



SCHOOL TRAVEL IN THE GTHA

A Report on Trends

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This report examines travel trends in active school travel (AST) across the Greater Toronto and Hamilton Area (GTHA). The GTHA is comprised of the cities of Toronto and Hamilton and the regions of Durham, Halton, Peel, and York. For more detailed trends, refer to the regional reports for each of these jurisdictions.

acknowledgments

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All regional and GTHA reports from this series can be found at smartcommute.ca



introduction

Active school travel (AST), such as walking or cycling to school, provides a consistent form of daily physical activity that contributes to healthier lifestyles for children and youth. In addition to the health benefits of physical activity, an increase in AST in the Greater Toronto and Hamilton Area (GTHA) could produce long-term planning benefits that help meet the goals set forth by Metrolinx's Regional Transportation Plan, *The Big Move*. *The Big Move* envisions that 60% of children will walk or cycle to school and that 20% of work trips will be taken by active modes of transportation by 2031.¹

According to the 2011 Census of Canada, there are more than 1.4 million children and youth under the age of 18 residing within the GTHA.² By 2031, these children and youth will be adult commuters who may make travel decisions based partly on the travel experiences accumulated in childhood. Establishing higher levels of active transportation in childhood may translate into more sustainable transport decisions later in life.

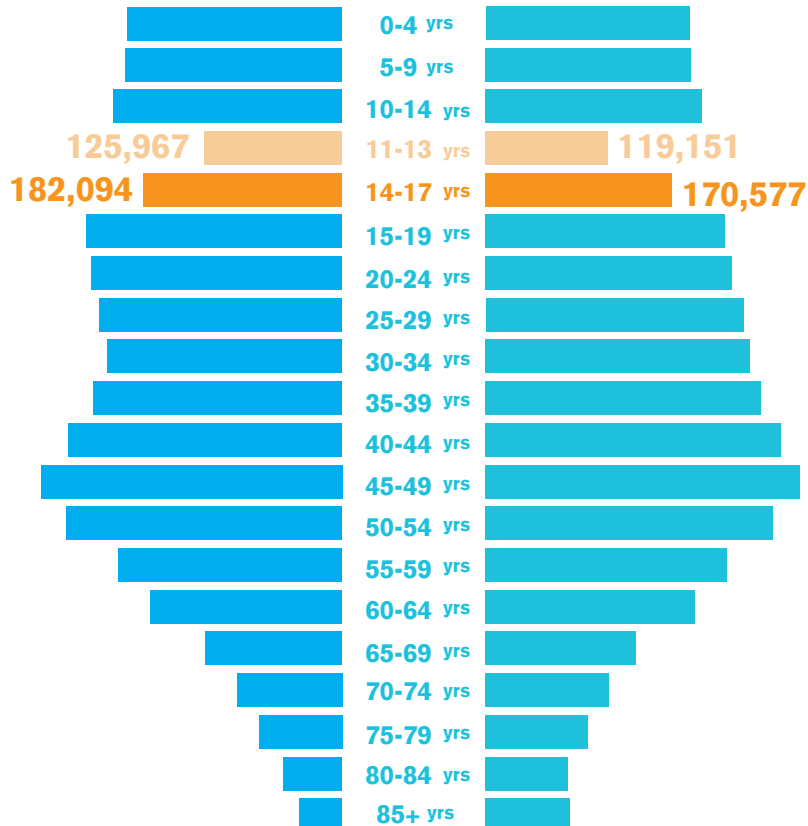
This report illustrates changes in school transportation in the GTHA from 1986 to 2011. Data were obtained from the Transportation Tomorrow Survey (TTS), a cross-sectional travel survey conducted every five years since 1986 in the City of Toronto and the surrounding region. Past research using the TTS in the Greater Toronto Area (GTA) indicated that there was a period of decline in AST from 1986-2006 for 11-15 year olds.³ Findings suggested that the greatest decline in walking and cycling was in the 1980s and 1990s and that the decline in AST had reached a plateau by 2006. This report provides an update to previous work and includes the region of Hamilton, which was absent from the previous study, and data from 2011.

Although it seemed like AST across the GTHA had reached its lowest possible level by 2006, walking and cycling mode share has continued to decline into 2011. This report also looks at differences in AST by age, gender, time of day, and by city or regional municipality (i.e. Toronto, Durham, Halton, Hamilton, Peel, and York).

2011 GTHA POPULATION

MALES

FEMALES

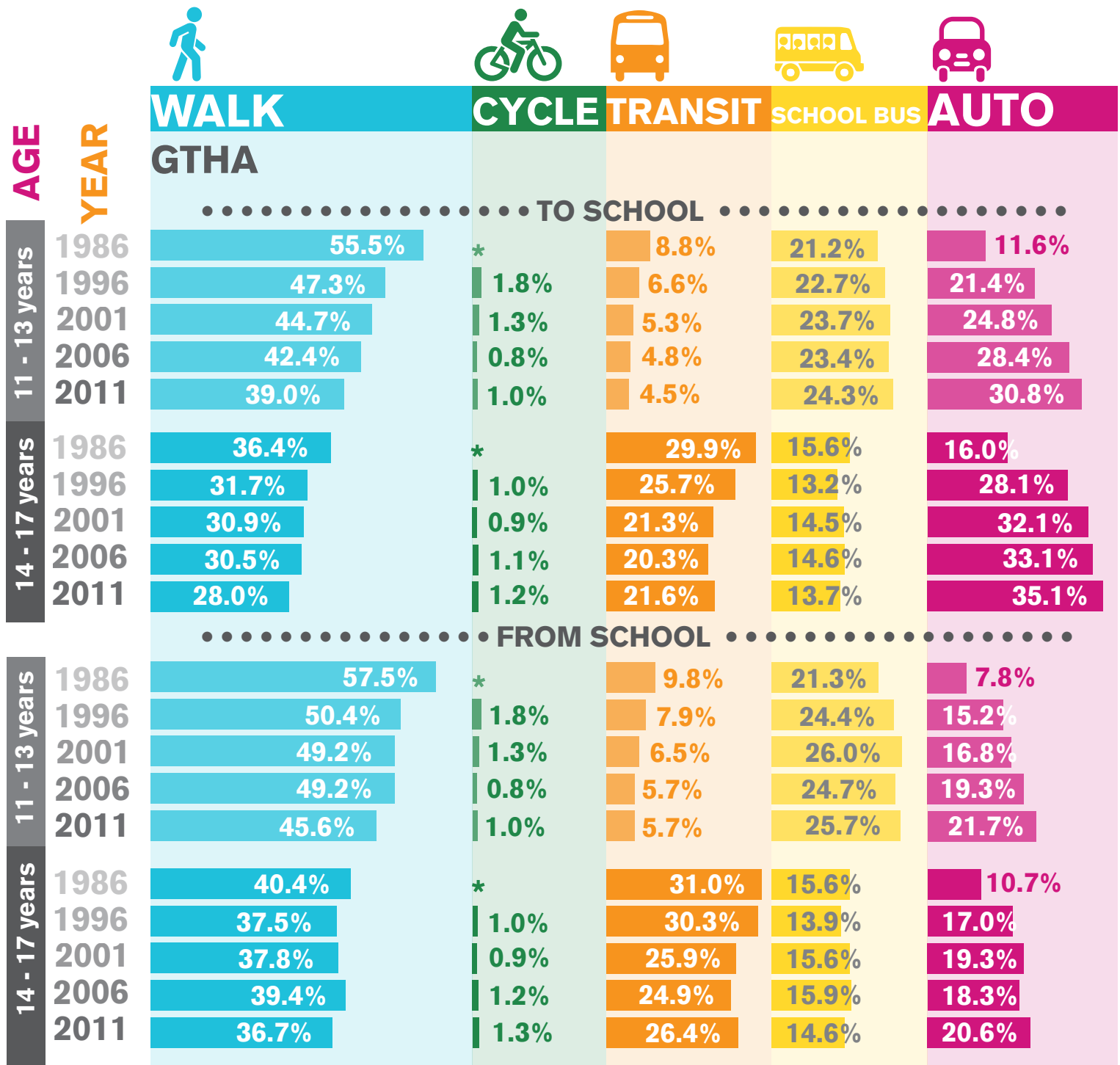


travel trends

Note on age categories: Since the TTS begins collecting data at age 11, throughout this report, 11-13 year olds are used to describe elementary school students and 14-17 year olds are used to refer to secondary school students.

Local and GTHA School Trips by Mode**

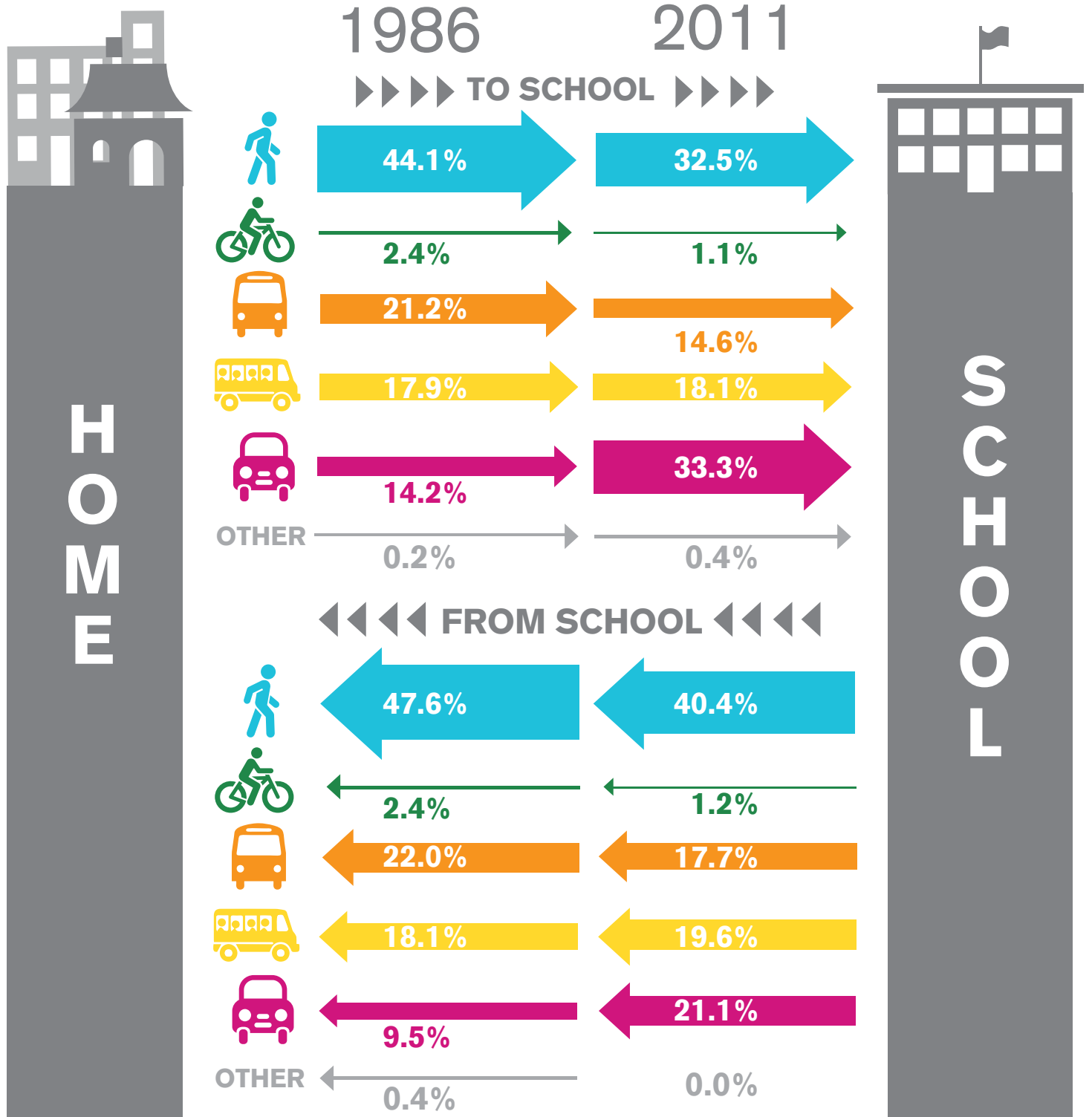
1986 to 2011 | males and females | a.m. and p.m.



* The cycling data for 1986 is not statistically reliable

** Due to space considerations, the "other" category has been omitted from this graph. For all years, the 'other' category ranges between 0 to 1.2% of responses.

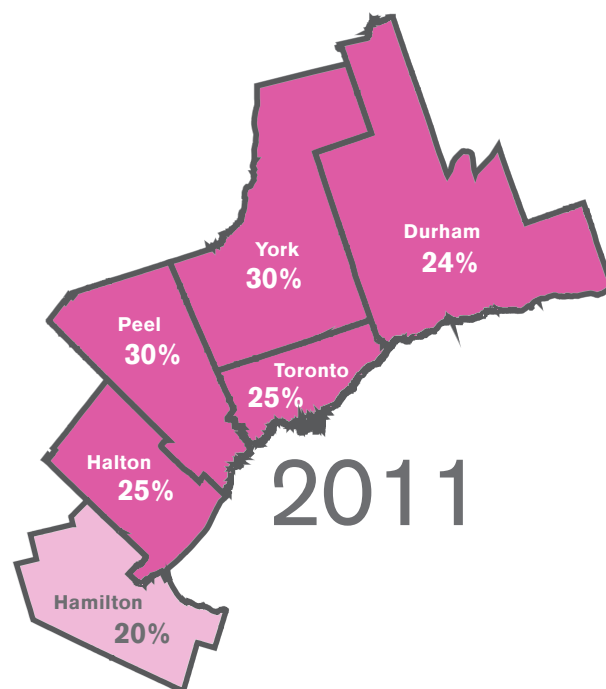
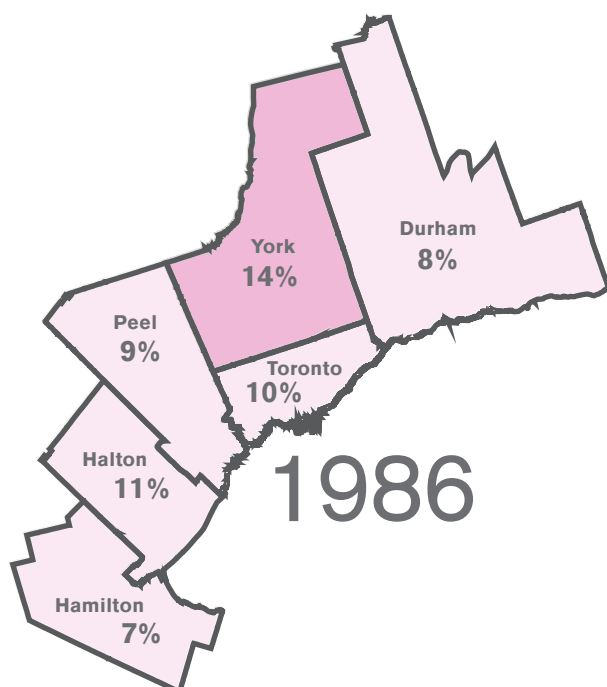
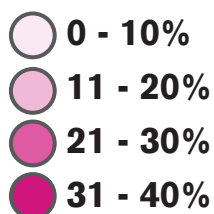
Shifts in Mode over Time (%) | 1986 and 2011
males and females | 11 - 17 yrs



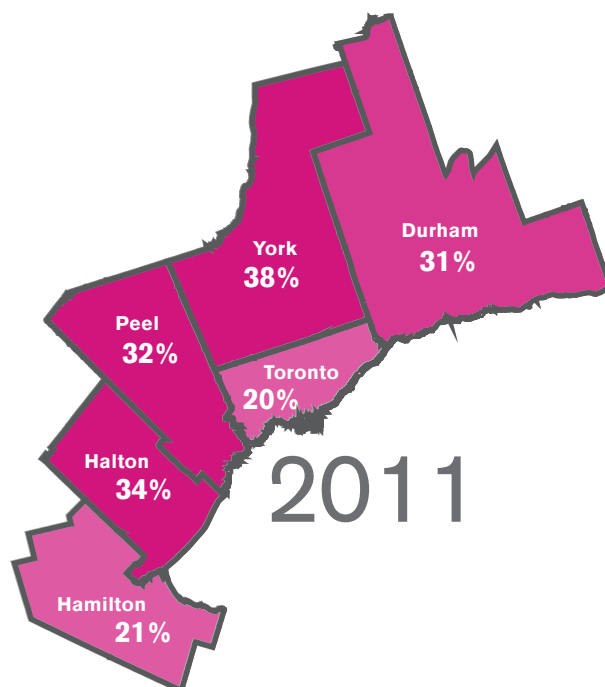
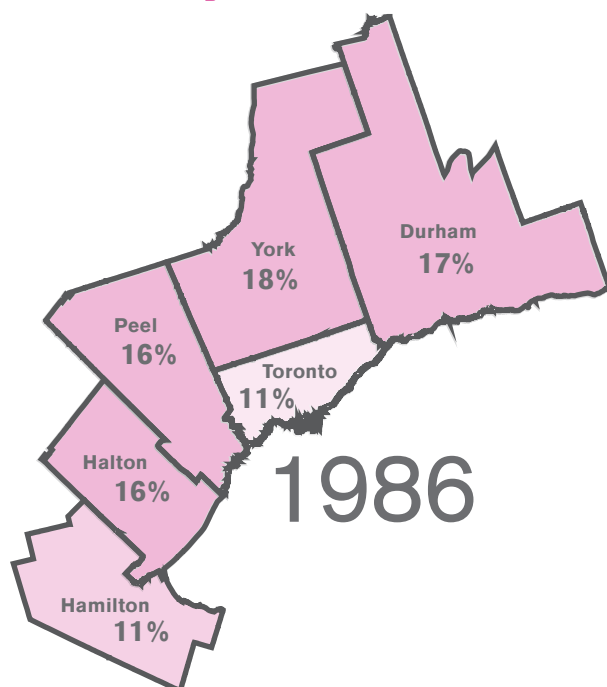
Note on age categories: Since the TTS begins collecting data at age 11, throughout this report, 11-13 year olds are used to describe elementary school students and 14-17 year olds are used to refer to secondary school students.

AGE: 11 - 13 yrs

Daily Auto School Trips



AGE: 14 - 17 yrs



* Car or similar vehicle (e.g., mini-van)

Daily Walking and Biking School Trips

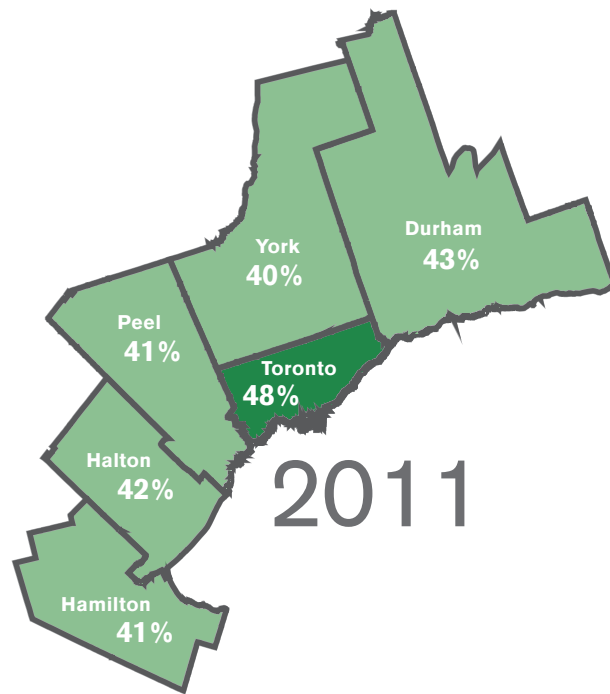
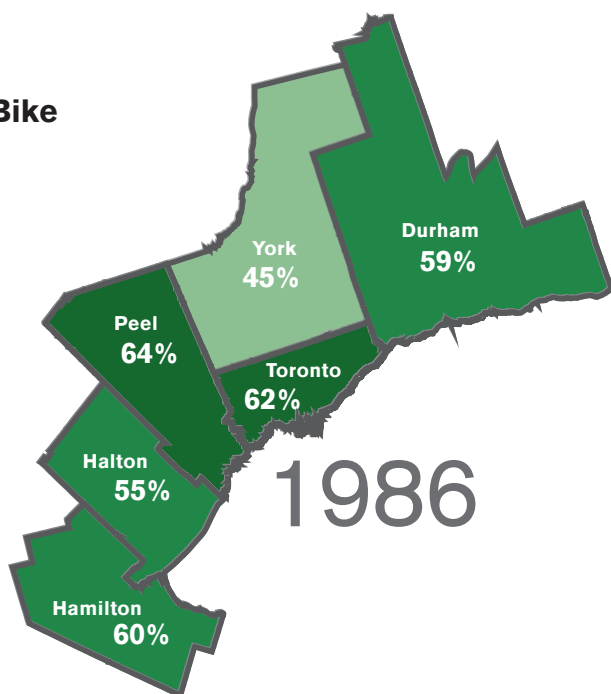
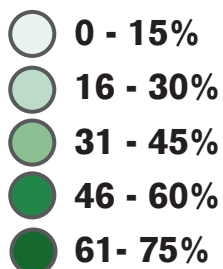
1986 and 2011 | males and females
a.m. and p.m.



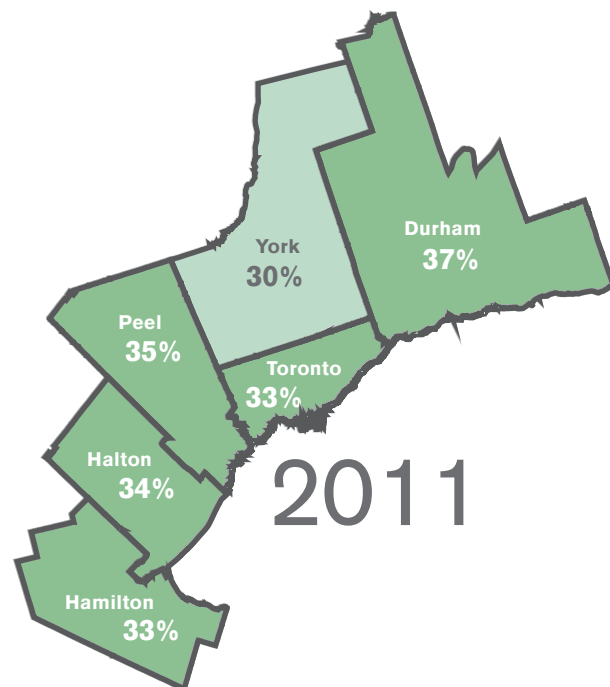
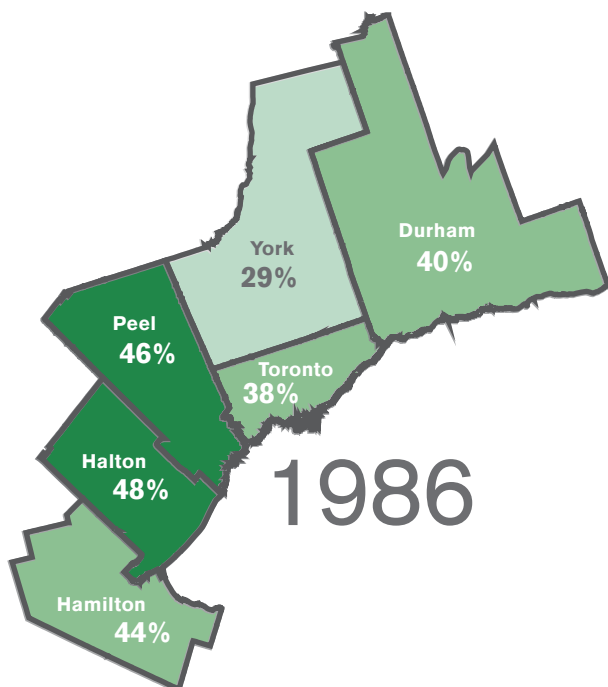
WHILE RATES OF ACTIVE SCHOOL TRAVEL ARE STILL **HIGHER FOR YOUTH AGED 11-13 yrs** THEY ARE DECREASING AT A **FASTER RATE** THAN FOR YOUTH 14 - 17yrs

AGE: 11 - 13 yrs

Daily Walk and Bike School Trips



AGE: 14 - 17 yrs



gender

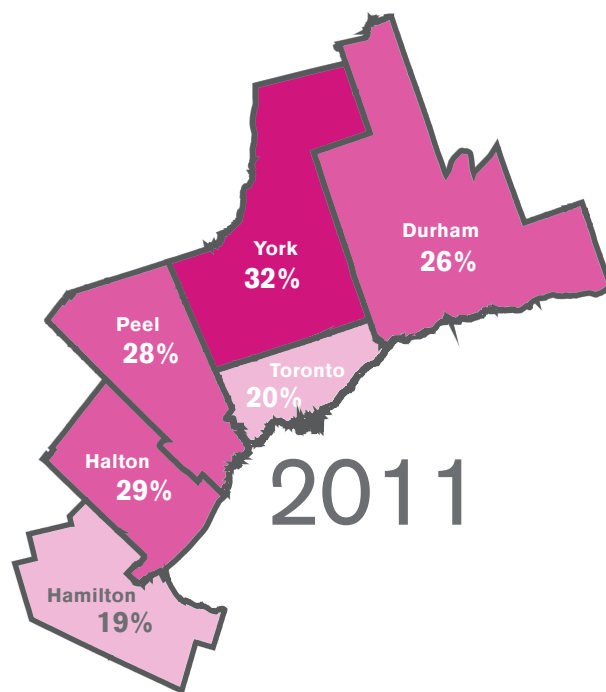
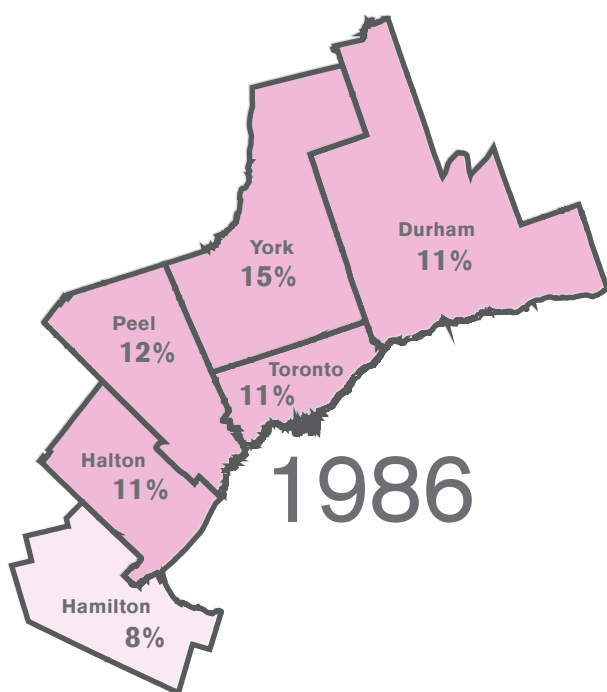
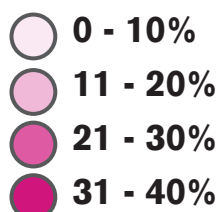
Daily **Auto*** School Trips

1986 and 2011 | 11 - 17 yrs | a.m. and p.m.

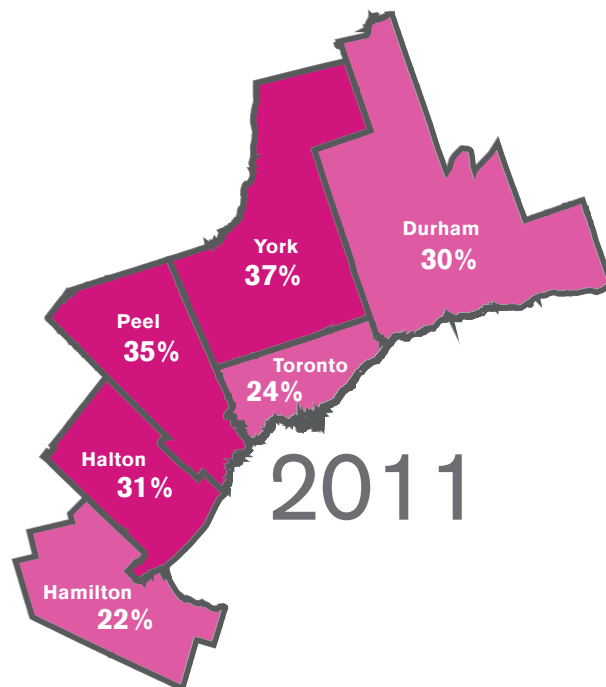
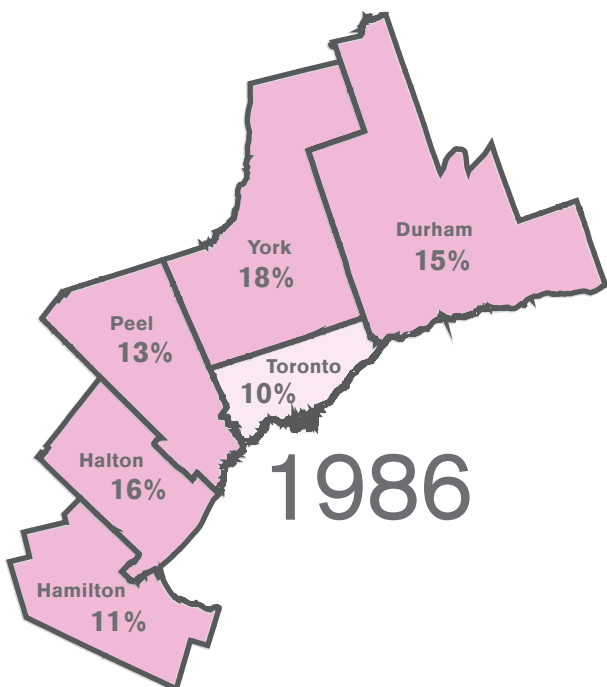
Note on gender: Gender was categorized by male or female as self-reported by the individual or by the member of the household who completed the survey on behalf of the household. The gender recorded may therefore not reflect the gender that the child identifies with.

MALES

Daily Auto School Trips



FEMALES



* Car or similar vehicle (e.g., mini-van)

Daily Walking and Biking School Trips

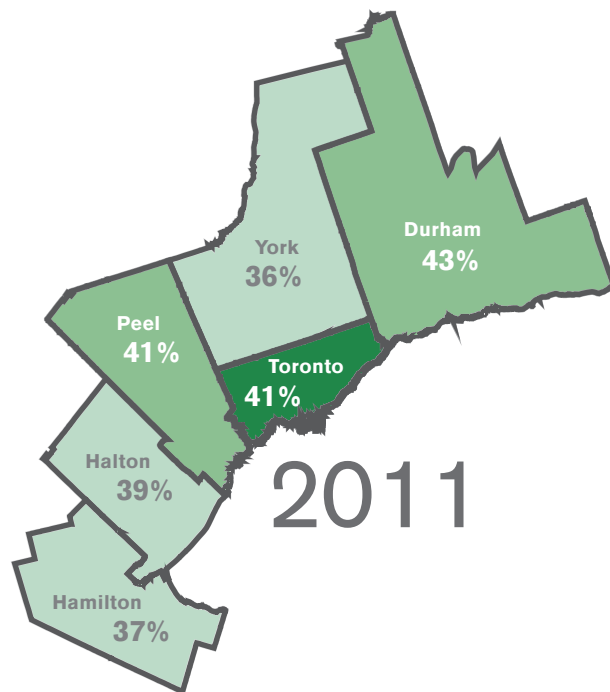
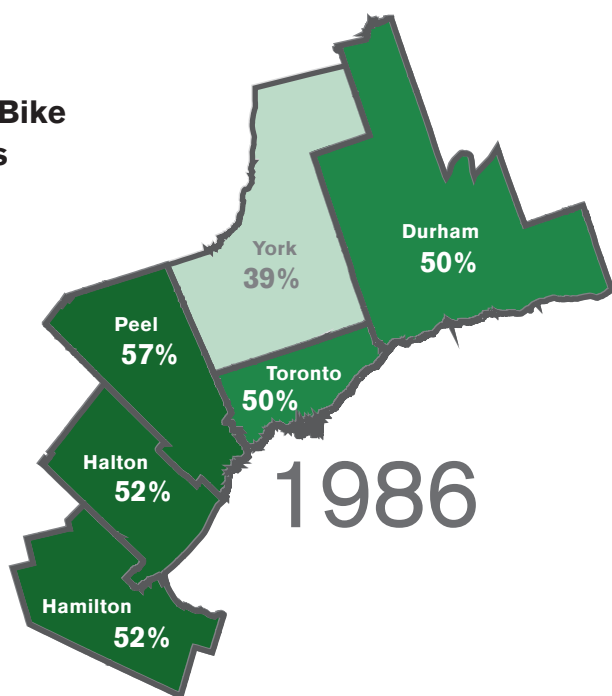
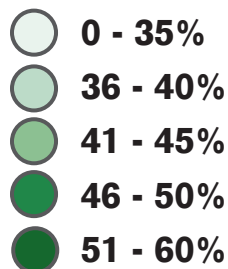
1986 and 2011 | 11 - 17 yrs | a.m. and p.m.



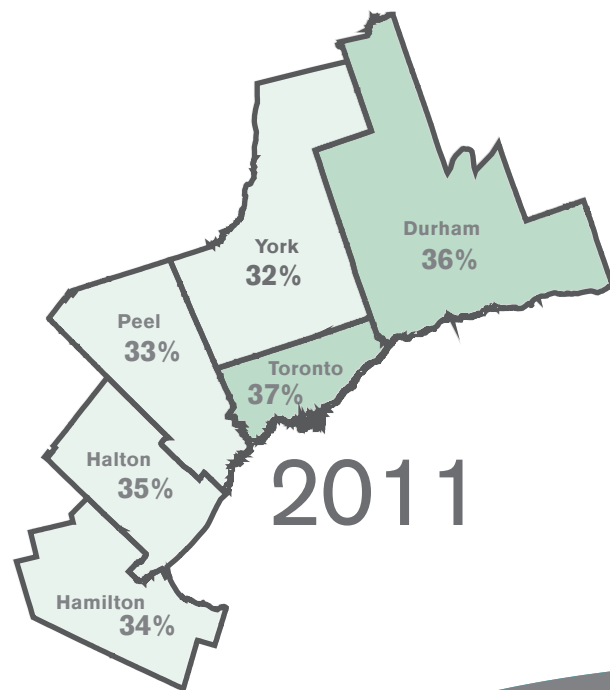
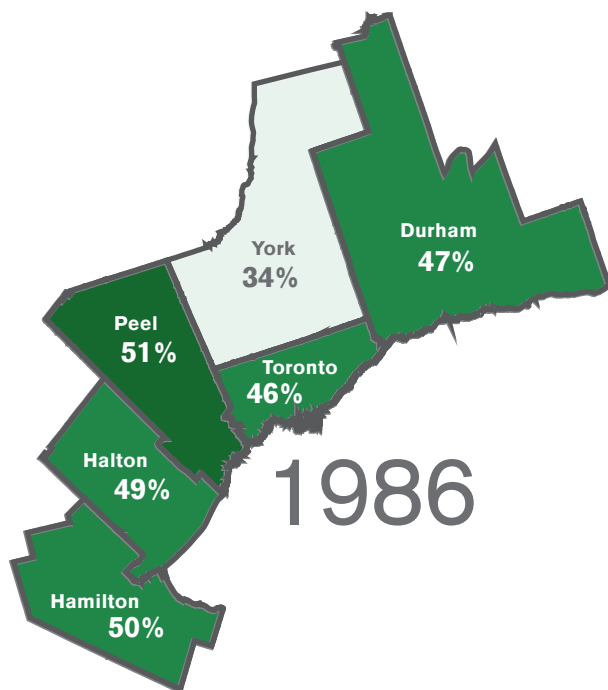
MALES ARE
MORE LIKELY TO USE
ACTIVE SCHOOL TRAVEL
THAN FEMALES

MALES

Daily Walk and Bike School Trips



FEMALES



Travel Mode* Shares

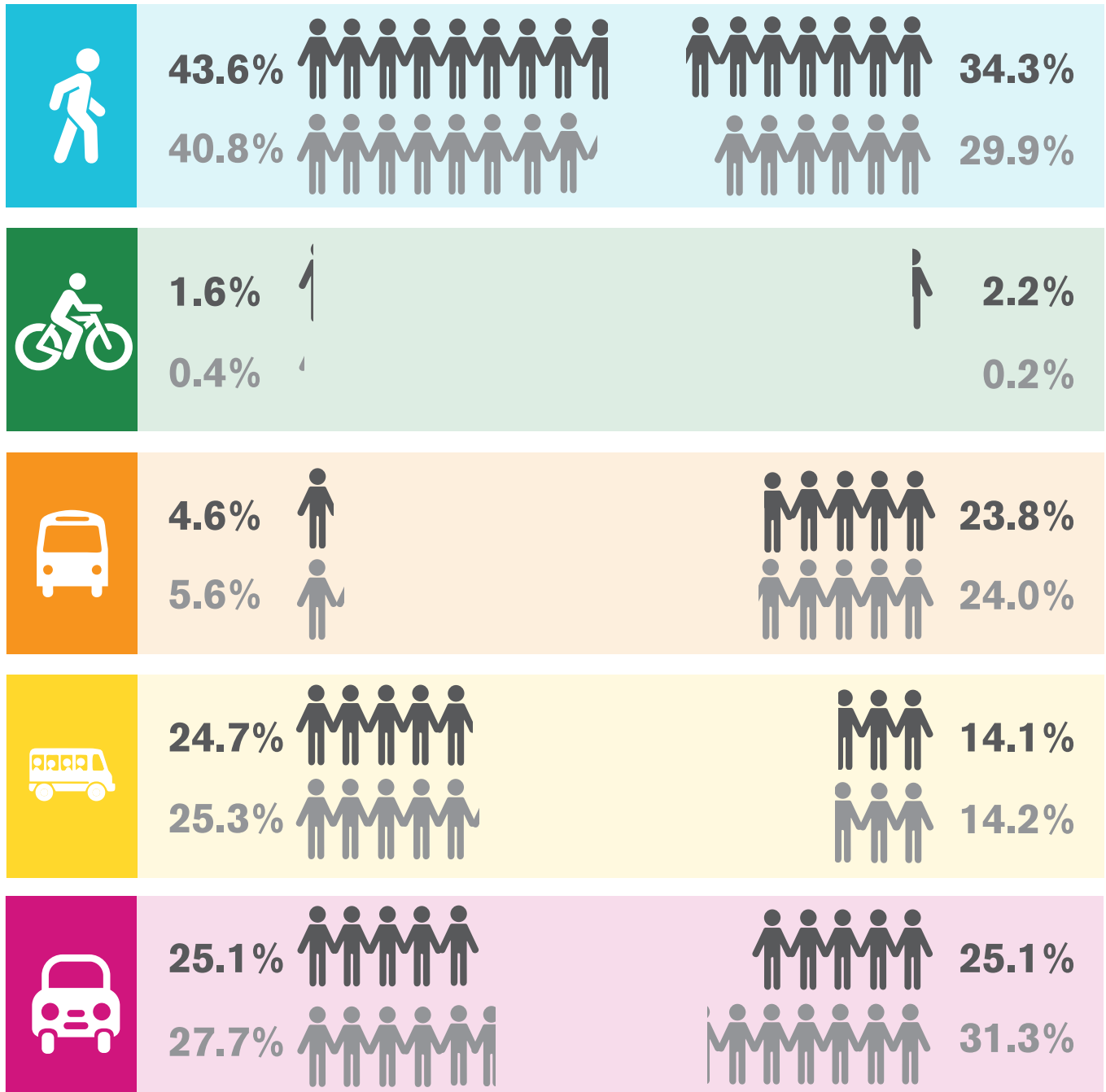
2011 | a.m. and p.m.

♂ = MALES
 ♀ = FEMALES
 ONE ♂ = 5%

AGE:
 11 - 13 yrs

2011

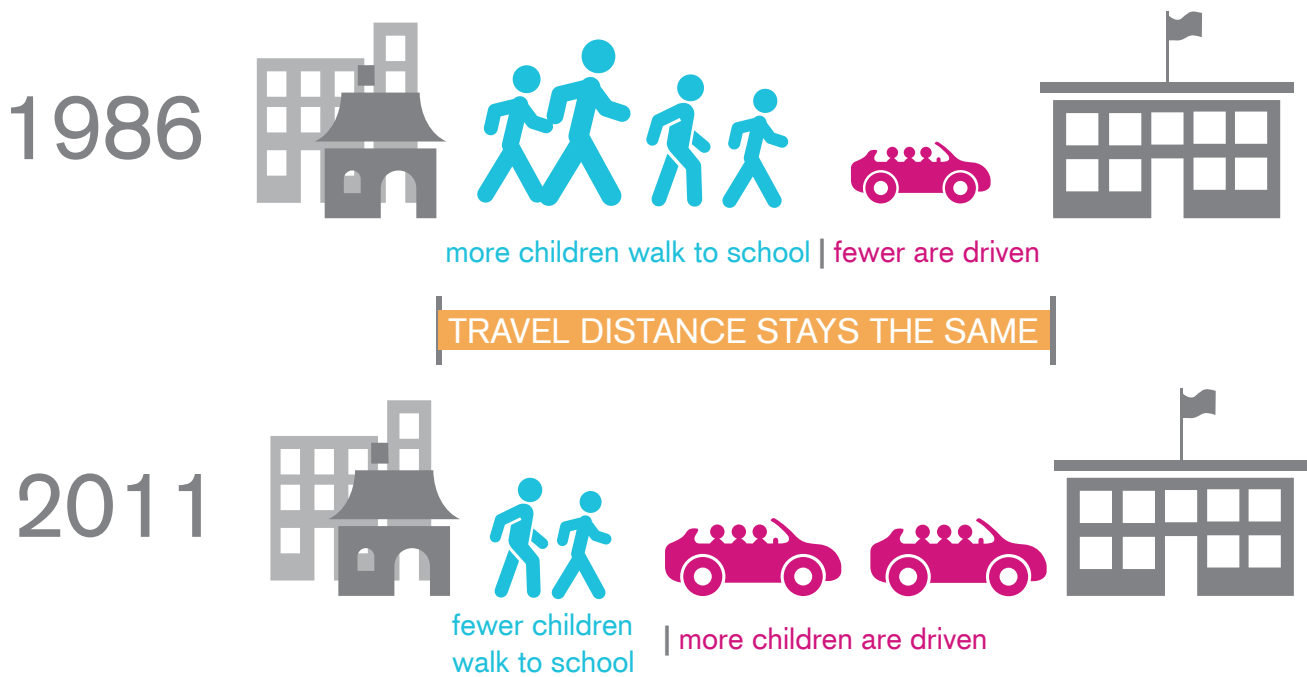
AGE:
 14 - 17 yrs



* Due to space considerations, the "other" category has been omitted from this graph.
 For 2011, the 'other' category ranges between 0.2 to 0.4% of responses.

Tolerance to Distance | 1986 and 2011 males and females | 11 - 17 yrs | a.m. and p.m.

Research indicates that distance is a major factor influencing mode of transportation to school. Unsurprisingly, children living further afield are less likely to walk to and from school. ⁴⁻⁶ While the location of schools and homes relative to one another has changed little over time, more children are being driven over shorter distances than ever before.

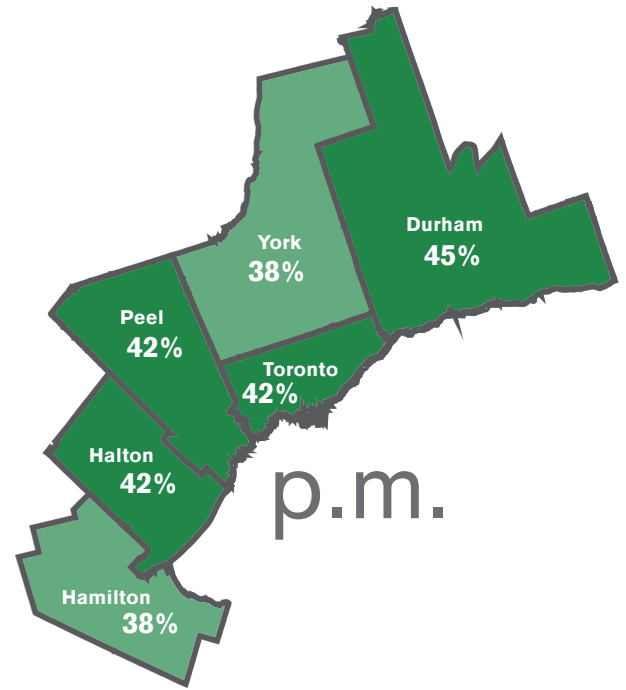
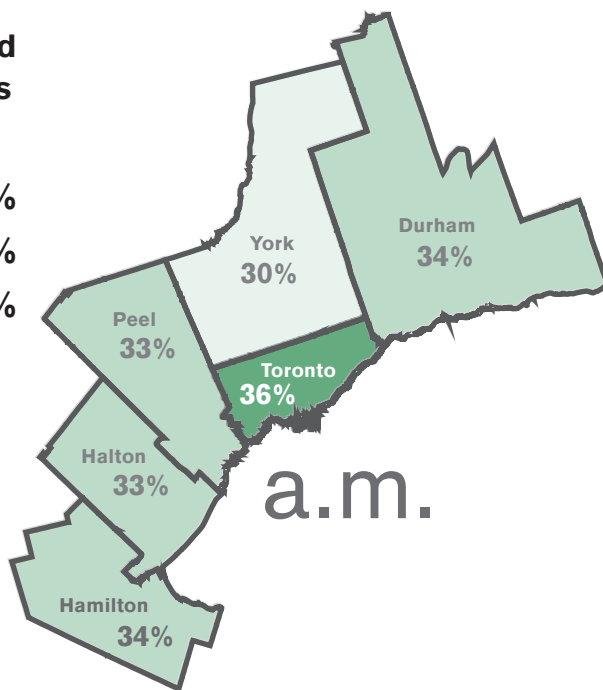
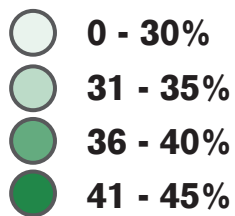


time of day

Trip Mode | 2011 | 11 - 17 yrs | males and females

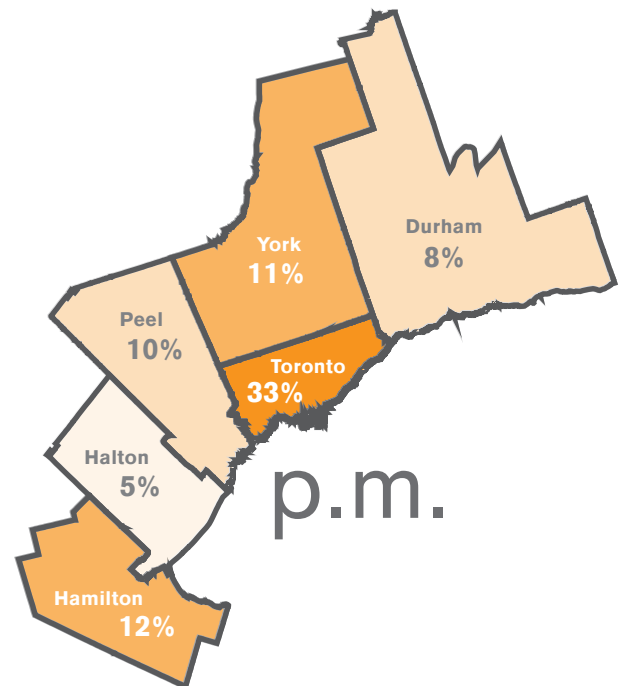
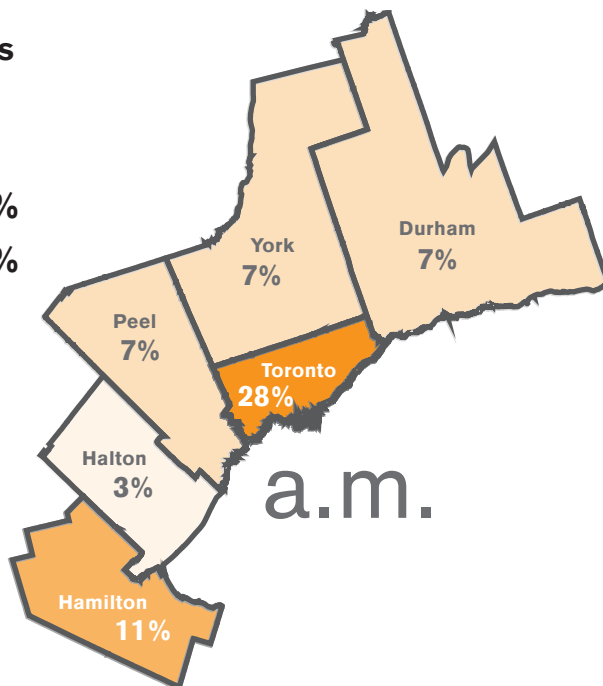
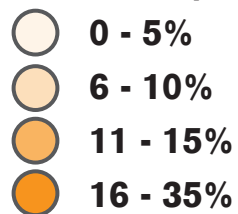
ACTIVE TRANSPORTATION

Walking and
Biking Trips



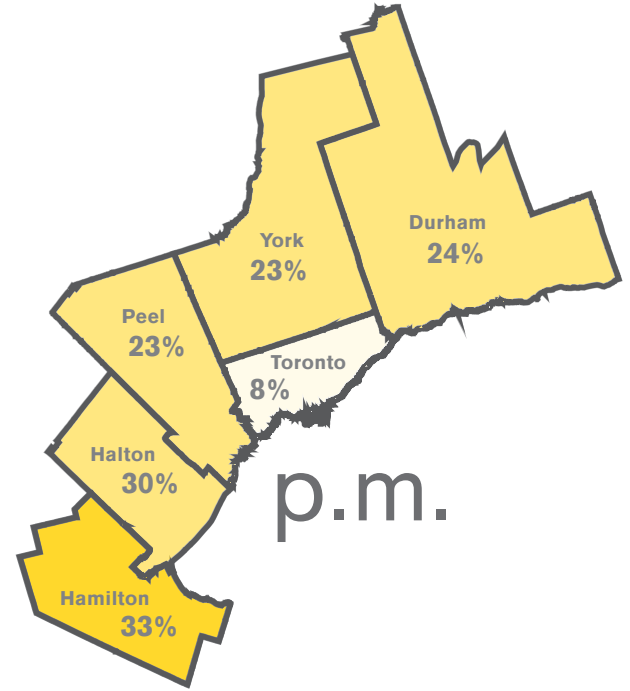
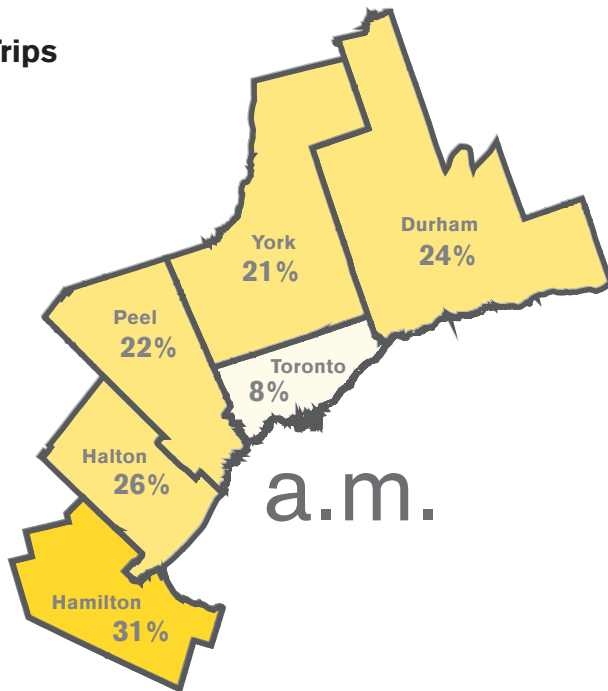
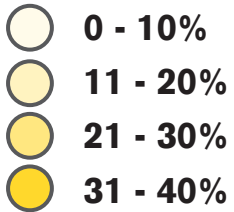
TRANSIT

Transit Trips



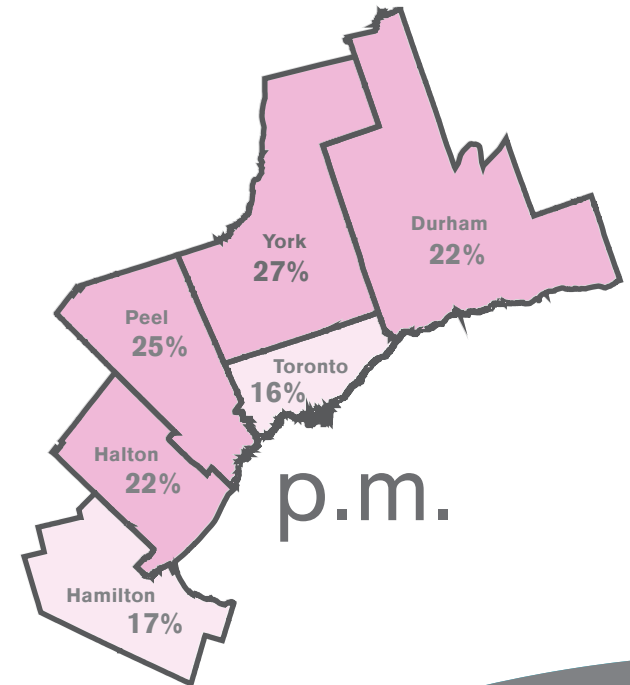
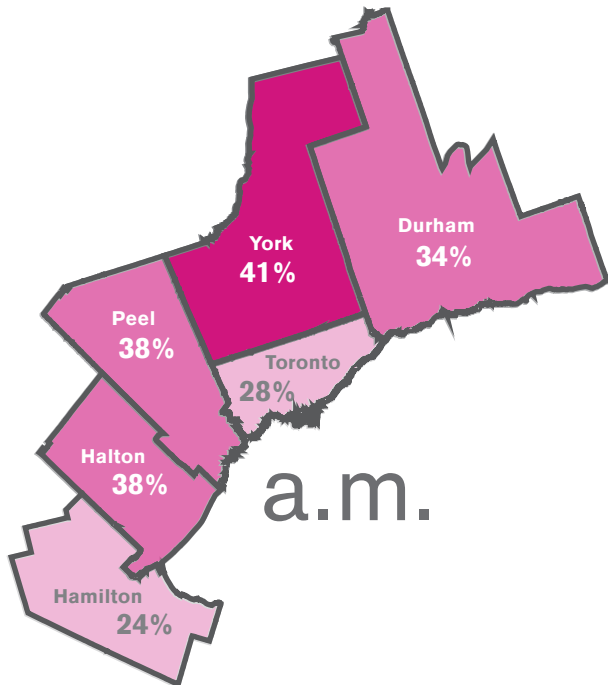
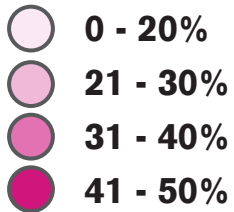
SCHOOL BUS

School Bus Trips



AUTO*

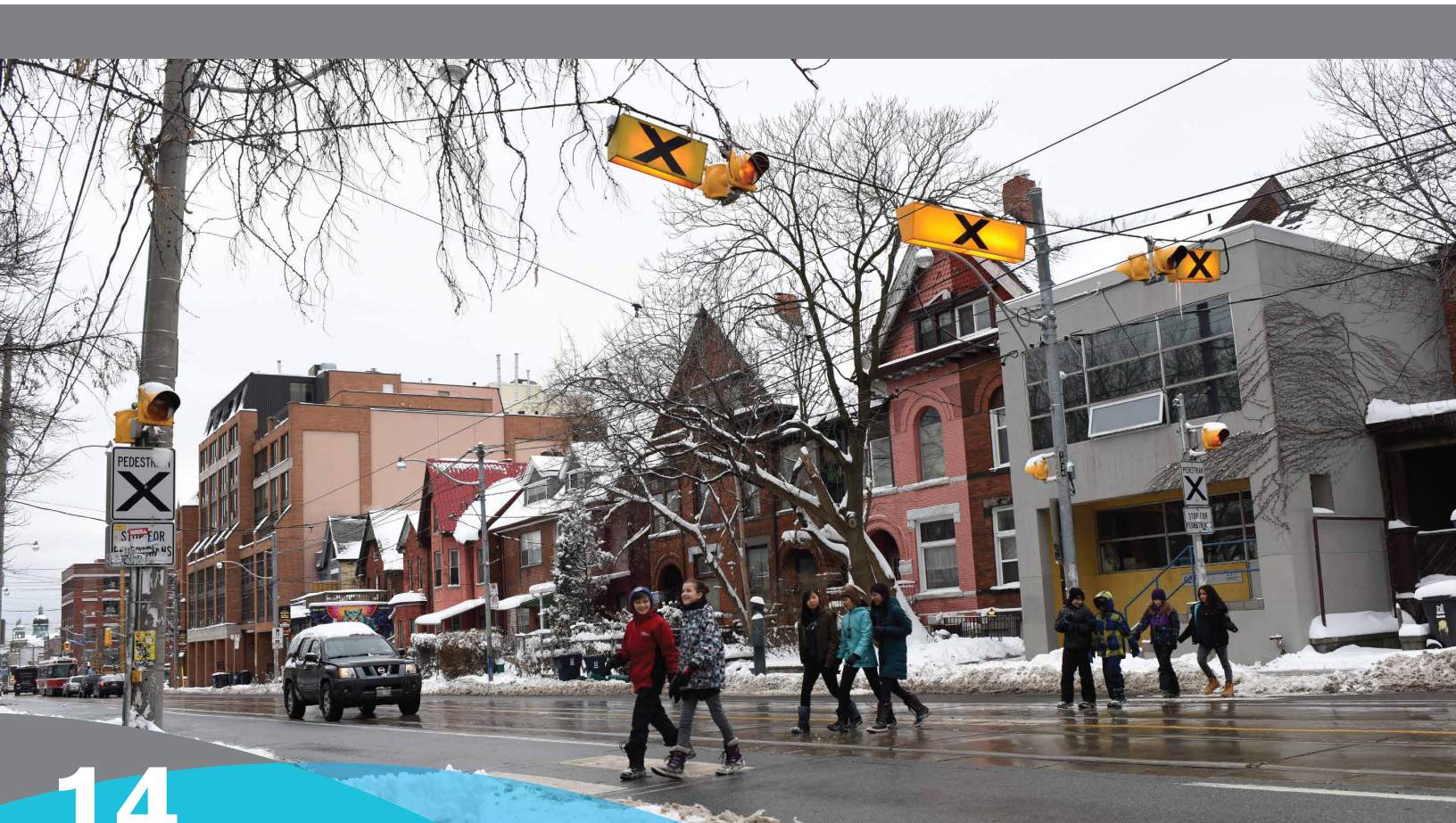
Auto Trips



* Car or similar vehicle (e.g., mini-van)

conclusions

- For 11 to 17 year olds, active transportation to school (i.e. walking and cycling) has decreased from 1986-2011 while regional automobile mode share has more than doubled during this time period.
- Children ages 11-13 years are more likely to use active modes than 14-17 year olds, but walking levels have declined more rapidly for 11-13 year olds than 14-17 year olds.
- Boys are more likely to engage in active transportation (walking or cycling) to and from school than girls, particularly in the afternoon period.
- Girls are more likely to be driven to school than boys, especially during secondary school years.
- AST mode share is higher in the afternoon period than in the morning period, as is public transit use. This raises the question: what can we do to help students walk, bike, or take transit in the morning?
- There is greater public transit use in the City of Toronto than in the outer suburbs and Hamilton and there is greater school bus and automobile use in the outer suburbs than in the City of Toronto.
- The observed increase in automobile use has implications for the health of children, as it limits physical activity participation and increases the risk of child vehicle occupant and pedestrian injury.
- Differences in age, gender, identity, mobilities, and abilities must be considered when addressing changes in AST.





references

- ¹ Metrolinx (2008) The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area. Greater Toronto Transportation Authority.
- ² Statistics Canada (2011) Age and Sex for the Population of Canada, Provinces, Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2011 Census. Statistics Canada: Ottawa.
- ³ Buliung, R. N., Mitra, R., and Faulkner, G. (2009) Active school transportation in the Greater Toronto Area, Canada: An exploration of trends in space and time (1986-2006). *Preventive Medicine*, 48, 507-512.
- ⁴ Schlossberg, M., Greene, J., Phillips, P.P., Johnson, B., and Parker, B. (2006) School trips: Effects of urban form and distance on travel mode. *Journal of the American Planning Association*, 72, 337-346.
- ⁵ Larsen, K, Buliung, R.N, and Faulkner, G.E.J. (2013) Safety and school travel: How does the environment along the route relate to safety and mode choice? *Transportation Research Record*, Vol.2327, 2013, pp. 9-18.
- ⁶ Larsen, K, Gilliland, J., Hess, P.M., Tucker, P., Irwin, J., and He, M. (2009) Identifying influences of physical environments and socio-demographic characteristics on a child's mode of travel to and from school. *American Journal of Public Health*, 99, 520-526.



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