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Transit Investments are Having an Impact on Land Use Beyond the Half-Mile Mark

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Issue

Recent years have witnessed a growing interest in transit-oriented development (TOD) and other transit-centered initiatives. It has been widely presumed that transit investment can significantly contribute to curbing sprawl and creating a more compact (and thus more sustainable) pattern of urban land use, while providing a broader range of travel options. However, little is known about how investments in the public transit system modify urban land use patterns and the geographical extent of impacts. Prior research tends to assume transit lines and stations are homogeneous and have similar impacts without careful consideration of development history, service quality, or other variations. In addition, prior research and current practice often assume transit impacts are concentrated within a half-mile, which has limited the understanding of how transit investments impact the broader vicinity.

Research Findings

To gain a better understanding of the broader impacts of transit investments on land use patterns, a study was conducted on how land use change patterns vary with increasing distance from rail transit stations in Los Angeles County with a focus on both Near (<0.5 miles) and Farther areas (0.5-1.0 mile) around transit stations (see Figure 1). Key findings from this research are presented below.

Transit areas show a distinct pattern of land use compared with county-wide averages. A relatively larger percentage of the areas around transit are devoted to duplexes, townhouses, or other types of multi-family housing units compared to other parts of the county. The proportion of single-family residential land use is lower not only in Near areas (<0.5 mile) but in Farther areas (0.5 and 1 mile) compared to county-wide averages. Commercial

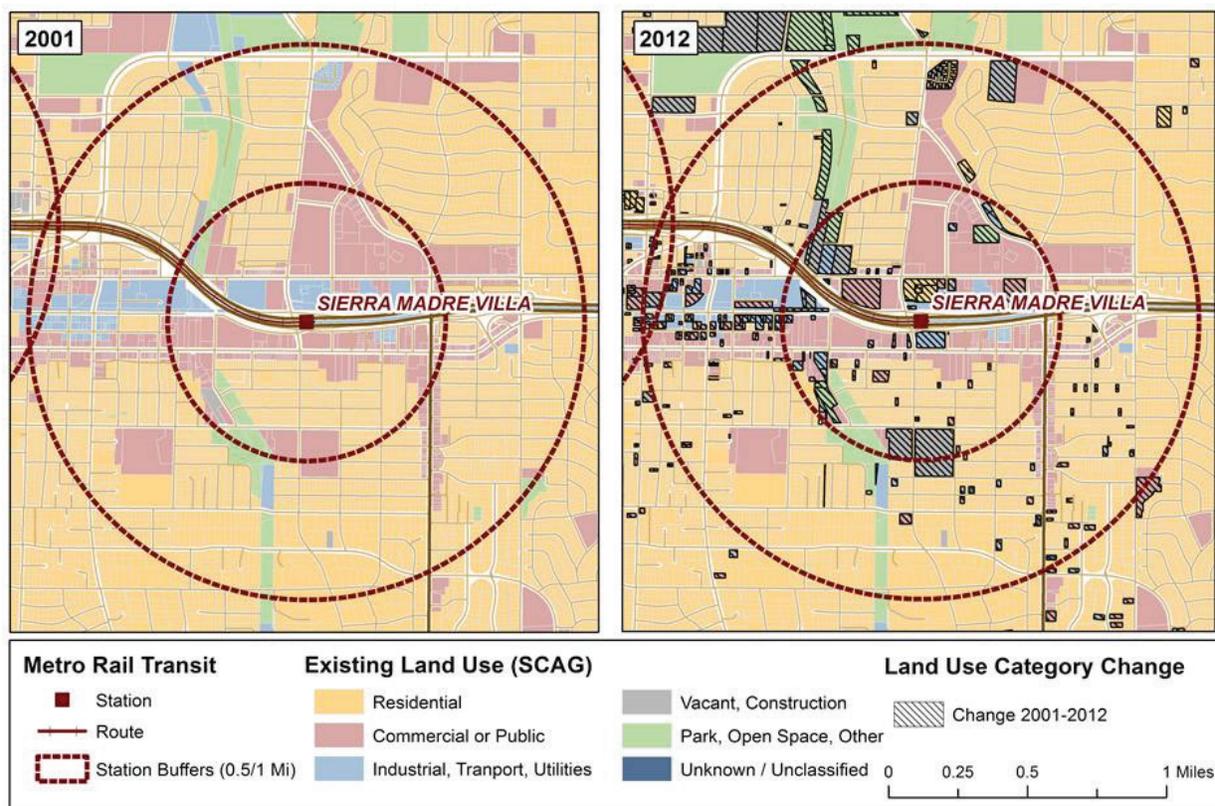


Figure 1 An example of the land use patterns both in Near and Farther areas around the Gold Line Sierra Madre Villa Station in Pasadena. Source: Generated from data obtained from the Southern California Association of Governments.

Research Findings continued

and industrial uses were also more likely to be found in transit areas, with a greater concentration within Near areas immediately adjacent to stations compared to Farther areas.

Land use impacts of transit investments are not confined to the half-mile boundary around stations, although substantial variation exists.

While the Farther areas (0.5-1.0 mile) remained single-family housing dominant in many cases and were often excluded from conventional transit-oriented planning processes, these areas show a distinct pattern of land use transformation. In particular, vacant parcels in these areas are found to be more rapidly developed not only for single-family residential but also open space purposes. Furthermore, industrial sites in Farther areas are more likely to be redeveloped for multi-family housing compared to other parts of the county.

Local policy and planning efforts matter.

Local planning districts with pro-transit elements show an increased rate of industrial land conversion to multi-family housing and commercial uses, suggesting that more attention needs to be paid to the importance of systematic land use – transportation planning integration. Local planners and policy makers also need to think beyond traditional half-mile transit catchment areas and explore ways to refine transit-oriented development strategies based on a solid understanding of the complex mechanisms between transit investment and land use change dynamics in broader transit vicinity areas. This will eventually help the state to achieve the full vision of Senate Bill 375 and other sustainable development initiatives.

Further Reading

This policy brief is drawn from the research report “Transit Investment Impacts on Land Use Beyond the Half-Mile Mark” by Jae Hong Kim and Douglas Houston who are both Associate Professors in the Department of Urban Planning and Public Policy at the University of California, Irvine. The

full report can be found here: www.ucits.org/research-project/beyond-the-half-mile-walking-distance-buffer-the-impact-of-transit-investment-on-broader-vicinity-areas/. For those interested in learning more about this topic, please see suggested reading below:

Kim, J. H. & Houston, D. (2016). Infill dynamics in rail transit corridors: Challenges and prospects for integrating transportation and land use planning. University of California Transportation Center Project Report, UCTC-FR-2016-06. Available at http://www.dot.ca.gov/research/researchreports/reports/2016/CA16-2641_FinalReport.pdf

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