



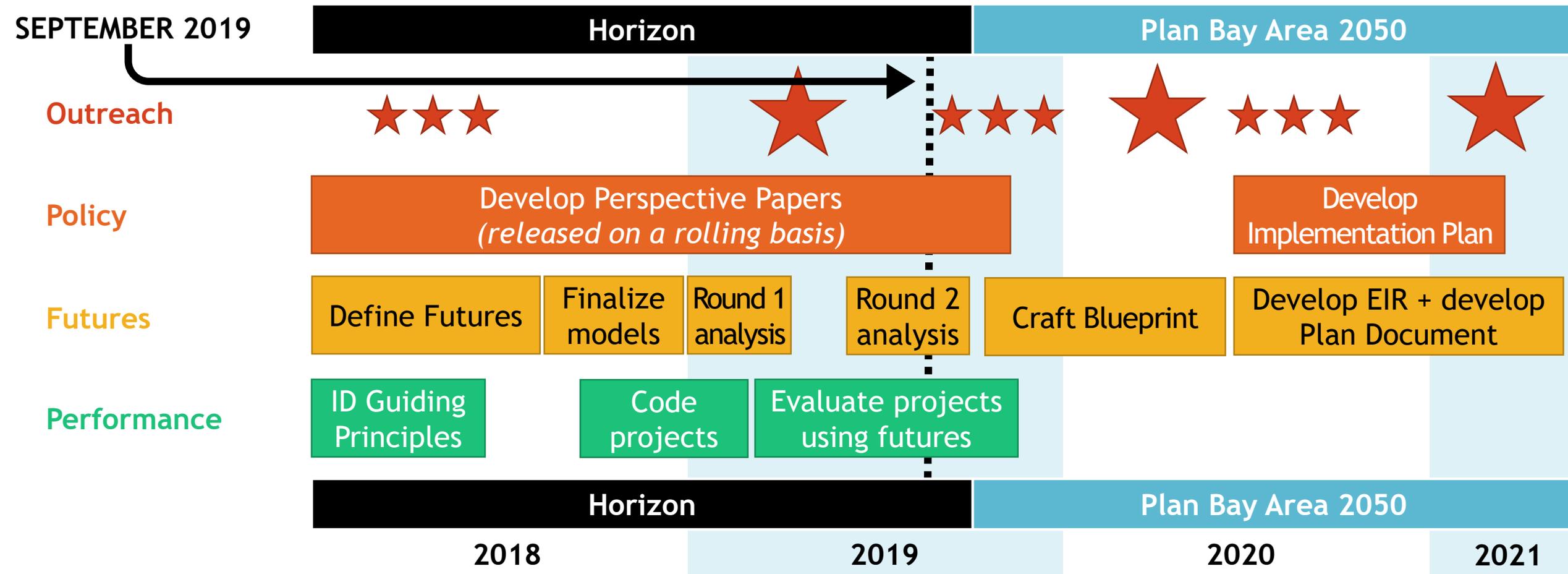
PLAN BAY AREA 2050

Regional Growth Forecast Methodology

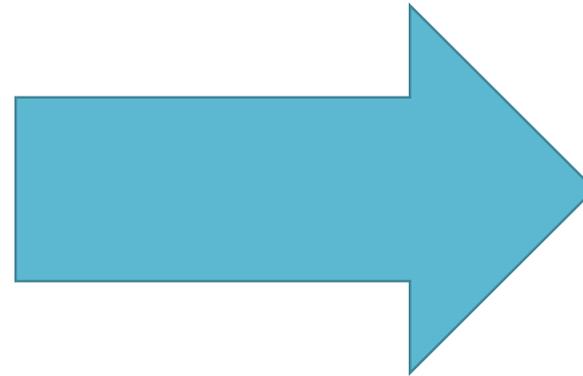
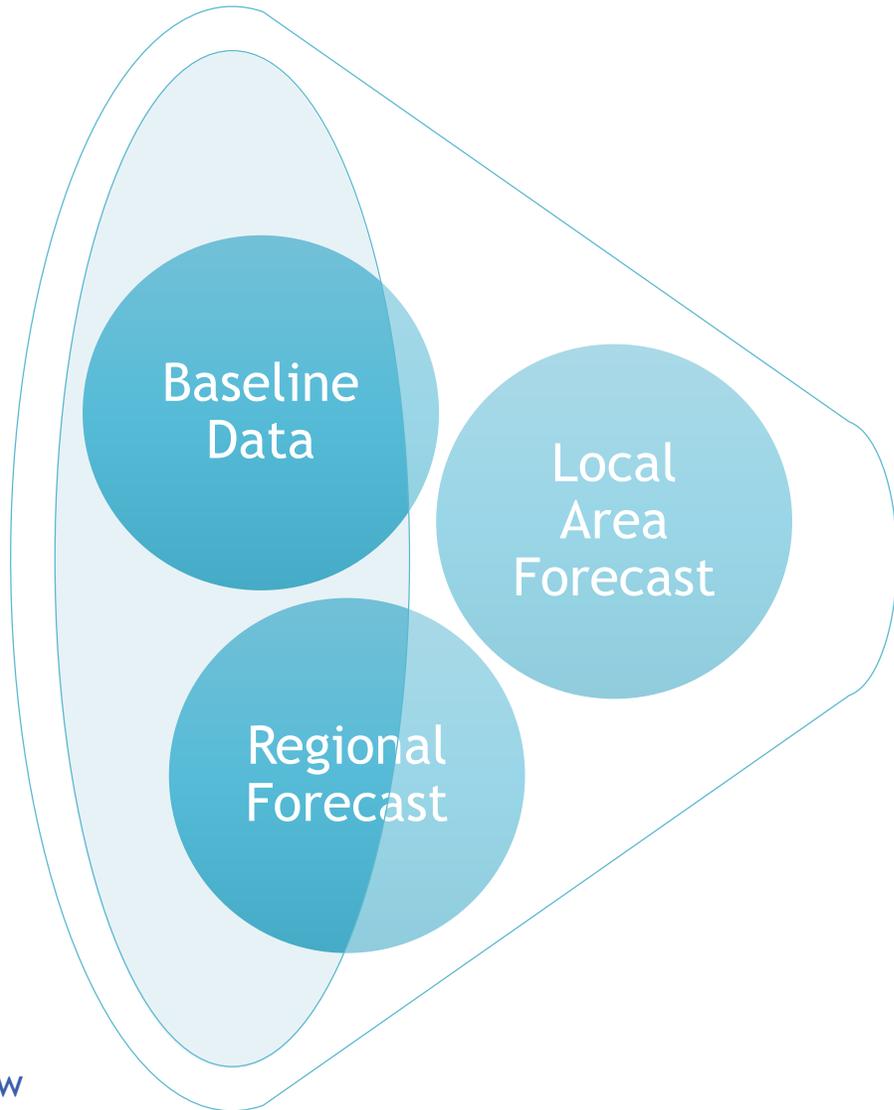
Setting the Stage for Crafting Plan Bay Area 2050's
Growth Pattern

Cynthia Kroll - ABAG/MTC
September 2019

Preparing for Plan Bay Area 2050



How Will We Forecast the Growth Pattern?



Transportation



Housing



Economy



Environment

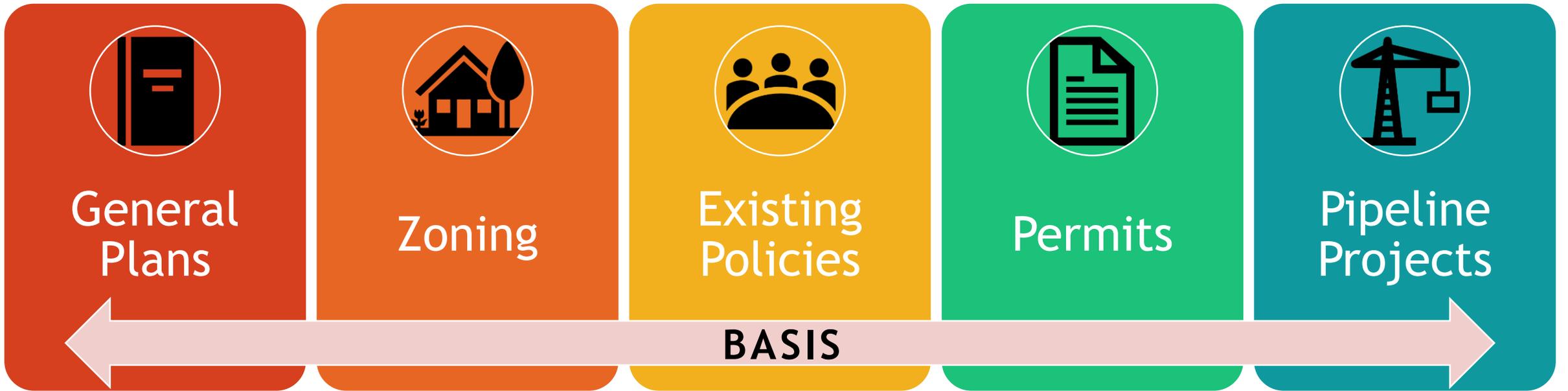
BASIS: Working to Improve Baseline Data

- In tandem with developing a Regional Growth Forecast, MTC/ABAG has been **working to improve data on existing land use conditions** in concert with local jurisdictions.
- This work is being conducted as the **first step of the Bay Area Spatial Information System (BASIS) initiative**, a staff-driven effort to bring key regional datasets onto an industry-standard Data as a Service (DaaS) Platform that supports greater collaboration with external partners.
- Key BASIS datasets will be integrated into UrbanSim 2.0 model runs, **pending a local jurisdiction review process happening this fall.**

BASIS: Working to Improve Baseline Data

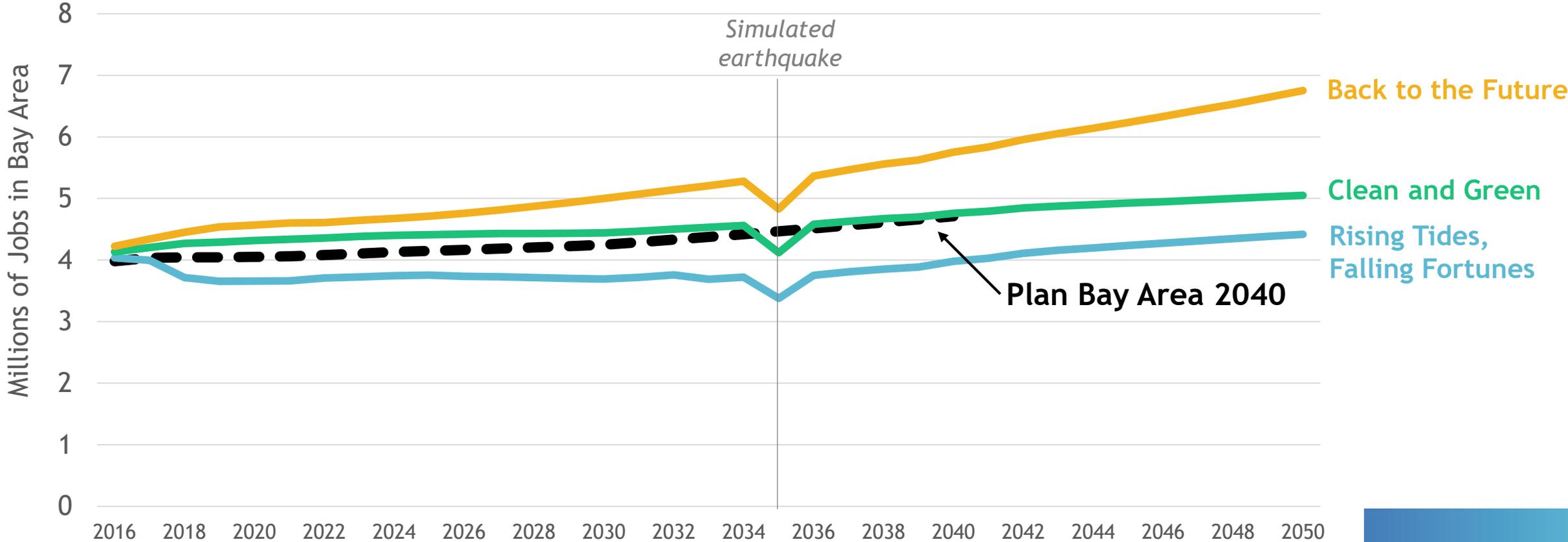


What datasets are specifically being updated at this time?



Exploring Uncertain Futures: What Have We Learned from Horizon?

Range of Job Forecasts - Plan Bay Area 2040 versus Horizon Futures



Source: Plan Bay Area 2040 and ABAG/MTC Analysis

Exploring Uncertain Futures: What Have We Learned from Horizon?

External forces - ranging from immigration policy to automation of labor - could significantly affect the region's growth trajectory in the years ahead.

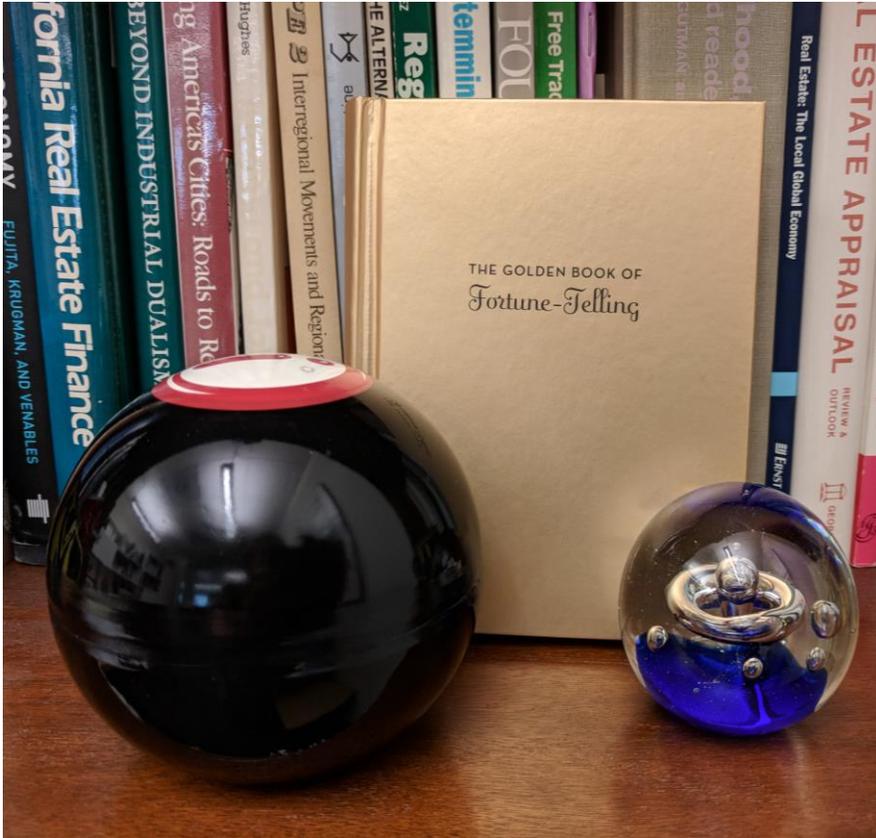
Weak economic growth could slow growth pressures but may pose new challenges for Bay Area residents; **strong economic growth** may continue to strain infrastructure.

Under all Futures, rising income inequality, worsening affordability, and an aging population pose major challenges.

New strategies need to be resilient to potential demographic and economic shifts.

Pivoting to Plan Bay Area 2050: Developing the Regional Forecast

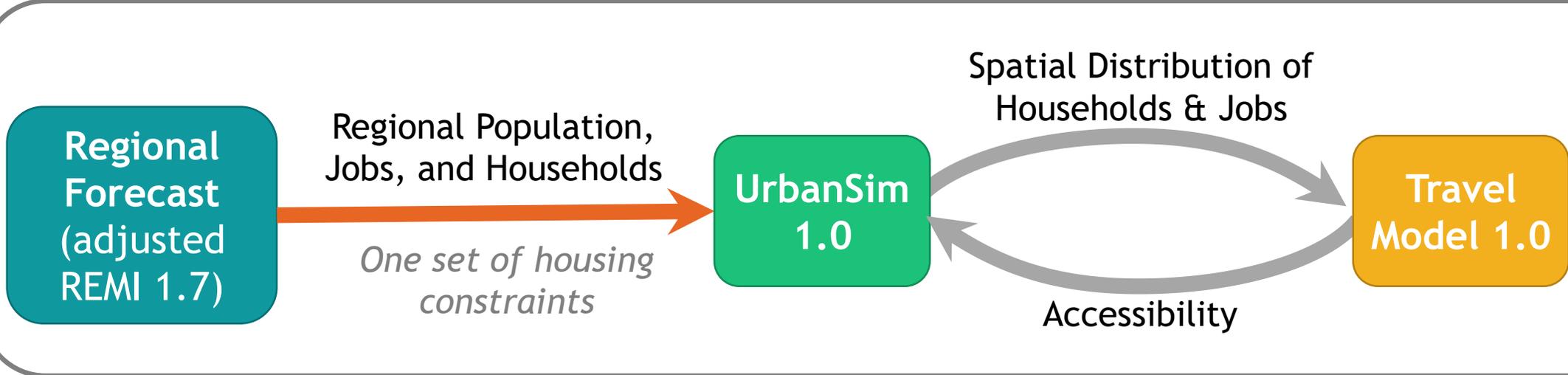
Regional
Forecast



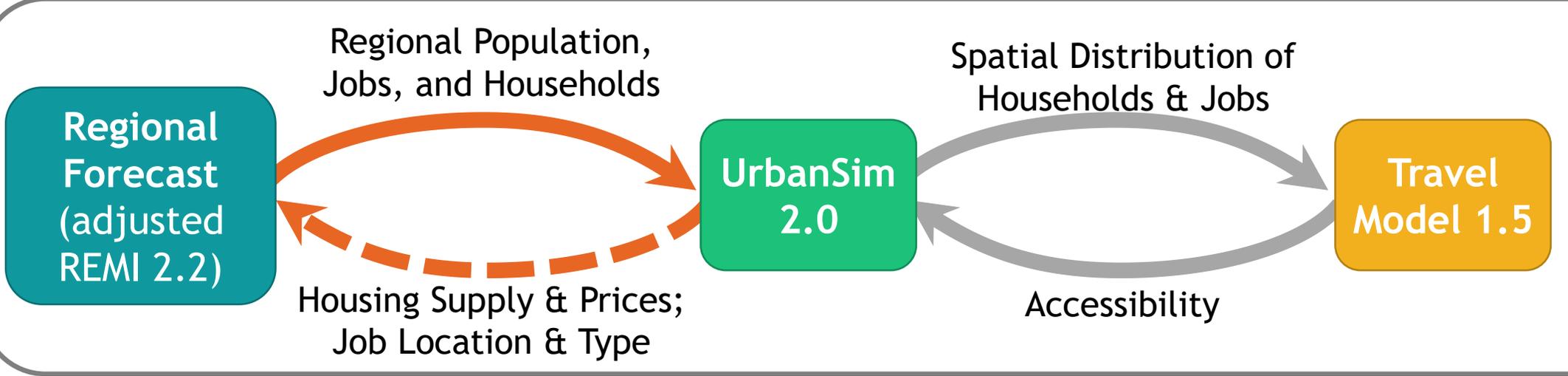
- **Tools**
 - Regional Economic Models, Inc. (REMI) version 2 - for the Bay Area
 - Household + Income Model (*developed in-house*)
 - In-Commute Assessment (*developed in-house*)
- **Builds upon the REMI model**, adjustment with CCSCE and ABAG/MTC data analysis; developed in consultation with the **Technical Advisory Committee** and the Center for Continuing Study of the California Economy.
- More detail is included **Attachment**.

Model Flow Chart: Interactive Approach

Plan Bay Area 2040

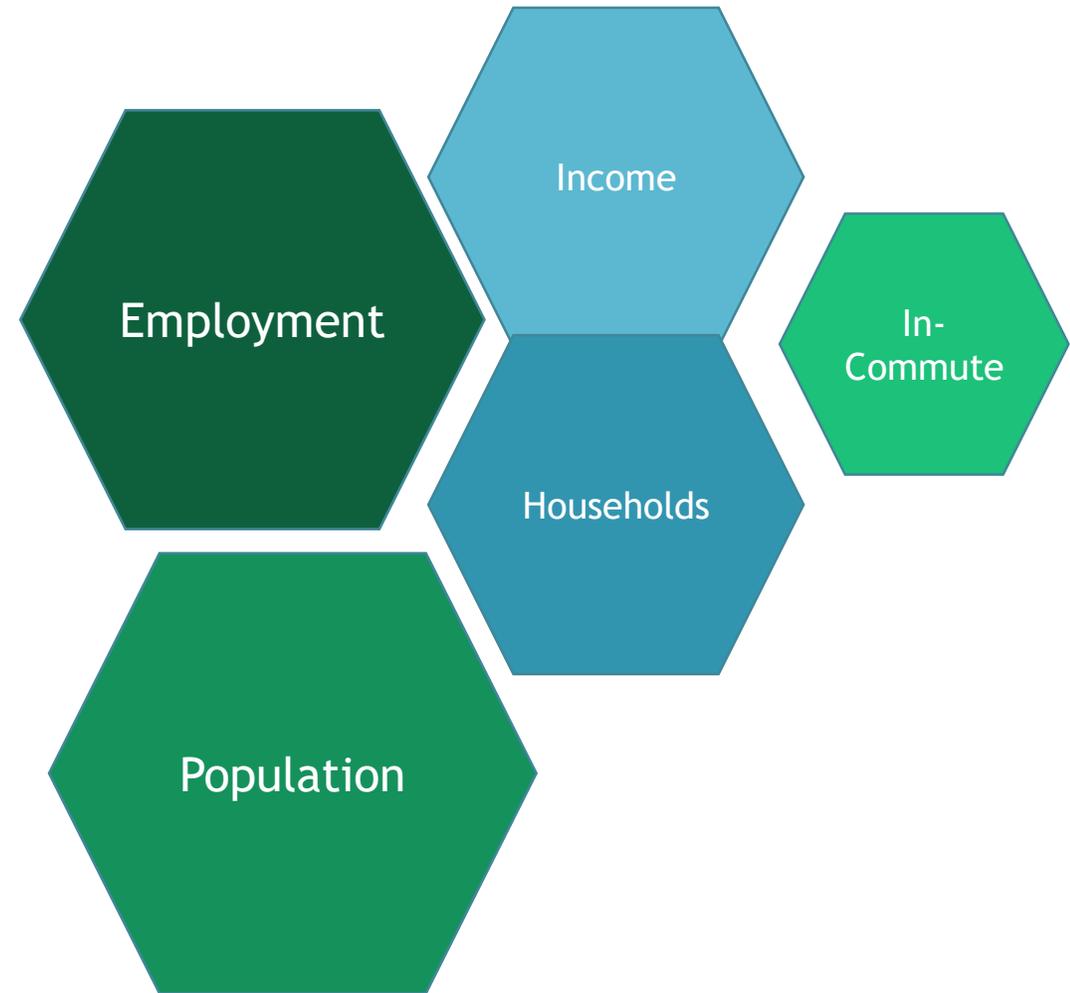


Plan Bay Area 2050



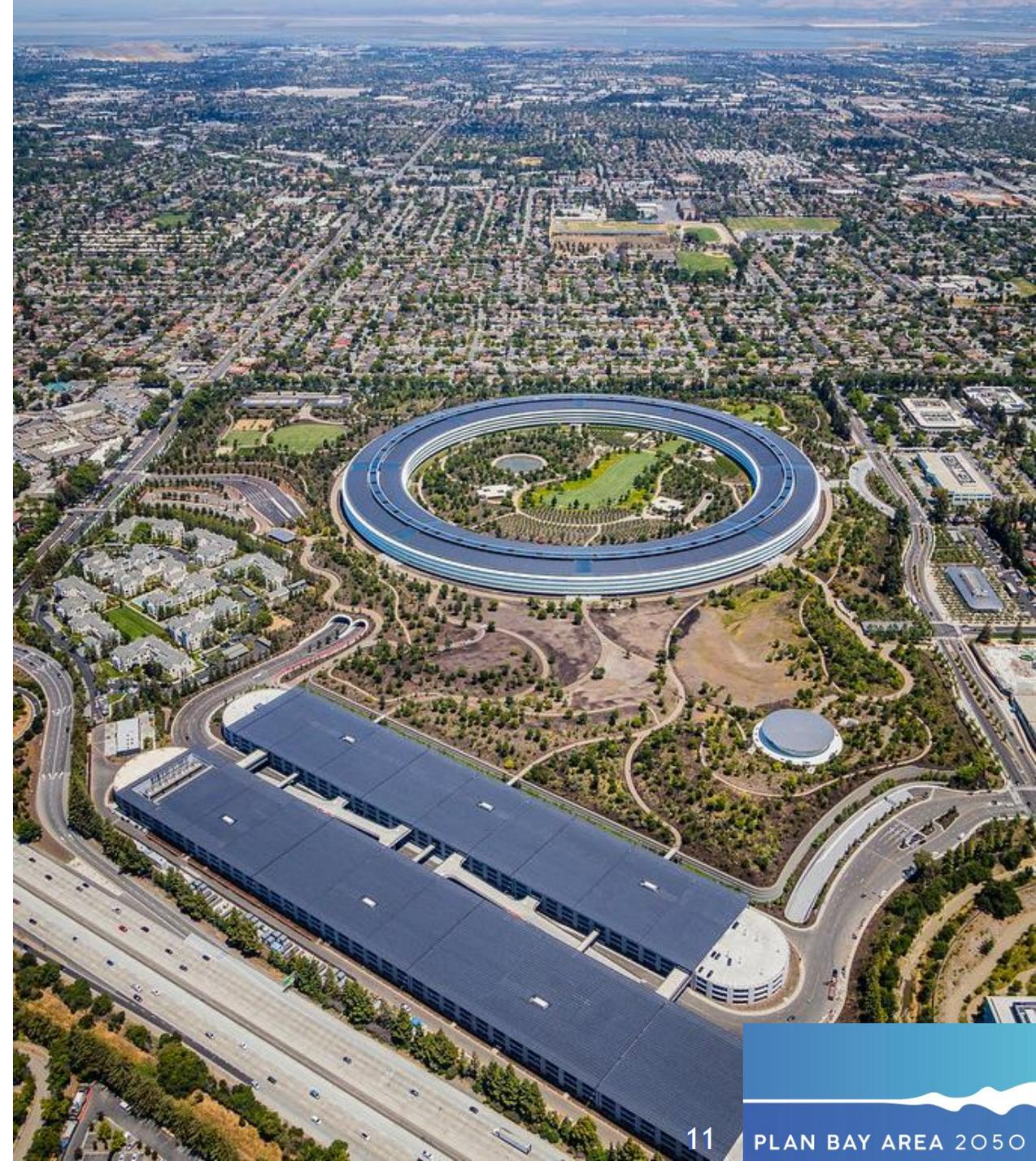
Elements of the Regional Forecast

- **The Regional Growth Forecast** estimates employment and population, households by income category, and in-commuting change.
- **Key underlying assumptions:**
 - Bay Area employment is driven by national trends in population growth and employment.
 - Overall U.S. population growth will likely slow over next three decades.
 - Competitiveness of Bay Area sectors relative to the equivalent sectors in the U.S. will affect how fast the region's economy grows.



Key Factors in the Employment Forecast

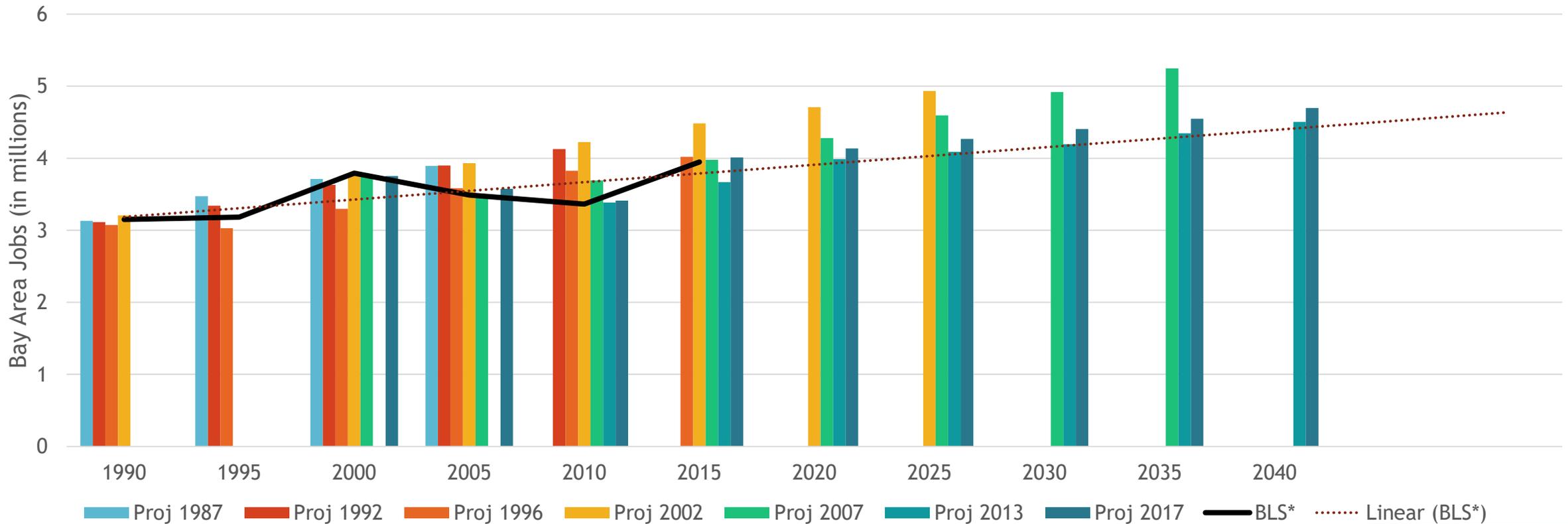
- Will the sectors driving growth today continue to be tomorrow's drivers?
- What factors will affect industry competitiveness?
- How do we balance short term shifts and long term trends?
- How do we balance what the models tell us with what our research and experts say?



Exploring Past Plans: Jobs Projections



Vintages of Projections Compared to Trend Line Forecast Since 1990



Key Factors in the Population Forecast

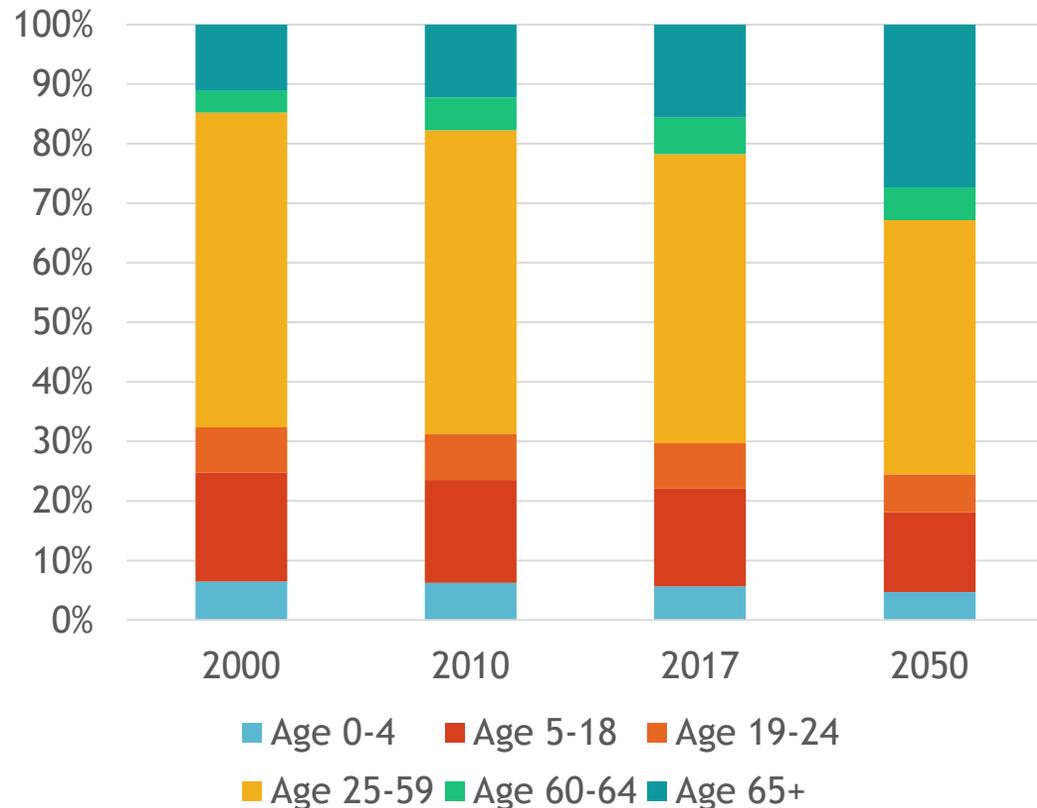
- How does the current demographic mix by age and ethnicity affect our population 30 years from now?
- How might people moving into or out of the region change our future?
- How do key age cohorts — baby boomers, millennials — shape labor supply and demand for housing?



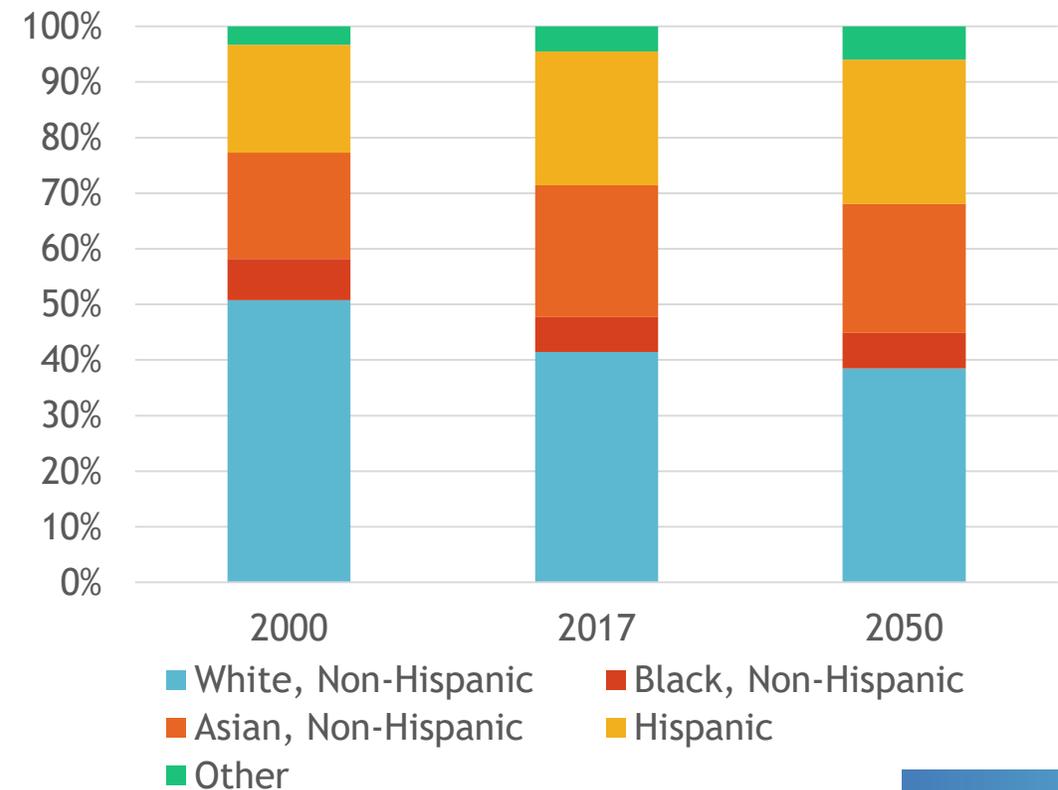
Exploring Population Trendlines: How DOF Foresees the Bay Area Population



An Aging Population



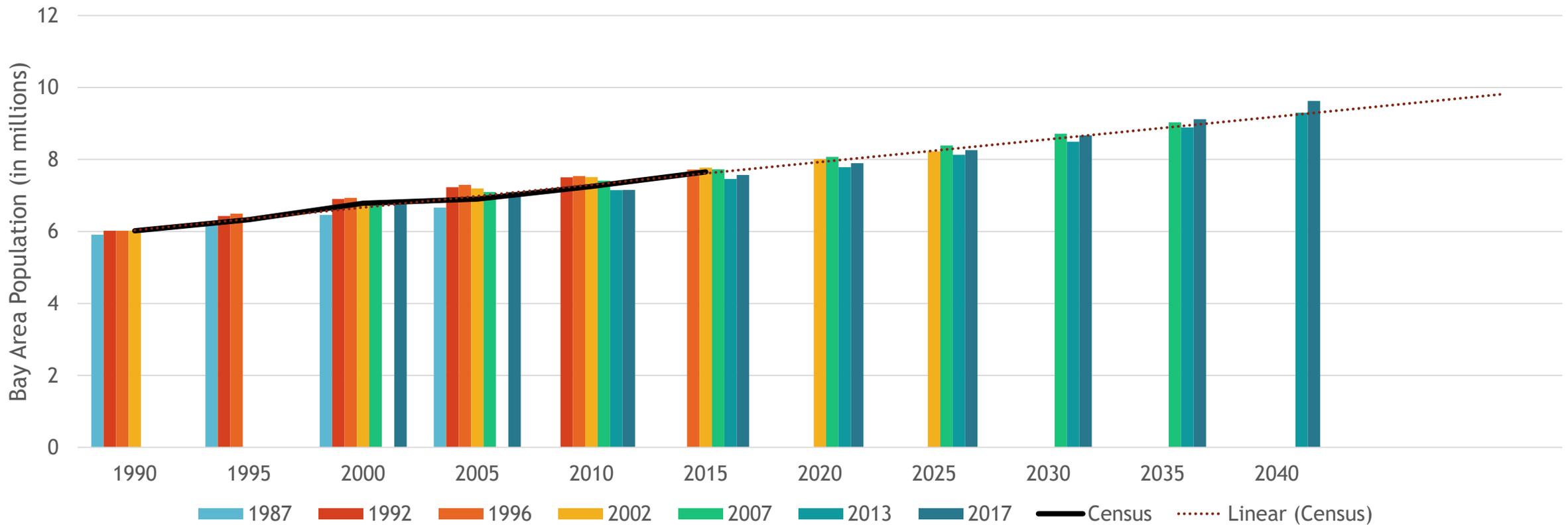
A More Diverse Population



Exploring Past Plans: Population Projections



Vintages of Projections Compared to Trend Line Forecast Since 1990

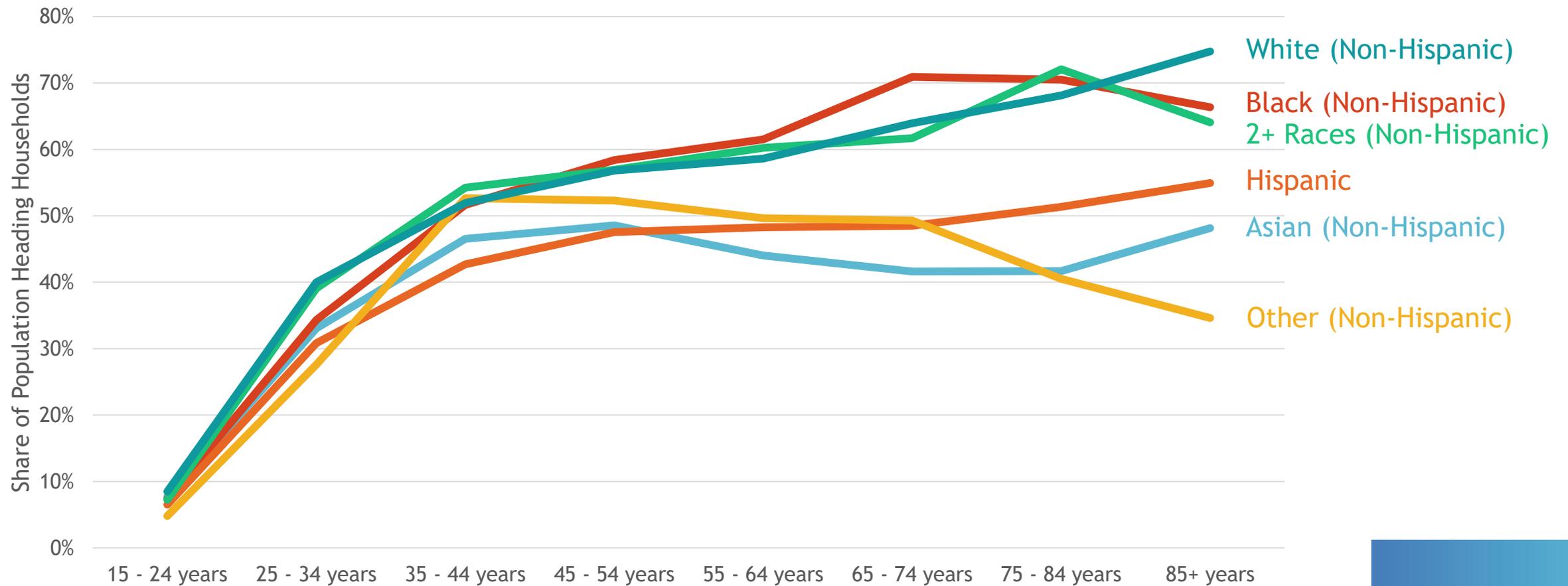


Key Factors in Estimating Households and Income

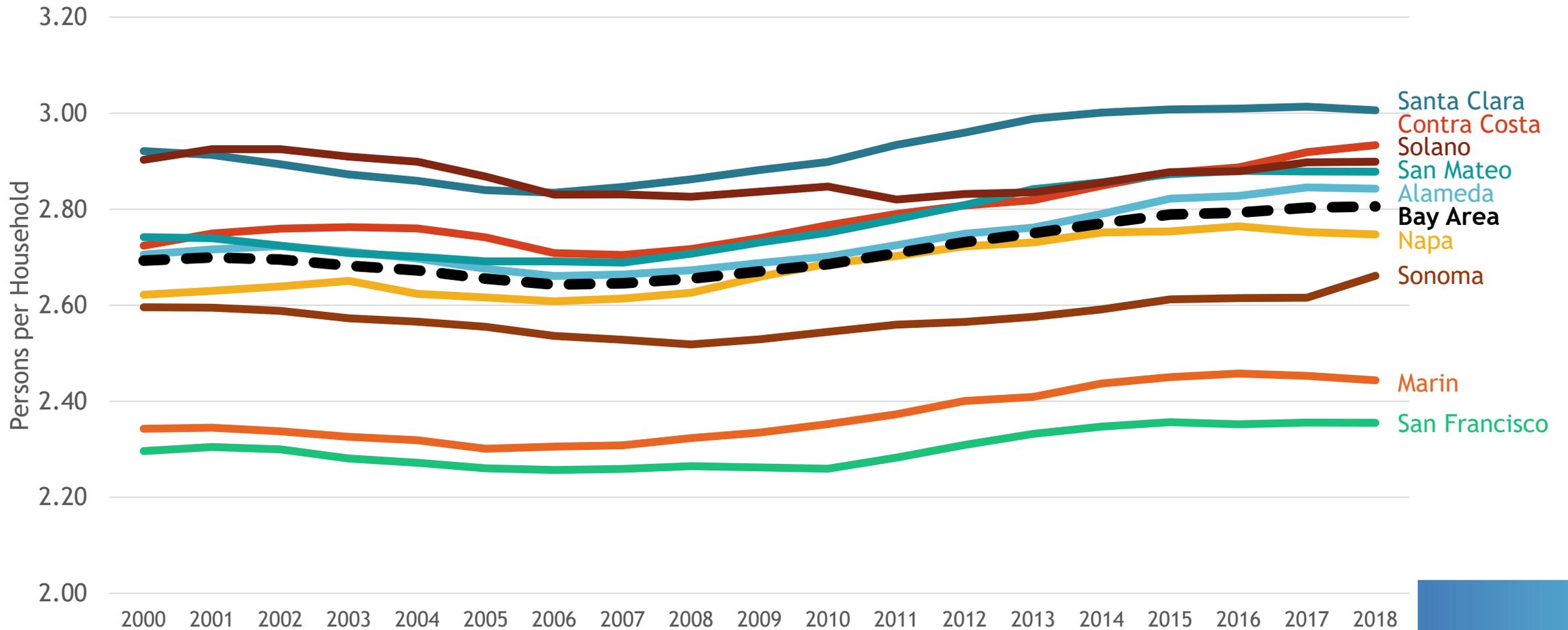
- Number, size of households is affected by age, ethnicity of the population.
- Household size, workers per household vary with economic conditions.
- What shapes multigenerational households? Immigration? Income levels and housing costs?
- How do economic and demographic factors affect household incomes?



Exploring Household Formation: Differences by Race/Ethnicity

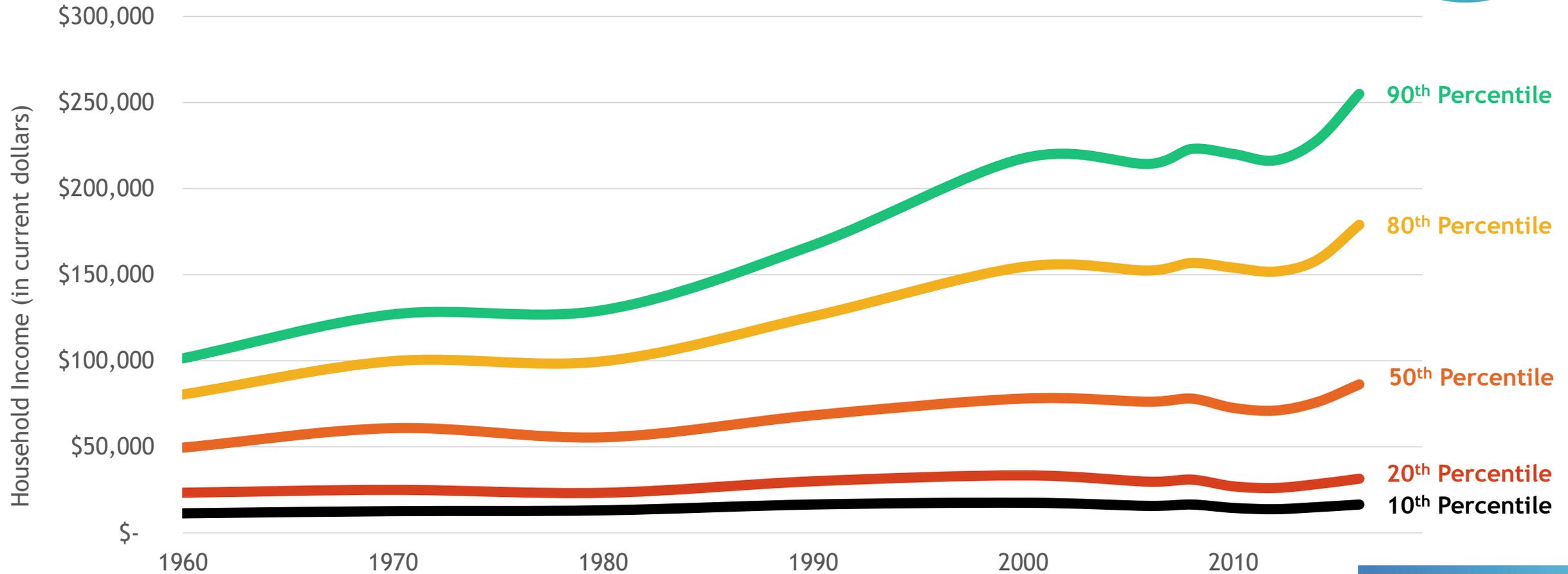


Exploring Household Trendlines: How Big is Your Household?



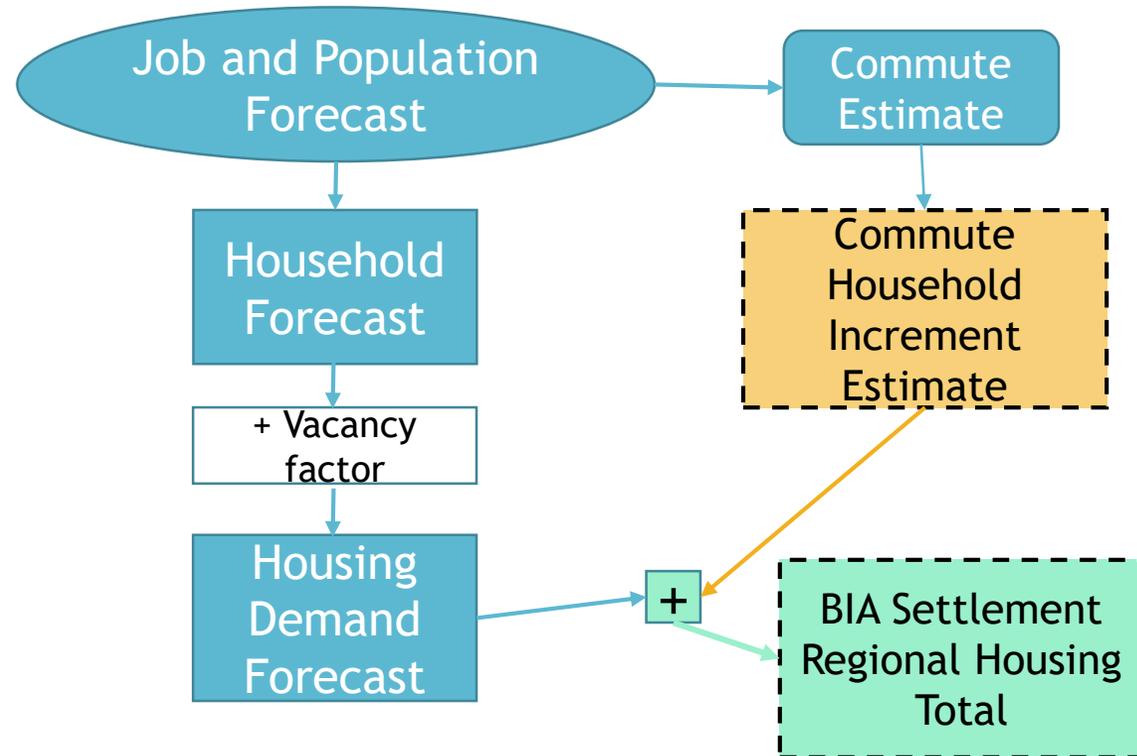
Exploring Income Trendlines: Rising Income Inequality in the Bay Area

Regional
Forecast



Incorporating Key Assumptions on In-Commuting

How we did it for Plan Bay Area 2040:

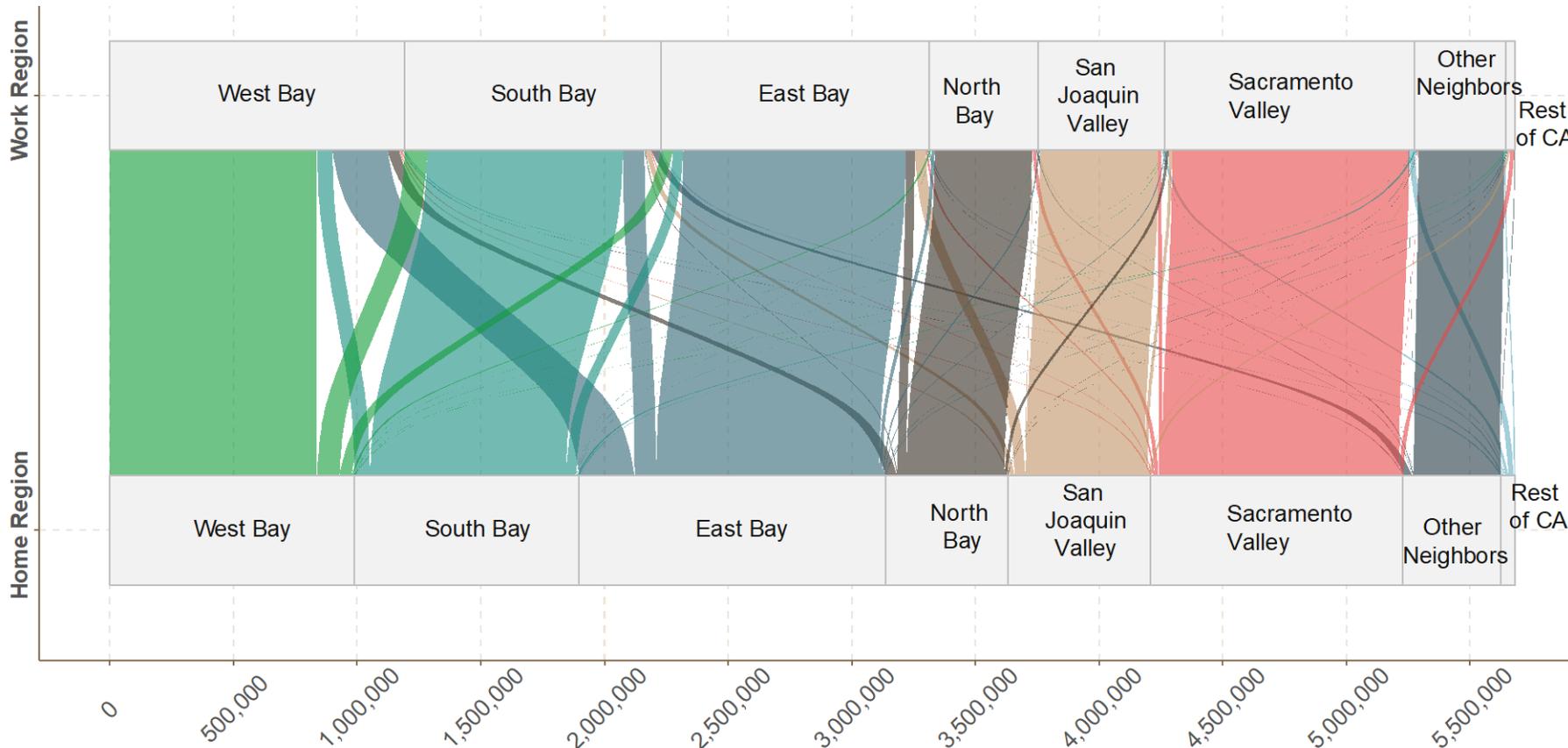


The Regional Growth Forecast for Plan Bay Area 2050 will be consistent both with Senate Bill 375 and the legal requirements of the BIA Bay Area legal settlement from Plan Bay Area (2013).

Exploring In-Commuting: A Small but Growing Share of Trips

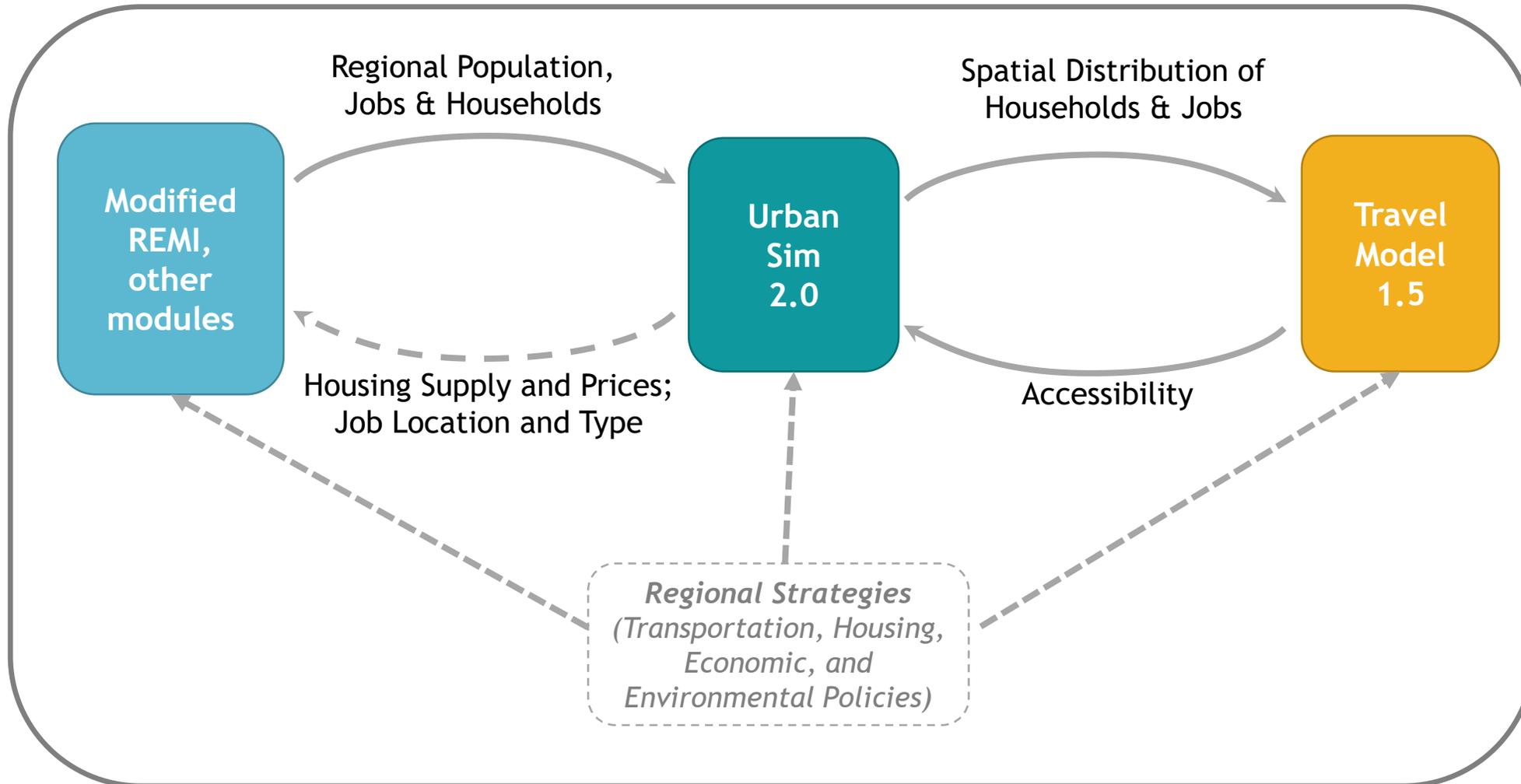


Subregion-to-Subregion Commute Flow Chart



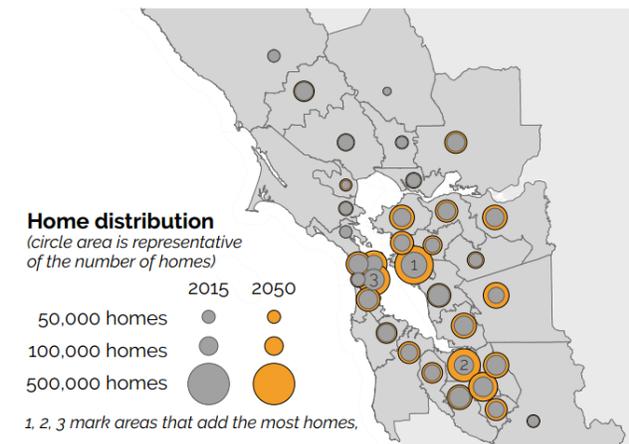
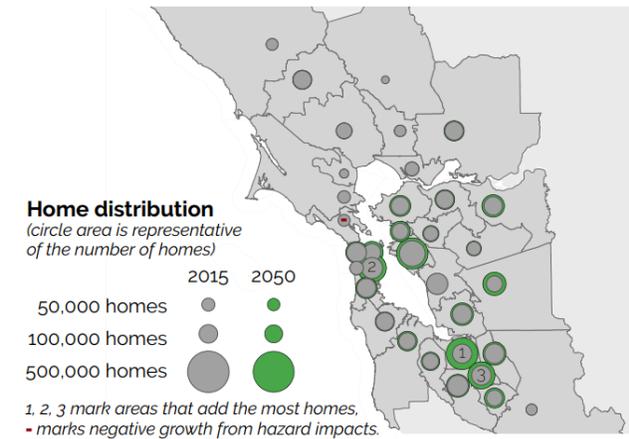
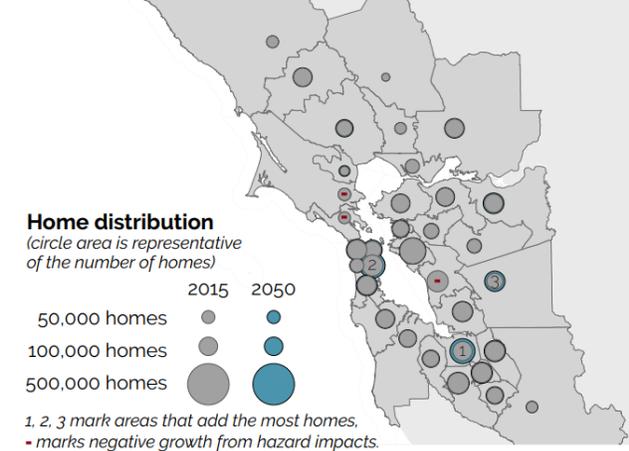
- Most workers commute *within* their county.
- The East Bay provides the most commuters working in other Bay Area counties.
- Of commuters leaving the San Joaquin Valley, the largest number goes TO the East Bay.
- 6% of Silicon Valley workers come from outside the region.

Integrating Strategies: An Iterative Approach to Forecasting



Building upon Horizon: Stress-Testing Strategies

- MTC/ABAG is already exploring some of these big questions through the **Horizon initiative**. Forecasts for three divergent Futures were showcased in the Futures Interim Report, released in March.
- Through Futures Round 2, further testing of a suite of housing and economic development strategies using **UrbanSim 1.5** have taken place this summer.



Engagement Around the Regional Growth Forecast Methodology

- **Horizon Futures Development + Perspective Papers** - RAWG meetings and other forums (Spring 2018 to Spring 2019)
- **Regional Growth Forecast Presentations at Committee & Board Meetings** (June and July 2019)
- **Public Comment Period** (July and August 2019)
- **Public Hearing** (September 19, 2019)

Further engagement with public & stakeholders on the Growth Forecast will occur through Plan Bay Area 2050 process in fall 2019 & spring 2020.



Comment Period and Meetings: What We Heard

WHAT WE HEARD	STAFF RESPONSE TO COMMENTS
Encourage public input on the Growth Forecast, as well as the Plan itself.	There will be continued opportunities to provide input on the Forecast and Plan throughout fall 2019 and beyond.
The proposed methodology assumes aggressive job growth.	Job growth in our base forecast is driven by moderate assumptions about national and industry conditions.
Consider more moderate projections and greater dispersal of jobs and housing.	Moderate national growth drives the forecast; locational strategies may enable a greater jobs-housing balance.
Consider a number of economic, housing and transportation strategy ideas.	These ideas can be discussed and considered further during the development of the Plan Bay Area 2050 Blueprint this fall.

A complete summary of comments received and staff responses, as well as comment letters, can be found in **Attachment B**.

Questions? Comments?

Contact Cynthia Kroll at
ckroll@bayareametro.gov

PLAN BAY AREA 2050

What's Next for the Regional Growth Forecast?

- Public Comment Period ended August 19, 2019
- Seek Methodology Approval - September 19, 2019
- Draft Regional Growth Forecast - Fall 2019
- Final Regional Growth Forecast - Spring 2020