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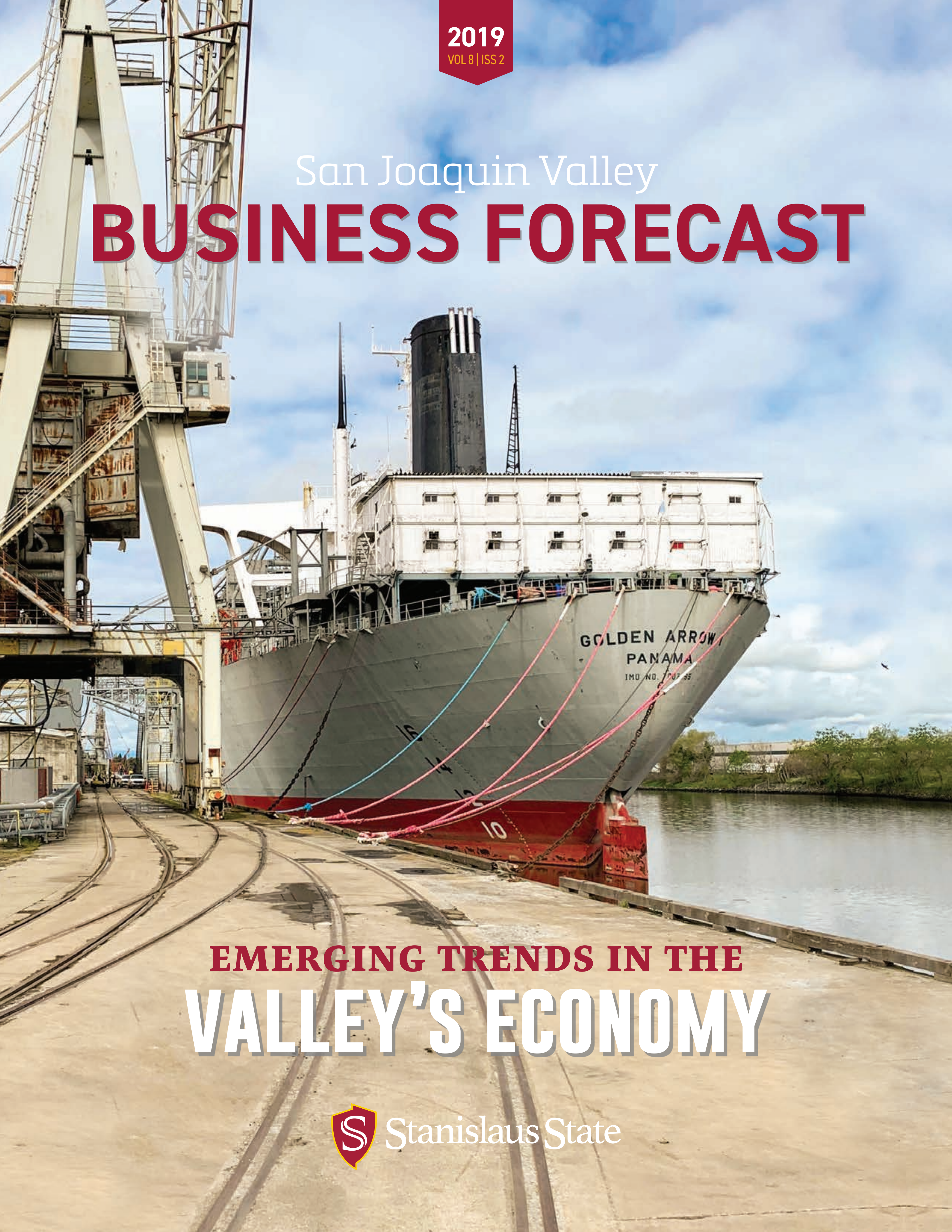
San Joaquin Valley

BUSINESS FORECAST



EMERGING TRENDS IN THE VALLEY'S ECONOMY

Stanislaus State

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SAN JOAQUIN VALLEY BUSINESS FORECAST 2019

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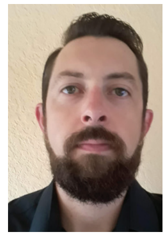

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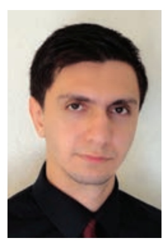

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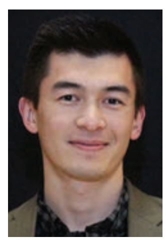

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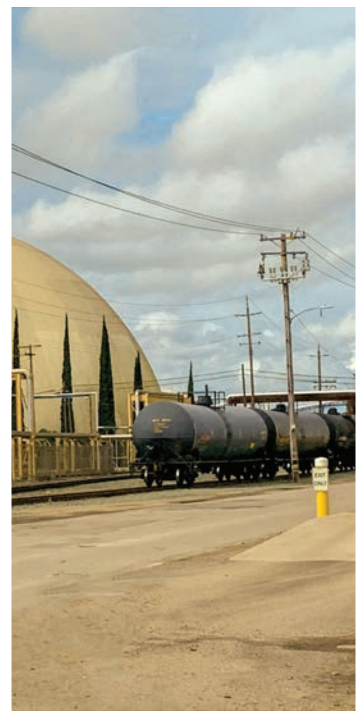

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Executive Summary

Total employment in the San Joaquin Valley in 2018 grew at about the same rate as in the previous year, but slowing in the Valley's overall economic activity is projected to become more visible over the next two years and is expected to be more than the slowdown at the national level.

This is due to the relatively fragile structure of the Valley economy, a result of higher unemployment rates, a higher ratio of unskilled-to-skilled workers and lower educational attainment levels. The change in behavior of certain recession indicators — such as the yield curve temporarily inverting in the first quarter of 2019, the institutional investors switching their portfolio holdings from stocks to bonds and the value of U.S. household investments as a percentage of GDP peaking in 2019 — further point to slowdowns in economic activity in the next two years.

As is usual, the slowdown is manifesting at different rates among the Valley's key employment categories. Education and health services employment growth declined from 4.79 to 2.96 percent in 2018, while manufacturing employment growth fell from 0.52 percent to 0.25 percent. The Institute of Supply Management's (ISM) Purchasing Managers' Index, an important indicator, reached above 60 points in the third quarter of 2018 before falling to 55 points in the first quarter of 2019, predicting further slowdown in the coming months. The same slowing pattern was also observed in the consumer confidence index, a leading indicator for future consumption activity.

Leisure and hospitality services employment growth slowed from 2.71 to 1.84 percent, while retail trade employment growth also exhibited a significant slowdown, from 0.71 percent to 0.34 percent.

There were some upticks in other categories. Construction employment growth increased from 5.32 percent to 7.67 percent in 2018, while wholesale trade employment growth increased from 1.84 to 2.91 percent.

Overall in 2018, more employment categories exhibited a slowdown than a gain in speed.

Among the eight counties of the San Joaquin Valley, total employment grew at a slower pace in Kings, Madera, Merced and San Joaquin counties while Kern, Stanislaus and Tulare grew at a faster rate than in 2018, and Fresno's growth pace matched the 2017 rate. Even though total employment growth slowed for Merced and San Joaquin counties, at 2.44 percent and 2.23 percent respectively, these two counties reported the fastest growth in 2018, while Kings and Kern counties grew at the slowest pace, at 1.08 percent and 1.21 percent respectively. Average yearly growth in other counties was 2.04 percent in Fresno, 2.03 percent in Tulare, 1.31 percent in Stanislaus and 1.43 percent in Madera.

After a very significant increase in building permits, a slower increase is projected in 2019, in line with the series' multi-year pattern. Foreclosure starts, which exhibited a short-lived increase as the Federal Reserve hiked rates, assumed a flat pattern when those rate hikes were paused, spurring a fall in long-term interest rates. At a yearly average of 8.57 percent, home values in the Valley increased at about the same pace as last year.

Following the decline in oil prices in the third quarter of 2018, the yearly inflation rate began to decrease and registered 3.35 percent over the 12-month period. However, the price of oil increased the first quarter of 2019, putting further pressure on the inflation rate. Driven by increased oil prices, the rate of inflation is projected to increase in the coming months before settling around the long-term rate of 2.31 percent by the second quarter of 2020.

Meanwhile, wages are not keeping up with inflation. At an annual average growth rate of 3.03 percent, wage growth in the Valley fell behind the inflation rate in 2018, showing a decline in real wages of 0.32 percent. This means that in 2018, Valley consumers were able to purchase fewer goods and services than they did in 2017. A similar pattern of gradual decline in real wages is projected to prevail in the coming two-year interval.

Acceleration in the Valley's total bank deposits slowed in 2018, but remained relatively strong, with deposits growing 8.01 percent in 2018 compared to 8.62 percent in 2017. Bank deposits are projected to grow at a slower pace in the months ahead, which would be consistent with other indicators. Valley bank assets in non-accrual began to increase gradually over the last 12 months, even though there was a decline in the fourth quarter of 2018. The lowest point in assets in non-accrual was attained in the third quarter of 2017. The same pattern prevailed in assets in default 30-89 days and 90-plus days. Along with total deposits, Valley total net loans and leases is a category projected to grow at a slower pace in the next two years.

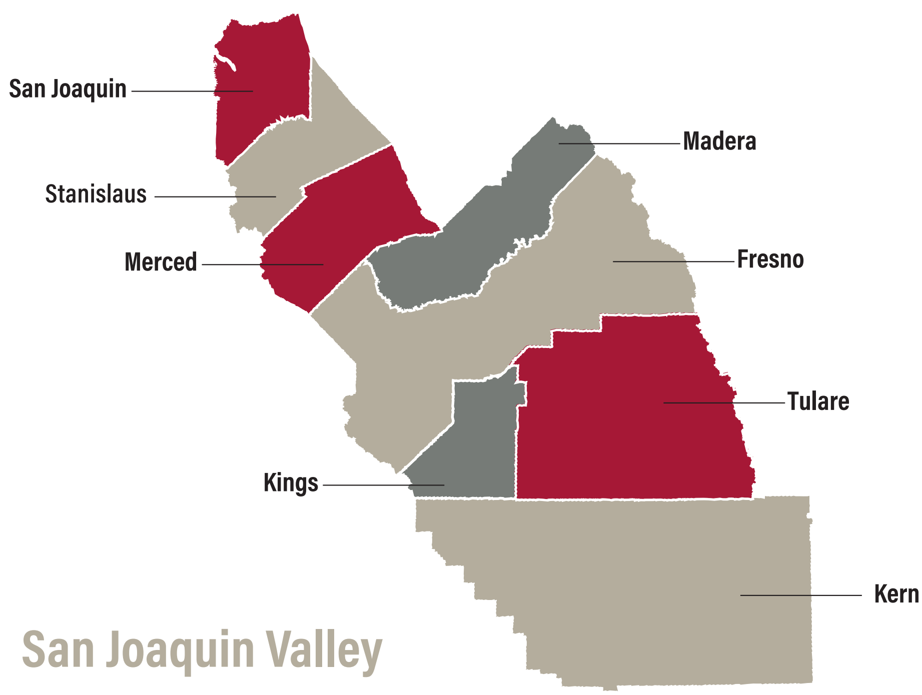
Valley imports, such as cement, steel and liquid fertilizer, continued to decline in 2018 as trade talks between China and the U.S. failed to reach resolution. The resulting retaliation in the form of trade wars negatively impacted exports in the Valley such as almonds, wine, grapes and other produce. The decline in liquid fertilizer imports were due to the end of the drought in 2018. Because the economy is based in agriculture, the Valley stands to lose from trade wars as other regions of the U.S., such as the Steel Belt, stand to gain. Consequently, wealth redistribution effects from the new tariff structure work to decrease real incomes in the Valley in favor of those regions which stand to have income gains as a direct result of these tariffs and retaliation.

Introduction

This year's update examines data from January 2001 to April 2019. Two-year medium-term forecasts are from May 2019 to June 2021. 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.

Because of the institutional capabilities the business forecast project created, we were able to procure three new grants this year, totaling close to $90,000. One of the grants was from the Northern California Chapter of the Appraisal Institute to establish a publicly available online database for real estate and related indicators belonging to San Joaquin Valley. The database is later to be expanded to the Bay Area and other regions of California to serve as a source for researchers and practitioners who wish to study our region relative to other regions in California and the nation. The second grant involves conducting a commuter survey to be directly compared with surveys done in 2000 and 2006 to investigate how commuting behavior has changed over time. The third grant involves undertaking a study to improve economic growth and prosperity in the Copperopolis region and Calaveras County. The ultimate goal is to make Stanislaus State the go-to center in terms of data procurement and research related to the economy of the San Joaquin Valley and other regions of California.

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; a look at the flow of goods through the Port of Stockton and then a conclusion.



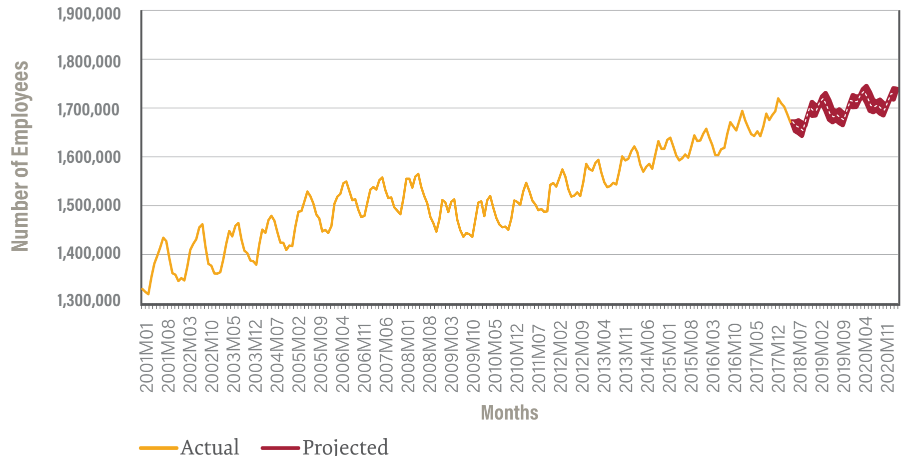
Employment Indicators

Total employment in the Valley grew at the same pace in 2018 as in the previous year. Kings, Madera, Merced and San Joaquin counties reported a slow-down in total employment growth in 2018 compared to a year before, while Kern, Stanislaus and Tulare counties reported a faster rate of growth. Fresno County grew at the same pace as last year. Even though total employment growth slowed for Merced and San Joaquin counties, at 2.44 percent and 2.23 percent, these two counties reported the fastest growth in 2018, while Kings and Kern counties grew at the slowest pace, 1.08 percent and 1.21 percent respectively. Average yearly growth in other counties includes 2.04 percent in Fresno, 2.03 percent in Tulare, 1.31 percent in Stanislaus and 1.43 percent in Madera.

The slowdown in several key categories of employment was more visible in 2018, particularly in education and health services employment growth, which declined from 4.79 to 2.96 percent. Manufacturing employment growth fell from 0.52 percent to 0.25 percent. Leisure and hospitality services employment growth slowed from 2.71 to 1.84 percent. Another continued slowdown occurred in retail trade employment, which went from a 0.71 percent growth rate to 0.34 percent in 2018.

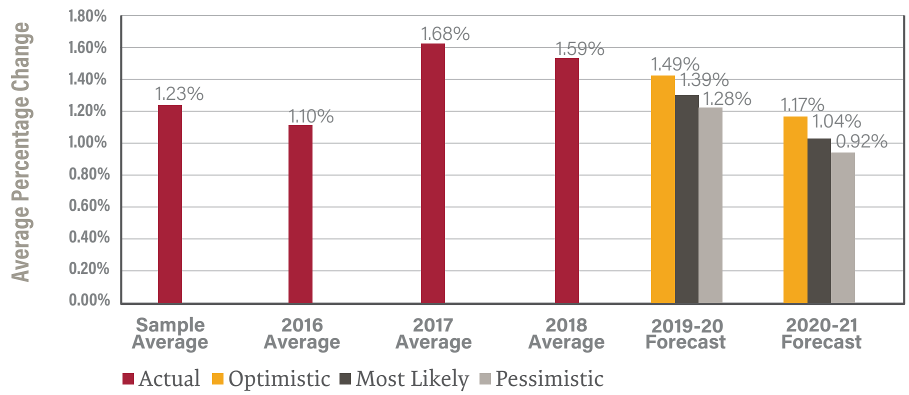
Construction employment growth increased from 5.32 percent to 7.67 percent in 2018, and a faster pace of growth was also observed in wholesale trade employment — from 1.84 percent to 2.91 percent. In 2018, just as there were a greater number of counties that reported a decline in pace of growth, there were more categories of employment that exhibited a slowdown than those that exhibited faster growth.

Total Employment



Total employment in the Valley has exceeded 1.75 million following a seasonal spike in the fourth quarter of 2018. The trend line is expected to reach this number by the first quarter of 2020. Projections point to an average growth of 1.41 percent from the second half of 2019 to the first half of 2020, and 1.29 percent from the second half of 2020 to the first half of 2021.

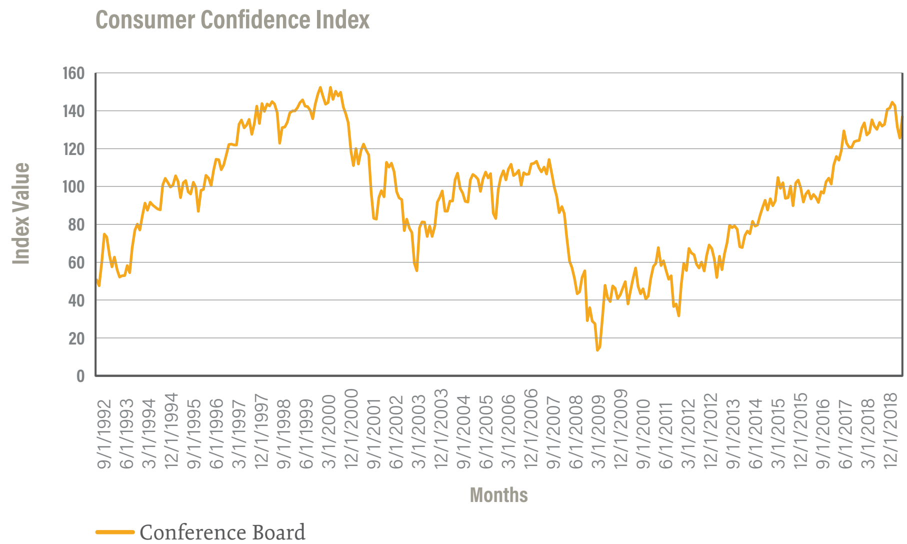
Total Employment: Historical vs. Projected Average Yearly Growth

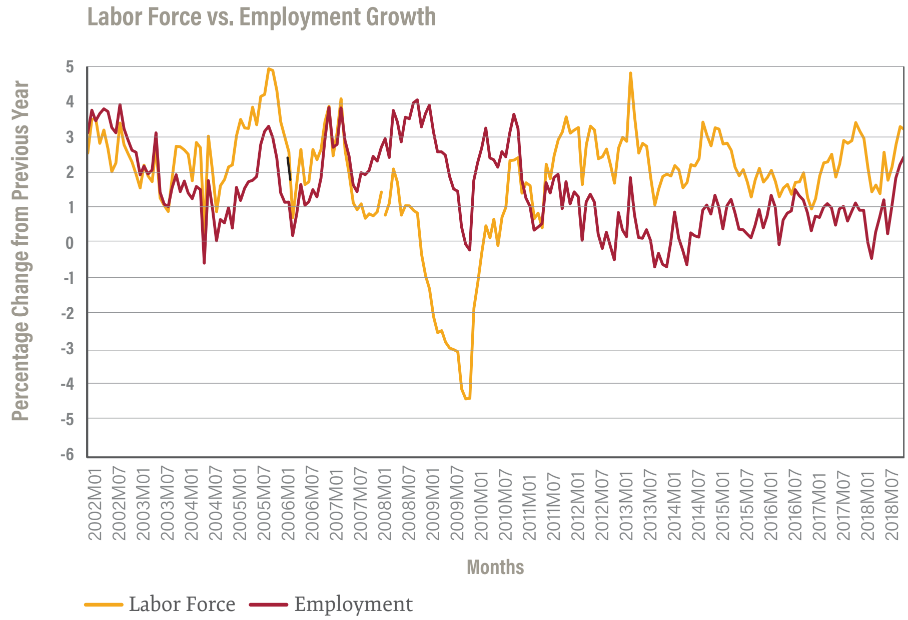


The Consumer Confidence Index tells us how consumers feel about their consumption patterns in the near future. At a steady upward trend, the index registered a turning point in the third quarter of 2018 and started displaying a different pattern than the prevailing upward trend that existed in the earlier months. It appears the consumer index is now displaying a downward and at best a flat trend ▶ consistent with other key indicators, such as the inverted yield curve that happens when short-term rates exceed long-term rates. Yet, two other recession indicators began flashing in 2019; the institutional investors switching their portfolio holdings from stocks to bonds and the value of U.S. household investments as a percentage of GDP peaking in the first quarter of 2019. All of these indicators were dormant in the past several years and all started flashing in the same quarter of 2019.

Valley total employment grew faster than the labor force although the discrepancy between the two series narrowed in 2018 compared to a year before. This pattern is consistent with the view that labor force growth is catching up with employment growth. If the growth in the labor force exceeds employment growth, it would indicate that unemployment rates also would be rising in the Valley. ▶

In 2018, Valley employment growth mainly exceeded that of the state. The Valley's economy is not as developed as the overall economy of the state and there often appears to be a lag between emerging trends in the state and a response in the Valley. Typically, the Valley economy follows the business cycles of the state economy but with a delayed response of about four to six months. Given this pattern between the two series, it would not be surprising to observe lower employment growth numbers in the Valley in the months ahead.





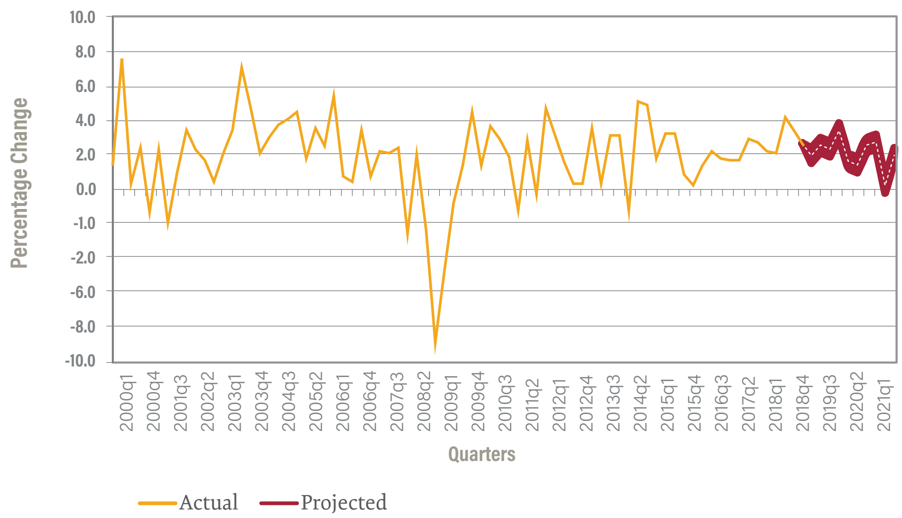
Employment Indicators

Beginning in the first quarter of 2019, an increasing number of leading indicators have begun flashing in the direction of a slowdown. For instance, governing dynamics of the Consumer Confidence Index and Purchasing Managers Index have simultaneously shifted in favor of a cooling economy. Institutional investors have begun to change the composition of portfolios from stocks to an increasing reliance on bonds. Another important indicator of slowing economy, the yield curve, temporarily inverted for the first time since 2006. Real GDP growth forecasts are now scaled back to an average yearly growth rate of 2.13 percent from the second half of 2019 to the first half of 2020 and 1.83 percent from the second half of 2020 to the first half of 2021.

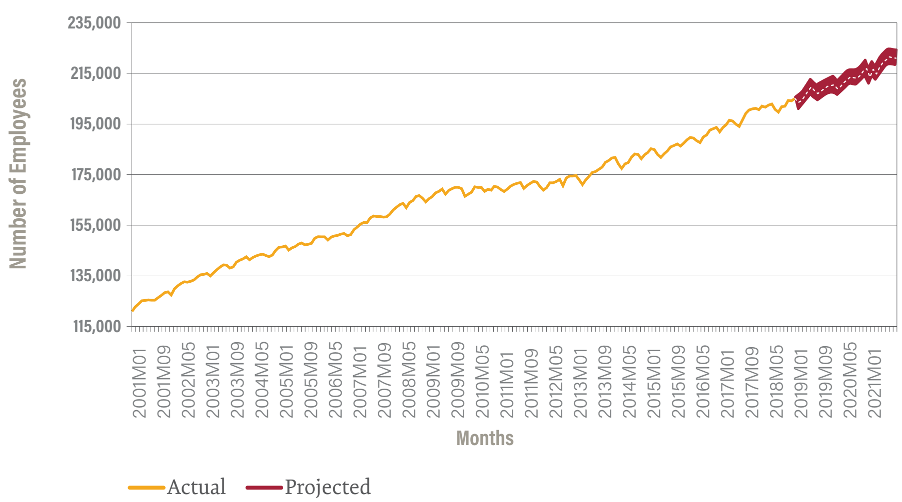
In 2018, education and health services employment grew 2.96 percent. When compared to the 4.79 percent growth rate in 2017, the sharp decline in the pace becomes very clear. As other employment categories adjust to a cooling economy, education employment growth rises above other categories' growth rates particularly during times of slowing economic activity due to the relatively more robust nature of this series. This employment category is not affected as much from business cycles as are other categories.

Education and health services employment registered the second-fastest growth in 2018, after construction employment. Employment in this category is projected to reach 235,000 by the second half of 2020. At 2.96 percent, the 2018 annual average growth rate of education and health services employment fell short of the long-term benchmark growth rate of 3.41 percent. Projections point to average annual growth of 2.87 percent from the second half of 2019 to the first half of 2020 and 2.31 percent from the second half of 2020 to the first half of 2021.

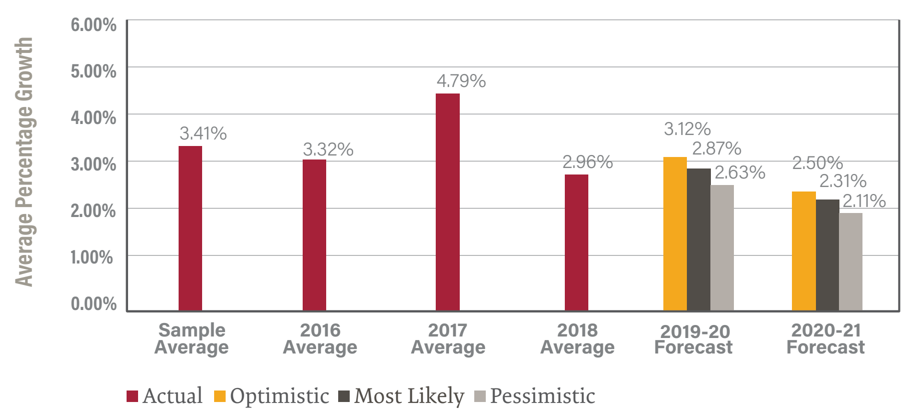
U.S. Real GDP Annual Growth



Education and Health Services Employment



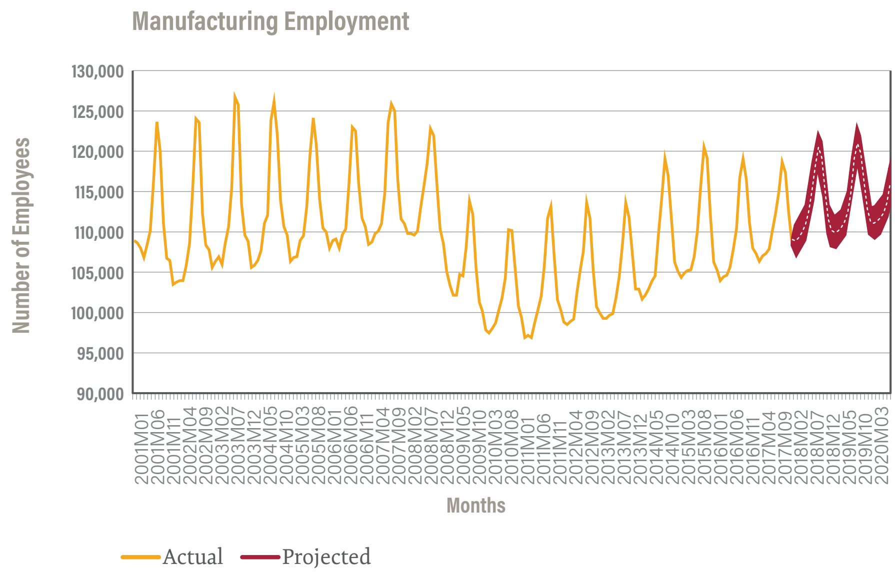
Education and Health Services Employment: Historical vs. Projected Average Yearly Growth

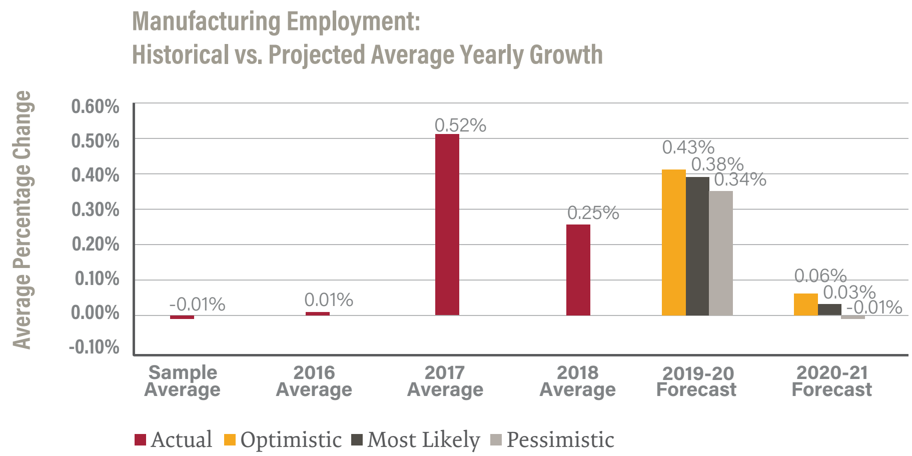


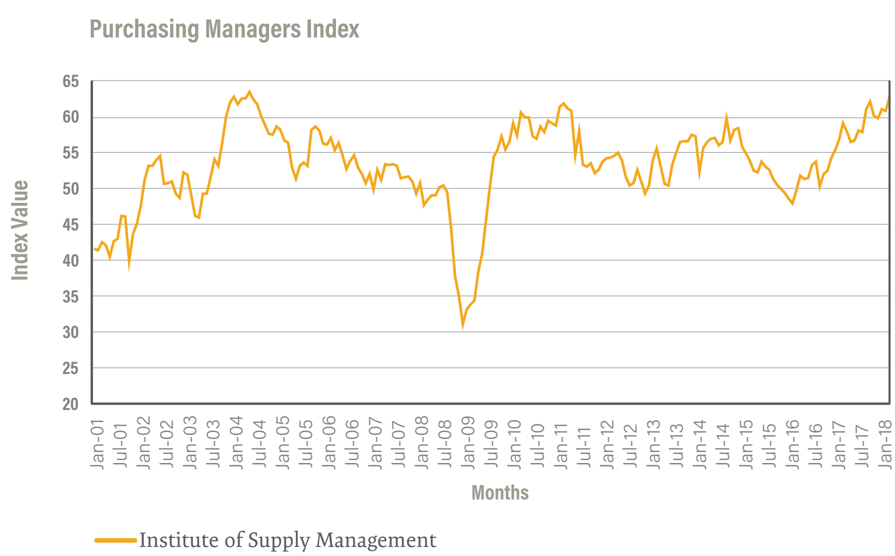
The Valley's manufacturing employment long-term benchmark rate became positive in 2017 for the first time since the end of the recessionary years, and that pattern was maintained in 2018. Manufacturing employment in the Valley displayed the fastest growth since 2015, as more distribution centers opened in counties such as San Joaquin and Fresno. Such dynamics were also consistent with those of the Purchasing Managers Index of the Institute of Supply Management, an important leading indicator in the manufacturing industry.

Manufacturing is another employment category that displays signs of slowing in the Valley and nationwide. The Valley's average annual growth of 0.25 percent in 2018 was half the rate of the 0.52 percent registered in 2017. Valley manufacturing employment is projected to reach 112,500 and oscillate around that level through the second half of 2020. As trade negotiations remain unresolved between China and the United States, the effect of tariffs and retaliation are to be felt more heavily in this sector, with projections pointing to average yearly growth of 0.21 percent through the next two years.

The Purchasing Managers Index of the Institute for Supply Management is a critical leading indicator. Since the second half of 2018, there has been a clear shift in the pattern of this series. After reaching a peak level that had not occurred since 2004, the series clearly began displaying a falling pattern indicative of future slowing economic activity. Following a policy change, there will always be winners and losers in society, and under the new tariff structure, the steel industry on the East Coast stands to gain while the Valley stands to lose because of the resulting retaliation. Subsidies ultimately come out of consumers' pockets, including those who live in the Valley.







Employment Indicators

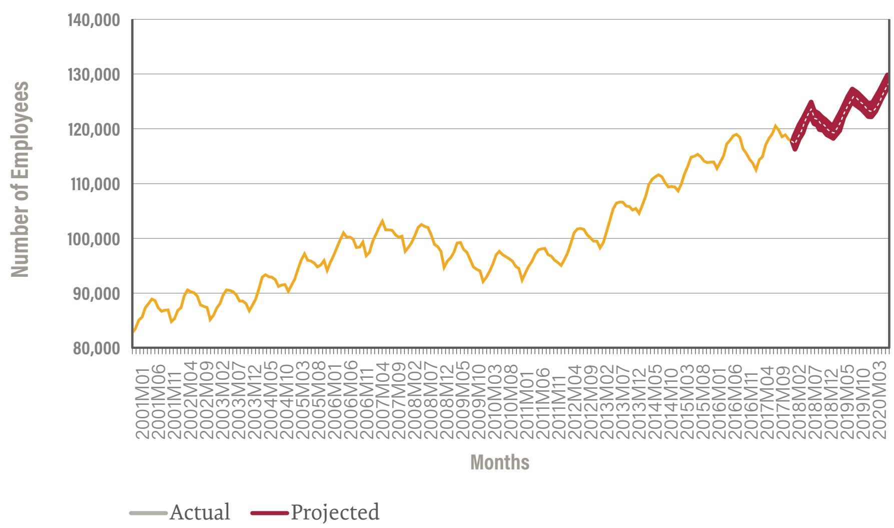
Leisure and hospitality services employment grew 1.31 percent in 2018, which was significantly less than the 2017 growth of 2.71 percent. Consistent with this slowing activity, the series began displaying a concave pattern in 2018. Leisure and hospitality services ▶ employment is expected to reach 130,000 by the first half of 2020. The slowdown statewide was not as significant as the slowdown in the Valley. Because a higher proportion of Valley consumers' income is spent on leisure and hospitality services, the demand for these services is generally more susceptible to changes in interest rates and prices.

The long-term benchmark growth for leisure and hospitality services employment stands at 2.17 percent. Employment in this category grew less than this benchmark rate in 2018 for the first time since 2015. Leisure and hospitality services employment moved down from the second-fastest growing category to the fifth from last. Projections point to an average annual growth of 1.59 percent in the next two-year interval. ▶

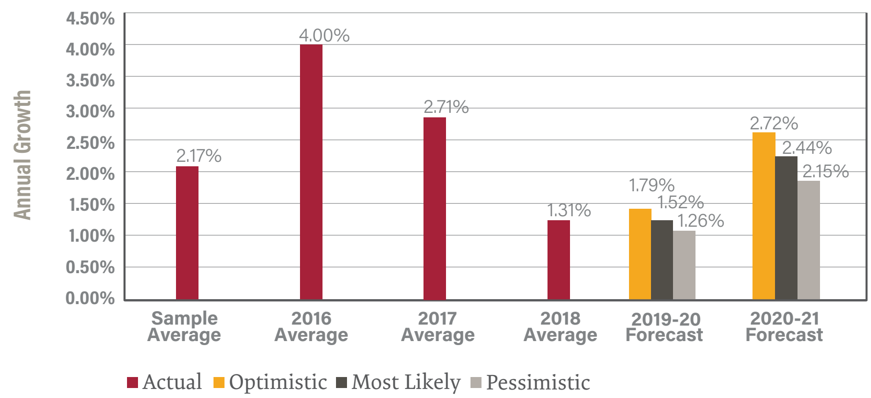
TRADE, TRANSPORTATION AND UTILITIES EMPLOYMENT WAS THE THIRD-FASTEST GROWING CATEGORY IN 2018

Trade, transportation and utilities employment maintained its standing as the third-fastest growing category in 2018. Employment levels in this category are projected to exceed 300,000 by the first half of 2020. Growth in 2018 and 2017 were almost identical at 2.30 percent. In both of these years the average annual growth was higher than the long-term benchmark growth of 1.70 percent. ▶

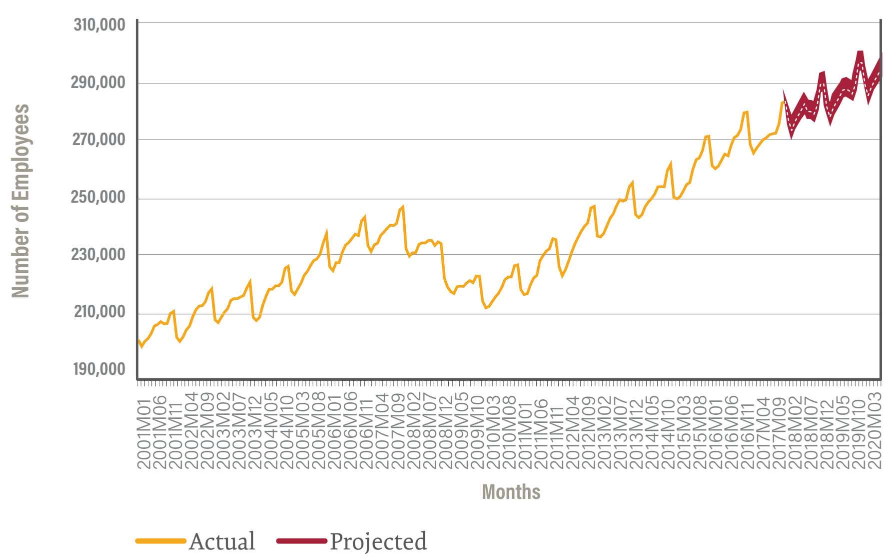
Leisure and Hospitality Services Employment



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



Trade, Transportation and Utilities Employment



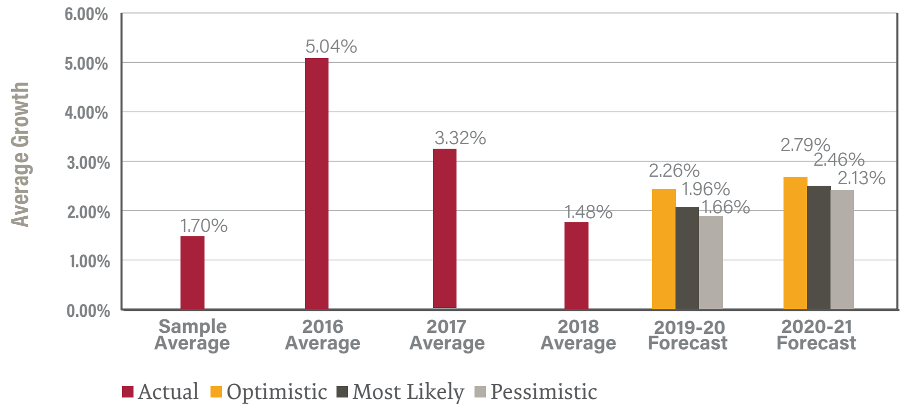
Growth in transportation and utilities employment in the state and nation was faster than growth in the Valley in 2018. There appears to be an ongoing shortage of truck drivers that keeps employment growth numbers in this category relatively high. Projections point to an average yearly growth of 2.14 percent from the second half of 2019 to the first half of 2020 and 1.98 percent from the second half of 2020 to the first half of 2021. In both intervals, projections point to a pace of growth higher than the typical growth of 1.70 percent.

GROWTH IN RETAIL TRADE EMPLOYMENT GRADUALLY SLOWED FROM YEAR TO YEAR

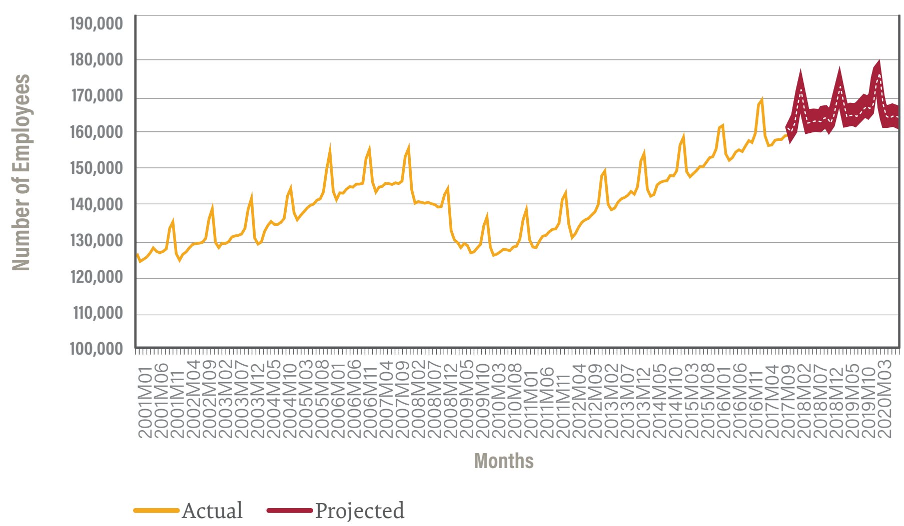
In earlier years, growth in retail trade employment was as high as the second-fastest sector in the Valley, but as interest rates climbed upward, growth in retail trade employment gradually slowed from year to year. The growth rate of 0.34 percent in 2018 was half the growth of 2017, which was 0.71 percent. Growth in 2018 came in second-from-last, pointing to the extent of the slowdown in this category of employment. At this very slow pace, the trend in total retail trade employment is not expected to exceed 160,000 in the next two-year interval.

The average yearly growth of retail trade employment in 2017 was 0.71 percent, lower than the 1.22 percent benchmark growth rate. Statewide growth in this category of employment surpassed the Valley's rate. Retail trade is one of the most vulnerable sectors to increases in interest rates, and Valley trade employment is more sensitive to interest rate increases than the state and the nation. Projections point to stagnant behavior of -0.03 percent average annual decline in the next two-year interval.

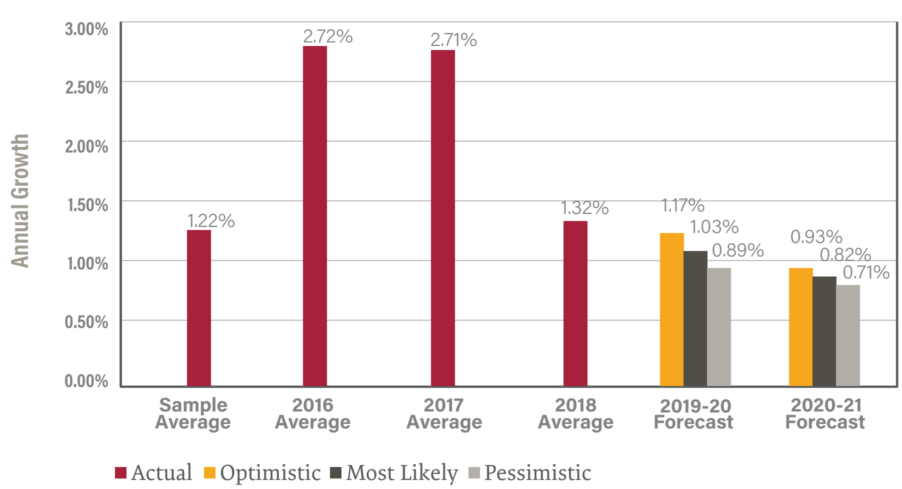
Trade, Transportation and Utilities Employment: Historical vs. Projected Average Yearly Growth



Retail Trade Employment



Retail Trade Employment: Historical vs. Projected Average Yearly Growth



Employment Indicators

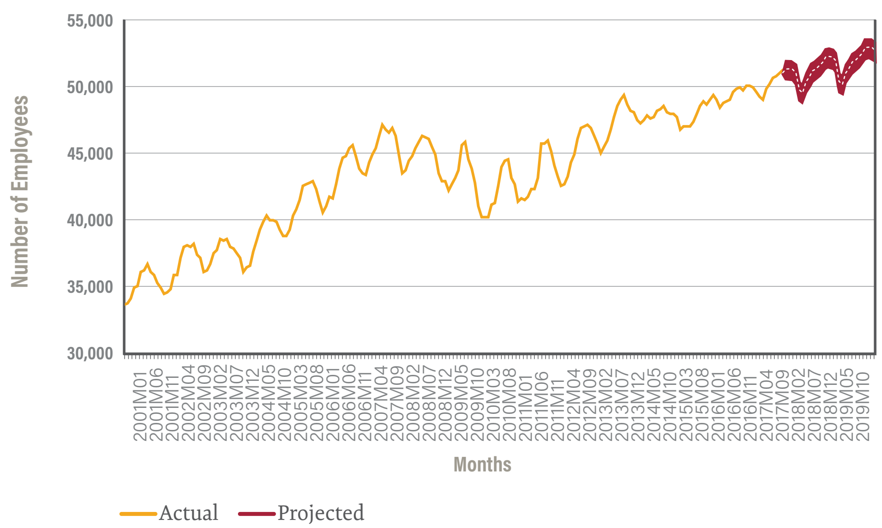
As the drought years gradually came to an end, the dynamics of Valley wholesale trade employment began to change. During the drought, wholesale trade employment was one of the slowest-growing categories of employment, even growing less than retail trade employment. This trend is contrary to the historical pattern in which wholesale trade growth tends to exceed retail trade growth. With the end of the drought, wholesale trade employment once again began to grow faster than retail trade employment. ▶

Wholesale trade employment was one of the few categories of employment that grew faster in 2018 than 2017. Wholesale trade employment is projected to pass 50,000 by the second half of 2020. A growth rate of 2.91 percent in 2018 was faster than the long-term benchmark growth rate of 2.01 percent. Although the drought has officially ended, more storage is needed to overcome water problems in the long-run. Two-year projections point to an average annual growth of 1.64 percent in wholesale trade employment. ▶

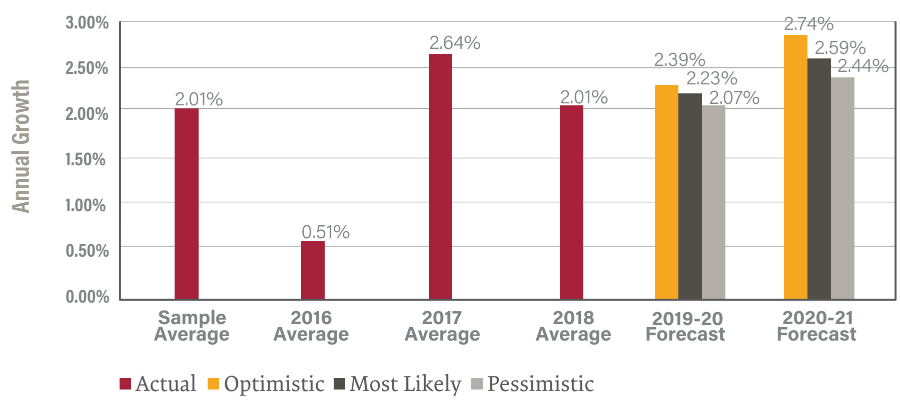
VALLEY INFORMATION EMPLOYMENT CONTINUED TO DECLINE IN 2018

Valley information employment continued to decline in 2018, but the decline was not as steep as in 2016 and 2017. Information employment declined by 1.05 percent in 2018. The decline in 2016 and 2017 was 6.32 percent and 4.18 percent. Employment levels in this category are expected to oscillate around 10,000 in the coming months. Although information employment grew statewide, consistent with the ▶ activity observed in the Valley, there was a nationwide decline in information employment in 2018.

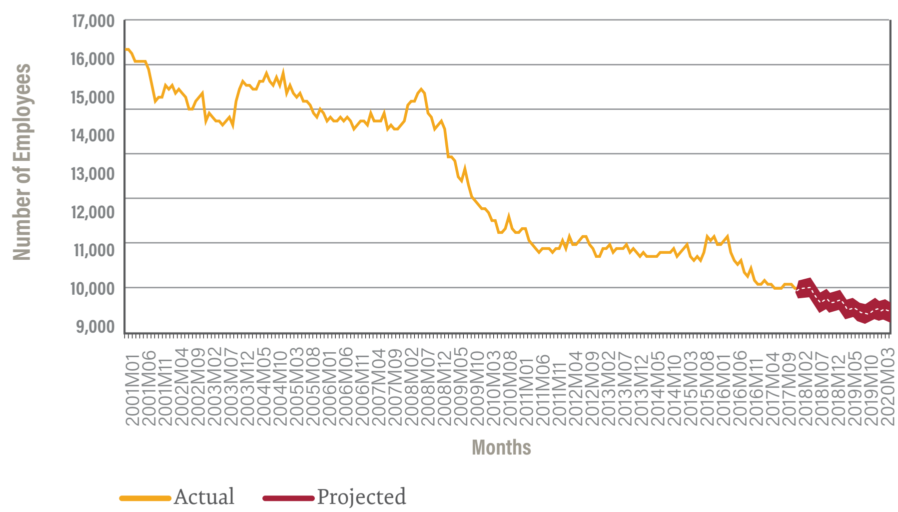
Wholesale Trade Employment



Wholesale Trade Employment:
Historical vs. Projected Average Yearly Growth



Information Employment



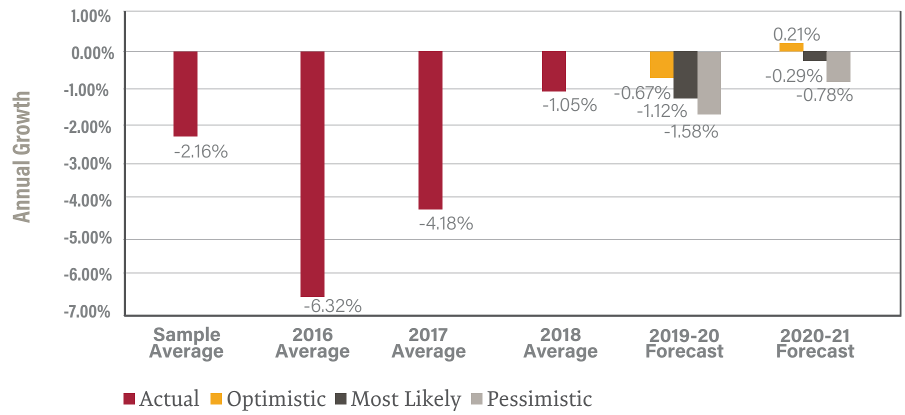
Valley information employment growth of -1.05 percent in 2018 came above the long-term benchmark rate of -2.16 percent for the first time since 2015. The decline in this series has slowed quite significantly in 2018, but more improvement is needed on a consistent basis for the growth rates to switch from negative to positive territory. Projections point to a slower decline of -0.79 percent in the coming two-year interval. ▶

THE VALLEY'S GROWTH IN CONSTRUCTION EMPLOYMENT WAS FASTER THAN BOTH THE STATE AND NATION

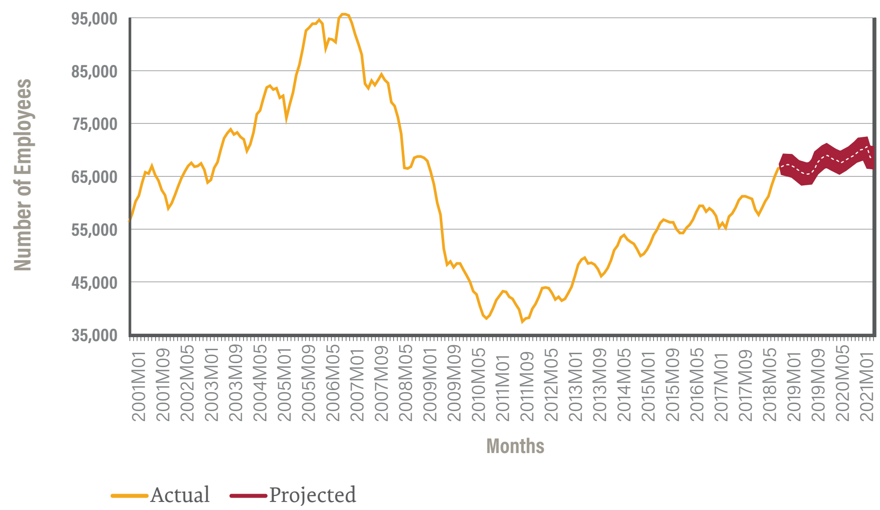
Construction employment picked up speed later than most indicators when the recession ended and continues to lag behind the current state of the regional economy. In 2018, construction employment continued to be the fastest-growing category of employment in the Valley. The annual average growth of construction employment reached 7.67 percent, more than sevenfold ▶ the long-term benchmark rate of growth. Employment levels in this category are expected to exceed 75,000 by the second half of 2019.

The Valley's growth in construction employment was faster than in both the state and nation. Low inventory, along with attractive home values here in the Valley relative to the Bay Area, keeps demand for housing vibrant. Added to this is the recent decline in the long-term rates resulting from a pause by the Federal Reserve on rate hikes. Projections point to an average annual growth of 5.52 percent from the second half of 2019 to the first half of 2020 and 3.37 percent from the second half of 2020 to the first half of 2021. ▶

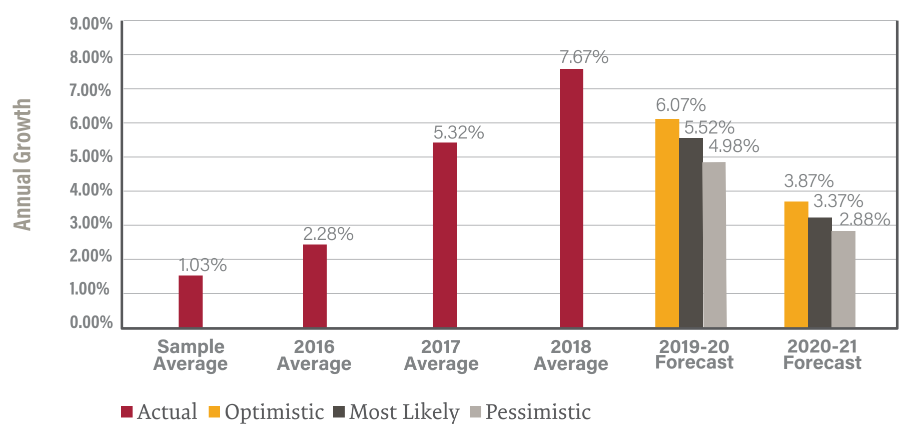
Information Employment: Historical vs. Projected Average Yearly Growth

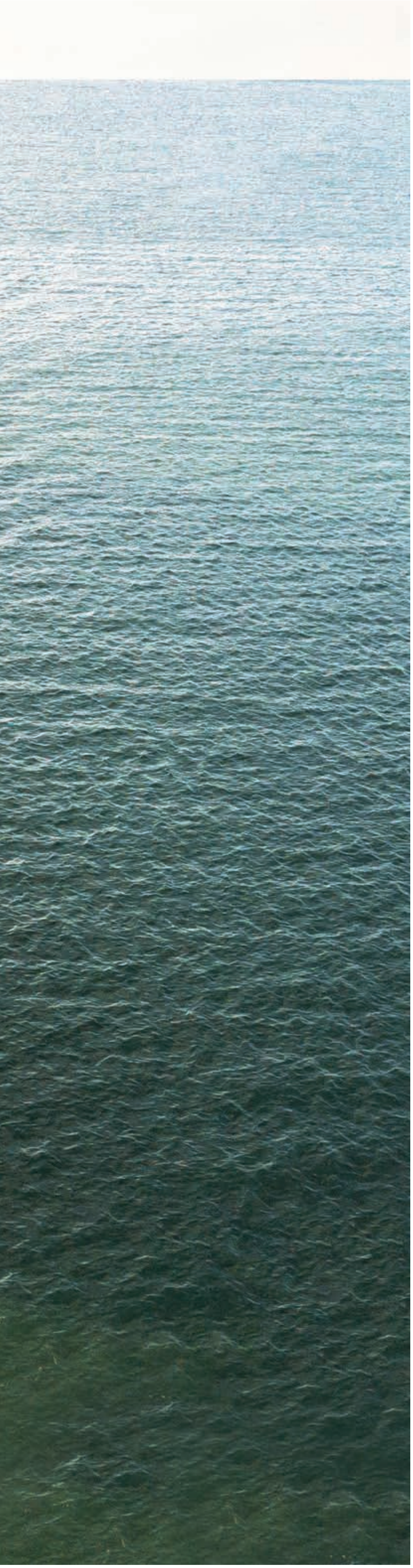


Construction Employment



Construction Employment: Historical vs. Projected Average Yearly Growth





Employment Indicators

Government employment is another lagging indicator in the Valley. Government employment is projected to reach 305,000 by the first half of 2020. After several years of accelerating growth, government employment grew at a slower pace in 2018 than the year before. Government employment is an important category of employment in the Valley since it makes up 20 percent of the Valley's overall employment, significantly contributing to the regional economy.

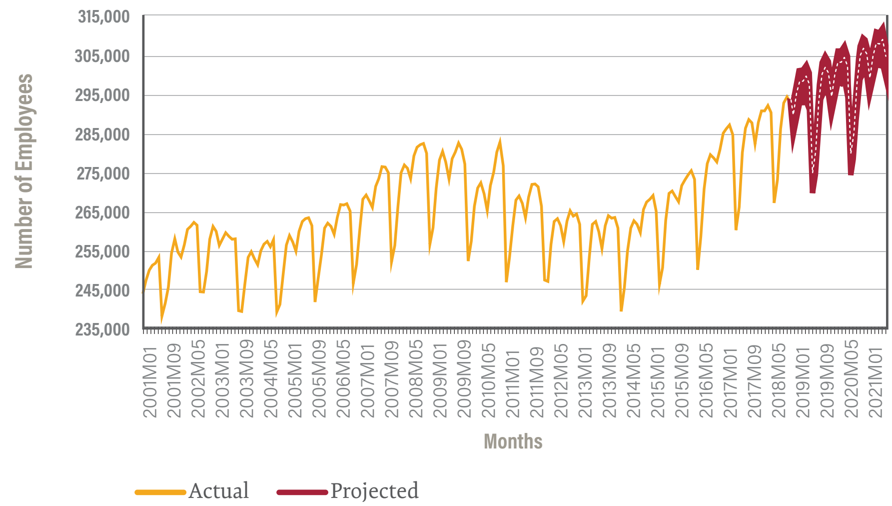
20%

GOVERNMENT EMPLOYMENT AS A PERCENTAGE OF OVERALL VALLEY WORKFORCE

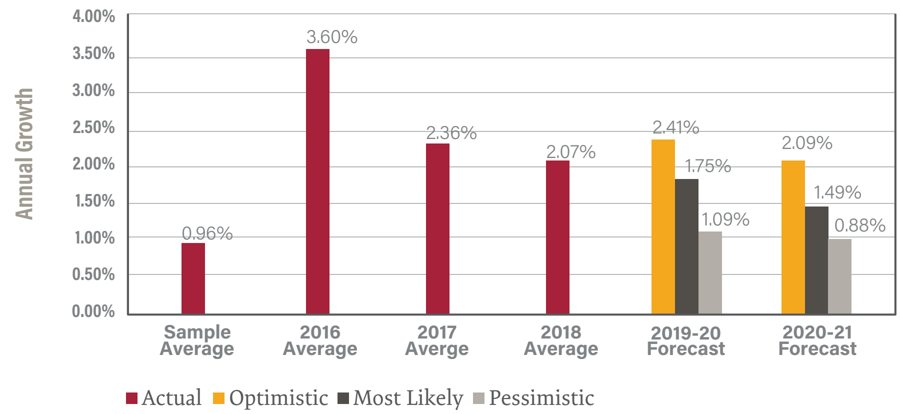
Growth in government employment was slower in 2018 than 2017, but 2018 growth remained faster than the typical long-term growth of 0.96 percent. This was also the case for 2016 and 2017, consistent with a variable that tends to lag when most indicators report yearly growth below the long-term benchmark. Projections point to an average yearly growth of 1.62 percent over the next two years.

Valley financial activities employment grew 1.03 percent in 2018, slower than the 1.40 percent growth in 2017. In both years, however, yearly growth was faster than the long-term benchmark rate of -0.13 percent. Refinancing activity, along with home buying, peaked as long-term interest rates started coming down again following the pause of rate hikes on the part of the Federal Reserve.

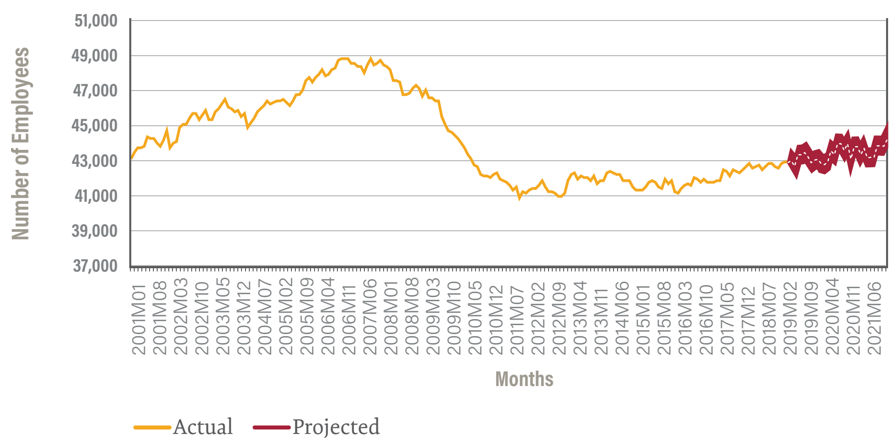
Government Employment



Government Employment:
Historical vs. Projected Average Yearly Growth

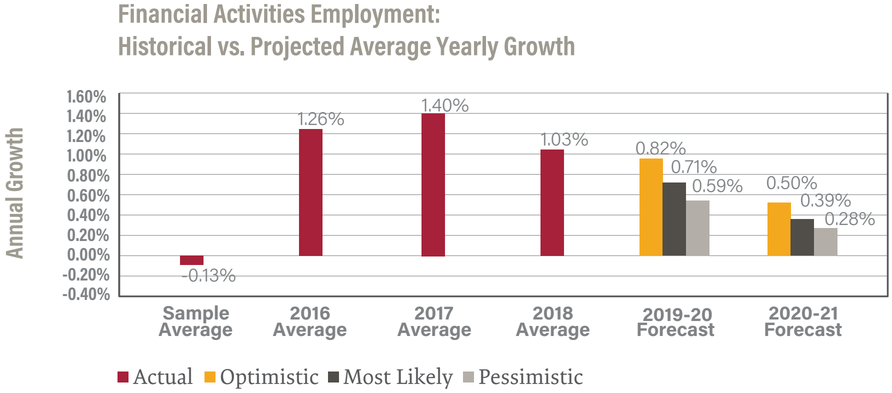


Financial Activities Employment



Financial activities employment is projected to exceed 43,000 by the first half of 2020. The long-term benchmark rate continued to increase in 2018 but failed to switch from negative to positive territory. At this slower speed of growth, it might take more than a year for the financial activities employment long-term benchmark rate to switch to the positive territory.

In line with a cooling economy, employment in financial activities is projected to grow slower, at an average annual rate of 0.55 percent in the coming two-year period.



Several important slowdown indicators began flashing simultaneously, and for the first time in a long while, in the first quarter of 2019. There was a greater number of employment categories displaying slowing growth in the Valley relative to the year before. This was also true for most of the eight counties of the San Joaquin Valley in 2018. Despite the slower pace of growth, Merced and San Joaquin counties, at 2.44 percent and 2.23 percent respectively, reported the fastest growth in 2018, while Kings and Kern counties grew at the slowest pace, at 1.08 percent and 1.21 percent respectively. Construction employment grew the fastest, followed by wholesale trade employment in the Valley. Information employment again was the only category that posted a decline in employment, but the decline was much less than previous years.

Housing Sector

As in previous reports, San Joaquin Valley's eight Metropolitan Statistical Areas (MSAs); Fresno, Bakersfield-Delano, Hanford-Corcoran, Madera-Chowchilla, Merced, Modesto, Stockton and Visalia-Porterville are analyzed for consistency. The data from these MSAs are aggregated to arrive at the overall number of single-family building permits issued in the Valley.

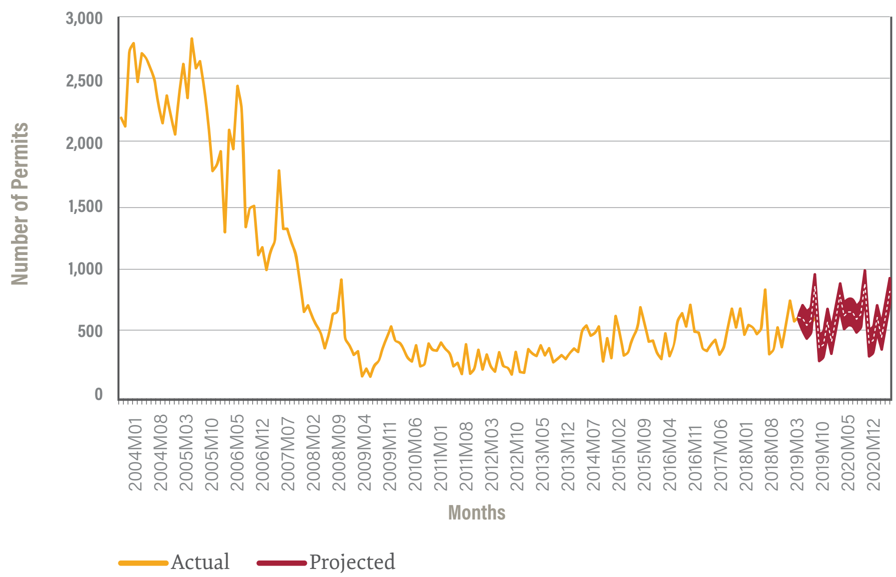
The spike in growth of 13.50 percent that occurred in 2018 was the fastest growth in building permits in the past several years. However, consistent with the historical behavior of the series, 2019 growth in single family building permits is naturally expected to be much slower. Valley housing permits are expected to exceed 700 per month by the end of the first half of 2020.

Merced issued 250 permits in 2018, as opposed to 172 in 2017. Stockton issued 1,923 against 1,670 in 2017. Madera issued 462 housing permits in 2018, up from 389 the year before. With 2,193 single-family building permits issued in 2018 and 1,900 in 2017, Fresno came in first, followed by Stockton and Bakersfield. Bakersfield issued 2,046 housing permits in 2018. Visalia issued 1,201 housing permits, slightly more than the 1,138 issued in 2017. Modesto issued only 50 permits, compared to 27 a year before. Hanford-Corcoran MSA did not issue any building permits in both of these years. Projections point to average annual growth of 2.31 percent in the coming two-year interval.

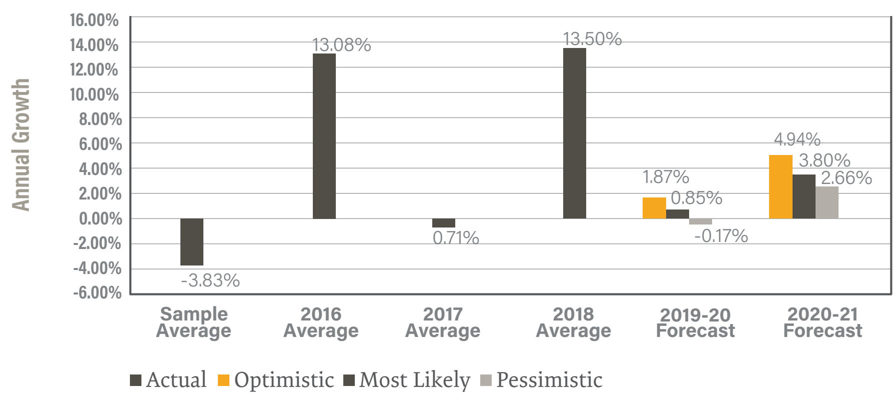
NEW FORECLOSURE FILINGS IN CALIFORNIA CONTINUE TO REMAIN AT VERY LOW LEVELS

The number of new foreclosure filings in California continues to remain at very low levels, particularly after the Federal Reserved halted rate hikes pending the state of the national economy. Undoubtedly, unemployment rates at historic lows contribute significantly to minimum levels of foreclosures. There will, however, likely be a turning point in foreclosures rising as the economy cools further in the coming months, after which the series will begin to display an increasing pattern.

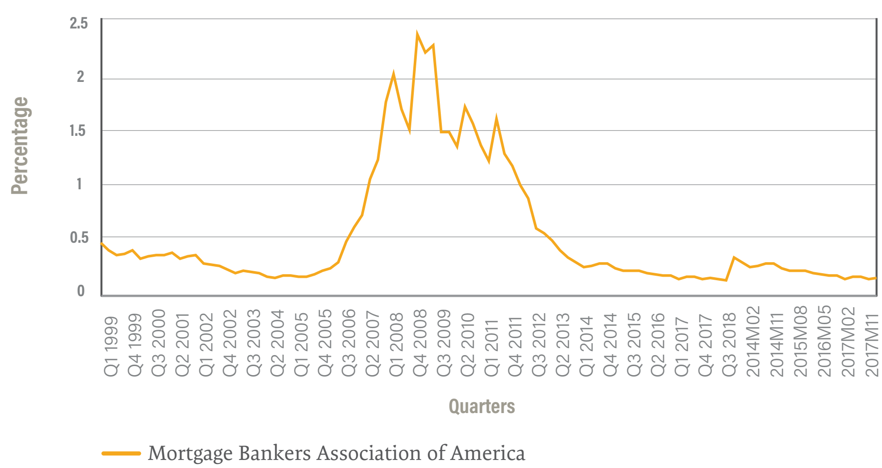
Single-Family Building Permits



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



Foreclosure Starts in California



Thirty-year rates have begun to come down after almost reaching the critical 5 percent rate, and the major reason was the Federal Reserve's decision to pause rate hikes temporarily. Refinancing and home buying activity increased as a result of decreasing long-term rates. With the fall in the price of oil in the second half of 2018, the inflation rate began to decrease. Similiarly, as the price of oil started to trend upward again beginning with the first quarter of 2019, it put upward pressure on the inflation rate. Higher inflation rates may prompt the Federal Reserve again to resort to rate hikes.

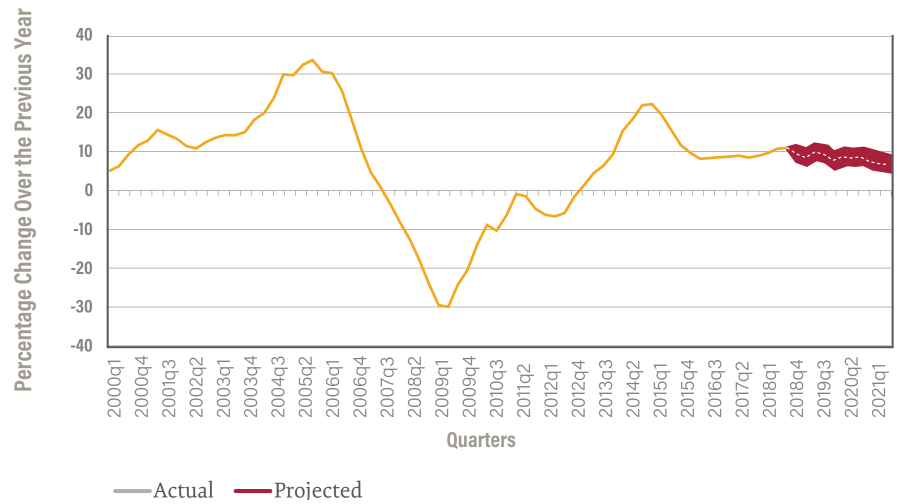
Home values in the Valley increased at nearly the same rates in 2018 as in 2017 — 8.57 percent in 2018 and 8.16 percent in 2017. The shortage in housing inventory, along with the recent fall in long-term interest rates, contributes to the increase in home prices in the Valley. Appreciation in home values is projected to slow a little but continue to increase over the coming months.

The fastest increases in home prices were observed in Madera and Merced at 10.21 and 10.16 percent respectively. Modesto, at 9.76 percent, and Stockton and Lodi, at 9.71 percent, were the next two MSAs with the fastest increases in 2018. Home prices increased at the slowest pace in Hanford-Corcoran and Bakersfield at 5.41 percent and 6.30 percent in 2018. In Fresno, home prices increased by 8.54 percent while Visalia-Porterville home values increased by 6.42 percent. Madera saw a 9.41 percent increase in home prices. Valley home values are projected to increase at an average annual rate of 5.65 percent in the next two years, in line with the long-term benchmark rate of growth.

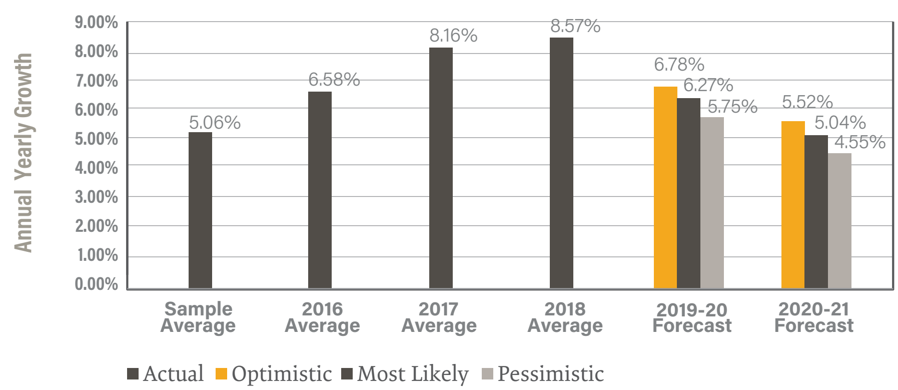
If the expectation of "soft landing" the economy (cooling the economy without dipping into a recession) materializes, there will likely be no further rate hikes. The rising price of oil since the first quarter of 2019 is putting added pressure on the overall price level and at the moment is a worry for the Fed. Indeed, further rate hikes along with increasing oil prices may overshoot the goal and usher-in a recession rather than a create a soft landing.

30-Year Fixed Rate

Yearly Percentage Change in Housing Prices



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



Inflation and Prices

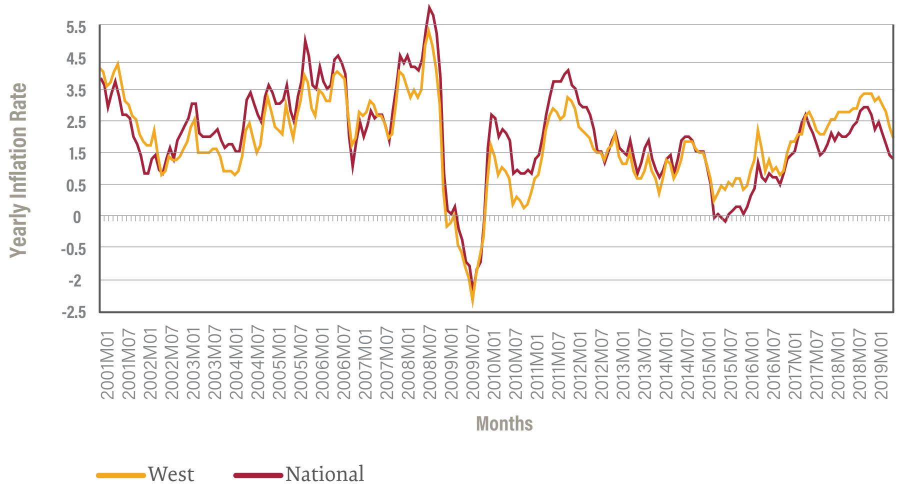
The yearly rate of inflation came down from 3.6 percent in July 2018 to 2.4 percent in February 2019. The fall in the rate of inflation was one of the main reasons behind the Federal Reserve's decision to halt interest rates temporarily, pending the future course of the national economy.

THE RATE OF INFLATION IN THE WEST CONTINUED TO REMAIN ABOVE THE NATIONAL RATE IN 2018

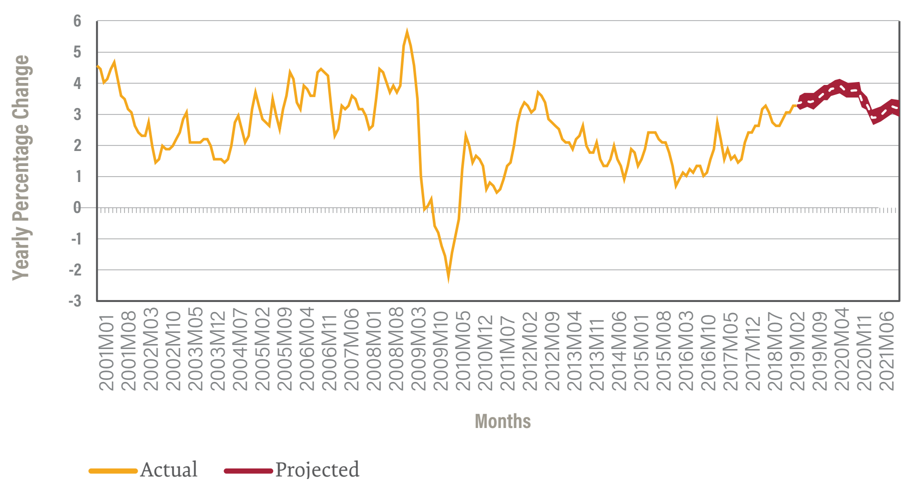
The rate of inflation in the West continued to remain above the national rate in 2018. Such a pattern of higher inflation rates in the West has been observed since the third quarter of 2014. Price stability appears to have been achieved by the Federal Reserve for now, and if the economy is able to avert a recession in the coming years the objective of creating a soft landing on the part of the Federal Reserve will have been met.

The average yearly rate of inflation in 2018 was 3.35 percent, or about 1.01 percent above the long-term benchmark rate of 2.31 percent. The inflation rate has been coming down since the third quarter of 2018, and the average reading for the first quarter of 2019 was 2.73 percent. As the price of oil continues to increase in 2019, overall price increases in the West are likely to remain above the long-term benchmark rate.

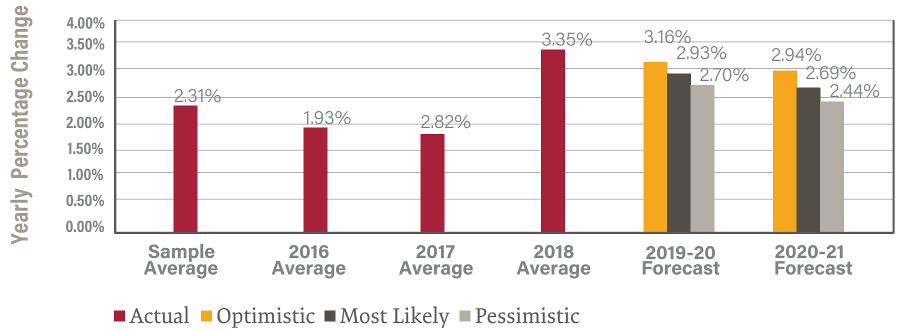
Inflation Rate: Nationwide vs. West



U.S. West Inflation Rate



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



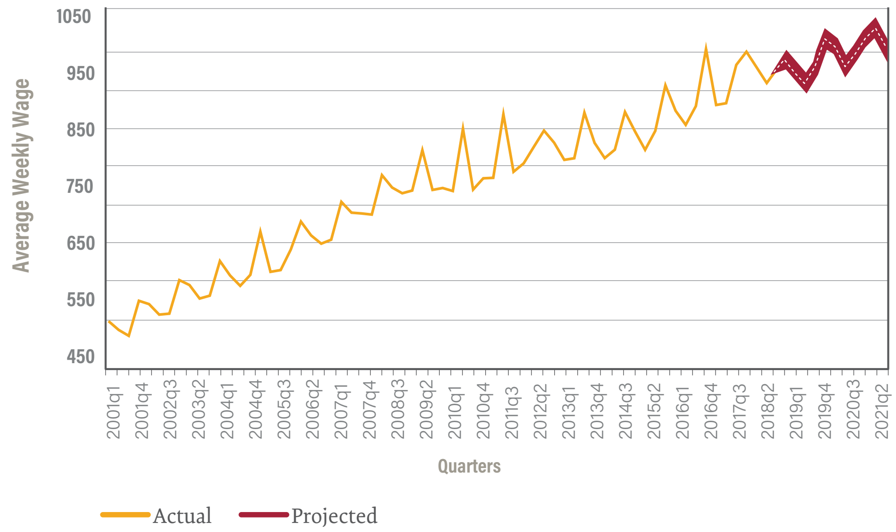
For the past two years, the rate of inflation is coming in higher than the long-term benchmark rate. Thus, the Valley consumer is likely to feel a further decline in their purchasing power in the months ahead. Projections point to average yearly inflation of 2.75 percent from the second half of 2019 to the first half of 2020 and 2.52 percent from the second half of 2020 to the first half of 2021. ▶

Average weekly wages rose 3.03 percent in 2018, faster than 2.59 percent in 2017. Wage pressures coming from the cost-push side have not subsided as of 2018. In both 2017 and 2018 wage increases were faster than the long-term benchmark rate of 2.83 percent. As the rate of inflation continues to decrease, wages are projected to grow at a slower pace in the coming months. ▶

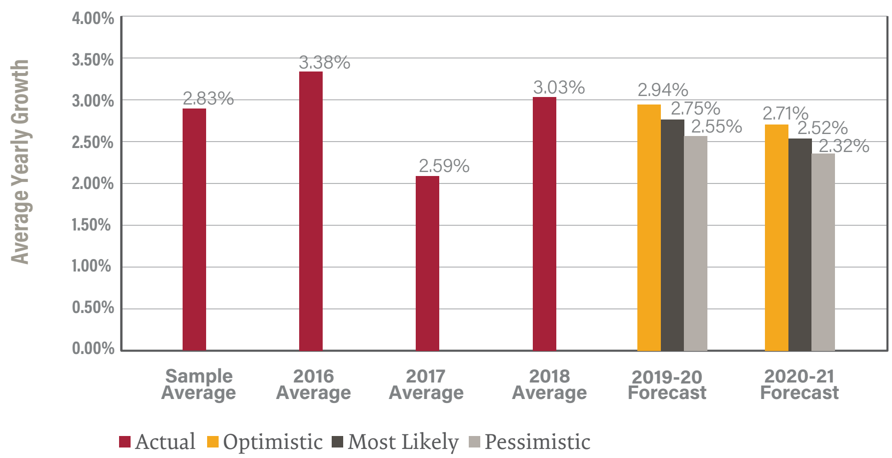
Despite unemployment rates being at historic lows, wages have not been increasing any further to reflect tight conditions in the labor market. However, the median number of weeks people have remained unemployed has been increasing recently, signaling that individuals are not finding jobs as easily as before. In line with historical patterns, wages are projected to grow more slowly than the inflation rate in the coming months. Projections point to an increase in average weekly wages at an annual rate of 2.63 percent in the coming two-year interval. ▶

Once again in 2018, the rate of inflation surpassed the increase in wages. Wages increased 3.03 percent in 2018 but trailed the 3.35 percent inflation rate. The resulting discrepancy corresponded to a loss of purchasing power on the part of the Valley consumer of about 0.32 percent. Projections of the inflation rate and wages point to a continuation of this trend of gradual loss in purchasing power.

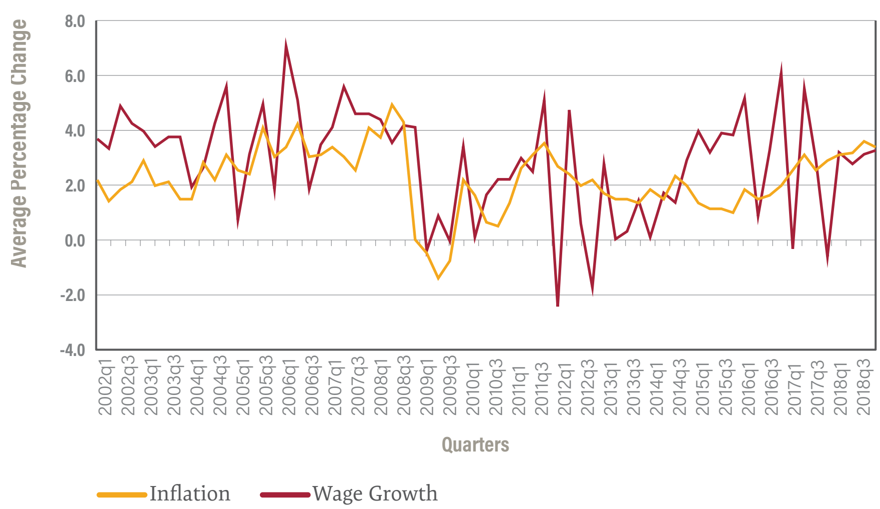
Quarterly Average Weekly Wages



Weekly Wage Growth: Historical vs. Projected Average Yearly Growth



Yearly Wage Growth vs. Inflation



Banking and Capital Markets

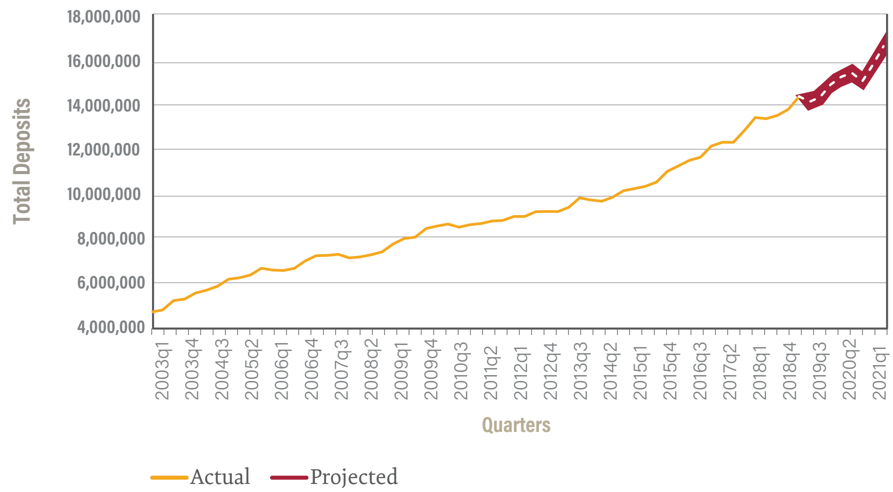
Community bank deposits grew 8.62 percent in 2018, faster than the 2017 growth of 8.01 percent, mostly reflecting the impact of rate hikes in the first three quarters of 2018. In both 2017 and 2018 the growth in total bank deposits surpassed the typical growth of 7.39 percent. Since rate hikes are temporarily halted by the Federal Reserve, total deposits are likely to increase at a slower rate in the months ahead.

THE TAX CUTS SHOULD HAVE A POSITIVE IMPACT ON THE GROWTH RATE OF COMMUNITY BANK TOTAL DEPOSITS

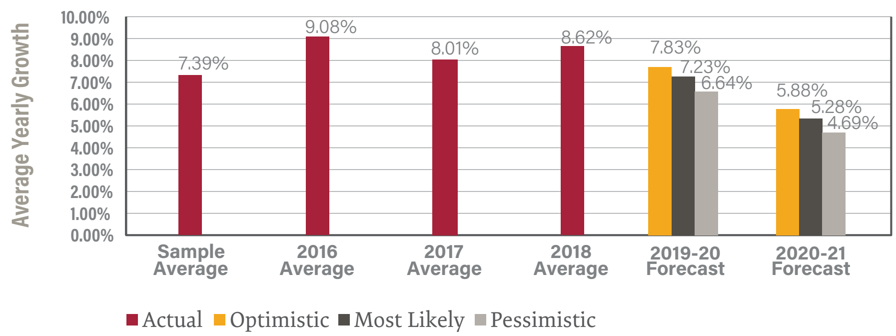
The tax cuts should have a positive impact on the growth rate of community bank total deposits in the Valley, but the slowing economy is expected to dampen the rate of growth in total bank deposits along with the pause in rate hikes. Community bank deposits in the Valley are projected to increase at an average annual rate 6.25 percent in the next two years.

The turning point reached at the third quarter of 2017 in bank assets in non-accrual continues to be permanent. The decrease observed since the last quarter of 2018 was the result of the pause in rate hikes favorably affecting the long-term interest rates. However, the trend of the bank assets in non-accrual series appears to continue to slope upward since the all-time low point reached in the third quarter of 2017.

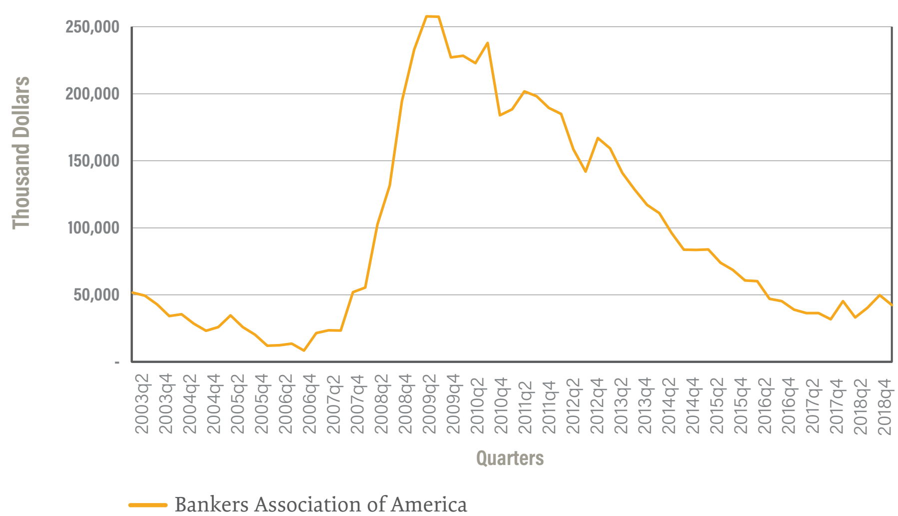
Total Bank Deposits (in $ Thousands)



Total Bank Deposits:
Historical vs. Projected Average Yearly Growth



Assets in Nonaccrual



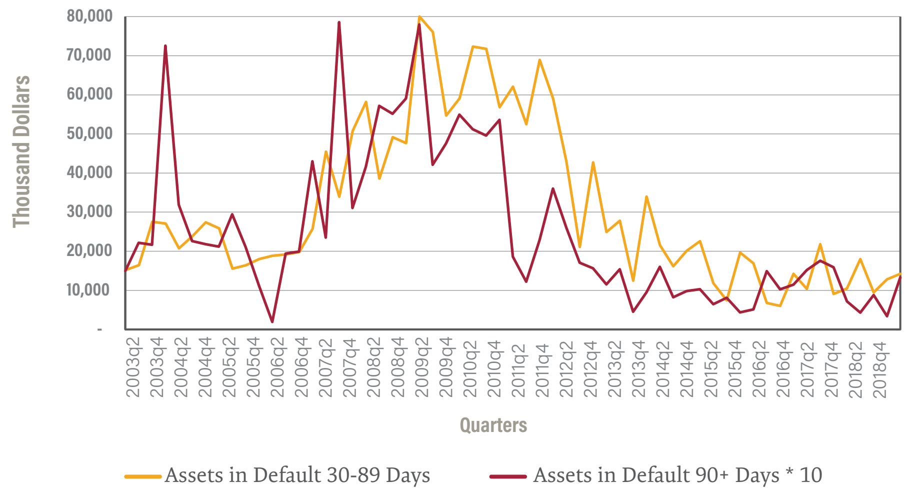
A consistent pattern is observed in assets in default 30-to-89 days, but more significantly than assets in non-accrual. Assets in default 90-plus days appears to have the same steep trend upward as the assets in default 30-to-89 days. Assets in default 90-plus days have already exceeded 16,000 and assets in default 30-to-89 days have exceeded 24,000 on the vertical axis.

Net loans and leases grew at a much faster rate than total bank deposits in 2018. Banks began extending loans much later when the recession ended and it appears that net loans and leases is following the economy with a lag of about one year. Because banks are lending at a faster rate than they are taking in deposits, net loans and leases growth is expected to slow in the coming months. The increase in net loans and leases at 13.60 percent is not sustainable given that the increase in total bank deposits is 8.62 percent.

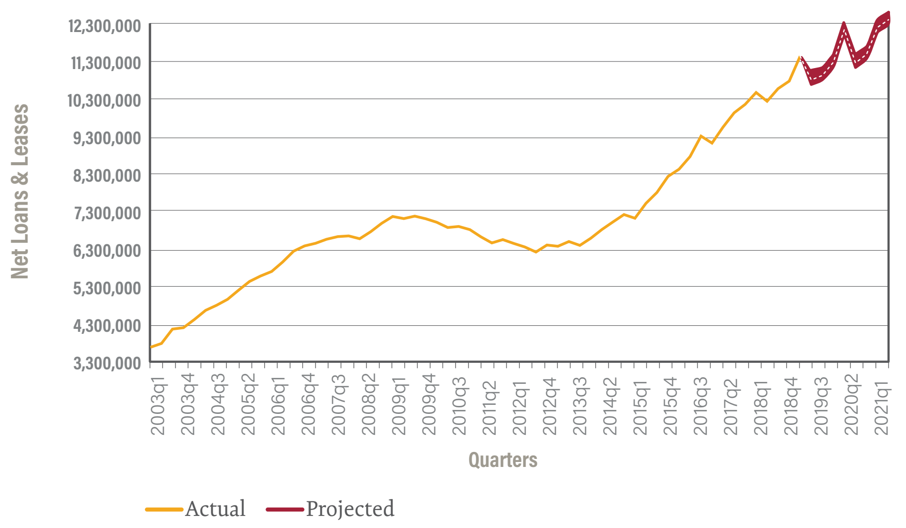
In 2018, banks in the Valley extended loans that far exceeded their deposits. Valley banks have therefore used their reserves to extend these loans at higher rates to increase their profitability. In the coming months, in line with a cooling economy, both deposits and loans will likely grow near historical benchmark rates. Projections point to an increase in net loans and leases at an average yearly rate of 9.10 percent in the next two-year interval.

Long-term interest rates have fallen, following the pause in rate hikes. Higher default rates will likely persuade bankers to become more prudent in extending loans in the near future. Consequently, the increase in net loans and leases is likely to become consistent with the increase in total bank deposits — both growing at rates more in line with the long-term benchmark rates.

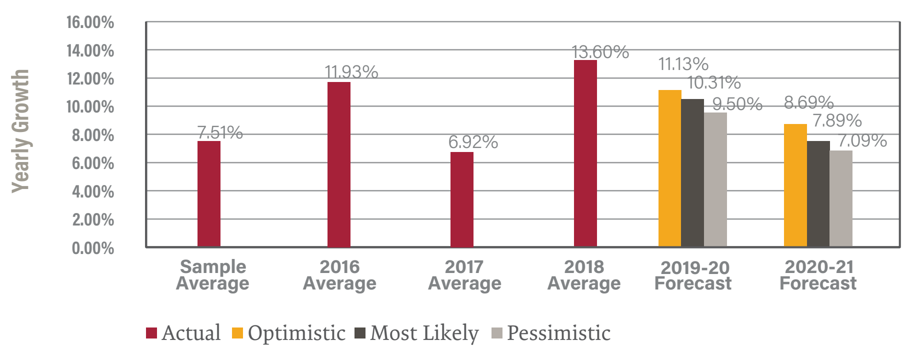
Assets in Default 30+ Days



Net Loans and Leases (in $ Thousands)



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



External Sector

San Joaquin's only port is the Port of Stockton. The Port handles bulk items only and not containers. The main import items at the port are cement, steel and liquid fertilizer, while main export items are rice, sulfur and tire chips. When the number of observations satisfies the minimum requirement, forecasts will be generated for exports and imports the port handles.

According to the export and import numbers, the Valley continues to be negatively impacted from the unresolved trade dispute. With the imposition of new tariffs, the total of cement imports decreased from 902,310 tons in 2017 to 753,396 in 2018. Noteworthy is that cement imports had been consistently increasing since 2014. When domestic cement that has a higher price than imported cement is used for construction, the purchase price of homes in the Valley increases further.

Steel is another construction material imported at the Port of Stockton that suffered a decrease — from 254,731 tons in 2017 to 197,865 in 2018. Steel imports had consistently been increasing since 2014. Imports of this material have now gone back to the levels that existed in 2014. The domestic price of steel is also naturally much higher than imported steel, which would further increase the cost of construction in the Valley. Consumers therefore would have to pay a higher price to purchase homes in the Valley given the higher cost of steel and cement.

The rains of the past several years have officially ended the drought. Importation of liquid fertilizer — in higher demand in drought years — is expected to decrease due to the size of the Sierra snowpack. Liquid fertilizer imports have decreased from 700,555 tons in 2017 to 629,137 in 2018. More water storage is needed during rainy years to help farmers manage their produce efficiently during the drought years.

Cement Imports (by tonnage)

Year	2014	2015	2016	2017	2018
January	0	19,000	32,098	48,302	28,086
February	19,000	22,849	57,180	29,940	33,497
March	0	49,817	19,000	39,259	77,112
April	15,000	0	24,238	111,167	75,474
May	0	53,475	31,390	48,748	106,062
June	19,000	0	76,157	102,850	66,571
July	0	54,270	63,339	86,705	120,649
August	18,050	31,000	77,150	73,276	56,292
September	0	31,525	0	95,518	31,881
October	18,270	49,859	42,343	86,583	37,605
November	0	32,600	70,560	104,609	59,280
December	24,991	29,603	37,030	75,353	60,888
Total	**114,311**	**373,997**	**530,486**	**902,310**	**753,396**

Steel Imports (by tonnage)

Year	2014	2015	2016	2017	2018
January	6,357	9,190	43,039	41,250	33,015
February	10,561	46,967	24,505	16,626	9,170
March	2,965	44,228	33,720	20,766	29,451
April	25,895	19,802	5,413	5,787	26,904
May	25,030	17,503	20,399	40,598	
June	11,125	21,758	16,982	14,904	30,477
July	20,314	21,485	21,026	38,049	
August	12,376	38,987	75,413	17,658	5,877
September	4,439	3,957	24,301	21,246	13,629
October	25,748	43,042	42,105	13,044	13,514
November	11,299	11,314	12,295	22,770	8,779
December	30,943	15,643	7,219	2,035	27,049
Total	**187,052**	**293,877**	**326,416**	**254,731**	**197,865**

Those firms that handle bulk and liquid fertilizers are expanding in the Port of Stockton in terms of operation and storage. Some multinational companies, however, are holding off from expanding given the new tariff structure and ongoing trade disputes costing the Valley in terms of forgone jobs and revenues. Firms do not like uncertainty from unresolved trade disputes and generally tend to refrain from investing in uncertain times to minimize risk to their operations.

Exports of rice have decreased from 159,071 tons in 2016 to 89,040 in 2017 and 86,023 in 2018. The resulting decrease is not from retaliation, since most exports go to Japan. Demand for almonds has decreased 47 percent, wine exports have fallen by 15 percent and cherry exports have fallen by 36 percent and are likely to decrease further, adversely affecting the Valley economy. ▶

Sulfur comes in liquid form to the Port of Stockton, is processed at the port into a bulk item and then is exported to many countries. Exports of sulfur have increased steadily, from 200,166 tons in 2014 to 237,912 tons in 2018. Sulfur exports are expected to rise further in the coming two-year interval but at a slower pace as the global economy slows. ▶

If tariffs were the solution to correcting a trade deficit, then every country would resort to tariffs. Valley consumers are now paying a higher price for items at the store due to higher tariffs, and consumers become poorer when they are able to afford fewer goods and services. No country gains under protectionist measures. The outcome of retaliation is suboptimal for all involved countries.

Liquid Fertilizer (by tonnage)

Year	2014	2015	2016	2017	2018
January	11,605	57,419	22,047	62,361	46,160
February	23,027	24,615	62,027	73,335	27,929
March	41,946	120,300	29,046	49,100	73,753
April	18,515	66,159	95,408	43,752	19,103
May	76,016	40,036	139,119	118,362	146,210
June	43,225	79,493	79,444	81,620	70,681
July	0	46,500	65,449	58,047	18,187
August	95,781	13,749	17,510	32,604	60,956
September	22,204	48,115	22,401	56,993	14,935
October	17,028	18,523	36,038	37,259	74,093
November	72,753	41,438	68,056	12,398	39,800
December	0	75,931	21,575	74,723	37,330
Total	**422,100**	**632,279**	**658,120**	**700,555**	**629,137**

Rice (by tonnage)

Year	2014	2015	2016	2017	2018
January	0	13,000	25,001	26,001	0
February	0	0	0	0	12,000
March	12,893	13,001	24,001	0	12,000
April	21,395	12,074	13,001	25,037	13,005
May	0	0	25,001	13,001	12,000
June	24,001	12,000	23,002	13,001	12,016
July	0	27,000	0	0	13,001
August	0	12,000	11,065	0	0
September	0	12,000	0	0	0
October	0	12,000	0	0	0
November	0	0	26,001	12,000	12,000
December	12,000	49,006	12,000	0	0
Total	**70,289**	**162,083**	**159,071**	**89,040**	**86,023**

Sulfer (by tonnage)

Year	2014	2015	2016	2017	2018
January	27,088	39,722	23,607		
February	27,699	24,978	25,046		29,995
March		16,331	18,768	38,792	56,870
April	15,199			36,707	
May		25,236	34,416		27,499
June	64,457	19,500		11,076	13,267
July		11,997	31,436	23,998	38,092
August	22,788	21,414	14,027	19,530	
September	22,500	27,766		29,563	34,997
October	20,435		32,168	11,195	21,160
November		6,601	27,460	28,152	16,032
December		12,095	16,501	30,177	
Total	**200,166**	**205,642**	**223,429**	**229,189**	**237,912**

Concluding Remarks

For the first time in a long while, several slowdown indicators started flashing in the first quarter of 2019. The yield curve temporarily inverted, the ISM Purchasing Managers Index began declining from all-time highs along with the Consumer Confidence Index, while institutional investors converted their portfolio holdings from stocks to bonds.

Total employment grew the fastest at the county level in Merced and San Joaquin with Kern and Kings showing the slowest growth. Construction employment continued to grow the fastest in 2018 and was followed by wholesale trade employment. Information employment continued to worsen in 2018 but at a slower decline than in previous years. Manufacturing and retail trade employment grew the slowest in 2018.

Housing prices grew at virtually the same rate in 2018 as the year before. Given the shortage in inventory, home values are likely to continue increasing but at a slightly slower pace in the coming two-year interval. In 2018, there was a very big spike of 13.50 percent in single-family building permits, but given the historical pattern the increases are not likely to maintain this pace in the coming months.

The rate of inflation, which registered 3.35 percent in July 2018, softened to 2.4 percent by February 2019. However, wages and oil prices once again continued to add pressure on the inflation rate beginning from the first quarter of 2019. Consequently, inflation is likely to remain above the long-term benchmark rate in the coming two-year interval. Further, the rate of inflation stayed above wage growth, making 2018 another year in which Valley consumers' purchasing power decreased.

Valley net loans and leases increased at a much faster rate than total bank deposits, displaying a pattern unsustainable in the long run. Banks were extending loans from their reserves to take advantage of higher rates to increase their profitability. After a turning point in the third quarter of 2017, bank assets in nonaccrual continued to increase in 2018. Bank assets in default 30-to-89 days and assets in default 90-plus days continued to increase at a faster rate than bank assets in nonaccrual in 2018.

Appendix

	Error	Accuracy	Turning Point
Total Employment	-0.48%	99.52%	Yes
Real GDP Growth	-7.52%	92.48%	Yes
Construction	-0.61%	99.39%	Yes
Education & Health	-0.63%	99.37%	Yes
Government	0.34%	99.66%	Yes
Financial Services	0.89%	99.11%	No
Information	1.23%	98.77%	Yes
Leisure & Hospitality	1.12%	98.88%	Yes
Manufacturing	1.85%	98.15%	No
Retail Trade	1.66%	98.34%	Yes
Trade, Transportation	-1.13%	98.87%	Yes
Wholesale Trade	-0.17%	99.83%	Yes
Inflation	0.39%	99.61%	No
Quarterly Average Wage	-0.52%	99.48%	Yes
Housing Permits	27.20%	72.80%	No
Change in Housing Price	-1.24%	98.76%	Yes
Total Bank Deposits	-1.32%	98.68%	Yes
Net Loan/Leases	-4.56%	95.44%	Yes

	Error	Accuracy
Total Employment	2.93%	97.07%

Stanislaus State

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