

# Rubber Tires for Residents

Bus Rapid Transit and Changing  
Neighborhoods in Los Angeles

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# Overview

- Background
- Geography, Data & Methods
- Findings
  1. Orange Line neighborhoods gentrified
  2. Transit-oriented gentrification is not modally linked
  3. Neighborhood economic conditions are better predictors of neighborhood potential to gentrify than are racial/ethnic characteristics



# Do Transit Investments Gentrify Neighborhoods?

- Gentrification
  - a process of neighborhood change that results in economic and demographic transitions in lower-income neighborhoods.

*Chapple, 2009; Freeman, 2005*

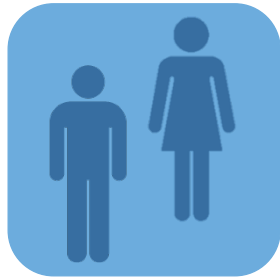


# This study

- Does BRT gentrify surrounding neighborhoods?
  - Have neighborhoods more proximate to Orange Line stations changed more than non-adjacent neighborhoods?
  - What pre-existing neighborhood characteristics are associated with higher levels of change?

# Data

- 2000 US Census & 2013 American Community Survey
- Selection of variables from literature at census tract level



Demographic



Economic



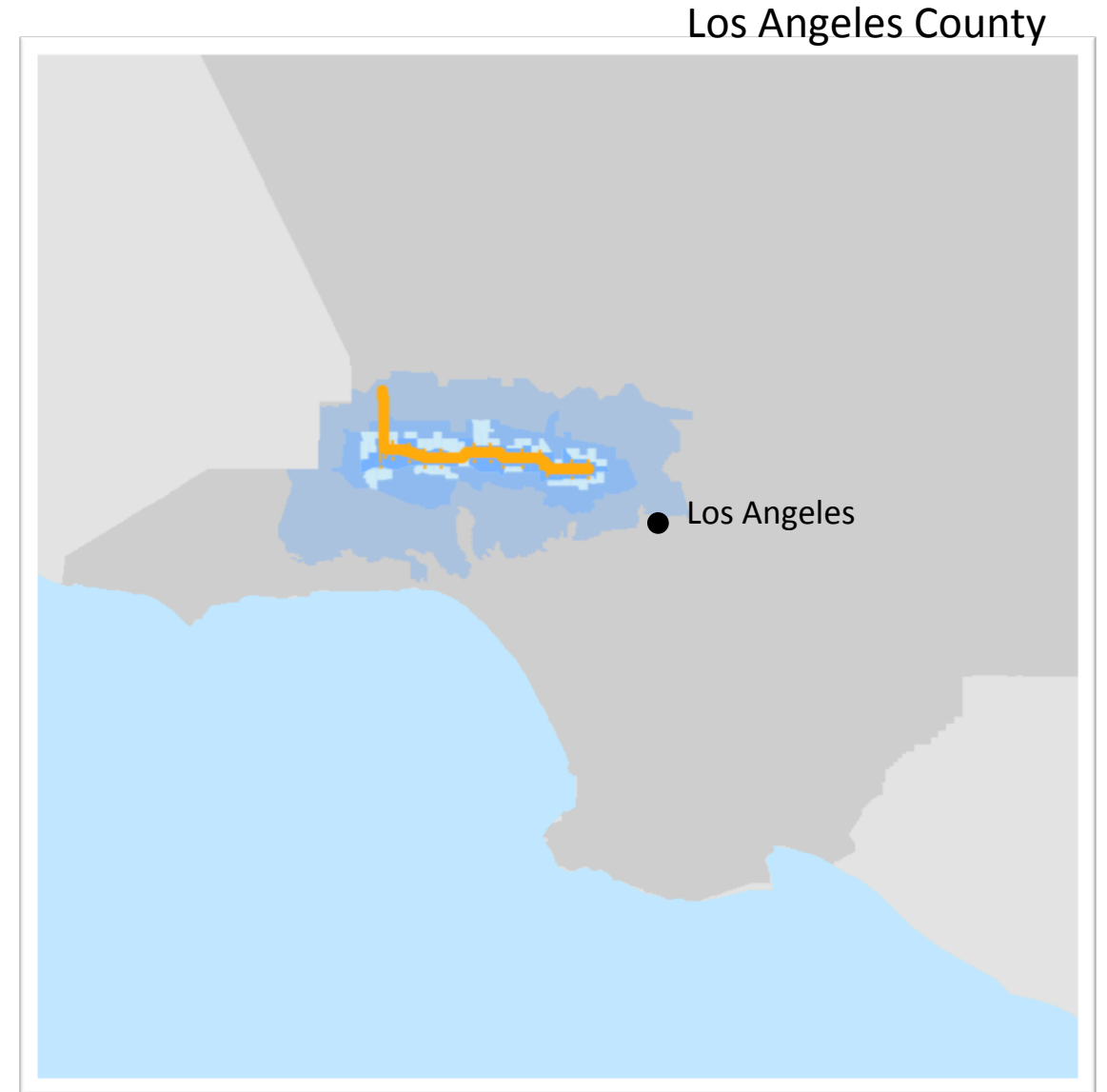
Housing



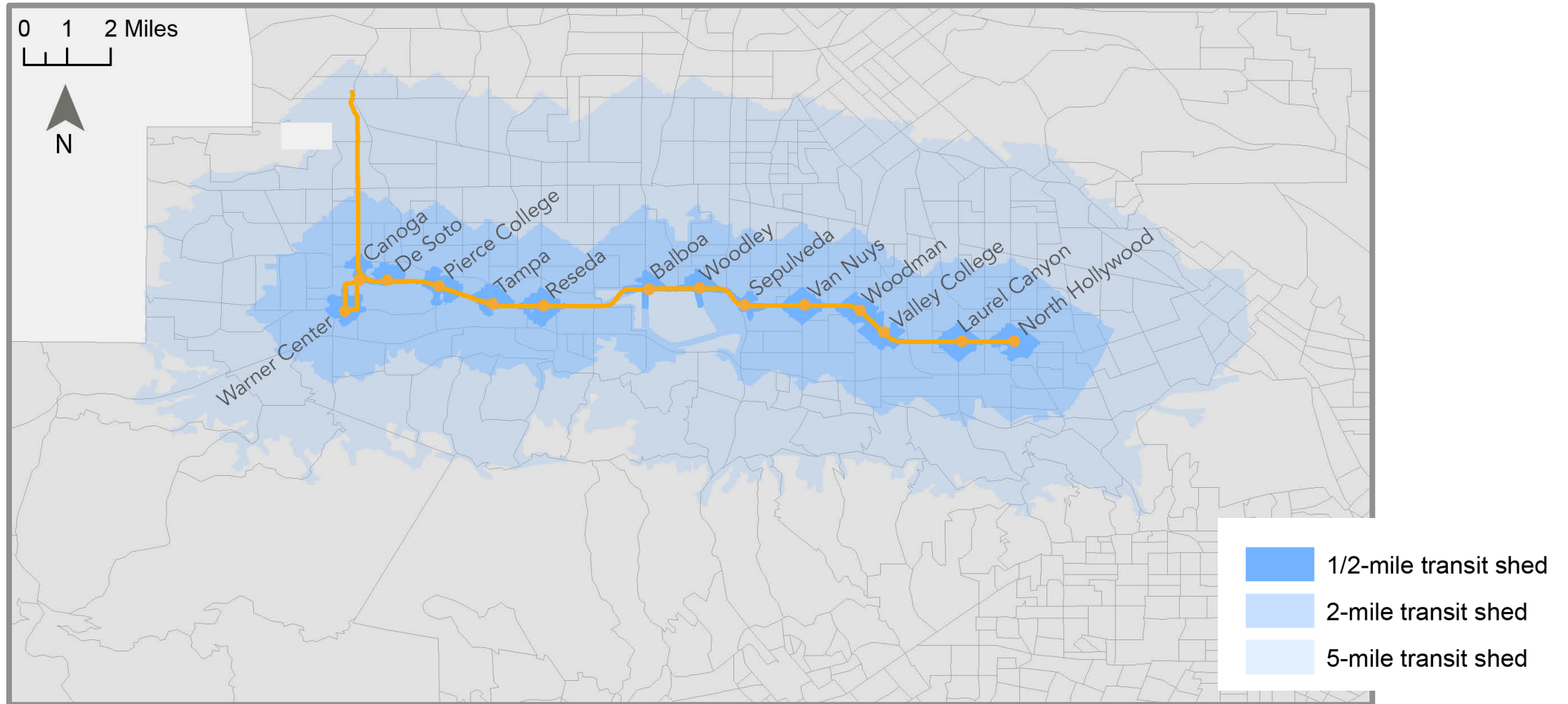
Transportation

# Geography

- 3 areas defined using GIS Network Analyst tool
  - Study area: ½ mile
  - Control areas: 2 & 5 miles

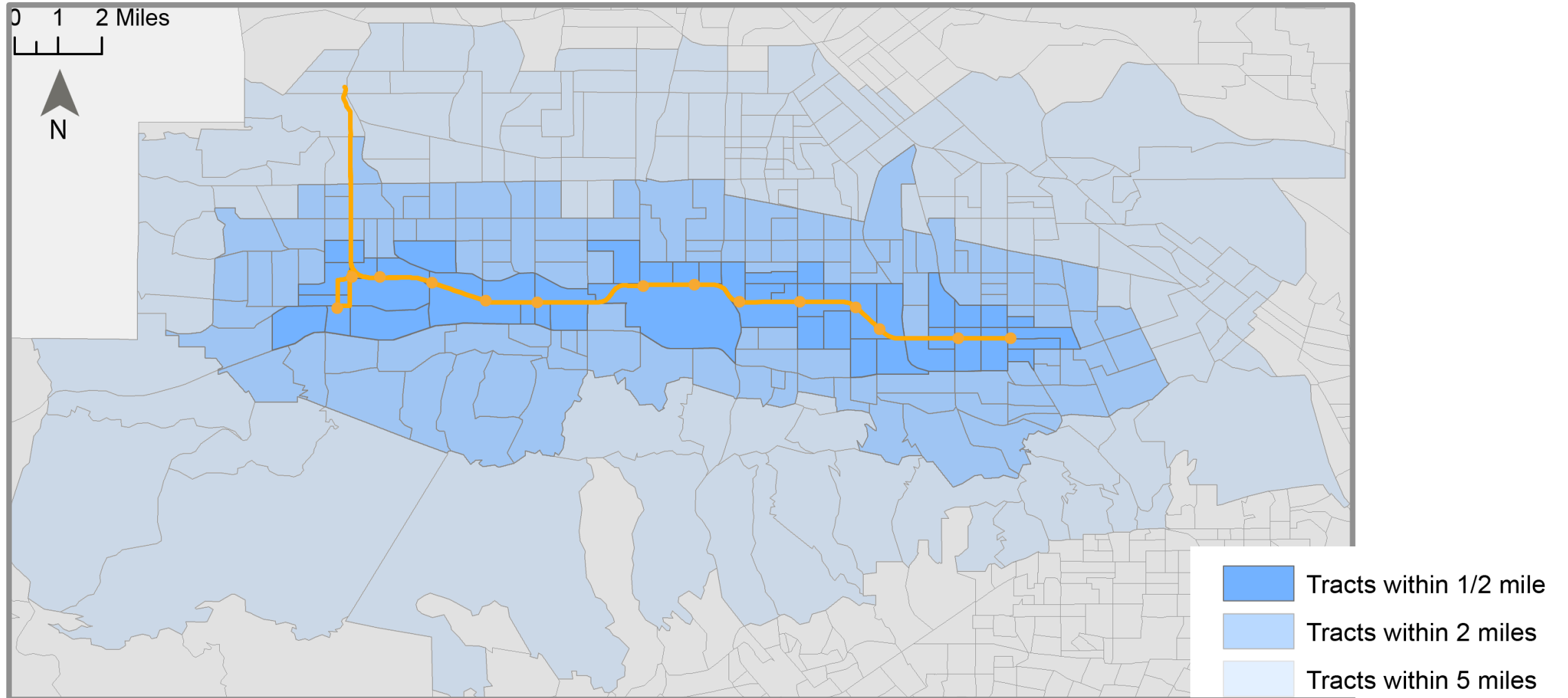


# Geography





# Geography





# Methodology

- Assess change, 2000-2013
- Build Gentrification index

Index Variables, Change 2000-2013	Weight
Median Household Income	1.0
Median Home Value	1.0
Median Rent	1.0
% with Bachelor's Degree or Higher	1.0
% White	0.5

# Methodology

- Assess change, 2000-2013
- Build Gentrification index
- OLS Model
  - Dependent variable: level of composite neighborhood change

## Independent Variables, Census 2000

Median Household Income

Median Home Value

Median Rent

% Renter-Occupied Housing

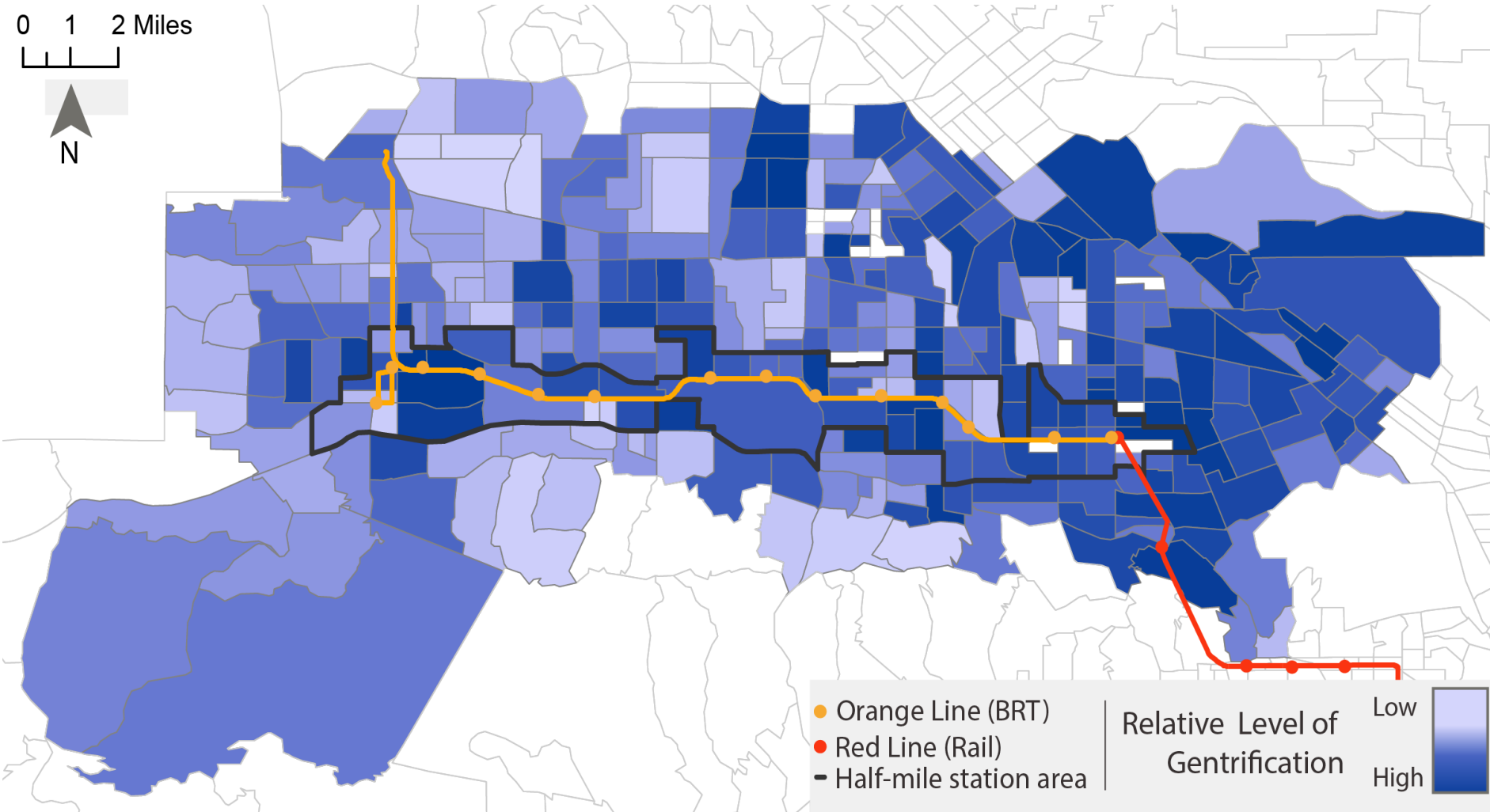
% White

% Black

% Hispanic

% with Bachelor's Degree or Higher

# Findings



# Findings

## HOW DID NEIGHBORHOODS CHANGE?

- Station-adjacent neighborhoods changed more than control areas or the county at large
- Racial/ethnic compositions not changing consistently

	Percent/Percentage Point Change, 2000-2013 <sup>^^</sup>			
	Half-Mile	Two-Mile	Five-Mile	LA County
<u>Socioeconomic</u>				
Total Population	<b>6.2%</b>	<b>6.9%</b>	<b>5.7%</b>	<b>3.9%</b>
% with Bachelor's Degree or Higher	<b>13.2%</b>	<b>9.2%</b>	<b>8.2%</b>	<b>7.3%</b>
Median Household Income	5.3%	-3.7%	-7.4%	-3.0%
% Households with 0 vehicles	-1.8%	-1.5%	-1.5%	-2.8%
% Households with 2+ vehicles	<b>3.8%</b>	<b>4.7%</b>	<b>3.9%</b>	<b>4.7%</b>
<u>Race/Ethnicity</u>				
White	<b>2.5%</b>	<b>0.4%</b>	<b>1.9%</b>	<b>4.6%</b>
Black	<b>0.7%</b>	-0.1%	-0.1%	-1.4%
Asian	<b>2.2%</b>	<b>1.7%</b>	<b>1.8%</b>	<b>1.9%</b>
Hispanic	<b>1.1%</b>	<b>3.3%</b>	<b>4.1%</b>	<b>3.4%</b>
<u>Housing</u>				
Total Occupied Housing Units	<b>5.3%</b>	<b>2.4%</b>	<b>1.7%</b>	<b>3.1%</b>
% Owner Occupied	-1.5%	-0.4%	-1.5%	-1.0%
% Renter Occupied	1.5%	<b>0.4%</b>	<b>1.5%</b>	<b>1.0%</b>
Median Home Value	<b>43.8%</b>	<b>28.6%</b>	<b>19.6%</b>	<b>30.6%</b>
Median Rent	<b>31.6%</b>	<b>23.9%</b>	<b>23.1%</b>	<b>26.3%</b>
<u>Commute<sup>^</sup></u>				
% Car - Drive Alone	<b>7.7%</b>	<b>7.5%</b>	<b>7.3%</b>	<b>9.4%</b>
% Car - Carpool	-2.8%	-2.8%	-2.2%	-2.9%
% Transit	<b>2.2%</b>	<b>1.5%</b>	<b>1.4%</b>	<b>1.2%</b>
Number of tracts	50	127	281	2,381

# Findings

## WHAT TYPES OF NEIGHBORHOODS CHANGED THE MOST?

Race/Ethnicity	
<b>White</b>	<b>+</b>
Black	-
Hispanic	+
<b>% Bachelor's Degree or Higher</b>	<b>-</b>
<b>Median Household Income</b>	<b>-</b>
<b>% Housing Units – Renter Occupied</b>	<b>+</b>
<b>Median Rent</b>	<b>-</b>
Median Home Value	

- Economic preconditions are better predictors of gentrification than are racial/ethnic minority communities absent confounding economic conditions

# Policy Implications

- Housing
  - Preserve and create permanent supply of affordable housing
  - Multi-pronged housing policy
- Neighborhood change may occur even without government investment and intervention



# Thank you

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	2000 <sup>†</sup>				2013 <sup>‡</sup>			
	Half-Mile	Two-Mile	Five-Mile	LA County	Half-Mile	Two-Mile	Five-Mile	LA County
<b><u>Socioeconomic</u></b>								
Total Population	190,191	486,744	1,079,011	9,519,338	202,007	520,437	1,140,970	9,893,786
% with Bachelor's Degree or Higher	21.9%	24.9%	24.8%	20.6%	35.1%	34.1%	33.0%	27.8%
Median Household Income	\$ 55,184	\$ 65,175	\$ 72,608	\$ 62,575	\$ 58,123	\$ 62,743	\$ 67,254	\$ 60,706
% Households with 0 vehicles	11.0%	9.1%	8.6%	12.6%	9.2%	7.6%	7.1%	9.7%
% Households with 2+ vehicles	43.8%	49.7%	54.7%	50.5%	47.6%	54.3%	58.6%	55.2%
<b><u>Race/Ethnicity</u></b>								
White	62.9%	64.5%	62.4%	48.7%	65.4%	64.9%	64.3%	53.3%
Black	5.6%	4.1%	3.7%	9.8%	6.3%	4.0%	3.6%	8.4%
Asian	6.0%	8.1%	9.4%	11.9%	8.2%	9.8%	11.1%	13.9%
Hispanic	36.3%	34.9%	37.0%	44.6%	37.5%	38.2%	41.0%	47.9%
<b><u>Housing</u></b>								
Total Occupied Housing Units	75,294	184,415	381,987	3,133,774	79,301	188,800	388,606	3,230,514
% Owner Occupied	36%	45%	52%	48%	34%	45%	51%	47%
% Renter Occupied	64%	55%	48%	52%	66%	55%	49%	53%
Median Home Value	\$ 303,699	\$ 360,246	\$ 372,959	\$ 317,341	\$ 436,633	\$ 463,223	\$ 446,243	\$ 414,584
Median Rent	\$ 1,038	\$ 1,153	\$ 1,229	\$ 1,077	\$ 1,366	\$ 1,428	\$ 1,513	\$ 1,361
<b><u>Commute<sup>^</sup></u></b>								
% Car - Drive Alone	64%	66%	66%	63%	72%	73%	73%	72%
% Car - Carpool	12%	12%	13%	13%	9%	9%	11%	11%
% Transit	6%	5%	4%	6%	8%	6%	6%	7%
Number of tracts	50	127	281	2,381	50	127	281	2,381

## Gentrification Index

	<u>Coeff.</u>	<u>St. Error</u>	<u>Sig.</u>
<u>Race/ethnicity</u>			
White	1.41	0.58	**
Black	-1.01	1.76	NS
Hispanic	0.02	0.37	NS
% Bachelor's Degree Higher	-0.66	0.39	*
Median Household Income (\$1000s)	-0.01	0.00	**
% Housing Units - Renter Occupied	0.85	0.24	***
Median Rent	-0.38	0.16	**
Median Home Value	0.00	0.00	NS
Constant	0.59	0.54	NS
R2	0.16		
Adjusted R2	0.14		
n	299		