An Independent Study Funded by

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Constructing Ontario's Future

Delivering Transit Service in the GTHA:

Where We Are Is Not Where We Want To End Up

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November 2010

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An Independent Study Commissioned by the
Residential and Civil Construction Alliance of Ontario

The significant problems we face cannot be solved at the same level of thinking we were at when we created them.

Albert Einstein

Acknowledgements

The author appreciates the helpful comments provided by David Crowley, Harold Dalkie, Stephen Griggs and Bern Grush.

Some photos courtesy of Metrolinx and York Region Transit.

Abstract

Throughout the Greater Toronto and Hamilton Area (GTHA), hefty investments in public transit are being promoted as the only way for dealing with congestion, the ills of increasing automobile dependence, sustainability, global warming, and containing urban sprawl.

The regional transportation plan, approved by Metrolinx, is premised on the belief that significant expansion of transit infrastructure is the key to profound changes in travel behaviour necessary to achieve desired transportation and land use goals for the entire region. These changes primarily depend upon the ability to attract a very significant proportion of choice riders on the basis of improvements in the competitiveness of transit relative to the private automobile.

However, service delivery in terms of customer service, governance, and financing is equally integral to the future success of the regional transportation plan.

Putting the customer first requires a top-down cultural change in individual transit agencies that makes customer satisfaction the key driver of all its activities. Improving customer satisfaction requires greater empowerment of all employees to act in accordance with agency goals and objectives, as well as periodic customer and employee surveys to gauge performance using robust data collection and analysis on a continuing basis.

Governance is the single most important issue that affects the decision-making process and subsequent implementation of investment plans and operating policies intended to deal successfully with transportation problems in the GTHA. Good governance requires a professional board or commission comprised of individuals who first, each recognize a fiduciary responsibility to act in the best interests of the entity they govern and second, offer a range of experience and expertise in disciplines that bear directly on the delivery of effective and efficient transit service.

With regard to funding, it is clear that new models are required founded on the principle of guaranteed streams of funding over predictable time periods. Such models entail an evolution from application-based, time-limited, project-oriented infrastructure funding to entitlement-based, long-term, plan-oriented financing. This calls for transit legislation that allows agencies to capitalize guaranteed cash flows as revenue covenants against the issuance of conventional debt instruments, rather than time-limited transit programs.

Given current provincial and national deficits, as well as competing demands from other public sectors, it also seems clear that some form of road pricing is inevitable as a means of altering travel behaviour and generating funds for implementation of the regional transportation plan.

Summary

Despite recent changes in the Ontario budget and unprecedented deficits faced by the provincial government, there is considerable evidence of a serious provincial commitment to transit in the Greater Toronto and Hamilton area (GTHA). Over the next 10 years, for example, there are plans for hefty capital investments in transit infrastructure, including:

- Almost $10 billion for Toronto's *Transit City* and York Region's bus rapid transit (BRT) plans;
- Construction of the Mississauga (Highway 403) Transitway;
- Expansion of GO Transit service;
- Extension of the Spadina subway to York Region;
- Rebuilding Union Station;
- Procurement of new subway cars and streetcars;
- Modernization of signal systems to increase capacity of the Yonge subway; and,
- Rail service between Union Station and Pearson Airport.

These projects total about $16 billion, 74 per cent of which is to be funded by the Ontario government. Investing a greater amount over the same time frame is probably impractical from the standpoint of construction industry capacity and effective project management.

This large commitment to transit infrastructure is founded on the belief that there will be a correspondingly large increase in the use of public transit and a relative decline in automobile dependence. *The Big Move*, for example, Metrolinx's operative concept for regional transportation planning in the GTHA, projects a 132 per cent increase in transit ridership over the next quarter century compared to the 15 per cent increase experienced for roughly the same increase in population over the last 20 years.

The relative change in transit use implies profound changes in how people travel throughout the region. Such changes will only occur as a result of major improvements in the competitiveness of public transportation relative to the private automobile, largely because it will have to be choice riders who change their habits, rather than captive riders (those who do not have access to a car).

Metrolinx's regional transportation plan (RTP) is founded on the belief that only massive capital investment in new transit infrastructure will produce the changes in travel behaviour necessary for dealing effectively with the increasingly widespread costs of congestion. Such views are widely shared by, the media, many elected officials, transit advocates, and organizations focused on economic development.

Is investing in new transit infrastructure alone sufficient to achieve the outcomes expected by so many? Clearly, the going in assumption that bolsters support for many of these new transit initiatives translates into the belief that "if you build it, they will come." But without a parallel emphasis on providing service that is more competitive with automobile travel and more customer-oriented, the main question is whether enough of "them" will come.

Achieving dramatic changes in travel behaviour involves far more than doing what is perceived to be the right thing, such as investing in new infrastructure. It requires doing these right things right.

In this report, doing things right is presented in terms of the need for major emphasis on customer orientation, a commitment to strategic planning, and new models of transit

agency governance. These elements largely involve actions by individual agencies themselves. Paying for things such as transit expansion is a matter that goes far beyond the purview of any individual transit authority.

With respect to customer orientation, the nature of any service delivery in the public sector is that compliments are rare and complaints are common. Because complaints are so often the primary focus of media and political attention, it is not uncommon for providers of public service to put more effort into avoiding adverse public reaction than promoting greater success in the delivery of their services.

Customer orientation has become the preferred term of many organizations, and it's a goal that is well intentioned but often not easily achieved. Without competition from providers of similar type services, transforming transit operations from a supply to a demand orientation is difficult, but not impossible. It is a tougher task for well-established agencies characterized by long-standing traditions than for newer agencies that are not as legacy bound.

The true test of improved customer orientation involves minimizing the disadvantages of transit and maximizing its competitive advantages, particularly for choice riders. Although the current emphasis on improved customer satisfaction stresses the importance of better recruitment and training of frontline employees, real customer orientation does not begin with frontline staff; it ends there.

Putting customers first radiates from the most senior level of management to frontline staff. It requires a cultural change to ensure that providing customer satisfaction and value guides all employees in their individual actions.

Considering door-to-door travel, the main concerns of choice riders relate to walking distances, waiting times, transfers, service dependability, overcrowding, and actual travel times, as well as issues related to comfort, personal safety, accessibility for the physically impaired, and general uncertainty.

Customer satisfaction means ensuring operational excellence in the delivery of service through:

- Engaging all employees in the customer first objective;
- Greater empowerment of employees to act in accordance with the goal of improving customer experience;
- High levels of employee satisfaction;
- A climate that is conducive to innovation;
- An organizational structure that breaks down the silo mentality characteristic of many large agencies;
- Improved processes for collaboration and partnership in labour-management negotiations; and,
- Where possible, performance-based compensation.

Appropriate metrics to measure and monitor the level of customer satisfaction are essential to realizing a customer first culture throughout any transit agency. These metrics should be selected to answer the question "how are we doing?" through regularly scheduled transit service quality surveys that measure appropriate service factors.

An equally important task involves measuring employee satisfaction, as measured by such key questions as whether employees would move to another organization at the same level of remuneration, would recommend their current agency to a friend as a place to work, and whether employees believe their opinions are solicited and valued.

Customer and employee survey results, as well as overall agency performance metrics concerning targets for passenger growth and operating efficiencies, also serve as a basis for performance-based compensation.

Tracking both customer and employee satisfaction on a regular basis is part and parcel of the overall process for strategic planning, a forward-looking approach that defines how an organization plans to achieve goals and respond to unforeseen problems and opportunities that arise in a changing political and economic environment.

The strategic plan should form the basis for all decisions that affect the ability of a transit organization to fulfill its purposes and achieve its objectives. These decisions concern:

- Route planning,
- Choice of technology,
- Service characteristics,
- Fare policies,
- Capital investment in new infrastructure, rehabilitation ('state-of-good-repair'), and fixed plant,
- Vehicle procurement, and
- Dealing with uncertainty, contingencies, and risks.

Developing strategic plans begins by obtaining consensus among senior executives and governing bodies on the vision, mission, and values the agency strives to achieve.

The Vision provides the foundation for everything the organization does. It is a statement of what the agency hopes to become. The Mission describes the core purpose of the organization. It can reasonably be expected to focus on the level of performance that is targeted as measured by improved user and employee satisfaction, increased market penetration, greater efficiency in the use of public funds, and consistency with objectives for land use and urban growth.

Values are those attributes implicit in the vision and mission statements. They include recognition of the importance of customer needs, respect for the use of public funds, transparency, and accountability. Values reflect principles that guide the internal conduct of the organization.

Once agreed upon, the Vision, Mission, and Values drive the remaining elements of the strategic plan that should be developed in ways that strive to achieve buy-in, or a sense of ownership, on the part of those responsible for overall policy direction (municipal councils or the provincial government), executive oversight (boards and commissions), management, and those bodies involved in the actual delivery of service.

One advantage of formalizing the process for strategic planning is that the plan itself can be used to filter numerous extraneous proposals for new routes and services that are the daily fare of any agency that conducts its business in a public arena.

If elevating customer orientation and making all decisions in accordance with a strategic plan are accepted transit agency goals, the fundamental argument presented in this report is that corresponding changes in how transit agencies and authorities are governed are necessary preconditions.

An earlier RCCAO study argued that governance bodies should be structured to provide executive oversight that is sensitive to long term needs, guarantees objectivity, and offers a

diversity of relevant experience and expertise. This concept has received the endorsement of the Toronto Board of Trade, the Conference Board of Canada, and the Institute of Corporate Directors (ICD). As one ICD publication notes:

> The degree of public scrutiny brought to bear on not-for-profit organizations in Canada is increasing steadily…in part, due to…the quality of oversight provided by their boards.[1]

There is also considerable agreement among these organizations that:

- Emphasis in the composition of transit boards must be placed on the unique contribution that each potential member brings to the board;
- Best governance is achieved through boards comprised of independent individuals answerable to elected officials; and,
- Elected officials should not sit on boards.

Nevertheless, there is strong support within the GTHA for including elected officials on transit agency boards, based on the beliefs that only elected officials can be held accountable for the substantial subsidies transferred from municipal councils to their wholly owned transit operating authorities, and that only elected officials are positioned to respond effectively to concerns of users and the general public.

Yet hospitals, universities, major transit agencies, VIA Rail, airports, and other providers of public services manage to function effectively under policies established by government bodies through professional boards. Although governing bodies of public authorities can never be entirely insulated from political considerations, there is evidence of effective supervision of the operations themselves by professional boards which function under the rules of good governance.

Section 7 outlines a generic model of governance for transit agencies in the GTHA based on a professional board or commission comprised of individuals who:

- First and foremost, recognize a fiduciary responsibility to act individually in the best interests of the agency they govern;
- Are capable of taking a long term and comprehensive view of major policy and financial alternatives;
- Can distance themselves sufficiently from any personal conflicts of interest;
- Offer a range of experience and expertise in disciplines that bear directly on the goals of the agency; and,
- Accept a commitment to ensure objective executive oversight consistent with the stated purposes of the agency, as defined by the relevant municipal council or provincial ministry.

The concepts embodied in this proposed model structure will not be well received by those with vested interests in maintaining the status quo. As experienced in other jurisdictions, moving in the direction of higher performance transit agency governance throughout the GTHA is likely to involve a lengthy struggle.

Nonetheless, good governance and effective decision-making go hand-in-hand. As difficult as the path may be, governance is the single most important issue that affects the decision-

making process, as well as the implementation of investment plans and operating policies expected to deal successfully with transportation problems faced throughout GTHA.

Finally, no subject dominates the discussion of transit planning in the GTHA today more than finding the capital investment necessary to implement Metrolinx's RTP. Two main points are made with respect to the funding dilemma.

First, new funding models are required founded on the principle of guaranteed streams of funding over predictable time periods. These models entail an evolution from application-based, time-limited, project-oriented infrastructure funding to entitlement-based, long-term, plan-oriented predictable financing.

This means a transition from transit programs to transit legislation. Legislated commitments allow transportation agencies to capitalize guaranteed cash flows as revenue covenants against the issuance of conventional debt instruments (loans or revenue bonds).

Second, although numerous suggestions for transit funding are forthcoming on almost a daily basis, governments continue to be confronted by growing deficits, pressures to reduce debt, and an inability to fund many other deserving programs adequately. Eventually, some form of road pricing is likely to emerge, one that preferably impacts on travel behaviour and congestion in a fair and equitable manner.

Road pricing on the basis of vehicle use and the contribution to region-wide congestion offers the potential to:

- Influence the travel mode selected by choice riders;
- Reduce congestion and GHG emissions;
- Favour intensification and redevelopment in urbanized areas of the GTHA as a means of managing urban sprawl; and
- Generate predictable revenues to service debt and accelerate reduction of the transportation infrastructure deficit.

Of the various mechanisms proposed from time to time, road pricing methods that meter the vehicle-kilometres travelled in a manner that reflects congestion have the greatest potential for influencing travel behaviour, reducing congestion, containing urban sprawl, and raising revenue.

The two most promising metering methods are GPS-based monitoring systems and fuel surcharges, both of which capture road use and congestion over a wide variety of locations and conditions.

Certainly, gaining a broad base of community and political support for any form of new charges for road use faces very significant obstacles. However, road pricing yielding the equivalent of 10 cents per litre of fuel consumed generates a present value of $15 to $17 billion in the GTHA alone. Thus the struggle may be worthwhile.

If there is a single message in this report, it is that significant capital investment in transit system expansion alone is a necessary but insufficient condition for realizing the dramatic changes in travel behaviour implicit in the regional transportation plan. Success in achieving the objectives of the RTP depends upon parallel efforts with respect to putting the customer first, strategic planning, and developing better models of governance and finance.

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1.0 Purpose of the Study

Throughout the Greater Toronto and Hamilton Area (GTHA), hefty investments in public transit are being promoted, contemplated, promised, and sometimes even made, as the only way for dealing with congestion, the ills of increasing automobile dependence, sustainability, global warming, and containing urban sprawl.

Even at the national level, as early as 2000, the federal government's Roundtable on Transportation and the Environment concluded that transit is the most efficient way to move people about an urban area and reduce greenhouse gas emissions, thereby justifying major transit infrastructure programs.

In 2008, Metrolinx released *The Big Move*, a regional transportation plan (RTP) that involves investing about $50 billion over the next 25 years to build more than 1,200 kilometres of rapid transit in the GTHA, promising that every resident will eventually be within two kilometres of such transit service[2].

Individual jurisdictions, such as York Region, one of the fastest growing municipalities in the GTHA, also announced major transit expansion and transformation of the road network to encourage greater use of transit, walking, cycling and carpooling, as well as relatively less automobile dependence.[3]

These policy statements are predicated on the belief that sizeable new investment in transit infrastructure will result in profound changes in travel behaviour and, in fact, is the only way of dealing effectively with the increasingly widespread costs of congestion. Such views are widely shared by the media, many elected officials, transit advocates, and organizations focused on economic development.

Changes in the Ontario budget, large deficits faced by both provincial and federal governments, and potential changes in the municipal and provincial policy environment, however, all create some degree of uncertainty as to the level and timing of capital investment in transit system expansion.

There is, perhaps, a more fundamental uncertainty, namely, whether simply investing in new transit infrastructure is sufficient to achieve the expected outcomes.

This study considers other aspects of how transit services are delivered, notably, customer orientation, strategic planning, governance, and finance, all of which are likely to impact on the likelihood of achieving the anticipated benefits of capital investment in the regional transportation plan.

2.0 Transit Use in the GTHA

Recent Trends

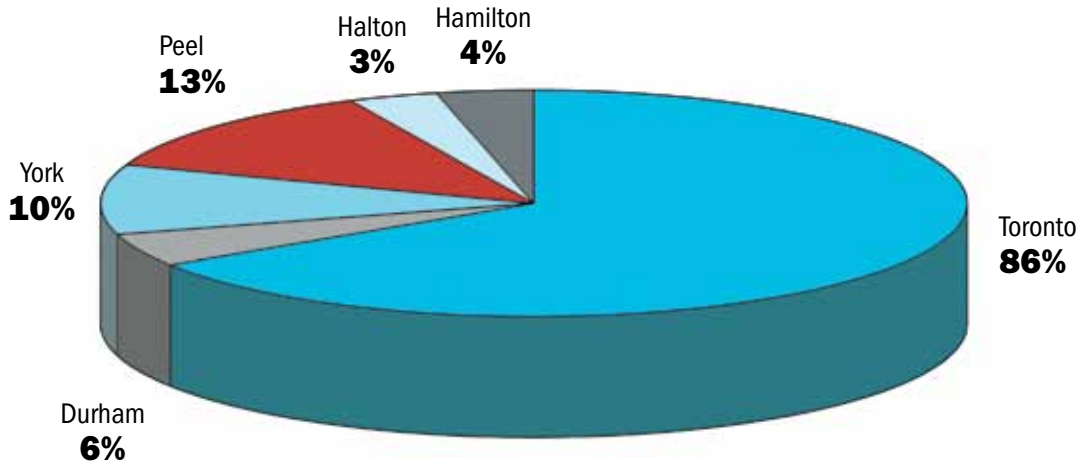
Table 2.1 shows changes in population and AM peak travel origins over the period 1986 to 2006. Figure 2.1 shows the 2006 distribution of AM peak transit trip origins by region.

Due to a larger total population, higher density development, and a far more extensive network of public transit services, the City of Toronto dominates the GTHA in terms of the absolute number of transit trips.

Table 2.1: Comparative GTHA Travel Data for 1986 and 2006 (in 000s)[4]

Region	Population		All AM Peak Trip Origins		AM Peak Transit		AM Peak GO		% Transit	
	1986	2006	1986	2006	1986	2006	1986	2006	1986	2006
Toronto	2,135	2,446	1,018	1,116	336	312	10	11	33	28
Durham	318	540	146	281	12	22	4	11	8	8
York	345	858	169	465	17	47	2	14	10	10
Peel	577	1,119	293	595	32	60	9	24	11	10
Halton	265	423	128	223	10	16	6	13	8	7
Hamilton	423	487	174	221	21	18	0	2	12	8
GTHA	**4,063**	**5,872**	**1,928**	**2,901**	**428**	**474**	**31**	**76**	**22**	**16**

Figure 2.1: 2006 AM Peak Period Transit Origins



Figures 2.2 compares changes in population, transit origins, and GO Transit use by region. Except for Durham and York regions, the increase in transit use failed to keep pace with population growth, yet the increase in GO Transit use is dramatic.

Figure 2.2: 1986 to 2006 Changes in Population and AM Peak Transit Origins

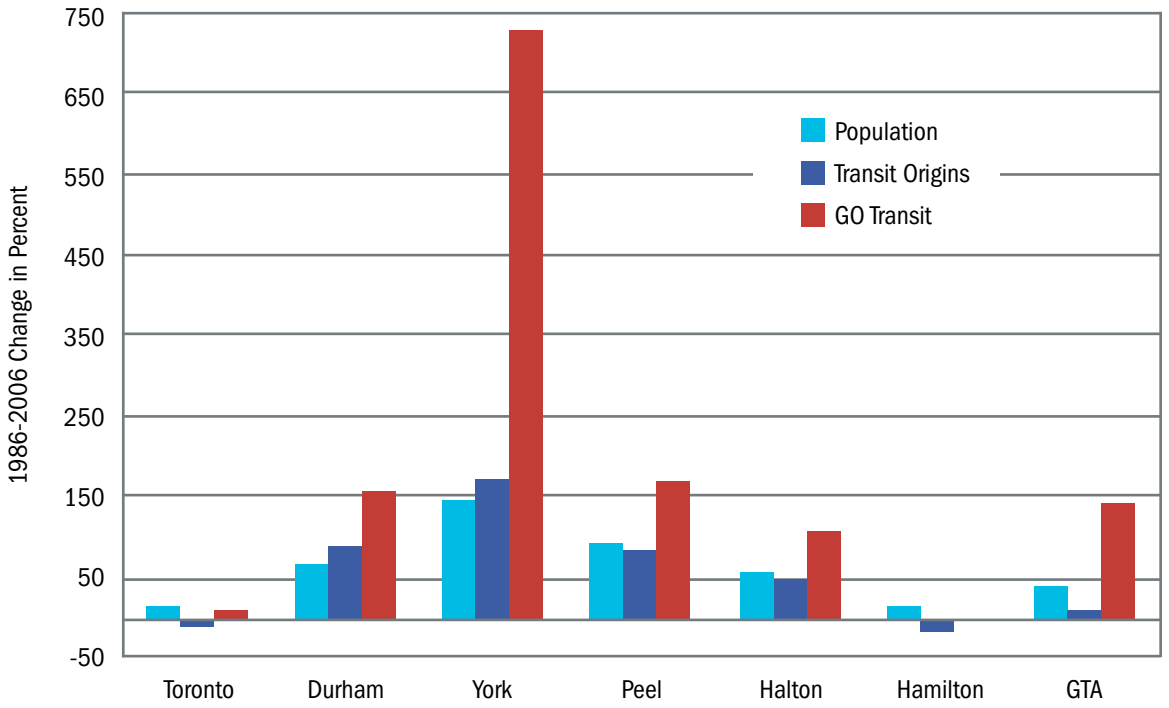


Figure 2.3 compares the change in transit mode split by region for originating AM peak trips. When trip destinations are considered, a different pattern emerges. As shown in Figure 2.4, for example, for travel destined to Planning District 1 (PD1) in the City of Toronto, overall mode split increased slightly about 60 per cent, largely due to increased travel by GO Transit.

Figure 2.3: 1986 to 2006 Changes AM Peak Transit Mode Split

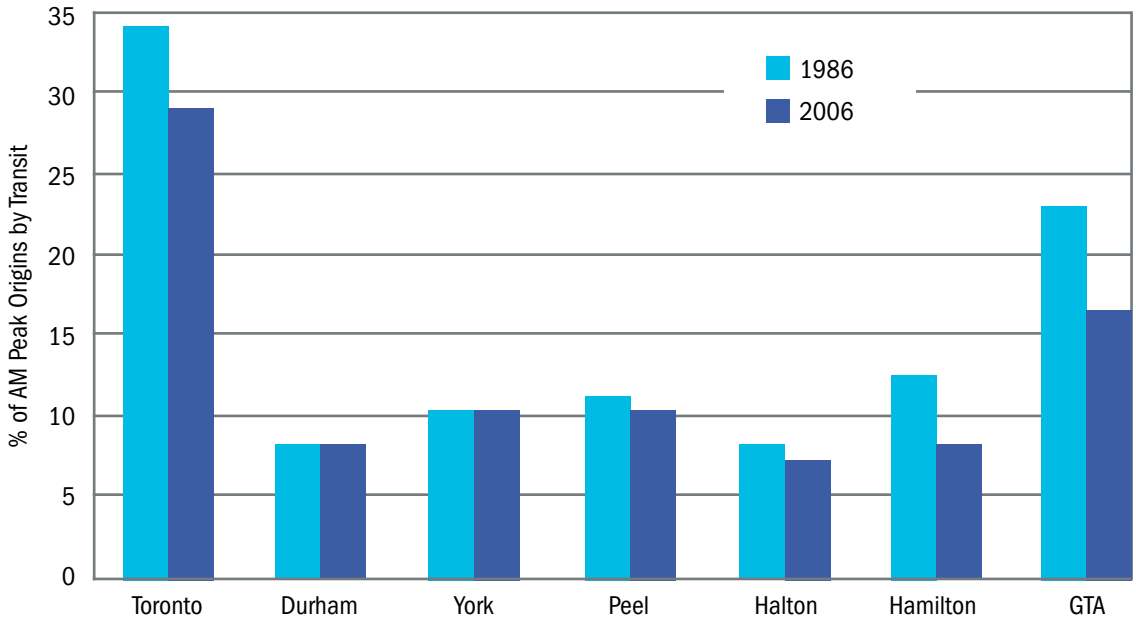
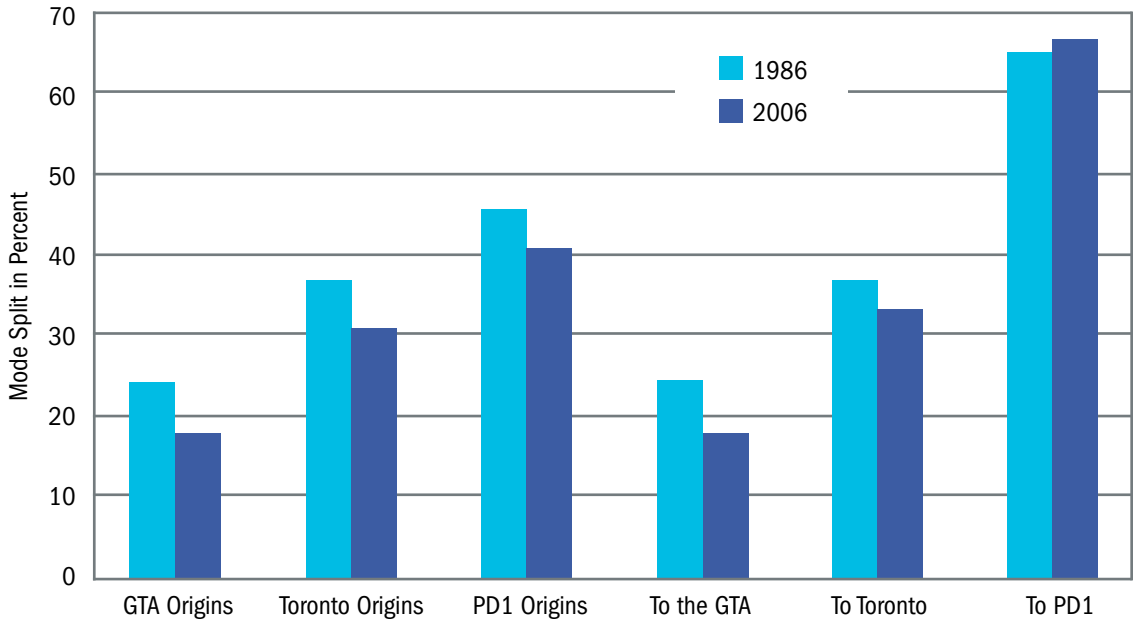


Figure 2.4: Comparative 1986 and 2006 Mode Split



In order to realize the projections upon which the regional transportation plan is based, it may be useful to consider some of the main factors that influence the ability of public transit to increase its market share.

A Primer on Transit Competitiveness

Without repeating much of the literature on travel demand analysis, the potential for substantial increases in transit modal shares is influenced by two main factors.

First, it is generally recognized that transit users fall into two categories: those who by reason of income or age can be considered as transit captive (perhaps 60 to 65 per cent of all riders on local transit services) and those who can be considered as choice users.

The former either do not own automobiles or do not have access to automobiles for a particular trip. The latter, perhaps 70 per cent of all riders on regional commuter rail, are those who choose transit even though they could make their trips by automobile, either as drivers or passengers.

Second, anticipated changes in overall travel behaviour resulting from major new transit investment will have to derive primarily from choice riders. Variables that affect choice riders largely involve the relative competitiveness of automobile and transit travel in terms of perceived costs and perceived differences in travel times, convenience, walking distances, reliability, and comfort, all of which are captured under the term "level of service."

Walking distance is particularly important. One study shows "how the promotion of focused development within a convenient walking distance of rapid transit service in a relatively low density suburb of Toronto has, over a fifteen-year period, been accompanied by a substantial shift in residents' travel behaviour towards increased transit use".[5]

In the case of choice users, there is reasonable agreement among analysts that relative service attributes are more important than relative costs. In fact, in most cases, in terms of true, fully allocated relative costs, travel by transit usually wins hands down simply because the real costs of automobile ownership, insurance, operation, maintenance, and parking, are rarely lower than the cost of using public transportation, unless they are subsidized either by employers or incentives embedded in income tax regulations.

Level of service is what really drives modal choice for choice riders. Although level of service is obviously influenced by transit technology, the choice of technology is not the sole determinant that ensures service characteristics are properly aligned with the needs and expectations of choice users.

Other factors, including transit-oriented land use development (TOD), parking policies, and fare and service integration, are also important.

Transit-Oriented Development

Transit-oriented development is usually interpreted to mean intensification and higher density development. But the mix of activities is also important because it facilitates the concentration of multi-purpose activities such as shopping, work, and recreation that can be served at one location by transit.

The Big Move focuses on building transit supportive communities based on the view that "people who live in a higher density neighbourhood…are more likely to…take transit." The plan notes that the Growth Plan for the Greater Golden Horseshoe "calls for the creation of more compact and complete communities with a strong emphasis on transit and pedestrian friendly design."[6]

Transit-oriented development has long been proposed as one of several policies intended to reduce automobile dependence by making transit a more acceptable alternative. The concept is quite simple. By concentrating a variety of activities in one location, development densities that improve the viability of high quality transit service can be increased.

In the mid-1970s, for example, the Metropolitan Toronto Transportation Plan Review (MTTPR), undertaken in response to a controversy over expressway construction, proposed the creation of activity nodes through the stimulus provided by increased transit accessibility. The final report recommended transit improvements that would support concentration of activities at such locations as the North York and Scarborough city centres.[7]

In fact, construction of the Scarborough LRT between the terminals of the Bloor-Danforth subway at Kennedy Road and the emerging Scarborough city centre was one of the few specific recommendations made by the MTTPR as a means of accelerating development of the then emerging activity node. (Subsequently, after construction of the Scarborough LRT had started, the facility was converted to the existing RT.)

Despite the fact that both the North York and Scarborough city centres eventually emerged as major activity nodes, improved transit access does not always guarantee either land use intensification or increased employment density. The immediate area around Kennedy Road and Eglinton Avenue, for example, served by subway, RT, and GO commuter rail stations, never really developed as anything more than the 1950s-style strip mall development that exists today, with the exception of a few high-rise buildings.

By contrast, the second highest concentration of employment in the GTHA, centred in the vicinity of Pearson Airport, is very much automobile oriented and can hardly be considered as an example of transit-oriented development. Obviously, it takes more than just greatly improved transit accessibility to promote concentration and intensification.

The impact of transit-oriented development on transit use, of course, is only one component of integrated land use and transportation planning. Land use and transportation, as noted by well-known transportation consultant Ed Levy, are two sides of the same coin. As firms whose employees now use transit relocate from high-density downtown locations to low-density suburban locations, many of those employees may well shift from transit to automobiles. Thus, achieving major shifts in the travel behaviour of choice riders depends as much on land use decisions as on transportation decisions.

Parking Policy

Both the availability and pricing of parking are major determinants of mode choice. The uncertainty of finding parking is one of the main reasons why transit is chosen for centrally oriented travel, not only for work trips, but for trips to major events, as well.

Although parking is one of the main reasons that choice riders prefer to use transit instead of their automobiles to access the downtown, the same cannot be said for employment centres well outside the central core where, generally, the cost of parking is much lower, if not free.

Any parking policy intended to reduce the use of automobiles is, however, a double-edged sword, largely because restrictions on parking and high parking fees are opposed by businesses that rely on parking to attract their customers. In the case of the St. Clair Avenue West streetcar project, for example, one of the main objections was the loss of parking, even though relatively few parking spaces were actually eliminated.

If there is a widespread perception that parking is scarce, people will avoid driving. The question is whether they will travel by transit or whether they will go where parking is easier or more plentiful.

Fare Integration

In light of historical increases in cross-boundary travel within the GTHA, fare integration is also viewed as one of the main factors that affect modal split. Therefore, a major strategy cited in *The Big Move* is the implementation of an integrated fare system based on the Ontario Ministry of Transportation's Presto fare card system that allows users to swipe the card and automatically be billed for travelling on transit systems anywhere in the GTHA.[8]

Moving to more seamless fare collection between services eliminates a rather important barrier to improved transit competitiveness, as perceived by choice riders. Clearly, fare (and service) integration is not a particularly novel idea. It has been successfully employed in many jurisdictions throughout the world, and it received serious attention from the Ontario government almost a quarter of a century ago.[9]

To date, TTC services have been perceived as an obstacle to region-wide fare integration. Based on a single fare and free transfers anywhere within the City of Toronto, the TTC has always prided itself on the high level of integration between streetcars, buses, and rapid transit within its service area.

Given the dominance of the TTC with respect to the majority of all transit trips in the GTHA, it is not unreasonable to expect some degree of opposition to changing a fare collection system that works well, and is perceived as one of the more telling favourable attributes of a transit system that, for many years, attracted worldwide attention.

In any case, initial steps for improved fare integration have already been taken by the TTC at selected subway stations, now the main transfer points for services offered by inter-regional operators. Over the 25-year planning horizon of the RTP, it is reasonable to expect that a thoroughly integrated fare structure will eventually emerge, regardless of whether it is the Presto system alone, combined systems that accept a wider variety of fare payment options such as credit cards, or electronic purses.

Anticipated Changes

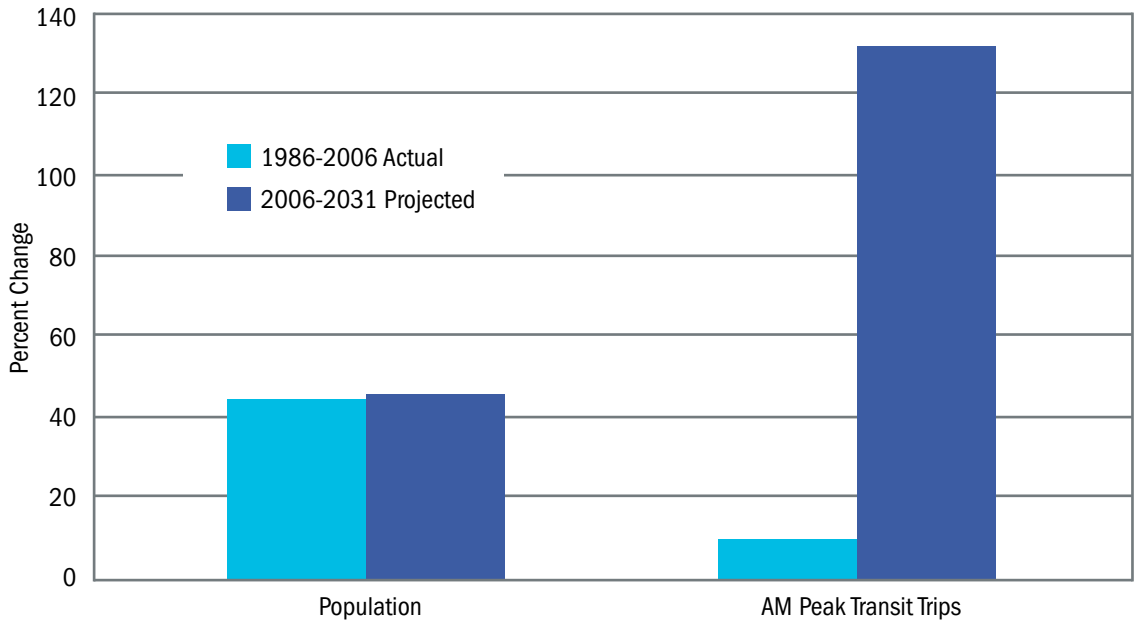
Even with land use intensification, redevelopment, the emergence of transit-oriented mobility hubs, and comprehensive fare integration, better ways of doing things are necessary preconditions for public transit to achieve the profound changes in travel behaviour implied by the RTP.

Table 2.2 and Figure 2.5 compare projected travel characteristics that form the basis of the RTP with actual observations over the period 1986 to 2006 obtained from the *Transportation Tomorrow Survey* (TTS).

Table 2.2: Comparison of Selected 2006 TTS Data and RTP Projections

Item	1986 TTS Data	2006 TTS Data	2031 RTP Projections
Population (millions)	4.1	5.9	8.6
Rapid Transit (km)	N/A	500	1,725
Total AM peak origins	1,928	2,901	N/A
AM Peak transit origins (000s)	428	474	1,100
Mode split (percent)	22	16	26
AM peak transit rides/capita	0.10	0.080	0.128

Figure 2.5: Actual and Projected Changes in Population and Transit Trips



These RTP projections are quite optimistic. Where the change in population is about the same for the two time periods, transit origins during the morning peak are predicted to increase by 132 per cent compared to an increase of only 11 per cent for the period 1986 to 2006.

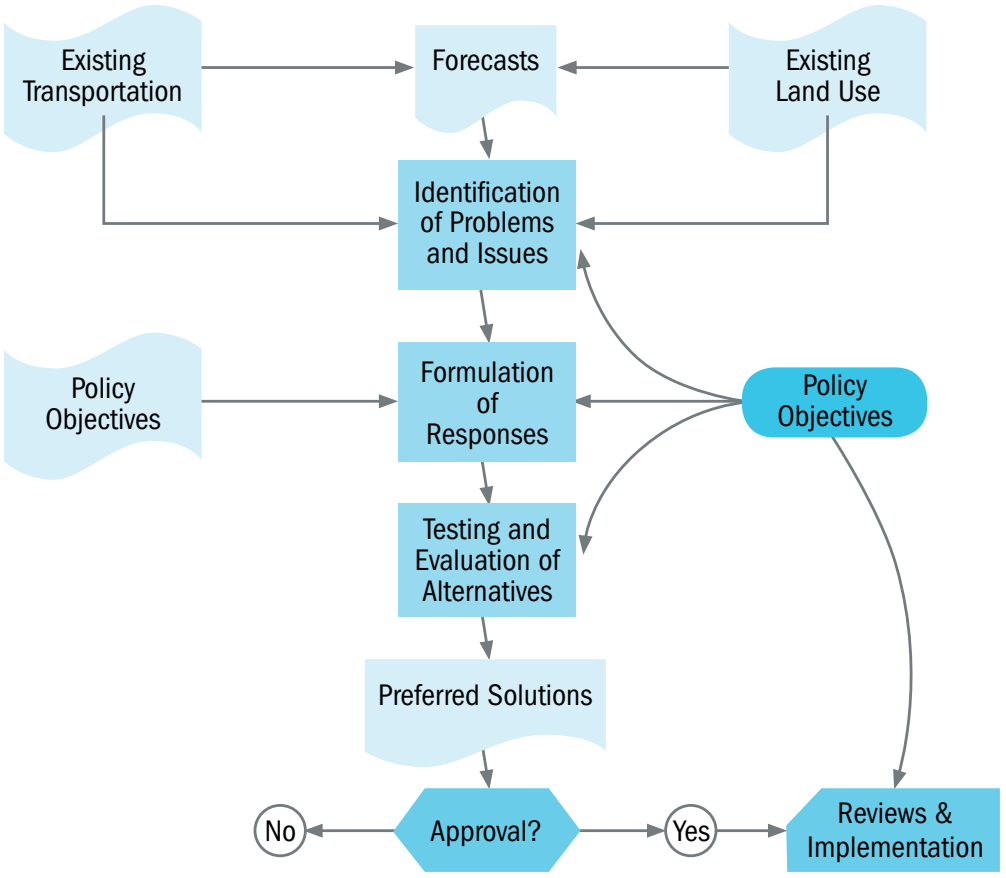
Achieving such dramatic change in travel behaviour is a daunting task, one that requires not only doing the right things like investing in new infrastructure, but doing the right things right.[10]

3.0 Doing the Right Things

The Main Components

Doing the right things when planning means making decisions on what will be built and establishing priorities. It is a process that begins by defining the main problems and ends up with preferred actions, as illustrated in Figure 3.1.

Figure 3.1: Reaching Preferred Solutions



Problem definition, of course, is a key part of the process, simply because failing to properly articulate the problem in the first place ends up so often in proposals that can be described as solutions in search of problems.

Transportation problems within the GTHA (or any urbanized area) are by-products of three main factors: existing land use (the distribution of population and employment), anticipated growth, and the inability to expand transportation infrastructure and services in a manner that keeps pace with urban growth.

Typically, transportation issues derive from perceptions of present day congestion and delay that everyone expects to be exacerbated by growth in population. Congestion and delay encompass a broader range of related and subsidiary issues that include:

- Transit capacity and the quality of service;
- Road capacity;
- Private costs experienced by users and public costs imposed on the community;
- Goods movement and economic competitiveness;
- Unsustainable forms of urban growth such as sprawl;
- Road safety, particularly for pedestrians and cyclists;
- Accessibility for groups with special needs, such as the physically impaired;
- Equitable levels of transit service among geographic areas within the GTHA;
- Neighbourhood protection; and,
- Air pollution, greenhouse gas emissions, and climate change.

If congestion is the main culprit, there are several approaches for dealing with it. One is to build more roads. Another is to ration or modify the demand for road capacity through various incentive schemes (such as high occupancy vehicle lanes and parking) or road pricing. A third is to make transit, walking, and cycling more desirable alternatives to the use of automobiles so as to reduce the need for additional road capacity.

Experience has generally shown that in urbanized areas of any consequence, attempting to build our way out of congestion through expansion of the road system simply does not work. In any case, road building at a scale likely to reduce congestion appreciably no longer represents an acceptable alternative.

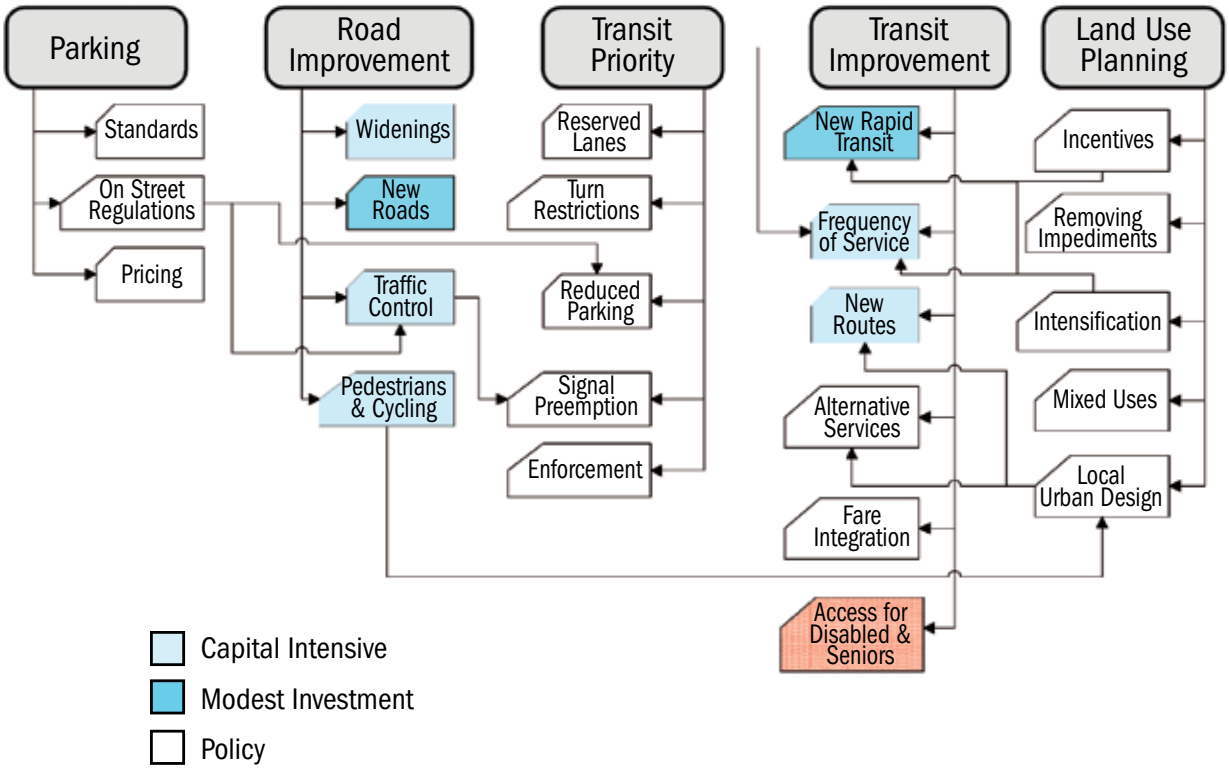
At the same time, it is worth noting that interest in dealing with congestion through road and congestion pricing is on the rise, a matter discussed in Section 8.

Generally, the thrust of most transportation planning in the GTHA today focuses on catering less to the needs of automobile users and more to the needs of transit users, cyclists, and pedestrians. In fact, perusal of most transportation master plans prepared by municipal and provincial transportation agencies suggests increasingly widespread acceptance that congestion can only be managed within acceptable and sustainable limits by means of plans and policies characterized by:

- Extensive capital investment in transit infrastructure;
- Relatively minor investment in road expansion, particularly in the City of Toronto;
- Less dependence on private automobiles for most travel;
- Order of magnitude increases in the use of public transit; and,
- Significant increases in travel by walking and cycling.

Many tools, illustrated in Figure 3.2, might be used to achieve the goals of these policies. Some elements involve extensive capital investment whereas others involve new policies and regulations. It is, of course, capital investment in system expansion that receives the greatest attention in terms of announcements by governments.

Figure 3.2: A Transportation 'Tool Box'[11]



Current GTHA Transit Initiatives

During the last five years or so, numerous planning studies and environmental assessments have been concerned with rehabilitation, modernization, and expansion of public transit in the GTHA. The most relevant include:

- Ontario's *Places to Grow Act*, an attempt to specify an overall context for growth management within the Greater Golden Horseshoe;
- Official Plans of regional municipalities within the GTHA, expected to comply with *Places to Grow* at the local level,
- Corresponding transportation master plans approved by individual regional municipalities,
- *Transit City*, an initiative of the City of Toronto based entirely on light rail transit (LRT) technology,
- Ontario's *MoveOntario 2020* plan, an amalgam of many of these transportation master plans; and,
- Metrolinx's *The Big Move*, the regional transportation plan (RTP) approved in 2008.

Transit City, shown in Figure 3.3, is the City of Toronto's plan for a 120-kilometre light rail transit (LRT) network that, in many ways, is the centrepiece of current transit planning in the GTHA. It is based on the use of multiple unit trains of streetcar-like vehicles (LRVs) that operate in semi-exclusive rights-of-way.

Figure 3.3: *Transit City*

The essence of LRT is flexibility to offer levels of transit that are higher than conventional surface transit, within variable operating environments, at much lower capital investment than subways.

The essence of the City's 2007 *Transit City* plan is an integrated network of LRT services that increases connectivity and coverage of enhanced transit service throughout the City of Toronto. By exception only, *Transit City* envisages LRT as a surface operation within protected centre lanes, similar to the Spadina and the new St. Clair West streetcar services.

The delivery of *Transit City* is now the responsibility of Metrolinx which will own and control *Transit City* projects and be responsible for final decisions on scope, budget and schedule. All *Transit City* projects are subject to agreements between Metrolinx and the TTC for delivery, operation and maintenance.

In this regard, the decision to specify a rail gauge (the distance between rails) for *Transit City* LRT routes that differs from the gauge used on existing streetcar and subway routes is rather unfortunate. With no advantages, different rail gauges limit long-term flexibility for area-wide system integration, as well as possible conversion of some LRT routes to full rapid transit, the main purpose for which the concept of LRT was first introduced in many parts of the world.

Planning for *Transit City* is advanced and has been presented for public discussion as part of the Environmental Assessment (EA) process. In fact, the Sheppard LRT is now under construction and Metrolinx has ordered vehicles for this and other *Transit City* routes.

Ontario's 2008 *MoveOntario 2020* plan, shown in Figure 3.4, is a $17.5-billion compendium of 52 transit projects that includes all elements of *Transit City*, a number of GO Transit initiatives, and various transit projects proposed by other municipalities within the GTHA. (The complete list is provided in Table 3.1.)

Figure 3.4: *MoveOntario 2020*

Today, the operative transit planning goals for the GTHA are encompassed in *The Big Move*. In addition to major capital investment in transit infrastructure, the *The Big Move* emphasizes the emergence of transit-oriented land use concepts or mobility hubs at strategic locations, well served by public transportation.

Although *The Big Move* envisages total capital expenditures of approximately $50 billion over the next 25 years (of which about $10 billion has already been approved by the provincial government), recent reductions in provincial funding for Metrolinx projects scale this rate of expenditure back in a manner that some claim (improperly) jeopardizes the entire *Transit City* plan.

These reduced provincial capital commitments for transit over the next five to ten years, however, should be placed in proper perspective.

Table 3.1: Projects Included in *MoveOntario 2020*

GO Transit Commuter Rail

1. GO Lakeshore West rail line capacity expansion by adding a third track from Port Credit to Oakville
2. GO Lakeshore West rail line capacity expansion by adding a third track from Burlington to Hamilton
3. GO Lakeshore East rail line capacity expansion by adding a third track from Union Station to Scarborough
4. GO Lakeshore East rail line extension from Oshawa to Bowmanville
5. GO Lakeshore rail line electrification (SuperGO)
6. GO Milton rail line capacity expansion from Union Station to Milton
7. GO Georgetown rail line capacity expansion from Union Station to Georgetown
8. GO Bradford rail line capacity expansion from Union Station to Bradford
9. GO Bradford rail line extension and capacity expansion from Bradford to Barrie
10. GO Richmond Hill rail line capacity expansion from Union Station to Richmond Hill
11. GO Richmond Hill rail line extension to Aurora Road
12. GO Stouffville rail line capacity expansion from Union Station to Stouffville and extension of the line to Uxbridge
13. New GO Crosstown rail line between Weston Road and the Don Valley
14. New GO Crosstown rail line between the Don Valley and Agincourt
15. New GO rail line from Union Station to Bolton
16. New GO rail line on the Havelock line from Agincourt to Pickering
17. New GO rail line on the Seaton line from Agincourt to Brock Road in Pickering

GO Bus Rapid Transit (BRT)

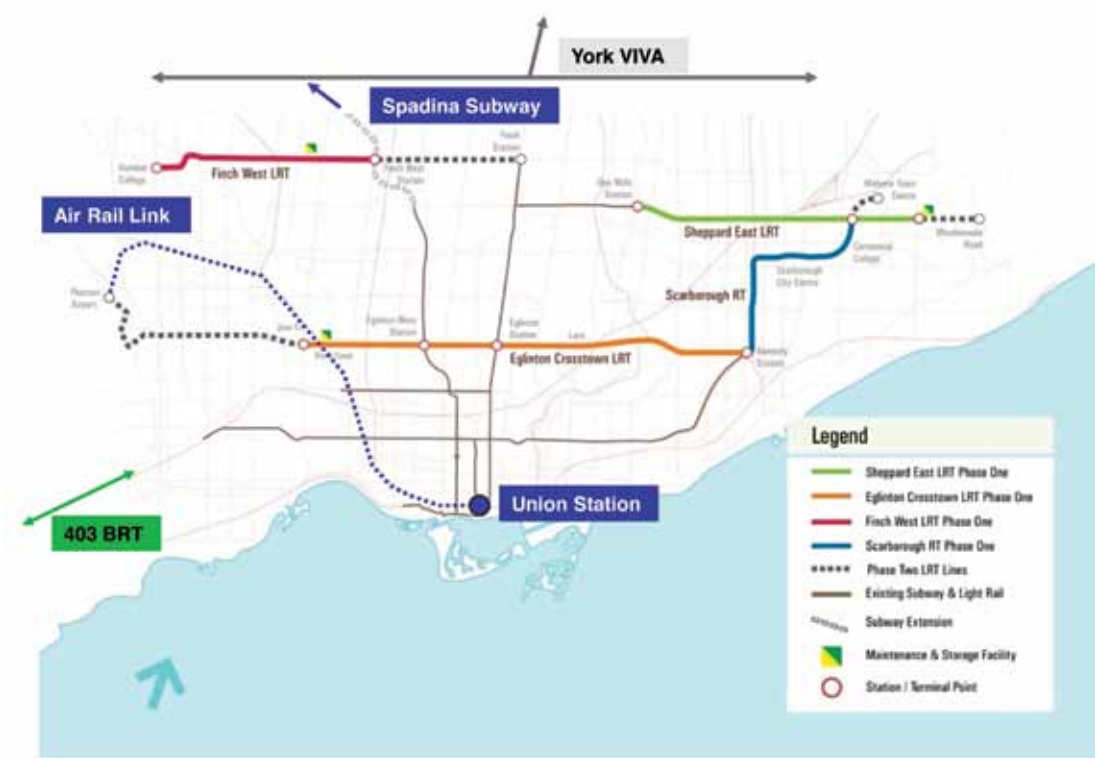
18. GO Bus Rapid Transit along Highway 403 from Oakville GO rail station to Mississauga
19. Mississauga Transitway west of Mississauga City Centre to Winston Churchill Boulevard
20. Mississauga Transitway east of Mississauga City Centre to Renforth Drive
21. GO Bus Rapid Transit northwest Toronto link from Renforth Drive to York University
22. GO Bus Rapid Transit on Markham Road from Highway 407 in Markham to Highway 401
23. GO Bus Rapid Transit on Highway 401 from Markham Road in Scarborough to Pickering GO rail station
24. GO Bus Rapid Transit connector on Highway 427 from Renforth Drive to Highway 407
25. GO Bus Rapid Transit along Highway 407 from York University to Langstaff (Yonge Street) and on to Markham Rd.
26. GO Bus Rapid Transit along Highway 407 from Burlington to Highway 401
27. GO Bus Rapid Transit along Highway 407 from Highway 401 to Highway 427
28. GO Bus Rapid Transit along Highway 407 from Highway 427 to York University

Subway and Other Rapid Transit

29. Yonge subway line extension north from Finch station to Highway 7 (Langstaff)
30. VIVA Markham North-South Link from Markham Centre to Don Mills station
31. Pearson Air-Rail link to Union Station
32. Hamilton east-west rapid transit on King/Main Streets from Eastgate Mall to McMaster University
33. Hamilton north-south rapid transit on James/Upper James Streets from Rymal Road to King Street
34. Brampton Acceleride on Queen Street from Main Street to Highway 50
35. Hurontario Light Rail Transit from Queen Street in Brampton to Lakeshore Road in Mississauga
36. Eglinton Avenue Light Rail Transit from Renforth Drive to Kennedy Road in Scarborough
37. Yonge Bus Rapid Transit busway from Finch station to Steeles Avenue
38. Dundas Street West Light Rail Transit from Kipling station to Hurontario Street
39. Scarborough RT extension from McCowan station to Sheppard Avenue
40. Sheppard Avenue Light Rail Transit from Don Mills Road to Morningside Avenue
41. Finch Avenue West Light Rail Transit from Highway 27 to Yonge Street
42. Don Mills Road Light Rail Transit from Steeles Avenue to the Bloor-Danforth subway
43. Jane Street Light Rail Transit from Steeles Avenue to Jane station on the Bloor-Danforth subway
44. Malvern Light Rail Transit from Kennedy station to Malvern
45. Waterfront West Light Rail Transit from Union Station to Long Branch
46. VIVA Yonge Street from Steeles Avenue to Highway 7 (Langstaff)
47. VIVA Yonge Street from Highway 7 (Langstaff) to 19th Avenue in Richmond Hill
48. VIVA Yonge Street from 19th Avenue to Newmarket
49. VIVA Highway 7 from Highway 50 to Yonge Street (Langstaff)
50. VIVA Highway 7 from Yonge Street (Langstaff) to Cornell
51. Durham rapid transit line on Highway 2 from Oshawa to Pickering
52. Spadina subway line extension north from Downsview station to Highway 7 (Vaughan Corporate Centre)

In May 2010, the Metrolinx Board approved a capital budget for a number of new projects in the City of Toronto and the Region of York, shown in Figure 3.5.

Figure 3.5: Current Metrolinx Proposals and Other Projects



Previously, the City of Toronto had assigned highest priority for implementation of *Transit City* to the Sheppard, Finch, and Eglinton LRTs, as well as conversion and extension of the existing Scarborough RT to LRT. Concern with the impact of provincial budget changes derives largely from the fact that over the next 10 years, as shown in Table 3.2, construction has been spread out over a longer period of time and, in the case of the Scarborough RT, delayed by about five years.

As shown in Figure 3.6, Metrolinx's plans for *Transit City* alone, as well as York Region's bus rapid transit (BRT) projects exceed an expenditure of $12 billion (in current dollars), probably one of the largest single commitments to capital funding by the provincial government ever made within the GTHA.

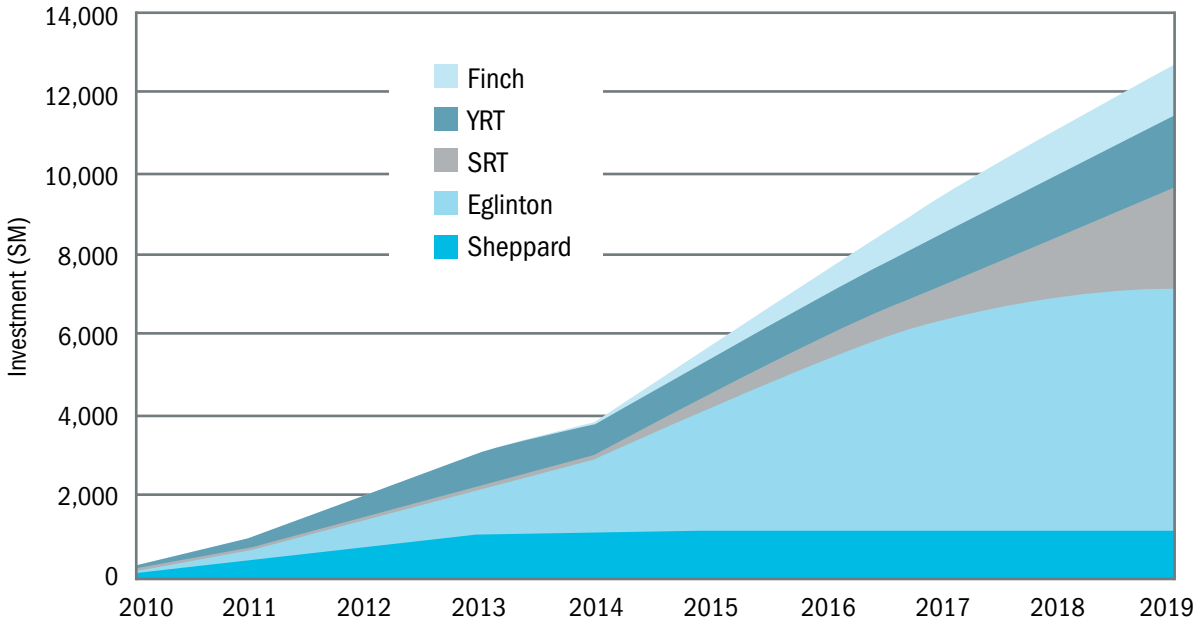
In addition, Metrolinx's recommendations to the Ontario government do not really tell the whole story inasmuch as, aside from significant expansion of GO Transit services, other major projects are also under way that will likely be or are now being funded by the provincial government. The most significant include:

- Extension of the Spadina Subway from Downsview station to a new terminal in York Region;
- Rebuilding of Union Station;
- Procurement of new subway cars and streetcars;
- Construction of the Mississauga (403) Transitway; and,
- Rail service between Union Station and Pearson Airport.

Table 3.2: Comparison of Original and Revised *Transit City* Schedules

Item	Original	Revised	Change
Sheppard			
From	Don Mills	Don Mills	
To	Meadowvale	Conlins	
Length	14	13	1 km
Stations	30	29	1
Start	2009	2009	0
Finish	2013	2014	1 year
Finch			
From	Humber College	Humber College	
To	Yonge	Keele	
Length	17	11	6 km
Stations	30	20	10
Start	2010	2015	5 years
Finish	2013	2019	6 years
Eglinton			
From	Kennedy	Kennedy	
To	Pearson	Jane	
Length	33	20	13 km
Stations	41	28	13
Start	2010	2012	2 years
Finish	2016	2019 – 22	~5 years
Scarborough RT			
From	Kennedy	Kennedy	
To	Malvern	Sheppard	
Length	12	9.5	3 km
Stations	10	8	2
Start	2012	2015	3 years
Finish	2015	2020	5 years

Figure 3.6: Cumulative Investment in Metrolinx Transit Improvements



Subway Expansion

Extension of the Spadina subway beyond the Downsview station to York University and the Vaughan Corporate Centre, an extension of 8.6-kilometres and six new stations, is now under construction with expected completion in 2015. The total investment of $2.6 billion is shared by the City of Toronto ($526 million), York Region ($352 million), the provincial government ($1.132 billion), and the federal government ($622 million).

Rebuilding Union Station

In June 2010, the City of Toronto and the federal and provincial governments announced the revitalization Union Station as a major inter-regional and intermodal transportation hub. At a total cost $640 million, contributions of $164 million by the federal government, $172 million by Ontario, and $304 million by the City of Toronto have been promised.

New Subway Cars and Streetcars

The Ontario government is also making significant capital contributions for replacement streetcars and subway cars in Toronto, as well as a new signal system for the Yonge subway that will substantially increase its capacity.

Mississauga Transitway

Costs of the $234.3 million Mississauga Transitway, an 18-kilometre bus rapid transit (BRT) project shown in Figure 3.7, are to be shared by the local, provincial, and federal governments.

Figure 3.7: The Mississauga Transitway

Union Station – Pearson Airport Rail Link

The proposed rail link between Union Station and Pearson Airport, shown in Figure 3.8, will operate within the recently acquired GO Transit Georgetown commuter rail corridor. Construction of a spur line between this corridor and Terminal 1 of Pearson Airport is required. Pre-investment in various civil works within the airport property itself was previously funded by the federal government.

Originally approved as a private/public partnership, implementation of this project recently became the responsibility of Metrolinx. Service is expected to be in operation in time for the 2015 Pan American Games. Although no cost estimates have been announced, the investment is likely to be in the range of $400 to $600 million (or even more).

This project still involves a great deal of controversy about neighbourhood impacts and concerns about increases in air pollution resulting from frequent operation of self-propelled rail diesel vehicles, controversy that may yet jeopardize its on-time implementation.

As summarized in Table 3.3 and Figure 3.9, when combined with the Metrolinx May 2010 investment plan, these selected projects show a very significant total provincial spend for transit expansion in the GTHA over the next 10 years. (The data shown are for purposes of illustration only and are not intended to precisely define all the capital contributions made by various levels of government.)

Figure 3.8: Proposed Union Station – Toronto Pearson Airport Rail Link

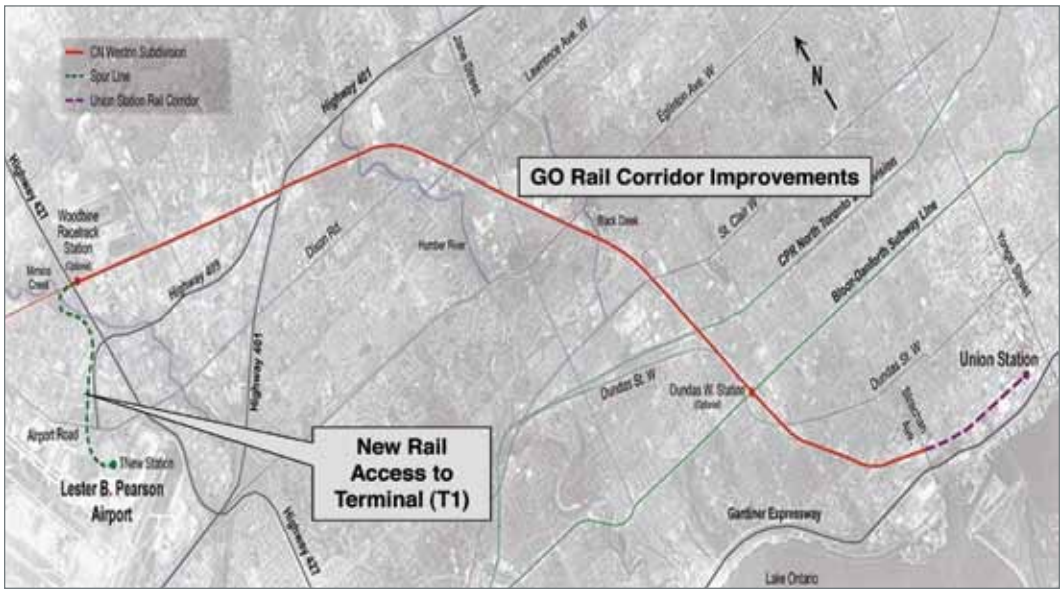
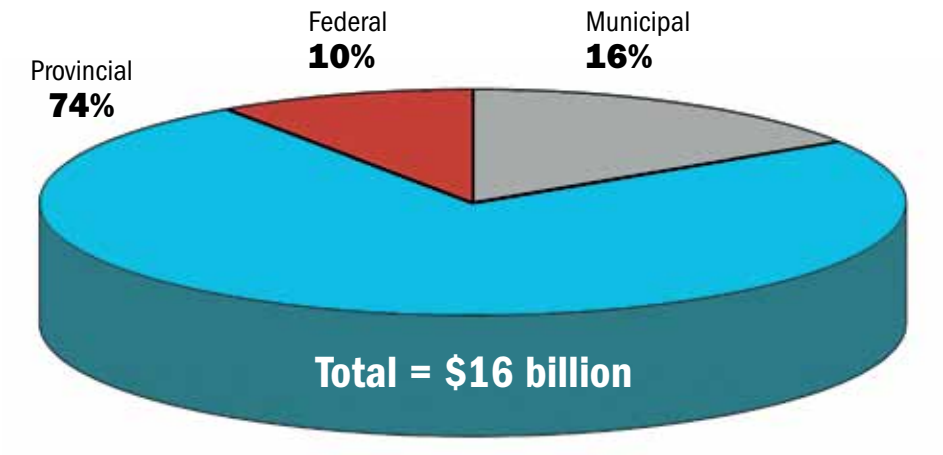


Table 3.3: Selected 2009-2019 Major Transit Capital Projects

Project	Capital Investment in $Millions					
	Toronto	York	Miss.[1]	Ontario	Canada	Total
Transit City 2010-2019				9,167	333[2]	9,500
403 Transitway			86	90	83	259
Spadina Subway	526	352		1,134	622	2,634
Union Station	304			172	164	640
TTC Legacy Streetcars	835			417		1,252
TTC Subway Cars[3]	314			341	349	1,004
Yonge Subway Signals	148			192	3	343
Union-Pearson Rail Link[4]				400		400
Totals	**2,127**	**352**	**86**	**11,913**	**1,554**	**16,032**

1 Mississauga
2 Federal government contribution to the Sheppard LRT.
3 Federal government funding may vary over the term of the car order.
4 Estimate by author.

Figure 3.9: Funding Sources for Major Transit Capital Projects



Of the $16 billion total shown in Table 3.3, Ontario accounts for about 74 per cent, suggesting that, at this time, there is probably little reason to question the seriousness of this provincial government's commitment to expansion of the GTHA transit network.

Realistically, the ability to invest at a higher rate than implied by these commitments is probably impractical from the standpoint of construction industry capacity, effective project management, and the procurement of transit vehicles.

Uncertainties

Metrolinx's approved capital program, of course, is not the first big transit announcement. As far back as 1972, the provincial government promised a 90-kilometre network of magnetic levitation transit technology to be implemented over five years. That promise materialized as the substantially modified technology Scarborough RT, opened for service some 13 years later.

Additionally, programs such as the Province's GO ALRT (accelerated rapid transit), the TTC's rapid transit expansion program (RTEP), and commitments to an Eglinton West subway all raised expectations that never did materialize in their promised forms.

The reality is that implementation requires political *support*, and support often involves political *interference*. What appears today to be a well-articulated plan for the foreseeable future will undoubtedly change, if for no other reason than economic times (which forced recent transit funding changes in the provincial budget), as well as governments, both change.

In the recent City of Toronto mayoralty campaign, for example, there was considerable evidence of some erosion in support for *Transit City*.

Setting aside outcomes of recent municipal elections and future provincial, or even federal elections, enormous funding has already been allocated to consulting studies and environmental assessments of projects now on the table.

On balance, in terms of doing the right things, the GTHA as a whole has embarked on an aggressive approach to transit expansion that includes:

- Bus rapid transit (BRT) in the Region of York and Mississauga;
- Subway expansion between the City of Toronto to the northwest into the Region of York;
- Expanded commuter rail service on all existing GO Transit routes;
- Modernization of Union Station and major rail capacity increases;
- A new rail connection between Union Station and Pearson Airport; and,
- Extensive LRT construction within the City of Toronto to the exclusion of further expansion of the subway system.

At this time, attempting to revisit these established projects and priorities would probably not be a worthwhile undertaking. For this reason, the position is that major decisions with respect to doing the right things over the next ten years have already been made. The principal focus of the remainder of the report concerns two other important elements of effective planning: doing things right, and paying for things.

4.0 Doing Things Right

The Basic Premise

The prescription for doing the right things assumes that extensive investment in transit expansion will lead to large shifts in modal choice to move from private automobiles to public transit.

Most of the current attention on transit revitalization is based on technological innovation, in particular, promotion of LRT and, to a lesser extent, new BRT projects, as the most effective means of improving transit competitiveness.[12]

The assumptions for many of these new transit initiatives are premised on the belief that "if you build it, they will come." Without a parallel emphasis on providing service that is more customer-oriented and deals effectively with the major complaints so often expressed about transit service, the main question is whether they will come in the expected numbers.

The Trade-off between Service and Cost

Every public service organization faces the challenge of finding the proper balance between level of service and costs. In health care, the main trade-off is between wait times and budgets. With airports, it's between safety, customer satisfaction, and various airport charges. And, in the case of public transit, there must be balance between level of service and costs to the taxpayer.

By and large, it is the nature of service delivery in the public sector that compliments are rare and complaints are common. Because complaints are so often the primary focus of media and political attention, it is not uncommon for providers of public service to put more effort into avoiding adverse public reaction than promoting greater success in the delivery of their services.

In many private company cases, similar attitudes are encountered. For example, in the U.S. airline industry, federally imposed regulations that mandate reporting on-time arrivals led the industry to increase scheduled travel times, with the result that the number of reported late arrivals is reduced without any real change in service quality.

Perhaps with the exception of health care, nowhere more so than in the delivery of transportation service is the trade-off between level of service and cost so apparent. In the main, people want service that is safe, fast, comfortable, reliable, accessible, and affordable—attributes that in many respects are mutually exclusive.

Regulations govern safety, to a reasonable extent. Many safety motivated practices and designs are mandated on the basis of incidents or unacceptable experiences. Due to a few accidents in the United States, for example, positive train control and signalling is now being mandated as a substitute for traditional line of sight control for new LRT services.

The trade-off between non-safety elements of level of service and cost is more complicated. Finding the right balance between service and cost essentially dictates whether private transportation companies are profitable or fail, and whether public transportation agencies succeed, or do not meet expectations within an acceptable subsidy envelope.

The main difference is that when private companies fail, jobs are lost and new entrants emerge. When a publicly operated transportation service fails to meet expectations, neither occurs. In the case of public sector transportation service providers, however, the political fallout of poor service can be severe with the result that risk of failure sometimes attracts more managerial attention than achieving success.

Challenges

In terms of doing things right, or making transit work better in the present environment, the main challenges concern:

- Penetrating choice markets;
- Receptiveness to change;
- Mobilizing effective political involvement;
- Effective public consultation; and,
- Adopting realistic funding targets.

Penetrating Choice Markets

As already noted, transit users can be categorized as captive and choice riders. Within the GTHA, local transit services generally involve a higher proportion of captive riders when compared to inter-regional commuter rail services. To counteract the observed trends in transit use over the last 30 years, the anticipated changes in overall travel behaviour embodied in *The Big Move* depend upon large increases in the number of choice riders.

The challenge in penetrating this market more effectively lies in greatly improving the competitiveness of transit relative to the automobile in terms of perceived costs and perceived differences in travel time, convenience, reliability, and comfort.

Receptiveness to Change

Even though the operating environment itself is rapidly changing, many transit agencies exhibit only modest receptiveness to change. The risk aversion nature of decision-making, strongly influenced by the goal of minimizing negative political fallout, creates a tendency to avoid any decision until all stakeholders have signed off—often a recipe for inaction even when effective solutions are obvious.

Few, if any, incentives exist for changing the status quo, partly due to the compensation schemes that exist in most public organizations. The challenge is to become more proactive and less defensive.

Mobilizing Effective Political Involvement

Micro-management by elected officials periodically represents a serious challenge for effective decision-making. Public policy for taxpayer-supported services requires political direction and oversight, but there is a significant difference between policy direction and tinkering at a level that requires sound judgement based on professional qualifications.

While it is appropriate, for example, for elected officials to establish a policy that transit service will be fully accessible, it is inappropriate for the body politic to dictate technical specifications through which accessibility is to be assured.

Mobilizing effective political involvement is an issue that pertains to the appropriate division of responsibilities among political bodies, planning departments, and agencies responsible for implementation and service delivery.

It can be argued, for example, that the responsibility for major transportation infrastructure planning rests with planning departments that are in the business of preparing a variety of planning documents (including official plans). If, as most agree, transportation and land use are so highly interrelated, planning departments should be the organizations that prepare infrastructure master plans which are part and parcel of official plans approval by municipal councils. The execution of these plans should then become the responsibility of service delivery organizations.

There is no suggestion here that political input has no place in such high profile matters as public transit. The suggestion is, however, that such input should be structured, rather than random, in a process which begins with overall approval and ends with detailed implementation.

Given the high profile of public transit in the municipal arena, the challenge is to funnel political inputs into this process in ways that provide policy oversight without inappropriate micro-management that undermines management's ability to manage.

Effective Public Consultation

Although public consultation is an integral component of the environmental assessment process, complaints about the lack of adequate public consultation still pervade the project implementation stage.

In general, at the scale of regional planning, tacit approval is typically obtained from the community at large, at least until such time as the immediate impacts of project implementation become more apparent to local residents and businesses. These impacts often lead to considerable confrontation, legal appeals, and inconsistent decisions and rulings by regulatory bodies.

Effective consultation involves far more than mandated procedures for providing information to the public. Properly conducted, it should be a process characterized by:

- Early engagement of affected residents, businesses, and special interest groups, in both problem identification and the formulation of alternatives;
- Open access to confidential studies, data, and information;
- Dialogue that takes place in an open and non-intimidating environment;
- Participation of elected officials whose constituents are affected by the matter at hand and who want assurances that their concerns are heard;
- Concise documentation of the opinions expressed; and,
- Appropriate follow-up, where required, in a timely manner.

Effective public consultation rarely involves reaching consensus by everyone sitting at the table or assembled for the dissemination of information on placards or as slide shows. Effective consultation does mean that professionals involved in project planning are sensitized to the wide range of prevailing views and concerns as they develop preferred solutions or actions.

Toronto's St. Clair streetcar project provides one recent example of weaknesses in the public consultation process. While community consultation was carried out in accordance with mandated requirements, closure of the consultation process was never really achieved.

That particular process was characterized by vacillation on the part of the Ministry of the Environment, rulings of a special Judicial Review that were reversed by a higher court, and unrelenting pressure by individuals, the majority of whom were diametrically opposed to the very basic concept of an exclusive transit right-of-way in their locale.

Anyone experienced in community consultation regarding public works recognizes that conflicts always arise between those charged with getting something done and those who want to ensure that nothing is done. Many objections, nonetheless, are valid, and there are ways of engaging the public in a more objective and effective process, even though, at the end of the day, all objections can never be resolved to everyone's satisfaction.

The real challenge is to improve public consultation, starting with problem definition and ending with recommendations, through a process that is truly open, that is not perceived to involve secrecy, and which is conducted in a manner that appears neither non-confrontational nor intimidating. That is a tall but achievable order.

Realistic Funding Targets

The need for transit funding dominates all discussion of transit needs in the GTHA today. Funding is the major focus of special groups and organizations such as:

- Transport Futures, whose focal point revolves around road pricing;
- The Toronto City Summit Alliance (TCSA) which has sponsored conferences and meetings on transit finance; and,
- The Toronto Board of Trade.[13]

Both the TCSA and the Board of Trade accept the initial premise that doing the right things is already reflected in Metrolinx's $50-billion *The Big Move* plan, and that the main challenges concern how the plan will be financed.

Almost a day does not pass without a proposal for some new transit initiative ranging from capital projects, through service increases, to fare reductions for special groups such as seniors and students. Often, such proposals appear without any explanation of how to pay for them. For this reason, just as often, such proposals are not necessarily treated very seriously.

Taken in combination, the challenges noted above for doing things right require new approaches to customer orientation in the delivery of service, strategic planning, governance, and predictable finance.

5.0 Putting the Customer First

Customer Satisfaction and Market Share

Customer orientation has become a preferred term for many organizations, and it is a goal that is well-intentioned but not easily achieved.

For example, despite the nostalgia for a return to the good old days of rail travel, rail passenger service in Canada was never really very good from the standpoint of customer satisfaction. Endless waiting at the entry to long segments of single-track railway was typically aggravated by the complete lack of information as to why service was being delayed and when it would be resumed. In a highly regulated regime with little or no competition, airline travel in many regions of the country was not much better.

All that changed with development of the highway system and deregulation of the airline industry. Competition forced intercity passenger carriers to adopt more of a customer first orientation in their marketing practices.

In the private sector, WestJet is often cited as a prime example of how an emphasis on customer satisfaction has led to increased market share and corporate profitability, despite the fact that the airline industry has been plagued by operating losses and insolvencies. WestJet's We Care About You value proposition seems to have struck a sympathetic chord among potential markets for their services.

However, it's not just the motto that has contributed to their success; it is really the adoption of the value proposition throughout the company as an essential component of its corporate culture that has allowed WestJet to deliver its promise.[14]

Numerous other private sector service providers have also responded to competitive pressures to build their client base. Aside from the transportation sector, Canadian chartered banks provide another example of a new emphasis on customer orientation.[15]

Customer Satisfaction in Public Transit

A simple example illustrates the fundamental nature of the customer orientation problem.

> On the hottest day of the year, an off-peak choice rider transfers from a non-air-conditioned vehicle to another vehicle, which has air conditioning that is not working and, having travelled under stifling conditions, briefcase and all, uses two stations where the escalators are out of service.

This example raises a few of the questions relevant to the matter of customer orientation.

- How and when is information on non-functioning air conditioning and escalators transmitted to responsible staff?
- Who in the transit agency is empowered to take the vehicle with non-functioning air conditioning out of service?
- What is the response time with regard to restoring escalator service? and,
- For the next trip, will the choice rider use transit or travel door-to-door in an air-conditioned automobile?

Only the last question can be answered easily, and that is the crux of the customer-oriented service problem. By and large, interest in this problem derives from a correctly or incorrectly perceived deterioration in service, even while taxpayer support for transit service is on the rise.

Concerns about the existing level of customer dissatisfaction with quality of service are increasingly attracting attention. "Customer service is dismal," as one candidate in the recent mayoralty race in Toronto said.

That candidate promised to "re-establish the pride that workers and managers have in their system"—certainly an enviable goal. The candidate also promised to appoint himself to the board of directors. As suggested below, that could be a mistake.

For the unregulated monopoly conditions under which most transit operators function, the main pressure for increased customer orientation derives almost entirely from competition provided by the private automobile, a form of travel that currently accepted urban planning policies are attempting to discourage.

Without competition from providers of similar type services, transforming transit operations from a supply to a demand orientation is a difficult task. It is more difficult for well-established agencies characterized by long-standing traditions than for newer agencies that are not as legacy bound.

As noted above, competition drives the emphasis on customer service as a means of increasing market share and profit. In the public sector, improvements in customer satisfaction are the means of reducing negative political fallout and increasing public satisfaction.

For transit, the main competitor is the private automobile, a competitor that despite wishful views to the contrary, is unlikely to disappear over the time period during which major new transit initiatives are pursued. There is a reason why governments have invested heavily in financial bailouts of the automotive industry, and that reason is not to see the industry disappear.

Competitive service for choice transit users is the main factor that will determine whether the ridership goals of the RTP can actually be achieved. The true test of improved customer orientation involves minimizing the disadvantages of transit and maximizing its competitive advantages. The challenge is to eliminate those negative attributes of travel by transit that influence choice users to take their cars.

Customer satisfaction involves far more than balancing supply and demand within budgetary constraints, the main preoccupation of many transit operating agencies today. Often, it is only when customer dissatisfaction becomes front-page news that customer-first attitudes receive serious attention.

The usual knee-jerk reaction is to announce new surveys about what's really bothering people and to stress a new focus on hiring frontline workers who are more sensitive to customer needs. One recent assessment of declining transit customer satisfaction, for example, made numerous recommendations for reducing the level of customer complaints.[16]

Although the current emphasis on improved customer satisfaction stresses the importance of better recruitment and training of frontline employees, that emphasis is misplaced. Real customer orientation radiates from the most senior level of management to frontline staff. Real customer orientation does not begin with frontline staff; it ends there, and it requires top-down leadership based on a cultural change throughout the agency to ensure that providing customer satisfaction and value guides all employees in their actions.

Elements of Customer Satisfaction

Considering door-to-door travel, the main negative attributes perceived by choice riders concern walking distances, waiting times, transfers, service dependability, overcrowding, and actual travel times, as well as issues related to comfort, personal safety and security, and accessibility for people with physical disabilities.

Aside from long-term investment in transit infrastructure, modifying surface transit routes and frequency of service involves a delicate balance among demands to be serviced, route structure, schedules, capacity requirements, available vehicles, and operating cost considerations.

For all services, however, there are aspects of service quality that can be improved through attempts to improve the level of customer satisfaction. Some are shown in Table 5.1, merely as examples of specific actions that can be taken to improve the overall customer experience.

Table 5.1: Selected Elements of the Customer Experience

Stops and Stations	Surface Transit	Rapid Transit
Comfort	- Seating & weather protection	- Seating
Ease of fare payment	- Multi-medium payment equipment	- Multi-medium payment equipment
Fare collector attitudes	- N/A	- Recruitment, training & orientation
Information	- Next vehicle, delays	- Next vehicle, delays, connections (at transfer stations)
Personal security	- Voice, CCTV and alarms	- Voice, CCTV and alarms
Cleanliness	- Maintenance & garbage disposal	- Maintenance & garbage disposal
Escalators	- N/A	- N/A
Wayfinding	- System maps, schedules	- Increased reliability, monitoring, and service response times - Street level signs - System maps, schedules - Interactive system maps
In-Vehicle		
Overcrowding	- Improved schedule adherence and headway control	- Improved schedule adherence and headway control
Fare collection	- Proof-of-payment - On-board fare equipment	- Extra crewing
Information	- Major delay announcements	- Major delay announcements
Driver attitude	- Recruitment, training & orientation	- Recruitment, training & orientation
Traffic delays	- Intersection signal priority	- N/A
Accessibility	- Aids for physically impaired	- Aids for physically impaired
Boarding/ alighting delay	- Use of all doors	- N/A
Personal security	- Two-way voice communication	- Two-way voice communication
Service Information and Trip Planning	- Web-based, private sector (e.g. Google, MapQuest) real time service information and trip planning aids.	- Web-based, private sector systems as for surface transit - Interactive trip planning systems in stations

Developing appropriate metrics to measure and monitor the level of customer satisfaction is essential to realizing a customer-first culture throughout any transit agency. Measures of customer satisfaction should form the basis of surveys designed to answer the question "how are we doing?"

Customer surveys measure service quality in terms of such factors as perceived on-time performance, comfort, flexibility of fare payment, and availability of escalators. Customer perceptions about on-time performance and escalator availability can certainly be validated against agency-generated information.

One example of the type of data to be obtained is shown in Figure 5.1 which illustrates application of a commonly used spider graphic to highlight weak areas (against some norm) and indicate the direction of change during subsequent surveys. This approach allows survey respondents to score customer satisfaction with respect to designated performance measures. The indicators shown are for purposes of illustration only. Others can easily be added.

Figure 5.1: An Example of Transit Service Quality Survey Results

These customer surveys also provide a partial basis for performance-based compensation. (Other measures for performance-based compensation include achieving targets for passenger growth and operating efficiencies).

Measuring employee satisfaction is an equally important task. It is unreasonable to expect employee engagement in customer-oriented initiatives without soliciting their views. More to the point: if employees are dissatisfied, how can they reasonably be expected to make customer satisfaction a top priority?

Examples of the type of information generated by employee surveys include questions to determine whether employees:

- Would move to another organization at the same level of remuneration;
- Would recommend their current agency to a friend as a good place to work;
- Believe their opinions are solicited and valued;
- Believe they are treated fairly;
- Are well informed about the agency's goals, objectives, and plans; and,
- Think management has been successful in gaining employee trust and confidence.

In order to track performance and improvement, customer and employee surveys are needed at reasonably frequent intervals. What is important is that surveys of this nature require robust data collection and analysis on a continuing basis, rather than as a one-off response to particular complaints that are raised from time-to-time.

In summary, in addition to the need for cultural changes within an entire transit agency, achieving a high degree of customer satisfaction requires:

- Employee engagement in the customer-first objective;
- High levels of employee satisfaction;
- Greater empowerment of employees at all levels to act in accordance with the goal of improving the customer experience;
- A climate that is conducive to innovation;
- Organizational structures that breakdown the silo mentality so characteristic of many large transit agencies;
- Improved processes for collaboration and partnership in labour-management negotiations;
- Periodic customer and employee surveys to gauge performance; and,
- Wherever possible, performance-based compensation.

Attitudinal changes can be tracked, and they are essential to the overall process of strategic planning.

6.0 Strategic Planning

The Purpose of Strategic Planning

A strategic plan is a forward-looking approach that defines how an organization expects to achieve its goals and respond to unforeseen problems and opportunities that arise from a changing political and economic environment.

Attempts to impose a formal structure on decision-making processes are often viewed with a certain degree of scepticism, especially when past experience contributes to a perception that, in the end, all decisions are political.

Nevertheless, organizations that hope to achieve operational excellence and increase their market share must have strategic plans that provide a framework or point of reference for all activities over which the agency has direct control, as well as support for all recommendations made to higher authorities for endorsement or formal approval.

The strategic plan should define the context within which all decisions that affect the ability of that organization to fulfill its purposes and achieve its objectives are made. For transit agencies, these decisions include:

- Route planning;
- Choice of technology;
- Service characteristics;
- Fare policies;
- Capital investment in new infrastructure, rehabilitation (state of good repair), and fixed plant;
- Vehicle procurement; and,
- Dealing with uncertainty, contingencies, and risks.

Dealing with uncertainty is probably the most problematic of these decisions. Causes of user dissatisfaction, for example can be fixed, but at a cost. In some cases, costs might be minimal, as in the case of improving wayfinding and passenger information systems. In other cases, costs can be very high, as in the case of providing adequate accessibility for passengers with physical disabilities.

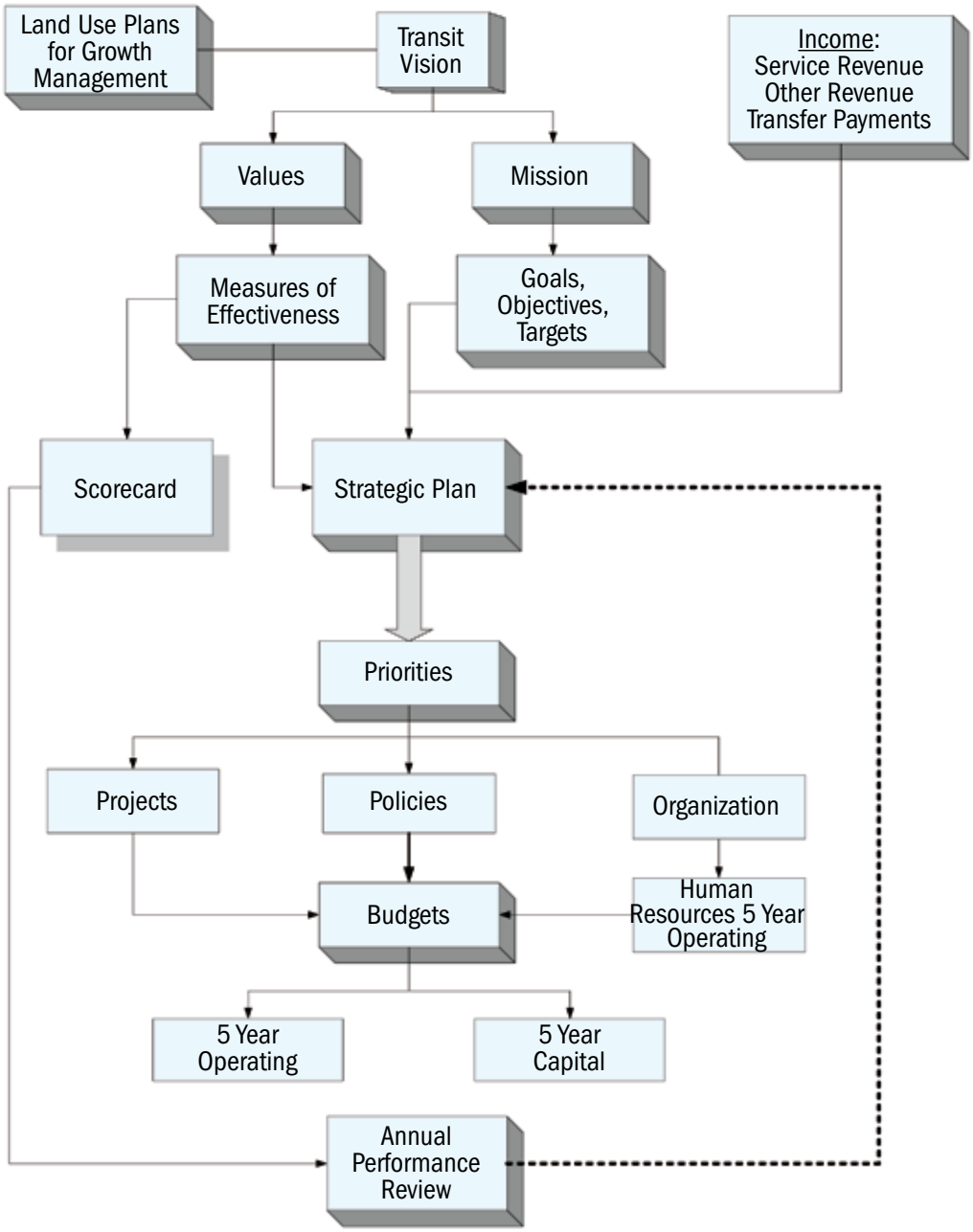
The fixes, however, cannot be implemented either in the absence of guarantees as to the resources that will be made available or in the face of ad hoc decisions that may be imposed on the operating agency. Without an approved strategic plan, more decisions fall beyond the control of management.

It should also be emphasized that even though most attention to transit in the GTHA these days is devoted to matters of system expansion, existing users also require special attention in developing a strategic plan, attention that probably has less to do with capital investment in new facilities and more to do with the level of service provided.

The Elements of Strategic Planning

From the standpoint of a transit agency, the main elements of strategic planning are illustrated in Figure 6.1. Probably the key step relates to obtaining consensus among senior executives and governing bodies on the vision, mission, and values that the agency strives to achieve.

Figure 6.1: Elements of Strategic Planning



The Vision provides the foundation for everything the organization does. It is a statement of what the agency hopes to become. For a publically funded transit organization, it should describe the basic nature of the agency's product, such as:

> *A service that improves the competitiveness of transit for a wider variety trip purposes resulting in reduced automobile dependence and associated congestion.*

The Mission is, more or less, the mirror image of the vision. It describes the core purpose or raison d'etre of the organization, and can reasonably be expected to focus on targeted levels of performance. Here, level of performance concerns improved user satisfaction, increased transit market penetration, and greater efficiency in the use of public funds.

But there are other purposes as well, such as providing transit support that serves adequately as a precondition for desired land use development. Thus, the mission might promise to deliver:

> *A well-integrated network of reliable, fast, and easily accessible transit service, provided in a cost- effective manner that satisfies existing customers, increases market penetration among choice riders, reduces congestion, and supports land use objectives.*

Values are those attributes implicit in the vision and mission statements. They include recognition of the importance of customer needs, respect for the use of public funds, transparency, and accountability. Values basically reflect principles that guide the internal conduct of the organization.

The Vision, Mission, and Values are almost interchangeable. Regardless of precisely how they are formulated, they require confirmation and endorsement by:

- The government body to which a transit agency reports;
- The actual commission or board responsible for executive oversight and approvals;
- Managers; and,
- Other employees, including frontline staff members who interface with customers.

Once agreed upon as the foundation for strategic planning, the vision, mission, and values, drive the remaining elements of the strategic plan.

The mission statement itself is of little value without corresponding goals, objectives, and targets against which successful organizations must periodically ask and be able to answer the previously noted question: "how are we doing?" To do so, clearly defined measures of effectiveness, as well as a scorecard, are both needed to track progress regarding the extent to which goals, objectives and targets are actually realized.

Combined, the elements noted above are ultimately reflected in a viable strategic plan with clearly defined priorities. Priority setting is the process where the main tradeoffs between serving existing customers and expanding into new markets must be made. Priorities also provide the context for project selection and policy changes that dictate:

- Human resource requirements;
- Operating and capital budgets based on the agency's financial capacity; and,
- Organizational structure.

Some may argue that this simplistic approach is nothing more than what a responsible public transit authority normally does. The record, unfortunately, does not support such a claim. In many cases, ad hoc interventions often alter transit plans and policies arise that cannot be directly related to either the vision or mission statements.

One advantage of actually formalizing the process for strategic planning is that the plan itself can be used to filter numerous extraneous proposals for new routes or new services that are the daily fare of agencies that conduct all of their business in a public arena.

To be meaningful in the day-to-day activities of a transit agency, strategic plans should be developed in ways that assure ownership by those responsible for overall policy direction (municipal councils or the provincial government), executive oversight (boards or commissions), and management, as well as those involved in the actual delivery of service.

Acceptance of the plan should guide everything the organization does. Although developing the strategic plan is primarily the responsibility of the senior agency executives, to effectively guide the operation and development of the organization, it is essentially a road map that can only function well by obtaining buy-in from the agency's governing body and employees at all levels of the organization.

7.0 Governance

The Need for New Models of Governance

The preceding sections suggest that the main elements of doing things right in the delivery of transit service involve:

- Elevating customer orientation as the driving force that influences service delivery; and,
- Making all decisions in accordance with a strategic plan that defines the vision, mission, and goals of a transit operating agency.

Implicit in this view is the belief that simply spending more capital on public transit is an insufficient condition for achieving the profound changes in travel behaviour that form the basis of the regional transportation plan.

Changes in customer orientation and strategic planning will not occur unless appropriate changes in how transit agencies are governed are also made. Such changes are predicated on the view that comprehensive decision-making in response to changing goals and objectives can be achieved more effectively by boards comprised of independent individuals with relevant experience and qualifications.

On this basis, an earlier RCCAO study argued against the appointment of elected officials to the board of the then Greater Toronto Transportation Authority (renamed Metrolinx).[17] Even though some members of the provincial cabinet independently arrived at the same conclusion, the final decision permitted individual GTHA municipalities to appoint representatives of their own choosing.

The emergence of sub-regional caucuses within a body charged with taking a regional perspective, however, eventually influenced the Province to reformulate the Board as a body of non-elected provincial appointees to ensure more effective implementation of the approved regional transportation plan.

Various transit operators in the GTHA differ in terms of their governance models. The board of York Region Transit (YRT), for example, is comprised of the Regional Chair, an elected member of Regional Council, and two executives of YRT. By contrast, the Toronto Transit Commission is comprised entirely of serving members of City Council.

In an era characterized by concerns about finance, efficiency, community, and environmental impacts, effective governance requires oversight bodies that include individuals with expertise and experience in disciplines that are relevant to the main purposes of a transit agency. Directors should be experts in a number of areas, such as transit, engineering, finance, law, accounting, construction, project management, and urban planning, expertise that is unlikely to be represented in any one group of elected officials.

The Elements of Good Governance

Recent interest in good governance has been stimulated by dramatic failures and abuses of well-established and highly regarded organizations, primarily in the financial sector. However, there has also been some fallout with respect to governance of not-for-profit institutions.

In a special report concerning the governance of Metrolinx, for example, the Toronto Board of Trade made a number of recommendations that can be paraphrased as follows[18]:

- It is imperative that the composition of the board represents the interests of and delivers results for the benefits of the regional community;
- To be truly effective, it must be an independent body;
- The agency's priorities should remain focused through election cycles and changes in political agendas; and,
- Board members should have experience in financing and implementing major transit and transportation projects and programs.

In short, the Toronto Board of Trade argued that "good governance is best achieved through bodies that are structured to provide executive oversight in ways that are sensitive to long term needs, guarantee objectivity, and offer a diversity of relevant experience and expertise."

The Conference Board of Canada also stressed that "the essence of good governance for transit agencies in the GTHA is based on recognition of a clear demarcation between the responsibilities for executive oversight (such as policy and budget approval) and the responsibilities of management." According to the Conference Board report:

- Primary emphasis in the composition of transit agency boards must be placed on the unique contribution that each potential member can bring to the board;
- Best governance practice and accountability is achieved through a board comprised of independent individuals answerable to elected officials; and,
- Elected officials should not sit on boards.[19]

The Canadian Coalition for Good Governance (CCGG) also suggests "strengthening board independence and fixing board oversight…is the essential starting point for governance reform," leading to high performance boards that

- Are accountable, independent of management, and do not represent any one group of stakeholders; and,
- Have experienced, knowledgeable directors and committees.[20]

Although the CCGG focuses primarily on for-profit organizations, an article in the journal of the Institute for Corporate Directors (ICD) notes that in the case of public sector organizations:

> The degree of public scrutiny brought to bear on not-for-profit organizations in Canada is increasing steadily…in part, due to allegations of improper procurement and poor spending controls…and the quality of oversight provided by their boards[21]

These organizations all support the concept of good governance by professional boards.

In addition, there is evidence of other not-for-profit transit agencies that manage to operate quite effectively under professional boards. The Chicago Transit Authority is one. Portland, Oregon (viewed by many people as the near-nirvana of sustainable urban and transportation planning) is another where transit agency executive oversight is provided by a professional board.

The Greater Vancouver Regional District's experience with TransLink, the regional transit agency, further highlights the importance of improved governance of public authorities. A provincially appointed review panel noted that under the then politically structured board:

> Decision-making was difficult, slow and marked by the division of local political interests…since board members had divided responsibilities—to the voters who elected them and TransLink."[22]

Following the TransLink review, the board was restructured as a professional board that reports to a regional council of elected officials. The board now functions under a process that provides opportunities for turnover and revitalization of the board on a cyclical basis.

In contrast to these views, clearly, there is still strong support for including elected officials on transit agency boards within the GTHA, largely based on the belief that only elected officials can:

- Be held accountable for the substantial subsidies transferred from municipal councils to their wholly owned transit operating authorities; and,
- Respond effectively to concerns of users and the general public.

However, hospitals, universities, VIA Rail, airports, and other providers of public services manage to function under policies established by government through professional boards.

Politics, of course, is always involved in appointing governing bodies to these types of public sector organizations, bodies that, clearly, are not entirely insulated from the occasional wink or nod from senior politicians who formulate the guidelines under which they operate. But the operations themselves, under these policy guidelines and directives, are supervised by professional boards that are expected to function under the rules of good governance.

Transit advocates, anxious to be part of the decision-making process, also typically favour boards comprised of both elected officials (presumably because they might be more sensitive to public input), as well as citizen representatives.

However, when hundreds of thousands or even millions of transit trips are made daily on the facilities of an individual transit agency, what insights do two or three citizen representatives provide that cannot be captured by other, far more effective means? These means include regular periodic surveys and scheduled public meetings where both boards and senior management are present to hear views of the public and respond to questions.

A Governance Model for GTHA Transit Agencies

The arguments treated above suggest that improved governance of an individual transit operating agency requires a professional board or commission comprised of individuals who:

- First and foremost, each recognize a fiduciary responsibility to act in the best interests of the entity which they govern;
- Are capable of taking a long-term and comprehensive view of major policy and financial alternatives;
- Can distance themselves sufficiently from personal conflicts of interest;
- Offer a range of experience and expertise in disciplines that bear directly on the goals of the agency; and,
- Accept a commitment to ensure objective executive oversight consistent with the stated purposes of the agency, as defined by the relevant municipal council or provincial ministry.

Good governance requires that appointments to governing bodies be restricted to individuals who can exercise their responsibilities and offer their experience, skills, and insights to provide executive oversight, not micro-management.

Although the process for political appointments may well be imperfect, it does allow appointment of individuals who actually have experience or expertise that is germane to the goals and objectives of the agency. It is also important that appointment procedures facilitate extending the terms of highly performing members, as well as replacing those who do not perform well or lack sufficient commitment, by those who do.

Based on these guidelines, a suggested governance structure for transit agencies in the GTHA can be described as follows:

1. The process for appointing new board members always begins with defining the skill set in terms of experience and expertise that the board needs.
2. All new appointments are based on an assessment of applicants and nominees with respect to identified skill set requirements that vary from time to time as the composition of the board changes.
3. Relevant skill sets include project management, finance, transportation and urban planning, transportation operations, construction, project management, law, public administration, business, environmental assessment, and human resources.
4. Municipal councils (in the case of municipal transit agencies) or the provincial government (in the case of Metrolinx) make some appointments. Other appointments are made by the board itself.
5. The pool of eligible candidates is based both on applications solicited from the public-at-large and nominations solicited from relevant non-governmental organizations (NGOs).

6. Relevant NGOs include professional societies (for example, in law, accounting, engineering, and planning), boards of trade, business associations, and community organizations.

7. Initial appointments are made for variable terms of three or four years to permit cyclical appointments thereafter.

8. Re-appointments are permitted but subject to some limitations on the total number of years a member can serve.

9. The board elects a Chair and establishes sub-committees for governance and nominations, budget and audit, human resources and compensation, and other areas that may be appropriate.

10. Individual board members:
    - Participate in an orientation program upon first appointment to enhance their understanding of the goals and purposes of the agency, how the agency functions, and the main risks to be addressed;
    - Declare conflicts of interest that may arise with respect to matters considered by the board;
    - Conform to board policies regarding attendance, expenses, communications, and confidentiality; and,
    - Treat other board members and employees in a professional manner.

11. The main responsibilities of the board include:
    - Strategic planning and risk management;[23]
    - Approval and monitoring of the agency's strategic plans;
    - Annual assessment of major risks faced by the agency;
    - Compensation policies;
    - Appointment of the chief executive officer;
    - Definition of projects, capital expenditures, and policies requiring board approval;
    - Approval of policies respecting expenditure limits and signing authorities, procurement practices, and the workplace environment;
    - Annual and five-year budget approvals;
    - Self-assessment of board, sub-committee, and individual member performance;
    - Sponsorship of regular public meetings attended by board members and relevant employees to obtain public input and respond to questions; and,
    - Preparation and publication of an annual agency report.

What is suggested above has nothing to do with privatization. The proposed model involves a professional board of directors that is accountable to the municipal and provincial governments which create them.

Many of the proposed features are subject to debate, refinement, and modifications. Acceptance of the fundamental concepts embodied in this governance model will not be well received by those with vested interest in maintaining the status quo. Similar to experience in other municipalities, moving in the direction of higher performance transit agency governance throughout the GTHA is likely to involve a lengthy struggle.

However, as noted elsewhere, "the degree of public scrutiny brought to bear on non-profit organizations in Canada is increasing steadily" and "funders, stakeholders and the general public have higher expectations of not-for-profit organizations and their boards than ever before."[24]

Gaining acceptance of the need for better governance of transit agencies requires political leadership and, as well, will likely require legislative changes. Alternatively, modifications to municipal transit agency governance can simply be required as a condition for provincial funding.

Governance and decision-making go hand-in-hand. With population growth and increasing concerns about congestion and other impacts, models of governance that were once appropriate are now outdated and do not make sense for today's problems, let alone those of tomorrow.

As difficult as the path to better governance may be, it is the single most important issue that affects the decision-making process and subsequent implementation of investment plans and operating policies intended to deal successfully with transportation problems in the GTHA.

8.0 Paying for Things

The Financial Context

Paying for transit involves two main components. The first concerns the costs of operation (including routine maintenance of vehicles, fixed plant, and infrastructure). The second concerns finding the capital investment needed for system rehabilitation and expansion. System rehabilitation involves maintaining capital assets (infrastructure and equipment) in a state of good repair.

Transit properties also generate fare revenues, as well as revenues from advertising and other sources. It is the difference between total costs and these revenues that creates the funding issue.

Throughout North America, public transportation is neither financially nor economically viable. Although some transit services in the GTHA come close to meeting their operating costs through service revenues (notably GO Transit), none provide a return on capital. Capital subsidies are the rule and, in general, subsidies are also required to cover operating deficits (the difference between costs of operation and operating revenues).

For the GTHA, typical annual aggregate data for all transit operators are summarized in Figure 8.1 (2008 dollars). These data show:

- Overall revenues average about 71 per cent of total operating costs;
- Operating costs over revenues total almost $507 million;
- Capital expenditures exceed operating losses by an additional $1.5 billion; and,
- The total funding shortfall exceeds $2 billion without any major expansion.

This shortfall is offset by municipal, provincial, and federal subsidies, distributed as shown in Figure 8.2.

If subsidies are reduced, the only courses of action are to reduce service, to increase fares, to delay capital expenditures, or some combination of all three.

The main problem is that, by and large, the extent of subsidies from these various governments is highly unpredictable. As a result, it is difficult for any transit agency to develop a meaningful strategic plan along the lines suggested in Section 6.

Setting aside the matter of funding operating losses that will certainly grow with system expansion, today's approach to transit capital funding can be characterized as a chorus of pleas for more dollars from the provincial and federal governments.

Sometimes these funding requests are granted. Sometimes they are denied, or even worse, left unanswered.

Figure 8.1: Revenues and Costs for GTA Transit Operators

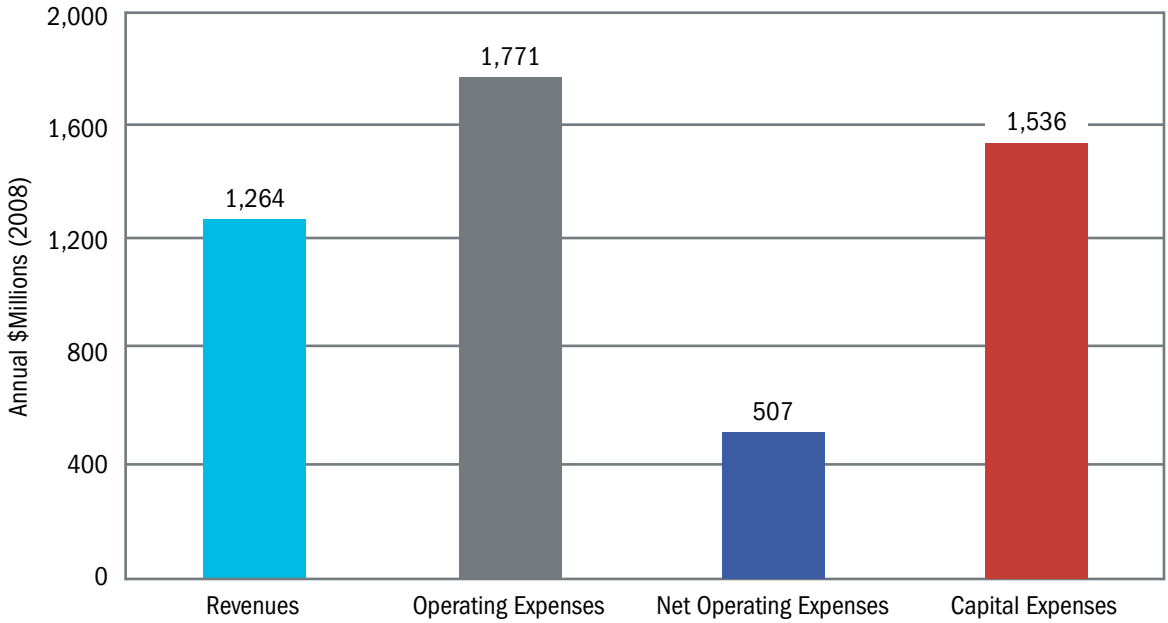
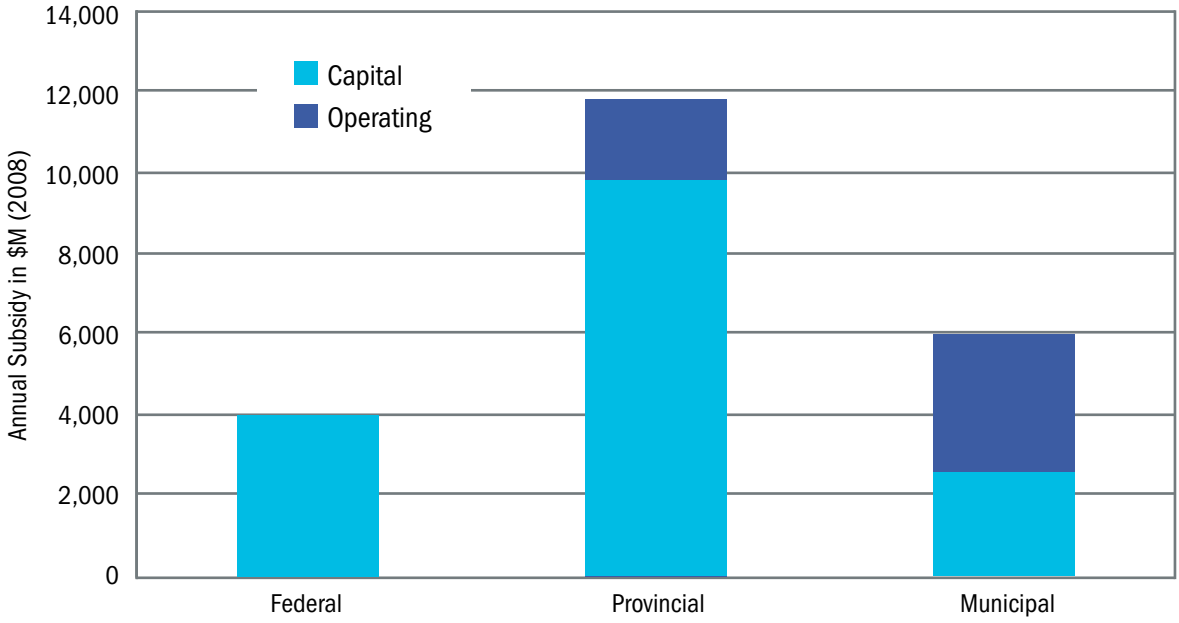


Figure 8.2: Distribution of Annual Subsidies



This ask and pray approach to transit funding must change if transit authorities are to deliver the kinds of new service implied by current programs for light rail transit, bus rapid transit, subway, and commuter rail service expansion.

Although transit funding involves many issues, three are probably most important. The first concerns the role of the federal government; the second concerns predictability, and the third concerns alternative sources of funding, notably road or congestion pricing. All three are interconnected.

The Role of the Federal Government in Transit Funding

Almost all proposals for new transit facilities are predicated on the hope that substantial financial contributions will be provided by the federal government. *MoveOntario 2020*, to cite one case, assumes that of the $17.5-billion total capital estimate, about one-third (or $6 billion) will be provided by the federal government.

The case for federal assistance is often based on the simple fact that elsewhere in the world, municipalities do obtain significant funding from national governments. The Organization for Economic Co-operation and Development (OECD), for example, recently referred to Toronto's transportation woes as the key liability threatening the region's future prosperity, noting that of 31 selected nations, Canada is also the only one that has no national transit program or strategy.[25]

According to the Federation of Canadian Municipalities (FCM), the United Nations also ranks Canadian cities lower than U.S. and European cities in terms of competitiveness, quality of life, and the business environment.

The main argument for federal participation is that increasing investment in urban infrastructure, including transit, is extremely important if Canadian cities are to compete more effectively in a global economy. Canada has no long-term, national commitments to urban transit, but FCM proposes a national transit funding strategy to:

- Reduce greenhouse gas (GHG) emissions;
- Improve the competitiveness of municipalities; and,
- Stimulate economic growth at the national scale.

The Government of Canada has and continues to provide limited funding for public transit through a variety of infrastructure programs. In general, these programs involve application-based funding delivered under specially designated criteria and guidelines. Application-based funding means that those providing the funds have the final say in determining whether the investment is worthwhile and/or relates directly to some national strategy (such as GHG reduction).

Whatever the shortcomings of application-based programs, municipalities and the Ontario government are always ready to welcome any contributions from the Government of Canada for urban infrastructure, which, as shown in Figure 8.2, is limited to capital, rather than operating subsidies.

The first infrastructure program of any consequence, the Canada Infrastructure Works Program, for example, was well-received at all levels of government and deemed to make a significant contribution to reducing the municipal infrastructure deficit.[26]

However, a number of subsequent federal infrastructure programs were not without their critics, notably in the case of application-based programs that required appraisal of municipal projects (including transit) by federal government bureaucrats, even before these projects were subjected to the usual political filters.

By contrast, entitlement-based financial aid programs, where funds are allocated on a formula basis and can be used to support plans based on local priorities, were better received because:

- Administrative procedures were simpler;
- The transfer of funds was accelerated; and,
- Priority setting rested with the funding recipients.

The Federal Gas Tax Transfer is one example of a successful entitlement-based program.

One survey of municipalities illustrates the difference between application and entitlement-based programs. The survey concluded that

> Project support, which now characterizes all federal programs except for the gas tax transfer, clearly provides the highest political visibility and most easily targeted and accountable funding. Plan support allows funding to be used where need is greatest, that is, in accordance with locally identified priorities. Most (municipalities) surveyed considered the federal gas tax transfer "plan-based" model to be a far superior infrastructure program from the standpoint of administration, eligibility requirements, and consistency with locally determined priorities.[27]

The problem, as former Toronto mayor John Sewell recently noted, is that "politicians don't like to have their decision-making ability fettered by a plan,"[28] probably the main reason that the federal government, with few exceptions, has shied away from entitlement-based programs for transit.

Understandably, municipalities and organizations such as FCM attempt to make the case for federal government participation on the basis of their perceived needs. These needs, however, do not necessarily conform to needs as perceived by a government that faces a wide variety of requests for financial assistance when there is great concern about the national deficit.

Given the general state of the economy, concerns about deficits, and demands in other sectors, most notably health, there are practical limits as to the areas in which the federal government can be expected to increase the allocation of increasingly scarce resources to transit.

On the other hand, the federal government does, from time to time, include transit funding as one component of programs intended to stimulate the economy and create employment. But there are better ways of doing so other than through application-based project support that provides political visibility and photo-ops, but which may not fund areas of greatest need or maximize value added.

Funding Predictability

No organization can function effectively without some estimate of cash flows over a reasonable time period. It comes as no surprise, therefore, that there is little disagreement on the need to place transit finance on a long-term predictable basis.

Funding programs that must stand the test of the annual municipal, provincial, and federal budget processes simply fail to provide the predictability needed for effective infrastructure and service planning.

Given the long-term nature of transit infrastructure needs, the ability to predict future revenues (including subsidies) and costs is just as important as the amounts themselves. Clearly, there is a need for new financial models that offer predictable estimates of revenue streams.

Public agencies, of course, can use various financial instruments such as municipal bonds to supplement capital needs. The ability to incur debt, however, depends upon debt servicing capacity (for both interest and principal) and this is precisely where the predictability of finance becomes so important.

Long-term predictability requires legislation, not short-term programs. Legislation can provide guaranteed streams of revenue that enhance the capability of public agencies to self-finance long-term infrastructure more effectively. Guaranteed streams of revenue also provide opportunities for private sector participation in the delivery of needed infrastructure.

FCM has already recommended that the federal Gas Tax Transfer program be replaced with legislation, appropriately indexed for inflation and population growth. That recommendation is precisely on target. Similar action by the provincial government would further accelerate the expansion of transit infrastructure and services. Streams of funding guaranteed by legislation could then be pledged as revenue covenants for the issuance of conventional debt instruments.

For example, if the federal and provincial governments were to enact legislation related to entitlement-based transit funding, municipalities could issue transit revenue bonds, the repayment of which would be guaranteed from revenue derived from these transfers.

The use of conventional financial instruments based on revenue covenants generates capital more quickly than the conventional annual budgeting process of public sector organizations and governments. (The present value of such revenue covenants can also be increased if preferential tax treatment is provided for revenue bonds issued in this manner.) An example is provided in the next section.

This emphasis on legislation, as opposed to program announcements, derives from the fact that it is much easier to alter or even cancel programs than to rescind legislation.

These suggestions for achieving more predictable and accelerated funding for transit are predicated on two assumptions: one concerning the willingness of senior levels of government to enter into long term commitments, the other, agreement that such expenditures are justified in the first place.

Alternative Sources of Funding

Finding the funds for the residual deficit associated with Metrolinx's $50-billion RTP, as well as the associated operating costs, is now the major preoccupation of those responsible for transit improvement in the GTHA.

Numerous suggestions are forthcoming, almost on a daily basis, regarding a wide range of possible new levies or taxes. One recent paper estimated the impact of a variety of taxes that could be considered as new sources of revenue, some related to road use and others, such as a regional sales tax or a levy on utility bills, which are not.[29]

How governments raise money is a matter of fiscal policy, as is any process for earmarking funds in ways that limit the flexibility of governments to provide funding where it is most needed. Earmarking a new tax of any kind for transportation has opportunity costs with respect to demands for government funding in public sectors other than transportation.

Setting aside that levying yet another sales tax in a province which has just introduced the HST would be politically dangerous, the rationale for dedicating such a general tax to the transportation system is by no means clear. It assumes that from a municipal perspective, transportation has higher priority than other municipally funded services including education, public housing, or police and fire protection.

Nor is there much rationale for levying a surcharge on utility bills to pay for transportation. Why should a senior citizen who heeds warnings to stay at home on a hot and humid summer day and does not travel be expected to pay a higher fee for air conditioning to make funds available for those people who are travelling?

In general, demands for funding other public sector programs that are growing at increasingly alarming rates, simply precludes the likelihood of greater transfer payments from general revenues for urban transportation, by either the provincial or federal governments.

The case for new levies and charges that are directly related to the use of roads is another matter and one that, from different perspectives, appears to have received wider acceptance in a number of jurisdictions elsewhere in the world.

Road Pricing

Road Pricing Factors

At least at the conceptual level, interest in road pricing is on the rise and may well become a more widespread practice once a fundamental question is answered: should road users be expected to pay (more) for the use of roads?

The answer is a matter of fiscal policy to be faced by governments confronted by growing deficits, pressures to reduce debt, and an inability to fund many other deserving programs adequately.

Aside from dealing with this fundamental question, other factors enter into the debate about road pricing.

First, the definition of road pricing itself requires clarification. Road pricing, congestion pricing, and road tolling are typically used interchangeably. Imposing tolls on specific road facilities (like expressways), or the right to use specially designated HOT lanes, has impacts that are different from pricing roads on a region-wide basis.[30]

Restricting road pricing to special facilities like expressways, for example, would have several unintended impacts including increased neighbourhood infiltration or, over the longer run, diversion of present users to other destinations. Changing destinations, rather than changing mode of travel, means that tolling special facilities disadvantages certain areas of the region (notably the downtown) relative to others.

Setting aside local rivalries among municipalities within the GTHA, downtown Toronto still remains the dynamic heart of what almost everyone believes is a vibrant urban region. Disadvantaging the downtown by tolling its access is essentially inconsistent with the major thrust of *Places to Grow*, which is founded on redevelopment and intensification of areas that are already urbanized, a process that occurs more frequently in the heart of the GTHA than in suburban municipalities.

Second, many opponents of road pricing argue that road users already pay for roads through licensing fees levied by the provincial government and municipalities, in addition to fuel taxes collected by both the federal and provincial governments.

In fact, other than vehicle licensing fees for owning a vehicle and driver licensing fees for the right to drive, motorists do not presently pay directly for roads on the basis of use in the GTHA, except for the 407 ETR. Fuel taxes are not earmarked for transportation even though there is an implicit assumption that some portion of fuel purchased for automobiles and trucks are dedicated to highway improvements.

In general, taxes on fuel constitute an element of taxation common to all purchased goods and services. They are treated as general revenue allocated to the consolidated revenue fund. Special taxes and HST applied to the purchase of fuel have as little to do with road pricing as HST charged on the purchase of an automobile, a boat, or appliances, have to do with use. All consume some form of raw energy.

Third, the objectives of road pricing require clarification. Some advocates of road pricing actually view it as a means of punishing drivers and forcing them to use transit. Others view it as a means of changing behaviour or influencing the demand for road travel in order to reduce congestion. Still others view road pricing as a new source of financing both road and transit capital investment because existing sources are insufficient.

If the objective is to punish drivers, the theory is that aside from the costs of congestion incurred directly by road users, secondary costs related to safety, air quality, and greenhouse gas emissions are imposed by automobile users on others, costs that are only indirectly perceived by automobile users.

The theory is also that by making these costs more transparent, users will modify their travel choices in ways that reduce the marginal costs or externalities imposed on society. As noted in a recent conference:

- When users do not pay a price that reflects the true costs of service, they overuse the system;
- Fees (road pricing) should reflect the marginal costs of using roads; and,
- Revenue tools should be levied on a regional basis.[31]

If that is the objective, the goal should be to implement road-pricing schemes that capture both use and congestion impacts, regardless of the specific facilities used. Making roads more expensive obviously has some impact on automobile use and, over the longer term, should contribute to managing urban sprawl by encouraging individuals to make housing choices that result in shorter commuting distances.

In terms of implementation within the GTHA, prospects for road pricing will depend largely on possible mechanisms that are fair and equitable, the magnitude of the potential revenues, and how these revenues would be allocated.

Mechanisms for Road Pricing

The main methods of road pricing involve facility or area-specific tolls and some form of metering vehicle use on a broader basis.

Facility or Area-Specific Pricing

The 407 ETR is a well-known application of facility-specific tolls that vary both by length of trip and, marginally, by time of day. Tolls are payment for higher levels of service that also divert traffic from already congested facilities such as Highway 401. However, 407 ETR toll rates are established to maximize revenue and profit, not to change behaviour.

As suggested from time to time, facility-specific tolls can be applied to other major routes within the GTHA including HOT lanes that offer better service on selected expressways. Depending upon technology, the expense of tolling such facilities could be considerable.

A great deal has been written on the subject of area-wide approaches, the most notable of which are London and Singapore. Area-specific tolls attempt to reduce congestion by discouraging traffic from entering designated zones. The main objective is to meter vehicle access to these areas, an approach that could be applied, for example, to downtown Toronto.[32] Typically, such systems are very expensive.

Pricing Based on Metering Use

Road pricing based on vehicle use and congestion offers several advantages over facility-specific or area-specific tolls that, as noted above, can lead to diversions of traffic through neighbourhoods or to other destinations, adversely affecting the relative attractiveness of different areas within the GTHA.

In contrast to facility or area-specific methods of road pricing, some form of metering allows road pricing to be implemented on the basis of vehicle use, congestion, or both, on a region-wide scale. Methods include pricing on the basis of:

- Odometer readings;
- Vehicle mounted monitors;
- Global positioning system (GPS) technology; and,
- Surcharges on fuel prices.

Pricing vehicle use alone can easily be achieved through odometer readings. Odometer based pricing, however, is not sensitive to congestion and has the practical disadvantage of requiring relatively large, lump some payments at the time of license renewals. (Presumably, methods that allow smaller, periodic payments to reduce the impact of one-time large payments could easily be accommodated.)

Alternatively, equipping vehicles with some form of recording device similar to a taxi meter offers greater flexibility with regard to frequency, amounts, and methods of payment (prepaid, monthly billing, et cetera). More sophisticated monitors with multiple sensors can also measure a variety of inputs such as braking, acceleration, and fuel consumption, as proxies for congestion, which can be priced accordingly.

Such systems are used in the trucking industry for management purposes and may also be mandated in some jurisdictions as a means of enforcing regulations regarding truck speeds and hours of operation. A Cambridge, Ontario company, Challenger Motor Freight, for example, uses satellite technology to track its fleet and improve operating efficiency. Challenger has used vehicle-monitoring systems for a number of years.

GPS based monitoring systems or special levies on fuel consumption capture both vehicle use and congestion in a more straightforward manner.

Skymeter, an Ontario-based corporation, has developed a GPS system for area-wide application following successful completion of tests and trials in a number of cities including Amsterdam, London, Montreal, Toronto, San Francisco, Seoul, Singapore, and Winnipeg. Skymeter's system:

- Charges drivers based on the location of their journey, the time of day, and their distance travelled;
- Depends less heavily on expensive infrastructure due to its GPS base;
- Requires vehicles to be equipped only with a single device that communicates with existing GPS satellite and wireless networks; and,
- Once installed, can incorporate parking and other location-based services.[33]

The essence of this approach is that it provides flexibility to implement road pricing for a wide variety of locations and conditions. Road pricing can be based on kilometres driven at a certain time and in a certain location, thereby permitting differential pricing during peak and off-peak periods and under congested or uncongested conditions. Flexibility of road pricing is the hallmark of GPS approaches.

Finally, perhaps the easiest but most contentious form of metering involves the imposition of surcharges on fuel consumption. Easiest, simply because no technology is required; contentious, due to the innate hatred throughout North America of any increase in fuel prices. (At about $1.00 to $1.10 per litre, local fuel prices are still far less than in Europe where fuel costs can be as much as three times higher).

Aside from being easy to implement, surcharges on fuel address both use and congestion because fuel consumption varies with distance, as well as with congestion. Pricing fuel also encourages more fuel-efficient choices and, in the process, contributes to goals for GHG reductions. Fuel surcharges present no administrative burden and involve no investment in equipment or infrastructure.

Several arguments, however, are advanced as reasons for not relying on fuel consumption as the basis for road pricing.

First, it may be considered too blunt a method to provide flexibility to price facilities or areas on a more selective basis. Here, GPS metering systems have a clear advantage.

Second, there are concerns about seepage (or, to economists, a spillover effect) when some users purchase their fuel outside the region in which the surcharge is applied. Suppliers within the priced zone will obviously object to the corresponding loss of business. (Airports face this problem on a daily basis wherever there are nearby competing airports that enjoy lower ticket taxes, municipal taxes, or land rents.)

At the margins of the taxed area, this type of seepage is likely, but decreases as the size of the region in which fuel surcharges are imposed increases.

Third, there are concerns that revenues based on fuel surcharges will eventually decline as we shift from automobiles to transit and changes in automotive technology (such as hybrid and electric vehicles) increase fuel efficiency. Over time, gasoline and diesel consumption may also diminish as alternative fuels capture more of the automotive energy market.

However, it is certainly possible to compensate for decline in per capita fuel consumption (aside from the natural growth in population of about 1.5 per cent annually) by indexing fuel surcharges to changes in regional fuel sales.

Finally, a surcharge on the price of fuel will undoubtedly be perceived as just another tax increase unless governments are able to make convincing arguments to the contrary. Convincing users that the purpose of this new levy is to improve the transportation systems from the perspective of an individual would require a carefully crafted educational effort. It would likely also require a transition period that might involve parallel reductions in existing fuel taxes.

Selected features of these alternative road-pricing methods are compared in Table 8.1 in terms of crude relative measures. Overall, setting aside any uncertainties related to final system development, GPS road pricing methods appear to offer the greatest range of flexibility, including the ability to price parking and the use of HOT lanes. GPS technology is also insensitive to changes in fuel efficiency or the substitution of alternative fuels for gasoline and diesel fuel.

Regardless of the methods used, acceptance of the concept of charging for the use of roads and related congestion impacts imposed on the community at-large will undoubtedly involve a highly charged political debate.

However, failing any substantial increase in discretionary funding (that is, funding not already allocated for other purposes) and given the magnitude of the transit funding deficit, it is likely that some form of road pricing will eventually be introduced within the GTHA to generate both capital investment and operating subsidies reflected in the regional transportation plan.

The Magnitude of Potential Revenues

Potential revenues from road pricing in the GTHA depend largely on the method of pricing and the unit charges. Rather than looking at potential rates for each of the alternative methods treated above, it may be useful to consider a common measure of yield that is equivalent to a specific fuel charge. In other words, a fuel charge of 10 cents per litre has an equivalent charge per kilometre if use were to be measured on the basis of odometer readings or GPS metering.

To place potential revenue in perspective, the previously referenced Irwin/Bevan study suggests that a fuel charge of 10 cents per litre would generate about $1 billion annually in 2010 dollars, or about half the amount needed to fully fund the regional transportation plan.

Table 8.1: Comparison of Road Pricing Methods

Legend: ☐ Good ☐ Poor

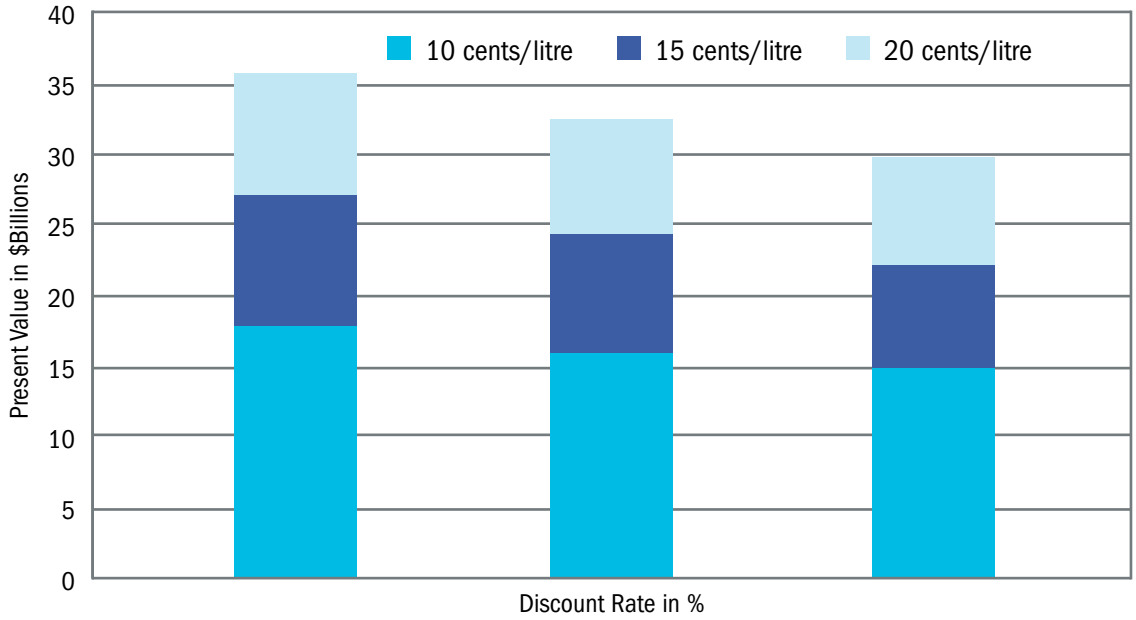
Item	Non Region-wide Pricing		Region-wide Road Pricing			
	Facility-Specific	Area Specific	Odometer Based	Vehicle Monitors	GPS Based	Fuel Charges
Vehicle km	Route-specific					
Regional Congestion	Route-specific Peak/Off-peak	Peak/ Off-peak				
Downtown Congestion						
Sub-areas Disadvantaged						
Neighbourhood Infiltration						
Seepage						
Infrastructure Investment					note 1	
Sensitivity to changes in fuel consumption						
In-vehicle Equipment						
Cost of Administration						
Use of 'hot' lanes						
Other Pricing Flexibility						

1 At least four companies (GMV, Satellic, Siemens, and Skymeter) require no infrastructure aside from a data centre and mobile enforcement cameras.

If these revenues were to be guaranteed through provincial legislation, thus allowing them to be treated as revenue covenants, they could be capitalized in terms of present discounted values. Figure 8.3 shows the resulting total capital investment for a range of discount rates and equivalent yields.

At a yield equivalent to a fuel charge of 10 cents per litre, present discounted values range from $15 billion to $17.5 billion for discount rates between three and five per cent. They would proportionately more for higher equivalent yields. Any parallel federal government surcharges would, of course, increase these amounts.

Figure 8.3: Present Values for Alternative Discount Rates and Yields



Allocation of Road Pricing Revenues

Earmarking revenues from road pricing, for no other reason than building community and political support for this notion, will require decisions with respect to the purposes for which such revenues are to be used, as well as how funds are to be allocated.

At this time, the main emphasis on funding needs concerns finding the remainder of $50 billion that has not already been allocated for implementation of the regional transportation plan. The RTP focuses almost entirely on public transportation.

Certainly, there is justification for using some road pricing revenues for road improvements, including traffic engineering that offers priority for transit services on existing roads and streets. If the base of road pricing were to be extended beyond the GTHA, the case for using some revenues for improvements to road systems would be strengthened, particularly in communities where transit services are minimal, if not non-existent.

In addition to allocation between roads and transit, there is a question of appropriate allocation between regional authorities such as Metrolinx and local municipalities. Rational criteria for revenue allocation that provide performance incentives are clearly required as a pre-condition for the introduction of road pricing.

Worrying about methods of allocation may appear premature in view the lengthy debate that is likely to occur before the concept of any form of road pricing achieves a reasonable degree of acceptance. But being able to explain how the generated revenues will be deployed will undoubtedly influence the outcome of that debate.

Defining the purposes for which road pricing revenues can be used, as well as their allocation between regional and local authorities, is essential to building a broad base of support throughout the GTHA for this form of earmarked transportation funding.

In summary, road pricing on the basis of vehicle use has the potential to:

- Influence the mode of travel mode selected by choice riders;
- Reduce congestion;
- Lower GHG emissions;
- Favour intensification and redevelopment in urbanized areas of the GTHA;
- Control urban sprawl;
- Generate needed funds; and,
- Accelerate capital investment in infrastructure by treating revenues as covenants to service debt.

Nevertheless, there are significant obstacles to gaining a broad base of community support and political acceptance for the introduction of any form of additional charges based on road use.

A Final Note

Aside from the viability of introducing some form of road pricing, it is clear that with regard to paying for things, new funding models are required founded on the principle of guaranteed streams of funding over predictable time periods.

Such models entail an evolution from application-based, time-limited, project-oriented infrastructure funding to entitlement-based, long-term, plan-oriented predictable financing. This means transit legislation rather than transit programs, legislation that allows transportation agencies to capitalize guaranteed cash flows as revenue covenants against the issuance of conventional debt instruments.

Capitalizing streams of revenue is how airport expansion in Canada is now made possible just as capitalizing guaranteed ferry subsidies made it possible for the private sector to finance and build a bridge to Prince Edward Island, a 100-year-old dream.

It goes without saying that there is a demonstrable 'deficit' in transportation infrastructure throughout the GTHA. It also goes without saying that without parallel efforts to put customers first, engage in strategic planning, and develop better models of governance and finance, capital investment in transit system expansion alone is unlikely to produce the dramatic changes in travel behaviour implicit in the regional transportation plan.

As Peter Drucker, a recognized authority on business organizations, put it: "Every organization must be prepared to abandon everything it does to survive in the future."[34]

Endnotes

1 Robert Devitt and Beth Deazeley, "Increasing Public Scrutiny of Not-for-Profit Organizations", *Journal of the Institute of Corporate Directors*, September 2010, p.24.

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3 *Moving on Sustainability, Transportation Master Plan Update*, (York Region, November 2009).

4 Source: *Transportation Tomorrow Survey*, (Toronto: Data Management Group, Department of Civil Engineering, University of Toronto, 2006).

5 David F. Crowley, Amer S. Shalaby, and Hossein Zarei, *Access Walking Distance, Transit Use and the Success of TOD* (Transit Oriented Development) *in the North York City Centre*, (Washington: Transportation Research Board, TRR, No. 2110, Volume 1, 2009), pp. 96-105.

6 *The Big Move*, *op.cit.*, p.44.

7 *Choices for the Future*, Final Report of the Metropolitan Toronto Transportation Plan Review, (Toronto: Metropolitan Toronto, 1975).

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10 A phrase borrowed from *Guidelines for Federal-Municipal Infrastructure Programs*, (Ottawa: Federation of Canadian Municipalities June, 2007).

11 Richard M. Soberman, *Reducing Car Dependence, Transportation Options for the City of Toronto*, (Toronto: City of Toronto, January 2001).

12 The interest in LRT is not unique to the City of Toronto. LRT is currently being considered in Hamilton and, outside the GTHA, Ontario has promised $300 million for an LRT project in the Region of Waterloo.

13 *Regional Forum: Report Out Notes*, (Toronto: Board of Trade, July 2010), a report that devotes one section to financing regional transit infrastructure and tackling congestion.

14 WestJet has become one of many examples of how branding has contributed to corporate success. See for example, Ted Matthews, *Brand: It Ain't the Logo, It's What People Think of You*, (Toronto: Instinct Brand Equity Coaches Inc., 2007).

15 Historically, chartered banks offered service between the hours of 10:00 AM and 3:00 PM, when most of their customers were at work. They now have extended hours of service (as well as new improvements in customer convenience) in response to the practices of trust companies and other financial institutions vying for the same business.

16 See the final report of the *Customer Service Advisory Panel*, (Toronto: Toronto Transit Commission, August 2010).

17 Richard M. Soberman *et al, Transportation Challenges in the Greater Toronto Area*, (Vaughan: The Residential and Civil Construction Alliance of Ontario, November 2006). www.rccao.com.

18 *Time is of the Essence: Ensuring Economic Prosperity through Improved Transit and Transportation in the GTHA*, (Toronto: Toronto Board of Trade, November 2008).

19 Conference Board of Canada, *Canada's Transportation Infrastructure Challenge* (Ottawa: 2005) pp. iii-iv.

20 *Building High Performance Boards*, (Toronto: Canadian Coalition for Good Governance, March 2010), p.3-5.

21 Robert Devitt and Beth Deazeley, "Increasing Public Scrutiny of Not-for-Profit Organizations", *Journal of the Institute of Corporate Directors*, September 2010, p.24.

22 *TransLink Governance Review*, (Vancouver: Government of British Columbia, 2007), p.1.

23 Board members should be actively engaged in strategic planning. As one expert notes, "a board is not properly involved in strategic planning if it's a passive recipient of management's strategic planning", Poonam Puri, "*Law and Governance, Recipe for Success*", (www.listedmag.com, Summer 2010).

24 Devitt and Deazeley, op.cit.p.24.

25 *Toronto's Vital Signs 2010*, as reported in the *Toronto Star*, 5 October 2010.

26 That program leveraged about $2 billion of federal funding to generate $6 billion of infrastructure investment on a matching fund basis. See, Richard M. Soberman *Taking Stock: A Review of the Canada Infrastructure Works Program*, (Ottawa: Treasury Board Secretariat, 1996).

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28 John Sewell, commenting on the life of Eli Comay, a respected Toronto planner, in *The Globe and Mail*, 17 August 2010.

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30 Existing or planned HOV lanes could be converted to HOT lanes, pending appropriate policy and enforcement conditions.

31 Enid Slack, Presentation to the *Round Table on Transit and Transportation Infrastructure*, (Toronto: Toronto City Summit Alliance, 14 July, 2010).

32 For more detail on Singapore and London, see Richard M. Soberman, *Transportation Opportunities in the Greater Toronto Area*, (Vaughan, Ontario: The Residential and Civil Construction Alliance of Ontario, 2008),www.rccao.com, pp.69-71.

33 See www.skymetercorp.com.

34 Gert Van Mol, *The Wall Street Journal Europe*, 8 April 2007.

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The Residential and Civil Construction Alliance of Ontario (RCCAO) is composed of management and labour groups that represents a wide spectrum of the Ontario construction industry. The RCCAO's goal is to work in cooperation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry. For more information on the RCCAO or to view copies of other studies and submissions, please visit the RCCAO website at www.rccao.com

RCCAO members include: Carpenters' Union • Greater Toronto Sewer and Watermain Contractors Association • Heavy Construction Association of Toronto • International Union of Operating Engineers, Local 793 • International Union of Painters and Allied Trades, District Council 46 • Joint Residential Construction Council • LIUNA Local 183 • Residential Carpentry Contractors Association • Toronto and Area Road Builders Association

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