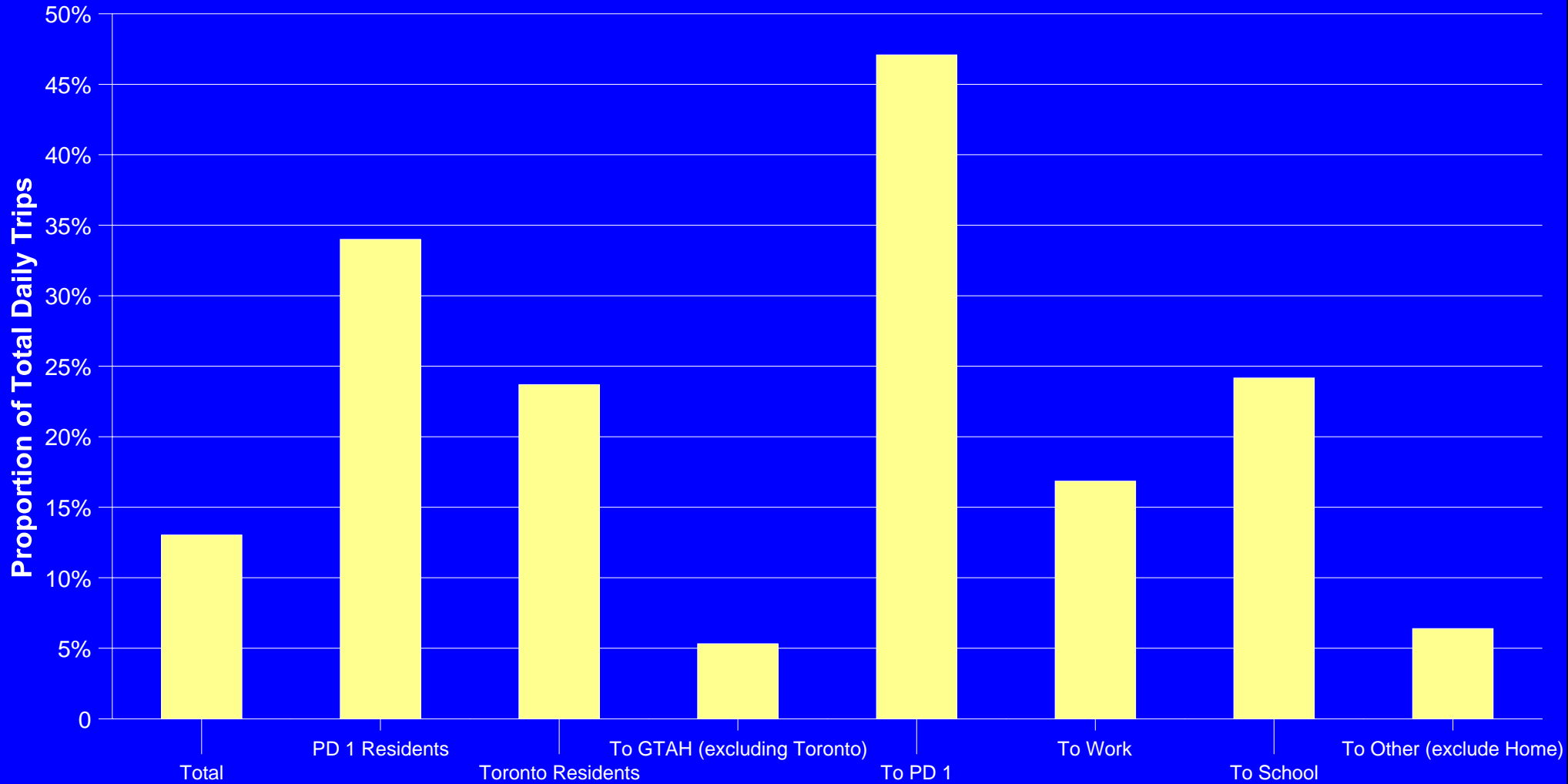
Region of Household



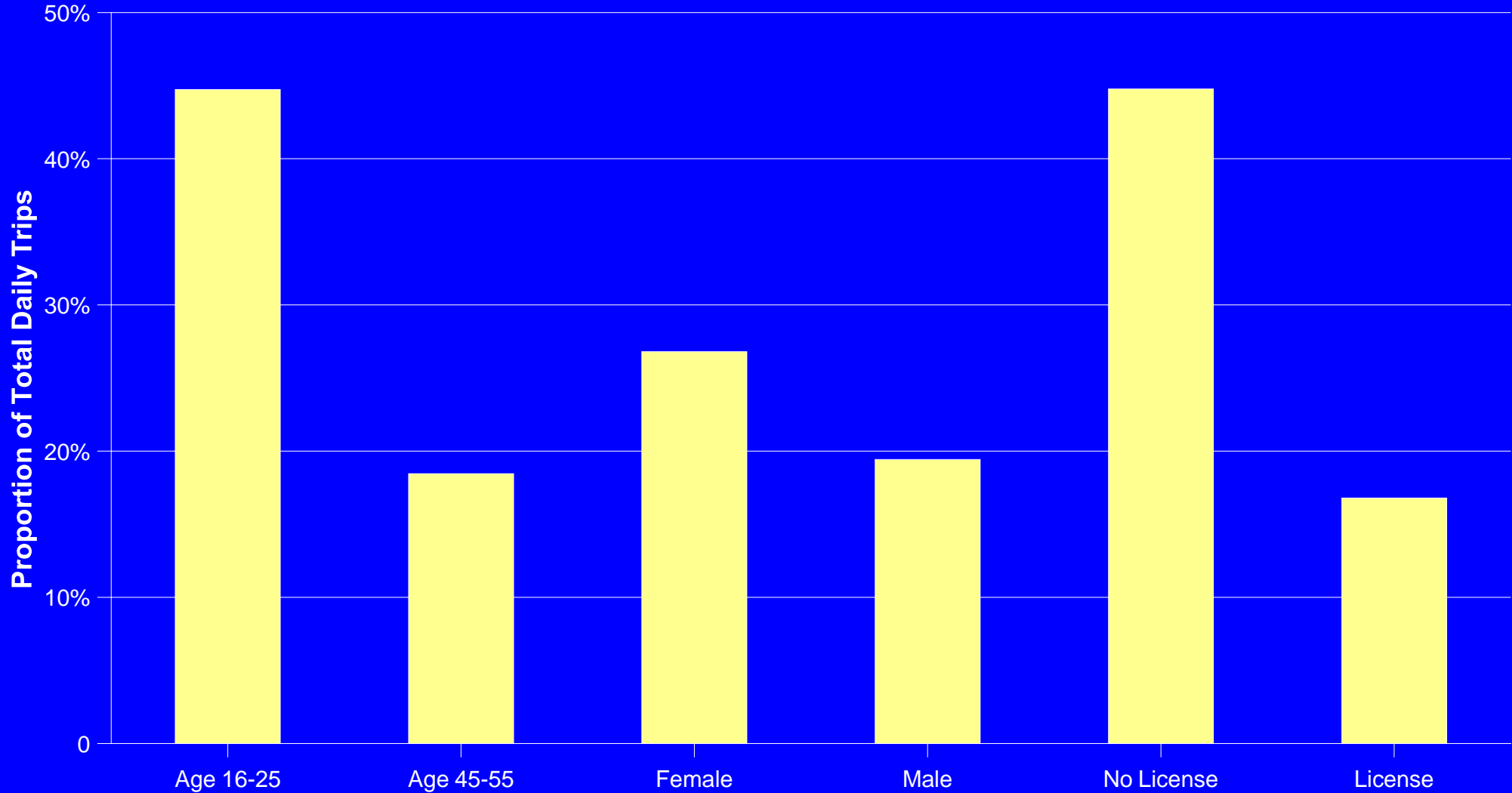
Total Survey Area Mode Split



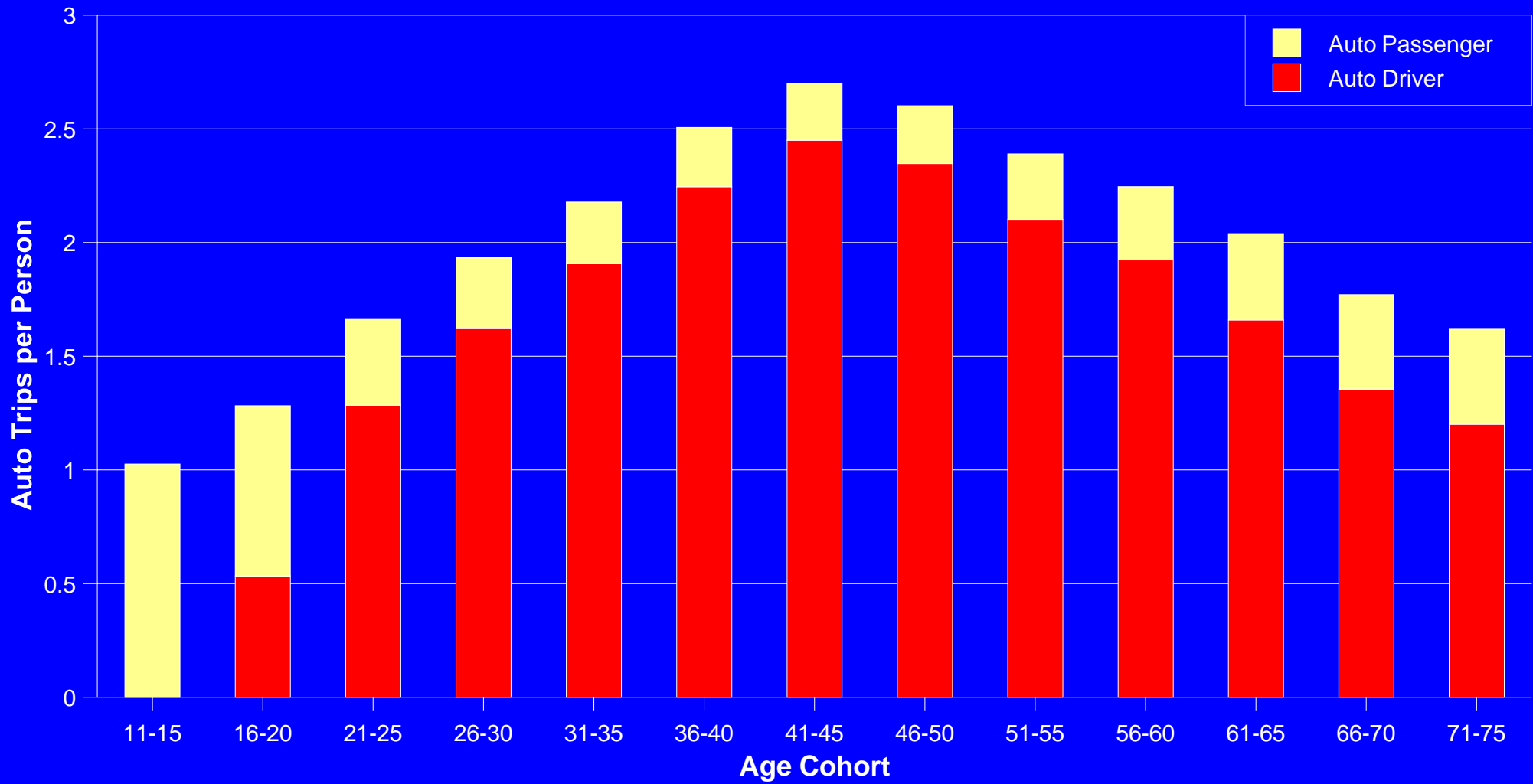
GTAH Residents Transit Mode Split



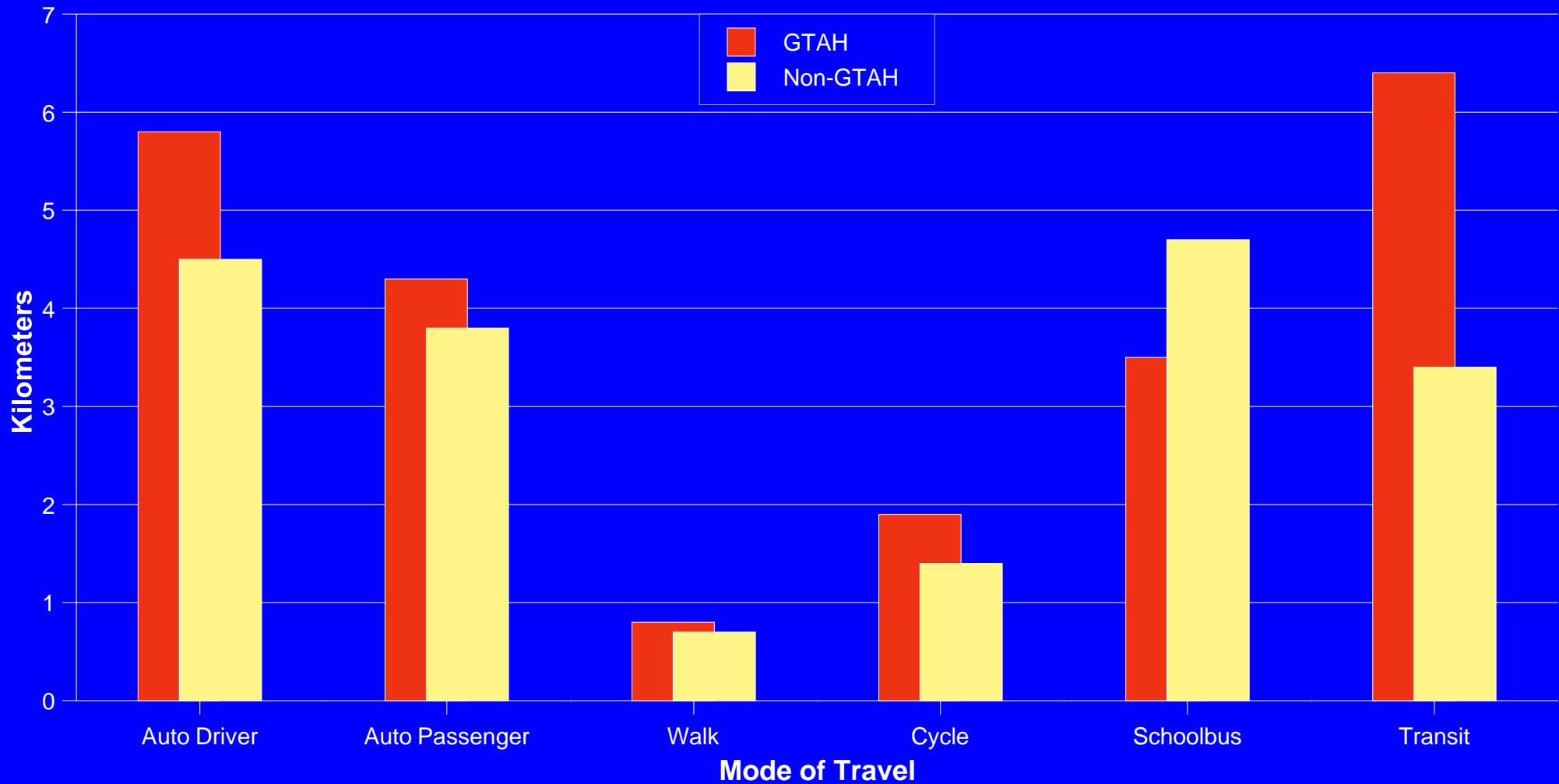
Toronto Residents Transit Mode Split



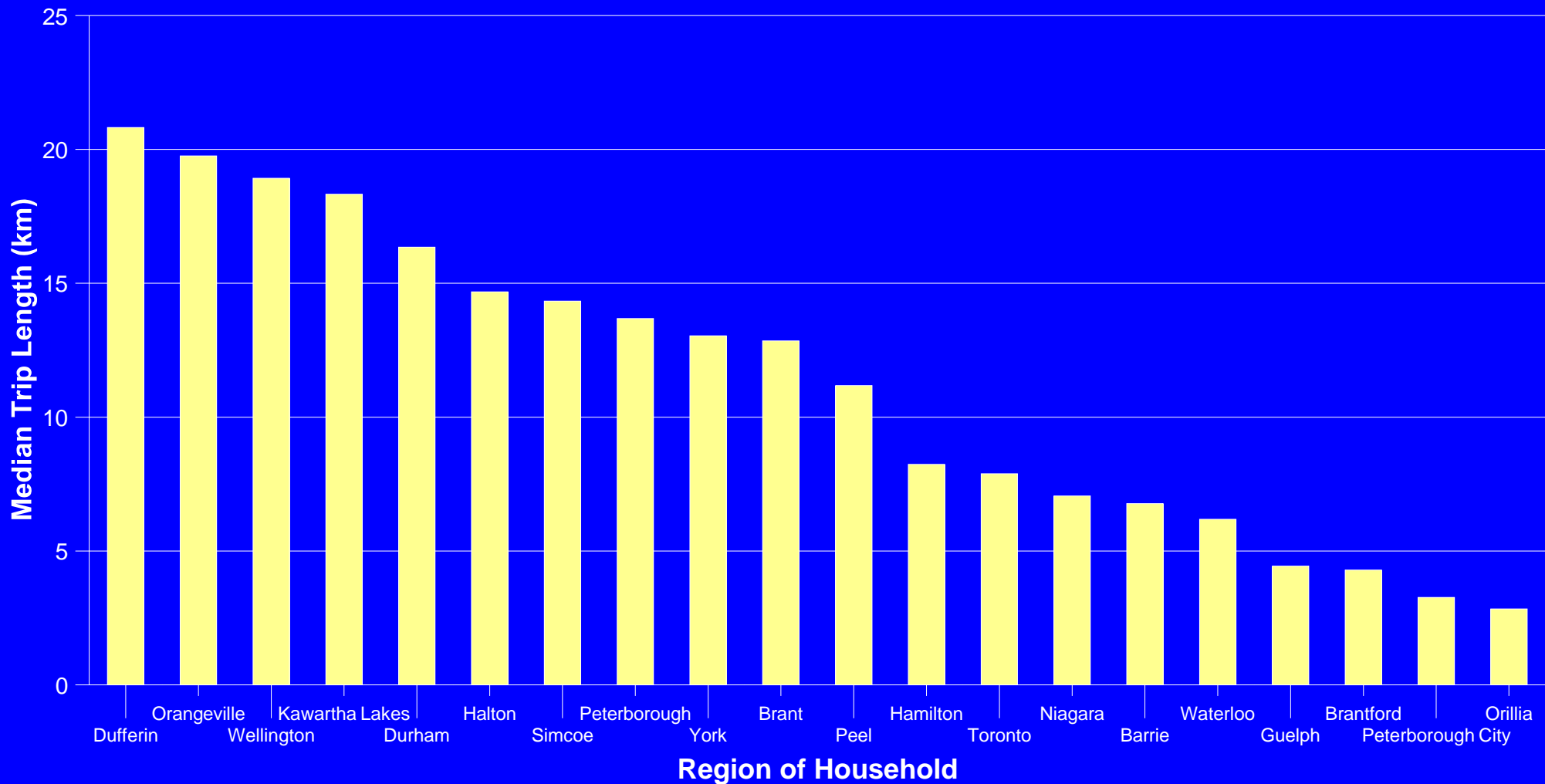
Auto Trip Rate (Driver and Passenger)



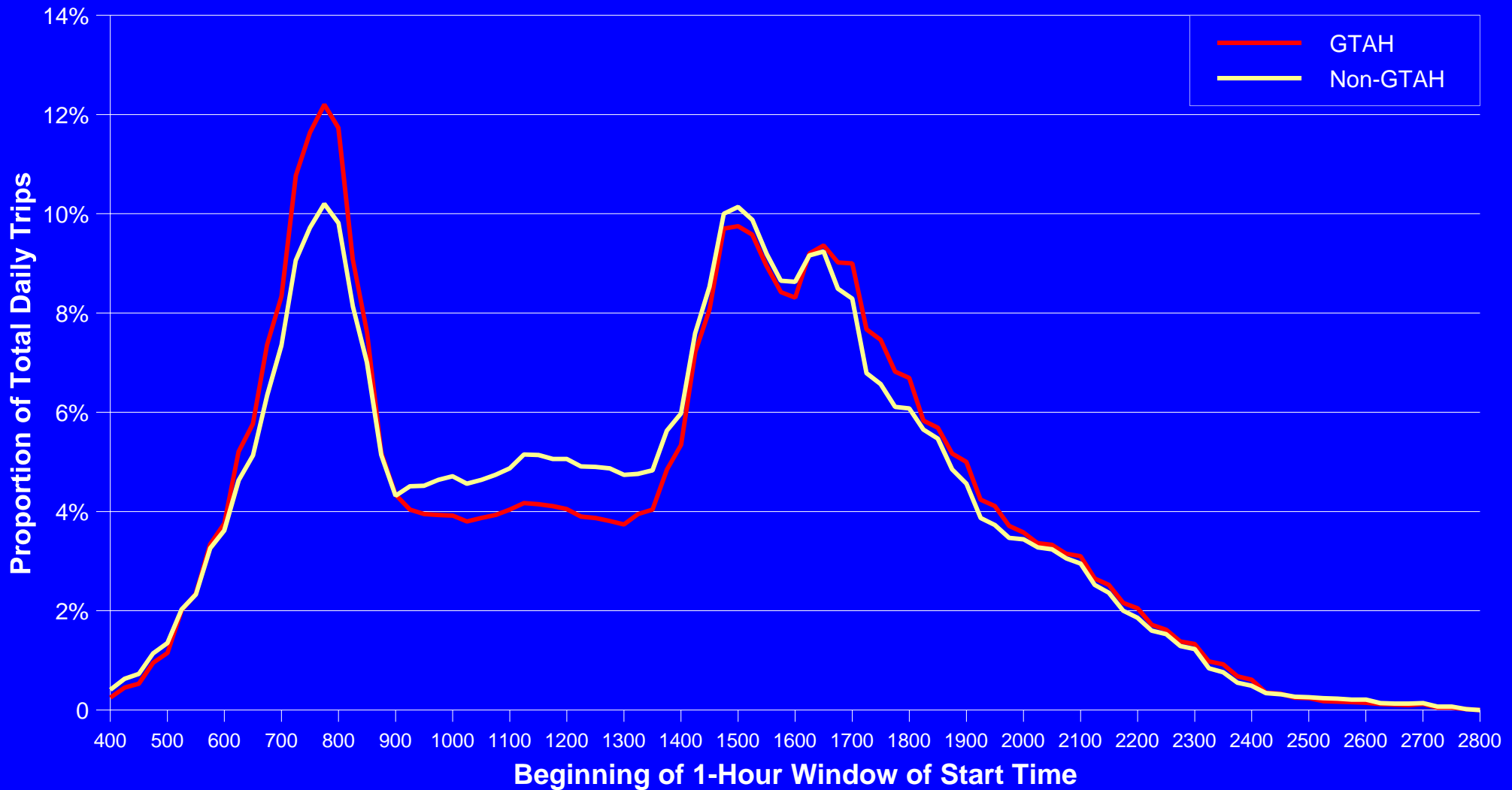
Median Trip Length (Transit does not include GO Rail)



First Trip to Work Trip Length

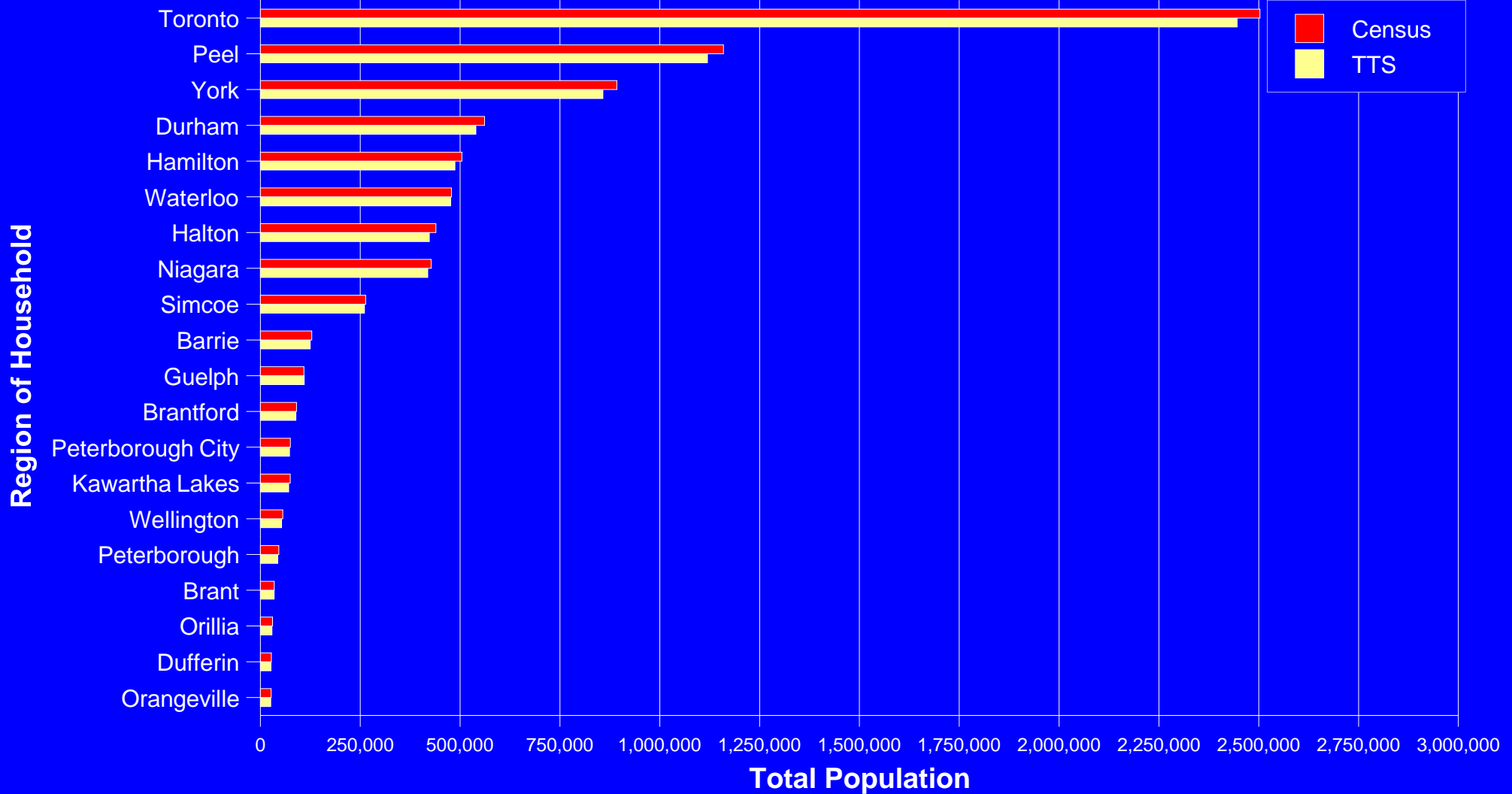


Trip Start Time

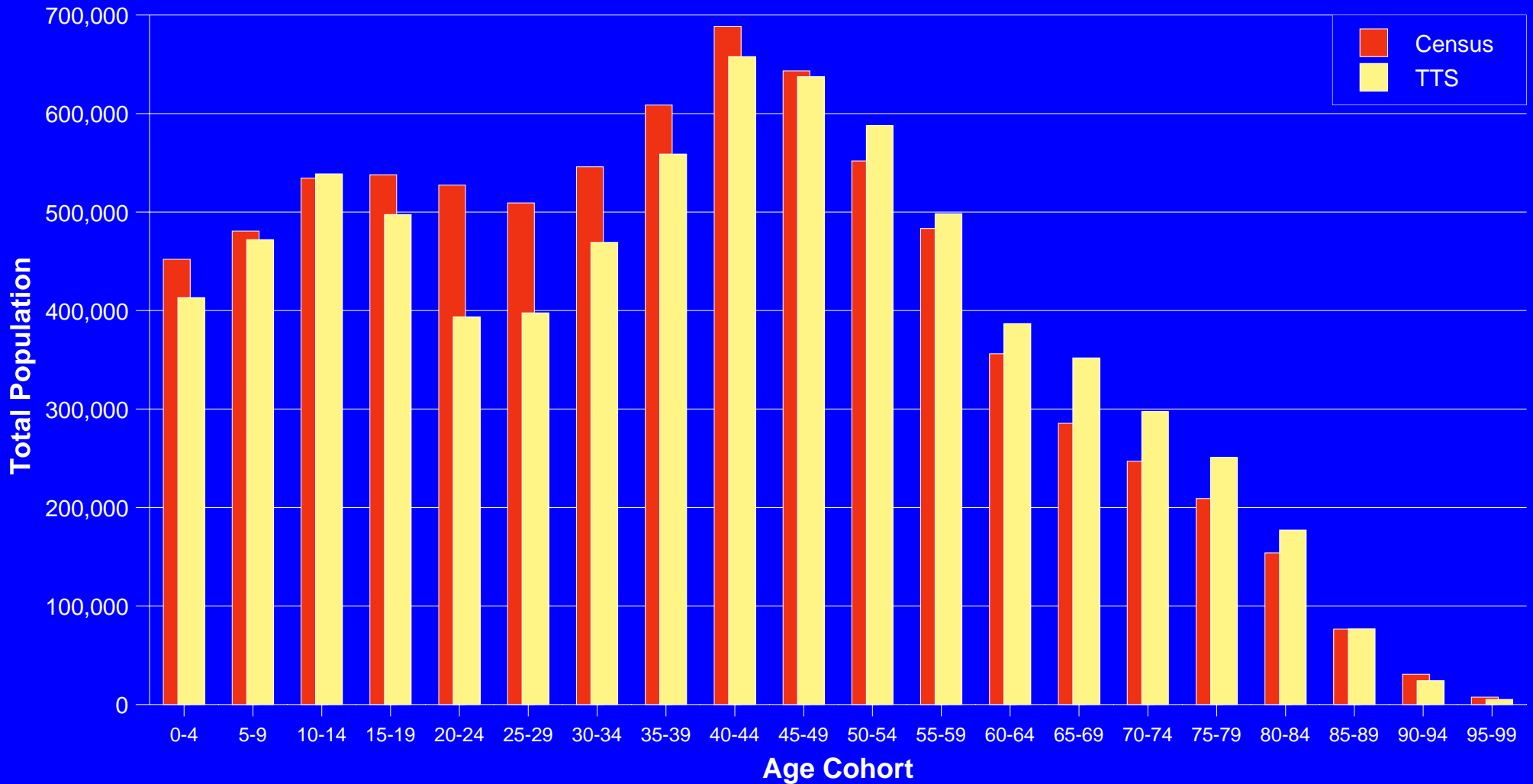


Data Validation

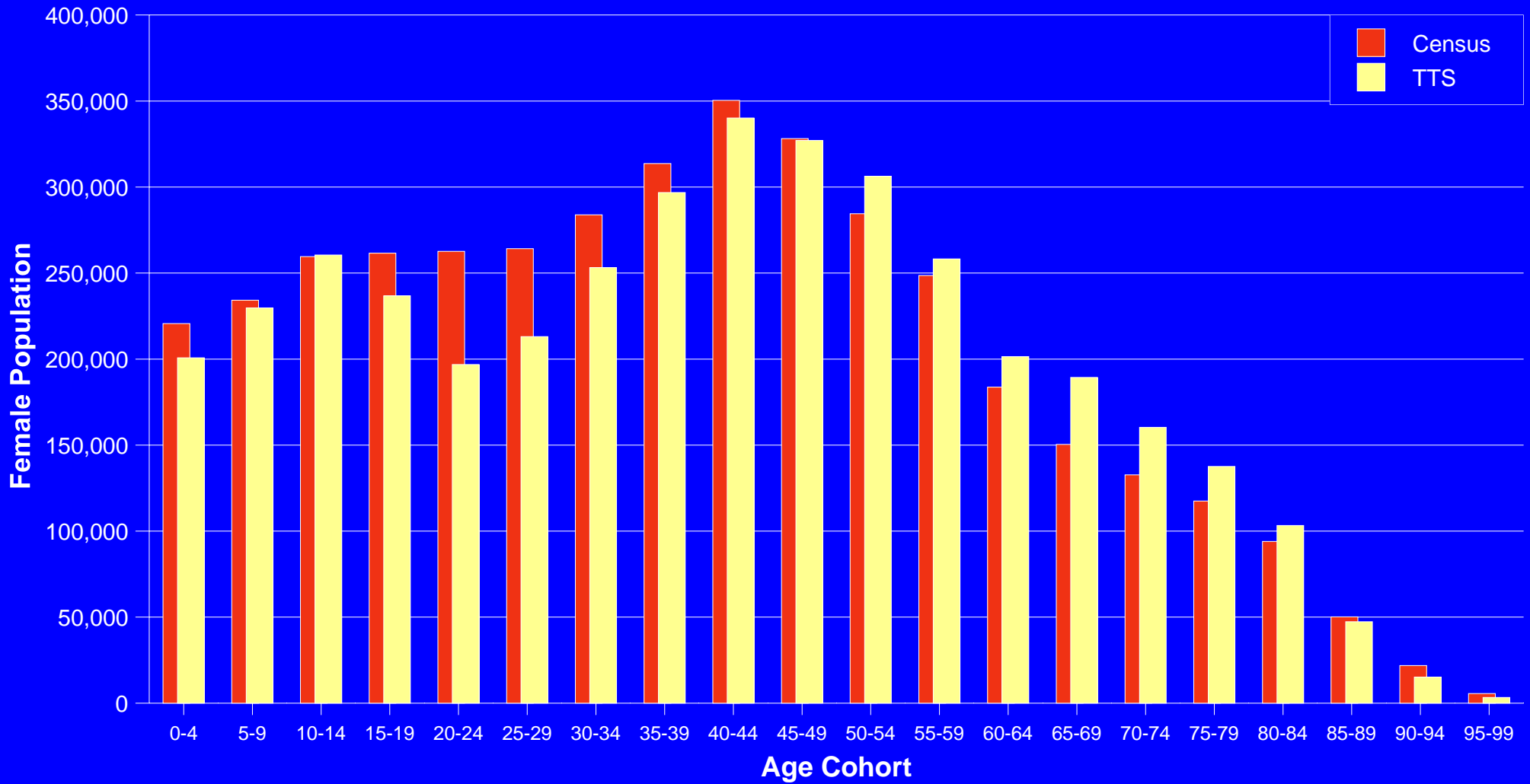
2006 Population



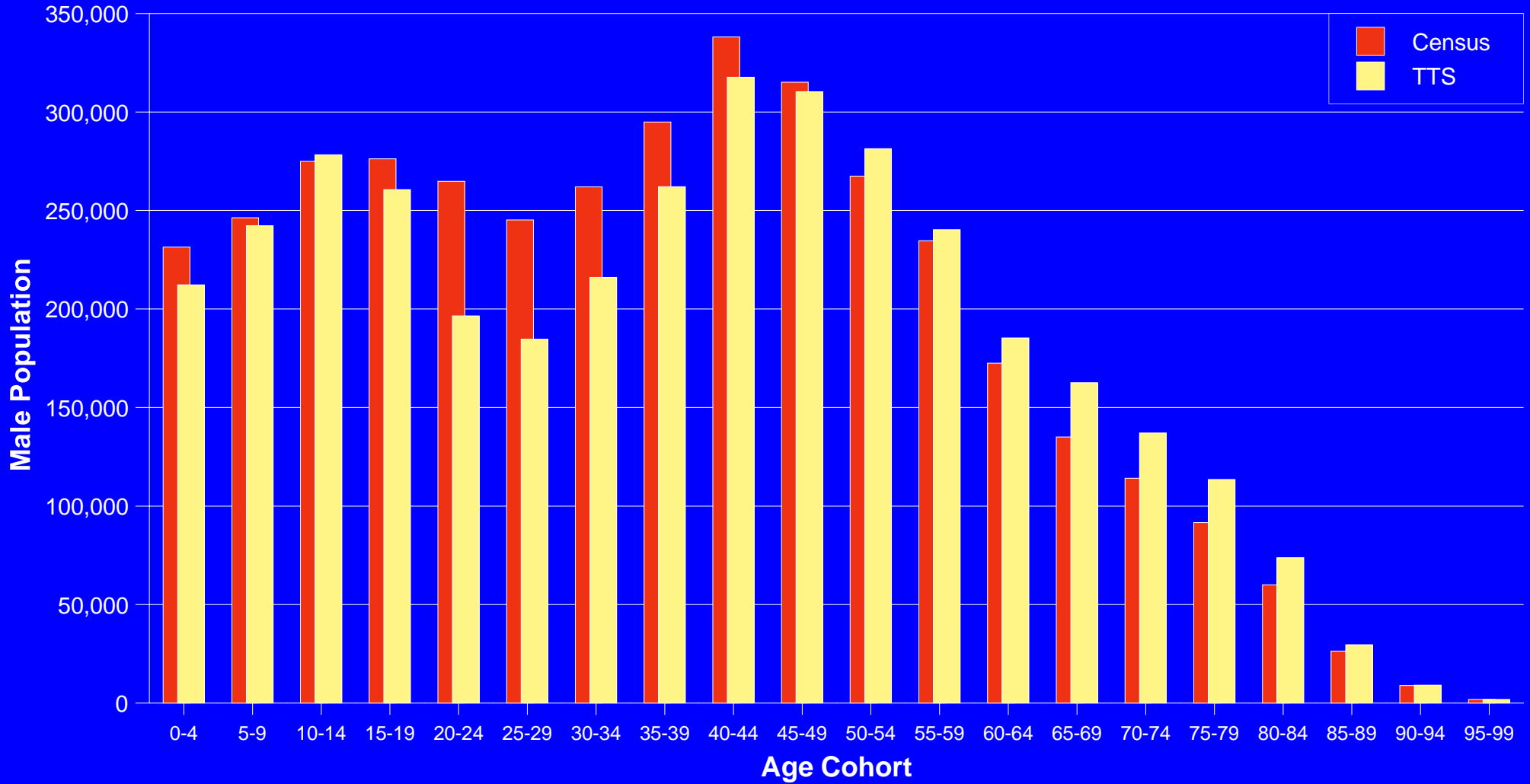
Age Distribution



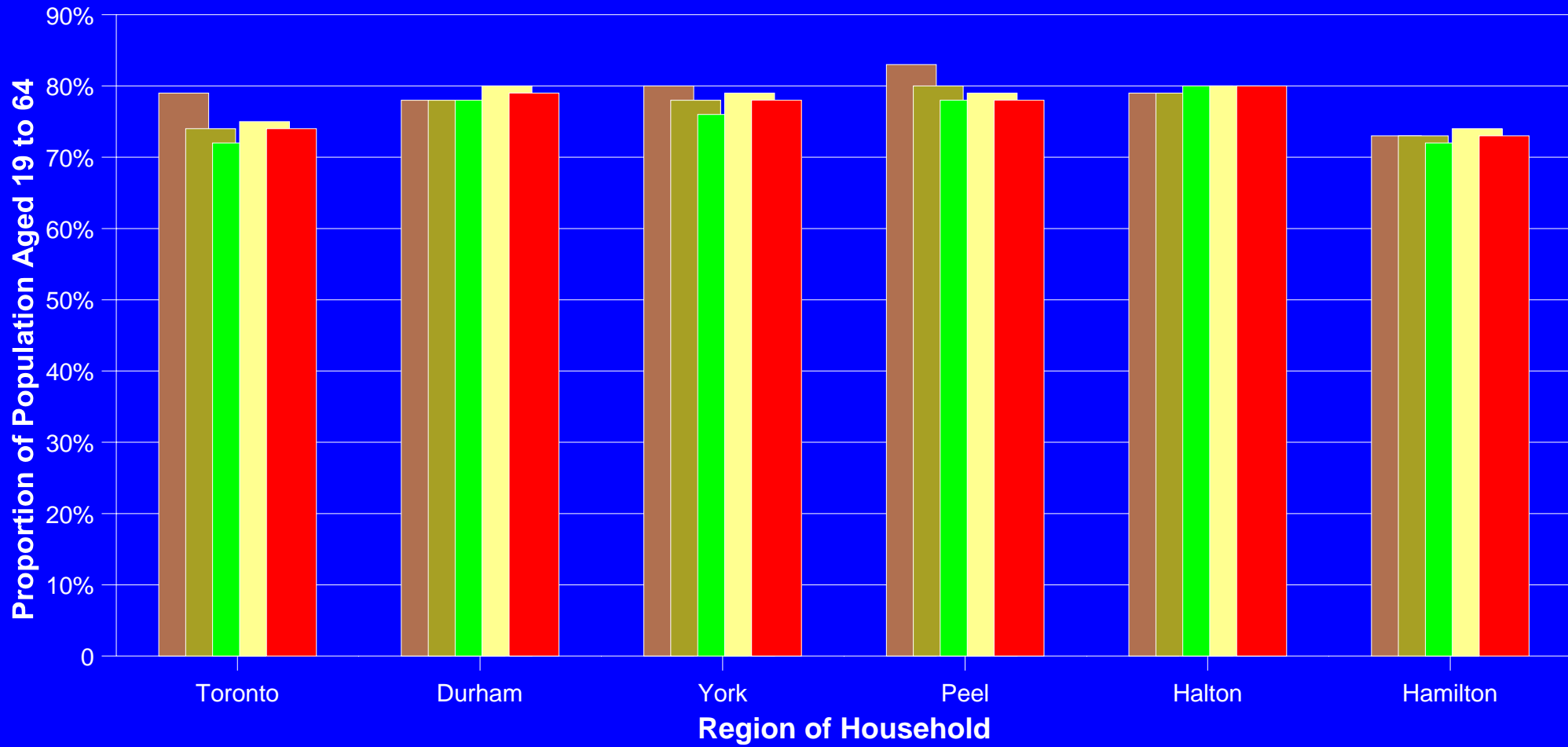
Age Distribution (Female)



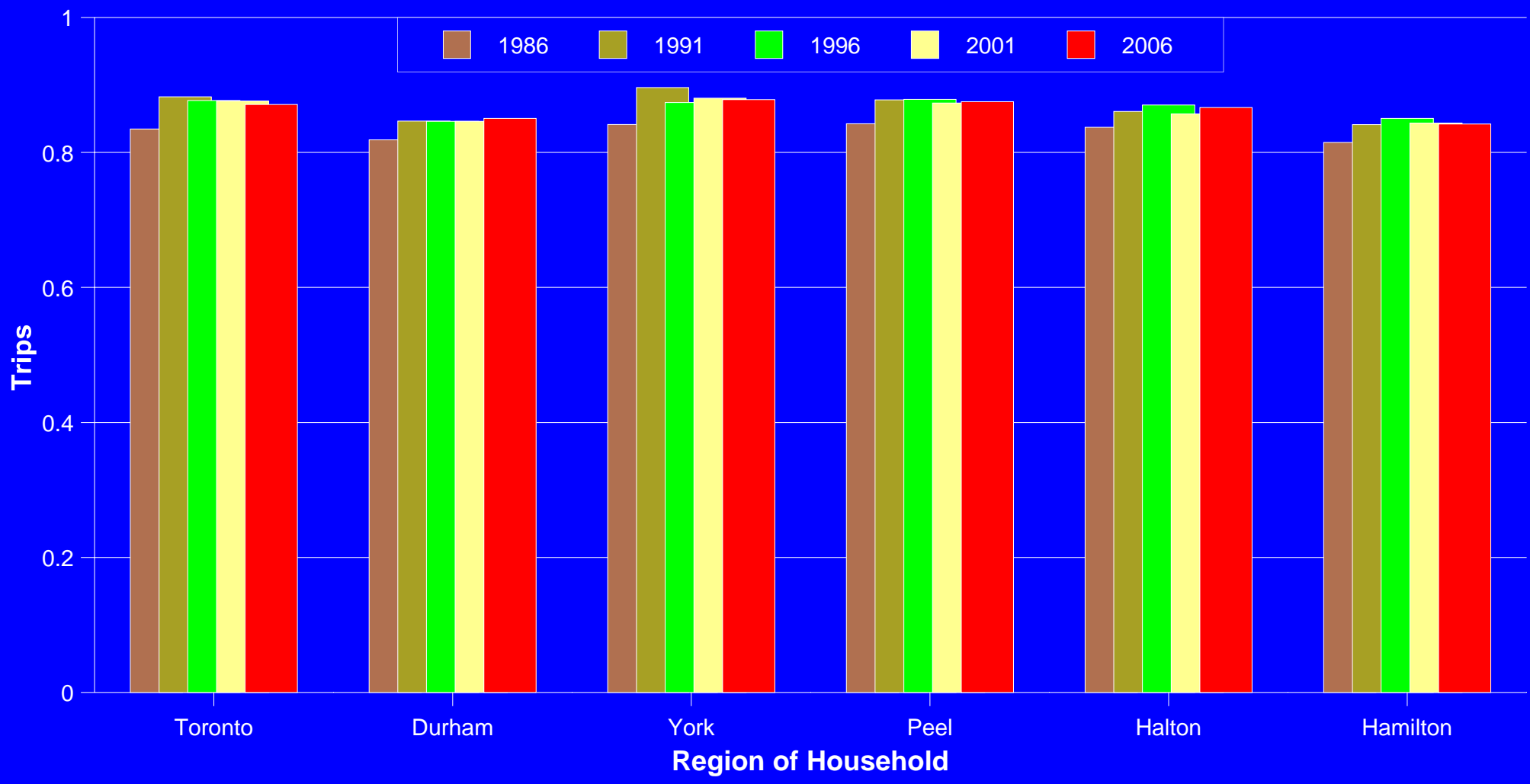
Age Distribution (Male)



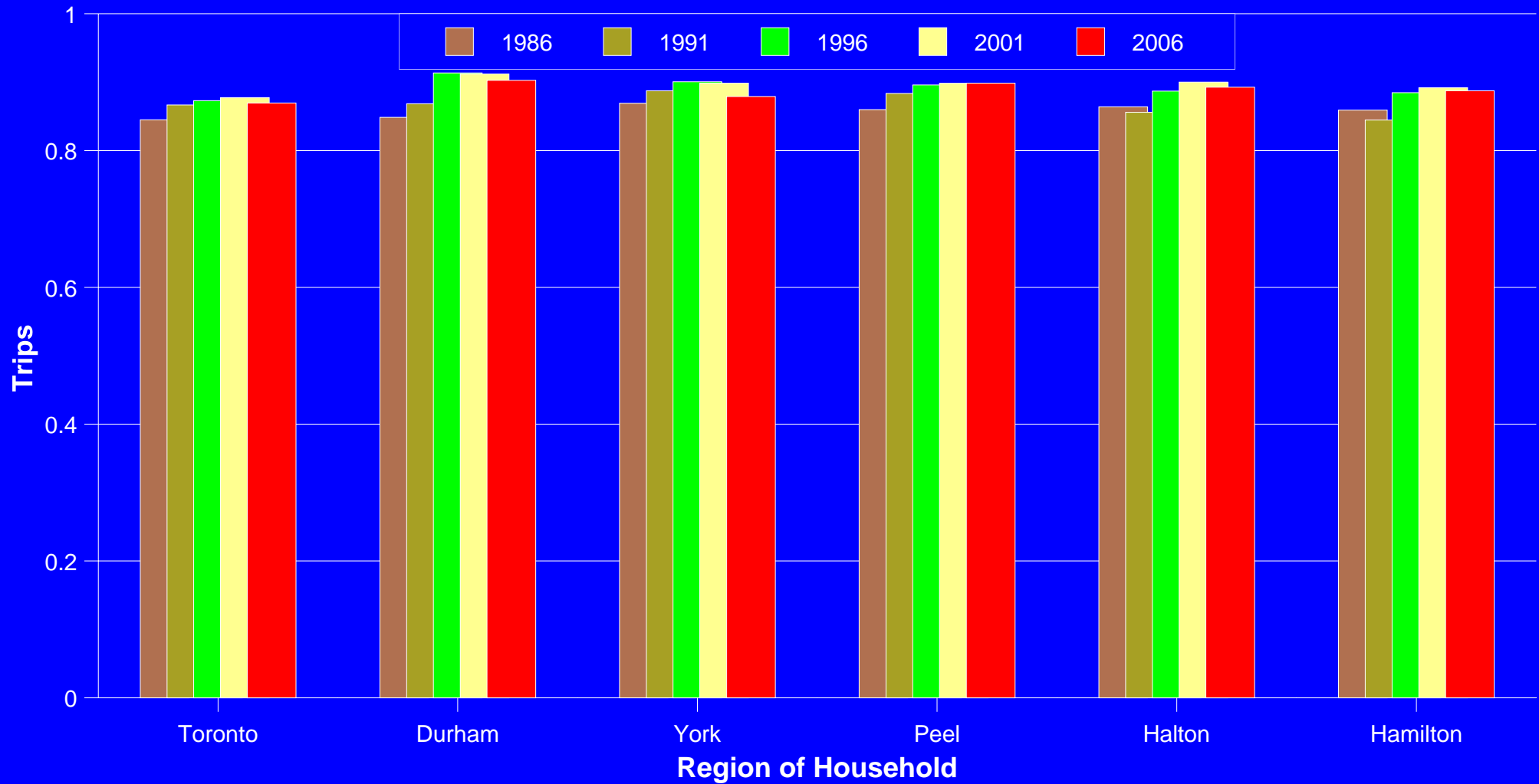
Employed Labour Force



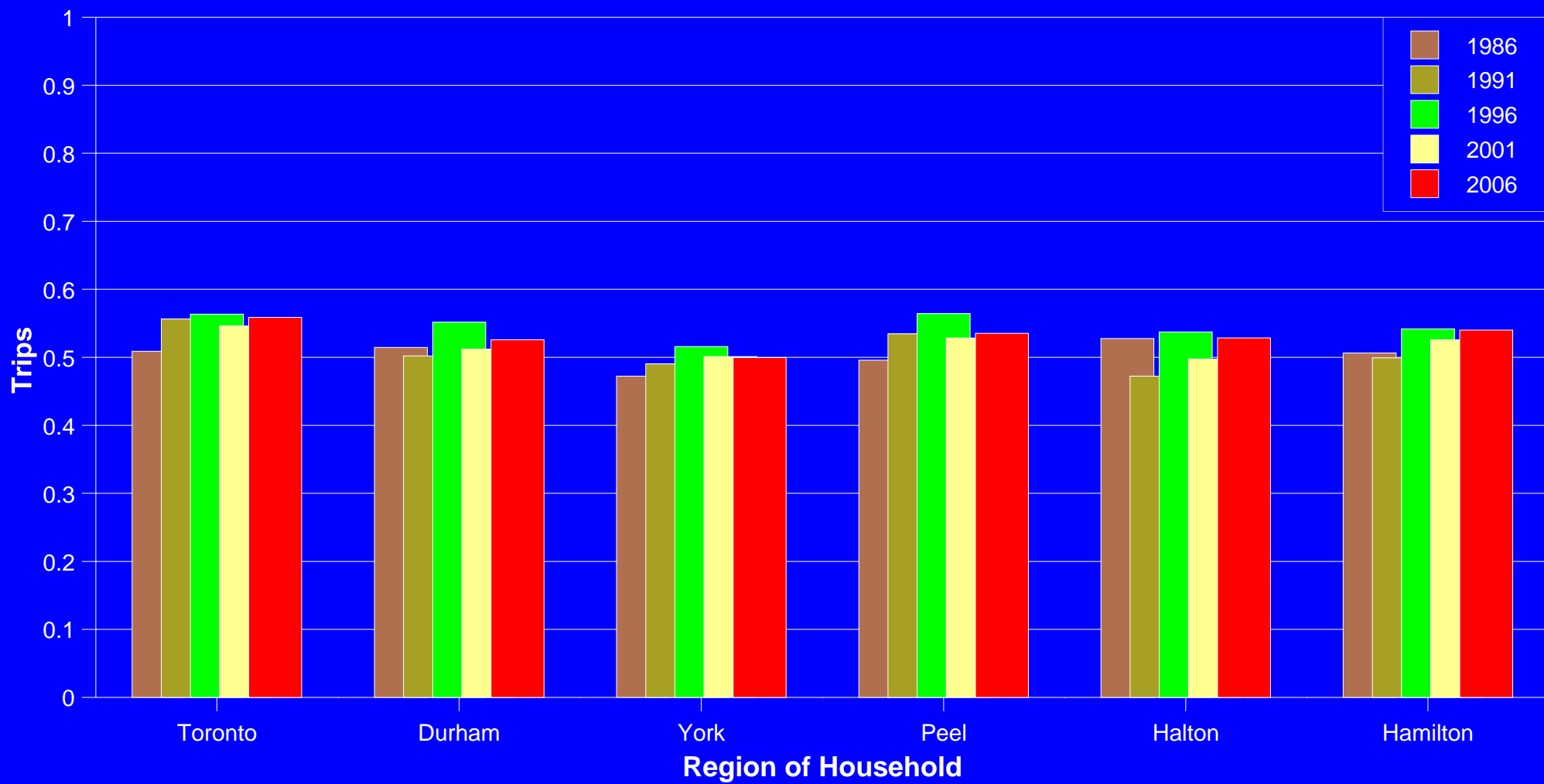
Daily Trips to Work per Person (Employed Full-Time)



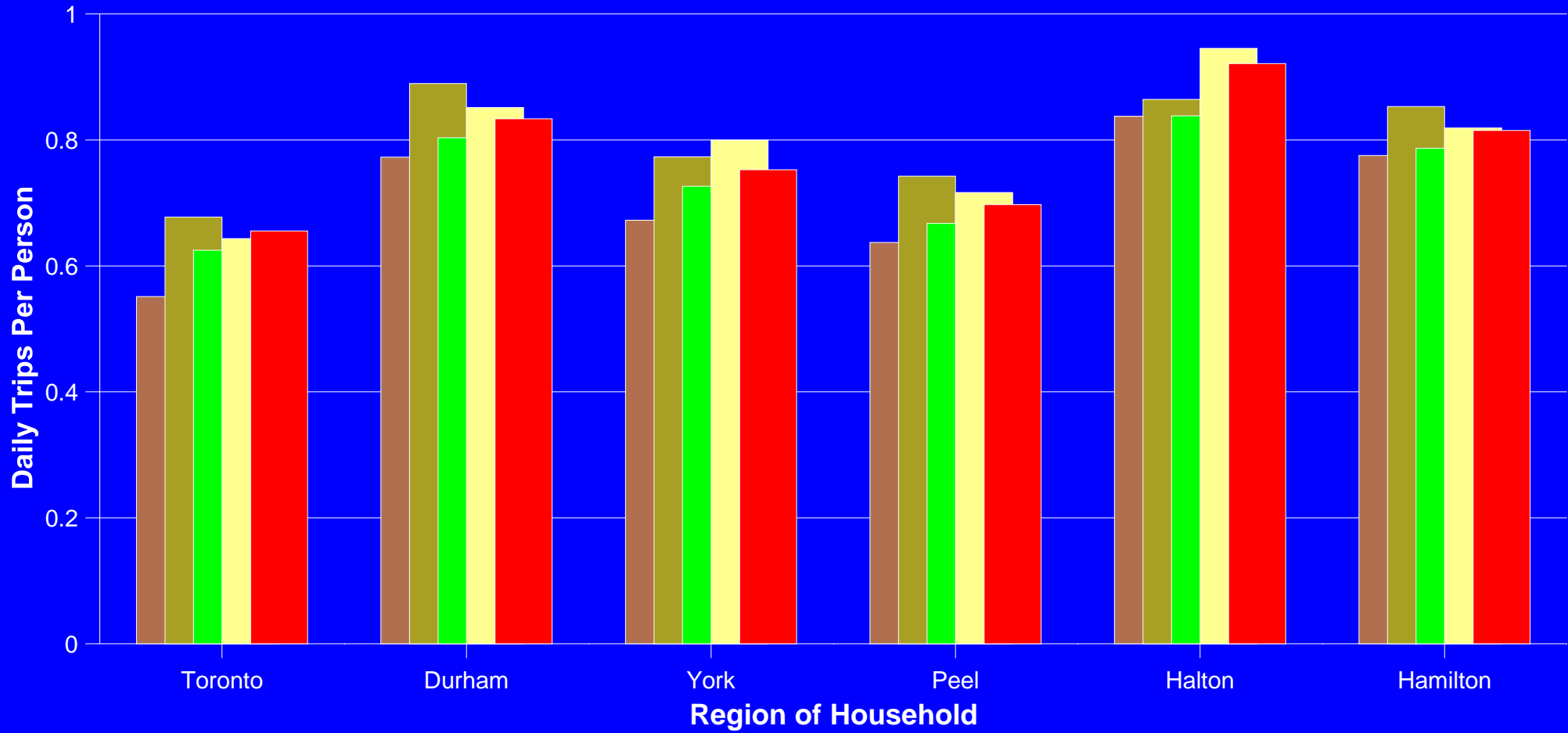
Daily Trips to School (Full-Time Students)



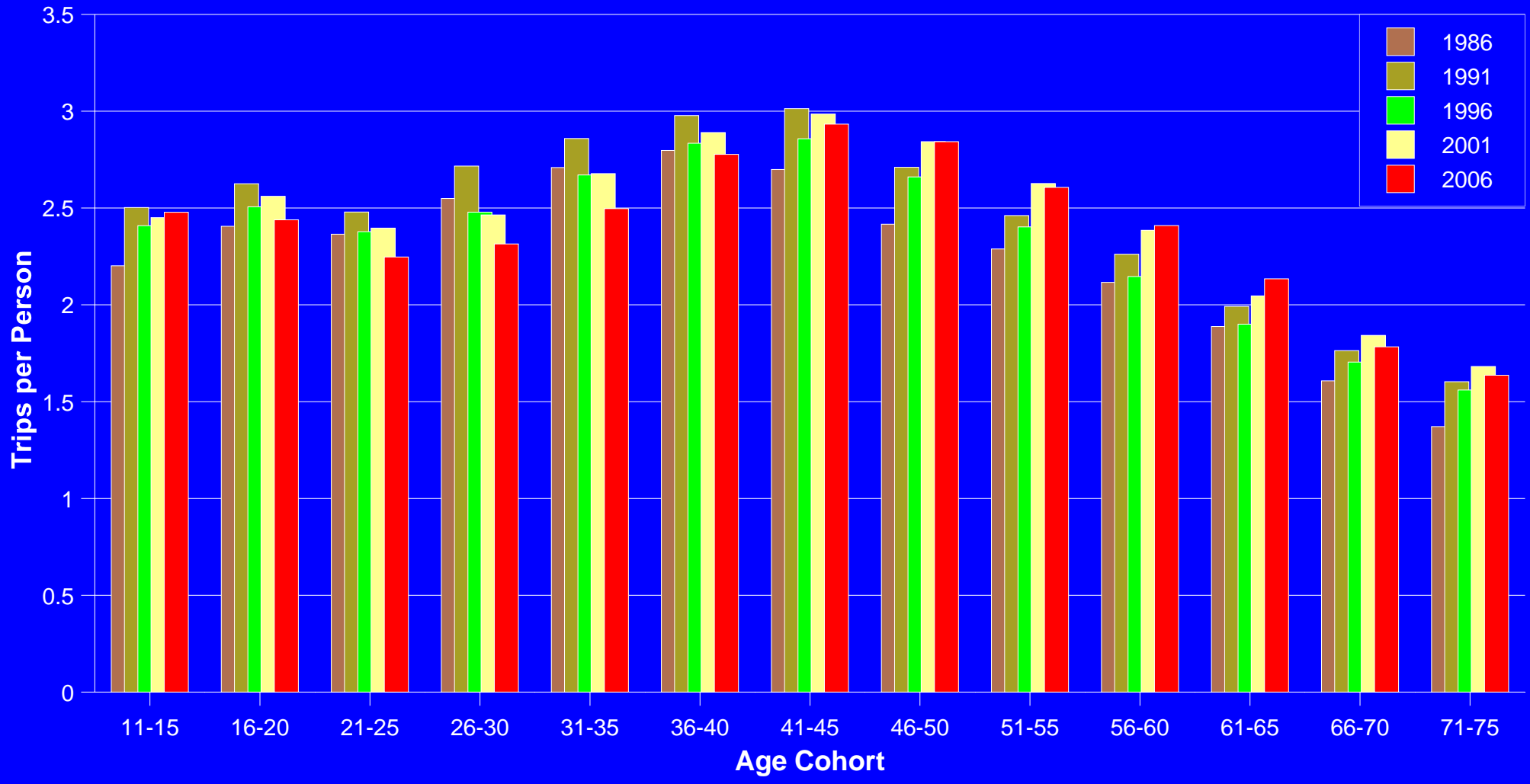
Daily Trips to Work per Person (Employed Part-Time)



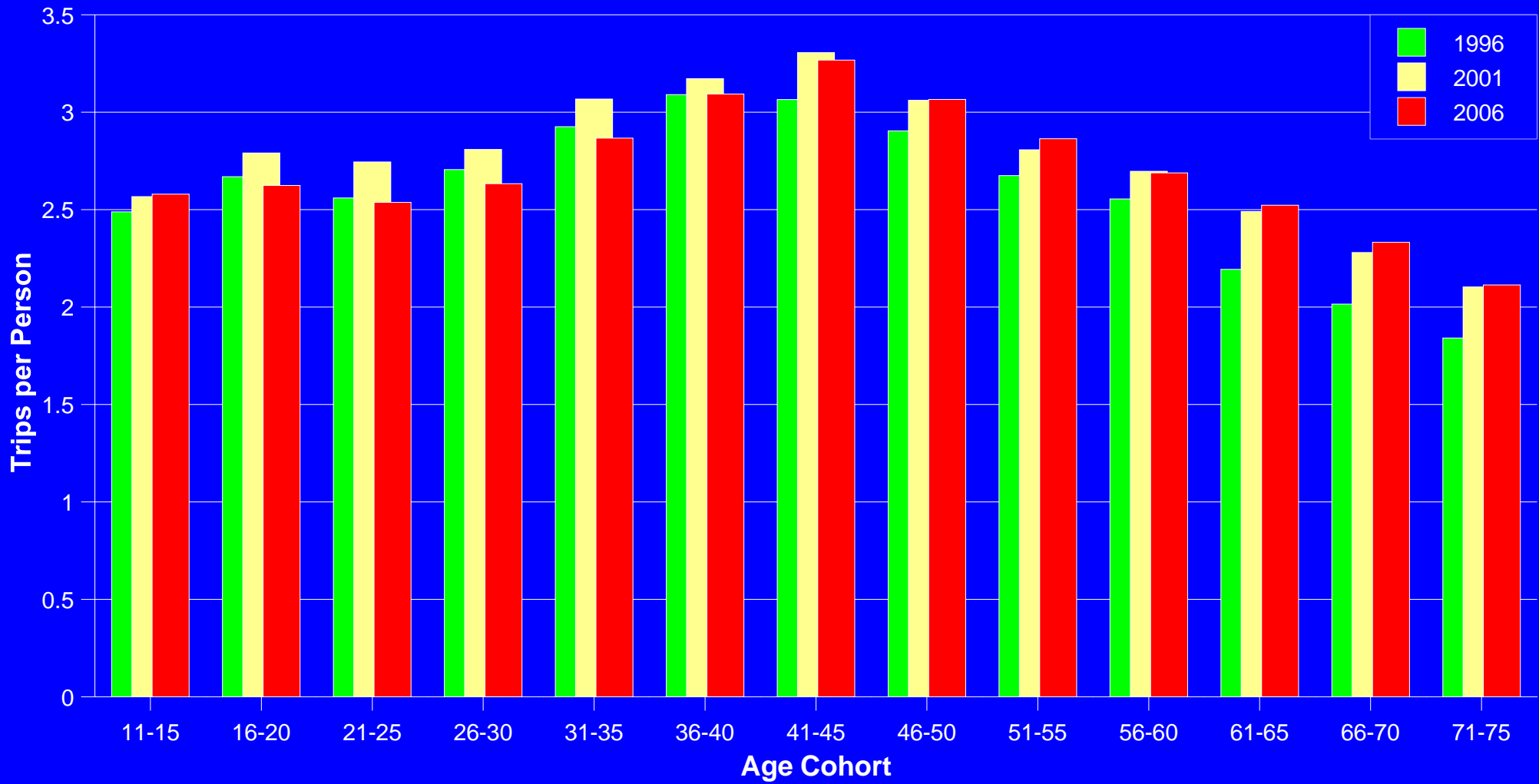
Discretionary Travel



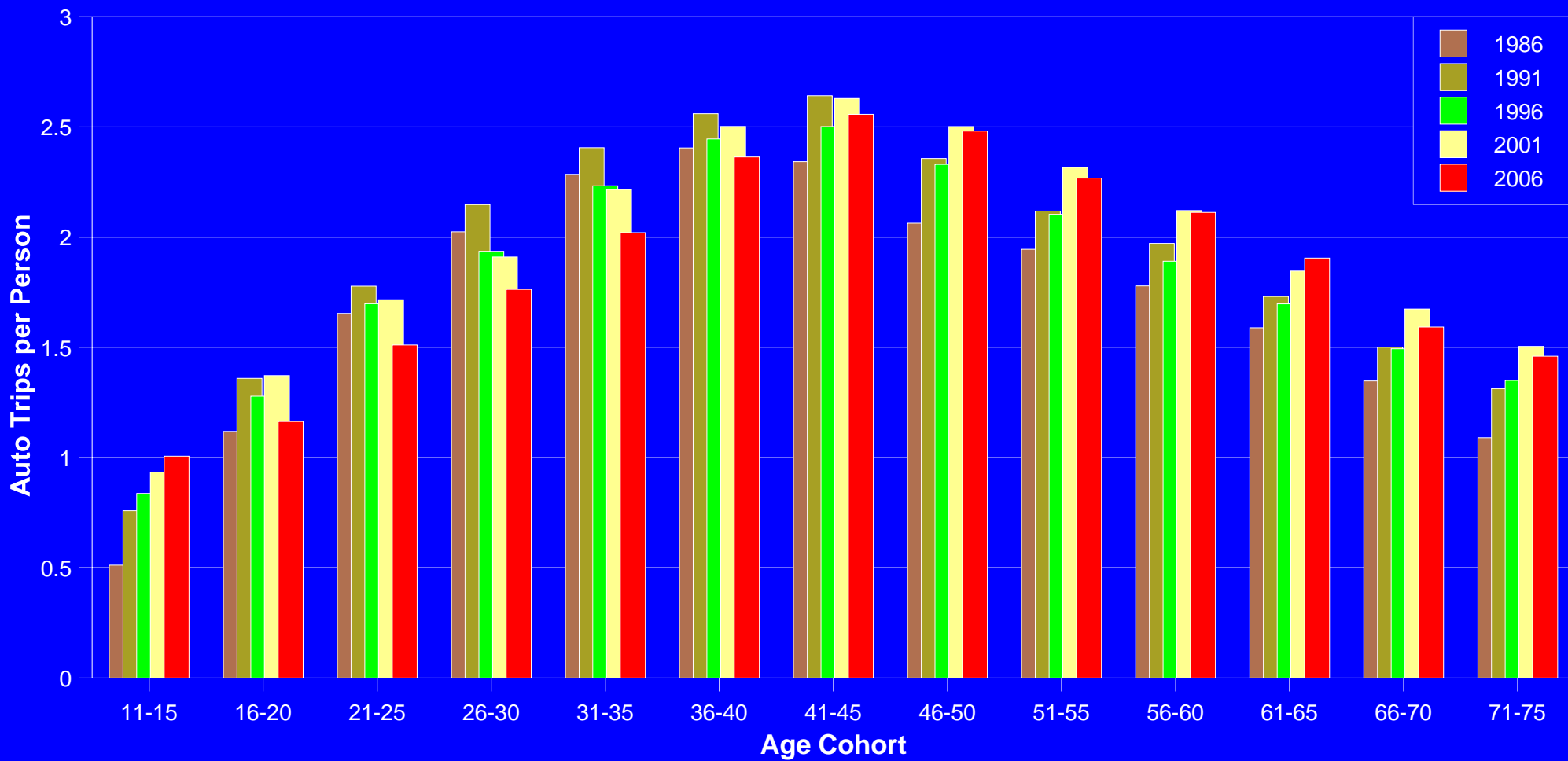
GTAH Residents Total Trip Rate



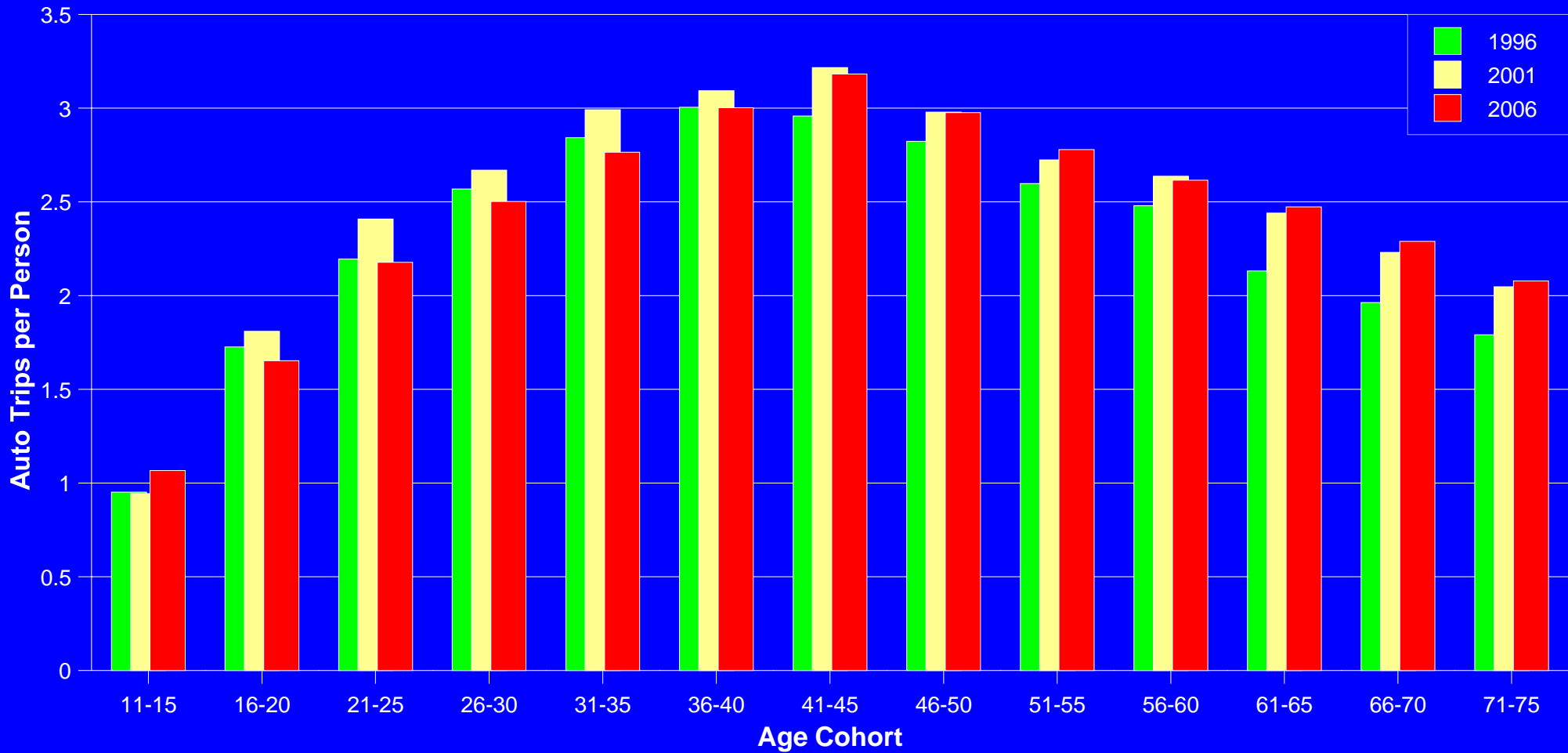
Non-GTAH Residents Total Trip Rate



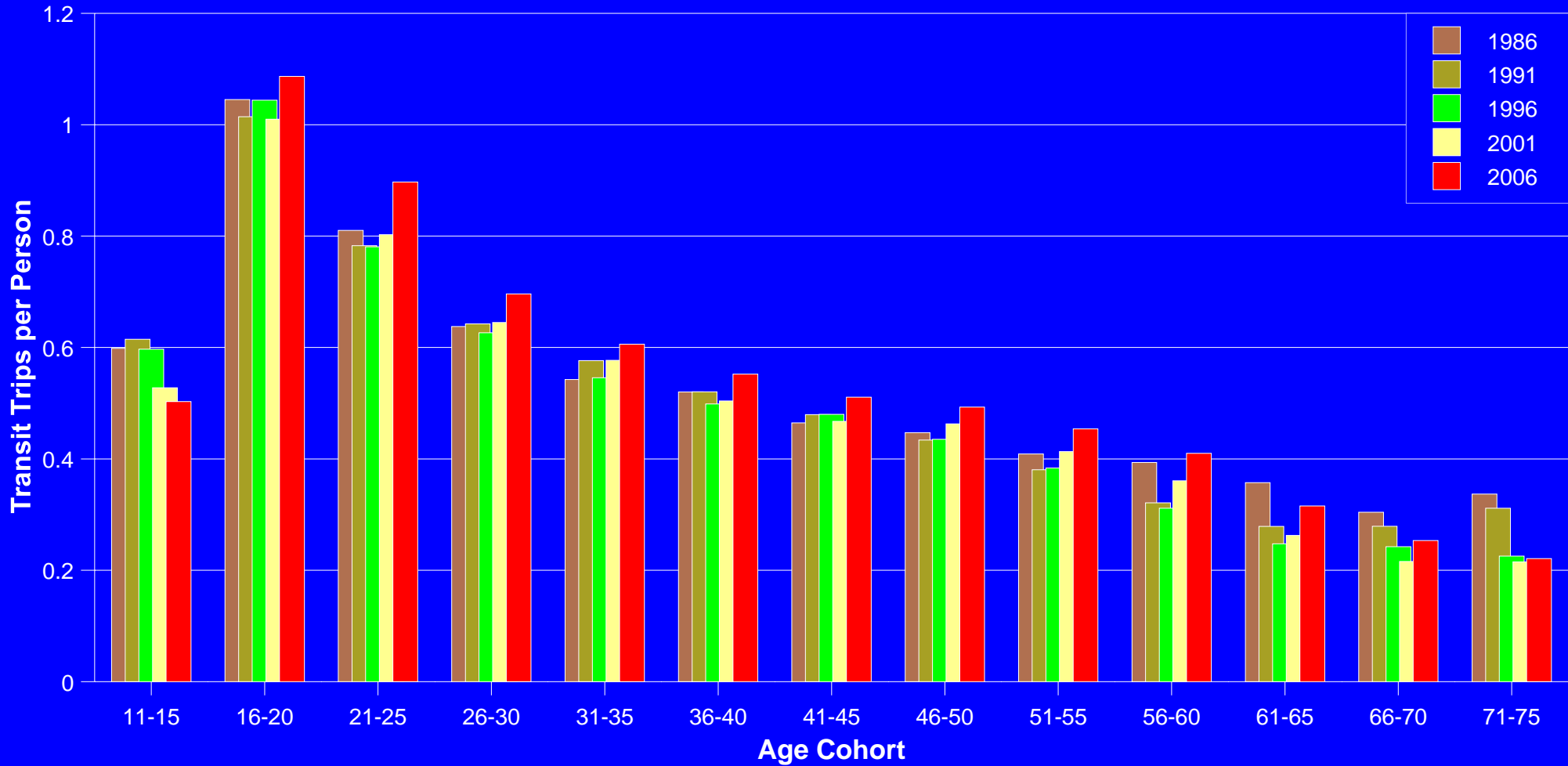
GTAH Residents Daily Auto Trip Rate (Driver and Passenger)



Non-GTAH Residents Auto Trip Rate (Driver and Passenger)

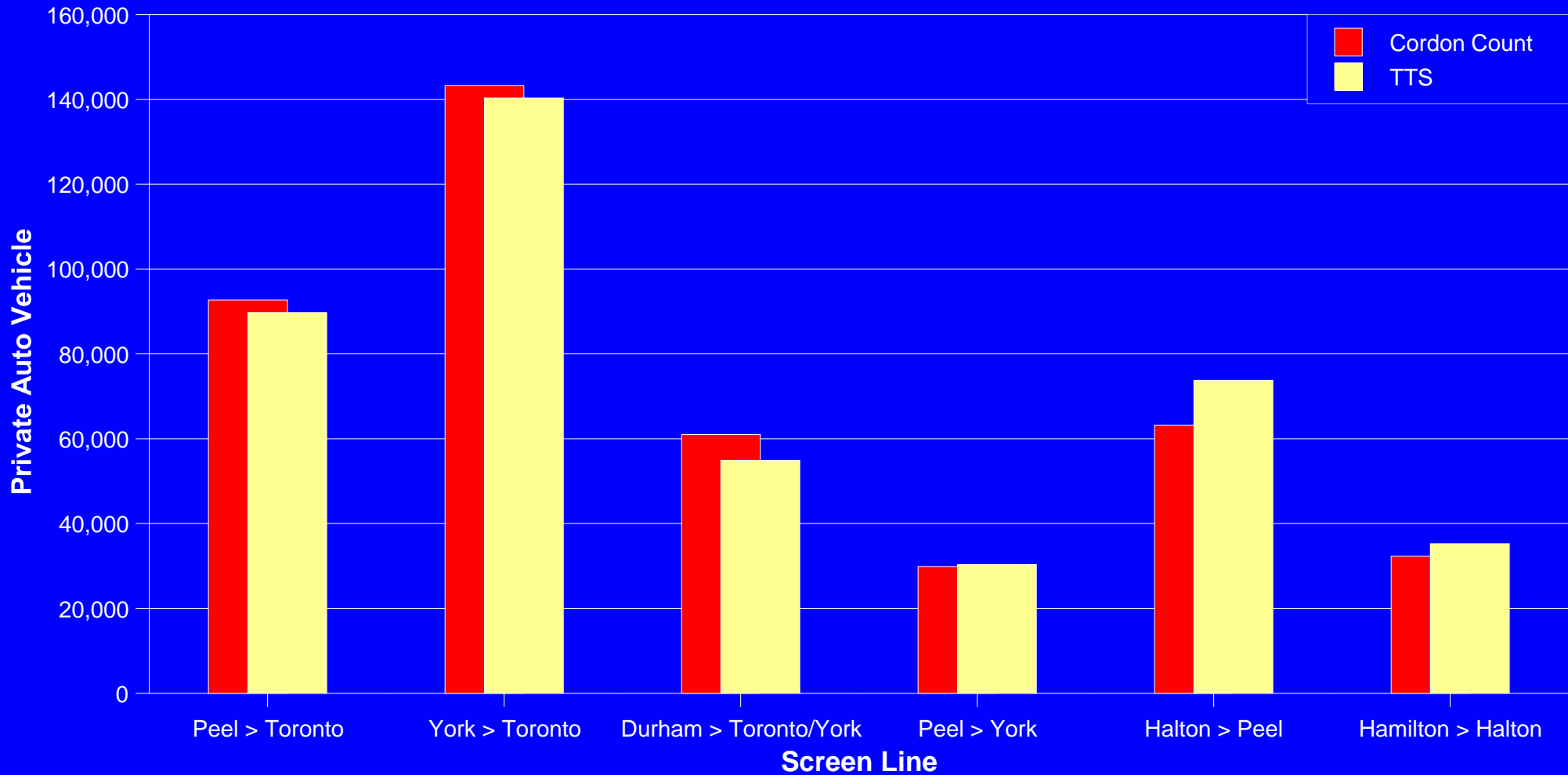


Toronto Residents Daily Transit Trip Rates (Including GO Rail)



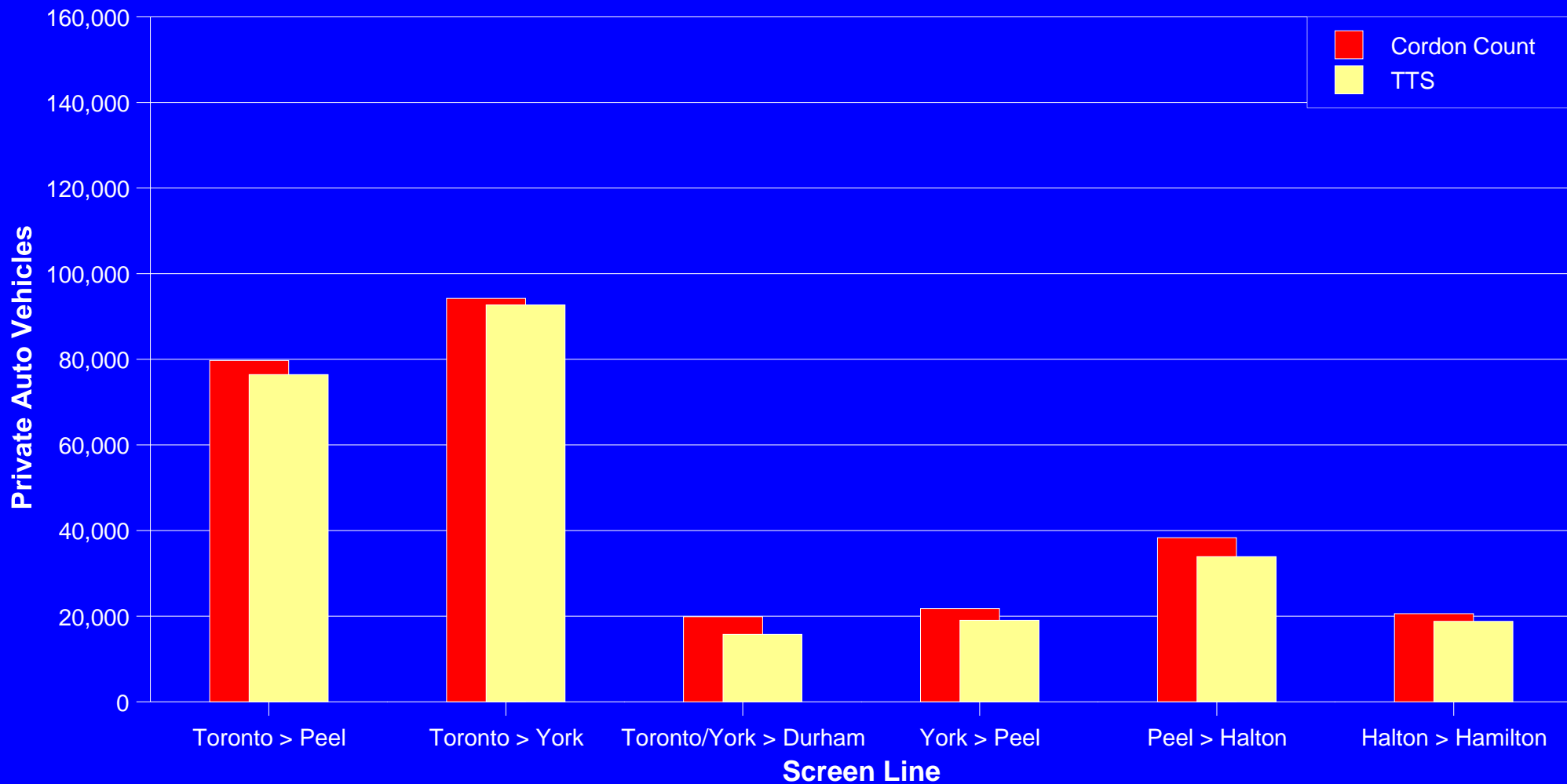
Inbound Towards Toronto AM Peak Period

6:15 to 9:15 a.m.



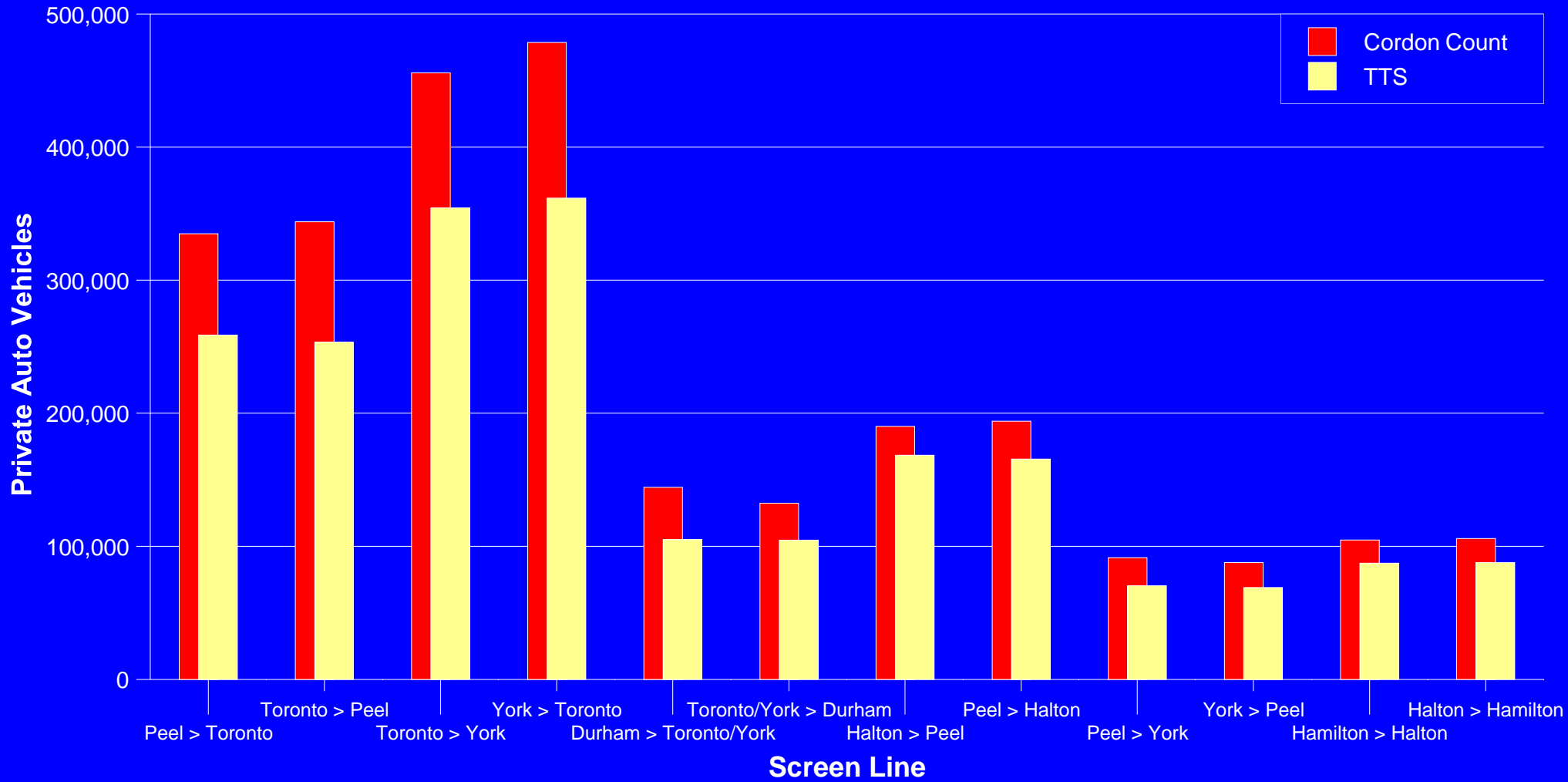
Outbound Away from Toronto AM Peak Period

6:15 to 9:15 a.m.

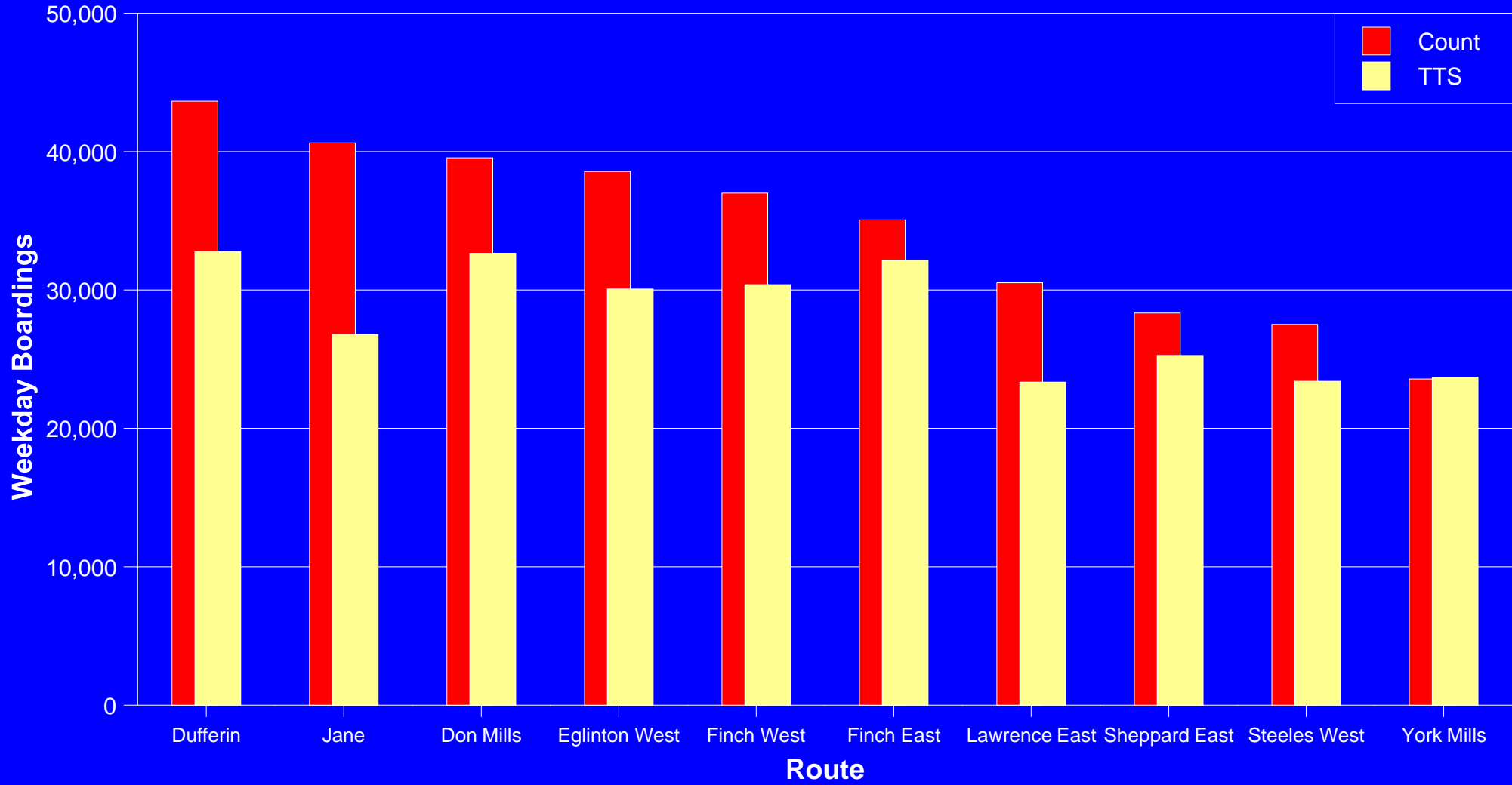


13 Hour Cordon Counts

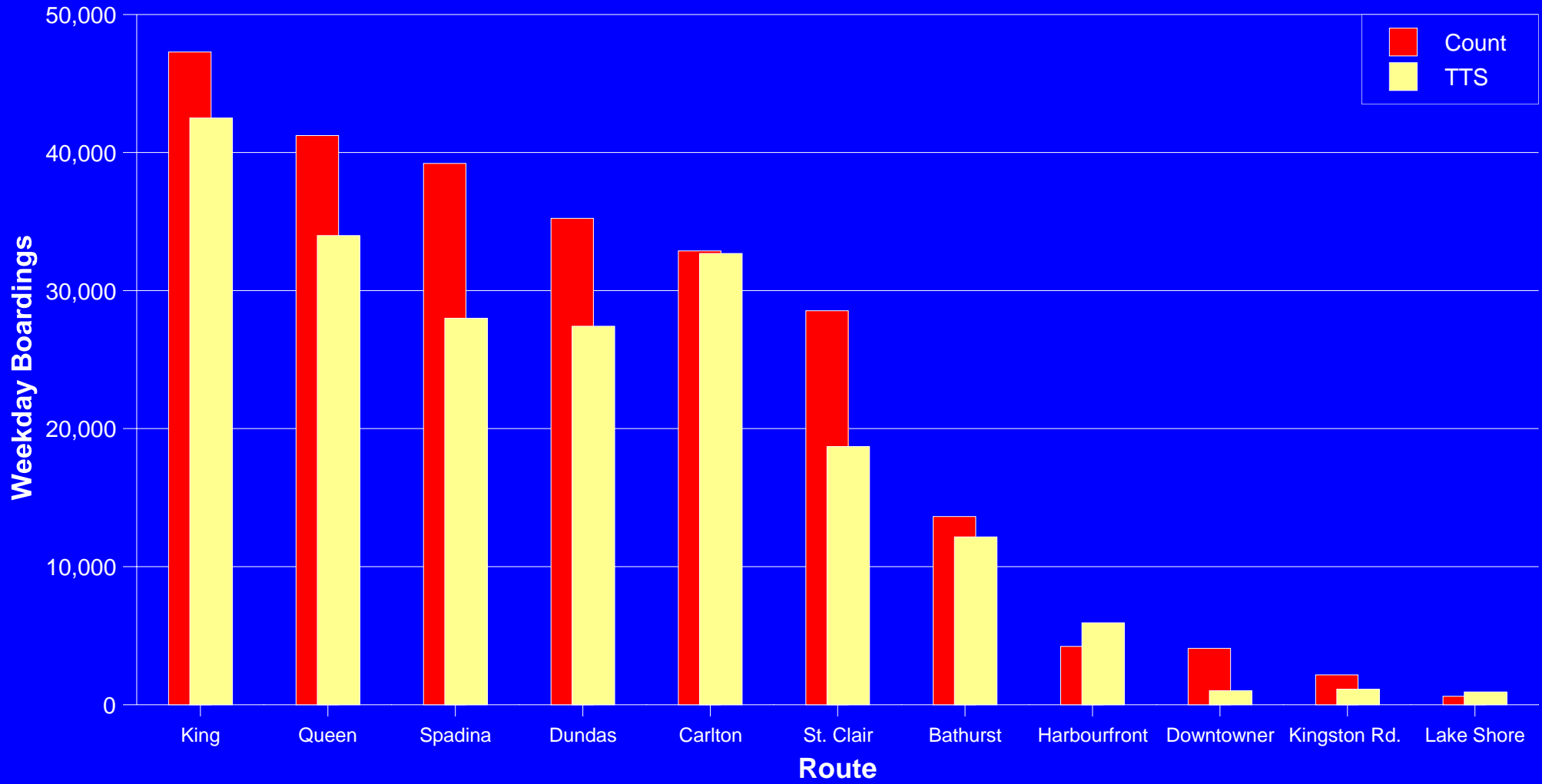
(6:00 a.m. to 7:00 p.m.)



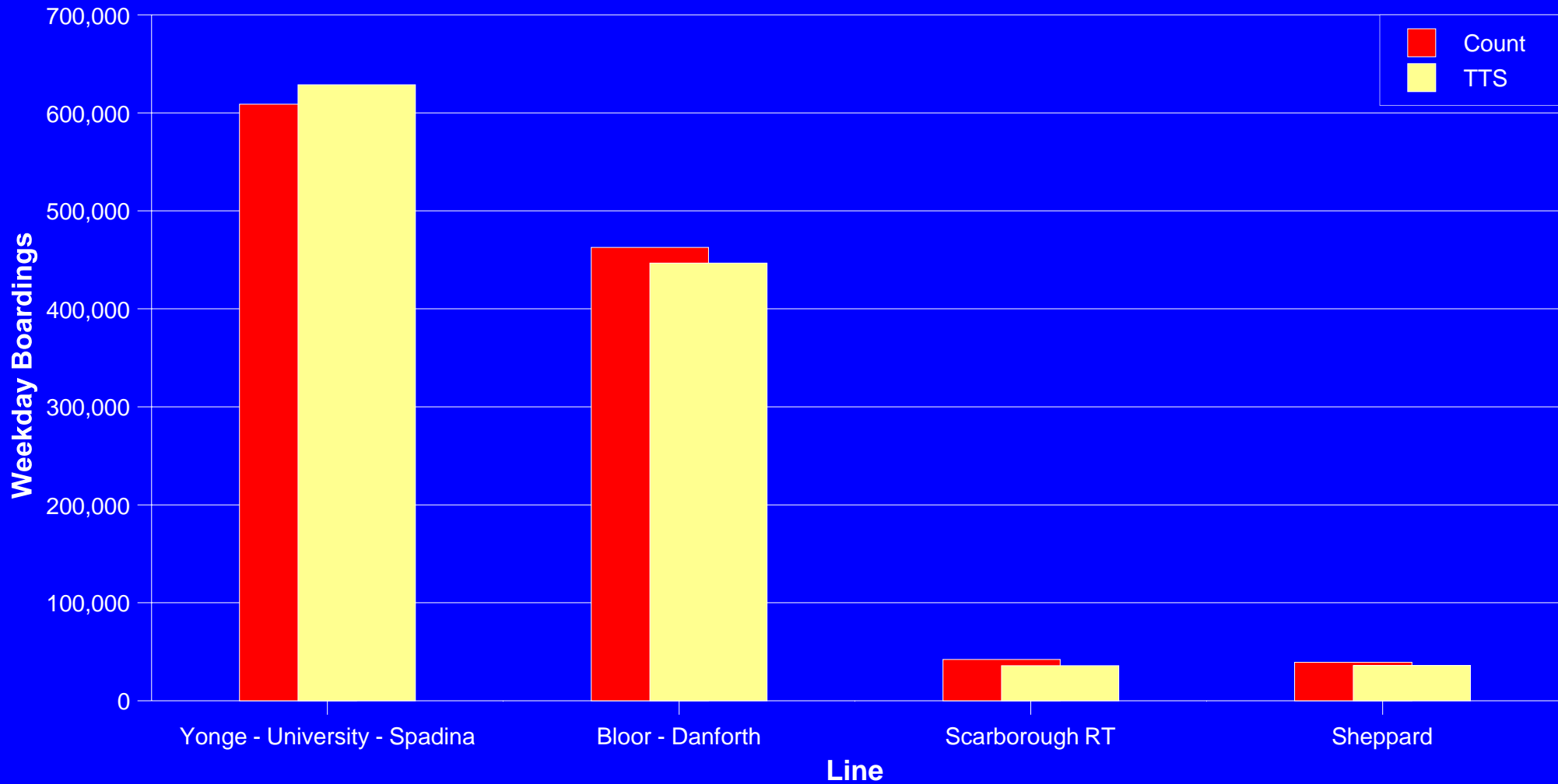
TTC - 10 Busiest Bus Routes



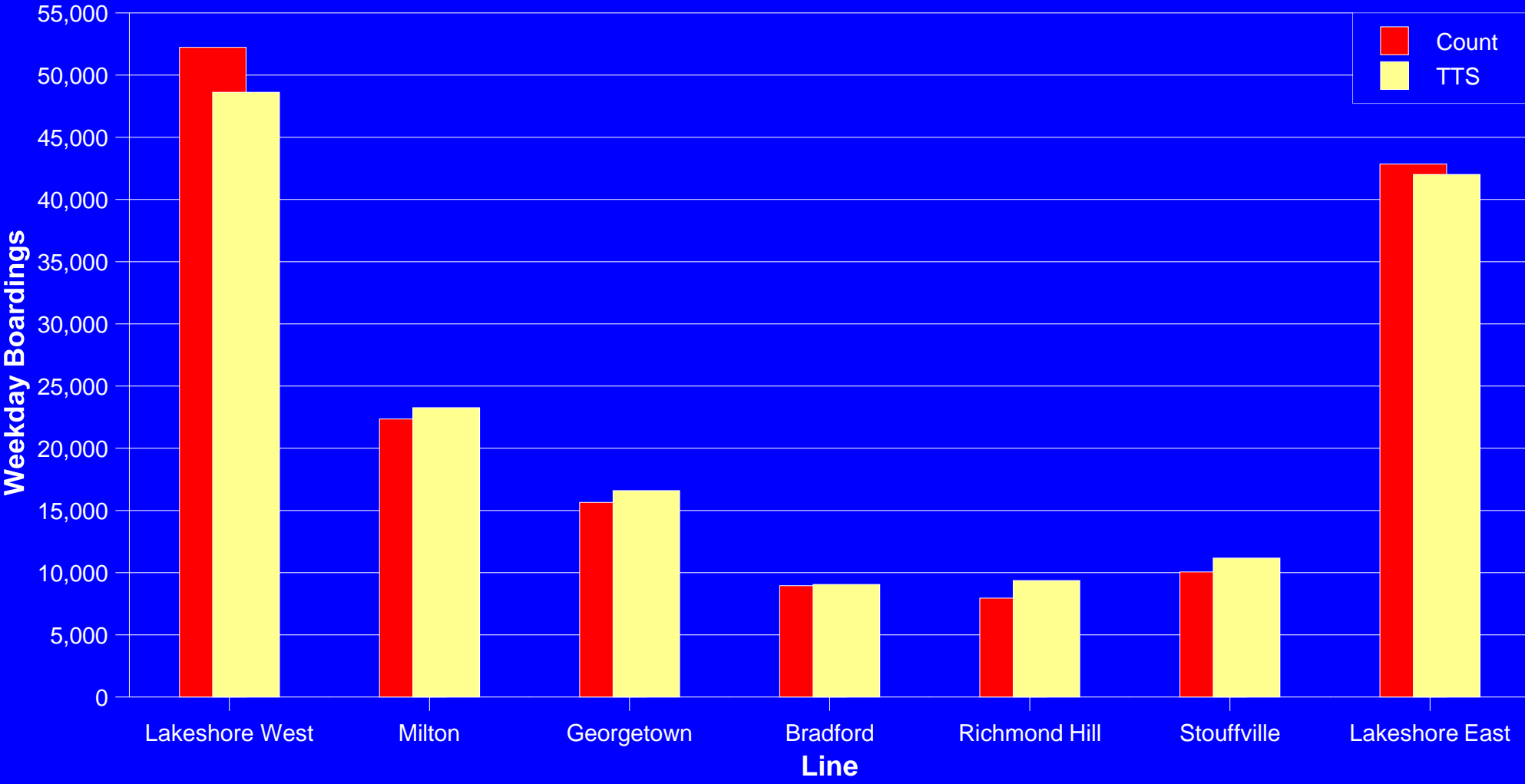
TTC Streetcar



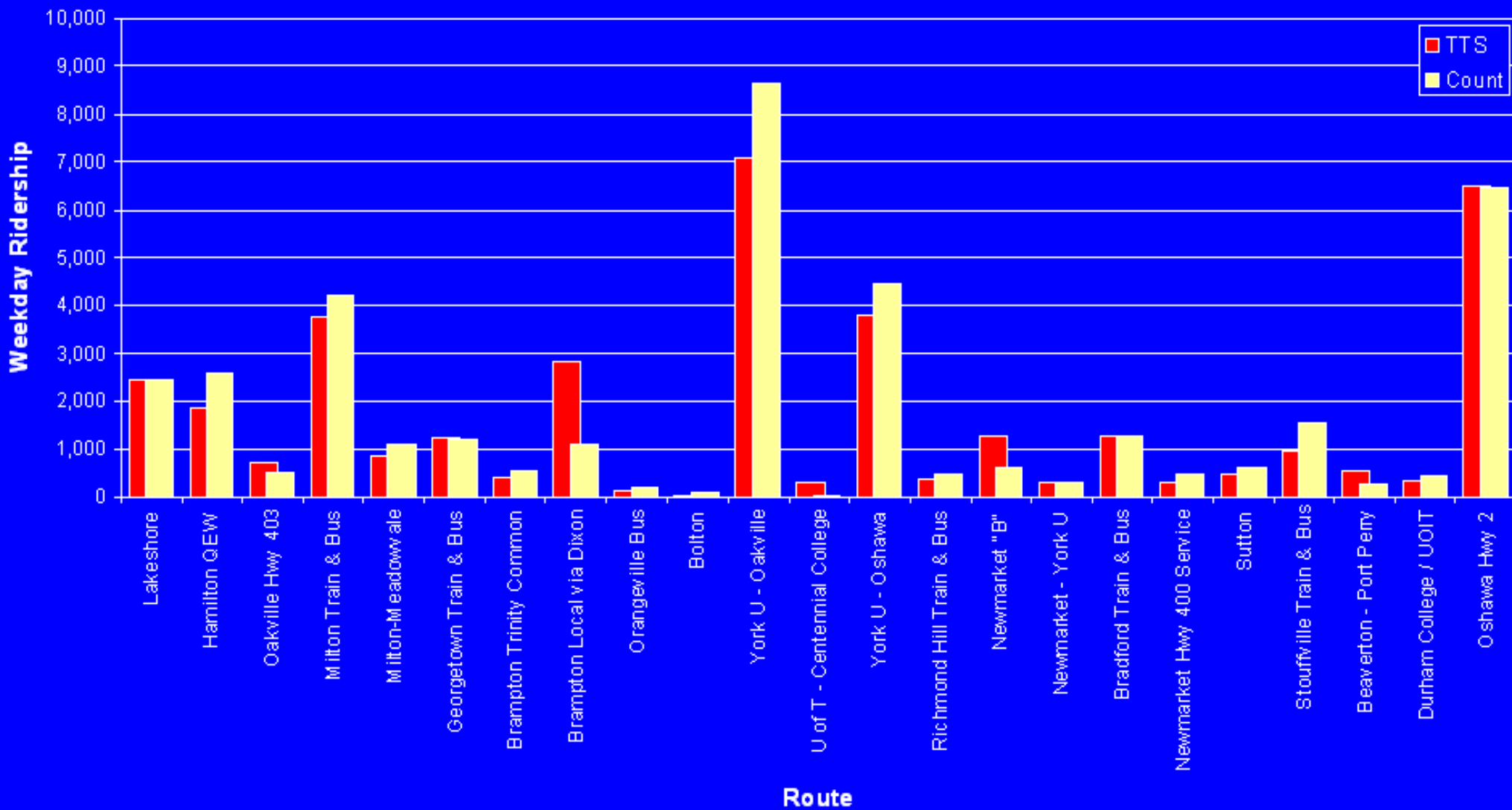
TTC Subway Ridership



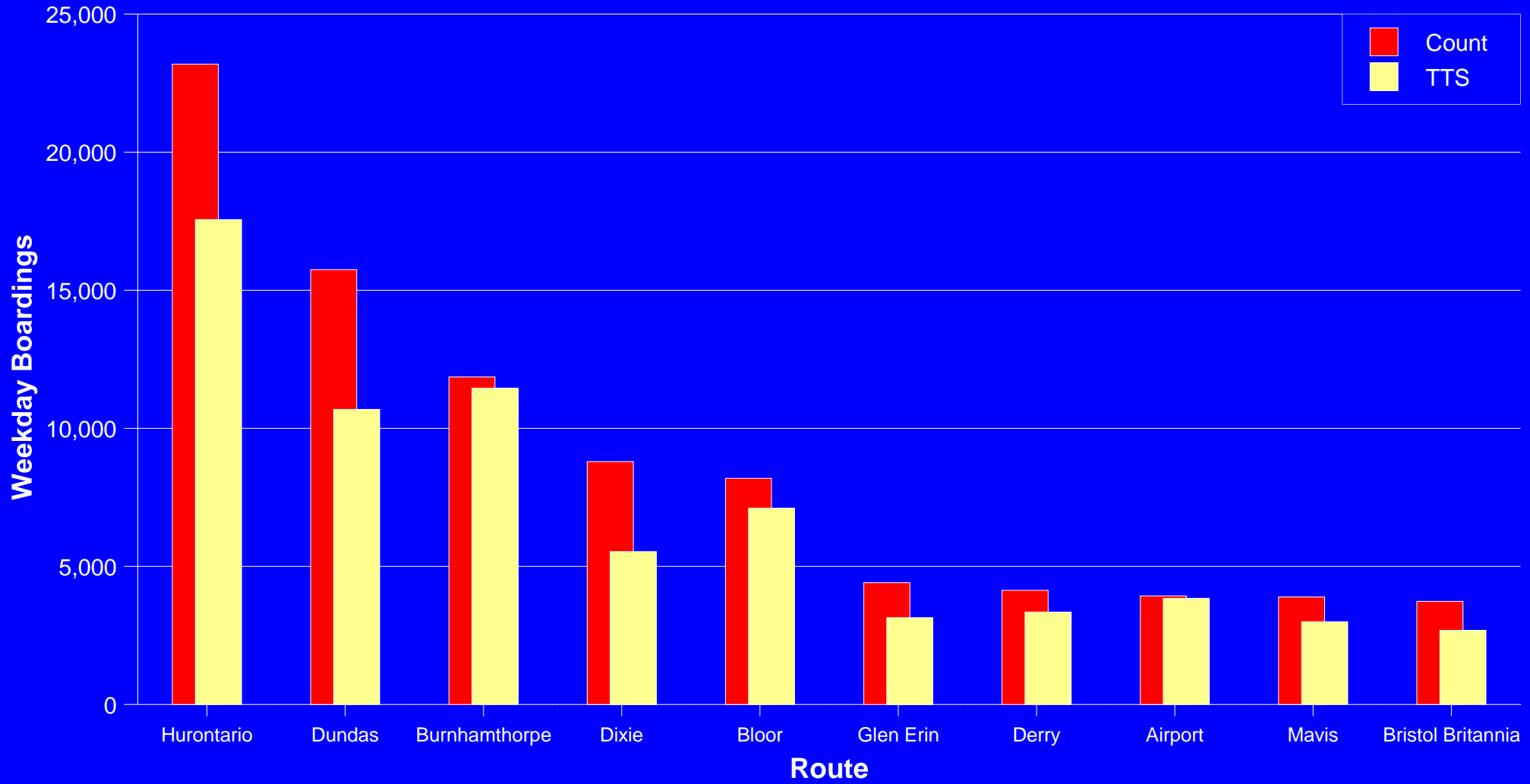
GO Rail Ridership



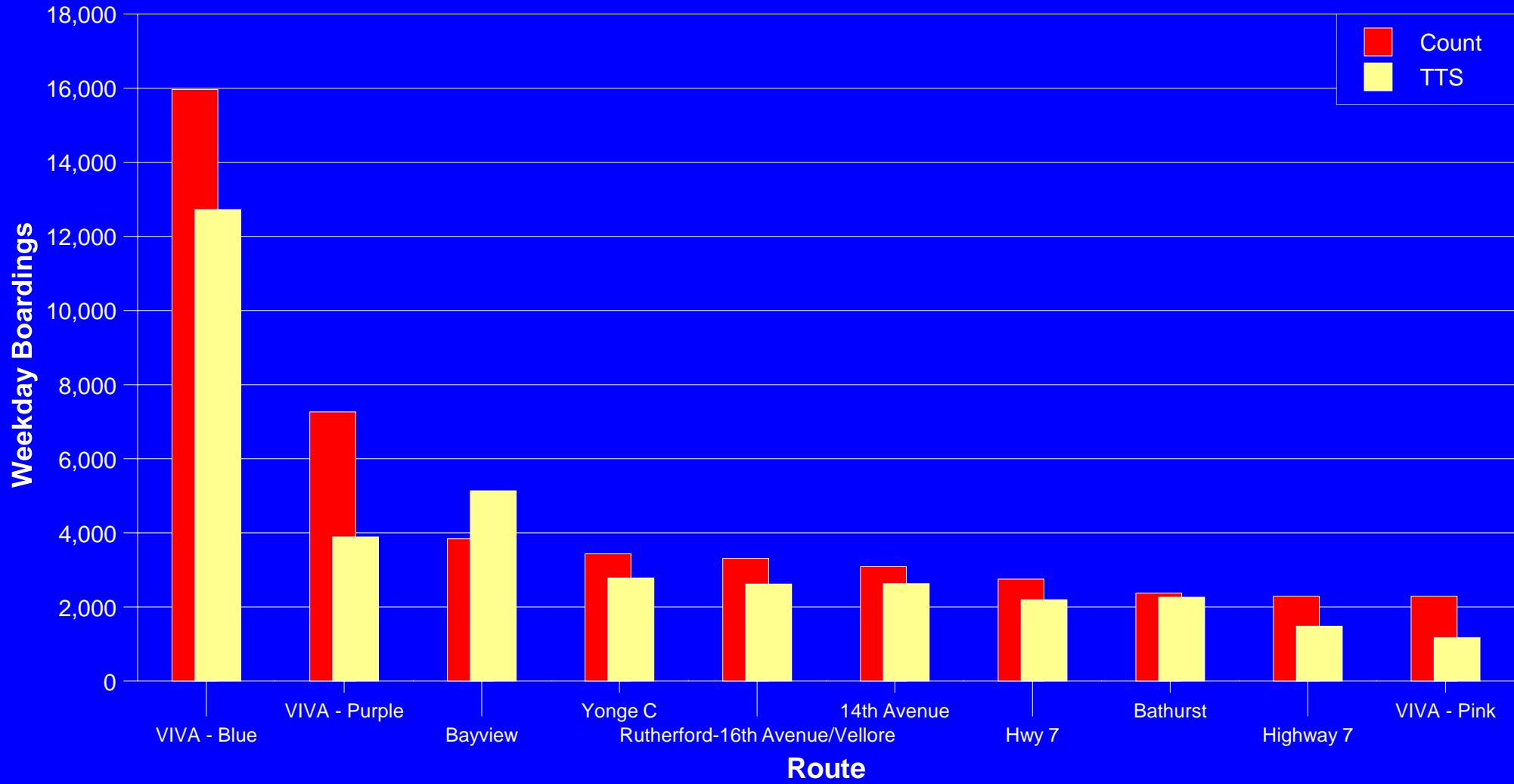
GO Bus Ridership



Mississauga Transit - 10 Busiest Routes



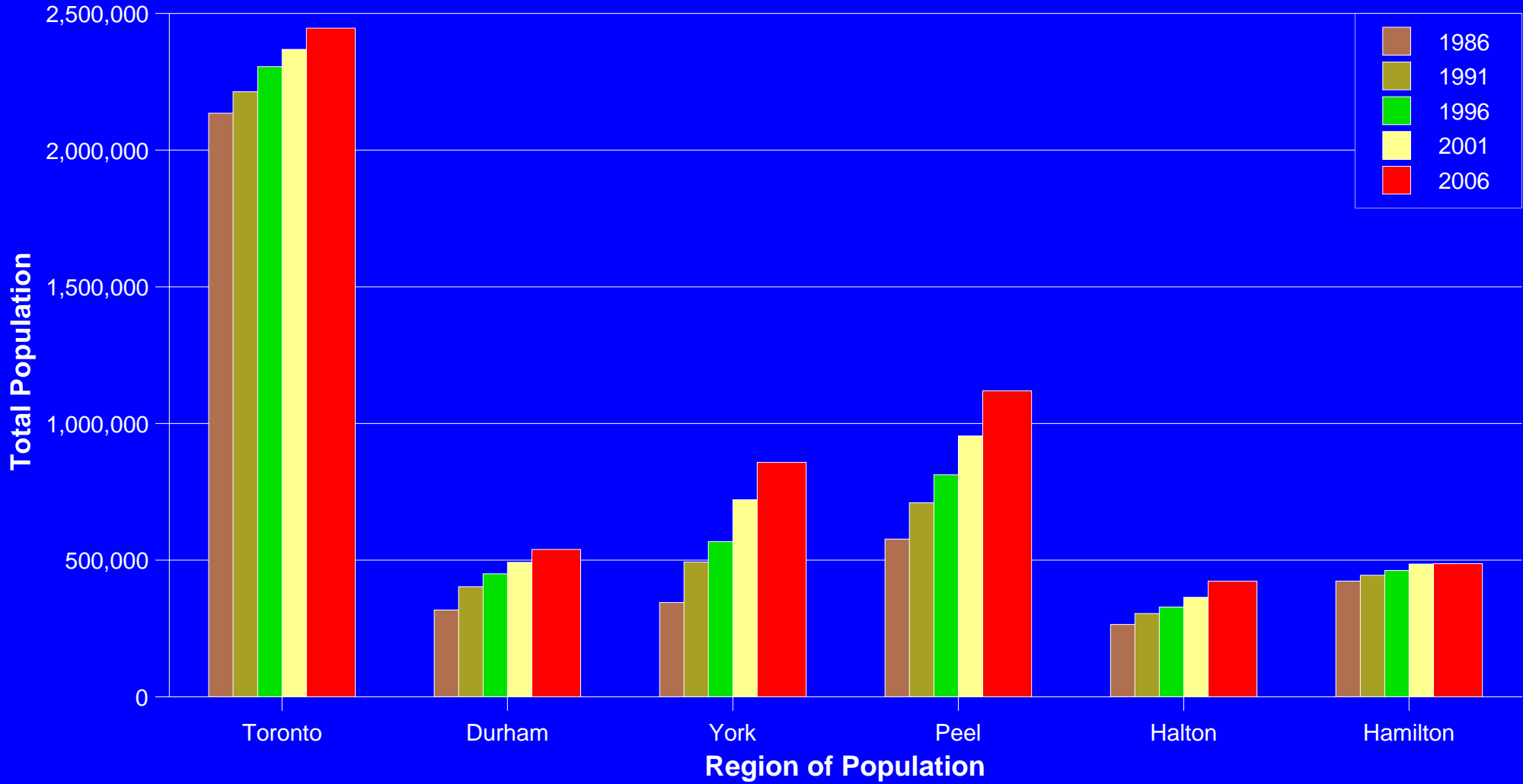
York Region Transit - 10 Busiest Routes



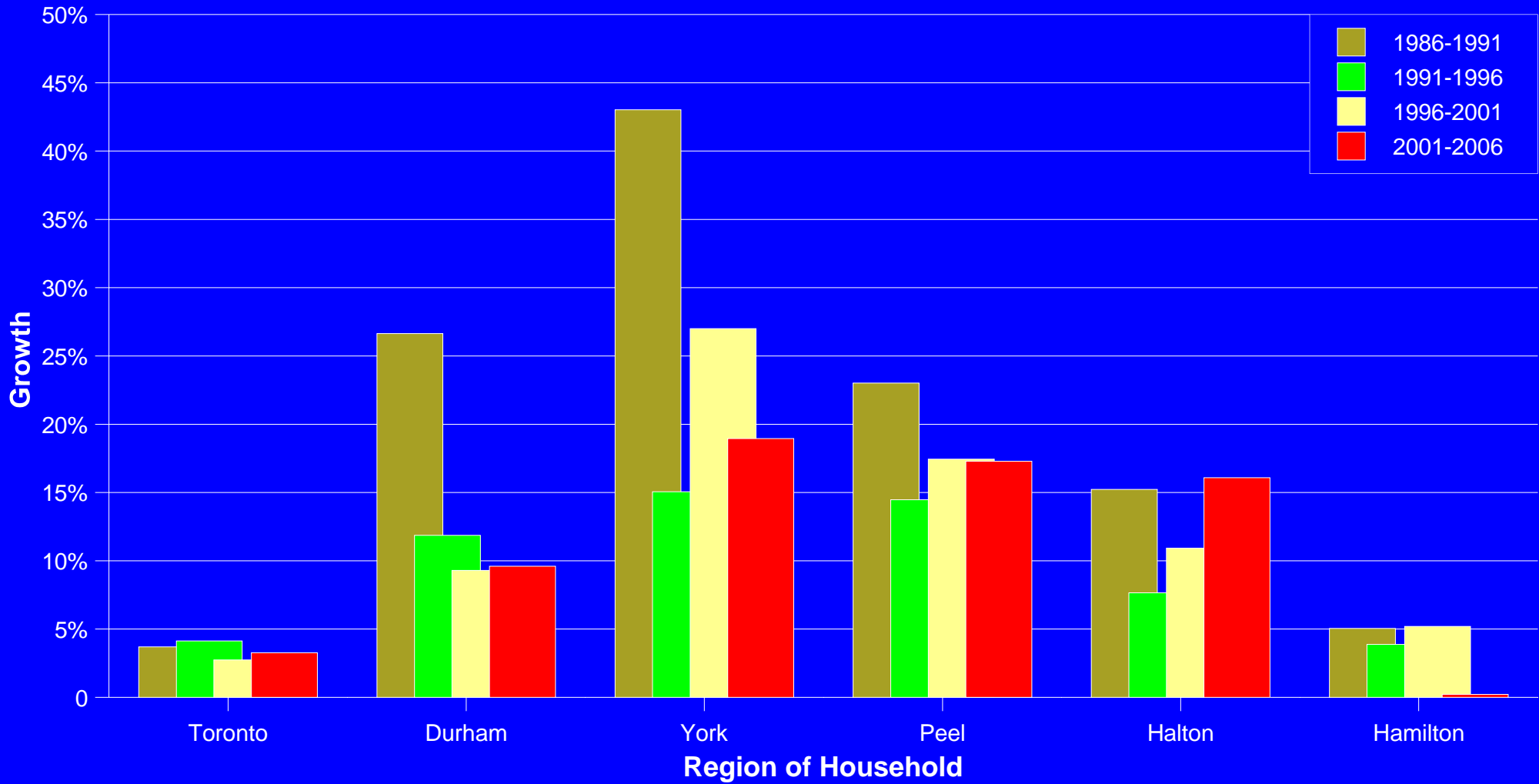
Time Series Analysis GTAH

1986, 1991, 1996, 2001, and 2006

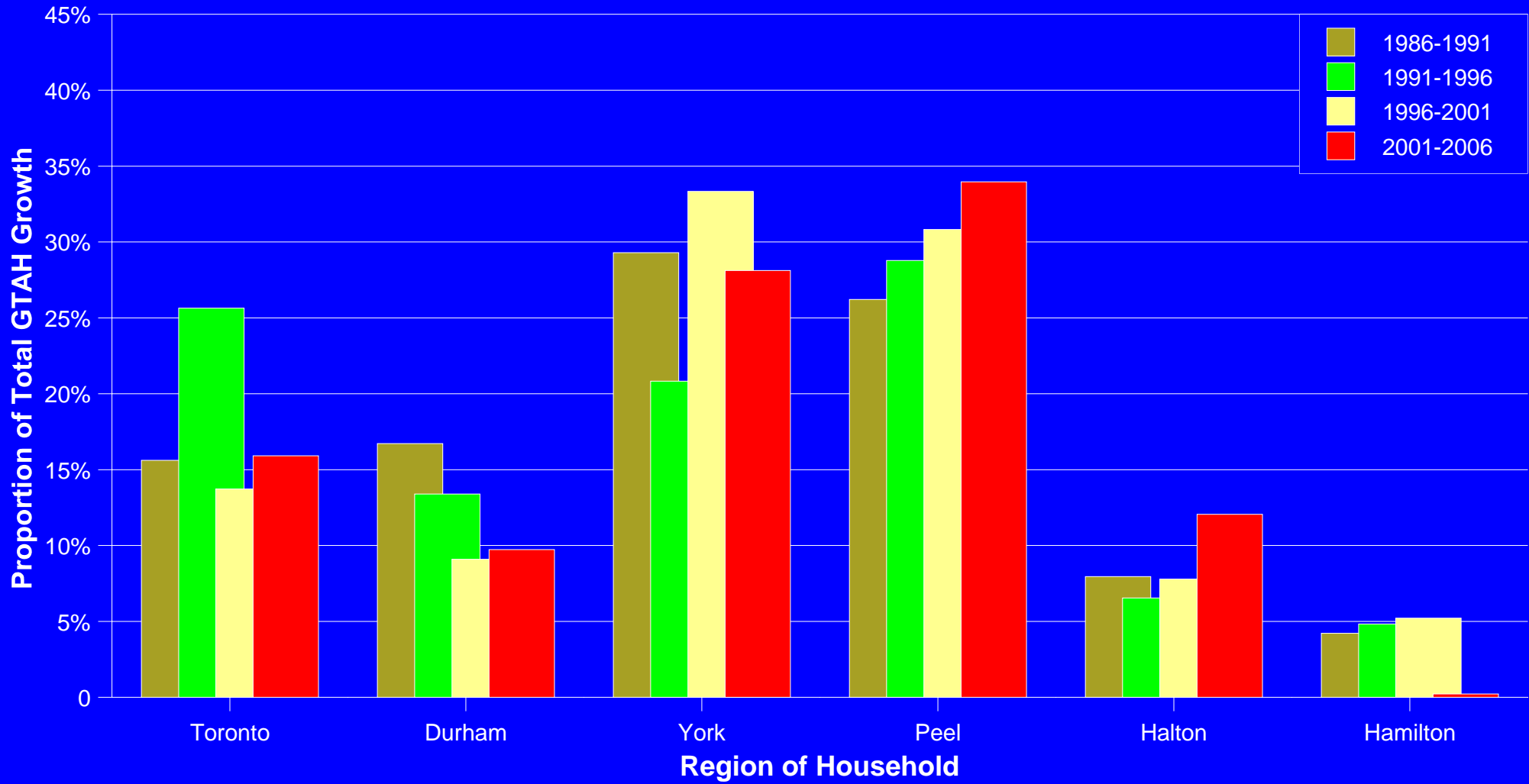
Population



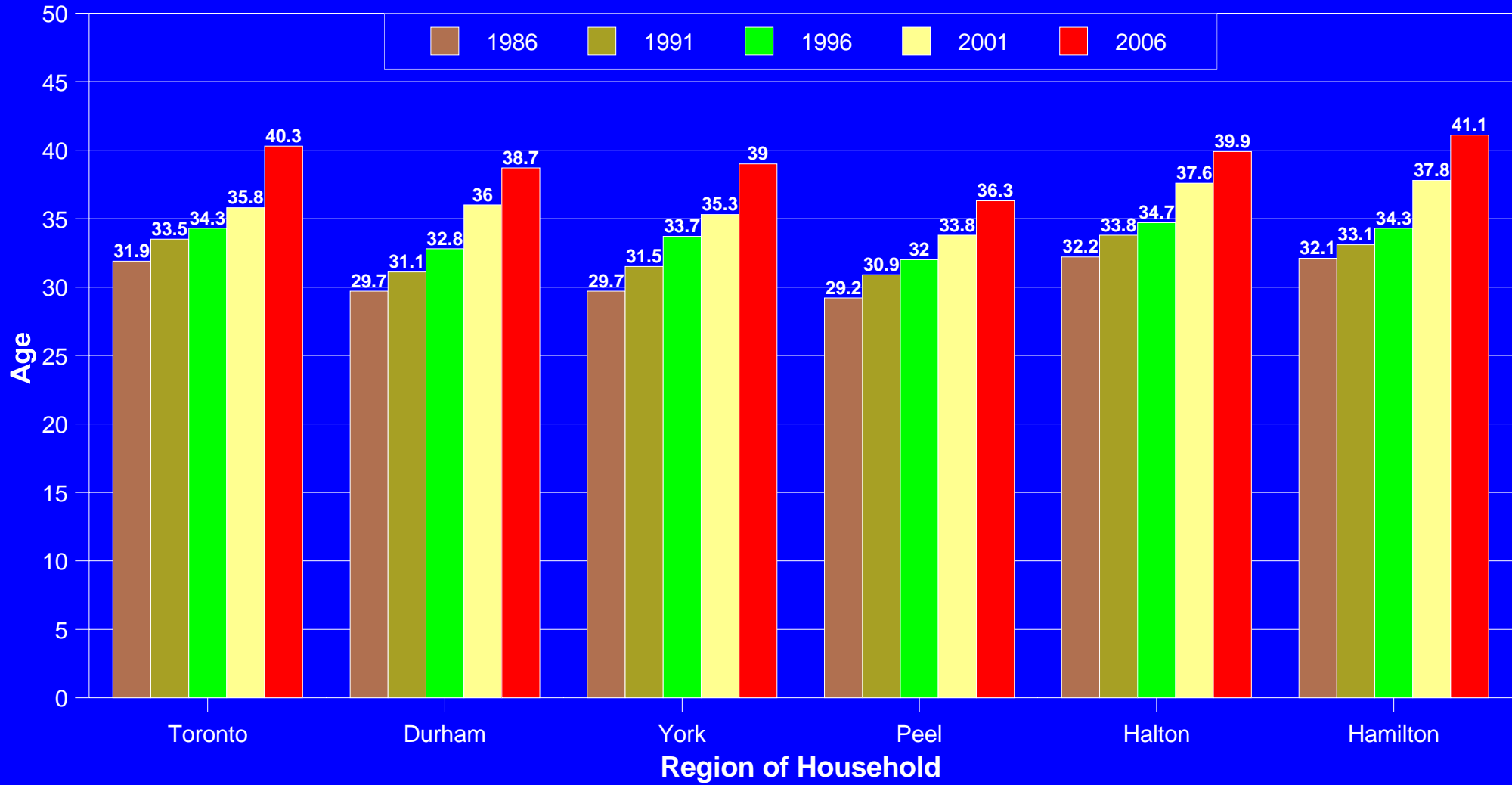
Five-Year Population Growth



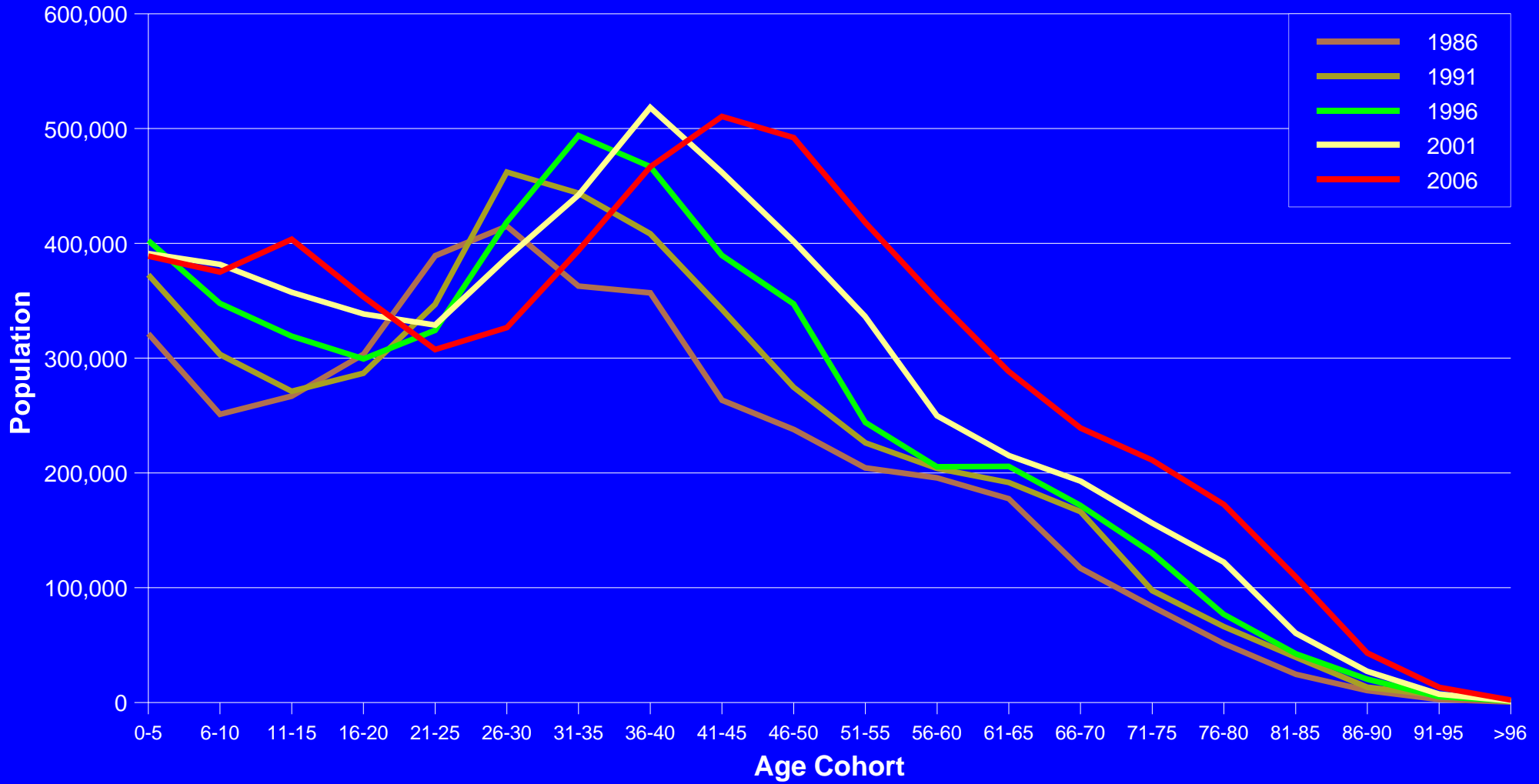
Five-Year Population Growth



Median Age

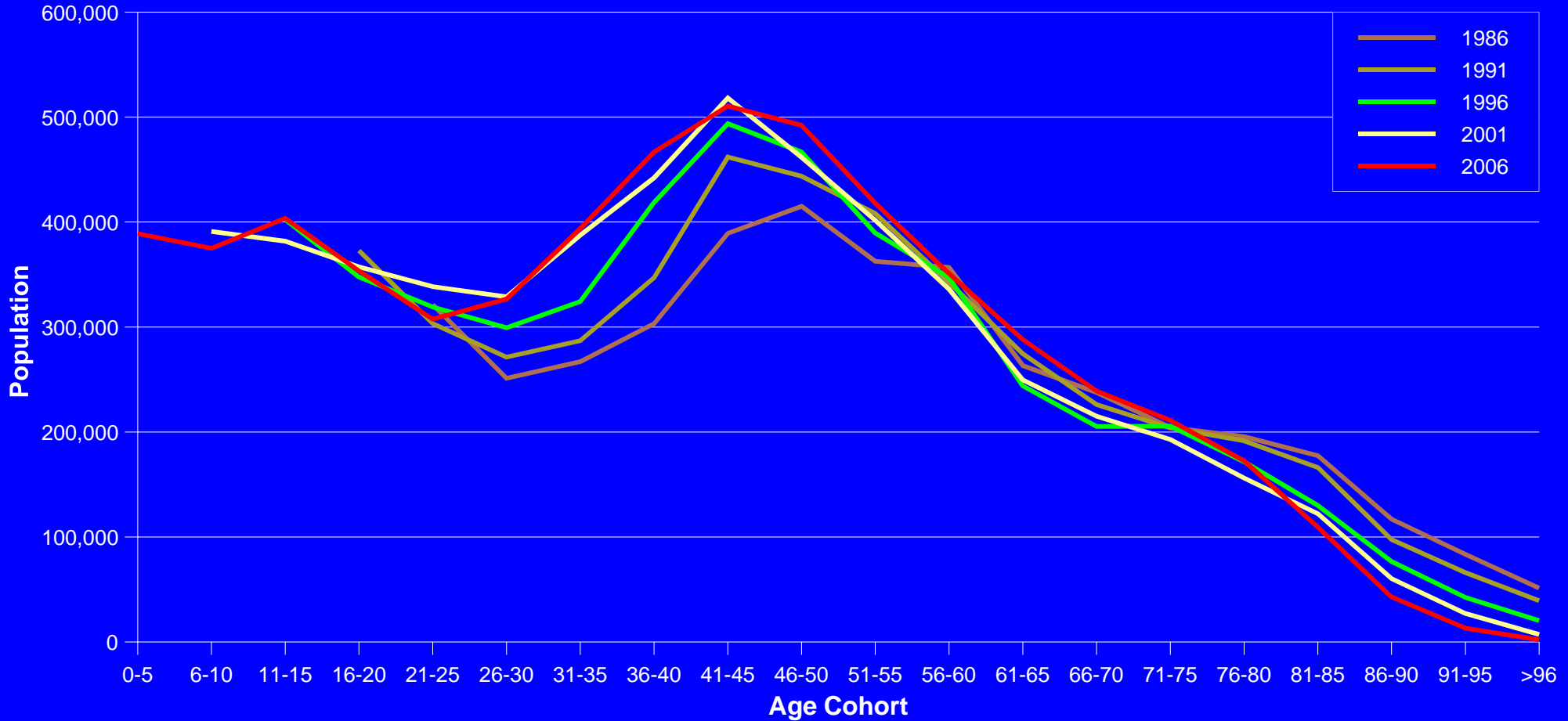


GTAH Residents Age Distribution

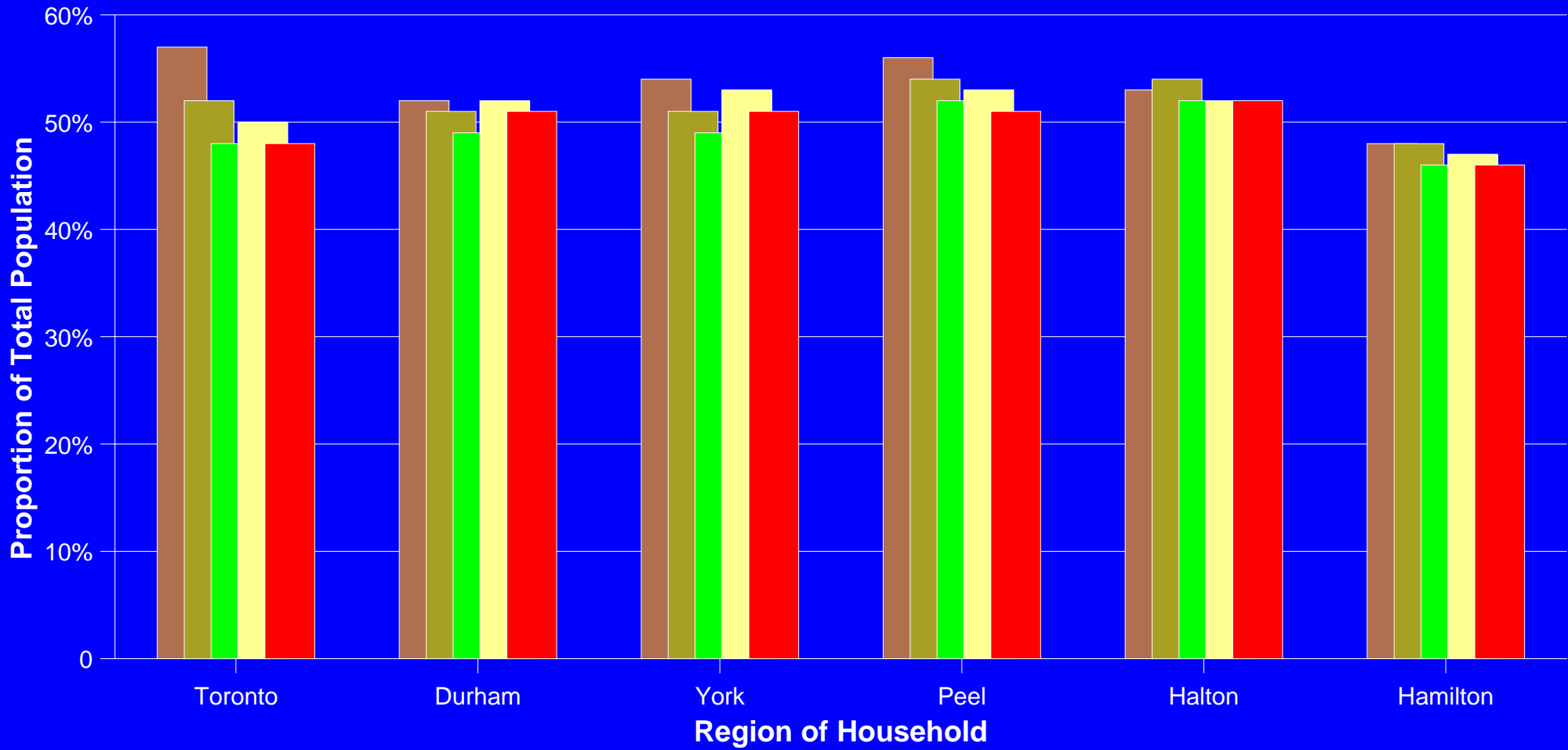
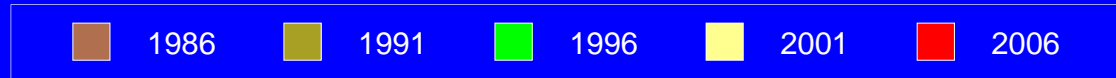


GTAH Residents Age Distribution

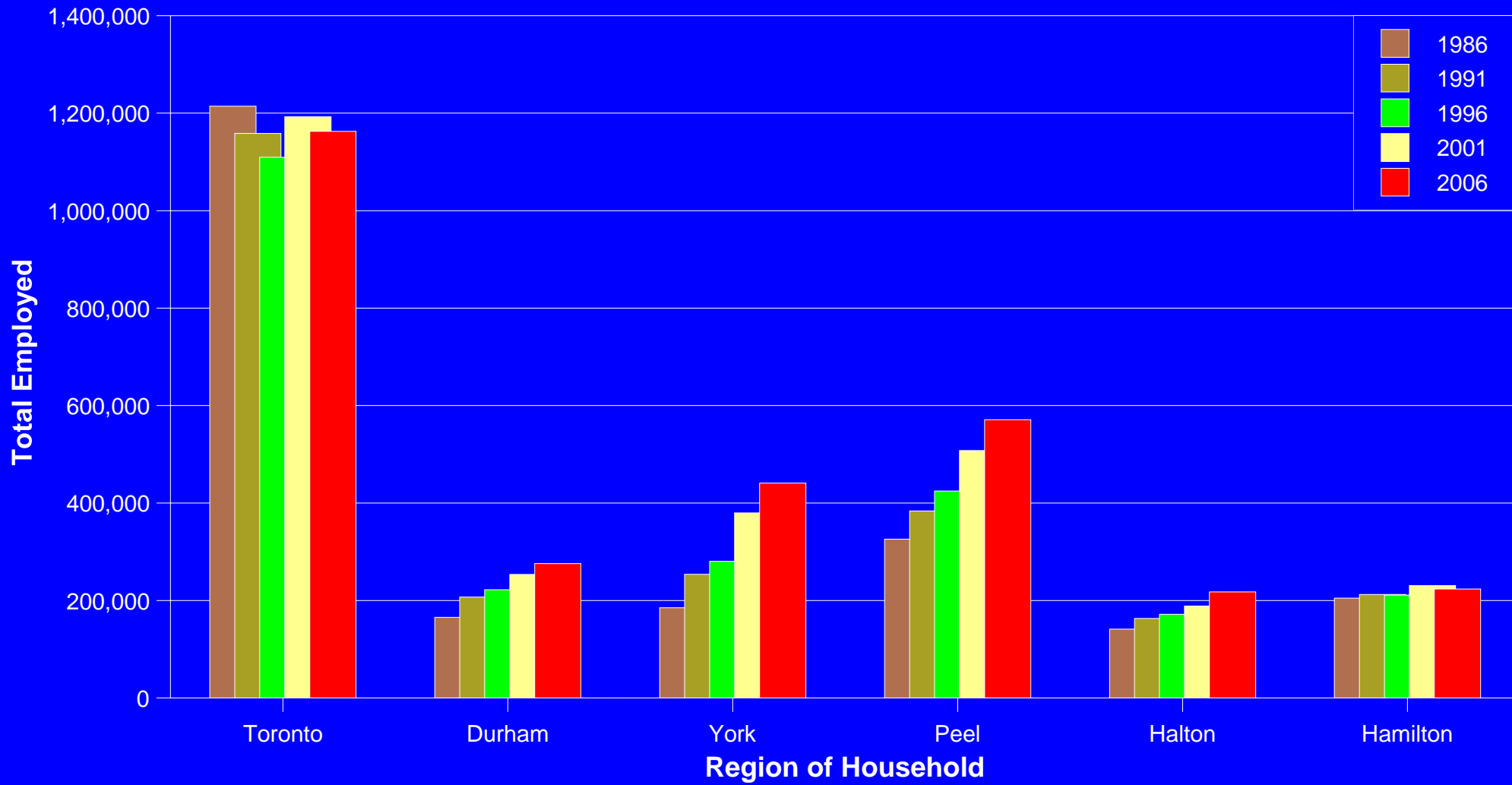
1986 shifted 20 years
1991 shifted 15 years
1996 shifted 10 years
2001 shifted 5 years



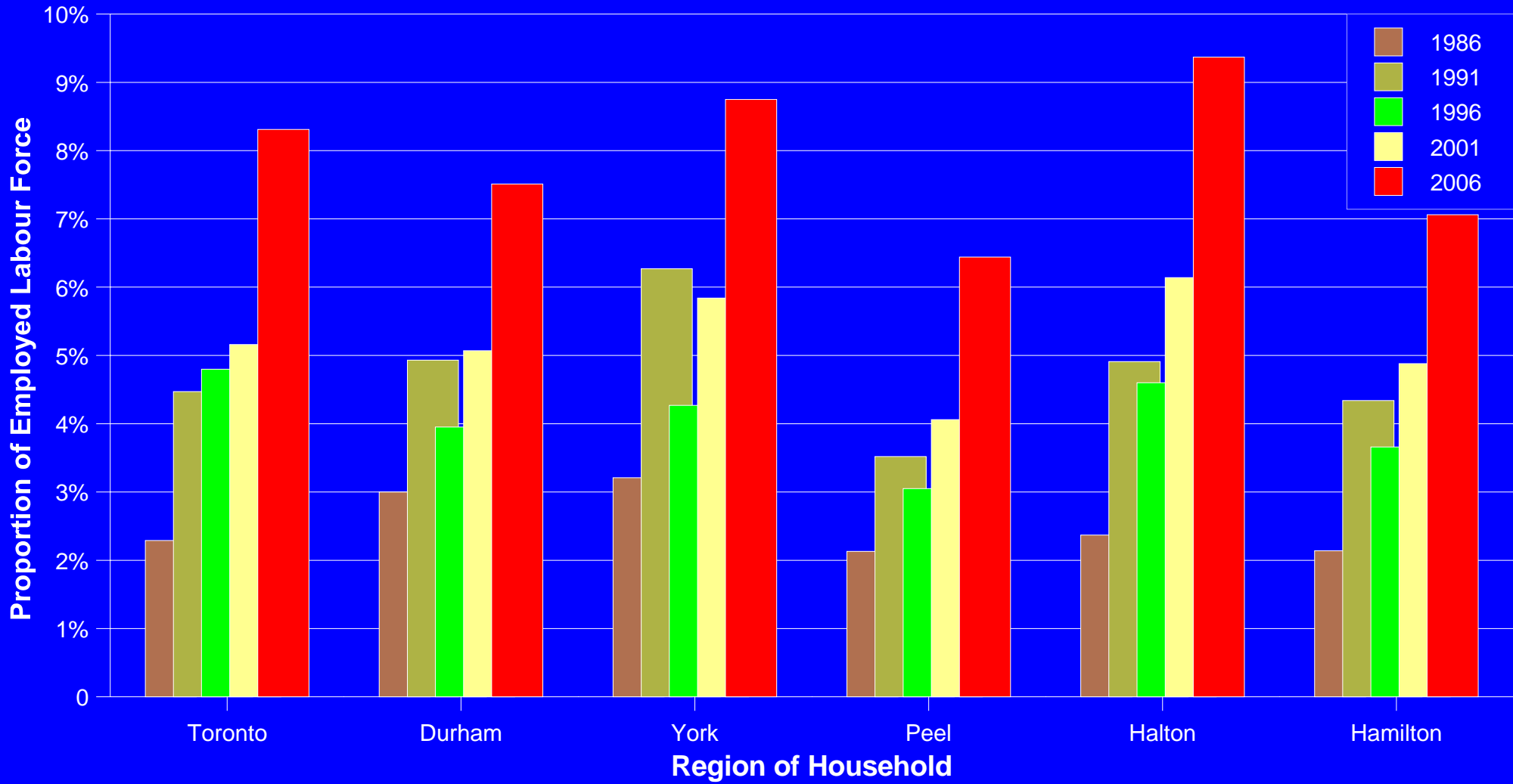
Employed Labour Force



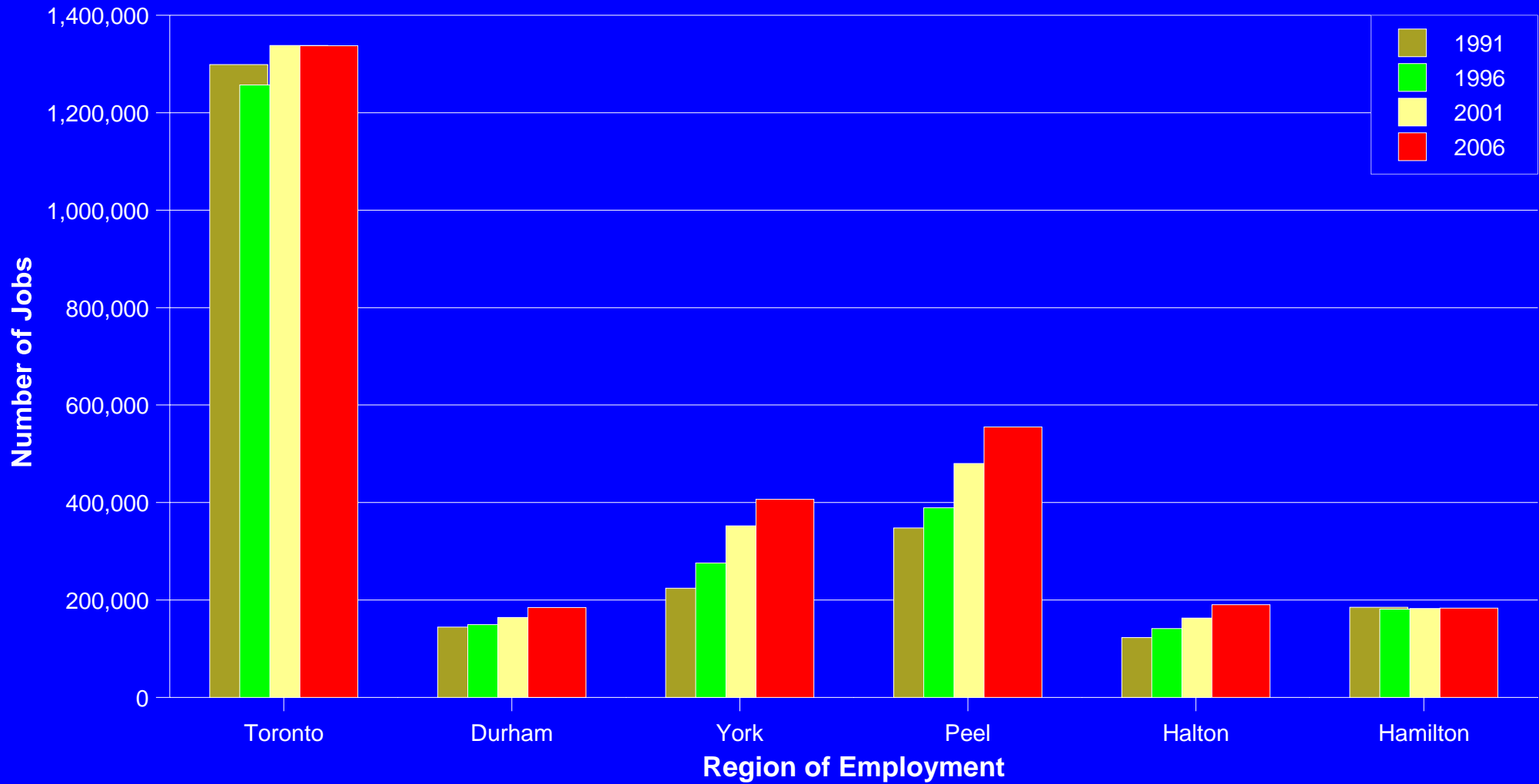
Employed Labour Force



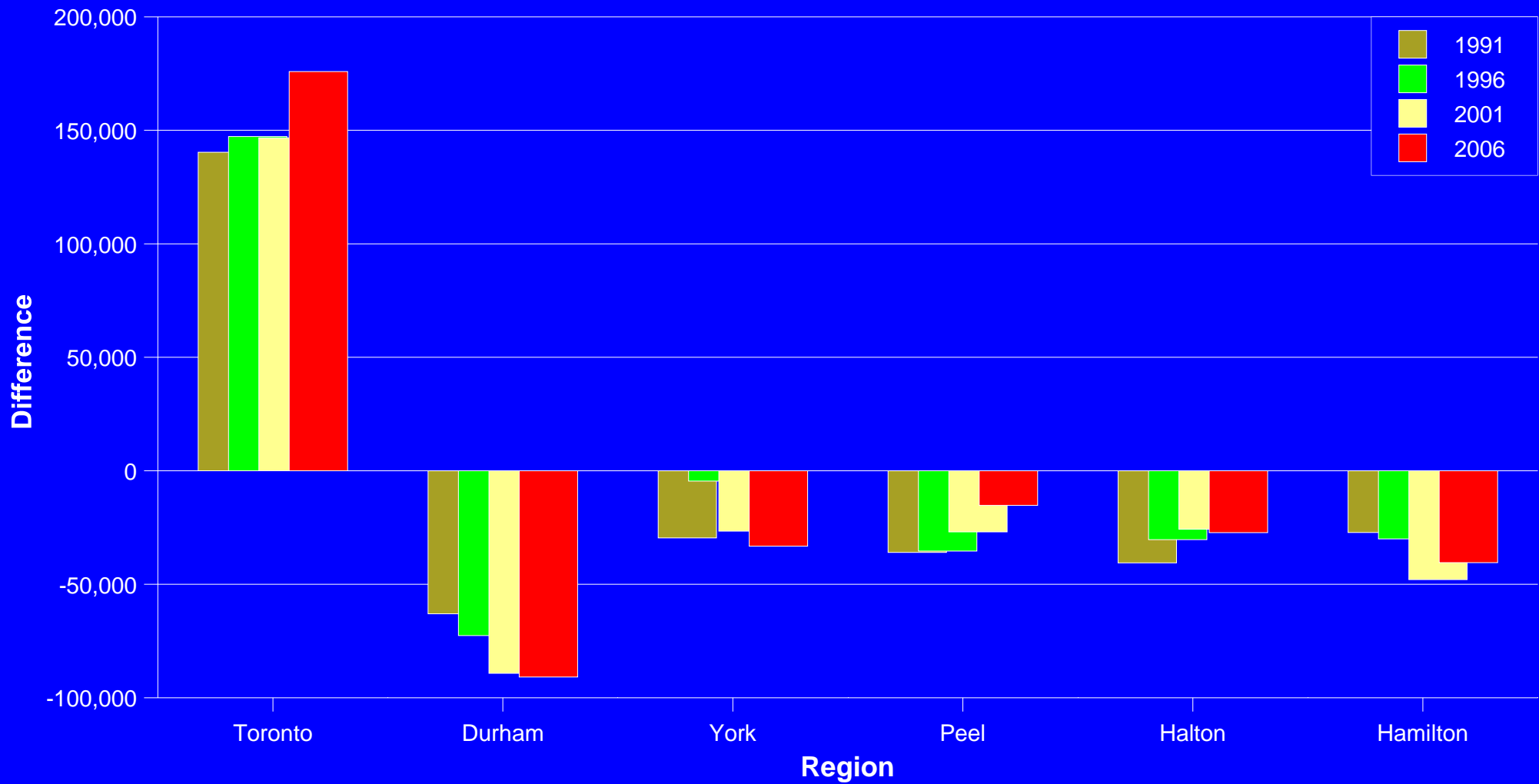
Work at Home



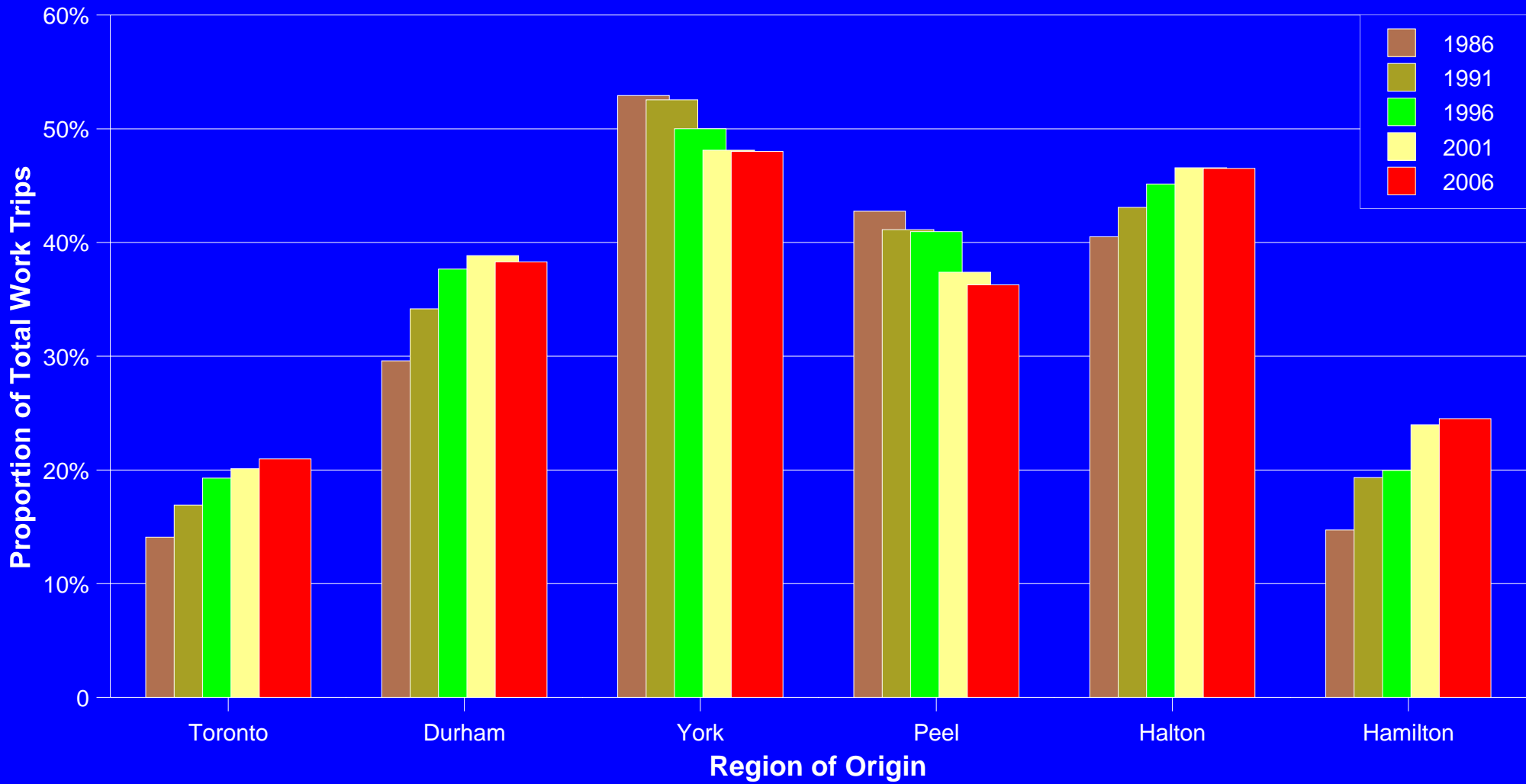
Employment (GTAH Residents)



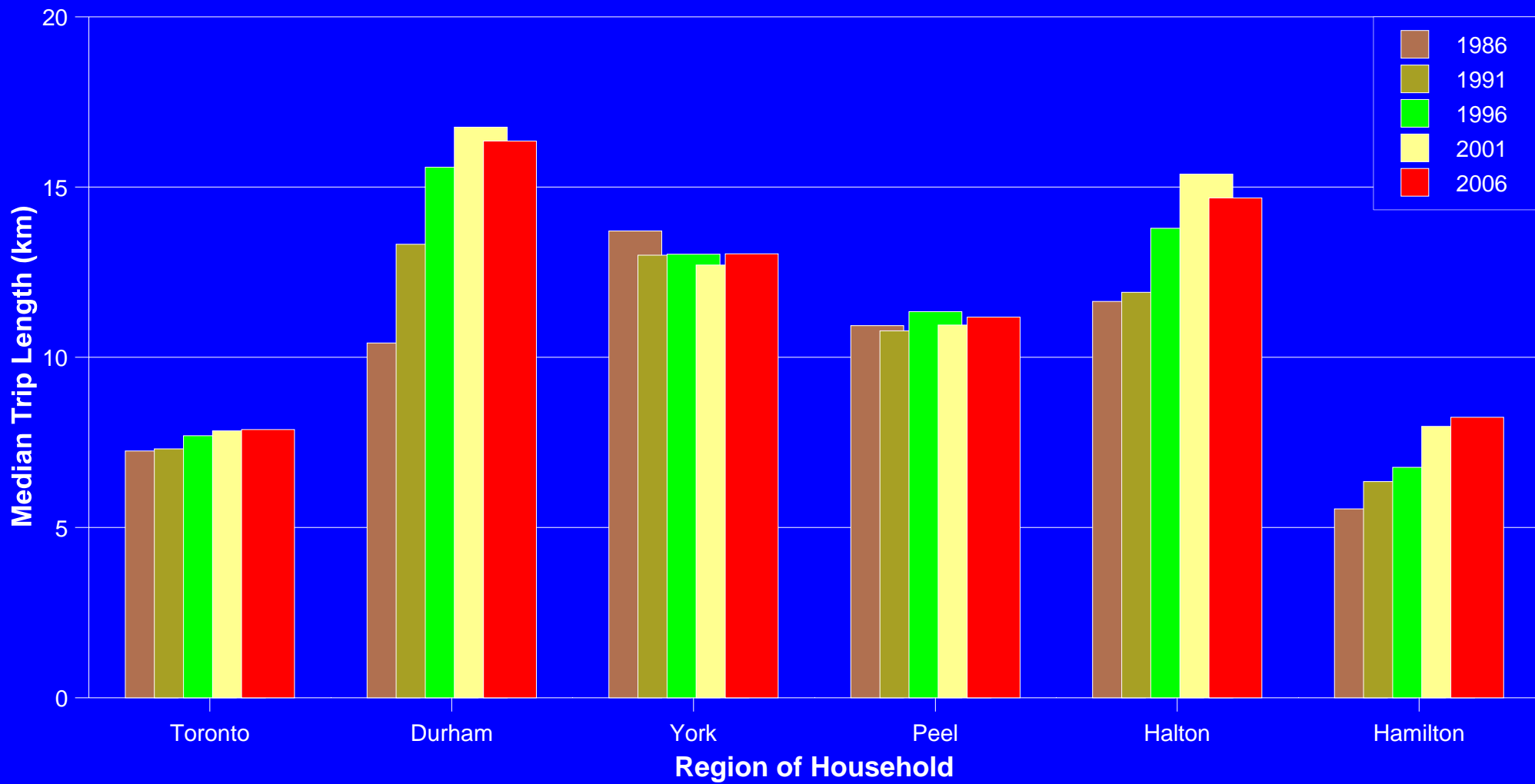
Employment minus Employed Labour Force (GTAH Residents to GTAH Employment)



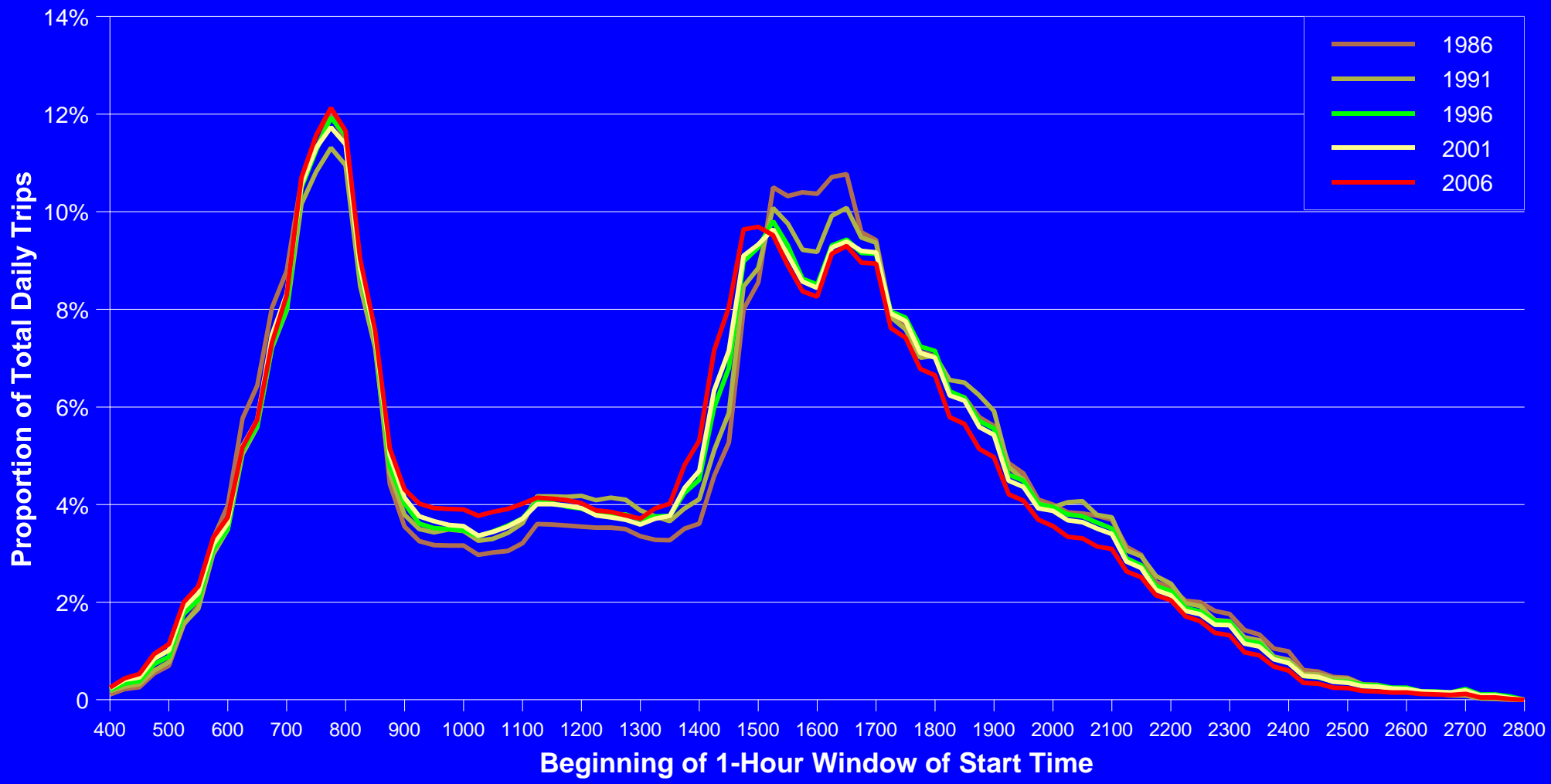
Inter-Regional Work Trips



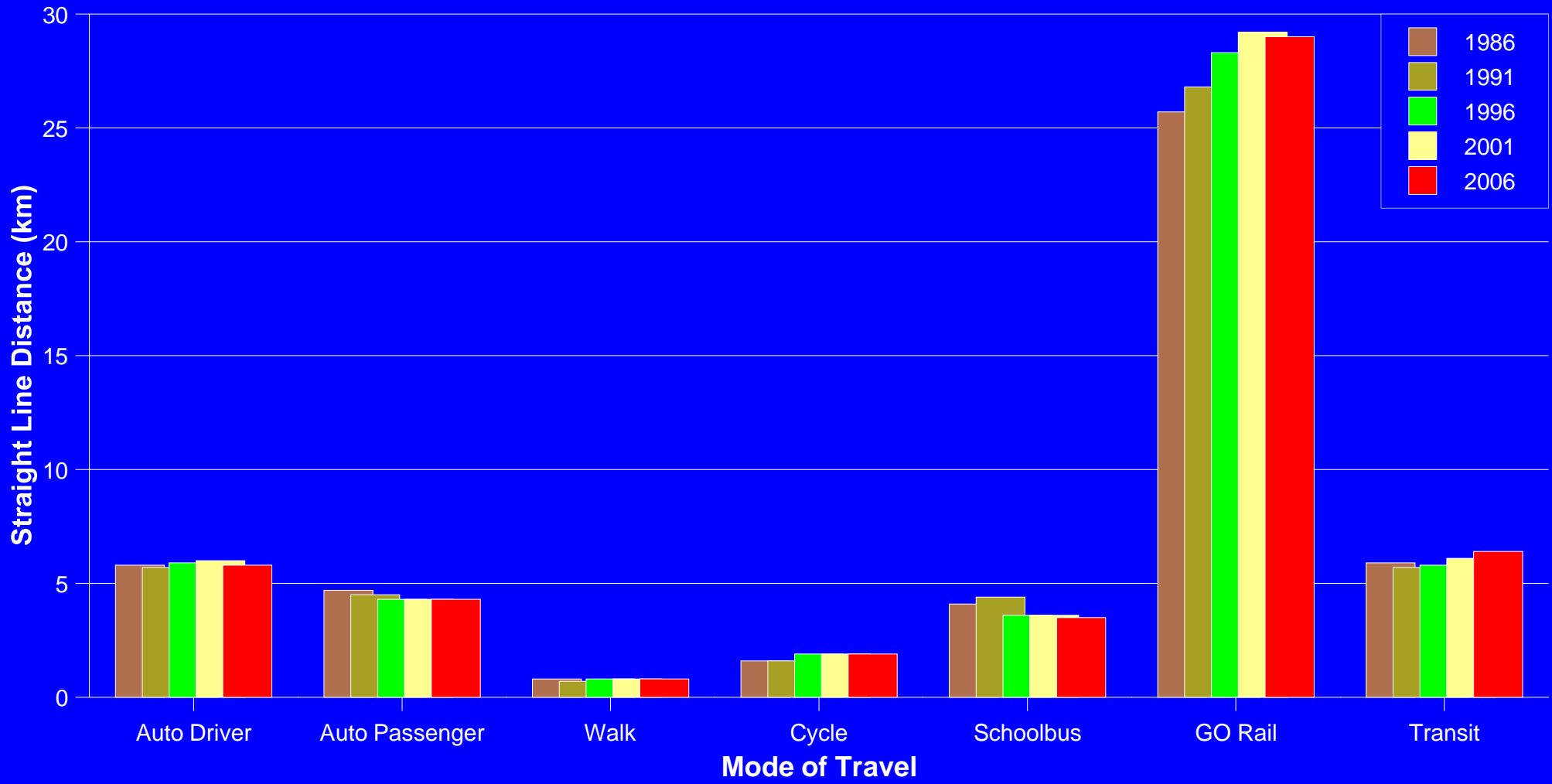
First Trip to Work Trip Length



GTAH Residents Trip Start Time



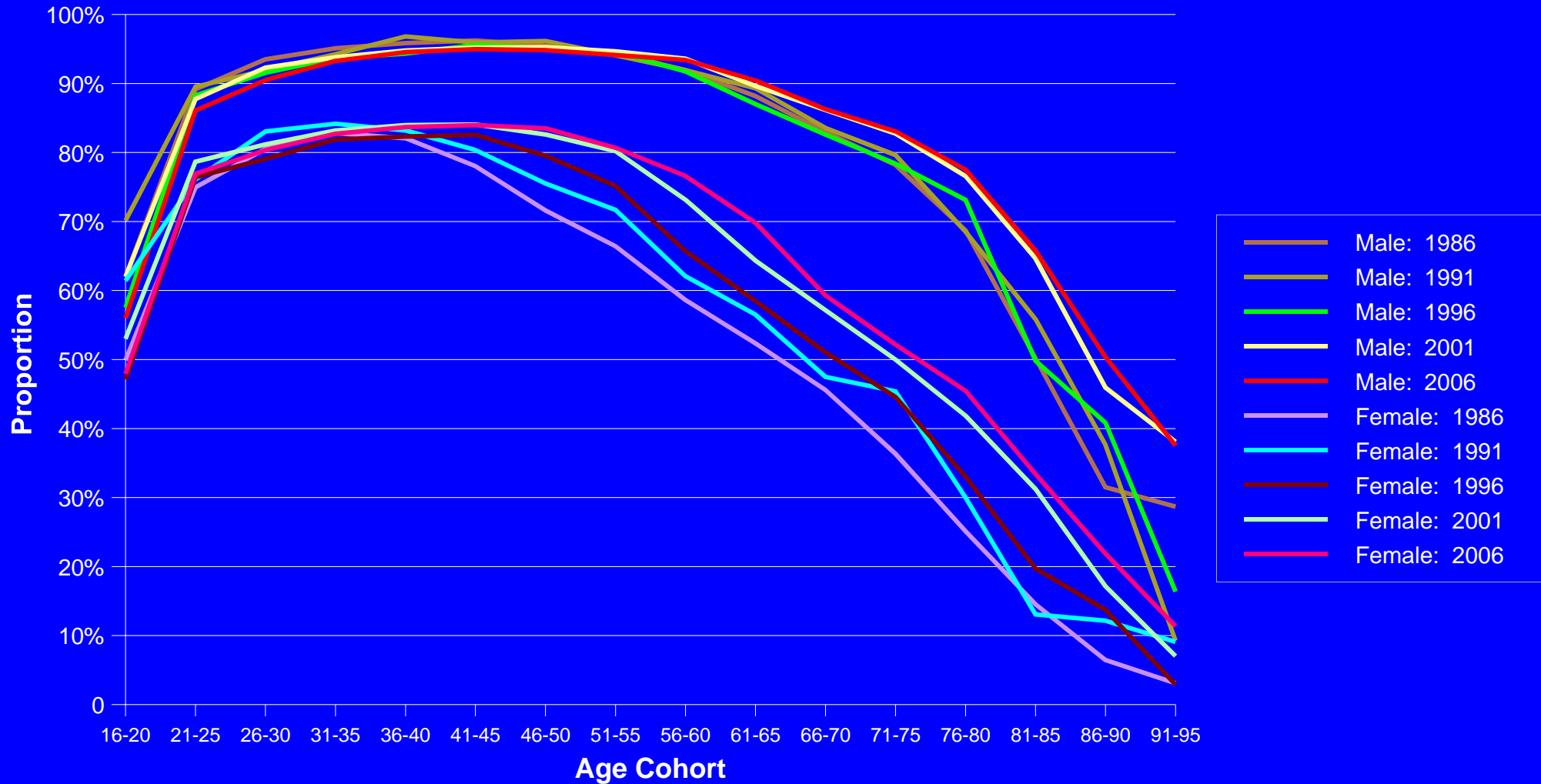
GTAH Residents Median Trip Length



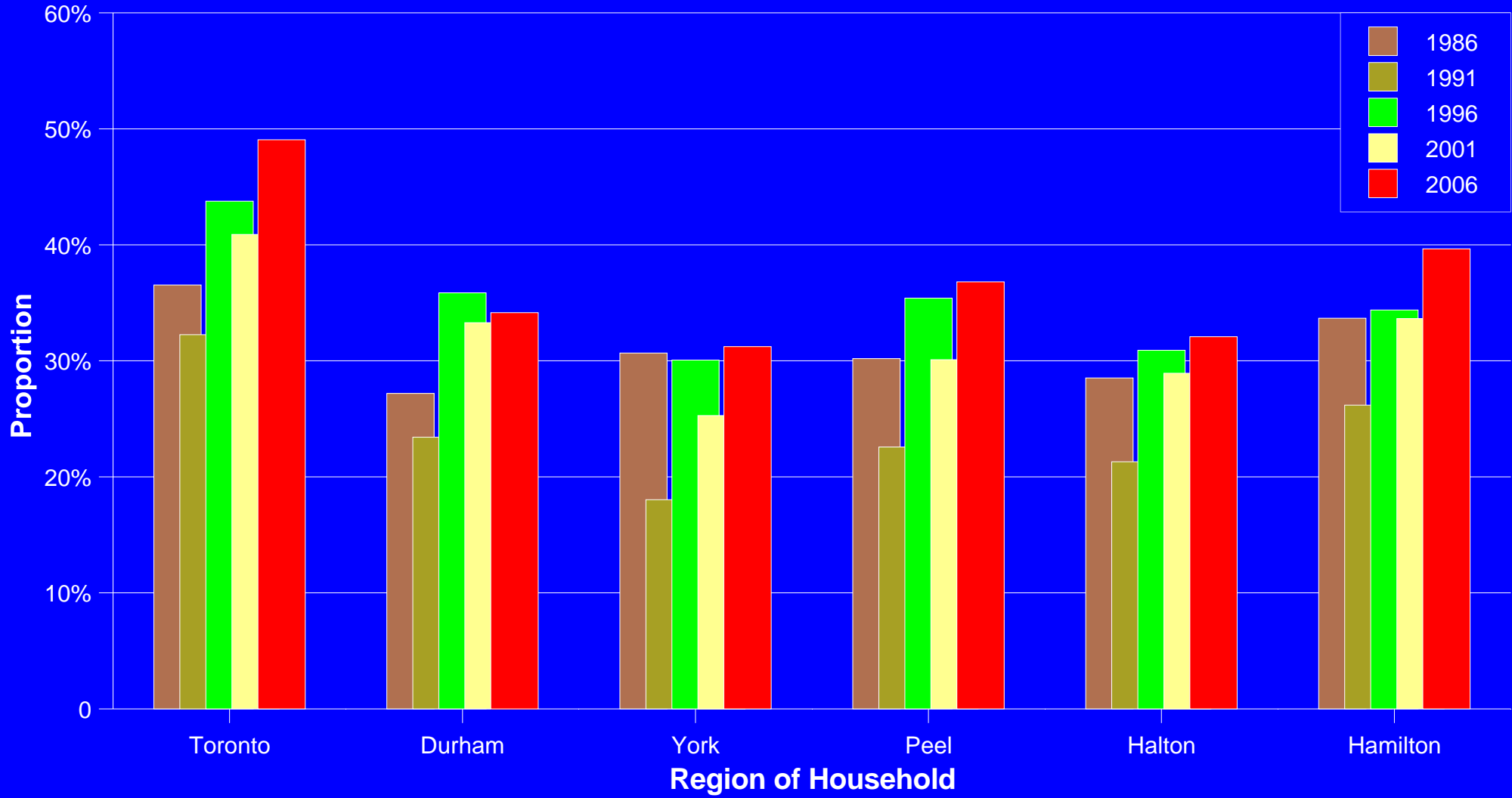
GTAH Residents Vehicle Availability



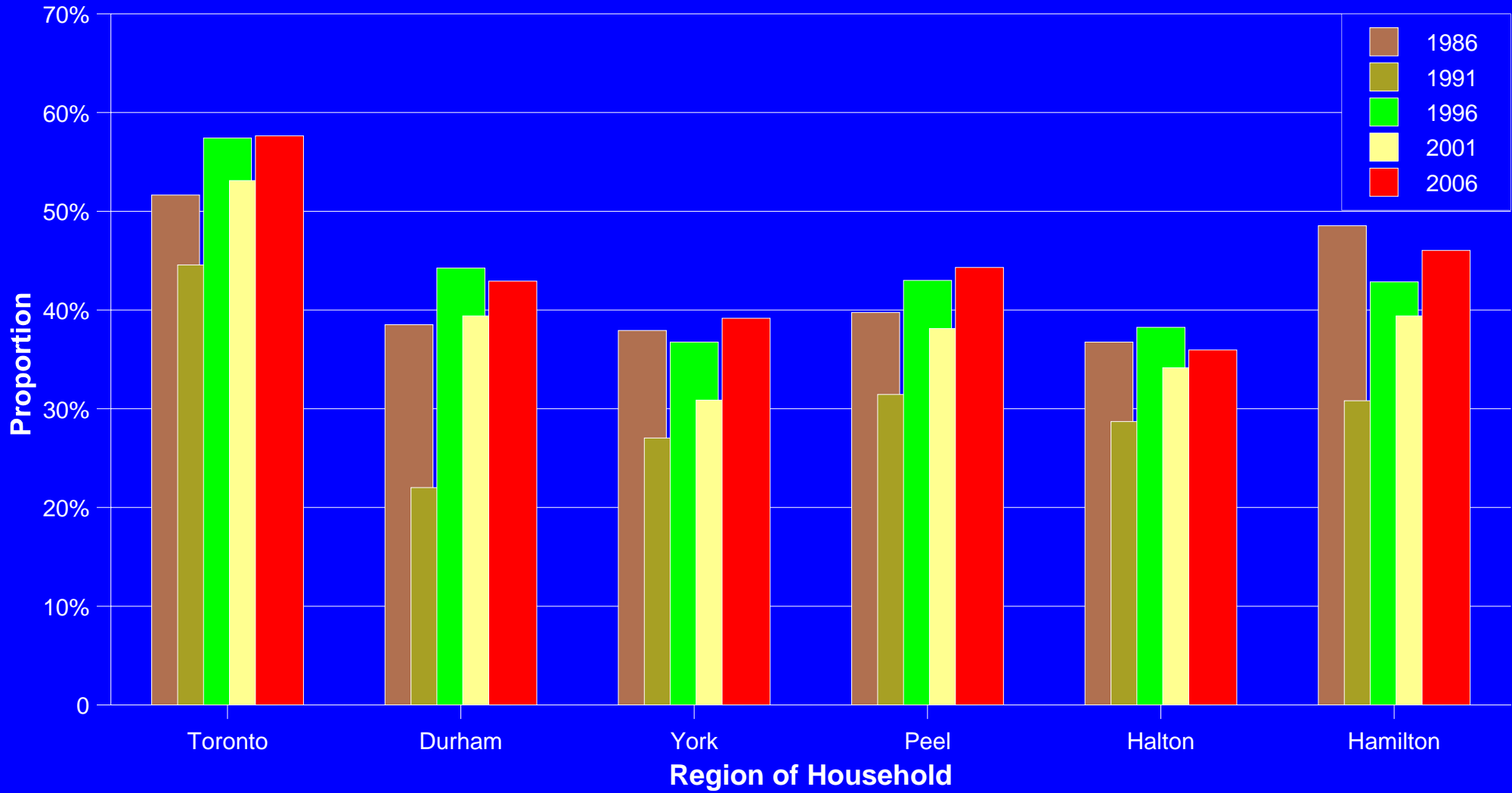
Proportion of GTAH Adults (≥ 16 years) With a Driver's License



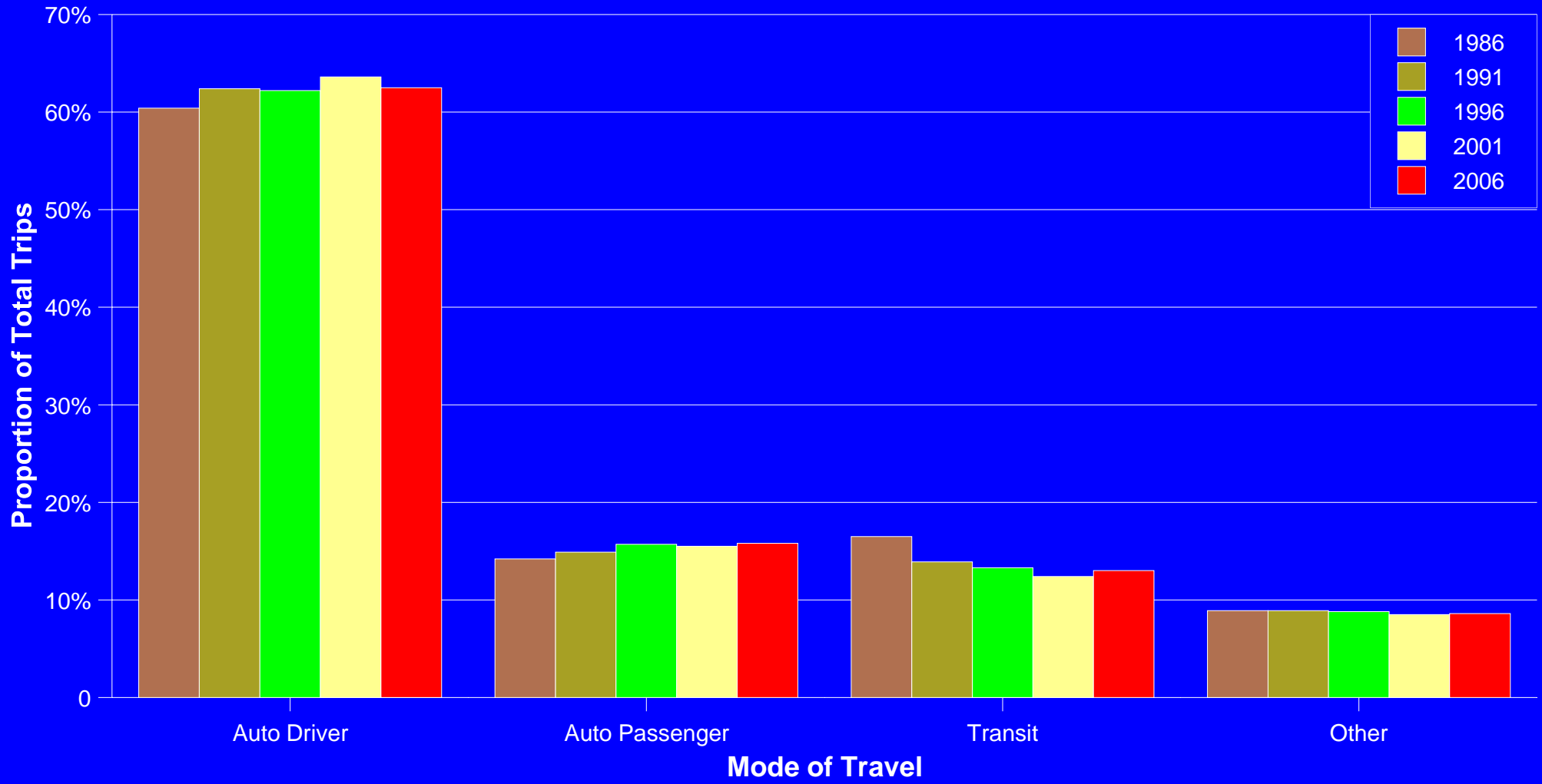
Males (16-21 years) without a License



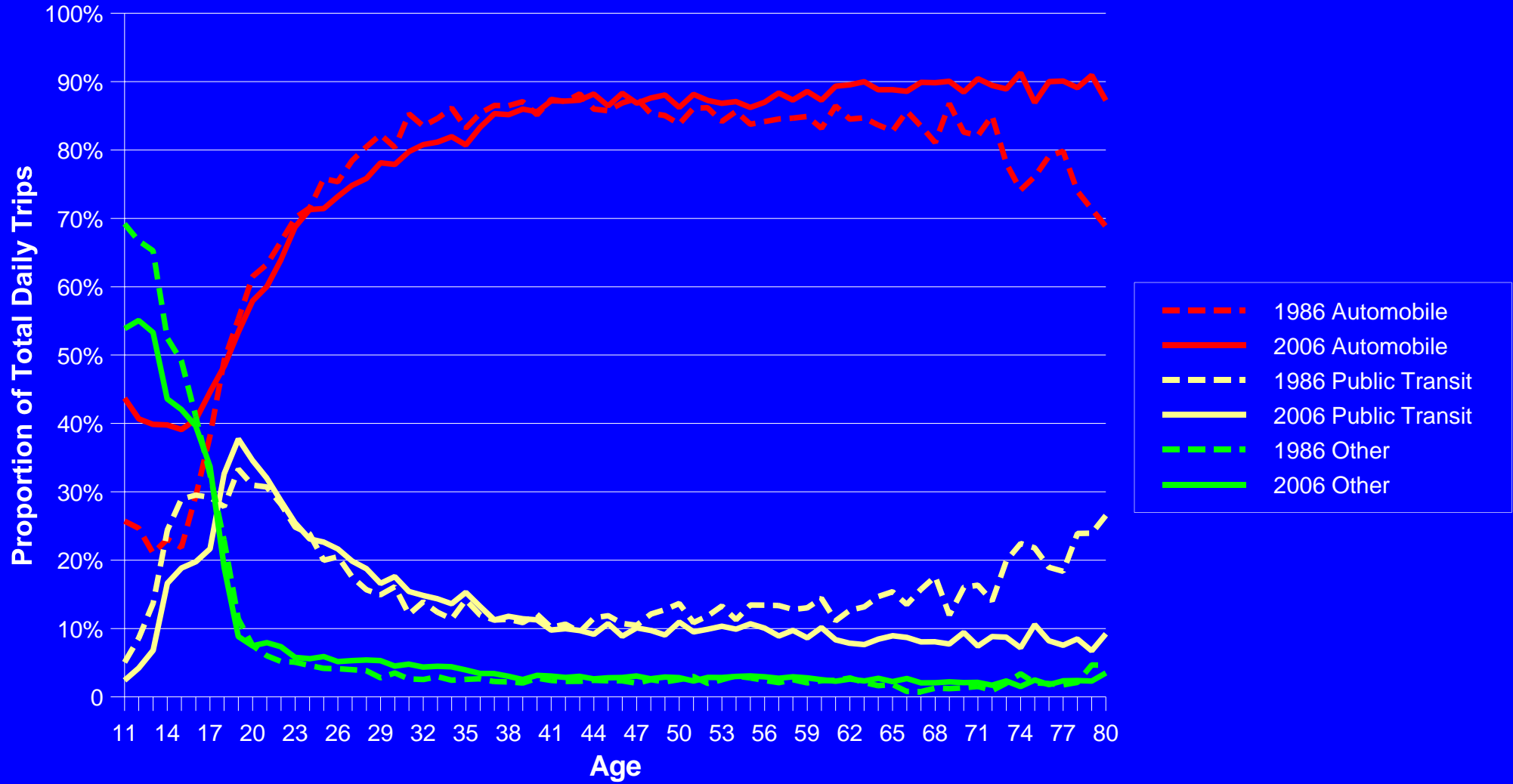
Females (16-21 years) without a License



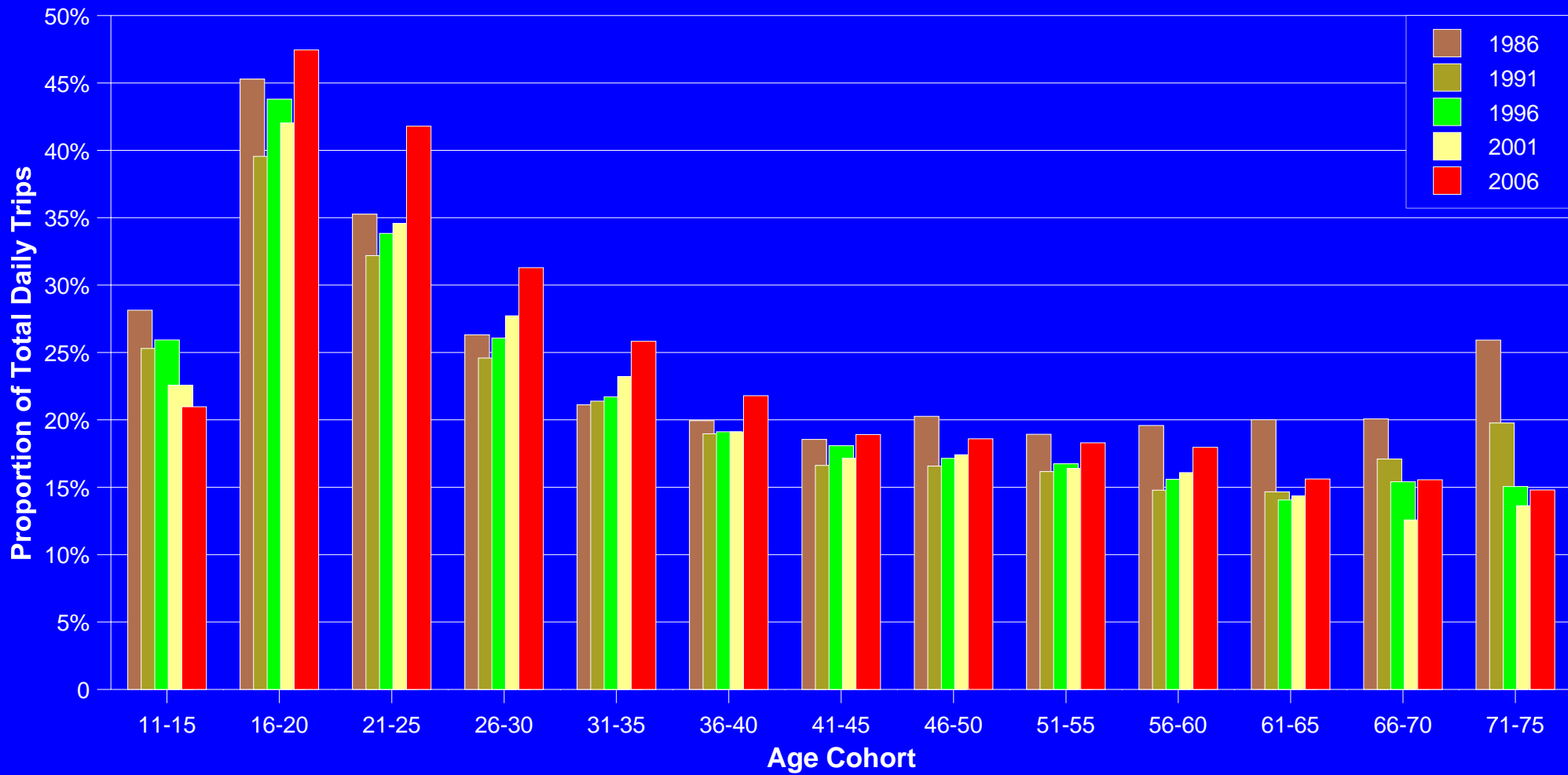
GTAH Residents All Trips



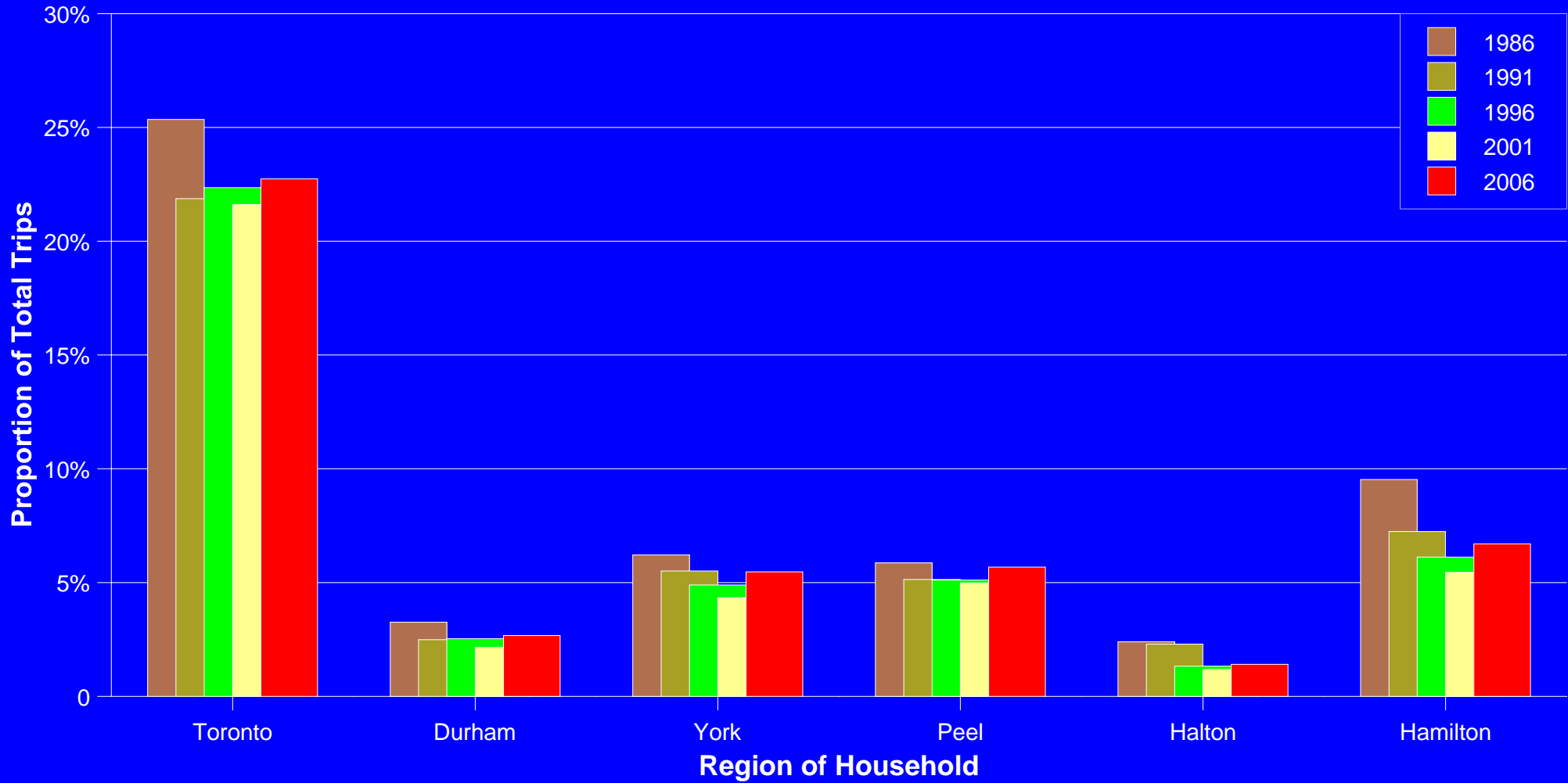
GTAH Mode Split



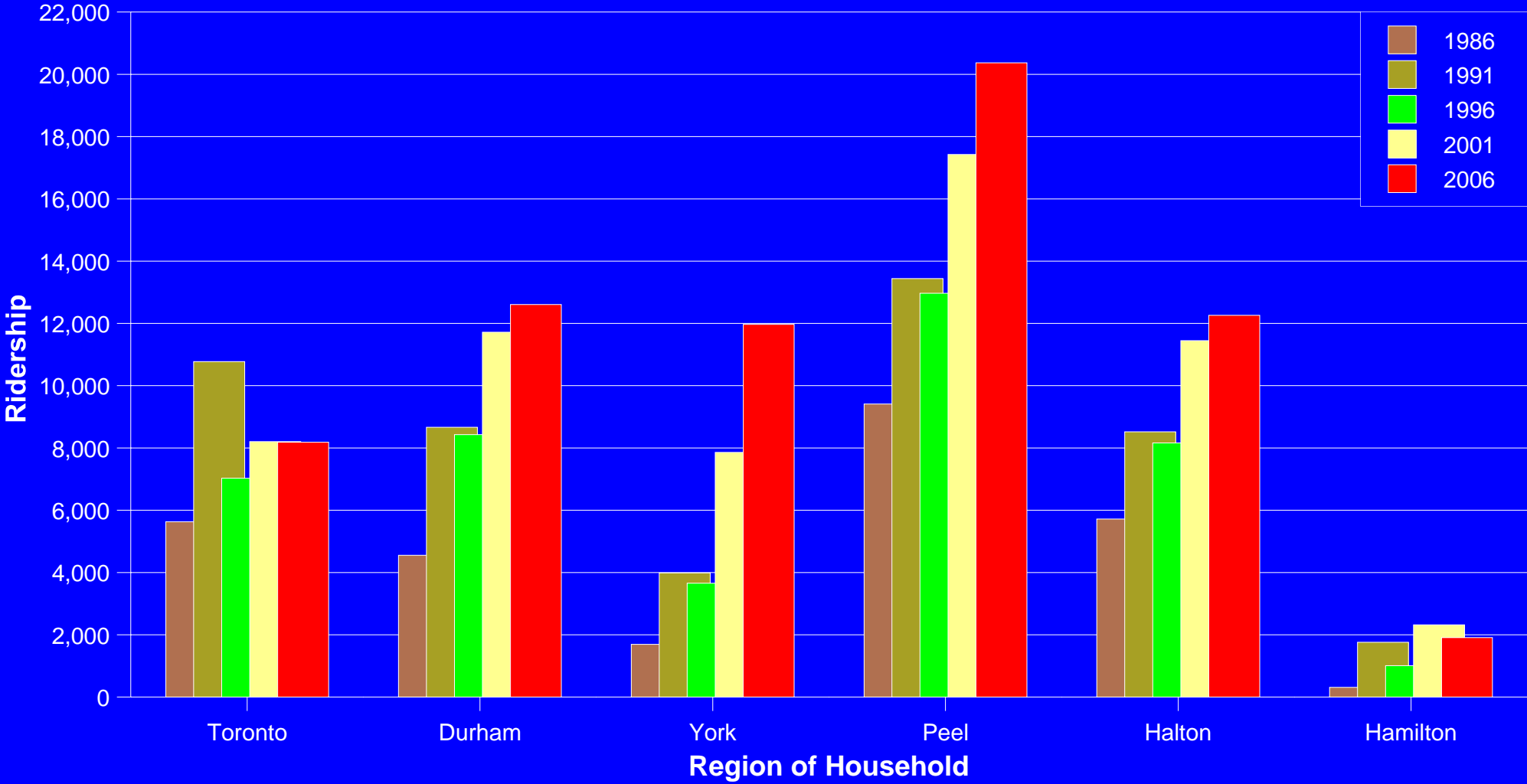
Toronto Residents Transit Mode Split (Including GO Rail)



Transit Mode Split (excluding GO Rail)



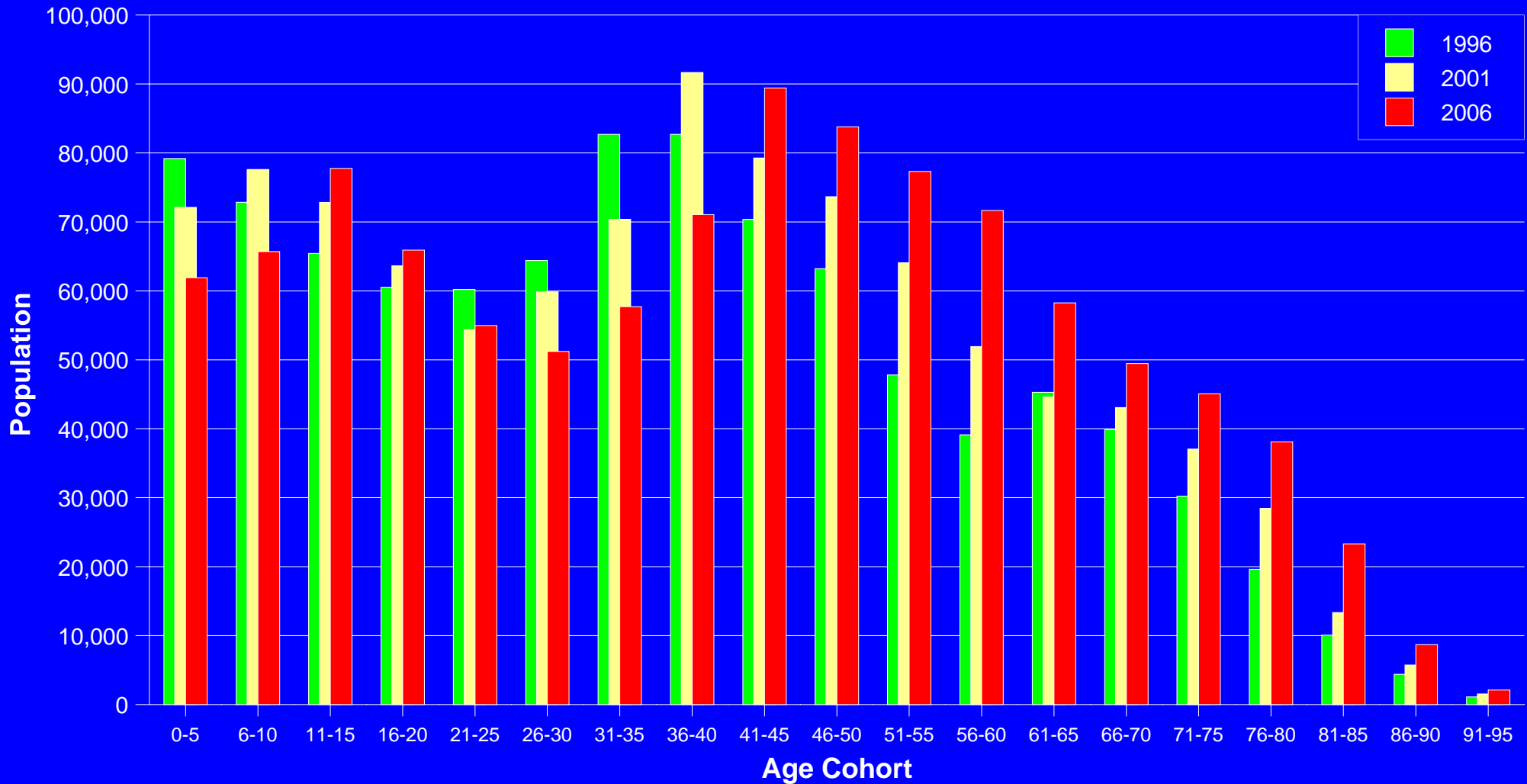
First Trip to Work GO Rail Ridership



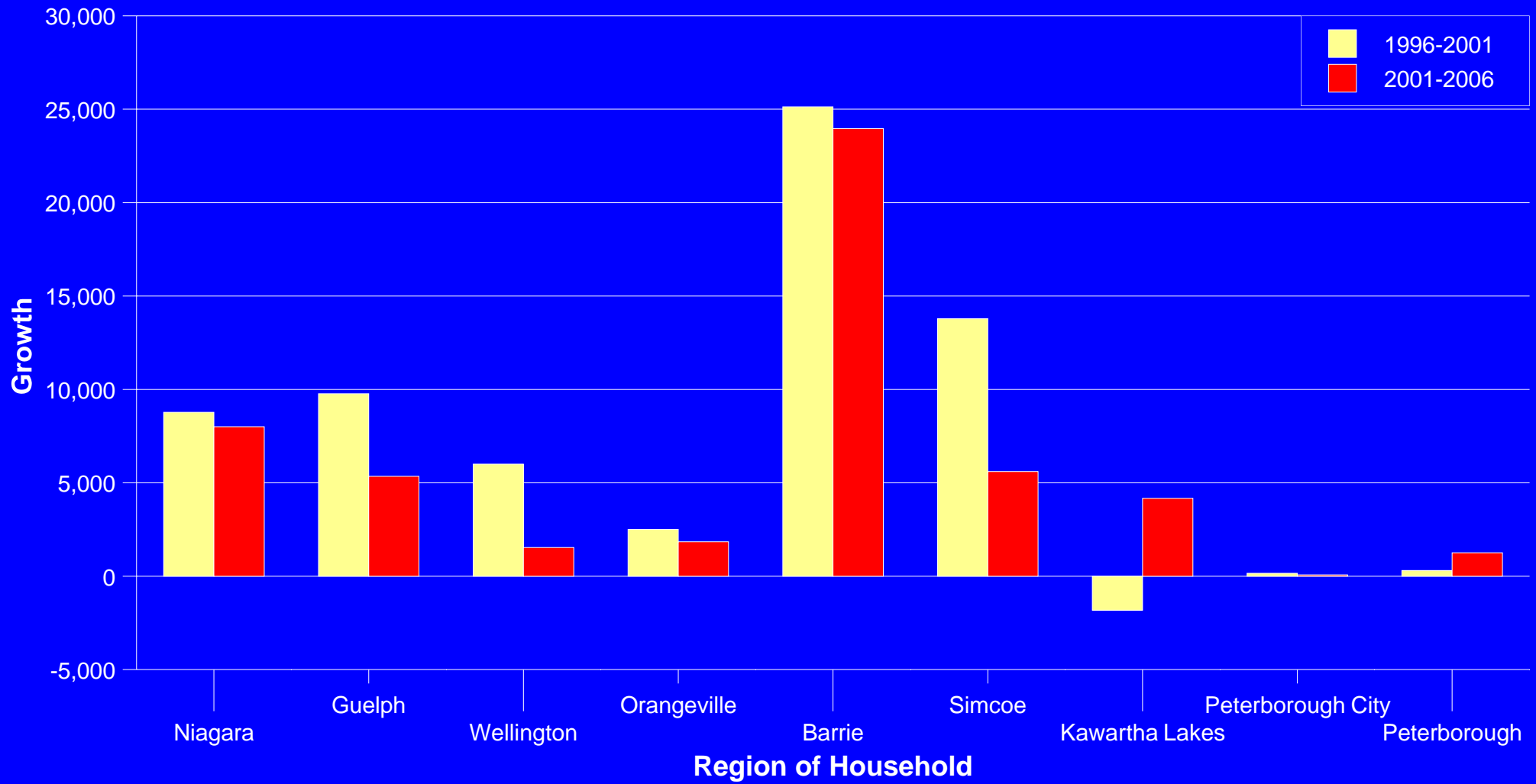
Time Series Analysis Non-GTAH

1996, 2001 and 2006

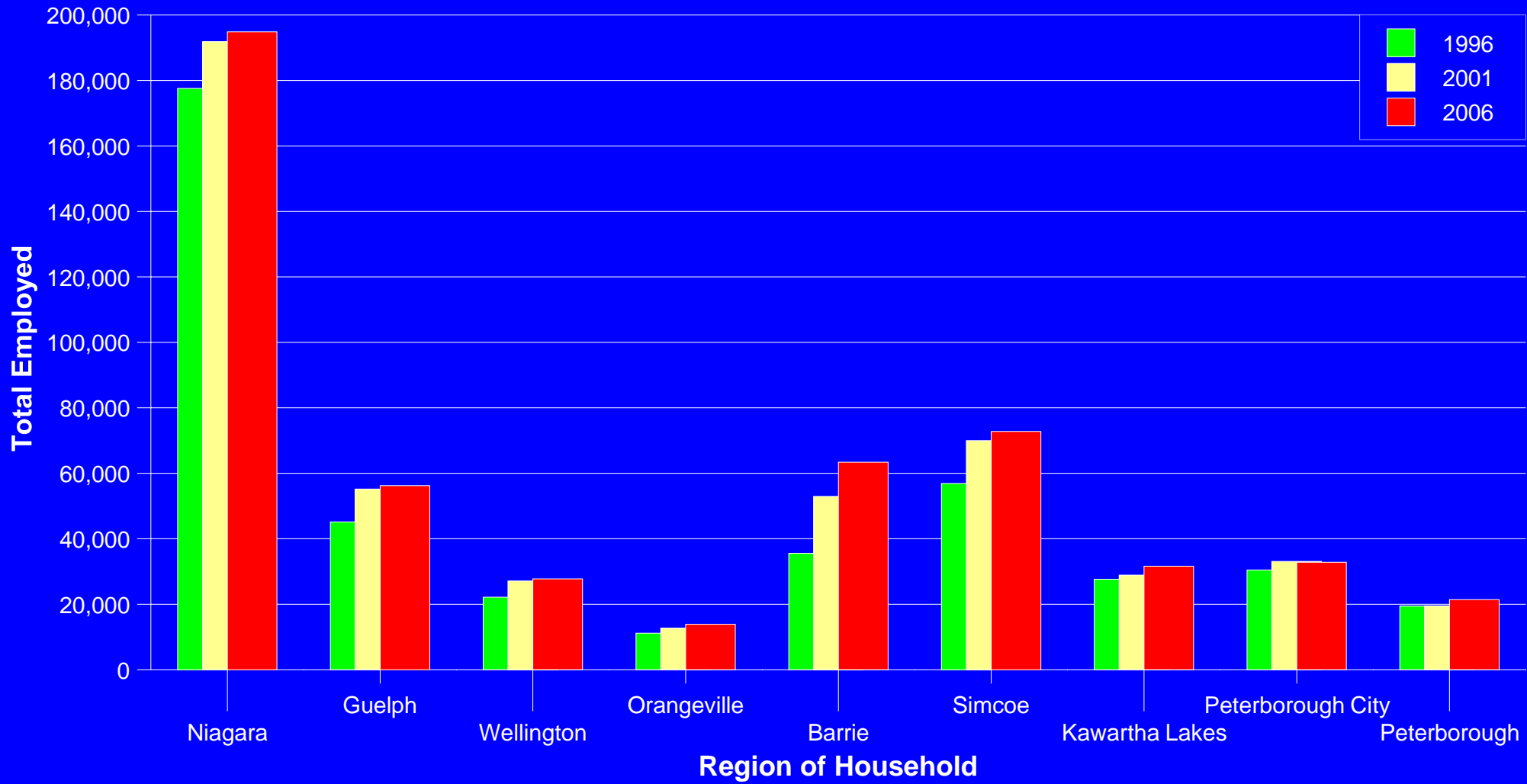
Non-GTAH Residents Age Distribution



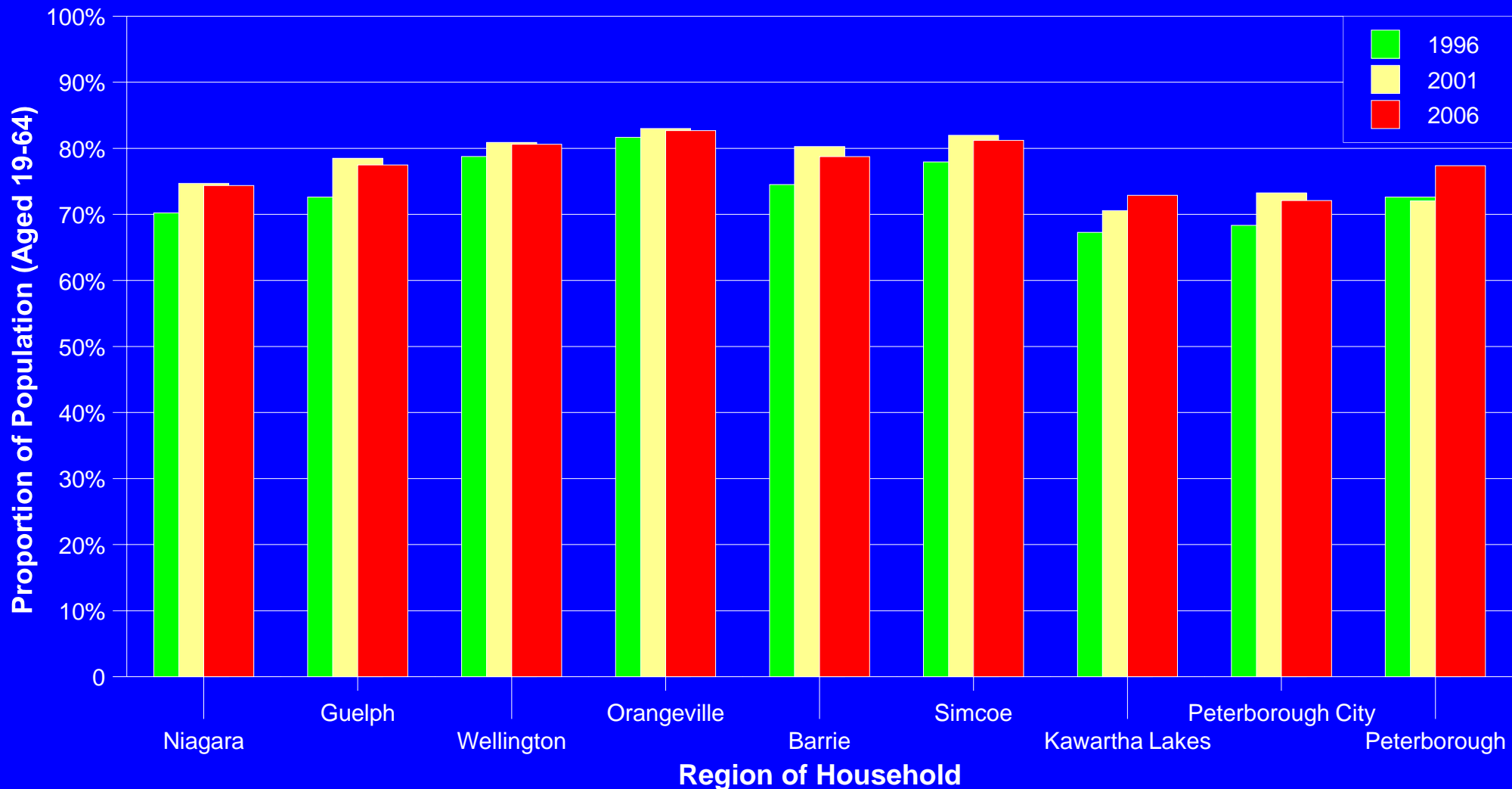
Non-GTAH Population Growth



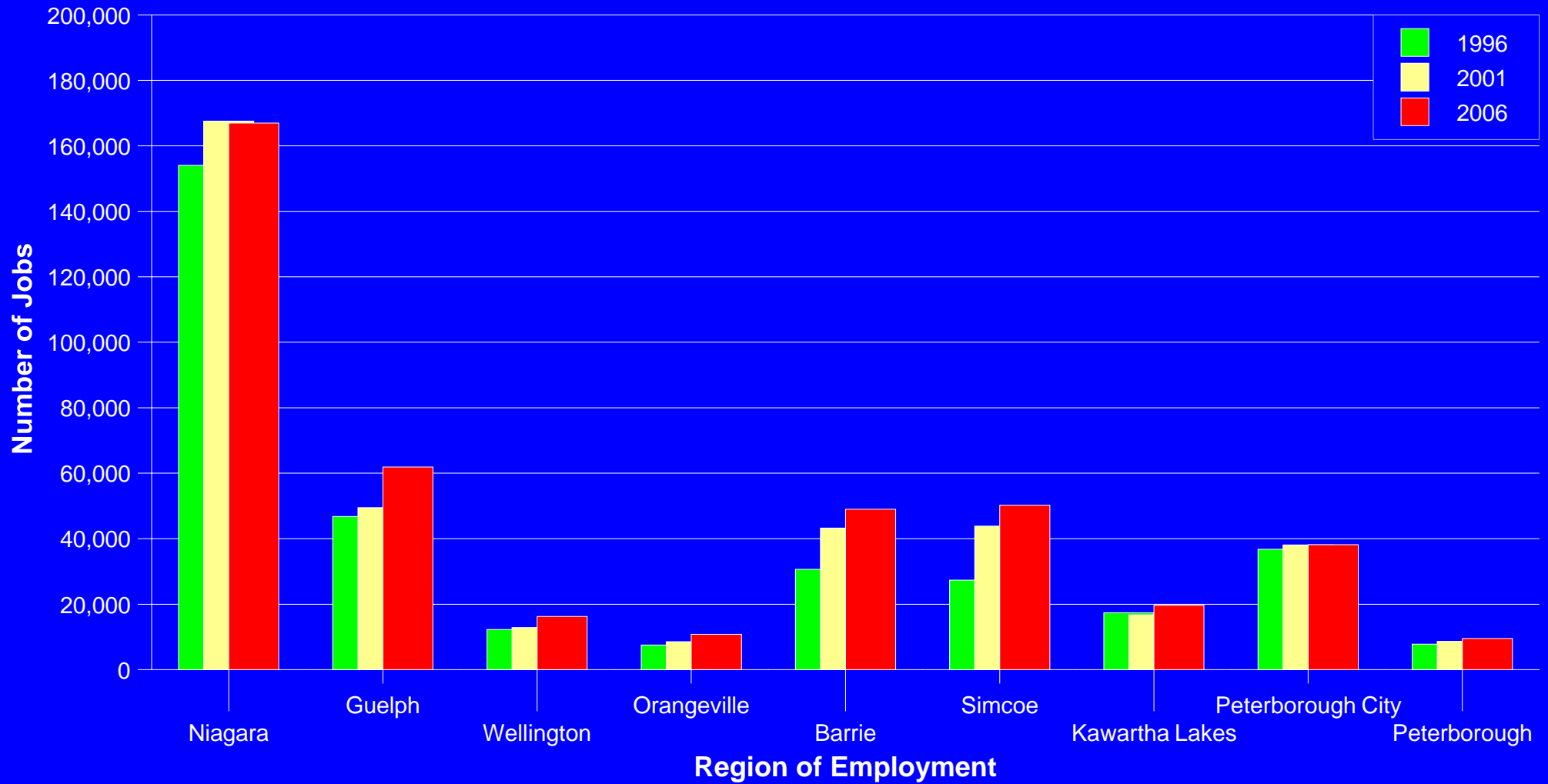
Employed Labour Force



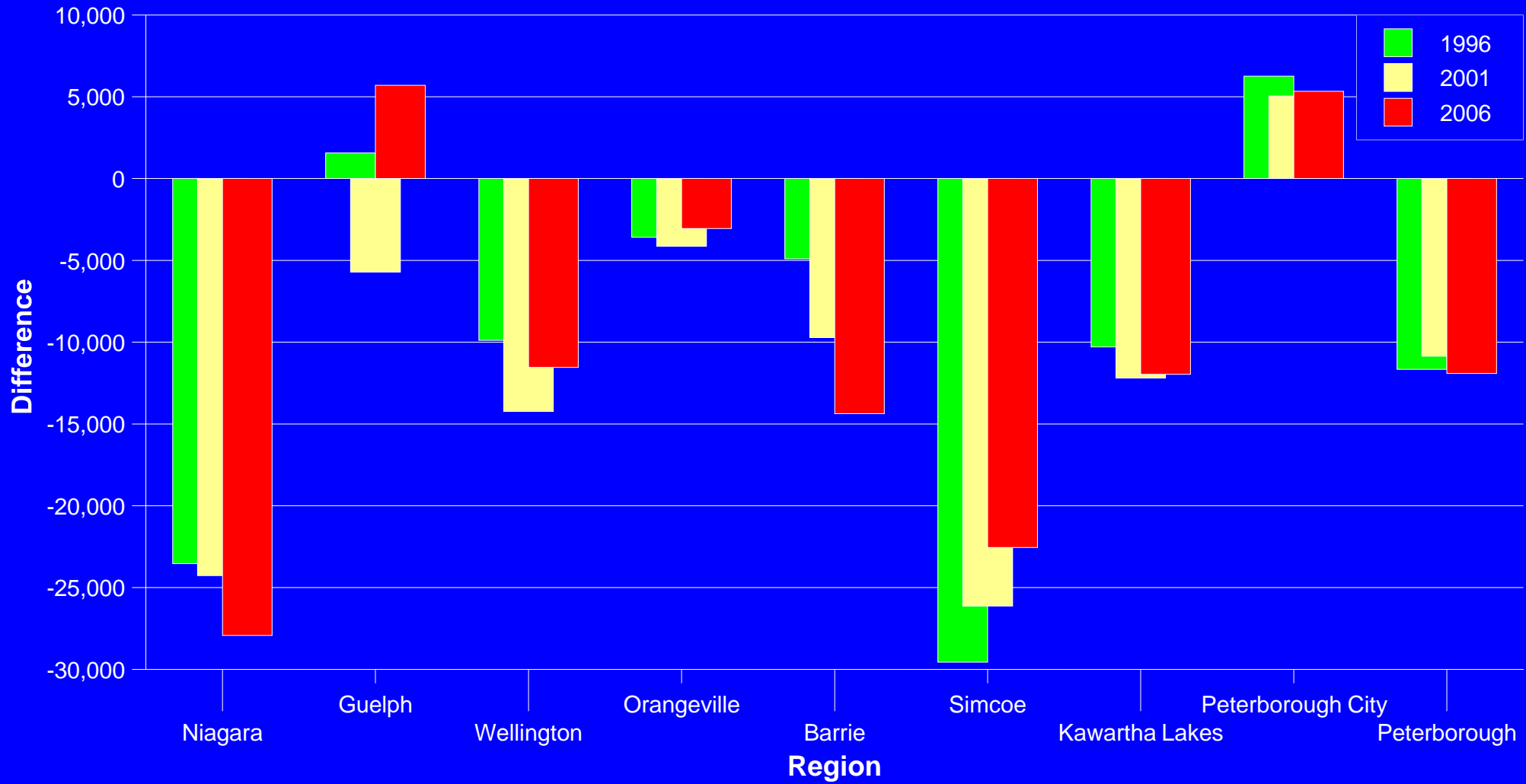
Employed Labour Force Participation Rate



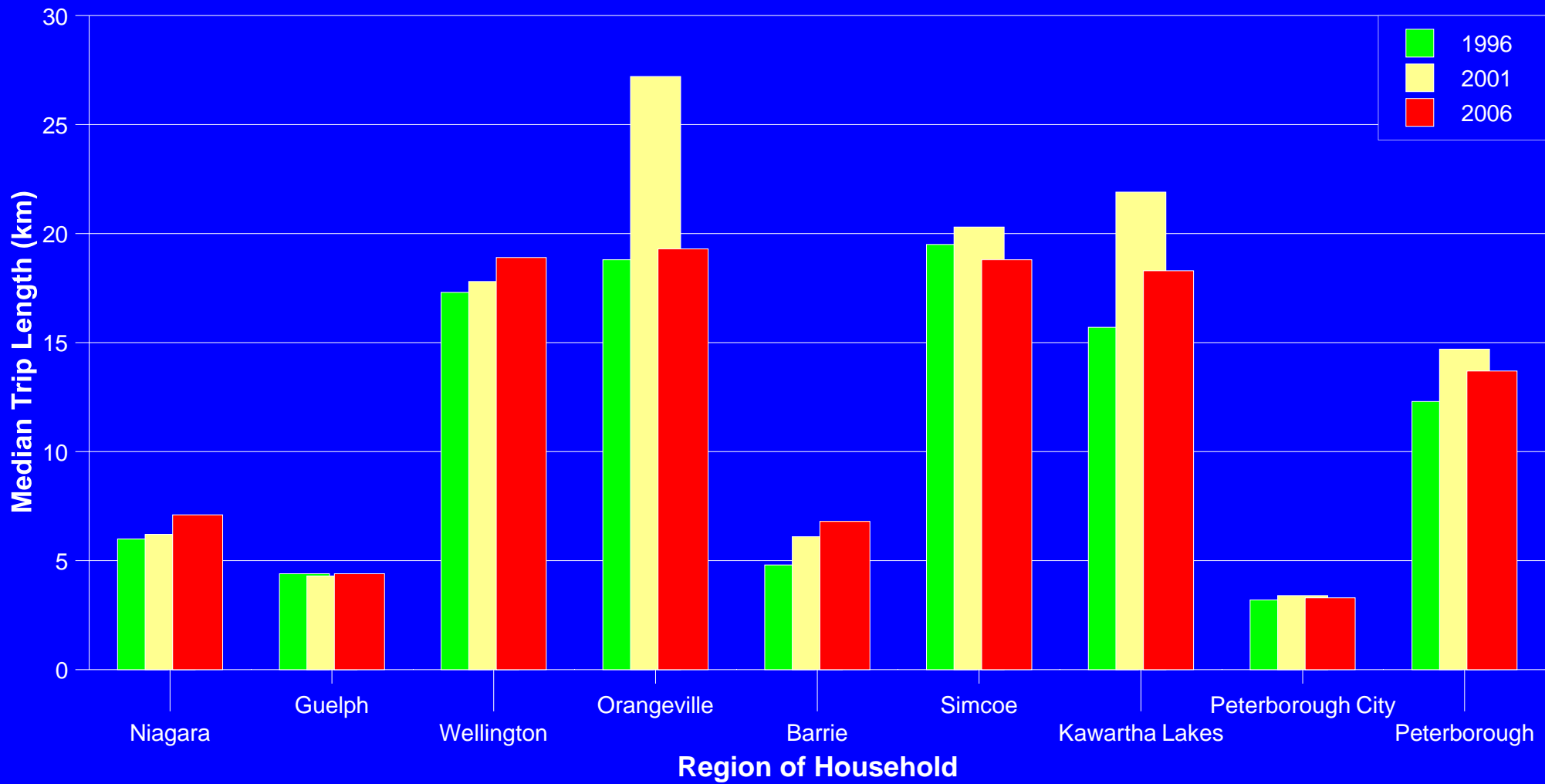
Non-GTAH Employment (Survey Area Residents)



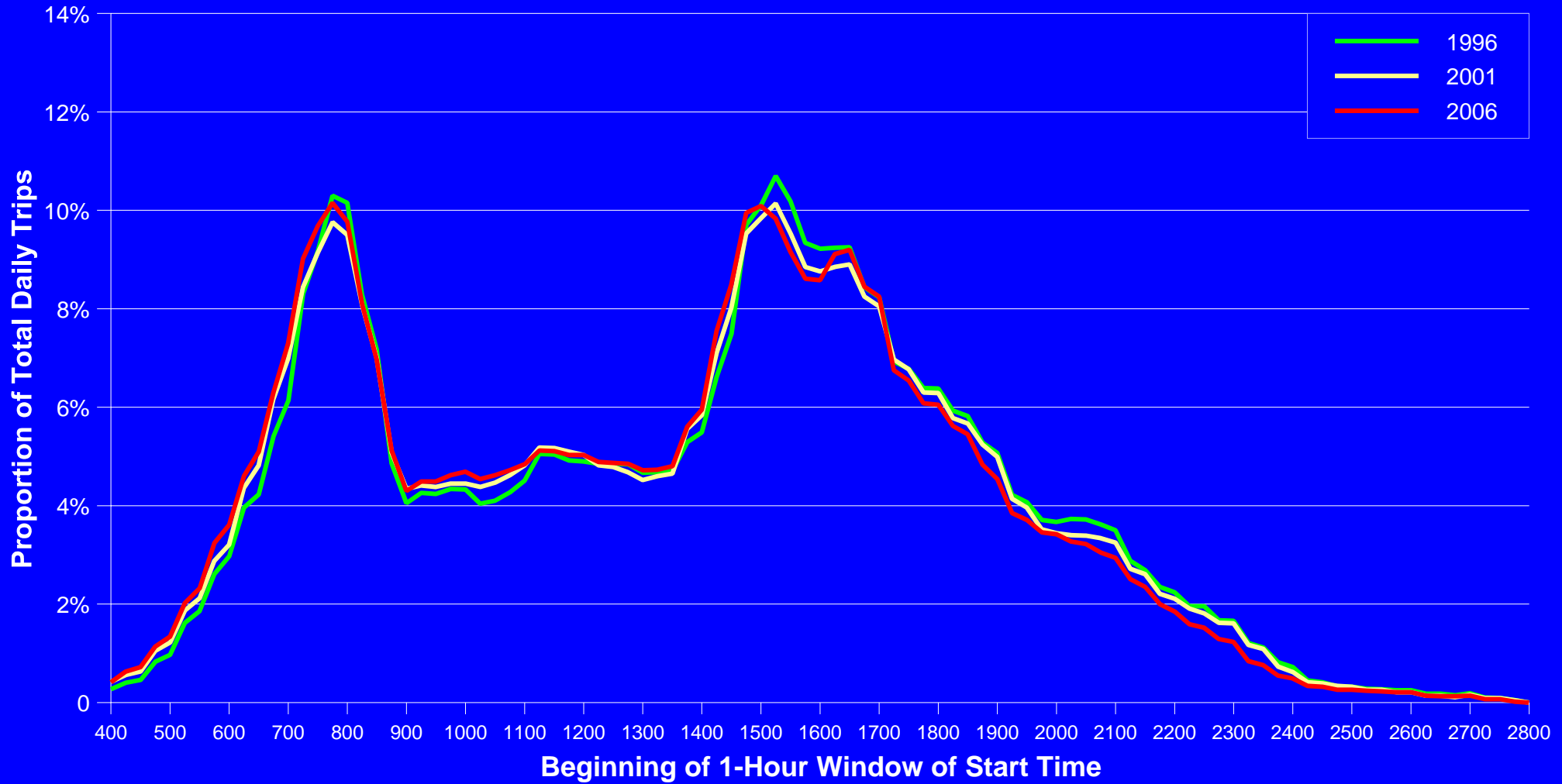
Employment minus Employed Labour Force



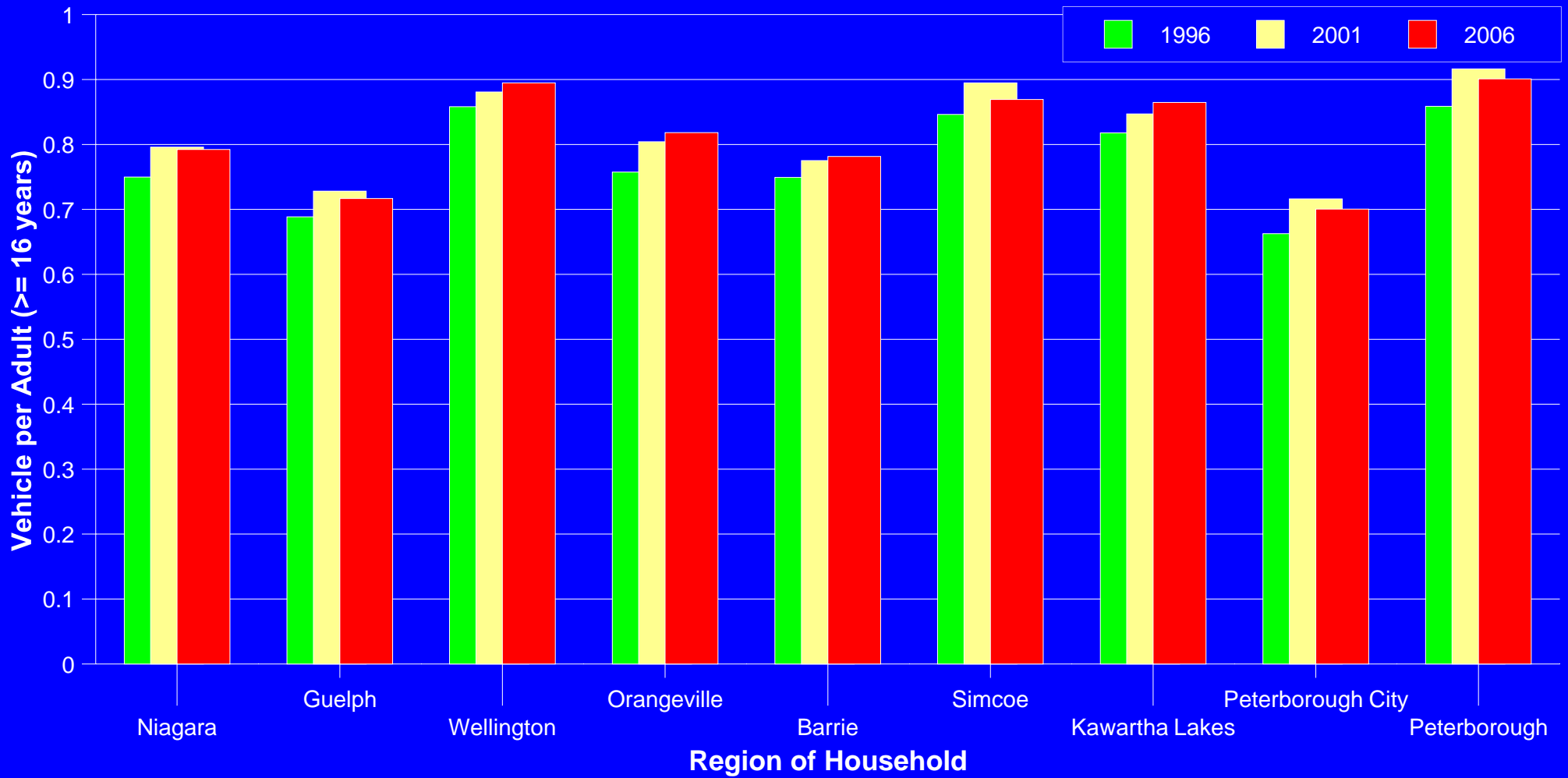
First Trip to Work Trip Length



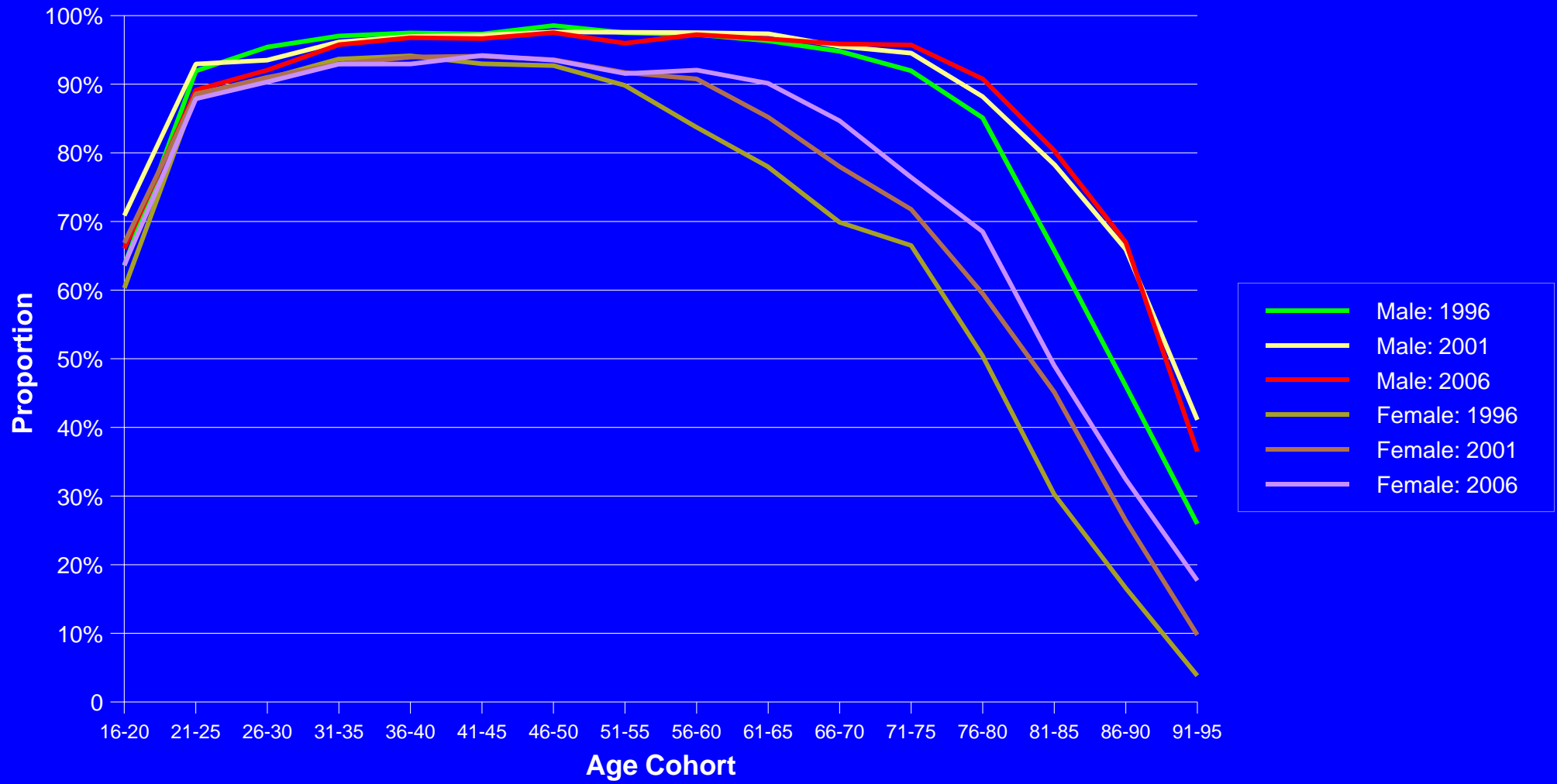
Non-GTAH Residents Trip Start Time



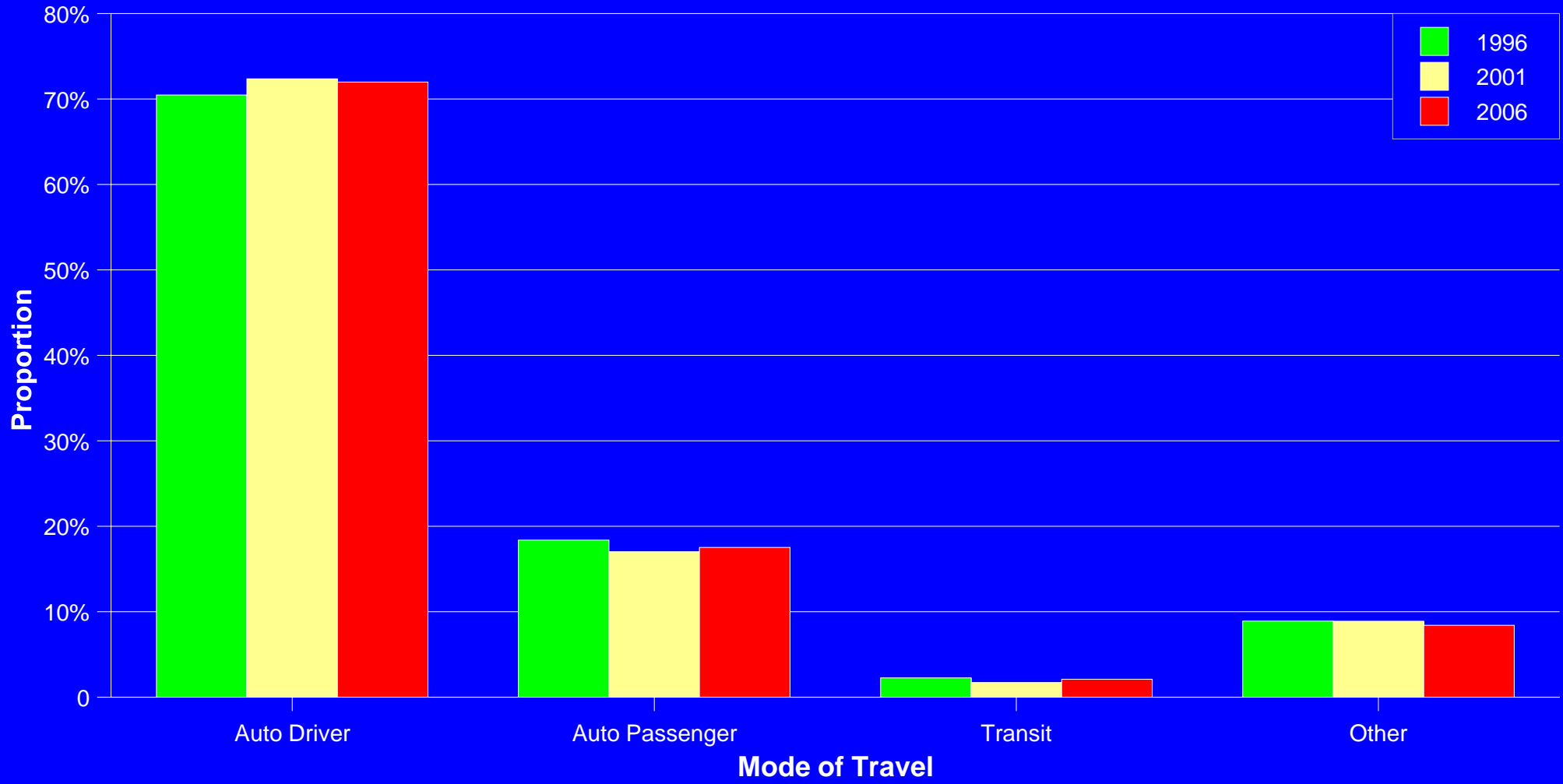
Non-GTAH Residents Vehicle Availability



Proportion of Adults (≥ 16 Years) With a Driver's License



Non-GTAH Residents All Trips



Data Access

Data Structure

Relational Database

- Household, Person, Trip and Transit Supplement

Standard Aggregations

- Traffic Zones, Municipalities and Regions

Data Retrieval System

- Password protected secure internet site
- Web browser access with interactive menu system
- Allows up to three dimensional cross-tabulations on any combination of household, person or trip information
- Format of output in text with comma delimited fields
- Processing time for normal request is a few minutes

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