

# Plan Bay Area 2050+: Draft Regional Growth Forecast

## Summary

The Regional Growth Forecast identifies how much the Bay Area might grow between the plan's baseline year (2023) and horizon year (2050), including population, jobs, households, and associated housing units. The forecast also includes some finer characteristics of that growth, including employment by sector, population by age and ethnic characteristics, and the basic income distribution of households formed from that population. The forecast's primary purpose is to serve as a planning input for the Plan Bay Area 2050+ update. It estimates regional growth through 2050 for the nine Bay Area counties, which in turn will serve as an input for an analysis of the smaller area land use patterns, which is influenced by the adopted plan strategies. The ultimate land use pattern then informs the Travel Model's identification of present and future travel demand throughout the Bay Area.

Plan Bay Area 2050+ is a **limited and focused update**. The forecast is therefore not subject to a major revision, but will carry over the methodology, approach and key assumptions from Plan Bay Area 2050.

Recent data, particularly the 2020 Census, has revealed a lower population baseline compared to the projections in the Plan Bay Area 2050 Regional Growth Forecast. Specifically, the region's population is nearly 200,000 lower than previously estimated, necessitating a numerical revision of the growth forecast with three more years of data on the front end, but otherwise maintaining the methodology and assumptions of the prior release. Overall, compared to Plan Bay Area 2050, the Draft Regional Growth Forecast is expected to be lower in 2050 for population (-750,000) and households (-250,000) but mostly unchanged for jobs. While the

national population outlook has changed downward the past few years, the U.S. jobs forecast by mid-century remains robust. Within this national context, the regional factors that have typically been favorable to the Bay Area remain in place – the presence of a skilled labor force, a competitive and innovative industries supported by local and national research and development, and great natural and cultural amenities. Those are all still here despite near-term challenges, and the reduction in the population outlook should to a large extent be seen as a reflection of a changed national population outlook.

This attachment summarizes the Draft Regional Growth Forecast and highlights the main changes from the Plan Bay Area 2050 Regional Growth Forecast.

## Changing Context for Plan Bay Area 2050+

A number of significant changes have taken place since the forecast was prepared for Plan Bay Area 2050, with additional insights on the implications of the COVID-19 pandemic that upended lives, businesses, and communities.

- The Bay Area’s population and economy have historically been supported by robust international immigration. The influx of newcomers to the U.S. slowed down significantly from 2017 onwards, first in reaction to national policy factors and then also as a result of the COVID-19 pandemic.
- Apart from locking down communities and slowing down international immigration, the pandemic also made many residents reassess their housing choices, and the out-migration to other parts of the state or country has significantly exceeded normal inflows and natural increase.
- While the losses are somewhat larger than earlier economic cycles’ outmigration, the pattern itself is not unfamiliar to the region, with its cycles of boom and bust, where outmigration typically follows the economic cycle in tandem with rising costs of housing the region’s workers. In the heels of the dot-com bust of 2000, the Bay Area would add nearly 1 million residents the following two decades.

- As the birth rate has been dropping steadily for decades in response to a range of factors, including changes in labor market structure, educational practices, and lifestyle choices, the loss of population to domestic out-migration and slowing immigration described above has not been sufficiently offset by the newest generation. As the U.S. Congressional Budget Office projects a return to more typical immigration levels in the coming years, it is expected that the Bay Area will see new arrivals more in line with historical levels.
- Job levels took a hit as well, though the region has largely recovered the jobs lost since 2020. Since then, we have seen slight shifts: more tech jobs, health & education services jobs, and manufacturing jobs, but fewer jobs in utilities, leisure and hospitality, and finance.

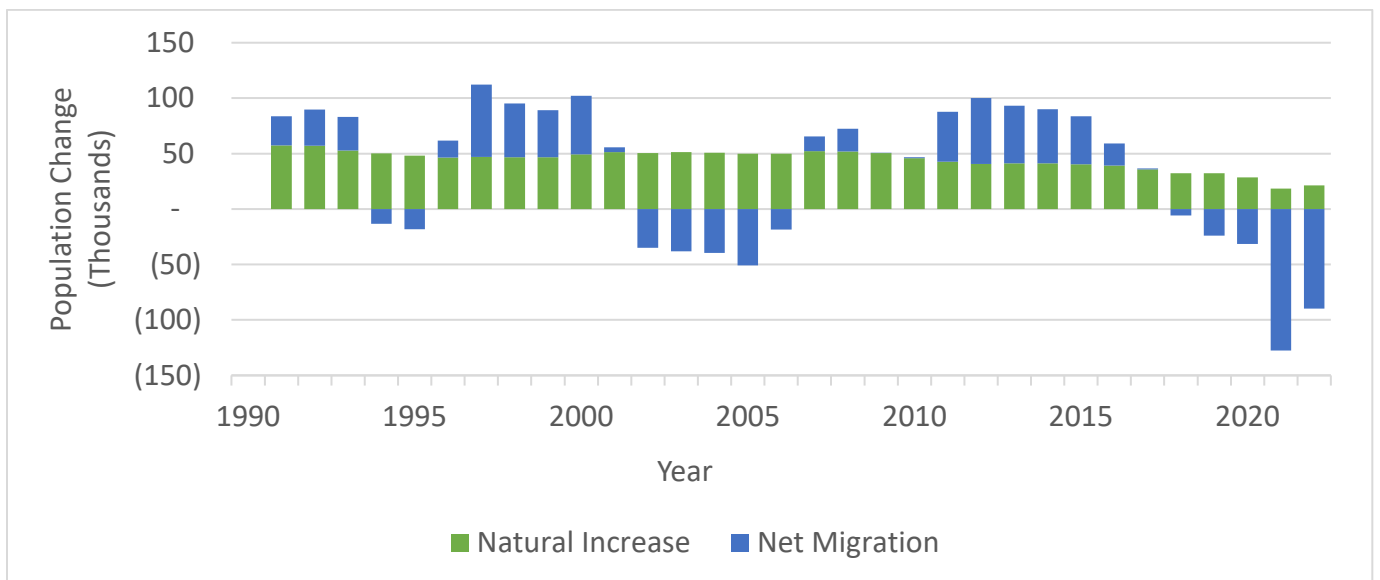


Figure 1: Components of Population Change, 1990-2022.

Source: California Department of Finance, E-6 reports

### Scope of Regional Growth Forecast Update for Plan Bay Area 2050+

With Plan Bay Area 2050+ being a **limited and focused update** as previously noted, staff are maintaining the [forecast methodology adopted by ABAG in Plan Bay Area 2050](#). Key components include:

- Staff are continuing to use the REMI (Regional Economic Models, Inc.) Policy Insight+ (or PI+) model to produce projections of population, employment, gross regional product, and labor force, and use the in-house household model and household income distribution model to generate other key components of the Regional Growth Forecast, including the demographic characteristics and income distribution of households.
- In Plan Bay Area 2050, staff made a number of adjustments to the baseline assumptions in the REMI PI+ model, including Hispanic international migration, employment growth for the data processing sector, and each county’s relative housing prices to the national level. Staff are maintaining the same adjustments in Plan Bay Area 2050+.
- The Plan Bay Area 2050 Regional Growth Forecast accounted for the impacts of the strategies adopted for the Final Blueprint through the “backwards arrow” from Bay Area UrbanSim to Regional Growth Forecast, as demonstrated in Figure 2 below. Among the strategies, housing strategies have the largest impact on the forecast due to their impact on housing affordability, disposable income, and investment in the construction sector; transportation, economy, and environment strategies have more moderate impacts. As Plan Bay Area 2050+ intends to make limited updates to housing strategies, staff are maintaining the same level of strategy impacts on the growth forecast as in Plan Bay Area 2050, rather than reassessing the impacts from scratch.

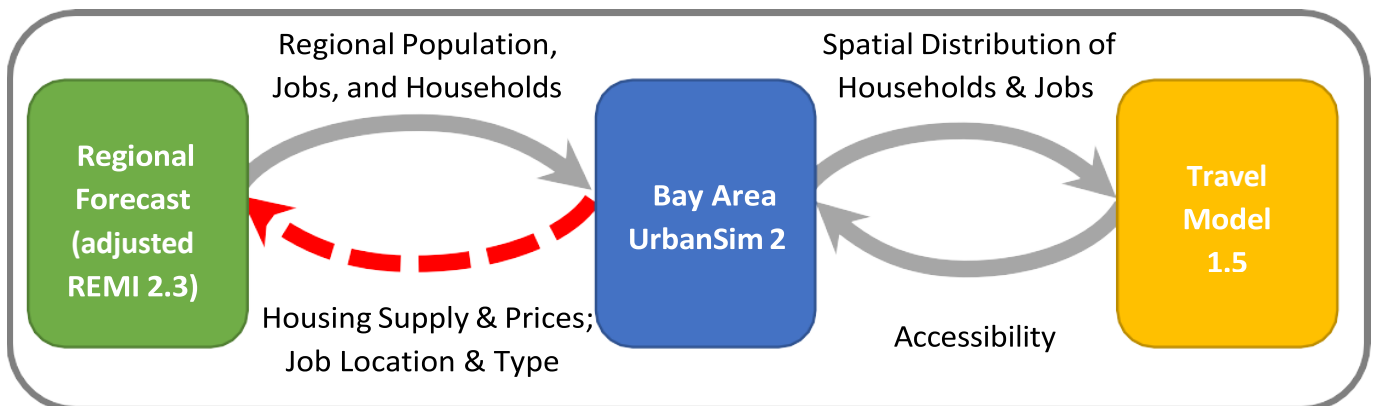


Figure 2: Schematic of Model Relationships in Plan Bay Area 2050 and Retained for Plan Bay Area 2050+

However, while REMI PI+ model version 2.3.16 was used in Plan Bay Area 2050, staff are using REMI PI+ model version 3.1 for the new forecast. REMI PI+ version 3.1 includes a number of data updates at the national level, which serves to inform the national demographic and economic context for the regional forecast.

## Draft Regional Growth Forecast for Plan Bay Area 2050+

Overall, the draft forecast estimates that the population will reach a lower level by 2050 relative to what was assumed in Plan Bay Area 2050. This reflects both regional and national factors. At the national level, both the U.S. Census Bureau and the Congressional Budget Office indicate a lower national population outlook by mid-century than the base assumption for Plan Bay Area 2050. At the regional scale, the forecast begins from a lower 2020 population starting point due to COVID-19. Relative to the Plan Bay Area 2050 forecast from 2020 (Table 2), the 2050 population is 744,000 people lower as a result, with an annual growth rate of .71 percent instead of .88 percent as earlier anticipated (differences are shown in Table 3 and Figure 3). The household growth forecast is also lower, by 244,000 households, resulting in around 1 million new households by 2050, reflecting the more moderate population growth (Figure 3). Unlike the population forecast, the employment forecast, is very similar to the one in Plan Bay Area 2050, for two main reasons:

- First, at the national level, the outlook is sourced from the Congressional Budget Office and their GDP and labor productivity forecasts. A reduction in labor productivity translates to a higher job count than what would otherwise be the case.
- Second, the employment outlook reflects a rise in second jobs and self-employed workers, suggesting a continuation of a longer-term shift in the labor market towards gig work, second jobs and more non-traditional types of work.

The Bay Area is not a stranger to these types of employment across sectors, and the relatively unchanged outlook should be seen as a reflection of both national and regional dynamics. It is in this context important to note that this is a description of *jobs*

in the region, and they don't translate one-to-one to *workers* for the mentioned reasons.

**Table 1: Plan Bay Area 2050+ Draft Regional Growth Forecast**

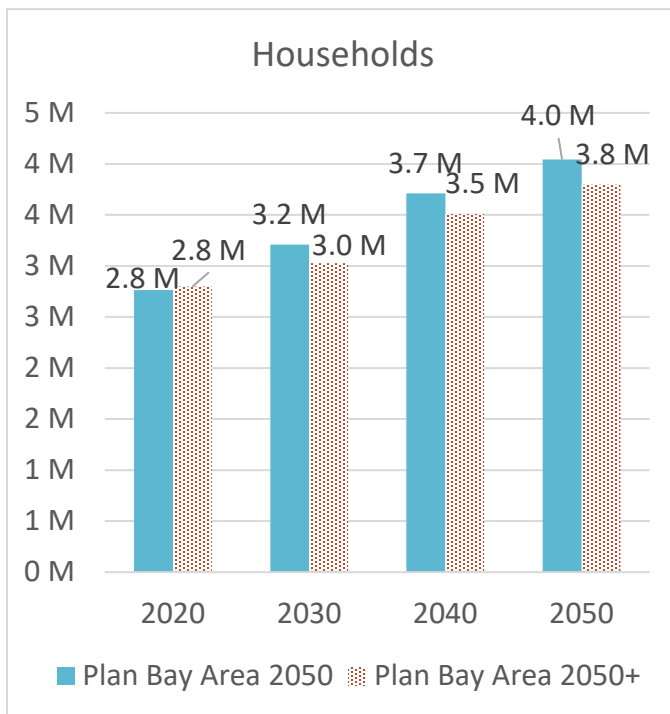
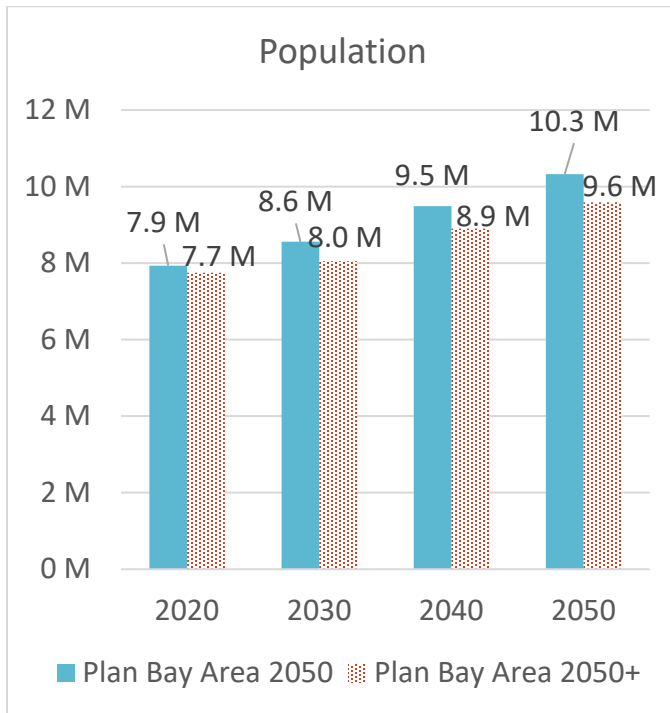
Item	2020	2025	2030	2035	2040	2045	2050
Population	7,749,000	7,723,000	8,048,000	8,476,000	8,903,000	9,266,000	9,586,000
Households	2,798,000	2,902,000	3,027,000	3,312,000	3,511,000	3,662,000	3,796,000
Housing Units	2,875,000	3,018,000	3,187,000	3,486,000	3,696,000	3,855,000	3,996,000
Employment	4,025,000	4,154,000	4,661,000	4,855,000	5,079,000	5,255,000	5,436,000

**Table 2: Plan Bay Area 2050 Final Regional Growth Forecast**

Item	2020	2025	2030	2035	2040	2045	2050
Population	7,940,000	8,230,000	8,560,000	9,010,000	9,490,000	9,930,000	10,330,000
Households	2,760,000	2,950,000	3,210,000	3,500,000	3,710,000	3,890,000	4,040,000
Housing Units	2,840,000	3,060,000	3,370,000	3,670,000	3,900,000	4,080,000	4,250,000
Employment	4,080,000	4,150,000	4,640,000	4,830,000	5,050,000	5,230,000	5,410,000

**Table 3: Differences between Plan Bay Area 2050+ Draft Regional Growth Forecast and Plan Bay Area 2050 Final Regional Growth Forecast**

Item	2020	2025	2030	2035	2040	2045	2050
Population	-191,000	-507,000	-512,000	-534,000	-587,000	-664,000	-744,000
Households	38,000	-48,000	-183,000	-188,000	-199,000	-228,000	-244,000
Housing Units	35,000	-42,000	-183,000	-184,000	-204,000	-225,000	-254,000
Employment	-55,000	4,000	21,000	25,000	29,000	25,000	26,000



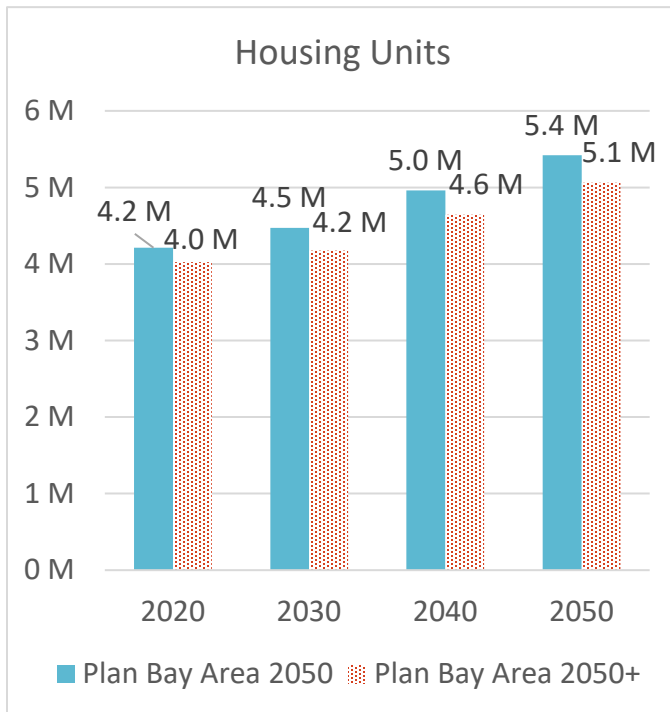
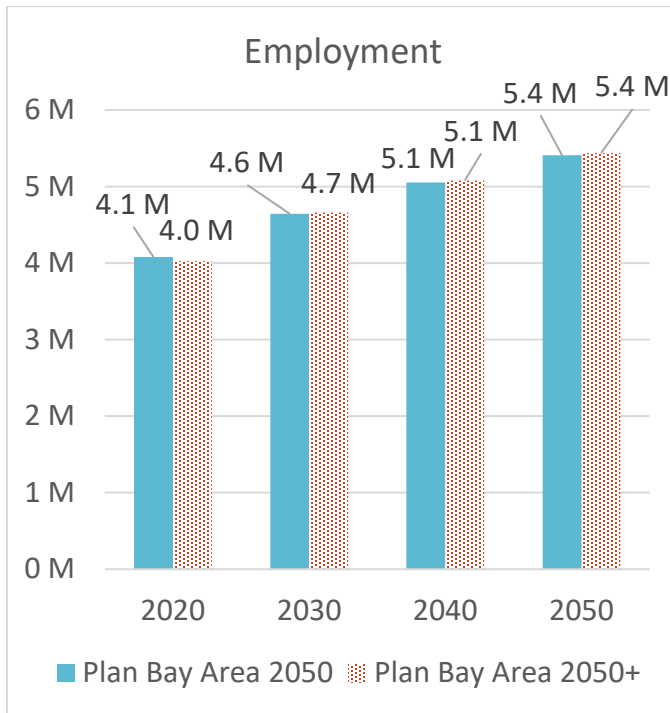


Figure 3: Population, Households, Employment and Housing Units - Plan Bay Area 2050 Forecast versus Plan Bay Area 2050+ Draft Forecast



### Additional Demographic and Economic Details

*As natural increase wanes, migration is a key source of population and labor force growth.*

The birth rate has continued to drop and the past few decades, the main source of population growth for the region continues to be immigration, and we see a continuation of the aging of the region. Baby Boomers (born between 1946 and 1964) continue to be a demographic force in the region, though the large millennial cohort (born between 1981 and 1996) looms large for both the region’s current housing demand and overall age structure.

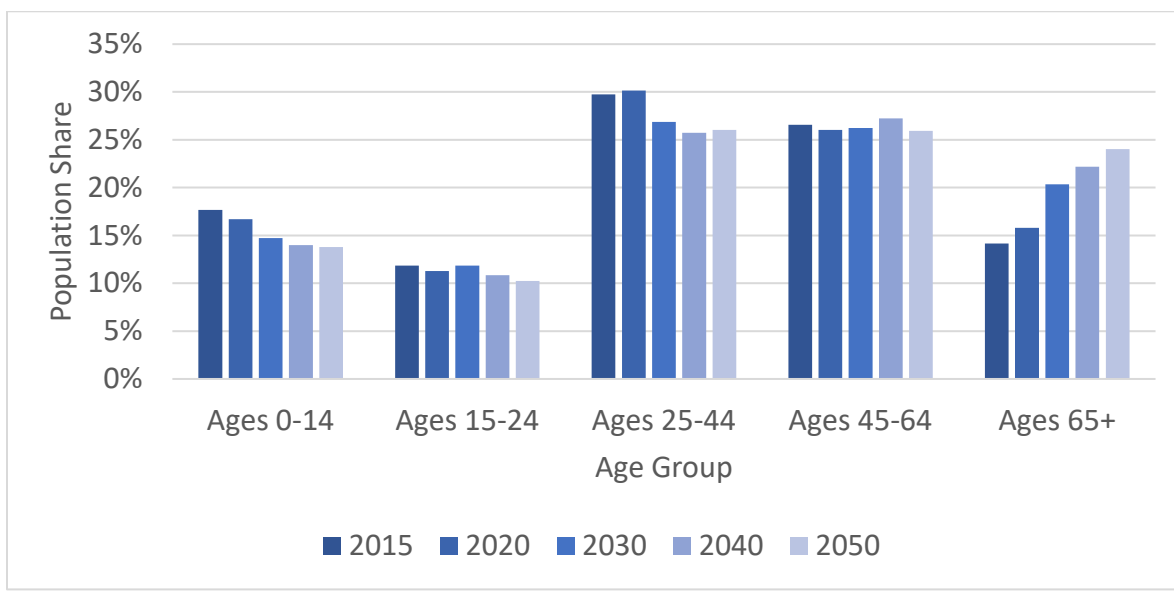


Figure 4: Population by Age Group, 2015-2050

*The household income distribution continues to narrow in the middle.*

The household income distribution is expected to continue to show growth in both lower and upper rungs, off-set by a modestly receding middle. In addition to being a reflection of slightly more seniors in the population, it is a reflection of trends in the wider labor market, the prevailing wage structure, occupational and industry mix, and skills. Most of these dynamics are determined by processes and policies beyond the regional scale. Such trends may be affected slightly with the economic strategies in the Plan Bay Area 2050+ Blueprint.

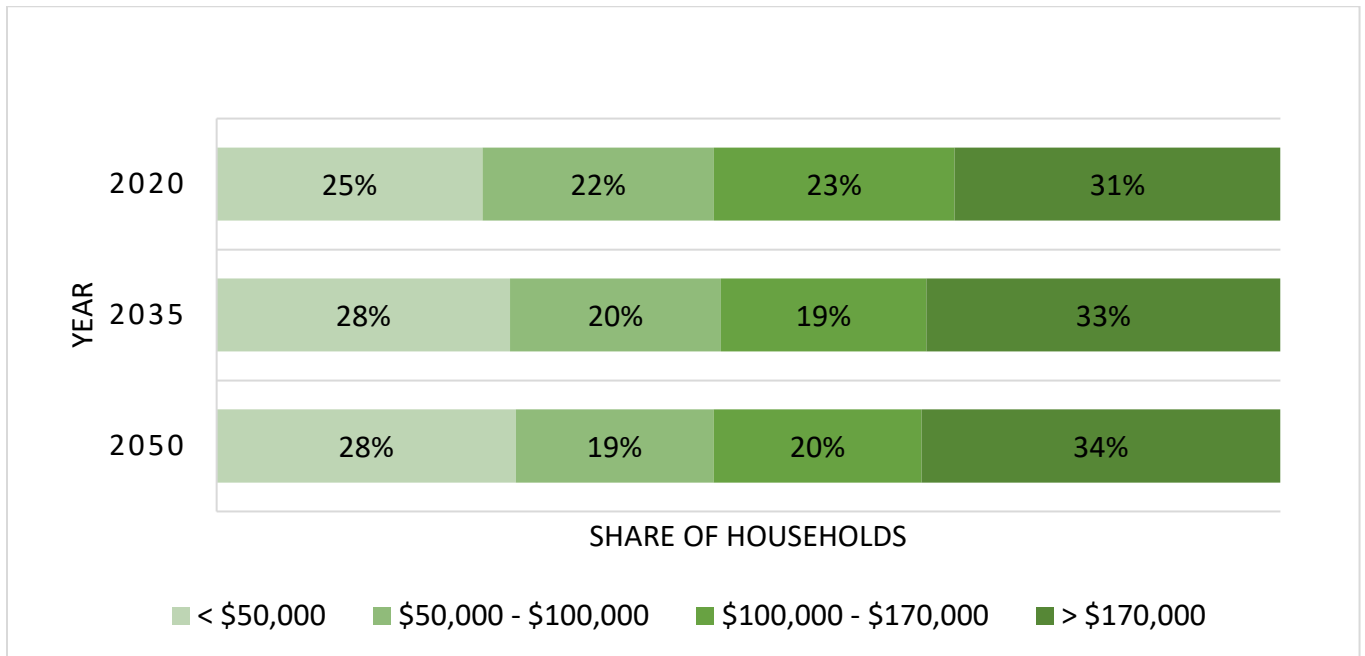


Figure 5: Households by Income Group (income in 2020 dollars)

Employment growth – three sectors account for more than 70% of growth.

Employment growth is marked by the Bay Area’s strengths in a number of professional industries: *Professional & Managerial Services* see above average growth rates as does the *Information (tech)* sector, but also *Health & Educational Services* and *Arts, Recreation & Other Services*. Conversely, the forecast shows lower than average growth rates in *Government*, *Financial & Leasing*, *Transportation & Utilities*, and *Manufacturing*, while retail is about average.<sup>1</sup>

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<sup>1</sup> While this may at first seem counterintuitive due to storefront retail challenges at the moment, national data on e-commerce shows steady levels since 2020 in relative terms. Consistent with the adopted forecast methodology, staff have not modified REMI’s trajectory for the Bay Area retail employment landscape relative to the national trajectory.

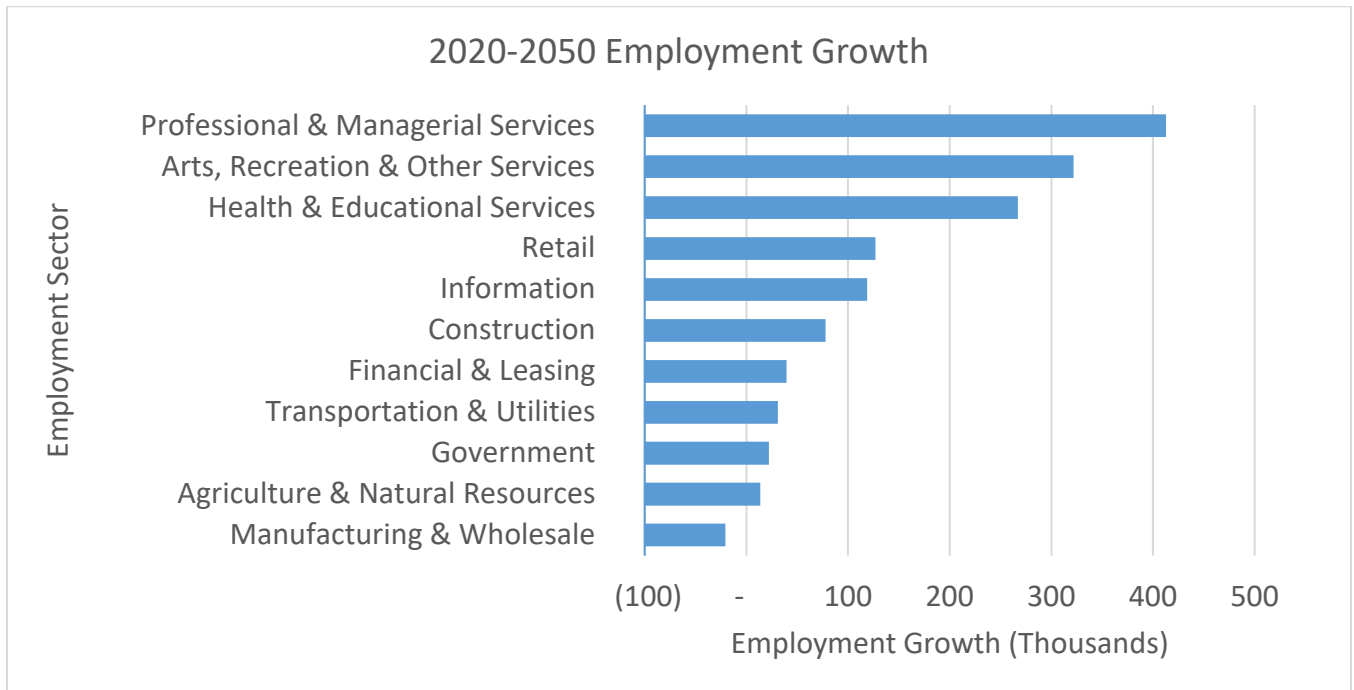


Figure 6: Industry Employment Growth by Sector

## Comparison with Other Third-Party Forecasts

As part of due diligence when developing the Draft Regional Growth Forecast, staff reviewed a number of other forecasts for the San Francisco Bay Area, including Woods & Poole, California Department of Finance, Caltrans / California Economic Forecast, and Moody's. It is generally true that such forecasts trend lower than the Plan Bay Area 2050+ Draft Regional Growth Forecast. The forecasts vary in methodological approaches, conceptual coverage, and geographic scope, and ultimately in purpose. Key reasons for each of these differences include:

- **Methodology.** Forecasts reviewed range from time-series fitting regression models to demographic cohort component models.
- **Conceptual Approach.** Forecasts vary in terms of how they represent feedback between the economy, labor force and population. In the forecasts reviewed, generally past and recent history have a significant impact on the outlook. While this is analytically defensible, it may also be too reflective of past conditions and result in the "locking in" of recent trends into a longer-term forecast.

- **Geographical Coverage.** Counties are common building blocks, and the scope varies, some focused on the state of California, whereas others are national in purview, reflecting different design decisions with respect to interstate dynamics.
- **Forecast Purpose.** Forecasts may be tied to specific goals or be baseline forecasts. For example, the Department of Finance's forecast serves as a baseline prediction,<sup>2</sup> assuming no explicit policy changes. For example, the DOF projection methodology states that “changes in immigration, education, housing, or transportation policy could have significant effects and are not considered here.” In contrast, Plan Bay Area, a policy-driven plan, aims to evaluate various policies designed to address challenges identified by the MTC Commission and ABAG Executive Board. These policies align with the region's Guiding Principles, which emphasize creating an affordable, connected, vibrant, diverse, and healthy region.

More specifically, even with the reduction relative to the Plan Bay Area 2050 forecast, the faster population growth anticipated by Plan Bay Area 2050+ compared to the third-party forecasts stems from two factors:

- **Understanding of Regional Dynamics.** REMI PI provides an integrated accounting of employment, population, and labor force dynamics, under the influence of prices. REMI PI tends to capture the strong regional demand and the linkage with a regionally competitive employment growth in the Bay Area, resulting in a higher population forecast higher than others.

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<sup>2</sup> California Department of General Services. (2021). Policy and authority - 1103. In State Administrative Manual (SAM). Retrieved from <https://www.dgs.ca.gov/SAM/SAMTOC/1100/1103>.

- **Integration of Housing Strategies.** Both Plan Bay Area 2050 and Plan Bay Area 2050+ projections assume the Bay Area's ratio of housing prices relative to the nation will gradually revert to its 2001 level as a reflection of a range of strategies. Taken together these strategies are expected to lead to a gradually better-balanced housing market through the addition of supply, absent which prices are expected to further depart from the national norm. The assumption of improving housing affordability makes the region more attractive to reside in, especially in the later part of the forecast period.