



SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS  
And CITY OF LOS ANGELES

# Framework and Methodology to Monitor and Assess likely Gentrification/ Displacement Impact from Transit-Oriented Development (TOD)

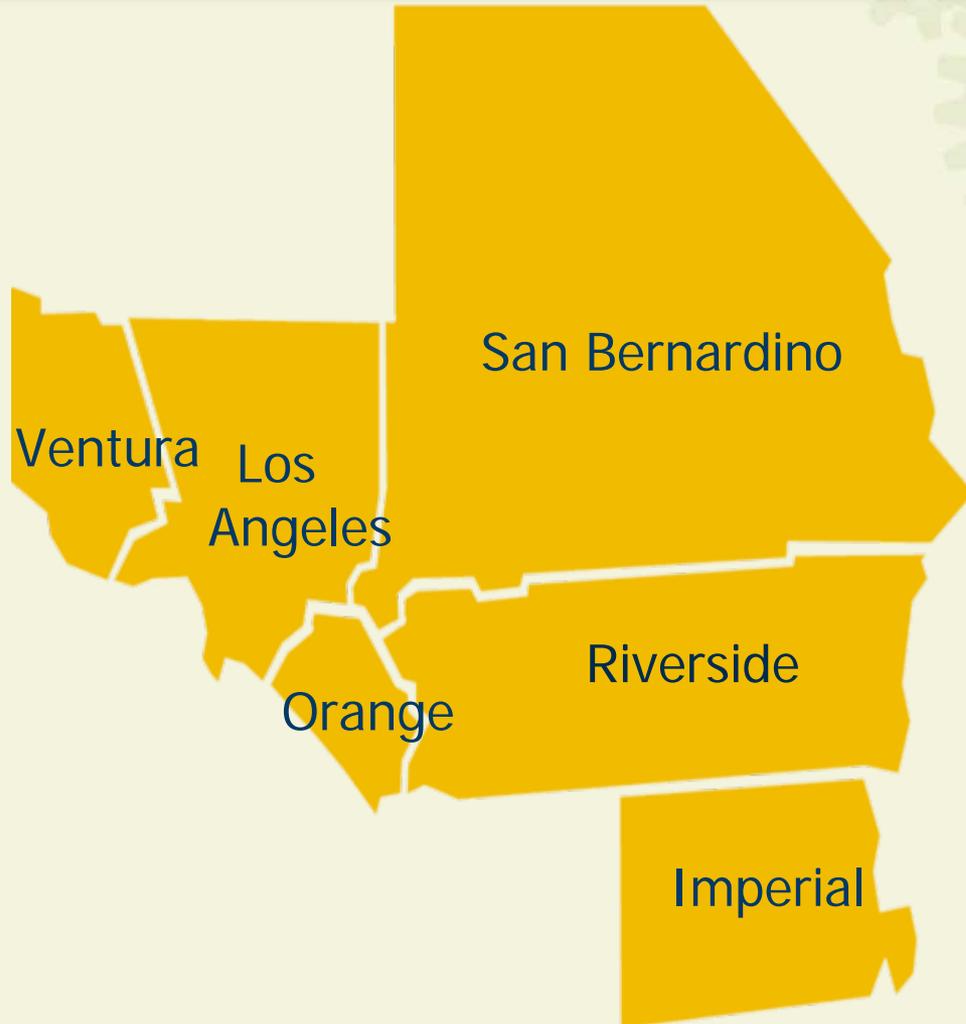
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APHA Conference, November 15-19, 2014, New Orleans,  
Louisiana

# Southern California Association of Governments (SCAG)



# SCAG Quick Facts



- Nation's largest Metropolitan Planning Organization (MPO)
- 6 counties, 191 cities and 38,000 square miles.
- 18 million people (5.8% of US population; 48.5% of California population)
- GRP in 2010: \$910 Billion, 16th largest economy in the world

# Transit-Oriented Communities (TOCs)

Transit-Oriented Communities (TOCs) include:

- better transit services
- mixed use
- walkable environment
- access to activities/services

SCAG and the City of Los Angeles both encourage growth to occur near major transit stations/corridors



# Public Health Benefits of TOCs:

Less driving, more walking/biking/transit =

- Fewer car crashes
- Less air pollution
- More physical activity
- Lower obesity
- Access to healthy food & care
- Better for aging population
- Reduce greenhouse gas emissions
- Reduced financial/mental stress



# Gentrification/ Displacement

“The process of transformation of old residential neighbourhoods in which working-class and poor residents are displaced by an influx of gentrifiers, a ‘new class’ consisting of well educated and better-off people” (Ruth Glass, 1964)

“**Gentrification** is a neighborhood change process characterized by increasing property values and incomes” (Pollack, S. et al, 2010)

“**Displacement** is a pattern of change in which current residents are involuntarily forced to move out because they cannot afford to stay in the gentrified neighborhood (Freeman, 2005).

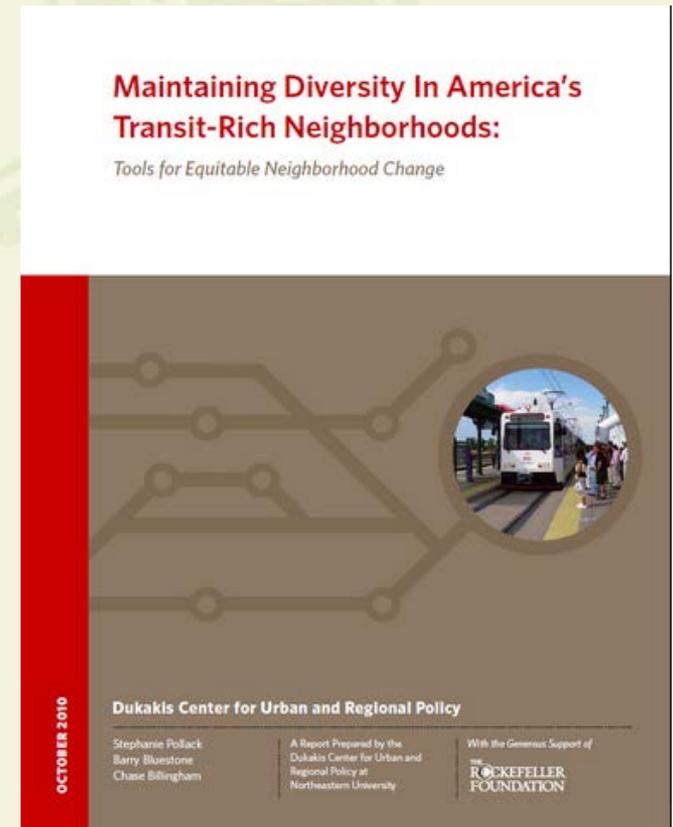
# Research Questions

1. A difference between TOCs and non-TOC?
2. How does a new train line impact existing residents?
  - a. Do people ditch their cars and embrace walk/bike?
  - b. Is there a risk of gentrification and displacement with development concentration (TOCs)?
    - Potential to displace transit-dependent core riders away from good transit options
    - New wealthier residents may be more car-dependent
3. Is gentrification/displacement happening at TOC in Los Angeles?

# Methodology/Data

Follows 2010 Dukakis Center study  
(Pollack, Bluestone, Billingham)

- 2000 Census vs. 2005-09 ACS
  - Median household income
  - Hispanic population
  - Car ownership
  - Education level
  - Rent cost
- ANOVA



# TOCs in SCAG region



- There are 125 rail stations in SCAG region
- ½ mile buffer zone around each station is recommended to represent TOC
- Due to data limitation, Census Block Groups that include the rail stations were selected to represent TOCs.
- 388 Census Block Groups were selected

# Median Household Income

- Median household income in the TOC areas was much lower than the regional average.
- Income increased in the TOC areas (2%) and fell in the entire SCAG region (-4%).

HH. Income	2000	05-09	% Growth
Region	50,855	49,015	-4%
TOC	32,728	33,262	2%

- However, the difference was not statistically significant.
- Therefore, statistically, there is no difference between the Region and TOC in the growth of median household income.

# Hispanic Population

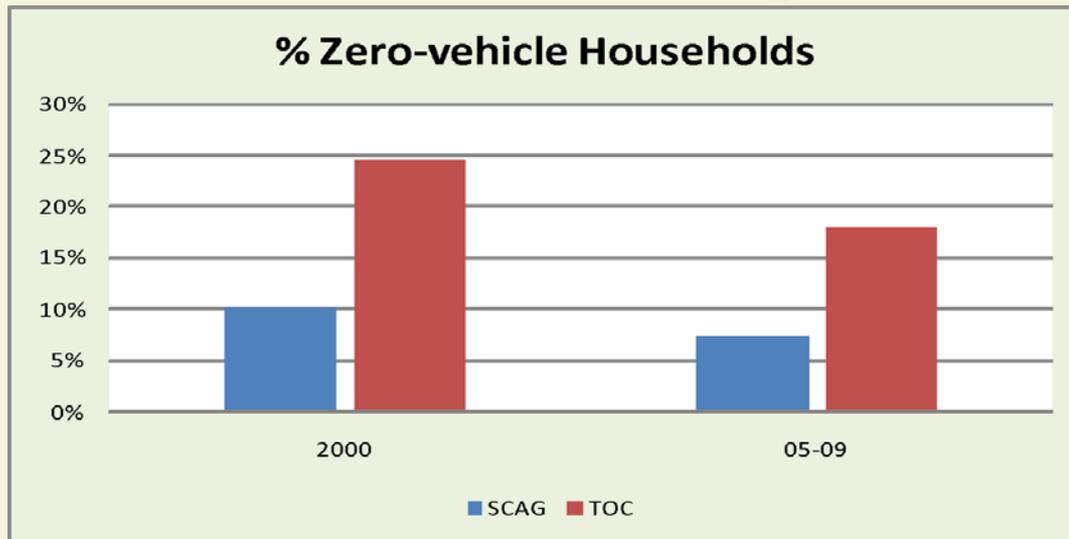
- Hispanic population grew slowly in TOC areas

% of Hispanic population	2000	05-09	Growth
Region	40.6%	44.2%	3.6%
TOC	54.0%	56.6%	2.6%

- However, the difference was not statistically significant.
- Therefore, statistically, there is no difference between the Region and TOC in the growth of Hispanic population.

# Car ownership is increasing in TOC

- Although the TOC areas demonstrated higher shares of zero-vehicle households than the SCAG region, the share is declining faster in the TOC areas.



- However, the difference was not statistically significant.
- Therefore, statistically, there is no difference between the Region and TOC in the growth of zero vehicle households.

# No statistical differences were found between the Region and TOC

- No variables showed statistical differences between the Region and TOC for the five variables.
  - Median income
  - Hispanic population
  - Car ownership
  - Education level
  - Rent cost

# Difference between the Region and Planned TOD

- Planned TOD areas were selected among TOC
- Planned TOD areas are where the developments were financed by Metropolitan Transportation Authority
- 52 Census Black Groups were selected to represent Planned TOD area
- % change of highly educated people and % change of zero vehicle household were statistically significant

Variable	Non-TOC	Planned TOD	P-value
Percent change of College+ People	0.0284	0.052	**
Percent change of 0 Vehicle Household	-0.025	-0.0926	***

P-value: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001

# “Gentrification Index”

- Developed by the Neighborhood Change Project - University of Illinois @ Chicago
- A set of (13) Census indicators that can serve as a metric for identifying neighborhood and community change (i.e. gentrification)

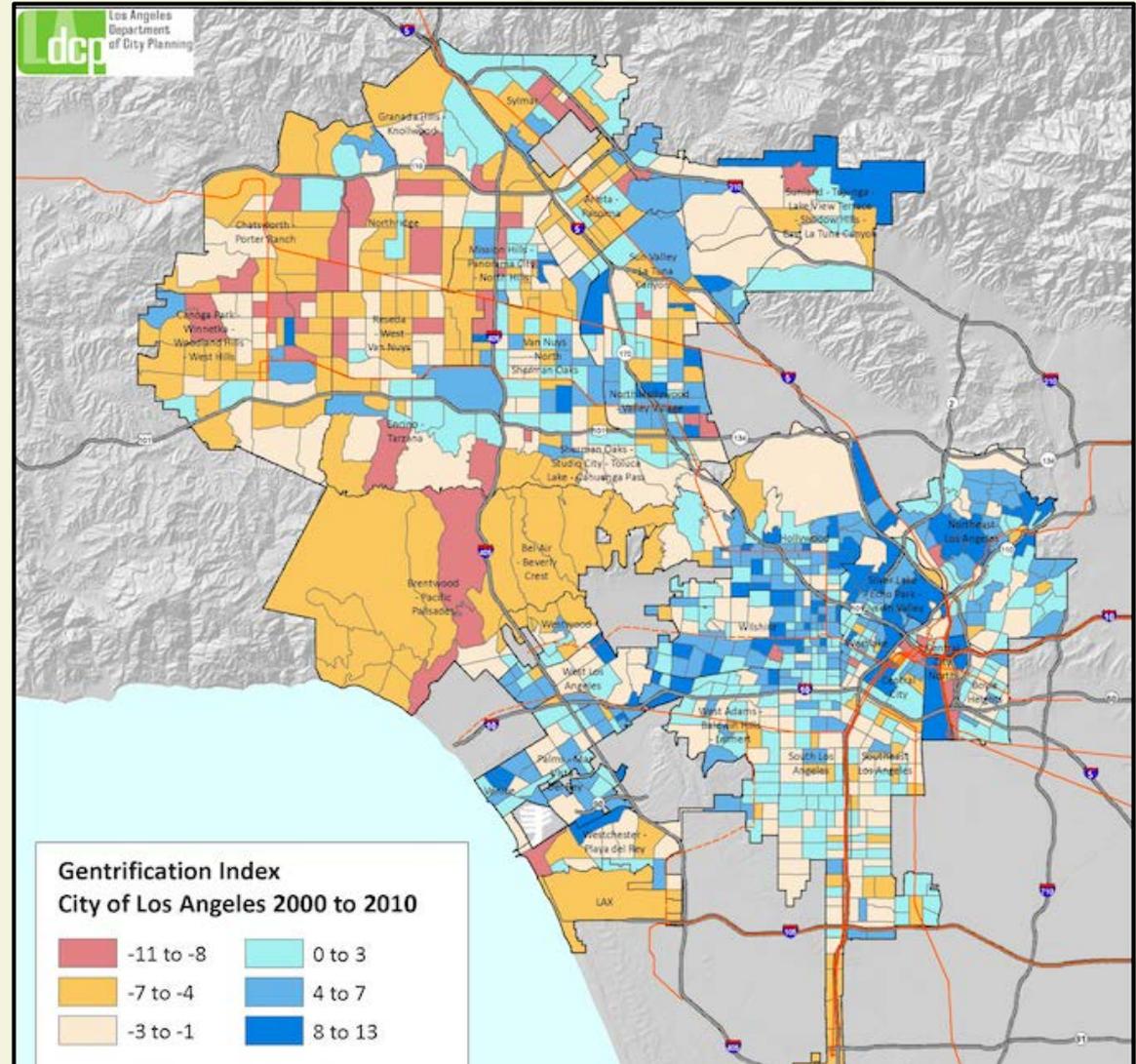


# Gentrification Index, 2000-2010

## City of Los Angeles

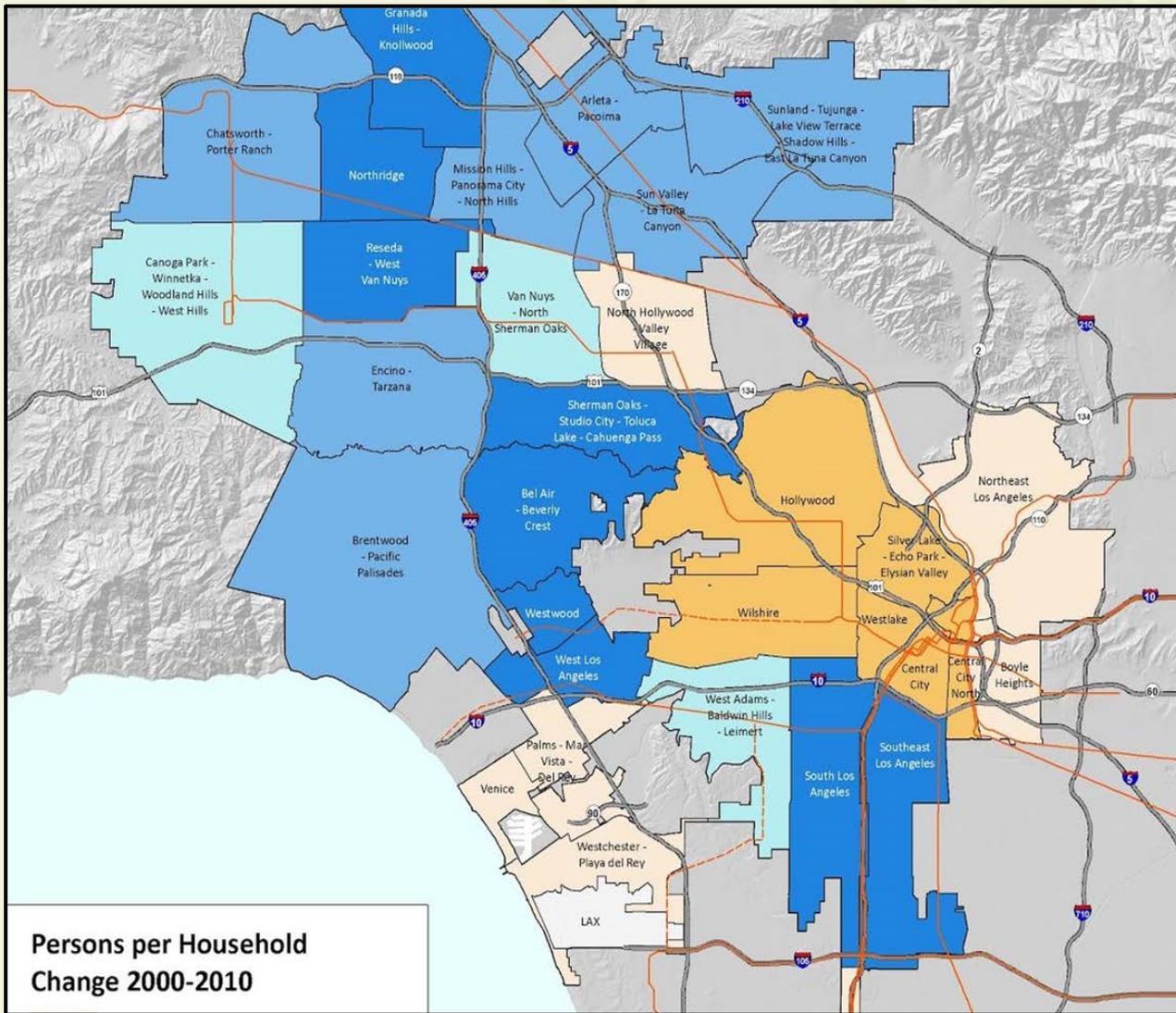
### 13 Factors:

- Income (+)
- Home value (+)
- White (+)
- Professionals and managers (+)
- Adults with college degrees (+)
- Owner-occupied (+)
- Below Poverty (-)
- African American (-)
- Hispanic (-)
- Children (-)
- Seniors (-)
- Female headed households (-)





# Change in Persons Per Household, 2000-2010



# Conclusions

Is there any evidence of gentrification/displacement in TOC in Los Angeles area?

- Yes and No, it varies and further research is needed to conclude.
- In line with other national/local research
  - *Maintaining Transit Diversity* (Dukakis Center)
  - *What Happened in Hollywood* (Shane Boland)
- It would be important to plan carefully to reduce negative impacts of gentrification when a planned TOD is proposed.

# Policy Implications

- Affordable Housing is Precious for TOCs
  - Preserve/Produce all you can
- Need to produce a lot more units to compensate for loss of PPH
- Capture the Value of transit?
- Transit + Affordability = :)

# Thank you!

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# Research Questions

1. Will current neighborhood residents, some of whom are low income and/or people of color, benefit from sustainable communities revitalization?
2. Will low-income residents be displaced by more affluent residents because new residential development is less affordable?

# Household Size/Types

Households in the TOC areas demonstrated

- Smaller household size;
- More single-person households and households without kids

	HHsize	% 1 person	% No Kids	% 1p HH, Retired	% 2p+ HH, Retired	% HH Workers
toc025	2.28	44.6	46.4	19.6	7.1	59%
toc050	2.60	35.6	38.3	16.3	13.6	52%
toc100	2.80	28.4	34.8	13.4	17.0	49%
SCAG	2.82	22.3	30.2	12.0	24.4	49%

# Transportation – NHTS Data

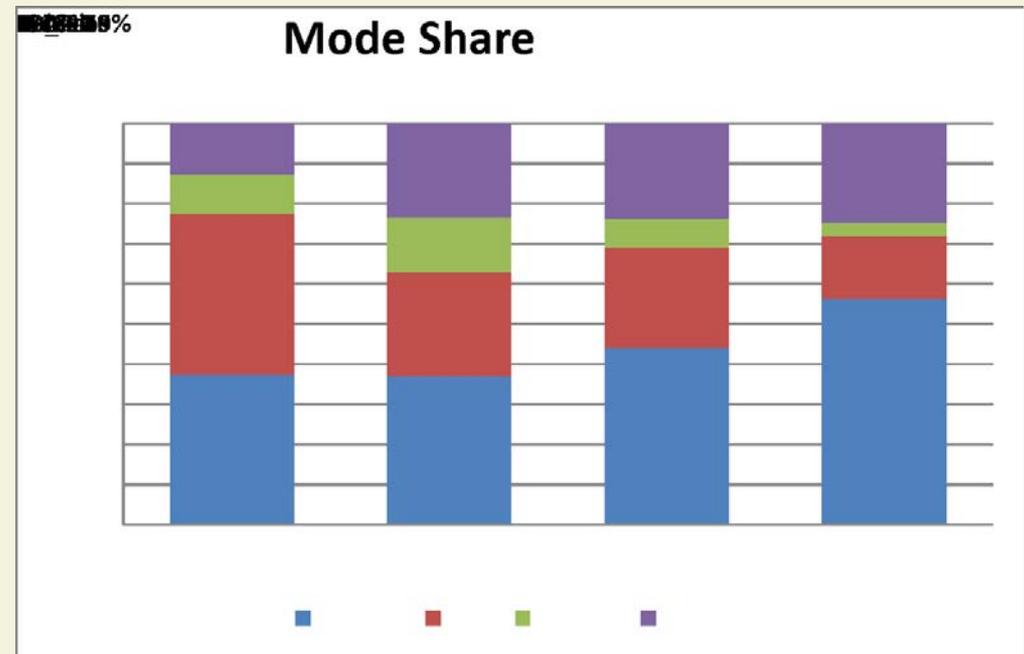
- There is no direct measure from Census or ACS to analyze transportation-related indicators
- Transportation System Information (TSI) of California Department of Transportation (Caltrans) supports 2009 NHTS California add-on data
- With about 6,700 households and 15,000 individual samples, the 2009 NHTS dataset provides valuable observations to analyzing both demographic and travel characteristics of the SCAG region and the TOC areas.
- We analyze NHTS households with a quarter, a half, and one mile buffer zones from the 125 TOC stations.

# TOC Travel Characteristics

Households in the TOC areas show

- less traveled and less drove
- higher shared non-motorized and transit modes, and lower shared vehicle mode

<u>Household Trips and Travel Distance</u>				
	Trips	Trip Dist	Veh. Trip	VMT
toc025	5.5	26.0	2.0	16.6
toc050	7.3	34.9	2.6	16.8
toc100	7.9	42.7	3.4	23.7
SCAG	8.5	57.5	4.7	35.9



# TOC Travel Characteristics

## *Hispanic vs. Non-Hispanic*

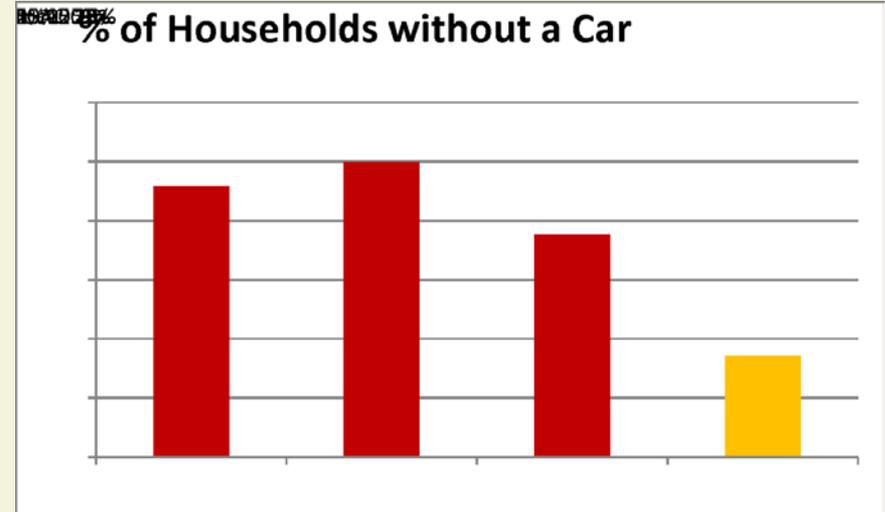
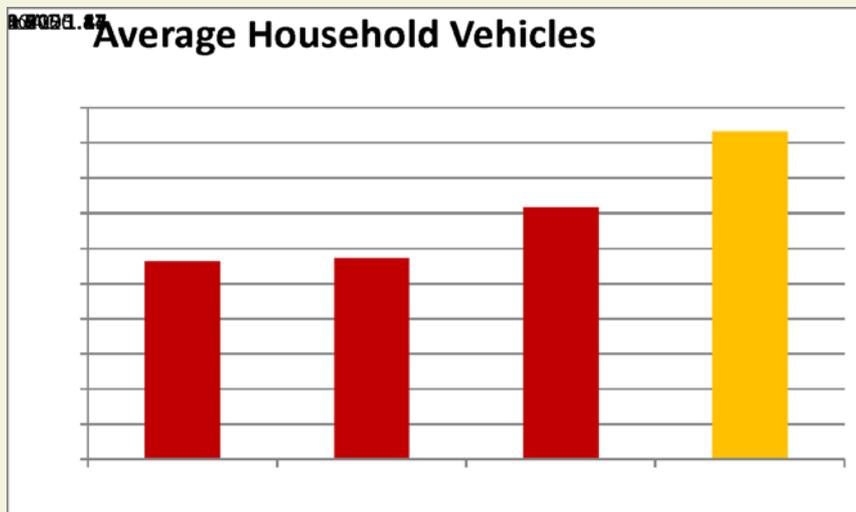
- The share of Hispanic and non-Hispanic households in TOC is about 50-50
- Compared to non-Hispanic, Hispanic households have larger household size, and lower household income
- Compared to the SCAG region, both Hispanic and non-Hispanic population in TOC showed a similar pattern: less total trips and less VMT

Hispanic Status						
	% Household		Household Size		Household Income	
	Hisp	Non_Hisp	Hisp	Non_Hisp	Hisp	Non_Hisp
toc025	54%	46%	2.75	1.73	17,040	36,370
toc050	58%	42%	3.07	1.95	18,070	35,100
toc100	50%	50%	3.42	2.18	21,400	39,630
All	35%	65%	3.59	2.41	28,880	49,060

Daily Travel and VMT				
	Trips		VMT	
	N-Hisp	Hisp	N-Hisp	Hisp
toc025	5.1	5.8	23.7	10.7
toc050	6.3	8.0	20.5	14.0
toc100	6.9	8.8	28.2	19.2
SCAG	7.9	9.6	38.8	30.5

# Auto Ownership

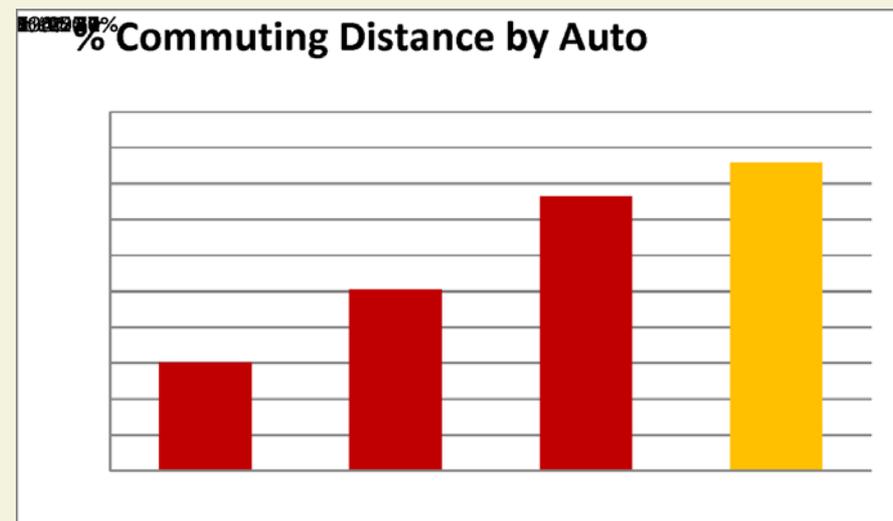
- Compared to the SCAG Region, the TOC households had smaller number of vehicles.
- About 20% of the TOC households did not own a car; this is a double to that of the SCAG region.
- Vehicles are less available (or less needed?) in TOC households



# Commuting Distance by Auto

- Total commuting distance is shorter for TOC workers
- Commuting VMT is much shorter for the TOC workers than for the workers in the SCAG region
- Compared to 86% of the SCAG region, about a half of commuting distance were made by auto to the TOC workers
- Is it self-selected?

<u>Home-Work Travel Distance</u>		
	Vehicles	Total
toc025	4.1	13.6
toc050	9.7	19.2
toc100	16.5	21.5
SCAG	19.2	22.4



# Commuting Distance and Time

- Living in higher density neighborhoods (TOC) induces a shorter commuting distance, while commuting time is almost same.
- Is it self-selected?

