Drivers' Choice

Options to manage gridlock and fund rapid transit in the GTA

Public opinion survey and policy options

April 2012

Cherise Burda • Graham Haines

the PEMBINA institute
Sustainable Energy Solutions

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The Pembina Institute is a national non-profit think tank that advances sustainable energy solutions through research, education, consulting and advocacy. It promotes environmental, social and economic sustainability in the public interest by developing practical solutions for communities, individuals, governments and businesses. The Pembina Institute provides policy research leadership and education on climate change, energy issues, green economics, energy efficiency and conservation, renewable energy, and environmental governance. For more information about the Pembina Institute, visit www.pembina.org.

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Drivers' Choice

Options to manage gridlock and fund rapid transit in the GTA

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1. Drivers' choice

The download on the drive

The purpose of this study is to investigate driver attitudes towards a variety of policy options designed to reduce the growing rate of congestion in the Greater Toronto Area (GTA) and/or to help finance construction of rapid transit in the region.

Toronto suffers from the worst traffic congestion in North America. The Toronto Board of Trade's 2010 scorecard report claims that the average commute time for the Toronto region is 80 minutes round trip.[1] Our survey found a very similar average among our sample of drivers.

The situation will only get worse with time, as growth in the Greater Toronto Area is occurring twice as fast as the supply of roads and two and a half times faster than transit capacity. The GTA is expected to grow by 3 million more people and 1.5 million more vehicles by 2031.

According to the Toronto Board of Trade, direct annual costs of congestion exceed $6 billion, and the business sector has identified transportation infrastructure issues as its top concern. The quality of transportation infrastructure impacts how and where companies conduct business, the associated cost of operations and their ability to attract top talent. Effective transit is the most important factor in determining a city's viability as a business centre. However, both the transit system and road congestion in the GTA is quickly becoming the region's biggest impediment to competing on a global stage.

Time for a transportation re-boot

Metrolinx' regional transportation plan, *The Big Move*, would create a vast network of rapid transit lines throughout the greater Toronto and Hamilton region over the next 20 years, providing fast and reliable options for commuters. This transit network is critical to reversing the trend of crippling congestion in the region, but it requires $50 billion to build.

Investment in effective transportation is the backbone to a healthy region, but needed funds are not available from the current tax base, both provincially and municipally. Other means to generate revenue are required. Decision makers and civic leaders are examining public and private policies and programs to help generate much-needed funds for transit infrastructure, considering road pricing strategies, such as road tolls, sales taxes, parking levies and gas taxes.

Yet we need to make sure these revenue-raising tools are fair and effective. And we must also consider introducing incentive-based commuter choices in the immediate term to help manage gridlock on our roads and provide commuters with better options that reduce travel stress and provide more family and quality personal time.

What drivers say in the GTA

Environics Research Group used a detailed online poll to survey drivers in the GTA whose commute behind the wheel was at least 30 minutes one way. The objective of the survey was to better understand drivers' preferences for a variety of commuting policy options — both incentives to reward and provide alternatives to single-occupant driving as well as pricing policies to raise revenue for transit infrastructure and potentially discourage single-occupant driving.

The survey also explored options to make implementation fair and more acceptable. Would commuters be more willing to pay a road fee if the revenue were going directly to build a transit line to their community? Can pricing "sticks" more effectively be introduced in combination with "carrots" such as options to work at home for part of their week, buyback of company parking spots, or financial incentives for carpooling? And what are commuter's attitudes towards optional fees like paid express lanes?

The high-level learnings that came out of the survey can be broken down as:

1. Commuting by car is stressful in the GTA.
2. There is very high interest in alternatives to the 'standard' commute (commuting five days a week by single-occupant vehicle).
3. Drivers are moderately receptive to ways to pay for improved transportation. Most pricing policy options received support from more than 50% of drivers.
4. Drivers showed significantly higher support for pricing policies that are fair, transparent and dedicated to building rapid transit in the region.
5. When accurate descriptions and photos are provided for rapid transit options, interest in using these transit modes are high.

See Section 2 for the top-line survey results.

Fast forward to policy considerations

Decision makers and experts, including Metrolinx and the Ontario government, are challenged with considering a variety of policy tools to raise funds for the Big Move transportation plan. At the same time,business leaders and groups like the Toronto Board of Trade are calling for solutions to congestion in the immediate term, while transit construction requires a longer timeline.

This report represents one study of how possible solutions resonate with those who might be impacted; this report does not attempt to make definitive recommendations but rather present policy options for consideration, including some implementation challenges and opportunities. In addition, this report unpacks some of the policy options that are explored in the survey to understand how they have been introduced in other jurisdictions and what the results have been.

2. Top-line survey results

The study surveyed drivers in the GTA whose commute by car is at least 30 minutes one way. The results of the survey suggest that auto commuters are interested in alternatives to driving five days a week to work and are somewhat open to pricing strategies if they are fair and transparent and if revenue is dedicated to building rapid transit that will benefit commuters.

A more detailed analysis of findings is presented in Appendix B, which correlates results with factors such as driving stress levels, access to rapid transit and region.

1. Commuting by car is stressful in the GTA.

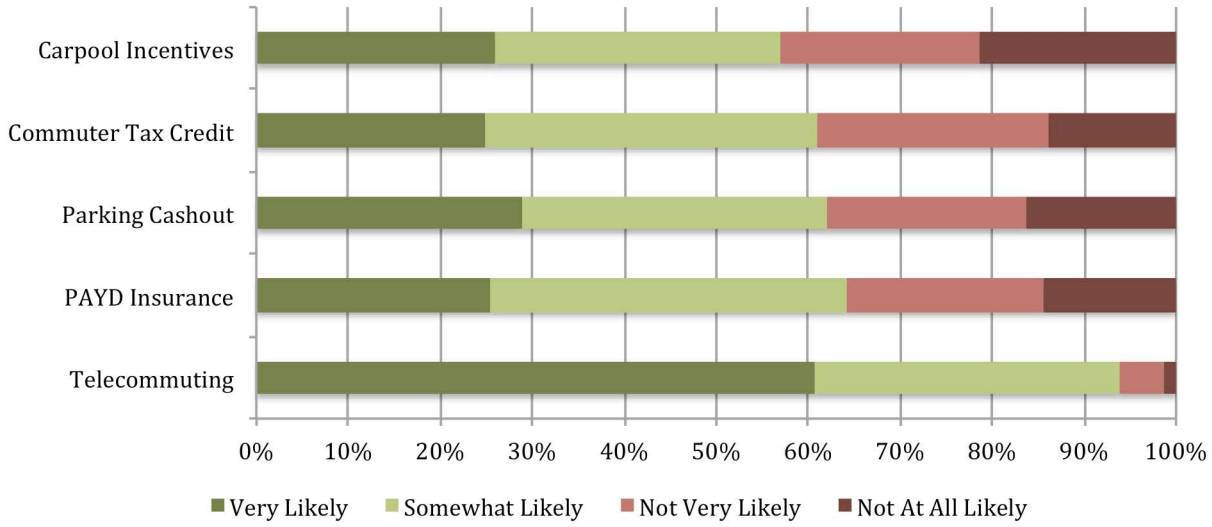
- 70% of drivers drive to work five days a week, and two-thirds experience some level of stress during their commute.
- Two-thirds say commuting takes away from quality of life in terms of family and personal time.
- The mean one-way commute time amongst our sample was 43 minutes (An hour and a half each day).
- 84% of drivers take a major highway to get to work.
- Over half of drivers (56%) surveyed do not currently have access to a rapid transit alternative.
- One-third have access to GO train and/or subway.

2. There is very high interest in alternatives to the 'standard' commute (commuting five days a week by single-occupant vehicle).

- 94% would be interested in telecommuting (working from home) if offered by their employer.[2]
- Two-thirds would likely try pay-as-you-drive auto insurance if it were available, and of these, 85% would change their commuting habits to find some other way to get to work if they had pay-as-you-drive insurance.
- 63% would be likely to to trade their employee parking spot for cash and find another way to get to work if a parking cash-out program were available.
- Over 60% of drivers would consider carpooling if there were an added incentive to do so, such as flexible work hours or a financial incentive.
- Over 60% of drivers would likely take advantage of a provincial tax credit of $150 to $250 a year for expenses related to using transportation other than a single-occupant vehicle to commute to work, such as carpooling or bicycling.

Figure 1: Incentive preferences

How likely would you be to take advantage of these options if they were offered:

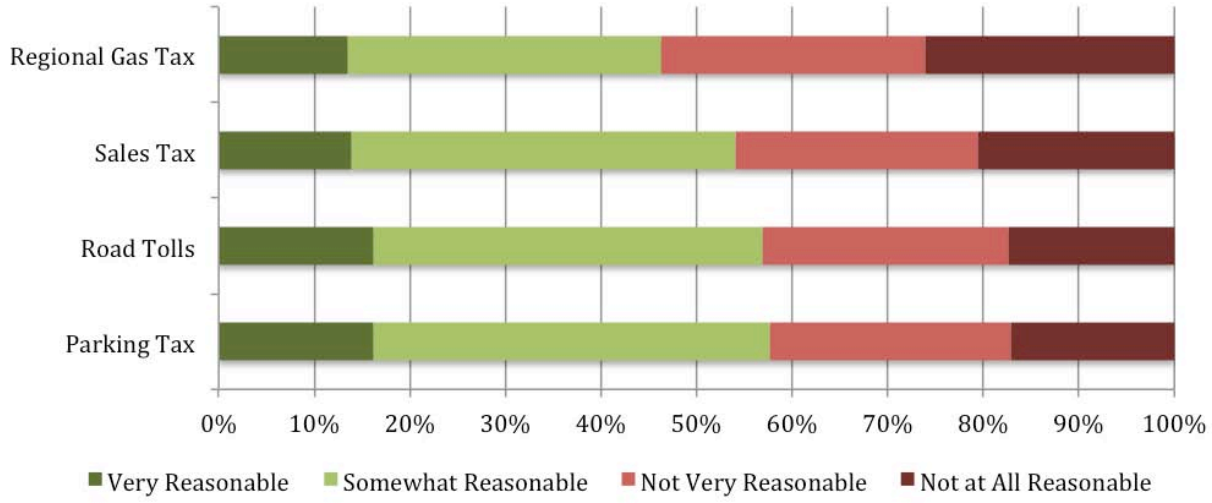


3. Drivers are moderately receptive to ways to pay for improved transportation.

- 58% support a tax on commercial parking lots, paid for by drivers.
- 57% of drivers thought a toll was a somewhat or very reasonable way to help pay for transportation improvements in the GTA.
- 54% of drivers thought a 1% sales tax to fund transit build was somewhat or very reasonable.
- 46% of drivers thought a regional gas tax increase of two cents to fund transit build in the region was somewhat or very reasonable.
- 56% would pay $2 per trip to reduce their commute time by 30% (no particular pricing tool was specified).
- 54% of drivers who commute by major highway were likely to pay to use an optional express lane that would allow them to by-pass highway congestion (HOT lane).
- Level of support varies little between types of tools.

Figure 2: Acceptability of pricing options

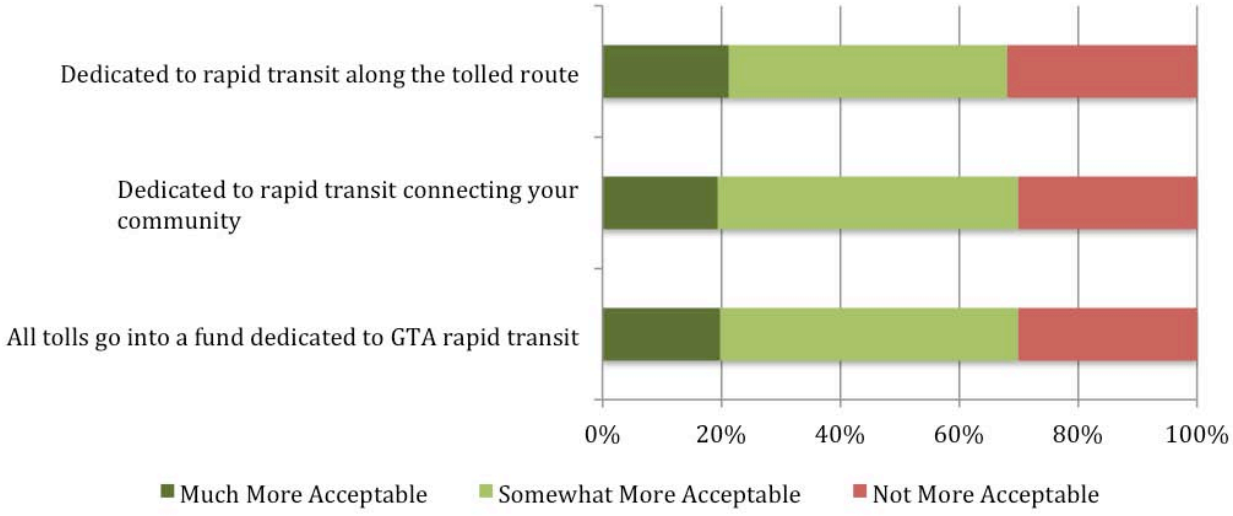
How reasonable are these policies to raise funds for transit expansion and improving road and highway travel:



4. Drivers showed significantly higher support for pricing policies that are fair, transparent and dedicated to building rapid transit in the region.

- 70% of drivers surveyed were more willing to pay a user fee on a highway or road if they could see the results in the form of new rapid transit built in the GTA.
- 69% were more willing to pay a user fee on a highway or road if it the fee was dedicated to building new rapid transit that connected their community with a broader rapid transit system in the GTA.
- 69% would find a road toll more acceptable if the funds were fully dedicated to building a rapid transit line close to this same route.
- Of those who supported a user-pay road toll, most (68%) thought it should only be charged on routes where drivers currently have access to rapid transit alternatives.
- Of those who found tolls unreasonable, almost half (46%) thought them to be more acceptable if they were only on routes where rapid transit alternatives exist.

Figure 3: Acceptability of pricing options based on dedication and transparency

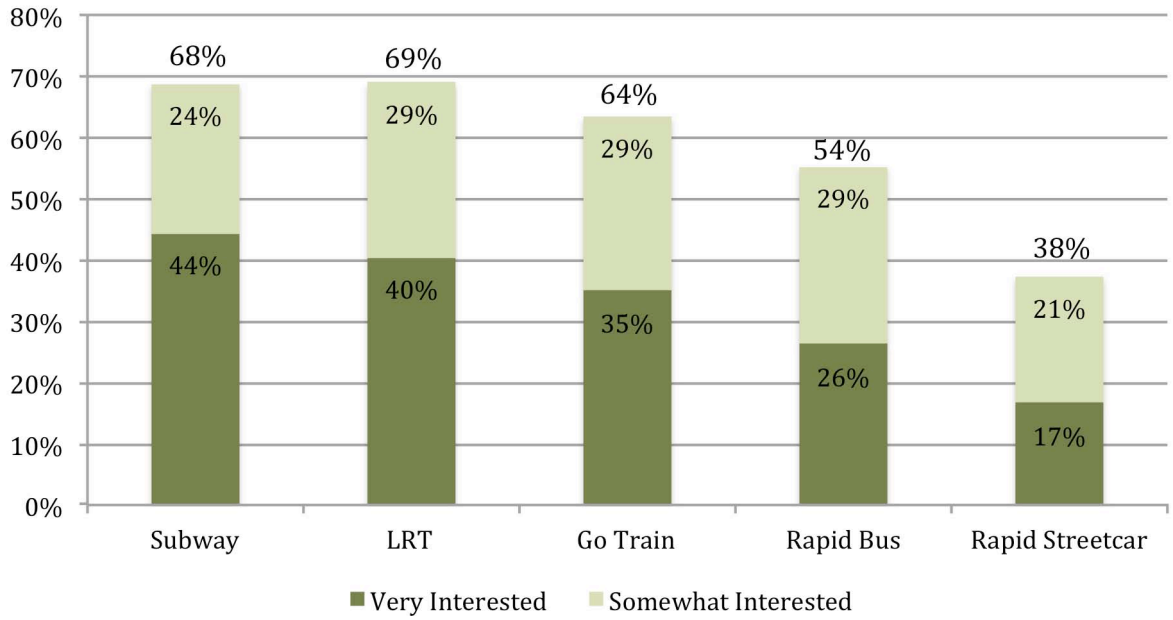


5. When accurate descriptions and photos are provided for rapid transit options, interest in using these transit modes are high.

- Nearly 70% of drivers in the GTA would be interested in taking either a subway or LRT if it were built along their route. Over 40% said they would be very interested in those options.

Figure 4: Interest in transit

How interested would you be in using the following new rapid transit options if they were built along your route?



During the survey, respondents were informed and educated as to what "rapid transit" is and how it differs from conventional transit options such as a bus. Survey respondents were provided with clear descriptions of each rapid transit technology to inform their selections. These descriptions are presented in Figure 5.

Figure 5: Descriptions of transit options

Transit option[3]	Description
	**Subway:** Operated by the TTC in Toronto, it runs on a track that is completely separate from road and pedestrian traffic. The Toronto subway travels mostly through underground tunnels, although some stations are at street level.
	**Light Rail Transit:** A fast-moving train that operates in its own right-of-way (a separated traffic line, or off street route). LRTs have about twice as many stops as subways but fewer than bus or streetcar routes. They are faster and can carry more people than buses and streetcars.
	**GO Train:** A train that operates on existing railways and tends to cover longer commuting distances.
	**Rapid Bus:** a bus that travels in its own lane separated from traffic by curbs. Rapid bus lanes are being built along Yonge St. and Hwy 7 in York Region.

Rapid Streetcar: A streetcar that travels in its own lane separated from traffic by curbs, such as the Queensway or St. Clair streetcars, and is faster than regular streetcars that travel in traffic such as Queen St. or College St.

3. Examining the options

This chapter discusses opportunities and barriers for the particular policy tools that were included in the survey, and explores how similar policies have been implemented elsewhere.

Commuter incentives

Drivers surveyed in this study demonstrate a strong support for solutions and alternatives to the "standard commute" – driving five days a week by single-occupant vehicle. In particular there is a great interest in telecommuting and pay-as-you-drive insurance, and moderate interest in tax credits, carpooling and parking cash-out. These findings are supported by a recent survey by the province's Smart Commute program which found that 85% of drivers would probably or definitely switch to another mode at least once a week if they could; 67% would consider carpooling, 54% transit, 29% bike and 26% walking (selections overlap).[4]

While incentive-based policies are not generally employed as revenue-raising tools, they are important and effective policies to help manage congestion immediately (and in the long term), whereas transit is a longer-term investment. Incentive policies reduce vehicle kilometres traveled (VKT) and encourage mode shift. VKT is the total number of kilometres driven by all vehicles within a given time period and geographic area. Mode shift is a transportation planning term that refers to a change in the relative reliance on one form of travel to another, such as from single-occupant vehicles to public transit.[5] Mode shift occurs when one mode has a comparative advantage in a similar market over another.[6]

Pay-as-you-drive (PAYD) insurance

PAYD insurance charges drivers by the distance they drive, a policy that extensive research has found to be one of the most effective methods of decreasing vehicle kilometres traveled and promoting mode shift.[7] One study demonstrated that a 10% reduction in VKT would occur with a charge of $0.06 per kilometre.[8] The program rewards driving reductions with lower insurance costs, and makes it more cost-effective for drivers to invest in other modes, be it a transit pass or a bicycle, by freeing up part of their transportation budget.

Reducing congestion is one of many benefits to reducing VKT through PAYD insurance; others include reductions in accidents and increased insurance affordability with premiums better reflecting a vehicle's accident exposure.[9] Currently, mileage is not effectively accounted for when determining insurance rates, aside from the distinction of usage of the vehicle for work or pleasure.

PAYD insurance is used in the U.S., Europe and around the world.[10] In the U.S., for example, Progressive Insurance offers optional pay-as-you-drive insurance in 39 states, with an average savings for customers of 10 to 15%.[11]

PAYD insurance is not currently available in Canada, although Aviva Insurance in Ontario offered a pilot program from 2005 to 2010; 6000 Ontarians participated with an average savings of 19%. And while it was introduced primarily as a method of collecting behavioural data such as speed, distance and time of day of driving to assess individual accident risk, a survey by the Insurance Bureau of Canada showed that a permanent program of this type would be favoured by the majority of Ontarians; it would (as expected) be most popular among those who drive less than 10,000 km per year.[12]

For insurance companies to offer the program it needs to have public support — which has been demonstrated by the IBC poll as well as by this survey. As well, the program must also be cost effective and operational at a large scale. As the tracking devices can be expensive, the province could implement legislation to reward participating companies, such as tax credits that would be phased out once a specific number of vehicles are covered by PAYD insurance.[13]

The programs track miles using odometers, GPS systems or on-board diagnostic systems. Opposition to the program is mainly about it being too costly to the insurer or too onerous, or because of the potential for privacy violation and odometer tampering. However, the technology of these new tracking systems has solved these issues, say experts.[14] As another example, Automobile Club of Southern California customers can participate in its new verified-mileage program in one of two ways: They can self-report odometer readings at the beginning and end of premium periods or they can receive a device from the company to plug into the vehicle diagnostic port to track mileage.[15]

A 2008 survey of North American insurers showed that 70% of companies already offer, are considering testing or are planning to offer PAYD pricing. The survey found the top market driver was competitiveness followed by exercising corporate responsibility with a "green" product.[16]

Revenue neutrality would depend on type and extent of implementation. Figure 6 below presents options for implementation of PAYD insurance, from voluntary options to mandatory pay per kilometre for all drivers. In the U.S., the same data used for PAYD are being considered for a revenue-raising tool in the form of Vehicle Miles Traveled (VMT) Tax, an infrastructure funding mechanism proposed to eventually replace the fuel tax and which would tax motorists based on how many miles they have driven. [17]

Figure 6: PAYD implementation options

Name	Description
MRF	*Mileage Rate Factor* is incorporated into premiums.
Per-Mile, Mandatory	All vehicle insurance is priced by the mile or kilometer.
Per-Mile, Optional	Motorists may choose between vehicle-year or vehicle-mile premiums.
GPS-Based Pricing	Motorists may choose to purchase insurance based on when and where they drive using a GPS transponder installed in their vehicle.

Source: Victoria Transport Policy Institute[18]

Telecommuting

Telecommuting was a very popular option for the drivers we surveyed. Almost all of those surveyed (94%) said they would likely take up the opportunity to work from home if their

employer offered the option. (Note that this did not include respondents who indicated that telecommuting was not a viable option for them because their type of job was not possible to do from home.[1])

Currently 69% of those surveyed have jobs flexible enough to allow for occasional telecommuting, with 43% of drivers actually telecommuting. Of drivers who do telecommute, more than a quarter do so once a week or more, 20% a few times a month and 23% at least once a month. Clearly there is interest and a tremendous opportunity to save money and time and to reduce congestion through more widespread telecommuting.

Smart Commute's recent survey of all commuters (not just drivers) found a high satisfaction among telecommuters working at home, but more importantly found that if these telecommuters did not work from home over half (53%) of them would be driving alone, suggesting the effectiveness of telecommuting at helping to reduce single-occupant vehicles on the roads.[19]

A 2010 study based in Tokyo measured the impact of telecommuting on mass transit congestion and public spending. Results showed that congestion would be reduced by 6.9–10.9%, yielding benefits of approximately 22.5–75.2 billion yen, of which 64 to 74% would accrue to non-telecommuters. These benefits are equivalent to 7.9–26.4% of household expenditures on public transportation. The number of telecommuters was estimated at between 9 and 14 million, all of whom were information workers.[20]

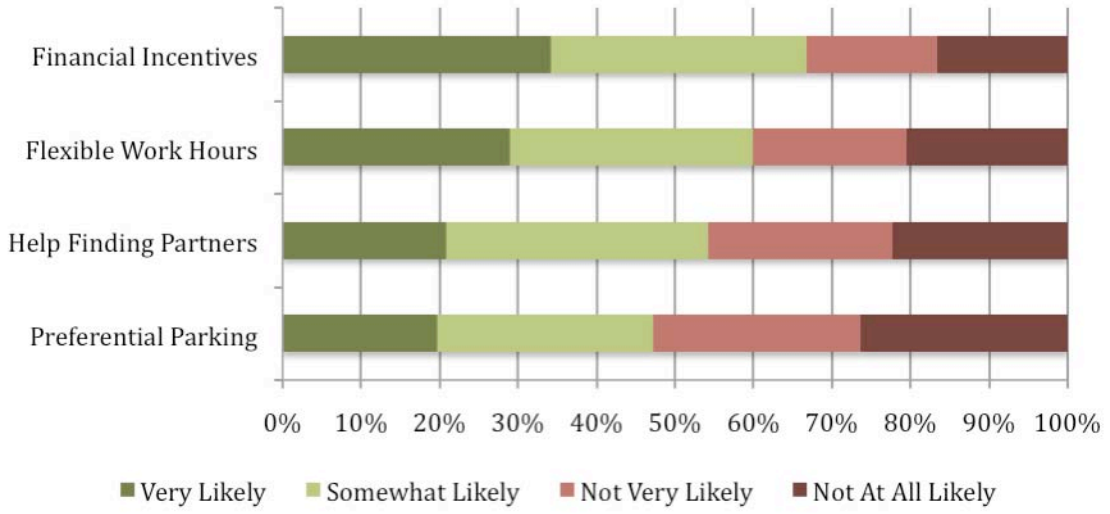
The most suitable telecommuting jobs are office jobs with work that is easily translatable to a home or remote office location. With this in mind, the Toronto 2010 Employment Survey showed a total of 1,298,300 full-time workers in Toronto, nearly 50% of whom work in office environments; that number has grown by 2% since the previous year.[21] This suggests that telecommuting could be much more widely used in the GTA than it currently is.

Carpooling

Our survey found good to moderate interest in carpooling, but much higher interest if a financial incentive, such as a rebate, were associated with the program, or if flexible work hours were offered to make carpooling easier (see Figure 7). Smart Commute's 2011 survey echoes these findings. In that survey, commuters indicated what employer programs would entice them to switch from driving to another mode; the number one option was a monetary incentive for carpooling, riding transit, walking or cycling while number two was providing a ride-match program for convenient carpooling.[22]

[1] After filtering for those for whom it was possible to telecommute, the 94% was based on a sample size of 148

Figure 7: Carpool incentives detail



Metolinx' Smart Commute program works with municipalities and employers in the Greater Toronto and Hamilton area to promote employer-supported programs for carpooling, including ride matching and shuttle programs, for transit, and for other options including telecommuting and flex hours. The program has generated some success: 9% of commuters surveyed in the GTHA currently carpool. However only 16% of adults surveyed in the GTA and Hamilton region have heard of the Smart Commute program,[23] suggesting that there is tremendous potential to grow the number of carpoolers.

Both the Smart Commute survey and our survey suggest that carpool participation might be increased by providing an added benefit beyond the natural benefits of carpooling itself; this benefit might generate more public awareness of the program.

Financial or other incentives generally are in the hands of employers. At Cornell University in Ithaca, New York, for example, carpools are given a cash rebate each year.[24] There are also a host of programs like Smart Commute across North America that offer other ways of supporting employers. The U.S. Environmental Protection Agency and the U.S. Department of Transportation established a voluntary National Standard of Excellence for employer-provided commuter benefits, which includes vanpool subsidies of $30 per month and vanpooling tax credits. Employers provide these benefits but in return receive National Standard for Best Workplaces designation.[25]

Parking cash-out

Parking cash-out is an incentive offered in a growing number of American cities and states, available to commuters whose parking is provided and paid for by their employer. The employer pays a cash incentive to their employees who leave their cars at home each workday and find another way to commute. Often the incentive is equivalent to what the employer would have paid for the parking spot.

According to our study, almost 70% of drivers surveyed are provided with free parking by their employer, which presents potential for parking cash-out programs or legislation in Ontario. Our

survey also found that over 60% of drivers would be likely to take advantage of a parking cash-out program if it were available.

California is a leader in the parking cash-out program. California state law actually requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space. The intent of the law is to reduce vehicle commute trips and emissions by encouraging employees to take transit, bike, walk or carpool to work.[26] It is estimated that the program has reduced car trips in California by 11%.[27]

In Madison, Wisconsin, the Taxpayer Relief Act of 1998 amended the federal tax code to allow employees to forego parking and cash out the value of the parking benefit. The value of the parking benefit will be subject to taxes. However, if the cash-out is converted to transit or eligible vanpool benefits, the amount converted (up to $195 per month) will not be subject to taxes.[28]

Washington, D.C. introduced parking cash-out in 1997, allowing but not requiring employers to offer a taxable cash payout in lieu of parking. The program was extended to transit and vanpools the following year under the Transportation Equity Act, whereby employers could apply the payout to transit tax-free; or provide a partial payout (including none), with the option to use some of cash-out to pay for transit with untaxed dollars. This has been a major factor in the rise of transit ridership in the area in the last 12 years. The program was extended again in 2008 to include bike commuters, who can claim their first $20 per month tax contingent on biking a minimum number of days. However, they cannot set aside a portion of pay pre-tax as they can do with transit. Very few employers offer a bicycle commuter benefit.[29]

A recent California report examined eight case studies of employers who have complied with California's parking cash-out requirement. Cashing out reduced total vehicle emissions for commuting by 12%, with a range from 5 to 24% for the eight firms.[30]

Tax benefits

As discussed in programs above, a number of jurisdictions offer tax benefits for a variety of commuter choices, including carpooling, parking cash-out, transit and biking.

According to our survey, 61% of drivers surveyed would likely take advantage of a provincial tax credit of $150 to $250 per year for expenses related to using some other form of transportation than a single-occupant vehicle to commute to work.[31]

In the U.S., beginning January 2012 employers may provide workers with up to $125 per month in tax-free transit and vanpool benefits, and fringe benefit exclusion for qualified parking of $240. Commuters can receive both the transit and parking benefits (i.e., up to $365 per month). Employers can allow employees to use pretax dollars to pay for transit passes, vanpool fares and parking but not for bicycle benefits.[32]

The American program is part of the Best Workplaces designation program, whereby the benefits are provided by the employer and are not taxed. Some of the financial benefits that qualify include transit subsidy of at least $30 per month, vanpool subsidy of at least $30 per month, cash in lieu of free parking worth at least $30 per month, telework program that reduces commute trips by at least 6%, and compressed work hours. Other non-direct financial benefits

include a variety of options similar to those provided by Metrolinx's Smart Commute program, such as shuttle services, workplace facilities like showers, bike lockup and charging stations for electric bikes, carpool matching and more.[33]

Pricing and revenue tools

The remainder of this chapter explores pricing and revenue tools that were polled in our survey and generated some level of acceptability. Both the Toronto Board of Trade and Civic Action have conducted extensive research[34] into potential revenue tools in the GTHA that could raise funds for transit infrastructure, as well as many examples of where these tools have been implemented elsewhere. The details of revenue generation and policy issues around these pricing tools, therefore, will not be discussed in this report, nor do we present the entire range of revenue options. We do explore some basic aspects of these policies with regards to our findings and how they have been implemented elsewhere, but do not provide a thorough list of other jurisdictions, as this information is presented comprehensively by the Toronto Board of Trade.[35]

Driver willingness to pay

When considering the results of this study, it is important to keep in mind that it surveyed only drivers who have at minimum a 30-minute commute one way. This differs from similar recent polls, such as that conducted by the Toronto Star in November 2011 which surveyed all commuters, including transit users, and did not stipulate any length of commute.[36] While the Star poll found that 55% of respondents supported a congestion charge (a fee for entering the downtown core), the poll included significant numbers of transit users (38%) and downtown residents, who might be expected to support a congestion charge that would not likely affect them. However, the Star survey result is also consistent with the response from drivers in our study.

For our study, drivers in the GTA represent those who would likely be most impacted by pricing policies and potentially could be most opposed, particularly given the relatively long commute time. The majority of these drivers however showed modest support for almost all pricing solutions, with a level of support similar to the Star's poll of the broader population, suggesting that all commuters recognize the need for solutions and the potential benefits for everyone and the region.

A CBC poll, also in late 2012, surveyed an even broader population of Toronto, Montreal and Vancouver and found that 76% of those surveyed found tolls acceptable on *new* bridges or roads to pay for the cost of building them. By comparison, only 56% found it acceptable to add a toll to an *existing* bridge or road to pay for needed repairs, and 47% supported using funds to pay for transit *upgrades*, but most agreed that a portion of road tolls should go toward public transit.[37] Our study explored acceptability for pricing policies with funds directed to new rapid transit *and* improved road and highway travel. It is possible that presenting a vision for the region that benefits everyone, and includes a new network of transit lines rather than upgrades, might generate a more positive response.

The results of our study may also be due in part to the design of the survey (see Appendix 2) that built education, context and examples into the survey to help respondents more

clearly understand the issues being surveyed, rather than answering binary questions such as would you oppose or support a road toll.

Paying to fund transit and save time

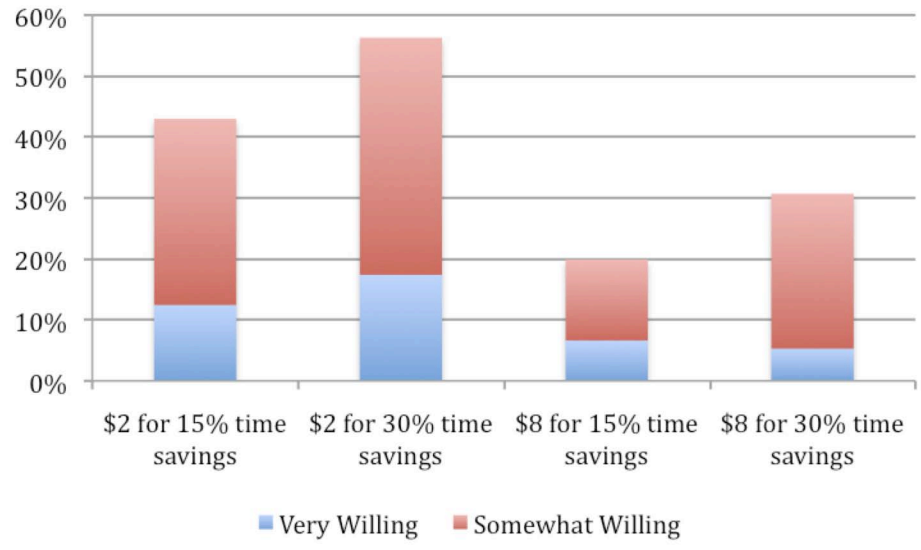
In introducing the series of questions about revenue tools, drivers surveyed were reminded of the congestion problem in the GTA: "The Greater Toronto Area has among the worst traffic congestion in North America and one of the longest commute times," and provided with context for the questions that would follow:

"The next few questions are about ways to reduce congestion in the GTA including finding ways to fund the building of new more efficient rapid transit options and improving road and highway travel."

Important in this language was the clear stipulation that any pricing mechanisms would fund both transit and roadways for motorists, which is the full intention of the Big Move regional transportation plan for the Greater Toronto and Hamilton Area.[38]

The first question in this section asked about general willingness to pay to save time on the road. "Paying" was not associated with any specific tool but a particular amount based on a percentage of time saved, with results presented in Figure 8 below. Drivers were randomly asked if they would pay either $2 or $8 to save reduce their commute times by either 15% or 30% — based on the average commute time of 43 minutes, this amounts to savings of either 6.5 minutes or 13 minutes.

Figure 8: Willingness to pay to save time



The only strong support (more than 55%) was seen for the option of paying $2 to save 30%. Interestingly, as we learn later in the survey, drivers are more willing to pay to park than to save time on their commute. Smart Commute found that 65% of drivers they surveyed would still drive if they had to pay for parking. Price would be a determining factor for 12%; the most these those drivers would pay was $8.90 per day.[39] This suggests that drivers are used to paying for

parking but regard driving as 'free' (outside of gas and car expenses) — even though a rational analysis would suggest that the same money (approximately $8) would be better spent to save time than to simply pay for parking.

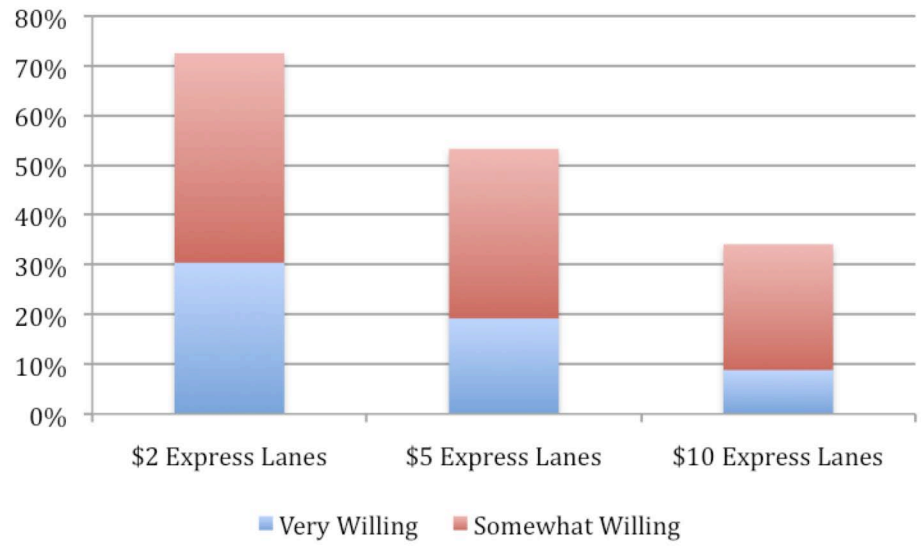
User fees or society pays

Drivers in our study showed higher levels of support, as we will see below, for pricing options associated to a particular tool, with a parking fee generating highest level of support. In general, 63% of drivers preferred a user fee (such as a toll, transit fare or parking fees) rather than a society-wide means to generate revenue (such as a sales tax that everyone pays), even though they themselves would be the ones paying the user fee. However, as the remainder of the study shows, there is actually little differentiation between the various pricing tools (see Figure 2 in Chapter 2), with the exception of a gas tax which, although it is actually a user fee, could be perceived by drivers as something, like a sales tax, that cannot be avoided.

Paid express lanes

Of the drivers surveyed, 54% indicated that they would be very or somewhat likely to use a paid express (high-occupancy toll or HOT) lane. Express lanes could be a transitional policy between current 'free' highways and full tolls, and generate badly needed funds for transit infrastructure. Interestingly, over 70% of drivers would be willing to pay $2 to use an express lane without knowing the actual time savings while as we saw in Figure 8, only 56% would pay $2 to reduce their commute by 30%. This further suggests the higher support for a tangible solution and the positive association with 'express' — simply going faster.

Figure 9: Willingness to use a tolled express lane



Express lanes are paid but optional lanes on a major highway that allow drivers to bypass traffic congestion. In the GTA, Highway 407 is an entirely tolled highway; because it costs to drive it, the highway is usually free of congestion. An express lane is just one paid express lane on a highway, such as 400 series highways or the QEW, Gardiner Expressway etc., and the revenue

would go to the government (the province in the case of 400 series highways) rather than to a private company, as is the case with the 407. Revenue from an express lane could be collected by the province for transit expansion.

A variation of a paid express lane is allowing single drivers to pay to join the carpoolers in the High Occupancy Vehicle (HOV) lanes. There is some debate whether or not to charge carpoolers as well; however this could undermine carpooling incentives discussed above.

California, which shares Toronto's congested highway problems, recently implemented a paid express lane on a ten-mile section of a major highway (Route 91). The express lane speed averages 60 miles per hour (100 km/h) during peak periods compared to 15 mph (25 km/h) in the regular lanes. The tolls to access the express lanes are based on time of day with higher prices (up to $9.75) charged during peak periods when there is significant congestion versus only $1.30 during regular periods.[40] Vehicles with three or more passengers travel for free except in the weekday afternoon peak, when they receive a 50% discount. During peak periods, the express lanes can carry twice as many vehicles per hour at three to four times the speed as the regular lanes do.[41]

Some have questioned if equity and paid lanes offer an unfair disadvantage to lower-income commuters; however, extensive research in California has found that certain pricing schemes do not necessarily have this effect. Evaluations of SR-91 have shown that low-income drivers do use the express lanes and are as likely to approve of the lanes as drivers with higher incomes; over half of commuters with household incomes under $25,000 a year approved of paid express lanes. Furthermore, the state is exploring strategies to redistribute revenues from tolls such as distributing rebates or credits or transferring revenues to transit and carpooling services.[42]

Other examples include the I-15 in San Diego, which charges single-occupant vehicles to use express lanes. Tolls are varied dynamically to ensure free-flow conditions in the express lanes. Half of project revenues are used to support transit service in the corridor.

Minnesota has implemented HOT Lanes on I-394 and I-35W. The charge for single-occupant vehicles to use the lane varies with congestion. The maximum fee is $8 with an average peak period fee varying between $1 and $4; net revenue is transferred to transit service. The Bay area in California is planning a network of HOT lanes with funds to be directed to transit.[43] Additionally, state-operated bridges in the Bay area have one-way tolls with a portion of the revenue going towards transit. Los Angeles county has approved a plan to convert HOV lanes to HOT lanes. Excess toll revenues will be used in improve transit or carpool lanes along the corridor collected.[44]

Other express/HOT lanes exist in Colorado, Florida, Georgia, Minnesota, Texas and Utah and are being proposed in Virginia, South Carolina, North Carolina, New York/ New Jersey (in the Lincoln Tunnel), Michigan and Maryland.

Road tolls and congestion charges

A toll is a mandatory fee to use specific highways or major roadways. Tolls have traditionally been used to pay for bridges or construction, but are now commonly used to raise general revenue and are applied less frequenly to sites (e.g. bridges) and more to the entire length of the

system, with the amount paid based on the distance the driver uses the highway or road. An example of a toll highway is Highway 407 between Burlington and Pickering, which is run by a private company that collects the revenue.

In the Chicago area, revenues from a series of tollways operated by Illinois State Toll Highway Authority fund the retirement of the highway construction debt. The tollway is considering the option to use its funds to support bus and/or rail service in its expansion plans.[45] Other toll facilities which dedicate some revenue to transit include Metro Transportation Authority bridges and tunnels in New York City, Caltrans' toll bridges in the San Francisco area, and toll bridges operated by the Delaware River Port Authority.[46]

Another specific toll called a congestion charge or "cordon charge" charges drivers to enter a specified radius of the central downtown core. In London, England, vehicles entering the central zone between 7 a.m. and 6 p.m. weekdays pay £10. All money raised by the congestion charge goes towards improving transportation in London. Milan implemented a congestion charge in its city centre in 2008, called the "Ecopass," which charges drivers up to $12 a day based on vehicle emission levels.[47] Stockholm operated a congestion charge trial in 2006; in 2007 the measure was put to a referendum, with 53% of Stockholm residents voting to support the charge. Singapore has operated a congestion charge since 1975.

Cities where cordon charges are successful, such as London, already have extensive and effective rapid transit in place for drivers and visitors entering the downtown core. There is concern that a congestion charge to the downtown Toronto core could put downtown businesses at an unfair disadvantage. Road tolls might be more fairly applied to the entire GTA region as commuters drive not only downtown but also cross-town.

Parking fees

Drivers surveyed in our study were most supportive of parking charges to raise revenues for transportation infrastructure, with 58% indicating it was either very or somewhat reasonable to introduce a parking tax on drivers of 25 cents to 75 cents to each parking space in commercial and public lots in the GTA to help pay for improvements to the transportation system.

The 2011 Smart Commute survey found that those commuters who pay to park paid an average is $92.50 per month, and 65% would still drive if they had to pay for parking. A further 12% would drive if the price to park were not too high; on average, the most these those drivers would pay was $8.90 per day (about $180 per month). As discussed above, there is a greater willingness to pay more to park than to pay a lesser amount to save time in traffic, suggesting that drivers are used to paying for parking. An opportunity clearly exists to raise revenues through parking fees.

Regional gas tax

While respondents in our survey preferred fees paid by users rather than by all of society, a regional gas tax (a user fee) polled as less acceptable than a sales tax. A number of possible explanations for this exist. While a gas tax is a fee to the user, drivers may perceive it as a fee that cannot be avoided (unless you invest in an electric vehicle). Other reasons include the rising cost of gas or opposition to anything that is labeled a 'tax.

In Vancouver, the mayors in the Greater Vancouver region recently increased property taxes and regional gas taxes (up two cents, from $0.15 to $0.17) to pay for transit infrastructure including the Evergreen rapid transit line, which will serve suburban communities including Coquitlam and Port Moody.[48] This gas tax was levied in a region when a carbon tax already exists. However, the dedication and purpose of both are well communicated to the public: gas tax for transit, carbon tax for climate policy.

Similarly a regional gas tax in Greater Montreal of 1.5 cents per litre of gas sold was introduced in 2010 with revenue generated directed to the regional transportation authority to invest in transit.[49]

Maryland is considering a $0.15 increase to its gas tax (five cents per year over three years). The revenue would be used to pay for transit, roads and other transportation projects.[50]

Regional sales tax

While only 47% of drivers surveyed thought society-wide fees were best, 54% thought a regional sales tax of 1% with revenue dedicated to improving transit and road travel was a reasonable option.

Los Angeles County enacted Measure R, a 0.5% sales tax increase that is expected to raise $40 billion over 30 years. These funds will mostly be used to build new transit and improve transit operations, while 20% of the funds will go towards highway capital projects.[51] Over two-thirds of residents voted in favour of the tax increase and transit plan in a referendum.

In 2008, Seattle approved a ballot initiative to direct $17.8 billion over 20 years through a 0.5% sales tax increase to fund transit construction (about 60% voted for the measure). Similarly, Denver introduced a 0.4% sales tax in 2004 to pay for a $4.7 billion regional transportation plan. Phoenix and San Diego both have 0.5% sales tax to help pay for transit.

The wide use and success of these sales-tax-based initiatives has been attributed to the clarity and accountability that comes with the measures, since the taxes are earmarked to specific projects and programs that directly serve those that pay the tax, and this dedication is made clear in the ballot questions.[52] In general there is growing support for broader society-pays revenue tools supported by the concept that everyone benefits from better transportation. The state of Utah has been running a communications and advertisement campaign that highlights the societal benefit of funding transit — in particular the benefit to drivers: with more people taking transit there is more room on the road for drivers.[53]

Dedication, transparency and fairness

As presented in the Top-line Findings (Chapter 2), acceptability increases significantly with transparency and the understanding that funds are being directed at transportation solutions. Drivers showed moderate support for individual revenue options (46% to 58% depending on the revenue tool) when the questions were presented with the information that funds would go to transit expansion and improving road and highway travel; however, however 70% of respondents stated that they would find user fees more acceptable if they knew they was being dedicated to new rapid transit it the GTA. These findings suggest a significant willingness of drivers in the GTA to pay user fees to fund transit expansion in the region.

The results again were as follows:

- 70% of drivers surveyed were more willing to pay a user fee on a highway or road if they could see the result of this fee in the form of new rapid transit built in the GTA
- 69% were more willing to pay a user fee on a highway or road if it was dedicated to building new rapid transit that connected their community with a broader rapid transit system in the GTA
- 69% would find a road toll more acceptable if they knew the funds were fully dedicated to building a rapid transit line close to this same route

Overall it is most important to drivers to know their user fees are going towards new rapid transit in the GTA — to be able to see the results. These results suggest that dedicating the money to a transit project in their exact community is not more important, as long as funds are building a regional network that connects communities in general.

The State of California used the long-term revenue from the Measure R sales tax as collateral for long-term bonds and a federal loan which allows Metro to accelerate the construction of 12 key mass transit projects in 10 years, rather than 30. This delivers both cost savings and immediate benefits to society in terms of transit, jobs, congestion reduction, improving the local economy and reducing pollution.[54]

Acceptability with implementation

In general the results of the survey demonstrate varying levels of acceptance among respondents to pricing schemes and increased levels of acceptability if pricing programs are fair and transparent. Lessons from other jurisdictions demonstrate that acceptance can also improve with actual implementation, suggesting that negative attitudes towards a pricing tool will normally be low but can improve after programs are in place.

A very recent European study shows that public acceptance to tolls and congestion charges improve substantially after implementation. In Stockhom for example, support for the idea of a road charging trial sat originally at 30%, then increased to 50% after the trial was completed and rose again to 70% after the reintroduction of the trial. Similar acceptance trends occurred for London's congestion charge and Norway's road toll.[55] Closer to home, Environics research shows that support for B.C.'s carbon tax was at an all time high (57%) in November 2011 compared to only 40% when it was introduced in July 2008.[56]

It has been well documented that Toronto suffers some of the worst traffic and commuting times among cities in North America, yet is one of the few such cities without road pricing policies, which the OECD has recommended to get the city on track.[57] The Toronto Board of Trade and others have clearly presented the need for pricing tools to fund transit build because no revenue is available within the current provincial or municipal tax base.[58] The region's top business and civic leaders are calling for pricing tools to solve congestion and fund transit.[59] The question of road pricing for the GTA, therefore, is not "if", but when, where, how and which tools.

4. Conclusions and policy considerations

This study brings together public opinion and current research to examine options to reduce gridlock and fund transit infrastructure in the region. Here we present a summary of conclusions and a list of policy considerations based on this study. We hope this will help inform the decision-making process as Metrolinx moves to fund a regional transportation plan and the province considers these and other solutions.

This report represents one study of how possible solutions resonate with those who might be impacted; therefore, this report does not attempt to make definitive recommendations but rather present policy options for consideration, including some implementation challenges and opportunities.

Conclusions

1. Driving is stressful in the GTA.

Congestion is causing stress and quality of life issues for drivers, particularly for those whose commute is over 40 minutes one way.

2. Drivers are interested in alternatives to driving 5 days a week.

There is a strong level of interest in alternatives to driving five days a week, including taking rapid transit if it were available, in particular LRT, subway, GO Trains, and to a lesser extent rapid bus. Drivers also show a strong interest in pay-as-you-drive insurance, telecommuting or other incentives and options.

3. Drivers show support for ways to pay to improve transportation options and manage congestion.

When considering the results of this study, it is important to keep in mind that it surveyed only drivers who had at minimum a 30 minute one-way commute. These respondents, therefore, represent those who would likely be most impacted by pricing policies like tolls or parking fees and could expect to be most opposed. The fact that a majority of these drivers showed modest support for almost all pricing solutions suggests these drivers recognize the benefit to all commuters from solutions that manage congestion and fund transportation in the region.

Results show that this modest support for pricing tools varies little between types of policies, with the exception of a regional gas tax. Consequently, the important consideration may not be which particular tools are implemented but rather how they are implemented, introduced and articulated to those impacted.

4. Dedication and accountability are key…

Drivers demonstrated significantly higher support for user fees when it was clear that revenue generated would be dedicated to new rapid transit in the GTA — in particular rapid transit that connects communities in the region to a regional network and provides an alternative mode to existing commuting by cars on highways. It is also important for drivers paying user fees to be able to see the results of this dedicated investment in real time.

5. …and so are information and education.

Information, examples and descriptions were built into survey to provide context to the questions being asked, and the results show that education and awareness is critical for drivers and the broader population in the GTA to understand the context and benefits associated with any policy implementations. For example, an accurate description of what rapid transit (including LRT) is and is not may have helped generate support for its construction and interest in using it. Similarly, explaining and applying the conditions of dedication and fairness to certain user-based pricing policies clearly led to higher levels of acceptance.

6. It's not a matter of "if" revenue tools should be introduced in the GTA, but rather how, where and when.

As our review of experiences elsewhere in Canada and in other countries with the policy options explored here shows, road pricing tools (and dedicated taxes such as a carbon tax) may have low public support when first proposed, but often increase in acceptance after they are introduced and motorists/taxpayers understand and witness the benefits. This experience suggests that waiting for high levels of acceptance before implementation may not be as realistic as ensuring that implementation is clear, transparent and dedicated. Given the relatively positive level of support demonstrated by drivers in this study (and by commuters in other recent polls), the potential exists for support to grow as tools are implemented and as dedication is understood.

Policy considerations

Based on the results of this survey and research presented in this report and elsewhere, we present the following policy considerations as Metrolinx develops a transportation investment strategy for the region and the province makes decisions on how to implement these and other policy solutions for Ontario and the GTA:

1. Consider implementing a combination of carrots and sticks; carrots can reduce congestion in the immediate term and sweeten pricing options.
2. Examine a pilot project for PAYD insurance, ensuring that it is at minimum revenue neutral but provides strong incentives for drivers to leave the car at home in favour of other cost-effective options.
3. Begin with parking revenue tools, which are well supported and relatively simple to implement and which can be put in place without broad communications.
4. If tolls are an option, consider first implementing these along routes where available rapid transit options currently exist — for example, in parallel with GO train routes.

5. Consider piloting express lanes/HOT lanes on strategic highways.
6. Ensure that funds are dedicated to regional transportation and that this is clearly and carefully communicated. It may be important to emphasize dedication to *rapid transit* in the region, which provides an alternative mode to existing commuting by cars on highways.
7. Clearly communicate what rapid transit is and what the benefits are to riders and the region. Many commuters in the GTA may still assume that public transit for their region implies conventional buses in mixed traffic.
8. Ensure that revenue tools are coordinated and collected strategically throughout the region and revenue is dedicated to priority projects.
9. Explore ways to demonstrate the building of rapid transit in real time to those who are paying for its construction, such as beginning construction at the same time pricing tools are implemented rather than after, using revenue to pay the construction bill.
10. If considering a regional sales tax, ensure that the funds raised are dedicated to rapid transit in the region, that this is clearly communicated and that the benefits to everyone in the region (drivers, businesses, society, not just transit users) are communicated.

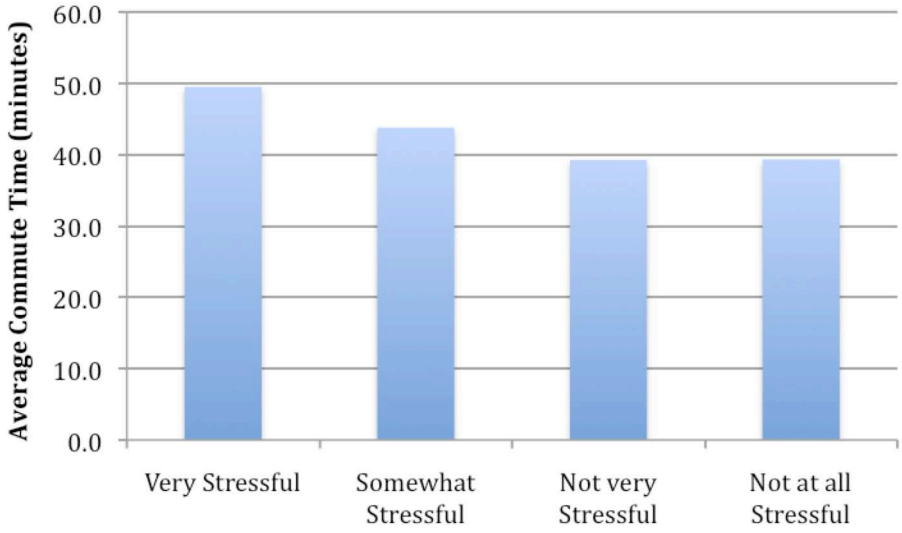
Appendix A: Detailed findings

This chapter presents detailed findings of how driver stress, home region and access to transit correlate with results.

Impact of driver stress on policy interest and support

Most (69%) of drivers with commutes over 30 minutes already find their drives stressful. As Figure 10 below shows, stress is closely tied to commute times; those with long commutes generally find their commutes more stressful than those with shorter commutes.

Figure 10: Commute time and stress level



Drivers who find their commutes stressful are more likely to be interested in rapid transit technologies (Figure 11) and policies which provide them an incentive to leave their cars at home and explore other commuting options (Figure 12).

Figure 11: Interest in transit options and stress level

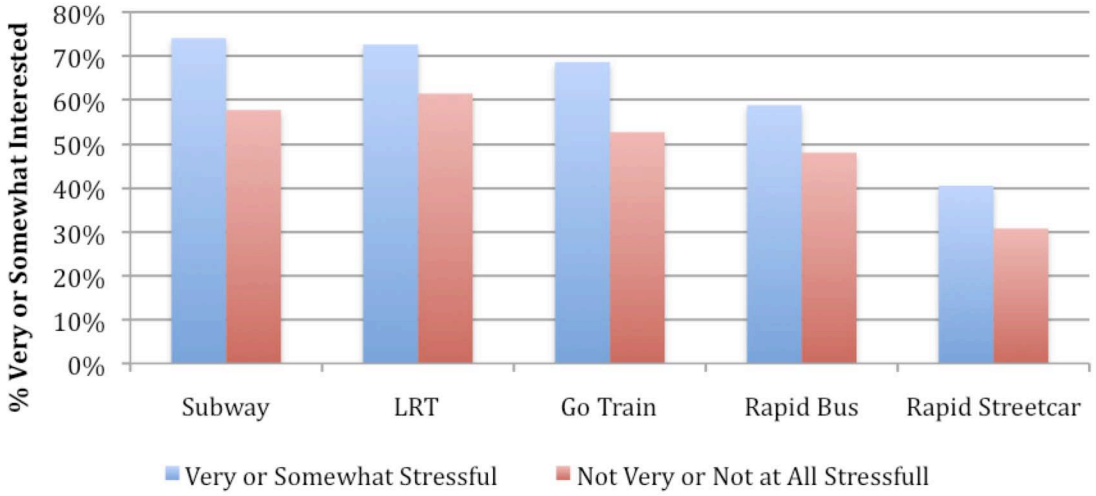
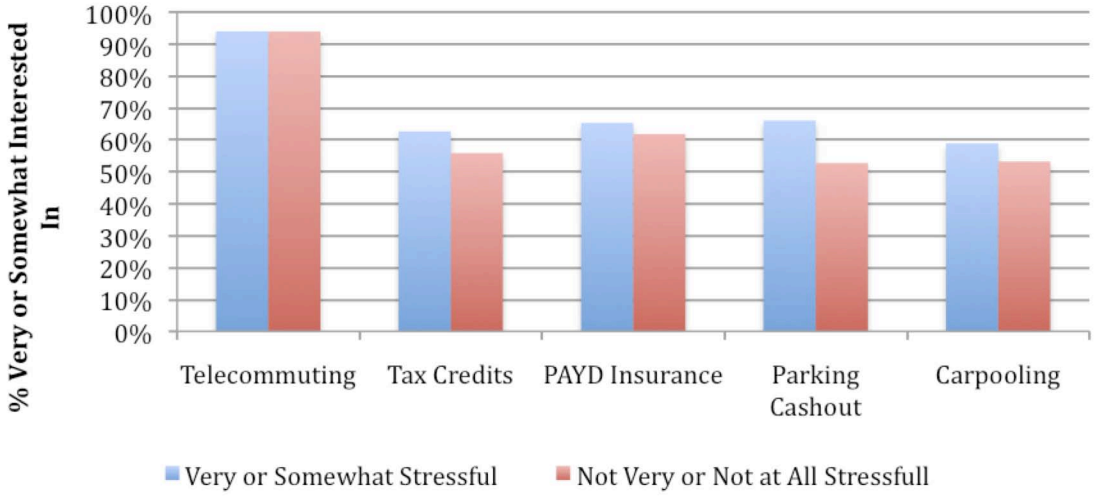
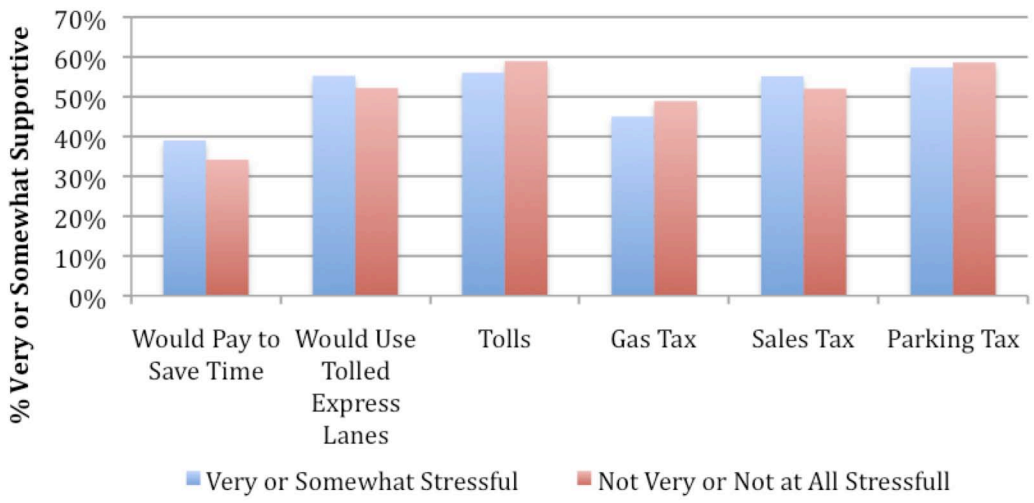


Figure 12: Interest in commuter choice policies and stress level



Drivers who face more stress are more likely to pay to save time on their commutes than unstressed drivers, but are about equally receptive to pricing mechanisms (Figure 13). However, 70% of all drivers, regardless of stress level, find pricing mechanisms more acceptable if dedicated to rapid transit.

Figure 13: Interest in pricing policies and stress level



Impact of access to transit on support for transit

Those with access to rapid transit are more amenable to incentives to use other commuting options (Figure 14). They are slightly more amenable to pricing policies (Figure 15). Those with access to rapid transit are also more likely to support pricing tools if the funds are dedicated to rapid transit

Figure 14: Interest in commuter choice policies and access to rapid transit

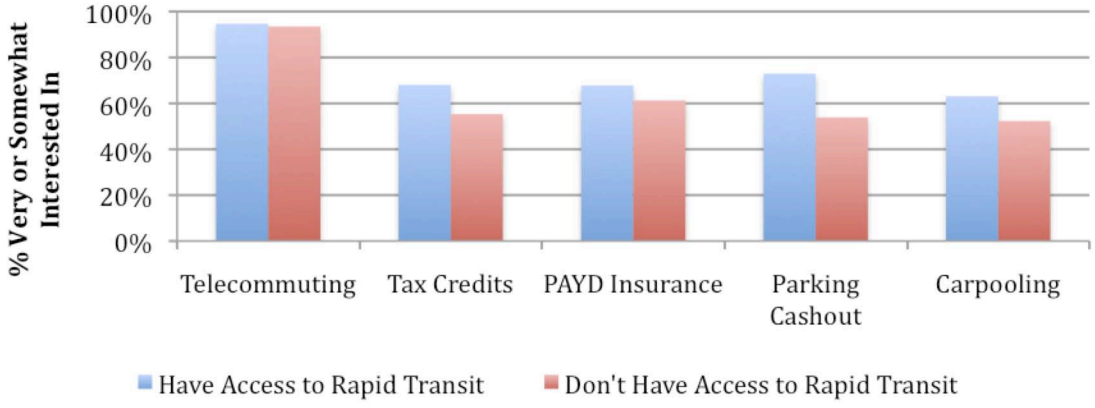


Figure 15: Acceptability of pricing options and access to rapid transit

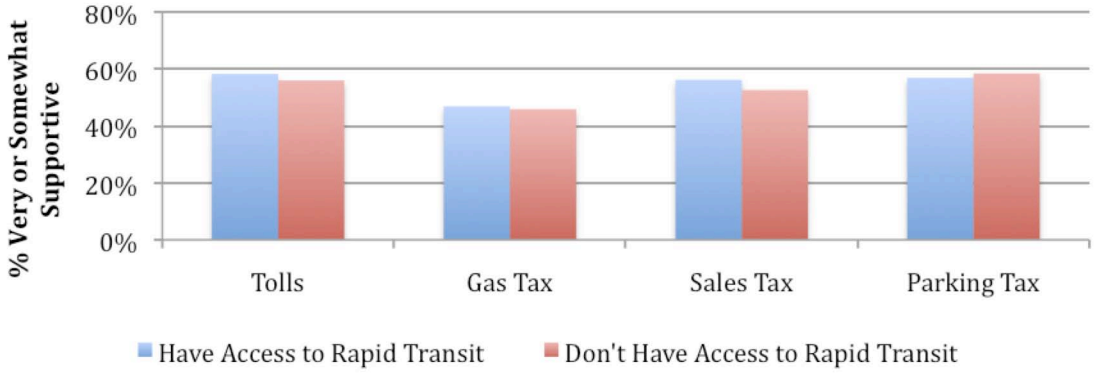
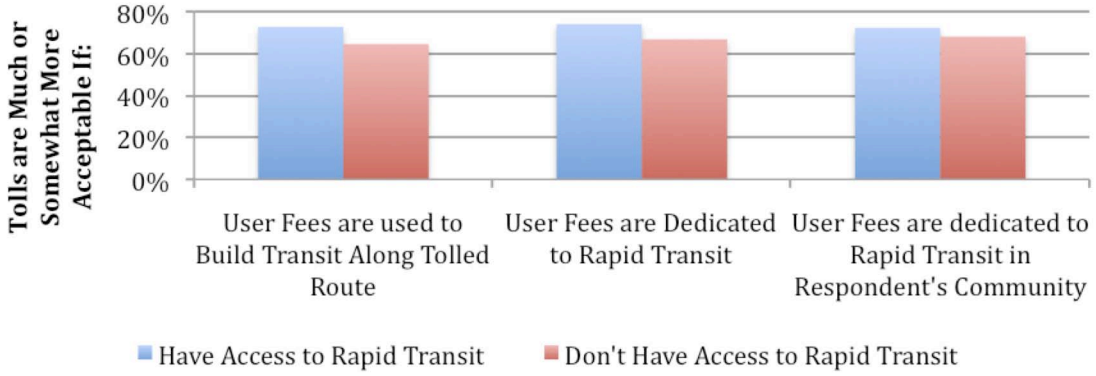
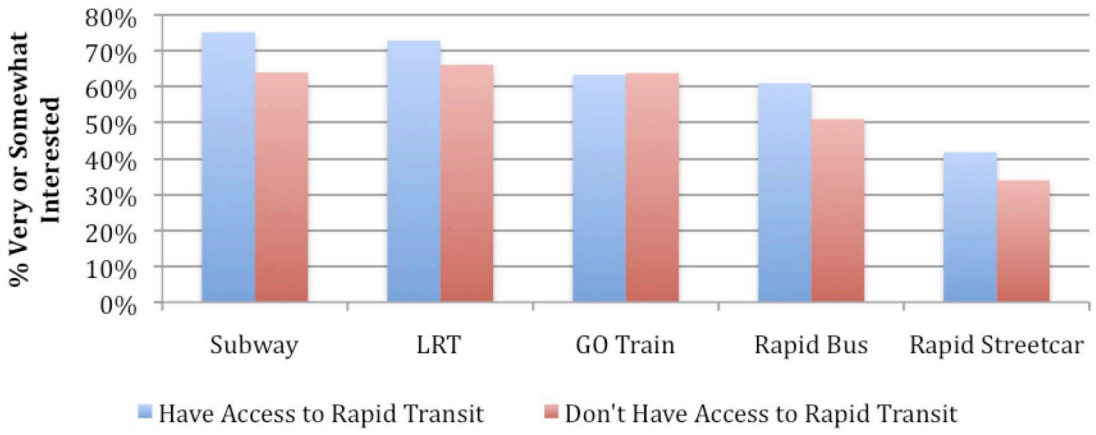


Figure 16: Increased acceptability of user fees and access to rapid transit



Our analysis shows that commuters with access to rapid transit are more supportive of building any form of rapid transit (Figure 17). This suggests that support for transit (including surface transit such as LRT) will increase as new transit is built throughout the GTA and commuters are more exposed to the option.

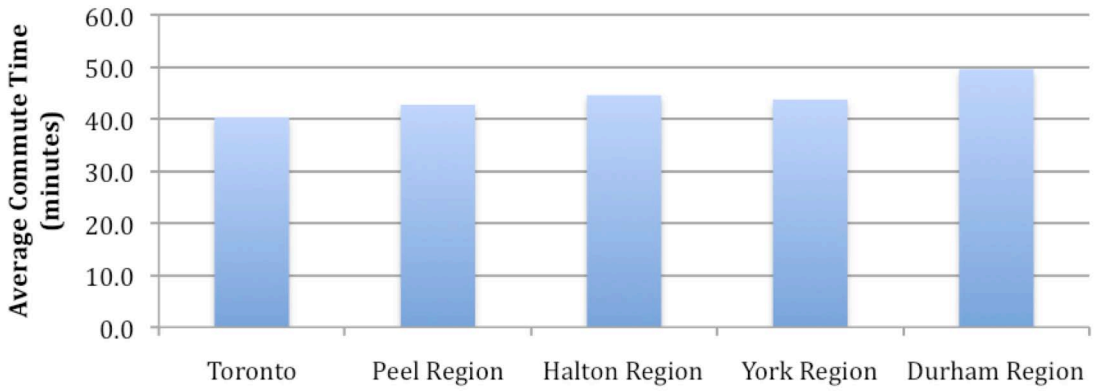
Figure 17: Interest in rapid transit and access to rapid transit



Impact of region on policy support

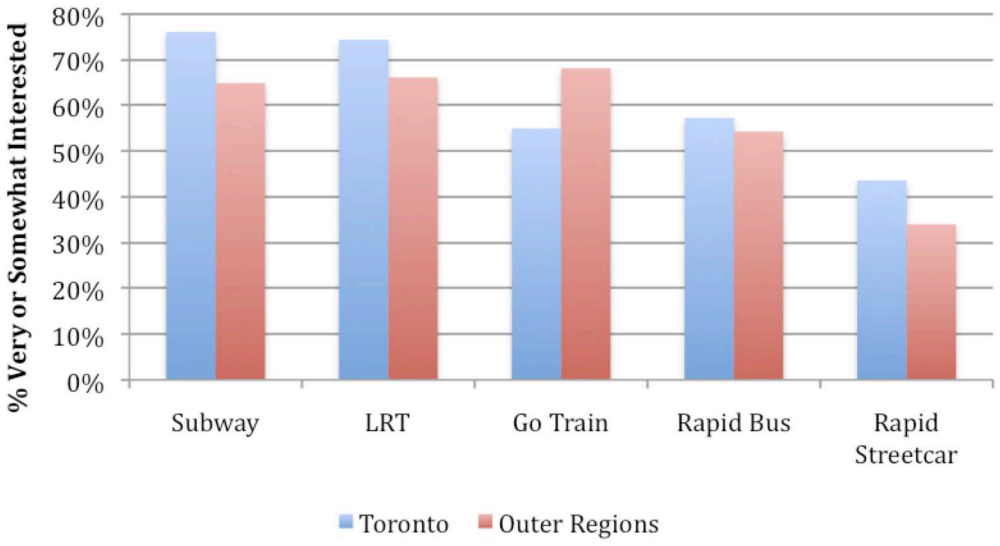
Commuters inside the City of Toronto tend to have shorter commutes than those in the outer regions (Peel, Halton, York and Durham) (Figure 18).

Figure 18: Average commute time – Toronto and outer regions



Commuters from the City of Toronto are more interested in having rapid transit built along their commuting routes than those from the outer regions (Figure 19). As noted in the above section this might arise from the fact that Torontonians have better access to transit and therefore more awareness and openess towards transit.

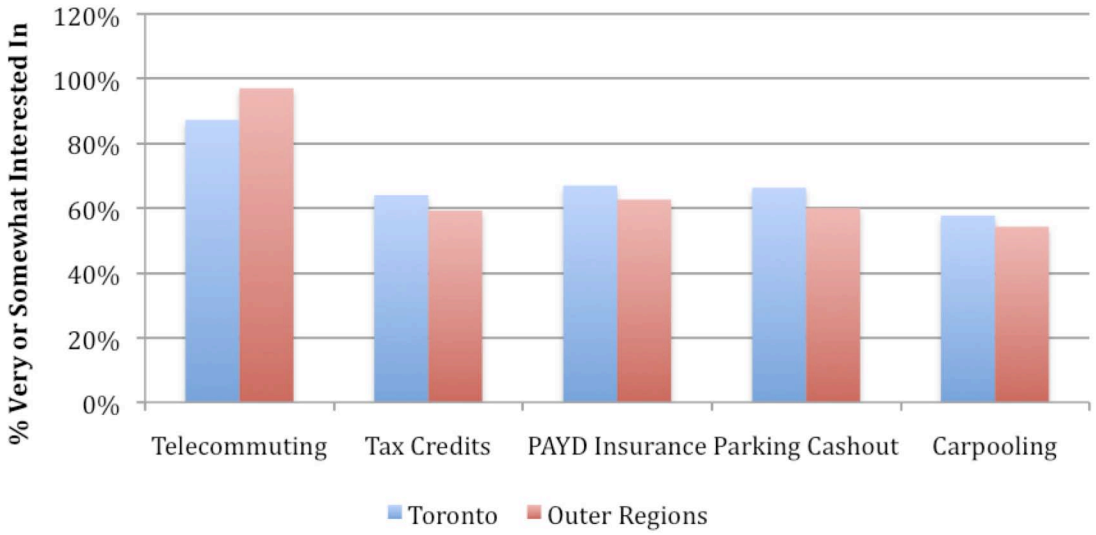
Figure 19: Interest in transit – Toronto and outer regions



Likewise City of Toronto residents are slightly more interested in commuter choice policies that give them the option to leave the car at home (apart from telecommuting) (Figure 20). This is likely a result of the fact that Toronto is more walkable, bikable and accesssible by transit than the outer regions, giving commuters more ability to leave the car at home and take advantage of

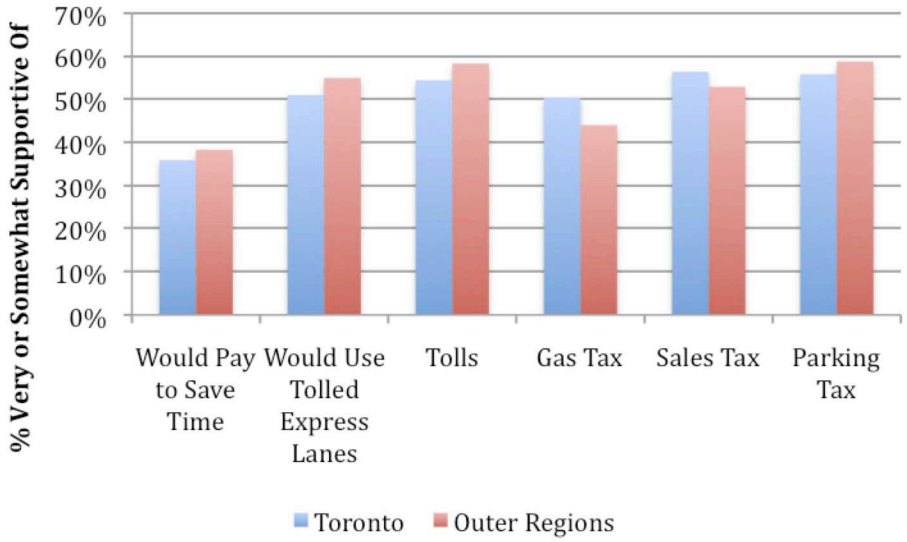
commuter choice policies. This suggests that the City of Toronto may be an effective place to trial these policies.

Figure 20: Interest in commuter choice policies – Toronto and outer regions



Commuter response to pricing policies is not as simple. In Toronto there is higher support for pricing policies that affect broader population bases, such as a sales tax or gas tax. Despite these slight variations in both the outer regions and Toronto, the most popular pricing options are road tolls, a sales tax and a parking tax (Figure 21).

Figure 21: Pricing policies – Toronto and outer regions

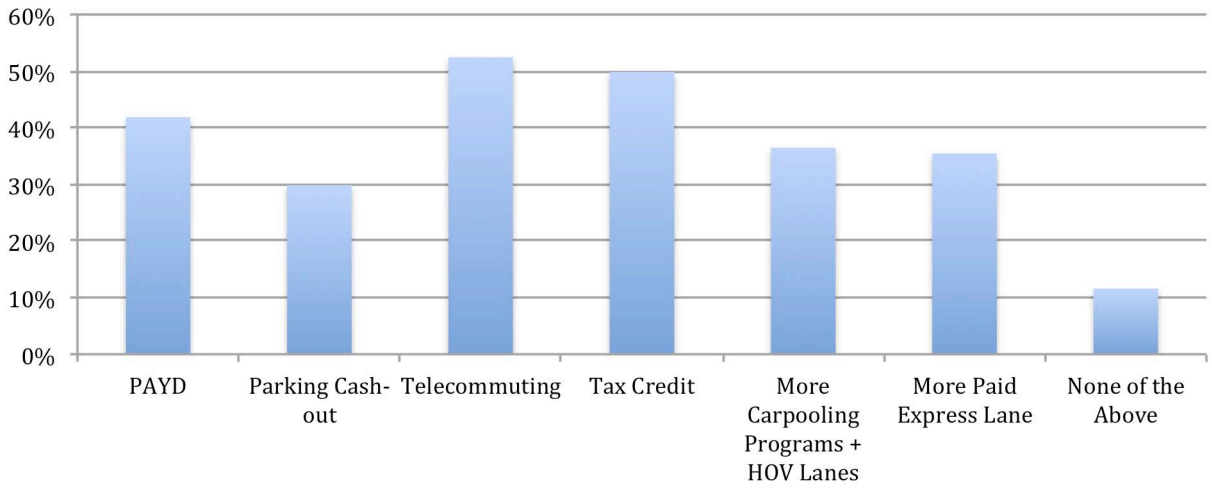


Tolls

In addition to broad questions around tolls and pricing policies we asked three additional questions:

1. Those who view tolls as reasonable were asked if "Tolls should be charged only on routes where drivers have access to existing rapid transit alternatives" or if "Tolls should be charged on all routes." Most (68%) of these respondents said that tolls should be charged where rapid transit alternatives already exist.
2. Those who viewed tolls an unreasonable were asked "If tolls are charged only on routes where drivers currently have access to existing rapid transit alternatives, how much more acceptable would they be to you?" Only 6% of these respondents said this change would make tolls much more acceptable while 40% of these respondents said this would make tolls somewhat more acceptable.
3. All drivers were asked what commuter choice policies would offset the impact of tolls (Figure 22).

Figure 22: Policies that would help offset impact of road tolls



The results of our analysis around tolls show that drivers would view tolls more positively if they were only in place on routes where there are rapid transit alternatives, such as the QEW/Lakeshore Corridor served by GO Transit, or the Don Valley Parkway which is paired with the Yonge subway line.

Appendix B: Survey questions and answers

Environics Research Group

February 13, 2012

Pembina – GTA Commuter Survey

February 2012

TOPLINE RESULTS

Data is unweighted

Field dates: January 18 - 26, 2012

Total sample size: 1,001 commuters**

All results are expressed as a percentage unless otherwise noted

(* indicates less than 1%)

*** Since respondents are recruited via a panel, this is a non-probability survey and no formal estimates of sampling error (i.e., margin of error) can be calculated*

A. Screener

A. Do you personally *drive* to work or school at least *three days per week*?

%	
100	Yes
-	No

B. Thinking about the one location to which you drive most often for work or school, how long is your average one-way driving time? If you use different routes, please indicate how long it typically takes you.

%	
41	30-39 minutes
34	40-49 minutes
9	50-59 minutes
11	60-69 minutes
3	70+ minutes
42.95	*Mean*

C. What is your year of birth? (CONVERTED TO AGE)

%	
20	18 - 34
70	35 - 59
10	60+

D. In which part of the GTA do you live?

%	
35	City of Toronto
24	Peel Region *(Brampton, Caledon, Mississauga)*
15	Halton Region *(Burlington, Halton Hills, Milton, Oakville)*
17	York Region *(Aurora, East Gwillimbury, Georgina, King, Markham, Newmarket, Richmond Hill, Whitchurch-Stouffville, Vaughan)*
10	Durham Region *(Ajax, Brock, Clarington, Oshawa, Pickering, Scugog, Uxbridge, Whitby)*

B. Commuter situation and travel patterns

1. Thinking about the one location to which you drive most often, is this for:

%	
98	Work
2	School

2. In what part of the GTA or region is this destination located? Please type in the street address or the nearest major intersection.

   PROVIDED IN SPSS

3. How many days per week do you drive to and from this destination, in an average week?

%	
1	1
1	2
13	3
12	4
70	5
3	6
1	7
4.60	*Mean*

4. Does your usual route involve driving on any of the following major highways?

%	
45	401
17	407
17	Don Valley Parkway
16	QEW
14	427
13	Gardiner Expressway

13	403
13	404
8	410
8	400
3	409
16	None of the above

5. Which major roads, if any, do you use on your usual drive to this destination? A major road is any road with two or more lanes in both directions that is not an expressway (examples include Highway 7, Kennedy Road and Keele St.).

   PROVIDED IN SPSS

6. Which of the following best describes your typical parking arrangements when you arrive at this destination?

%	
24	You pay for a parking spot out-of-pocket
69	Parking is provided at no charge by your workplace/school
6	You find free parking elsewhere
*****	Some other parking arrangement

ASK Q7 IF PAY FOR PARKING

7. How much do you pay for parking in an average month? *Please round your answer to the nearest whole number.*

(235)	
%	
10	$1-40
20	$41-80
21	$81-130
16	$131-170
11	$171-210
9	$211-250
14	$251+
$153	*Mean*

8. Is your regular driving experience to this destination generally:

%	
11	Very stressful
58	Somewhat stressful
27	Not very stressful
5	Not at all stressful

9. To what extent does the time you spend commuting to this destination take away from your quality of life in terms of your family and personal time?

%	
23	A lot
53	Somewhat
22	Not very much
2	Not at all

C. Alternative Forms of Commuting

10. Is it possible to do most of your trip to [Q1: work/school] by *rapid transit* (even if it requires a short walk, car or bus ride from home to the transit station), or not?

%		
44	Yes, possible	
56	No, not possible	SKIP TO Q.14

11. What type(s) of rapid transit could you take to [Q1: work/school]?

(438)

%	
58	Subway
50	GO Train
27	Rapid bus
14	Rapid streetcar

12. How often, if at all, do you use rapid transit to get to this destination?

(438)

%	
25	One or two times a week
25	Less often than once a week
50	Never

13. What are the main reasons you do not use rapid transit more often?

(438)

%	
51	Takes too long to get to my destination
24	Too many transfers involved
20	Too far/difficult to get to transit station/stop
20	Need my car to get from main destination to other places (e.g., school, work, pick up children)
17	Don't like transit/not enjoyable/comfortable
14	Need my car for my job (e.g. to visit clients)
7	Cannot find parking at/near rapid transit station
5	Too expensive
4	Inconvenient schedule
2	Other

14. How interested would you be in using the following new rapid transit options if they were built along your route to [Q1: work/school]?

Subway

%	
44	Very interested
24	Somewhat interested
12	Not very interested
19	Not at all interested

Rapid bus

%	
26	Very interested
29	Somewhat interested
19	Not very interested
25	Not at all interested

Rapid streetcar

%	
17	Very interested
21	Somewhat interested
26	Not very interested
37	Not at all interested

GO Train

%	
35	Very interested
29	Somewhat interested
17	Not very interested
20	Not at all interested

LRT (if it were built)

%	
40	Very interested
29	Somewhat interested
13	Not very interested
18	Not at all interested

ASK Q15 IF “WORK” NOT CHOSEN AT Q1

15. Are you currently employed (that is, paid employment)?

(21) #		
14	Yes	
7	No	SKIP TO SECTION D

ASK Q16 OF ALL WHO WORK

16. Do you ever telecommute, that is, work from home (not including sick days)?

(994)		
%		
43	Yes	
57	No	SKIP TO Q.18

17. How often do you currently telecommute (work from home)?

(427)	
%	
27	Once a week or more often
20	At least a few times per month
23	At least once a month
17	At least once every 2-3 months
13	Less often

ASK Q18 IF DO NOT TELECOMMUTE

18. Is your job flexible enough that you could work from home, at least occasionally (regardless of whether or not this would be supported by your employer)?

(567)		
%		
26	Yes	
74	No	SKIP TO SECTION D

19. If your employer offered the opportunity to work at home on some days, how likely would you be to do so?

(148)	
%	
61	Definitely would
33	Probably would
5	Probably would not
1	Definitely would not

D. Incentive-Based Policies

IF WORK AT Q1 OR Q15 ONLY

20. One option is a new **provincial tax credit** of between $150 to $250 a year for expenses related to using some other transportation than a single occupancy vehicle to commute to work. Eligible expenses would include carpooling expenses like gas and parking, transit pass costs, or the cost of buying and maintaining a bicycle.

    How likely would you be to take advantage of this tax credit if it was offered?

(994)	
%	
25	Very likely

36 Somewhat likely
25 Not very likely
14 Not at all likely

21. Automobile insurance is currently priced based on the number of kilometers the average car owner is expected to drive. **Pay As You Drive (PAYD) insurance** is a new type of automobile insurance already available from some insurance companies in the United States and the UK. With PAYD insurance, premiums are calculated based on the actual distance the car owner drives, which is measured by technology in the car. It provides consumers with the opportunity to save money if they drive less than average or if they cut back on the use of their car.

    How likely would you be to take advantage of this type of insurance if it was available?

%		
25	Very likely	
39	Somewhat likely	
21	Not very likely	SKIP TO Q.23
14	Not at all likely	SKIP TO Q.23

22. Typically with PAYD insurance, someone who drives 50 percent less pays 50 percent less for insurance. If you had this type of insurance, how likely would be to change your commuting habits to take full advantage of the savings, by finding some way other than driving to get to [Q1: work/school]?

(642)

%	
39	Very likely
46	Somewhat likely
14	Not very likely
1	Not at all likely

IF WORK AT Q1 OR Q15 ONLY

23. One program in other North American cities is called **parking cash-out**. Parking cash-out is for commuters who have their parking paid by their employer. The employer pays a cash incentive to their employee, in an amount equivalent to what the employer previously paid for the parking spot, if the employee leaves his/her car at home all of the time and finds another way to get to work.

    How likely would you be to take advantage of this program if you were offered per month from your employer to not drive your car to work?

(994)

%	
29	Very likely
33	Somewhat likely
22	Not very likely
16	Not at all likely

24. How likely would you be to **carpool** to work/school if each of the following incentives were available to you?

a. Your employer/school helps you find carpool partners

%	
21	Very likely
33	Somewhat likely
23	Not very likely
22	Not at all likely

b. [IF WORK AT Q1 OR Q15] Your employer offers flexible work hours to make it easier to carpool

(994)

%	
29	Very likely
31	Somewhat likely
20	Not very likely
21	Not at all likely

c. You get preferential parking as a carpooler

%	
20	Very likely
27	Somewhat likely
26	Not very likely
26	Not at all likely

d. You receive a financial incentive (e.g., rebate) for carpooling

%	
34	Very likely
33	Somewhat likely
17	Not very likely
17	Not at all likely

E. Pricing-Based Policies

25. Major improvements to the transportation system in the GTA will require new sources of funding above and beyond what is currently generated through taxes and transit fares. The only way to pay for needed improvements is by collecting more money from citizens and businesses. Do you think these improvements should be paid for mainly through:

%	
37	Additional taxes (such as sales taxes or gas taxes) paid by all households and businesses in the region, regardless of how much they use the system
63	Additional transit fares, road tolls, parking and other user fees, paid by those using the transportation system

26. One of the main goals of an improved transportation system in the GTA is to reduce congestion and commute times. How willing would you be to pay [RANDOMIZE: $2/$8] per trip to shorten your commute one way by [RANDOMIZE: LOW/HIGH] minutes?

%	
10	Very willing
27	Somewhat willing
33	Not very willing
29	Not at all willing

ASK Q27 ONLY IF USE MAJOR HIGHWAY AT Q4

27. California has implemented a **paid express lane** on a major highway (Route 91) that operates on average at 60 miles per hour (100km/hr) during peak periods, compared to 15mph (25km/hr) in the regular lanes.

    If there was a paid express lane on the highway you use to commute to [Q1: work/school] that allows you to by-pass congestion in the other lanes, how likely would you be to pay a flat fee of [RANDOMIZE: $2/$5/$10] per trip to use it?

(836)

%	
20	Very likely
34	Somewhat likely
27	Not very likely
19	Not at all likely

28. One way to raise funds for an improved transportation system is to charge a toll. A **toll** is a mandatory fee to use specific highways or major roadways, with the amount based on the distance the driver is using the road. Highway 407 that runs between Burlington and Pickering is an example of a toll highway.

    How reasonable do you think it is to use tolls to help pay for improvements to the transportation system in the GTA?

%	
16	Very reasonable
41	Somewhat reasonable
26	Not very reasonable
17	Not at all reasonable

IF VERY/SOMEWHAT REASONABLE AT Q.28:

29. Which of the following two statements is closest to your point of view?

(570)

%	
68	Tolls should be charged only on routes where drivers have access to existing rapid transit alternatives
32	Tolls should be charged on all routes regardless of whether or not rapid transit is available, with the toll going towards paying for building rapid transit throughout the GTA

IF NOT VERY/NOT AT ALL REASONABLE AT Q.28:

30. If tolls are charged only on routes where drivers currently have access to existing rapid transit alternatives, how much more acceptable would they be to you, if at all?

(431)

%	
6	Much more acceptable
40	Somewhat more acceptable
54	No more acceptable

31. If a toll was introduced along your own commute, how much more acceptable would it be to you, if at all, if the funds are fully dedicated to building a rapid transit line close to this same route?

%	
21	Much more acceptable
47	Somewhat more acceptable
32	No more acceptable

32. Vancouver recently raised the **regional gas tax** by 2 cents to help pay for transportation system improvements. How reasonable do you think it is to add 2 cents to gas sold in the GTA if that additional amount went entirely to pay for improvements to the transportation system?

%	
13	Very reasonable
33	Somewhat reasonable
28	Not very reasonable
26	Not at all reasonable

33. In Los Angeles, California, a 1% **sales tax** has been introduced which will be used to build 12 rapid transit projects, including rapid busways, LRT lines and subway expansions. How reasonable do you think it is to add one percent to the sales tax charged on every purchase in the GTA if that additional amount went entirely to pay for improvements to the transportation system?

%	
14	Very reasonable
40	Somewhat reasonable
25	Not very reasonable
21	Not at all reasonable

34. San Francisco charges a 25% tax on all commercial parking lots, the cost of which is paid by drivers (rather than by parking facility operators). How reasonable do you think it is to introduce a **parking tax** of [RANDOMIZE 25/50/75 cents] to each parking space in commercial and public lots in the GTA, to be paid by drivers, to help pay for improvements to the transportation system?

%	
16	Very reasonable
42	Somewhat reasonable
25	Not very reasonable
17	Not at all reasonable

35. One way to make new user fees more fair is if taxpayers also have access to programs designed to help them save money on their transportation costs. In order for user fees (like tolls and congestion charges) to be more acceptable to you, which of the following policies previously described would you want to have access to?

%	
52	Telecommuting (working from home)
50	Tax credit for expenses related to using transportation other than your car
42	PAYD automobile insurance
36	More carpooling programs and High Occupancy Vehicle lanes (reserved for two or more people in the car) to allow carpoolers to bypass traffic
35	More paid express lanes to allow carpoolers to bypass congestion
30	Cash-out parking
12	None of the above

36. Some cities place any additional user fees they collect (like tolls and congestion charges) into a fund that is fully dedicated to building new rapid transit designed to benefit those who are paying the fees.

    If you could see the result of a new user fee charged on a specific highway or road in the form of new rapid transit built in the GTA, would you be much more willing, somewhat more willing, or no more willing to pay the fee?

%	
20	Much more willing
50	Somewhat more willing
30	No more willing

37. And would you be much more willing, somewhat more willing, or no more willing to pay a new user fee on a highway or road if it is specifically dedicated to building new rapid transit that connects your community with a broader rapid transit system in the GTA?

%	
19	Much more willing
50	Somewhat more willing
30	No more willing

F. Respondent Characteristics

E. Please indicate your gender.

%	
55	Male
45	Female

F. What is the last level of education you have completed?

%	
*	Elementary school
1	Some high school
6	Completed high school
7	Some community college/technical college/CEGEP

20	Completed community college/technical college/CEGEP
8	Some university
38	Completed university
20	Post-graduate degree

G. How many people live in your household, including both adults and children?

%	
12	One
32	Two
23	Three
33	Four or more

H. (IF G>1) And how many in your household are under 16 years of age?

(877)

%	
64	None
17	One
16	Two
4	Three or more

I. For statistical purposes only, we need information about your income. All individual responses will be kept confidential. Please tell me which category applies to your total household income before taxes for 2011.

%	
4	Under $40,000
12	$40,001 to $60,000
14	$60,001 to $80,000
20	$80,001 to $100,000
30	$100,001 to $150,000
18	More than $150,000

-- END --

Endnotes

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