

TRANSPORTATION OPTIONS FOR TORONTO

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A slightly longer, annotated version of a paper prepared for **Toronto Debates 2010** (a series of debates among mayoral candidates to be held in September 2010, for which the shorter version is one of some 24 papers – two on transportation – being solicited to help frame the debates)

The Challenges

One challenge is frequent overstatement of how bad things are for drivers. For example, *Globe and Mail* reports on IBM's recent international survey of "commuter pain" included the following:

- "Five North American cities were polled and Toronto (surprise) topped the list of most unhappy commuters"¹
- "Torontonians are more aggravated by their daily commute than residents of New York, Los Angeles or Montreal."²

The survey actually showed that respondents in the Toronto region:³

- mostly (67%) have a commute time of less than 30 minutes, with only 4% over 45 minutes;
- are able to leave for work later on average than in other North American regions;
- are less inclined than in other regions to switch to transit when fuel prices rise; and
- are *less* inclined to report travel stress than residents of Los Angeles and Montreal.

It's not only the media that engage in overstatement. A recent paper prepared for the Toronto City Summit Alliance spoke of "crippling congestion" and "grinding commuting," without evident justification.⁴

Exaggerating the plight of drivers may well bias planning processes towards accommodating drivers before other travellers.

Another challenge is the legacy of "Toronto's 40-year record of inept decision-making about transit and associated land development."⁵ It has reduced transit revenue, increased transit costs, and created a culture of poor transit and land use planning that may be hard to shake.

Yet another challenge is indifferent attention to infrastructure, especially amenities for pedestrians, cyclists and transit users. Pedestrians' plight has improved slightly during the last few years, but the condition of pavements where cyclists travel and of TTC stations and rolling stock is evidently worse.

Using the TTC after using transit in, for example, Santiago, Chile, provides a sense of having arrived in the Third World rather than having left it.

A fourth challenge – there are many, many more – is the evident institutionalization of poor management in the TTC and resulting poor service.

Looming over all this is the spectre of oil scarcity resulting from imminent declines in world production and booming demand in China and elsewhere. This should impel urgent reduction of Toronto's massive dependence on gasoline and diesel fuel.

The Current Situation

Here are some trends across the period 1986 to 2006, where 'core' is roughly the old City of Toronto plus East York and York, 'inner suburbs' is the rest of the present City of Toronto, and 'outer suburbs' are the regions of Durham, Halton, Peel and York:⁶

- Almost all population growth has been in the outer suburbs. They became increasingly self-contained from a travel perspective and thus the associated growth in travel – chiefly by car – has had a relatively small impact on the City of Toronto, especially on the core.
- The largest per-capita shift away from transit and towards the automobile has been among core residents. This part of the Toronto region has by far the best transit service, suggesting that its residents increasingly avoided transit use because of declining service. Of the core's growth in car travel, 84% came from core residents.
- A bright feature of core residents was a substantial increase in walking and cycling – 42% per capita – although not enough, because of relatively low numbers, to have a major effect on modal split. In the inner suburbs, travel by all modes declined per capita, even by car, hinting at economic and social depression.
- Because most travel growth was in the outer suburbs, where there is no electric transport, the Toronto region likely became more oil-dependent. Much of the TTC's system is electrified, but the shifts away from transit likely made the City of Toronto increasingly oil-dependent too.

Chief Barriers to Progress

Above all, progress means relative growth in transit use, particularly electric transit. Transit use is good because, if well planned and managed, it can make living in urban regions more agreeable, efficient, equitable, and convenient. If transit is electrified – more achievable with transit than with cars – there will be less pollution, noise, and consumption of oil. The chief barriers to progress are thus inept transit planning and inadequate transit management.

The barrier most often noted is insufficiency of capital and operating subsidy. The alternative – better planning and management – is rarely considered. A case in point is the extension of the Spadina subway line, which could be built with little or no subsidy if attention were paid to land uses near stations,⁷ but is being constructed as though it is not an investment to be recovered through revenues. If transit subsidy is required, perhaps the neatest solution is to require automobiles on the road to display evidence of first purchase of a current Metropass.⁸

Another barrier is the prevalent notion that more light rail (streetcars) should be *the* response to transit deficiency. Light rail systems are costly and unlikely to pay for themselves. A rational approach to electrification of Toronto's transit would involve massive deployment of modern trolley buses – such as the Winnipeg-made buses used in Vancouver – achievable at a fraction of the cost of light rail.⁹ Another approach, explored increasingly elsewhere, could be development of new, low-cost systems such as Personal Rapid Transit.¹⁰

The prospect of trolley buses, especially on bus-only lanes, stimulates another barrier: reflexive reactions against reducing road space in favour of transit. A solution is to ensure that improved transit actually produces a commensurate reduction in car use, which requires good planning and management.

The root cause of Toronto's inept transit planning and management – and poor coordination with land-use planning – is poor leadership, perhaps the principal barrier to progress.

Opportunities for Action

A major opportunity for action is growing disaffection with the automobile among young people. Driving by the Toronto region's 16- to 20-year-olds fell by more than a third per capita between 1986 and 2006,¹¹ making it more possible to change the region's affinity for car use.

A broader opportunity is provided by apparent growth in public acceptance of the need for investment in transit, now being dissipated by prospects of extraordinarily expensive schemes that will not provide commensurate benefit. Most egregious is the plan to spend \$3 billion on a tunnelled streetcar line along Eglinton Avenue. At \$300 million/kilometre, this will be more costly than most subway installations including the Sheppard subway line, whose comparable cost was about \$200 million/kilometre.¹²

Current dissatisfaction with how the TTC is managed provides a golden opportunity for action. The most effective course would be to contract out TTC management in a manner proven successful elsewhere. How Sweden does this is worth considering, especially now that Hong Kong's Mass Transit Railway Corp. (MTR) has the contract to operate Stockholm's subway system. MTR may well be the most competent transit operator in the world, and the thought that its expertise could be applied to Toronto's needy case is truly tantalizing.

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Reference and other notes

- ¹ The quotation is from Andrew Clark, *We're on the road to ruin: you can't get there from here*. *Globe & Mail*, July 5, 2010.
- ² The quotation is from Adrian Morrow, *No end in sight to Toronto's commuter pain*. *Globe & Mail*, June 30, 2010.
- ³ These points are taken from the detailed results of IBM's *International Transportation Survey – 2010* as uploaded by the *Montreal Gazette's* Metropolitan News blog, at http://www.scribd.com/doc/33750073/IBM-international-transportation-survey-Montreal-Gazette?secret_password=&autodown=pdf, based on the responses to Questions 4, 6, 11, 14, and 15, respectively.
- ⁴ The quoted phrases are from Marni Cappe, *Transportation: Making the Right Choice*. Prepared for the Toronto City Summit Alliance, July 7, 2010, at http://www.torontoalliance.ca/tcsa_initiatives/summit_2011/reports.asp?articleID=2077.
- ⁵ The quotation is from Richard Gilbert, *Reassess Transit City – It has too many flaws*. *Toronto Star*, March 18, 2010. It continues:

The lamentable record began with the decision in the early 1970s to route the Spadina subway line through a low-density residential area that has still not been redeveloped to justify a high-capacity transit service. The result is a hugely underused resource.

Other examples of ineptitude are failure to provide for sufficient development at stations along the Bloor-Danforth subway line; construction of costly, unnecessary streetcar tunnels at Union Station, Bloor and Spadina, and Bathurst and St. Clair; and installation of the absurdly expensive and soon-to-be-replaced Scarborough RT line.

The worst example has been the billion dollars spent on the Sheppard subway line, which has done nothing to increase ridership along that corridor. The \$2.6 billion being spent on extending the Spadina subway line could be almost as wasteful, chiefly because there is no plan for high-density redevelopment at its stations to provide ridership sufficient to justify the extension.
- ⁶ For information about the *Transportation Tomorrow Survey*, see <http://www.dmg.utoronto.ca/transportationtomorrowsurvey/index.html>. 'Core' is Planning Districts 1-4, and 6. 'Inner suburbs' are PDs 5, and 7-16. 'Outer suburbs' are PDs 17-40.
- ⁷ See Richard Gilbert, *Building subways without subsidy*. *Toronto Star*, August 28, 2006.
- ⁸ This so-far untried scheme would require automobiles moving in the City of Toronto to display the receipt of original purchase of a current transit pass. The pass's price would be reduced to \$70/month (the Montreal level). Net income for the TTC would be about \$1.2 billion annually, not including the costs of enforcement and of providing for additional users. Drivers would be able to resell the actual pass for, say, \$50/month, meaning that the additional annual cost for vehicle operators could be about \$240. Such a scheme would be implemented in phases, beginning with the downtown and working outward.
- ⁹ Transit City's light-rail installations are to cost about \$70 million per kilometre, apart from the tunnelled section, which is to cost much more. Trolley bus installations vary considerably in cost. A system including vehicles sufficient to maintain a 10-minute or better headway, appears to cost well under \$2 million/km. (See Andersson PG, *Trolleybus Landskrona: the world's smallest trolleybus system*. Presentation at the First International Workshop to Push Forward your Trolley Bus System, Salzburg, Austria, 2006, at http://www.trolleybus.com/common/files/uitp/Anderson_Landskrona.pdf.) This estimate does not include the cost of the roadway, which often already exists and can be shared, and might typically be valued at about \$2 million per lane-kilometre.

- ¹⁰ PRT systems “systems comprise fully automated, one- to six-person vehicles on reserved guideways providing direct origin-to-destination service on demand” (Richard Gilbert and Anthony Perl, *Transport Revolutions: Moving People and Freight without Oil*. 2nd edition. New Society Publishers, Gabriola Island, B.C., 2010). PRT is being explored in several U.S. states including California, Georgia, Minneapolis, Minnesota, New Jersey, New York, and Virginia, and in several places elsewhere.
- ¹¹ See the source detailed in Note 6.
- ¹² The Sheppard line cost just under \$170 million/kilometre, not including rolling stock. (Existing rolling stock was used.) Typically, rolling stock comprises about an eighth of the total capital cost of a heavy rail line (see, for example, Table 4.18 of Sinha KC, Labi S, *Transportation Decision Making*. Wiley, New York, 2007). Factoring in the cost of rolling stock and inflation brings the comparable cost of the line up to about \$200 million/kilometre.