

Honours Theses, Academic Year of 2020-21

2020-21

Year:

Siew Ten Ong

**Student
Name:**

Title: [Understanding Cost Differences of Transit Services Between Urban and Rural Canada](#)
Dr. Justin Beaudoin

Supervisor:

Abstract:

In 2021, the Canadian government announced a new policy regarding public transit funding that has put rural transit projects in a disadvantageous position as the funding guidelines ignore the differences of transit demand and supply between urban and rural Canada. In other words, urban areas that have higher population density and more job opportunities, will also have more complete and accessible public transit service that would attract more transit users, in contrast to rural areas. Hence, this thesis focuses on identifying the potential differences of ridership demand and supply, and the required subsidy, between urban and rural Canadian transit operations by examining the empirical relationship on: (1) the factors affecting transit demand, (2) the factors affecting transit supply costs, and (3) the factors affecting the required subsidy per trip from the public transit users' approach. A pooled cross-sectional dataset comprised exclusively of transit demand factors from 1996 to 2016 was used for the one-stage OLS regression for all three models. It should be noted that none of the existing literature has involved a cross-sectional comparison of public transit across Canadian cities, and none of these studies have focused on the rural context.

The results show that there are differences in ridership demand and supply, and the required subsidy, between urban and rural transit operations in Canada. Accounting for their respective difference in socioeconomic, built environment, and ridership levels this thesis provides evidence for policymakers that rural and urban areas may need different transit funding policies.

