



**ASSESSING THE
MOUNTAIN VIEW ECONOMY
THROUGH INDICATORS, 2023**

**The State of
Mountain View, California**
Indicators and Revenue Forecasts

by The National Economic Education Delegation (NEED)

June 30, 2023

Exploring the economics, demographics, and well-being of Mountain View and its residents through indicators.

Acknowledgements

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Executive Summary

Assessing the City with Indicators

June 30, 2023

About this Report

This report provides background or summary information for the city of Mountain View (the City) in the form of economic indicators. It also provides forecasts of some key revenue sources for the City. These revenue sources are employment, property taxes, taxable sales, transient occupancy taxes and total city revenues.

Using this Report

Indicators are measures of various aspects of a regional economy. They help to provide an indication of the quality of life in a region and progress toward improving conditions in the local economy. This report focuses on indicators of changing demographics, incomes, housing markets, commute patterns, and employment in Mountain View. We also provide comparisons with Santa Clara County (the County) as a whole, the San Jose MSA, the Bay Area, California, and the United States.

The picture painted by these indicators is of a very prosperous city in a very prosperous re-

gion. It is on the whole slightly younger than the County, slightly better educated, and higher incomes. Employment is of a very high quality for residents in Mountain View and commutes are relatively short. The same cannot be said for those commuting into the City. Before the pandemic, their commutes were long and getting longer.

In normal times, these indicators would paint a very helpful picture of the future. However, we are not in normal times. The many structural and economic changes that have resulted from the pandemic suggest infusing a big of uncertainty into many of these statistics and trends. As is discussed, there are many changes to the economy, some unknown set of which will be permanent.

Forecasts are included for employment, property taxes, sales taxes, and transient occupancy taxes. The forecasts indicate continued strong growth regionally and do not portend a recession.



Figure 1: Golden Gate Bridge: Gateway to San Francisco Bay

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Key Observations

Forecasts

Forecasting the future when times are uncertain is a challenging endeavor. However, planning continues and reasonable forecasts are necessary to plan efficiently. Our forecasts are neither optimistic nor pessimistic about the future and are designed to provide a plausible basis for such planning. Central to the forecasts is projecting a return to pre-pandemic, or 2019, levels.

- **Taxable Sales:** It is estimated that sales tax revenues will recover their prepandemic level this year, 2023. Beyond this year, growth will be moderate, but much in line with average annual revenue growth before the pandemic.
- **Property Taxes:** Property values have until recently maintained their value or grown through the pandemic. As such, revenues did not decline. It is expected that revenues will continue to increase through the end of the forecast, 2028.
- **Transient Occupancy Tax:** Travel was a particular casualty during the pandemic and with it transient occupancy taxes. By 2021, revenues had fallen by 73% relative to 2019. This year, 2023, TOT receipts are estimated to be 35% higher in 2019. Adjusting for inflation, this would still be an increase, but not quite as large. Beyond 2023, revenues are forecast to fall back in line with long term trends.
- **Employment:** Despite an early stumble in 2023, forecasts for employment in Mountain View are relatively optimistic. Employment will increase from 2022 to 2023 at a relatively low rate, a rate that will continue through 2030.

There are headwinds for the economy. Many are potential, but unlikely, such as a broadbased banking crisis. Slow hiring, inflation, how deep the technology slowdown will go, and stricter lending criteria all pose a challenge to growth going forward.

Other Economic Trends

- **Housing Market:** After a pandemic push, Mountain View home prices are in decline, suggesting a softening housing market going forward.
- **Population:** Prior to the pandemic, Mountain View had been growing more slowly than the County overall. Through the pandemic, population grew in the City, while it fell in the County and throughout California. This past year is the first of population declines in Mountain View.
- **Income:** Mountain View has the 3rd highest per capita personal income (\$98,329) in California. Nationwide, its rank is also 3rd.
- **Earnings:** Prior to and through the pandemic, earnings in Mountain View were growing substantially faster than in the County as a whole.
- **Poverty:** Poverty rates in Mountain View are comparable to the County, and both are trending downward.
- **Education:** Mountain View has a very high proportion of highly educated individuals (with an advanced degree) and a very small population of less educated individuals (those w/o a college degree).
- **Race:** Mountain View's White non-hispanic population is significantly larger than in the County, while its Hispanic population is relatively small.

U.S. Economy: Still COVID Influenced, But Recovering Nicely

There is an old curse: “may you live in interesting times”. The last several years have certainly been that. Beginning about March 19, 2020, much of the local Bay Area economy came to a screeching halt. Stay-at-home orders were issued and most in-person service provision ceased. The exceptions were essential services such as grocery stores. Employment declined at a pace never seen before in the United States or likely any other developed nation.

In the three years since, much of the economy has recovered, but is functioning differently than it had before. Many businesses who can, have continued to allow employees to work from home. This is slowly changing, however, as many companies that were full-time work from home have gradually increased the number of days workers are required to be physically present in the office.

Consumer spending had during the height of the pandemic reoriented away from many forms of entertainment and other services to goods consumption (everybody bought a Peleton). Presently, this shift is reversing with more and more spending being redirected back towards services; restaurants, movies and theater, hair cuts and nail salons.

This reorientation of spending, first towards goods and now back to services, has had an important impact on inflation. Along with supply chain tightness, a general increase in spending due to the multiple stimulus packages, and inflation in import prices, these changes in demand drove inflation — the year over year change in prices — to more than 9%. Inflation is coming back down, but remains elevated; the most recent CPI indicates a 4% price change over the last year, with the target inflation rate being just 2%.

There have been many changes to the economy, some of which are likely to be permanent, though it is difficult at this point to determine which. In what follows, we discuss these changes and some trends in some key economic statistics — GDP, inflation, and employment. The rest of the report sheds light on how the pandemic has affected the city of Mountain View.

Gross Domestic Product

Why is it important?

Gross domestic product (GDP) is the primary measure of the size of the economy. Looking at GDP provides one measure of how well the economy is recovering from the pandemic.

How are we doing?

The fourth quarter of 2019 was the last quarter of economic activity unaffected by the pandemic. It was early in 2020 that the implications of the pandemic first became apparent and the economy began its contraction. Although the first two months of 2020 were largely unaffected by the pandemic, the contraction in

March was so severe that real, or inflation adjusted GDP declined by 5% on an annualized basis.¹ It was the second quarter of 2020 when the contraction was particularly severe, with real GDP falling by an additional 31.4%, again, on an annualized basis. At the end of Q2 of 2020, GDP was 9.6% below its level in Q4 of 2019 (Figure 2)².

As the economy opened back up, real GDP rebounded with annualized growth of 33.4% in the third quarter of 2020. Despite this dramatic rebound, the level of real GDP was still 2.5% below what it was at the end of 2019. It was even further behind where GDP would have

¹When data for a period shorter than a year is reported on an annualized basis, that means that the statistic indicates what would happen if it continued to grow, or decline, at the rate that it did in that period for a whole year.

²In the graph, the level in Q4-2019 is scaled to 100. Deviations from 100 indicate the percentage deviation from that level. For example, in Q2 of 2020, GDP was 9.6% lower than in Q4 of 2019. ($9.6 = 100 - 90.4$).

been had the pandemic not occurred (the red line in Figure 2). In the first quarter of 2023, with an increase in GDP of 1.3%, the level of GDP was well above its end of 2019 level, but was still below where it might have otherwise been; GDP might well have been 7.4% above its 2019 level, but is instead just 5.3% above its 2019 level. Note that the overall gap between actual and forecast GDP is just \$0.3 Trillion (Figure 3). Despite positive growth in the

quarter, this gap widened in the first quarter of 2023, reflecting a slowing of economic growth. This slowing, however, does not necessarily portend a recession.

This slowing is likely a result of the Federal Reserve's efforts to rein in inflation, discussed below, and not a reflection of a specific weakness in the U.S. economy. It is our view that a recession is possible, but unlikely through 2023.

Figure 2: GDP During the Pandemic: Change Since Q4-2019

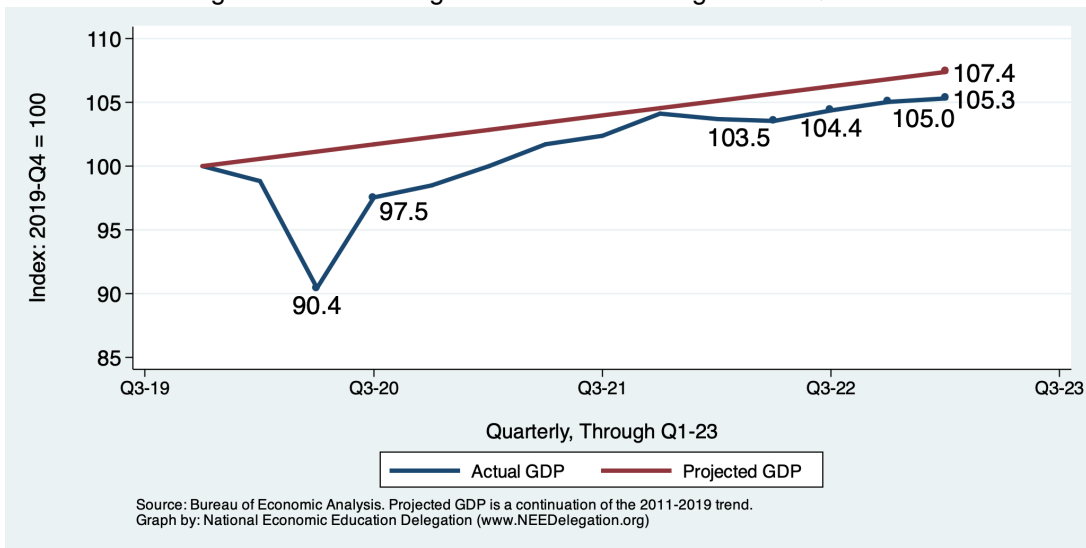
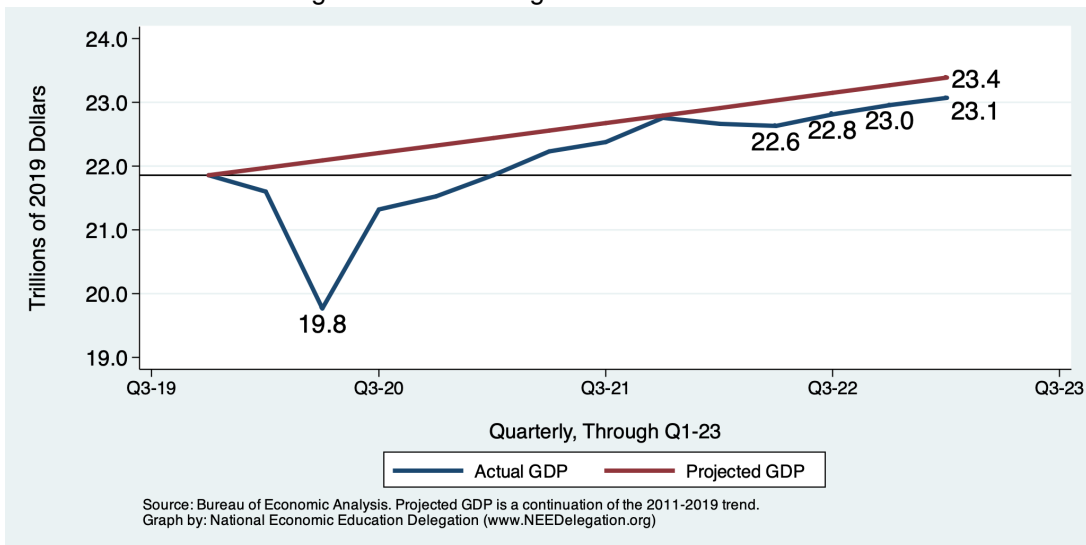


Figure 3: GDP During the Pandemic: Levels



Nonfarm Employment

Why is it important?

Employment is a key indicator of the strength of the economy. As the demand for workers grows, so do the fortunes of the nation's households.

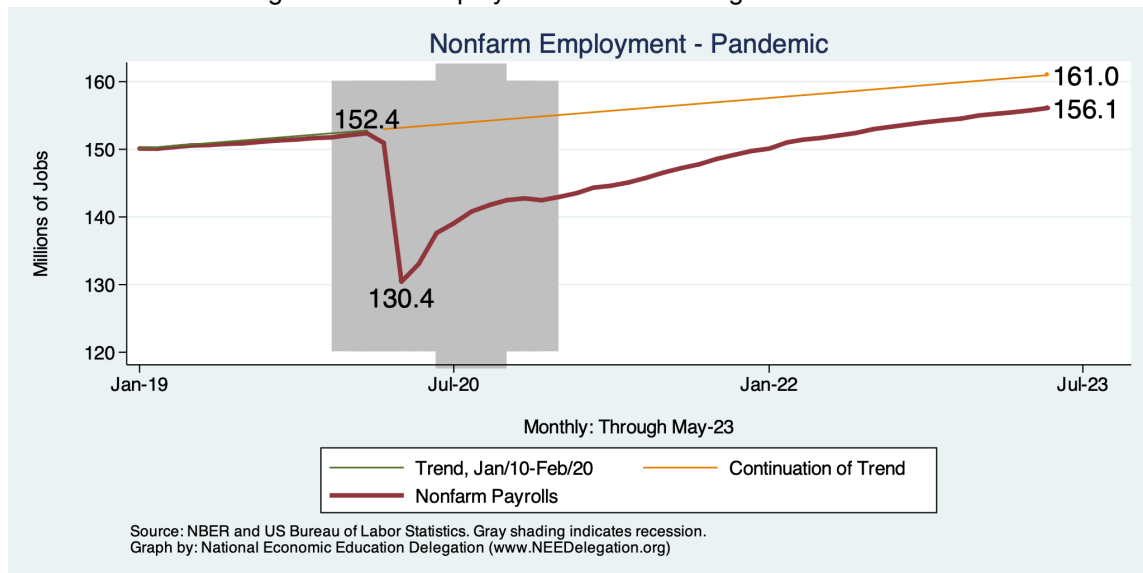
How are we doing?

Employment is available on a monthly basis, so we are able to make comparisons with February of 2020. At its worst, in April of that year, total nonfarm employment had declined by 14.4%, from 152.4 million to 130.4 million (Figure 4). This is the largest 2-month decline, either in levels or on a percentage basis, in recorded history. At the end of 2020, employment remained significantly suppressed at 6.5% below February, 2020 levels. This represents the sharpest calendar year decline in employment in the last 40 years.

Through May of 2023, employment levels have risen significantly relative to their pre-pandemic levels, with 156.1 million jobs in the U.S. economy (Figure 4). This was 3.7 million more than before the pandemic, though perhaps 4.9 million below where we might have been were there no pandemic. The orange line in the figure is a forecast of what employment might have been without the pandemic. Although below its forecast level, employment has been growing consistently throughout the recovery (Figure 5) and we expect it to achieve its potential in the next several years. The gap between actual employment gains and those of the forecast has been declining, indicating that job growth remains elevated relative to what might be considered normal.

Employment Consequences

Figure 4: U.S. Employment Growth During the Pandemic



The employment recovery is slowed by declines in immigration and significant numbers of the pre-pandemic labor force continuing to sit on the sidelines. Studies suggest that many workers have retired early or remain out of the labor force because of pandemic fears or the

lingering health effects of having contracted COVID. Figure 6 indicates that the U.S. labor force has 2.8 million fewer workers in it than was expected at this point in time had there been no pandemic.

Figure 5: U.S. Employment Growth During the Pandemic

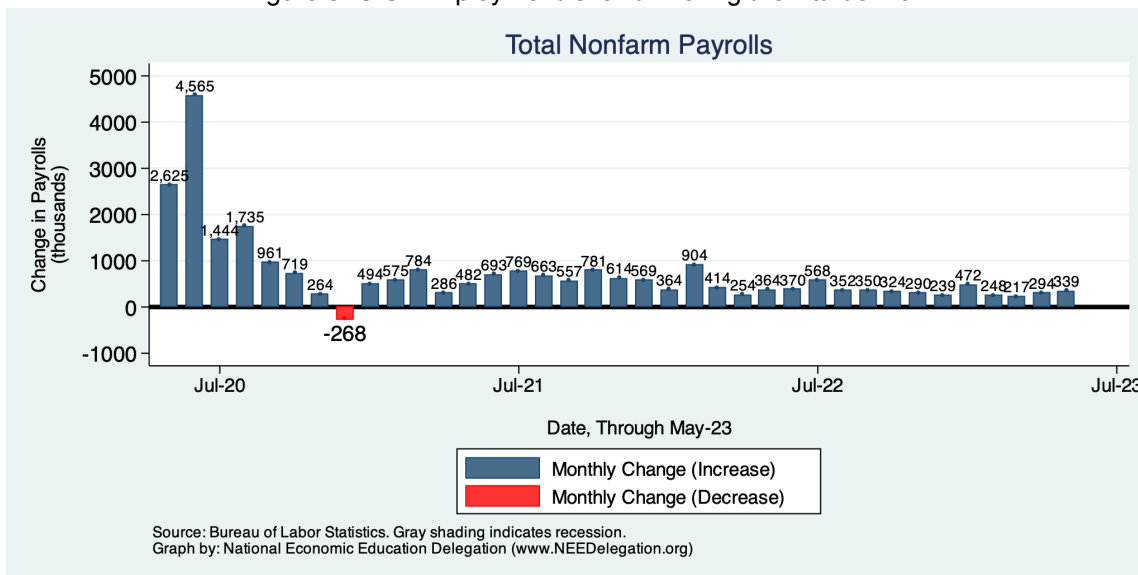
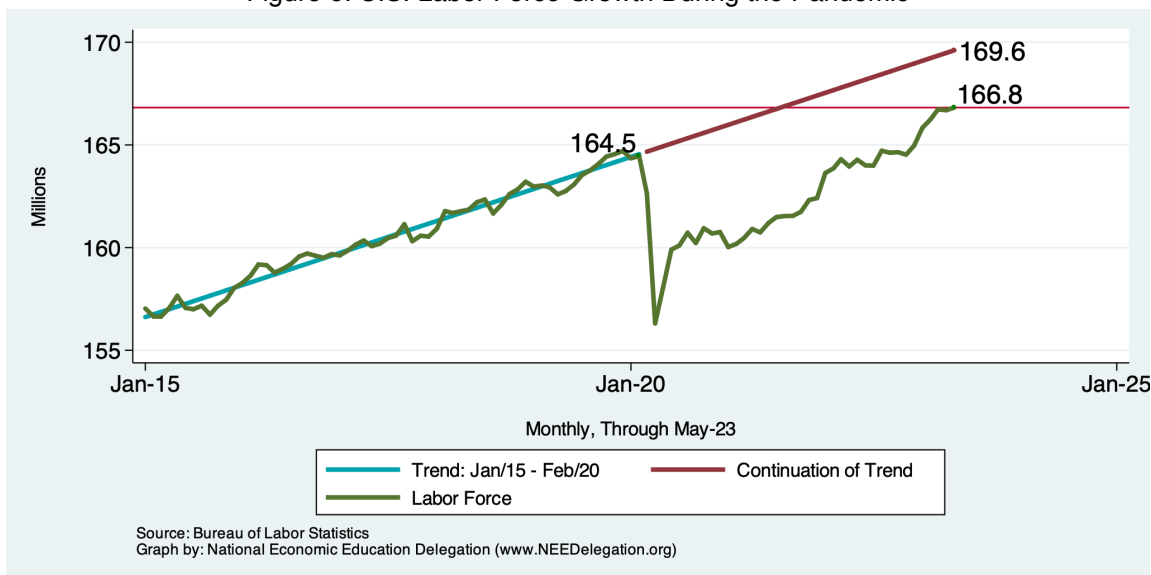


Figure 6: U.S. Labor Force Growth During the Pandemic



The employment effects have not been even across industries (Figure 7). This figure illustrates the variance across industries in terms of both the initial job losses (the blue bars) and the current levels relative to February of 2020 (the red bars). Again, total job losses amounted to 14.4% of the pre-pandemic level (February of 2020). Several people-facing industries experienced losses far in excess of

14.4%; leisure and hospitality lost nearly half of its jobs (48.6%) and other services lost nearly a quarter (24.0%).

In terms of recovery, most major industries have recovered their pre-pandemic level. Total employment was 2.5% above its February of 2020 level in May of this year. Several sectors that are particularly important for the Mountain View and indeed Bay Area economy have

grown strongly relative to their pre-pandemic levels: professional and business services are up 7.0% and the information sector has 6.1% more jobs than before the pandemic. Transportation and warehousing, largely because of the shift towards goods purchases that lingers, is up 16.9%.

Before the pandemic, just under 5% of workers nationwide reported working from home. Early in the pandemic, many additional nonessential workers (white collar, in particular) were asked to work from home. By 2021, some estimates indicate that more than 17% of workers

nationwide were working at home. The figure is higher for Santa Clara County where estimates suggest that more than 33% of employees were home-based. It appears as though many of these workers are being called back into the office. Between 2021 and 2022, the proportion of establishments with employees teleworking fell from 39.9% in 2021 to 27.5% in 2022 (Figure 8). This trend towards employees returning to the office is likely to continue. It is our expectation that the proportion of employees working from home will remain elevated relative to 2019, but will be much closer to normal than to current levels.

Figure 7: U.S. Employment Through the Pandemic

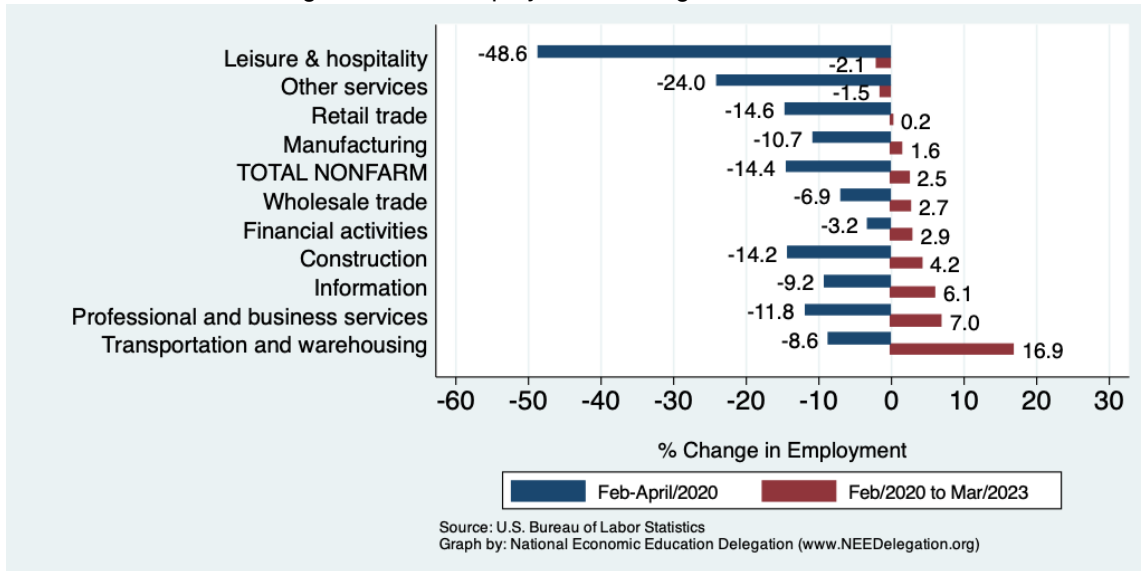
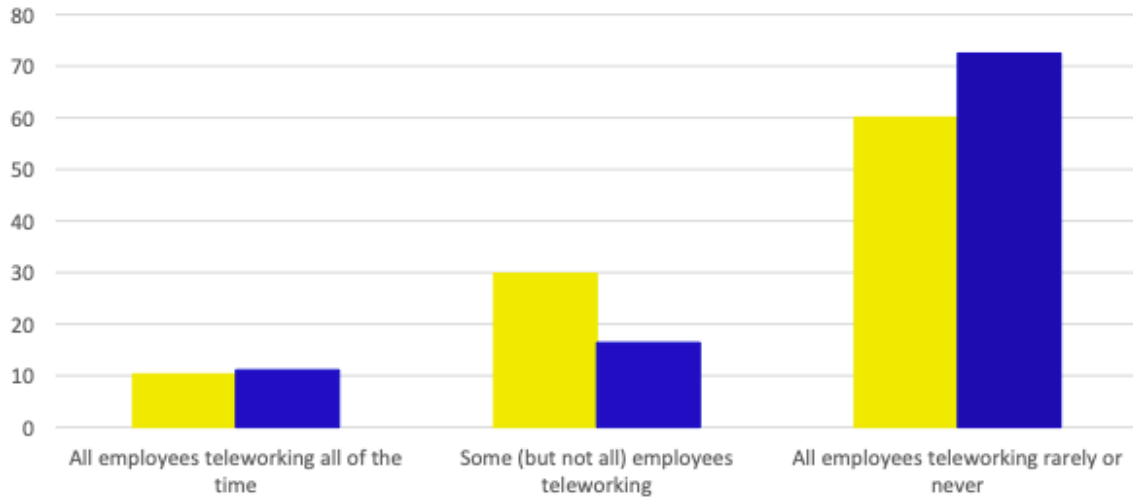


Figure 8: Establishments with teleworkers, August-September 2022 and July-September 2021 (percent)



Inflation

Why is it important?

Inflation is a measure of the rate of change in prices in an economy, usually measured over a 12-month period. The Federal Reserve generally targets a 2% rate of price increase year over year. To the extent that inflation is above that level, it is believed that standards of living as well as the rate of economic growth could be compromised. Similarly, lower rates of inflation are also believed to be an impediment to maximizing growth. Accordingly, there is a sweet spot of inflation and this is what the 2% target is believed to represent.

Some inflation is beneficial as it moves consumption that might happen tomorrow towards today. This increases GDP today, with little effect on GDP of tomorrow because GDP tomorrow will benefit from spending that was moved to tomorrow from the day after tomorrow. Inflation leads to a continuing draw of consumption forward, which is believed to increase GDP today, tomorrow and into the future. If it is too high, drawing too much spending towards today, that can result in forces, *e.g.*, wage increases, that could cause inflation to rise further in the future.

How are we doing?

Inflation has been a lingering effect of the pandemic. It grew to more than 9% but has since declined to just 4.1% in May, 2023 (Figure 9). More recent data suggest that further declines are coming. The elevation of inflation means that prices are about 10% above where the Federal Reserve would like them to be (Figure 11). Note that even when inflation is back down to 2%, it will be 2% annual increases from this higher level. Prices will not decline to where they might have been in the absence of the pandemic.

Although year over year inflation statistics still suggest that we are far from the 2% target, more recent data suggest that we are getting close. Over the last three months, inflation on an annualized basis is just 2.2% (Figure 10). It is a little higher over the last six months, but both indicate more progress toward the target than do the year-over-year statistics. It is also clear that we don't necessarily have to reach 2% for the economy to be on sound inflation footing. It is almost an arbitrary figure and rates of 3% may well be consistent with steady and significant economic growth.

Figure 9: Inflation Through the Pandemic

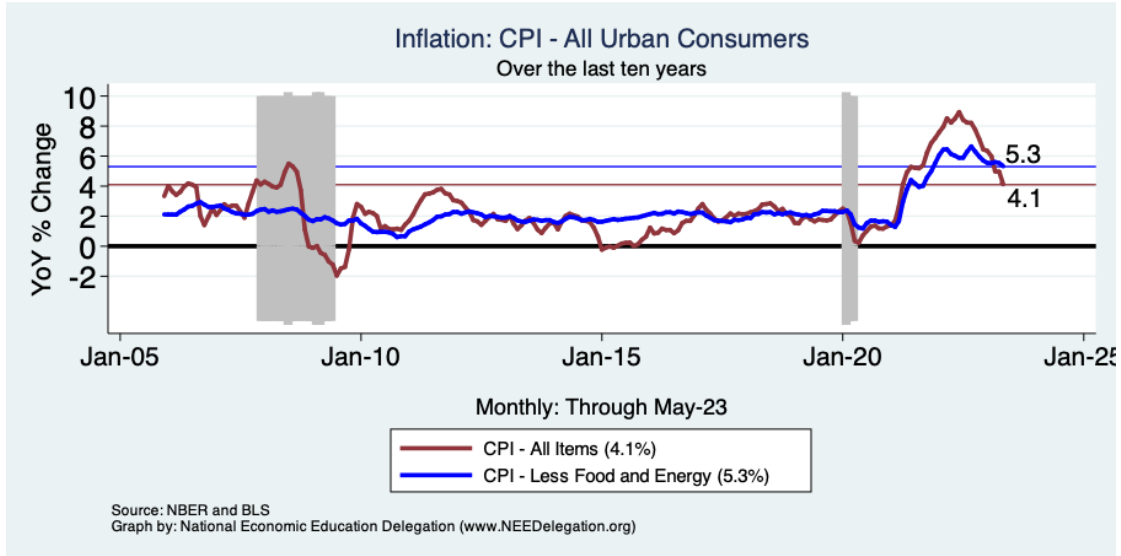
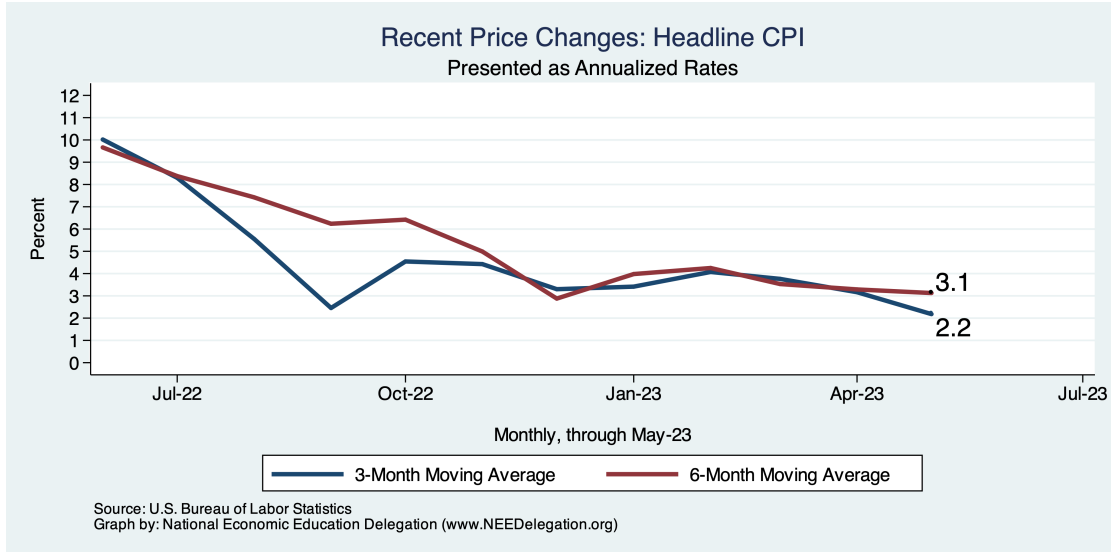


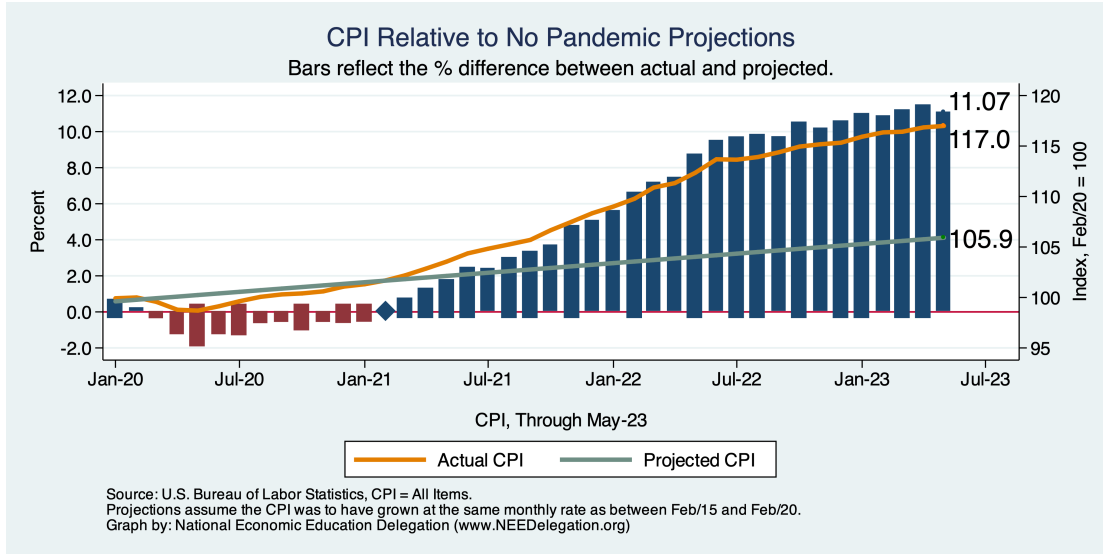
Figure 10: Measures of Recent Inflation



Even if inflation is reined in and runs at 2% going forward, prices will still be elevated because of the pandemic. Figure 11 provides an indication of just how elevated. The bars in the graph indicate the extent to which prices are higher or lower than they would have been had the Federal Reserve been able to maintain 2% throughout the pandemic. In the early part of the pandemic, inflation was slow, re-

sulting in lower prices (the red bars). For the last two years, however, prices have been elevated. The height of the bar representing May of this year is 11.07%, meaning that baselind prices are 11.07% higher than they would have otherwise been. Although inflation may come under control in the near future, prices will remain elevated.

Figure 11: Inflation Through the Pandemic



Summary - U.S. Economy

The pandemic dealt a significant blow to the U.S. economy, resulting in a significant recession. Most recessions are a result of some imbalance in the economy. This one was not. As such, the economy has bounced back more quickly than it has following many recent recessions. Granted, it is not back to where it might have been without the pandemic, but it is clearly well on its way there.

Much of the lingering slowness in recovery can be attributed to the lingering effects of the pandemic. In particular, inflation is still running a little hot. In the aftermath of a significant economic shock, there will always be some important statistic or statistics that arise as problematic. This is a natural outcome of something like a pandemic. The global economy was driven far away from its equilibrium and prices are the driving force behind returning to equilibrium, whether the same one as before the pandemic or some alternative. Supply chain issues and higher prices of imports both facilitated higher prices of domestically produced goods. Those prices will remain elevated; many producers raise prices more than they had to when their costs went up, but seldom do producers lower

prices by more than they can when their costs go down.

The economy will be forever changed, but will continue to look much like its pre-pandemic self. Minor changes to the consumption of goods relative to services may well persist, though that seems unlikely. What does seem likely is that more of us will work more days per week at home than prior to the pandemic. Even if this reduces productivity, of which there is little solid evidence, it will improve quality of life for many workers.

In recent months, the economy's strength has been tested by a number of events. Such events include the minor banking crisis associated with the failure of the Silicon Valley Bank and the debt ceiling crisis. In particular, however, the economy's strength has been tested by continued interest rate increases imposed by the Federal Reserve. The Federal Funds Rate has increased from zero to over 5%. This has implications for nearly every other interest rate in the economy. In particular, it has increased the interest rate on government borrowing and on home mortgages.

Nonetheless, the economy continues to create jobs at an elevated level and GDP has shown little evidence of shrinking. Overall, the U.S. economy appears to be strong, with recovery still perhaps illusive, but within reach. Indeed, the esti-

mate of growth in the first quarter of 2023 was just recently revised from 1.3% on an annual basis to 2.0%. Growth is slow by historical standards, but steady.

Mountain View

Buried deep within the overall U.S. economy is the city of Mountain View. The City is in a very prosperous region and is very prosperous itself. The best evidence, however, suggests that the City is slow in its recovery from the pandemic. Recent data from California’s Employment Development Division suggests that employment remains below its pre-pandemic level. Figure 12 presents evidence on the path of nonfarm employment and unemployment in Mountain View. Employment is about 1,100 lower than it was before the pandemic. It has fallen from roughly 51,052 on a seasonally adjusted basis in February of 2020 to about 49,945 in May of 2023, or

about 2.2%. This does reflect significant recovery from May of 2020. At that time, employment had declined by 16.1%, significantly in excess of the 14.4% by which overall U.S. employment fell.

The City’s unemployment rate had fully recovered in early 2022. However, recent employment declines have caused unemployment to rise back up to 3.1%, up from just under 1.8%.

Unfortunately, data by detailed industry are not yet available for the City, but more is known about the MSA of which the City is a part.

Figure 12: Mountain View Pandemic Employment Situation

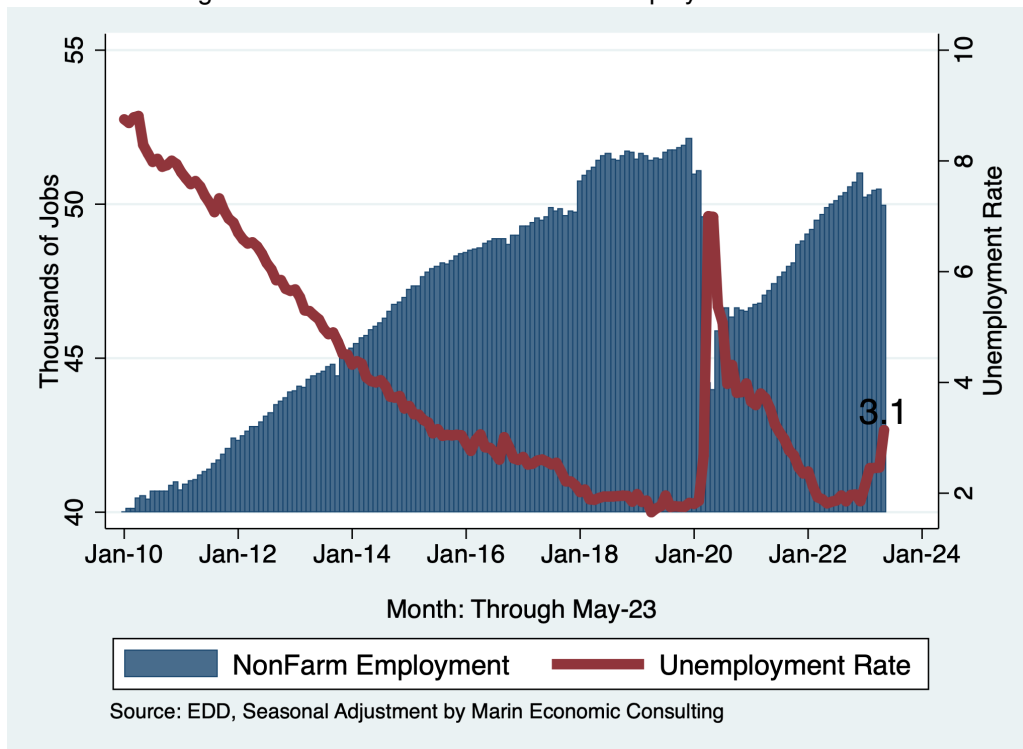
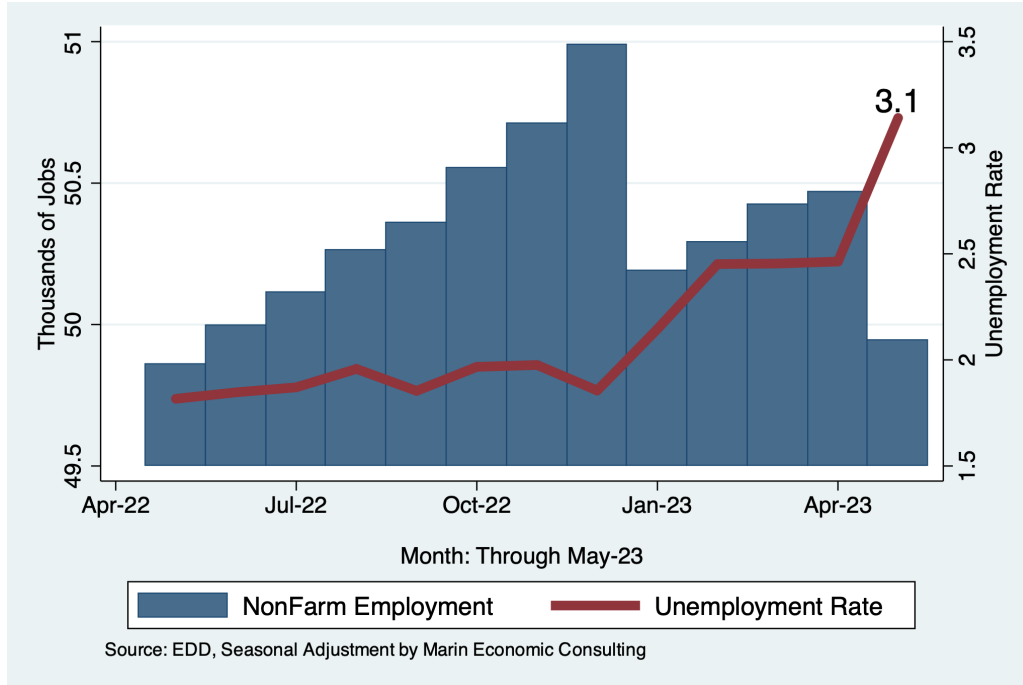


Figure 13: Mountain View Pandemic Employment Situation, the Last 12 Months



Regional Data

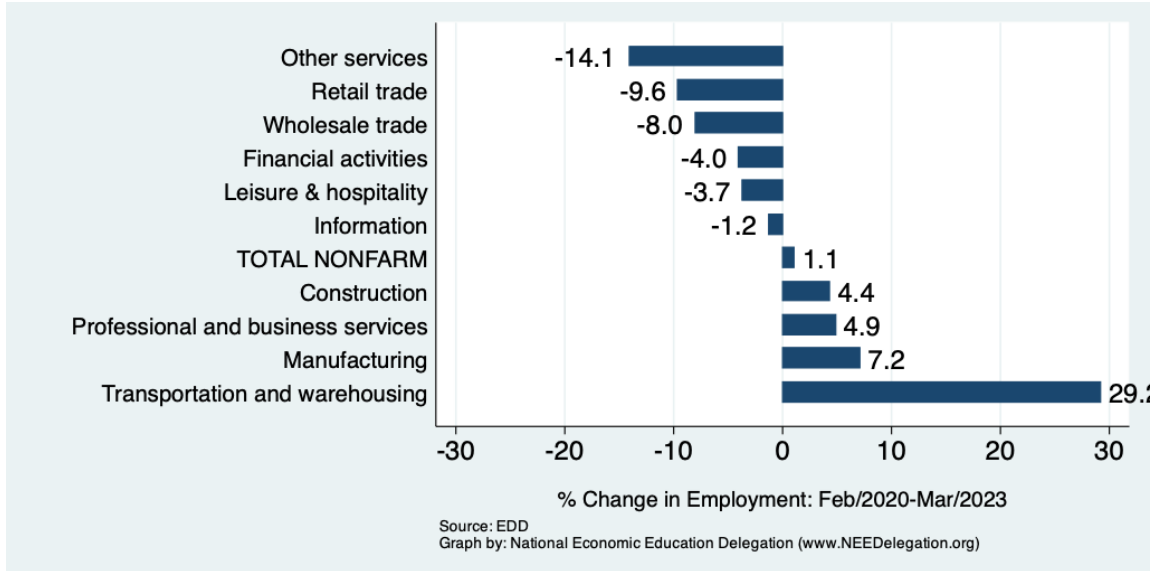
Mountain View is in the Santa Jose MSA, which includes Santa Clara and San Benito Counties. Figure 14 provides a cross industry picture of employment in the MSA. Total nonfarm employment in the region is 1.1% above its level in February of 2020, which indicates less growth than in the overall U.S. economy (2.2%). Some important sectors in the region are struggling more locally than nationally. In particular, other services employment remained down more than 14%, employment in retail trade is down 9.6%. The region experienced a significant outflow of low income families. This may, in part, explain the slowness of the employment recovery in these sectors.

Leisure & hospitality, as we saw nationally, experienced the largest loss of jobs. At the peak of job losses, nearly 51% of all jobs in the sector had been eliminated locally. Jobs in the sector remain about 3.7% below their prepandemic level.

For many sectors of the economy, the current level of jobs is above that in February of 2020. Perhaps the most noteworthy sector is information. An important contributor to jobs in the region, but it is still below its prepandemic level. This observation is misleading, however. During the pandemic, jobs in this sector grew significantly. They have only recently declined. Other exceptions include important goods movement sectors: transportation and warehousing and wholesale trade.

Figure 15 reproduces the nationwide sectoral employment changes from Figure 7 (the red bars) as a point of comparison for employment changes in the San Jose MSA. The sectors are ranked according to employment changes nationwide. The sectors that are slow to recover, or fast (transportation and warehousing) are relatively clear.

Figure 14: Employment Through the Pandemic, San Jose MSA



The San Francisco Bay Area is well known as a technology employment hub. Therefore, it is worth asking how this sector is doing. The technology sector is loosely defined as a combination of the information sector and parts of the professional, scientific, and business services sector.³

Figure 16 provides evidence on employment in the technology sector throughout the Bay Area. There was significant growth during the early part of the pandemic, but in the fourth quarter of 2022 employment declined precipitously. It has declined to levels below their prepandemic totals, suggesting more is happening in this sec-

tor than just shedding some of the gains that accrued during the pandemic and a return to normal levels. In Santa Clara County, technology employment is roughly 16% below its level in the fourth quarter of 2019. The Bay Area and California more generally, have also experience employment declines, though smaller on a percentage basis than in the County. Overall, technology employment nationwide is 5.0% higher than it was prior to the pandemic. The enormous difference in employment experience locally is curious and disconcerting. Time will tell if this is a permanent change, or a short-term reorientation of technology employment out of the state.

³The definition of the tech sector used here is taken from a recent study by the Workforce Information Council: *Exploring the High-Tech Industry*. The Workforce Information Council is a partnership between the U.S. Bureau of Labor Statistics, state employment statistics agency representatives and other federal agencies, working together to plan, guide and oversee the nationwide workforce information system. These NAICS sectors were determined as having 2.5 times the national proportion of employment in STEM occupations. Some of the industries identified in the report were excluded in this report (at the discretion of MEC, see table) as not reflecting the standard notion of the technology sector.

Figure 15: Employment Through the Pandemic, Santa Jose MSA vs. The Nation

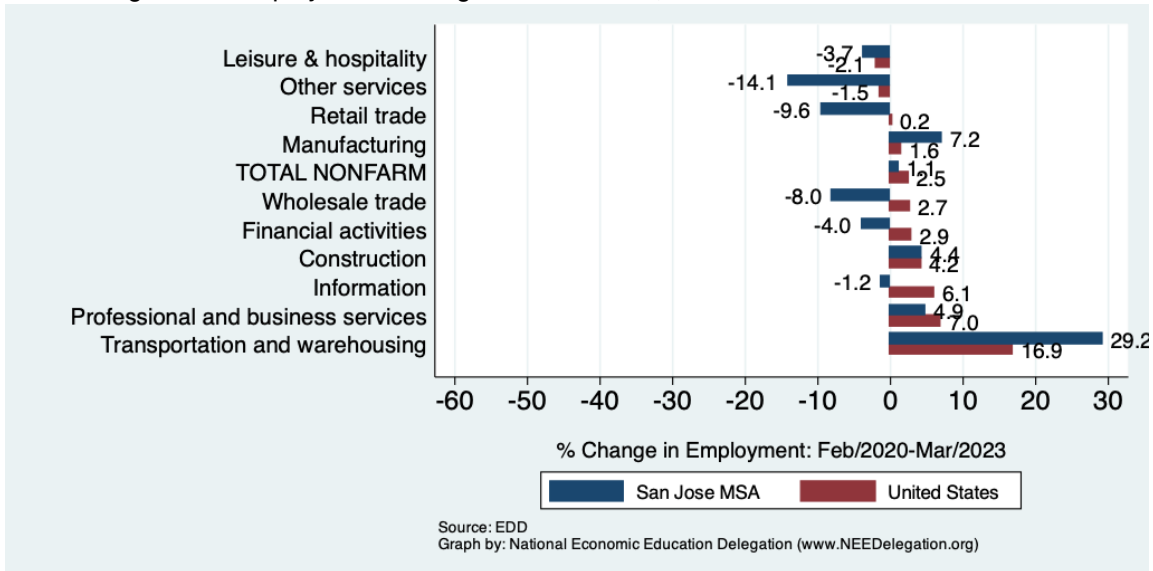
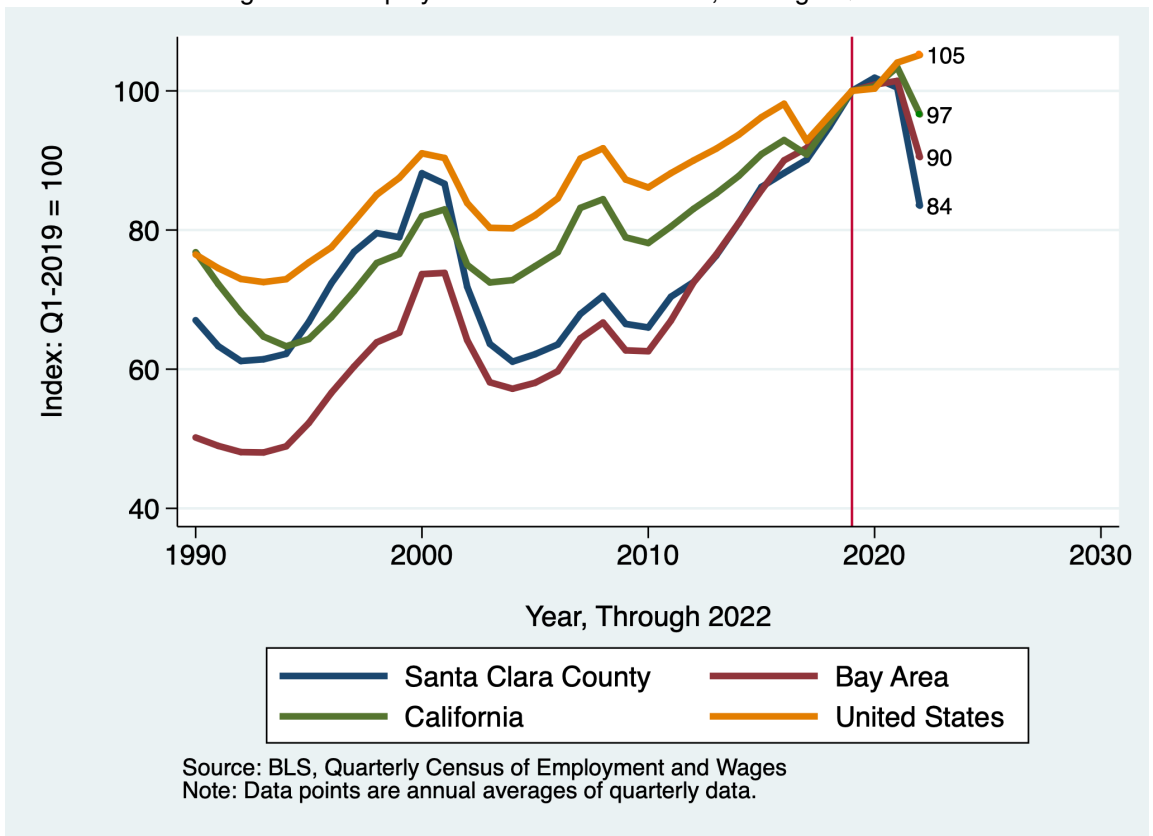


Figure 16: Employment in the Tech Sector, Through Q4-2022



Demographics

A Snapshot of Mountain View

Table 1. DEMOGRAPHIC SUMMARY

Statistic	2021	2019
POPULATION		
Population Estimate	81,517.0	82,726.0
Veterans	1,240.0	1,312.0
Foreign born persons (% , 5yr)	42.6	42.2
Population age 25+	59,044.0	62,026.0
AGE AND SEX		
Persons under 5 years (%)	6.2	5.2
Persons under 18 years (%)	21.4	18.2
Persons 65 years and over (%)	11.5	11.4
Female persons (%)	45.5	49.0
INCOME AND POVERTY		
Median household income	157,243.0	147,915.0
Per capita income in past 12 months	98,329.0	88,904.0
Persons in poverty (%)	7.3	4.5
Children age less than 18 in poverty (No.)	1,906.0	
Children age less than 18 in poverty (%)	10.9	
RACE AND ETHNICITY		
White alone (%)	38.3	55.2
African American alone (% , 5yr)	2.4	1.6
American Indian or Alaska Native alone (% , 5yr)	0.4	0.4
Asian alone (%)	35.1	30.9
Native Hawaiian and Other Pacific Islander alone (% , 5yr)	0.0	0.3
Two or More Races (%)	14.1	
Hispanic or Latino (%)	17.4	19.5
White alone, not Hispanic or Latino (%)	36.7	43.9
HOUSING		
Housing units	39,492.0	39,795.0
Owner-occupied housing units (%)	37.7	39.9
Median value of owner-occupied housing units	1,636,100.0	1,645,800.0
Median selected monthly owner costs-with a mortgage	4,001.0	3,654.0
Median selected monthly owner costs-without a mortgage	1,242.0	859.0
Median gross rent	2,760.0	2,525.0
FAMILIES AND LIVING ARRANGEMENTS		
Households	34,637.0	35,456.0
Persons per household	2.3	2.3
Living in same house 1 year ago, % of persons age 1+	79.3	80.1
EDUCATION		
High school graduate or higher, % of persons age 25+	94.5	93.6
Bachelor's degree or higher, % of persons age 25+	74.4	71.9
HEALTH		
With a disability, under age 65 years	2,758.0	2,760.0
Persons without health insurance, under age 65 years (%)	1.7	3.9
LABOR FORCE		
In civilian labor force, persons age 16+ (% , 5yr)	74.1	73.8
In civilian labor force, women age 16+ (% , 5yr)	65.6	66.4
Employed, persons age 16+ (% , 5yr)	69.5	69.8
Self employed (% , 5yr)	7.0	7.5
TRANSPORTATION		
Mean travel time to work (minutes), workers age 16+ (5yr)	20.0	22.8
Using public transportation (% , 5yr)	10.1	12.0
Drive alone in private vehicle (% , 5yr)	56.8	69.1

Source: American Community Survey, Summary Files

Note: Data are from the 1-year files unless indicated by the notation 5yr.

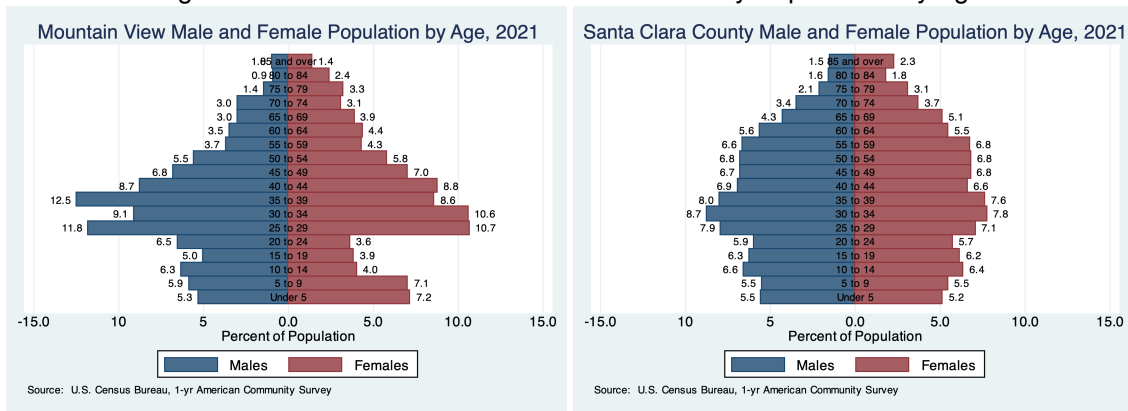
Current Population

In 2023, the population of Mountain View as reported by the California Department of Finance was 83,856. According to the American Community Survey, the population skewed slightly towards men in 2021; women made up 45.5% of the population, down from 49% prior to the pandemic. The age distribution across the sexes differs slightly (Figure 17). At the top, the well established fact that women tend to live longer than men is borne out. The most common age for women is between 25 to 29, while it is higher,

35 to 39, for men. There must have been something funny in the water over the last 10 years as there appear to have been more girls under the age of 10 than there were boys in 2021, significantly more.

Relative to Santa Clara County as a whole, there appears to be a slight concentration among younger folks in the City than is apparent in the County. The median age in Mountain View is 35.6, while it is 38.2 in the County as a whole.

Figure 17: Mountain View and Santa Clara County Populations by Age



The racial composition of the population of Mountain View differs significantly from that of the County (Figure 18). White non-Hispanic residents make up a significantly higher proportion of the population in the City, while the share of the population that reports as Black non-Hispanic and other non-Hispanic is higher in Mountain View than in the County, while there is a significantly smaller proportion of Hispanic individuals, 23.4% in the City relative to 32.7% in the County overall.

Relative to the County as a whole, Mountain View has a very highly educated adult popula-

tion (Figure 19). This is even more true when compared to the Bay Area and California as a whole (Figure 20). The proportion of workers with at least a bachelor's degree is significantly higher than in the state as a whole or even the Bay Area. The proportion of individuals with an advanced degree is exceptionally high, with 49% of men and 41% of women having an advanced degree of one sort or another. These percentages are double those for the Bay Area or California. Located as it is in the heart of Silicon Valley, this is hardly surprising.

Figure 18: Mountain View and Santa Clara County Populations by Race/Ethnicity

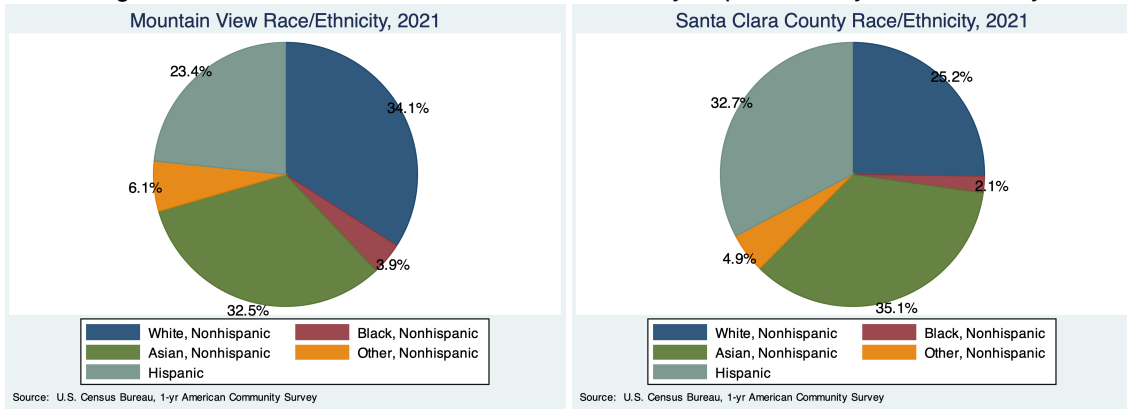


Figure 19: Mountain View and Santa Clara County Populations by Educational Attainment

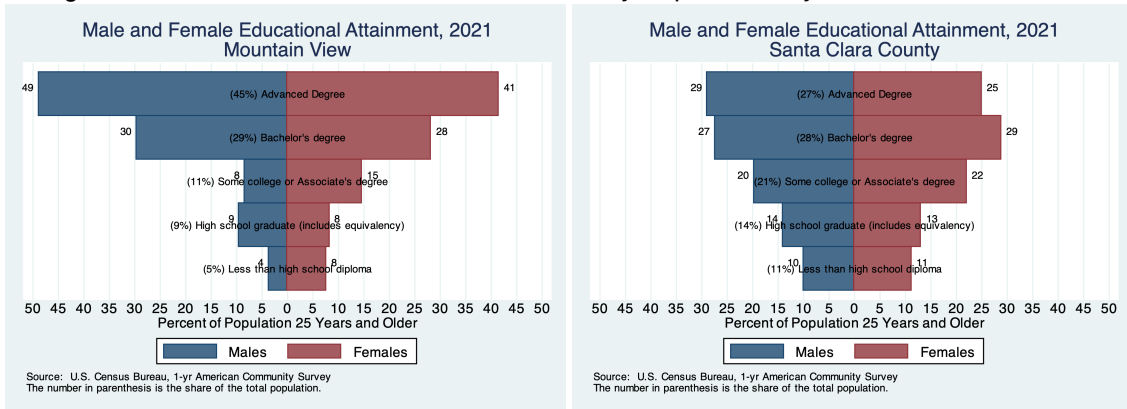
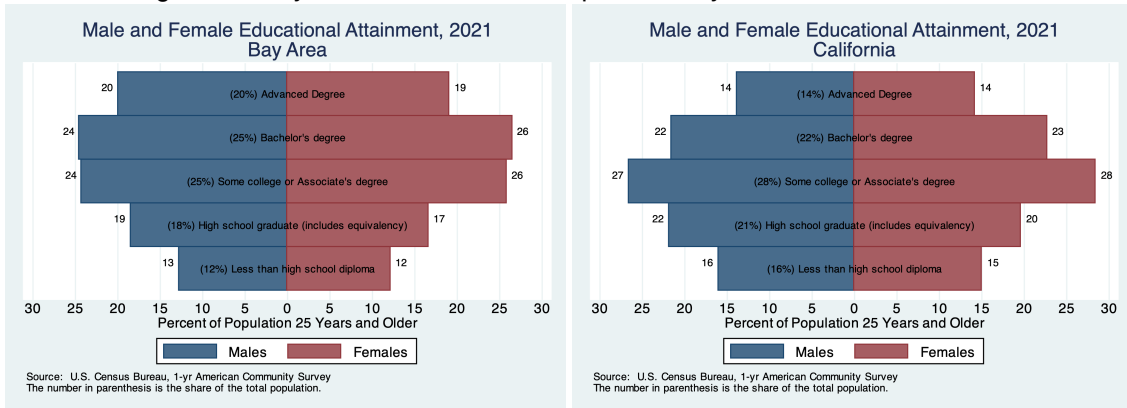


Figure 20: Bay Area and California Populations by Educational Attainment



Population Growth

According to California's Department of Finance, over the course of the last several years, Mountain View has been growing more quickly than has the rest of the County or California (Figure 21). Between 2010 and 2023, the population of Mountain View grew by 12.9%, compared with just 5.9% for the County and 4.5% for the state. Although the population of the County fell between 2019 and 2023, the population of Mountain View grew, falling only in 2023, and then by just -0.3% (Figure 22).

California's Department of Finance has forecast that the population of Santa Clara County will increase by 25% relative to its 2010 level. Having already grown by 7.6% in 2020, that suggests growth of roughly 25% between 2020 and 2060.

Figure 21: Population Growth

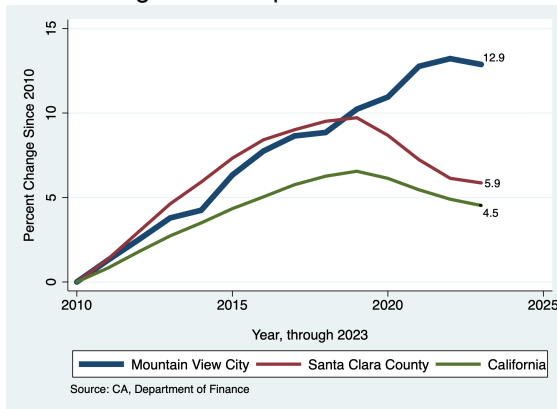


Figure 22: Population Growth

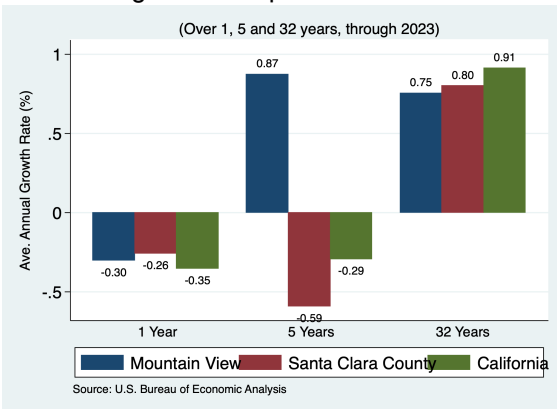
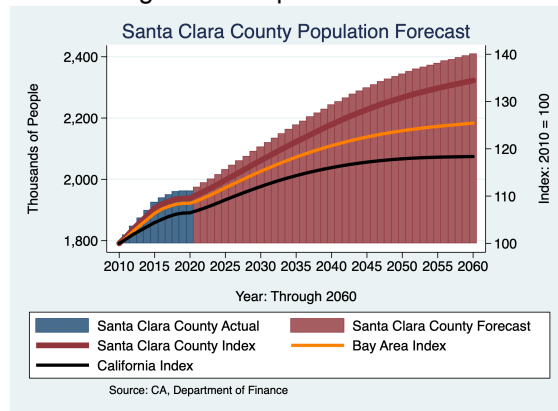


Figure 23: Population Growth



Forecasts of growth by age and race/ethnicity do suggest changes in the demographics of the County and possibly the City. By 2060, the population will be significantly older, with a much higher proportion of individuals aged 65 or older (Figure 23). The County will also continue the

trend of declining share of White nonhispanics in the population, though the decline will be slow. Shares of other ethnic groups will all remain relatively unchanged (Figure 24).

In Santa Clara County, births and to a lesser extent net immigration contributed negatively to

population growth between 2021 and 2022 (Figures 25 and 26). That marks the seventh year in a row that net migration has reduced population growth - at an accelerating rate of decline (Figure 27). Of that population loss from migration, the vast majority is a result of domestic moves from the County to other parts of the state our country (Figure 28).

Figure 24: Santa Clara County Population Forecasts by Age and Race

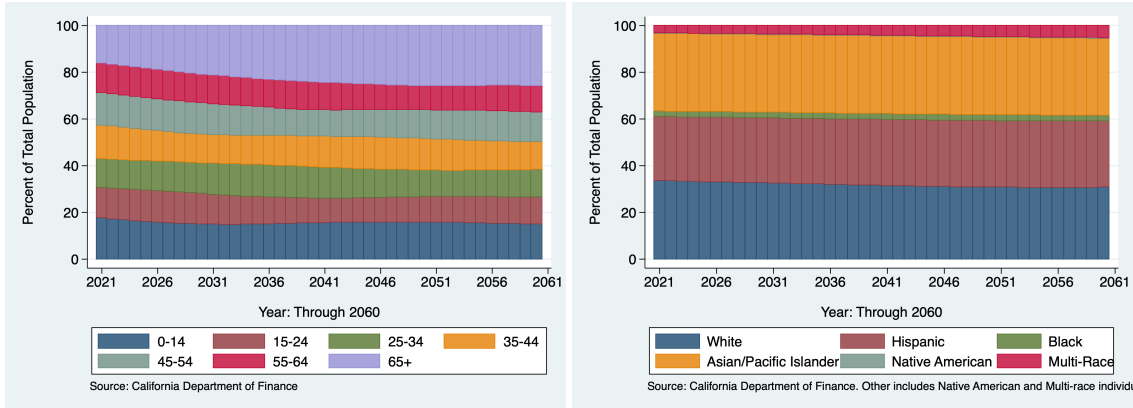


Figure 25: Santa Clara County: Decomposition of Figure 26: Santa Clara County: Population Change - Primary Components

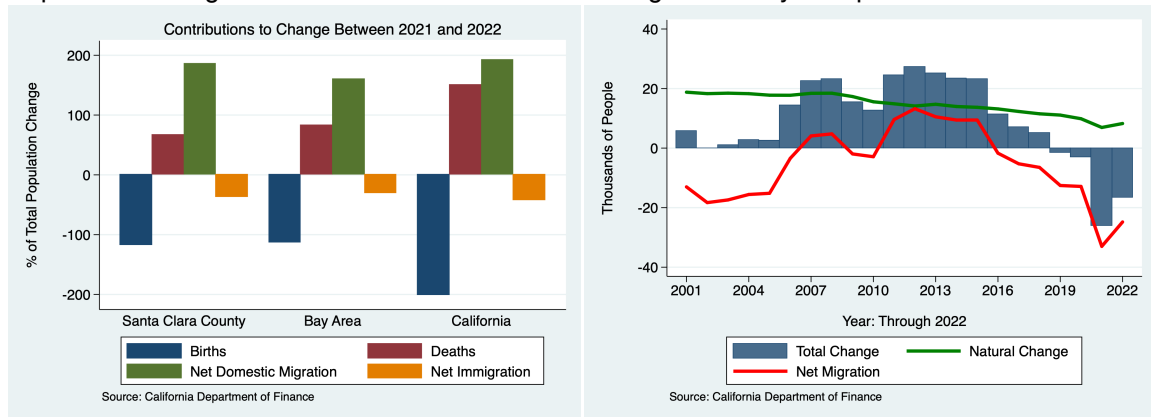


Figure 27: Santa Clara County: Natural Population Growth

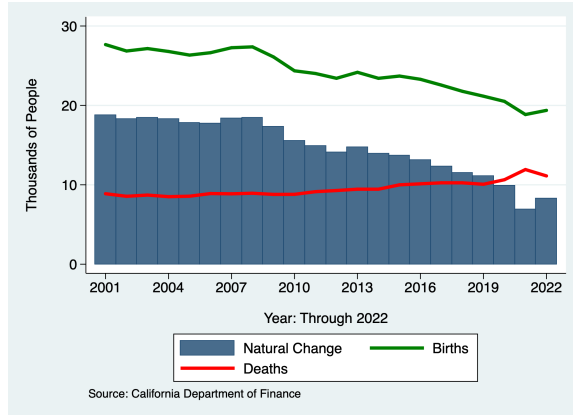
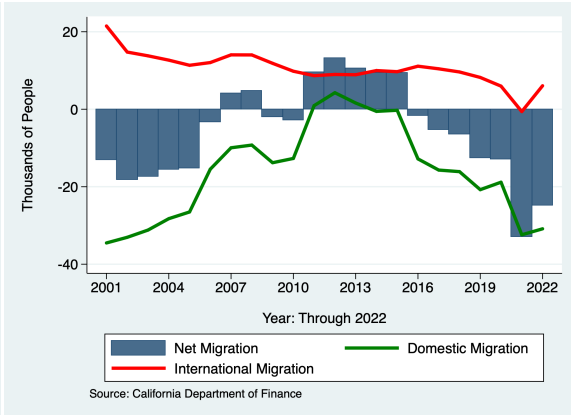


Figure 28: Santa Clara County: Migration



Income and Earnings

Per Capita Income Growth

Definition:

Personal income is the income received by, or on behalf of, all persons from all sources: from participation as laborers in production, from owning a home or unincorporated business, from the ownership of financial assets, and from government and business in the form of transfer receipts. Noncash government benefits are not included. Per capita personal income is the average income per person in Mountain View —total personal income in the City divided by the total population.

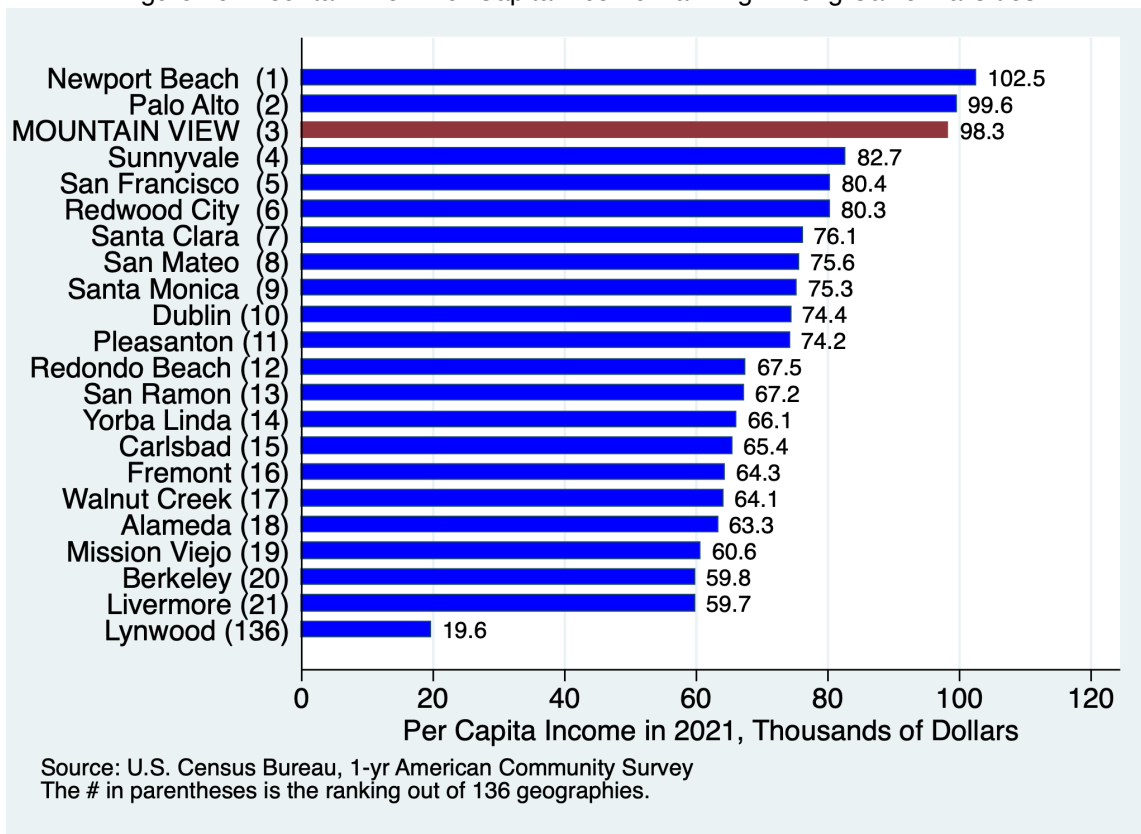
Why is it important?

Income is the money that is available to persons for consumption expenditures, taxes, interest payments, transfer payments to governments and the rest of the world, or for saving. As such, it is an important indicator of economic well-being in a community.

How are we doing?

In 2021, per capita personal income in Mountain View was \$98,329. At that time, there were only two cities in California that had higher per capita personal income, Newport Beach and Palo Alto. Palo Alto, just to the south of Mountain View had the second highest recorded per capita income in 2021 at just over \$99 thousand.

Figure 29: Mountain View Per Capita Income Ranking Among California Cities



In 2021, the residents of Mountain View experienced a dramatic increase in per capita income. The California Department of Finance reports that the population increased from 2020 to 2021 at about the same rate that it had been for the last several years, but aggregate income increased significantly. Between 2019 and 2021, aggregate income in the City increased from \$7.4 billion to \$8.0 billion, or by about 9%.

Per capita income growth in Mountain View has historically outpaced the broader Bay Area, Cal-

ifornia, and the U.S. as a whole (Figure 30). Over the last 10 years, incomes in the City have grown at a rate of 6.0%, more than double the rate of growth in the Bay Area as a whole at 2.5%. Over the last 5 years, the rate of growth in the region has increased relative to the City, though both are growing faster than the 10-year average, 7.1% and 4.7%, respectively. The year 2019 appears to have been a remarkable one for Mountain View, with per capita income growing by more than 18%.

Figure 30: Mountain View Per Capita Income Growth

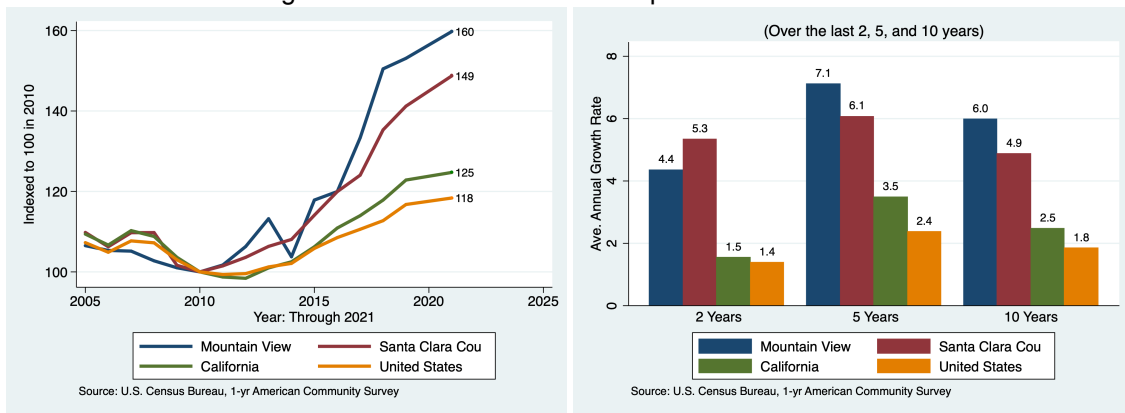
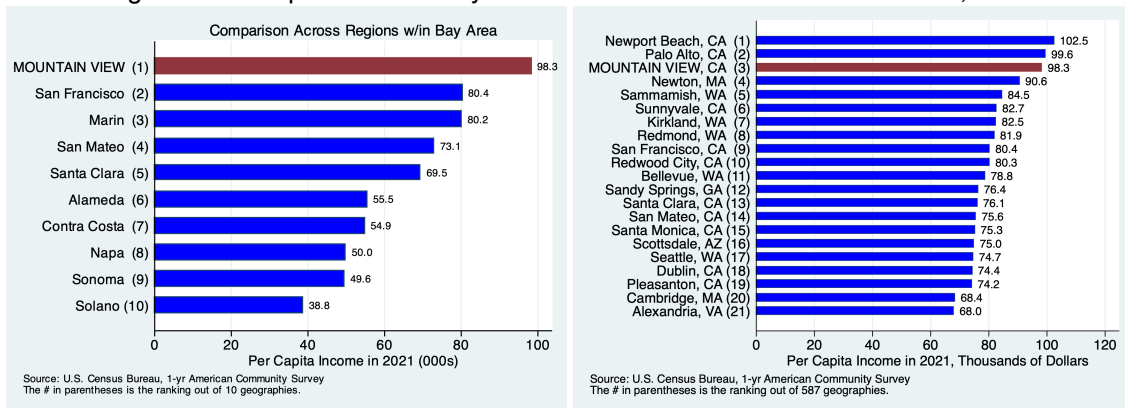


Figure 31: Comparison with Bay Area Counties and All Cities Nationwide, 2021



According to Figure 31, at \$98.3 thousand, the level of per capita income in Mountain View is higher than in any single Bay Area county. Nationwide, in 2021, Mountain View still ranks 3rd in per capita income among more than 587 cities for which data are available. Interestingly, cities

in California make up six of top ten cities nationwide in per capital income. Five of these 6 cities are in the Bay Area, and all five are in Silicon Valley (San Mateo and Santa Clara counties). Second to California is Washington state, with four of the highest income cities nationwide.

Earnings

Earnings reflect the part of income derived from working at a job, as opposed to monies derived from a broader set of sources. Earnings are on average for adults, and not per capita. In 2021, median earnings for all workers 16 years and over living in Mountain View was \$131,591 (Table 2). This is a significant increase over \$80,330 in 2007 and helps to explain the dramatic increase in income discussed above. Median earnings in Mountain View are considerably higher than in the County as a whole, the Bay Area, California, and nationwide, with sig-

nificantly larger gains since 2007. This period, 2007 through 2021 reflects the Great Recession, the recovery from that recession, and the effects of the first year of the pandemic.

The median figure masks stark differences in earnings across different levels of educational attainment and gender. Figure 31 provides an indication of how earnings change with education and between men and women. These graphs will always be shaped like a funnel, with earnings rising consistently with the level of education achieved.

Table 2. Median Earnings (Inflation Adjusted to 2021\$)

Geography	2007	2019	2021	% Change From:	
				2007	2019
Mountain View	80,330	106,761	131,591	63.8	23.3
Santa Clara County	66,090	74,892	84,262	27.5	12.5
Bay Area	59,746	61,068	66,456	11.2	8.8
California	47,604	47,551	50,398	5.9	6.0
United States	44,688	45,884	46,184	3.3	0.7

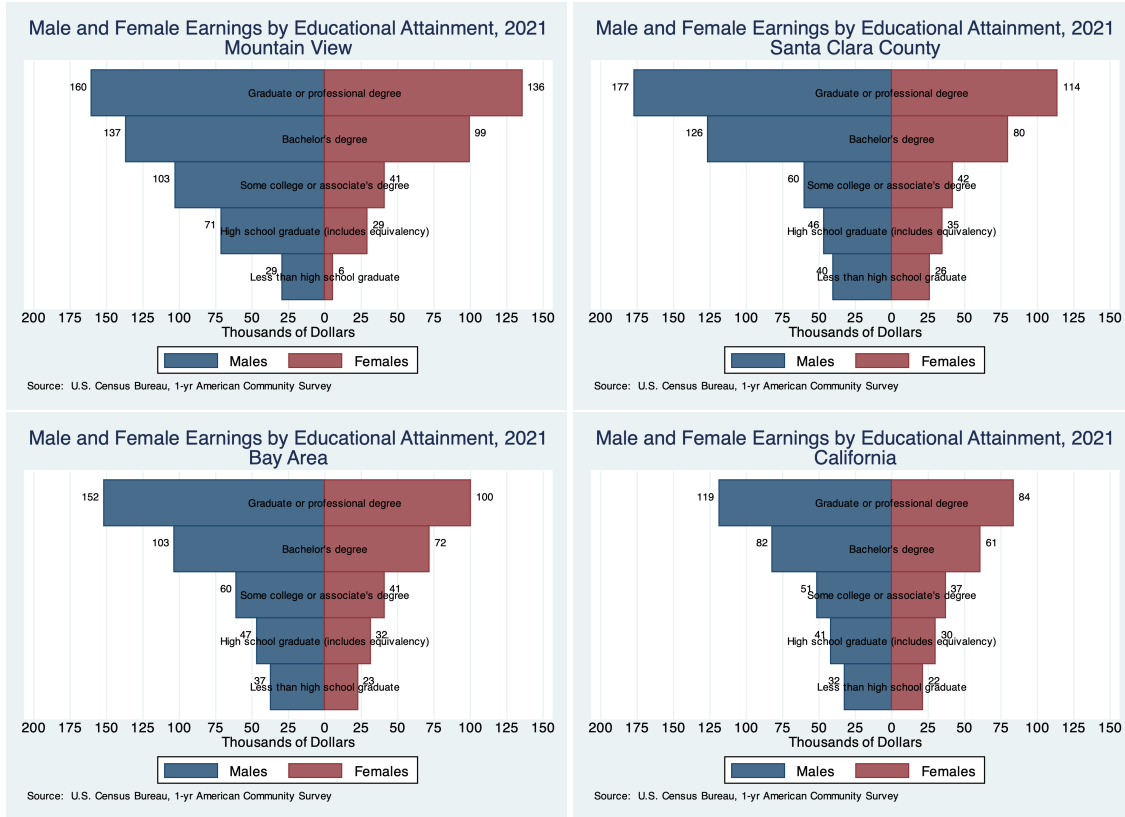
Source: U.S. Census Bureau, 1-year American Community Summary Files.

Gender Differences in Earnings

In Mountain View, the upper left hand chart, men with a graduate or professional degree make more than six times more than men without a high school diploma. For women, the same figure is just over 20 times more. Between men and women, men have higher earnings at all levels of

education. This is regrettably true throughout the Bay Area and the state as a whole. At the highest category of education, men make almost 18% more than do women. This difference is big in Mountain View, but is larger still at roughly 50% in the other regions.

Figure 32: Earnings by Educational Attainment and Sex



Poverty and Inequality

Definition:

The federal poverty rate (FPR) measures the proportion of households in the region that are classified as living in poverty. The local poverty rate provides an indication of the well-being of those at the bottom of the income distribution. The Federal Government defines an income level, the poverty line, below which a family is said to be living in poverty. The poverty line is dependent on the number of people in the family, but does not vary by geography. Also included are measures of the extent to which the City's children are impoverished. Measures of the income distribution provide further evidence on disparities in income in the region.

Why is it important?

It is important to track measures of poverty and inequality to assess the extent of income dis-

parities in the region, with an eye toward understanding how well the local economy is performing for all of its citizens. The poverty rate, in particular, can provide an indication of the level of economic hardship experienced by local residents.

How are we doing?

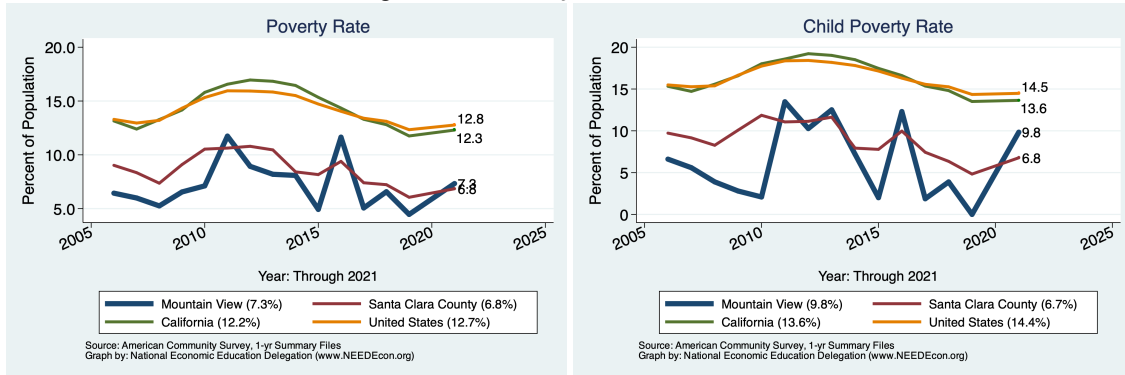
In 2021, the Federal Poverty Rate for Mountain View was 7.3%, representing an increase over recent years (Figure 33). This is slightly higher than for Santa Clara County as a whole (6.8%), but compares favorably to California as a whole (12.3%) or the nation (12.8%). The low rate of poverty in Mountain View and Santa Clara County is somewhat deceptive. A major shortcoming of the Federal Poverty Rate is that it does not take into consideration differences in the cost of living or in the share of housing in the household budget across re-

gions. Given that Mountain View has a relatively high cost of living, and of housing in particular, it is likely that the City's poverty rate is significantly higher than indicated by the Federal Poverty Rate. Indeed, for the year 2011, the Public Policy Institute of California and Stanford attempted to adjust the Santa Clara County poverty rate for these factors. They found that in 2011, rather than 10.2% as indicated by the FPR, the poverty rate in Santa Clara County was actually in excess of 18.7%. This suggests that the true measure of poverty

in Mountain View would be significantly higher than 7.3%.

With regard to child poverty, Mountain View has seen a downward trend since 2011, but it is still nearly 10%, which, again, is higher than in recent years (Figure 32). Much of this is likely due to reduced immigration and the outmigration of low income households because of high housing costs. Measured child poverty in Mountain View, at 9.8%, compares unfavorably with overall levels of poverty. In California and the United States as a whole, child poverty rates are also higher than overall poverty.

Figure 33: Poverty in Mountain View



Income inequality in Mountain View, although low relative to the state and Santa Clara County, is currently comparable to the County, state, and nation. For much of the last 25 years, inequality nationwide has been on the rise. This is especially true of the Bay Area, and has been true for Mountain View and Santa Clara County for at least the last 14 years (Figure 34).

of households, the poorest households, receive less than 5%. This share is comparable to that for any of the other geographies displayed in the figure.

Given the high level of earnings, it would seem likely that the richest households in Mountain View would absorb a high share of all income. However, the top quintile, the 20% of richest households, and top 5% of households in Mountain View actually have a low share of total city incomes relative to the County, state and the nation as a whole. More than 20% of all income goes to the top 5% of households (Figure 35). The top 20% of households get more than 50% of all income. At the same time, the bottom 20%

Figure 36 and 37 illustrate how the city can have high average income and smaller shares at all points of the distribution. In Mountain View, incomes aren't only higher at the top of the distribution, they are higher at each level. Even those at the bottom of the income distribution are making considerably more than in other places. The income cutoff for the bottom quintile, the 20% of households with the lowest incomes, is higher than in the entire Bay Area, but is more than double the cutoff for the state and the country as a whole. The same is true for the 2nd and 3rd quintiles. Because the values are topcoded at \$250,000 for the 4th quintile and top 5%, we are unable to make similar comparisons for those in-

come groups. However, it is likely that the relationship still holds.

Figure 34: Inequality in Mountain View

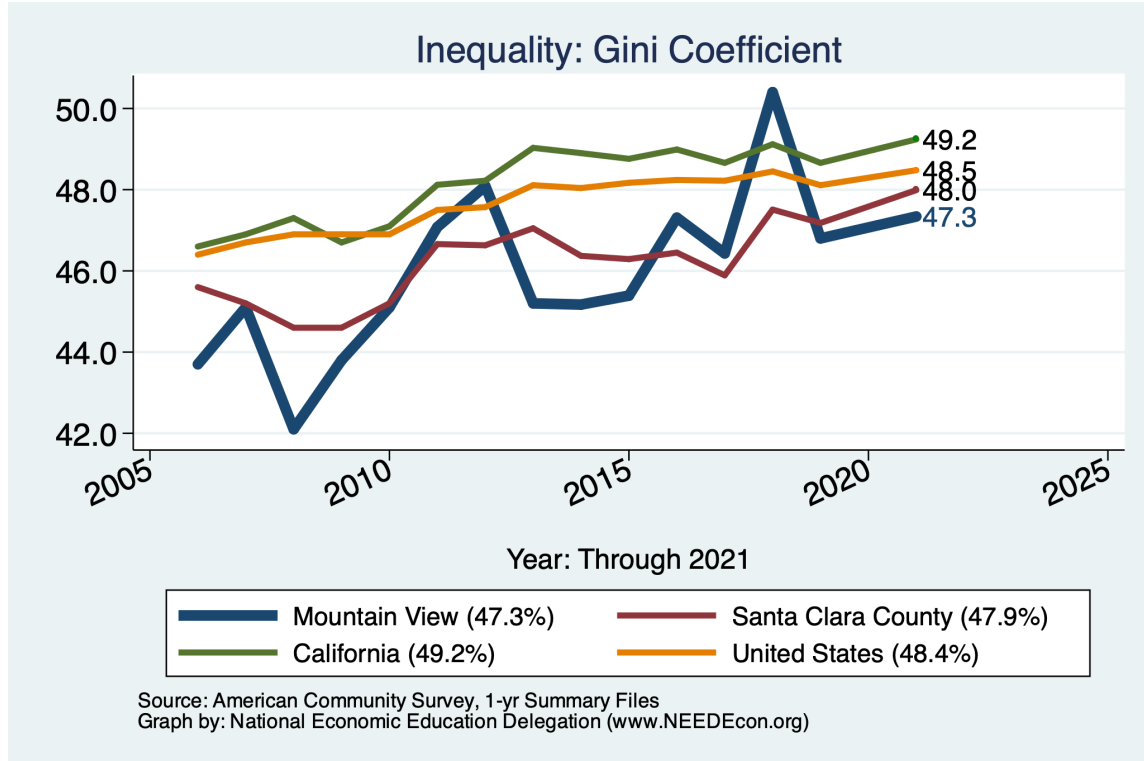


Figure 35: Income Shares Across the Income Distribution

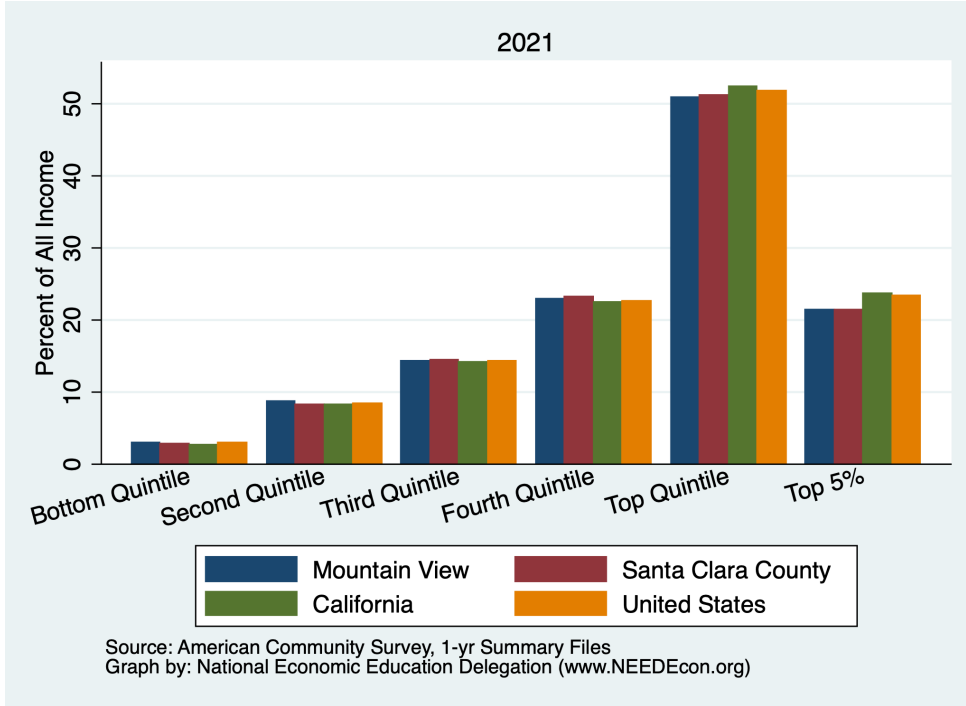


Figure 36: Means Income Levels Across the Income Distribution

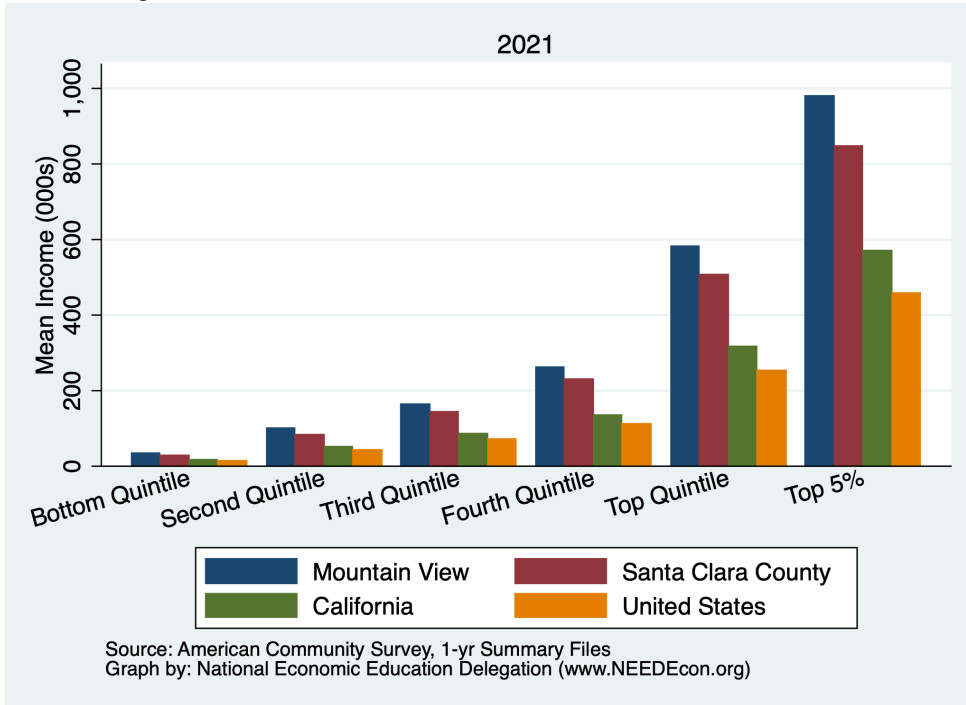
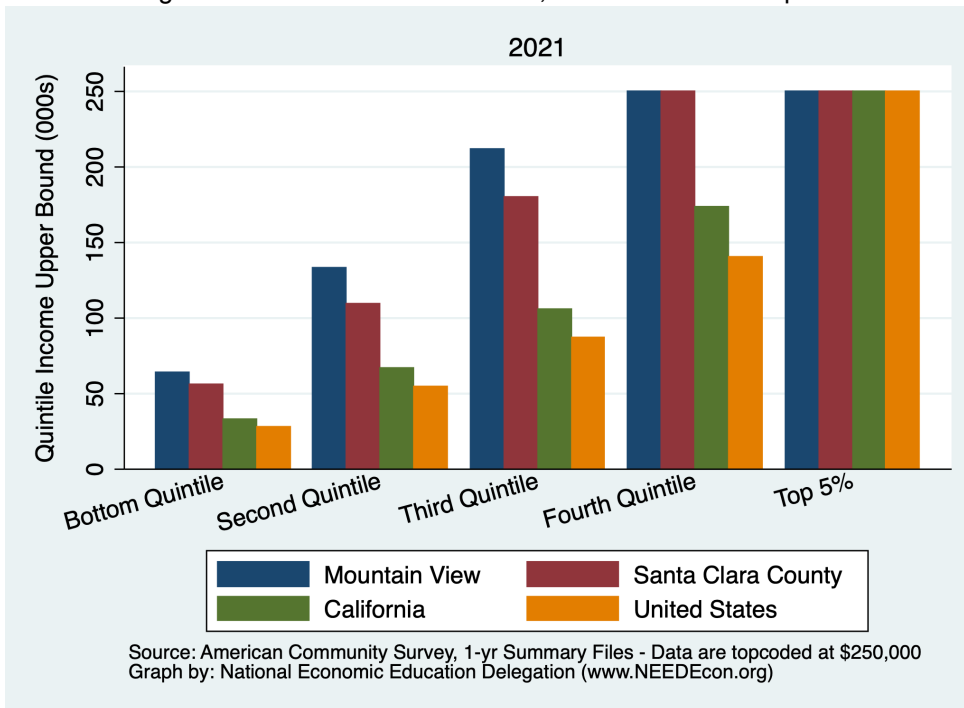


Figure 37: Quintile Income Cutoffs, Lower Bound for Top 5%



Housing

Housing Costs

Definition:

Housing costs in Mountain View are measured in several different ways. First, we provide evidence on the evolution of median home prices, median rental price, and finally through evidence on the housing burden in the city and comparison regions. The median value is the amount in the middle. Fifty percent of units are above the median and 50 percent are below.

Why is it important?

Housing is one of three fundamental necessities, along with food and clothing. A measure of the cost of housing is an integral part of the measurement of the cost of living in a specific community. This is particularly true in cities and regions throughout the Bay Area, where housing costs are high relative to income.

How are we doing?

In the latest data, the median home price in Mountain View was over \$1.8 million and the median rental rate was \$3,600 (Figures 38 and 39). These data indicate that Mountain View is one of the most expensive places in the Bay Area, California, and indeed the nation in which to seek shelter. Home prices and rents are currently on different trajectories, with home prices falling in the City and rents beginning to rise. In late 2020, home values were rising in Mountain View and Santa Clara County and falling in San Francisco. This was a common theme throughout the pandemic as many with means moved out of San Francisco to places where real estate with a greater element of outdoor living — a backyard — is more readily available. Mountain View initially benefitted from this trend as the median value of homes increased to over \$2 million early on in the pandemic. They are now coming back down to their regular trend.

Housing Costs in Mountain View

Figure 38: Median Home Prices

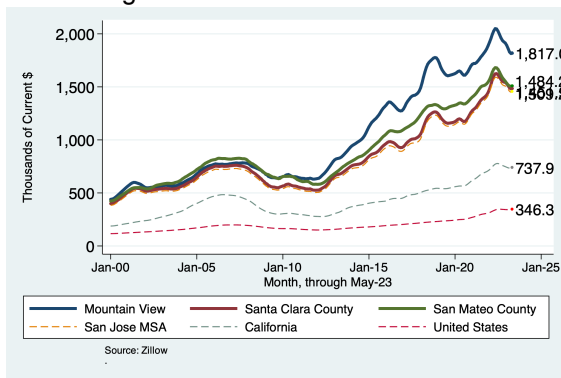
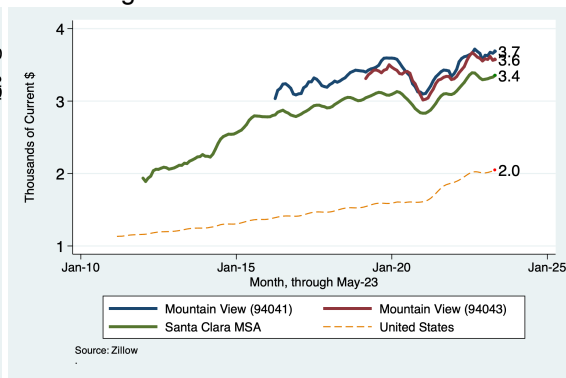


Figure 39: Median Rental Prices



Home prices in Mountain View are high by regional standards. Prior to 2012, they were comparable to prices in Santa Clara County and the Bay Area. Over the course of the last decade, however, home price appreciation has accelerated in Mountain View relative to those and other local geographies, California and the na-

tion. Rents are high relative to the rest of the San Jose MSA. Both of the primary zip codes in Mountain View are at about \$3,600 per month, whereas the broader MSA is just \$3,200 per month.

Much of what happens with housing markets in Mountain View and the rest of the region is highly dependent on when the pandemic is under control and what the new version of normal is. Will telecommuting remain a dominant feature of the workplace? Will public transportation bounce back from its current levels? There are many questions regarding housing markets that only time can answer.

As discussed, Mountain View is an expensive place to live. It has also been identified as a city with very high per capita income, 3rd in the nation. High housing costs suggest that housing costs can pose a significant burden, while high

incomes offset that effect. It remains, therefore, an open question as to how high the housing burden is in the City.

Figures 40-43 provide evidence on the how burdened City residents are by the high costs of housing. Figure 40 provides evidence on home ownership rates. By most standards, the proportion of those owning their home in Mountain View is quite low, just 37.7% of all households own the home in which they are living. By contrast, the same number is 55.9% in the County and state, and 65.4% nationwide. While home ownership rates are increasing elsewhere, they are declining in Mountain View.

Housing Burden in Mountain View

Figure 40: Home Ownership Rates

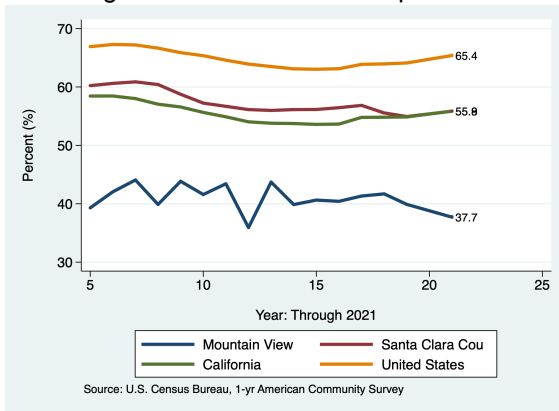


Figure 41: Renters

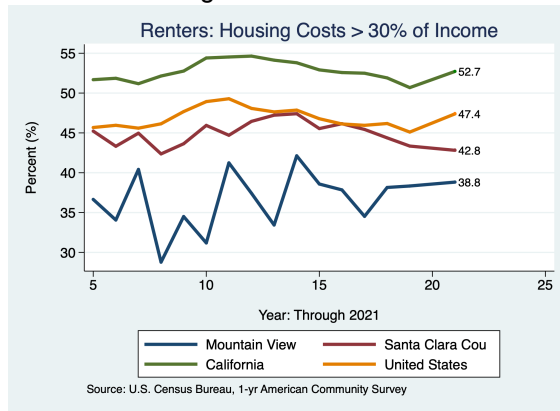


Figure 42: Home Owners w/ A Mortgage

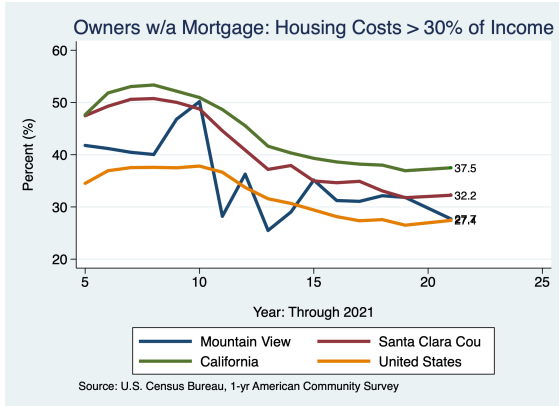


Figure 43: Home Owners w/o A Mortgage

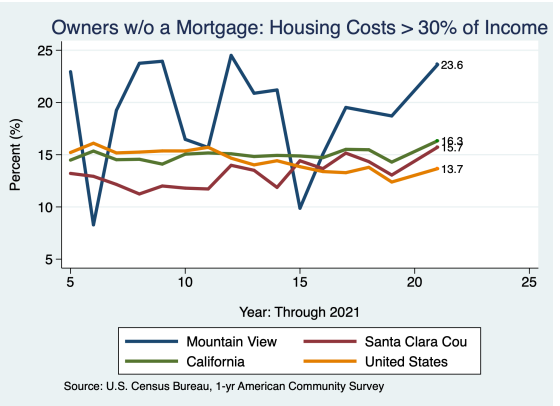


Figure 41 provides evidence on the housing burden of renters. The statistic is the percent of households for which housing costs repre-

sent more than 30% of income. At levels above 30%, housing is generally regarded as posing a burden on the household. In Mountain View,

housing is a burden for just 38.8% of households that rent. This is a lower level of burden than in the other geographies. In particular, statewide, housing is a burden for more than half of all renters. That the burden is low in Mountain View is consistent with the relatively high median earnings in the City and the relatively low rates of home ownership.

Figures 42 and 43 provide a measure of the housing burden for those who own their own home. Figure 42 reflects households that have a mortgage and Figure 43 reflects households that own their home free and clear. For those with a mortgage, the housing burden is akin to that

of the nation as a whole and lower than in the County and state. Conversely, for those home owners without a mortgage, the housing burden is relatively high. For many of these households, especially in California, they are likely to be older, perhaps retired residents. Because of Prop 13, many older residents choose to remain in their home with relatively low levels of property taxes. Though low property taxes would seemingly suggest low monthly housing costs. Why exactly it is that among home owners without a mortgage in the City housing costs are a higher share of income for many than they are in other geographies is unclear.

Residential Permitting

Definition:

This indicator provides evidence on the number of residential buildings that are permitted for construction each year. Permit data for Mountain View are compared with those for Santa Clara County as a whole and broader regions. The statistic provided scales the number of permits by population. This is done to facilitate comparisons across regions.

Why is it important?

Building permits are the best indicator available of new units coming on the market. In order for a region's population to grow and flourish, new residential properties must be added to the existing stock. Building, both in the City and in the County more generally, is an indication of the extent to which new residences are affecting prices through increased supply.

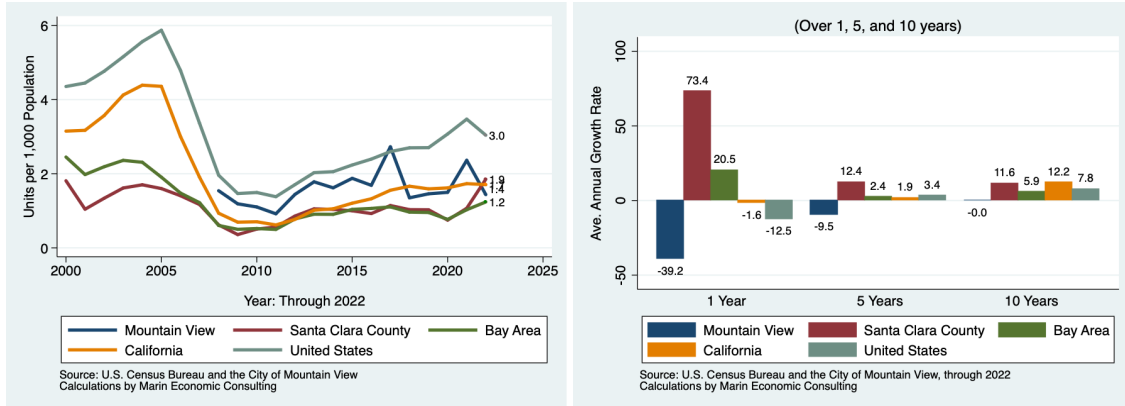
How are we doing?

It has been nearly 17 years since the bursting of the housing bubble. In that time, Mountain View has permitted new housing units at a rate faster than the rest of the Bay Area (Figure 44, left hand side). Since 2008, the first year for which data are available for the City,

permitting in Mountain View has been a bit higher, in all but one year, than in the rest of the county. Permitting in all geographies initially increased following the Great Recession, but in the 5 years before the pandemic permitting slowed throughout the Bay Area, including Santa Clara County and likely Mountain View. In Mountain View permitting ticked up again with the onset of the pandemic. However, the pandemic uptick in the City was short lived. Between 2021 and 2022, the rate of permitting in Mountain View fell significantly.

Over the last 1, 5, and 10 years, the rate of growth in permitting in Mountain View has been slower than in any of the other geographies (Figure 44, right hand side). Between 2021 and 2022, permitting in Mountain View fell by more than one-third relative to population, while it grew rapidly in the County and Bay Area, but also declined in the state and nation as a whole. Over the last 5 and even 10 years, the City was the only one of these 5 geographies that saw permitting decline. In particular, it has consistently underperformed relative to the rest of the County, which in each time frame has experienced a double-digit rate of annual growth in permitting relative to population.

Figure 44: Residential Building Permits in Mountain View and Broader Geographies: Units



Housing Picture

Why is it important?

In areas where the rate of population growth exceeds the rate of housing growth, this is likely to reflect a tightening housing market. A tightening housing market will also likely be reflected in lower vacancy rates and higher occupancy rates. It may also be reflected in higher numbers of people per household.

How are we doing?

Over the last 13 years, Mountain View has experienced a significant loosening of its housing market relative to the County as a whole. This is primarily evident in the vacancy rate in the two regions. In Mountain View, the vacancy rate increased from 5.7% to 8.2%, which is sig-

nificantly elevated from a pre-pandemic level of approximately 6.2% (Table 3). In the County as a whole, the vacancy rate increased by 13.0% since 2010 and 16.7% since 2019 (Table 4). Total population in Mountain View grew by 12.9% over the course of the last decade, but by just 5.9% countywide. The number of occupied units in Mountain View increased more slowly than did the total number of homes, as it did in Santa Clara County as a whole. All of these trends indicate a significant loosening of the housing market in Mountain View relative to the County as a whole, which is evidenced in the faster rate of home price declines in the City relative to the County in recent months.

Table 3. Housing Market Indicators for Mountain View

Indicator	2023	2019	2010	% Change from	
				2019	2010
Total Population	83,601.0	81,639.0	74,066.0	2.4	12.9
Total # of Homes	39,194.0	36,422.0	33,881.0	7.6	15.7
# Occupied Units	35,973.0	34,159.0	31,957.0	5.3	12.6
Persons per Household	2.3	2.4	2.3	-2.8	0.3
Vacancy Rate (%)	8.2	6.2	5.7	32.3	44.7

Source: CA DOF; Calculations by Marin Economic Consulting

Table 4. Housing Market Indicators for Santa Clara County

Indicator	2023	2019	2010	% Change from	
				2019	2010
Total Population	1,886,079.0	1,954,833.0	1,781,642.0	-3.5	5.9
Total # of Homes	701,539.0	671,439.0	631,920.0	4.5	11.0
# Occupied Units	666,758.0	642,917.0	604,204.0	3.7	10.4
Persons per Household	2.8	3.0	2.9	-7.6	-4.6
Vacancy Rate (%)	5.0	4.2	4.4	16.7	13.0

Source: CA DOF; Calculations by Marin Economic Consulting

Since 2010, and more recently, the number of housing units has increased faster in Mountain View than in the County or state, but the number of persons per household grew in lock-step with the County as a whole — both of which grew faster than in the state — until the pandemic. Since then, household size has been in decline

in all three geographies, but less precipitously in Mountain View than elsewhere. Vacancy rates spiked in Mountain View and to a lesser extent in the County with the onset of the pandemic, but occupancy rates continued to grow in both geographies.

Figure 45: Housing Growth

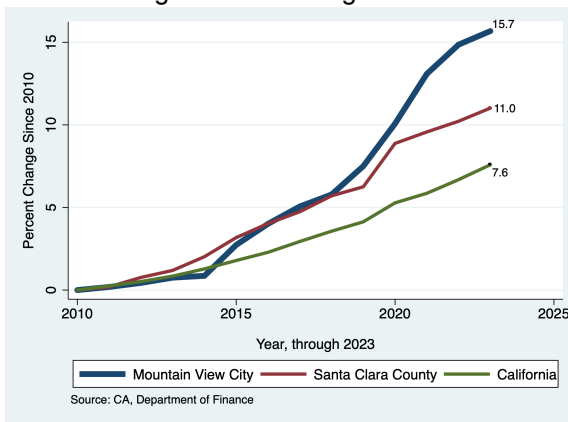


Figure 46: Persons per Household

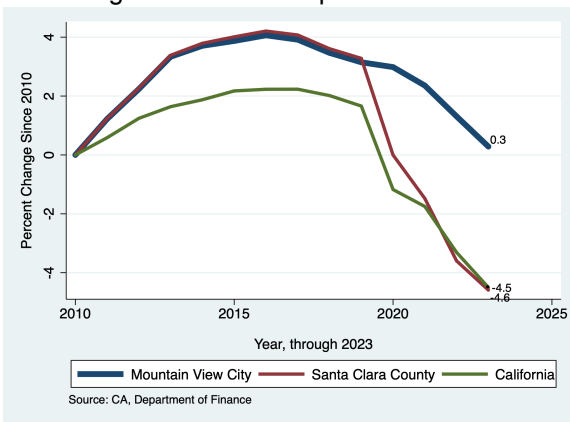


Figure 47: Vacancy Rates

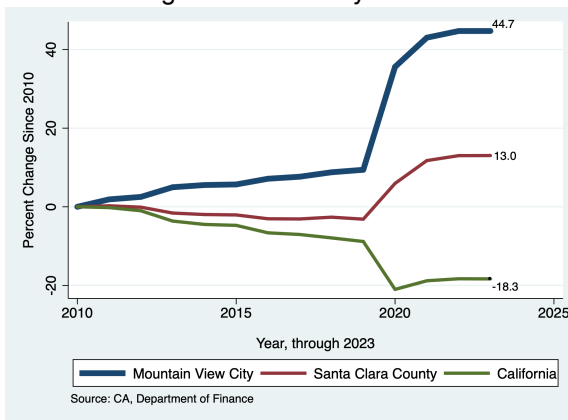
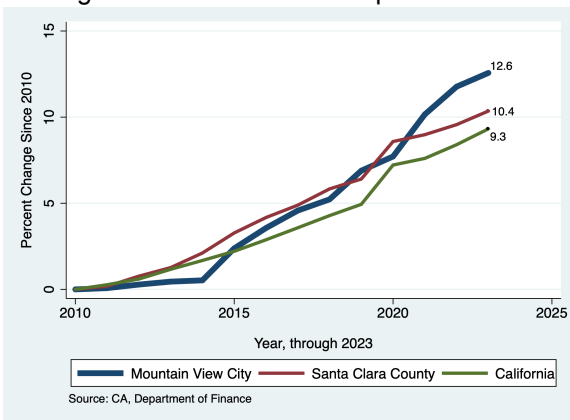


Figure 48: Number of Occupied Units



Trends in building changed abruptly with the onset of the pandemic. In the 10 years prior to the pandemic, Mountain View was producing relatively few detached homes (Figure 49), the supply of single attached homes was growing at a faster rate (Figure 50), the number of units in buildings with two and four units was in decline (Figure 51) and the number of units in buildings with five or more units was also growing significantly, though only after 2014 (Figure 52).

With the onset of the pandemic, suddenly the rate at which more single homes, both attached and detached, were coming available increased, in 2022 and 2023, the supply of units in small buildings grew and the growth in supply of units in large buildings accelerated. The pandemic brought with it a housing boomlet, in all categories. This is consistent with the faster annual rate of housing supply growth between 2019 and 2023 than between 2010 and 2023.

Trends in the Growth of Housing by Housing Type

Figure 49: Single Detached Homes

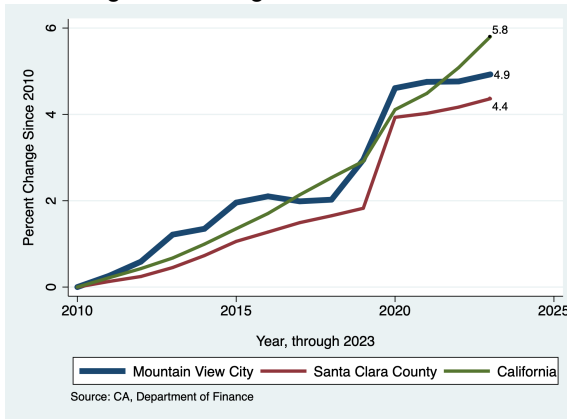


Figure 50: Single Attached Homes

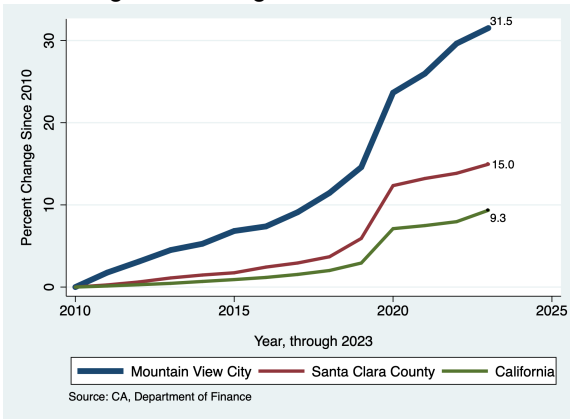


Figure 51: Housing in Buildings with Two to Four Units

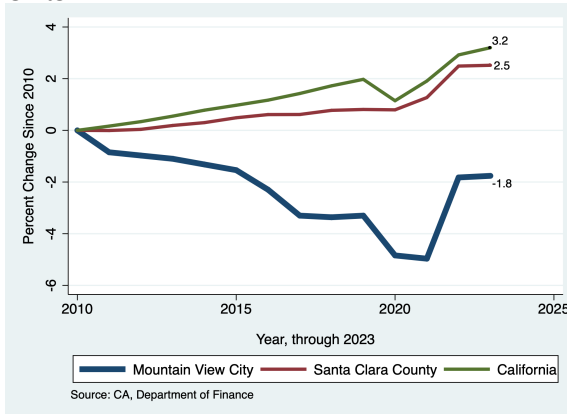
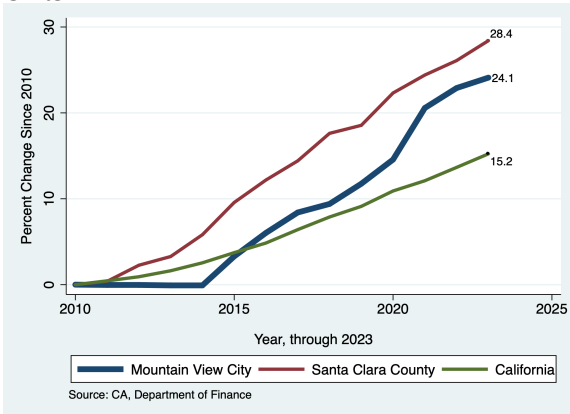


Figure 52: Housing in Buildings with Five or More Units



Commute Patterns

During the recovery from the Great Recession, the period from 2010 to 2019, the Bay Area economy, and Silicon Valley in particular, has been growing at a pace roughly double that of the state as a whole and triple that of the nation. This growth has precipitated a tight hous-

ing market and also brought about some significant changes in commute patterns, many of which have been reversed by the pandemic. Recent years have seen significant changes in both the mode of transportation and commute times.

Mode of Transportation

In the decade following the Great Recession, Mountain View’s employed residents had increased their penchant for driving alone in their car and were less likely to carpool (Figures 53 and 54). The percent of workers driving alone, of course, dropped dramatically with the onset

of the pandemic as did the percent of workers using public transportation (Figure 55). Both are explained by the dramatic increase in the percent of employed Mountain View workers who worked from home (Figure 56).

Figure 53: Percent of Workers Commuting by Car Alone

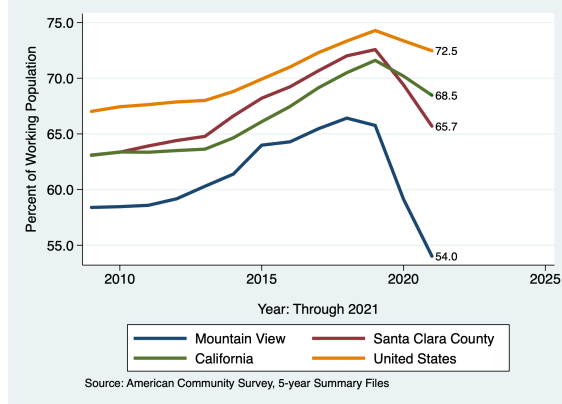


Figure 54: Percent of Workers Commuting by Carpool

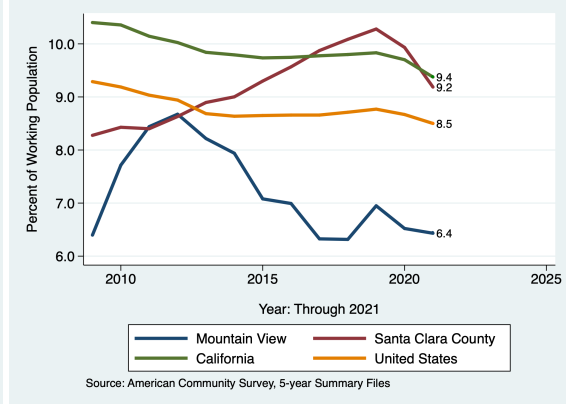


Figure 55: Percent of Workers using Public Transportation

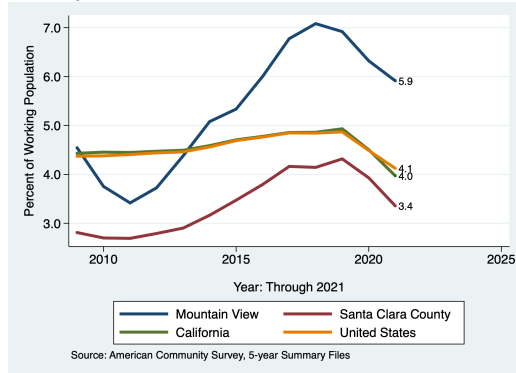
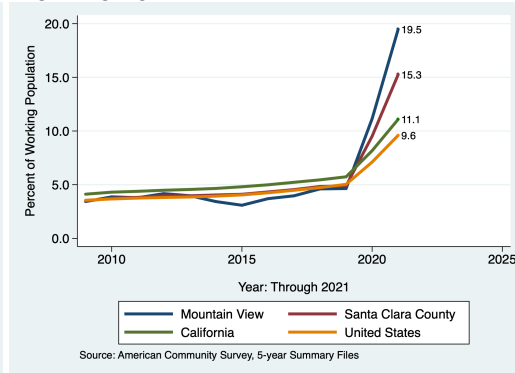


Figure 56: Percent of Workers Who Work From Home



Commute Times

Before the pandemic, commute times for Mountain View’s employed residents had been on a pretty steady upward trajectory. The share of these workers with a commute in excess of 30 minutes increased from about 20% to 30% (Figure 57). In 2019, the percent of the population with a one-way commute in excess of 30 minutes reached its highest level since data were made available in 2005. In 2019, some 32% of workers had commutes in excess of 30 minutes. It may well have been higher during the dot.com era, but data for that time period is not readily available. This trend has reversed itself in the last two years, with now just 11% of employed residents commuting for more than 30 minutes. This is low relative to Santa Clara County, the state, and the nation. This low level is also heavily influenced by the pandemic: both fewer people working in the region and more working from

home. It is a trend that is likely to reverse itself in the coming years. As was discussed, we expect more workers to return to the office more often in the coming years.

Among those with particularly long commutes, the proportion of workers with 90 minute commutes is low by statewide standards. That said, the share of those workers with a megacommuter — one in excess of 90 minutes — tripled from just 1.0% to more than 3% (Figure 58). These trends were very much in line with trends throughout the County.

These data are through 2021. Commutes have gotten longer in the last year. Only time will tell whether or not significant shares of the population go back to extremely long commutes or if the pattern of work, geographically as well as in-person versus telecommuting, has really changed permanently.

Figure 57: Percent of Employed Population With Commutes of More than 30 Minutes

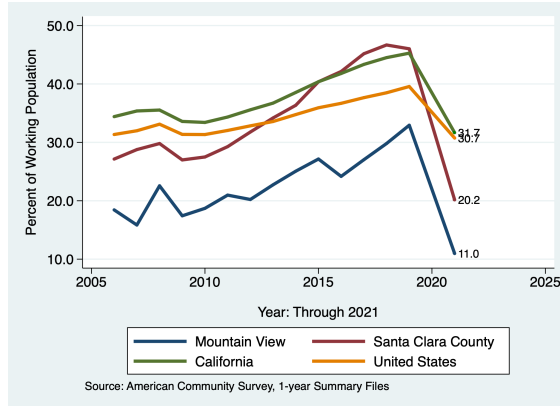
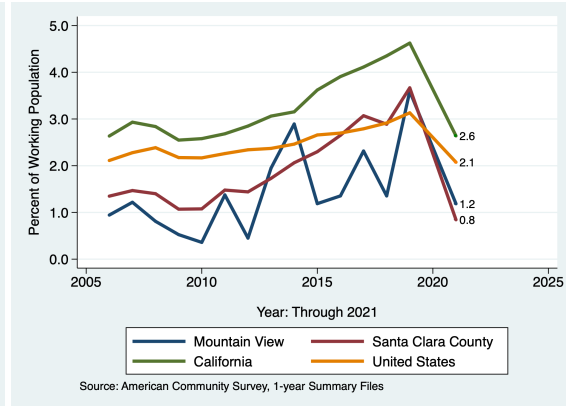


Figure 58: Percent of Employed Population With Commutes of More than 90 Minutes



The picture is different for those commuting into Mountain View to work. Commutes, both those in excess of 30 minutes and 90 minutes had been increasing rapidly for these workers before the pandemic. By 2019, the percentages of each, having grown faster than elsewhere, were higher than the broader County or the state

as a whole.⁴ The proportion with more than a 30 minute commute was just under 60% among those employed in Mountain View but just over 50% in the County as a whole. Also in 2019, the proportion of workers with commutes in excess of 90 minutes was over 7% in the City (having peaked at over 9% the year before) and nearly

⁴Data for the nation as a whole do not exist. At the national level, it is not possible to define a group of workers live outside of the geography in which they work.

10% in the County. The effect of the pandemic has been to reduce these trends dramatically,

with telecommuting playing a much more significant role in people's work lives.

Figure 59: Percent of Local Employees With Commutes of More than 30 Minutes

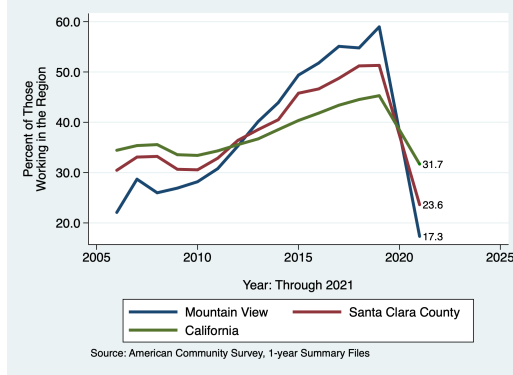
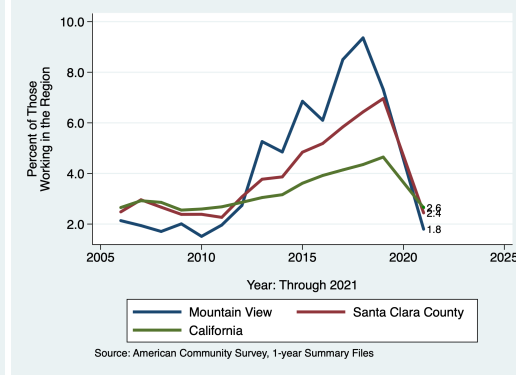


Figure 60: Percent of Local Employees With Commutes of More than 90 Minutes

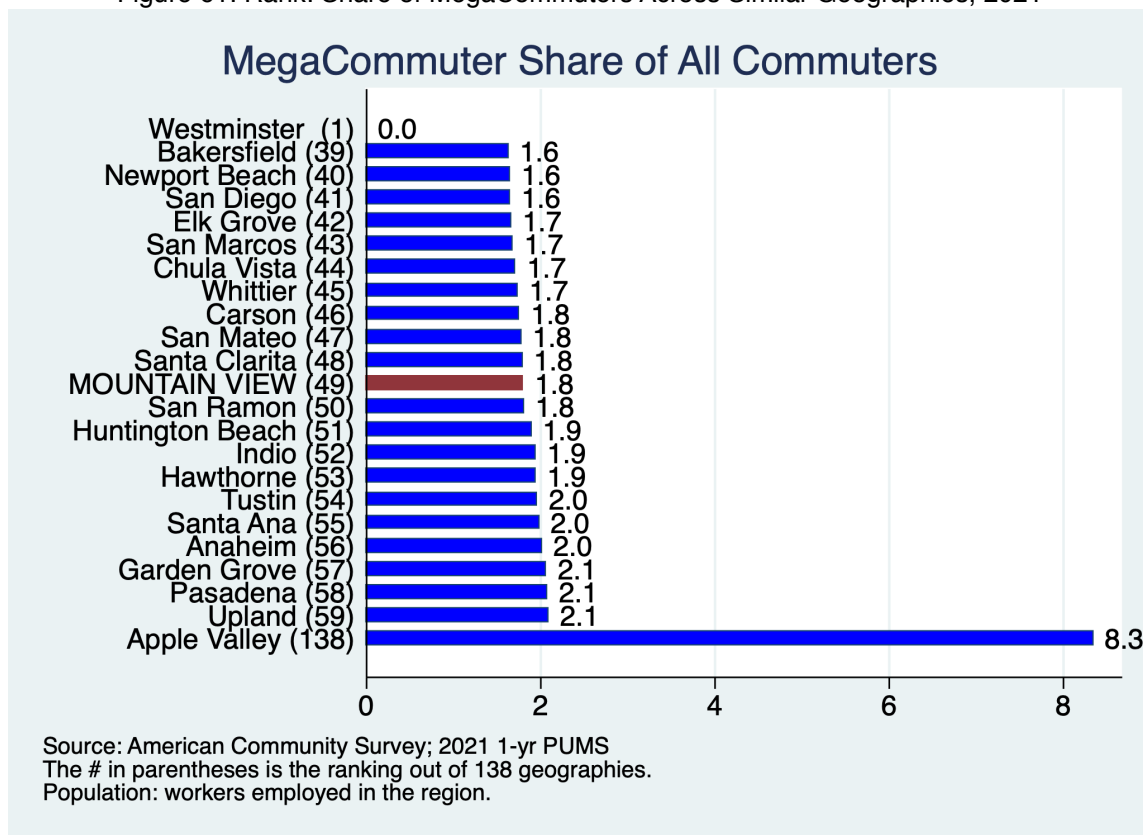


With regard to those with commutes of 90 minutes or longer, so-called MegaCommuters, in 2019, Mountain View ranked among the worst geographies in California for its incoming workers. Out of 140 cities for which data are available for 2019, Mountain View ranked 133rd, it now ranks just 49th (Figure 61).

As a result of the tight housing market, a growing economy, and a transportation system unable to handle the load. In particular, as housing becomes more expensive, more and more workers move to the surrounding counties to live, but they can not take their jobs with them, nor does public transportation always provide the solution. Time will tell whether or not we return to the tight housing markets and long commutes of the before times.

The rapidly-increasing commute times for those working in the City and region are clearly a re-

Figure 61: Rank: Share of MegaCommuters Across Similar Geographies, 2021



Employment Report

Definition:

Each month, California’s Employment Development Division (EDD) publishes an update on employment in California and in MSAs and counties all across the state. The report focuses primarily on non-farm employment, providing estimates of changes in employment by industry as well as unemployment in each region.

Why is it important?

Employment growth is a fundamental indicator of the health of an economy.

How are we doing?

Relative to Santa Clara County, employment in Mountain View has experienced roughly the same trajectory. Significant growth in the wake of the Great Recession of a decade ago and similar declines through the pandemic. Prior to the pandemic, and since 2010, the nation had been growing at 1.6% per year, the state at 2.3% per year, and the Bay Area at over 2.9% per year. Mountain View had been growing at

approximately 3.1% per year, faster than most parts of the Bay Area, the state, and the nation.

Between 2019 to 2020, employment in Mountain View declined by more than any of the other regions depicted in Figure 63. While employment nationwide is down roughly 6%, employment in Mountain View is down 7.9%. As discussed in the section on the economic effects of the pandemic, it is service-oriented or people-facing jobs that have been hit the hardest. As these sectors likely make up a large proportion of the urban Mountain View economy, it is not surprising that the decline is more pronounced.

Unemployment, though significantly reduced from its early pandemic highs of nearly 10%, remains very high relative to the end of 2019 when it was just 1.8% on a seasonally adjusted basis (Figure 62). The current rate is 50% higher than the pre-pandemic unemployment rate. That low rate had nearly been recovered by the middle of 2022, but has since soared with growing layoffs in the technology sector.

Table 5. Mountain View Summary for May, 2023

Category	Current Value	Change From:		
		Last Month	2 Months Ago	Last Year
Employment	49,945	-525	-477	84
Labor Force	51,563	-60	-215	727
Number Unemployed	1,619	345	351	697
Unemployment Rate	3.0	0.6	0.6	1.2

Source: EDD, Marin Economic Consulting

Figure 62: Historical Employment and Unemployment in Mountain View

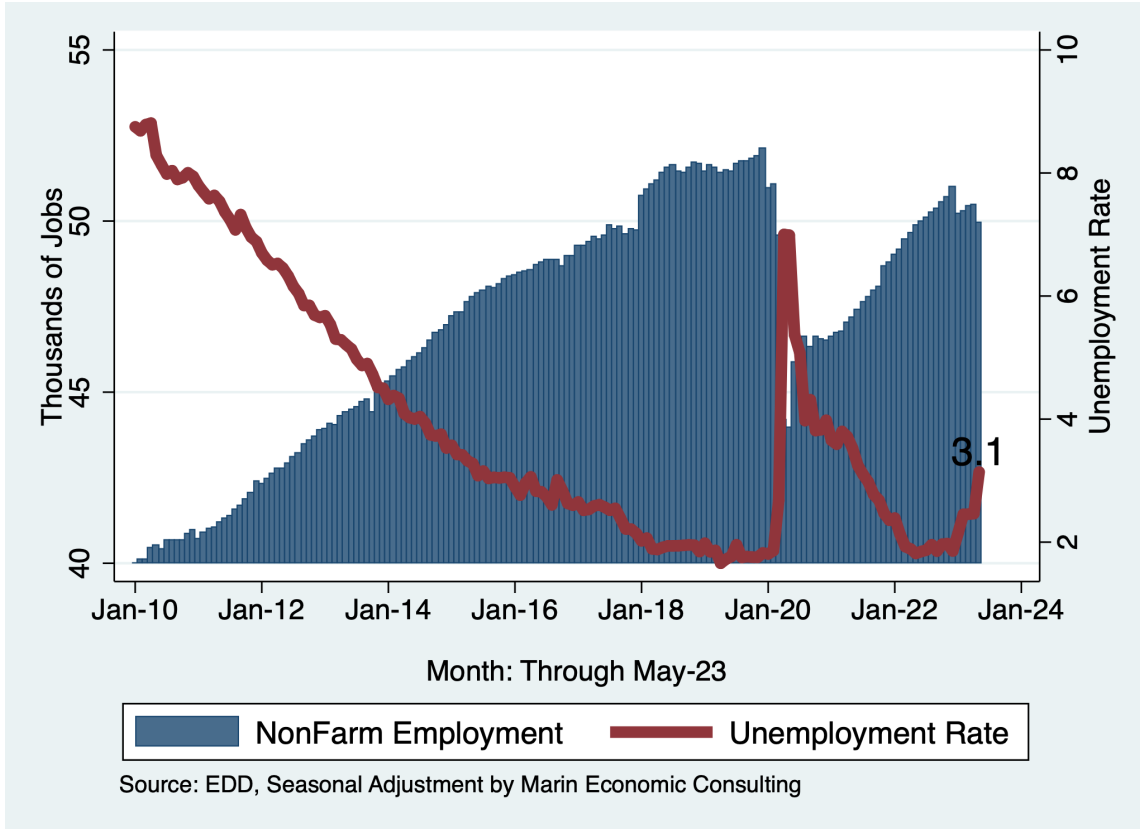
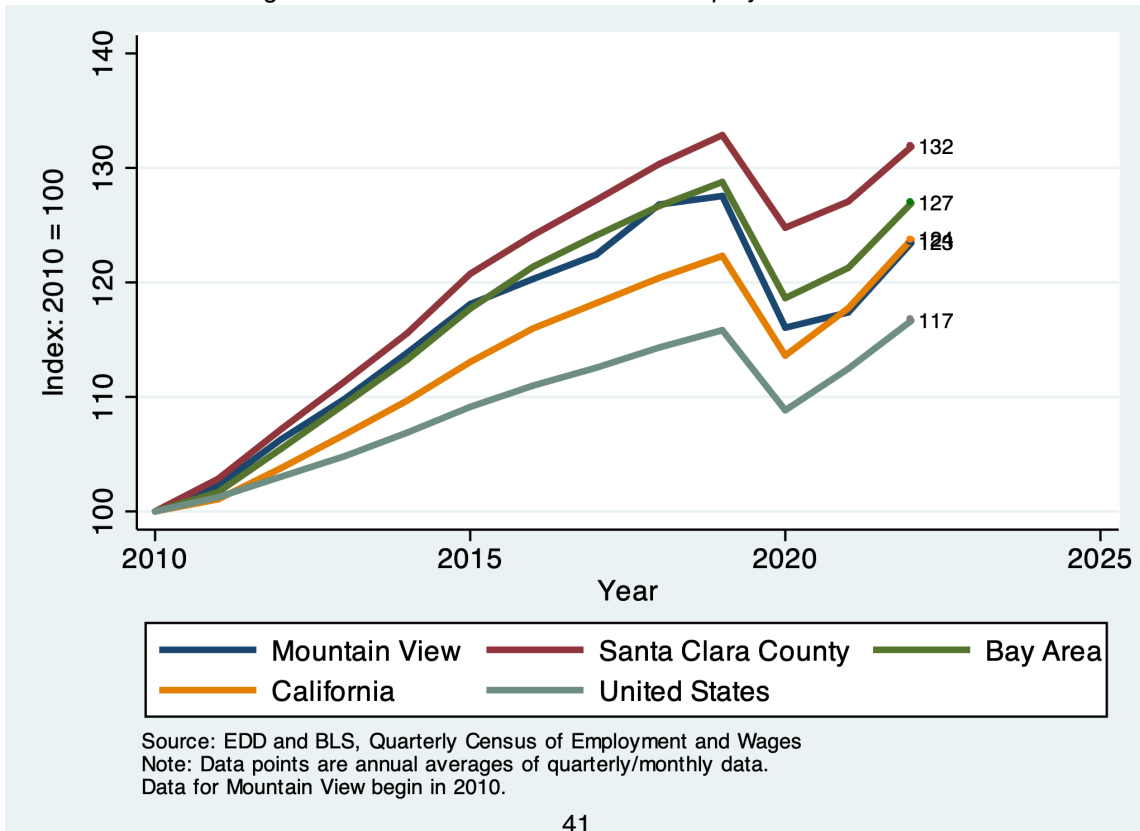


Figure 63: Mountain View's Relative Employment Growth



Mountain View Forecast and Model Considerations

This report provides the City of Mountain View with forecasts and comments on forecasts for the following variables:

1. City employment levels for both residential (those that live in Redwood City) and industry employment (those that work in Redwood City regardless of where they live);
2. Taxable Sales to determine sales tax revenues;
3. Considerations of sales tax increase using the forecasts above as context;
4. Assessed Values of Real Property to determine property tax revenue;
5. Transient Occupancy Tax (TOT) Revenue.

In each section below, the forecast variables and assumptions are discussed. We start with a brief overview of the state and national economic outlook as context. It is important that many forecasts are for calendar years; this forecast notes the data frequency when necessary to reduce confusion.

General Issues: National and State Economic Context

The national economy's forecast remains optimistic but forecasting a slower-moving economy over the next two years (2023 and 2024). The International Monetary Fund, in its Q1 2023 forecast update for all countries, downgraded its previous forecast for the United States economy slightly for 2024 as of April 2023, but increased its forecast for the US economy in 2023. This is an opinion generally shared by US economy forecasters: a slower economy through the end of calendar year 2024 based on increased interest rates starting in 2022 to at least 2024, as well as lingering inflation pressures since Q2 2021.

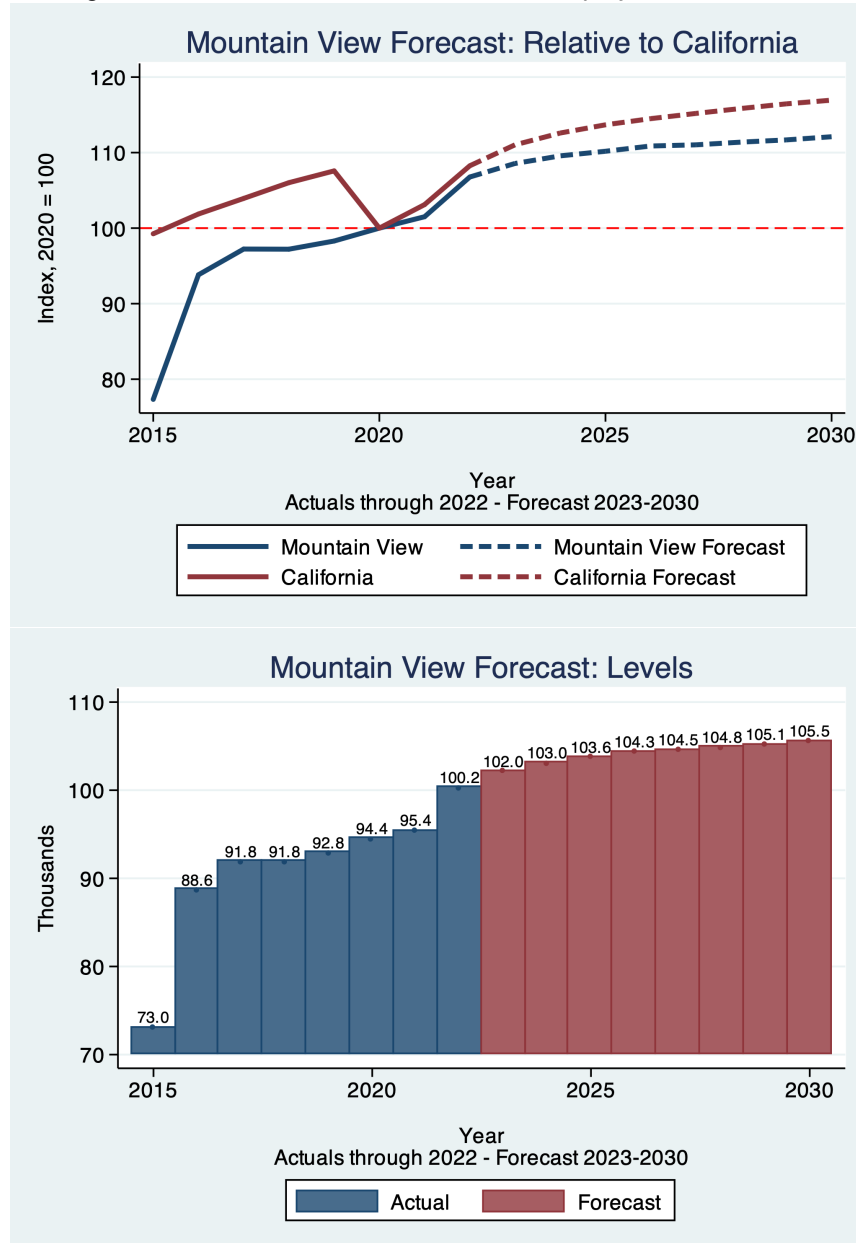
The labor market remains positive for the American economy as we enter Q2 2023 with continued jobs growth since Q2 2020. This continued growth has continued for California's economy, but at a slower pace than the national economy. While we had two quarters of negative GDP growth in 2022 (Q1 and Q2), no recession has been declared yet because of labor markets' resilience. For Mountain View, the national economy likely drives general activity around technology firms, construction, tourism, and housing markets.

It is more important to think in terms of a slower-moving economy than if recession will be officially declared or not, but economic activity can grow at a very slow pace. Recent forecasts by the California Department of Finance corroborate the view that California will lose jobs in 2023 and 2024, then grow again after Q3 2024 and through to at least 2026. The California Department of Transportation (CalTrans) released its updated socioeconomic forecast for transportation planning purposes with forecasts for California and all 58 counties; Santa Clara County's employment and population forecast is discussed below when appropriate. Demographic change in California, where two years of estimated population loss has led to policy concerns about housing and labor markets, may be a trend that will continue. The California economy is likely to lead the US economy into an economic slowdown and lag it as it emerges from the downturn, based on recent technology firm layoffs and a slower state-level recovery from the pandemic.

Employment Forecasts

We should expect a city like Mountain View to have employment based on national, state and regional labor-market forecasts given its size, industry mix and proximity to major job centers otherwise. Figure XX shows a forecast from CalTrans for Mountain View and California to 2030 using 2022 as the latest actual data.

Figure 64: Mountain View and California Employment Forecasts



Source: California Dept of Transportation, California Department of Finance, Census Bureau.

Employment at Mountain View’s employers historically hires in-bound commuters. With a rise in work-from-home employer choices, data is still emerging on commute patterns; commercial real estate utilization and employment data suggest work-from-home remains in place for many em-

ployers. The pandemic has left three major concerns in its wake in terms of the employment forecast:

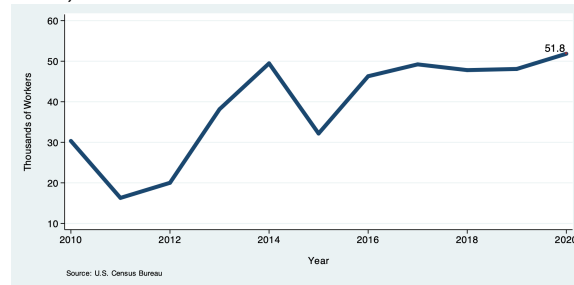
- A higher cost of doing business, which acts like a regressive tax on smaller businesses (higher wages and costs of inputs);
- Shifts in population and labor force that continue to strain hiring across the Bay Area (unemployment rates remain low due to a mix of fewer workers available and continue demand for labor as some industries (especially retail and leisure and hospitality jobs continue to recover from the pandemic); and,
- Reduced business and conference travel as well as work-from-home policies continuing throughout the Bay Area reduces demand for businesses in urban areas that rely on inbound commuters and travelers to the Bay Area and also reduces commercial real estate demand due to reduce need and utilization.

Jobs and housing are connected through commute patterns. For Mountain View:

- Housing prices have increased 11.2% (California +30.3%) from March 2020 to March 2023; the median value in Mountain View is \$1.807 million in March 2023, with a forecast of -3.8% to March 2024 as of March 2023;
- The latest population figures (through Jan 1, 2022 as of April 2023) suggest Mountain View has gained 9,005 residents since 2010 (+12.0%), with residential labor force down from January 2019 (pre-pandemic) levels by 1,600 workers (-3.0%); and
- Pre-pandemic commute patterns suggest that businesses (and perhaps taxable sales) in Mountain View is highly dependent on inbound commuters (the latest data are only through 2020 from Census Bureau, see figure above).

Mountain View is estimated to have approximately 51,000 working residents as of March 2023. The forecasts in Figure XX show how both residential employment and the level of labor demand at Redwood City employers grew to the time just before the pandemic and then retreated and then recovered. The speed of recovery has been faster than expected, similar to other parts of the Bay Area and California. These data are for calendar years not fiscal years from 2010 to 2026.

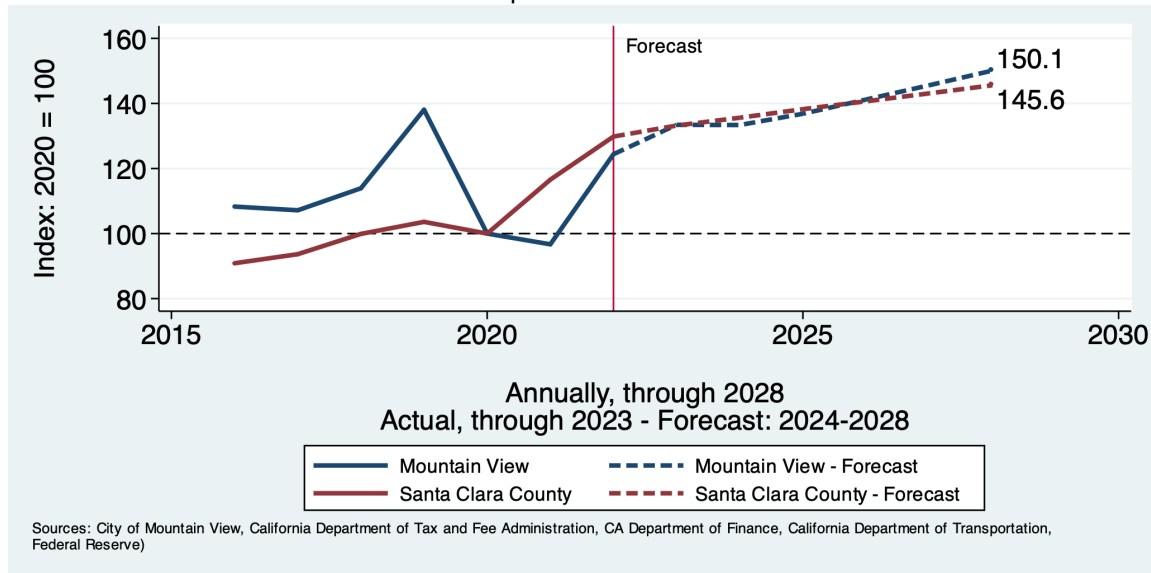
Figure 65: Net Inbound Commuters to Mountain View, 2010-2020



Taxable Sales Forecast

The City of Mountain View provided a sales tax forecast generated by its consultants (HdL), shown in Figure 2 for fiscal years 2022-23 to 2027-28. Assuming the current sales tax rate of 9.125%, the taxable sales forecast is shown in Figure 3. We can compare Mountain View's taxable sales forecast to a recent forecast by CalTrans (April 2023) for taxable sales in Santa Clara County (to which taxable sales in Mountain View contributes) and how the forecasts compare.

Figure 66: Taxable Sales Actuals and Forecast, Mountain View, 2015-16 to 2027-28 Fiscal Years
Index Fiscal Year 2020-2021 = 100 for Graph



Potential Sales Tax Increase

There may be a pursuit of a larger sales tax rate in Mountain View. Regardless of the sales tax rate change, the following should be considered:

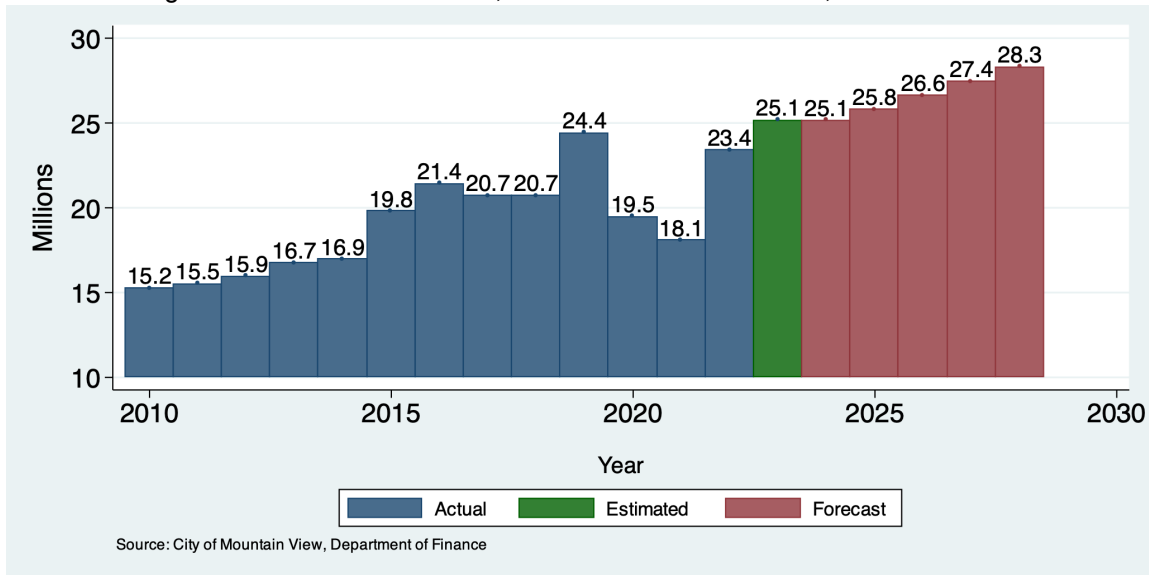
- Local resident spending potential, measured by per capita incomes;
- Continued inbound commuting to work in Mountain View;
- Potential traveler spending (for which a large proportion is taxable sales);
- Population growth;
- Comparable sales tax rates in neighboring cities (seen as competition, especially for larger durable purchases, such as appliances)
 - Sales taxes on vehicles are now assessed where registered, thus auto sales depend more on local resident or business purchases of vehicles than dealerships in city limits); and
- Macroeconomic trends on economic/jobs growth and inflation.

The forecast period from fiscal years 2022-23 to 2027-28 are considered to be rising taxable sales years as shown in Figures 2 and 3, but caveats exist:

- A slower economy through 2025;
- Continued loss of local residents;
- A continued reduction of regional business travel and inbound commuting to Mountain View.

However, if population continues to decline, there may be larger income households moving to Mountain View to occupy sold housing units or vacant apartments that offset the population decline with rising per capita incomes.

Figure 67: Sales Tax Forecast, FY 2022-23 to FY 2027-28, Mountain View

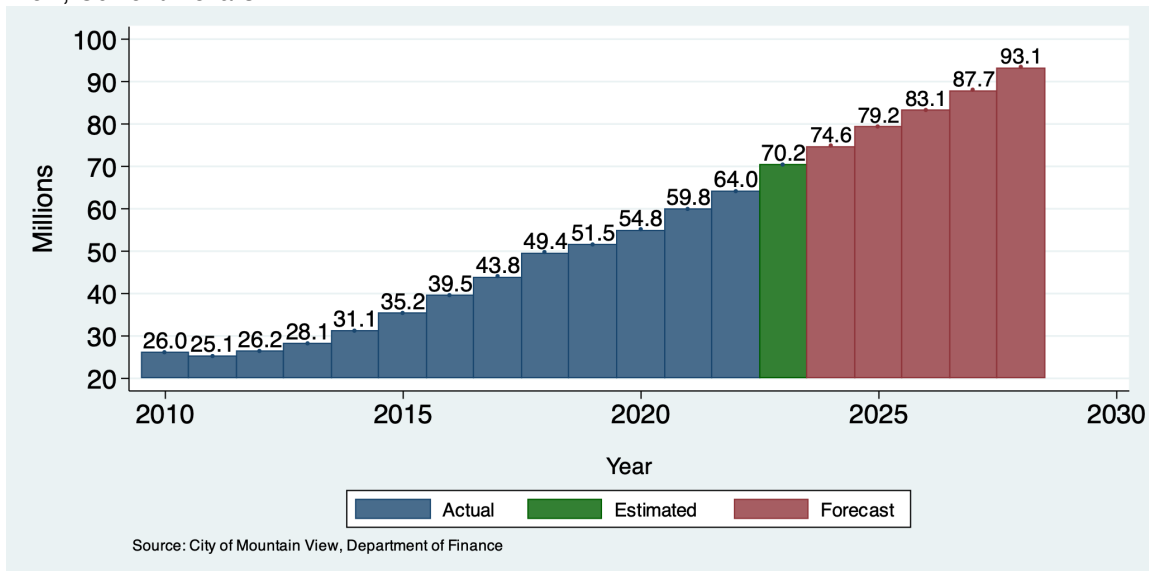


On the political side, sales taxes are regressive, and may be argued as inequitable for lower-wage and salary workers and residents in Mountain View.

Property Tax Revenue

The City of Mountain View provided its property tax forecast. Forecasting property taxes revenues is about forecasting change in assessed, real-property values. Figure 4 shows that forecast as provided by the City of Mountain View.

Figure 68: Property Tax Revenues Forecast, Fiscal Years 2022-23 to 2027-28, City of Mountain View, Current Dollars



We assume any changes and special assessments in the future use assessed values to determine property taxes. Growth of new structures can drive assessed value also. The outlook for commercial and residential markets are below.

Commercial Real Estate

Commercial real estate is likely to have some transformational issues over the next few years as continued effects from the pandemic. For the entire Bay Area, lower levels of inbound commuting and commercial real estate utilization (and indirectly the level of visitors and visitor spending) suggest there will be long-term vacancies in office, especially Class B and below. Class A may be retained in the medium term by firms given lower lease prices and overall utilization has been reduced.

For Mountain View, according to Newmark, Research and Development (R&D) space is forecasted to have little growth in 2023, while office construction may rise in 2023. Industrial space remains a market where growth may continue, but that is likely to slow also given the last three years of growth in terms of commercial square feet of space.

Residential Real Estate

Housing markets are slowing down in terms of price ascension since summer 2022. Much of this change was to be expected when interest rates increased significantly and inflation remained in the economy at relatively high levels. The slowdown in prices has been marginal for most of the Bay Area; San Francisco (as a city and county) is estimated to have the largest reductions in median home price since March 2022 as of March 2023, where the other Bay Area counties have experienced small gains but forecasts that suggest more price reductions are coming. The use of cash to make home purchases, or a larger proportion of cash than just 20 percent for a down payment, suggests rising interest rates may not be as large a force in changing home prices as in the past. However, we need to expect that housing prices will continue to fall or have very little growth until there is a more sanguine economic forecast and both inflation and interest rates begin to moderate. Since March 2022, median home prices have fallen in Mountain View by approximately 8.3 percent, with a predicted 3.8 percent more by March 2024. Looking out toward 2031, Mountain View is being asked by Plan Bay Area to build 11,135 homes; such a change is approximately a 28 percent increase in housing stock. This can provide continued growth of property taxes due to land improvements and housing turnover and purchases.

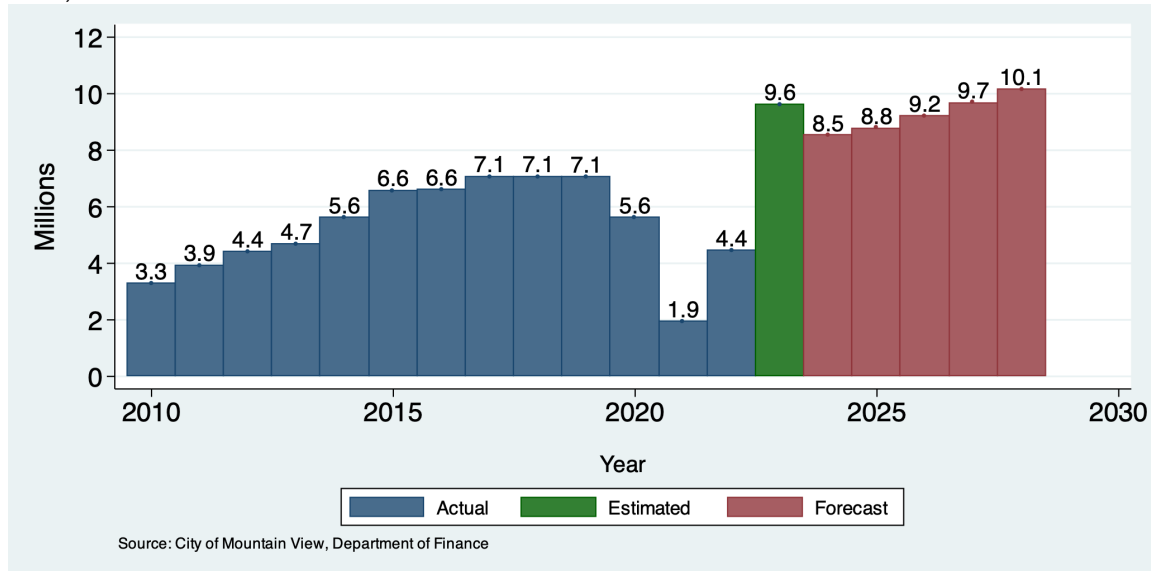
Transient Occupancy Tax (TOT)

Continued concerns in the travel market are primarily business and conference travel. For California overall, the forecast has been upgraded to recover losses of visitors and visitor spending in nominal terms by 2024. Figure 5 shows the TOT revenue forecast provided by the City of Mountain View.

TOT revenues are based on revenue per available room or RevPAR, the product of occupancy rates and the average daily rate (ADR) for available rooms. We assume the hotel room supply remains stable over the forecast period. Forecasts for business visitors depend on the global reach of local businesses and how travel versus technology is utilized for meetings. The Bay Area is a draw for worldwide visitors, but also for regional visitors. Our TOT forecast depends on these major factors:

- Regional tourism forecasts of visitors and of personal income;

Figure 69: Transient Occupancy Tax Forecast, Fiscal Years 2022-23 to 2027-28, City of Mountain View, Current Dollars



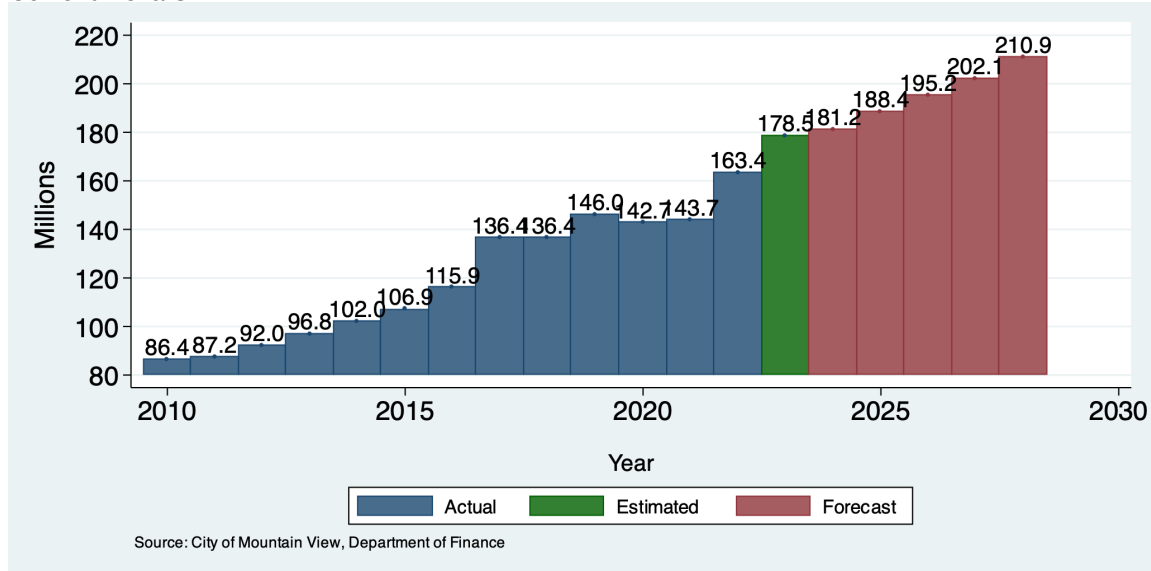
- Predicted occupancy rates of hotel rooms; and,
- The number of hotel rooms, both current and planned.

The forecast for TOT revenues assumes Mountain View sees a slowdown in 2023-24 for TOT due to a mix of an economic slowdown and continued pressure on business travel and events that would lead to hotel stay sin Mountain View. After 2023, the statewide forecast shows annual increases to fiscal year 2027 (the current forecast is by calendar, not fiscal, year). The City of Mountain Views forecast may be a bit pessimistic, but is based on continued economic pressures, specifically business travel spending, slowing down overnight stays in the next two fiscal years from FY 2022-23).

Overall City Revenues

Overall revenues for the City of Mountain View have recovered from their pandemic slump — 2020 and 2021 — and have resumed their pre-pandemic trajectory.

Figure 70: Overall City Revenue Forecast, Fiscal Years 2022-23 to 2027-28, City of Mountain View, Current Dollars



Summary

The forecasts have conclusions for Mountain View to Fiscal Year 2027-28:

- The employment forecast is for continued jobs growth in trend, slowing down in 2023 and rising slower in Mountain View than the state overall to 2026;
- Taxable sales forecasts show Fiscal Year 2023-24 as very little growth, and then continued growth for FY 2024-25 to 2027-28 for Mountain View, following the state of California’s forecast;
- Property tax forecasts show no significant slowdown in home prices or commercial real estate values between FY 2023-24 and 2027-28, given potential home building and continues demand to live in Mountain View;
- TOT revenues are forecasted to fall in FY 2023-24, then rise again to the end of the forecast window:
 - Much depends on business and conference travel converting to overnight stays;
- These forecasts depend critically on the national and state forecasts for continued growth and if a recession in 2023 or 2024, it is a mild recession without major labor-market losses.
- Overall City revenues appear to have recovered from the pandemic and are on a very healthy growth path.

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