BRT Economic Development

Transit is often seen as a catalyst for economic development. Benefits from transit corridors can include increases in property value, employment, revenues, and the redevelopment of land. Bus rapid transit (BRT) corridors that are able to capitalize on transit-oriented development share some key characteristics: they improve connectivity between hubs, and have land available for development or redevelopment. Cleveland's HealthLine BRT line is a prime example of the impacts quality transit can have on a corridor. The line was constructed between 2006 and 2008, and transformed the corridor filled with vacancies on Euclid Avenue to bustling economic hub. The $200 million project, which included funds to redesign the street, have spurred nearly $6 billion in economic development, including the creation of 8 million square feet of commercial space, 13,000 jobs, and 4,000 new residential units.[1] Within four years after opening, property values jumped between thirty and one hundred percent.

Other corridors have seen much more modest growth, with property values ranging from increases as little as 2% to growth exceeding 60%.[2] Property values increase as a result of improved accessibility to employment hubs and economic centres. People are willing to pay a premium for access to goods, services, employment, education and recreation, and studies have shown premiums for both residential and commercial properties.

In multiple cases, BRT lines have also increased employment along the corridor despite a decline in the region. Eugene, Oregon began operating the Emerald Express Green Line in 2004, and in 2010 there had been a 5% decline in employment of all jobs further than a half-mile from a BRT station, while jobs within a quarter mile of stations increased by 10%.[3] In Pittsburgh, despite a declining population, the East Busway line was able to generate over $300 million in economic development. BRT corridors across the United States have resulted in additional economic development. A majority of those lines have generated over $1 in development for every dollar spent on transit, shown in Table 1. These projects benefited from land available for redevelopment along the corridor.

Table 1: BRT Lines and Transit-Oriented Development[4]

City	BRT Line	Development per Transit Dollar Invested
Los Angeles	Orange Line	$0.83
Boston	Waterfront Silver Line	$1.39
Pittsburgh	MLK Jr. East Busway	$3.59
Eugene	Emerald Express Green Line	$3.96

[1] Greater Cleveland Regional Transit Authority. "RTA's HealthLine -- the world-class standard for BRT service." Accessed February 12, 2018. http://www.riderta.com/healthline/about.
[2] IBI Group. "Queen Street Rapid Transit LRT or BRT Benefits Case," submitted to Metrolinx. May 2013.
[3] Nelson, Arthur et al. "Bus Rapid Transit and Economic Development: Case Study of the Eugene-Springfield BRT System," *Journal of Public Transportation*, 3, 2013.
[4] Hook, Walter, Stephanie Lotshaw and Annie Weinstock. "More Development for your Transit Dollar: An Analysis of 21 North American Transit Corridors." ITDP, 2013.

In opportunities where BRT can improve connectivity and accessibility between employment hubs, significant economic development can occur. These benefits can be seen through redeveloped land, increased property values, and the creation of new employment hubs along BRT corridors. Several case studies across the United States have shown significant benefits to the surrounding community after the construction of BRT lines.

CANADIAN BRT

BRT in Canada has been developed in several cities, including smaller cities such as Waterloo, Halifax, Kelowna, Saint John, Brampton, and York Region, and larger cities including Winnipeg, Toronto, Vancouver and Ottawa. In Ottawa, the construction of the BRT system led to over $675 million U.S. in new economic development around transit stations.[5] However, the literature examining the economic impact of BRT systems in Canada is quite sparse.

Table 2: Canadian BRT Systems

City	BRT Line	Year BRT Opened
Ottawa	Transitway	1983
Vancouver	TransLink B-Line	1996
Waterloo	iXpress	2005
Halifax	MetroLink	2005
York Region	Viva	2005
Saint John	Comex	2007
Toronto	York University Busway	2009
Kelowna	RapidBus	2010
Brampton	Züm	2010
Winnipeg	Winnipeg RT	2012

U.S. BRT

Los Angeles

The Orange Line BRT saw an 30% increase in ridership, resulting in over 33,000 riders on an average weekday.[6] The Orange Line has a fully dedicated right-of-way, operates at high frequencies, and employs off-board fare collection. The line does not pass through downtown Los Angeles, and had limited land development impacts. A majority of the development occurred in North Hollywood, where the BRT connects to the Metro Red Line subway station.

Boston

The Waterfront Silver Line in Boston does not possess elements to classify itself as a BRT line. It does have an exclusive right-of-way along part of the line, where it enters a grade-separated underground corridor, but then operates in mixed traffic.[7] The line connects the waterfront area to downtown Boston, and created vastly improved access between the two areas. The waterfront area was then up-zoned, allowing for significant transit-oriented development to

[5] Levinson, Herbert et al. “Bus Rapid Transit *Volume 1: Case Studies in Bus Rapid Transit*,” TCRP Report 90. 2003.
[6] Hook, Walter, Stephanie Lotshaw and Annie Weinstock. “More Development for your Transit Dollar: An Analysis of 21 North American Transit Corridors.” ITDP, 2013.
[7] Hook, Walter, Stephanie Lotshaw and Annie Weinstock. “More Development for your Transit Dollar: An Analysis of 21 North American Transit Corridors.” ITDP, 2013.

occur. The line averages just over 16,000 weekday riders, and has seen significant growth in the region, with business sales growing nearly 28%, property values increasing by nearly 50%, and an 11% increase in jobs.[8]

Pittsburgh

Pittsburgh's Martin Luther King, Jr. East Busway BRT was built on a former freight rail line, limiting development of the surrounding land due to fragmented land ownership or the existence of already developed land. Despite that, over $900 million was spent on developments within a 1,500 foot radius of stations. The busway operates on a fully dedicated right of way and ends just short of the city center, carrying roughly 24,000 passengers per weekday.[9]

Eugene

The Emerald Express Green Line BRT carries an average of 10,000 riders per weekday along a route that connects the University of Oregon with downtown Eugene.[10] Planners had placed an emphasis around mixed-use and high-density use of land in downtown Eugene and around transit stations, which helped stimulate economic development. Since the BRT opened, $100 million in economic development has occurred, both near the University of Oregon and in the downtown core. The BRT opened in 2007 and between 2004 and 2010, 26,500 jobs were created, nearly half of which were located within a quarter-mile of a BRT station.[11]

BUSINESS IMPACTS

Studies have examined the differences in consumer behaviour by mode of transportation. The results have indicated that while drivers will spend more than other forms of transportation in a single visit, transit users visited establishments significantly more often, and would spend on average more than drivers in the course of a month, except at supermarkets.[12] In addition, reducing on street parking has not resulted in diminished revenues. Reports in Toronto and Vancouver have shown that businesses consistently overestimate the percentage of customers who drive to their stores.[13] Automobiles occupy significantly more space per customer than other modes of transit, which have much smaller footprints. Fewer parked cars on roadways also increases the visibility of storefronts to pedestrians. Another advantage to transit users is their transportation costs decrease, providing them with more disposable income to spend elsewhere.

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[8] Economic Development Research Group, Inc. "Project: Silver Line Waterfront BRT," AASHTO. Accessed February 14, 2018. https://planningtools.transportation.org/290/view-case-study.html?case_id=156.

[9] Hook, Walter, Stephanie Lotshaw and Annie Weinstock. "More Development for your Transit Dollar: An Analysis of 21 North American Transit Corridors." ITDP, 2013.

[10] Hook, Walter, Stephanie Lotshaw and Annie Weinstock. "More Development for your Transit Dollar: An Analysis of 21 North American Transit Corridors." ITDP, 2013.

[11] Nelson, Arthur C. et al. "Bus Rapid Transit and Economic Development: Case Study of the Eugene-Springfield, Oregon BRT System," Metropolitan Research Center, University of Utah, November 13, 2011.

[12] Clifton, Kelly J. et al. "Examining Consumer Behaviour and Travel Choices," Oregon Transportation Research and Education Consortium, February 2013.

[13] Arancibia, Daniel. "Cyclists, Bike Lanes, and On-Street Parking: Economic Impacts," Toronto Cycling Think & Do Tank, University of Toronto, November 2013.

Summary
The implementation of BRT has been shown to have positive economic impacts. Effects can include increases in property values, the creation of new jobs, increasing business revenues and the redevelopment of land. Corridors greatly benefit from high-density use and mixed-use of land, allowing for compact development which can capitalize on the premium proximity to transit offers. Higher concentrations of people along a BRT corridor also provide an increased customer base and a larger labour pool. BRT offers increased accessibility to key economic and employment hubs, and combined with lower transportation costs, provides the opportunity to have more money spent in the local economy.