

# Regional Transit Ridership Study

# Falling Transit Ridership

Philip Law, Transit/Rail Manager



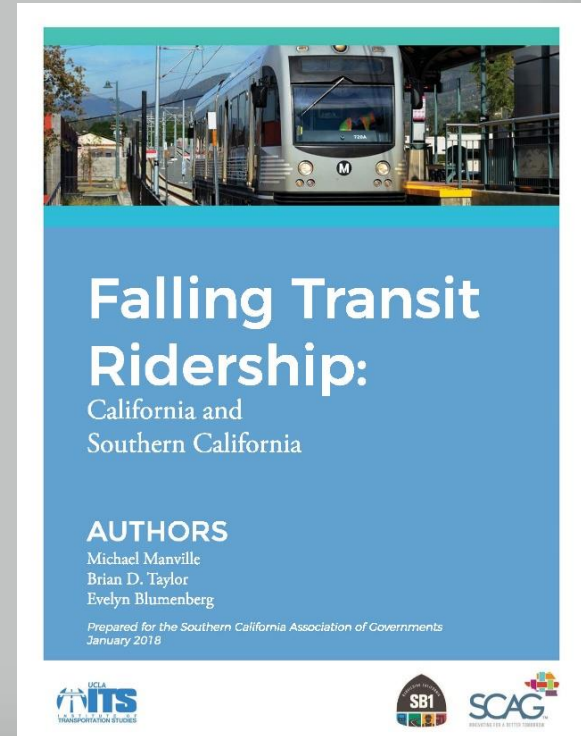
# SCAG/UCLA Study Objectives

- To understand why transit ridership is declining, UCLA researchers proposed to analyze:
  - Changes in transit supply, demand, and finance in the region
  - Changes in the population of likely transit users
  - Changes in rider demographics

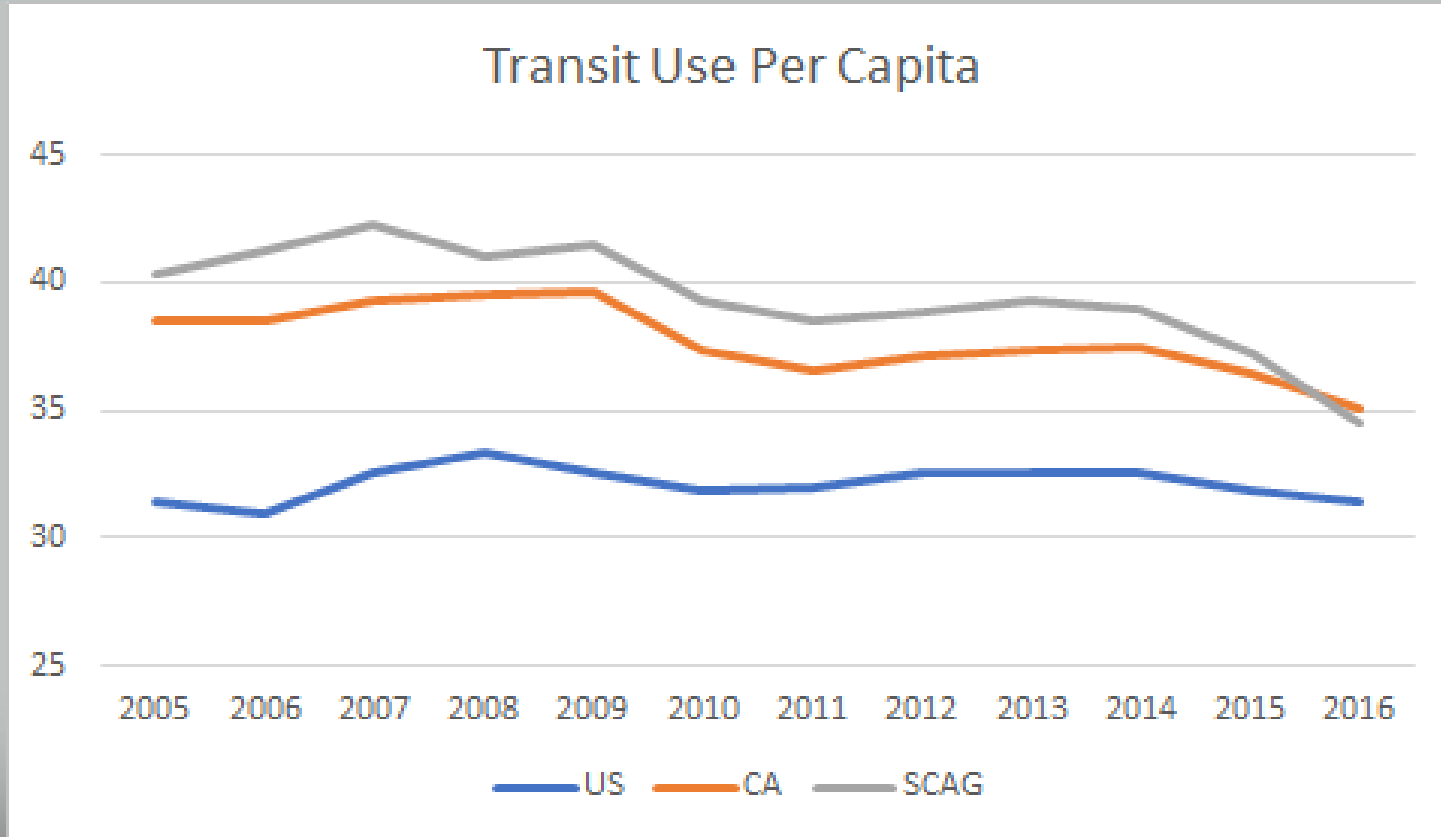


# Summary of Findings

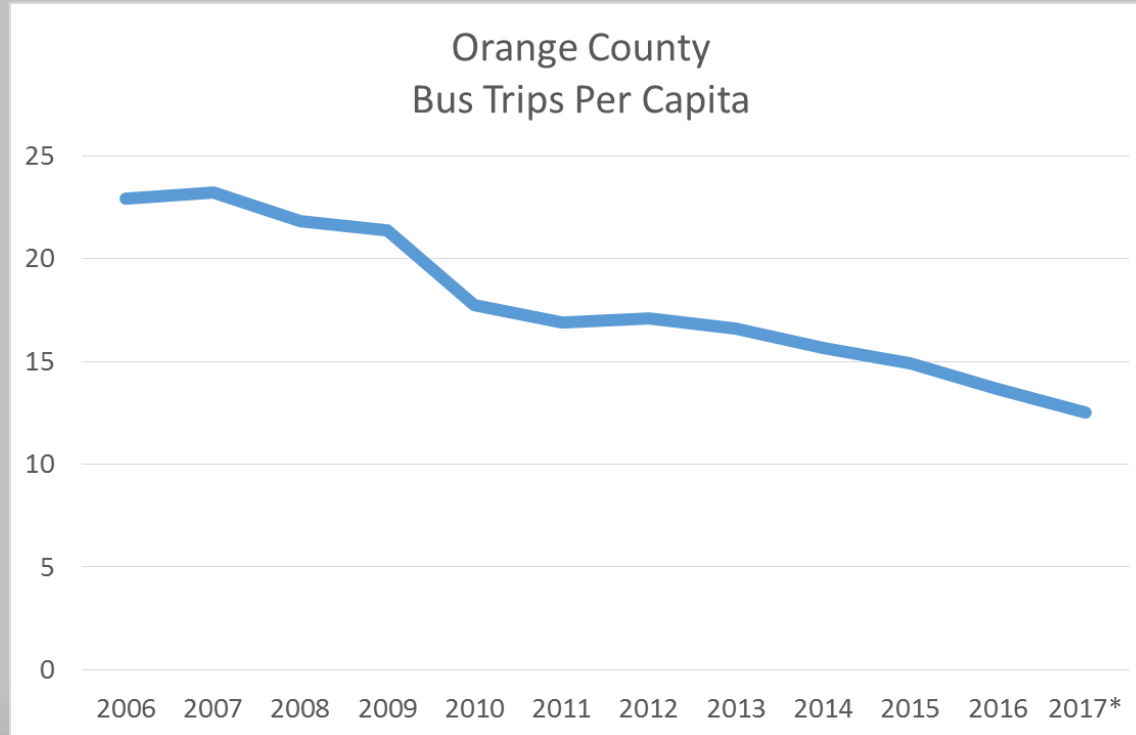
- Transit patronage trends
- Concentration and asymmetry of service and use
- Possible causes of recent ridership declines



# SCAG Per Capita Ridership Down Since 2007



# Orange County Shows Same Trend



Sources: National Transit Database (NTD), CA Department of Finance

\*NTD monthly adjusted total for Fiscal Year 2017

# Concentration and Asymmetry

- A few **people** make most of the trips
  - 2% ride very frequently, ~45 trips/month
  - 20% ride occasionally, ~12 trips/month
  - 78% ride transit very little/not at all, <1 trip/month
- A few **neighborhoods** generate most of the trips
  - 60% of transit commuters live in <1% of region's land area
- A few **operators** carry most of the passengers
  - Top 5 carry 83%

# Concentrated Use Means Concentrated Ridership Losses

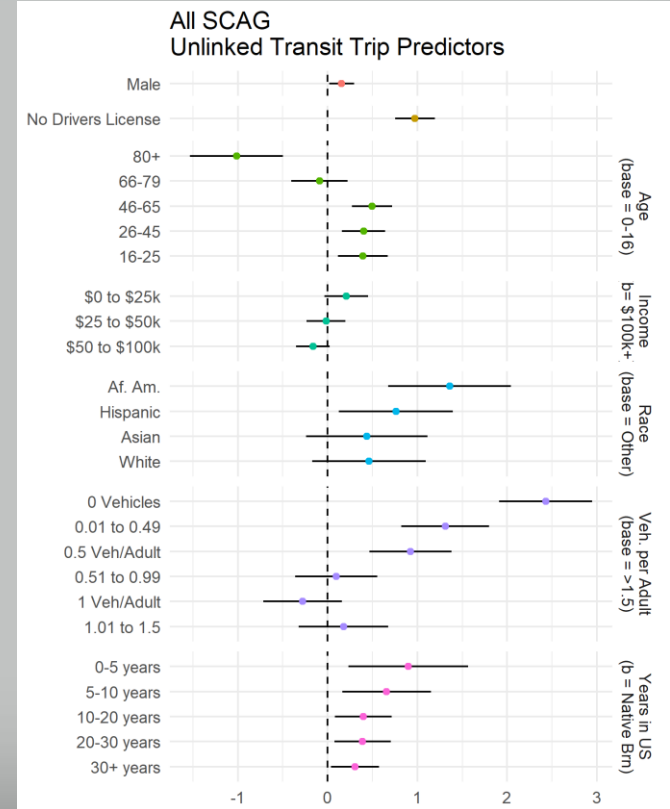
- Half of California's total lost ridership is accounted for by:
  - Metro Rail – Red, Blue, and Green Lines
  - 14 Metro bus routes
  - OCTA Route 43





# What Explains Transit Use?

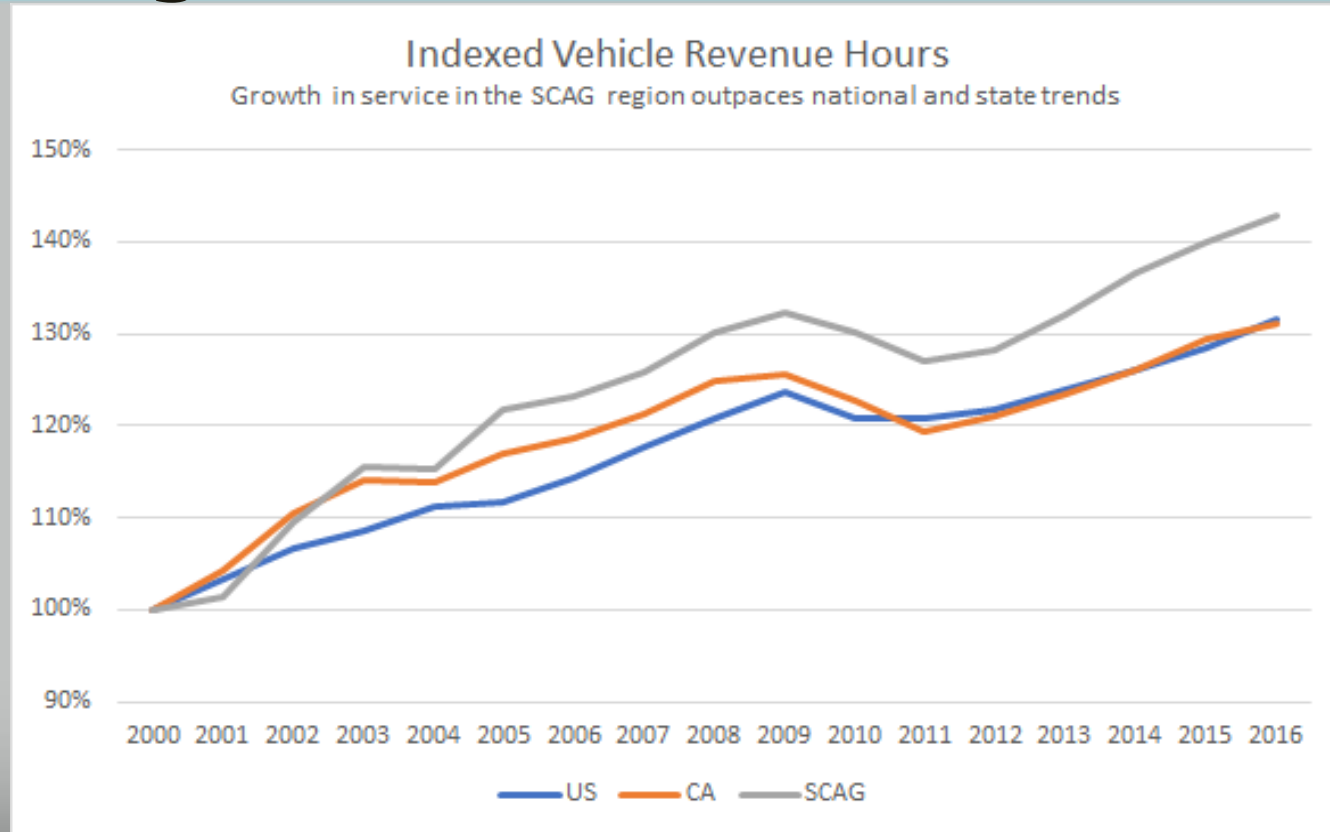
- No driver's license
- African-American
- 0-vehicle household
- Few-vehicle household
- Recent immigrants



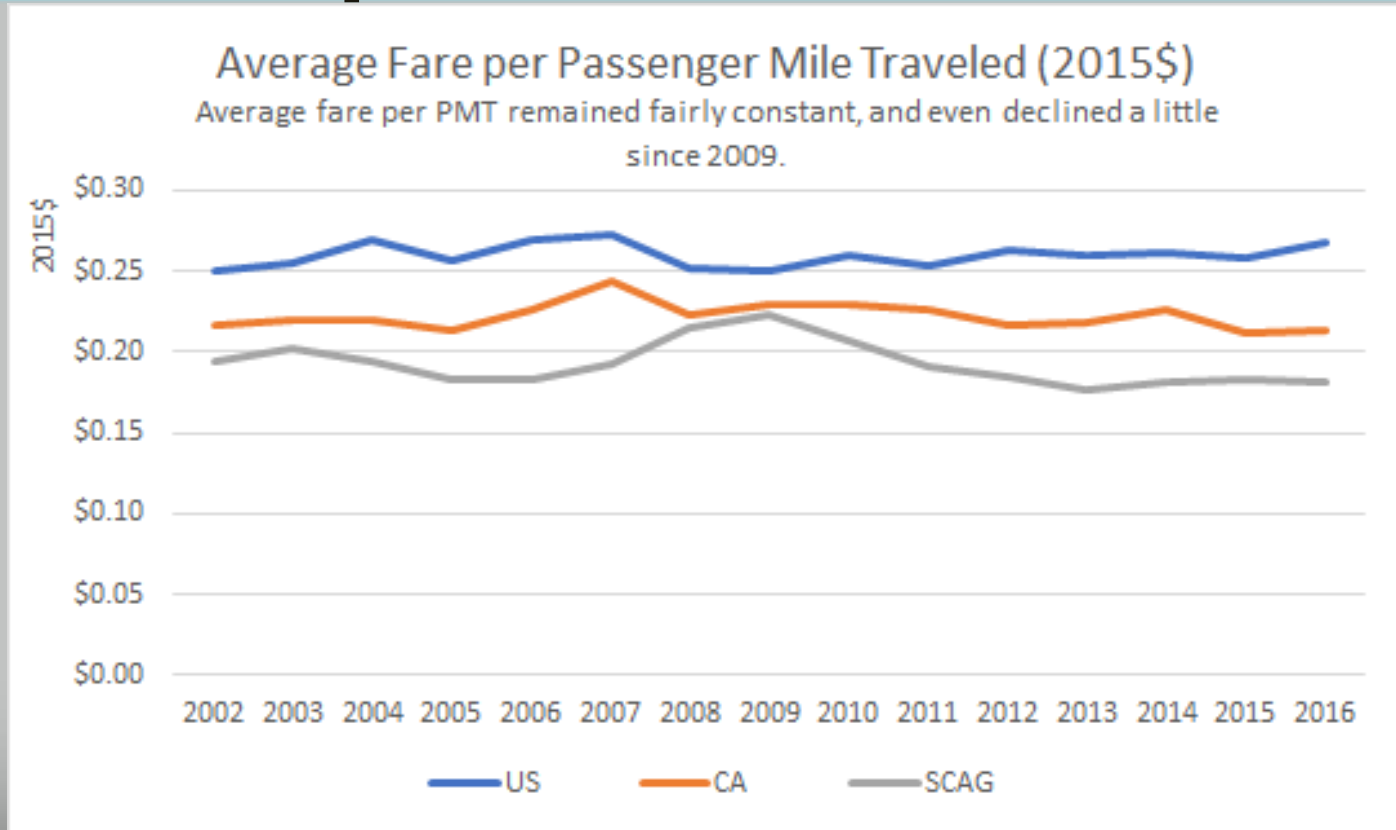
# Possible Causes of Ridership Decline

- Factors transit operators can control
  - Transit service quantity and reliability
  - Transit fares
- Factors outside transit operators' control
  - Fuel prices
  - Transportation Network Companies (TNCs)
  - Neighborhood change
  - Vehicle ownership

# Transit Service Quantity and Reliability Not Large Factors

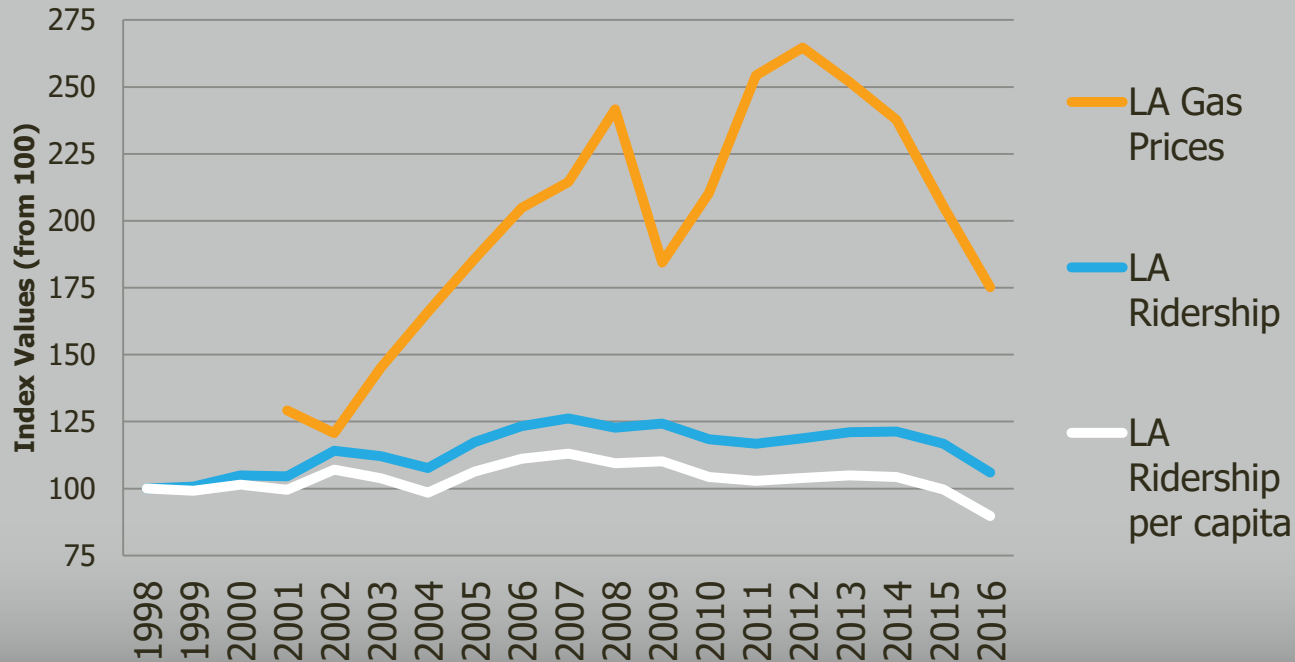


# Transit Fares Probably Played a Role for Some Operators



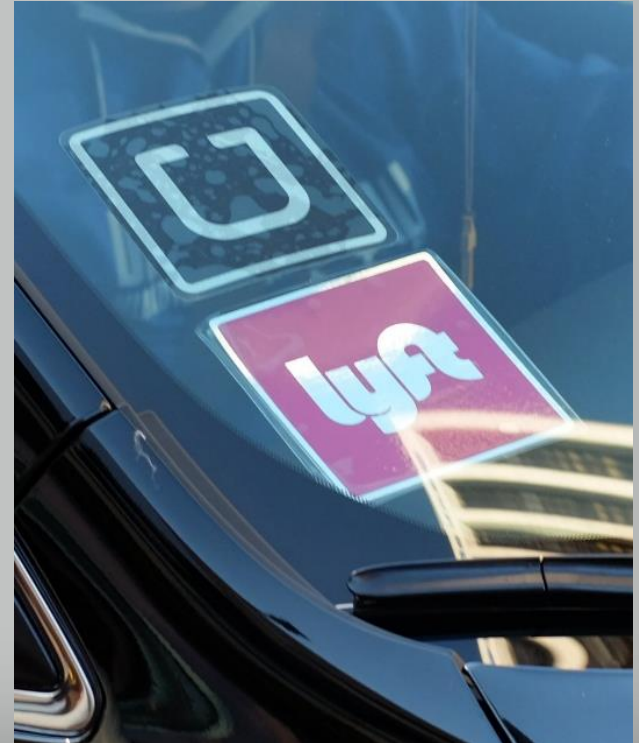
# Fuel Prices Likely Played Contributing, Not Leading Role

## Transit Ridership and Gas Prices in Los Angeles Metropolitan Area



# TNCs Likely Played Contributing, Not Leading Role

- TNC use is growing
  - Could both add/subtract transit riders
  - Detailed use data not publicly available
- Significant TNC use since 2012
  - Per capita transit down since 2007
- Research
  - Most TNC users not core transit users
  - Most TNC trips not core transit trips
- Another form of auto access
  - Continued TNC growth could make a bigger dent on transit use



# New Research Report on TNC Use

Transit Cooperative Research Program (TCRP) Report 195: *Broadening Understanding of the Interplay Between Public Transit, Shared Mobility, and Personal Automobiles.*  
<http://nap.edu/24996>

Six regions studied: Chicago, Los Angeles, Nashville, Seattle, DC and San Francisco.

- The heaviest TNC use is during **evenings and weekends**.
- Most TNC trips are short and concentrated in **downtown core neighborhoods**.
- There is no clear relationship between peak-hour TNC use and longer term changes in public transit usage.
- TNCs are used on a more **occasional basis**, not as routine.
- **Transit travel and wait times** were top concerns of survey respondents who replaced transit trips with TNC trips.
- TNC usage takes place in communities of **all income levels**.
- TNC use is associated with decreases in vehicle ownership and single-occupancy vehicle trips.

# Smoking Gun: Private Vehicle Access Increased Substantially in the 2000s

1990s...

- SCAG region added 1.8 million people and 456,000 household vehicles
- 0.25 vehicles/new resident

2000 to 2015...

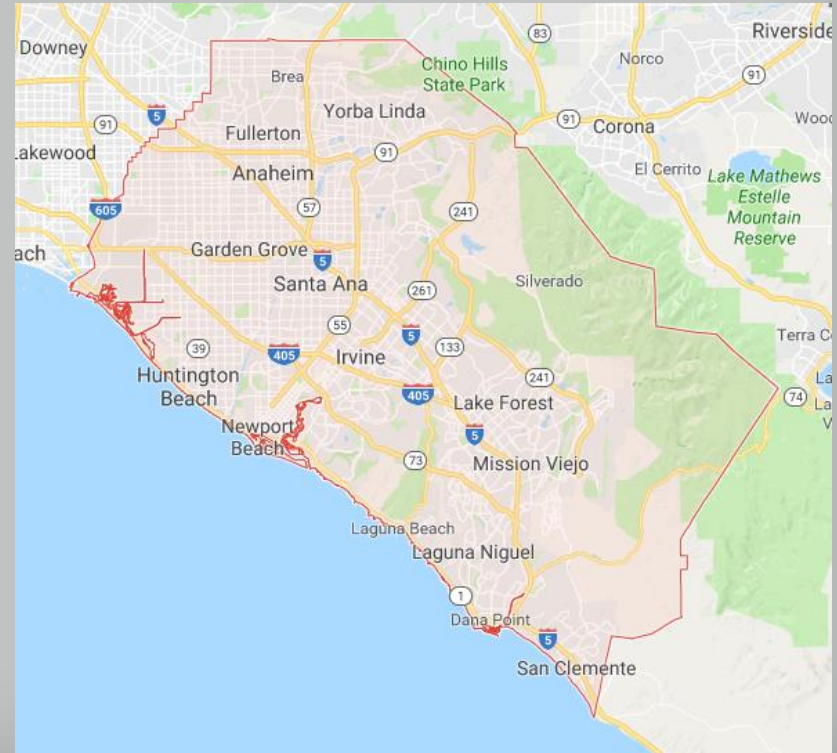
- Region added 2.3 million people and 2.1 million household vehicles
- 0.95 vehicles/new resident
  - nearly 4X the rate of the 1990s



# Similar Pattern in Orange County

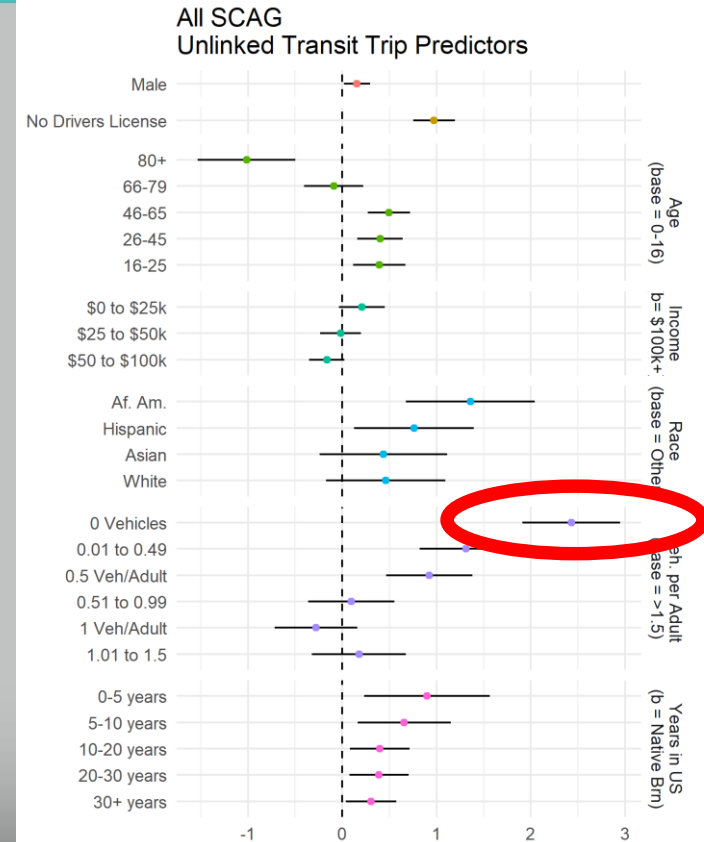
2000 to 2015...

- Orange County added 323,000 people (11% growth) and 319,000 household vehicles (18%)
- 0.99 vehicles/new resident

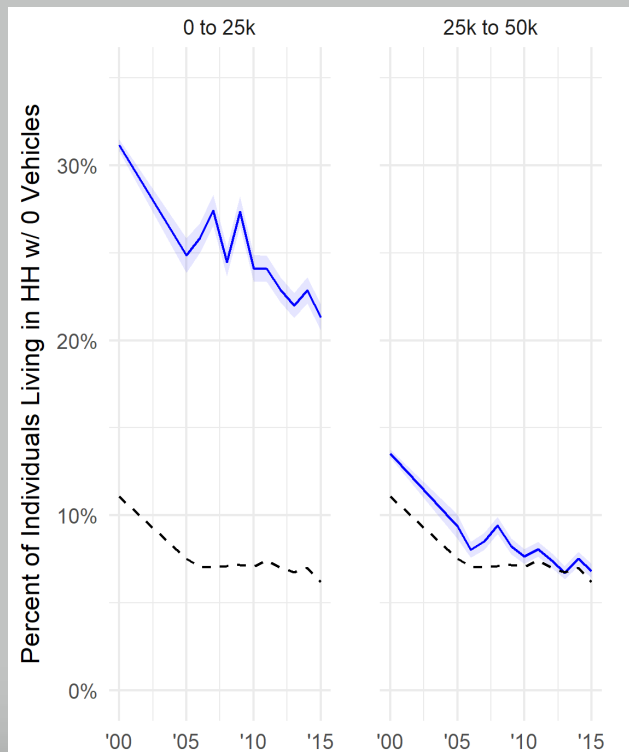


# What Explains Transit Use?

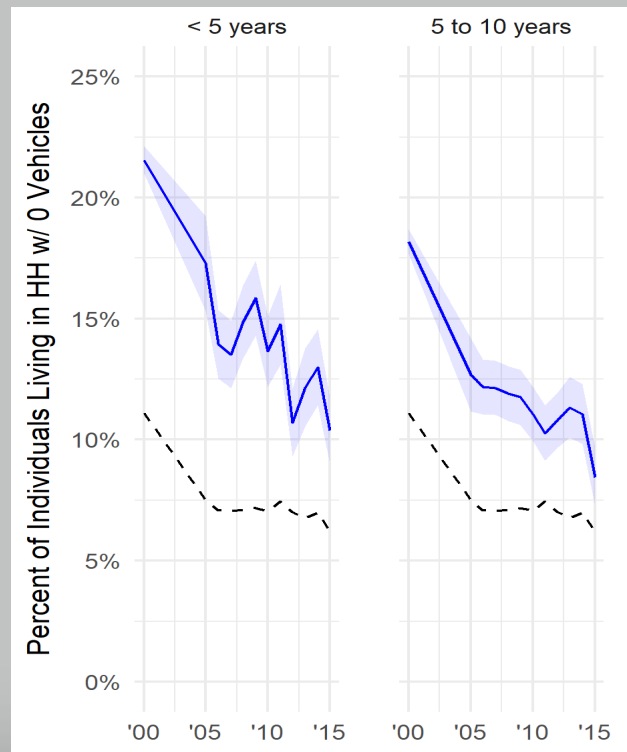
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# Zero-vehicle households way down, especially in low-income households and among recent immigrants



Income



Years in U.S.

# Changing Composition of Immigrants, 2000 to 2015

- Percentage of foreign born in SCAG region has remained flat at 30%-31%
  - Immigrants from Mexico down 13.4%
  - Immigrants from Asia up 23%
- Assimilation and cohort effects
  - As time passes, immigrants behave more like native born and drive more
  - More recent immigrants acquire more vehicles more quickly

# Conclusions

- Increased vehicle access has likely had a very large effect on transit use
- The regional pool of transit users is changing
  - Fewer heavy-use “transit dependents” over time
  - More “choice riders” with access to cars
  - This situation is unlikely to reverse anytime soon
- Some trends are more variable
  - Fuel prices likely to rise again at some point



# No Easy Answers

- Broaden the base of occasional transit users
  - If every fourth non-rider added one transit trip every two weeks, ridership would be up region-wide
- SCAG 2020 RTP/SCS\* Update
  - Increased greenhouse gas reduction targets
  - Role of technology and innovation
  - Pyramid – smart land use, demand management, value pricing



# Thank You

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