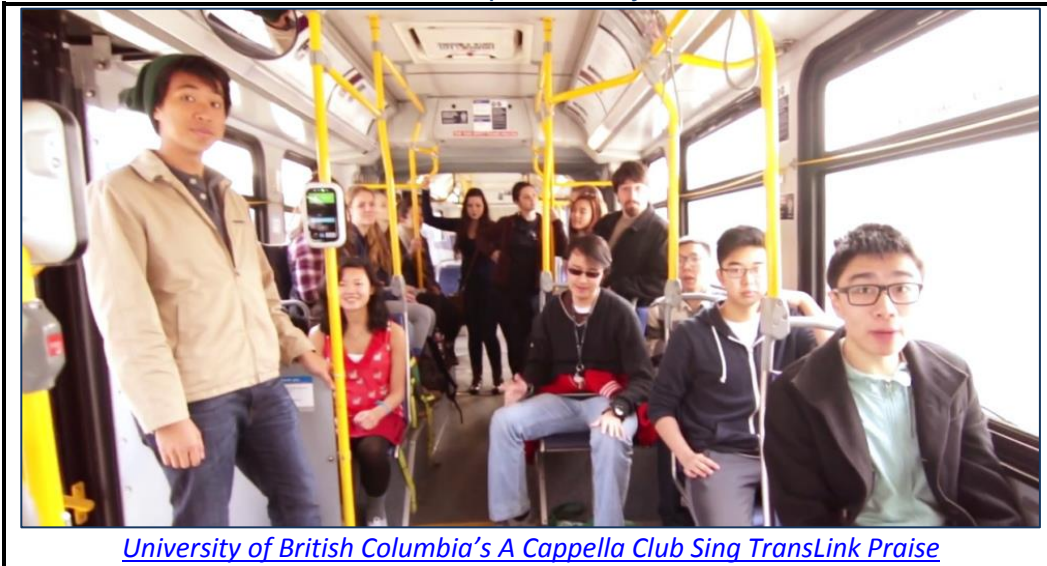

Twelve Reasons to Support Vancouver's Transportation Tax 28 March 2015

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Is Vancouver's proposed transportation tax a worthwhile investment? This short report examines the cost efficiency of Vancouver's current transportation programs and potential benefits from further walking, cycling and public transit improvements, including direct benefits to users and indirect benefits to motorists.

Background

Like most growing urban areas, the Vancouver region (also called *Metro Vancouver*, the *Lower Mainland* and *Lower Fraser Valley*) includes a large city and many smaller jurisdictions. The Greater Vancouver Regional Council (GVRD) was established in 1967 to coordinate planning and infrastructure development, and TransLink was established in 1998 to plan and operate regional transportation facilities and services.

TransLink's funding plans have included various revenue sources, including some innovative funding strategies recommended by most experts, such as road tolls, vehicle fees and parking property taxes, which in addition to raising revenue, support strategic planning objectives such as reducing peak-period automobile trips (and therefore traffic and parking congestion) and sprawl. However, the Provincial government forbade these options, forcing TransLink to implement less efficient and beneficial funding sources.

The TransLink board of directors initially consisted of local elected officials, who tended to favor incremental bus improvements and light rail transit (LRT) service on major travel corridors, due to their relatively low cost and emphasis on local economic development. However, the provincial government intervened, forcing TransLink to build two SkyTrain lines, which are more costly but considered more glamorous. As a result of these provincial interventions, TransLink service is more costly and less efficient than it otherwise would have been.

Yet, to the credit of the region's planners and citizens, by many measures, TransLink's performance as a transit service provider, and Vancouver's transportation system performance, are overall very good, providing direct benefits to residents and businesses, including basic mobility for non-drivers, road and parking cost savings, household transportation savings, traffic safety and support for more compact, multi-modal development. Expanding and improving these services can increase these benefits. For an average household, the resulting benefits probably offset the increased tax costs several times over.

TransLink Funding (or lack-there-of) Timeline

Pete McMartin, *Vancouver Sun*, 23 Feb. 2015
(<http://bit.ly/1Os0wju>)

1998. A few months after the agreement to transfer governance to a regional authority had been signed, but before the formal creation of TransLink, Premier Glen Clark arbitrarily announces construction will begin immediately on the SkyTrain Millennium Line. The decision flies in the face of regional plans for a cheaper light rapid transit line to Coquitlam.

1999. TransLink is established. With the power to raise taxes, its TransLink board proposes a \$75 vehicle levy to partially cover costs of the new line.

2000. The NDP provincial government approves the vehicle levy proposal.

2001. Motorists oppose the levy, and with the opposition Liberal party promising to kill it, the NDP government reverses its decision and refuses to collect it. Without the levy, TransLink suspends its expansion plans. Fares and the gas tax rise to cover costs. The scramble for revenue sources begins.

2003. Vancouver is awarded the 2010 Winter Olympics. The provincial government proposes the Canada Line as a centrepiece to the Games.

2004. The TransLink board rejects the Canada Line, citing, among other reasons, the cost, the increase to its debt load and the provincial government's promise the Evergreen line would be built first.

2005. After two votes rejecting the Canada Line, the TransLink board gives into intense pressure by Victoria and approves it. But the die is cast. For its stubbornness in opposing Victoria's wishes, TransLink as a locally-run authority is doomed.

2006-07. Transportation Minister Kevin Falcon replaces TransLink's board of elected mayors and councillors with unelected members he selects.

2008. Falcon announces a costly new regional transit plan. The municipalities complain that they have tapped out property taxes so new revenue is needed to fund it. In the following years, except for portions of the plan the provincial government had already committed to, the plan dies a quiet death.

2010-13. TransLink debt deepens. About \$100 million in expenses and services are cut from the budget. Gas tax and parking tax are hiked. New streams of revenue, such as sharing the carbon tax and road-pricing, and a renewed call for a car levy, are proposed. All are rejected by the province.

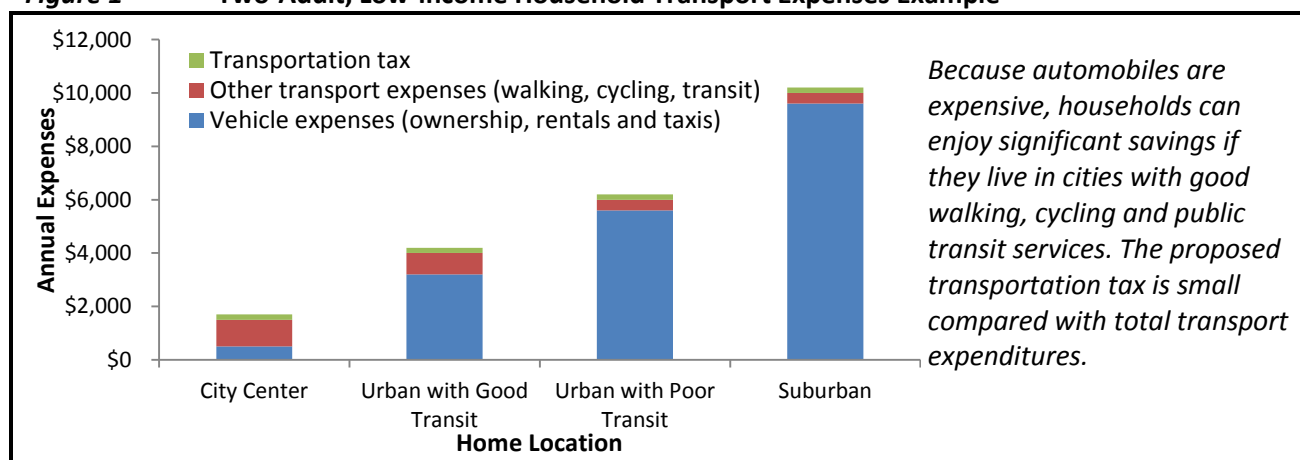
2014. Transport Minister Todd Stone gives the mayors council four months to develop with a 10-year transit plan, complete with funding sources. The province refuses to campaign for a Yes vote.

Notice a pattern here? If you're voting no to punish TransLink and the mayors' council, I'd suggest your anger is misplaced.

Twelve Benefit From Improving Walking, Cycling And Public Transit.

1. **Improves transit travel conditions.** Many TransLink routes experience severe crowding, few bus routes are grade-separated which reduces their speed, and terminals could be more convenient and comfortable; addressing these problems directly improves transit travel convenience, comfort and speed. This will require more funding.
2. **Saves households money.** High quality transit helps households save on transportation costs. Transit-oriented community residents tend to own fewer motor vehicles, drive less, and spend significantly less on transport overall ([Cervero and Arrington 2008](#)). In a typical situation, a household would own one car, costing about \$5,000 annually, if located in a transit-oriented neighborhood, but two vehicles costing about \$10,000 annually in a more automobile-oriented neighborhood ([CNT 2008](#); [Litman 2010](#)). According to one estimate, the Transportation Tax will cost Metro Vancouver households on average \$125/year or \$0.34/day, but saves \$1,100/year or \$3.00/day (HDR 2015). Improving affordable modes is particularly beneficial for lower-income households that depend on them.

Figure 1 Two-Adult, Low-income Household Transport Expenses Example



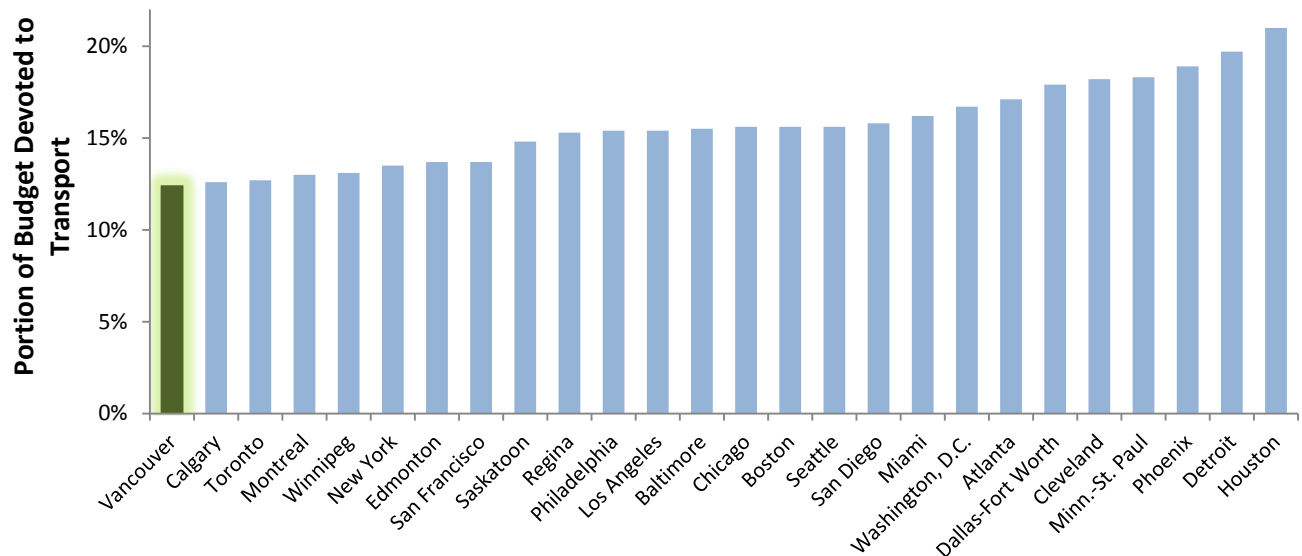
Statistics Canada's consumer expenditure surveys indicate that many regional households take advantage of these savings opportunities. The Vancouver region has the lowest portion of household spending devoted to transport among Canadian cities (see table and graph below).

Table 1 Portion of Household Budget Devoted to Transport ([Stats Canada, 2010](#))

Metro Region	Annual Transport Expenditures	Portion of Total Expenditures
Vancouver	\$9,506	12.4%
Calgary	\$11,967	12.6%
Toronto	\$10,676	12.7%
Montreal	\$8,315	13.0%
Winnipeg	\$8,928	13.1%
Edmonton	\$11,068	13.7%
Saskatoon	\$11,432	14.8%
Regina	\$10,371	15.3%
Averages	\$10,283	13.5%

Vancouver households spend less on transport than any major Canadian city except Montreal and Winnipeg, and the smallest portion of all cities. Vancouver households save about \$800 annually compared with the national average.

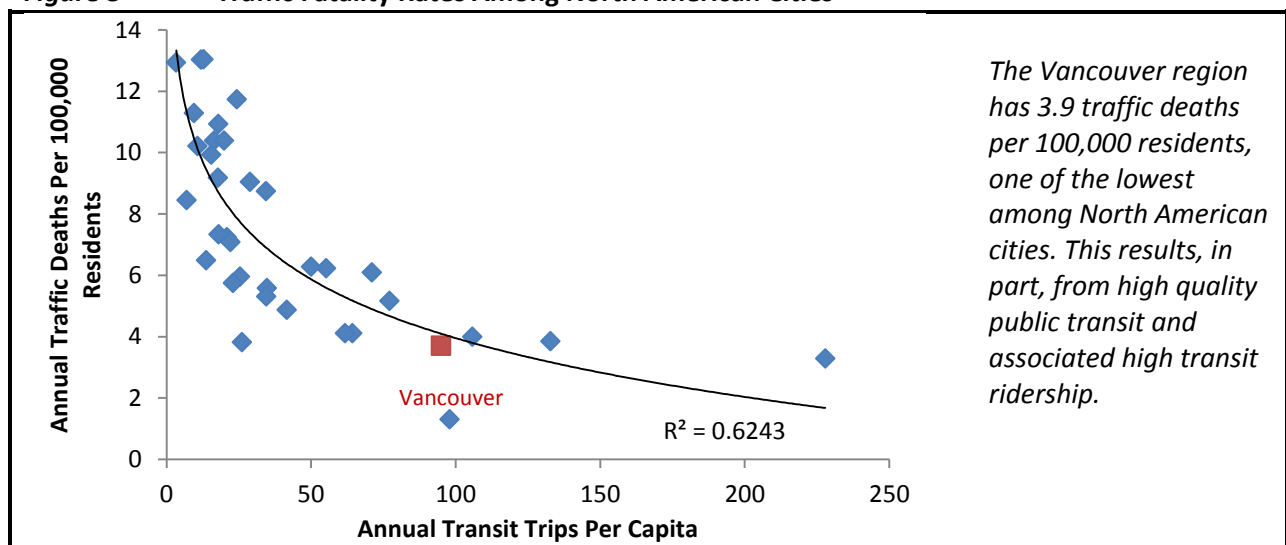
Figure 2 Portion of Household Budget Devoted to Transport ([Stats Canada](#) and [BLS](#))



Vancouver region households devote just 12.4% of their budgets to transport, the least of any North American city for which data are available, and 3.4% less than the average amount in all the other cities. This provides \$2,623 average annual savings per household, totalling \$1.7 billion annual for the region's 633,460 households.

3. **Increases safety.** Public transit is much safer than automobile travel and transit-oriented communities have much lower per capita traffic casualty rates than automobile-dependent communities ([Litman 2014](#)). The region's multimodal transport planning reduces automobile travel, particularly by higher-risk drivers; traffic safety strategies such as graduated licenses and anti-drunk-driving campaigns are more successful if youths and drinkers have good alternatives to driving. The Lower Mainland's traffic fatality rate (3.9 deaths per 100,000 residents) is among the lowest of North American cities. Everybody benefits, including motorists who have less risk of being hit due to other drivers' errors.

Figure 3 Traffic Fatality Rates Among North American Cities



4. **Congestion reductions.** High quality, grade-separated transit service reduces traffic congestion ([Dachis 2015](#); [Litman 2012](#)). Like most major cities, Vancouver experiences congestion, but it would be much worse without SkyTrain and bus transit as indicated by the traffic problems that occur when transit service is curtailed for any reason ([Anderson 2013](#)).

How Public Transit Improvements Reduce Traffic Congestion (Litman 2012)

Urban traffic congestion tends to maintain equilibrium: it grows to the point that delays discourage additional peak-period vehicle trips. If congestion increases, some travelers change route, destination, travel time and mode, and if it declines they take more peak-period trips. Reducing the point of equilibrium is the only way to reduce congestion over the long-run.

The quality of travel options influences the point of congestion equilibrium: If alternatives are inferior, fewer motorists will shift mode and the equilibrium level will be high. If alternatives are attractive, travelers are more likely to shift from automobiles to more space-efficient alternatives, reducing the level of equilibrium. To attract discretionary riders (travelers who have the option of driving), transit must be fast, comfortable, convenient and affordable. As a result, the faster the transit service, the faster the traffic speeds on parallel highways.

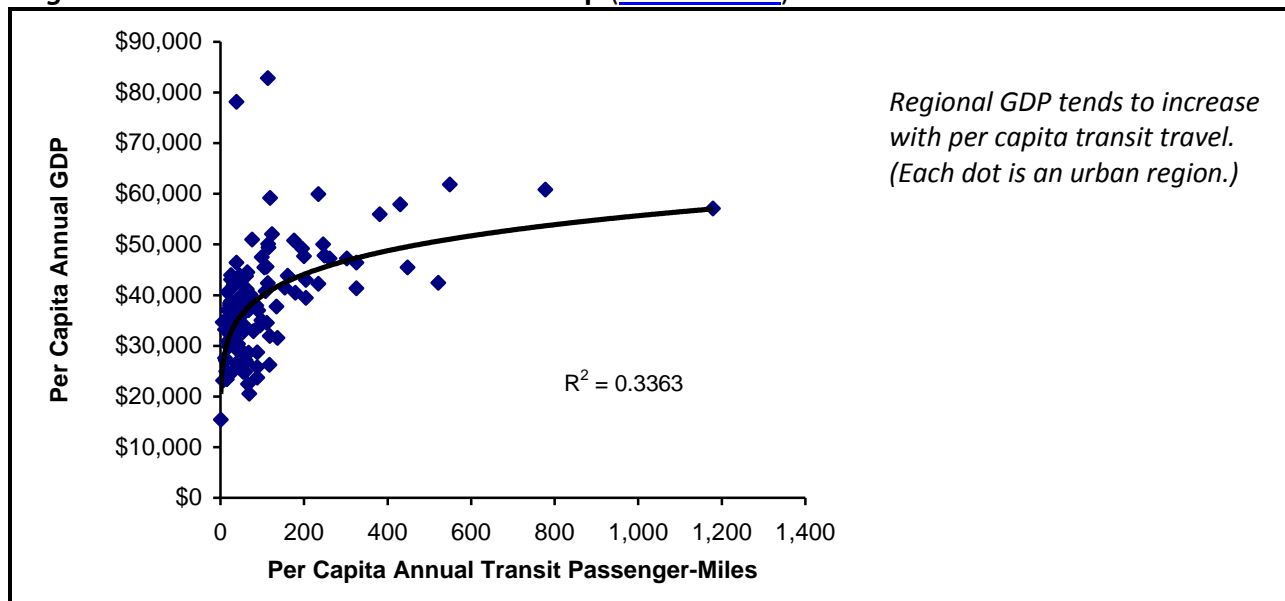
Improving transit can therefore increase travel speeds for both travelers who shift modes and those who continue to drive. The actual number of motorists who shift to transit may be modest, but is sufficient to reduce delays. Congestion does not disappear, but it never gets as bad as would occur if grade-separated transit service did not exist. Studies indicate that per capita congestion tends to be lower in cities with high quality transit service.

As Heeney and Yan (2015) explain, "One in five, or 20% of all Metro Vancouver workers take public transit to work, well above the Canadian average of 13%. This is light years ahead of every metropolitan region on the Pacific Coast from Seattle (8%) to Portland (7%) to San Francisco (15%) to Los Angeles (6%) to San Diego (3%). Calgary, by the way, is 16%. If we were to slip to Calgary levels, Metro Vancouver would need to accommodate another 117,000 drivers on the road – imagine the new roads and bridges we would need for that!"

5. **Reduces parking problems and costs.** Parking costs range from \$5,000 per space for surface parking up to \$50,000 for structured or underground parking. Everybody bears these costs through user fees, housing expenses and municipal taxes. By reducing vehicle ownership and use, high quality public transit helps reduce parking problems and the number of spaces that developers, businesses and governments must supply in an area, providing large savings and economic benefits, including more affordable housing.
6. **Improves mobility for non-drivers.** In a typical community, 20-40% of residents cannot or should not drive. High quality public transit helps non-drivers access school and jobs, increasing their productivity, and expands the pool of potential employees available to businesses, which supports economic development. It helps achieve social equity objectives by providing basic mobility for physically, economically and socially disadvantaged people.
7. **Reduces chauffeuring burdens.** Improving alternative modes reduces the burden on drivers to chauffeur non-driving family members and friends ([Litman 2015](#)). Many drivers spend several hours per week chauffeuring non-drivers for trips that they could make independently if better transportation options were available. As a result, motorists can benefit from improving walking, cycling and public transit in their communities.

8. **Improves public health.** Virtually every transit trip includes walking and cycling links, and transit-oriented development improves walking and cycling conditions. As a result, transit-oriented community residents tend to walk and bike, are fitter and healthier, and require less healthcare than in automobile-dependent areas ([Frank, et al. 2010](#)).
9. **Supports Economic Development.** By improving accessibility and reducing costs, high quality public transit tends to support economic development. Both theoretical and empirical evidence show that cities with high quality public transit are more economically productive and competitive than they would be with more automobile dependent transport systems ([EDRG 2014](#); [Sadler and Wampler 2013](#)).

Figure 4 GDP Versus Transit Ridership ([Litman 2014](#))



10. **Energy conservation and pollution emission reductions.** Transit-oriented community residents consume 20-60% less energy and related pollution emissions compared with living in automobile-dependent areas.
11. **Supports strategic development objectives (reduces sprawl).** Walking, cycling and public transit improvements can provide a catalyst for creating more compact, livable urban neighborhoods, reduces land consumption and increases transport system efficiency compared with the same number of residents living in more sprawled locations.
12. **Prepares Vancouver for your future.** The future is unpredictable. It is possible that sometime in your life, you and your family members will need better travel options, due to a disability, reduced income or other constraint. Then, your quality of life and economic security will depend on the quality of walking, cycling and public transit service in your community. Just as ships have lifeboats, motorists want options available for those times when they cannot or should not drive.

Critics argue that TransLink is wasteful, citing examples of high executive wages and poor investment decisions, but these are a small portion of total costs. Compared with other transit agencies TransLink has relatively good cost efficiency. Of course, it could be better, but it could also be much worse. For example, according to the [Canadian Transit Factbook](#), TransLink's operating costs and subsidy per passenger-kilometer, farebox recovery rates and per capita transit ridership are average for Canadian cities but much better than in peer cities in other countries. Vancouver region residents should be proud!

Figure 5 TransLink Operating Costs (CUTA 2013)

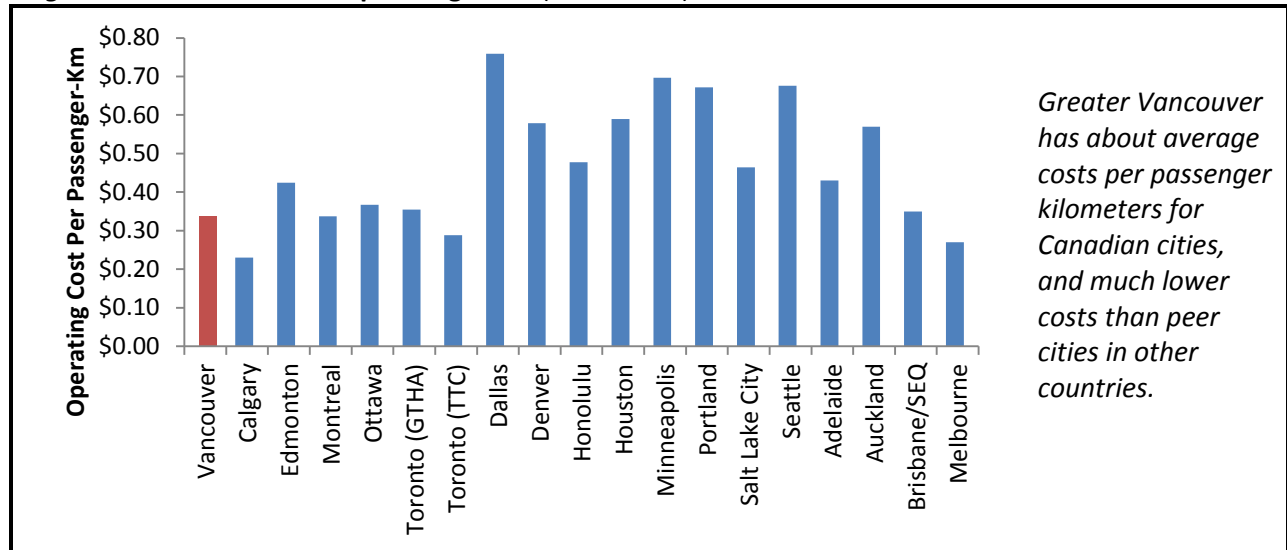


Figure 6 Subsidy Per Passenger-Kilometer (CUTA 2013)

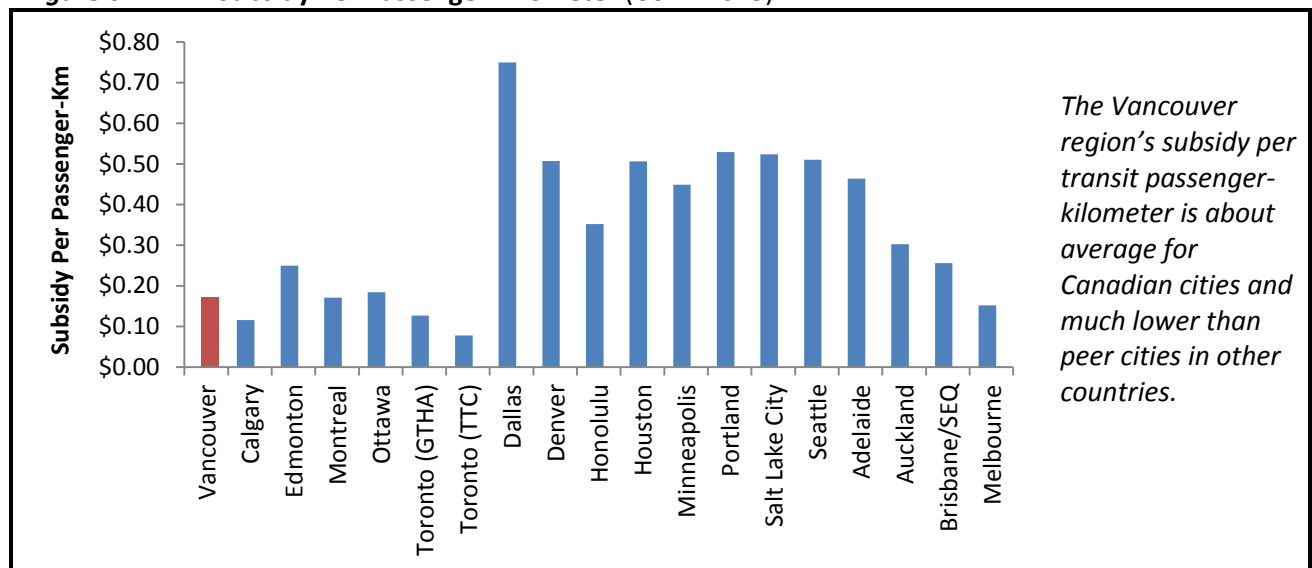
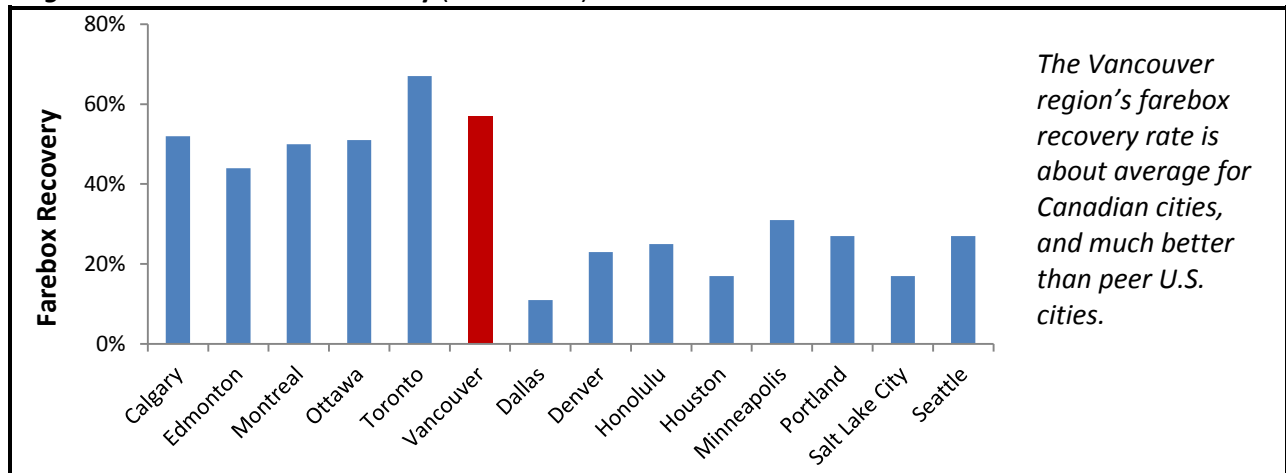
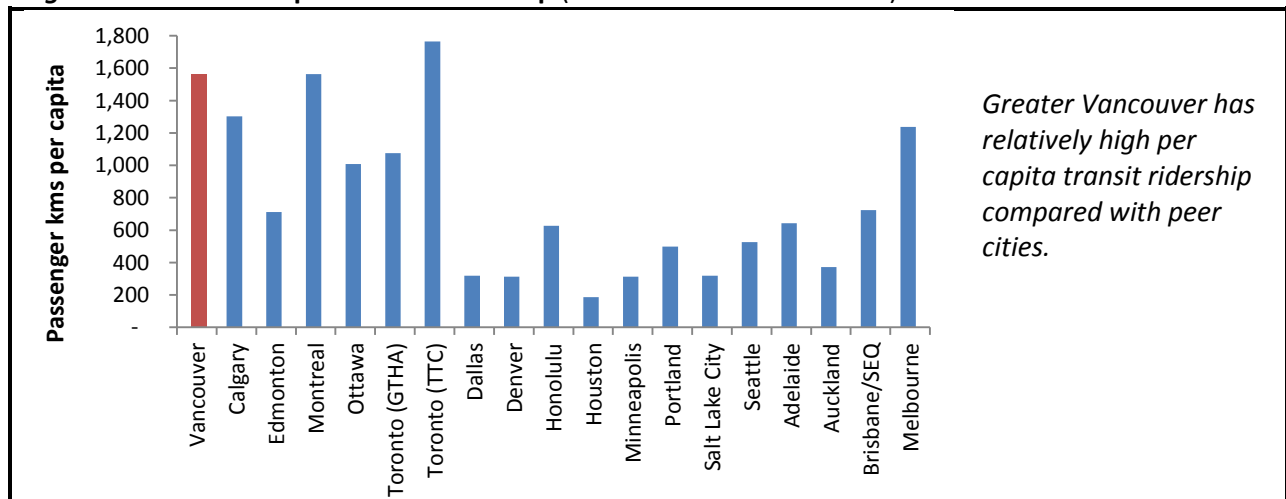


Figure 7 Farebox Recovery (CUTA 2013)



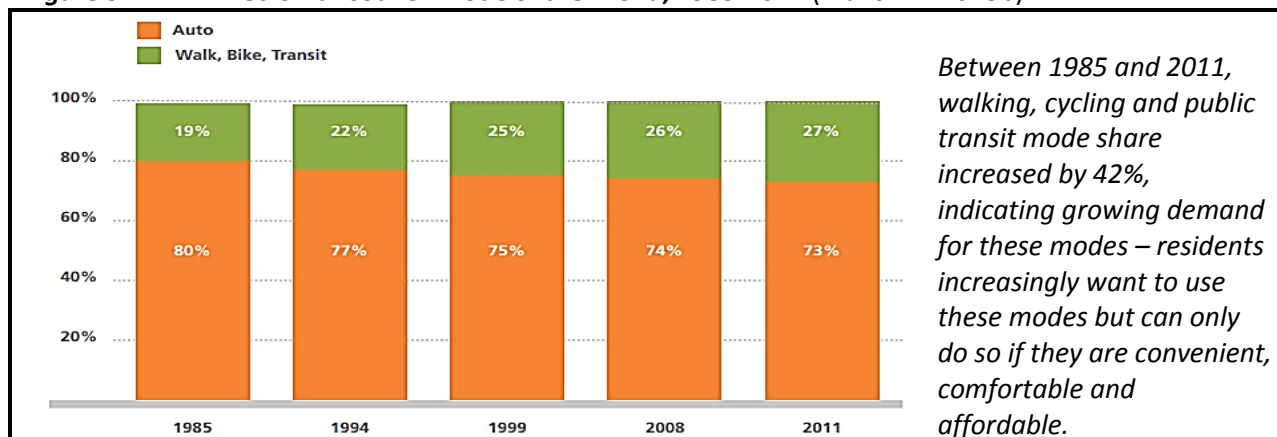
Vancouver has a very low peak-to-base ridership ratio compared to peer cities, meaning that transit vehicles carry relatively more off-peak passengers than most other cities, which increases load factors, so bus and train system capital costs are spread across more passengers and service hours, increasing system efficiencies. For example, Vancouver's fleet of 1,523 buses carried 228 million passengers in 2013 or 149,704 passengers per bus-year, nearly three times higher than the 53,118 passengers per bus-year in Auckland, New Zealand. These positive outcomes result from the region's relatively high per capita transit ridership (Figure 8) and its low and declining automobile mode share (see graph on the following page), which results from the region's previous investments in walking and cycling facilities, and public transit services.

Figure 8 Per Capita Transit Ridership (CUTA 2013 and APTA 2014)



Care is needed when comparing transit performance using different data sources. Canada transit agencies report *journeys* (entire transit trips, including transfers) whereas the US, Australia and New Zealand report *boardings* (individual transit trips). In 2013 Vancouver had 144 transit boardings and 95 transit journeys per capita (1.52 boardings per journey), compared with 107 million journeys and 173 million boardings (1.62 boardings per journey). Vancouver's relatively low boardings per journey indicates that the transit network is well planned and connected, which minimizes the need for transfers.

Figure 9 Metro Vancouver Mode Share Trend, 1985-2011 (TransLink 2013b)



These positive results may seem in conflict with the *TransLink Efficiency Review* (Shirocca Consulting 2012), which found that TransLink had higher costs than other large city transit providers, but that comparison was actually unfair since TransLink serves a much larger and less dense area. TransLink bus services in the City of Vancouver proper actually achieve a very high farebox recovery rate, meaning that the majority of regional transit subsidies are used to provide suburban services. Recent TransLink expansions, such as the 96 B-Line to Surrey and the 555 Port Mann Bridge route to North Langley, largely serve lower-density suburbs. Their performance is likely to increase over time as these suburbs become more transit-oriented, with more housing and businesses located within walking distance of stops and stations.

Figure 10 Comparison of Canada's and BC's Largest Transit Systems (Shirocca Consulting 2012, Table 4-1)

CITY (TRANSIT AGENCY)	POPULATION SERVED	AREA SERVED (Sq. Km)	POPULATION DENSITY (Pop/Area Served)
Toronto (TTC)	2,503,281	632.0	3,960.9
Vancouver (TransLink)	2,391,300	1,800.0	1,328.5
Montreal (STM)	1,934,082	500.5	3,864.3
Calgary (Calgary Transit)	1,071,515	848.0	1,263.6
Ottawa (OC Transpo)	800,300	454.9	1,759.3
Edmonton (Edmonton Transit)	793,000	700.0	1,132.9
Victoria (BC Transit)	356,200	614.0	580.1

The *TransLink Efficiency Review* compared TransLink with transit agencies with much smaller and more compact service areas, which made it look inefficient.

Evaluating Criticisms

TransLink Is Inefficient and Wasteful

Critics cite various [examples](#) of TransLink's inefficiency and waste, such as inappropriate public art, costly employee washrooms, and investments in new equipment without acknowledging context. TransLink is a large organization with diverse responsibilities, including roadway planning and design that often incorporates artwork, and workplace comfort and health standards, which require washrooms for bus operators at route ends. Of course, when it comes to public art, everybody is a critic, but there is no doubt that good street design, with furniture and artwork, adds value to a city. Employee washrooms are a necessity, not a luxury as critics imply. Installing new equipment, such as public information monitors and new farecard systems, can be difficult and takes longer than planned; only people who have never been responsible for such projects would criticize TransLink planners for problems and delays, or ignore the agency's many successes.

TransLink Service is Costly

Public transit service often seems costly, in part, because of the way we account for transportation facilities and services. Public transit budgets include all costs: right-of-way (rail tracks), terminals (stations), vehicles, fuel and drivers. In contrast, automobile travel requires roads, parking spaces at each destination, vehicles, fuel and drivers, the costs of which are seldom totalled. As a result, public transit costs per passenger-mile often seem higher than the costs of building and maintaining roads, but this ignores the costs to consumers of owning and operating their vehicles, and the costs to consumers, businesses and governments of providing abundant parking. When all costs are considered, public transit is often cheaper and more cost effective than automobile travel, particularly under urban-peak conditions when each additional automobile trip increases traffic congestion, and to transport non-drivers (i.e., as an alternative to taxi services). As illustrated above, TransLink costs per passenger-kilometer are lower than most peer transit agencies.

Excessive Executives Pay

There are certainly legitimate reasons to criticize excessive executive pay in general – during recent decades, executive pay has increased relative to average employee pay rates throughout the economy, but there is little evidence that TransLink's executive pay is greater than industry standards. Surrey transit blogger Daryl Dela Cruz has conducted [research](#) comparing the cumulative executive salaries for other metro regions in Canada. He found that in CEO earnings per capita, Vancouver has surpassed Ottawa since Jarvis resigned and Doug Allen stepped in, but it still trails Toronto and Montreal.

Similarly, most major private corporation CEO are better paid; for example, the Royal Bank earns about \$9 billion annually and pays its CEO \$12.7 million, or about \$1.4 million/billion, about three times higher than the \$0.46 million/billion for TransLink's CEO.

TransLink Employees are Overpaid

Critics who argue that TransLink employees are overpaid must be unfamiliar with the responsibilities and stresses of large city bus operators (drivers) and mechanics who make up the majority of TransLink labor costs. Drivers must operate large vehicles (many are extra-long articulated buses) in dense urban traffic *and* collect fares, provide directions and deal with sometimes troublesome passengers. They are professionals with heavy responsibilities and stresses. Unlike most jobs, bus operators cannot use a washroom, take a rest break or even rest their eyes when they want – they must give their jobs their full attention for hours at a time, and are responsible for the lives of hundreds of passengers each day.

TransLink wages (\$29.78/hr. for operators and \$37.87/hr. for mechanics, CUTA 2013, p. G30) are comparable to operators and mechanics in private industry, such as intercity coach drivers, although they have more responsibilities and stress. Critics often claim that large city transit service costs are excessive, citing high wages and high operating costs per vehicle-kilometer, but because of their high load factors and overall efficiency, costs per passenger-kilometer and passenger-trip tend to decline with city size. Of course, living costs tend to be particularly high in large cities such as Vancouver, so transit agencies must pay higher wages to attract qualified employees.

Conclusions

Transportation affects every aspect of life: it is essential but also costly. Individual households and communities must often make decisions concerning whether to invest more to improve their travel options, particularly transit services. Vancouver residents now face such a decision.

Using standard public transit performance indicators, including cost and subsidy per passenger-kilometer, and farebox cost recovery, Vancouver's region transit service performs well compared with peer cities. Similarly, using standard transportation system performance indicators, including automobile mode share (low and declining), per capita transit ridership (high and growing), and per capita traffic fatalities (among the lowest among North American cities), and portion of household budgets devoted to transportation (the lowest of all major Canadian cities), Vancouver performs very well compared with peer cities, providing large direct benefits to households and diverse savings and benefits that benefit the regional economy. These excellent outcomes clearly result, in part, from TransLink's effectiveness.

Of course, the region can do even better, but contrary to critic's claims there is no credible evidence that TransLink is less efficient or more wasteful than other public or private corporations with similar, complex and diverse responsibilities. Critics cherry-picking examples without providing context.

Even people who do not currently use public transit can benefit significantly from transit improvements that reduce traffic and parking congestion, reduce their chauffeuring burdens, and reduced traffic risk. Increasing transit funding is an opportunity to create a more efficient and equitable city. If you vote "no," don't complain about Vancouver's traffic problems.

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