ITEM 9
July 5, 2018
PRTC Regular Meeting

PRTC Executive Director's Time

- A. INFO Follow-Up from Prior Meetings
 - PWC's Office of Equality, Affirmative Employment and Diversity Recommendations
- B. INFO Executive Director's Report
 - Strategic Plan Update
 - Industry Article More Routes = More Riders. Why is Transit Ridership Dropping Across North American Cities? Blame Declining Bus Service.

Summary: "More Routes = More Riders"

Original article by Laura Bliss at CityLab. Appeared June 2018.

Laura states that nationwide transit ridership dropped by 2.5 percent from 2016 to 2017, with a downturn in bus passengers leading the loss. These declines have been in progress virtually across the board in North America since 2014. Why is everyone getting off of the bus? The price of gas has gone down in recent years, which may be leading more Americans to choose to drive. The economy has improved, which could mean more of us can afford to buy and drive cars. There's also the rise of ride-hailing services like Uber and Lyft; some studies have shown they're pulling more-affluent riders off transit at certain times of the day.

Laura advises that the strongest determinant of the fall in ridership may not be the lure of another mode – it is service cuts on bus and train systems. According to a new study by researchers at McGill University's department of urban planning, transit agencies are repelling riders by shrinking routes and schedules on buses. The McGill report finds that the more service a transit authority provides, the more transit trips it will attract.

The researchers of this report gathered data on transit ridership, fares, and operations between 2002 and 2015 for 25 large transit agencies in the United States and Canada. Operations were measured in terms of vehicle revenue miles – which is the distance traveled by vehicles available to the public with an expectation of carrying passengers – for buses, trains, and the two modes combined. The researchers performed an analysis to find the strongest relationships between these and more than a dozen additional factors, including gas prices, GDP per capita, geographic and population sizes, the portion of households without a car, and the presence of Uber and bikesharing.

The analysis shows that gas prices did have some statistical bearing on ridership, but it was fairly weak. Much stronger were the factors that transit agencies and cities themselves control. Transit service drove ridership more than any other factor. A 10 percent increase in revenue hours was associated with a roughly 8 percent increase in ridership.

Buses are the backbone of mass transit for the vast majority of North American cities. But between 2011 and 2015, transit agencies saw a decline in ridership as they slashed bus service by about 14 percent. Fares also mattered: a 10 percent rise in ticket prices was also associated with a 2 percent drop in ridership. Not significant in the ridership drop: the presence of Uber or bikesharing.

The authors of the McGill report warn: Just expanding the number of bus hours, but in the wrong corridor, may not bring many people on board. Still, this study suggests that transit agencies struggling to keep passengers on board needn't look too far for explanations. Cash-strapped transit agencies have been sabotaging themselves.

So what? How did the service cuts at OmniRide affect ridership?

Beginning in FY17, OmniRide cut bus service by 11.5 percent and increased fares around 5 percent. OmniRide ridership was down 8 percent across all services by the end of FY17. The drastic service reduction would presumably cut costs, but it also affected the quality of the service OmniRide provides. The decrease in service quality in addition to the fare increase, caused the value of the service we provide to drop significantly. What seems to determine whether people ride transit is how well it compares to other options in terms of cost, frequency, reliability and connectivity.

OmniRide wants our citizens to see our buses as a piece of social infrastructure that the whole region can take pride in – a sign of prestige, not decay. If we care about how well Prince William County moves, how the local economy is faring, and how the planet's future fares, then you care about the OmniRide bus system. You care about making the buses a better option.

OmniRide and its municipalities can support transit ridership through investments in operations by adding more revenue hours, fare reductions, as well as policies aiming to increase density and reduce car ownership. The McGill study shows that greater revenue hours resulting in higher frequencies with limited fare increases are the key to increasing ridership.

Bikesharing systems can also contribute to higher transit use by providing an option for the first/last mile connection to the OmniRide transit network. Bikesharing systems are commonly designed to be well integrated with public transit service with features such as docking stations at nearby transit stations and the integration of a transit pass with the bicycle-sharing pass. Currently, there are no bikesharing stations in Prince William County.

The report's findings emphasize the need to invest in public transport, especially bus operations, to support higher levels of ridership. To do so, OmniRide and its municipalities need to find additional sources of revenues. The study has shown that increased fares to support investments in operations will not result in large increases in ridership, to which our own decrease in ridership has proven. Gas taxes, although relevant, presents an unstable, likely diminishing source of revenue. Increasing gas prices (through taxes) can positively impact ridership, whilst it can contribute to financing transit agencies. However, given the improvements in fuel efficiency, revenues from gas taxes have been declining in the last ten years.

Benefits from public infrastructure investment like transit can increase adjacent land values. Studies have shown that buyers are willing to pay a premium for property (both commercial and residential) in high-density, mixed-used, walkable and transit-accessible areas. When businesses locate close to transit, the potential pool of employees and customers grows, and overhead costs like the provision of expensive parking go down. Capturing a portion of those land value increases can lead to new ways of funding OmniRide's transit infrastructure, operations and maintenance.

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We're waiting. // Charles Rex Arbogast/AP

More Routes = More Riders

LAURA BLISS JUN 4, 2018

Why is transit ridership dropping across North American cities? Blame declining bus service.

Noticing a smaller huddle at the bus stop recently? You're not crazy. Transit ridership <u>dropped by 2.5 percent</u> from 2016 to 2017, with a downturn in bus passengers leading the hemorrhaging. These declines have been in progress virtually across the board in North America <u>since 2014</u>.

What's less clear is exactly why we're all getting off the bus. The price of gas has gone down in recent years, which may be leading more Americans to choose to drive. The economy has improved, which could mean more of us can afford to buy and drive cars. There's also the rise of ride-hailing services like Uber and Lyft; some studies have shown they're pulling more-affluent riders off transit at certain times of day.



But the strongest determinant of ridership's rise and fall may not be the lure of another mode—it's service cuts on bus and train systems. According to a <u>new study by researchers at McGill University's department of urban planning</u>, transit agencies are repelling riders by shrinking routes and schedules on buses in particular. "The more service a transit authority provides (measured as the number of kilometers driven annually by public transit vehicles—VRK), the more transit trips it will attract," the authors <u>wrote in an article summarizing their research</u>, which was presented at the annual meeting of the <u>Transportation Research Board</u> in Washington, D.C., last January.

The researchers gathered data on transit ridership, fares, and operations, between 2002 to 2015 for 25 large transit agencies in the United States and Canada, from the National Transit Database and the Canadian Urban Transit Association. Operations were measured in terms of vehicle revenue kilometers—which is the distance traveled by vehicles available to the public with an expectation of carrying passengers, according to the American Public Transportation Association—for buses, trains, and the two modes combined. The researchers performed an analysis to find the strongest relationships between these and more than a dozen additional factors related to the 25 service areas, including gasoline prices, GDP per capita, geographic and population sizes, the portion of households without a car, and the presence of Uber and bikesharing.

Uber is not killing off the bus in every city in North America, at least not by itself. Transit agencies have been sabotaging themselves.

Gas prices did have some statistical bearing on ridership, the analysis shows, but it was fairly weak. Much stronger were the factors that transit agencies and cities themselves control. Transit service drove ridership more than any other factor: A 10 percent increase in VRK was associated with a roughly 8 percent increase in ridership, with all other variables constant, they found.

And buses, the backbone of mass transit for the vast majority of North American cities, were the primary driver. New light-rail and streetcar segments have popped up in several North American cities over the past 15 years. The researchers found that a strong uptick in rail service between 2002 and 2007, during which time bus service remained stable, had a positive relationship with overall ridership. But between 2011 and 2015, transit agencies saw a decline in ridership as they slashed bus service by about 14 percent, even as they continued to build out rail as steadily as before.

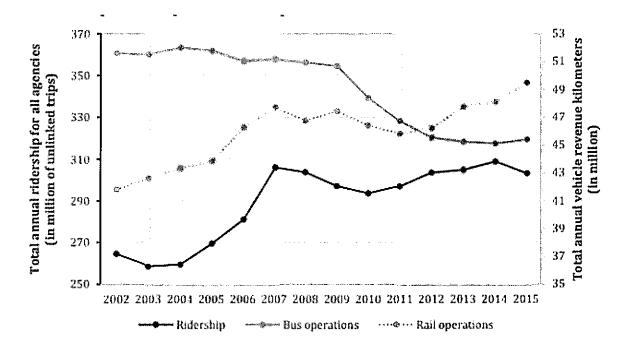


FIGURE 1 Ridership and operations per year (total for all US transit agencies)

Boisjoly, G., Grisé, E., Maguire, M., Veillette, M., Deboosere, R., Berrebi, E., & 43 El-Geneidy, A. (2018). "Invest in your riders: A longitudinal analysis of the determinants of public 44 transport ridership in 25 North America cities."

Fares also mattered: a 10 percent rise in ticket prices were associated with a 2 percent drop in ridership. Not significant: the presence of Uber or bikesharing.

Like all studies, this paper has its limitations—namely that the factors the researchers studied were constrained by the data that was available for all 25 agencies. And there may be local factors at play that complicate the one-to-one relationship between ridership and service hours that the study implies. "I think the issue is nuanced," Yonah Freemark, a transit consultant and Ph.D. student in urban planning at MIT, said in an email. "Just expanding the number of bus hours, but in the wrong corridor, may not bring many people on board." And the lack of counterfactuals in these types of analyses is always tricky. Some cities that have increased bus service, such as Baltimore, have still seen declines in ridership.

Still, this study suggests that transit agencies struggling to keep passengers on board needn't look too far for explanations. What seems to determine whether people ride transit is how well it compares to other options, in terms of cost, frequency, reliability, and connectivity. Uber is not killing off the bus in every city in North America, at least not by itself. Cash-strapped transit agencies have been sabotaging themselves.

How to stop? The pithy title of the McGill study might say it all: "Invest in the ride."