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# Transit Access and the Agglomeration of New Firms: A Case Study of Portland and Dallas

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A major impetus for metropolitan areas developing new transit systems or expanding existing ones is to spur economic development within the region. Economic growth can be stimulated through a variety of mechanisms. Rail transit, in particular, is held to be a source of economic growth and development. An important question is whether—and, if so, how—transit causes or intensifies agglomerations of employment and population in cities.

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This study analyzes whether new firms are more likely to form near rail transit stations. Two relatively new light-rail systems—in Portland, Oregon, and Dallas, Texas—were selected for examination. A large, time-series database of firm births for the period 1991–2008 provided the data. Specific industry sectors and a variety of firm sizes were targeted with two objectives: 1) to determine what association, if any, exists between the opening of new light-rail stations and the births of new firms in the area, and 2) to identify contextual differences between the two cities that may account for any differences in the results.

## Study Methods

The National Establishment Time-Series (NETS) dataset, derived from Dun & Bradstreet records, was used as a data source. The database includes information on firm size, industrial category, dates of firm birth and death, and location. The NETS data were used to develop a geographically specific dataset that includes firm location relative to rail transit stations. The availability of 18 years of time-series data made it possible to evaluate how firm births within those regions have changed over time and how births of firms may be influenced by proximity to new rail stations. The analysis examines firms of various sizes—including those with only one employee (i.e., a sole proprietor), those with five or fewer employees, and larger firms—and across a variety of specific industry sectors. A random effects, negative-binomial regression model was used to examine associations between proximity to rail stations, transit and auto accessibility, and local (block-level) measures of agglomeration and to control for a large set of other spatially correlated variables, such as distance to downtown, access to freeways, and socioeconomic characteristics of Census tracts.

## Findings

Newly formed firms do tend to cluster around stations in the Portland region, particularly within walking distance, while new firm births in the Dallas region are not generally as associated with rail station access. However, results vary by firm size and industrial sector. In both regions, firms of more than five workers are more likely to be born near rail stations, and in both regions, there are positive relationships between firm births and rail station proximity in almost all industries, though they are more consistently positive and larger for

Portland. Agglomeration benefits are apparent, as births of larger firms have stronger associations with transit proximity, and this occurs in both regions. The stronger effect on births of firms with five or more employees suggests that the nature of agglomeration benefits with respect to new firm births may be related to labor market accessibility rather than to other mechanisms, such as the sharing of knowledge, but this tentative conclusion requires further verification and research.



**DART; Dallas, Texas Light Rail**

### **Policy Recommendations**

The analysis presented here highlights that there can be major differences in the association between new firm births and proximity to new and growing transit systems. This may be due to local policies, or to the higher value of rail accessibility in the Portland context. It is important for urban and transportation planners to understand why these two cities have experienced different results, since it is generally assumed that new firms generate regional growth and that clustering of these new firms can lead to external agglomeration benefits and increased regional productivity.

Why do rail station areas in Portland appear to provide an environment for the birth of new firms, while in Dallas there is less evidence of this? One possible explanation is that Portland has been more proactive in focusing development, both around their transit stations and within the CBD, by adopting maximum parking caps in the CBD and an urban growth boundary to control and focus development in the core. Dallas is almost the opposite, with no comprehensive planning around transit and ample parking in the CBD. It is also possible that the Portland transit network provides much better access than the Dallas network, given the much higher transit mode share in Portland and the more extensive transit network. Further research is needed to develop a comprehensive assessment of the policy implications of this work.

### **About the Authors**

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### **To Learn More**

For more details about the study, download the full report at [transweb.sjsu.edu/project/1145.html](https://transweb.sjsu.edu/project/1145.html)