

Memorandum

TO: Regional Advisory Working Group

DATE: September 26, 2018

FR: Raleigh McCoy

RE: Vital Signs Fall 2018 Data Update

Introduction

The purpose of this presentation is to update the Regional Advisory Working Group on the latest findings from Vital Signs, the Bay Area's performance monitoring initiative. Suites of indicators were updated over the past four months, including:

- Commute Mode Choice: updated with 2016 data
- Commute Time: updated with 2016 data
- Time Spent in Congestion: updated with 2017 data
- Street Pavement Condition: updated with 2017 data
- Transit Asset Condition: updated with 2017 data
- Housing Permits: updated with 2016 data
- Housing Production: new indicator with data through 2017¹

Key Findings

There are five primary takeaways that synthesize findings across recently updated indicators.

- *Housing loss in the North Bay due to wildfire damage has wider implications on the regional housing crisis.* Analysis of housing production data shows at least 5,000 homes were lost in just three jurisdictions in the North Bay: Santa Rosa, Unincorporated Sonoma County, and Unincorporated Napa County. Had the fires not destroyed so many homes, the Bay Area would have been on track to add roughly 20,000 units to the housing stock in 2017.
- *Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.* Analysis of data on job location, housing permits and new housing construction, and the location of existing housing units sheds light on the current status of the imbalanced spatial distribution of jobs and housing within the Bay Area. Data on the origin of permits for affordable housing units highlights the relative concentration of affordable unit permits in San Francisco and San Jose, while also acknowledging that only 11% of all units for which permits were issued will be affordable to very low-, low-, and moderate-income households. The co-location of affordable housing permits near job centers is a positive trend, suggesting that job opportunities will be more accessible to the low-income households that are able to access the future affordable housing at these sites.

¹ In this data update, MTC/ABAG introduced a second indicator related to housing, adding production trends alongside the more detailed permitting data. With data through 2017, the Housing Production indicator provides insights into the building climate and location of demand for housing, as well as the effects of natural disasters like the 2017 North Bay wildfires on housing stock within the region.

- *The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.* Data on commute time and time spent in freeway congestion illuminate the transportation challenges posed by a region with a jobs-housing imbalance. In particular, we have seen an increase in commute times and average time spent in congestion over the past seven years, as well as the concentration of severely congested corridors in key locations linking major employment centers with housing-rich areas.
- *Pavement and transit asset conditions have improved in recent years, but more progress is needed.* Data on the condition of pavements on local roads in the Bay Area characterizes conditions as "fair" overall, with slow but steady improvement in pavement condition over time. According to data provided by transit operators on the condition of their vehicles, guideway, and facilities, the condition of transit assets in the Bay Area improved between 2016 and 2017.
- *Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.* The Bay Area has the second lowest rate of automobile commuting of major U.S. metros, with the share of car commuters declining each year since 2010. Between 2015 and 2016, the Bay Area's share of telecommuters spiked while the share of transit commuters faltered, a trend that MTC will monitor in coming years.

Next Steps for Vital Signs

Indicator Updates: Throughout fall 2018 and winter 2019, Vital Signs will update the data and website narrative for several indicators related to land use, transportation, and equity. The queue for indicator updates is as follows:

- Land & People: Population, Jobs
- Equity: Jobs by Wage, Housing Affordability, Displacement Risk, Migration, Poverty
- Transportation: Traffic Volumes at Gateways, Transit Ridership, Vehicle Miles Traveled, Highway Pavement Condition, and Bridge Condition

Horizon-Vital Signs Integrated Tool: Work is underway to produce an interactive data visualization tool that will combine observed data on regional conditions as published through Vital Signs with modeled data on conditions in the three futures defined through the Horizon long-range planning effort. The interactive tool will allow users to explore how conditions will change for a suite of indicators in each of the three futures.

Vital Signs 2.0: After over four years of operation, MTC staff have just begun work on a major revamp of Vital Signs designed to improve the user experience, streamline the process of updating indicator pages, and maintain Vital Signs' status as a cutting edge platform. This update to the Vital Signs website is planned for 2019.

Attachment:

- Presentation

RM

J:\COMMITTEE\RAWG\2018\10_OCT_2018_RAWG\04i_VitalSignsFallUpdate.docx

VITAL SIGNS

FALL 2018 DATA UPDATE

RALEIGH MCCOY, ASSISTANT PLANNER

OCTOBER 2, 2018

MTC

ABAG

BAAQMD

BCDC

BARC



Vital Signs tracks 41 performance indicators to understand if the Bay Area is (or is not) making progress towards key regional goals.



The interactive Vital Signs website allows residents to explore trends at the regional, county, city, and even neighborhood levels.

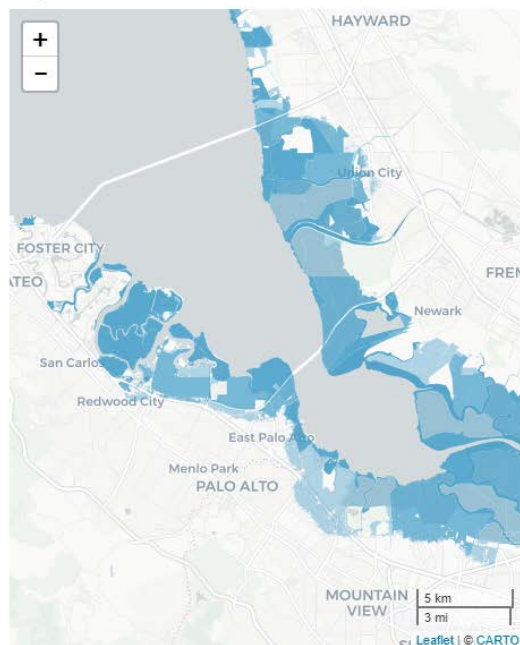


2015 Population at Risk of Impacts from Sea Level Rise of **3 Feet**

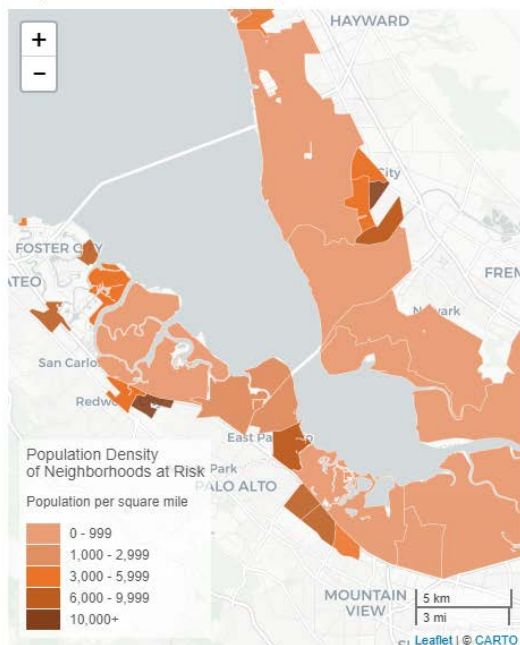
Select sea level rise forecast:



Impacted Land Area



Population at Risk of Impacts

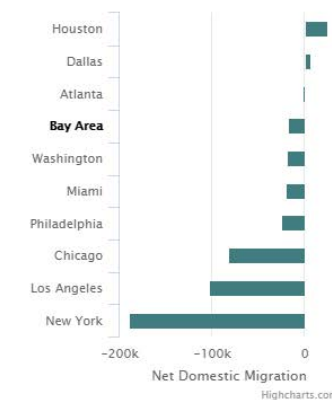


Metro Comparison for 2014 Net Migration

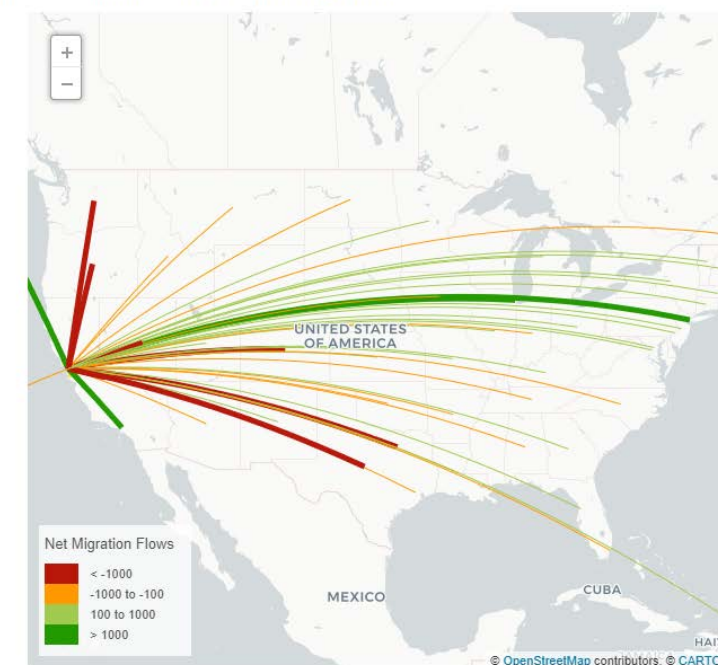
Select a metro area to see migration in and out of that metro area.

Bay Area

Net Migration



In 2014, 20,873 people moved from the **Bay Area metro area** to the **Los Angeles metro area**, with 24,805 people making the opposite move. This resulted in a net domestic migration of 3,932 people from the **Los Angeles metro area** to the **Bay Area metro area**.



vitalsigns.mtc.ca.gov

Today we present updates to seven Vital Signs indicators, ranging from commute mode choice to housing production.

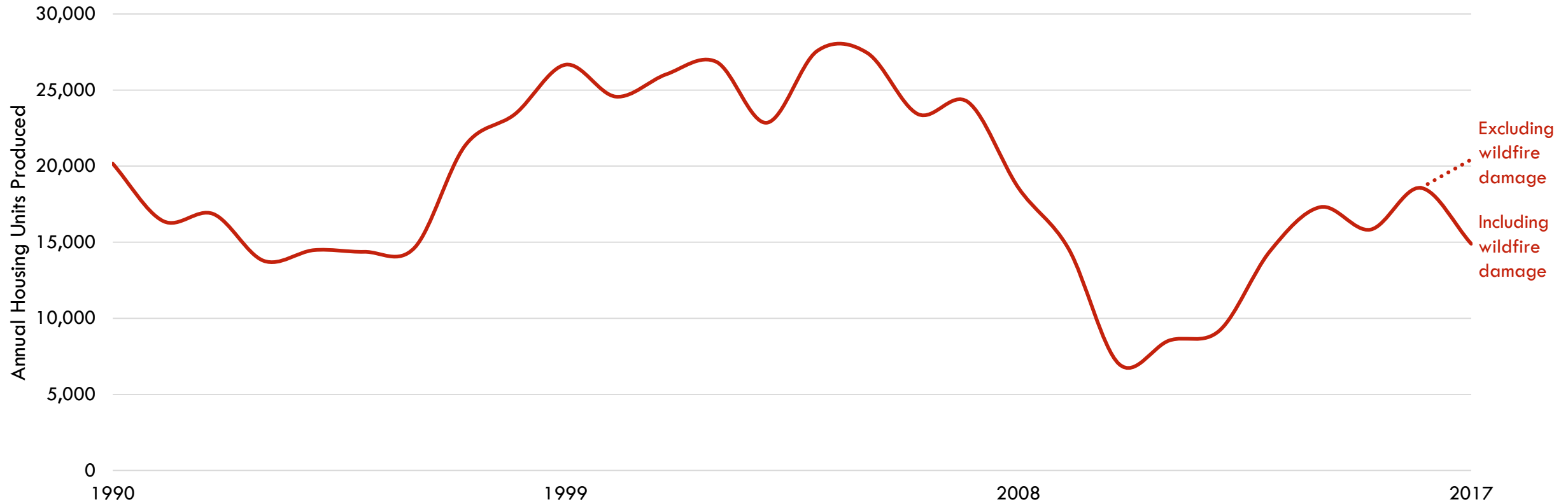


- 1** **Housing loss in the North Bay due to wildfire damage has further exacerbated the regional housing crisis.**
- 2** Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.
- 3** The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.
- 4** Pavement and transit asset conditions have improved in recent years, but more progress is needed.
- 5** Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.

REGIONAL PERFORMANCE

The Bay Area was on track to add 20,000 new units in 2017 before the North Bay wildfires destroyed about 5,000 homes.

ANNUAL REGIONAL HOUSING UNITS PRODUCED



Source: California Department of Finance E-8 (1990-2010); California Department of Finance E-5 (2011-2017)

Note: Santa Rosa, Unincorporated Sonoma County, and Unincorporated Napa County saw a 5,000 unit decrease in housing stock due to the North Bay wildfires



LOCAL FOCUS

The North Bay experienced a net loss of housing stock due to damage from the 2017 Northern California wildfires.

ANNUAL CHANGE IN HOUSING SUPPLY BY COUNTY (1990-2017)



- ① Housing loss in the North Bay due to wildfire damage has further exacerbated the regional housing crisis.
- ② **Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.**
- ③ The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.
- ④ Pavement and transit asset conditions have improved in recent years, but more progress is needed.
- ⑤ Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.

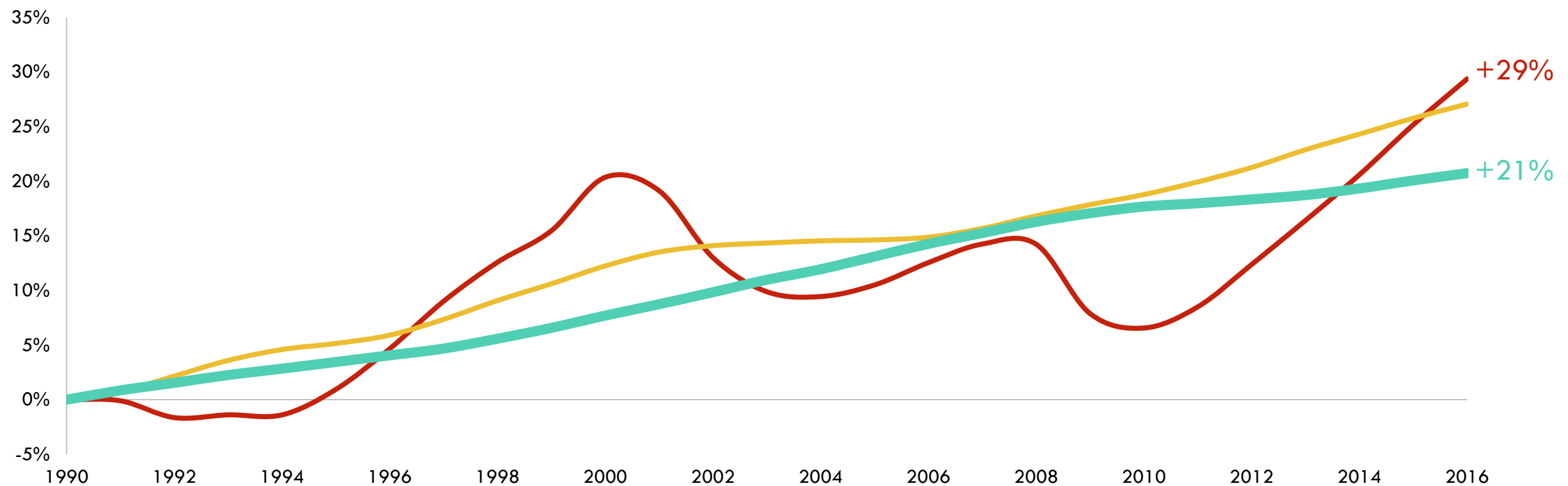


REGIONAL PERFORMANCE

Population and job growth have outpaced growth over the past 25 years.

% CHANGE SINCE 1990

Jobs Population Housing Units

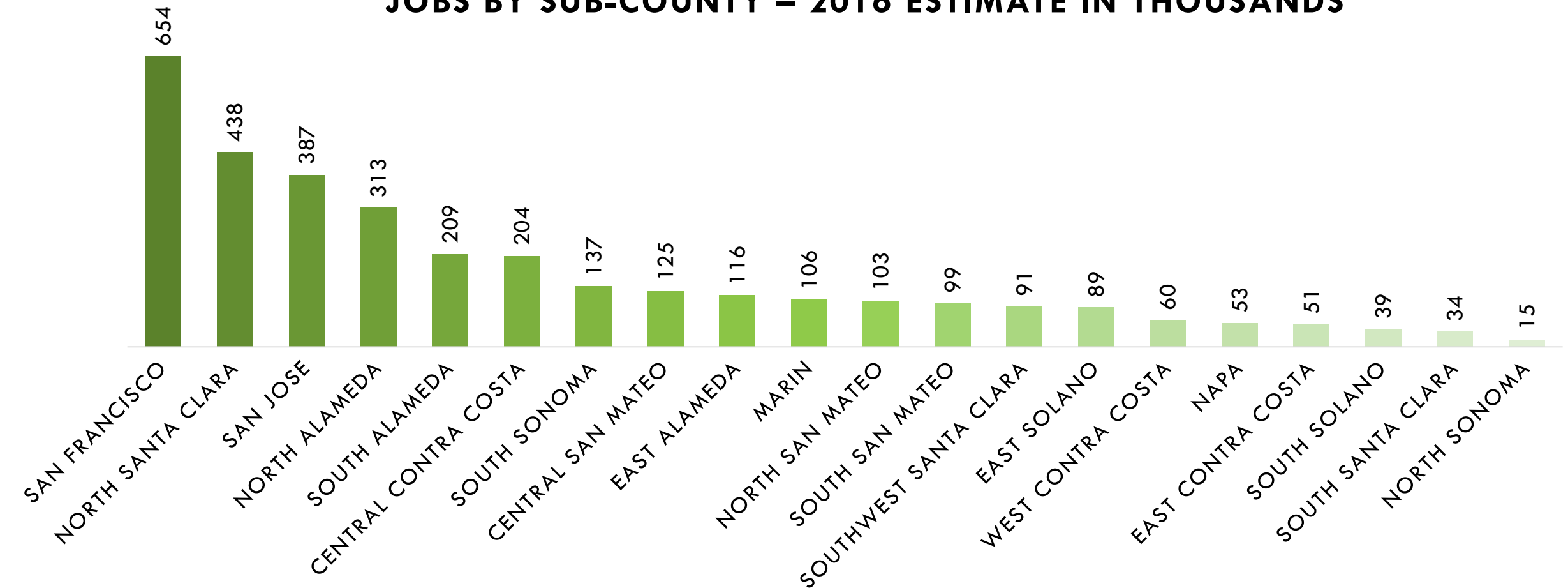




LOCAL FOCUS

San Francisco and Silicon Valley are the region's primary job centers, accounting for nearly half of all Bay Area jobs.

JOBS BY SUB-COUNTY – 2016 ESTIMATE IN THOUSANDS

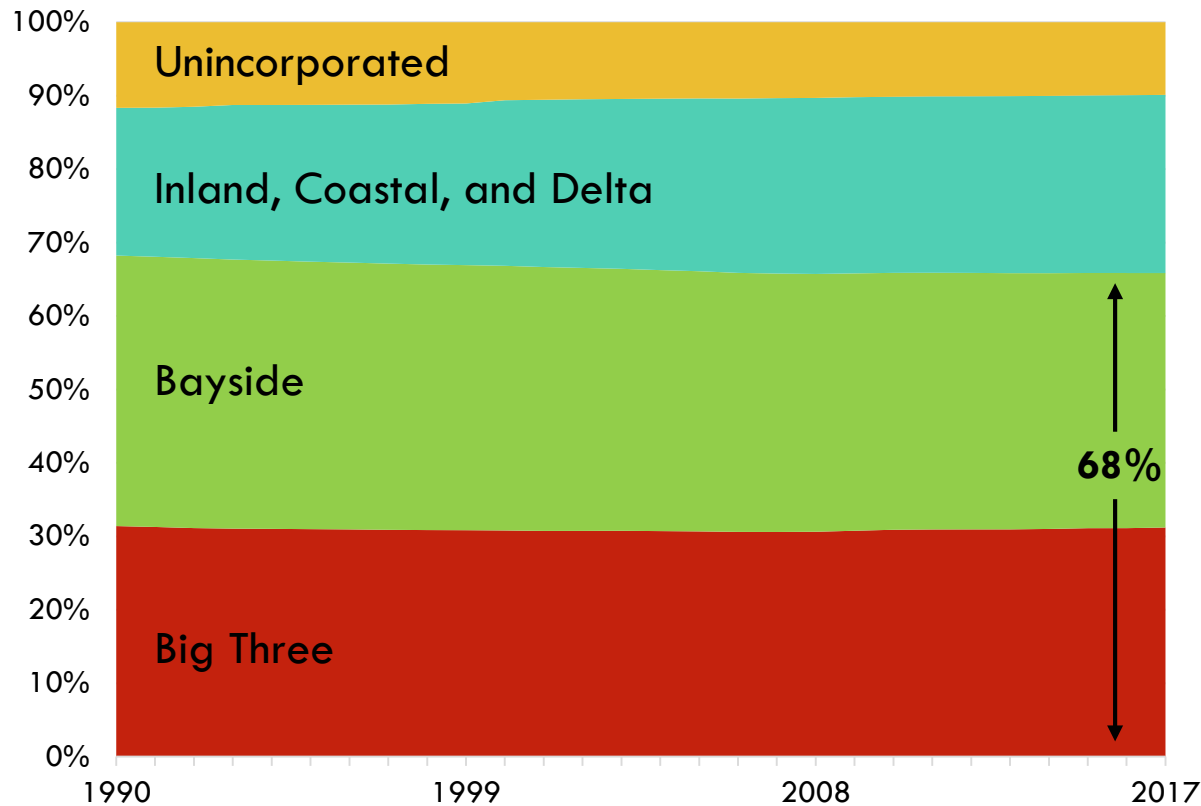


Source: American Community Survey, 2016; note that North Alameda County includes the City of Oakland

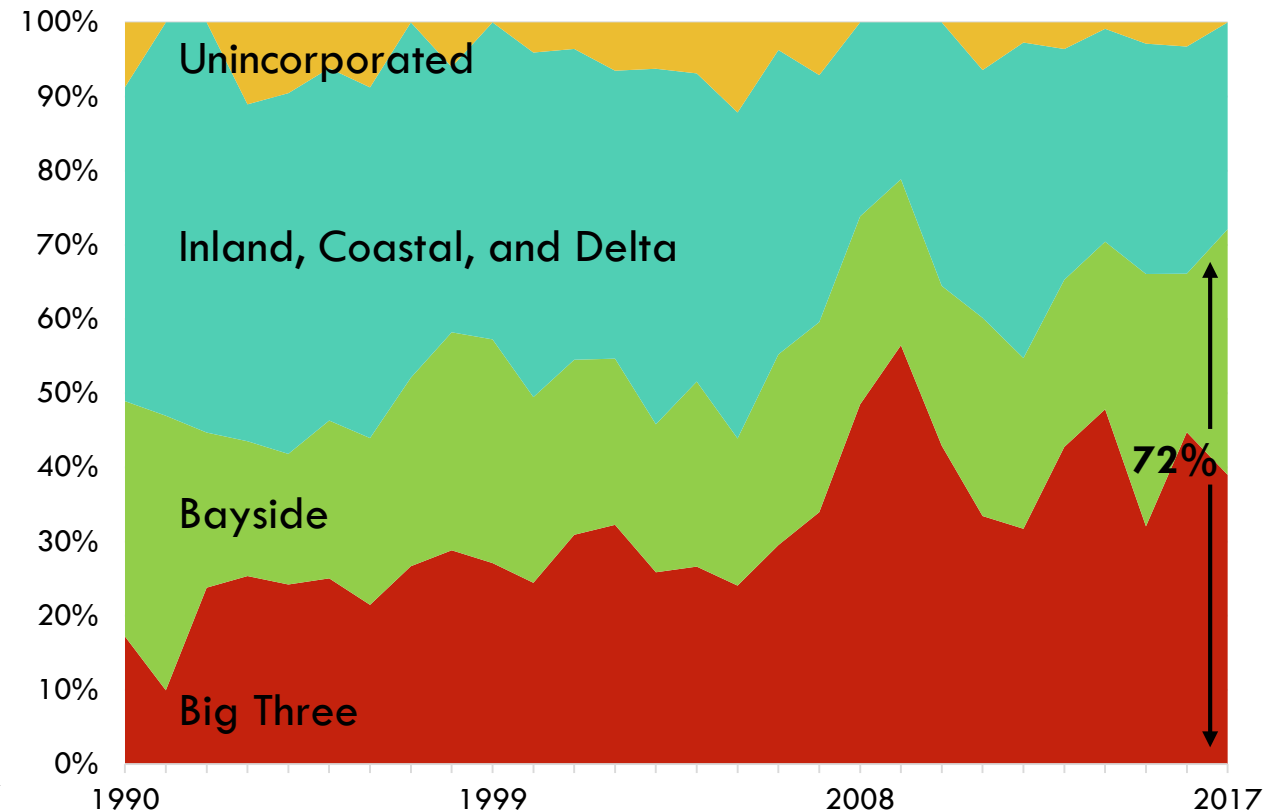
REGIONAL PERFORMANCE

The geographic distribution of housing has remained flat, but “Big Three” and Bayside cities are increasing production.

HOUSING STOCK BY GEOGRAPHIC AREA



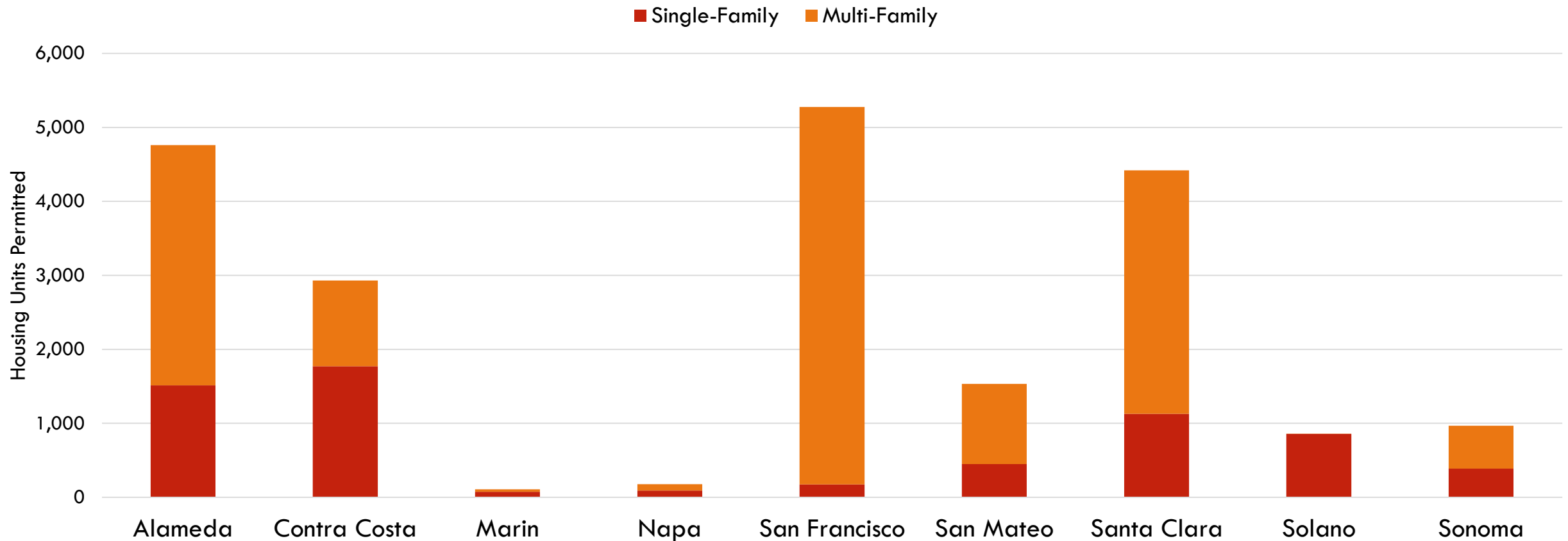
NEW UNITS PRODUCED BY GEOGRAPHIC AREA



LOCAL FOCUS

Alameda, San Francisco, and Santa Clara issued permits for the majority of multi-family housing in the region.

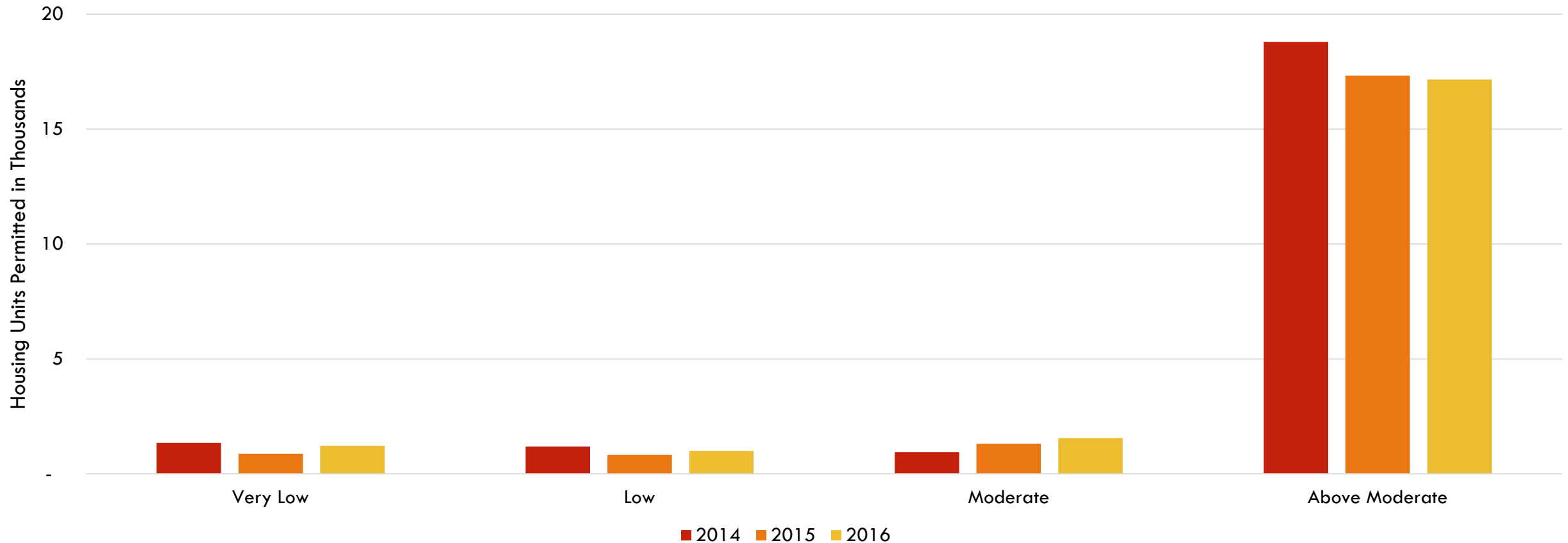
2016 HOUSING UNIT PERMITS BY COUNTY BY TYPE



REGIONAL PERFORMANCE

The majority of units for which permits were issued will be affordable only to above moderate-income households.

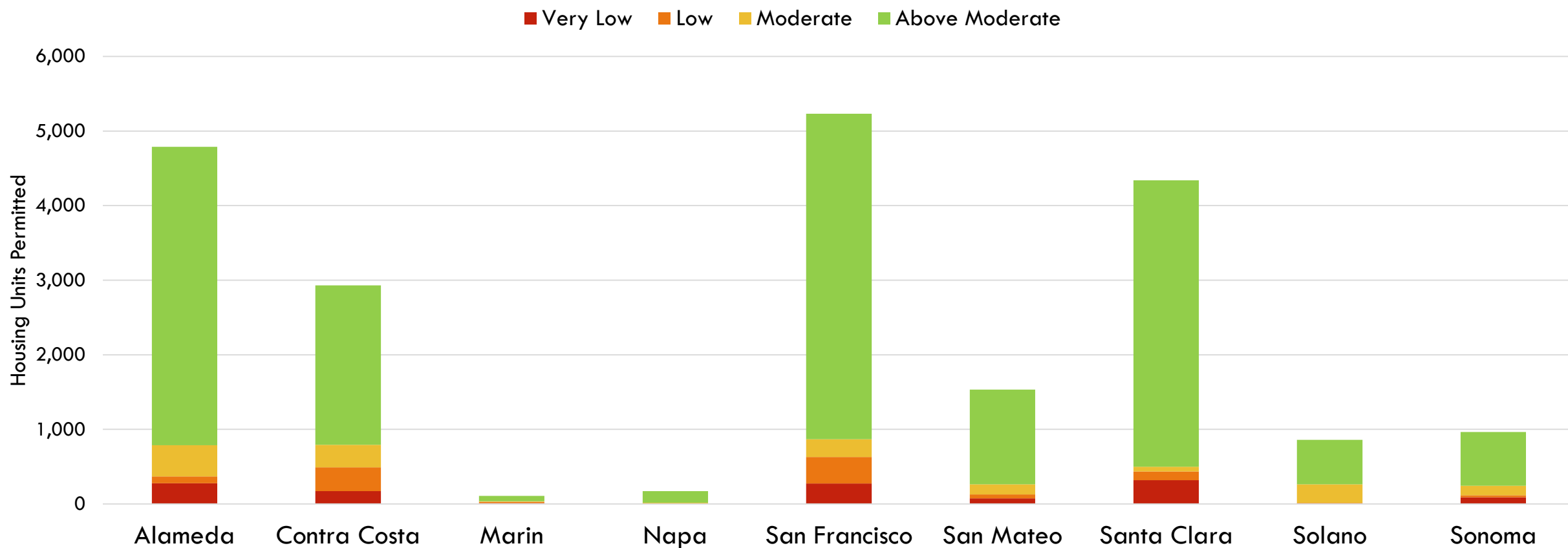
REGIONAL HOUSING UNIT PERMITS BY AFFORDABILITY LEVEL



LOCAL FOCUS

Every county issued permits for fewer than 1,000 units affordable for very low- to moderate-income households.

2016 HOUSING UNIT PERMITS BY COUNTY BY PRICE TYPE



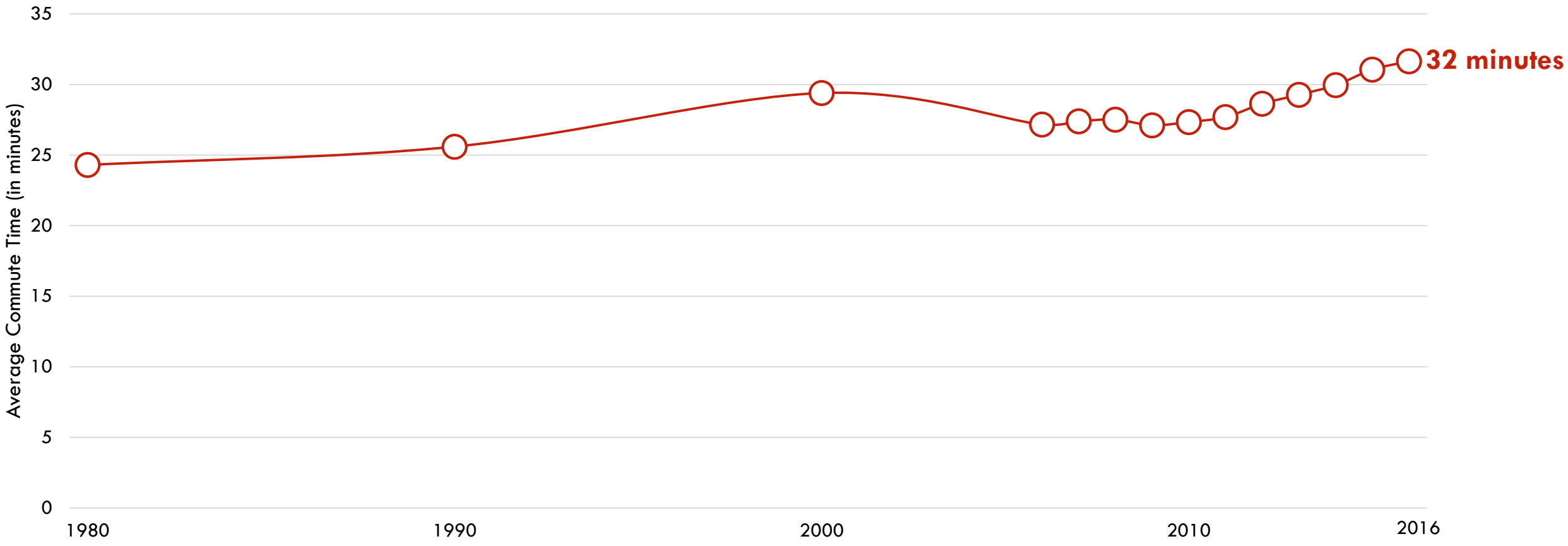
- ① Housing loss in the North Bay due to wildfire damage has further exacerbated the regional housing crisis.
- ② Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.
- ③ **The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.**
- ④ Pavement and transit asset conditions have improved in recent years, but more progress is needed.
- ⑤ Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.



REGIONAL PERFORMANCE

At 32 minutes, average commute time in the Bay Area hit a record high for the third straight year.

AVERAGE REGIONAL COMMUTE TIME

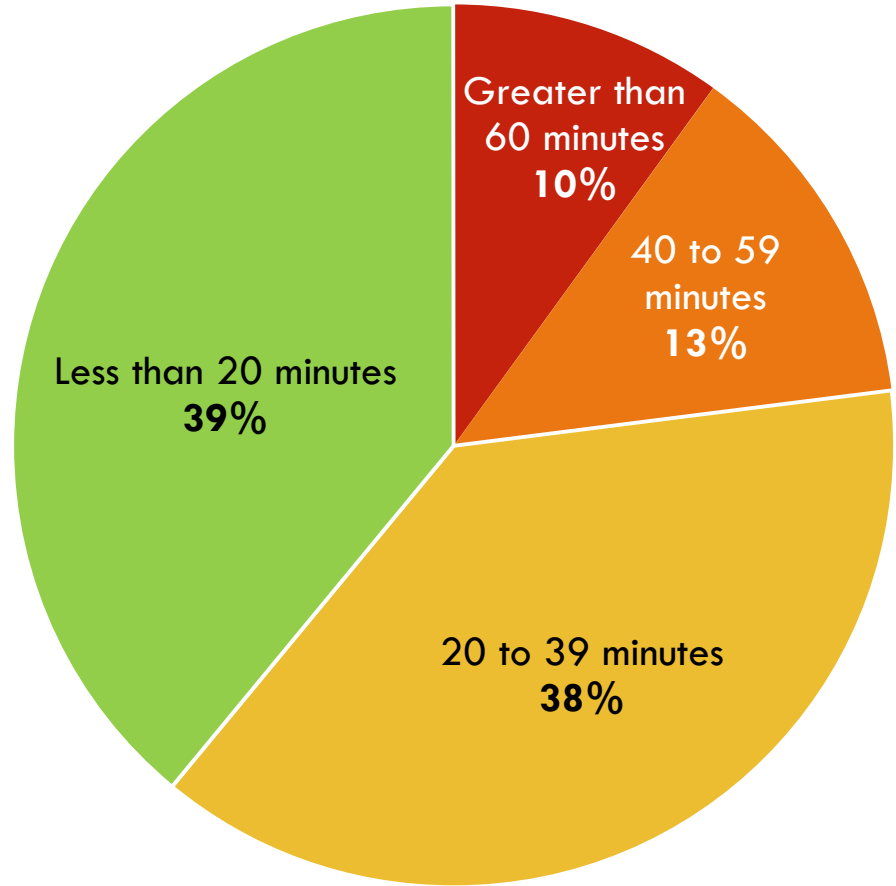




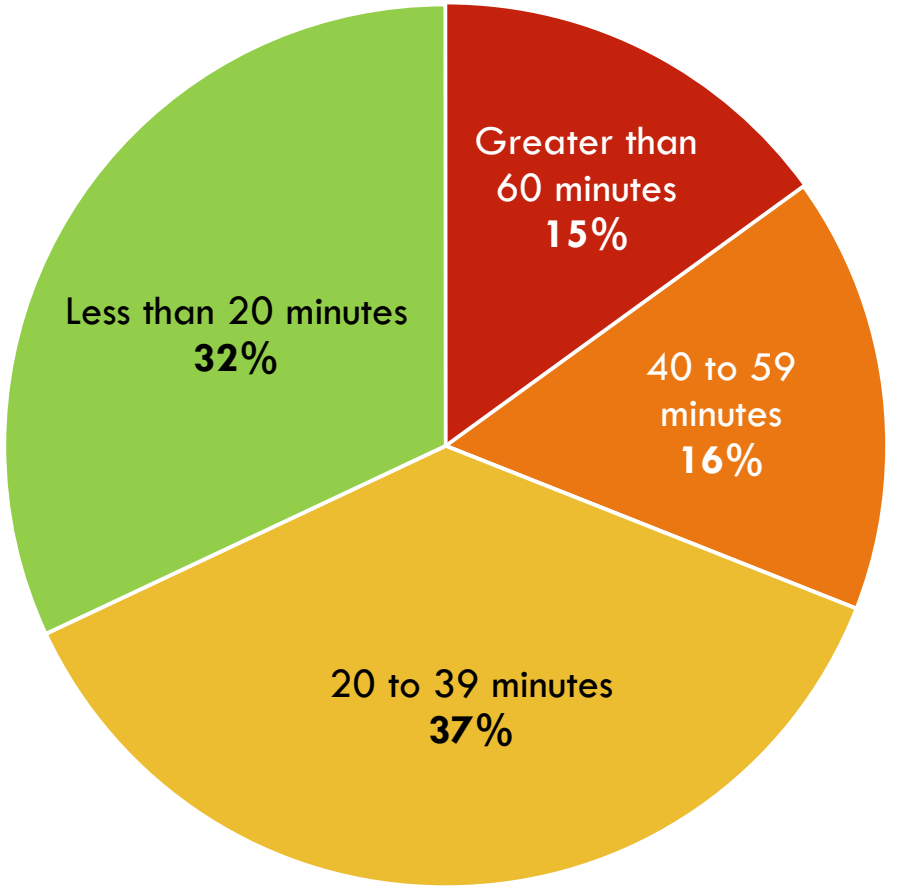
REGIONAL PERFORMANCE

While the majority of Bay Area residents have reasonable commute times, extreme commutes are growing rapidly.

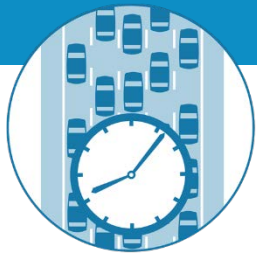
2006 REGIONAL COMMUTE TIME DISTRIBUTION



2016 REGIONAL COMMUTE TIME DISTRIBUTION



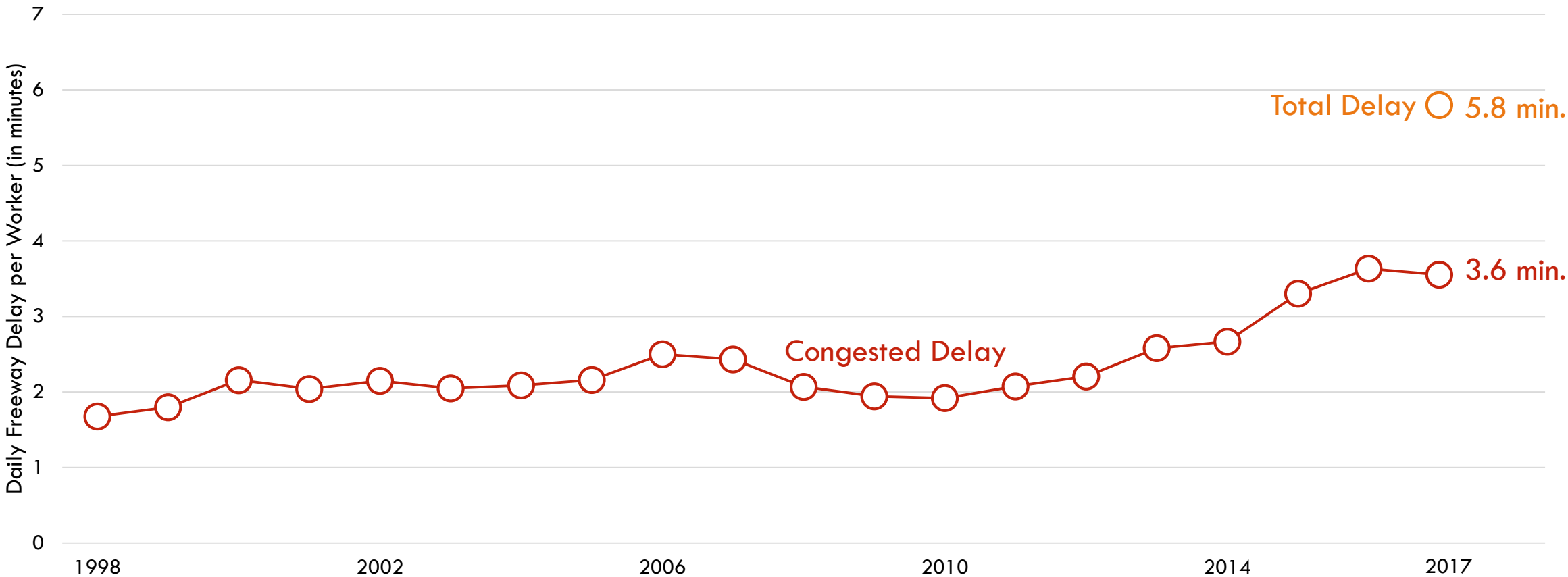
Source: U.S. Census/American Community Survey; note: data by place of residence



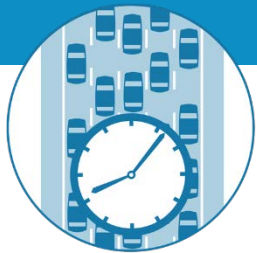
REGIONAL PERFORMANCE

The average time spent in congestion per worker in 2017 was 3.6 minutes.

REGIONAL TIME SPENT IN CONGESTION PER COMMUTER



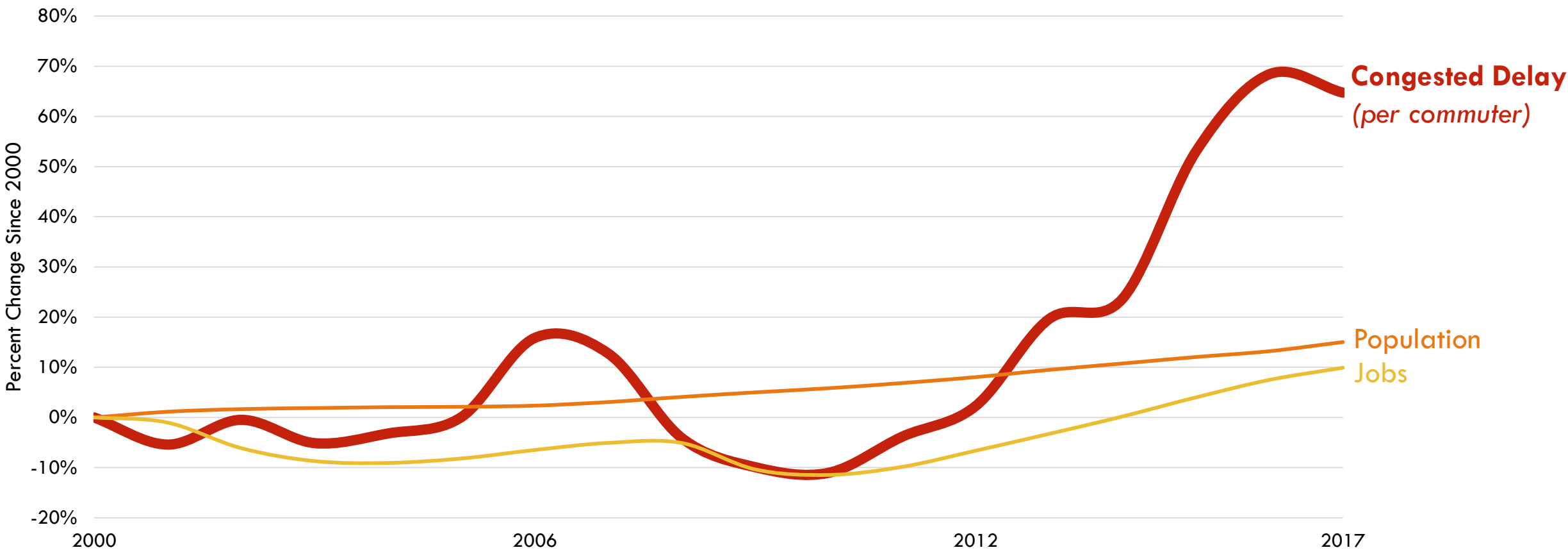
Source: INRIX/MTC Analysis; note: total delay data unavailable for years preceding 2017 at this time; note: total delay includes all delay in which speeds drop below the posted speed limit. Congested delay occurs when speeds drop below 35 miles per hour.



REGIONAL PERFORMANCE

Congestion has outpaced growth in population and jobs, increasing 64 percent since 2000.

CHANGE SINCE 2000 – POPULATION, JOBS AND TIME SPENT IN CONGESTION

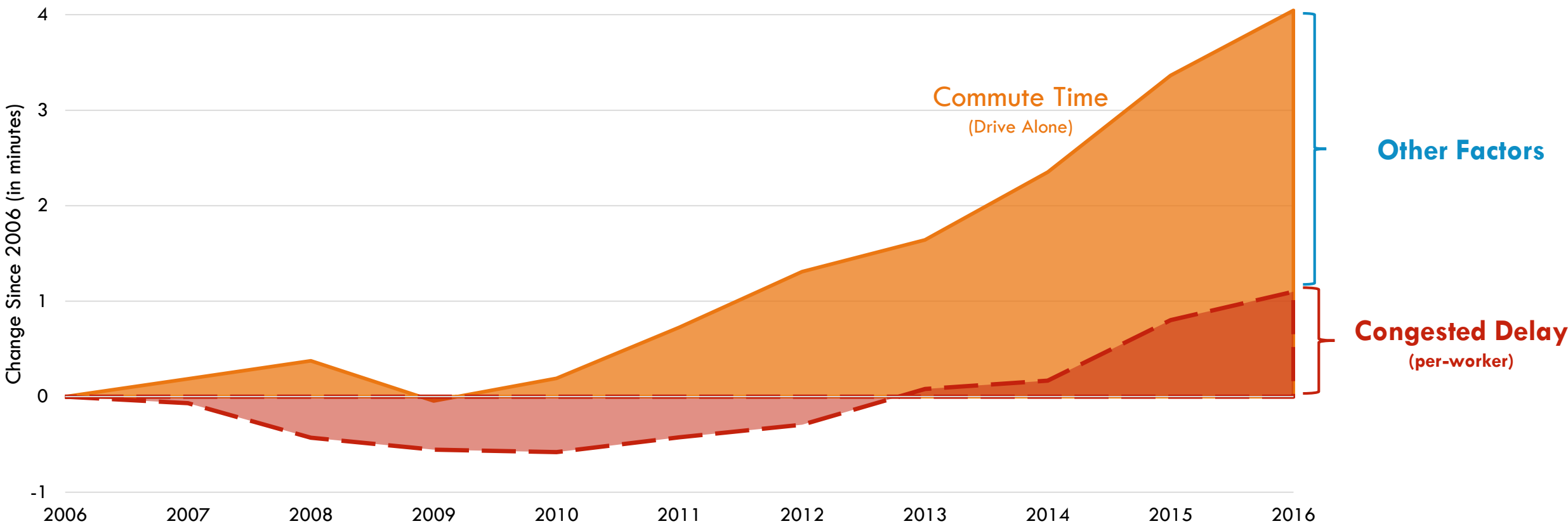




REGIONAL PERFORMANCE

Growing commute time is only partly explained by increased congestion – other factors include longer commute distances.

CHANGE SINCE 2006 FOR COMMUTE TIME VS. CONGESTED DELAY

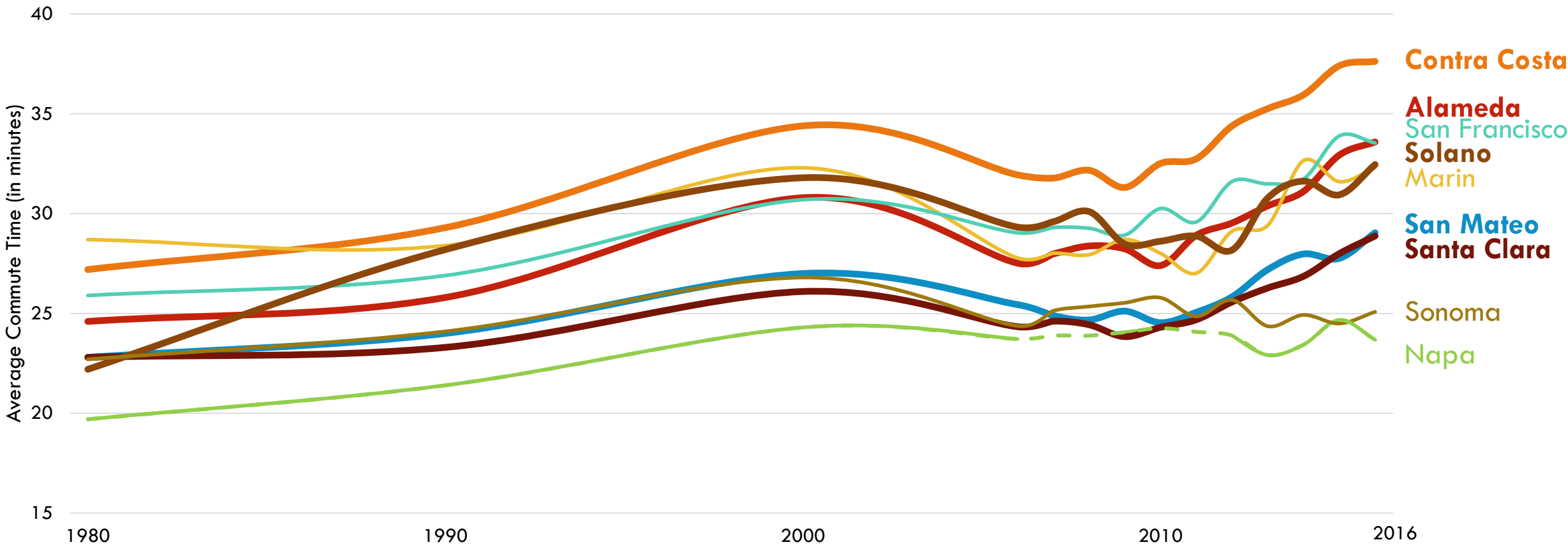




LOCAL FOCUS

In 2016, commute times from five of the nine Bay Area counties hit record highs.

AVERAGE COMMUTE TIME BY COUNTY OF RESIDENCE



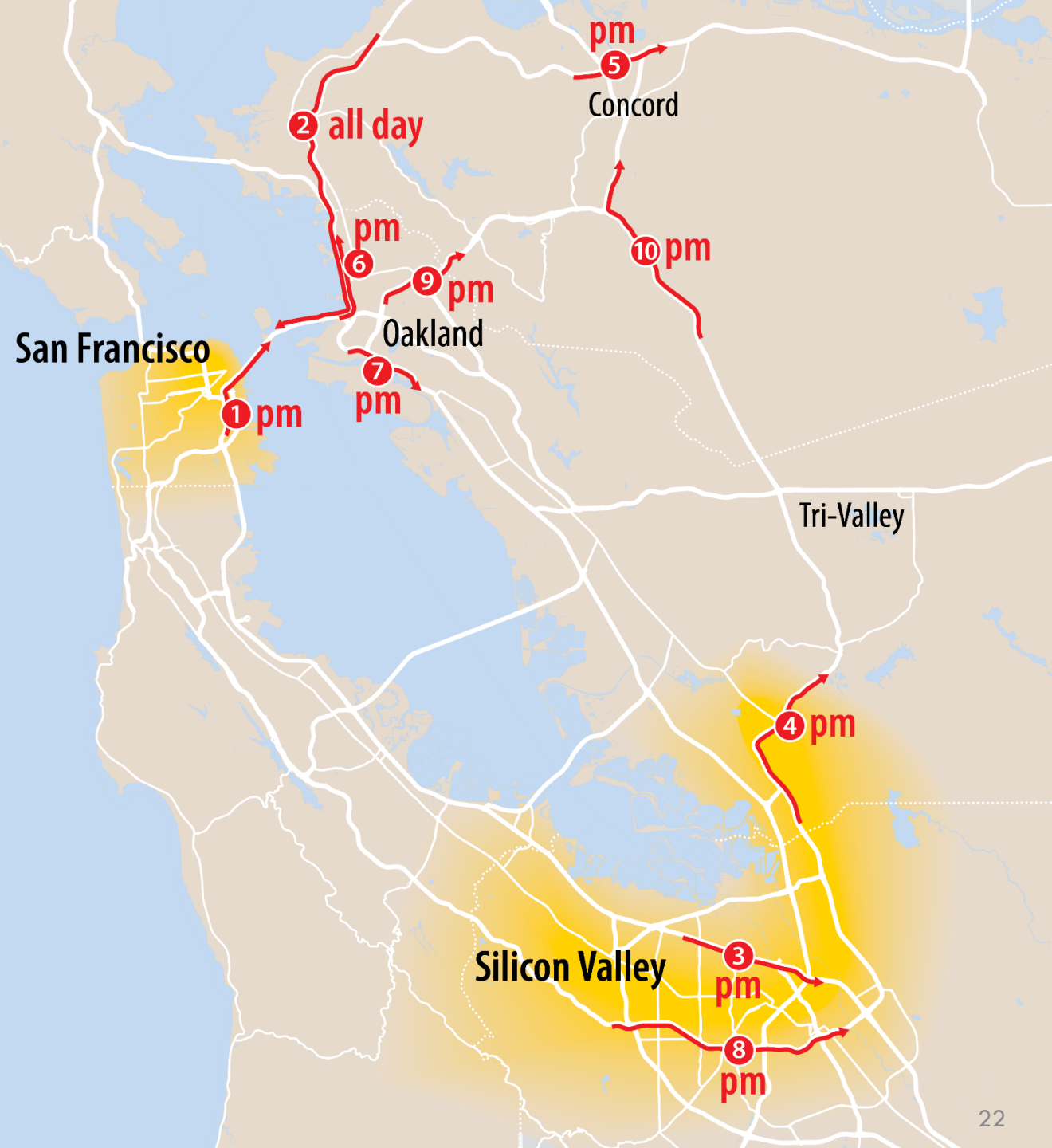
Source: U.S. Census/American Community Survey; note: no data for Napa County for 2007, 2008, and 2011 due to small sample size



LOCAL FOCUS

Top Ten Congestion Locations

- 1 US-101 NB and I-80 EB** Cesar Chavez Street to Treasure Island Tunnel
- 2 I-80 WB** CA-4 to SFOBB Toll Plaza
- 3 US-101 SB** Fair Oaks Avenue to Oakland Road/13th Street
- 4 I-680 NB** Scott Creek Road to Andrade Road
- 5 CA-4 EB** Mowry Avenue to Winton Avenue
- 6 I-80 EB** West Grand Avenue to Gilman Street
- 7 I-880 SB** Union Street to 29th Avenue
- 8 I-280 SB** Foothill Expressway to 7th Street/10th Street/Virginia Street
- 9 CA-24 EB** I-580/I-980 to Wilder Road
- 10 I-680 NB** Sycamore Valley Road to Buskirk Avenue/Oak Park Boulevard



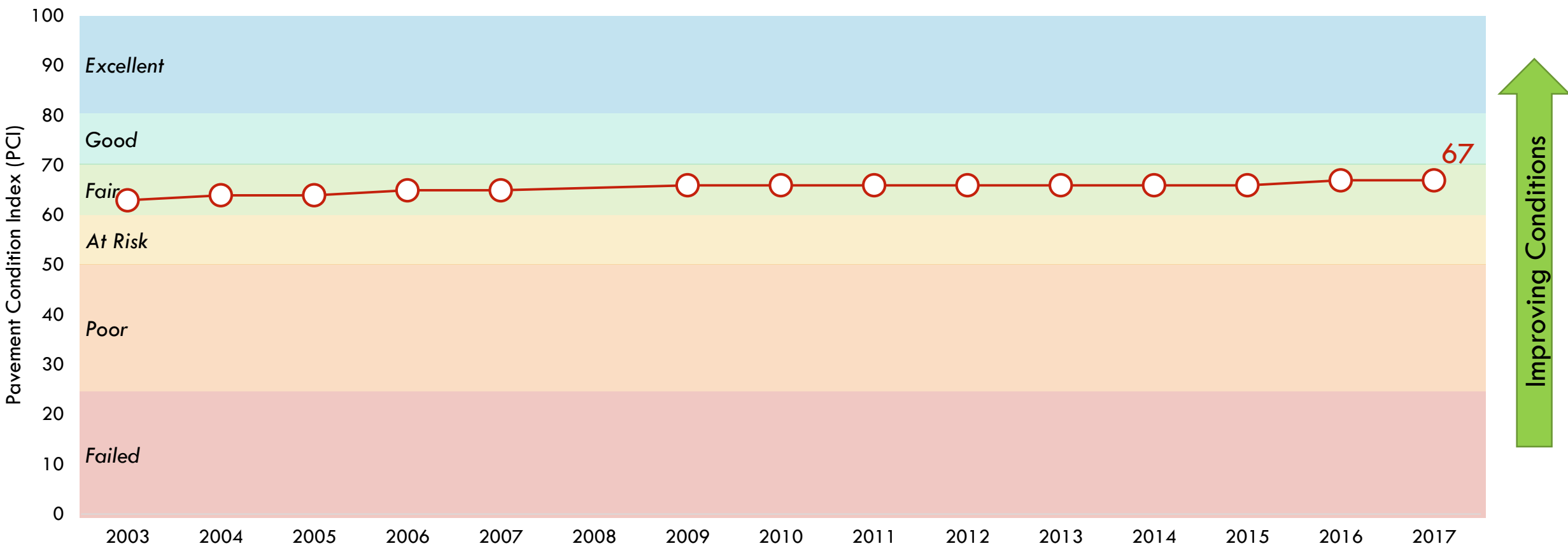
- ① Housing loss in the North Bay due to wildfire damage has further exacerbated the regional housing crisis.
- ② Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.
- ③ The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.
- ④ **Pavement and transit asset conditions have improved in recent years, but more progress is needed.**
- ⑤ Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.



REGIONAL PERFORMANCE

On average across the region, pavement on local streets has been in *fair* condition for over a decade.

REGIONAL PAVEMENT CONDITION INDEX

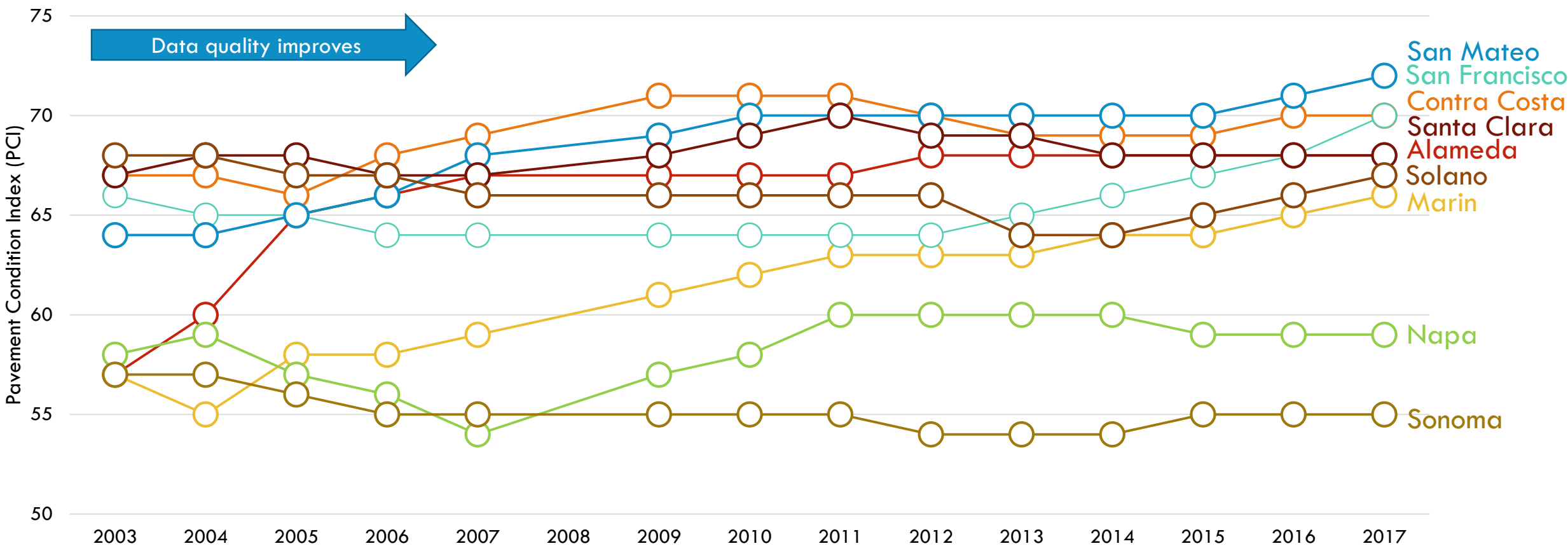




LOCAL FOCUS

The three-year average pavement condition index improved or did not change in all Bay Area counties in 2017.

PAVEMENT CONDITION INDEX BY COUNTY

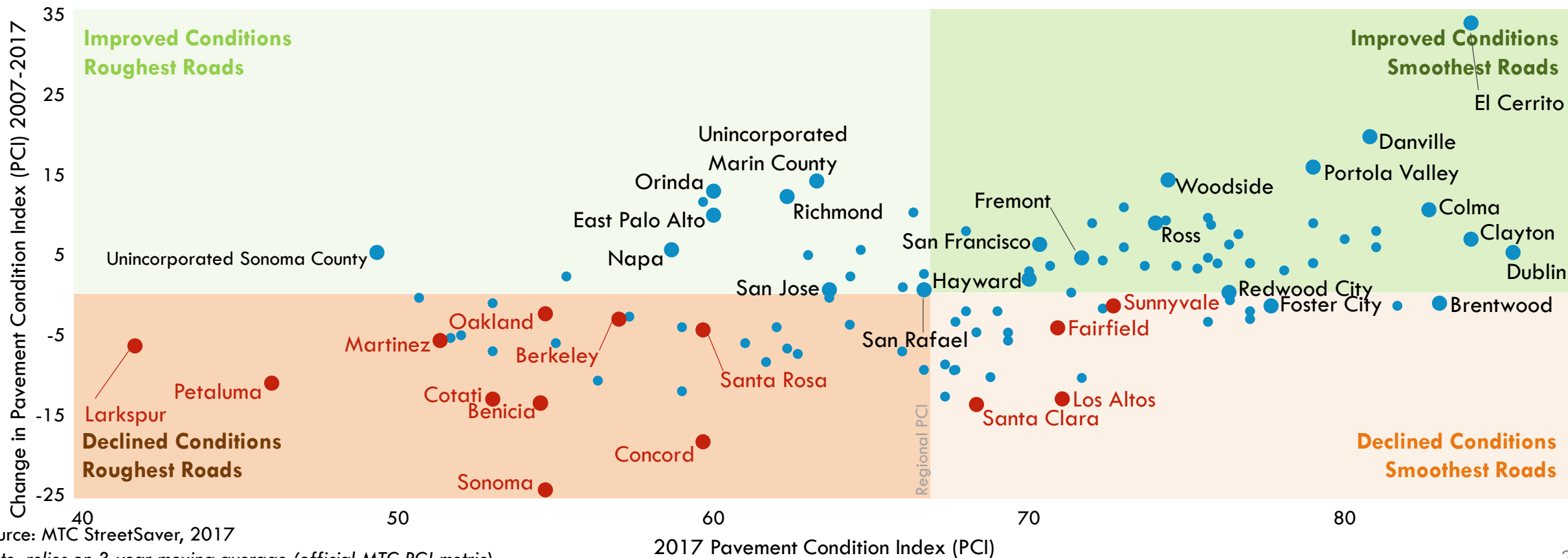




LOCAL FOCUS

Half of Bay Area jurisdictions have improved street pavement condition in the past decade.

COMPARATIVE JURISDICTION PAVEMENT CONDITION CHANGE IN PCI (2007-2017) vs. 2017 PCI

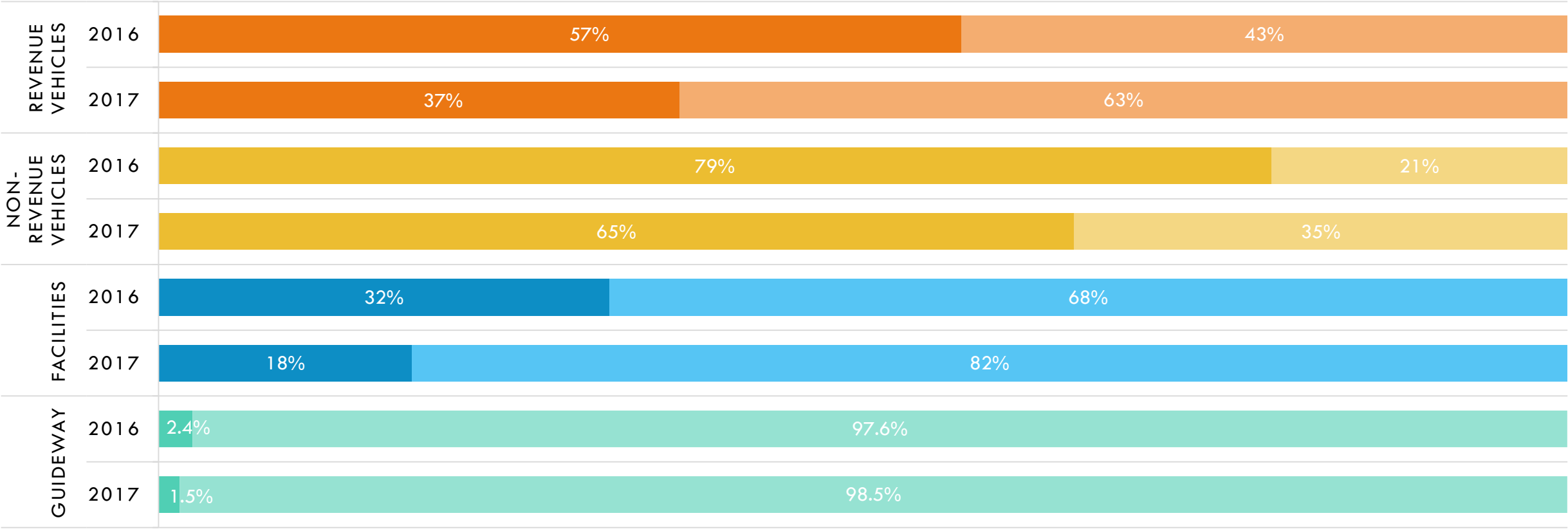




REGIONAL PERFORMANCE

Overall, the share of transit assets considered not within a state of good repair declined between 2016 and 2017.

TRANSIT ASSETS NOT WITHIN A STATE OF GOOD REPAIR



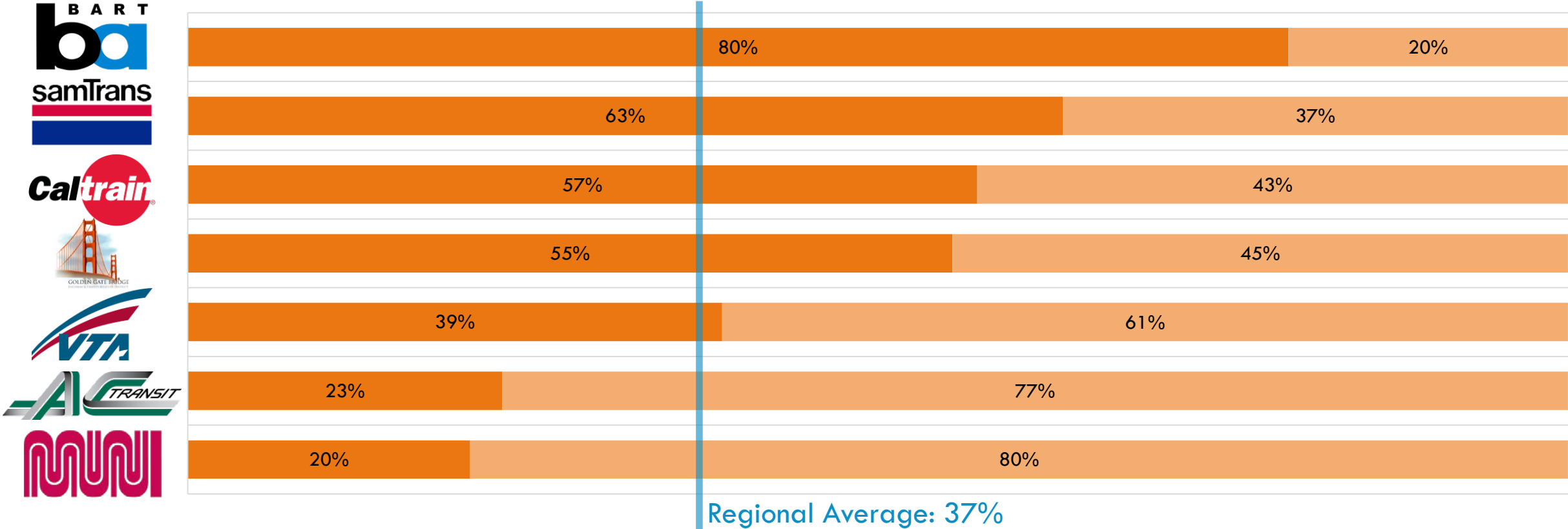


LOCAL FOCUS

80% of BART's revenue vehicles have passed their useful life benchmark.

REVENUE VEHICLES PAST USEFUL LIFE BENCHMARK

Revenue Vehicles Past ULB Revenue Vehicles Not Past ULB

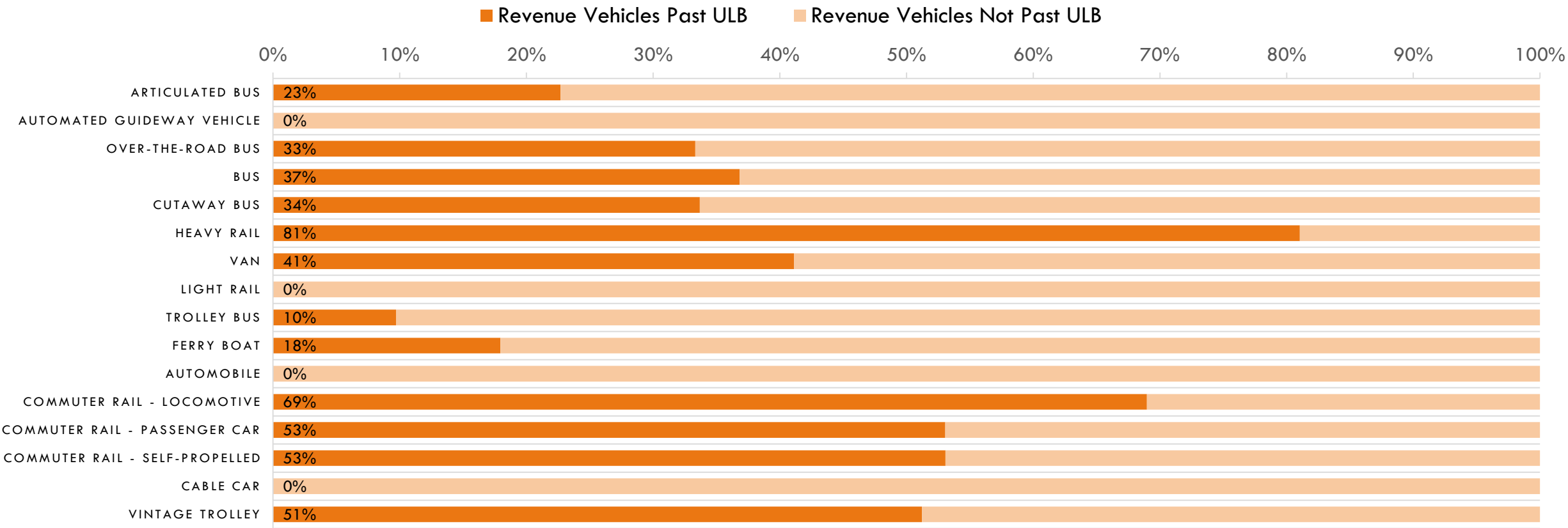




REGIONAL PERFORMANCE

Large shares of the Bay Area’s heavy rail and commuter rail vehicles have exceeded their useful lifespans.

REVENUE VEHICLES PAST USEFUL LIFE BENCHMARK



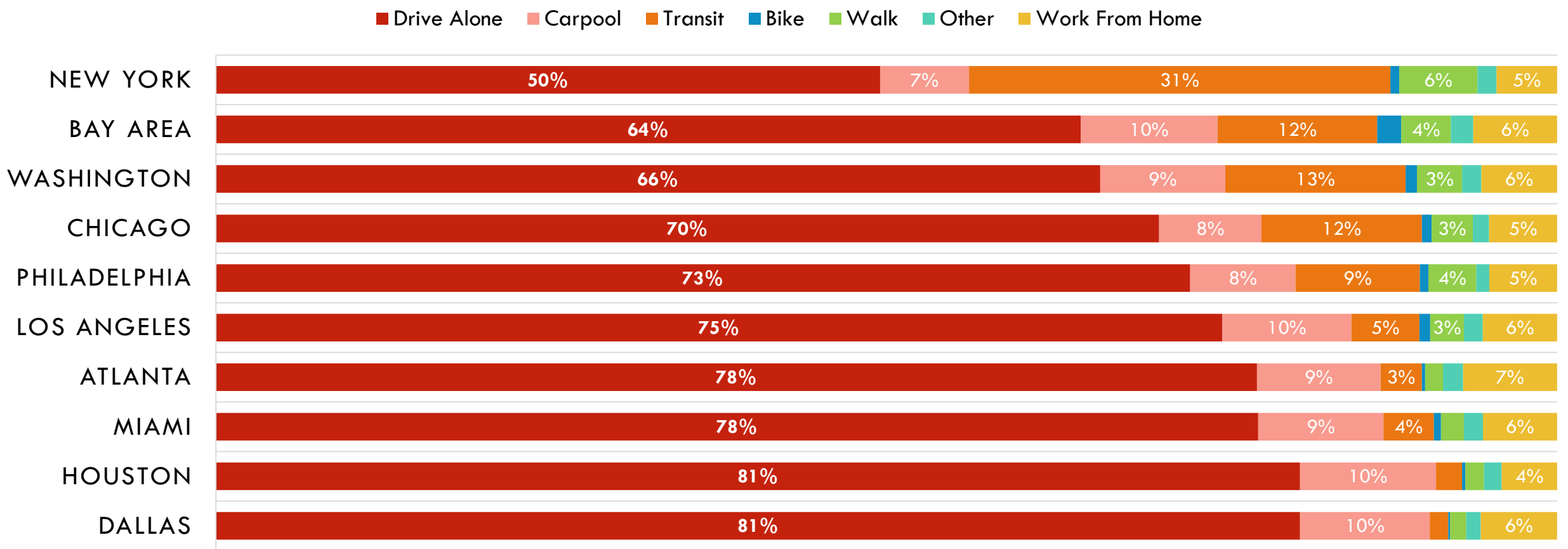
- ① Housing loss in the North Bay due to wildfire damage has further exacerbated the regional housing crisis.
- ② Historical trends in employment locations and housing production have exacerbated the jobs-housing imbalance.
- ③ The region's jobs-housing imbalance has ripple effects on commute times and congestion, particularly in recent years.
- ④ Pavement and transit asset conditions have improved in recent years, but more progress is needed.
- ⑤ **Automobile commute rates are at historic lows in many counties, with more workers telecommuting than ever before.**



NATIONAL CONTEXT

The Bay Area has the second lowest share of commuters that drive alone of any major metro.

COMMUTE MODE CHOICE BY METRO AREA



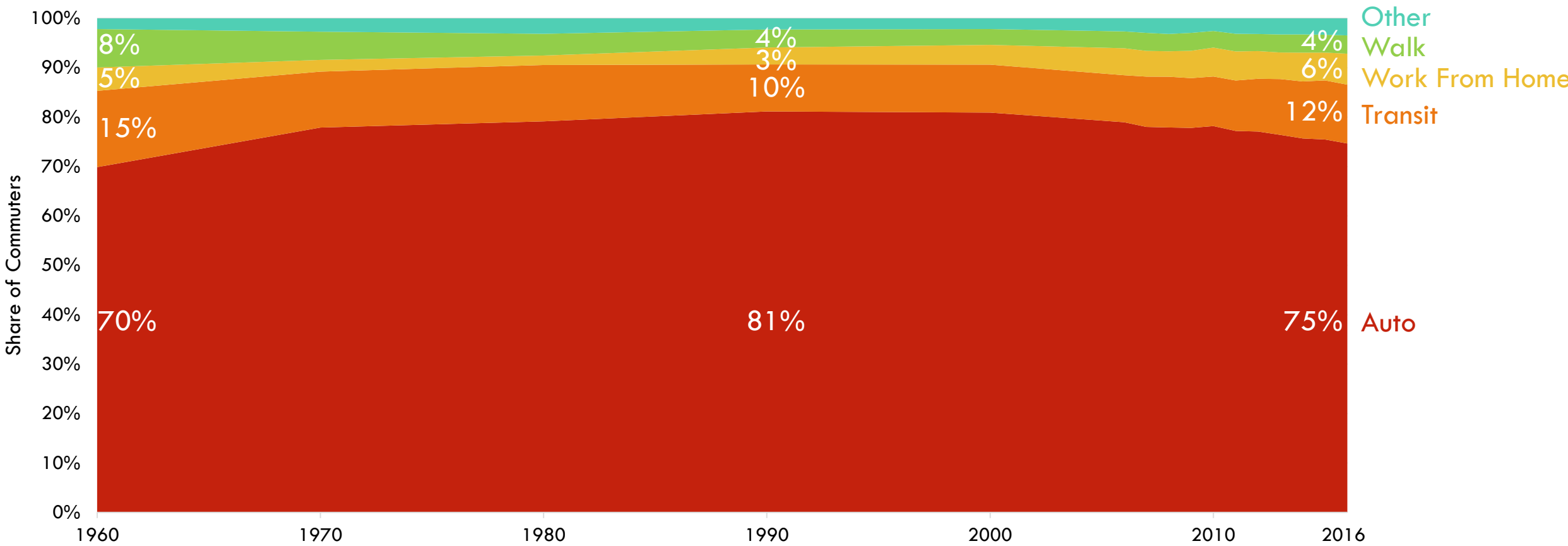
Source: American Community Survey, 2016



REGIONAL PERFORMANCE

While six percentage points lower than 1990 levels, 75 percent of Bay Area residents still drive to work.

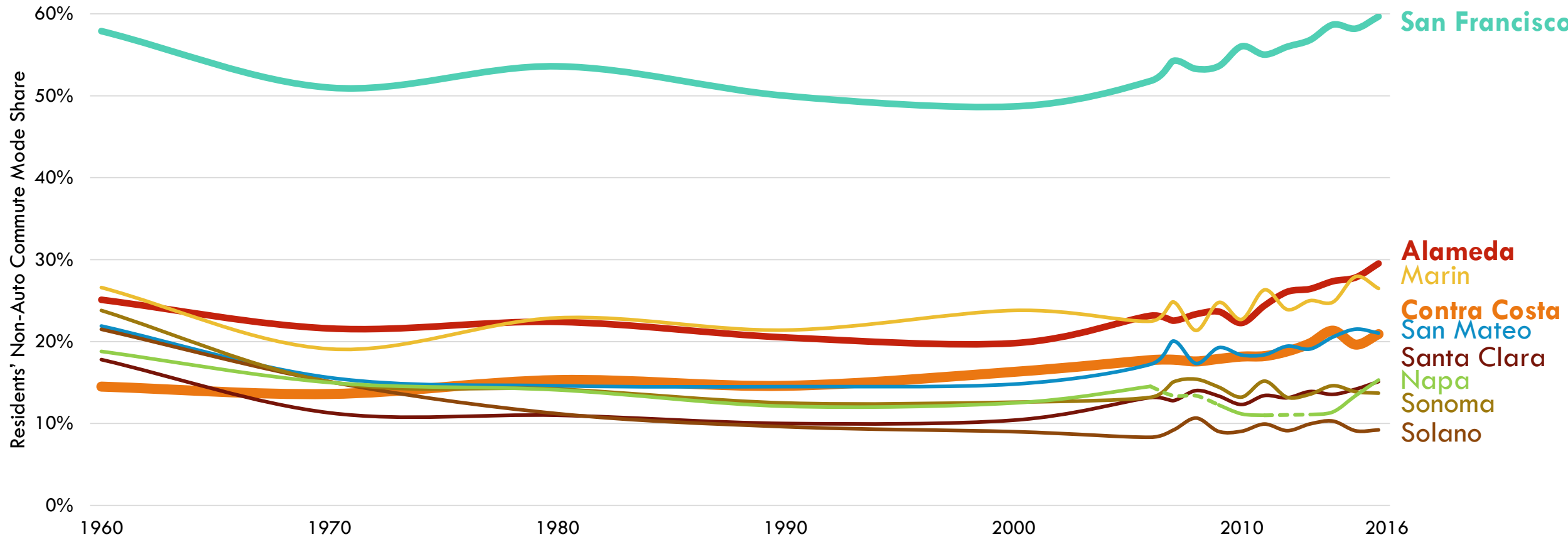
REGIONAL COMMUTE MODE CHOICE



LOCAL FOCUS

In 2016, the shares of non-auto commuters was highest on record in Contra Costa, Alameda and San Francisco counties.

NON-AUTO COMMUTE MODE SHARE BY COUNTY OF RESIDENCE



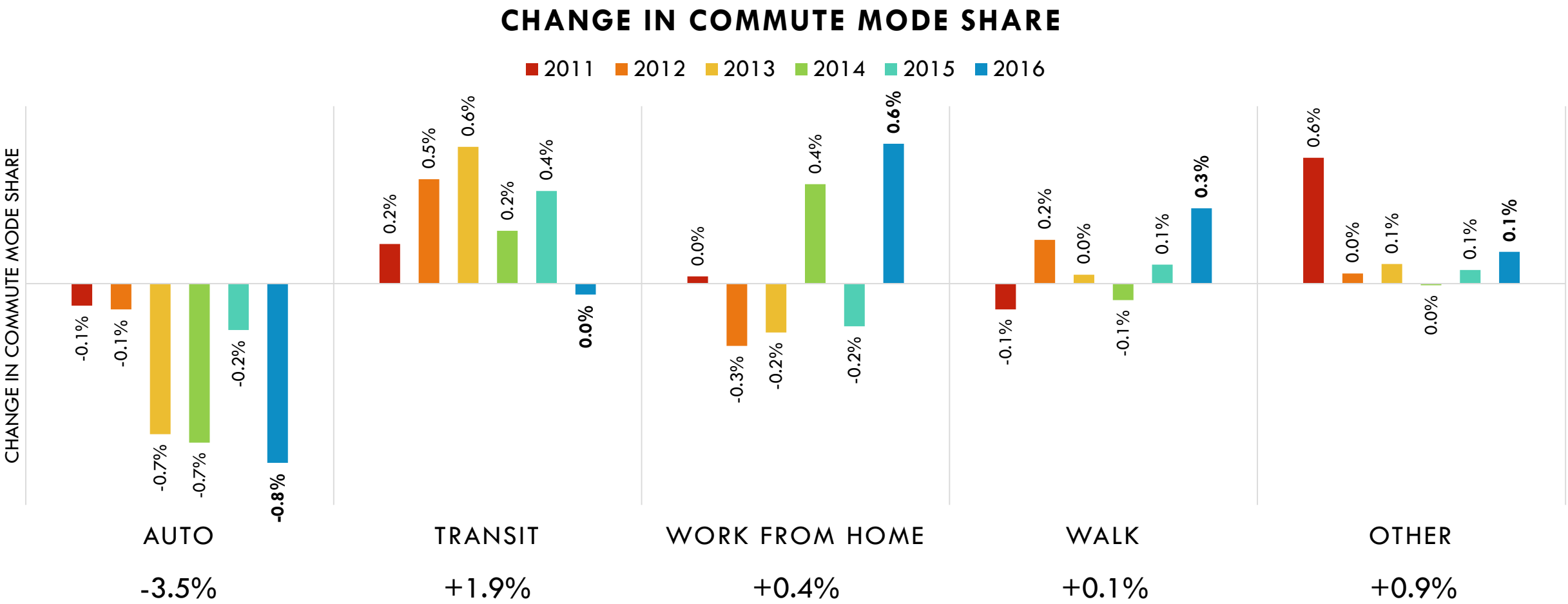
San Francisco

Alameda
Marin
Contra Costa
San Mateo
Santa Clara
Napa
Sonoma
Solano



REGIONAL PERFORMANCE

Between 2015 and 2016, telecommuting spiked while the share of transit commuters faltered.



VITAL SIGNS

WHAT'S NEXT?

FALL/WINTER 2018 – LAND & PEOPLE, EQUITY, AND TRANSPORTATION INDICATOR UPDATES

EARLY 2019 – HORIZON-VITAL SIGNS INTEGRATED TOOL

TBD 2019 – BEGIN ROLLOUT OF VITAL SIGNS 2.0

MTC



ABAG



BAAQMD



BCDC



BARC



VITAL SIGNS

QUESTIONS?

MTC



ABAG



BAAQMD



BCDC



BARC

