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San Joaquin Valley

# BUSINESS FORECAST

Emerging Trends in the  
Valley's Economy



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## SAN JOAQUIN VALLEY BUSINESS FORECAST 2021

Volume X, Issue 2  
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**The national economic recovery is continuing, but at a slower pace, due to emerging variants of the COVID-19 virus and a reluctance among some populations to seek vaccination.** The race between new variants and vaccinations is quite critical at this stage in the effort to minimize the probability of another wave. Reaching the desired national goal of 200 million vaccinations by June will speed up the rate of economic recovery in the second half of 2021, but complete recovery in the San Joaquin Valley - as measured by the region's return to full employment levels - is not expected to take place until the end of 2023. Because the region has mostly a farm-related economy with a relatively significant number of essential workers, Valley total employment continues to recover at a faster pace than that of the state.

In 2020, information employment declined the fastest of all sectors, falling 19.06 percent over the 12-month period. However, information employment already had been on a steady decline long before the pandemic hit. Despite showing some signs of recovery, the categories of retail trade and leisure and hospitality services continued to suffer from the pandemic in the first quarter of 2021. The rate of decline in retail trade employment was 4.01 percent by the end of 2020 compared to a 7.53 percent decline in the first half of the year. Leisure and hospitality services employment registered a 17.18 percent drop in 2020, still an improvement over the 20.87 percent drop in the first half.

Construction employment registered a seasonal decline, as in previous years, falling 3.01 percent by the end of 2020, steeper than the 2.21 percent decline that occurred in the first half. Wholesale trade employment declined 4.75 percent by the end of 2020, which was an improvement from the 5.95 percent decline in the first six months of 2020. Valley building permits continued to increase during the pandemic. Over the 12-month interval building permits registered a 13.26 percent increase, an improvement over the 12.52 percent increase during the first half of 2020. Due to the CARES Act and the Federal Reserve's deployed tools (relief program) to mitigate the effect, there were very few foreclosures in 2020. Expectations of a higher inflation rate in the coming months caused Freddie Mac 30-year rates to increase in the first quarter of 2021. However, the Federal Reserve appears to stay committed to keeping long-term rates low by buying long-term bonds and selling short-

term bonds. Home values continued to increase in 2020, registering a 5.42 percent average yearly increase, above the long-term benchmark growth of 5.07 percent. The increase in home values was greater in 2020 than 2019, registering a 4.46 percent jump that reflected both the low inventory in the Valley and an increased demand from Bay Area residents seeking a less-hectic rural lifestyle.

To fight the economic effects of the pandemic, tremendous liquidity was injected in the economy. This caused inflation expectations to rise in the first quarter of 2021. While inflation is mostly missing from the picture at the moment, the increase in the overall price level rate is projected to be well above 3 percent in the coming months.

Perhaps the most interesting development of 2020 was in average weekly wages.

Labor force participation fell and stayed mostly unchanged in the latter part of 2020, reflecting people's unwillingness to go back to work, citing unsafe working conditions from the pandemic and the availability of unemployment compensation. To entice workers to go back to work, average weekly wages rose 6.97 percent, the fastest increase ever observed in the 10 years of this report and a surge more than twice the benchmark rate of 3.06 percent.

Further, since inflation during the same period was low at 1.76 percent, real wages grew by 5.21 percent in 2020.

The collective impact of the CARES Act, President Biden's new stimulus plan and Federal Reserve intervention continued to be reflected in bank activity. Valley total deposits grew 21.19 percent by the end of 2020, more than twice the long-term benchmark rate of 8.18 percent. Net loans and leases grew 17.63 percent, also more than twice the long-term benchmark rate of 8.15 percent. Net loans growth fell below growth in bank deposits, indicating the community banks further cut back in extending loans relative to previous months. Valley bank non-accruals began to trend significantly upward, creating a concern for the coming months. Community bank assets in default 30 to 89 days and assets in default 90-plus days continued to trend upward as banks continued to keep a tab on unpaid loans. In the coming months, non-accruals most likely will rise further as the Federal Reserve begins to taper-down liquidity injection and balance sheet expansion.

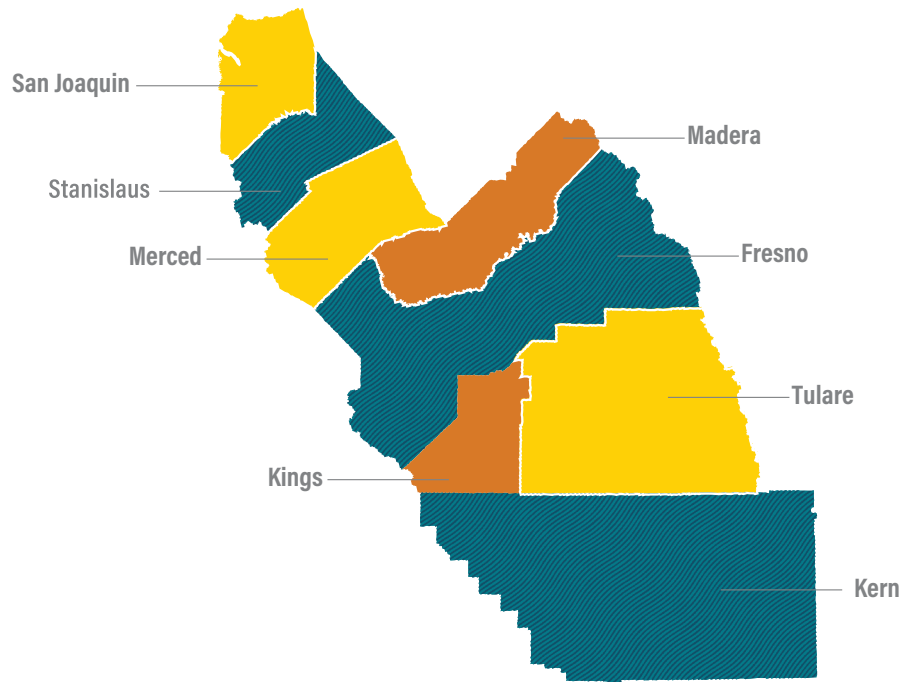




This report examines data spanning from January 2001 to April 2021. Two-year medium-term forecasts are from May 2021 to June 2023. Forecasting a range rather than a point provides a more realistic assessment of likely future values. When actual numbers fall within the upper and lower forecast bands, the forecast is deemed accurate.

The remainder of this report is structured as follows: labor market conditions for the San Joaquin Valley; a look at the real estate market in the eight metropolitan statistical areas of the Valley; a discussion of prices and inflation; an examination of indicators from local banking and capital markets; and a conclusion.

## San Joaquin Valley







# Employment Indicators

Beginning with the first quarter of 2021, the economic recovery from the pandemic began to be felt across the board and is apparent in all counties' total employment indicators. All counties lost jobs over the 12-month period in 2020, with Kern County employment declining at an average yearly rate of 8.86 percent - the sharpest decrease among the Valley's eight counties. Tulare County employment declined 8.08 percent, the second-fastest decline, followed by Stanislaus County at 7.37 percent. San Joaquin County employment declined 6.71 percent, while Merced County employment declined 6.34 percent. The slowest decline in total employment occurred in Madera at 4.14 percent followed by Fresno at 4.98 percent and Kings at 5.92 percent. ▶

## CONVERSELY, TRADE, TRANSPORTATION AND UTILITIES EMPLOYMENT MANAGED TO POST A

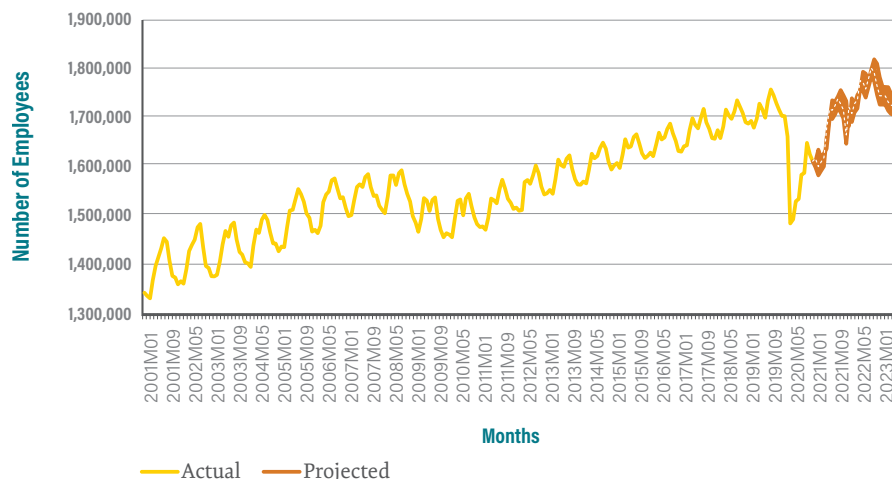
# 0.48%

GROWTH, THE ONLY CATEGORY THAT GREW IN 2020.

Apart from the historically problematic information employment sector, leisure and hospitality services employment continued to be affected the most, registering a 17.17 percent decline in 2020, still an improvement over the 20.87 percent decline in the first half of the year. Conversely, trade, transportation and utilities employment managed to post a 0.48 percent growth, the only category that grew in 2020. Education and health services employment and construction employment had the slowest declines, at 0.79 and 3.01 percent, respectively. Because the region has mostly a farm-related economy with a relatively significant number of essential workers, Valley total employment continues to recover at a faster pace than that of the state.

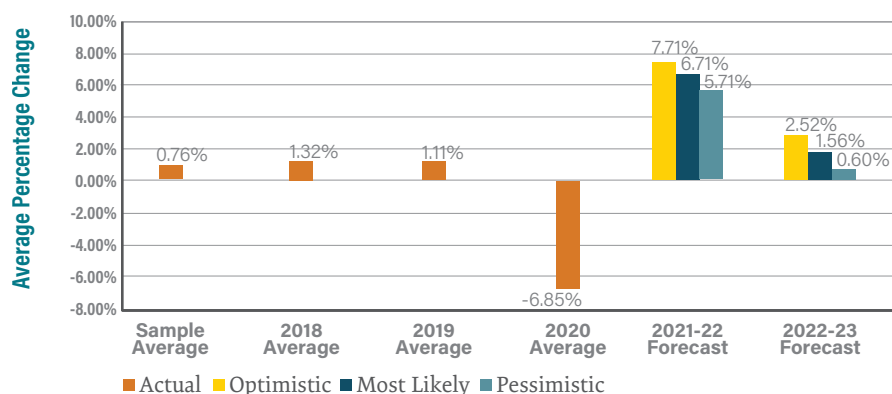
Wholesale trade employment declined 4.75 percent. Decline in information employment accelerated to 19.06 percent, while government employment declined 3.96 percent. Retail trade employment, another category mostly composed of unskilled workers, declined 4.01 percent.

## Total Employment



Over the 12-month period, average annual growth in Valley total employment declined 6.85 percent. Valley total employment will likely stay below 1,800,000 until the second half of 2023. President Biden's stimulus plan and infrastructure investment will help steepen the upward trend. Undoubtedly, the CARES Act and Federal Reserve's deployed tools (relief program) mitigated the effect of the pandemic. More needs to be done to speed up the recovery, and recent measures taken by the new administration appear to be moving the recovery in the right direction. Projections point to an average growth of 6.71 percent from the second half of 2021 to the first half of 2022, and 1.56 percent thereafter until the first half of 2023. ▼

## Total Employment: Historical vs. Projected Average Yearly Growth





The Consumer Confidence Index, an important leading indicator of oncoming economic activity, dropped drastically during the first half of 2020. In the second half, however, consumer confidence stabilized and began to show signs of very gradual increase - consistent with a very slow economic recovery. With increases in vaccinations, the Consumer Confidence Index is expected to display a steepening growth trend. ▶

Concerns over workplace safety during the pandemic and the availability of unemployment compensation were the leading factors behind falling labor force numbers and participation rates in the second half of 2020. For the first time since the recessionary period of 2008, the rate of employment growth trailed the growth of the labor force. A reversal of that trend, along with the economic growth observed in the first quarter of 2021, means that recovery is slowly accelerating in the Valley. Since the tendency of both employment growth and workforce growth to switch directions was witnessed during the 2008 and COVID-19 recessions, it now acts as a new leading indicator for our region. ▶

WITH INCREASES IN VACCINATIONS,  
THE CONSUMER CONFIDENCE INDEX IS  
EXPECTED TO DISPLAY A STEEPENING

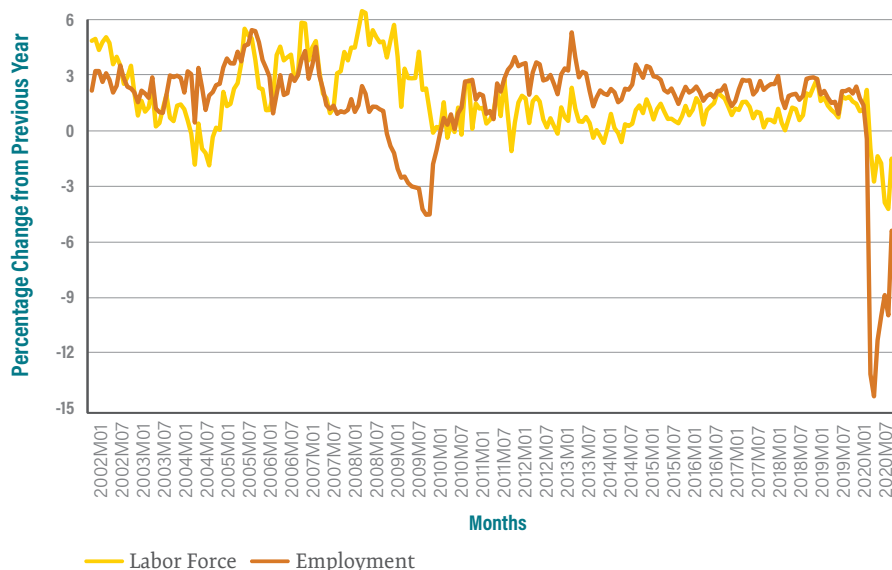
# GROWTH TREND.

In the second half of 2020 and the first quarter of 2021, employment growth in the Valley exceeded that of the state, repeating the same pattern witnessed during the 2008 recession. Thus, the interrelated dynamics between the two series is another leading indicator to forecast oncoming business cycles in the region. The presence of essential workers for manufacturing and production of agricultural goods is another reason for faster employment growth in the Valley. ▶

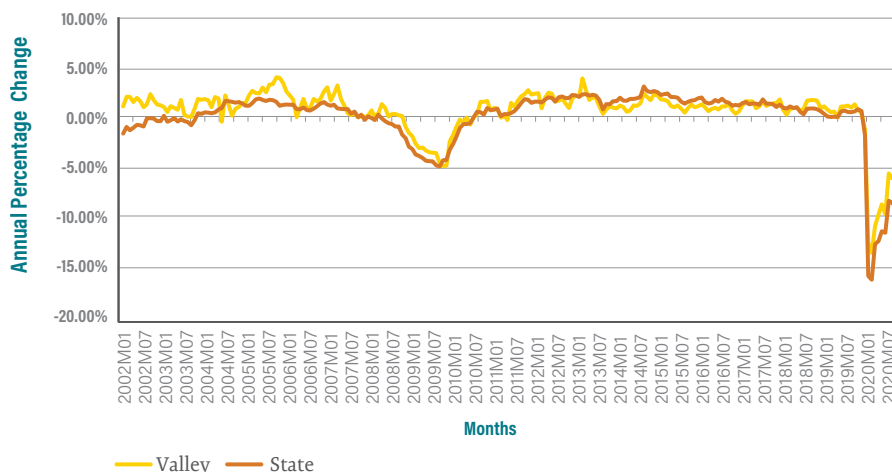
Consumer Confidence Index



Labor Force vs. Employment Growth



Employment Growth: State vs. San Joaquin Valley







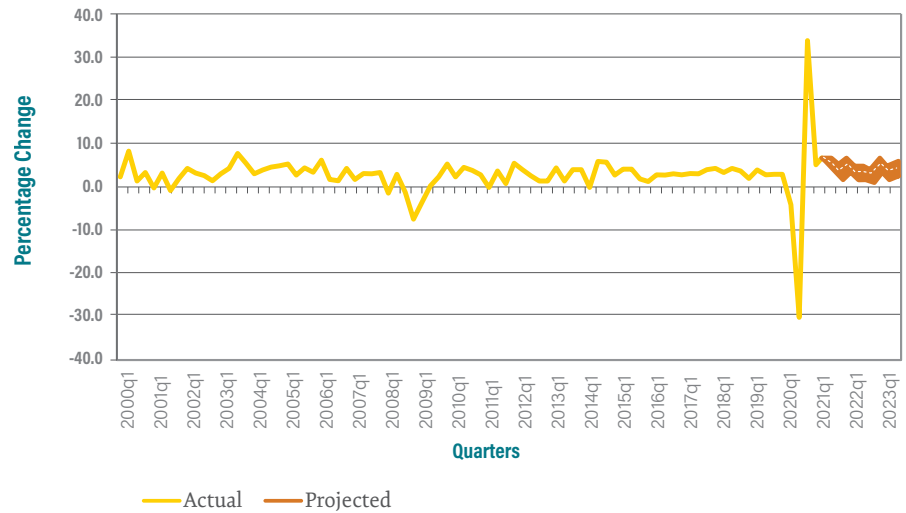
# Employment Indicators

Interestingly, the Business Forecast had predicted a recession to occur about the same time as the pandemic hit. Our prediction, however, was based on different indicators, particularly inverted yield curves, employment growth dynamics relative to labor force growth and other factors, such as consumer confidence. Perhaps it was a coincidence that the recession was fueled by different factors, but because of these indicators' predictive accuracy, it now becomes increasingly important for the Valley business community to track them on a regular basis. With recovery upon us, real GDP is now projected to grow at a faster rate of 3.34 percent in the coming two-year interval. ►

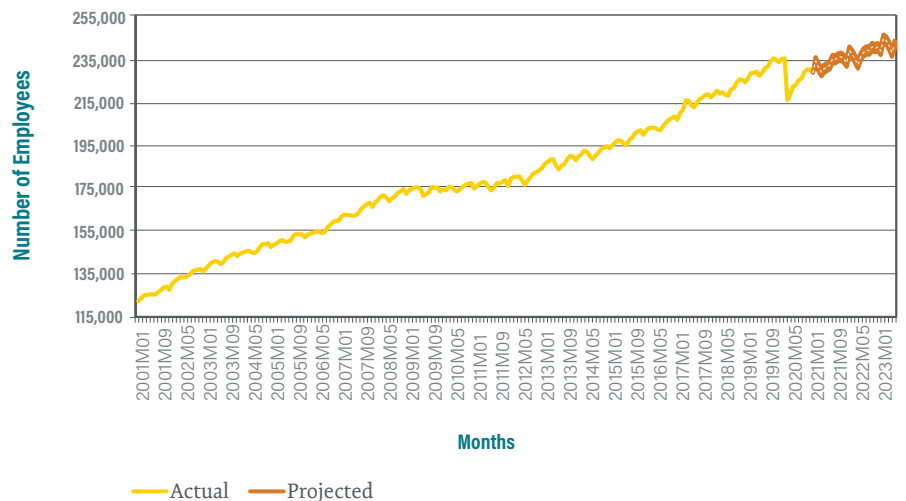
Education and health services employment, despite relative resilience even during recessions, was hit hard by the pandemic. The faster recovery in this category is encouraging to observe, particularly in the second half of 2020. Schools and health care offices switching to online practices significantly contributed to this recovery. The ease of modern technology in shifting to remote work displayed many benefits. Some of these will become a more-permanent part of the post-pandemic's new normal, such as in the health care category, because the younger generation tends to see health as more of a common good than something inherently very private. ►

At the current pace of recovery, employment levels in education and health services employment is projected to stay below 245,000 until the second half of 2023. Had the pandemic not occurred, these employment levels would be reached earlier - likely around the end of 2021. In 2020, education and health services employment recovered from the 1.82 percent decline and posted a 0.79 percent growth by the end of the year. Projections point to even faster growth as the regional economy continues to recover - at an average annual growth of 3.01 percent from the second half of 2021 to the first half of 2022 and 2.26 percent from the second half of 2022 to the first half of 2023. ►

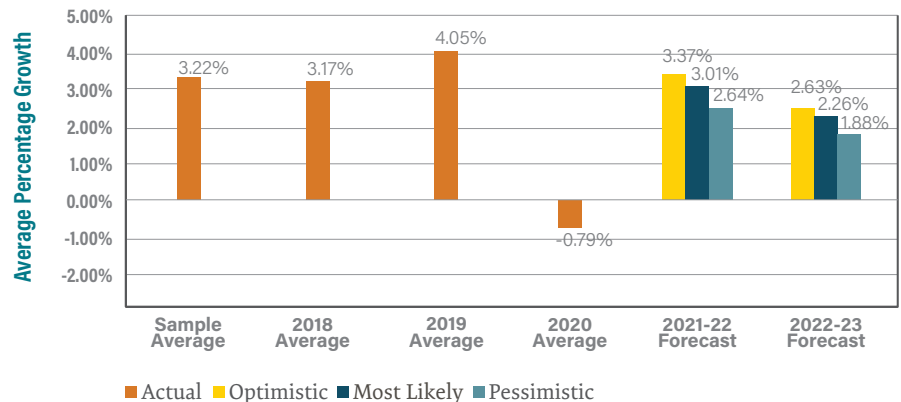
U.S. Real GDP Annual Growth



Education and Health Services Employment



Education and Health Services Employment: Historical vs. Projected Average Yearly Growth





Valley manufacturing employment posted a 4.08 percent decline in the first half of 2020, but by the end of the year had recovered enough to post only a 2.04 percent decline over the entire 12-month period. At this new pace, manufacturing employment will likely reach 115,000 by the second half of 2023. The manufacturing employment long-term benchmark growth rate switched from negative to positive territory in the second half of 2020 as the Valley economy began to recover. ►

**AT THIS NEW PACE, MANUFACTURING EMPLOYMENT WILL LIKELY REACH**

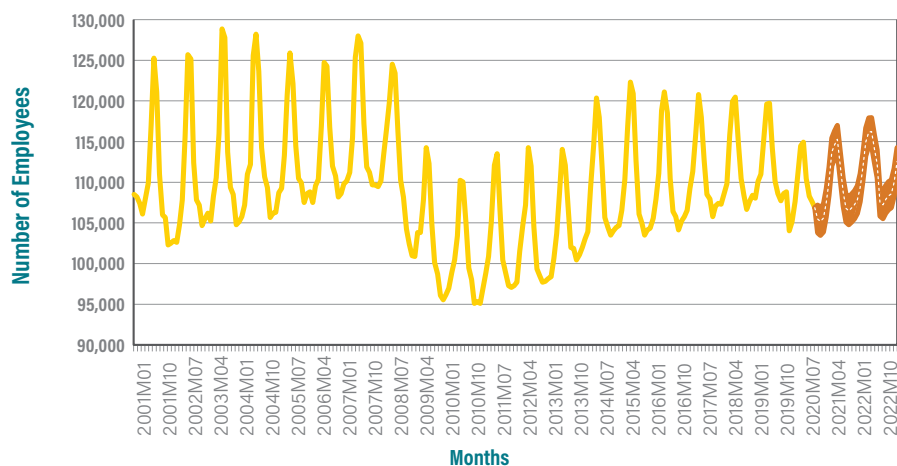
**115,000**

**BY THE SECOND HALF OF 2023.**

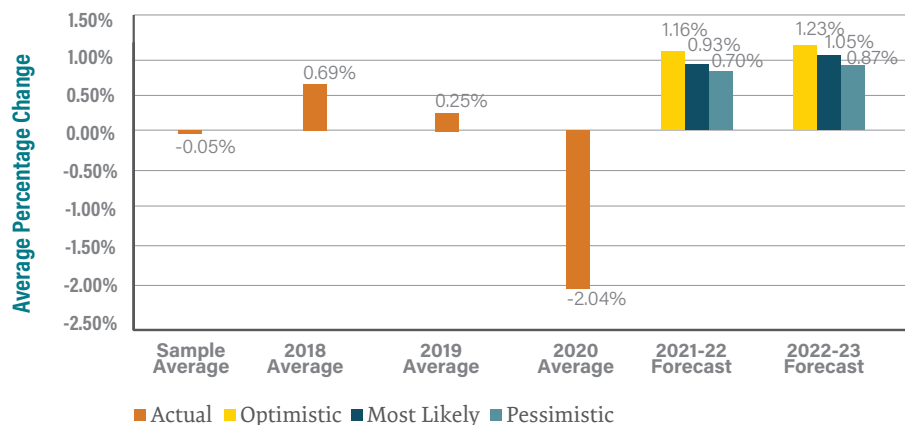
The manufacturing sector struggled ► the previous two years, registering growth of only 0.69 percent in 2019 and 0.25 percent in 2018. Thus, the Valley's manufacturing employment, when compared to national trends, already was slowing in the two years prior to the pandemic. Manufacturing employment had been also slowing statewide. However, President Biden's new infrastructure plan is expected to contribute to faster growth in this category in the coming months. Projections point to an average annual increase of 0.93 percent from the second half of 2021 to the first half of 2022 and 1.05 percent increase thereafter.

In the first half of 2020, the Institute of Supply Management's Purchasing Managers Index drastically fell to the levels not seen since 2009. However, this important leading indicator exhibited a very steep recovery, quickly surpassing 50 points in the second half of the year and increasing from there. A reading above of 50 points signals an expansion. The current reading reads above 60 and is a good indicator of economic recovery picking up steam in the second half of 2021. ►

## Manufacturing Employment



## Manufacturing Employment: Historical vs. Projected Average Yearly Growth



## Purchasing Managers Index







**Leisure and hospitality services** ▶ employment is a category of employment dominated by unskilled workers earning minimum wage, and these workers were hit the hardest by the pandemic. Leisure and hospitality services employment fell 17.18 percent in 2020. Employment in this sector is expected to remain below 135,000 until the second half of 2023. Had the pandemic not occurred and the same trend of rising employment levels continued, jobs in this category would have already exceeded 140,000.

The long-term benchmark growth for leisure and hospitality services employment fell drastically to 1.20 percent because of the very sharp drop in 2020. The decline of 17.18 percent in this category of employment went far beyond the declines observed in other categories of employment and was unprecedented in its magnitude. Just in this category alone, about 30,000 workers were still laid off by January. Projections point to an average annual growth of 10.68 percent from the second half of 2021 to the first half of 2022 and 5.08 percent thereafter. ▶

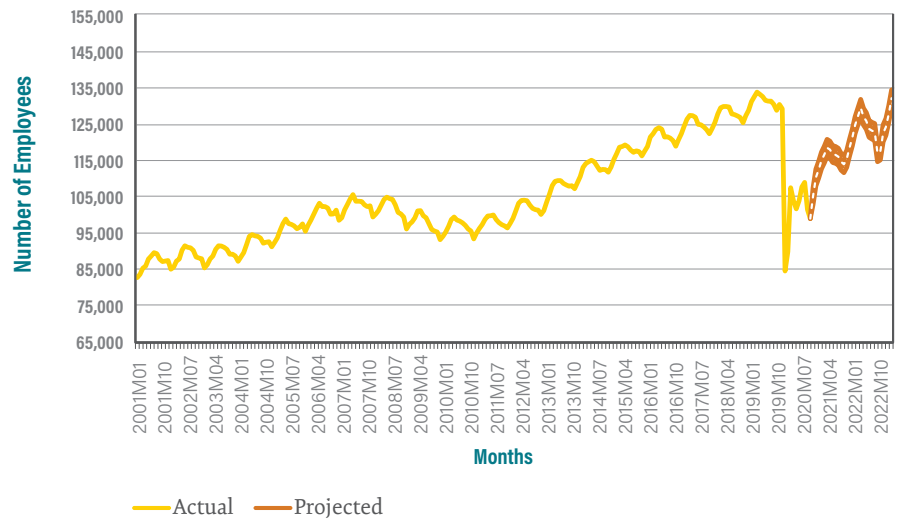
## TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT WAS THE ONLY CATEGORY TO POST

# POSITIVE GROWTH

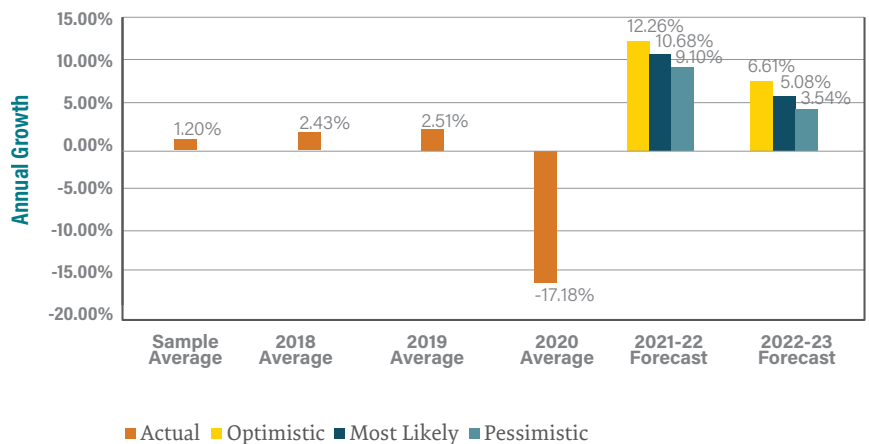
OVER THE 12-MONTH INTERVAL

Trade, transportation, and utilities employment was the only category to post positive growth over the 12-month interval. The series quickly caught the pre-pandemic trend and was the quickest to recover, exceeding even the rebound in construction employment. At this pace, trade and transportation and utilities employment is projected to easily exceed 315,000 by the second half of 2022. ▶

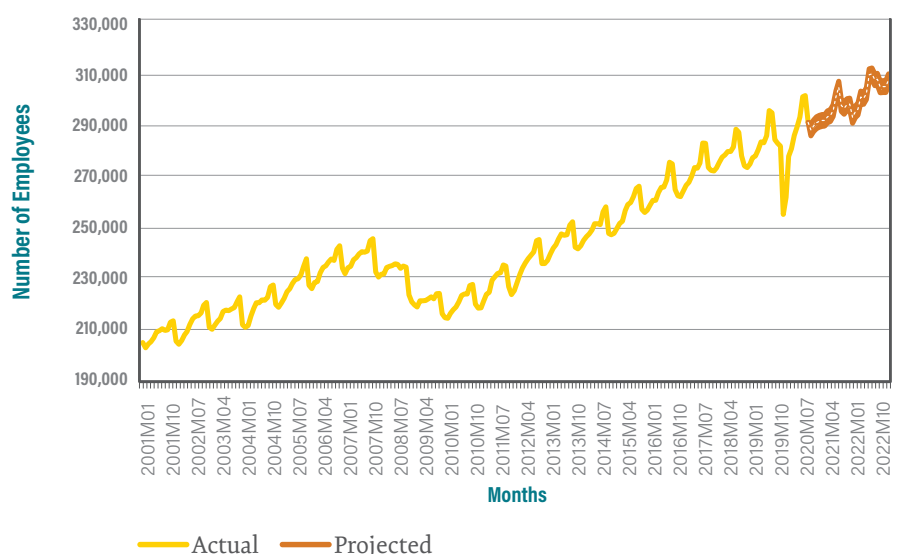
### Leisure and Hospitality Services Employment



### Leisure and Hospitality Services Employment: Historical vs. Projected Average Yearly Growth



### Trade, Transportation and Utilities Employment



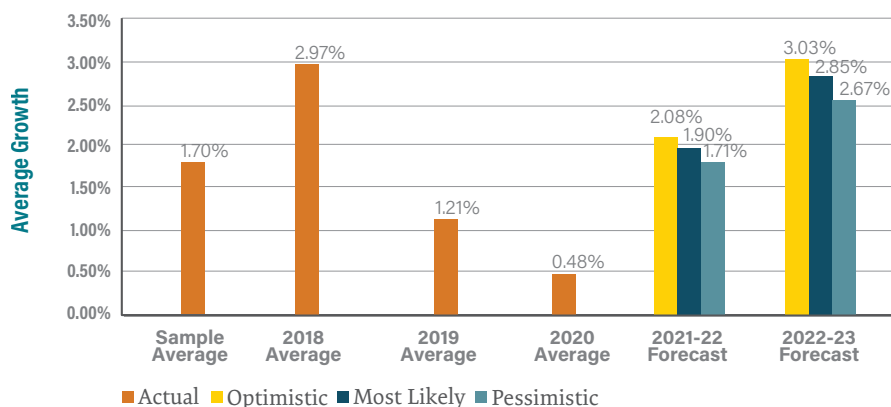


Trade, transportation and utilities is considered to be an essential sector for explaining the reasons behind the fastest comeback. Employment grew 0.48 percent in 2020, which was about a third of the long-term benchmark rate. Considering the economic devastation experienced during the pandemic months, such a comeback was remarkable for the Valley. This was the only category that could not switch to remote work environments, since goods must be physically transported between locations, even as consumers increasingly continue to rely on online shopping. Trade, transportation and utilities employment is projected to increase at an average yearly rate of 1.90 percent from the second half of 2021 to the first half of 2022 and 2.85 percent from the second half of 2022 to the first half of 2023.

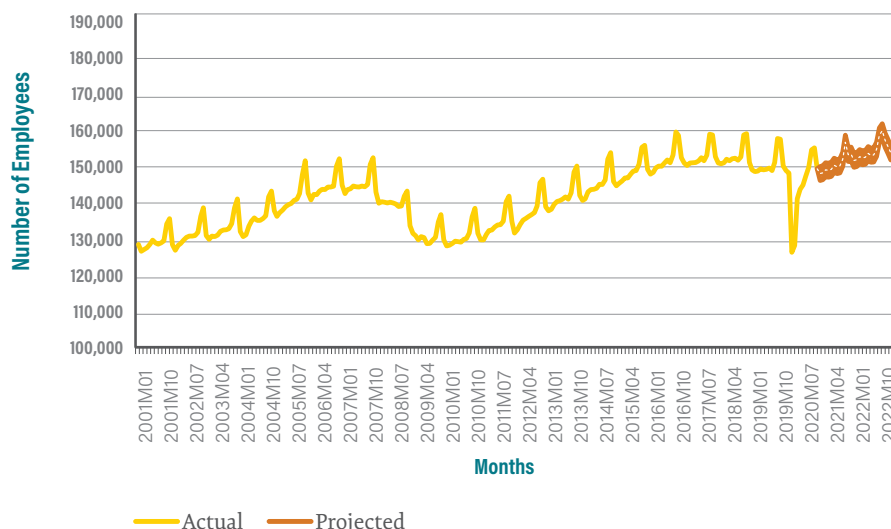
Retail trade employment was another category hit significantly harder than other categories of employment in the Valley. As in the leisure and hospitality services sector, the retail trade sector is dominated by unskilled workers who are earning minimum wage. Consequently, these workers suffered the most from the recession. Job losses in retail trade employment amounted to 31,300 by April 2020. Retail trade employment is slow to recover from the pandemic when compared with other categories such as transportation, trade, and utilities employment. At this slower pace, retail trade employment will most likely stay below 160,000 by the end of 2022.

With competition from online shopping, a service bolstered by consumers staying home during the pandemic, retail trade employment was another category hit hard in 2020. Retail trade employment had already registered a 1.59 percent decline in 2019 before the pandemic. Conditions got much worse once the pandemic arrived, particularly because this is a category that hires mostly unskilled workers. Over the 12-month period in 2020, retail trade employment declined at an average yearly rate of 4.01 percent. Projections point to 2.14 percent increase in retail trade employment over the coming two-year interval.

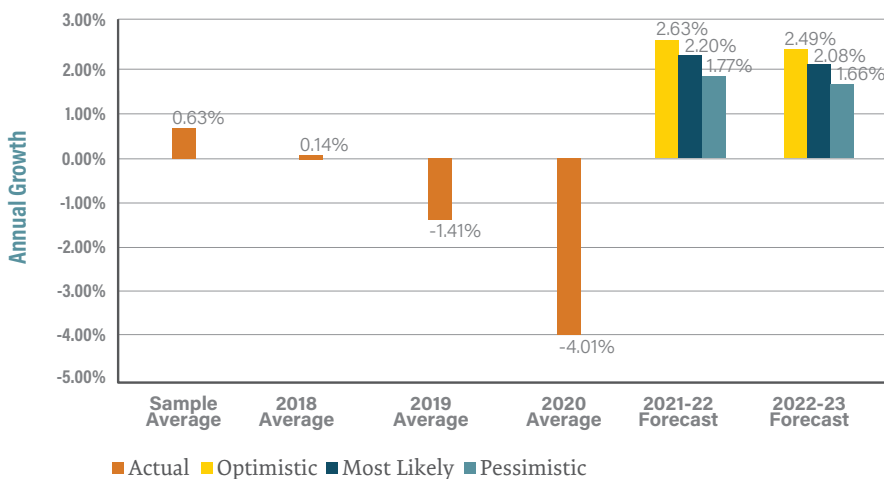
### Trade, Transportation and Utilities Employment: Historical vs. Projected Average Yearly Growth



### Retail Trade Employment



### Retail Trade Employment: Historical vs. Projected Average Yearly Growth







# Employment Indicators

It came as a surprise that by the end of 2020, the decline in wholesale trade employment exceeded that of retail trade employment in the Valley. Valley wholesale trade employment had not displayed any recovery by the end of the last quarter of 2020. Valley wholesale trade employment will likely remain just below 50,000 by the second half of 2023.

Wholesale trade employment, which slowed toward the end of the last decade, basically came down to a halt in 2019, and the pandemic made conditions worse. Wholesale trade employment in the Valley declined by 4.75 percent in 2020. Projections point to faster recovery in this category of employment, at an average annual growth of 4.66 percent from the second half of 2021 to the first half of 2022 and 1.61 percent from the second half of 2022 to the first half of 2023. ▶

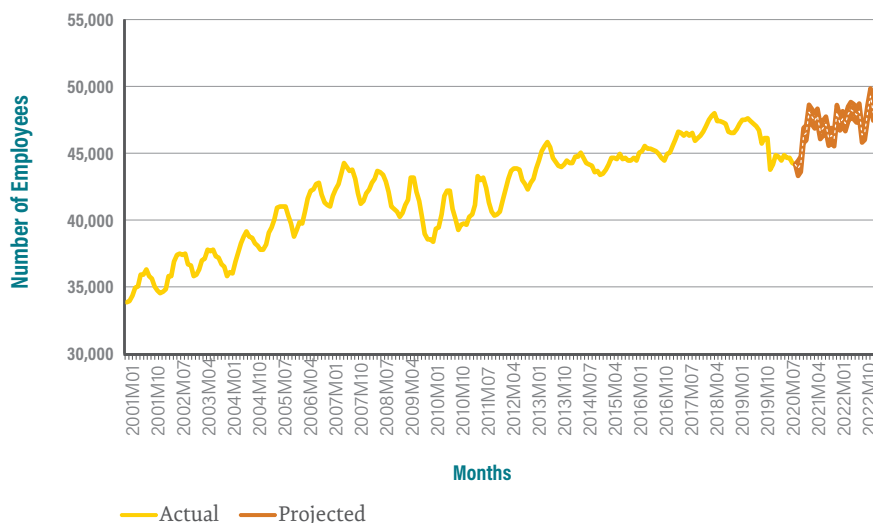
## PROJECTIONS POINT TO

# FASTER RECOVERY

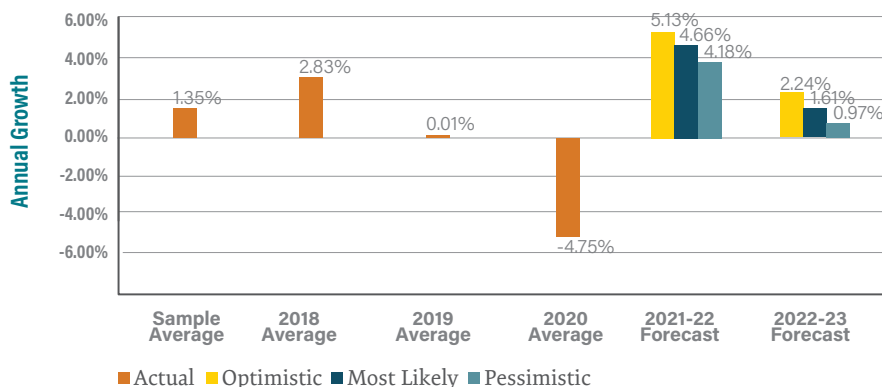
IN THIS CATEGORY OF EMPLOYMENT, AT AN AVERAGE ANNUAL GROWTH OF 4.66 PERCENT FROM THE SECOND HALF OF 2021 TO THE FIRST HALF OF 2022

Valley information employment had been declining at a steep pace long before the pandemic. Social media and the increasing consumer preference of getting news via digital outlets caused this category to suffer from a structural point of view. The pandemic devastated this category in 2020, corresponding to a 19.06 drop over the 12-month period. Employment levels in this category will likely stay below 7,500 through the second half of 2023. ▶

## Wholesale Trade Employment



## Wholesale Trade Employment: Historical vs. Projected Average Yearly Growth



## Information Employment





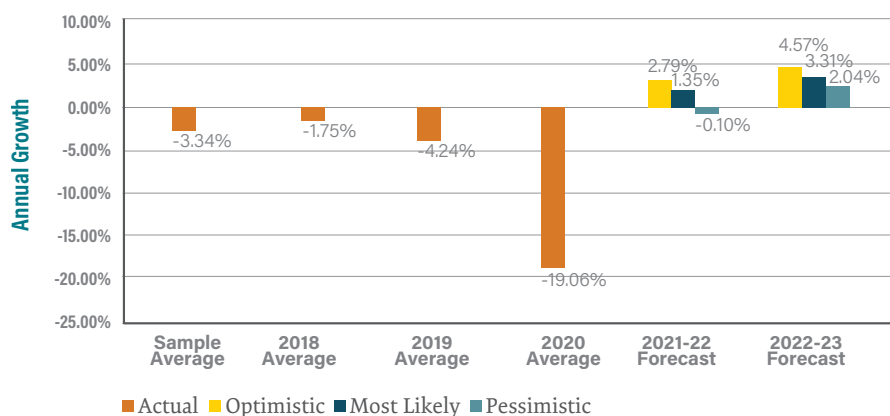
In 2018 and 2019, information ► employment posted accelerating declines of 1.75 percent and 4.24 percent, respectively. The decline in 2020 was about six times the long-term benchmark rate of negative 3.34 percent and 2019's decline roughly four times the benchmark. Projections point to a bounce-back from the big drop of 19.06 percent at an average annual rate of 2.33 percent growth in the coming two-year forecast interval.

Construction employment was the fourth-fastest recovering category of employment in 2020, following trade and transportation, education and health, and manufacturing. The seasonal correction in the winter months occurred at a greater degree than previous years, bringing this category from fastest to fourth-fastest recovering sector by the end of 2020. Construction growth rates of 7.81 percent in 2018 and 2.57 percent in 2019 both were well above the 0.85 percent long-term benchmark rate. ►

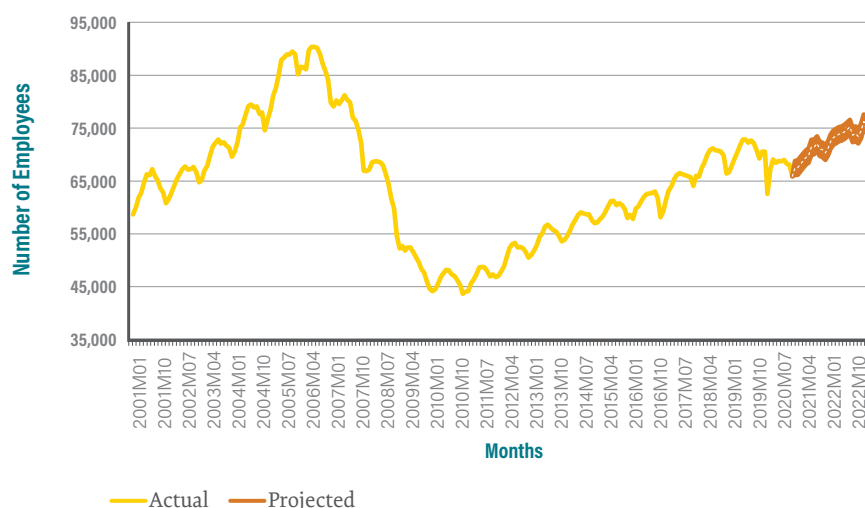
## CONSTRUCTION EMPLOYMENT WAS THE FOURTH FASTEST RECOVERING CATEGORY OF EMPLOYMENT IN 2020,

Construction employment declined 3.01 percent in 2020, but is expected to recover quickly once the 2021 construction season begins as a low inventory of available existing homes combines with a new demand - Bay Area residents wishing to live in more sparsely populated, less-hectic areas. Projections point to an average annual growth of 5.39 percent from the second half of 2021 to the first half of 2022 and 4.64 percent from the second half of 2022 and thereafter. ►

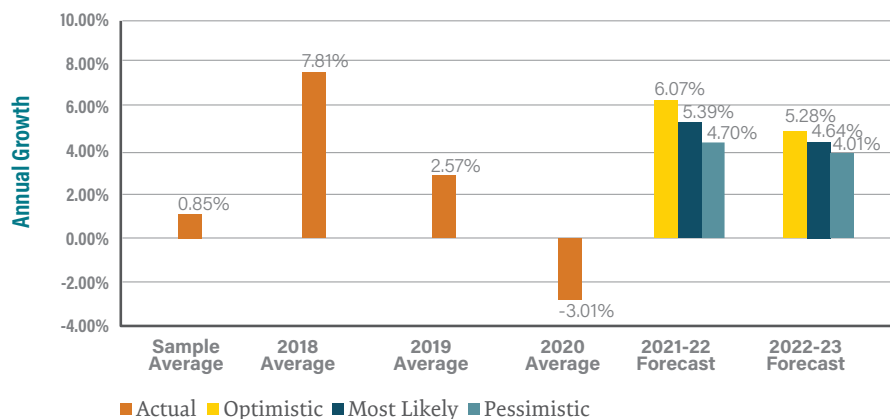
### Information Employment: Historical vs. Projected Average Yearly Growth



### Construction Employment



### Construction Employment: Historical vs. Projected Average Yearly Growth





# Employment Indicators

Government employment declined 3.91 percent by the fourth quarter of 2020, and recovery in this sector likely will occur after all other employment categories have mostly rebounded. This lagging pattern also was observed during the 2008 recession.

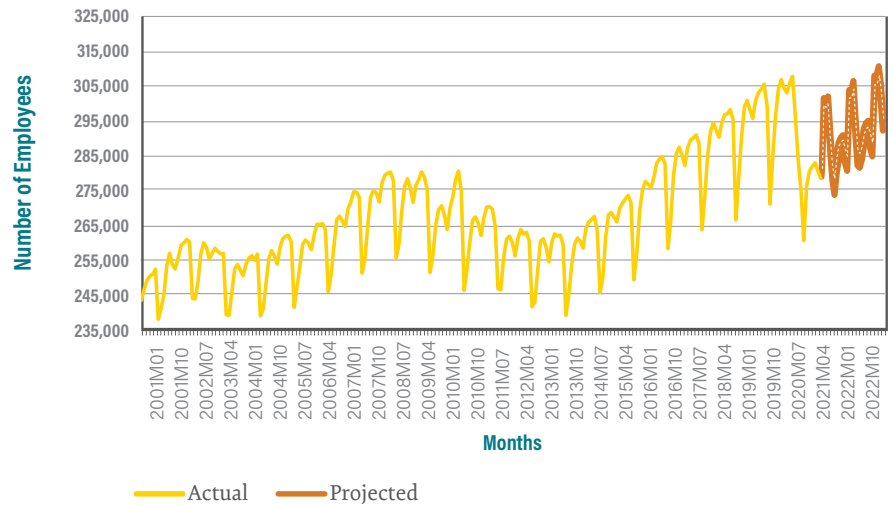
**AS THE PROFITABILITY OF VALLEY BANKS INCREASES WITH THE INCREASED ECONOMIC ACTIVITY EXPECTED IN THE COMING MONTHS, MORE WORKERS WILL LIKELY BE HIRED IN THIS CATEGORY.**

The decline in Valley government employment occurred with a lag of about two months after the pandemic hit the Valley economy. Not counting the seasonal ups and downs, employment levels in this category will likely remain below 300,000 through the middle of 2023. Projections point to an average yearly growth of 1.68 percent from the second half of 2021 to the first half of 2022 and 2.02 percent from the second half of 2022 to the first half of 2023.

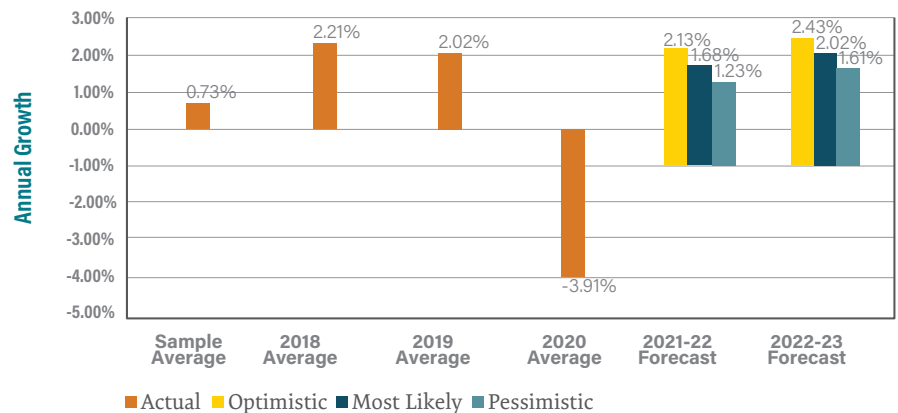
Valley financial activities employment fell 4.09 percent during the 12-month interval in 2020. The combined effect of the 2008 recession and the pandemic created an all-time low (since 2001) in financial activities employment levels. Employment in this category stands at about 40,000 as of the first quarter of 2021. However, with recovery underway, financial activities employment levels will rise above 43,000 by the second half of 2023.

Financial activities employment will likely see a steeping trend in the coming months, bolstered by the stimulus plan and the new administration's investment in infrastructure. As the profitability of Valley banks increases with the increased economic activity expected in the coming months, more workers will likely be hired in this category. Financial activities employment is projected to increase at an average yearly rate of 2.33 from the second half of 2021 to the first half of 2022 and 1.19 percent thereafter.

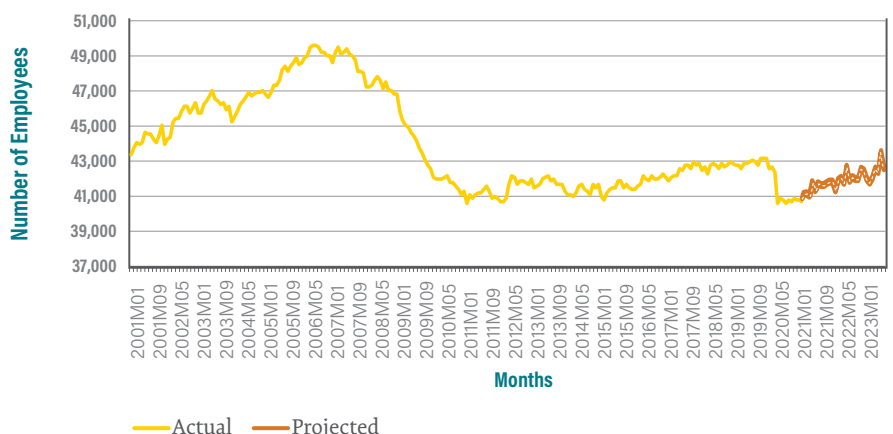
## Government Employment



## Government Employment: Historical vs. Projected Average Yearly Growth



## Financial Activities Employment

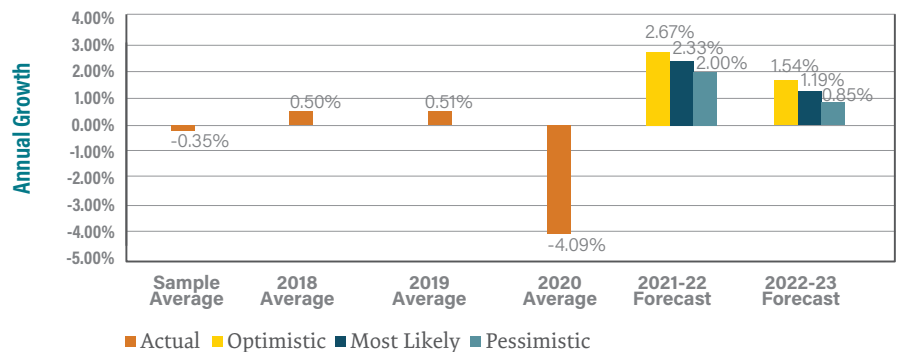




IF TWO-THIRDS OF THE POPULATION IS  
**VACCINATED**  
 BY THE END OF JUNE,  
**RECOVERY**  
 WILL PICK UP MUCH NEEDED ACCELERATION  
 IN THE SECOND HALF OF 2021.

A recession in 2020 had been forecast even before and unrelated to the pandemic. When the pandemic hit, it changed the future trajectory of the economy to a path of recovery beginning in the second half of 2020, but recovery in all categories (as judged by full employment) is not expected until the second half of 2023. Several factors affected slower recovery in 2020, including the unwillingness to wear a mask and delays in availability of vaccines. Recovery in the first half of 2021 also is being slowed by mutating virus strains and the unwillingness for certain populations to get vaccinated. The race between mutations and vaccinations will likely be an important factor in determining the speed of recovery. If two-thirds of the population is vaccinated by the end of May, recovery will pick up much needed acceleration in the second half of 2021.

Financial Activities Employment:  
 Historical vs. Projected Average Yearly Growth





The San Joaquin Valley's eight Metropolitan Statistical Areas (MSAs) are Fresno, Bakersfield-Delano, Hanford-Corcoran, Madera-Chowchilla, Merced, Modesto, Stockton and Visalia-Porterville.. The aggregated data from these eight MSAs make up the total single-family building permits in the Valley.

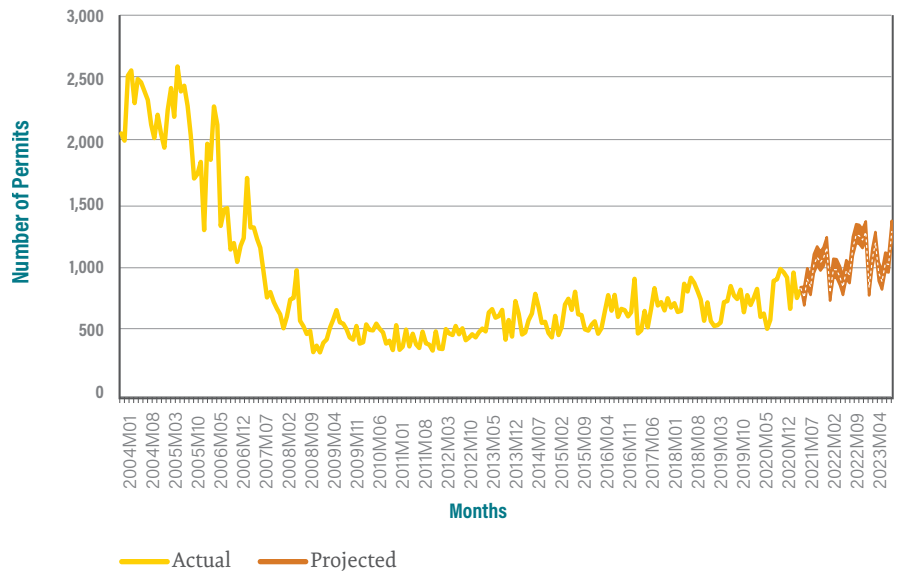
Housing permits continued to increase, even during the pandemic, raising 13.26 percent over the 12-month period. Part of this was a statistical phenomenon, due to a very low reading of 1.52 percent in the year before. Nevertheless, the growth in 2020 was about twice the long-term benchmark growth of 6.82 percent, indicating a condition of high demand in the Valley. Housing permits will most likely oscillate around 1,000 per month in the two years ahead.

With 2,655 permits, Fresno issued the most housing permits in 2020, followed by 2,161 in Stockton and 1,796 in Bakersfield. Visalia issued 1,391 permits in 2020, while Madera and Merced issued 719 and 153 housing permits, respectively. Modesto issued 31 building permits. There were no housing permits issued in Hanford-Corcoran. Projections point to average annual growth of 16.38 percent from the second half of 2021 to the first half of 2022 and 13.32 percent thereafter.

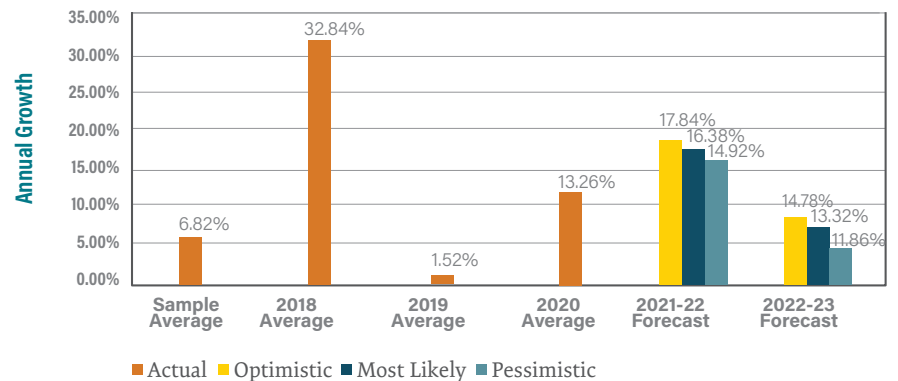
Because of the Federal Reserve's intervention to relieve the economic damage of the COVID-19 pandemic, the foreclosures-started series in California fell further and are at their lowest levels since 1999. However, bank accruals tell a different story. Accruals have risen sharply in 2020 but are not yet reflected in foreclosure activity due to ongoing relief efforts. A sharp increase in foreclosures is expected in the coming months when relief programs and stimulus packages come to an end.

One common characteristic of all recessions is falling interest rates, a factor that remained true in 2020. However, with higher inflation expectations, long-term interest rates began increasing, approaching 2 percent. The Federal Reserve, however, began selling short term bonds and buying long term bonds in return to keep long-term rates low. This relieved upward pressure on long-term rates in the first quarter of 2021. The reading of the Freddie Mac 30-year rate in February 2021 was above 3 percent.

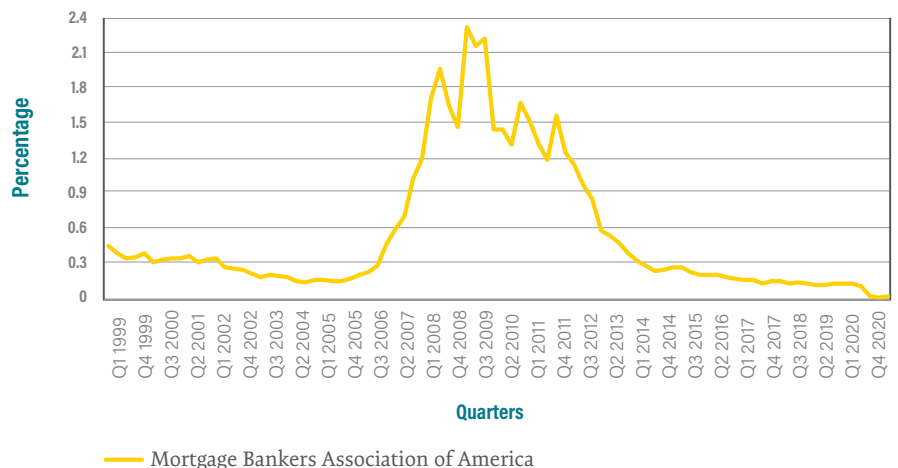
### Single-Family Building Permits



### Single-Family Building Permits: Historical vs. Projected Average Yearly Growth



### Foreclosure Starts in California





As long as inflation is missing from the picture, and the Federal Reserve's intervention continues, interest rates are likely to stay low. ►

During the Great Depression of the 1930s, home values declined more than 10 percent. Home values also declined steeply during the 2008 housing crisis. But, surprisingly, home values continued to increase in the Valley in 2020, at a rate of 5.42 percent, greater than the long-term benchmark rate of 5.07 percent. This can be largely attributed to the successful intervention on the part of the Federal Reserve to avert the impact of the crisis initiated by the pandemic as well as pressure coming from low inventory in the Valley.

Bakersfield had the fastest increase in home values in 2020, reporting a 5.99 average annual increase. The second-fastest increase in home values was in Modesto at 5.95 percent, followed by Hanford-Corcoran at 5.84 percent, Visalia at 5.78 percent and 5.66 percent in Madera. Fresno home prices increased 5.23 percent. Merced and Stockton reported the slowest increase in home prices in 2020, both at 4.42 percent. ►

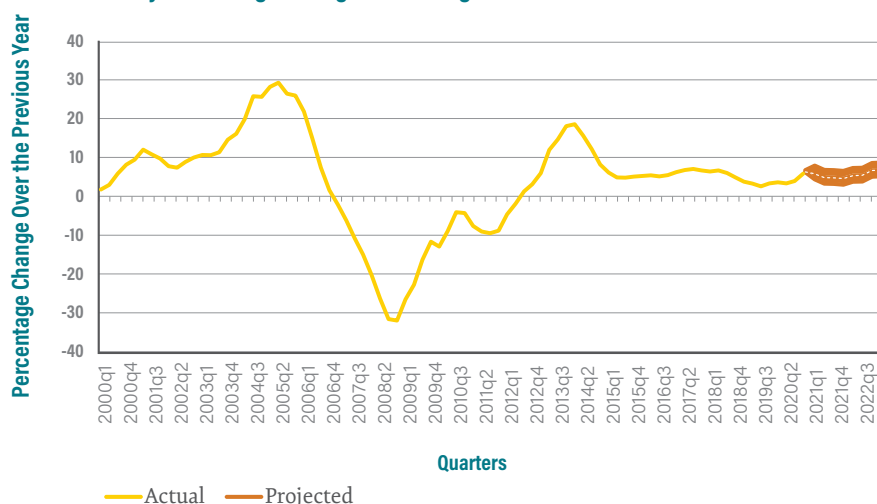
## HOUSING VALUES WILL LIKELY CONTINUE TO INCREASE AT RATES ABOVE LONG-TERM BENCHMARK RATES.

Building permits are likely to increase in the months ahead due to the intensifying recovery. There is now renewed demand coming from Bay Area residents preferring to live in places that are more isolated, with the intent to minimize risks coming from the pandemic. This will likely exacerbate the low inventory situation in the Valley. Housing values will likely continue to increase at rates above long-term benchmark rates. Projections point to 5.95 percent increase from the second half of 2021 to the first half of 2022 and 6.86 percent from the second half of 2022 to the first half of 2023. ►

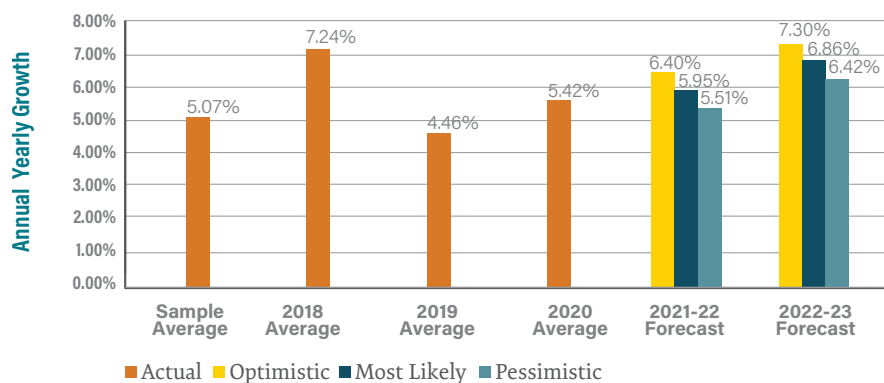
### 30-Year Fixed Rate



### Yearly Percentage Change in Housing Prices



### Yearly Growth in Housing Prices: Historical vs. Projected Average Yearly Growth





# Inflation and Prices

**Despite an enormous liquidity injection, inflation has been missing from the picture as of April 2021.** Indeed, one characteristic of all recessions is deflation, and 2020 was not an exception. However, recovery has been taking place since the second half of 2020 and overall price levels are remaining low. Inflation expectations were rising in the first quarter of 2021.

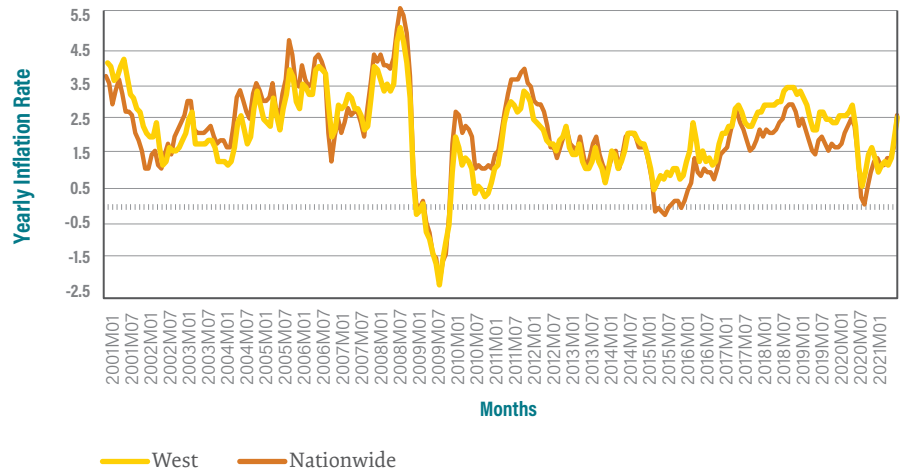
## WAGES INCREASED SHARPLY DURING THE COVID-19 RECESSION

For the first time since 2014, inflation nationwide caught up with inflation in the West. When the two series merge and display a drastic falling pattern, they signal an oncoming recession. This changing pattern now serves as another reliable coincidental indicator for our region. ▶

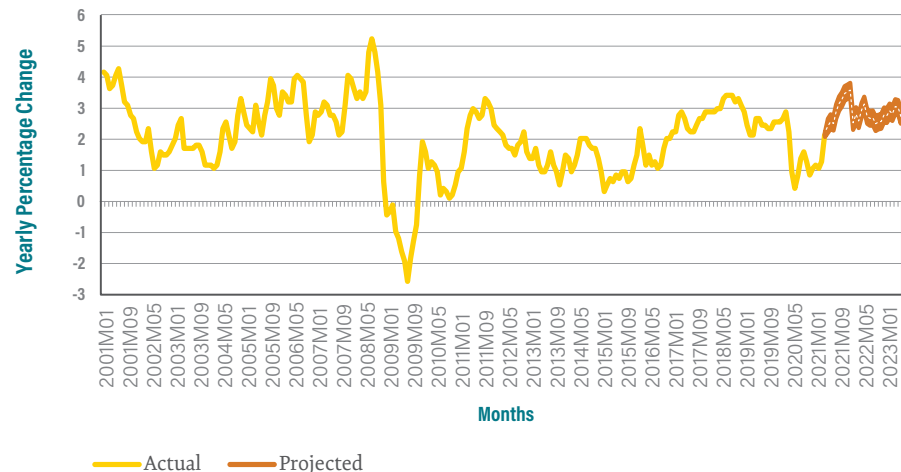
Inflation rates had been falling since 2018. In 2020, the inflation rate was 1.76 percent, well below the 2.29 percent long-term benchmark. Overall price levels have been increasing very gradually since May 2009 but continue to remain below the long-term benchmark rate. Higher inflation expectations in the first quarter of 2021 sparked a rise in long-term interest rates, but the Federal Reserve's continuous intervention in the bond markets is keeping the rates below 2 percent.

Inflation remains mainly anchored to the price of oil, which is an important factor that keeps overall prices low from the cost-push side. The price of oil has remained relatively at low levels for several months but is expected to rise when demand picks up significantly in the second half of 2021. Oil prices have been rising recently, but the impact on inflation has been interestingly missing, causing some circles to ask the question "Where is inflation?" The liquidity in banks and currency circulation is bound to increase price levels in coming months, before the Federal Reserve begins to gradually decrease its balance sheet. Projections of the rate of inflation for the West point to an average yearly increase of 3.12 percent from the second half of 2021 to the first half of 2022 and 2.85 thereafter.

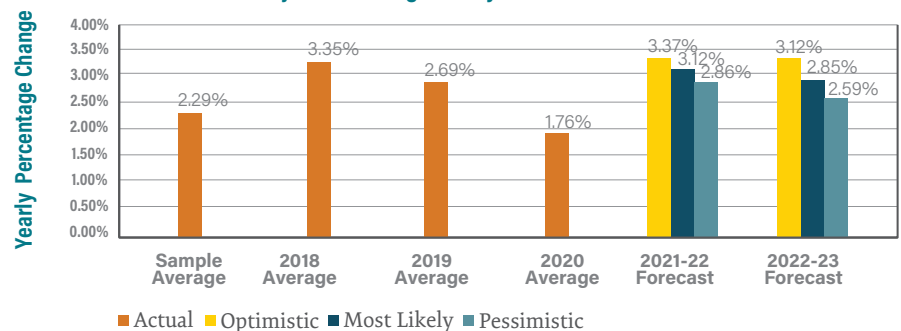
**Inflation Rate: Nationwide vs. West**



**U.S. West Inflation Rate**



**U.S. West Inflation Rate: Historical vs. Projected Average Yearly Growth**





Perhaps the most interesting development that took place during the pandemic and the recession was the yearly change in average weekly wages. Wages typically fall during recessions, but in 2020 weekly average wages in the Valley rose 6.97 percent - a trend unique to this recession. Some displaced workers did not want to return to work for fear of catching the virus. The availability of unemployment compensation was another factor keeping the labor force participation rate low. ►

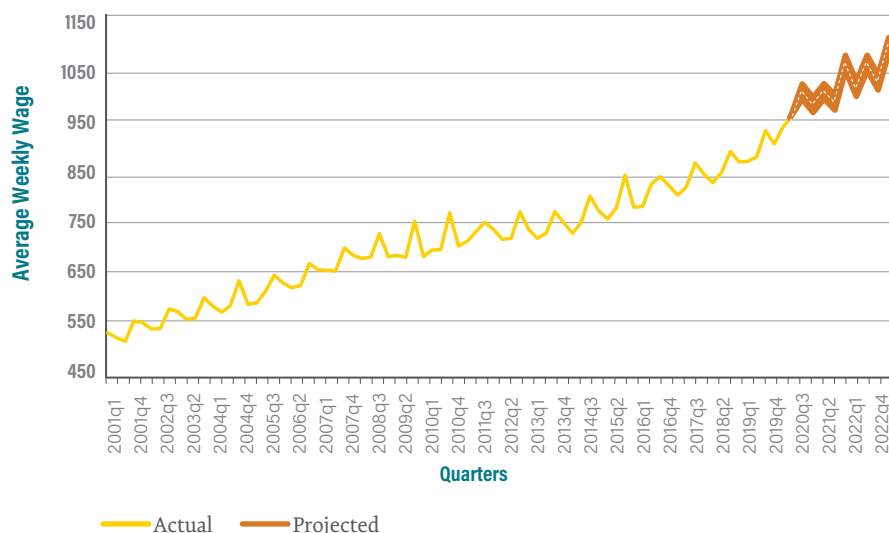
To entice workers during the pandemic, wages had to increase more than twice the long-term benchmark rate of 3.06 percent. Slower increases will likely occur in the coming months, with average weekly wages in the Valley likely to exceed \$1,050 by the second half of 2023. High unemployment rates generally means low wages, but projections point to an increase in average weekly wages at an annual rate of 3.74 percent from the second half of 2021 to the first half of 2022 and 2.84 thereafter. ►

Wages increased sharply during the COVID-19 recession gaining 5.21 percent - the highest gain since 2001 - to more than offset the 1.76 percent rate of inflation.

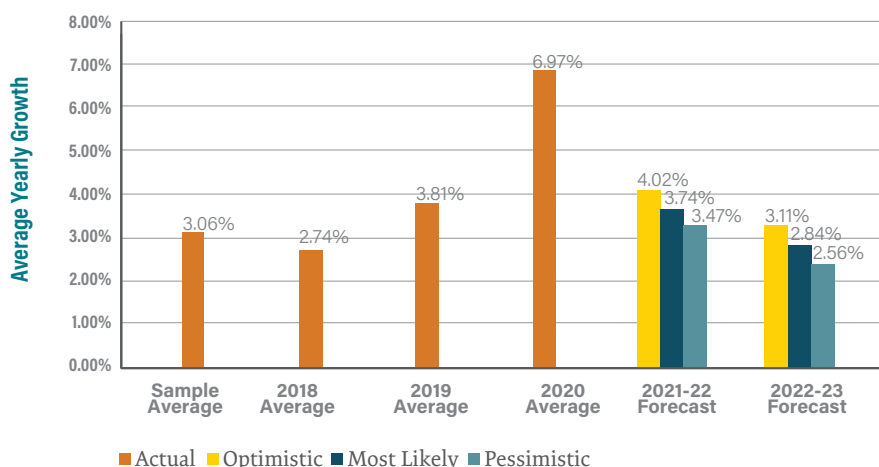
**WAGES TYPICALLY FALL DURING RECESSIONS, BUT IN 2020 WEEKLY AVERAGE WAGES IN THE VALLEY ROSE**

**6.97%**

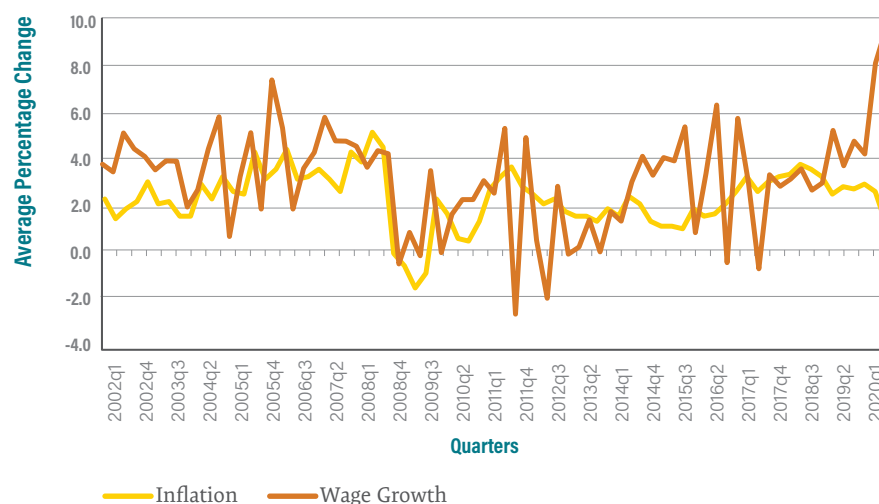
Quarterly Average Weekly Wages



Weekly Wage Growth: Historical vs. Projected Average Yearly Growth



Yearly Wage Growth vs. Inflation





**The CARES Act relief program and the Federal Reserve intervention to alleviate the damage from the recession allowed community bank deposits and net loans and leases to increase in 2020.** Added to this, President Biden's economic stimulus program and infrastructure plan will mean the two series will rise further in the coming months.

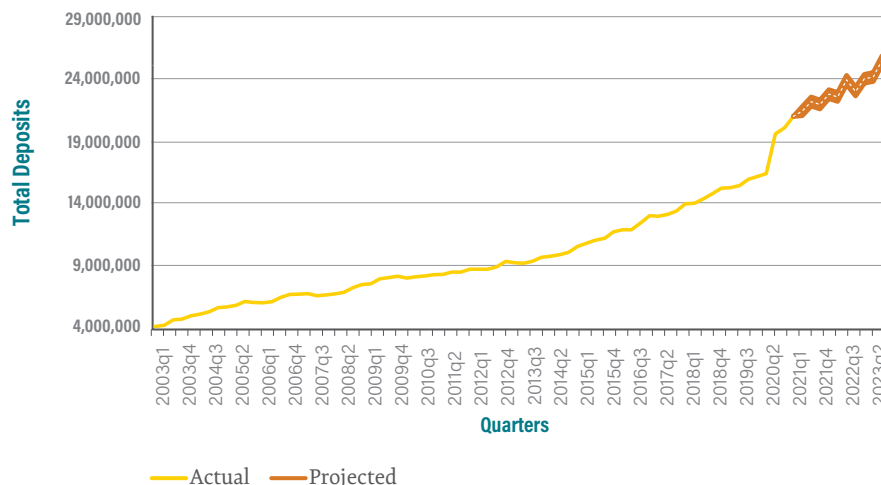
Valley total bank deposits spiked 21.29 percent in 2020, a direct result of the fiscal and monetary policy interventions designed to alleviate the pandemic's economic impact. It means that banks are flooded with cash, yet they are not extending loans at about the same pace as the increase in deposits. This is keeping away some of the upward pressure on inflation that would normally come from the demand side. Community bank deposits in the Valley will likely increase at rates in line with historical rates, at an average annual rate of 7.40 percent from the second half of 2021 to the first half of 2022 and slower thereon at 5.73 percent from the second half of 2022 to the first half of 2023 as the Federal Reserve slowly begins to deflate its balance sheet.

Bank assets in non-accrual have not yet begun to increase sharply, largely due to the CARES Act and the Federal Reserve's actions to keep banks helping residents who have lost their jobs or are in financial distress due to the COVID-19 pandemic. The new economic stimulus program in effect will delay this a bit further. There will likely be a sharp increase in the amount of bank assets in non-accrual over the coming months as banks begin to adjust their books.

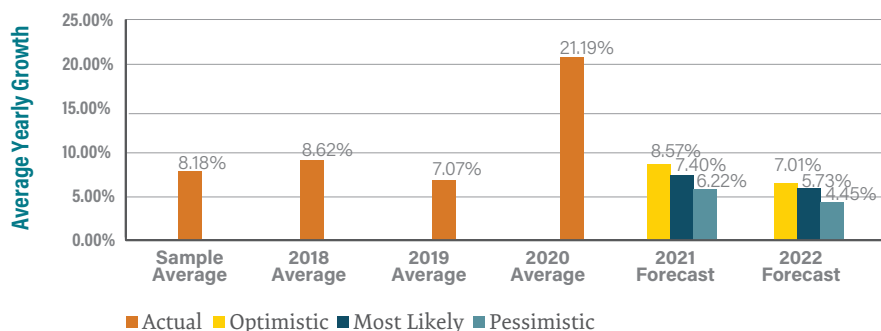
A pattern inconsistent with assets in non-accrual was observed when they were compared to assets in default 30 to 89 days. The sector of assets in default 30 to 89 days is now displaying an upward trend that flattened slightly in the second half of 2020.

**COMMUNITY BANK NET LOANS AND LEASES ALSO GREW SIGNIFICANTLY IN 2020.**

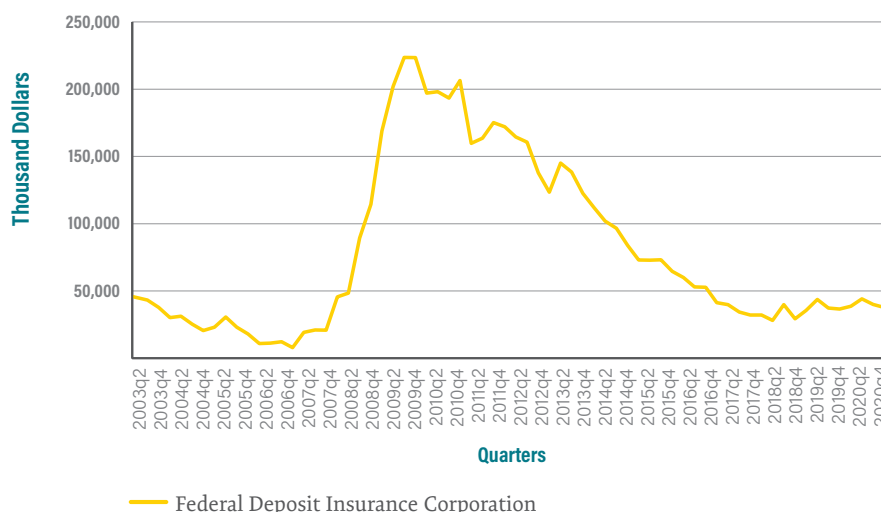
**Total Bank Deposits (in \$ Thousands)**



**Total Bank Deposits: Historical vs. Projected Average Yearly Growth**



**Assets in Nonaccrual**





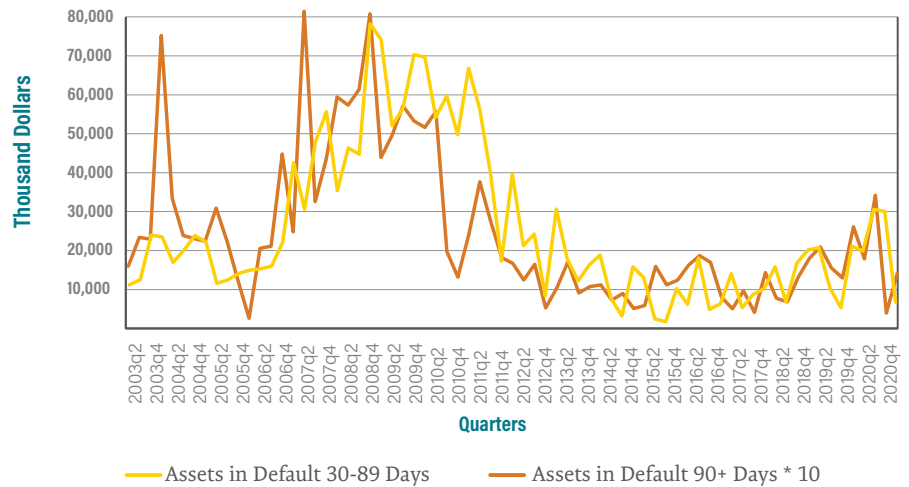
Assets in default 90-plus days also displayed a flattening upward trend in the third and fourth quarters of 2020. Both series are displaying parallel growth as banks keep a tab on accumulating unpaid loans. The two series will likely increase at faster rates in the months ahead as recovery intensifies and the Federal Reserve begins to gradually engages in balance sheet reduction. ►

Community bank net loans and leases also grew significantly in 2020. Net loans and leases registered a 17.63 percent increase over the 12-month period. Such a pattern in net loans and leases is indicative of community banks helping Valley residents unemployed or in financial distress but not to a degree one would like when the increase in total deposits is considered. Banks are choosing to sit on cash rather than extend more loans. ►

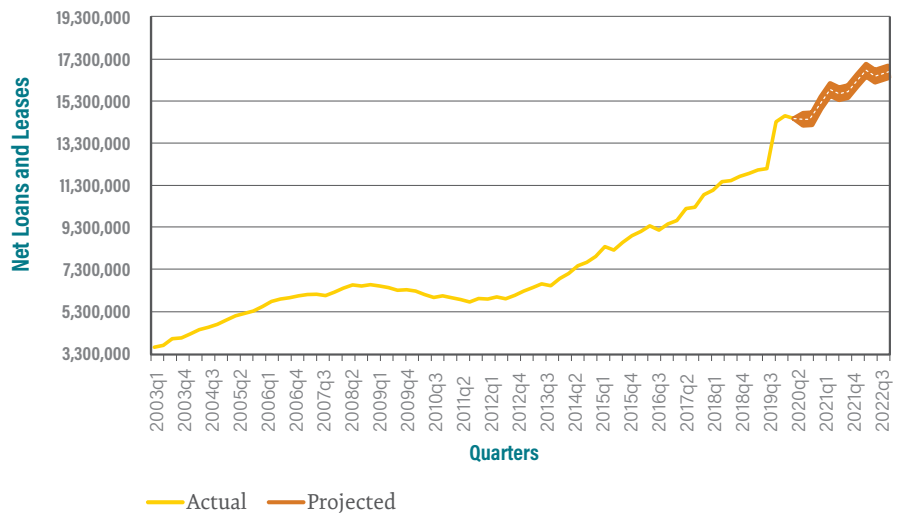
The economic stimulus plan delivered much-needed assistance to Valley residents in dire situations during the pandemic. The infrastructure plan will help the unemployed get back to work more quickly. In the coming months, both deposits and loans will likely grow more in line with historical benchmark rates. Projections point to net loans and leases increasing at an average yearly rate of 7.76 from the second half of 2021 to the first half of 2022 and 5.92 percent thereafter.

Because of the CARES Act and the Federal Reserve's interventions, Valley community bank deposits and net loans and leases increased at faster rates in 2020 than in 2019. The economic stimulus package means total deposits and net loans and leases will rise further in the coming months. The new infrastructure plan will hasten the ability of the unemployed to get back to work. Bank deposits in 2020 increased more than three times the increase in 2019, while net loans and leases in 2020 increased more than twice the 2019 rate. ►

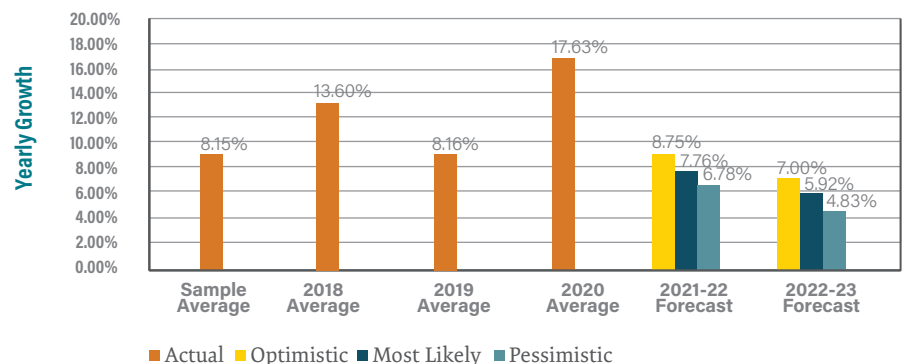
### Assets in Default 30+ Days



### Net Loans and Leases (in \$ Thousands)



### Net Loans and Leases: Historical vs. Projected Average Yearly Growth





**Economic recovery is taking place at fluctuating speeds so far in 2021.** Variants of the virus and a reluctance in some communities to get vaccinated is dragging the recovery process, but the economic stimulus package, along with the new infrastructure plan, will likely bolster the recovery into a long expansionary phase beyond the coming months.

Valley total employment will likely grow at an overall average rate of 4.13 percent in the coming two-year interval. In 2020, Kern County's employment declined the fastest, followed by Tulare, Stanislaus. San Joaquin and Merced counties. Kings and Fresno County were the sixth- and seventh-fastest declining counties in total employment. The slowest decline in total employment occurred in Madera.

Information employment declined the fastest, but the declines in this category were occurring long before the pandemic.



The leisure and hospitality services category of employment was affected the second most, while trade, transportation and utilities together with education and health services employment were affected the least. Construction employment was the fourth-fastest declining category in the Valley. Because we are mostly a farm- related economy employing a relatively significant number of essential workers, employment in the Valley recovered faster than that of the state in 2020.

Unlike the previous recessions, housing prices continued to climb in 2020, largely due to short inventory, the CARES Act and the Federal Reserve employing all of the tools to mitigate the economic impact of the pandemic. Consequently, building permits continued to increase in 2020.

A recession meant falling prices and wages in 2020. Overall price levels began to increase gradually later in the year, but remained below the long-term benchmark rate. Given the enormous liquidity injection and with banks sitting on cash, the rate of inflation will likely increase above the long-term benchmark rate in the coming months. Perhaps the most noteworthy development was the 6.97 percent increase in average weekly wages, given that the rate of inflation was 1.76 percent during the same interval.

Both Valley bank deposits and net loans and leases increased significantly in the second quarter of 2020 due to the CARES Act and mitigating actions of the Federal Reserve. Both series are likely to increase further due to the economic stimulus package and infrastructure plan of the new administration. There was basically no change in community bank assets in nonaccrual because banks have not yet reflected these in their books due to the relief programs in place, but in the coming months this indicator is expected to trend sharply upward. Community bank assets in default 30 to 89 days and assets in default 90 plus days displayed a flattening upward trend in the second half of 2020. In the coming months, these two indicators will likely steepen further as the Federal Reserve end balance sheet expansion.

Apart from intensifying drought conditions, regional and national indicators point to faster recovery as long as Valley residents and members of the business community continue to take much needed precautions against the pandemic, enforcing social distancing guidelines and getting vaccinated.



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