



Transit

Research



Land Use Impacts of Bus Rapid Transit: Phase II—Effects of BRT Station Proximity on Property Values along the Boston Silver Line Washington Street Corridor

Background

The development of Bus Rapid Transit (BRT) systems is relatively recent in the United States; however, several systems are operating and many more are being planned. A more comprehensive understanding of the relationship between land uses and BRT systems is needed, particularly in comparison to other fixed-guideway modes such as heavy and light rail. While recognizing that existing land uses have an important and complex influence on the development costs and benefits of fixed-guideway projects, this research focuses on the impacts that BRT projects have on surrounding property values and land uses.

Objectives

This research sought to begin the understanding of the extent to which access to BRT services is considered in the location decision, whether commercial or residential. Is the availability of BRT service a factor in an investment decision such as a home purchase? With the appropriate data and methodology, the marginal effect of proximity to BRT access on property values can be estimated. The objective of the study was to examine land use and property value changes that have occurred along the Boston Silver Line Washington Street corridor. An effort was made to quantify the impacts of access to BRT stations on the sale prices of surrounding condominium units. The hypothesis is that the BRT stations have an impact on market value that is similar to rail transit projects considering the level and permanence of services and facilities

Findings and Conclusions

Access to high-quality transit service such as BRT can induce increases in property values.

Analysis of the changes in sale price per square foot from before and after the implementation of the Silver Line Washington Street BRT service indicates an impact that is positive, yet relatively small in magnitude, as would be expected. Specifically, for condo sales that occurred in 2007 or 2009, a condo at the mean distance to a BRT station had a sale price per square foot that is approximately \$45.82 less than one that is adjacent to a station, all

else constant. The mean sale price per square foot in the 2007/2009 data was about \$600, so the BRT premium was approximately 7.6 percent. In a similar model using condo sales from 2000 and 2001, prior to the opening of the Silver Line, such a relationship was not found, which supports the hypothesis of this work. The results described in this paper suggest that it is access to high-quality transit service, not necessarily the mode itself, which induces this premium.

Benefits

This project represents only the second study of U.S.-based BRT and property values published in recent years. As BRT continues to grow in popularity in the United States, research such as this contributes to a much-needed body of literature on this topic. This project will help provide policymakers and the transit industry with the best information possible to make optimal transit investment decisions in their communities.

Project Information

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