



INFRASTRUCTURE SERVICES COMMITTEE
Tuesday, December 3, 2019
SCRD Boardroom, 1975 Field Road, Sechelt, B.C.

AMENDED AGENDA

CALL TO ORDER 9:30 a.m.

AGENDA

1. Adoption of Agenda

PRESENTATIONS AND DELEGATIONS

- | | |
|---|--------------|
| 2. Pippa Boothroyd, Elphinstone Secondary Student
Regarding Free Transit for K-12 students | VERBAL |
| 3. Chris Gregory, Senior Revenue Adviser, BC Transit
Regarding Student Transit Fares | Presentation |

REPORTS

- | | |
|--|--|
| 4. General Manager, Infrastructure Services
2019 Fare Review Results
(Voting – B, D, E, F, Sechelt, Gibsons, SIGD) | Annex A
pp 1 -22
⇒ADD 22a-p |
|--|--|

COMMUNICATIONS

- | | |
|---|----------------------|
| 5. Alun Woolliams, TraC Director, Transportation Choices Sunshine
Coast dated November 8, 2019
Regarding Free Transit for Students
(Voting – B, D, E, F, Sechelt, Gibsons, SIGD) | Annex B
pp 23- 26 |
|---|----------------------|

NEW BUSINESS

IN CAMERA

ADJOURNMENT



Fare-Free Transit

A Summary of Considerations for BC Transit

November 28, 2019



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Executive Summary

Some public transit decision-making authorities have come to view the removal of transit fares as the easiest and most effective means of increasing transit ridership and accomplishing environmental and social goals. Given shifts in ridership and mode share are not unilaterally linked to the price of fares, the attached discussion paper is intended to provide stakeholders with a holistic understanding of the benefits and trade-offs associated with fare-free programs. A summary of the considerations for three different approaches to increasing transit ridership is provided in Table 4.

Transit service in BC Transit systems is funded through a mix of provincial and municipal contributions that vary based on service type. Fare revenues collected offset the municipal portion of funding, which in turn decreases the reliance on property taxes to fund transit. Cost recoveries vary by system and service, with fare policies set by the municipal governments.

Changes to transit fares and service levels are known to impact ridership, with changes in service levels being shown to have a greater impact than changes to fares. Factors influencing transit fare elasticities include type of user, type of trip, geography and length of time since the fare change. Research into factors that influence transit ridership point to service considerations such as trip time, service frequency, extended routes, service reliability and comfort/crowding as being of equal or greater importance to transit cost and affordability when it comes to influencing ridership. These findings are supported by BC Transit's annual Penalty-Reward Analysis, which identifies the attributes of transit that are expected by customers and influence use.

Transit agencies have the ability to influence how increases in ridership in their systems are achieved through their chosen approach. Three primary approaches are:

- The removal of transit fares to eliminate a barrier to use
- Invest in transit service and infrastructure to make it a more appealing transportation option
- Balancing removing the cost barrier for some populations with the need for investment

For each of these approaches, the following factors should be considered:

- The philosophical purpose of the approach
- The target demographic
- The impact on transit ridership and transit fare revenues
- The impact on transit service and investments
- The impact on transit administration and planning
- The impact on BC Transit's mandated goals:
 - Contribute to the reduction of greenhouse gas emissions
 - Contribute to the reduction of traffic congestion
 - Contribute to improving the mobility of all residents

As a part of the blended approach, local governments may employ targeted fare programs to accomplish social goals. Examples of established low-income programs are those in the Victoria Regional and Kamloops Transit Systems. Additionally, fare-free transit for youth has become a regularly considered initiative in BC Transit systems, with the existing program in the Kingston Transit System in Kingston, Ontario commonly referenced.

Introduction

Under its mandate from the Province of British Columbia, BC Transit has the purpose of planning, implementing, maintaining and operating transportation services for citizens of the province that support growth, community planning and economic development¹. Through increasing ridership across its services, BC Transit plays an integral role in assisting the Province and local government partners in reaching future greenhouse gas (GHG) emissions targets, reducing congestion in urban centres, and improving the ability of citizens to move throughout their communities. With increased public awareness and discourse around these topics, the question to answer is what is the best method to encourage sustained ridership increases in BC Transit systems?

Background

In recent years, there have been increasingly frequent discussions across North America and around the world on the merits of removing the user-pay model of transit fares in order to improve access to, and the appeal of, transit in efforts to increase ridership and achieve climate change and congestion goals. In late 2018, Luxembourg announced the intent to remove user fares in March 2020 in hopes of reducing congestion². Additionally, Paris introduced fare-free transit for youth at the start of 2019 after debating fare-free transit for all to combat air pollution and congestion³. More established examples of fare-free transit are in Tallinn, Estonia, which has been available to all registered residents since 2013, and in Kingston, Ontario, where youth have been receiving complimentary bus passes since 2012. Conversely, the city of Hasselt, Belgium recently reinstated fares for all adult passengers after sixteen years of fare-free transit for all because of rising operational costs and budget shortfalls⁴.

Public discussions regarding fare-free transit have, and continue to be, prevalent within British Columbia as well. In April 2019, Translink staff presented a report on fare-free transit for youth and low-income populations to its Mayors' Council⁵. The report was presented in response to the efforts of the All on Board campaign that advocated for fare-free transit for youth and low-income populations and the subsequent motions of several of Translink's municipal government partners. The report highlighted the funding shortfall that would result from the loss of fare revenues from those populations and the expected impact on transit service if alternative funding sources were not in place.

Similarly, BC Transit has provided analysis to some of its local government partners on the impacts of removing transit fares, particularly as they relate to lost fare revenue and the subsequent need for transit service investment should increases to ridership occur. While the majority of these requests have not led to the introduction of fare-free transit, one subsidized program that has been approved is the City of Victoria's initiative to provide transit passes to its youth residents for use on the Victoria Regional Transit System⁶. In a subsequent meeting, however, the Victoria Regional Transit Commission voted against pursuing a similar initiative for all youth in the region citing the cost of such a program and the impact it would have on the Commission's many service and infrastructure priorities⁷.

BC Transit Funding Model

As is currently legislated, transit service in BC Transit systems is funded through contributions from provincial and municipal governments. Fare revenues collected offset the municipal governments'

contributions with the remaining amounts funded through property tax revenues. The current funding contribution from the provincial government is 46.69% for conventional transit systems and 66.69% for custom services on average⁸. One anomaly to this is the Victoria Regional Transit System, which also receives revenues from a regional gas tax, though revenues from this result in a lessened provincial contribution of 31.7% for conventional service and 63% for custom service⁹.

Operating cost recovery from fare revenues varies depending on the size of the transit system. In general, a higher operating cost recovery is desirable in order to lessen the burden on local tax dollars to fund transit and enable investments in transit service and infrastructure. A summary of average operating cost recoveries and trends by system tier is provided in Table 1.

Table 1: Fare Revenue Operating Cost Recovery for Fiscal Year 2018/2019

System Classification	Average Fare Revenue (\$)	Average Fare Revenue Operating Cost Recovery (%)	Average Cost Recovery 3-Year Trend
Victoria	\$37,201,473	36.0%	-0.8%
Tier 1	\$3,492,066	30.8%	2.2%
Tier 2	\$523,354	25.0%	3.5%
Tier 3	\$252,278	17.2%	0.6%

In efforts to fund fare-free transit, municipal governments could look to recoup foregone fare revenue through increasing property taxes to fully fund transit service. Table 2 outlines what the estimated property tax implications would be if fare-free transit were pursued in four example BC Transit systems. It is important to note that these increases to property tax would only cover the costs of fare-free transit within the context of BC Transit's fiscal 2019/2020 service levels. Should transit ridership grow as a result of fare-free transit being introduced, there would be an expectation on the municipal government to continue to invest in improving transit service, resulting in further increases property taxes. Should further increases to property taxes not be palatable, transit service could be constricted so to not increase costs beyond acceptable levels.

Table 2: Estimated Increases to the Transit Portion of Property Taxes Required to Subsidize Fare-Free Conventional Transit (at 2019/20 service levels)

System Classification	Property Tax Increase
Victoria	\$190 (137%)
Tier 1 – Kamloops	\$90 (82%)
Tier 2 – Comox Valley	\$30 (49%)
Tier 3 – Squamish	\$30 (37%)

Transit Fare Elasticity

As with many goods and services, the amount of transit fares are understood to be tied to their rate of purchase and use, with increases in fares leading to decreases in ridership and vice versa. Traditionally, transit fares are viewed as inelastic in that the percentage change in ridership is less than that of the associated percentage change in fare rate. It is also understood that fare increases are more elastic than fare decreases as increases result in greater changes to ridership than decreases. Factors that influence transit fare elasticities are the type of user (transit dependent vs.

discretionary), type of trip (commute vs. non-commute), geography (urban vs. suburban and rural) and time since the fare rate change (short (<2 years), medium (2-5 years) and long (>5 years)) with the understanding that long-term elasticities are generally greater than short-term ones¹⁰.

Table 3: Transit Fare and Service Short- and Long-Term Elasticities

	Short Term	Long Term
Fares	-0.2 to -0.5	-0.6 to -0.9
Service	0.5 to 0.7	0.7 to 1.1

Table 3 highlights the average range of short- and long-term elasticities for transit fares and service. As is shown, a one percent increase in transit fares results in a 0.2 to 0.5 percent decrease in transit ridership in the short term and a 0.6 to 0.9 percent decrease in the long term. Conversely, a one percent increase in transit service generally results in a 0.5 to 0.7 percent increase in ridership in the short term and a 0.7 to 1.1 percent increase in the long term. Research also suggests that fare reductions alone are not an effective means of persuading automobile users to adopt transit given their status as discretionary riders and that a combination including higher vehicle user fees and improved transit service lead to increased rates of transit adoption.

One case study on fare-free transit in BC Transit systems is that of the Whistler Transit System's use of fare-free routes in efforts to mitigate congestion in the Resort Municipality of Whistler (RMOW) village. The RMOW has the ability to provide fare-free transit through allocating parking revenues and receiving contributions from private partners to offset foregone fare revenues¹¹. It is observed that, on average, transit ridership increased by 19% in the RMOW when fare-free services were introduced. This increase is likely higher than what would be experienced in other BC Transit systems on account of the density of the population centre in the RMOW, the holistic transportation demand management measures applied, the high frequency and high quality transit service provided, and the use of high parking fees as a disincentive to driving.

Factors and Attributes That Encourage Transit Use

Understanding the motivations of transit users and non-users is a necessary consideration when making decisions regarding transit fares and investments in transit service. Research points to service-related considerations such as trip time, service frequency, extended routes, service reliability and comfort/crowding as being of equal or greater importance to transit cost and affordability in terms of factors that influence transit use¹². These factors are even more significant amongst discretionary riders or non-riders, given their preference towards the convenience and comfort of personal vehicle use, carpools or car shares¹³.

The findings of industry research into the transit attributes that encourage ridership are supported by the outcomes of BC Transit's annual Penalty-Reward Analysis that examines the key service delivery attributes that influence transit use and customers' attitude towards transit¹⁴. Specifically, the analysis looks to identify the attributes that are expected by customers and will either encourage or discourage transit use depending on whether or not they are present. The results of this survey indicate that factors such as clean and well-maintained buses, courteous operators, safety, on-time performance, overcrowding, trip duration, stop cleanliness and schedule information have a greater influence on customers' perception of, and willingness to use, transit than fare prices.

Fare Programs for Low-Income Riders

One reason that fare-free transit is advocated for is to improve the ability of low-income residents to travel within their communities by eliminating the cost barrier. In BC, the Ministry of Social Development and Poverty Reduction provides a permanent annual bus pass to low-income seniors and persons with disabilities through the BC Bus Pass program¹⁵. There are, however, segments of the population that are low-income that do not meet the eligibility requirements of this program. As a result, many BC Transit systems provide steeply discounted transit fare products to low-income users in efforts to supplement the BC Bus Pass program. Two examples of this are the Victoria Regional Transit Commission's partnership with the Community Social Planning Council and the City of Kamloops' Affordable Recreation for Community Health (ARCH) transit pass program.

Victoria Regional Transit Commission and the Community Social Planning Council

Through a partnership with the Community Social Planning Council (CSPC) started in 1997, the Victoria Regional Transit Commission (VRTC) has enabled local social welfare agencies to provide bus passes to low-income populations at a significantly reduced rate¹⁶. Under this agreement, CSPC acts as the central administrator of discounted tickets and monthly passes that are distributed to 83 agencies throughout the region that have a mandate to work primarily with low income populations. Fare products are purchased by CSPC at a 20% discounted rate, with every purchased product matched with one donated at no charge, resulting in an overall discount of 60% per product. In fiscal 2018/2019, \$422,175 worth of fare products were distributed to low income populations through CSPC, with the VRTC realizing \$168,492 worth of revenue. It is important to acknowledge that this partnership model is in place in several other BC Transit systems, though the method of delivery and discounts provided vary by community.

City of Kamloops and the Affordable Recreation for Community Health Transit Pass Program

The City of Kamloops offers the Affordable Recreation for Community Health (ARCH) subsidy program to provide individuals with a limited income the opportunity to participate in a variety of recreational activities. In early 2019, it was identified that transportation costs were a considerable barrier that prevented those enrolled in the program from accessing recreation services. As a result, the City of Kamloops Council approved a pilot transit pass program that would provide people enrolled in the ARCH program with a permanent, photo ID bus pass at a rate of \$80 annually, paid in one-, three- or six-month increments throughout the year¹⁷. This program was introduced at the start of September 2019 and has an approved budget of \$636,000 based on the expected number of eligible participants and the annualized cost of an adult monthly pass.

Scenarios for Increasing Transit Ridership

Depending on their desired or legislated purpose for doing so, transit agencies have the ability adopt a variety of different approaches or strategies to increase transit ridership. Table 4 compares the considerations and expected impacts presented by three different approaches to increasing ridership being: the removal of transit fares to eliminate the potential cost barrier, investing in transit improvements to make it an appealing alternative to the personal vehicle, and a blended approach of both. It is important to acknowledge that while individual motivations and behaviours regarding transit are unique and may vary day-to-day, it is reasonable to assume that the range of strategies outlined in Table 4 account for the majority of these different perspectives.

Table 4: Scenarios for Increasing Transit Ridership

Approaches for Transit Agencies to Increase Ridership		
Transit Agency Motivations		
Remove Transit Fares to Eliminate a Barrier to Use	Invest in Transit Service and Infrastructure	Blended Investment and Access Approach
Philosophical Approach		
By removing fares, transit becomes more attractive and available to current users and to non-users who are more likely to take transit over other more expensive transportation options.	Investing in transit service expansion and infrastructure such as operating facilities, on-board technology, park & ride lots, and transit priority lanes and signals will improve the attractiveness of transit as a mode of choice.	Balancing the need for transit service and infrastructure investments to improve the appeal and utilization of transit with the need to provide access to vulnerable and low-income populations.
Demographic Most Impacted		
Dependent users – those without other transportation options due to cost will benefit through having increased mobility and lessened financial constraints.	Discretionary users – those that would not choose transit unless it provided them with factors that they value in other transportation options such as comfort, convenience and reliability.	Mixed – use of partnerships with social agencies increases the availability of free or discounted fare products to low-income populations and continued investment makes transit more appealing to discretionary users.
Impact on Ridership		
Moderate short-term increase – users to whom fares were previously a barrier for frequent use increase their usage along with those who previously used other transportation means for short-distance trips. Issues of overcrowding and changes in ridership demographics could result in current discretionary users finding transit less desirable and lead to them choose other transportation means such as driving.	Sustained long-term increase – as investments in transit service occur to improve frequency, decrease trip times and increase coverage, more non-users are inclined to adopt transit use over other modes.	Short-term increase with sustained long-term growth – introduction of, or increase to, social agency partnerships results in short-term increase in ridership from low-income users and ongoing investments in transit result in corresponding increases in ridership.

Approaches for Transit Agencies to Increase Ridership		
Impact on Fare Revenues		
Removal of all fare revenues.	Fare revenues increase as ridership increases. Fares priced strategically to maintain or improve transit system operating cost recovery as service expands and investments occur.	Fare revenues increase as ridership increases though at a lesser degree depending on the scale of social agency partnership programs.
Impact on Transit Service and Investments		
Optimization – allocation of resources strategically to accommodate capacity issues without significant investment. Ability to continue to expand service could be at risk without investment in necessary infrastructure such as operating facilities.	Expansion – investments made in transit service levels and number of buses. As systems grow, obligations to invest in expanded operating and maintenance facilities and on-road infrastructure such as priority lanes and traffic signals are met.	Expansion – secure funding model enables investments in service expansions and related infrastructure requirements and benefits.
Impacts on Transit Administration		
Removal of fare collection decreases the labour and administrative costs associated with providing transit services.	Increases in administrative costs that are tied to the need for further support as transit service expands and infrastructure investments are made.	Potential for limited short-term increases to support social agency partnerships along with continued growth to support transit investment priorities.
Impacts on Transit Planning and Decision Making		
Removal of fare validation decreases the amount of data available to inform evidence-based decision making for transit planning purposes.	Fare validation data is used by planning departments to support or inform decisions regarding changes to transit service.	Improved demographic and transit use data from the use of social agency partnerships further informs transit planning decision-making processes.

Impact on BC Transit's Mandated Goals		
Contribution to the Reduction of Greenhouse Gas Emissions		
Moderate short-term impact with uncertain long-term outcome – removal of fares attracts new riders, some of whom may have previously driven. However, removal of fare revenue limits transit investment while potential issues with overcrowding and pass-ups could result in current discretionary users choosing to drive a personal vehicle.	Sustained long-term positive impact – investment in transit service and amenities makes transit more appealing than driving and results in a greater number of cars being taken off the road. Additionally, investment may result in earlier introduction of low- or no-carbon vehicles.	Early and sustained positive impact – new riders being attracted to transit through a combination of social agency partnerships and investments in transit including the introduction of low-carbon technologies will have a positive impact on GHG emissions.
Contribution to the Reduction of Traffic Congestion		
Long-term negative impact – challenges with investing in transit service leads to issues of overcrowding and pass-ups that could result in more vehicles on the road as current discretionary users turn to driving as their primary mode of travel.	Long-term positive impact – as transit becomes more attractive through investments, such as transit priority lanes, more people adopt transit as a primary mode of travel, which results in fewer vehicles on the road.	Long-term positive impact – increased adoption of transit use as it becomes a more appealing alternative to driving through investments in service and infrastructure and by through making transit use more available through social agency programs.
Contribution to Improvements in the Mobility of All Residents		
Short-term positive impact with uncertain long-term outcome – removal of fares allows those for whom payment is a barrier to access transit more frequently. However, reduced funding may result in future service cuts that could negatively affect users' ability to travel in their community.	Neutral impact – the maintaining of transit fares results in the persistence of current mobility challenges relating to payment being a barrier to usage.	Positive long-term impact – partnerships with social agencies result in transit fare products being made available for free or at discounted rates to populations that have a need for them.

Fare-Free Transit for Youth to Encourage Future Transit Use

One additional concept to those listed above is the use of fare-free transit for youth as a mechanism to encourage regular transit use in the future. Research indicates that past travel experiences shape future behaviour and that exposure to transit during young adulthood leads to a higher amount of transit use and lower rates of automobile ownership later in life¹⁸. Policies around fare-free youth transit are generally introduced with the understanding that short-term increases to costs to accommodate increased ridership will lead to longer-term benefits.

Within the context of Table 4, fare-free youth transit would be a blended approach of making transit more accessible to a segment of the population, but retaining fares for other users to fund transit improvements. Youth fare-free programs can be expected to warrant investment in transit at a faster rate given the size of youth populations and their greater realized benefit of freedom of movement as non-drivers. Examples of fare-free youth transit, such as the program in place in Kingston, Ontario outlined in Appendix A, demonstrate the significance of having the requisite amount of transit capacity in place in order to accommodate increases in youth ridership¹⁹. When introducing fare-free youth transit, it is important to ensure that service levels are such that the risk of pass-ups is minimized given the vulnerability of this demographic.

Fare-Free Implications for Custom Services

Under its mandate, BC Transit is working to improve the service it provides to its customers that are unable to access and use conventional transit services in efforts to create an equitable transit experience for all riders. Accordingly, any introduction of fare-free transit for conventional services would necessitate the removal of fares for custom services as well. Given the transit-dependency of many custom service clients, there also exists a greater potential of advocacy for increases to custom services as demand for them grows following the removal of fares. Furthermore, the removal of fares would require the revision of fare programs such as the taxi saver program, whereby registered clients receive a 50% subsidy on the purchase of \$80 worth of taxi coupons.

As with conventional service, the removal of fares for custom transit would result in a funding deficit that would require recovery through increases to municipal property taxes. Given the high cost to provide custom services, the percentage of costs recovered through fare revenues are considerably lower than those of conventional. However, the lost fare revenue to be recovered would still result in material increases to property taxes. Table 5 provides the estimated increases in property taxes required to fully subsidize custom transit (excluding considerations for fare programs such as the taxi saver program) and should be viewed in addition to the increases needed to subsidize conventional services presented in Table 2.

Table 5: Estimated Increases to the Transit Portion of Property Taxes Required to Subsidize Fare-Free Custom Transit

System Classification	Property Tax Increase
Victoria	\$1 (1%)
Tier 1 – Kamloops	\$4 (4%)
Tier 2 – Comox Valley	\$3 (5%)
Tier 3 – Squamish	\$1 (1%)

Further Considerations on Fare-Free Transit

One readily apparent benefit of the introduction of fare-free transit would be improvements to the safety of transit operators. Disputes over fare payment are understood to be one of the primary causes of conflicts between operators and transit users, with BC Transit's current fare strategy focused on removing subjectivity during fare validation in order to lessen the opportunity for this type of conflict to occur²⁰. Removal of fare validation all together would reduce the potential for issues between operators and the public and create a safer working environment for operators.

Conversely, a common issue resulting from the introduction of fare-free transit is increased vandalism and damage to the interior of buses. Research on existing fare-free programs suggests that changes to ridership demographics and the decreased perceived value of transit that occur with the removal of fares can lead to increased incidents of vandalism on board, resulting in higher maintenance and repair costs²¹. These issues are generally addressed through increased security presence and monitoring of onboard cameras along with policies around having damage immediately repaired as a deterrent measure.

Conclusion

Transit agencies have the benefit of a variety of approaches and means to increasing ridership. When introducing strategies to encourage increased transit use, it is important that clear and established objectives be considered against all of the potential short- and long-term impacts. For example, removing fares may increase transit ridership in the short-term, but those increases carry an obligation to continue to invest in transit service that may not be able to be met due to reduced funding streams. Conversely, investing in transit and making it more attractive to discretionary and non-users does not address the affordability concerns of low-income users. Ultimately, a balanced approach that considers the needs and desires of all current and future transit users has the greatest potential to result in a robust and highly utilized transit system over the long-term.

Appendix A: Examples of Fare-Free Transit

In order to understand the potential outcomes of fare-free transit, it is useful to reference existing programs in other regions. Accordingly, Appendix A will outline notable fare-free transit examples in Kingston, Ontario, Tallinn, Estonia and Hasselt, Belgium. Within the context of BC Transit, these initiatives demonstrate the significance of having additional sources of revenue to offset foregone fare revenues, the impact that fare-free transit has relative to service investments, and the challenges faced when attempting to maintain or improve transit in light of increasing costs.

Kingston Transit High School Bus Pass Program

Introduced in stages starting in 2012, the Kingston Transit High School Bus Pass program provides students in Kingston, Ontario with an annual bus pass at no cost to the student²². This initiative coincided with a significant investment in transit service in the form of a 50% increase in service hours, a 30% increase in number of buses, a realignment of the system to introduce high frequency routes and improvements to bus stop amenities. At the time of introduction, this program was valued at \$250,000 based on the estimated lost fare revenue from existing youth fares. This revenue is partially recovered through financial contributions from local school districts in the amount of \$60,000 and through access to surplus provincial gas tax revenues that are indexed to municipal population growth and transit ridership increases. Neither of these revenue streams are considered stable given that the school district contributions are renewed on an annual basis and are determined by the school districts' available budget and that the additional provincial gas tax revenues are dependent on two factors that are not anticipated to continue to grow at existing rates. The High School Bus Pass program is credited with contributing a portion to the total 70% increase in ridership that has occurred since its introduction, though these increases are understood to have occurred largely as a result of the investments in and improvements to transit service and infrastructure.

Tallinn, Estonia Fare-Free Transit for Residents

Following a referendum, the capital of Estonia, Tallinn, introduced fare-free transit for all residents in 2013²³. Prior to the introduction of fare-free transit for all, 36% of passengers were exempted from paying fares based on their socio-economic status and special discounts were made available to an additional 24% of passengers. Beyond increasing the mode shift from private vehicle to transit, the purpose of this initiative was to increase the number of people who registered as residents of Tallinn in order to receive the fare-free transit benefit. Through increasing its number of registered residents, Tallinn subsequently increased its income tax revenues. This increase in tax revenue was larger than the amount of transit fare revenue lost, which created a net positive financial outcome from the fare-free transit initiative. From a transit service perspective, the initiative was accompanied by a 9.6% increase in transit capacity that was focused on increasing service frequency and on the extension of priority bus lanes. The introduction of fare-free transit along with the investments in capacity resulted in a three percent increase in transit ridership, though research suggests only 1.2% of this is attributed to the fare-free initiative. Furthermore, passenger trip analysis suggests that the majority of the new trips were from people who had previously walked or cycled, meaning that the impact in terms of furthering the mode shift from private vehicles to transit was limited.

Hasselt, Belgium Fare-Free Transit

In 1997, the city of Hasselt, Belgium abolished transit fares in efforts to grow ridership and reduce the number of vehicles being driven into the city centre during commuting times. While increases in service and ridership occurred since that date, the municipality experienced a quadrupling of costs and a peak home-work mode share of only 5.1%. As a result of these factors, the decision was made to reintroduce fares for all users above the age of 18 with the hope that the restored revenue stream will enable future investments that will attract new riders²⁴.

References

- ¹ Province of British Columbia. (2019, January 29). *BC provincial government's 2019/20 mandate letter to BC Transit*. Retrieved from: <https://www.bctransit.com/documents/1529703094471>.
- ² Bershidsky, L. (2018, December 14). *Free public transportation isn't for everyone*. Retrieved from: <https://www.bloomberg.com/opinion/articles/2018-12-14/luxembourg-s-free-public-transportation-isn-t-for-everyone>
- ³ O'Sullivan, F. (2019, January 18). *Paris will make public transportation free for kids*. Retrieved from: <https://www.citylab.com/transportation/2019/01/paris-metro-tickets-prices-kids-bus-ride-disability-fares/580759/>
- ⁴ CIVITAS. (2013, August). *Hasselt*. Retrieved from: <https://civitas.eu/content/hasselt>
- ⁵ Translink. (2019, April 18). *Transit Fare Discounts and Fare Infractions*. Retrieved from: https://www.translink.ca/-/media/Documents/about_translink/governance_and_board/council_minutes_and_reports/2019/april/Agenda--Mayors-Council-PUBLIC-MTG--April-25-FINAL.pdf
- ⁶ Guillen, A. (2019, June 11). *Free transit available for Victoria youth 18 years and younger by fall 2019*. Retrieved from: <https://www.cheknews.ca/free-transit-available-for-victoria-youth-18-years-and-younger-by-fall-2019-566200/>
- ⁷ Lawrence, J. (2019, August 14). *Transit commission puts brakes on free bus passes for youth region-wide*. Retrieved from: <https://vancouverisland.ctvnews.ca/transit-commission-puts-brakes-on-free-bus-passes-for-youth-region-wide-1.4549852>
- ⁸ BC Transit. (n.d.). *Regional Transit System*. Retrieved from: <https://www.bctransit.com/about/funding-and-governance/regional>
- ⁹ BC Transit. (n.d.). *Victoria Regional Transit System*. Retrieved from: <https://www.bctransit.com/about/funding-and-governance/victoria>
- ¹⁰ Litman, T. (2019, March 18). *Transit Price Elasticities and Cross-Elasticities*. Victoria, BC: Victoria Transit Policy Institute
- ¹¹ Resort Municipality of Whistler (n.d.). *Taking transit in Whistler*. Retrieved from: <https://www.whistler.ca/services/transportation/transit>
- ¹² Rosenblum, J. et al. (2019, June 9). *How low-income transit riders in Boston respond to discounted fares: a randomized controlled evaluation*. Cambridge, MA: Massachusetts Institute of Technology.
- ¹³ The Research Intelligence Group. (2014, December). *Calgary transit: 2014 customer satisfaction and non-user report*. Retrieved from: https://www.calgarytransit.com/sites/default/files/reports/2014_calgary_transit_customer_and_non-user_satisfaction_survey_final_report_v2.pdf
- ¹⁴ eNRG Research Group. (2019, April). *Penalty-reward analysis: key service delivery attributes transit use and attitude survey, 2018-19*. Vancouver, BC.
- ¹⁵ Province of British Columbia. (n.d.). *BC bus pass program*. Retrieved from: <https://www2.gov.bc.ca/gov/content/transportation/passenger-travel/buses-taxis-limos/bus-pass>

¹⁶ Community Social Planning Council. (n.d.). *BC Transit ticket assistance program*. Retrieved from: <https://www.communitycouncil.ca/initiatives/bcttap.html>

¹⁷ City of Kamloops. (n.d.). *KamPASS program*. Retrieved from: <https://www.kamloops.ca/parks-recreation/accessible-recreation/kampass-program>

¹⁸ Klein, N. & Smart, M.J. (2017, March). *Remembrance of cars and buses past: how prior life experiences influence travel*. Journal of Planning Education and Research 38, no. 2: 139-51.

¹⁹ City of Kingston. (2011, August). *City of Kingston transit redevelopment plan 2011-2015*. Retrieved from: https://www.cityofkingston.ca/documents/10180/14469/Plan_TransitRedevelopmentPlan_2011-2015.pdf/7b81c8ae-9a20-408f-8214-411625f9e776

²⁰ BC Transit. (2015). *Improving yield: future directions for passenger revenue*. Victoria, BC.

²¹ Volinksi, J. (2012). *Implementation and outcomes of fare-free transit systems*. Washington, DC: The National Academies of Press.

²² City of Kingston. (2016, May 3). *Kingston transit – secondary school complimentary transit pilot program*. Retrieved from: https://www.cityofkingston.ca/documents/10180/13859205/COU_A1416-16142.pdf/508daf77-fca5-4f70-8bc3-c80af1661fb3

²³ Cats, O. et al. (2016, April 20). *The prospects of fare-free public transport: evidence from Tallinn*. Stockholm, Sweden: Centre for Transportation Studies, Department of Transport Science, Royal Institute of Technology (KTH)

²⁴ Canters, R. (2013, April 13). *Hasselt cancels free public transport after 16 years*. Retrieved from: <https://www.eltis.org/discover/news/hasselt-cancels-free-public-transport-after-16-years-belgium-0>