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# Do Rail Transit Stations Induce Displacement?

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## Issue

As the construction and usage of rail transit proliferates in cities across the world, concerns abound about impacts on surrounding neighborhoods – including gentrification and displacement. Los Angeles County has seen a massive rail transit buildout—from zero to 93 stations along six lines—in 25 years. This boom has led to a prevailing perception that Los Angeles’ rail transit development causes an influx of high-income residents and an outflow of low-income residents near rail stations.

This research tests this perception by answering the following questions related to rail transit and household moves: Do rail transit stations affect residential move rates in surrounding neighborhoods? And, if so, then are lower income or long-term residents disproportionately displaced from the neighborhood?

The study calculates household move rates in neighborhoods in two of the most populated corridors along the Los Angeles Metro rail system – the Red and Purple Lines subway and the Gold Line light-rail. Then, half-mile areas around stations in those corridors are compared to control neighborhoods that are demographically similar but without rail transit. Detailed year-to-year move rate comparisons are enabled by a rich administrative

dataset from the California Franchise Tax Board. Los Angeles’ diverse population, density, and land use, as well as its new transit system, provide a good laboratory to understand the relationship between displacement and rail station opening. Household moves are moves greater than a half mile, and so in most cases for households that started in a rail transit neighborhood, this study interprets a move as leaving the half-mile rail neighborhood.

## Key Research Findings

**Urban renter households move frequently.** Findings indicate that dense, urban neighborhoods with a high percentage of renter households have high move rates compared to more suburban neighborhoods and those with high proportions of homeowners, which is in agreement with national survey data (Table 1). Los Angeles County has a higher than average fraction of renters, and the transit corridors examined here have mostly renters: over 70% of Gold Line corridor residents and over 90% of Red and Purple Line corridor residents are renters. These neighborhoods see 22%

	U.S. National	Los Angeles County	LA Red and Purple Line Neighborhoods	LA Gold Line Neighborhoods
<b>HOUSING TENURE</b>				
% Renter	33%	52%	91%	72%
% Homeowner	67%	48%	9%	28%
<b>MOBILITY RATE BY TENURE</b>				
Renter Mobility Rate	30.7%			
Homeowner Mobility Rate	7.2%			
All Household Mobility Rate	14.2%	21.0%	28.1 – 28.5%	21.8 - 23.0%

Table 1: Average Annual Renter Rates and Move Rates (1993–2013). Source: California Franchise Tax Board, U.S. Current Population Survey.

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and 28% of households respectively move out every year, indicating a high degree of mobility out of the neighborhood.

**Lower-income households move more frequently than higher-income households.** In both Red/Purple and Gold Line neighborhoods, findings show that households earning more than \$40,000 annually have year-to-year mobility rates 5% to 8%

lower than those earning less than \$40,000 (Table 2, column 2). This finding indicates a greater degree of stability for households earning more than \$40,000.

**Rail transit station openings increase mobility out of the neighborhood by 0% to 17%, depending on income, rail corridor, and differences in regression specification.** Train station openings increase move-out rates more prominently in Gold Line neighborhoods, regardless of income (Table 2). For the Red/Purple Line, lowest-income households (i.e., households that earn less than \$15,000 annually) are most likely to move after a rail station opens, while households in higher-income groups show no effect.

## Policy Impacts

Bringing rail transit to a neighborhood can significantly improve transportation access, which may especially benefit lower-income and carless households. However, new rail station openings can increase move rates for lower-income populations in neighborhoods that already have a high degree of residential turnover, which risks destabilizing households and communities. Transit planners need to consider these potential negative externalities when planning projects and station areas.

	Annual Household Income (in 2013\$)	Baseline Mobility Rate	Additional Train Station Opening Effect	Train Station Opening Effect Size
Red and Purple Line	All incomes	28.1 – 28.5%	0 – 0.8%	↑ by 0 – 3%
	\$0-15,000 (<30% AMI)	29.7 – 30.2%	0 – 1.1%	↑ by 0 – 4%
	\$15,000 – 25,000 (30-50% AMI)	30.5 – 31.0%	0%	No impact
	\$25,000 – 40,000 (50-80% AMI)	28.0 – 28.4%	0%	No impact
	> \$40,000 (>80% AMI)	22.8 – 22.9%	0%	No impact
Gold Line	All incomes	21.8 – 23.0%	0 – 2.8%	↑ by 0 – 13%
	\$0-15,000 (<30% AMI)	22.5 – 25.3%	0 – 1.8%	↑ by 0 – 8%
	\$15,000 – 25,000 (30-50% AMI)	24.1 – 26.3%	1.2 – 2.9%	↑ by 5 – 12%
	\$25,000 – 40,000 (50-80% AMI)	22.0 – 23.2%	0 – 2.8%	↑ by 0 – 13%
	> \$40,000 (>80% AMI)	18.1 – 18.7%	0 – 3.2%	↑ by 0 – 17%

Table 2: Average Annual Move Rates and Train Station Opening Effects (1993–2013). Source: California Franchise Tax Board.

## Further Reading

This policy brief is drawn from the “Sustainability and Displacement: Assessing the Spatial Pattern of Residential Moves near Rail Transit” research report prepared by Marlon Boarnet, Raphael Bostic, Seva Rodnyansky, Raúl Santiago-Bartolomei, and Danielle Williams of the University of Southern California, and Allen Prohofsky of the California Franchise Tax Board. To download the report, visit <https://ncst.ucdavis.edu/project/sustainability-and-displacement-assessing-the-spatial-pattern-of-residential-moves-near-rail-transit/>.

## Disclaimer

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