Housing Underproduction in California

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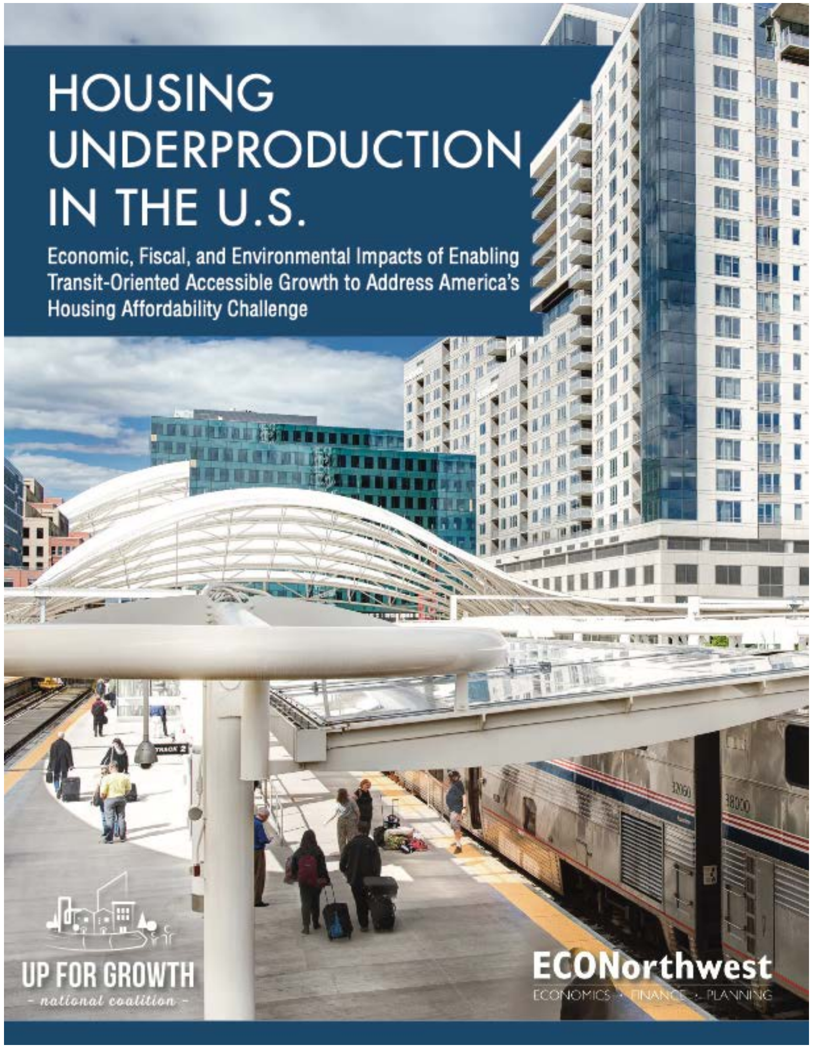
ECONorthwest

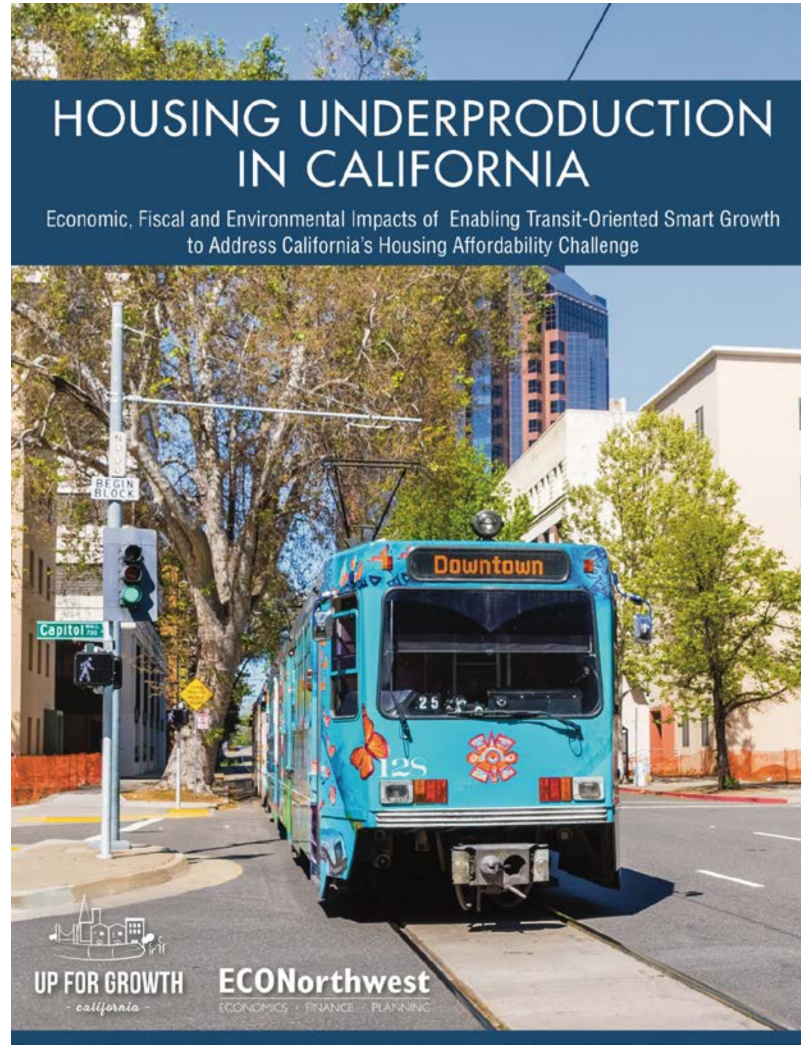
ECONOMICS • FINANCE • PLANNING

UP FOR GROWTH

– national coalition –

Report and additional information available





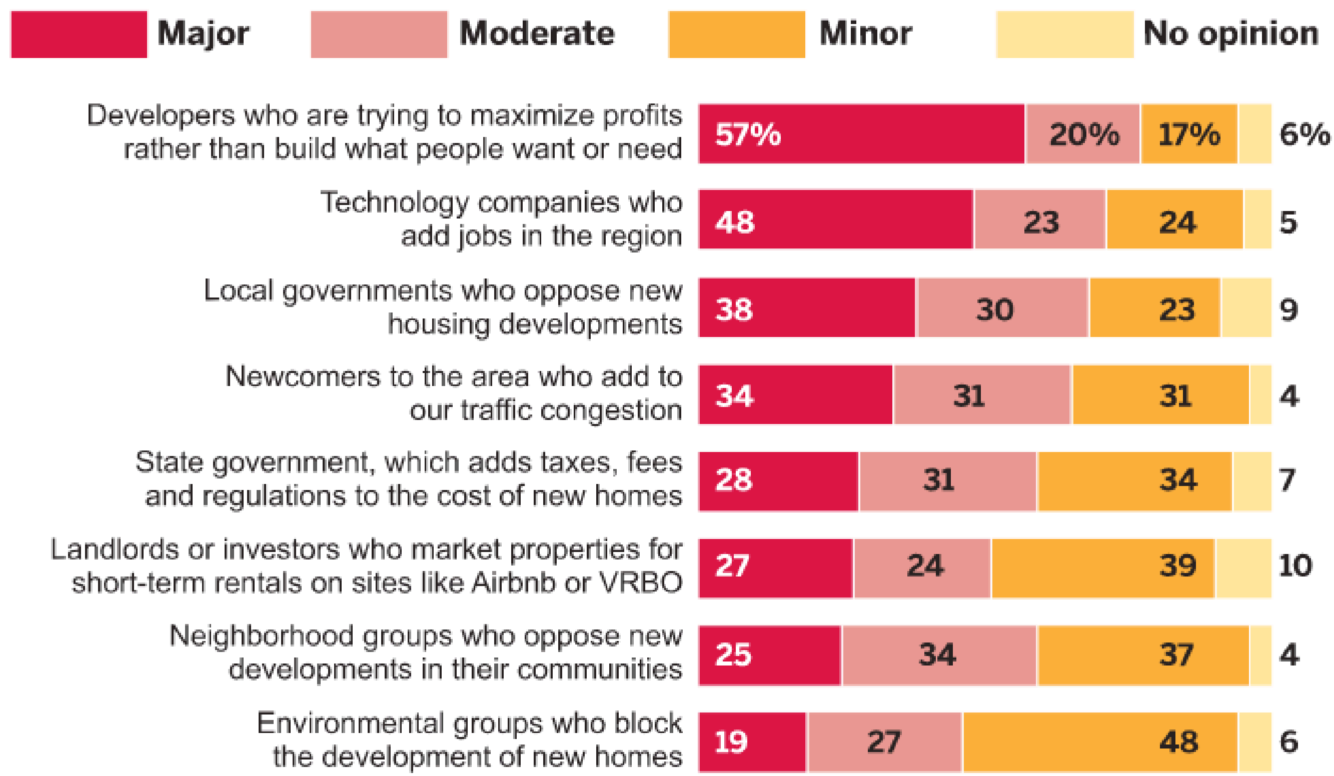
Available for download at: www.upforgrowth.org

LA Times Survey

San Jose Mercury Surv

WHO'S TO BLAME FOR THE HOUSING CRISIS?

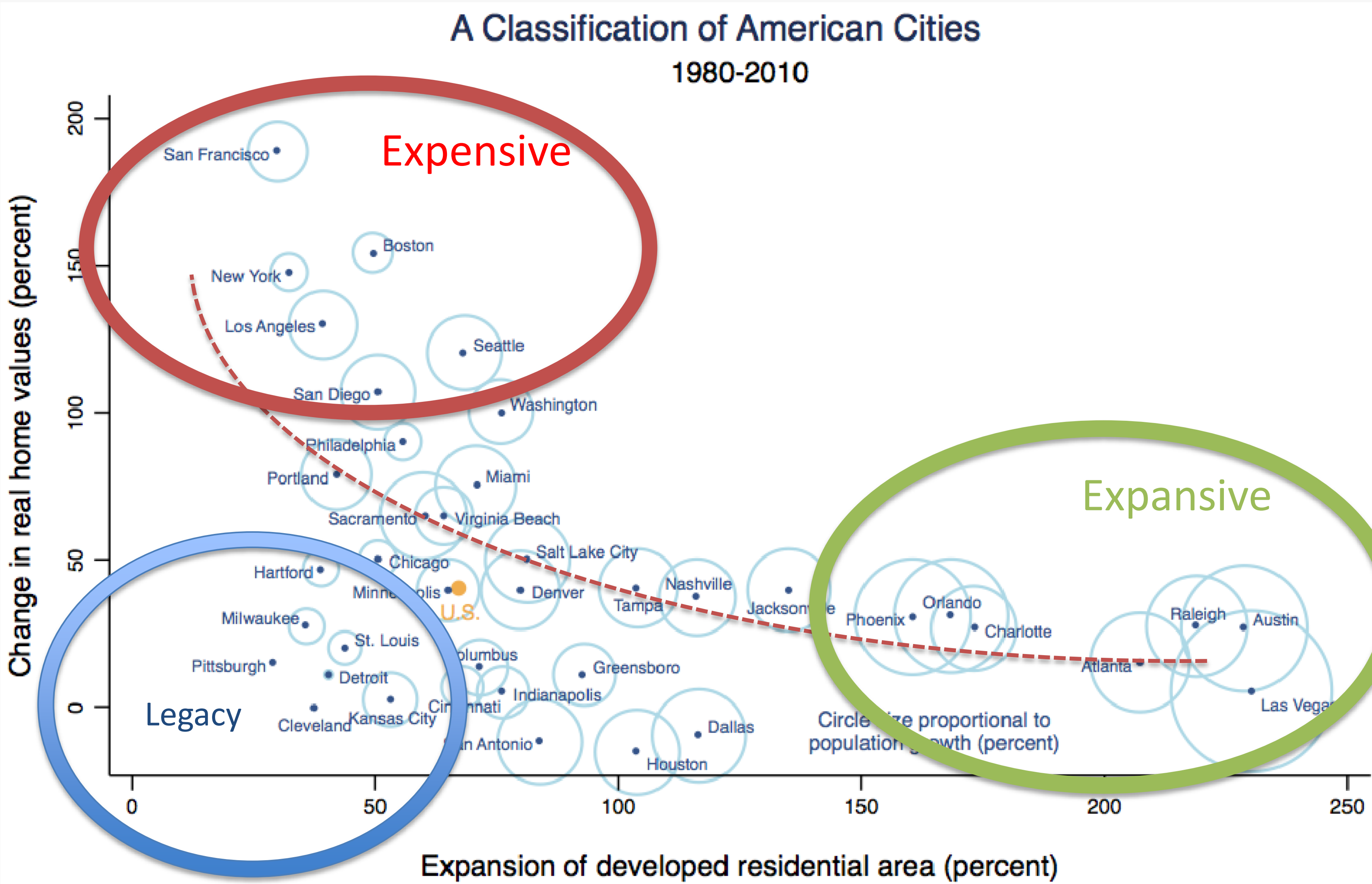
Respondents were asked if the following were a major, moderate or minor reason for Bay Area housing problems.



Source: The poll of 900 registered voters in Alameda, Contra Costa, San Mateo, Santa Clara and San Francisco counties was conducted by J. Moore Methods Inc. Public Opinion Research for the Silicon Valley Leadership Group and the Bay Area News Group. The poll, conducted from Dec. 27 to Jan. 9, has a margin of error of +/- 3.3 percentage points.

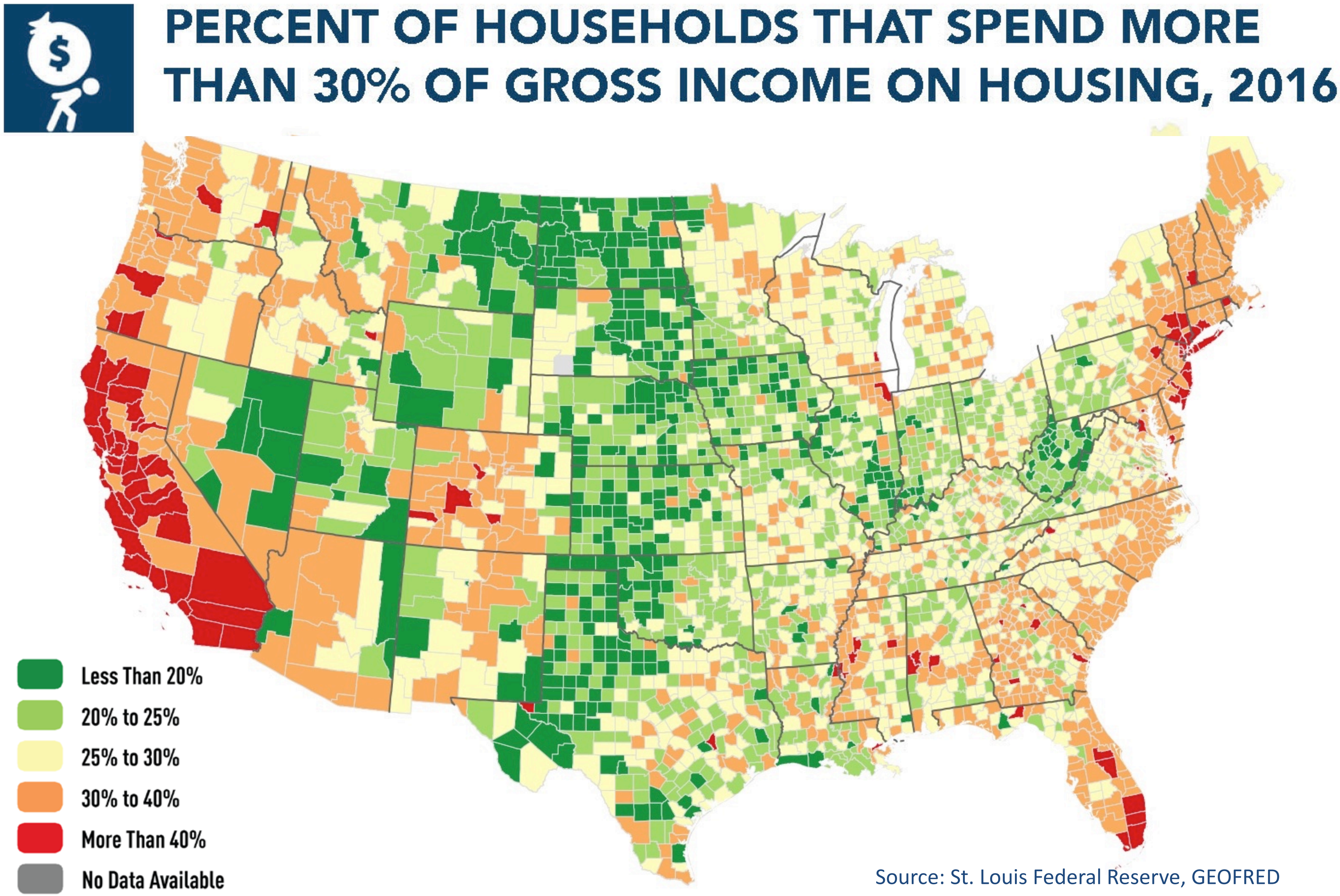
JEFF DURHAM/BAY AREA NEWS GROUP

New paradigm for housing growth needed



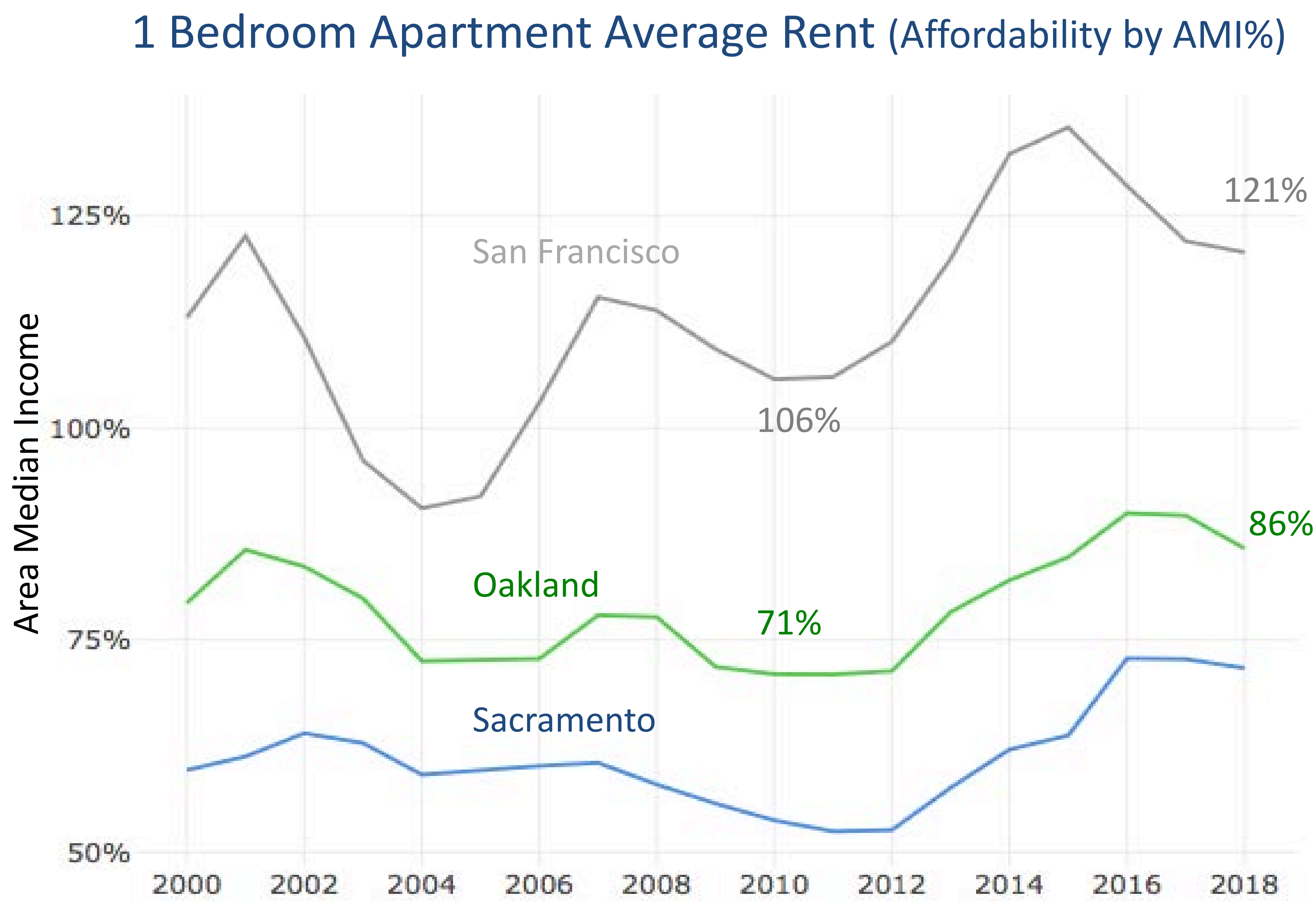
Source: Build Zoom

Cost Burdening Widespread Across California



Source: St. Louis Federal Reserve, GEOFRED

Rent has increased 15% faster than median income since 2010



Source: Costar, HUD, ECONorthwest Calculations

Up For Growth website Affordability App

Time Series of Affordability

Select Chart

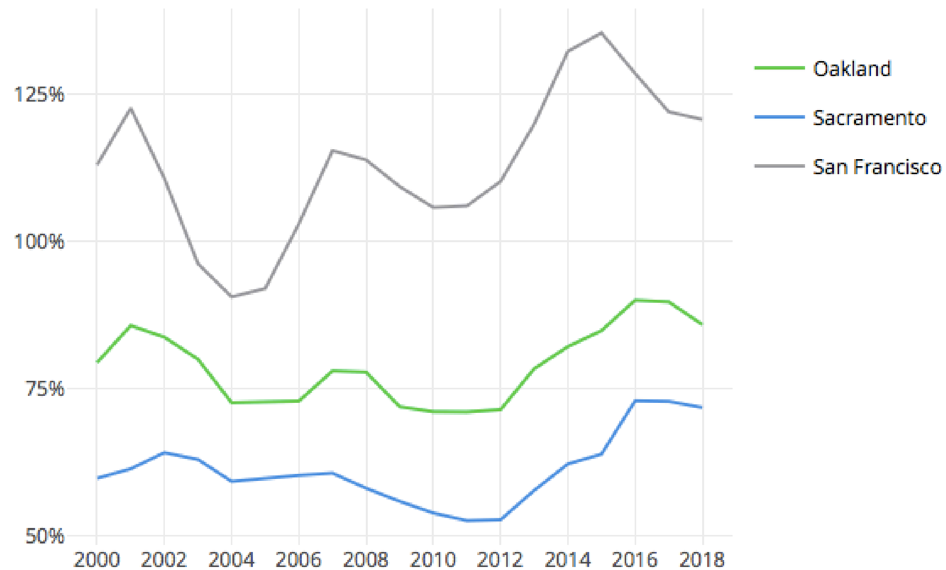
Market Rent as Percent of AMI

☑ Compare Multiple Cities

Select Unit Type

One bedroom

Cross City Rent Comparison: 1BR (% of AMI)



Calculations by ECONorthwest with Data provided by CoStar

Select State

California

Select First City

Oakland

Select State of Second City

California

Select Second City

Sacramento

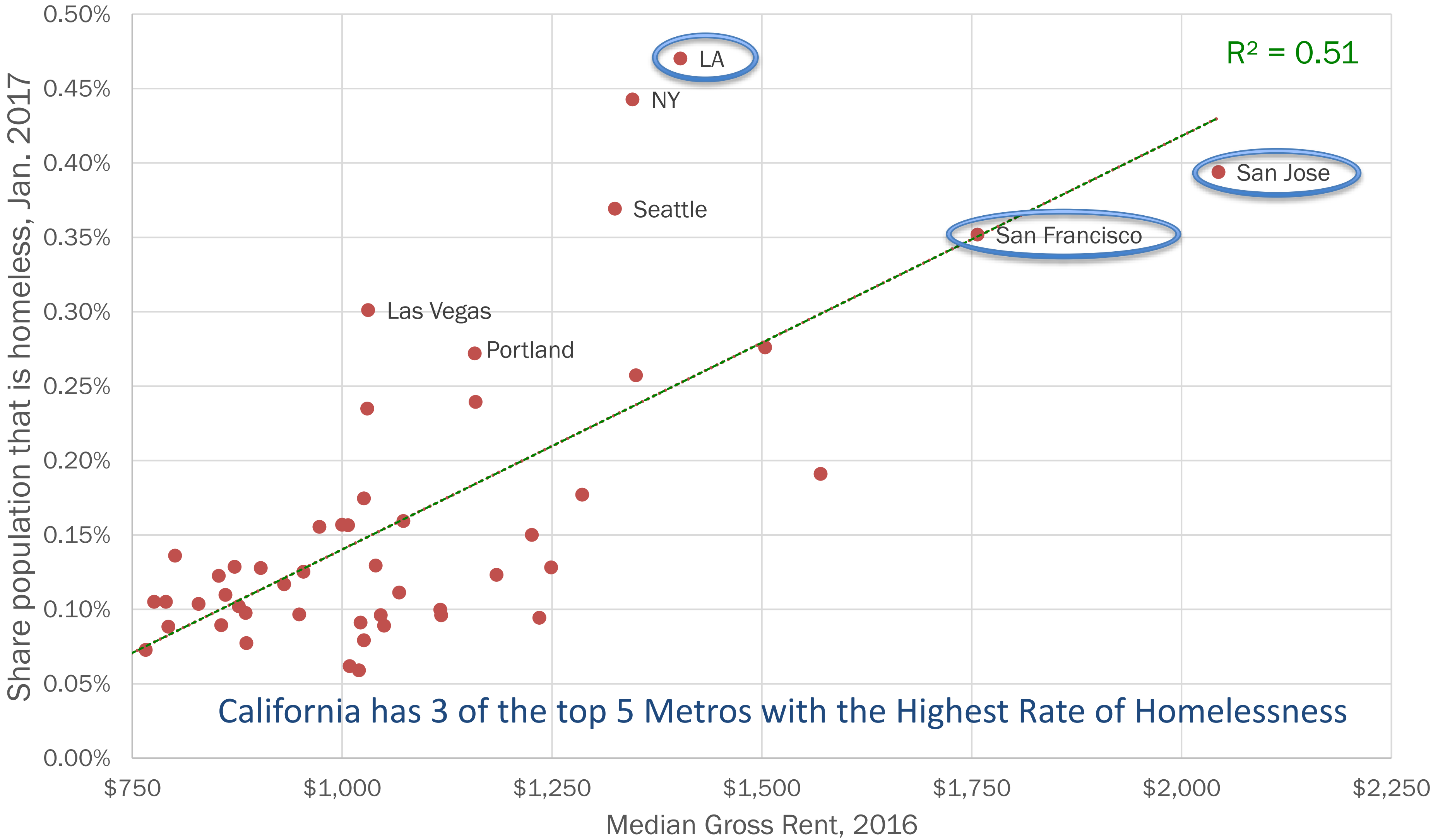
Select State of Third City

California

Select Third City

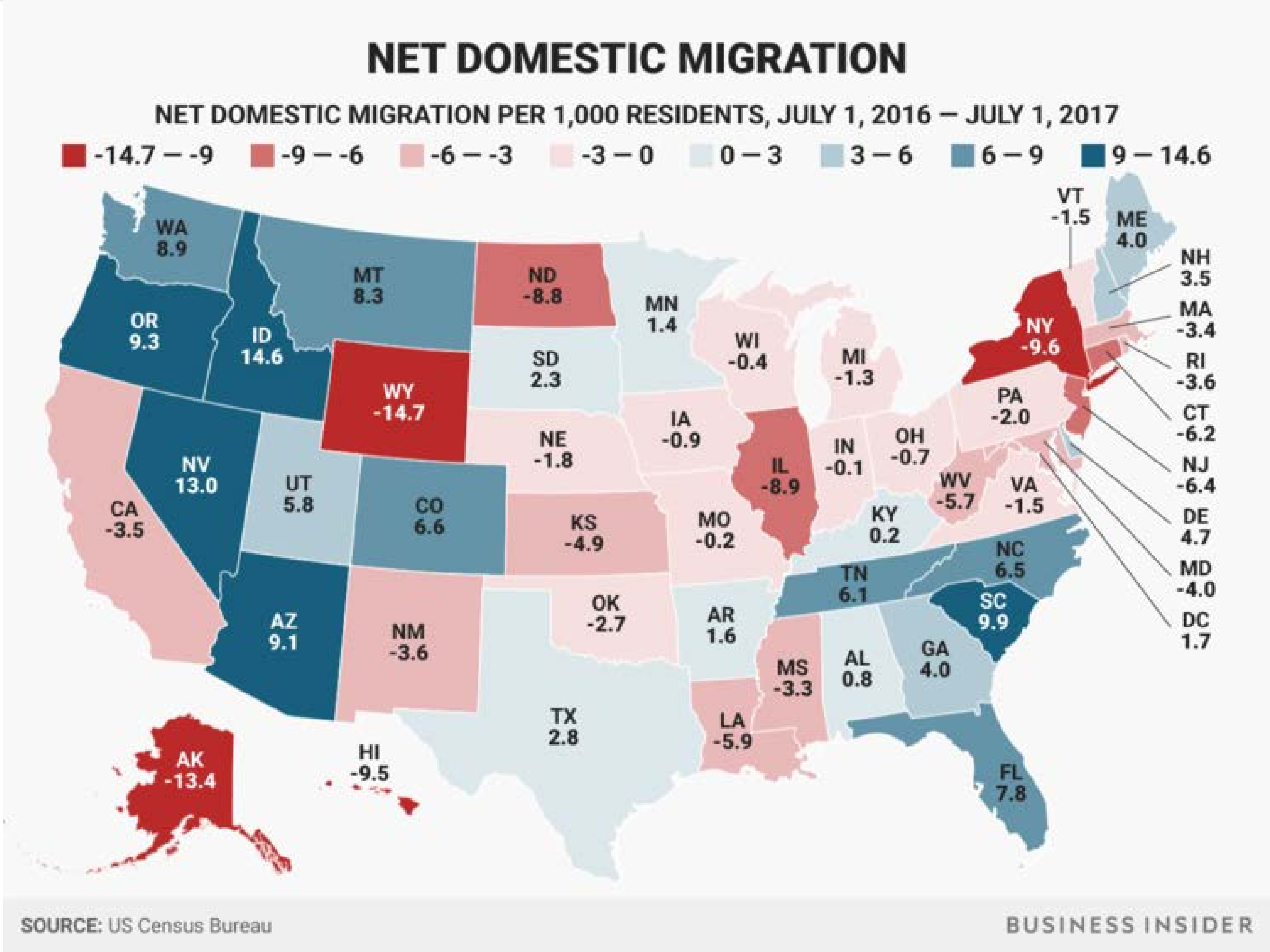
San Francisco

Rent Strongest Predictor of Metro Homelessness Rate



Source: ECONorthwest calculated using data from the U.S. Department of Housing and Urban Development, Point-In-Time count and the U.S. Census Bureau ACS

CA Only West Coast State with Negative Domestic Migration

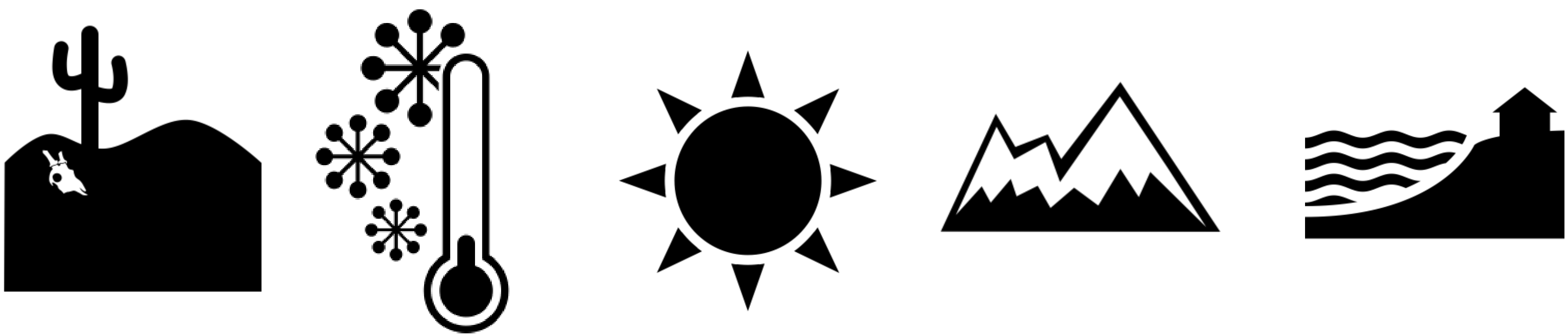


The Second Paycheck

Percent of Income Willing to Pay for Natural Amenities

Total = 15% of Income

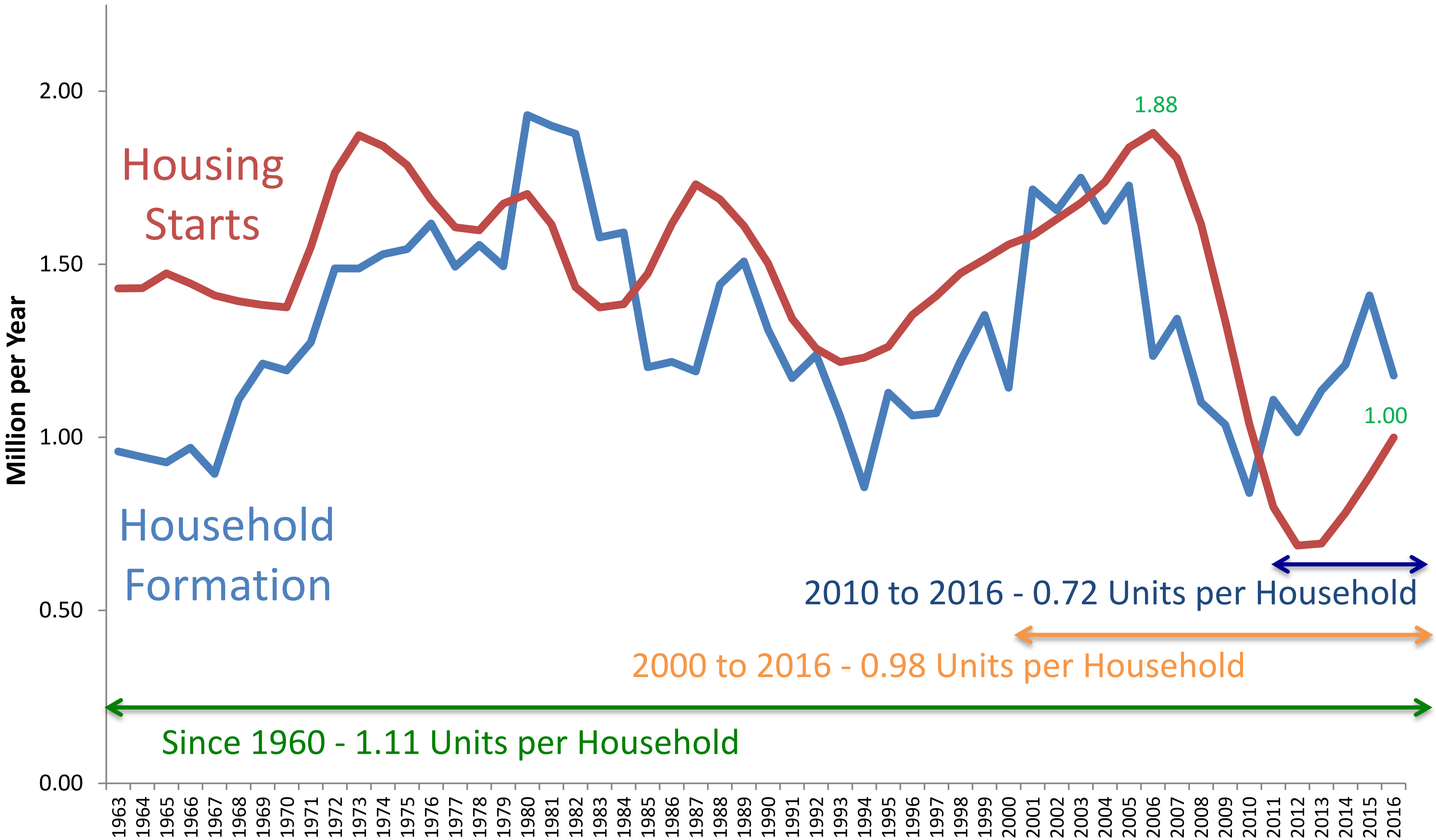
4.0%	3.9%	2.9%	2.7%	1.7%
Heat (eliminate)	Cold (eliminate)	10% + Sun	10% + Slope	Closer to Coast



Source: Albouy, David. *Are Big Cities Bad Places to Live?* 2012

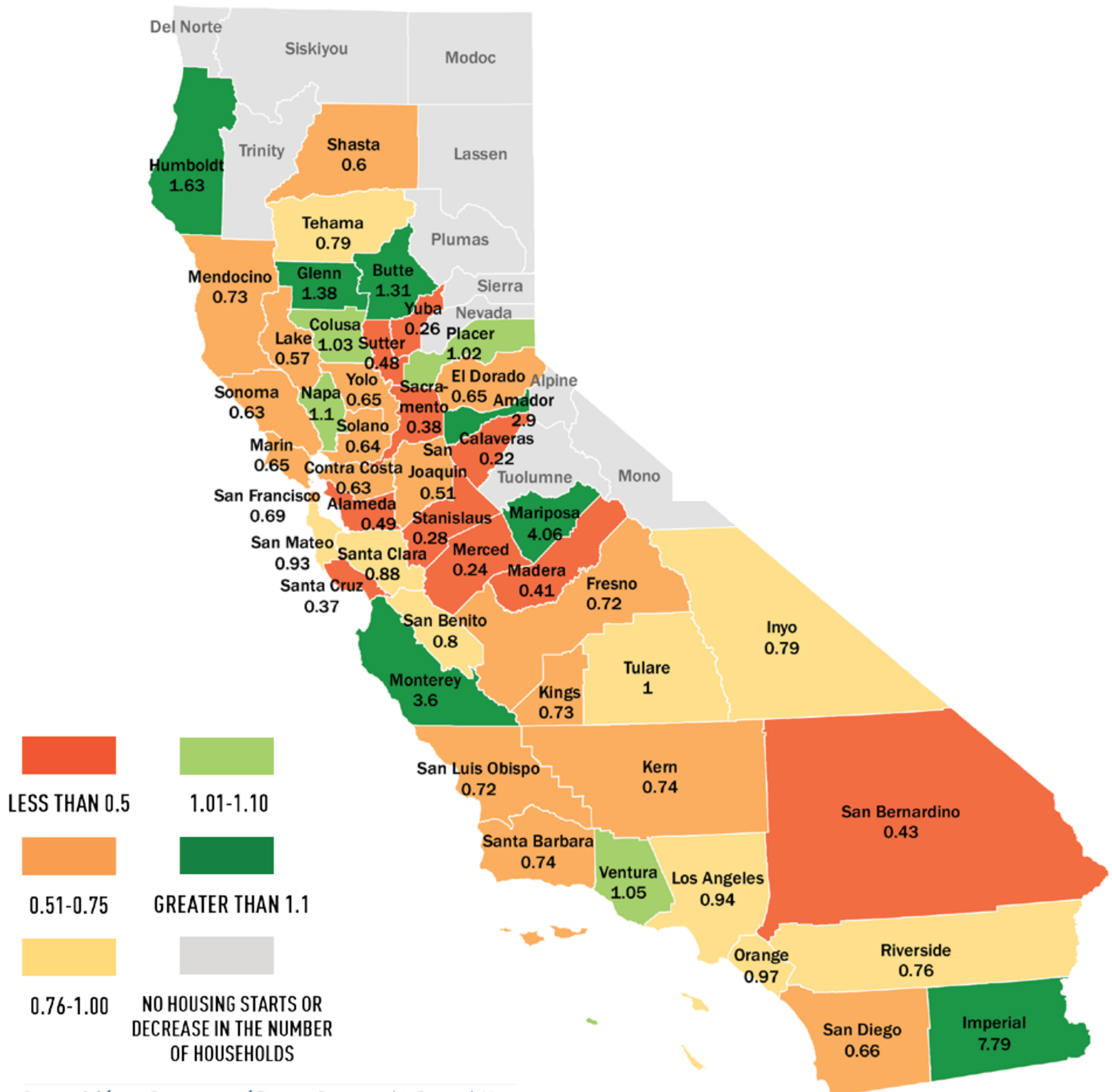
Housing starts haven't kept pace with household formation

U.S. Household Formation vs. Housing Starts
(in millions)

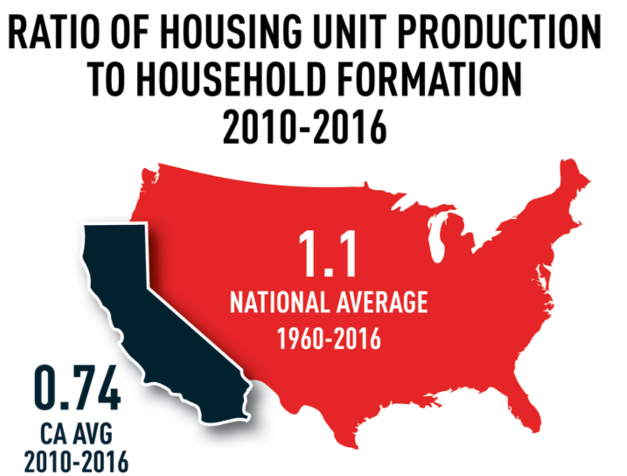


Source: U.S. Census Bureau

7 units built for every new 10 households formed in CA since 2010

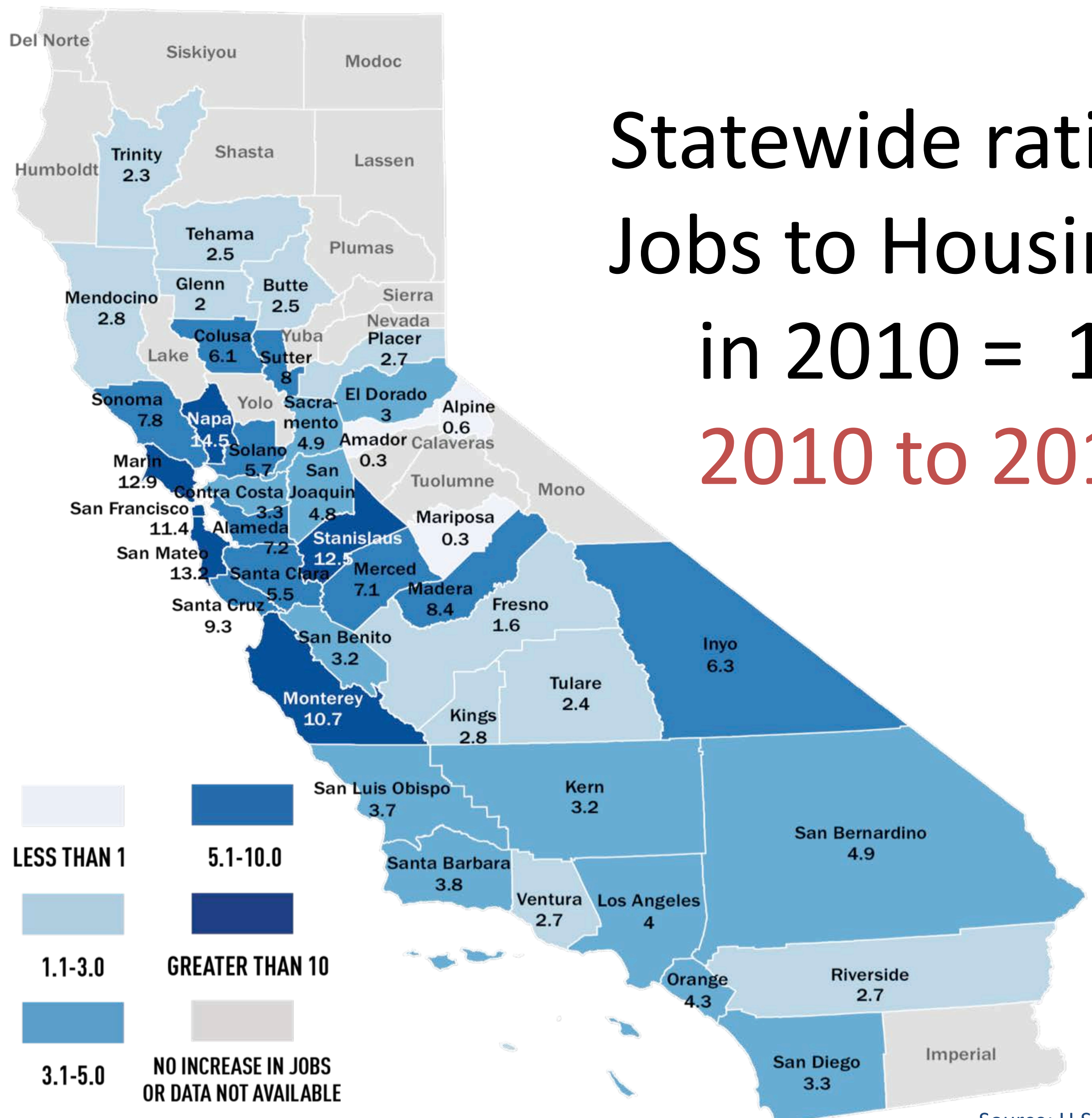


Source: California Department of Finance, Demographic Research Unit



From 2010 to 2016 in California 7.4 housing units were produced for every 10 households formed

4 jobs were added for every housing unit from 2010 to 2015



Statewide ratio of Primary Jobs to Housing Units

in 2010 = 1 to 1

2010 to 2015 = 4.4

Source: U.S. Census LODES, California Department of Finance

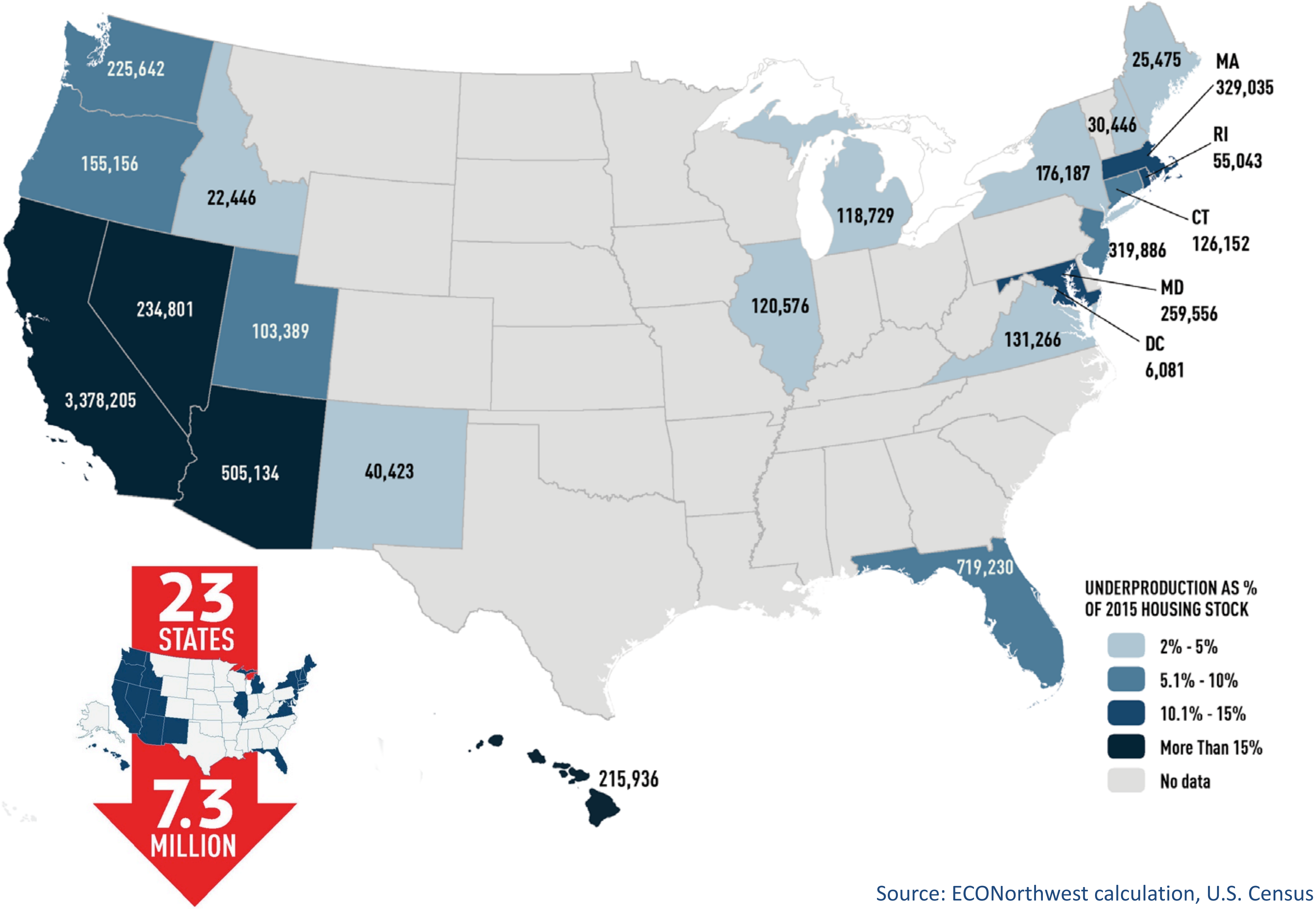
Purpose of Study

- Examine the impact of supply constraints on housing production
- Evaluate the impact of different models of growth
- Model economic, fiscal, environmental impacts supported through additional housing production nationally

Process

- Task 1) Quantify Underproduction of Housing
- Task 2) Model growth scenarios
- Task 3) Quantify economic and fiscal impacts

7.3 million Housing Units Under Produced from 2000 to 2015



Source: ECONorthwest calculation, U.S. Census

California Market is Supply Constrained

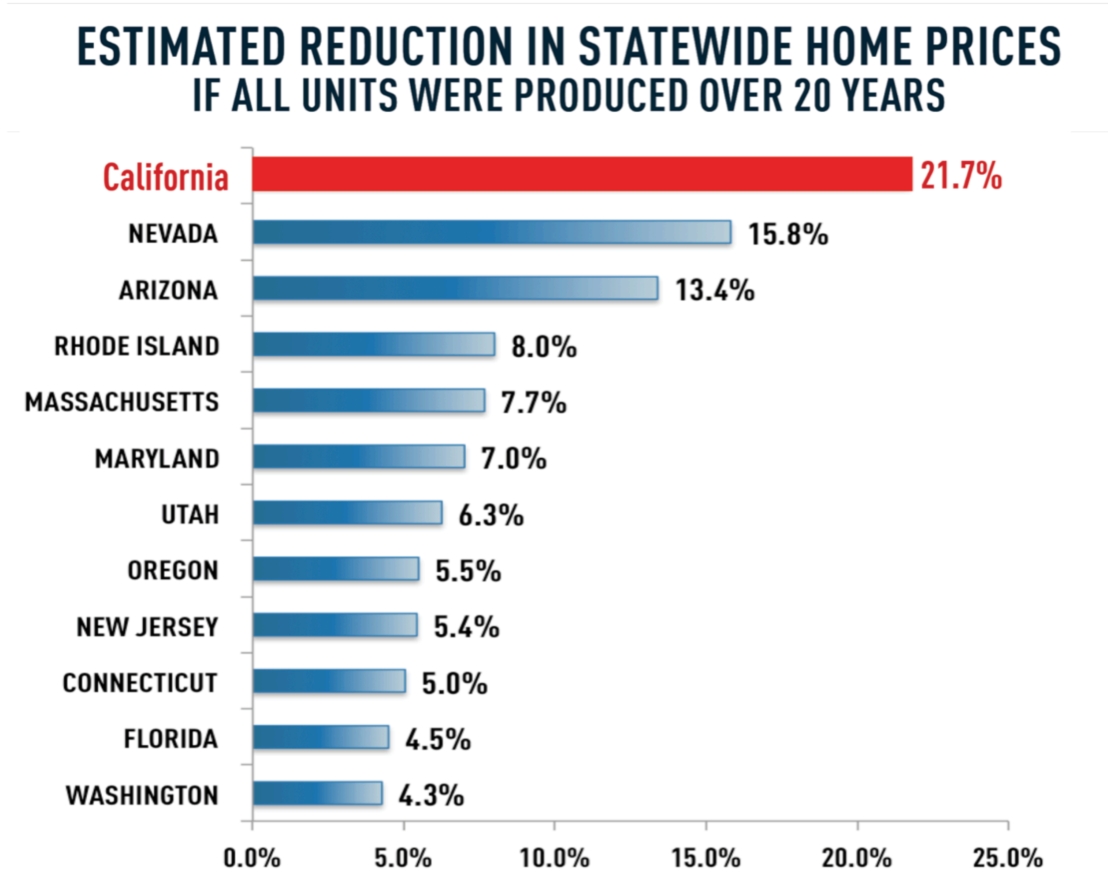
Price Elasticity of Supply

- 0.47

- 0.77

- 0.84

= (% change in supply) / (% change in price)



Source: ECONorthwest Calculations, REMI

Process

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Additional housing construction can take different forms

Growth Scenarios Distributed as 3 Construction Types:

MISSING MIDDLE & MED.-DENSITY (UP TO 5 STORIES): MAX 120 UNITS PER ACRE

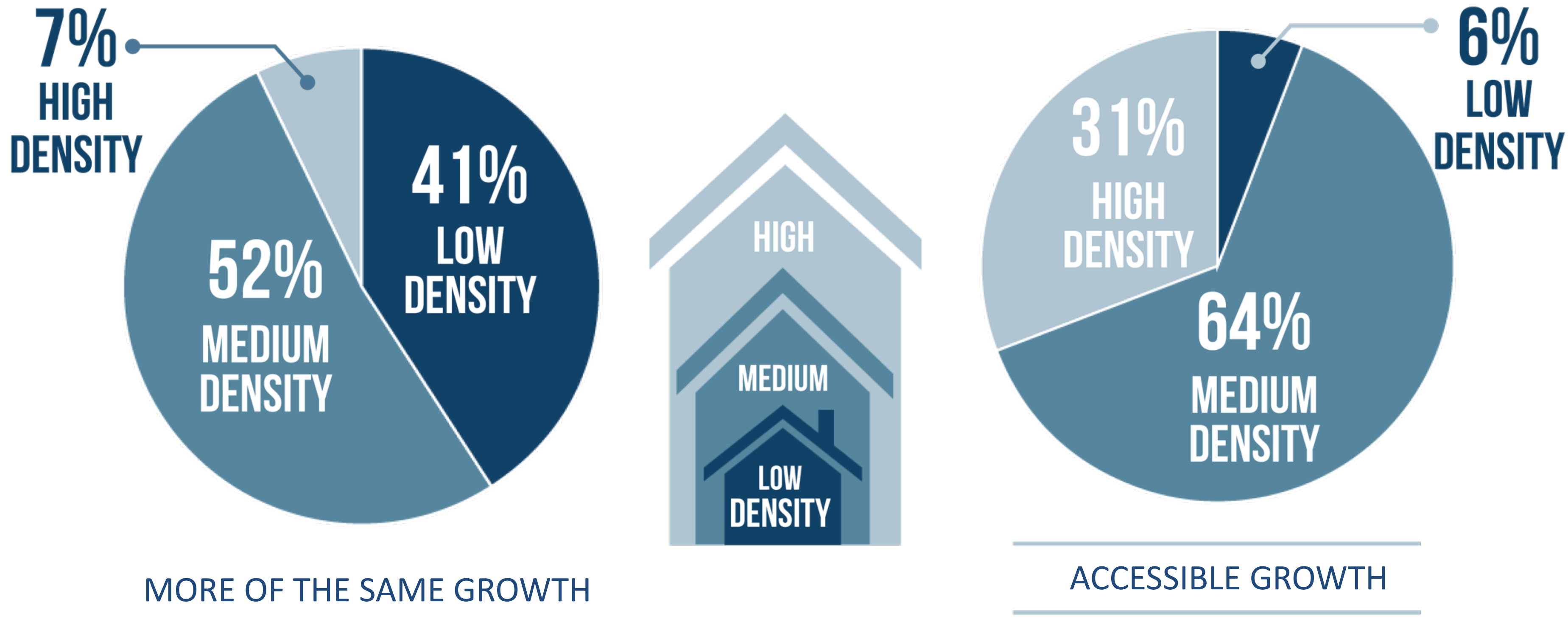
SINGLE-FAMILY HOME (UP TO 3 STORIES): MAX 5 UNITS PER ACRE

TOWER HIGH-RISE (6+ STORIES): MAX 240 UNITS PER ACRE

Accessible Growth Changes Distribution of Housing Types

Current Growth Pattern

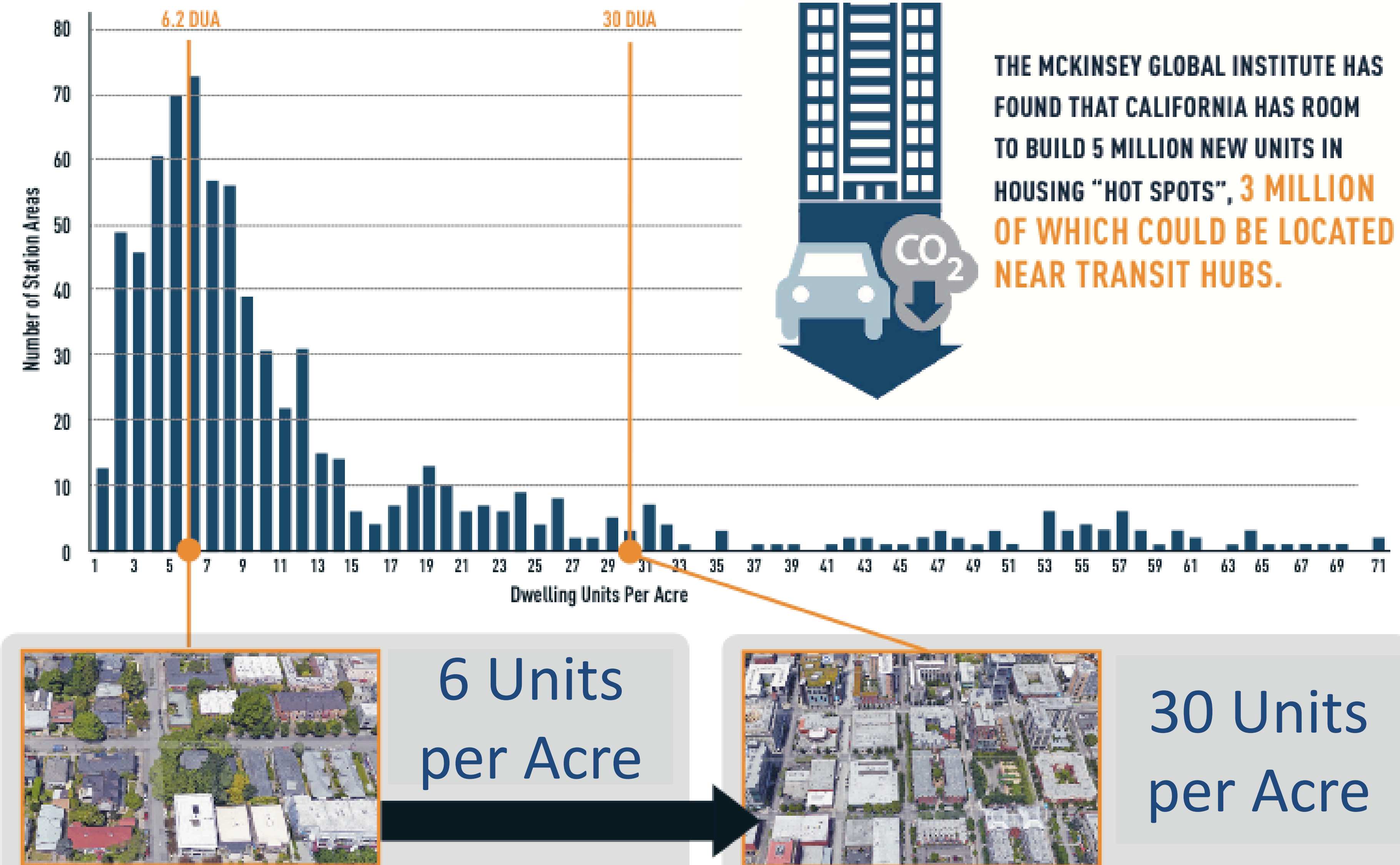
Incremental Impact Accessible Growth



Where are Accessible Growth Units Located:
Target underutilized transit corridors, + high opportunity areas with low vehicle miles travelled

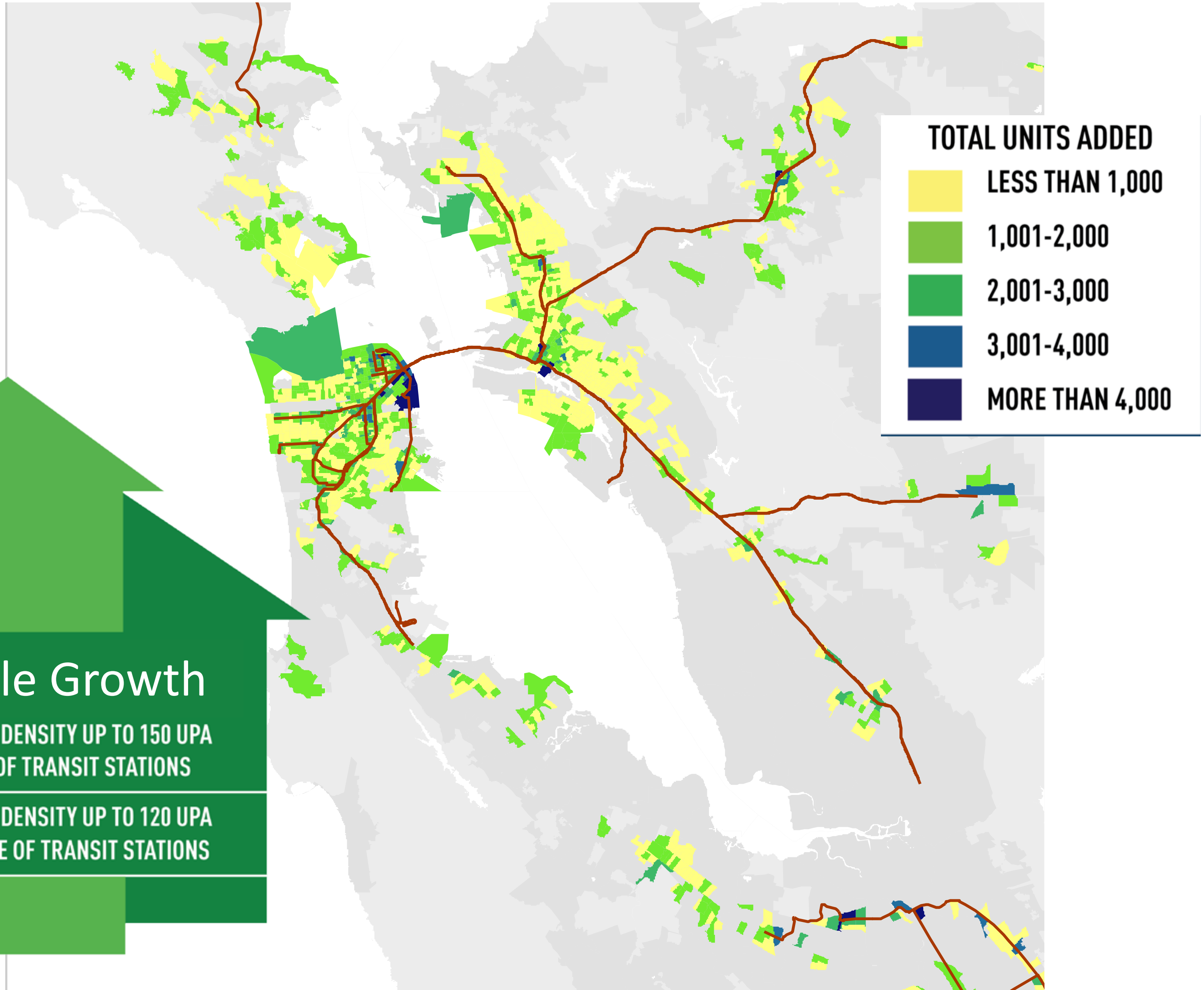
Source: ECONorthwest Calculations

Underutilized Land Around Transit Stations an Opportunity



Source: U.S. Census, ECONorthwest Calculations

50% of units built in the state since 2010 have been multifamily



Accessible Growth

300% INCREASE IN DENSITY UP TO 150 UPA WITHIN 1/4 MILE OF TRANSIT STATIONS

200% INCREASE IN DENSITY UP TO 120 UPA FROM 1/4 TO 1/2 MILE OF TRANSIT STATIONS

Source: ECONorthwest Calculations

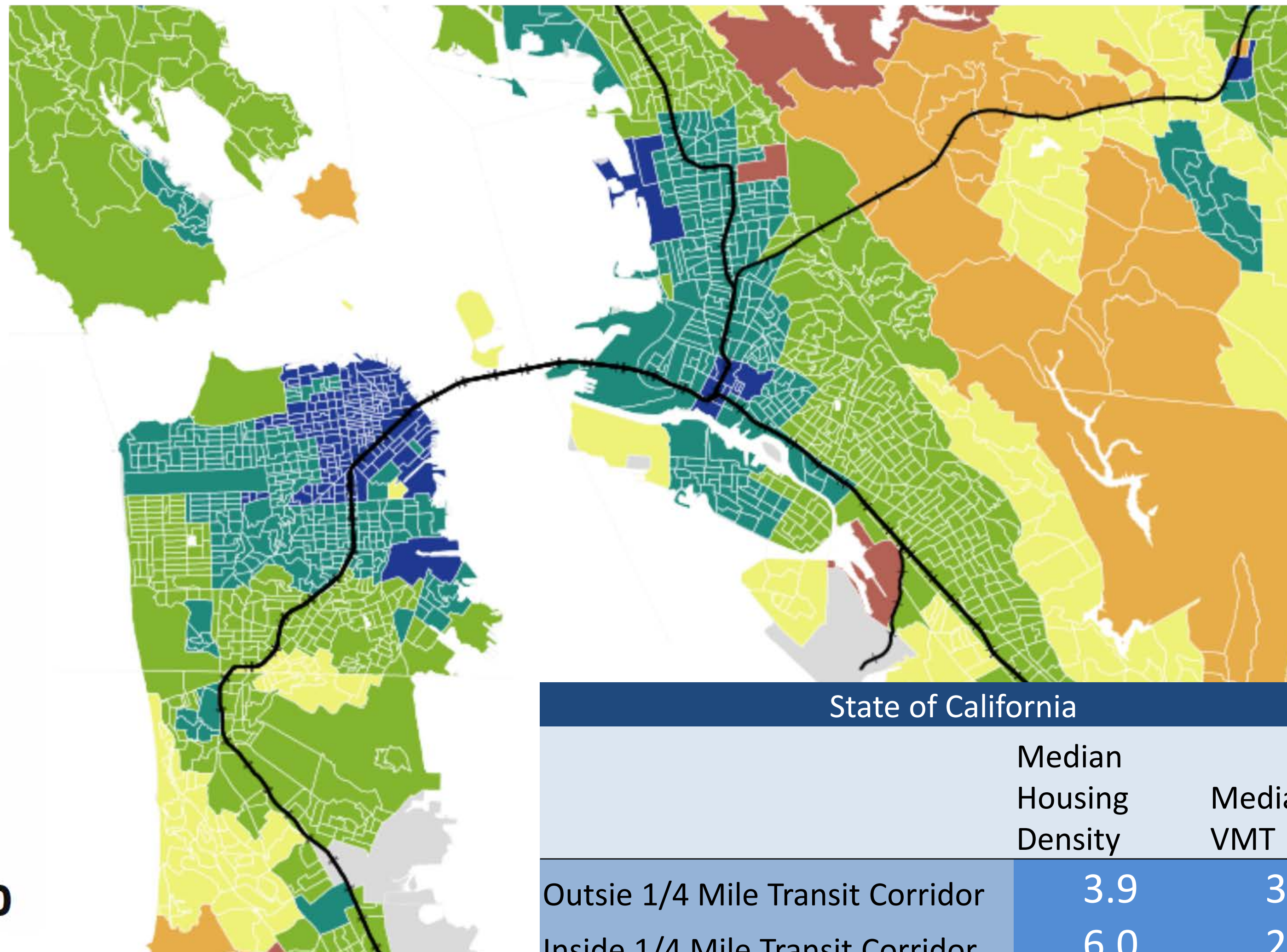
Accessible Growth Reduces VMT by up to

ENVIRONMENTAL BENEFITS OF ACCESSIBLE GROWTH:

LOWER VEHICLE MILES TRAVELED

HOME-BASED VMT PER HOUSING UNIT

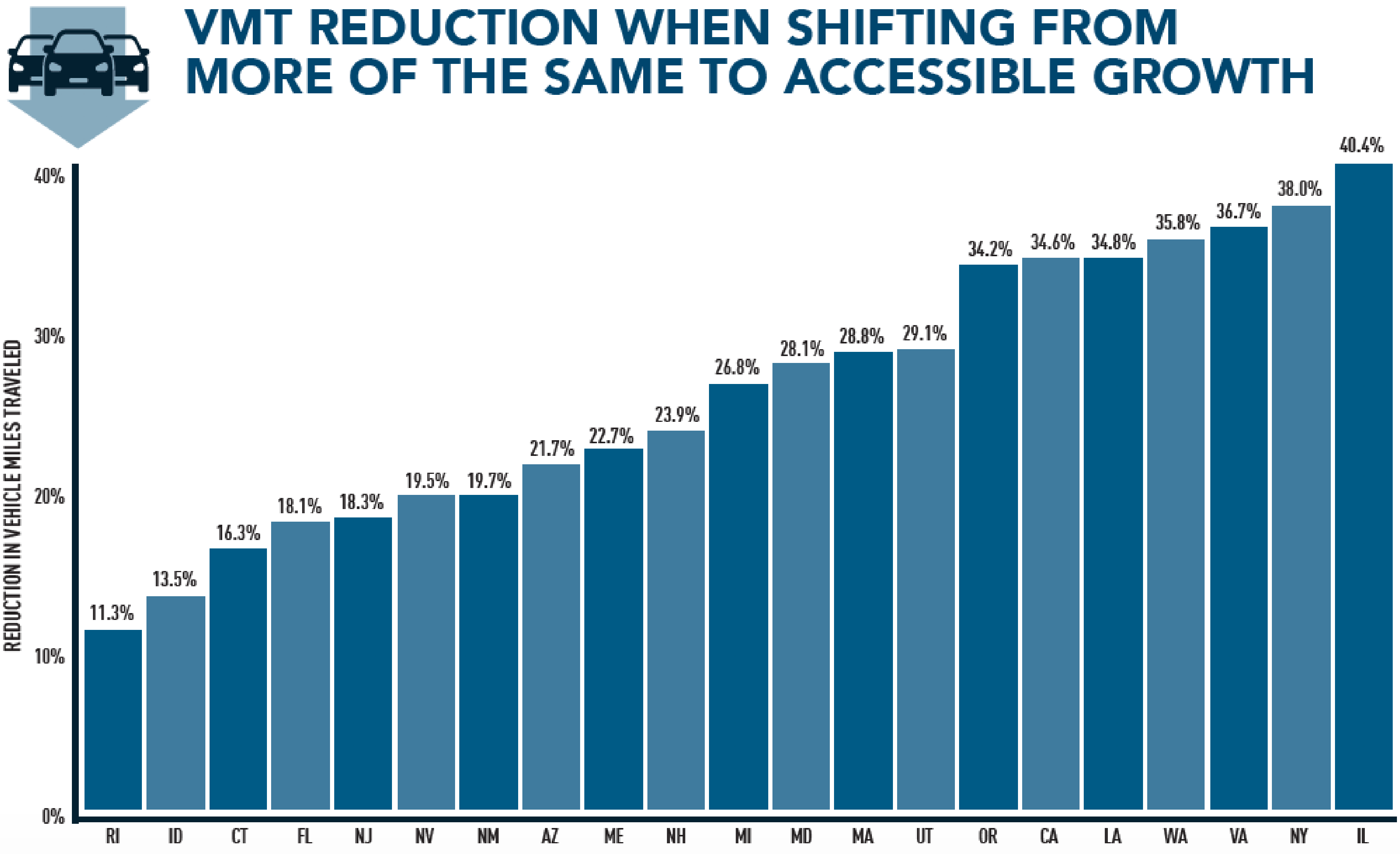
- Less Than 10
- 10-20
- 20-30
- 30-40
- 40-50
- Greater Than 50



State of California		
	Median Housing Density	Median VMT
Outsie 1/4 Mile Transit Corridor	3.9	34
Inside 1/4 Mile Transit Corridor	6.0	27

Source: ECONorthwest Calculations

Accessibility to Transit, Jobs, and Density



Process

- Task 1) Quantify Underproduction of Housing
- Task 2) Model growth scenarios
- Task 3) Quantify economic and fiscal impacts

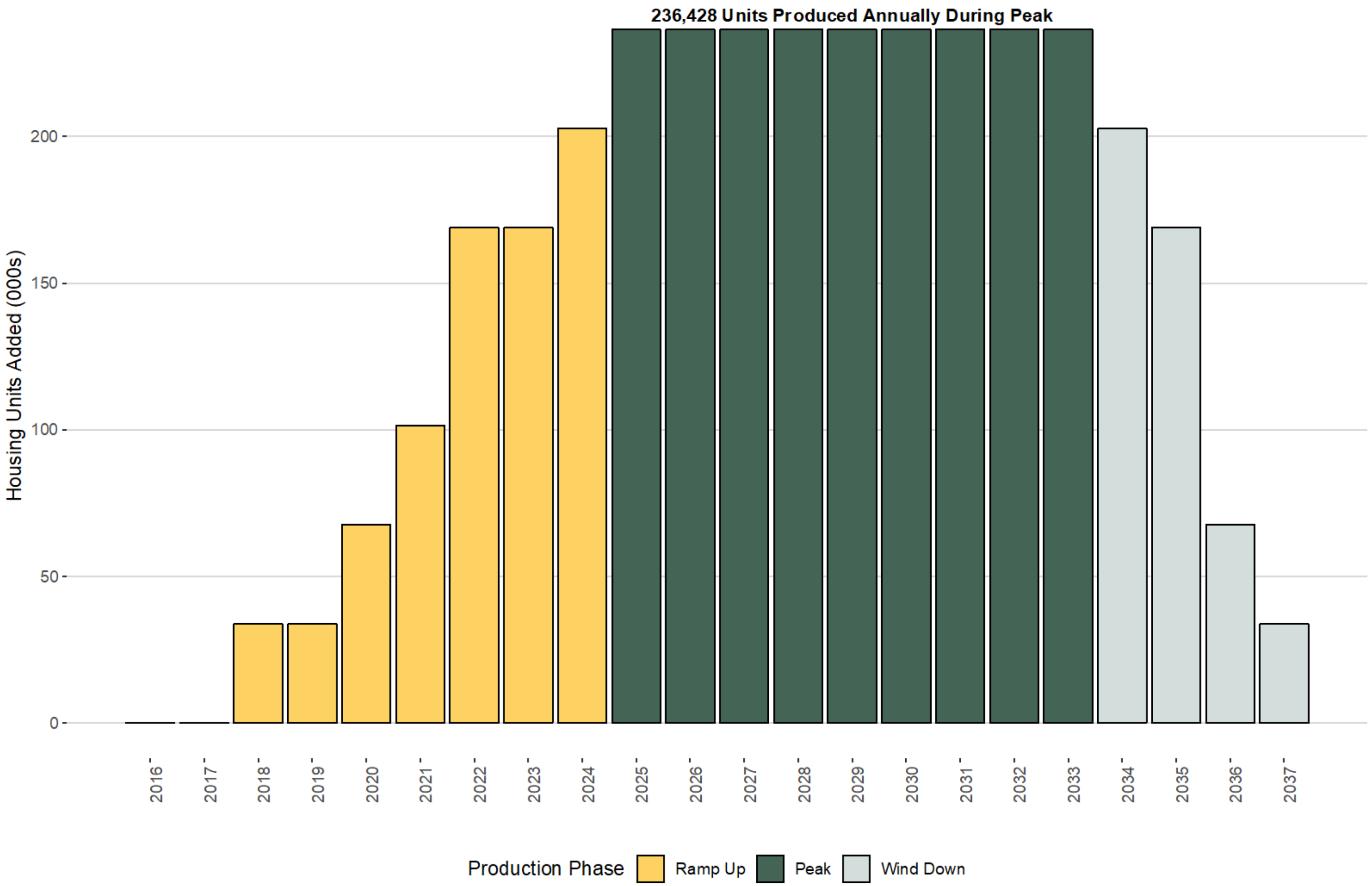
- If additional housing were built in each scenario (step 2) to meet underproduction amounts (step 1), what economic and fiscal impacts would be supported?

- Use REMI PI+ model to estimate impacts related to increased housing production

- How much does it cost to build these units?
  - Each scenario builds different numbers of single family homes, podiums, and towers
  - Each prototype has different costs of construction, infrastructure, and causes different environmental considerations
  - Each region has different costs of construction, different impact fee regulations, different building permits and fees, different tax rates, etc.
- How much would each state's economy, labor force, or personal income grow?

Modeling Additional Housing Production

- Industry needs time to train labor to ramp up production
- Production in max year is less than previous cycle peak



REMI Model Assumptions

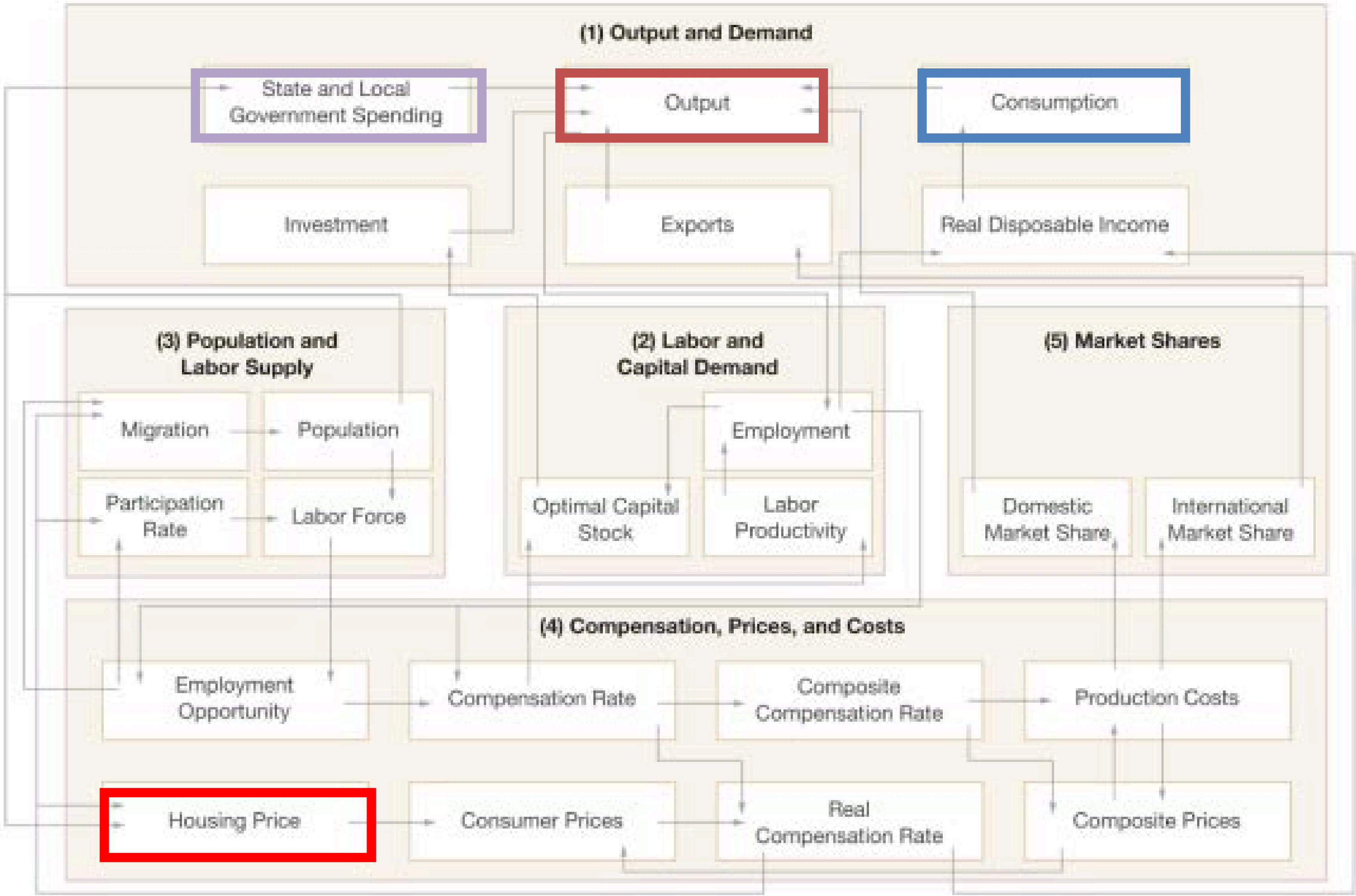
- Hard construction costs
  - Tower & Podium: start with historical data by prototype, use RS Means cost index to adjust by state
  - Single Family Homes: Census 2016 Permits and Values data
- Soft construction costs
  - 1.6% of hard costs for single family homes
  - 12.0% of hard costs for podium and tower
- Infrastructure costs (provided by Arup Engineering)
  - Scaled based on Smart Growth America Study to scenarios
  - Installation costs and ongoing operations & maintenance
  - Government sector pays for infrastructure through bond issuance
  - Offset by impact fee revenue estimated by state

Housing prices adjusted (down) based on supply elasticity

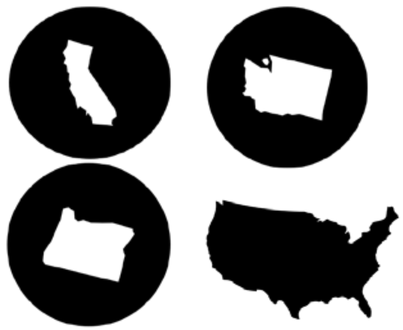
Household consumption reallocated to pay for new units

- Overall price of housing in the market decreases…however
- New housing costs more than the current stock
- Need to reallocate household consumption to account for increased costs of new units

REMI Model Linkages (Excluding Economic Geography Linkages)

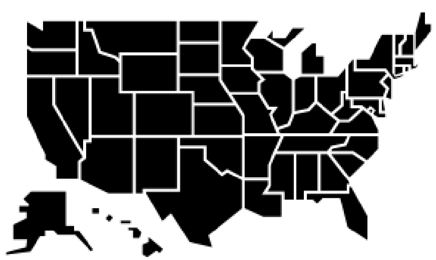


Study Utilized 2 REMI Model Specifications



4 Region Model

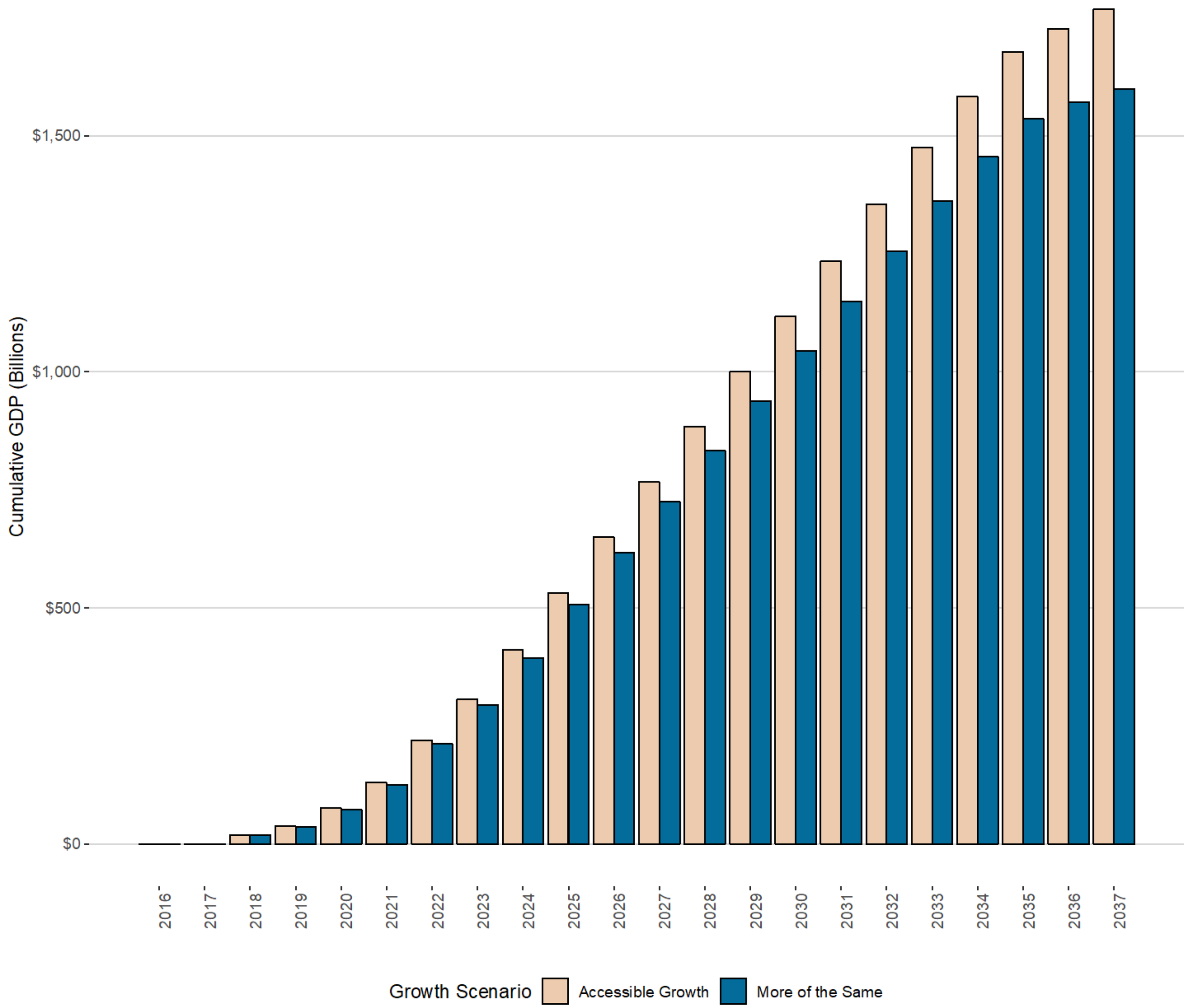
California, Oregon, Washington, and Rest of US



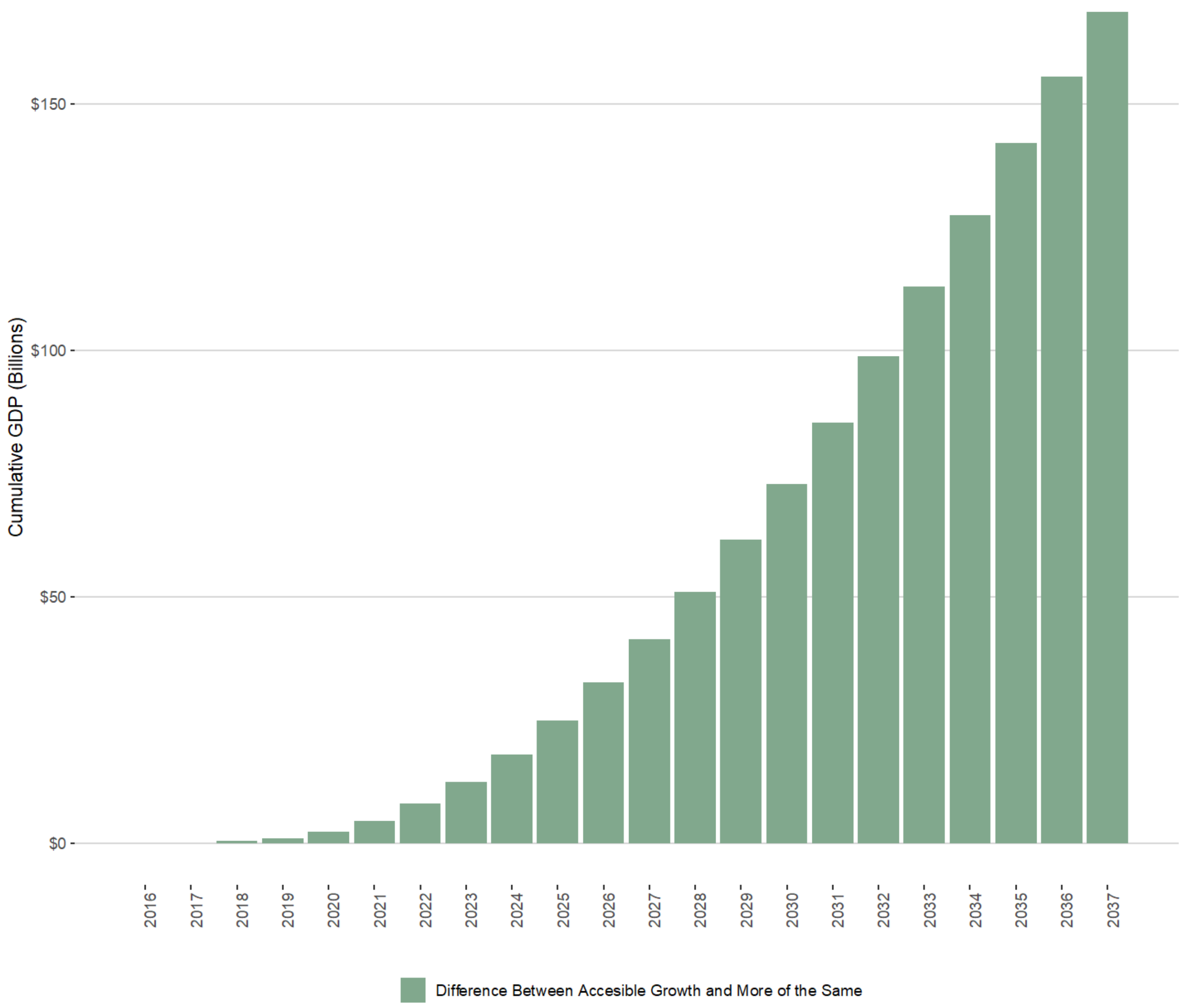
51 Region Model

Preferred model, selected for primary report results

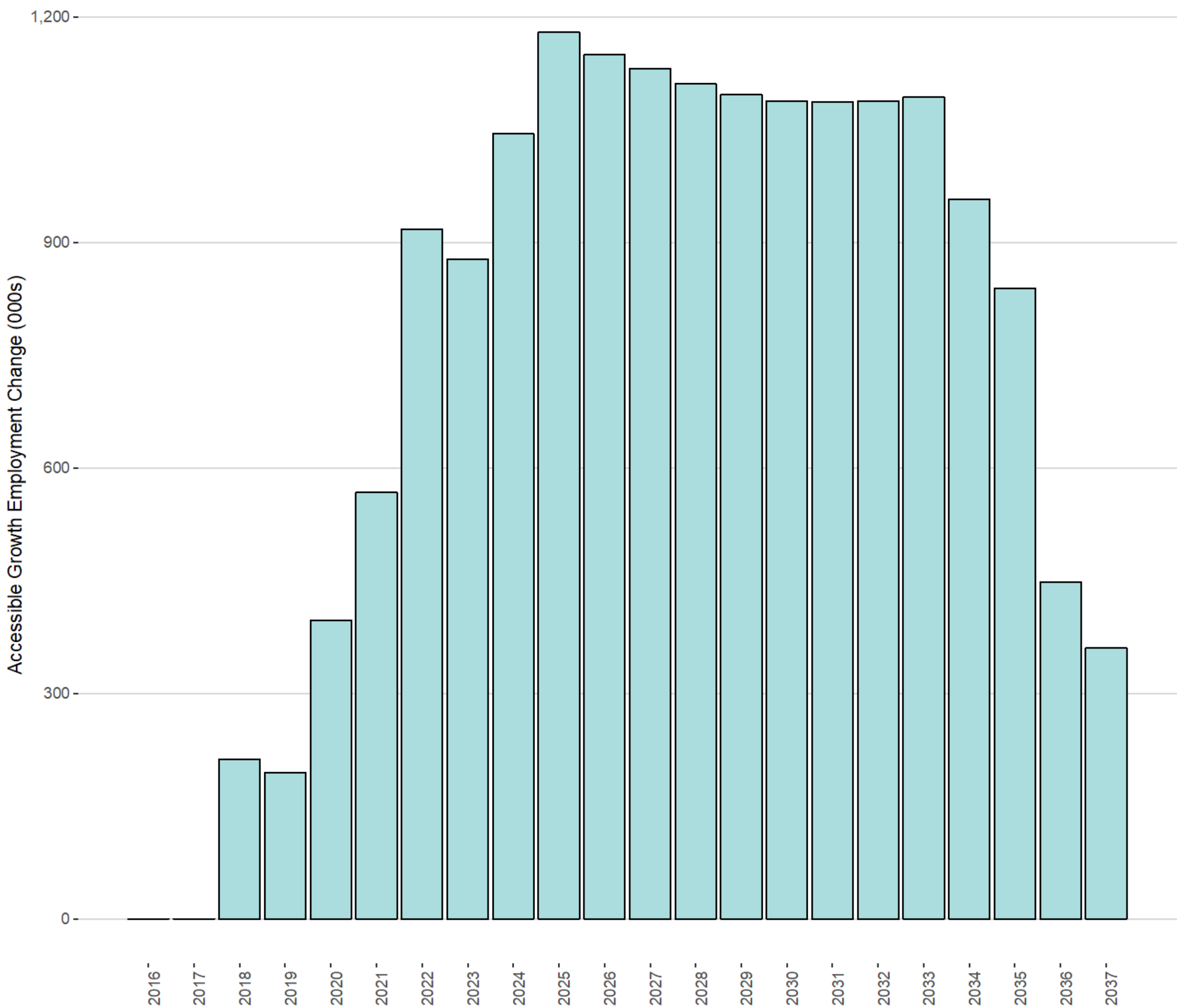
$ 1.7 trillion increase in cumulative



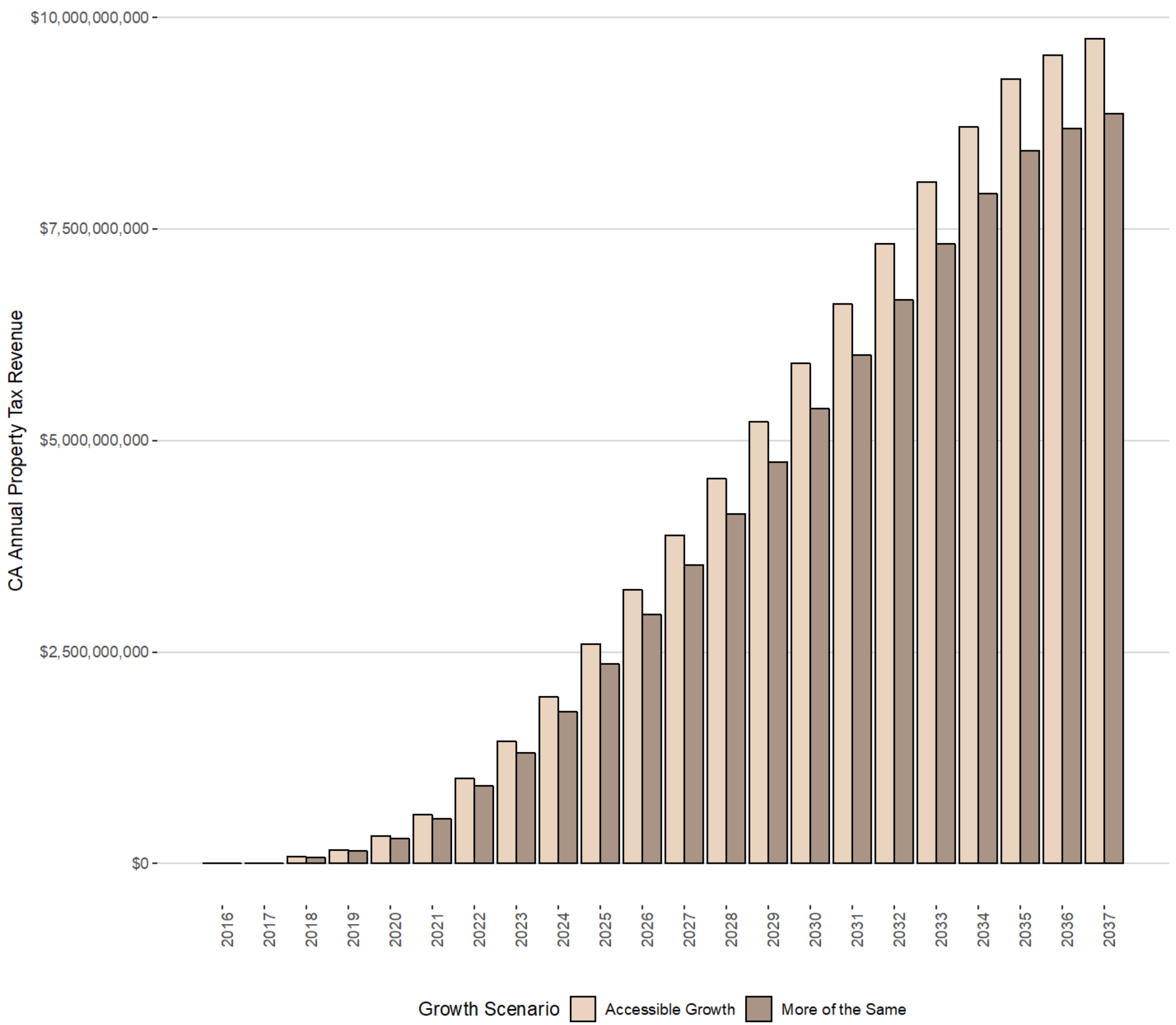
Difference in Cumulative GDP between



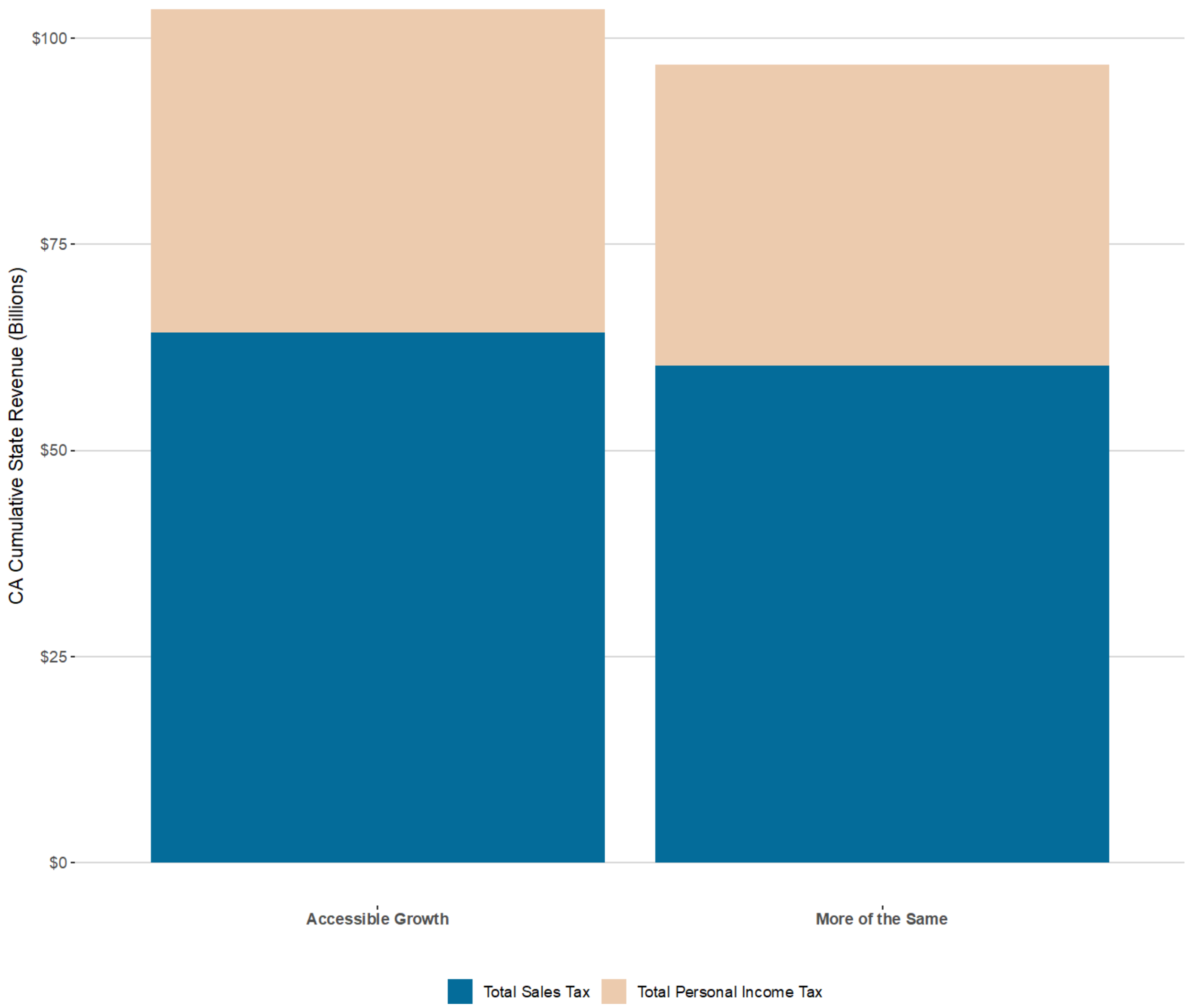
More than 1.1 Million jobs supported in peak year of production



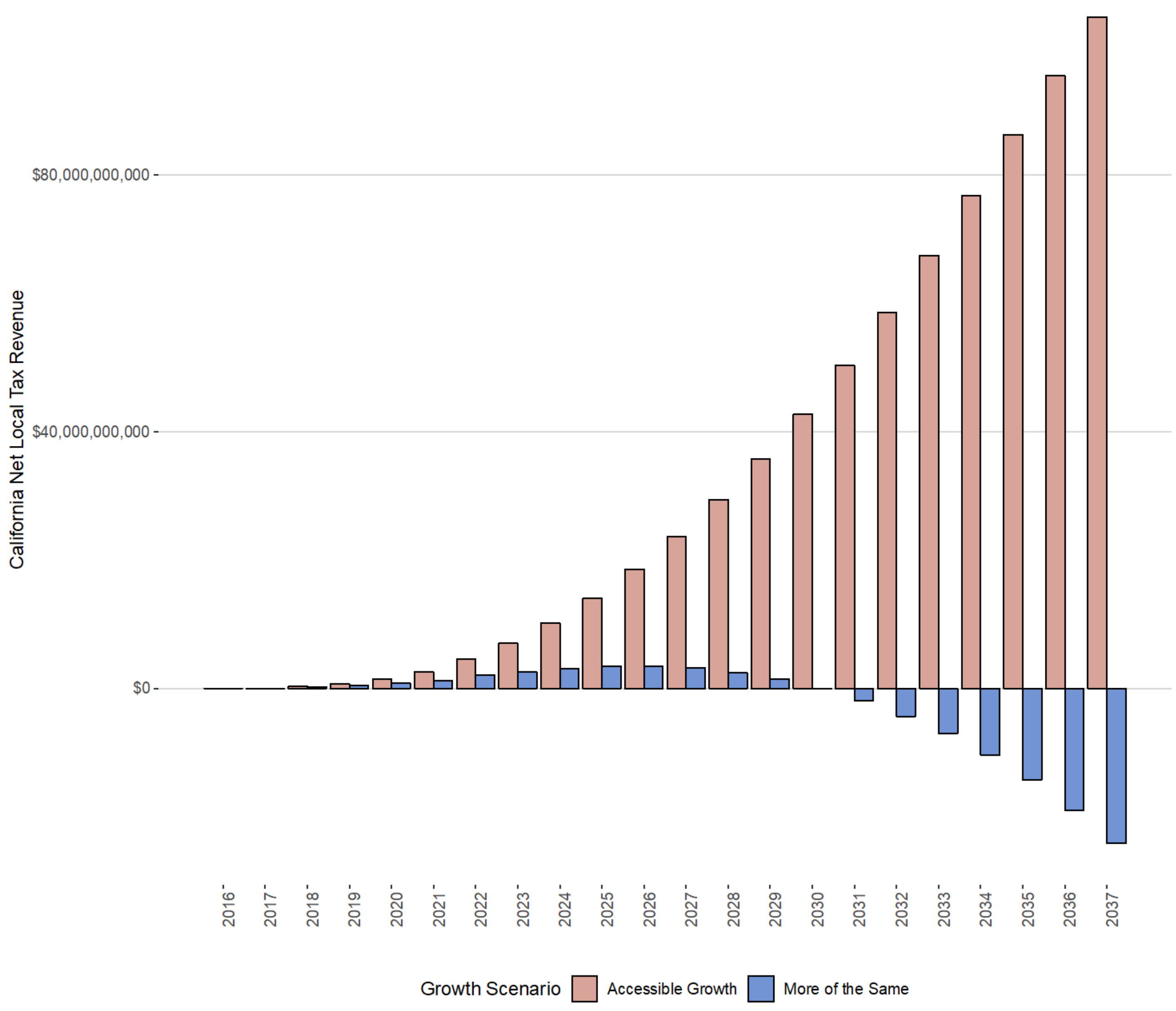
Local Property Taxes by Scenario



State Tax Implications by Scenario



More than $120 Billion difference in local revenue through 2037



Local Cumulative Revenue by Scenario through 20 years

Cost of infrastructure is not supported by fiscal revenue in More of the Same

Scenario	More of the Same	Accessible Growth	Difference
Total Acres	215K	50K	-77%
Total Infra Spend	$131B	$6B	-95%
Total O&M	$5.1B	$1.2B	-76%
Total SDC Fees	$30B	$22B	-27%
Prop Tax Revenue	$82B	$90B	10%
Net Revenue	-$24B	$104B	$128B

So What

- National
- California
- Oregon
- Washington

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