BAY AREA COUNCIL ECONOMIC INSTITUTE

Tracking the San Francisco Bay Area's Pandemic Recovery

Sponsored by: CBRE

March 2023

Project Summary

Between extended economic shutdowns to combat the COVID-19 pandemic, work-from-home policies employed by Bay Area businesses, and a sharp reduction in travel, the region's downtown cores have experienced a hollowing out of economic activity. As the region recovers, it has become clear that the pandemic has permanently changed how and where people work, how businesses think about their location decisions, and where households choose to live. These effects appear to be most visible in expensive coastal regions, including the San Francisco Bay Area.

To evaluate and track key indicators of economic recovery in the Bay Area, the Bay Area Council Economic Institute and CBRE's Tech Insights Center are partnering on a three-year, three-part series of interactive reports. The first part of this analysis, published below, tracks jobs, people, investment, economic activity, and costs measured by:

1) an economic index tracking recovery across the nation's 25 largest regions, and

2) a deeper dive into our region's economic recovery.

This report is static, to see a dynamic version of this report that will be updated quarterly, please visit: https://www.bayareaeconomy.org/economic-recovery.

Key Findings

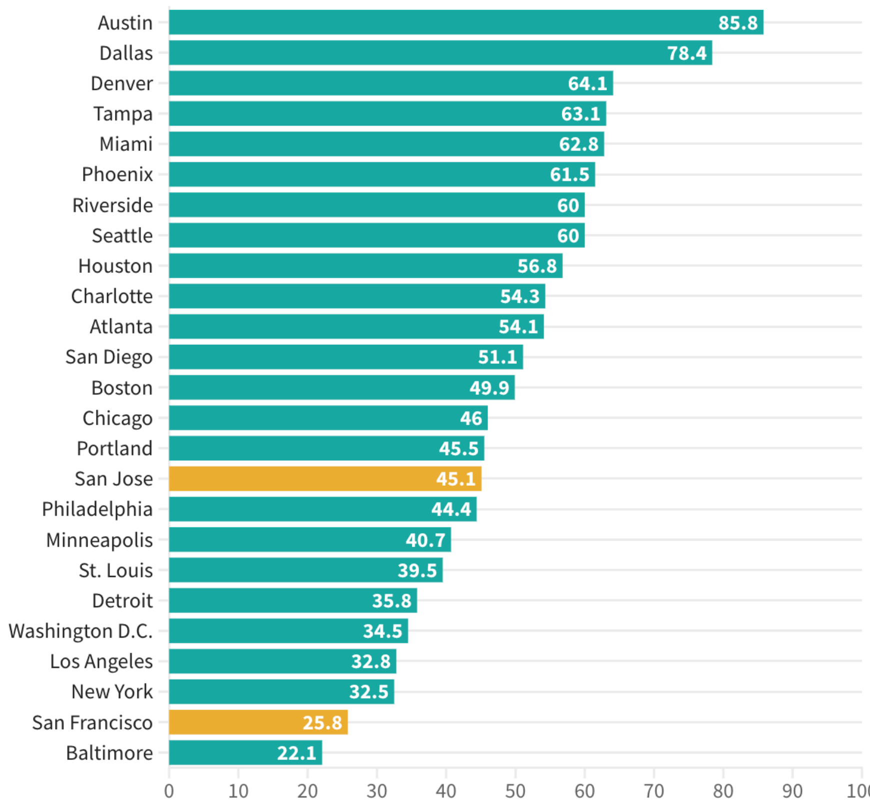
- **Our regional economic recovery index ranks San Francisco 24th out of 25 peer regions.** Austin ranks 1st, and San Jose lands closer to the middle at 16th. Index metrics include job and labor force growth, real estate activity, population growth, and changes to economic activity and affordability.
- **The SF metro area is still down 21,600 jobs, or -1% of its pre-pandemic employment.** Most of this lag has to do with blows to the service sector. When measuring growth of only "knowledge workers" (e.g., jobs in tech, R&D, legal etc.), the San Francisco metro area grew 4%.
- **The region saw a nearly five-fold increase in residents working from home from 2019 to 2021.** But because office and tech work drives much of the Bay Area economy, our region is more susceptible to longer-lasting effects of remote work than its peers.
- **The San Francisco and San Jose metro areas collectively lost 147,000 people during the pandemic**, joining only LA, San Diego and the Miami metro areas as regions to have lost population.
- **In terms of office vacancy, San Francisco saw the largest increase within the region**, experiencing a 24 percentage point increase from 4% vacancy in Q4 2019 to 28% by Q4 2022.
- **The number of people who left the Bay Area for another state increased 33% from 2019 to 2021**. Still, top destinations for those who moved away from the region are largely in the Northern California megaregion or California more broadly.
- **The City of San Francisco collected $96 million fewer dollars (or -29%) in sales tax revenue in 2021 versus 2019**, taking the hardest hit of any large West Coast city. Hotel revenues and air travel also continue to trail competing tourism destinations.
- **The Bay Area continues to remain the epicenter of venture capital funding**, bringing in over twice as many dollars per capita as Boston, the next highest funded region.
- **38% of employers in the region say they've already reduced or consolidated their office space**, and another 31% say they plan to reduce or consolidate their office space in the region over the next few years.

Regional Economic Recovery Index

How has the region fared compared to peer regions?

To better understand how the Bay Area's economic recovery compares to peer regions, we developed a regional economic recovery index for the 25 largest economic regions in the nation (based on regional GDP). We use metropolitan statistical areas (MSAs) as defined by the U.S. Office of Management and Budget (OMB). The San Francisco-Oakland-Berkeley metro includes San Francisco, Alameda, Marin, Contra Costa, and San Mateo counties. The San Jose-Sunnyvale-Santa Clara metro includes Santa Clara and San Benito counties. Regions are scored on 15 different metrics across 5 different categories: Jobs, People, Investment, Economic Activity, and Affordability. Scores are out of 100. A score of 100 indicates that a region ranked first on every metric, while a score of 0 indicates that a region ranked last on every metric. For example, Austin scored 100 in the People category, meaning it had the highest rate of both population growth and labor force growth, the two metrics in that category. San Diego, San Jose, San Francisco, and Los Angeles all scored the lowest because they experienced the greatest population and labor force losses given their pre-pandemic levels. See the full data and methodology in **Appendix A.**

Overall Score Across Metro Areas



Source: Multiple, see methodology. • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

Bay Area Deep Dive

What's driving the region's recovery?

The San Francisco Bay Area, home to Silicon Valley, is world reknown with unparalled innovation, thriving labor markets, and significant economic activity including the largest inflows of venture capital from around the world. Even with all of the successes the Bay Area has experienced, the COVID-19 pandemic has had tremendous adverse impacts on the region. This section takes a deeper dive into jobs, people, investment, economic activity, and affordability to better understand the region's trajectory of economic recovery.

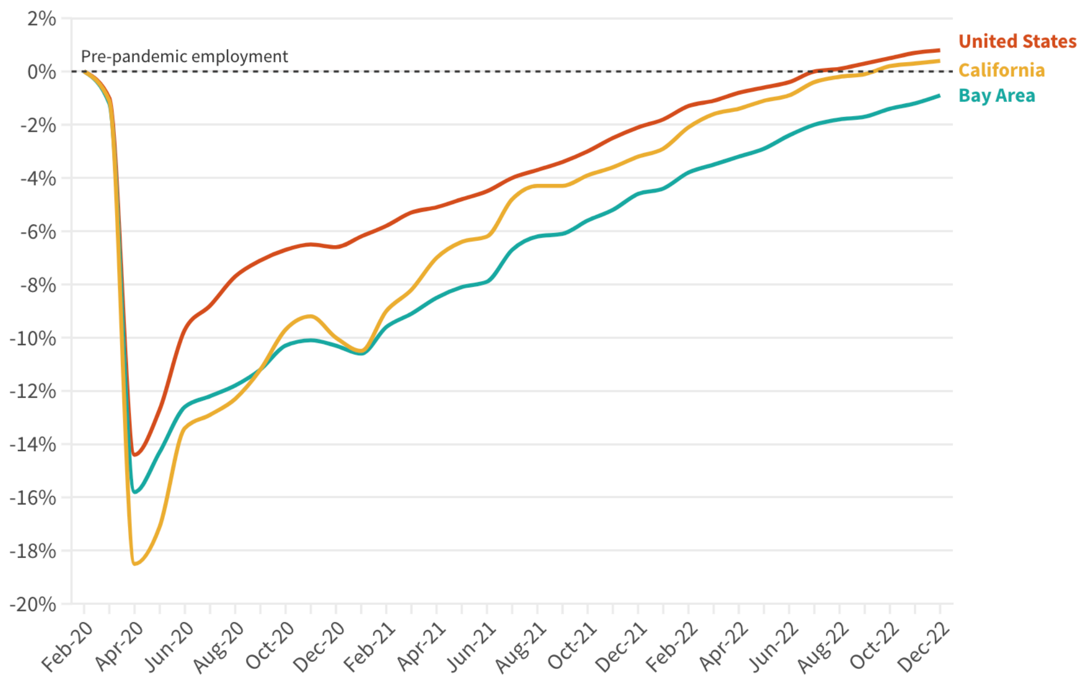
Jobs

Where are Bay Area based companies hiring now? How does remote work play a role?

The Bay Area lost over 650,000 jobs at the start of the pandemic. Since then, despite slow growth towards the end of 2022, the region has gained back all but 36,400 of its pre-pandemic jobs as of December 2022. While employment in the Bay Area has remained consistent in the face of ongoing inflation pressures and interest rate uncertainty, the region has still produced slower compared to peer regions, particularly along

The region ended the year strong, but still down 36,400 pre-pandemic jobs (0.9%) with layoffs looming

Job growth in the Bay Area, California and Nation as of December 2022 (February 2020=0%)

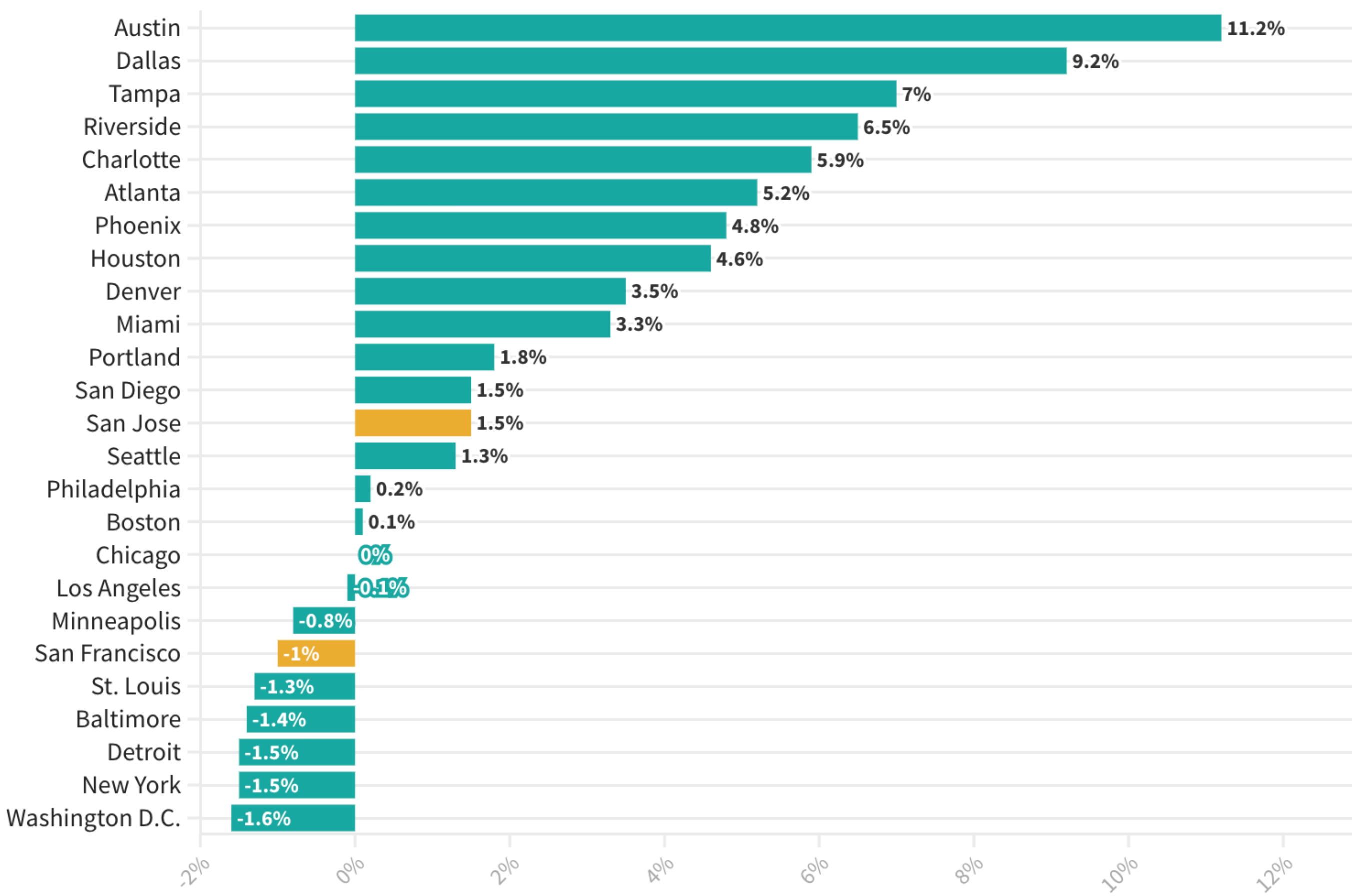


Source: California EDD, BLS CES • Analysis: Bay Area Council Economic Institute
Data are seasonally adjusted.

the nation's sunbelt. As the Bay Area struggles to fully regain its pre-pandemic jobs, cities like Austin and Dallas have not only regained the jobs they lost, they've exceeded them. Most of this lag has to do with blows to the service, leisure and hospitality sectors. When measuring growth exclusively in "knowledge industries" which include tech, IT, R&D, legal and most office work, San Francisco and San Jose are closer to the top of the pack, having grown well beyond their pre-pandemic levels of jobs in these sectors.

The San Francisco metro area's nonfarm jobs still lag behind pre-pandemic levels, while Austin, Dallas, and Tampa have seen meteoric rises in employment

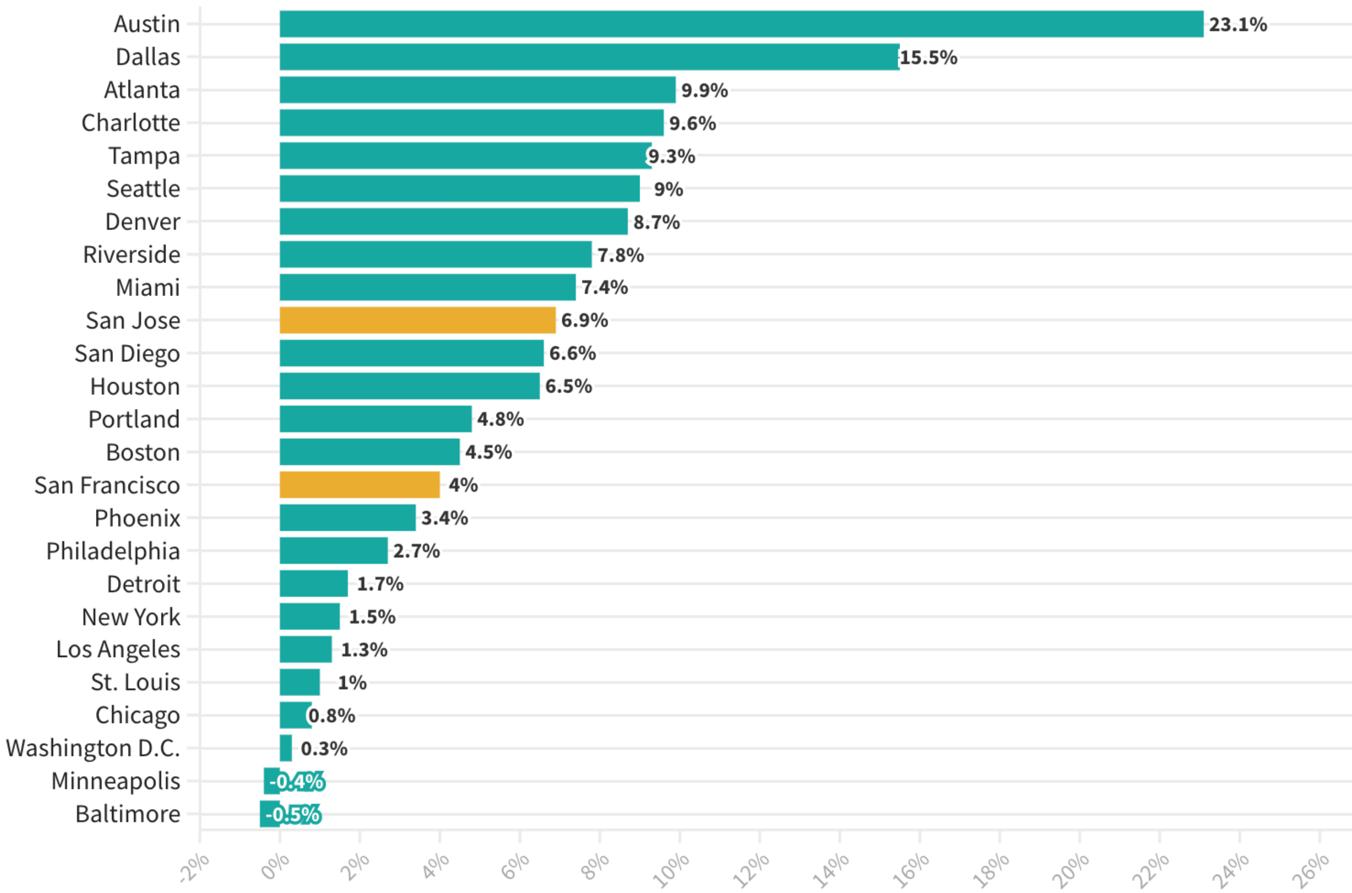
Job growth for the 25 largest metropolitan areas by GDP, December 2019 - December 2022



Source: Bureau of Labor Statistics • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within. Jobs are nonfarm and are seasonally adjusted.

Most of this lag has to do with blows to the service and hospitality sectors. San Francisco and San Jose are closer to the top when measuring growth in "knowledge industries" e.g., tech, R&D, legal etc.

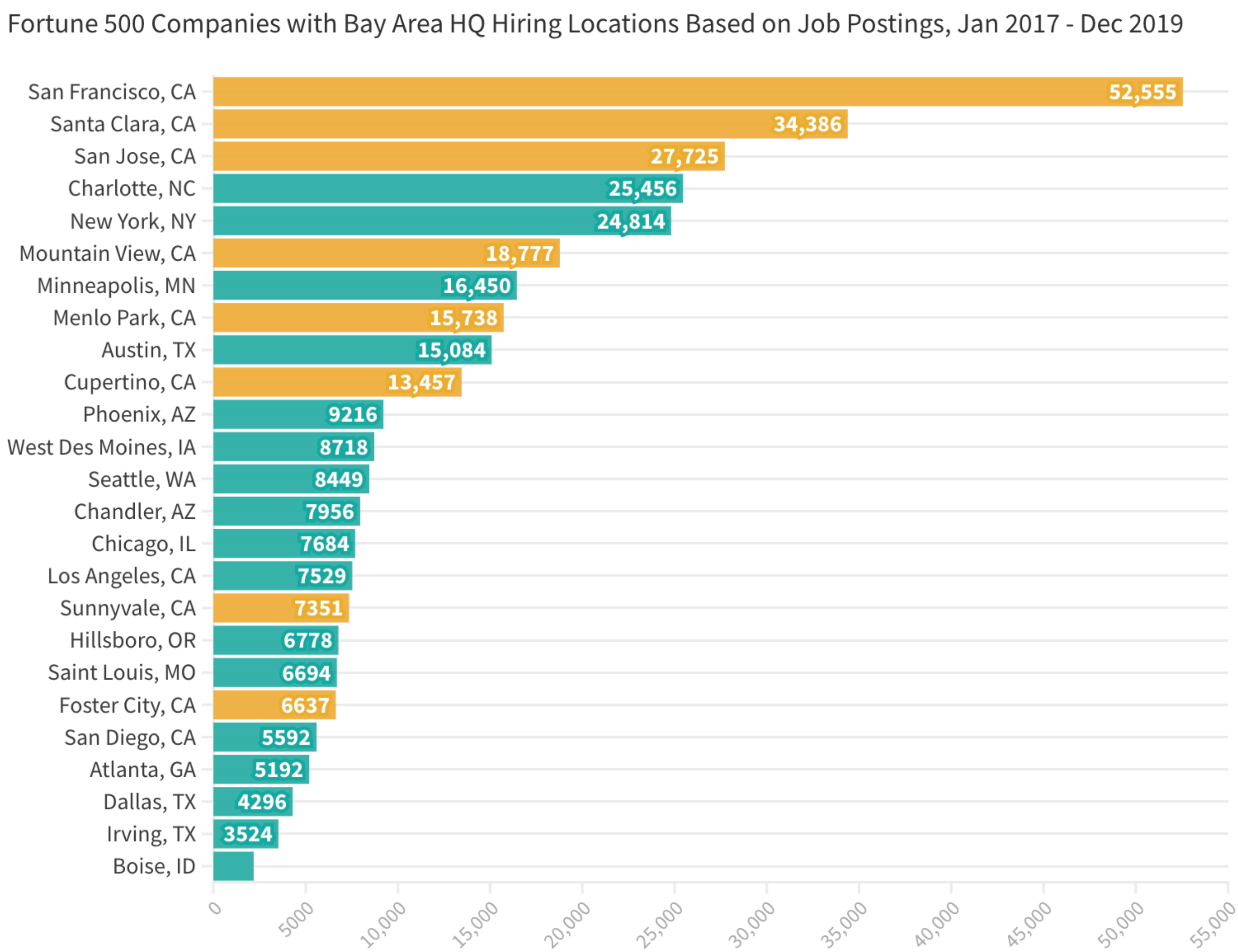
Growth in "knowledge industries" for the 25 largest metropolitan areas by GDP, December 2019 - December 2022



Source: Bureau of Labor Statistics • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within. Knowledge industries include Finance and Insurance, Information, Professional Scientific and Technical Services, and Real Estate and Rental and Leasing

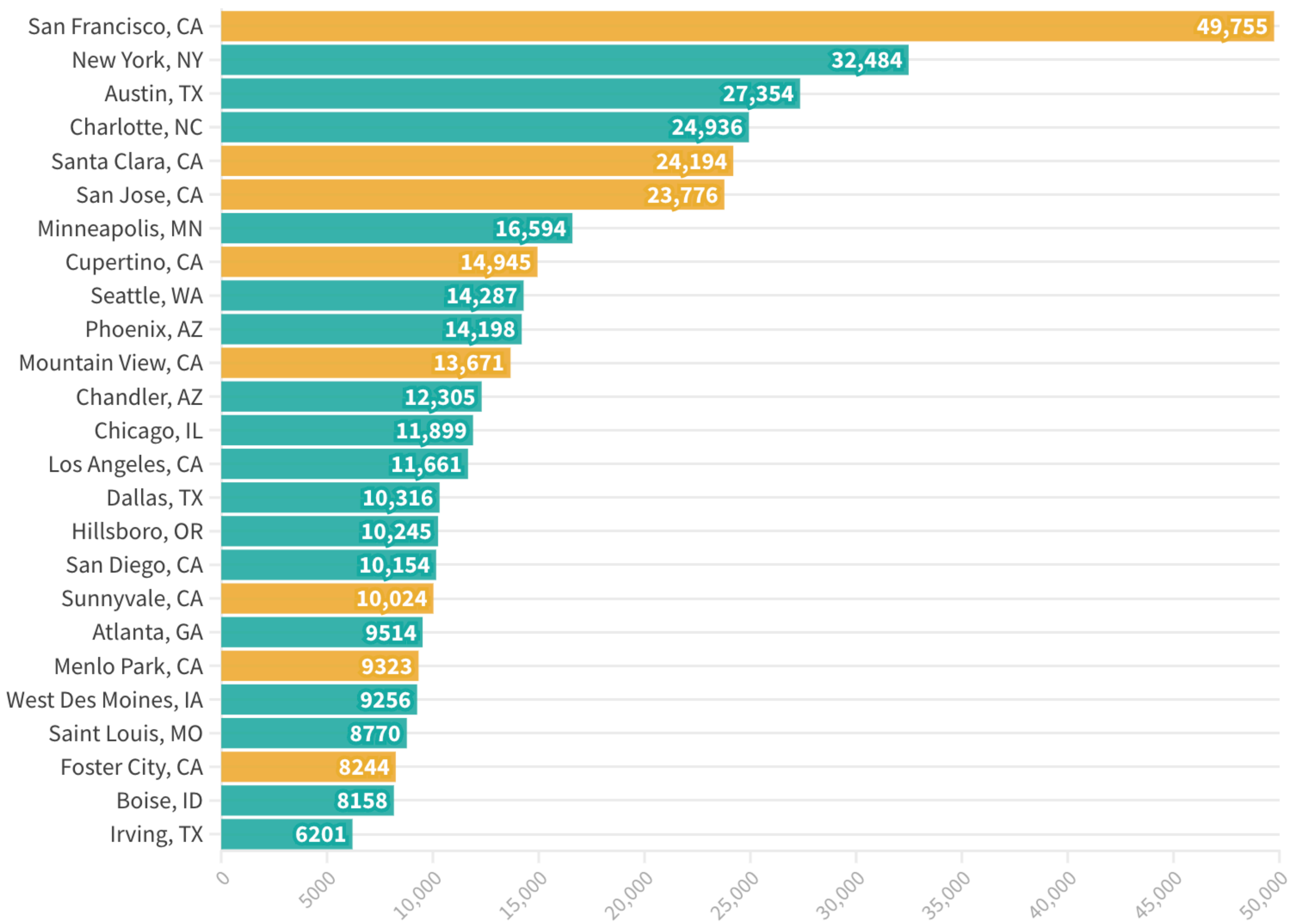
One factor contributing to this discrepancy is a switch in where companies are headquartered or hiring. As of May 2022, Texas officially became home to the nation's most Fortune 500 companies, overtaking California and New York. While Texas has been the number one destination for companies leaving California for last 12 years, the pandemic shifted the way many companies thought about hiring and the cost of doing business. A study by the Hoover Institute found that tax policy, regulatory climate, and talent availability were the top three reasons CEOs chose to relocate business outside of California. Before the pandemic, Fortune 500 companies based in the Bay Area concentrated hiring in San Francisco and Silicon Valley, where many leased or owned office space. During the pandemic, many companies increased hiring elsewhere. Total job postings fell among the Bay Area's top tech cities, while places like New York, Austin and Charlotte saw more job postings for Fortune 500 companies with Bay Area HQs than former local hubs like Santa Clara and San Jose.

Before the pandemic, Bay Area cities dominated job postings for Fortune 500 companies with Bay Area HQs



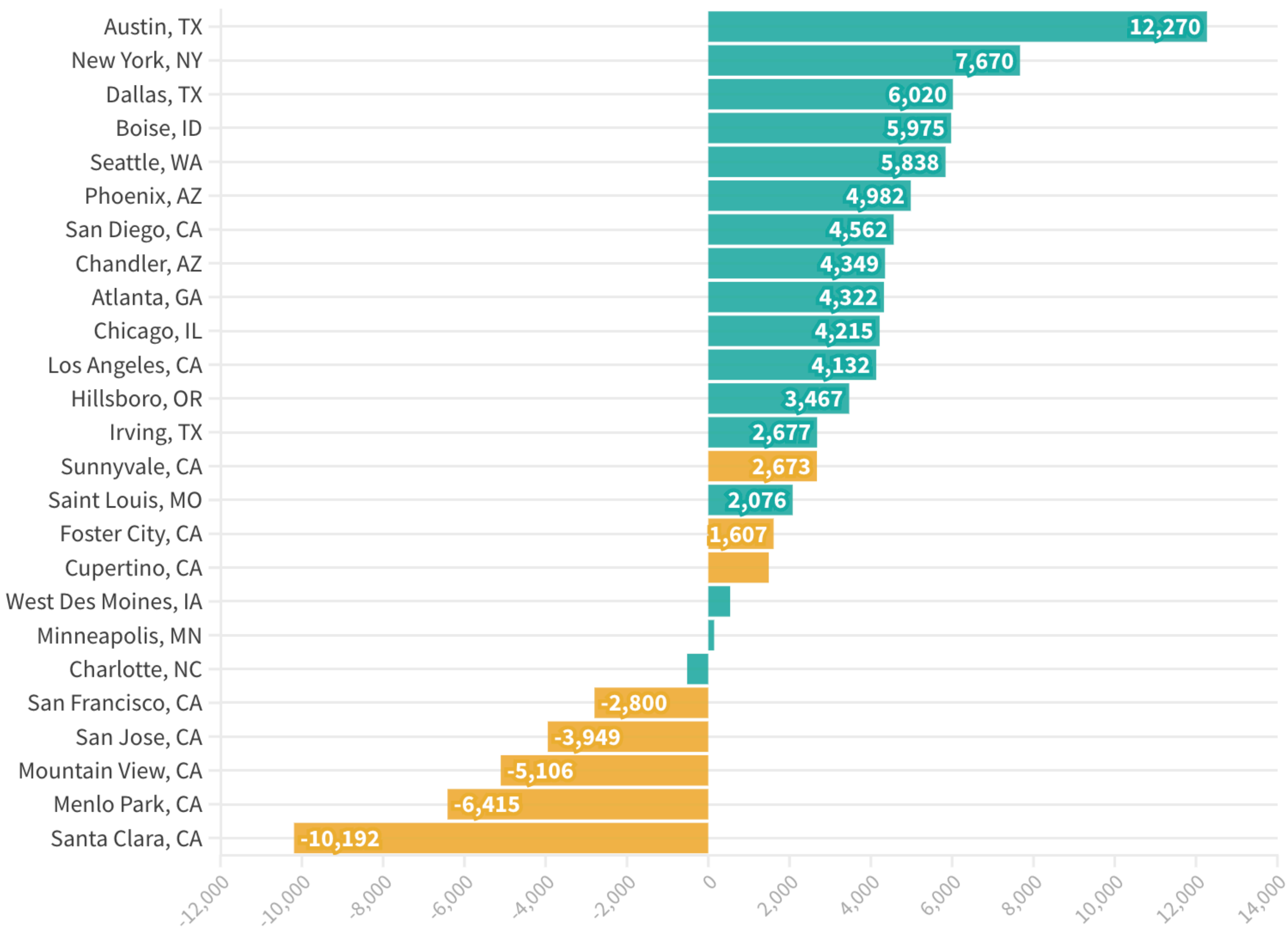
During the pandemic, postings declined across the Bay Area, as Fortune 500 companies started hiring more abundantly in satellite/region offices. Cities like New York, Austin and Charlotte saw more job postings for with Bay Area HQs than Santa Clara or San Jose

Fortune 500 Companies with Bay Area HQ Hiring Locations Based on Job Postings, Jan 2020 - Sep 2022



The cities experiencing the steepest decline in job postings by Bay Area based Fortune 500 companies were all in Silicon Valley

Fortune 500 Companies with Bay Area HQ Hiring Locations Based on Job Postings, Net Change

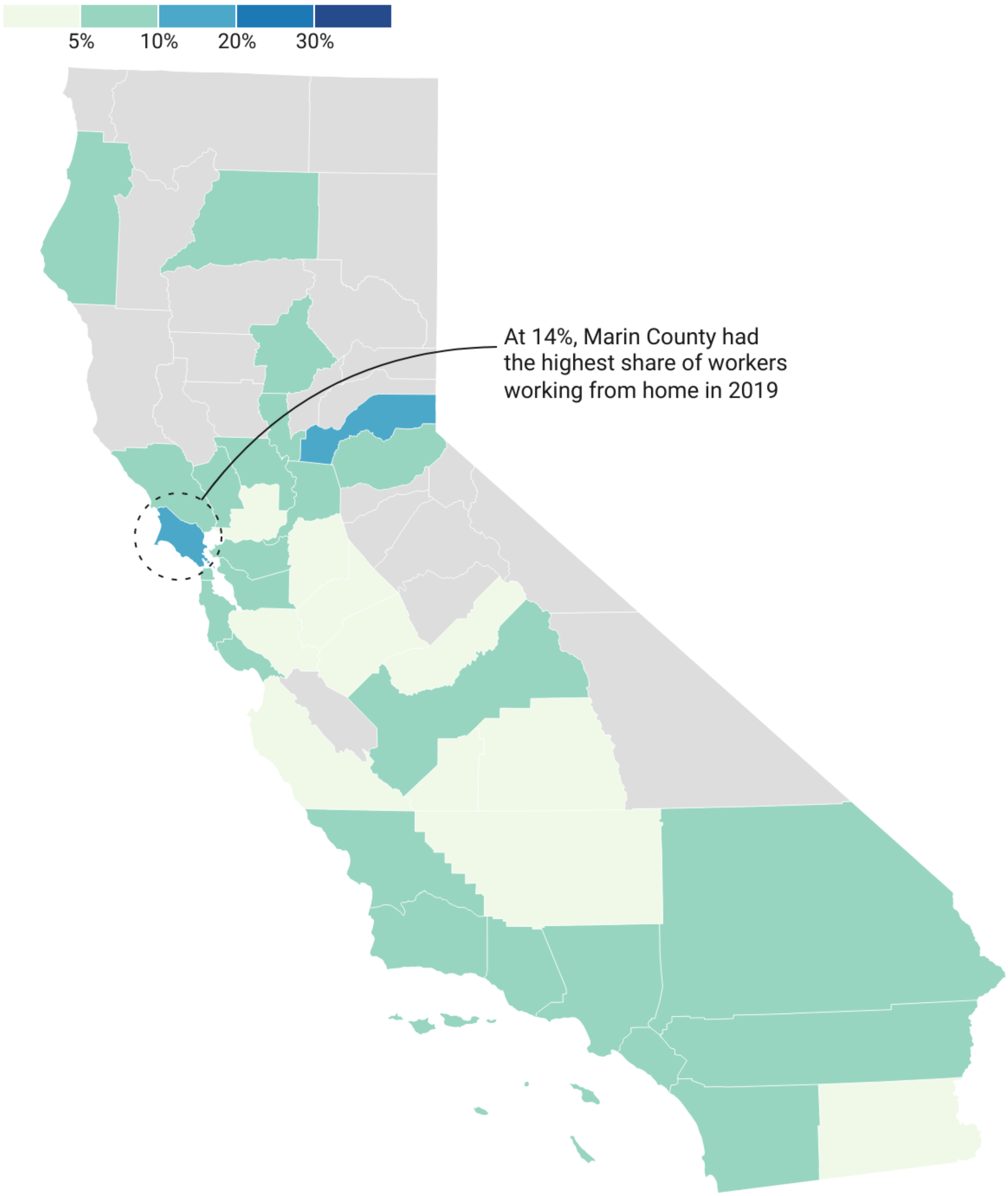


So, what makes our region different?

While San Francisco is not unique in its shift to remote work, our region saw a more dramatic shift than its peers. In 2019, 260,000 residents in the Bay Area worked primarily from home, in 2021, that number skyrocketed to 1.2 million, a nearly 5 fold increase. In San Francisco proper, 46% of residents worked from home in 2021. By comparison, only 21% of California as a whole worked from home, and only 18% of people nationwide worked from home. In big cities with high levels of remote eligible industries, like tech in San Francisco or government in Washington D.C., the outlying suburbs saw massive increases in remote work. The Bay Area's 4.7x increase trailed only the DC region (5.1x), but what makes our region more susceptible to longer-lasting effects of remote work is that our economy is driven by office-based industries that have cemented remote work into the fabric of our economy.In the years following the Great Recession before the onset of the pandemic, approximately 40% of the region's growth came from two office-based industries: professional services and information. In San Francisco proper, office work was responsible for 72% of the city's gross domestic product pre-pandemic.

Work From Home Share, 2019

Resident workers aged 16 and over who reported they "worked from home" when asked what means of transportation they took to work the week they were surveyed.



ACS 1-year estimates are available only for geographic areas with populations of 65,000 or more. Counties in grey do not meet this population threshold.

Map: Bay Area Council Economic Institute • Source: U.S Census Bureau 2021 ACS 1-Year Estimates • Created with Datawrapper

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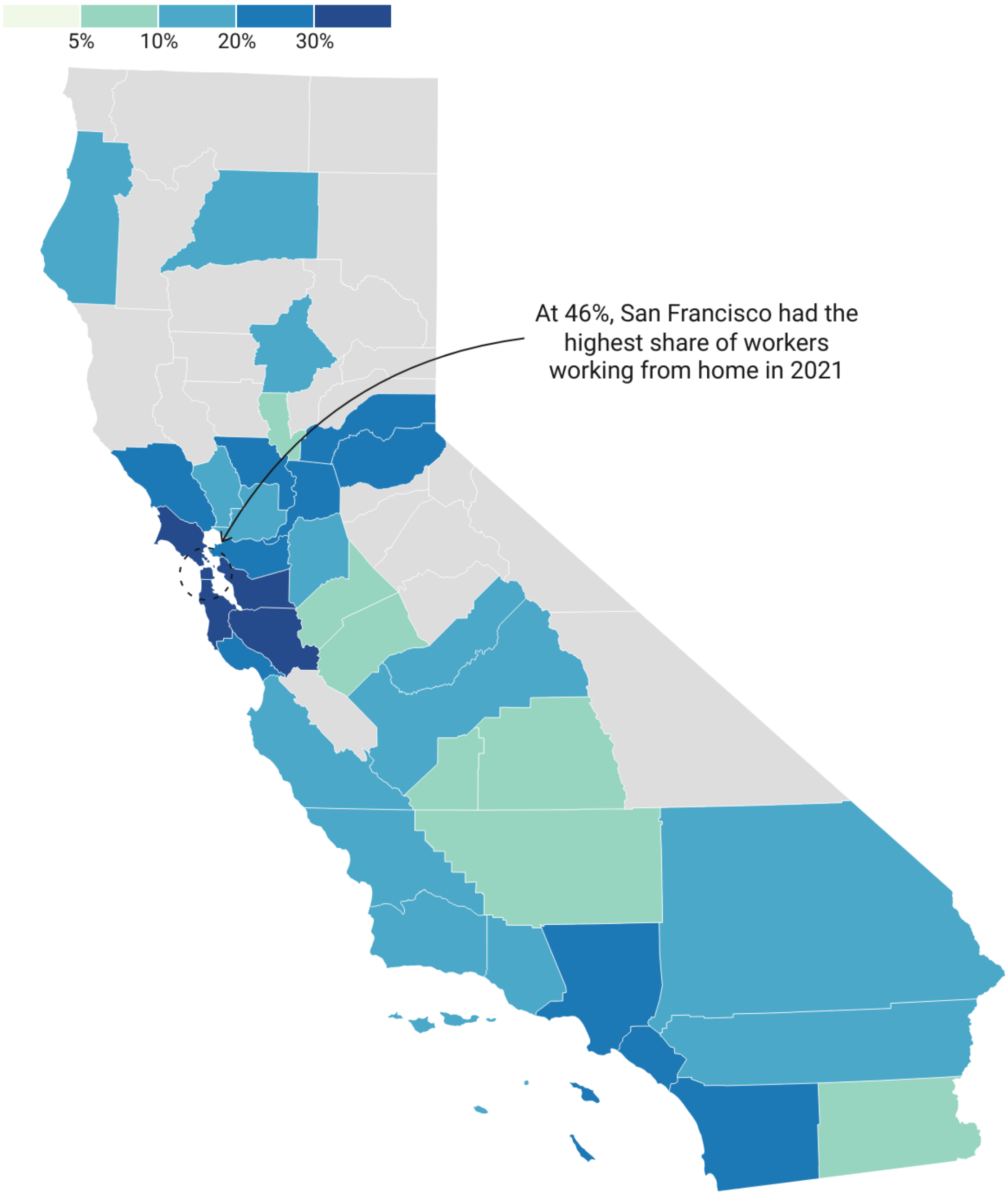


ACS 1-year estimates are available only for geographic areas with populations of 65,000 or more. Counties in grey do not meet this population threshold.

Map: Bay Area Council Economic Institute • Source: U.S Census Bureau 2021 ACS 1-Year Estimates • Created with Datawrapper

Where are we headed?

Tech layoffs that made headlines towards the end of 2022 are not necessarily indicative of a "dot com" type crash, but instead a correction. A significant portion of pre-pandemic employment growth was concentrated in San Francisco as some of the city's technology start-ups grew rapidly and Silicon Valley companies opened satellite offices to attract talent from a broader geography. Now, with an increased focus on profitability, many of them are discovering they may have grown too quickly. Some cuts and closures could be seen as maturing companies making prudent, but difficult, decisions given their individual circumstances rather than the beginning of a bigger technology-led slide.

Over the next several months, nearly 13,000 layoffs are expected to take effect in the region based on the state's Worker Adjustment and Retraining Notification (WARN) Act report, which requires employers to give a 60-day notice to the affected employees and both state and local representatives before closures or a mass layoff. While this may lead to a couple of months of low or slightly negative job growth, it is unlikely to be catastrophic. Still, hiring decisions throughout 2023 will answer an important question: is the Bay Area's economy robust enough to absorb layoffs within the region's biggest technology firms?

People

Where did people move during the pandemic? Who left?

The pandemic saw a massive redistribution of people within and across regions in the United States. For many city-dwellers, the pandemic offered an opportunity to settle down, often in suburbs close to the city. In fact, moves out of the densest parts of big cities jumped 17% during the first year of the pandemic. But suburbs weren't the only places to grow — cities along the sunbelt like Austin, Dallas, Atlanta and Houston also grew dramatically, where families could get a bigger bang for the buck.

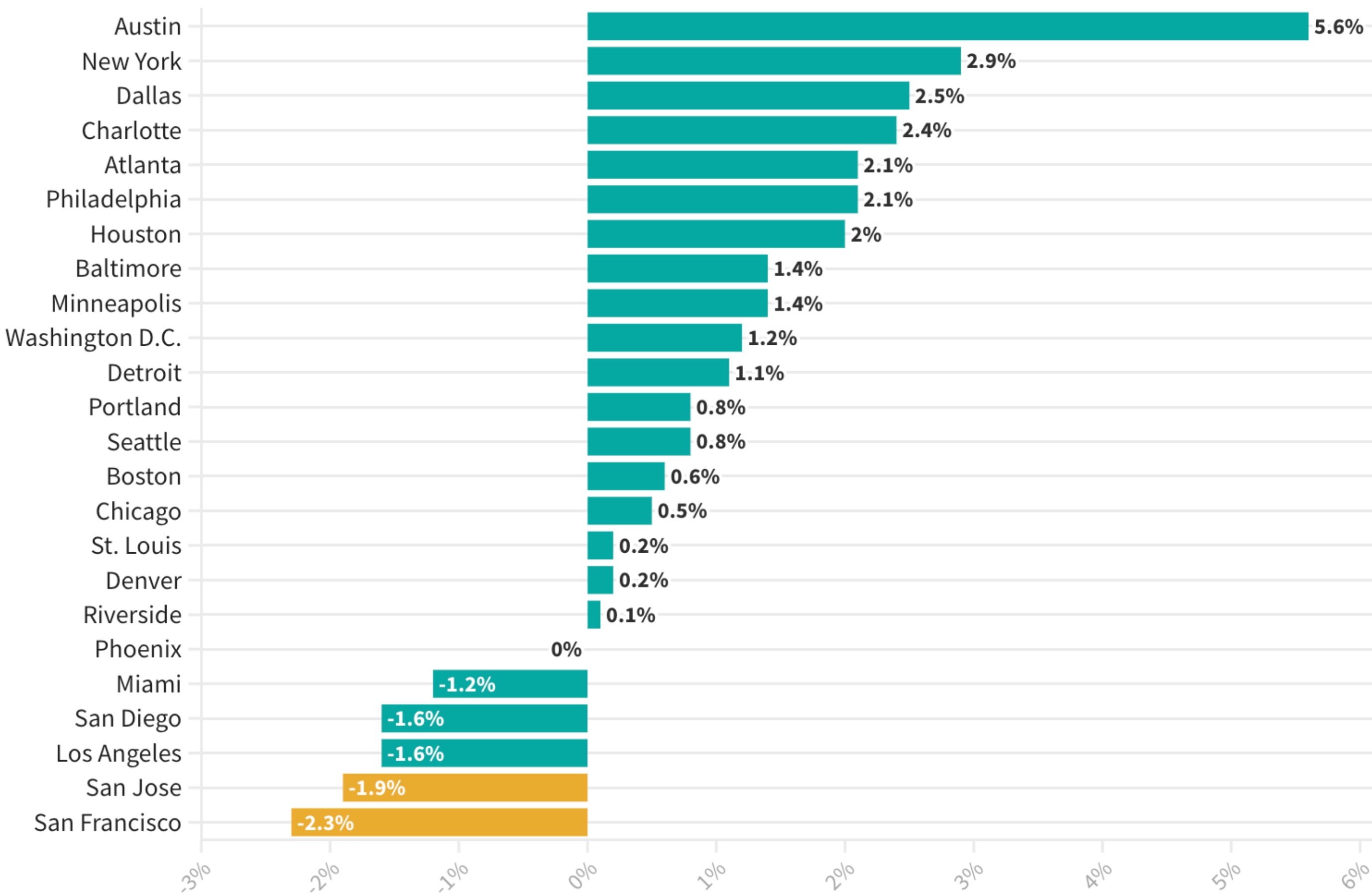
The San Francisco and San Jose metro areas collectively lost 147,000 people during the pandemic, joining only LA, San Diego and Miami as large regions to have lost population. Losses in San Francisco proper contributed to 37% of this decrease, losing 6.3% of its population in one year. These losses are largely a product of remote work and the region's high cost of living, pushing many to settle elsewhere.

From July 2020 to July 2021, the region saw record negative net domestic migration, as nearly 127,000 people left the region. New data for July 2022 show a significant uptick in foreign immigration, as travel restrictions loosened for international newcomers. The region's natural increase (births minus deaths) also increased slightly, as death rates declined and birth rates increased. But domestic out-migration remains a major problem and contributor to the region's population loss. If it weren't for positive foreign immigration and net births, the region would have lost 111,000 people in 2022. Instead, it netted a loss of 68,000 people.

The number of people moving from the Bay Area to another state increased by 33% since 2019, and the number of people moving elsewhere in California increased by 21%. While those who left the region pre-pandemic were still likely to stay in California, remote work opened new avenues for many prospective homebuyers once restricted by geography. Still, top destinations for those who moved away from the region are largely in the Northern California megaregion or California more broadly. Among those who moved out of the region in 2021, a quarter moved to Los Angeles, Sacramento or Santa Cruz. Another 20% moved to cities in the Central Valley or smaller cities just outside the region.

The San Francisco and San Jose metro areas collectively lost 147,000 people during the pandemic, joining only LA, San Diego and Miami as large regions to have lost population

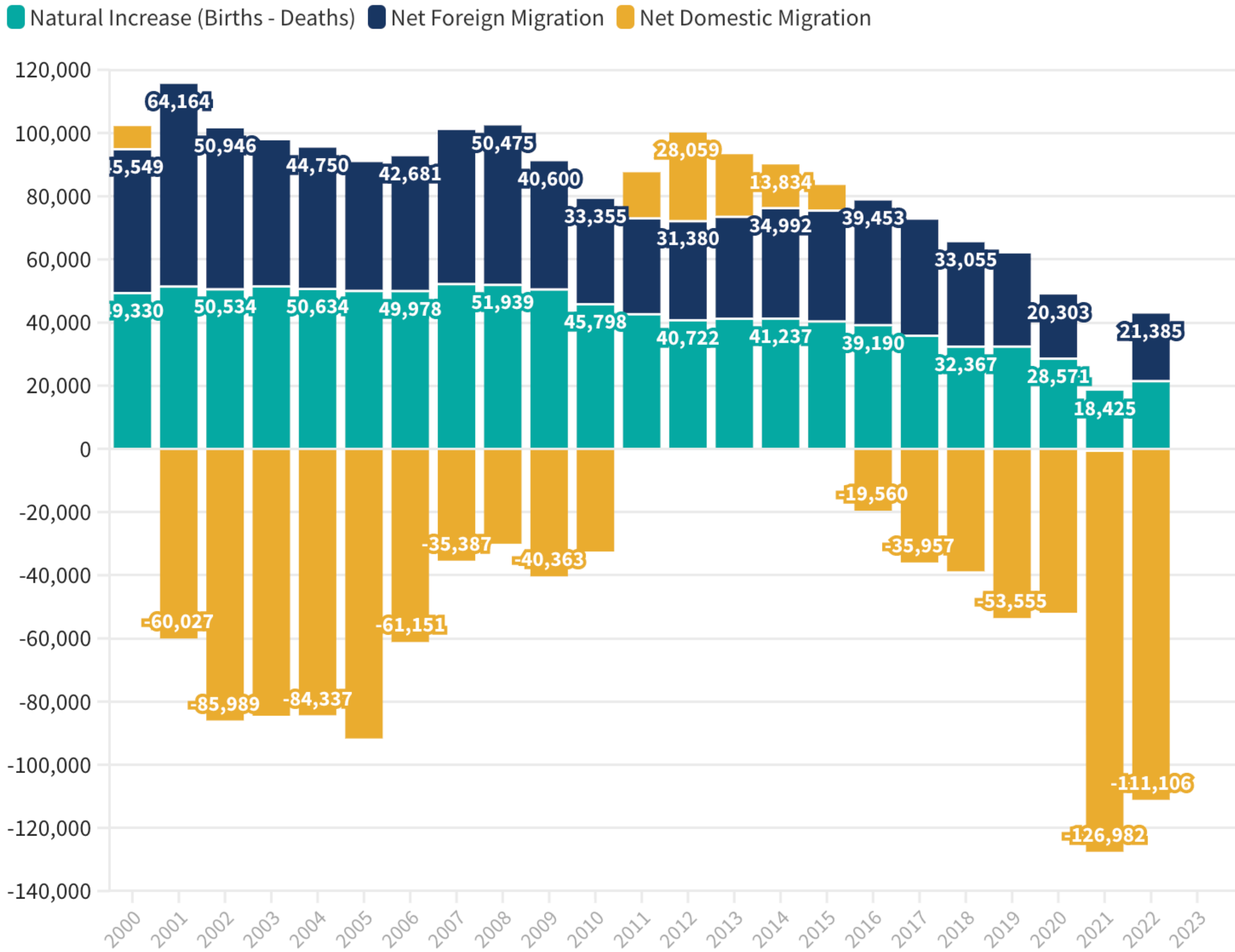
Population change for the 25 largest metropolitan areas by GDP, 2019-2021



Source: U.S. Census Bureau Population Estimates Program • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

In 2021, 127,000 residents left the Bay Area via net domestic migration, a record low. 2022 saw a slight improvement, but domestic out-migration remains a major problem and contributor to the region's population loss

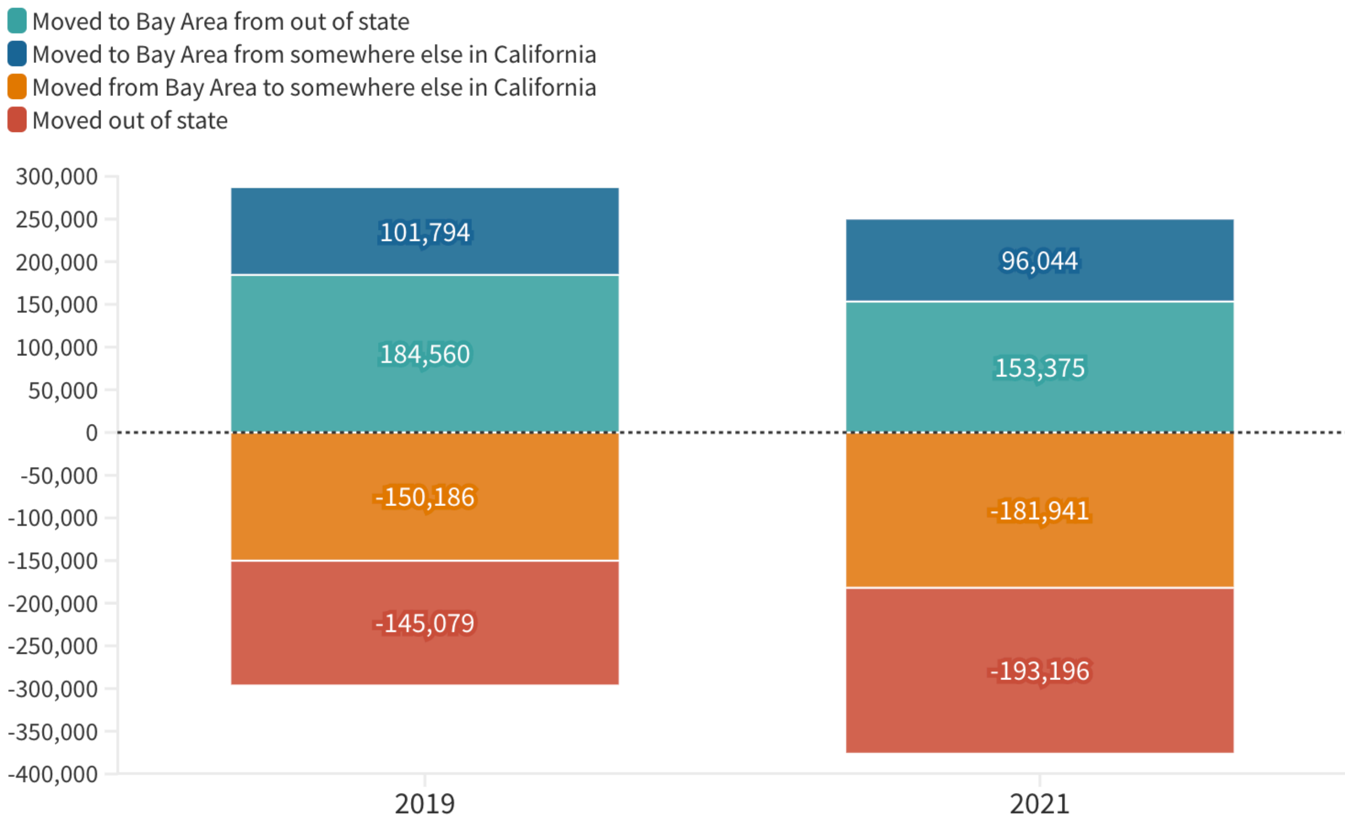
Bay Area components of population change, 2000 - 2022



Source: CA Department of Finance • Analysis: Bay Area Council Economic Institute

Those moving out of state saw a 33% increase, and those moving somewhere else in California saw a 21% increase

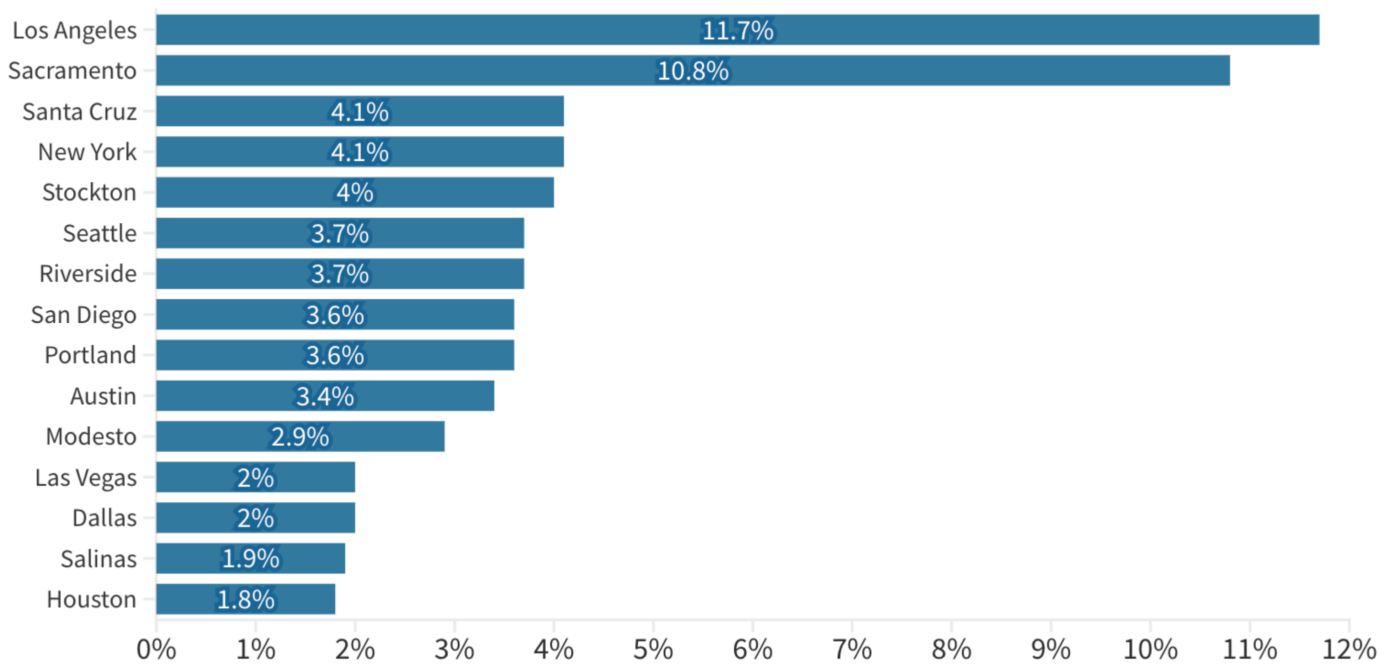
Migration in and out of the Bay Area, 2019 vs. 2021



Source: U.S. Census Bureau 2019 & 2021 American Community Survey 1-Year Estimates • Analysis: Bay Area Council Economic Institute
Note: "Moved" indicates those who said they lived in the Bay Area 1 year ago at the time of the survey, but now live elsewhere.

Still, top destinations for those who moved away from the region are largely still in the Northern California megaregion or California more broadly

Top destinations among those who moved away from the Bay Area in 2021



Source: U.S. Census Bureau 2019 & 2021 American Community Survey 1-Year Estimates • Analysis: Bay Area Council Economic Institute

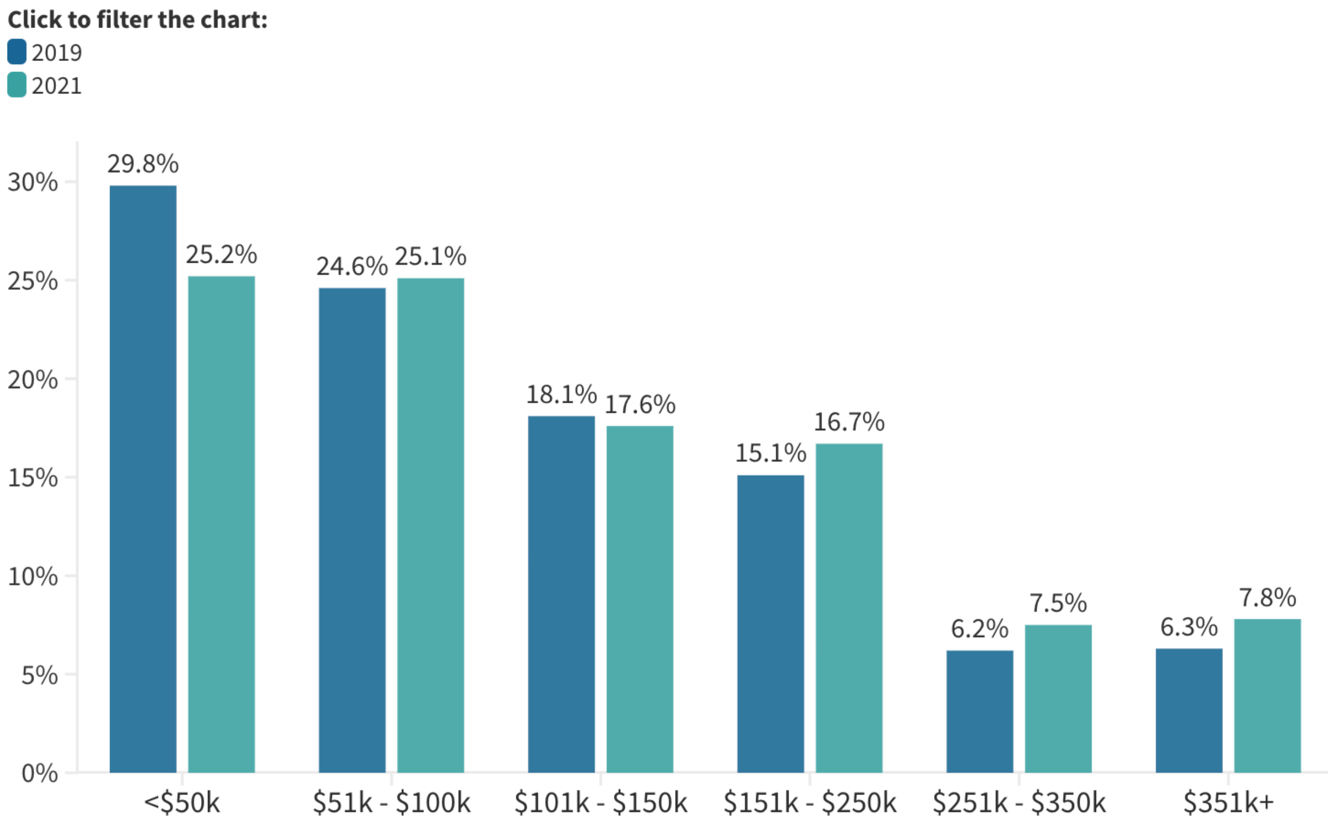
Note: "Moved" indicates those who said they lived in the Bay Area 1 year ago at the time of the survey, but now live elsewhere.

So, who left?

Largely affluent white-collar workers who could perform their jobs remotely. Households earning over $150k moved away from the Bay Area at a higher rate during the pandemic than they did in 2019, while lower earning households, more likely to work in industries requiring in-person work, moved away at a lower rate. These shifts in mobility largely reflected "flight from density", as households chose to move from large regions to smaller ones, or from cities to suburbs, as the workplace and the home became one in the same.

Households earning over $150k moved away from the Bay Area at a higher rate during the pandemic

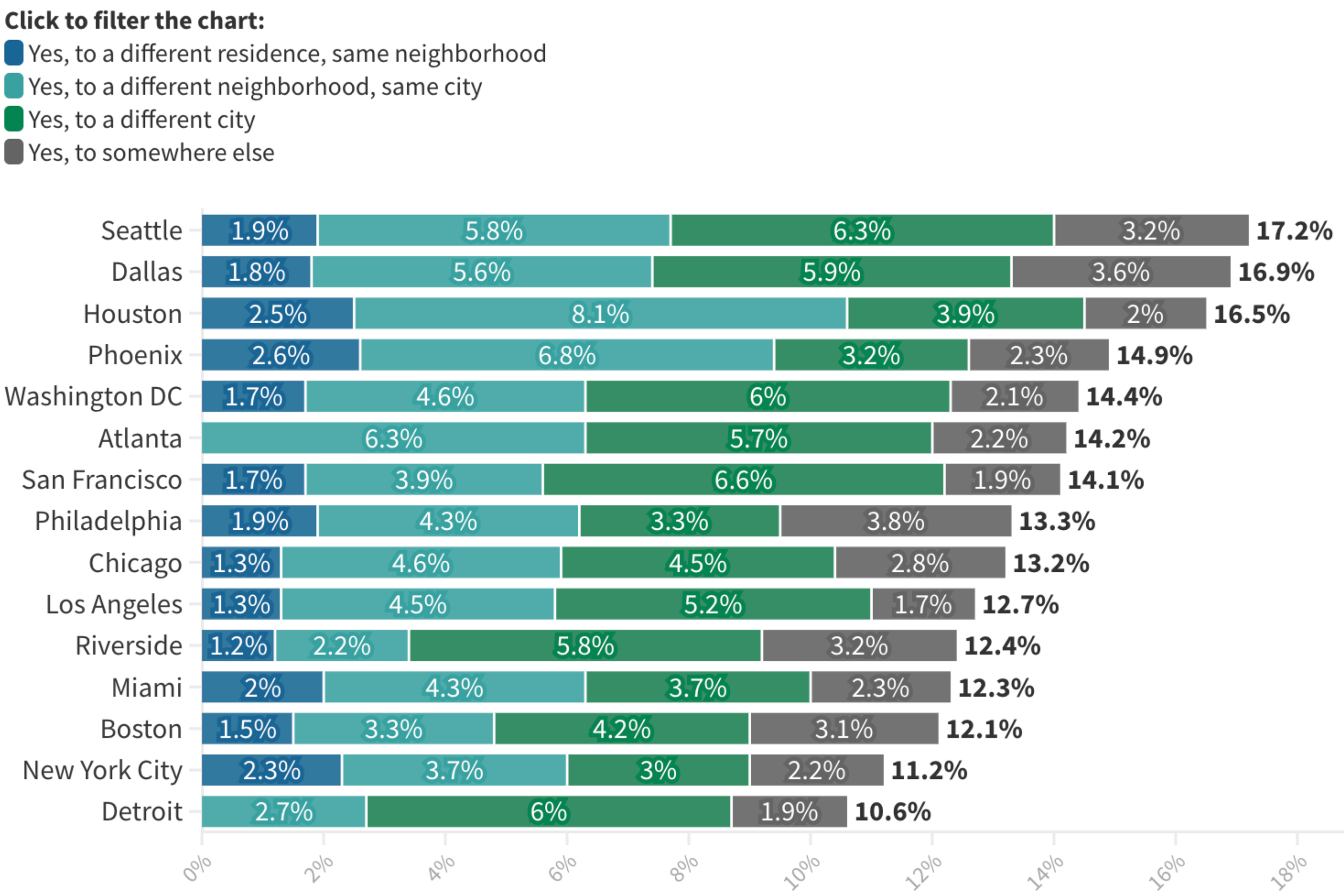
Household income among those who moved away from the Bay Area, 2019 vs. 2021



Source: U.S. Census Bureau 2019 & 2021 American Community Survey 1-Year Estimates • Analysis: Bay Area Council Economic Institute
Note: "Moved" indicates those who said they lived in the Bay Area 1 year ago at the time of the survey, but now live elsewhere.

While San Francisco metro area residents did not see the highest share of people thinking about moving in the next year, they saw the highest share of those wanting to move to a different city in the next year

Respondent Planning or Thinking About Moving in the Next 12 Months



Source: 2021 American Housing Survey • Analysis: Bay Area Council Economic Institute
Note: Missing values indicate that estimates for that geography did not meet publication standards or withheld to avoid disclosure

Is the region's population loss over?

Some data indicate that this urban exodus hasn't lasted. Nationally, the average distance of a home purchase from the closest downtown hit an all time high in December 2020 at 47 miles, and has been steadily decreasing ever sense. New data from LinkedIn indicate that for every 100,000 people on the site, 83 moved (by changing their profile location) to the 'San Francisco Bay Area' in the last 12 months, second only to Austin which saw a whopping 148 moves per 100,000 people. New population data released in January 2023 showed that for the third straight year, the nine-county Bay Area lost population from July 2021 to July 2022, bringing the total population down to 7.56 million, a loss of over 200,000 people since the pandemic began. However, San Francisco proper lost 4,300 people, or 0.5 percent of its population from 2021 to 2022, a much smaller loss than the whopping 32,000 people (or 4 percent of its population) it lost from 2020 to 2021.

Affordability

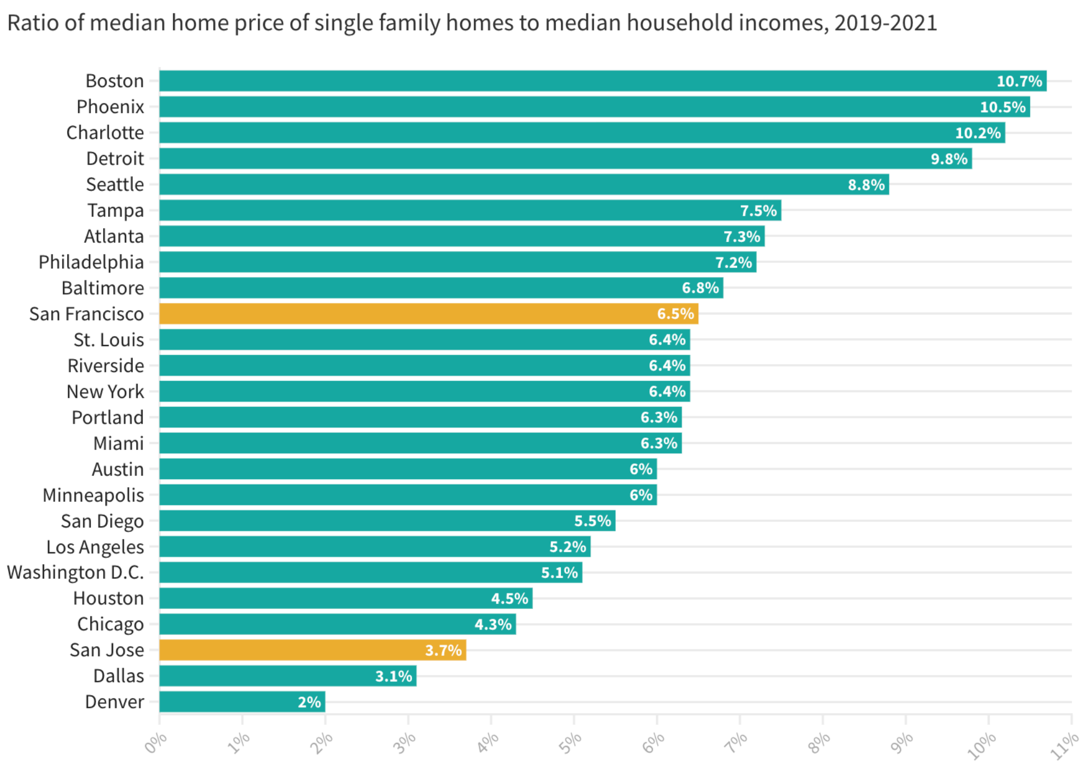
How has the pandemic affected home prices and other costs?

The Bay Area is home to the most expensive housing market in the country. The combination of high demand and limited inventory due to one of the lowest per capita housing production rates in the country continues to contribute to the housing affordability crisis in the region. Yet, the latest Cost of Living Index data from the Council for Community and Economic Research showed that the average cost of living increased almost 10% between the first quarter of 2019 and the first quarter of 2022, while San Francisco's cost of living decreased by 8%. According to the California Association of Realtors, home sales in the Bay Area declined 37% in October 2022 when compared to the same month last year.

San Francisco was also the only county in the region to also experience a decrease in home values during this time period, down 2% compared to +10% in Marin or +6% in Santa Clara.

Cities like Boston and Phoenix saw more drastic increases in home prices given median household incomes from 2019 to 2021. This means that home costs increased at a faster rate than wages in these places. In the Bay Area, meager increases in this ratio of home price to income speak to a shift in household preferences away from high cost cities and towards lower cost metros or suburbs where families could get a bigger bang for their buck (see section on people). A study by the Federal Reserve Bank of San Francisco found that shift to remote work during the pandemic drove over 60% of house-price surge nationwide. It makes sense, then, that the counties in California that saw the biggest home appreciations during the

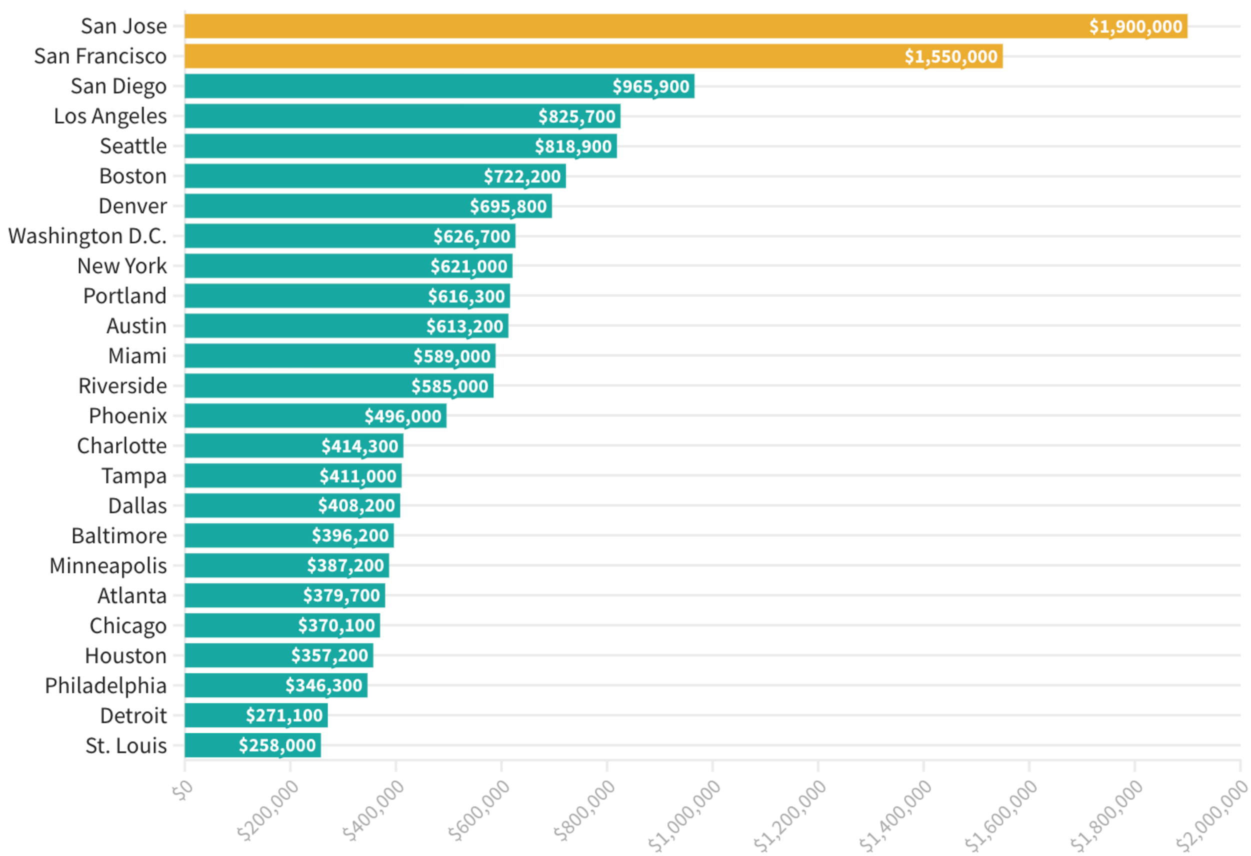
The San Francisco metro area saw a meager increase in the ratio of median home price to median household income. Places like Boston and Phoenix saw home prices increase at a faster rate than wages



Source: CBRE • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

Still, median home sales prices in San Jose and San Francisco are $1m+ higher than hot markets like Austin, Denver, and Miami

Median sales price for single-family homes only, Q2 2022



Source: National Association of Realtors • Analysis: Bay Area Council Economic Institute

pandemic were more suburban than urban (Monterey County, Santa Cruz County, Sacramento County).

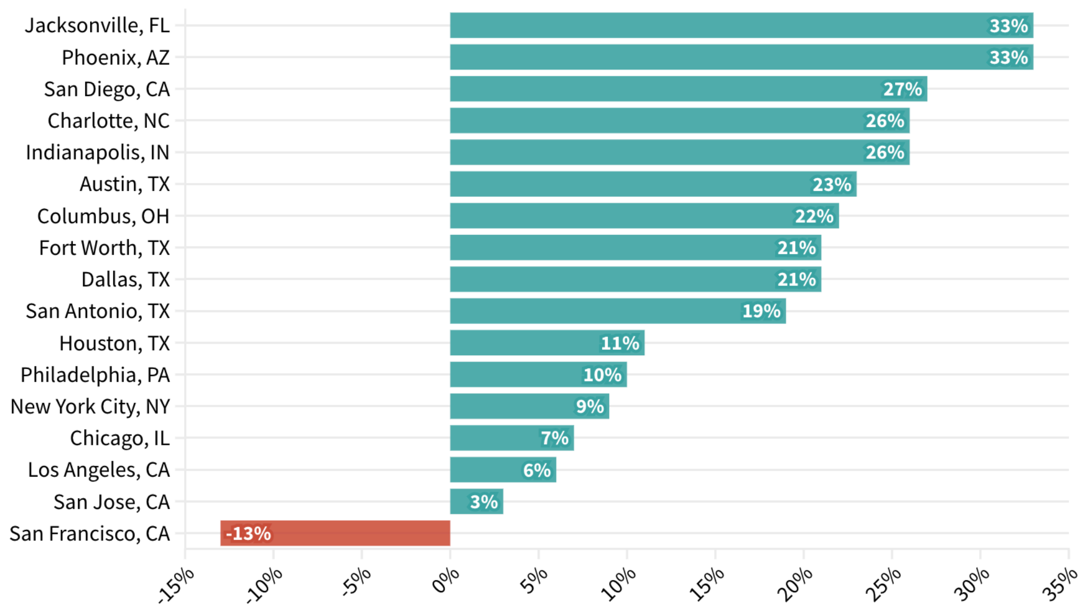
Still, median home sales prices in the San Francisco and San Jose metro areas are nearly $1 million higher than median prices in hotter up-and-coming markets. In fact, of the top 25 largest metro areas, the four most expensive regions are all in California. These prices created conditions pushed lower income households to locations further from job centers or out of the region or state entirely, which the pandemic exacerbated. Even as permitted units from previous years could still break ground in San Francisco, developers are hesitant, as the cost to build new housing has outpaced revenues that can be generated through rents or sales.

What's going on in the rental market?

While lack of production affects the rental market as well, the cost of renting a home decreased across various markets during the pandemic, most notably large urban coastal cities. Places where workers were given more flexible work arrangements encouraged many to leave behind big high cost cities — some to lower cost cities like Sacramento or up-and-coming Austin, others to more affordable parts of the region. The vacancies left by this drop in demand drove down rents, and they've largely stayed there. Some new movement back into the region (see section on people) may start increasing demand and bringing rents back up to pre-pandemic levels, but so far growth has been incremental.

As of December 2022, San Francisco is the only major city with rental prices below pre-pandemic rents.

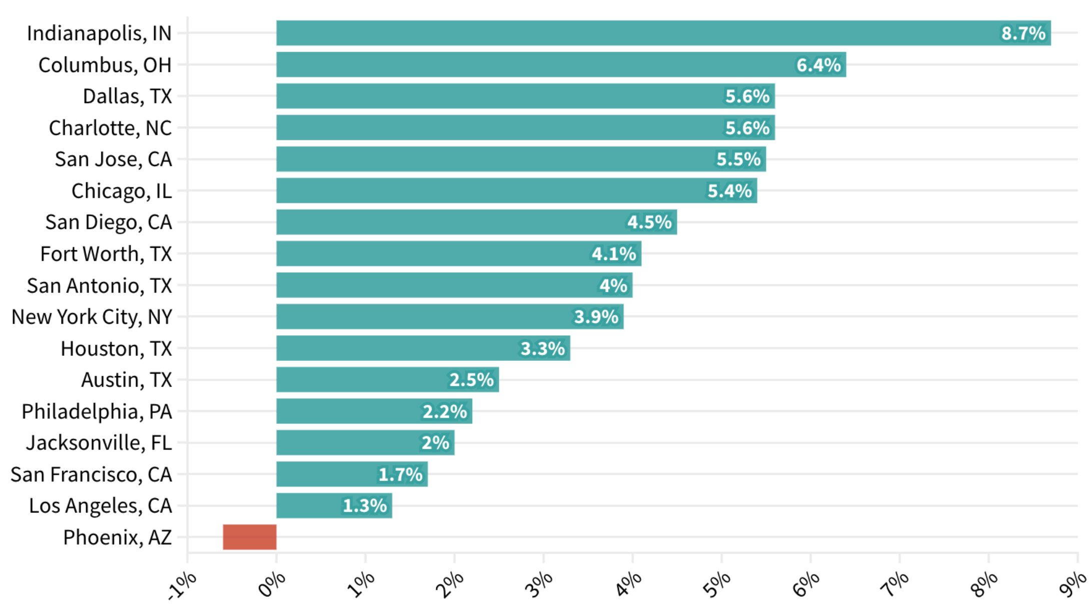
Change in median 2 bedroom rents, December 2019 - December 2022



Source: Apartment List • Analysis: Bay Area Council Economic Institute

In 2022, rents increased marginally in San Francisco (by about $40 per 2 bedroom unit) but not enough to hit pre-pandemic levels, which were nearly $400 higher than now

Change in median 2 bedroom rents, January 2022 - December 2022



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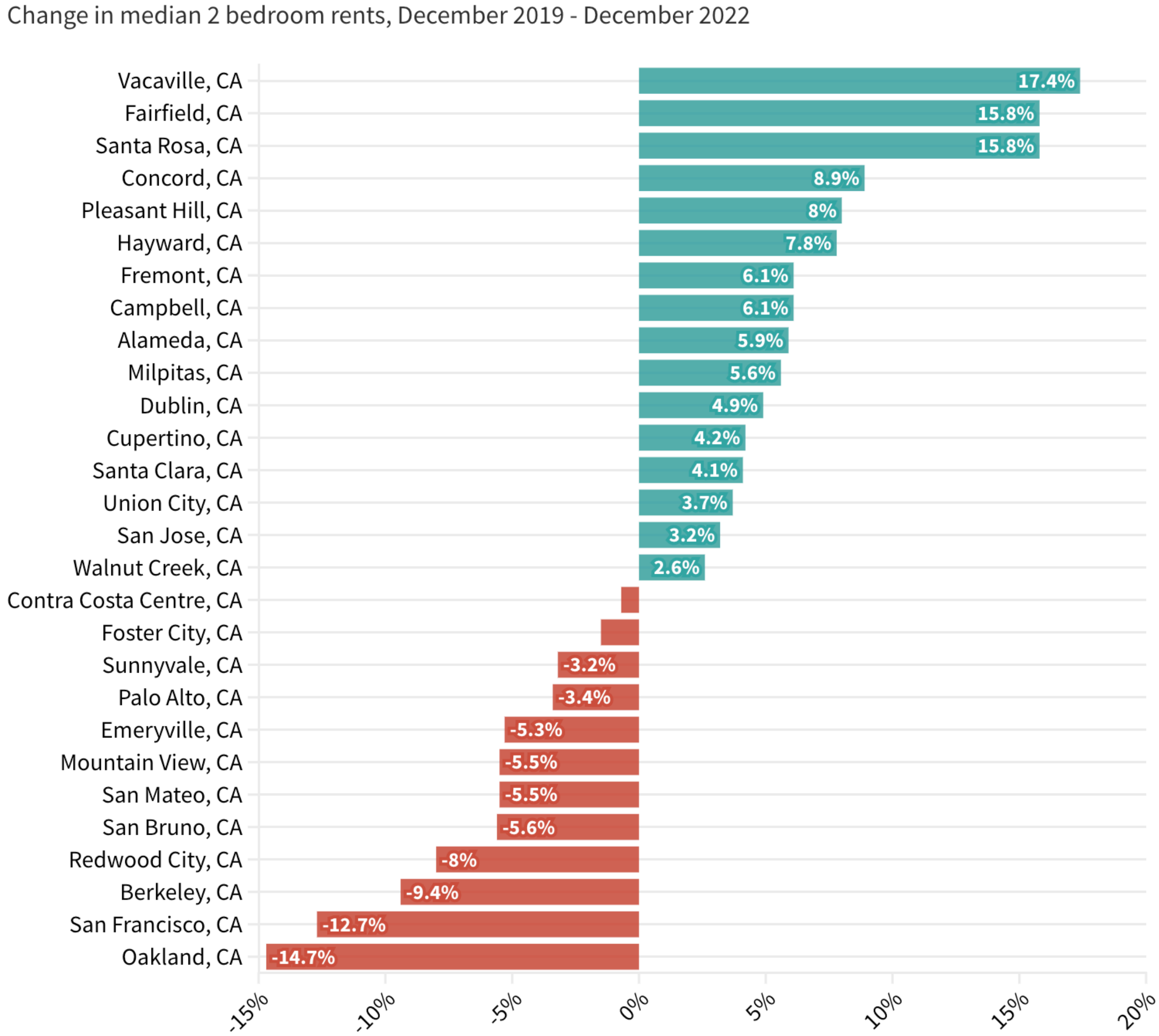


Source: Apartment List • Analysis: Bay Area Council Economic Institute

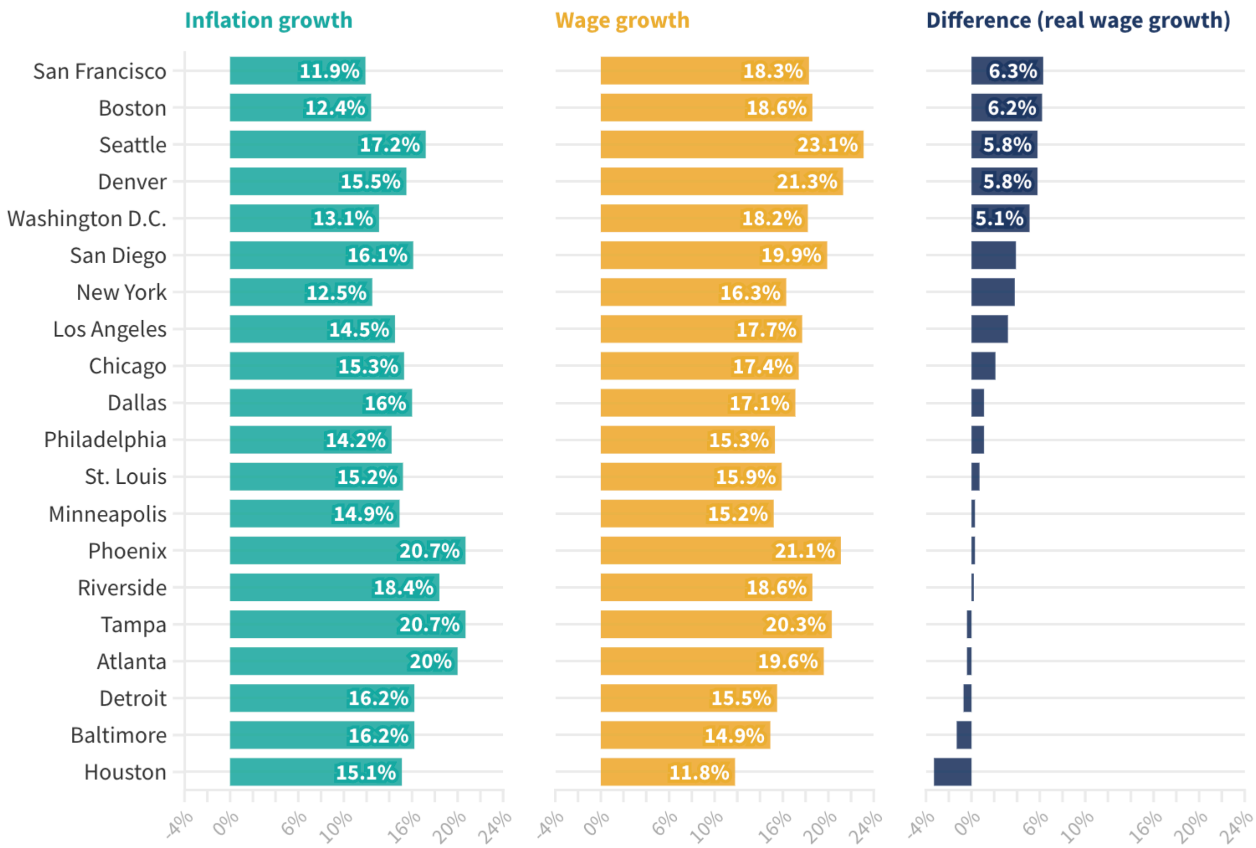
Have wages kept up with inflation?

Wages across the country have grown at accelerated rates since 2021 as the economy recovered from the pandemic and labor markets tightened considerably. At the same time, high inflation ate away at much of the spending power gains workers had achieved. While prices were up considerably across the country, metro areas experienced different levels of inflation over the last three years. A major factor in this variation is housing—both homeownership and rental costs—which accounts for approximately one-third of the costs in the consumer price index.

In tracking real wage gains in each metro area, a clearer picture of inflation and its impacts can be achieved. The San Francisco metro area tops the list of metro areas in terms of real wage growth from 2019 to 2022. Slower inflation in San Francisco was the major contributor, as rents continue to be below pre-pandemic levels. The San Francisco metro area has become relatively more affordable over the last three years when compared to peers, but not because the region produced out-sized gains in wages.

The San Francisco metro had the fastest real wage growth during the pandemic, meaning wages grew at a significantly faster rate than inflation.

Real wage growth (adjusted for inflation), Q2 2019 - Q2 2022
Real wage growth > 0 indicates that wages grew faster than inflation



Source: BLS OEWD, CPI • Note: City names reflect the larger metropolitan statistical area they fall within.
Analysis: Bay Area Council Economic Institute

Economic Activity

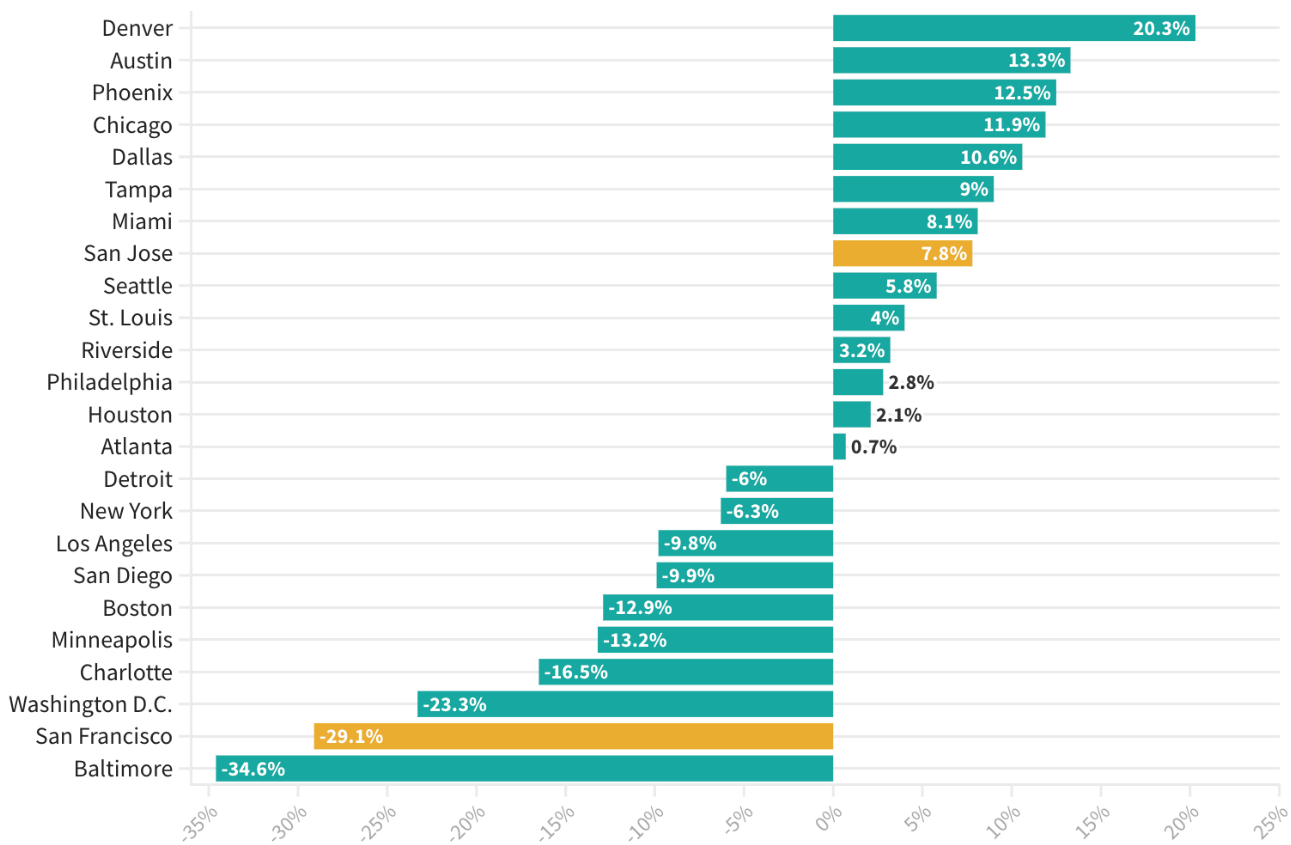
How has economic activity been affected, particularly within leisure and hospitality sectors?

Amidst pandemic-related shutdowns, spikes in COVID cases due to new variants, and a fundamental shift to remote work, downtown cores and businesses that fundamentally rely on office workers to survive have struggled to stay afloat over the last three years. One study tracking mobile phone usage across 62 North American cities ranked San Francisco last in terms of downtown activity: only 31% of its fall 2019 activity had returned by late 2022 (compared to 68% in San Jose or 74% in New York City). This section explores trends in the region's economic activity related to tourism, hospitality, and consumer spending, and why we've struggled to recoup spending and activity across our region's central business districts.

To better understand how our retail and service sectors have suffered, we collected sales tax data from individual city-level annual financial comprehensive reports for the 25 largest regions in the nation. Our findings echoed low activity collected

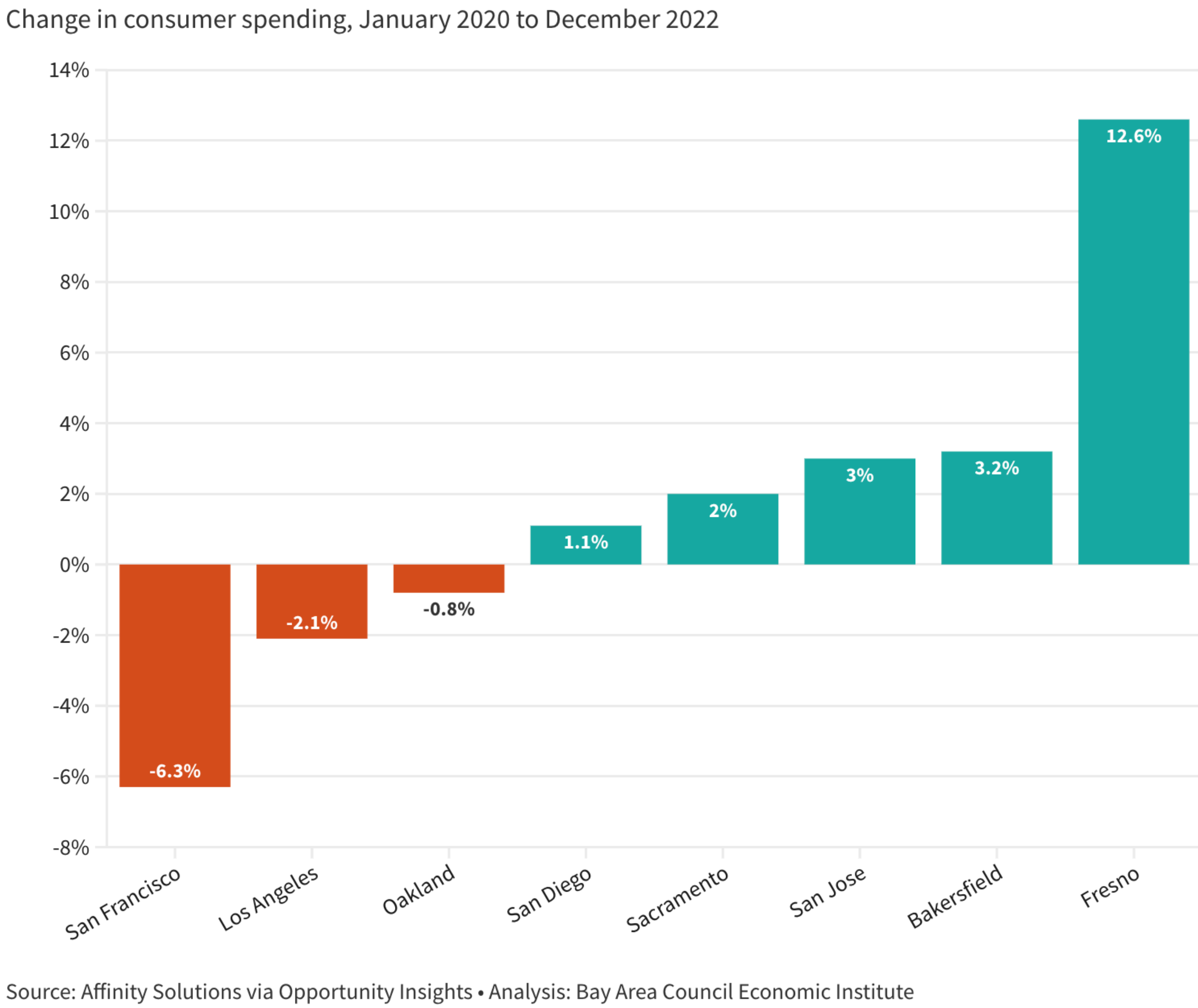
San Francisco collected 29% fewer dollars in sales tax revenue in 2021 than 2019, taking the hardest hit of any large city on the West Coast

Change in sales taxes collected in major cities within the 25 largest metropolitan areas by GDP, 2019-2021



Source: Individual city-level annual financial comprehensive reports • Analysis: Bay Area Council Economic Institute
Note: In cities where sales and use tax are combined, use tax is excluded. Portland is excluded due to no sales taxes in Oregon. City names reflect the larger metropolitan statistical area they fall within.

Patterns in consumer spending among California's largest cities follow a similar pattern to mobile phone activity data



by mobile phones: the City of San Francisco collected $96 million fewer dollars (or 29%) in sales tax revenue in 2021 than 2019, taking the hardest hit of any large West Coast city. San Jose fared slightly better, likely related to a higher office occupancy that kept other parts of the economy afloat. Over the same time period, cities like Denver, Austin, and Phoenix all saw a significant increase in sales tax revenue, indicating an increase in local consumer spending and stronger service sector recovery.

Patterns in consumer spending among California's largest cities also follow a similar pattern. Based on aggregated and anonymized data on credit and debit card spending, San Francisco businesses received 6.3% fewer dollars from January 2020 to December 2022. Unlike during the Great Recession, where nearly all of the reduction in consumer spending came from a reduction in spending on goods, 71% of the reduction in total spending came from a reduction in spending on services. These changes in spending patterns took a huge hit on once thriving tourism sectors. To investigate further, we evaluated hotel occupancy trends and enplanement data to better understand the health of the Bay Area's tourism sector.

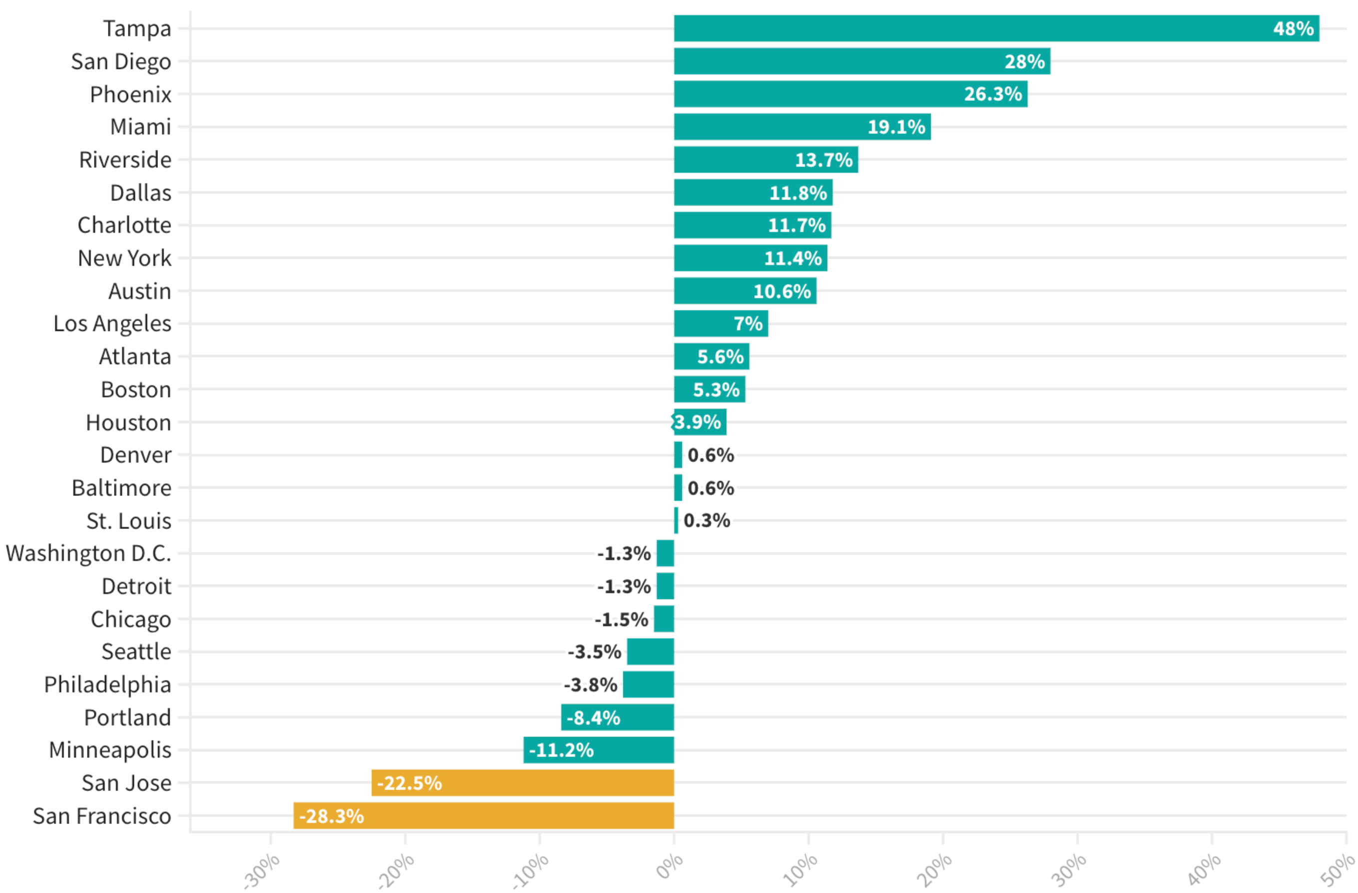
What about hotels and air travel?

RevPar, or revenue per room, is the most comprehensive metric for measuring the health of the hotel economy. It incorporates both the average daily rate and occupancy rate, and illustrates the revenue generated per room regardless of if rooms are occupied. The San Jose, Minneapolis and San Francisco regions saw the steepest declines in RevPar from Q4 2019 to Q4 2022. Despite a current occupancy rate of 64% (putting it in the middle of the pack), San Francisco its RevPar decrease by 30%, from $170 per day per room to $121 per day per room. In Tampa, San Diego, and Phoenix, the inverse has occurred, increasing by over 20% and leading nation's hotel recovery.

In terms of enplanements (total passenger boardings), SFO and SJC experienced the most drastic drop of

In terms of hotel revenue available per room, San Francisco and San Jose saw massive decreases, trailing competing tourism and convention destinations

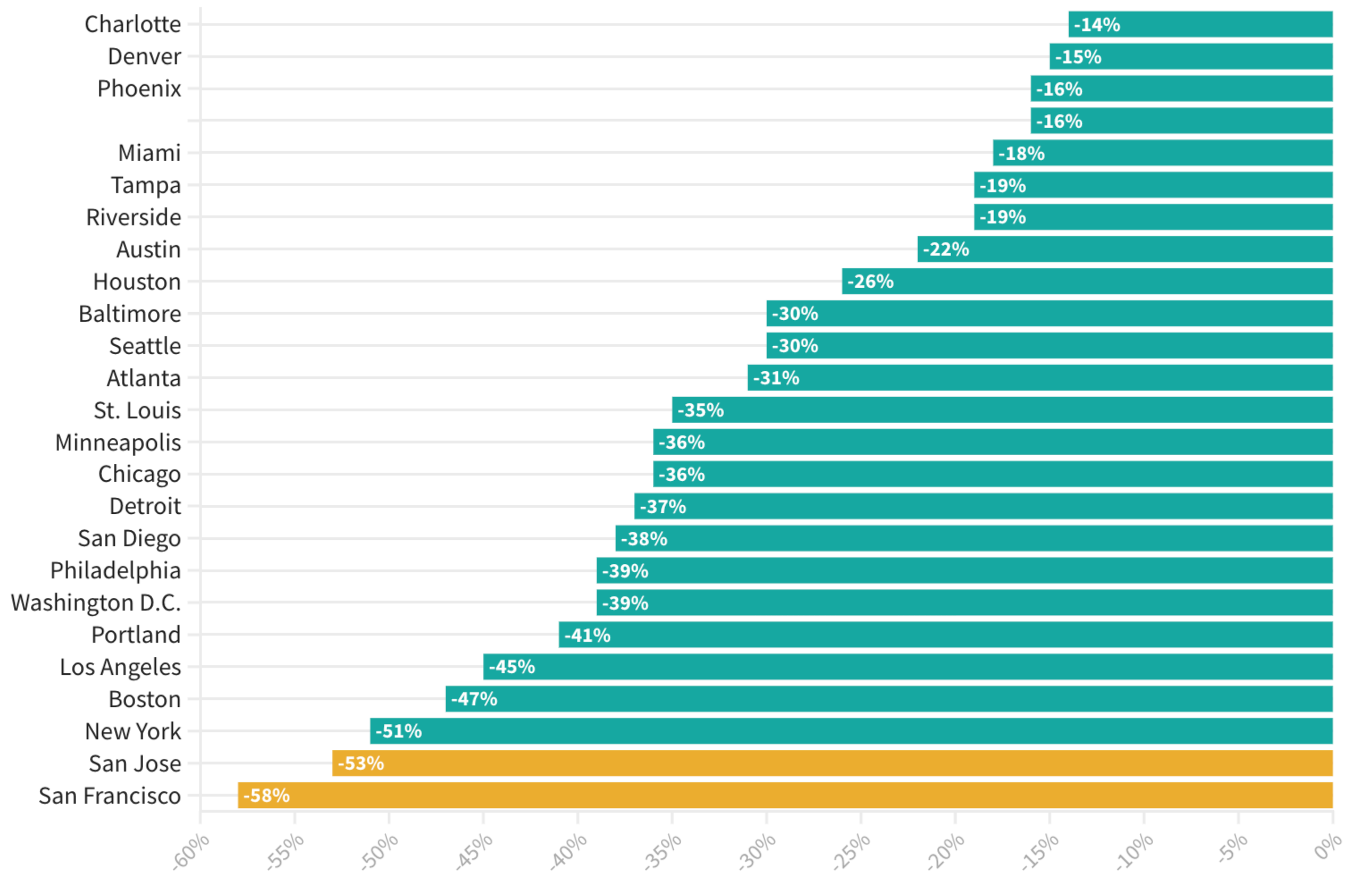
Change in RevPar (revenue per available hotel room) for the 25 largest metropolitan areas by GDP, Q4 2019 - Q4 2022



Source: CBRE Hotel Data • Analysis: Bay Area Council Economic Institute

In terms of air travel, SFO and SJC experienced the most drastic drop during the pandemic, fueled by a decrease in both domestic and international tourism

Percent change in enplanements (passenger boardings) for the 25 largest metropolitan areas by GDP, 2019-2021



Source: Federal Aviation Administration • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

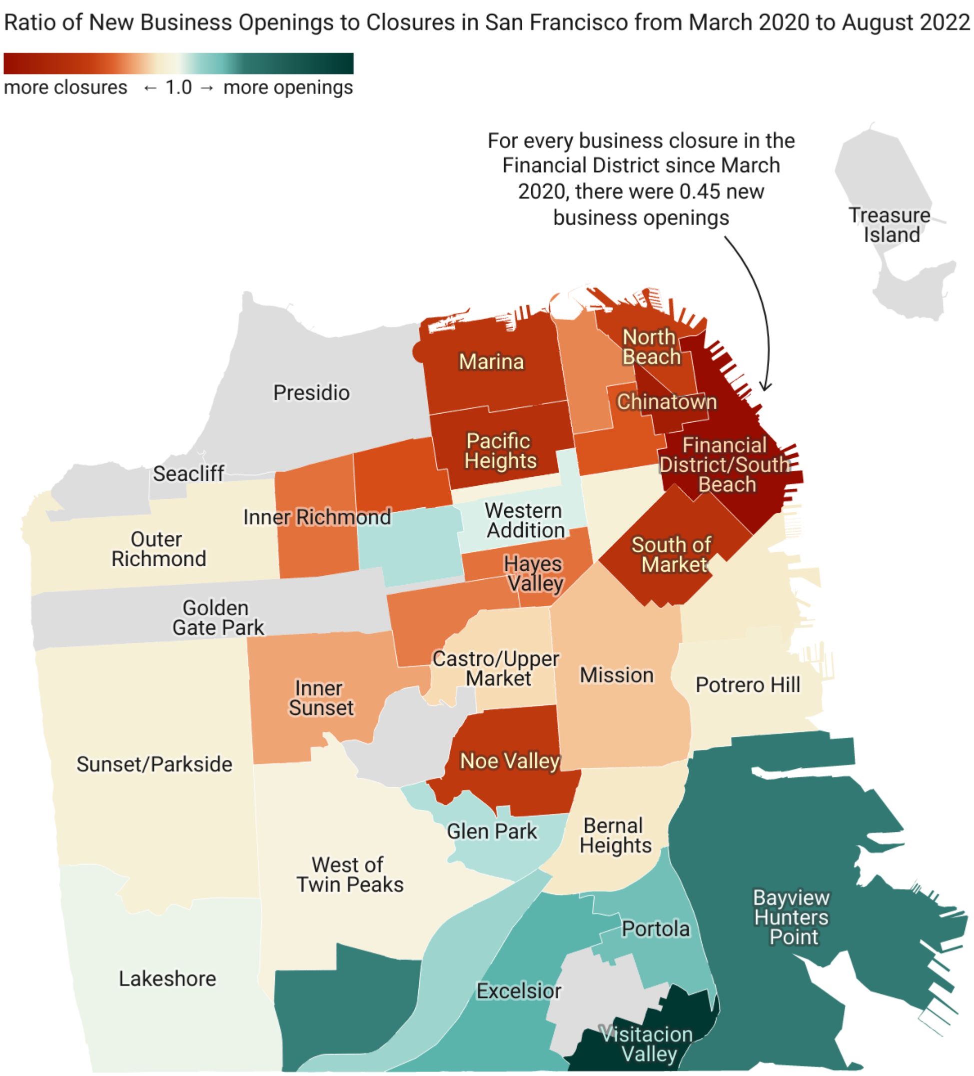
any major city's airport during the pandemic, fueled by a decrease in both domestic and international tourism. After a devastating year in 2020, air travel picked back up across the board in 2021, but the Bay Area's recovery has been slower than peer regions. From 2019-2020, most regions saw fairly comparable drops (around -60 to -70% for most airports). From 2020-2021, largely due to strict travel restrictions and extended lockdowns in the Bay Area, SFO and SJC were slowest to bring back travelers, increasing travel by around 50%, versus Boston's 81%, New York's 85%, or Austin's whopping 112%.

Restructuring business away from downtown and towards smaller community hubs

Throughout the pandemic, the spotlight has been on downtown activity as a measure of the city's economic health and vitality – but how much worse is downtown San Francisco faring in terms of business starts and closures? Are trends downtown representative of the city at large, or are other neighborhoods bolstering the city's business activity? Since March 2020, over 27,000 businesses (or 10% of pre-pandemic businesses) of all sizes have closed across the City of San Francisco, based on real time data from the Office of the Treasurer and Tax Collector, which tracks businesses that are registered and pay taxes to the city. The Financial District took the biggest hit, accounting for nearly 20% of the city's overall business closures. For every business that closed downtown, less than half of one business opened. The city overall fared better, with 0.81 business openings for every business closure, largely attributable to the city's southern-most neighborhoods such as Bayview/Hunter's Point, Visitacion Valley, Excelsior, Portola, and Oceanview.

On the surface it may appear that the pandemic initiated a restructuring of business away from

During the pandemic, southern neighborhoods saw more openings than closures, while the financial district took the biggest hit



Neighborhoods with fewer than 100 openings were excluded from analysis.

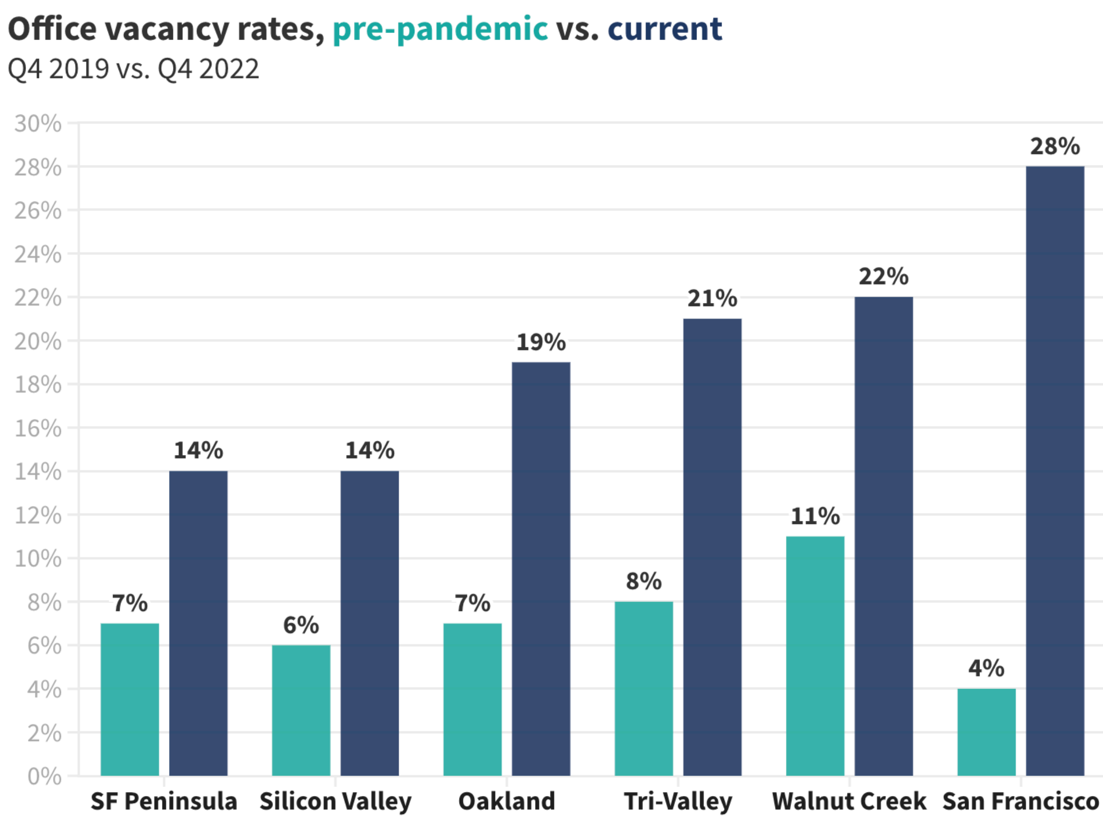
Map: Bay Area Council Economic Institute • Source: Treasurer & Tax Collector, City & County of San Francisco, DataSF • Created with Datawrapper downtown and toward southern neighborhoods and community hubs. While this is partially true, this trend started long before the pandemic. In 2010, business openings in and around downtown comprised nearly 30% of all openings citywide. Over time, this share dwindled, hitting 23% in 2019. The city's southernmost neighborhoods, on the flip side, saw the inverse effect, comprising only 11% of new business openings in 2010, growing steadily and hitting an all-time high of 16% in 2022. As people fled from high density urban areas (see section on people), many businesses shut down, while business activity in residential-serving neighborhoods remained robust.

Investment

How has the pandemic changed the commercial real estate market?

The Bay Area has been largely built on booms and busts, from the Gold Rush to the Dot-com Bubble and the Great Recession. For decades, tech companies fueled the office real-estate boom in the Bay Area. Many of these companies are now choosing to invest elsewhere due to high real estate prices, taxes, and regulatory hurdles. Now, as downtowns continue to hollow out and San Francisco's office vacancy rate stands at 28% as of the final quarter of 2022, the region is facing a long road to recovery.

At nearly 30%, San Francisco has the highest office vacancy rate in the region of any major market. SF also saw the largest increase -- 24 percentage points -- from its pre-pandemic rate.

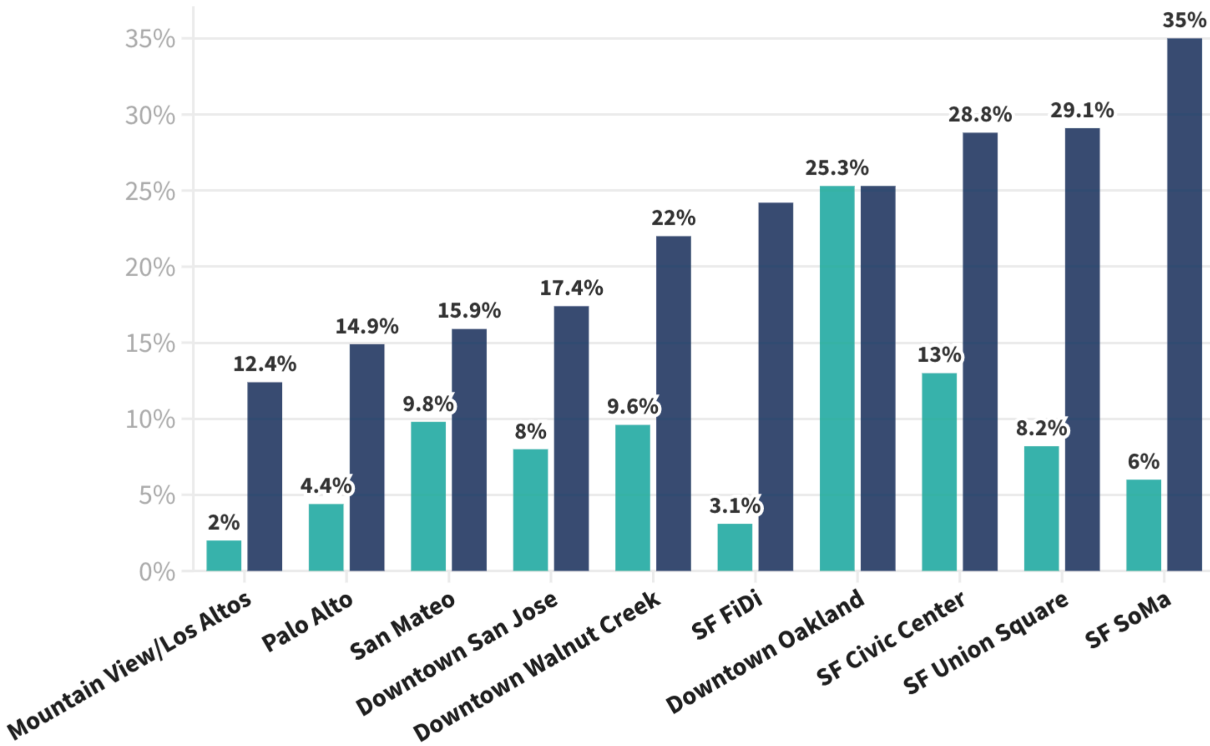


Source: CBRE SFBA Local Markets Data • Analysis: Bay Area Council Economic Institute

On the submarket level, downtown SF and its surrounds have experienced the most drastic increases in vacancy, as well central business districts in Oakland, Walnut Creek, and San Jose

Office vacancy rates, pre-pandemic vs. current

For various Bay Area submarkets, Q4 2019 vs. Q4 2022



Source: CBRE SFBA Local Markets Data • Analysis: Bay Area Council Economic Institute

First, let's identify the problem. How do we compare to other regions?

As we explored in the jobs section of our analysis, the pandemic and resulting work-from-home policies — more prominent in the region's vast tech sector — deeply affected the way many companies approached hiring and the cost of doing business. Within the region, San Francisco saw the largest increase in office vacancies among major markets, going from a 4% vacancy rate in Q4 2019 to 28% by Q4 2022. This 24 percentage point increase is nearly double as high as the next highest increase, a 13 percentage point increase in the Tri-Valley. Net absorption in the region was also negative for all four quarters of 2022—meaning that there was more space is coming onto to the market (via new construction, subleasing and lease expirations) than new leasing activity.

Such a dramatic increase in San Francisco's vacancy underscores a downturn in what was once a red hot office market. Places like Austin have also experienced an increase in office vacancy, however there are fundamental differences in what's driving high vacancy rates in these two places. For San Francisco, increased vacancy is part of a broader decline in office demand reflected in higher remote and hybrid work arrangements, lower employment and job postings (see section on jobs), lower migration into the city (both temporarily via low commuting and permanently via low immigration), and lower business activity (see section on economic activity). For Austin, excessive building led to its increased vacancy rate. Yet, it's one of the fastest growing office markets in the country, experiencing positive net absorption since the first quarter of 2021.

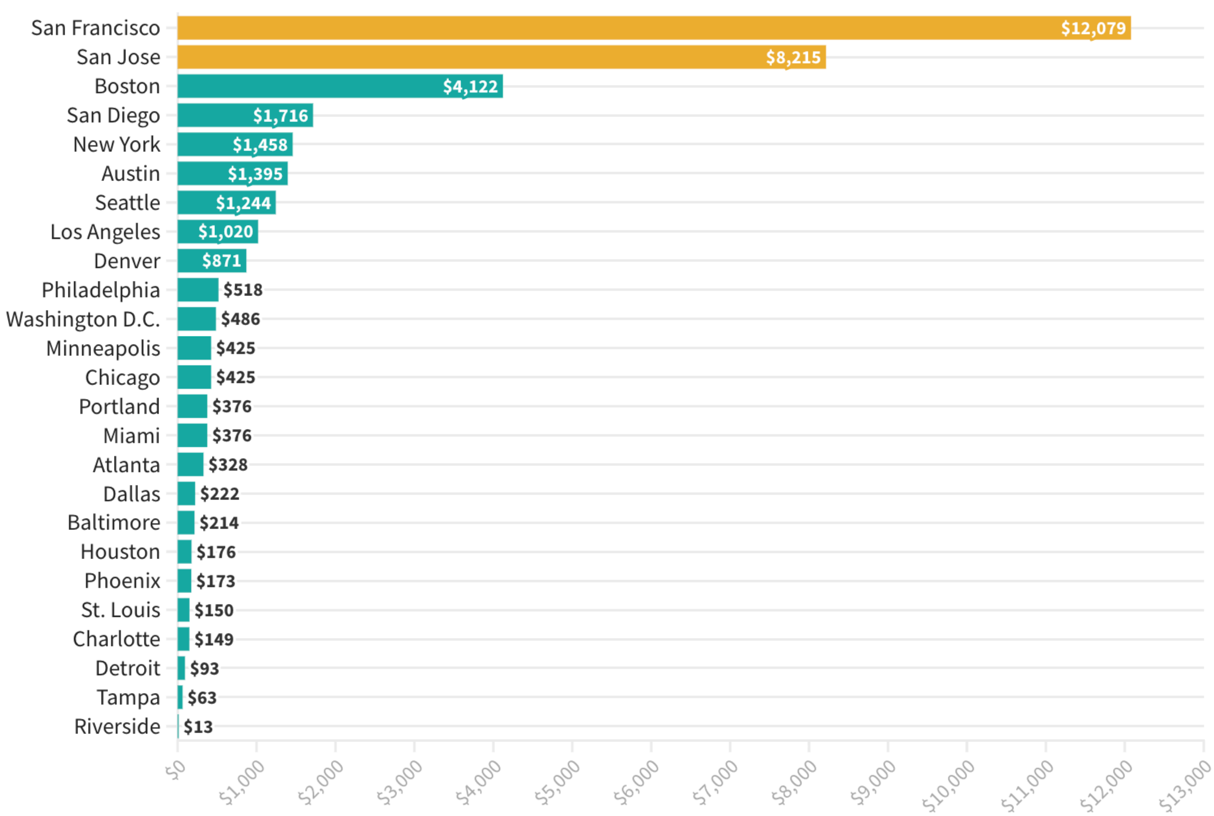
Why have the office markets in the Peninsula and Silicon Valley been more resilient than San Francisco's?

Within the region, there has been greater leasing activity in the Peninsula and Silicon Valley, boasting much lower office vacancy rates of 12% in Mountain View/Los Altos, 15% in Palo Alto, and 16% in San Mateo, despite the fact that asking rents in the Peninsula are higher than any other submarket in the region. One hypothesis points to the difference in maturity of these two markets – Silicon Valley and the Peninsula are home to older deeply rooted technology companies that have also invested (and continue to invest) huge sums of money on their corporate campuses. San Francisco's tech boom, by contrast, has been driven by venture capital-backed startups and younger public companies that pivoted more easily and quickly to remote work.

There is also a higher demand for research and development (R&D) spaces in the South Bay. Life sciences and biotechnology firms often require more space and are less impacted by remote work trends – which has led to a faster recovery in leasing activity for these spaces. The Peninsula's R&D lease rates grew by 7.2% in the fourth quarter of 2022 to a

The Bay Area remains unrivaled in its share of overall venture capital funding

Average annual venture capital funding (dollars per 1,000 people), Q1 2020 through Q4 2022. For the 25 largest metropolitan areas by GDP.



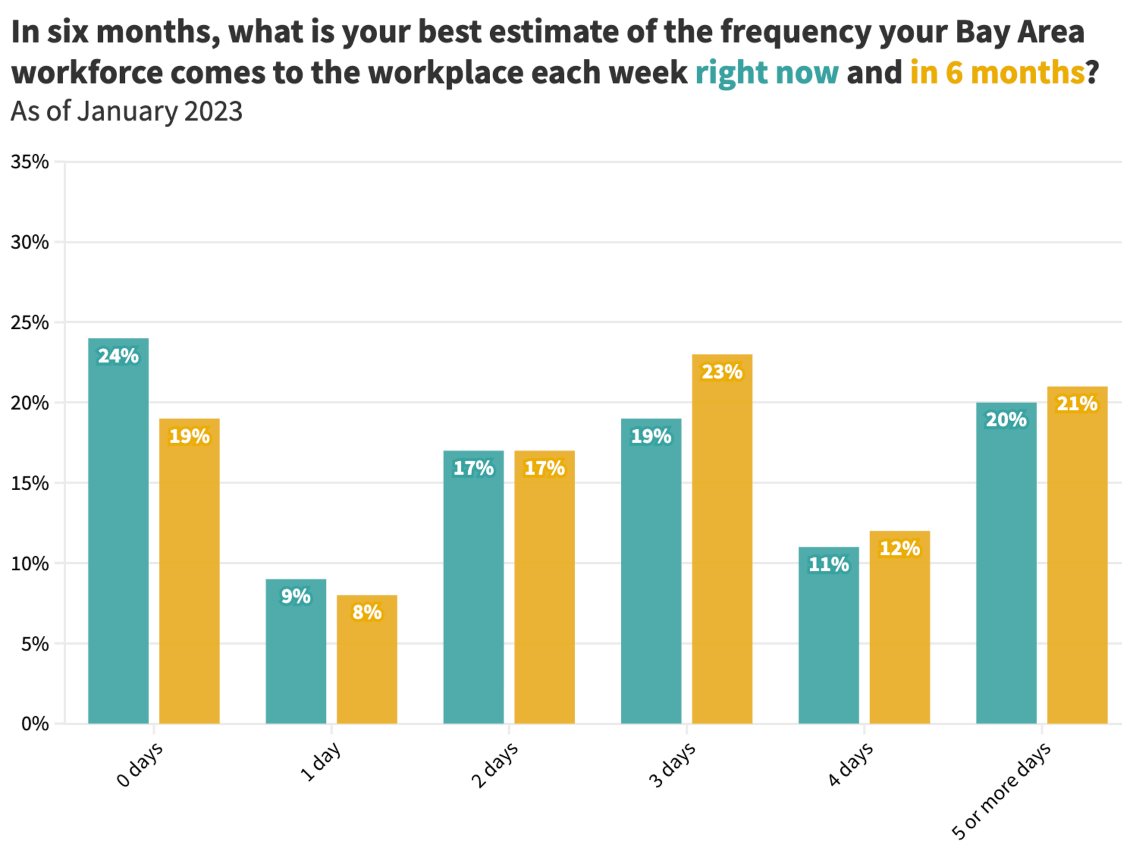
Source: CB Insights • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

new high watermark of $7.30 per square foot. At the same time, office lease rates fell by 1.7%, marking the third consecutive quarter of negative growth. Silicon Valley's R&D lease rates grew by 2.1% in the second quarter of 2022, while office lease rates showed more modest growth, increasing by 0.2%. Of course, vacancy and occupancy trends do not indicate the extent to which employees are coming into the office. The San Jose metro area, which includes most of the South Bay, still has a fairly low office attendance rate of 42%, according to key fob data from Kastle Systems.

Has venture capital investment been affected?

For decades now, the Bay Area has been the epicenter of venture capital investment. The investors themselves are concentrated here, and much of their investment capital flowed to Bay Area-based startups. That proximity allowed for easy exchange of information between companies and investors, and it provided a network effect that made Silicon Valley a magnet for entrepreneurs from across the globe. Those entrepreneurs started companies that are now some of the region's largest private employers in the tech industry. Even amid a downturn in hiring and leasing activity, the Bay Area remains unrivaled in its amount of venture capital (VC) funding, especially early stage funding, a measure of investment activity into start-up companies. The San Francisco metro area received an annual $2,380 (per 1,000 people) of Seed and Series A funding during the pandemic, nearly double that of San Jose, the next highest region. Boston, a growing player in the life sciences and biotech industries, received less than 50% of what San Francisco received.

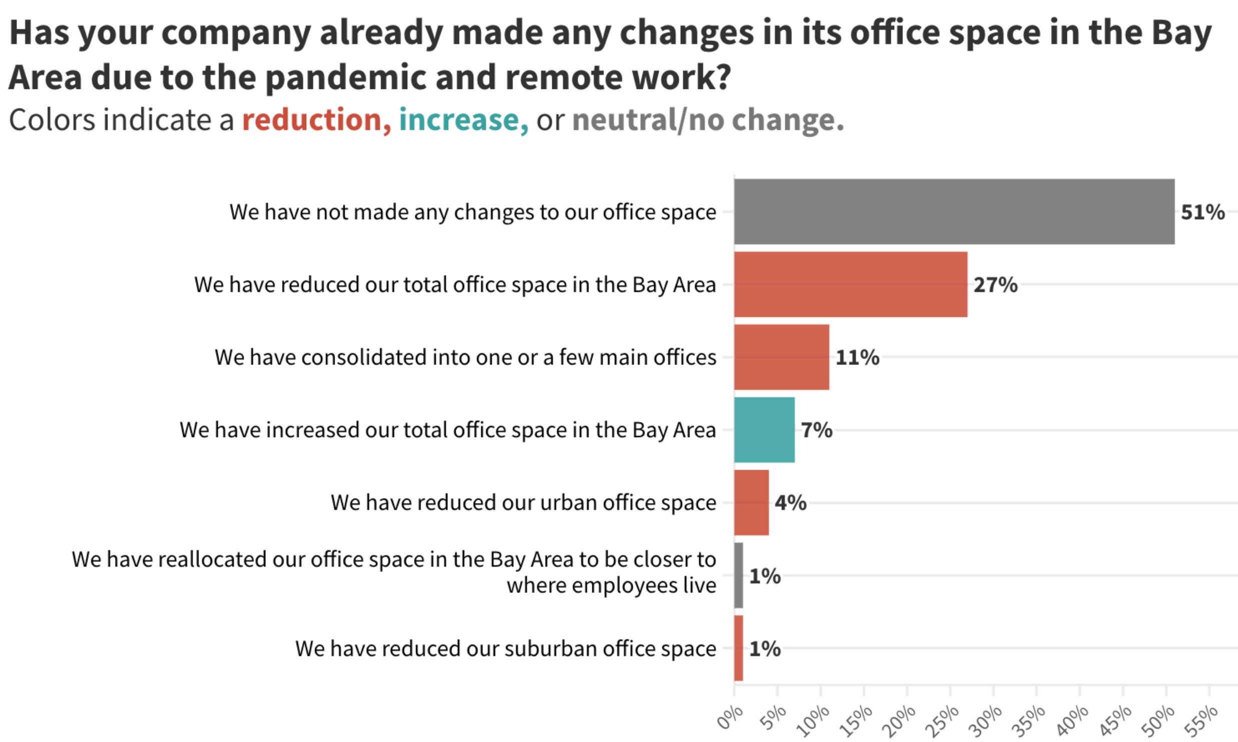
Bay Area employers currently estimate that 45% of their employees come to the workplace 1-3 days a week, and another 24% don't come in at all



What's next?

The region's downtown areas cannot rely on bringing back the same office workers that once commuted to its central business district to fortify a slow real estate market or struggling leisure and hospitality industry. Even beyond 2023, San Francisco's office vacancy rate may continue to rise, as thousands of leases are slated to expire within the next two to five years. To get a better sense of how employers are thinking about office space and return to work strategies, the Bay Area Council has been collecting monthly survey data from roughly 200 employers throughout the region (in partnership with the Metropolitan Transportation Commission and EMC Research) to inform transit agencies and policymakers. As of January 2023, 68% of employers said they are already operating under their "new normal" in terms of bringing employees back to the workplace. When asked about frequency with which employees come to the office, employers said that 45% of their workforce comes in 1-3 days a week, and that 24% don't come in at all.

In a survey of over 215 major employers regionwide - 38% say they've already reduced or consolidated their office space



Source: Bay Area Council Return to Work Survey (November 2022) • Options are select all that apply and therefore add up to more than 100%
Data are as of January 2023. N = 216 employers regionwide

We recently started asking employers if they've reduced or consolidated office space in the region, or if they have plans to in the next few years. Of the 216 employers that responded in January 2023, 38% say they've already reduced or consolidated their office space, and another 31% say they plan to reduce or consolidate their office space in the region over the next few years. This indicates a significant loss in property taxes – with some figures projecting a nearly $200 million loss each year in the City of San Francisco. Moving forward, cities are likely to adopt creative strategies to increase vitality and economic activity downtown, which may include an increased focus on R&D and life sciences, new residential construction, reformed zoning codes, or reinvigorated nightlife and events.

What's Next

What will we be covering going forward?

This project, a partnership between the Bay Area Council Economic Institute and CBRE's Tech Insights Center, is a three-year, three-part series of interactive reports. The first iteration of this project, covered across the economic index and five topic areas of this website, is meant to track economic recovery in the region and peer metropolitan areas. This analysis is mostly backward looking, and meant to benchmark how the region is performing on key metrics with the most recent data available, compared to how the region was performing pre-pandemic. Part 1 of this research was largely structured around our Economic Recovery Index, which looked at the positioning of the Bay Area against other metro areas, providing a barometer of the Bay Area's economic performance using the most robust economic data. This index will be updated and revised each year, providing an avenue for consistent tracking of indicators over the three years of the project.

Future iterations of this project will evaluate economic trends within a shorter time series, highlighting shifts and trends in the regional economy that occurred in the last four quarters. Benchmarking to 2019 was valuable to understanding how our region is over or underperforming compared to a once thriving economy, but this was a crisis like no other, and a now three-year-old pandemic has permanently impacted people's lives and livelihoods, proving that our economy will never look quite the same. To understand what's happening in real time, future research will include primary research through surveys and business leader interviews, providing insight into work policies and real estate strategies for the region's largest employers.

Lastly, while the first part of this series was meant to provide a comprehensive overview of where we once were and where we are now, future research will focus on where we are headed by developing policy and program solutions that address and regenerate the dynamic business climate that attracts entrepreneurial and global businesses, visitors, investors, and workforce to the Bay Area. We will also include some economic projections and predictions to understand the implications for downtown economies (San Francisco, San Jose, and Oakland) and outlying areas.

Please note that this will be the only iteration of the report available in a PDF format. The data and index will be updated quarterly on our dynamic project page: http://www.bayareaeconomy.org/economic-recovery

For questions on our research or methodology, please contact Research Manager Abby Raisz at araisz@bayareacouncil.org.

Appendix A - Index Methodology

We scored metropolitan statistical areas (MSAs) on 15 different datapoints across 5 different metrics: Jobs, People, Investment, Economic Activity, and Costs. Each region was scored on 15 different metrics across 5 different categories. Percentile ranks were calculated for each metric (wherein 0 is the lowest rank, 100 is the highest), and then averaged across each category. Not all metrics were weighted equally, see the table below for a list of sources and weights.

Austin scored 100 in the People category, meaning it had the highest rate of both population growth and labor force growth, the two metrics in that category. San Diego, San Jose, San Francisco, and Los Angeles all scored the lowest because they experienced the greatest population and labor force losses given their pre-pandemic levels. Austin, Texas ranked first across the 25 regions in our study, scoring an average of 86 (out of 100) across the 15 metrics we evaluated. Within these metrics, it ranked first (100/100) on 6 metrics: job growth, "knowledge worker" growth, population growth, labor force growth, net absorption, and new housing units per capita. It also scored high (second only to Denver) on change in sales tax revenue – experiencing an increase of $33 million (or 13%) from 2019 to 2021. These figures speak to the dramatic resilience and growth Austin, and Texas as a whole, experienced during the pandemic, while coastal cities like San Francisco and New York continue to suffer losses.

List of metrics used in our Regional Economic Recovery Index

Category	Metric	Data source	Time frame	Weight
Jobs	Job growth	Bureau of Labor Statistics CES	Dec 2019 - Dec 2022	10%
Jobs	Job growth in knowledge industries (includes financial activities, professional and business services, and information)	Bureau of Labor Statistics CES	Dec 2019 - Dec 2022	10%
Jobs	Overall job postings	Emsi Burning Glass Labor Market Analytics	2019 - 2022 (annual)	10%
Jobs	Computer & mathematical job postings	Emsi Burning Glass Labor Market Analytics	2019 - 2022 (annual)	10%
Investment	Office net absorption as a % of RBA	CBRE	Q1 2020 - Q4 2022 (cumulative), RBA as of Q4 2022	5%
Investment	Change in sales volume (office, industrial, retail, hotel, multi-family, senior housing, manufactured housing, self storage and development sites), in dollars	Real Capital Analytics	Q4 2019 - Q4 2022	5%
Investment	Early stage VC funding (Seed+Series A, dollars per 1,000 people)	CB Insights	Q1 2020 - Q4 2022 (annual average)	5%
Investment	Total VC funding (dollars per 1,000 people)	CB Insights	Q1 2020 - Q4 2022 (annual average)	5%

Category	Metric	Data source	Time frame	Weight
People	Population growth	U.S. Census Bureau Population Estimates Program	2019-2021	7.5%
People	Labor force growth	Bureau of Labor Statistics LAUS	Dec 2019 - Dec 2022	7.5%
Economic Activity	Sales tax receipts	Individual city-level annual financial comprehensive reports	2019 - 2022 (annual)	7.5%
Economic Activity	Enplanements	Federal Aviation Administration	2019 - 2022 (annual)	2.5%
Affordability	Ratio of median home price (single-family homes) to median household income	U.S. Census Bureau American Community Survey, National Association of Realtors	2019 - 2022 (annual)	5%
Affordability	New housing permits (all unit types, per 1,000 people)	Census Building Permit Survey, Population Estimates Program	2020 - 2021 (cumulative), population as of 2021	5%
Affordability	Real wage growth (adjusted for inflation)	BLS Quarterly Census of Employment and Wages (QCEW), BLS Consumer Price Index (all items)	Q2 2019 - Q2 2022	5%

Top 25 Metropolitan Statistical Areas by Gross Domestic Product

2020 Real GDP: All industry total (Thousands of chained 2012 dollars)

Rank	Metropolitan Statistical Area	2020 Real GDP
1	New York-Newark-Jersey City, NY-NJ-PA	$1,500,986,298
2	Los Angeles-Long Beach-Anaheim, CA	$880,234,370
3	Chicago-Naperville-Elgin, IL-IN-WI	$593,967,185
4	San Francisco-Oakland-Berkeley, CA	$525,830,668
5	Washington-Arlington-Alexandria, DC-VA-MD-WV	$485,142,527
6	Dallas-Fort Worth-Arlington, TX	$477,022,901
7	Houston-The Woodlands-Sugar Land, TX	$455,302,437
8	Boston-Cambridge-Newton, MA-NH	$412,676,257
9	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	$382,410,722
10	Seattle-Tacoma-Bellevue, WA	$378,145,809

Top 25 Metropolitan Statistical Areas by Gross Domestic Product

2020 Real GDP: All industry total (Thousands of chained 2012 dollars)

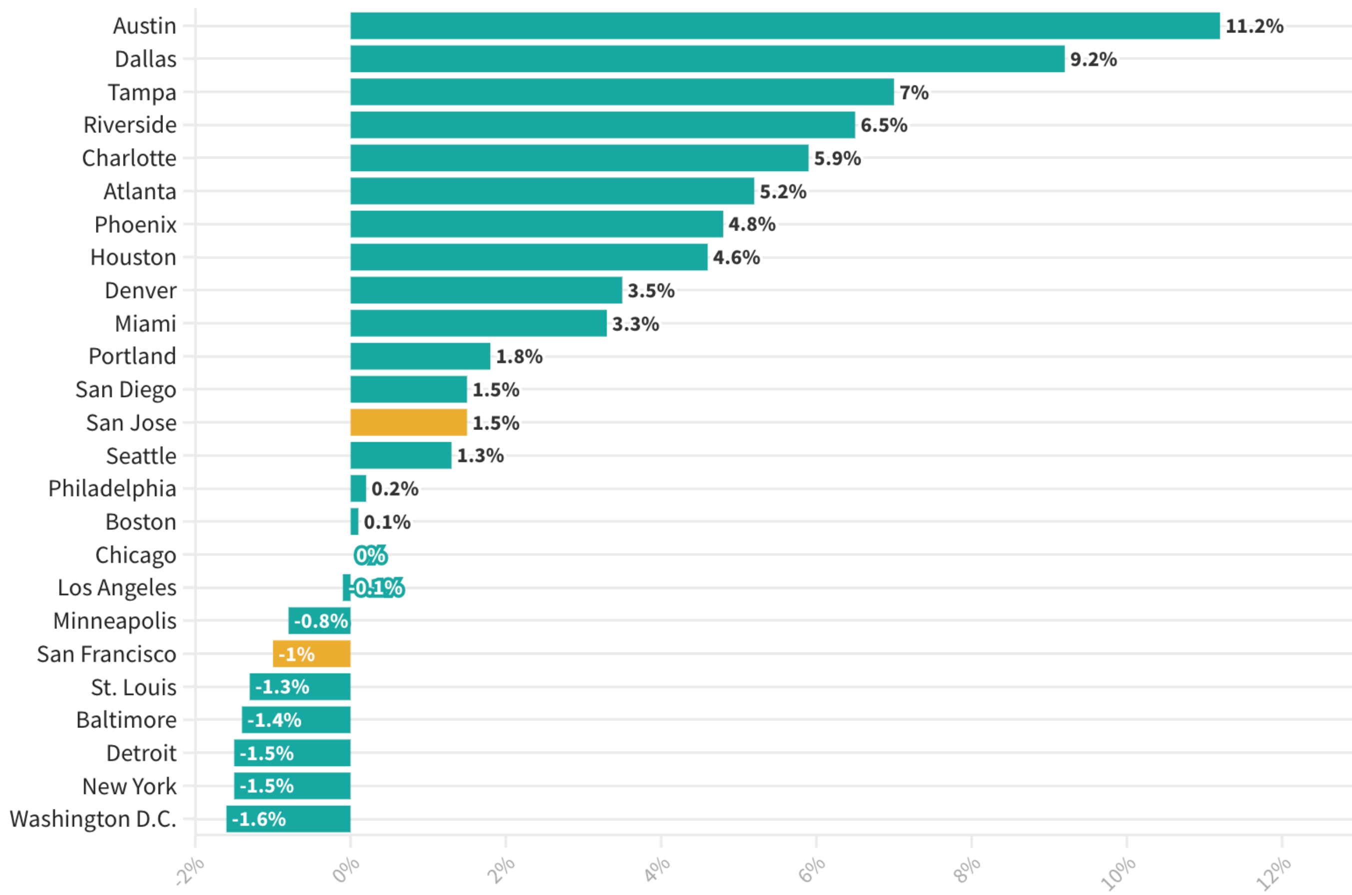
Rank	Metropolitan Statistical Area	2020 Real GDP
11	Atlanta-Sandy Springs-Alpharetta, GA	$369,863,934
12	San Jose-Sunnyvale-Santa Clara, CA	$342,172,100
13	Miami-Fort Lauderdale-Pompano Beach, FL	$311,361,739
14	Phoenix-Mesa-Chandler, AZ	$240,714,251
15	Minneapolis-St. Paul-Bloomington, MN-WI	$235,353,129
16	Detroit-Warren-Dearborn, MI	$220,765,119
17	San Diego-Chula Vista-Carlsbad, CA	$207,747,927
18	Denver-Aurora-Lakewood, CO	$196,695,234
19	Baltimore-Columbia-Towson, MD	$176,750,518
20	Riverside-San Bernardino-Ontario, CA	$160,484,913
21	Charlotte-Concord-Gastonia, NC-SC	$153,401,791
22	St. Louis, MO-IL	$149,857,520
23	Austin-Round Rock-Georgetown, TX	$148,884,107
24	Portland-Vancouver-Hillsboro, OR-WA	$148,455,652
25	Tampa-St. Petersburg-Clearwater, FL	$145,499,787

The following appendices include charts of every metric that went into our economic recovery index. Index weights are included in the chart subtitles.

Appendix B - Jobs

The San Francisco metro area's nonfarm jobs still lag behind pre-pandemic levels, while Austin, Dallas, and Tampa have seen meteoric rises in employment

Job growth for the 25 largest metropolitan areas by GDP, December 2019 - December 2022
Index Weight: 10% out of 100%

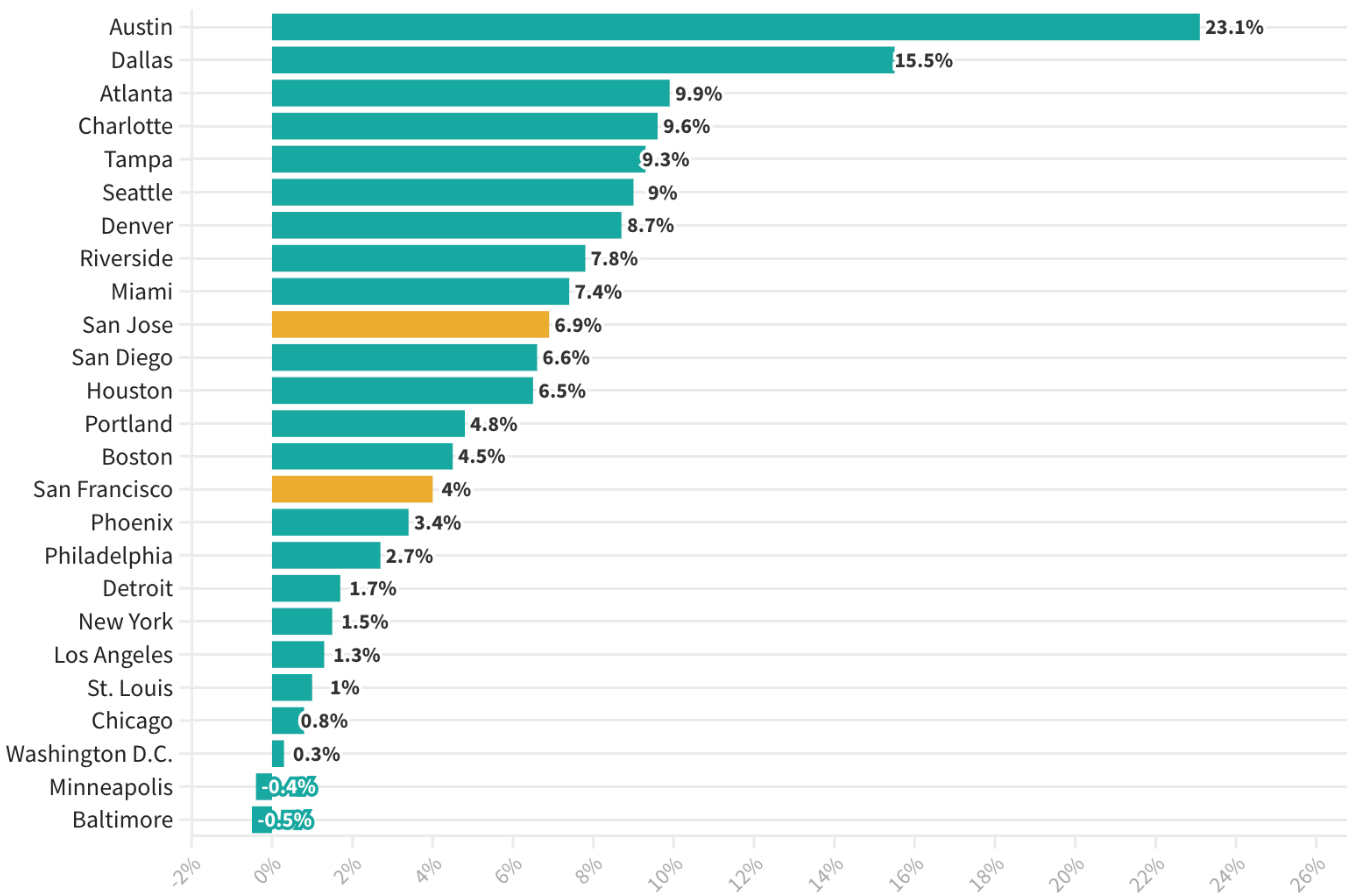


Source: Bureau of Labor Statistics • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within. Jobs are nonfarm and are seasonally adjusted.

Most of this lag has to do with blows to the service and hospitality sectors. San Francisco and San Jose are closer to the top when measuring growth in "knowledge industries" e.g., tech, R&D, legal etc.

Growth in "knowledge industries" for the 25 largest metropolitan areas by GDP, December 2019 - December 2022

Index Weight: 10% out of 100%



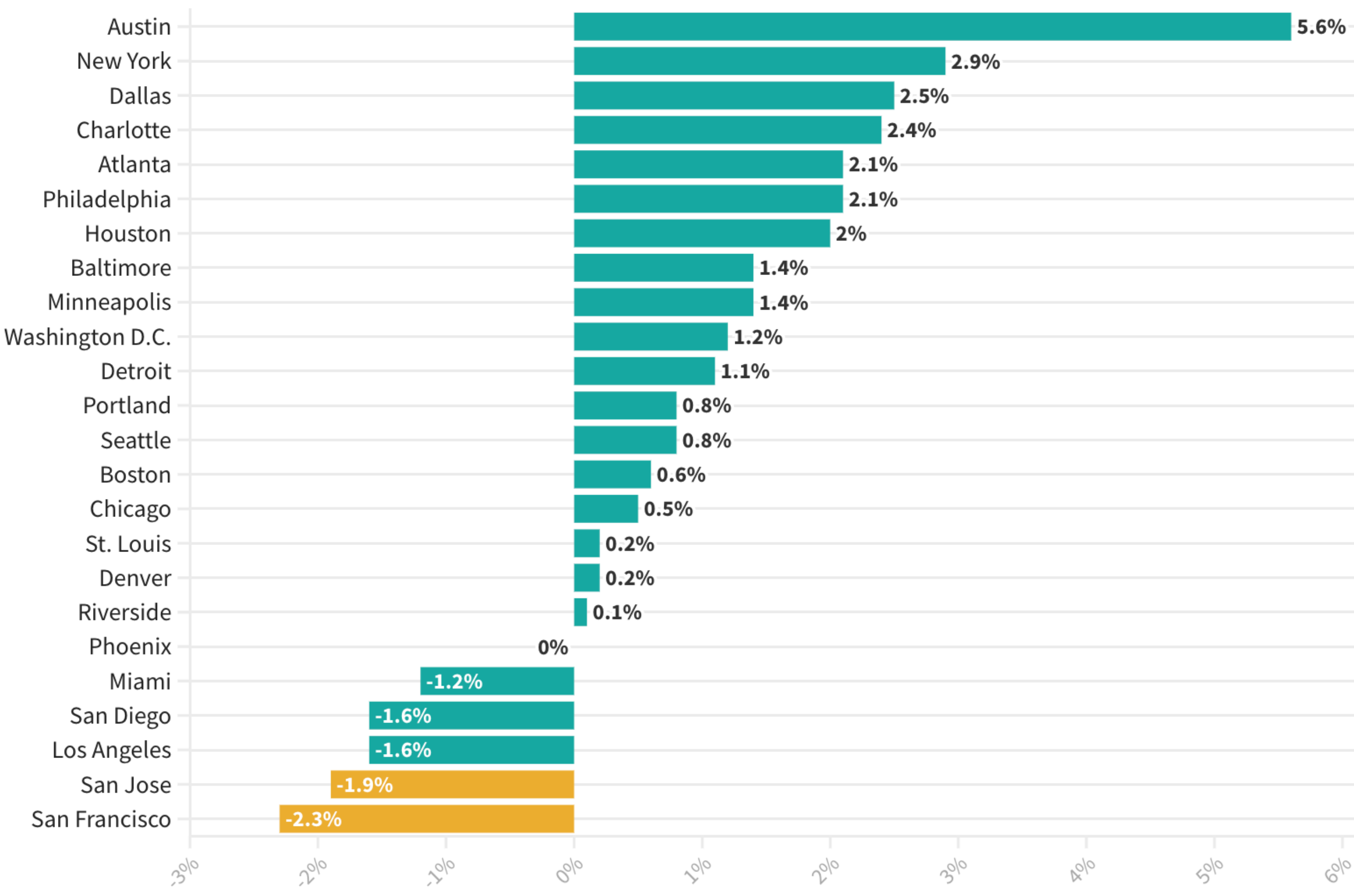
Source: Bureau of Labor Statistics • Analysis: Bay Area Council Economic Institute

Note: City names reflect the larger metropolitan statistical area they fall within. Knowledge industries include the following supersectors: Financial Activities, Professional and Business Services, and Information

Appendix C - People

Sunbelt metros saw large population increases during the pandemic, while coastal urban centers lost population

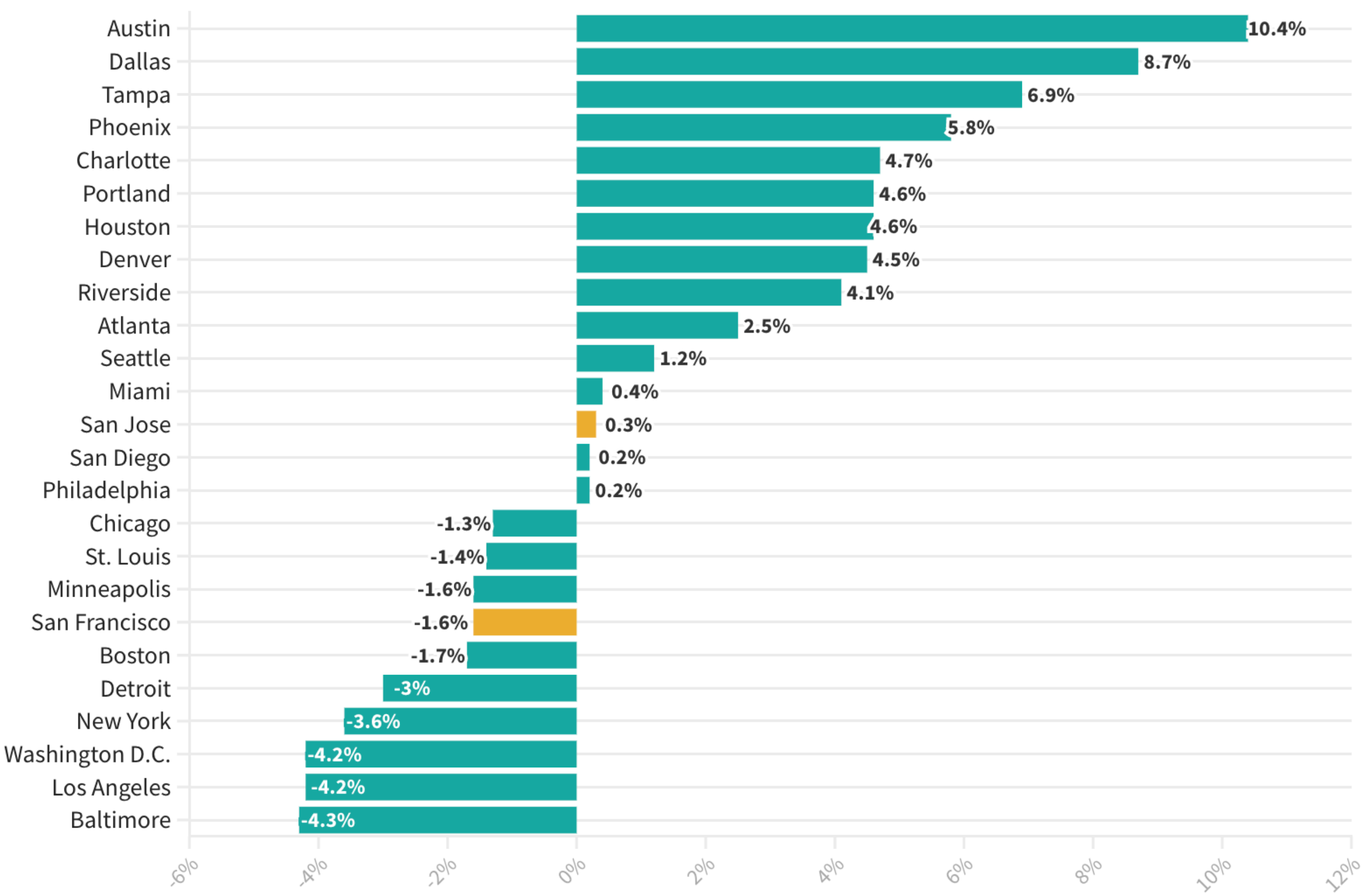
Population change for the 25 largest metropolitan areas by GDP, 2019-2021
Index Weight: 7.5% out of 100%



Source: U.S. Census Bureau Population Estimates Program • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

The Bay Area fared slightly better in terms of labor force losses, but did not keep up with fast growing metros like Austin, Dallas, Tampa and Phoenix

Labor force change for the 25 largest metropolitan areas by GDP, December 2019- December 2022
Index Weight: 7.5% out of 100%

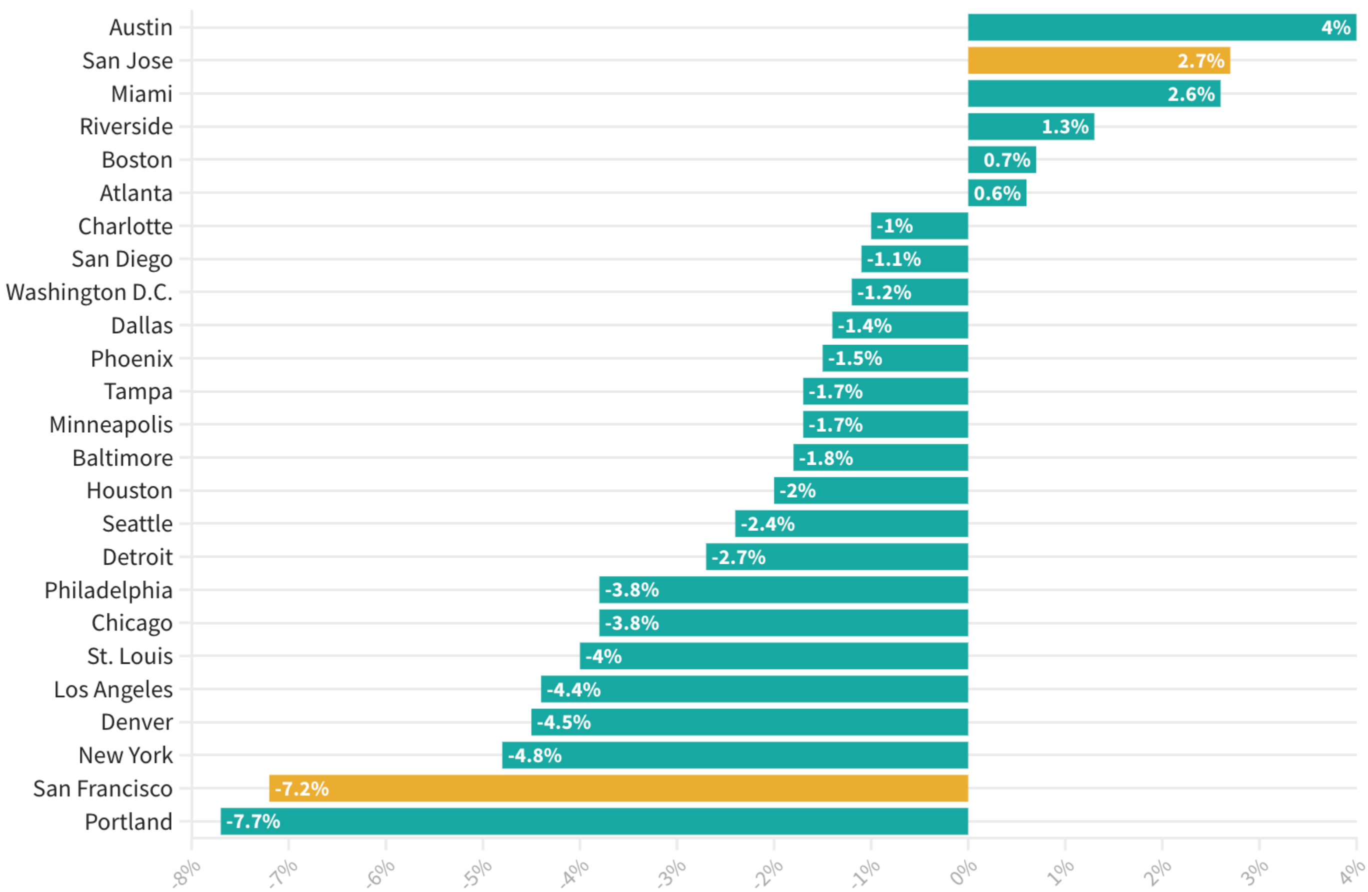


Source: Bureau of Labor Statistics • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

Appendix D - Investment

Net absorption in the region remained negative for all of 2022, meaning that there was more space is coming onto to the market (via new construction, subleasing and lease expirations) than new leasing activity.

Cumulative change in net absorption as a share of total rentable building area, Q1 2020 - Q4 2022
Index Weight: 5% out of 100%

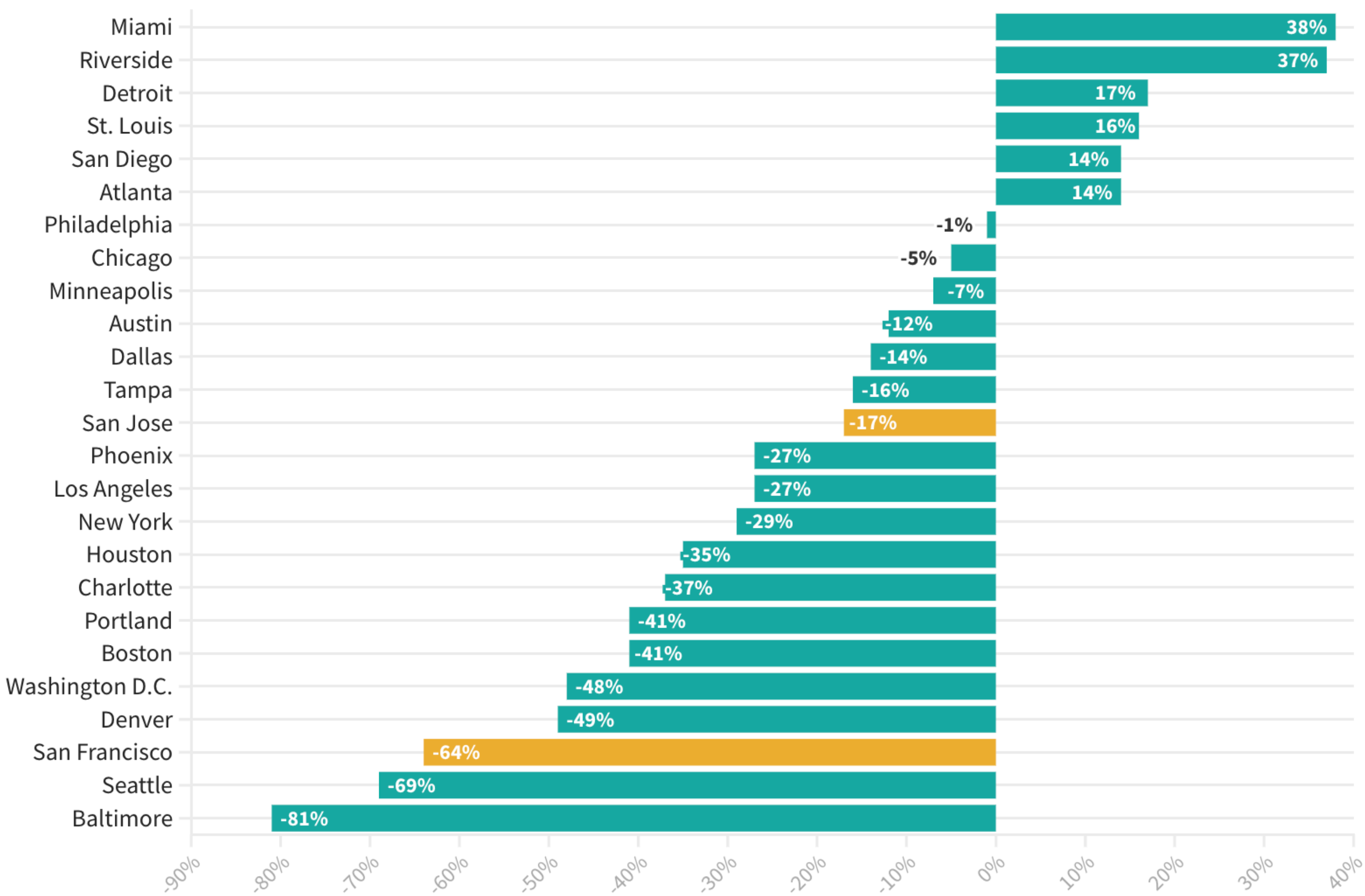


Source: CBRE • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

In terms of total dollars across all multiple building types, the San Francisco metro saw the steepest drop in commercial sales, taking twice as big a hit as San Jose.

Change in commercial sales volume, in dollars (office, industrial, retail, hotel, multi-family, senior housing, manufactured housing, self storage and development sites), Q4 2019 - Q4 2022. For the 25 largest metropolitan areas by GDP.

Index Weight: 5% out of 100%

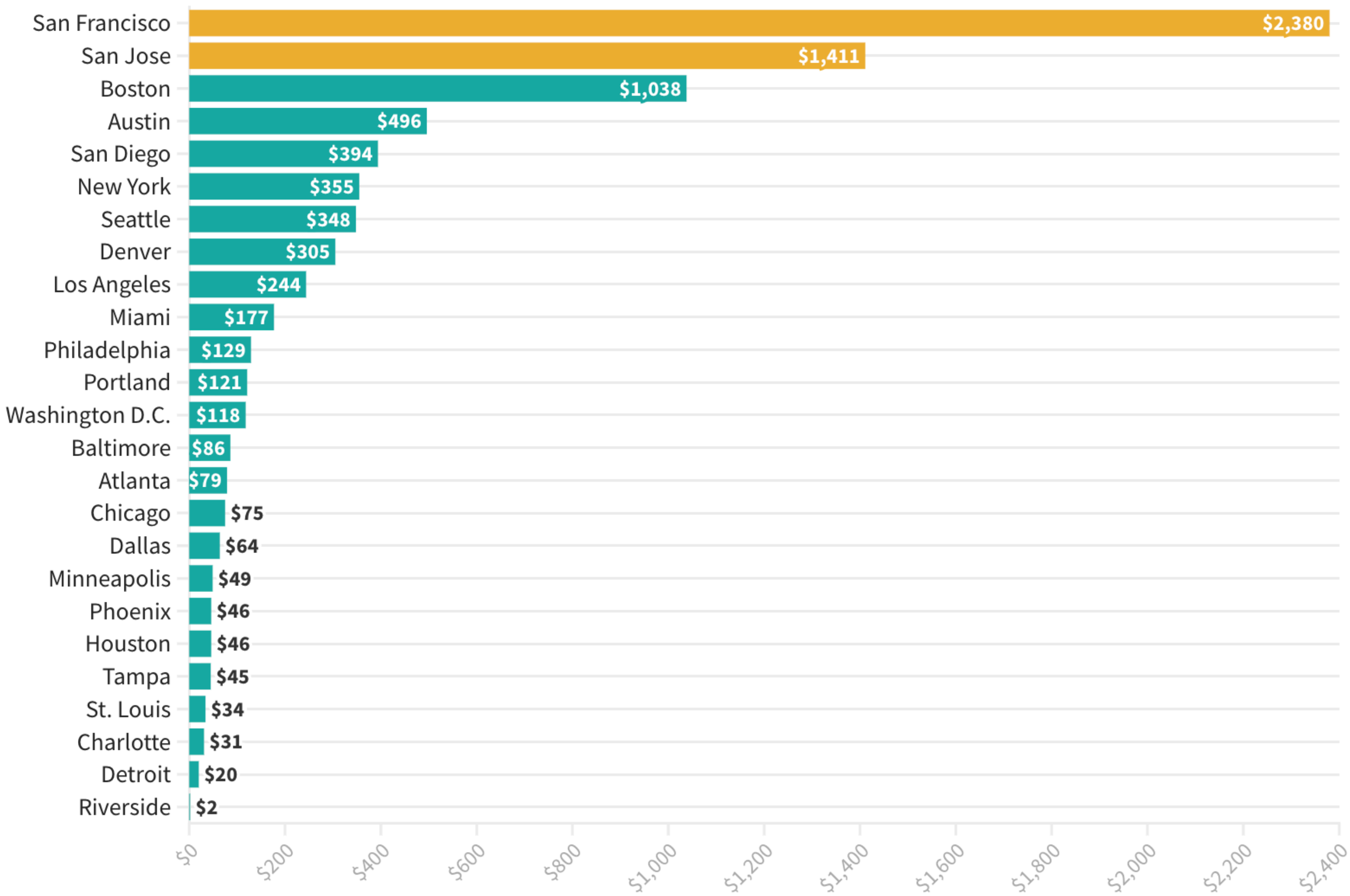


Source: Real Capital Analytics • Analysis: Bay Area Council Economic Institute

Notes: City names reflect the larger metropolitan statistical area they fall within.Note: Includes property or portfolio sales $2.5 million or greater.

The Bay Area remains unrivaled in its share of early stage VC funding

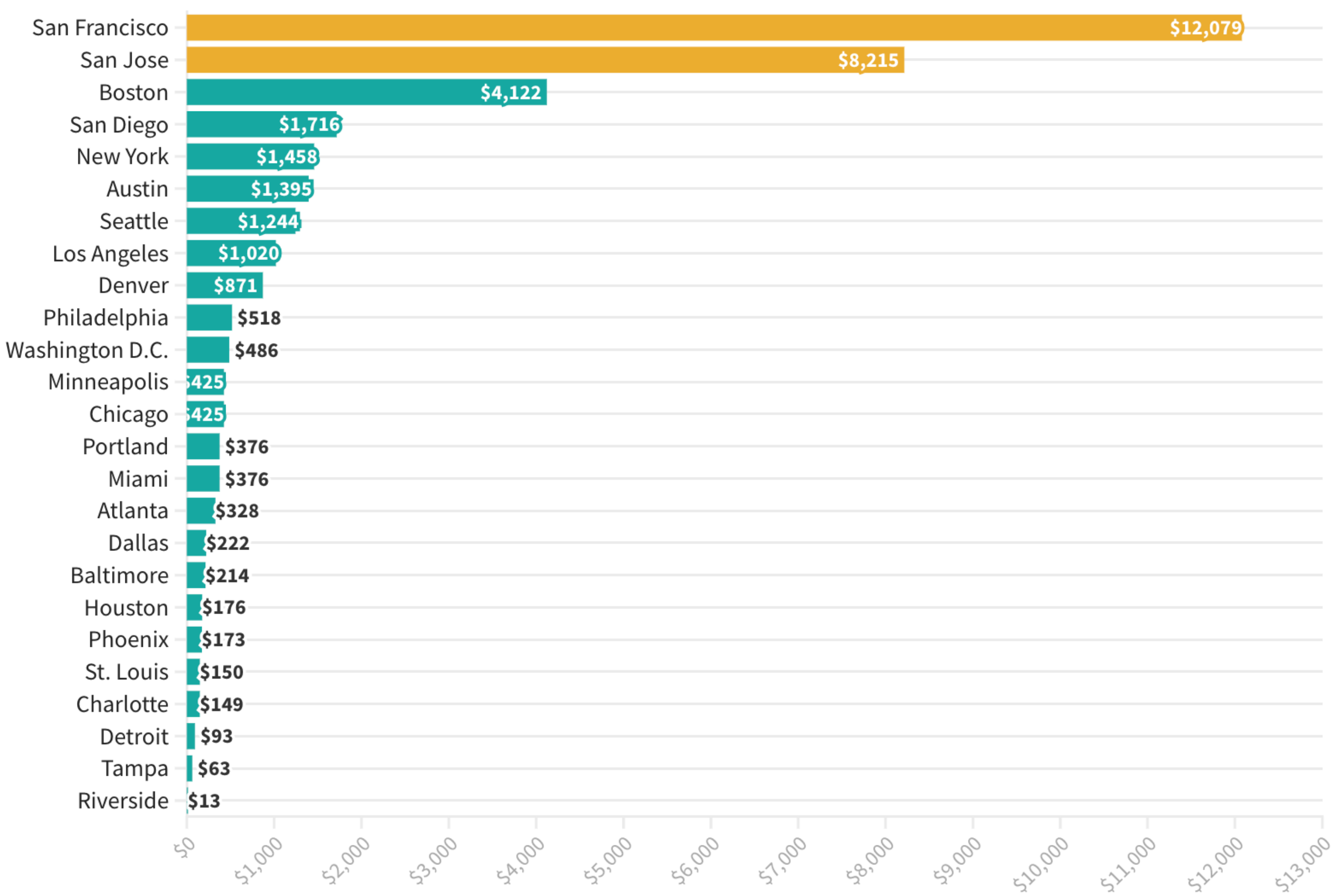
Average annual early stage venture capital funding (dollars per 1,000 people), Q1 2020 through Q4 2022. For the 25 largest metropolitan areas by GDP. Early stage is defined as Seed + Series A funding.
Index Weight: 5% out of 100%



Source: CB Insights • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

In terms of overall VC funding per capita, the San Francisco metro area brought in a whopping $12k per 1,000 people during the pandemic

Average annual venture capital funding (dollars per 1,000 people), Q1 2020 through Q4 2022. For the 25 largest metropolitan areas by GDP.
Index Weight: 5% out of 100%

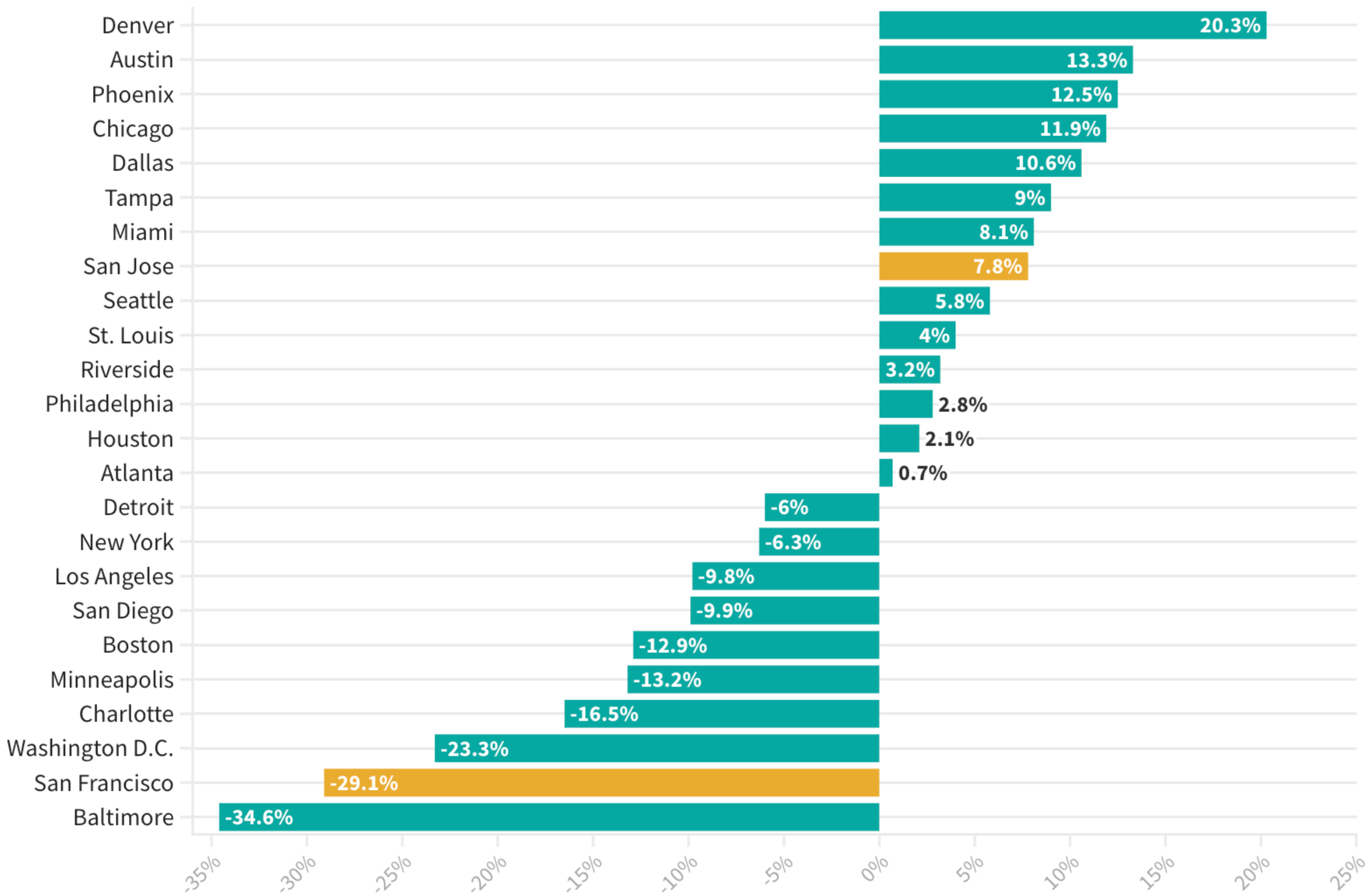


Source: CB Insights • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

Appendix E - Economic Activity

The San Francisco metro area collected 29% fewer dollars in sales tax revenue in 2021 than 2019, taking the hardest hit of any large metro region on the West Coast.

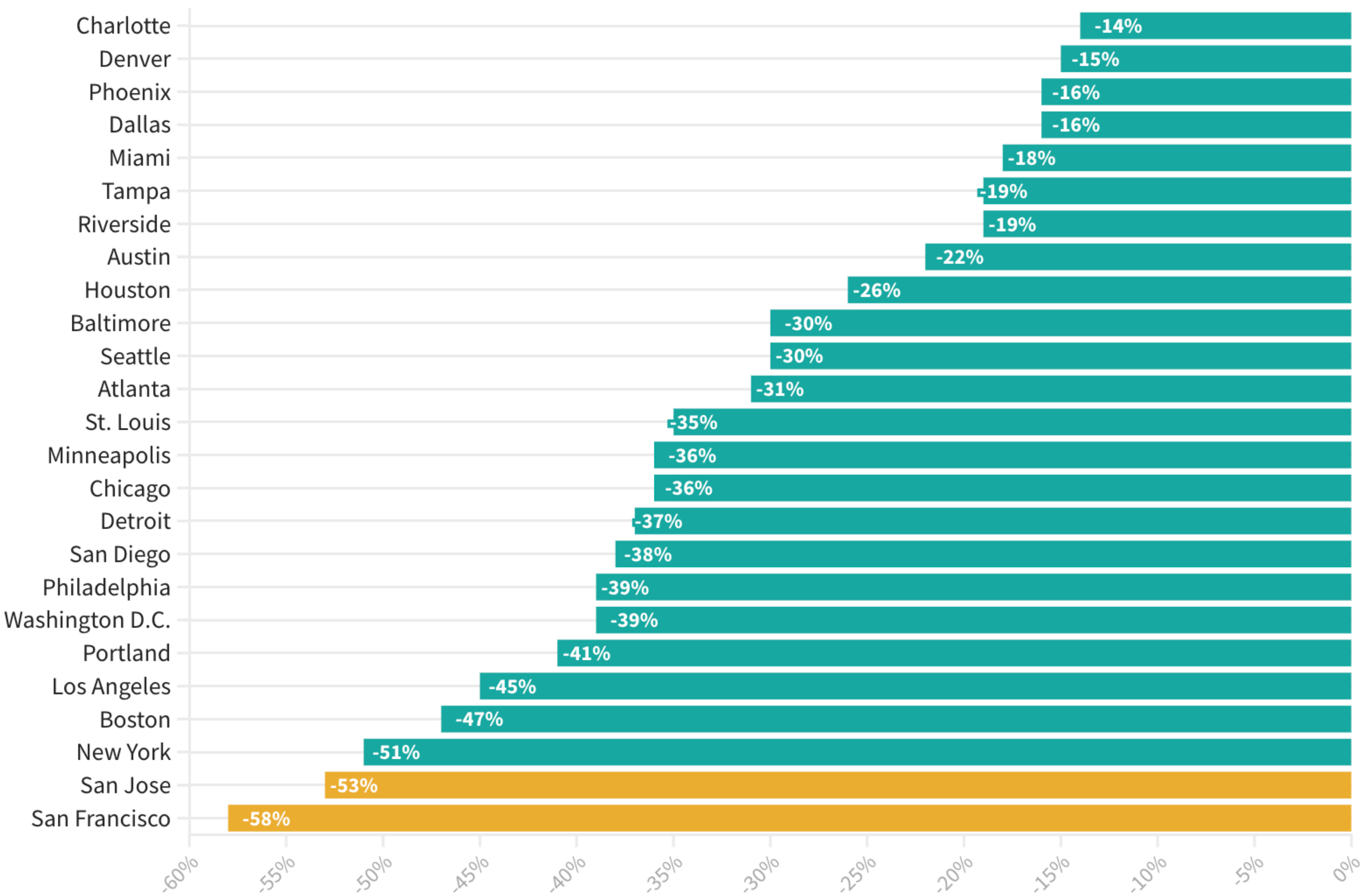
Change in sales taxes collected by city, 2019-2021
Index Weight: 7.5% out of 100%



Source: Individual city-level annual financial comprehensive reports • Analysis: Bay Area Council Economic Institute
Note: In cities where sales and use tax are combined, use tax is excluded. Portland is excluded due to no sales taxes in Oregon. Due to data constraints, geographies reflect cities, NOT the MSAs they fall within.

In terms of air travel, SFO and SJC experienced the most drastic drop during the pandemic, fueled by a decrease in both domestic and international tourism.

Percent change in enplanements (passenger boardings) for the 25 largest metropolitan areas by GDP, 2019-2021
Index Weight: 2.5% out of 100%

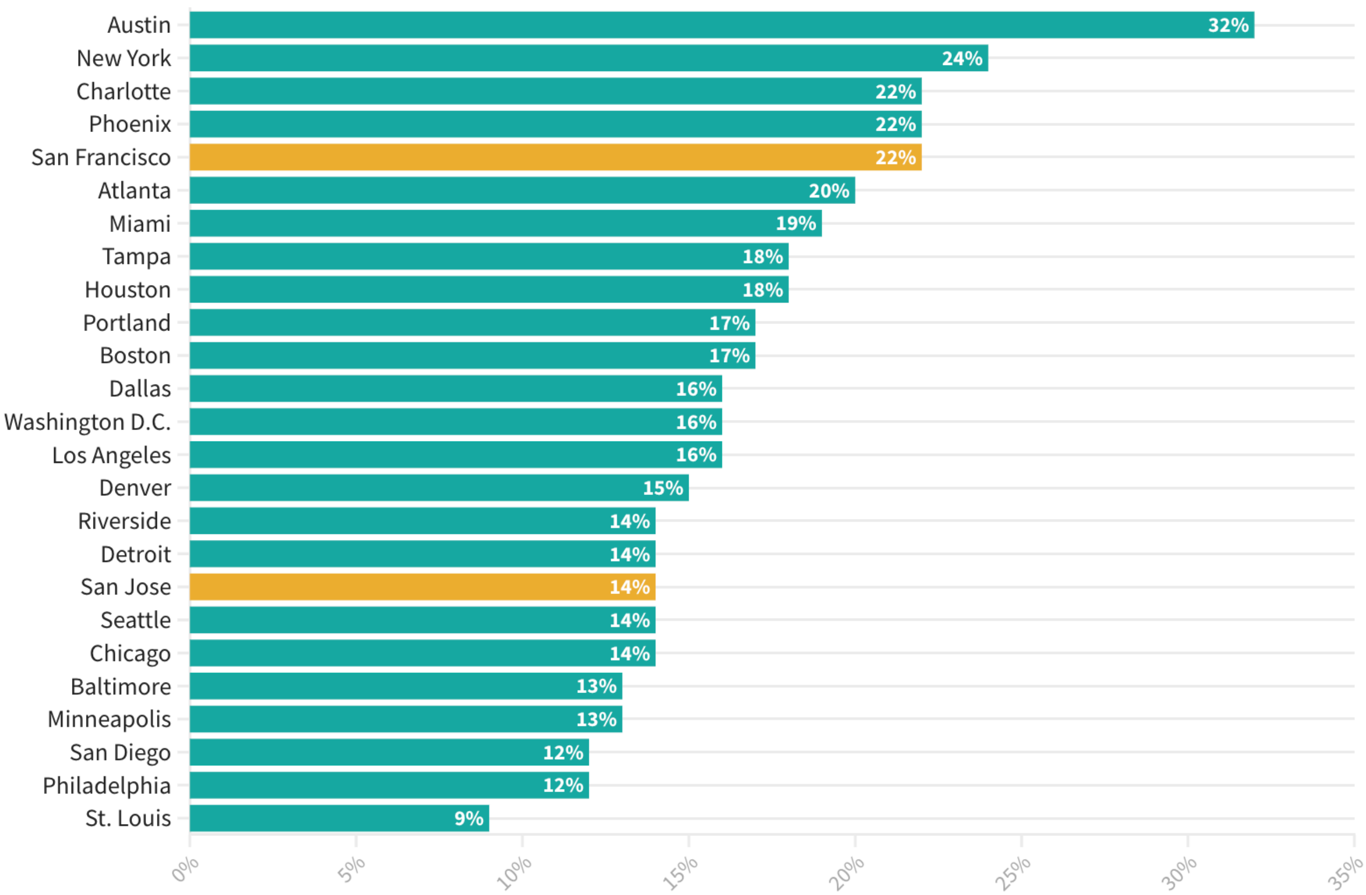


Source: Federal Aviation Administration • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

Appendix F - Affordability

Home prices in Austin and New York increased at the fastest rate compared to the growth of household incomes

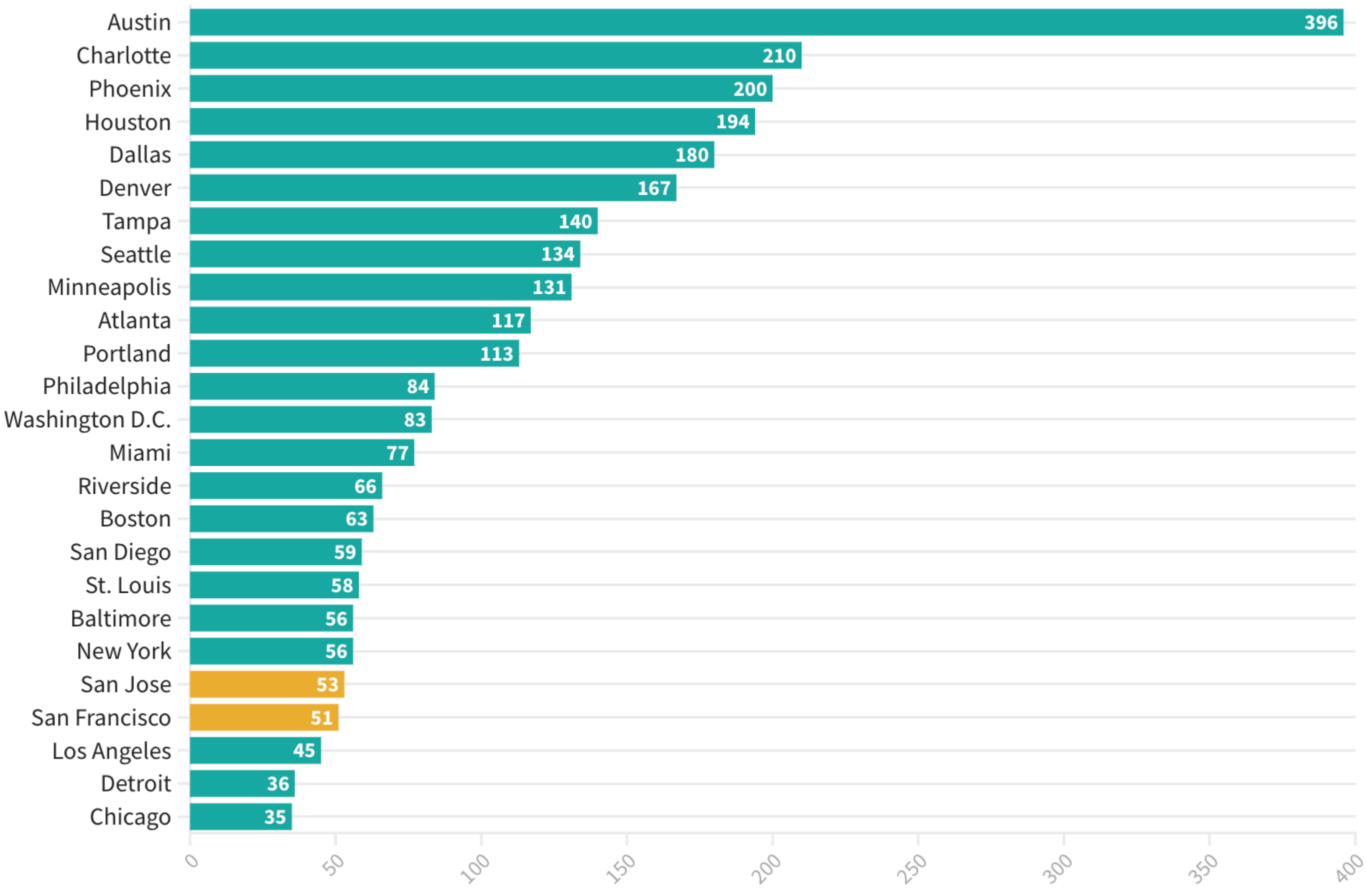
Change in ratio of median home price of single family homes to median household income 2019-2021.
Index Weight: 5% out of 100%



Source: CBRE • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

While housing costs are up in Austin, the city is also building a significant amount of new housing, while SF and SJ lag in new residential permits per capita

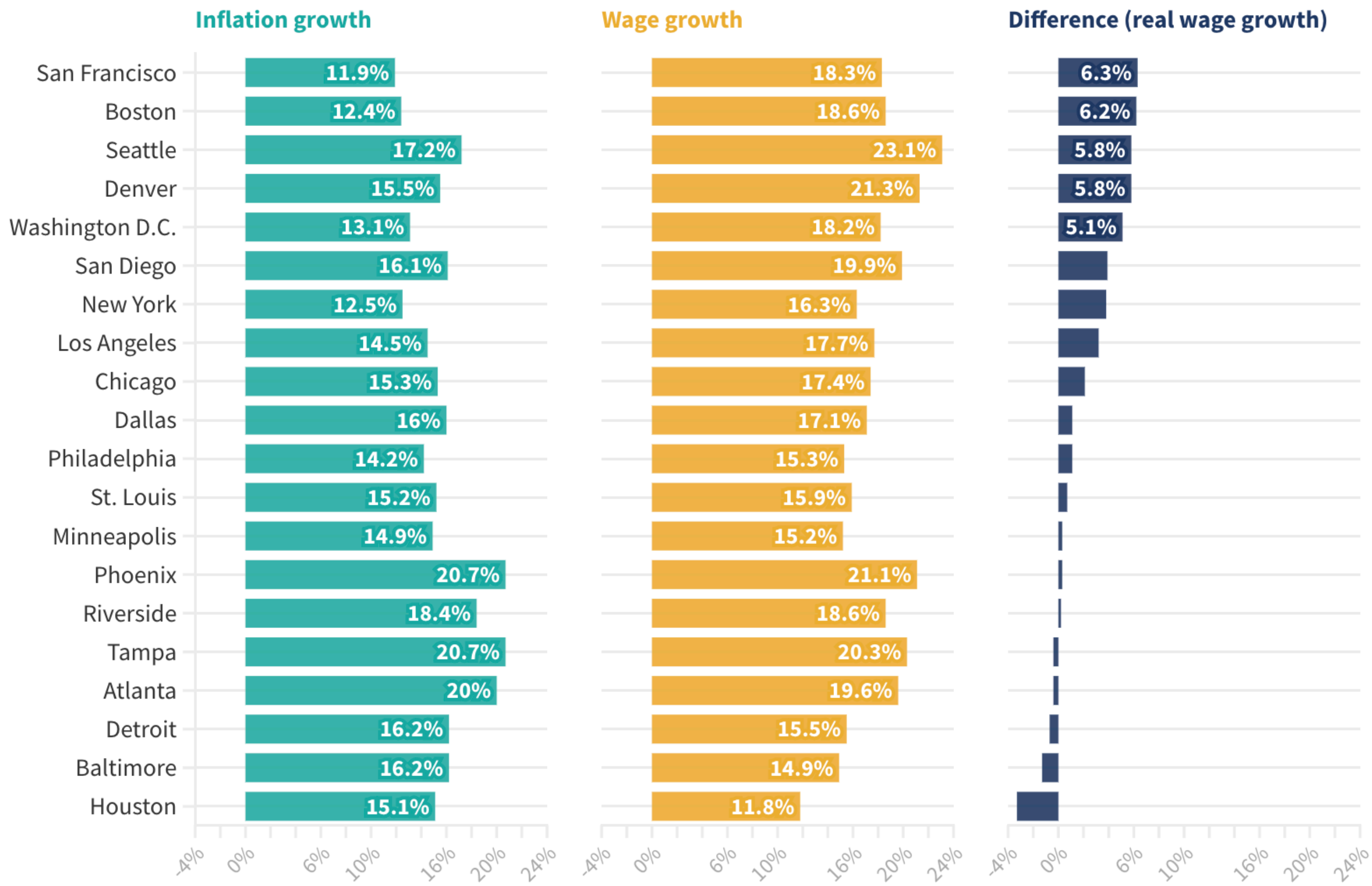
New housing permits per capita per 10,000 people (all unit types) 2020 through 2021. For the 25 largest metropolitan areas by GDP.
Index Weight: 5% out of 100%



Source: U.S. Census Bureau Building Permit Survey and Population Estimates • Analysis: Bay Area Council Economic Institute
Note: City names reflect the larger metropolitan statistical area they fall within.

The San Francisco metro had the fastest real wage growth during the pandemic, meaning wages grew at a significantly faster rate than inflation.

Real wage growth (adjusted for inflation), Q2 2019 - Q2 2022
Index Weight: 5% out of 100%



Source: BLS OEWD, CPI • Note: City names reflect the larger metropolitan statistical area they fall within.
Analysis: Bay Area Council Economic Institute

Acknowledgements

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Since 1990, the Bay Area Council Economic Institute has been the leading think tank focused on the economy of the San Francisco/Silicon Valley Bay Area. A forum for stakeholder engagement and a respected source of information and fact-based analysis, the Institute is a partner and adviser to both business leaders and government officials, universities, and overseas partners. Through its economic and policy research and its partnerships, the Institute addresses issues impacting the competitiveness, economic development, and quality of life of the region and California, including infrastructure, health, science and technology, entrepreneurship, innovation, and international trade and investment. It is guided by a Board of Trustees drawn from influential leaders in the corporate, academic, non-profit, and government sectors.

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Endnotes

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