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Effect of New Rail Transit Stations on Income Distribution of Nearby Residential Moves

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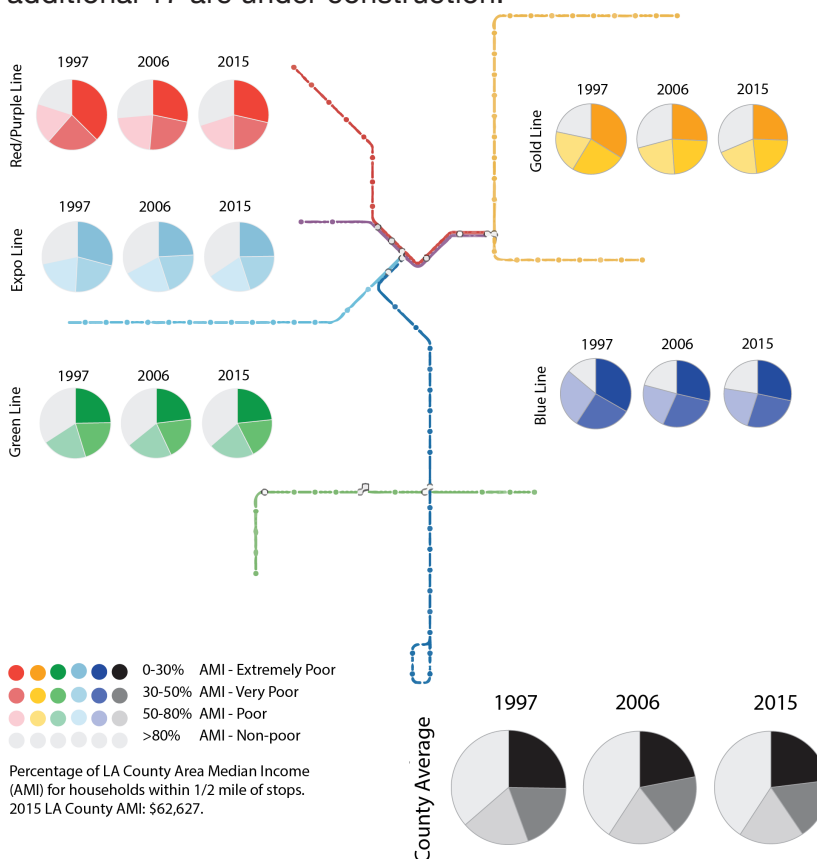
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Issue

Is new rail transit associated with displacement of low-income residents in near-rail neighborhoods? To address this question, this project used annual data on household locations and incomes from 1994 to 2012 to examine neighborhood income distributions and the pattern of residential moves by income in Los Angeles rail transit neighborhoods. The Los Angeles metropolitan area presents an ideal study area for analyzing transit-oriented development (TOD) and potential displacement. Since 1990, the Los Angeles Metropolitan Transit Authority (Metro) has opened 93 new rail-transit stations. An additional 17 are under construction.

Key Research Findings

Using annual household-level income and location data from anonymized California Franchise Tax Board records, this project calculates the rate at which households moved into and out of areas within a half-mile of Metro rail stations between 1994 and 2012. It divides households within a half-mile of rail station locations into income bands based on the Area Median Income (AMI) for Los Angeles County in each study year, 1994–2012 (Figure 1). The key annual household income bands of interest are less than 30% of AMI (roughly \$12,000–\$19,000), 30%–50% of AMI (\$21,000–\$30,000), and 50%–80% of AMI.



Los Angeles rail station neighborhoods saw a marked decline in the share of low-income households and an increase in the share of middle- to upper-middle income households from 1994 to 2012. Across all Los Angeles rail station areas, the share of households in the less than 30% of AMI group declined from 42% to 33% from 1994 to 2012. Over the same time period, the fraction of households within a half-mile of stations in the 100%–300% AMI group increased from 9% to 16%. Virtually all the changes in rail neighborhood income distribution occurred before 2003.

Figure 1. Household income distribution near Metro rail stations. Data from selected years was used to reflect overall time trends.

Changes in income distribution near rail stations generally mirrored country-wide trends during the same period. The share of households in the lower income groups decreased across LA County for the study period. It is difficult to isolate the effect of displacement induced by transit stations from the broader trends; in many cases they are statistically indistinguishable, given the available data.

Households near rail stations move often, with the lowest-income households moving the most often. The data indicate that on average 9.8% of rail-station area households with incomes below 30% AMI move out of the station area each year and 9.4% move in. Both move-out and move-in rates in station neighborhoods are 1%–2% lower for higher income households.

Regression analysis indicates that opening a new station is associated with a lower rate of in-movement of the poorest households. When a Los Angeles station opens, the rate at which the poorest households (those with income less than 30% of AMI) move into a rail neighborhood declines by 0.95% per year.

Among some income groups, move-out rates fell after rail stations opened. Among households in the 30%–50% of AMI range, the rate of moving out of station areas declines after stations open (from an average of 11.6% per year to 10.5% per year), and a similar decline in move-out rate occurs among households in the 50%–80% of AMI category. It is possible that the connectivity provided by rail transit incentivizes these households to stay in the neighborhood, and one cannot rule out that these households stay in part by reducing consumption elsewhere in their budget, doubling up with other households, or other methods.

Overall, this regression analysis does not indicate that opening a rail station increases move-out rates at the lowest income levels, but it finds evidence that the lowest income households (income less than 30% of AMI) move into station areas at a reduced rate after stations open. Policy efforts should consider how to allow the lowest income residents to move into—and stay longer in—rail neighborhoods.

More Information

This policy brief is drawn from “Gentrification Near Rail Transit Areas: A Micro-Data Analysis of Moves Into Los Angeles Metro Rail Station Areas,” a research report from the National Center for Sustainable Transportation, authored by Marlon G. Boarnet and Evgeny Burinskiy (University of Southern California), Raphael Bostic (Federal Reserve Bank of Atlanta), Seva Rodnyansky (University of California, Berkeley), and Allen Prohofsky (California Franchise Tax Board). To download the report, visit: <https://ncst.ucdavis.edu/project/gentrification-near-rail-transit-areas-a-micro-data-analysis-of-moves-into-los-angeles-metro-rail-station-areas/>.

For more information about the findings presented in the brief, please contact Marlon G. Boarnet at boarnet@usc.edu.

The views expressed in this policy brief and the associated report are those of the authors and do not necessarily reflect those of the Board of Governors of the Federal Reserve System or other System officials. Any opinions expressed in this policy brief and associated report are those of the authors, not official positions of the California Franchise Tax Board.

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