

Below is the Executive Summary from the report *Transit Means Business: The Economic Case for Public Transit in Canada*. More information can be found in [Issue Paper No. 5: Transit Means Business: The Economic Case for Public Transit in Canada](#). A complete copy of the report can be purchased by visiting <http://www.cutaactu.ca/content.asp?ID=134>.



Executive Summary

Public transit is an investment that returns a wide range of material benefits to the Canadian economy.

Many of transit's economic benefits are obvious and well understood, such as its role in reducing air pollution, in providing a safer mode of personal travel than private automobiles, and in providing transportation alternatives in crowded cities. Other benefits, such as the impacts of transit investment on real estate, are less obvious and more complicated relationships to explain. However, agencies at all three levels of government, academics, transportation professionals, and transit agencies themselves are all working to better understand these relationships and clarify economic benefit issues surrounding transportation investment decisions.

The Canadian Urban Transit Association, together with Moving the Economy and the Federation of Canadian Municipalities, commissioned this study in February 2003, to survey the economic benefit of public transit in Canada. While extensive information on this issue exists in the United States (partly due to the electoral process surrounding Funding Propositions), Canadian data tends to be more scattered. It is known that the provision of transit services to consumers is a \$3.2 billion business - *excluding* capital expenditures, economic spin-offs reaching into various industrial sectors, as well as the economic benefits of congestion reduction, worker mobility, and improved health and safety. These additional benefits are many times greater than the scale of the industry alone.

This study attempts to lay out the available information about the scale of these additional benefits, to give a broader picture of the contribution of public transit to the nation's economy. A surprising amount of material on the subject is in fact available, although in many cases it exists in scattered form or is somewhat out of date. While this document brings together much of this material, it is likely that a great deal more has been prepared and will be prepared as additional investment in transit becomes a more and more important component of urban transportation.

The Economic Case for Transit

Certain things happen that keep economies from achieving their full potential - economists call some of these "productive inefficiencies". Productive inefficiencies include a wide range of phenomena, many of which can be reduced by additional investment in public transit. In this

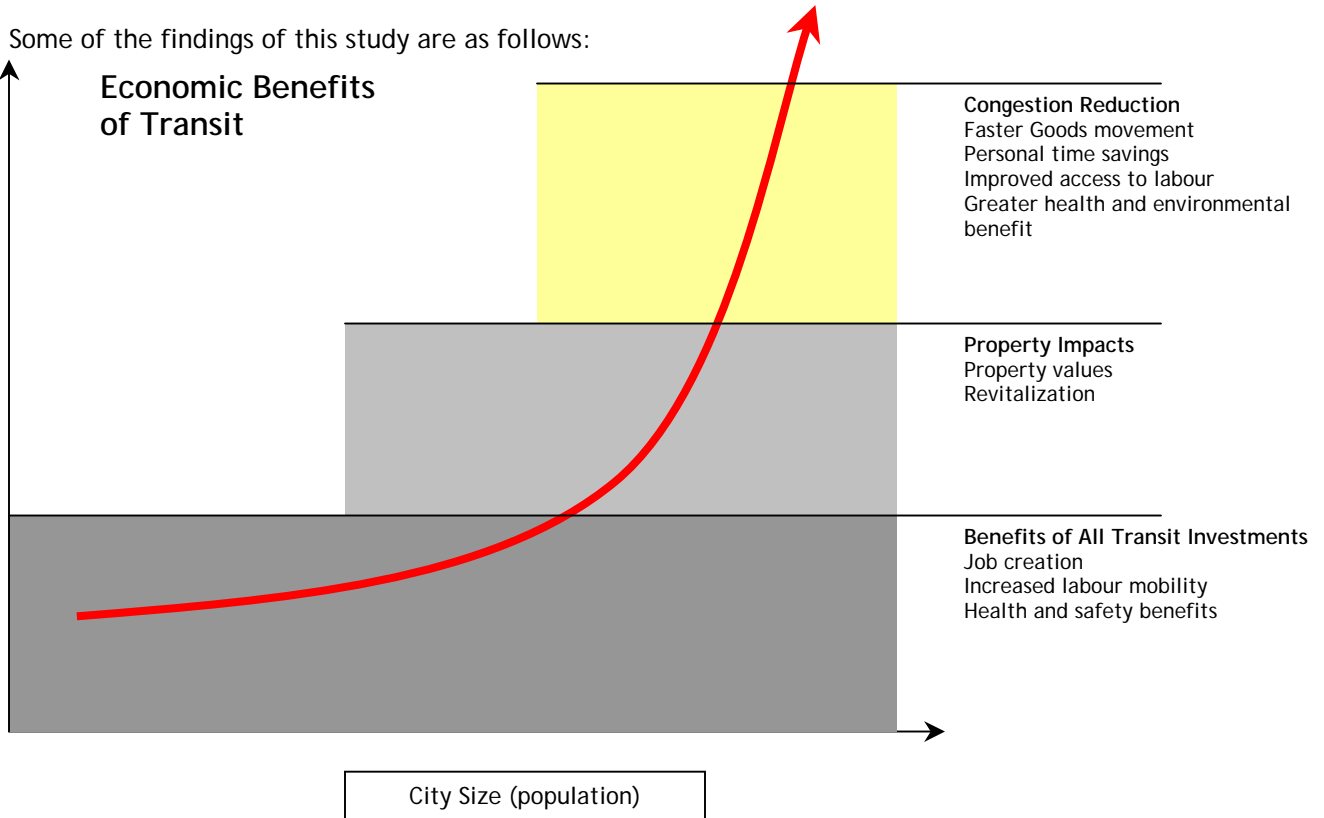
way, investment in public transit makes the economy more efficient and brings it closer to its maximum potential, with wide-reaching benefits to the Canadian economy.

The study confirms that the relative economic benefits of transit investment increase as the size of an urban centre increases. There are a large number of benefits that occur as the result of any investment in urban transit. These include:

- **Economic activity and spending** in the transit industry itself, through its supply chains, operations, and through research and development into new transit products for export;
- Increased **labour mobility** supporting central business districts, to jobs in a wide range of sectors of employment, access for students to education, and mobility for those who choose not to, or are unable to, use an automobile to work, shop, or otherwise undertake economic activity; and,
- **Health and safety** benefits including fewer accident-related costs and air quality.

As the size of an urban centre increases, and the nature of transit investment changes, additional benefits begin to accrue. These include **property impacts**, including residential and commercial values. In an urban area with significant road congestion, the value of taking traffic off the road through additional transit investment accrues extremely significant benefits. As the marginal cost of congestion increases rapidly, so do the benefits of providing alternative transportation (one additional car on a highly congested corridor incurs much greater costs to the economy than an additional car on an uncongested corridor). As such **Congestion savings** are increasing in scale where transit can provide a replacement for passenger automobile travel.

The curve below demonstrates the cumulative nature of these benefits. It should be recognized that this is a conceptual framework, not a cost-benefit curve - to realize the benefits higher in the curve, transit investment may cost more than that required to realize the benefit earlier in the curve. For example, property benefits are generally only realized by cities with higher-order transit systems. However, there is a strong indication from the literature that economic benefits increase dramatically with city size, even when quite rigorous methodologies are used to eliminate non-additive benefits from the calculations.



ECONOMIC EFFICIENCY

- Public transport is a critical part of the competitiveness of Canada's cities. Through detailed analysis of data from 250 cities around the world, including Montreal, Toronto, Ottawa, Vancouver, and Calgary, an international assessment of transit's return on investment found that, unlike the United States, in Canada public transport in large cities "is always far more efficient than the automobile"
- The average cost of one person-kilometre when travelling by car in Canada is \$0.46. For public transit, it is \$0.12. This equates to an annual savings to the economy of, for example, \$2,495 for every resident of Toronto and \$4,278 for every resident in Calgary (based on total kilometres travelled, not adjusted for geographic differences in fuel prices or congestion)
- Cost-benefit analysis work conducted for Transport Canada on three proposed transit projects found a benefit-cost ratio of 1.4, 1.7, and 2.1, with \$497.9 million in total economic benefit for an expenditure of \$216.8 million
- Public transport consumes 3 times less energy per passenger kilometre than the automobile in Canada, making it 3 times more efficient as a use of scarce resources.

- As one example of transit's impact on a single urban economy, staff at the City of Ottawa found that transit investment resulting in a 10% increase in modal share would return \$632,777,128 in economic impact, with the bulk (\$408,000,000) resulting from reductions in congestion. Their cost calculation incorporated operator costs, infrastructure costs, time delay factors, environmental, and accident-related costs.

IMPACTS: ECONOMIC ACTIVITY

- The British Columbia Treasury board found that transit investment is many times more effective at creating jobs than expenditure on other modes of transport. A \$1 million expenditure on public transit in British Columbia creates on average 21.4 new jobs, compared to 7.5 jobs created by expenditures on general automotive expenses and 4.5 jobs through spending in the petroleum industry.
- Transport Canada's data for the transit industry suggests employment in transit had a combined overall impact on the Canadian economy of almost \$2.1 billion in 2001.

IMPACTS: ACCESS TO JOBS

- Businesses in Canada are increasingly recognizing a need for direct transit links to facilities to ensure access to labour forces. In the past five years, specific requests for transit service to support business facilities have been received in cities across the country. Case studies from Ottawa, Montreal, Edmonton, and Toronto suggesting an increasing recognition of the link between transit accessibility and viable business location for such facilities as manufacturing facilities, call centres, and recreational businesses.
- In Canada's largest cities (Toronto, Montreal, and Vancouver), links between the number of jobs in the central business district and per-capita ridership suggests that public transit is the transportation mode supporting ongoing growth.
- In Vancouver, Victoria, Calgary, Toronto, Niagara Falls, and Halifax, transit provides access to tourism-related employment for younger and lower-income workers. In the Niagara Region, the need for this transportation was strong enough that tourism operators contracted for a special transit service to allow them to access potential employees in other nearby communities. The bus transit systems of Welland, St. Catharine's, and Niagara Falls are examining an intermunicipal service to support this need.

MORE PRODUCTIVE TRAVEL

- Time spent travelling on public transit can be productive working time for some individuals. Transport Canada recognizes this fact by assessing a 25% value for time spent on modes of travel that allow individuals to continue to work because they are not operating the vehicle. Looking only at commuter rail and subway riders in Vancouver, Toronto, and Montreal, if 5% of riders are able to work on transit, generates an annual productivity benefit of \$33 million.

INCREASING PROPERTY VALUES AND PROMOTING DEVELOPMENT

- A detailed study conducted by researchers at the University of Toronto in 2000 suggested that proximity to a subway station in Toronto generated approximately \$4,000 in additional residential property value for a home with a value of \$225,000.
- Studies of Vancouver, Scarborough, and Calgary have demonstrated property value increases associated with proximity to higher-order transit.
- Several dozen studies in the United States have been conducted that compare areas near higher-order transit stations with areas with no transit service. All but a handful demonstrated increased property values in the areas near transit.

CONGESTION

- Modelling suggests that given current land use patterns, there will be an average increase of 12 minutes for the journey to work for commuters in the GTA by 2021. This would represent an extra \$28 million per day in congestion costs, or approximately \$7 billion per year, in the Greater Toronto Area, by 2021, without additional investment in public transit.
- City of Ottawa staff have calculated the time delay savings of a 10% modal shift to transit at \$407 million.
- Congestion in Toronto, Montreal, Ottawa, and Greater Vancouver is estimated to add \$300 million to the cost of goods movement every year.
- Business associations in a number of centres have recognized that "Shifting from personal vehicle use to public transit is important to reducing congestion. Strengthening and expanding public transit networks will reduce congestion, ensure a cleaner environment, manage urban growth and provide economic returns." Canadian Chamber of Commerce, *Strengthening Canada's Urban Public Transit Systems*, 2002."

SAFETY

- The rate of fatal accidents per passenger kilometre on public transport is approximately one-twentieth that of travel by private automobile.

HEALTH AND AIR QUALITY

- 25% of green house gas emissions are caused by transportation, with private automobiles accounting for 44% of this (28% urban and 16% intercity.)
- The cost of poor air quality in the Province of Ontario is estimated at \$600 million annually in health care costs. This is equal to an estimated \$1.875 billion in annual health care costs for Canada.

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