SAN JOAQUIN VALLEY

BUSINESS FORECAST REPORT

2016 | Volume V • Issue 2

Table of Contents

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BUSINESS FORECAST REPORT 2016
SAN JOAQUIN VALLEY

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Volume V, Issue 2

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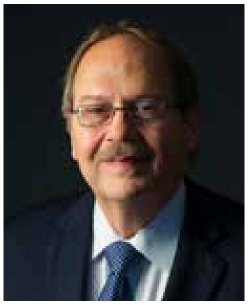
We wish to thank Foster Farms for generously providing the endowment for this project.



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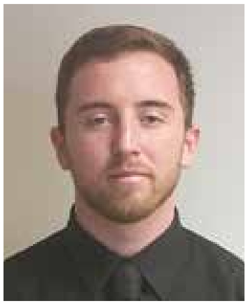

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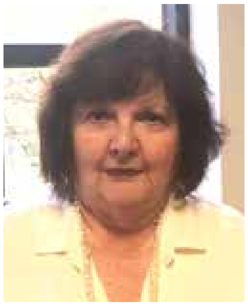

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Executive Summary

The San Joaquin Valley's total employment growth in 2015 fell behind the growth of the previous three years, but at 1.69 percent the average yearly total employment growth remained significantly greater than the historical rate of 1.19 percent. When recessionary years are excluded, the total employment growth was nearly identical to the historical rate of 1.72 percent. Total employment in the Valley did not decrease in any of the previous drought years, nor did it in 2015. In fact, employment continued to grow at a resilient but slightly slower pace. Further, employment grew in all eight counties during 2015, with Fresno, San Joaquin and Stanislaus counties growing the fastest. Madera and Kern posted very small employment growth, while Kings, Merced, and Tulare counties grew at about the same rate as the Valley average. Projections now point to a 1.58 percent average yearly growth in Valley total employment from the second half of 2017 to the first half of 2018. At this pace, total employment in the Valley is projected to exceed 1,700,000 by the second half of 2017.

All categories of employment grew in 2015. Trade, transportation and utilities employment grew the fastest, followed by leisure and hospitality services and retail trade. Because of drought, a farm-related category, wholesale trade employment went from one of the fastest-growing categories to the slowest. Growth in manufacturing exceeded employment growth in the sectors of information, wholesale trade and financial services, with information and financial services employment ending years of decline. Construction employment growth continued to remain in fourth place valley-wide.

"...OVERALL THE VALLEY ECONOMY IS PROJECTED TO EXPAND AT RATES MORE IN LINE WITH HISTORICAL GROWTH."

The average increase in home prices settled to a new steady rate of about 6.68 percent, a rate closer to its historical rate of about 4.61 percent. Housing permits throughout the Valley posted growth similar to the 5.97 percent observed in the previous year. Housing permits are projected to maintain this steady growth in 2017 and 2018.

Valley exports of agricultural goods were negatively impacted by appreciation of the dollar, which is likely to stay strong against other currencies given the recent change in policy by a fractious Federal Reserve that resulted in higher interest rates. A strong dollar will further decrease the international competitiveness of regionally produced goods. Valley consumers should enjoy slight increases in their purchasing power as a result of the strong dollar. However, a dovish Federal Reserve may reverse this course. Global economic uncertainty is another factor that affects the future course of the U.S. dollar.

Consumer price index inflation continued a rising pattern that began in the last month of 2015. Inflation registered 2.2 percent in December, and 3 and 2.5 percent annually in the first two months of 2016. The last time inflation reached 3 percent, a rate above the historical annual rate of 2.33 percent, was in 2011. Inflation is a closely watched indicator for the Federal Reserve, which reversed course to a more dovish stance in early 2016. Wages continued to outpace inflation in 2015 and are projected to climb in 2016, remaining above the rate of inflation, unless inflation exceeds an average annual rate of 4.0 percent. The recent signing of state legislation mandating a steady increase toward a $15 minimum wage is another contributing factor to projections of higher wages in 2017 and 2018. The price of oil bottomed at $26 per barrel and began bouncing back above $36 a barrel, bringing back yet another cost-push inflation worry.

Foreclosure starts continued to fall following a temporary blip in 2015 and are projected to fall further but at a slower pace. Valley bank deposits continued to display a rising pattern in 2015 and are projected to rise further with the increase in interest rates. Deposits are projected to help the financial activities sector in terms of profitability and employment. Net loans and leases in line with bank deposits are projected to increase in 2017 and 2018.

In all, headwinds from global economic uncertainty and nationwide factors such as rising interest rates and concerns about inflation are expected to inhibit some sectors, but overall the Valley economy is projected to expand at rates more in line with historical growth. These national factors appear to be increasingly influential as are regional factors such as the drought. If a course reversal of dovish adjustments in monetary policy was to continue, and rainfall totals continue to increase in the years ahead, Valley growth would likely be higher than the two previous years.

Introduction

This year's midyear update report reached a five-year milestone. Having broader coverage of the eight counties that constitute the San Joaquin Valley provided greater visibility to Stanislaus State forecasts at the national and regional level from state and county government offices, businesses, and the state Legislature, as well as media outlets such as Congressional Quarterly. The report consistently has provided an assessment of past, current and future trends of the Valley economy relative to the state and the nation for informed decision-making on issues relevant to the Valley economy.

Over a five-year period, 23 student assistants have worked on this project. Each has found opportunities in careers involving data analytics, largely due to having participated in the project. Because of the report's wider coverage, public organizations such as the Communications Institute in Los Angeles and the San Francisco Public Utilities Commission have contacted us to consult on matters related to the San Joaquin Valley economy. The College of Business was able to work on two grants because of the Report and more than a dozen research papers were published in peer-reviewed quality journals, utilizing the data obtained for the production of the Report. This expanded reputation speaks to the growing value of the Report.

The production of the Report continues to be a truly university-wide effort, involving campus departments and offices such as the Department of Accounting and Finance, Department of Economics, Department of English, Office of Information Technology, Communications and Public Affairs, College of Business Administration staff, Office of Financial Services, Payroll and Campus Print Shop. Last but not least, we gratefully acknowledge the sustaining support of Foster Farms.

Data in this year's midyear update report spans January 2001 to March 2016. The two-year medium-term forecasts are from July 2016 to June 2018. Our approach to forecast is interval rather than point estimation. Forecasts become accurate when the actual value falls within the forecasted range. The yearly average figure for 2015 is derived from the entire 12 months of the year.

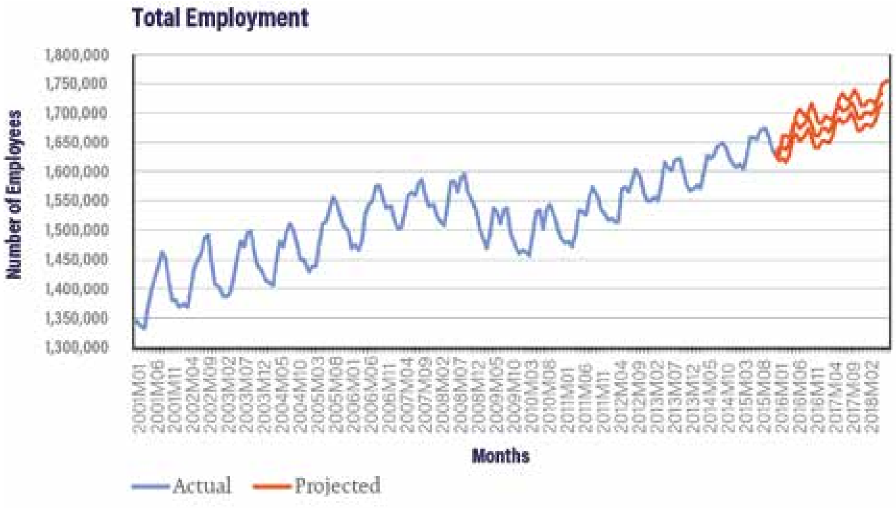
The remainder of this report is organized as follows: Section B reports employment forecasts for the eight counties in the San Joaquin Valley, based on the employment categorizations of the Bureau of Labor Statistics; Section C provides a discussion based on the forecasts generated from the region's housing market; Section D reports projections of prices and inflation; and Section E provides a discussion of banking and capital market conditions based on regional financial forecasts.

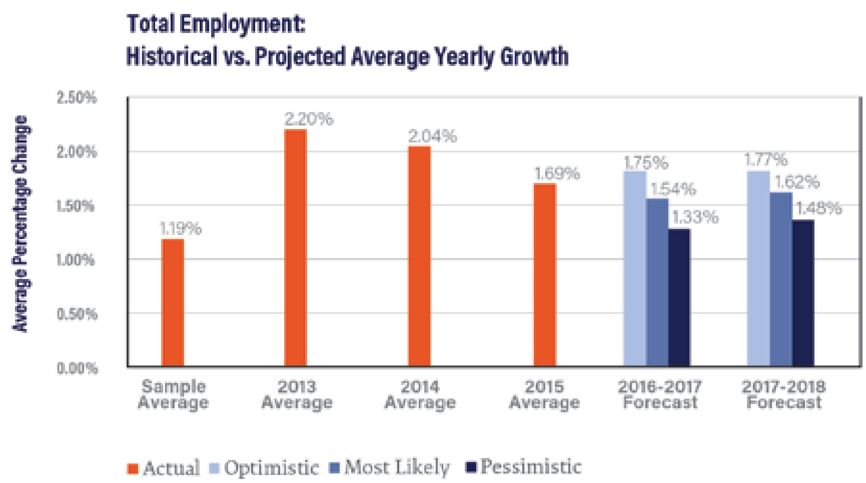
Employment Indicators

Total employment in the San Joaquin Valley did not decline in any of the drought years, 2015 included. Year over year, growth took place, albeit at a slower pace. The Valley's growth in employment in 2015 was significantly greater than the benchmark historical rate of 1.19 percent. However, what separated this year from other years is that growth in 2015 at 1.69 percent was almost identical to the historical growth of 1.71 percent, when recessionary years were excluded. ▶

Employment grew across the board in all counties of the Valley. Fresno, San Joaquin and Stanislaus counties grew the fastest, at 2.44, 2.23, and 2.05 percent respectively. Madera and Kern counties posted very small employment growth at 0.32 and 0.56 percent respectively. Kings, Merced and Tulare counties grew at about the same rate as the Valley average. Total employment in the Valley will exceed 1,700,000 by the second half of 2017. ▶

Trade, transportation and utilities employment grew the fastest in 2015, at an average yearly rate of 5.05 percent, followed by 4.75 percent growth in leisure and hospitality services. Impacted most by the drought, wholesale trade employment grew the slowest at 0.38 percent. Total employment in the Valley is projected to grow at an average annual rate of 1.58 percent in the next two years. Interest rate hikes and inflation are the two factors with the most potential to dampen employment growth rates in 2017 and 2018.



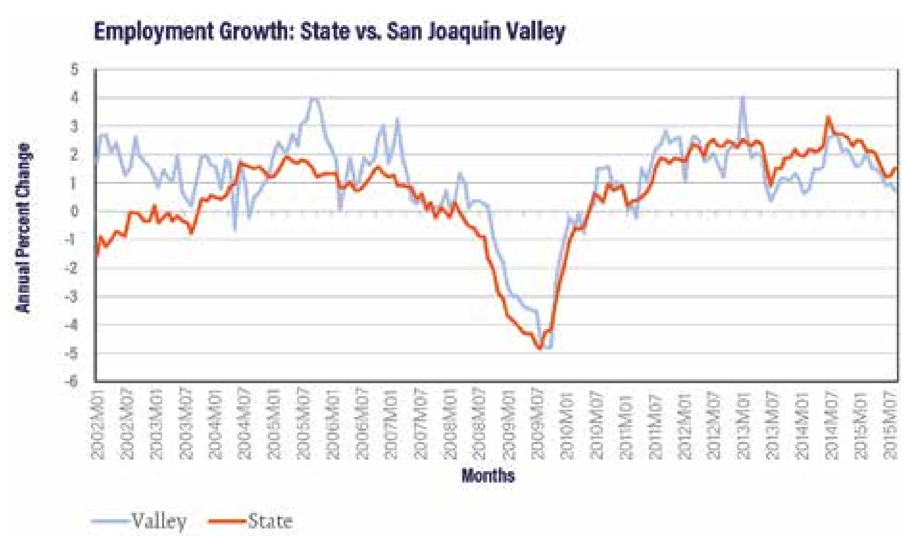


The Conference Board's Consumer Confidence index became flat in 2015 after increasing steadily in the previous four-year period. Higher confidence is a signal that consumers were planning to increase their consumption in the following months. After reaching 100 points, a flat consumer confidence index in most of 2015 meant consumers were planning to undertake the same consumption activity in the near future as they did a few months back. This flat pattern in consumption scaled back real economic growth in 2015. ▶

The Valley employment growth rate declined in 2015 while the labor force displayed basically zero growth, a trend that reflected the prevailing severe drought conditions. The easing of the drought likely will have a positive impact on employment and labor force growth, but this could be somewhat offset by upward movements in both inflation and interest rates. ▶

> **"THE VALLEY EMPLOYMENT GROWTH RATE DECLINED IN 2015 WHILE THE LABOR FORCE DISPLAYED BASICALLY ZERO GROWTH..."**

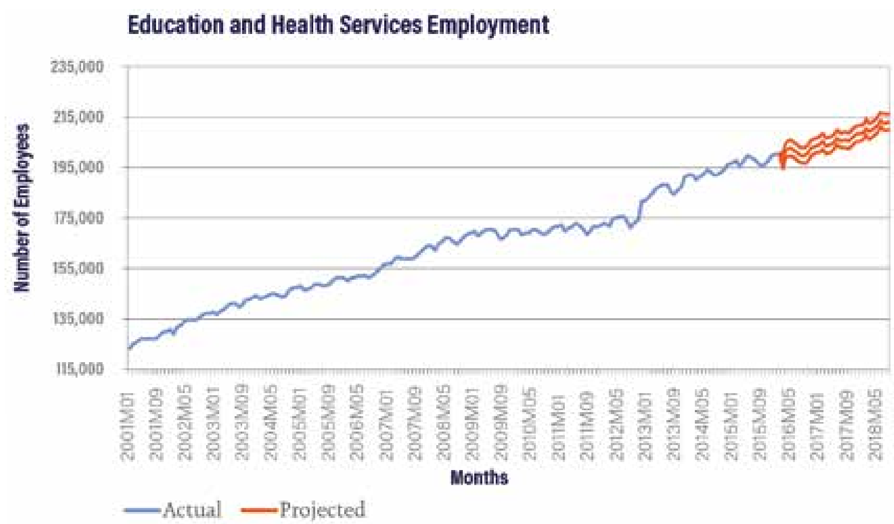
Although employment growth fell both in the Valley and the state in 2015, California's growth in employment continued to outpace the Valley. Employment growth in the region normally should be higher than the growth observed at the state level, but the drought has impacted San Joaquin Valley more heavily than other regions. A resumption of rainy years is likely to reverse this trend. ▶



Employment Indicators

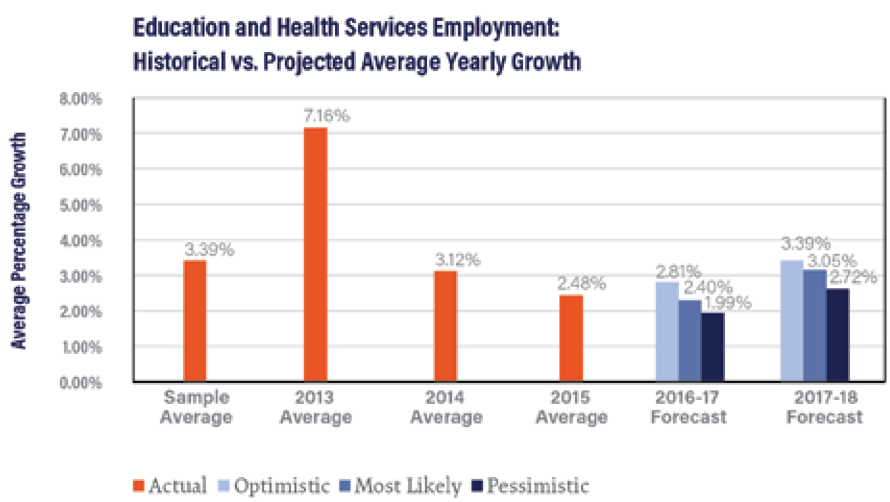
The divergence in U.S. and European economic policy continued, but in the opposite direction than the one that prevailed in 2014. While the European Central Bank adopted a policy of negative interest rates, the Federal Reserve, for the first time in many years, began to implement higher interest rates. These higher rates caused the lower real GDP growth estimates. Inflation became another worry of the Federal Reserve when the annual rate —particularly in the West — showed signs of climbing above the long-term benchmark rate. Revised real GDP growth projections point to average yearly growth of 2.18 percent in 2017 and 2018. ▶

The sector of Valley education and health services employment continued its robust post-recession growth during 2015. Although average yearly growth, at 2.48 percent, was lower than the sample benchmark growth of 3.39 percent, it was still significant. The fastest-growing metropolitan statistical areas (MSAs) in this category were Modesto, Fresno and Madera at 3.77, 3.21 and 3.10 percent, respectively. As the labor force growth begins to improve in the Valley, education and health services employment is projected to grow at rates closer to the higher historical growth. ▶



THE SECTOR OF VALLEY EDUCATION AND HEALTH SERVICES EMPLOYMENT CONTINUED ITS ROBUST POST-RECESSION GROWTH DURING 2015.

Projections point to a 2.40 percent increase in Valley education and health services employment from the second half of 2016 to the first half of 2017. The growth pattern is projected to pick up a bit, rising to 3.05 percent from the second half of 2017 to the first half of 2018. The series is projected eventually to revert to its higher sample benchmark in 2017, given the below-average performance since 2014. Education and health services employment is projected to reach 215,000 by the first half of 2018.

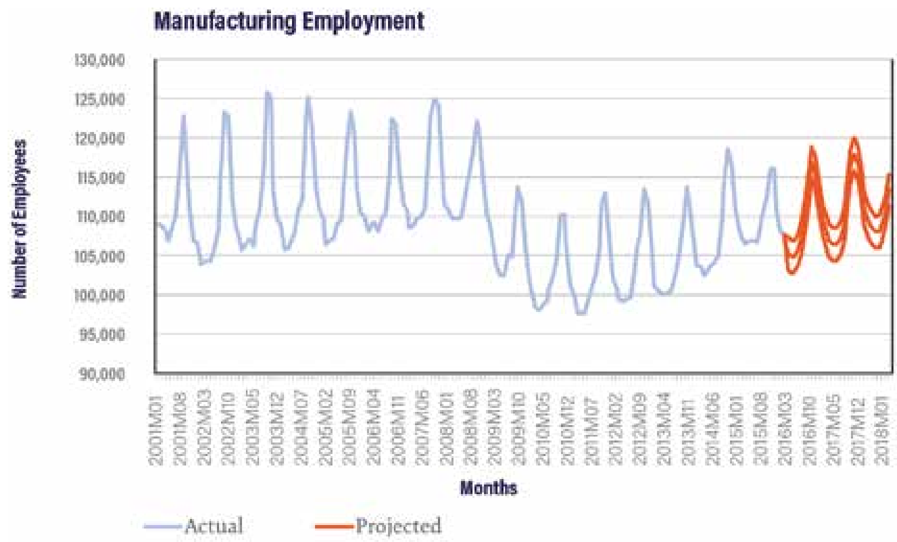


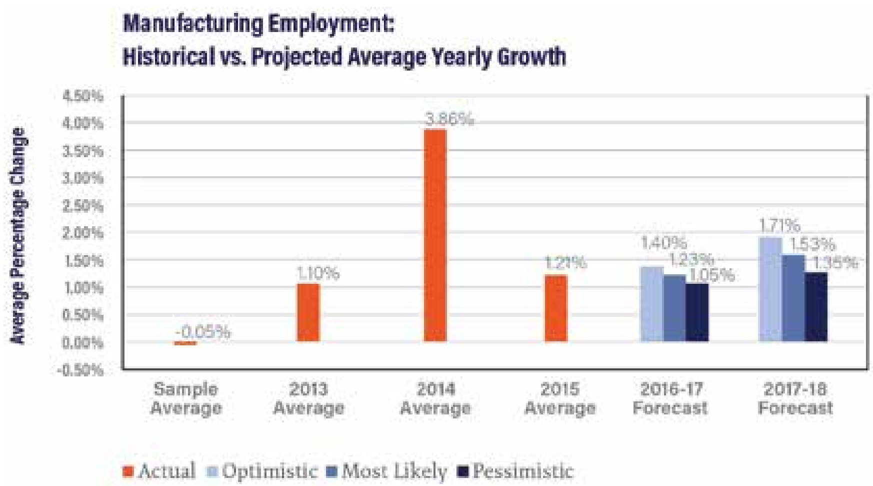
Valley manufacturing employment grew at an average yearly rate of 1.21 percent in 2015. Merced posted the fastest growth in manufacturing employment at 8.64 percent, followed by Madera and Stockton at 5.52 and 4.46 percent, respectively. ▶ Manufacturing employment declined by 4.41 percent in Modesto. Growth in this category of employment exceeded growth in wholesale trade employment, information, and financial activities employment. This was the most striking development in 2015, given that wholesale trade employment historically has been in the top three fastest-growing categories of employment in the Valley.

At this pace, manufacturing employment benchmark historical growth is projected to switch from negative to positive territory in 2017. Currently, the historical benchmark rate has approached closer to positive territory, adjusting upward from very ▶ significant declines. Projections point to 1.23 and 1.53 percent growth in 2017 and 2018, respectively, assuming rainy years resume, pulling farm-related manufacturing and wholesale trade employment growth upward. Cities such as Patterson and Tracy now serve as magnets for other major distribution centers to locate in the region. Employment levels in this category will reach 110,000 as early as the first half of 2017. The last time similar employment reached this level was 2007.

The Institute for Supply Management's Purchasing Managers Index (PMI) fell below 50 points for the first time in three years. Considering that a value below 50 points signals a contraction, the future course of economic activity became a major worry for policymakers. However, in early 2016, PMI began to recover and is on course to exceed 50 points. ▶

Nationwide, the industrial production index declined along with PMI. However, in the first quarter of 2016, the industrial production index also began to increase, tilting the balance in favor of further expansion along with the dovish statements by the Federal Reserve in late March.





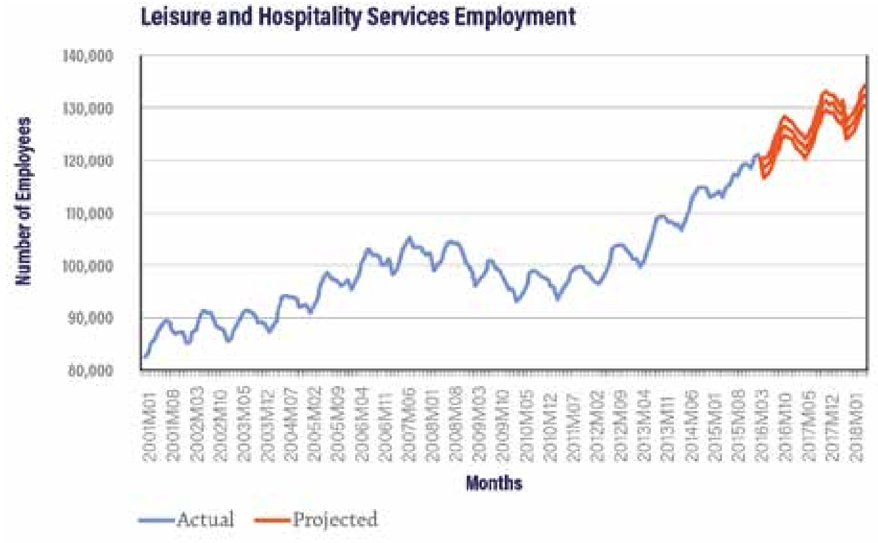
Employment Indicators

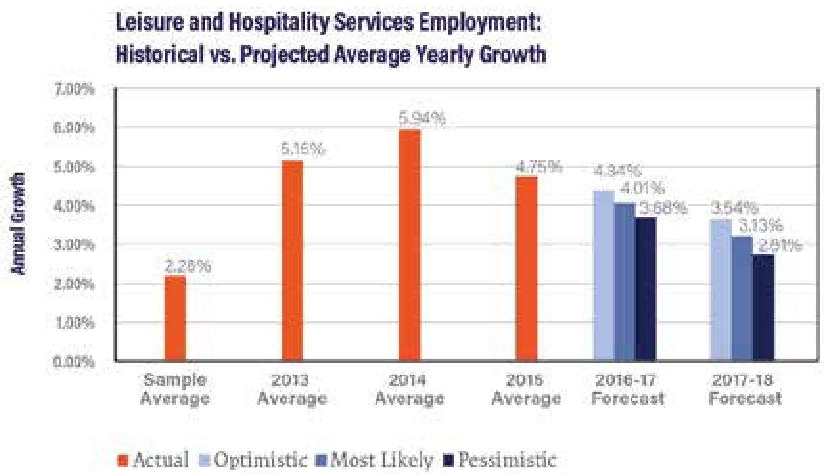
Valley leisure and hospitality services was the second-fastest-growing category of employment in 2015. This post-recession trend continued to steepen, due mainly to the low price of oil, cheaper imported goods due to a strong dollar, and low inflation. However, in the coming two-year period, further interest rate hikes by the Federal Reserve and cost-push factors on inflation, such as wage growth and the recovering price of oil, are projected to slightly lower the rate of growth in this category. ▶

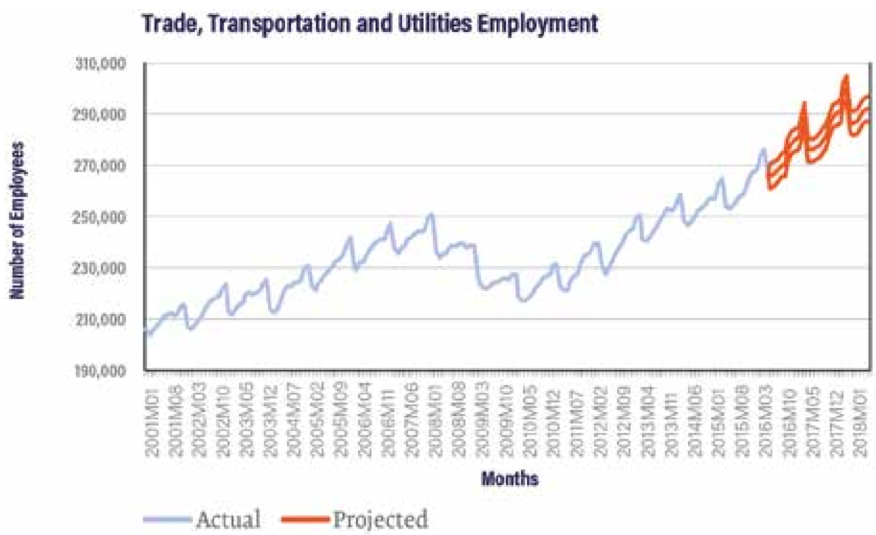
Sample benchmark growth, also referred to as "historical growth," stands at 2.28 percent for leisure and hospitality services employment in the Valley. For the past three years, growth in this category has significantly surpassed historical growth. In 2017 and 2018, however, projections point to somewhat slower growth, at average yearly rates of 4.01 and 3.13 percent, respectively. Leisure and hospitality services employment grew the fastest in Modesto, Madera and Bakersfield at an average yearly rate of 10.42, 9.87 and 6.83 percent, respectively. Compared with previous years, there is an expectation of less-favorable conditions to prevail for leisure and hospitality sectors in the Valley, and these are attributable to national factors rather than regional. ▶ Nevertheless, employment levels will reach 130,000 by the first half of 2017.

> **"VALLEY TRADE, TRANSPORTATION AND UTILITIES SURPASSED ALL CATEGORIES…TO POST THE FASTEST-GROWING CATEGORY OF EMPLOYMENT IN 2015."**

Valley trade, transportation and utilities surpassed all categories— including ▶ construction — to post the fastest-growing category of employment in 2015. Strong growth in this category is projected to extend into 2017 and 2018, despite the recent recovering pattern in the price of oil. This is another category in which employment growth has significantly exceeded historical rates since the end of the recession, and the post-recession trend has steepened in 2015.





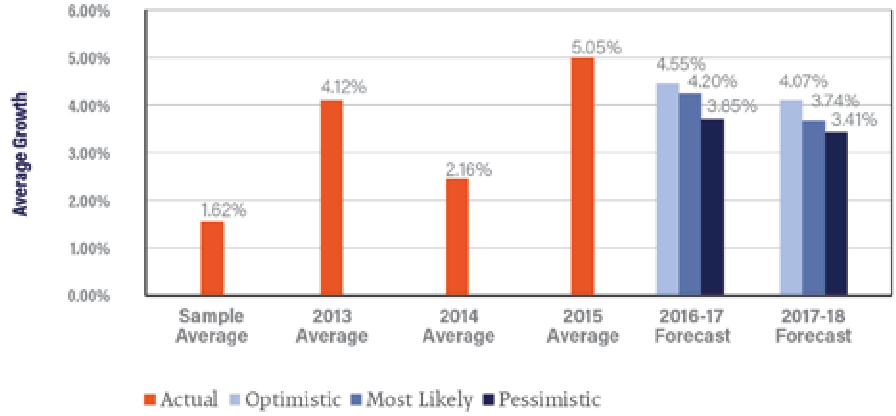


As of 2015, benchmark historical growth in trade, transportation and utilities ▶ employment stands at 1.62 percent. Significantly above-average growth for the past three years in this category is beginning to form some mean reversion to the benchmark rate of 1.62 percent. The fastest-growing MSAs in the category were Stockton, Visalia and Modesto, at an average yearly rate of 4.30, 3.58 and 3.26 percent, respectively. The slowest growth occurred in Hanford, at 0.95 percent. This employment category is projected to remain robust, pointing to an average yearly growth of 4.20 percent in 2017 and 3.74 percent in 2018. Employment in this category is projected to reach 290,000 by the third quarter of 2017.

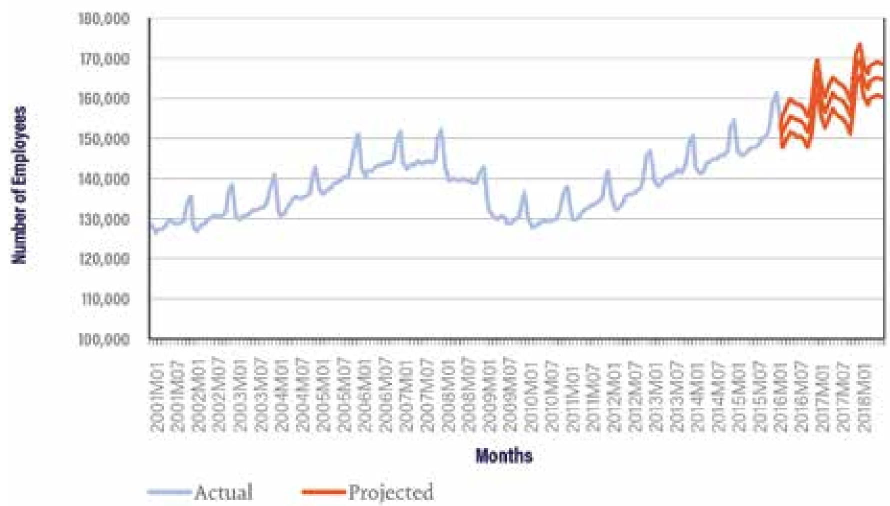
Valley retail trade employment was one category that grew faster in 2015 than in the previous year. At an average yearly rate of 3.24 percent, retail trade registered as the third-fastest-growing category of ▶ employment in the Valley. Seasonal spikes increased along with the trend during 2015 in a region where there is ample opportunity for growth. Retail trade employment grew the fastest in Bakersfield, Hanford and Modesto at an average yearly rate of 4.51, 3.84, and 3.78 percent, respectively. Cities such as Turlock soon will run out of available attractive spaces adjacent to the highway due to annual expansion of retail outlets.

Limited by an ocean to the west, California's economy is bound to expand eastward, creating significant potential for profit in categories of employment similar to retail. It is worth noting that such strong growth in retail trade employment occurred during a time when labor force growth in the Valley was at a minimum. The influx of labor is projected to increase in the coming years, bringing further potential to the Valley's retail sector. Projections in this category of employment point to 3.02 and 2.87 percent growth in 2017 and 2018. Retail trade employment is projected to exceed 160,000 by the second half of 2017. ▶

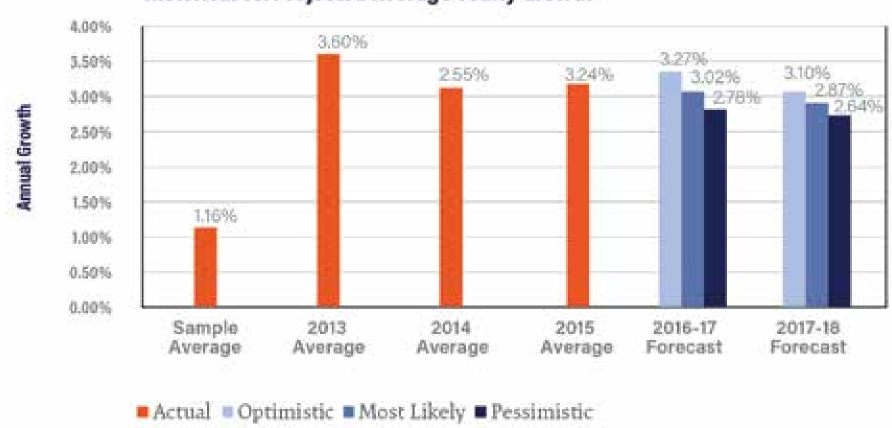
Trade, Transportation and Utilities Employment: Historical vs. Projected Average Yearly Growth



Retail Trade Employment



Retail Trade Employment: Historical vs. Projected Average Yearly Growth



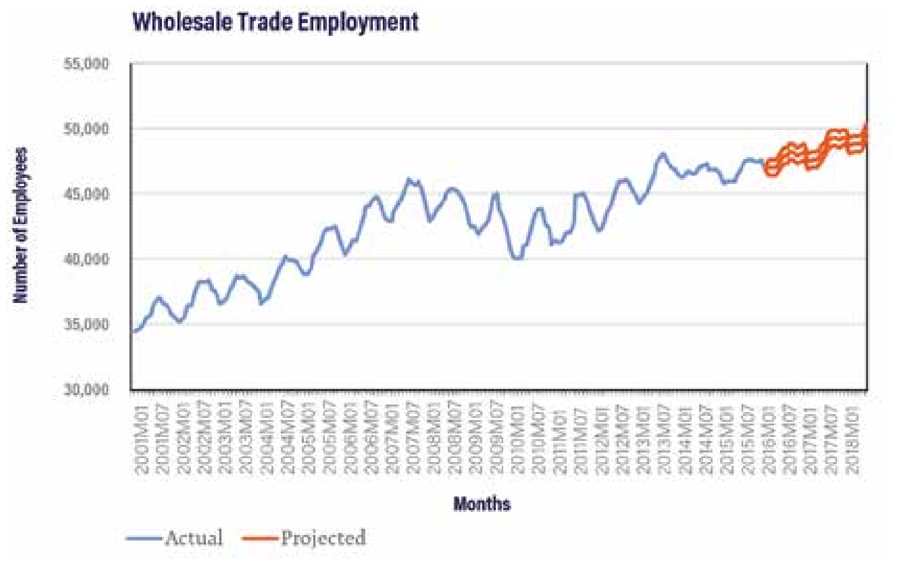
Employment Indicators

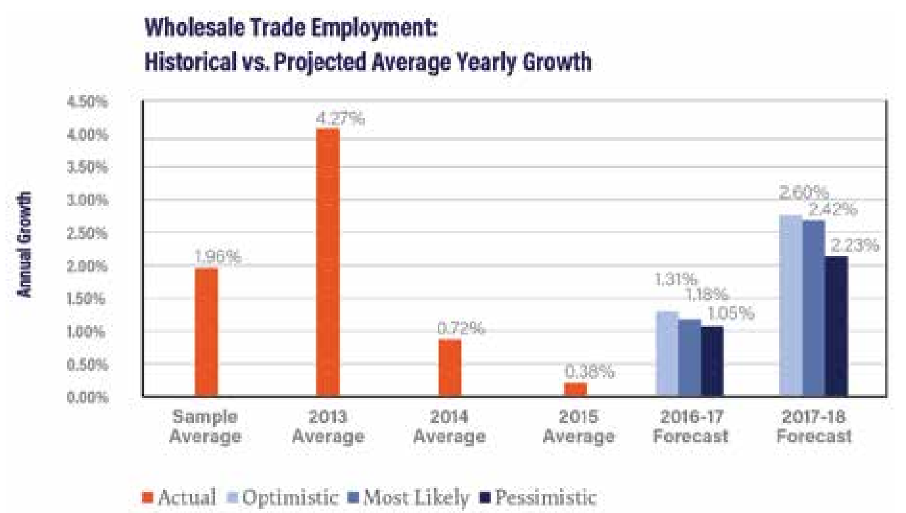
The most striking development in 2015 was the steep decline in the growth rate of the Valley's wholesale trade employment, which fell from one of the top three fastest to the fourth-fastest in 2014 and to the slowest in 2015. Wholesale trade employment growth even fell below categories known to suffer structurally, such as information and financial activities ▶ employment. Employment in this category declined 10.14 percent in Merced. Stockton and Modesto wholesale trade employment grew of 2.34 and 1.11 percent respectively. However, the large decline in Merced pulled the average lower for the entire Valley. Undoubtedly, drought played a major role in bringing down the growth in wholesale trade, even impacting seasonal variations in the series to the extent that the usual seasonal spikes ceased to occur.

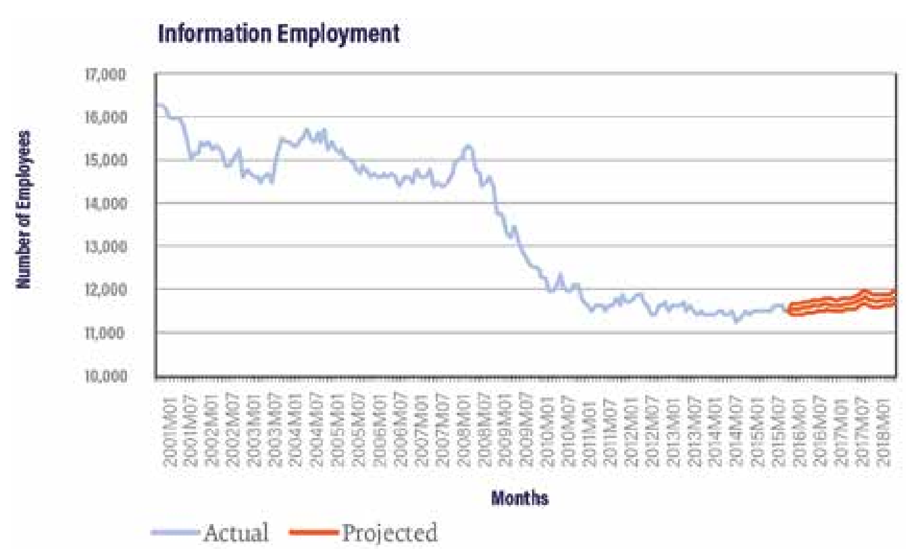
> **"UNDOUBTEDLY, DROUGHT PLAYED A MAJOR ROLE IN BRINGING DOWN THE GROWTH IN WHOLESALE TRADE..."**

Given that rainy years might resume, as was observed in the latter part of 2015, wholesale trade employment is projected to pick up ▶ in the Valley. Average annual employment growth is projected to increase from 0.38 percent in 2015 to 1.18 and 2.42 percent in 2017 and 2018, respectively. Given that the benchmark historical growth rate stands at 1.96 percent, the very small growth rates observed in 2014 and 2015 can be considered temporary.

Valley information employment had the fastest average yearly growth, registering 0.98 percent for 2015 when compared with its own dynamics. 2015 was the first year information employment growth increased since the recession. Growth in this category of employment exceeded financial activities and wholesale trade employment in the Valley for the first time. Information employment is projected to pull away from a bottom of 11,000 and exceed 11,500 before the end of 2017. ▶



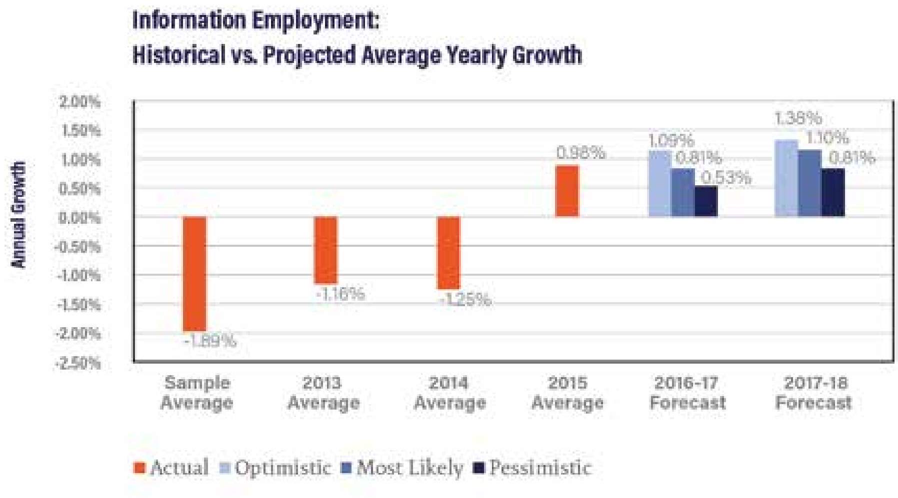


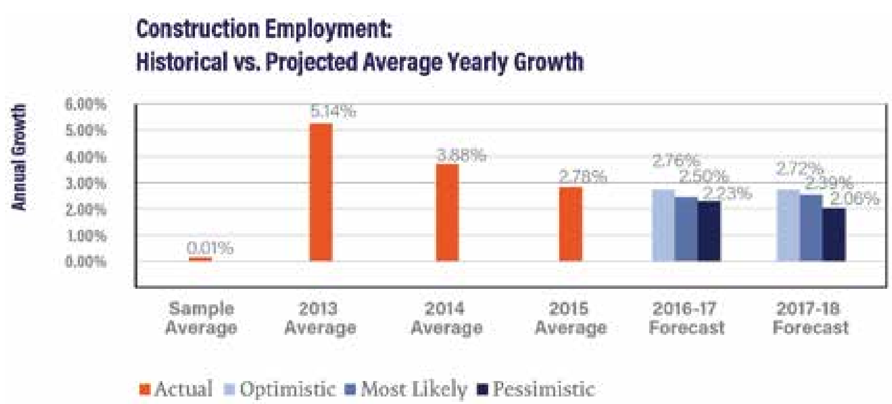


At this pace, the long-term benchmark rate that currently stands at negative -1.89 percent is projected to move into positive territory by the second half of 2018. The turning point indicated in the third quarter of 2014 is becoming permanent as information employment continues to recover in the Valley. Projections point to an average yearly growth of 0.81 percent in 2017 and 1.10 percent in 2018. ▶

Valley construction employment fell from the first- to the fourth-fastest-growing category of employment. Average annual growth in 2015 at 2.78 percent remained significant compared with the 0.01 percent benchmark historical growth for the series, which has switched from negative to positive territory during the same year for the first time since the recession ended. Hanford, Madera and Modesto posted the fastest growth in this category at 12.47, 12.26 and 11.38 percent, respectively. Bakersfield posted a decline of 6.40 ▶ percent, and there was almost no growth in construction employment in Fresno. The post-recession trend in construction employment growth is more balanced when compared with the unsustainable growth displayed by the exponential trend formed during the pre-recession years.

Valley construction employment kept on rising both at a slower rate since 2013. Growth in this category of employment is not likely to deviate significantly from the rates observed in 2015, given the Federal Reserve's recent move to increase interest rates. Projections point to an average annual increase of 2.50 percent in 2017 and 2.39 percent in 2018. Construction employment in the Valley is not likely to exceed 65,000 until the second half of 2018. ▶



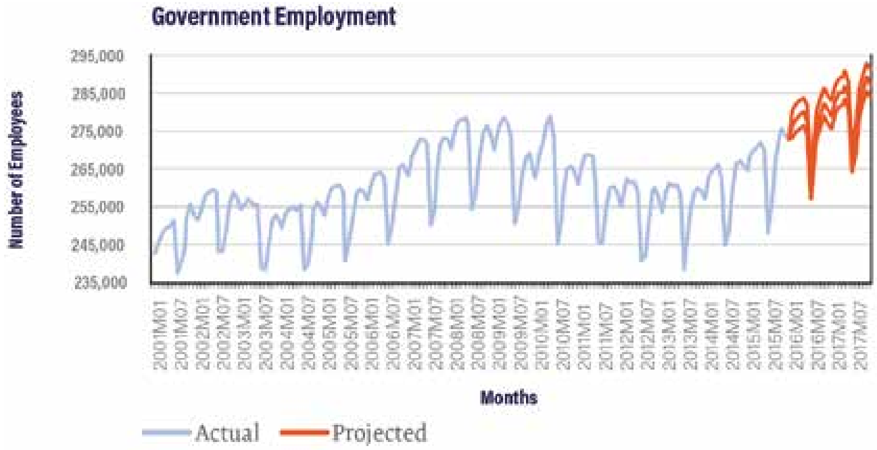


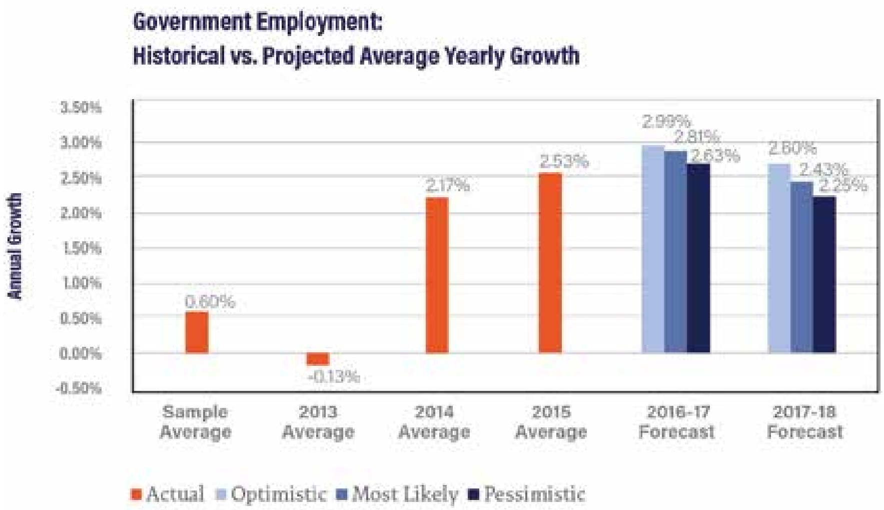
Employment Indicators

Government employment in the Valley was one of the last remaining categories to begin recovering after the Great Recession ended. Average yearly growth in the last four years was mainly above 2.0 percent. This was not an exception in 2015. Government employment posted 2.53 percent growth in 2015 and is likely to grow at this rate in 2017 and 2018.

> CONSIDERING THAT RECOVERY IN GOVERNMENT EMPLOYMENT BEGAN AS LATE AS 2014, EMPLOYMENT IN THIS CATEGORY IS LIKELY TO GROW AT A RELATIVELY STRONG PACE FOR SEVERAL YEARS TO COME.

Government employment now appears to grow at the same pace as before the recession. Such a pattern is consistent with this sector's unique dynamics. Considering that recovery in government employment began as late as 2014, employment in this category is likely to grow at a relatively strong pace for several years to come. Projections point to an average annual growth of 2.81 percent in 2017 and 2.43 percent in 2018.

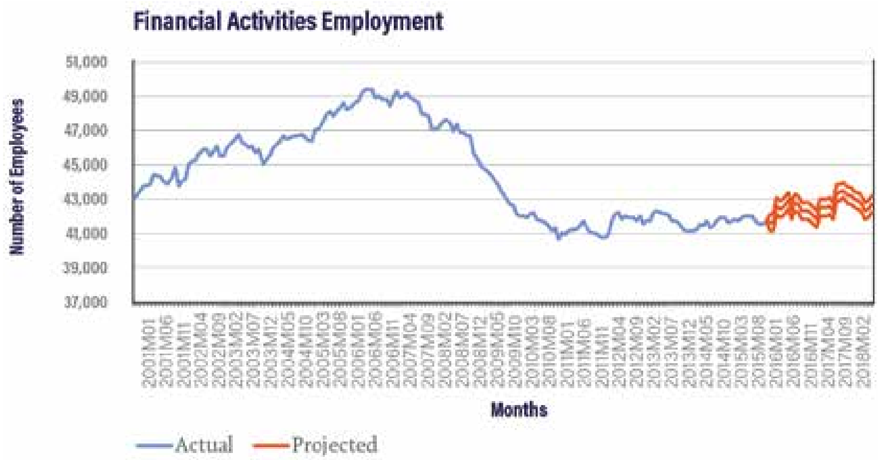


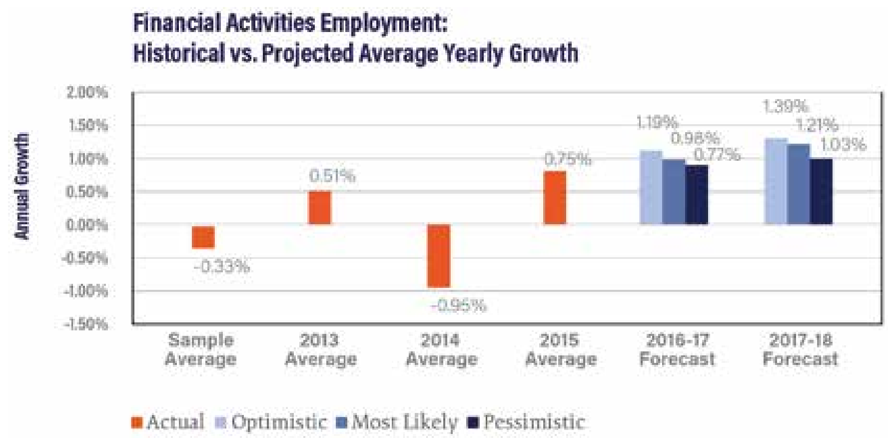


Financial activities employment is beginning to pull itself up from those levels struck in previous years. Hitting a turning point in 2014 at 41,000, employment in this category is slowly approaching 42,000. Financial activities employment in the Valley is projected to reach 43,000 by the second half of 2017. Bank profitability likely will increase, boosted by increases in interest rates. This profitability, in turn, most likely will spur growth in the banking sector. ▶

In 2015, financial activities employment grew the fastest in Visalia, Hanford and Fresno, at 6.58, 6.37, and 1.56 percent, respectively. The Valley financial activities employment benchmark historical growth rate is projected to switch from negative to positive territory by the second half of 2017. For the first time since the recession, employment in this category in 2015 posted positive growth. Projections point to further improvement at an average yearly rate of 0.98 percent in 2017 and 1.21 percent in 2018, in line with improving conditions in the banking sector. ▶

Valley total employment growth was slightly slower in 2015 than the previous year, yet employment grew in all eight counties. Fresno, San Joaquin and Stanislaus counties grew the most, while Madera and Kern counties grew the least. Kings, Tulare, and Merced counties grew about the same pace as the Valley average of 1.69 percent. All categories of employment considered in this report posted growth in 2015 and are projected to grow further in the coming two-year period. Due to headwinds originating from global economic uncertainty and national factors, growth will continue at speeds more in line with the benchmark historical rates. A continuation of reversal of course to keep rates low by a fractious Federal Reserve may cause total employment to grow at higher rates.





Housing data for the San Joaquin Valley is composed of eight major MSAs: Fresno, Bakersfield-Delano, Hanford-Corcoran, Madera-Chowchilla, Merced, Modesto, Stockton and Visalia-Porterville. The U.S. Census Bureau and the Bureau of Labor Statistics are the two public agencies that publish these data. The summation of housing permits from each county serve as a proxy for housing permit activity for the San Joaquin Valley. ▶

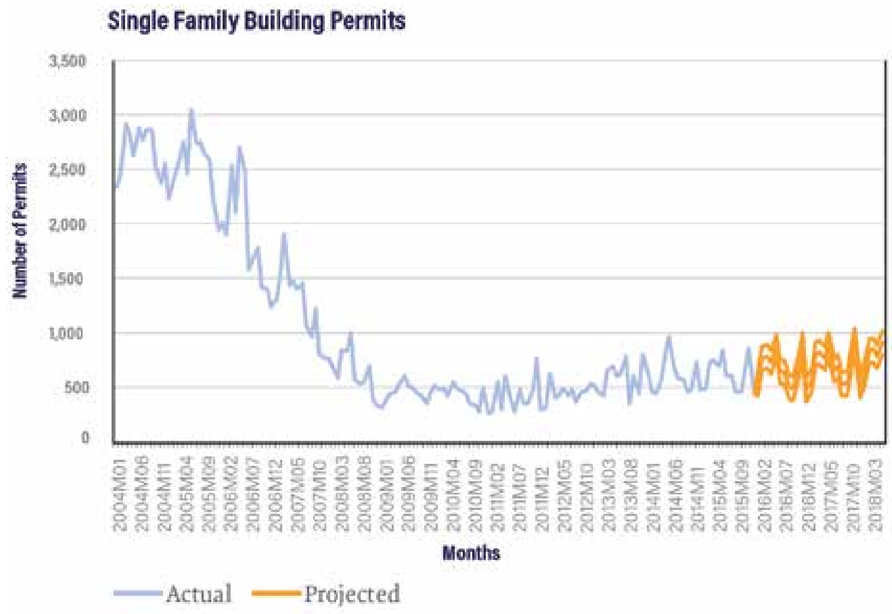
The year-by-year gradual increase in housing permits, despite the significant up-and-down activity since the end of the recession, is now visible from the newly forming positive trend.

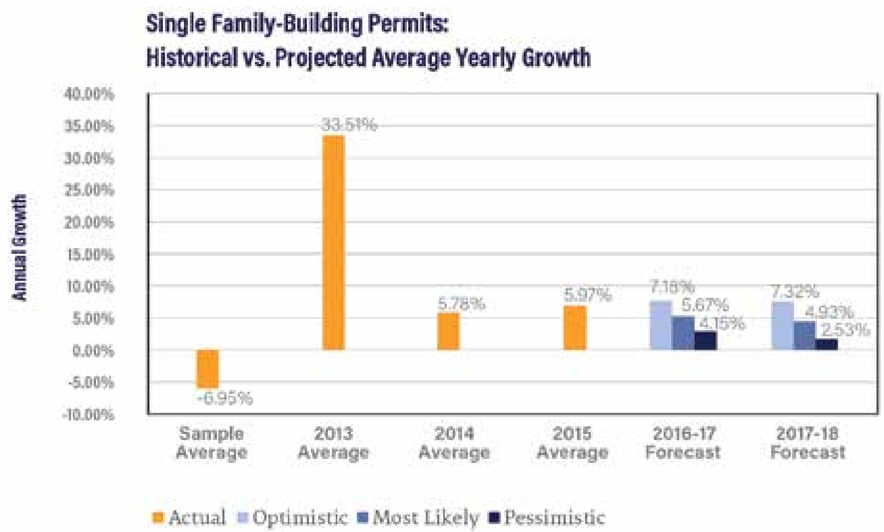
Average yearly growth in single-family building permits in 2015 was almost identical to the growth in 2014. This growth pattern is consistent with sustainable rates of growth in the Valley. Fresno, Bakersfield-Delano and Stockton MSAs issued the most permits in 2015, totaling 2,104, 1,876 and 1,222, respectively. Single-family building permits, although bring issued at a slower rate of growth, are projected to reach 1,000 per month by the end of the first half of 2018. ▶

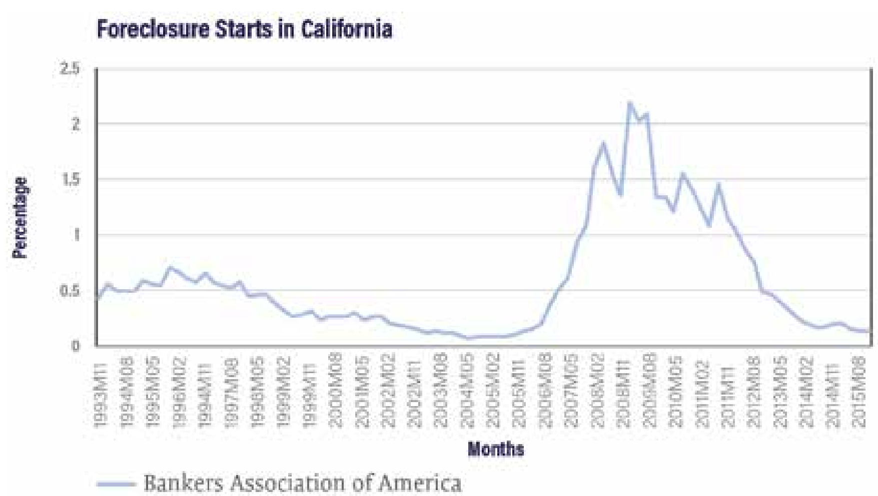
> **"THE YEAR-BY-YEAR GRADUAL INCREASE IN HOUSING PERMITS... IS NOW VISIBLE FROM THE NEWLY FORMING POSITIVE TREND."**

Average annual growth for the coming two-year period is likely to mirror the growth of the past two years. Single-family housing permits are projected to grow 5.67 percent in 2017 and 4.93 percent in 2018.

There was a temporary increase in foreclosure starts in 2014, resulting from upward movements in 30-year interest rates. Foreclosures are now down to the levels that had existed in 2005. The Federal Reserve's decision to hike interest rates may cause foreclosures to rise again, but not to the levels observed during the recessionary years. ▶





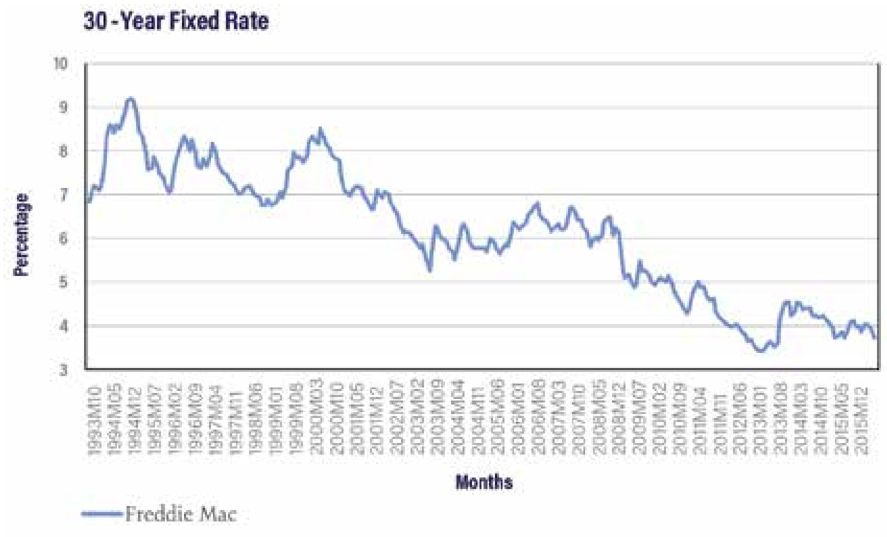


Freddie Mac 30-year fixed rates have been coming down since the first quarter of 2014. However, such a falling pattern may not be the case in the coming two-year period. The decision by the Federal Reserve to start increasing interest rates most likely will start pulling long-term interest rates upward. Coupled with this decision are ▶ inflationary pressures that may pull 30-year fixed rates further upward. Inflation already has moved above the long-term average yearly rate in the Western region, posting 3.0 percent in January. Persistently higher inflation will certainly cause long-term rates to rise more than anticipated.

The average home price rose by 6.68 percent in 2015 and has become more consistent with the benchmark historical growth rate of 4.61 percent. The incoming values in 2015 were very much in line with our projections of single-digit growth rates. In 2017 and 2018, however, home values may increase further due to increased inflationary expectations. ▶

Home values appreciated most in Merced, Modesto and Stockton, and are at an average yearly rate of 11.80, 11.60 and 10.33 percent, respectively. Valley home values are projected to increase at an average annual rate of 7.77 percent in 2017 and 6.94 percent in 2018. Rising interest rates may curtail demand for real estate, offsetting to some degree any appreciation in home values that may result from higher inflationary expectations. ▶

The Federal Reserve's adjustment in monetary policy is expected to continue into 2017 and 2018. Higher interest rates will negatively affect demand for housing and reverse the downward foreclosures dynamic as home affordability becomes more difficult than in those years of relatively low interest rates. Valley foreclosures will rise more than the national average since homes in the region are more difficult to afford in a climate of high unemployment and low per-capita income.



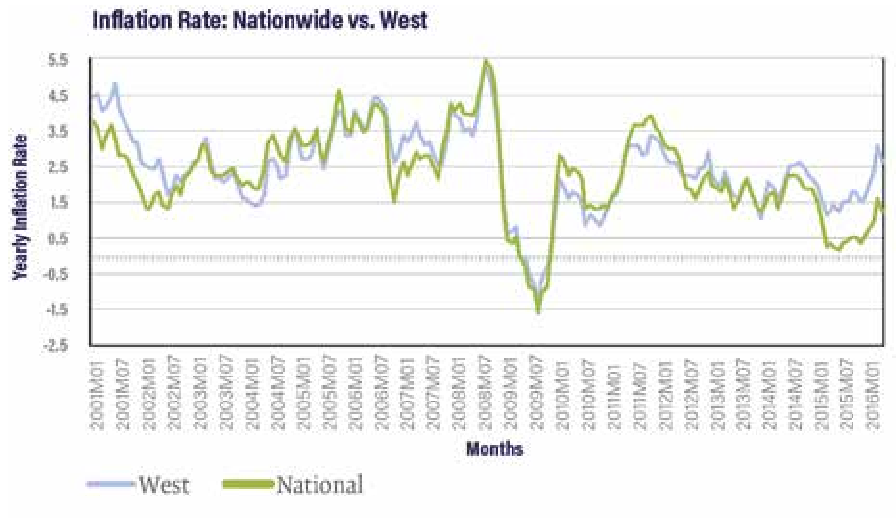
Inflation and Prices

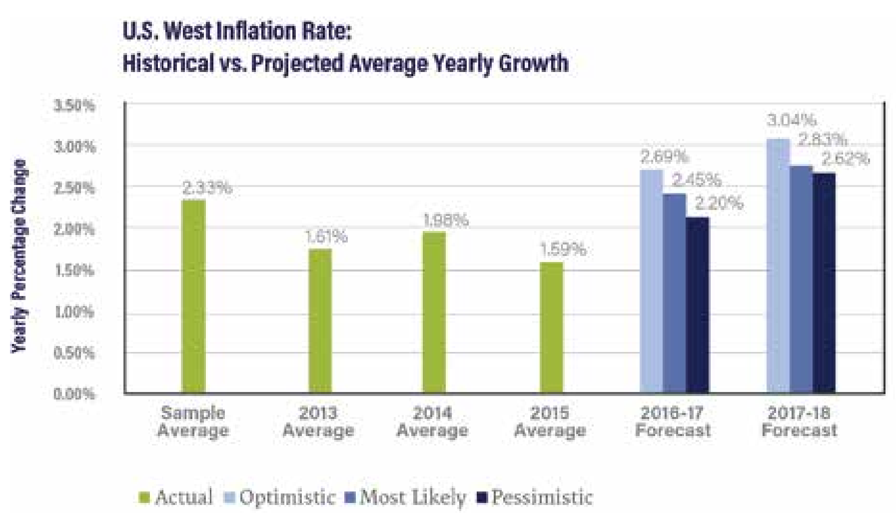
Inflation had been holding at moderate rates since the recession, despite the anticipation of higher inflation resulting from prior years' liquidity injections of the Federal Reserve to revive the economy. However, given the recent back-to-back upward movements in the first quarter of 2016, inflation is becoming a major worry for the Federal Reserve. As the price of oil begins to recover, cost-push pressures are likely to build on inflation, pulling it above the benchmark rate. ▶

The Western region's rate of inflation surpassed the national average in the first quarter of 2016, a discrepancy that was the widest since the first quarter of 2015. It suggests aggregate demand is rising in the region at a faster rate than nationwide. Inflationary worries therefore are more of a concern in the West than elsewhere in the nation with significant consequences on wages, consumers' purchasing power and housing demand. ▶

In the Western part of the United States, the average yearly rate of inflation registered 1.59 percent in 2015, which was lower than in 2014. However, in December, yearly inflation rate rose to 2.2 percent, followed by 3.0 percent in January and 2.5 percent in February 2016. The price of oil, rebounding from $26, climbed back to $39 a barrel in March and brought back cost-push worries of inflation.

The benchmark yearly rate for the inflation in the Western region is 2.33 percent. Even though the yearly averages for the past three years registered below this rate, there remain reasons to worry given the most recent upward movements in inflation and the recovery in the price of oil. If the U.S. dollar goes through a series of depreciations against other currencies in 2017 and 2018, inflation may rise even further and stay significantly above the 2.33 percent benchmark. Projections point to an average yearly inflation of 2.45 percent in 2017 and 2.83 percent in 2018. ▶





Average weekly wages in 2015 grew 3.64 percent, the fastest recorded increase since the recessionary years. Wages have been growing since 2013 and have stayed above the inflation rate, allowing Valley consumers to afford a slightly larger bundle of goods than before. Even though wages recently have been trending upward, they have remained stagnant far too long to register a real gain in purchasing power over the long term. Projections point to further increases in weekly wages at an average yearly rate of 3.95 percent in 2017 and 4.51 percent in 2018. The deal reached in California to raise the state minimum wage to $15 per hour by 2022 also will contribute to annual changes in wages, but at the same time a higher minimum wage will be another cost-push factor on inflation. ▶

The average yearly inflation rate in 2015 was 1.59 percent. Wages grew at an average rate of 3.64 percent during the same interval, adding 2.05 percent real gain in purchasing power. This discrepancy between wage growth and the inflation rate was the widest since 2007 and is the basis of a trend that is expected to last into 2017 and 2018 unless the inflation rate rises above 4.0 percent. ▶

> **“WAGES HAVE BEEN GROWING SINCE 2013 AND HAVE STAYED ABOVE THE INFLATION RATE...”**

The discrepancy between the two series will become narrower if the rate of inflation continues to rise. Wage increases create cost-push inflation. However, stagnant wages in the past, along with the falling price of oil, have kept cost-push factors away. The price of oil is recovering from barrel prices as low as $26 and wages are increasing more significantly relative to previous years. Such dynamics, if they prevail in the coming years, will again trigger a stagnation of real wages. ▶

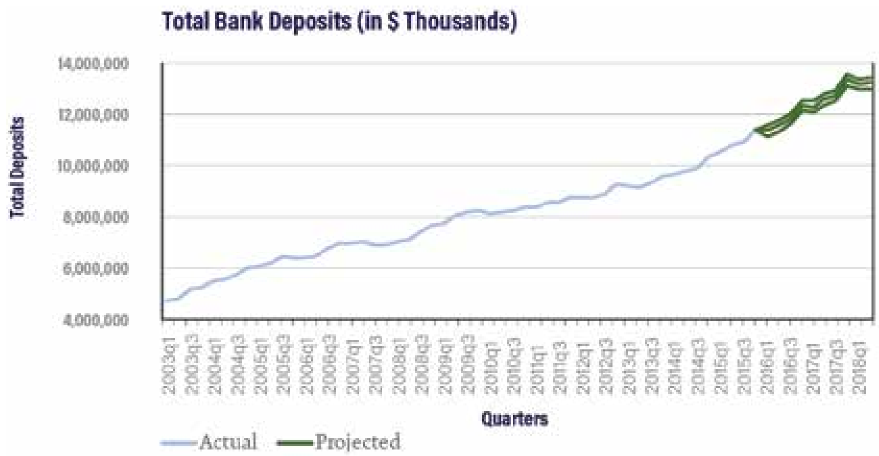
Banking and Capital Markets

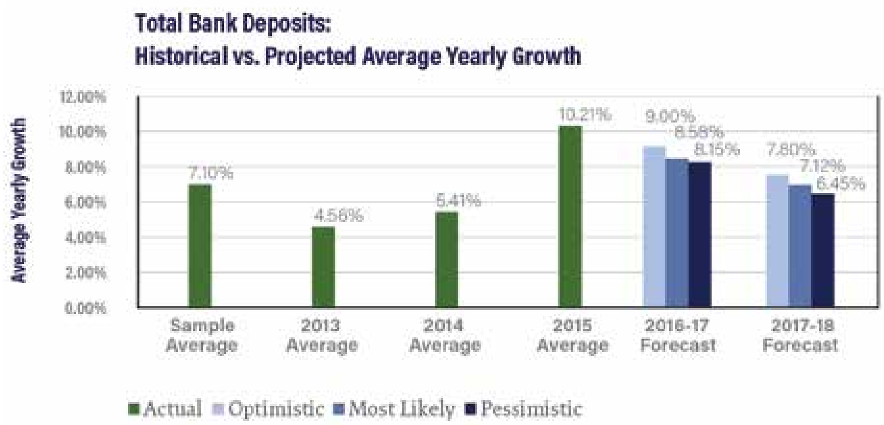
Growth in Valley bank deposits has been strong over the last three years. Falling unemployment, a recovering economy and increasing wages all have helped bank deposits climb. ▶

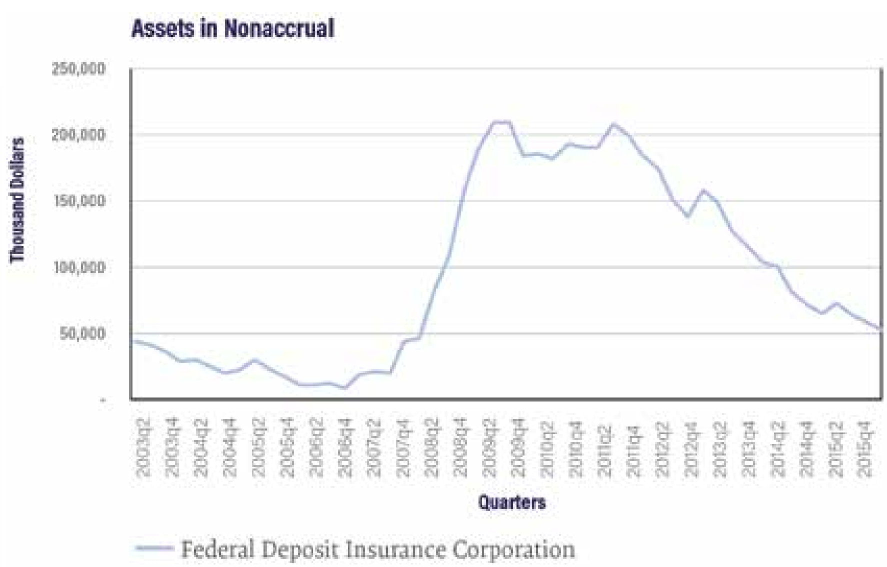
In 2015, Valley bank deposits grew by 10.21 percent. The increase was consistent with increases in net loans and leases in the Valley. However, further interest rate hikes by the Federal Reserve may dampen economic activity, leading to a decline in the growth rate of bank deposits. Projections point to an average yearly growth of 8.58 percent in 2017 and 7.12 percent in 2018. ▶

> "FALLING UNEMPLOYMENT, A RECOVERING ECONOMY AND INCREASING WAGES ALL HAVE HELPED DEPOSITS CLIMB."

Bank assets in nonaccrual continued to decline in 2015, falling to levels that existed in 2007. A series of interest rate hikes would lead to an increase loan default activity in the Valley. In such a scenario, bank asset nonaccruals would climb in 2017 and 2018. ▶





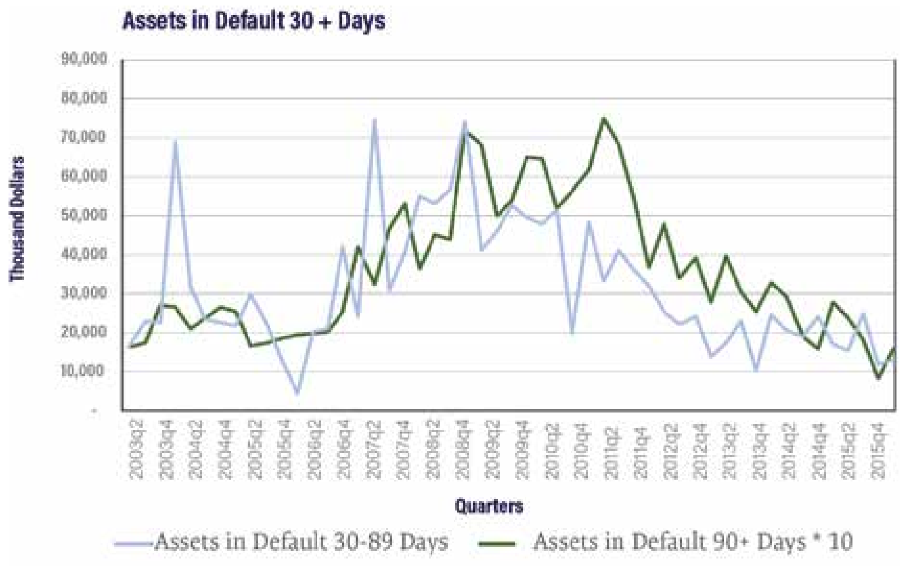


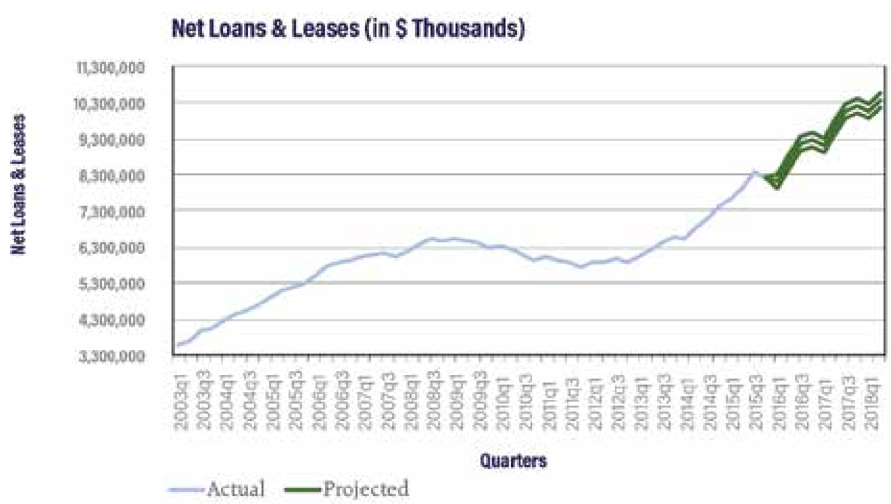
Assets in default 30 to 89 days and assets in default 90-plus days are likely to have the same pattern as nonaccruals in 2017 and 2018. Assets in default 30 to 89 days and 90-plus days continued to fall until the third quarter of 2015. Unlike the continuously falling pattern observed in nonaccruals during 2015, assets in default 30 to 89 days and 90-plus days increased in the fourth quarter of 2015. Both series are likely to exhibit an increasing pattern in 2017 and 2018 if higher interest rates were to prevail. ▶

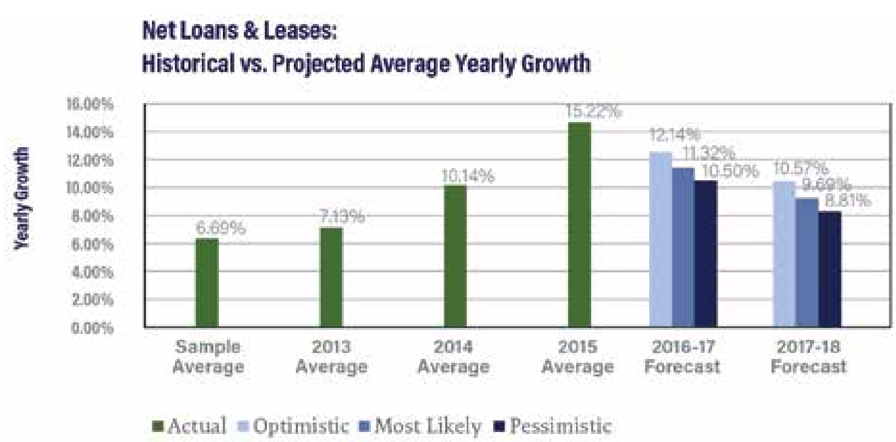
Valley net loans and leases, together with total deposits, have a tendency to rise during the fourth quarter of each year and fall the following quarter. Such a pattern did not occur when the net loans and leases fell slightly in the last quarter of 2015, despite an increase in total deposits during the same quarter. Valley bank net loans and leases growth is expected to fall depending on the number of interest rate hikes to occur each year. ▶

The growth in net loans and leases has been very strong over the past three years. However, the double-digit growth pattern is not likely to last into 2018, given the policy adjustment of the Federal Reserve. Net loans and leases growth likely will dampen slightly but stay above the historical rate of 6.69 percent. Projections point to an average yearly growth of 11.32 and 9.69 percent in 2017 and 2018, respectively. ▶

The Federal Reserve's main purpose is to maintain price stability to minimize uncertainty in the economy. Minimal uncertainty creates a positive business environment that in turn spurs investment activity and leads to maximization of economic growth. Inflation at the moment is the main worry of the Federal Reserve, which uses interest rates as a policy tool.







Concluding Remarks

Valley total employment grew, but at a declining rate than previous years. Average yearly growth was higher than the benchmark growth rate of 1.19 percent, and this above-natural rate of expansion continued into 2015. However, what set it apart was that the growth of 1.69 percent came close to the long-term growth rate of 1.71 percent when the recessionary years were excluded. In previous years a regional factor, drought, played a negative role on growth. In the coming years, national factors such as interest rates and inflationary worries are likely to play a stronger determining role in economic growth in the Valley.

Employment grew in all eight countries of the San Joaquin Valley. Fresno, San Joaquin and Stanislaus counties grew the fastest, while Kings and Madera grew the slowest. Merced, Tulare, and Kern grew at about the same rate as the Valley average.

Trade, transportation and utilities employment was the fastest-growing category of employment in 2015. The second-fastest-growing category was leisure and hospitality services employment; third-fastest was retail trade employment. Construction employment fell from the fastest-growing category to the fourth-fastest in 2015. The most striking development occurred in wholesale trade employment, which fell from one of the top three to the slowest growing category. Growth in wholesale trade employment in 2015 was even less than that of information and financial activities employment. Information and financial activities employment is slowly pulling away from all-time lows and beginning to post slightly higher growth rates than previous years.

In line with our projections, average yearly growth in housing prices came close to its single-digit benchmark rate in 2015. If inflation remains above the historical rate in 2017 and 2018, home value appreciation can occur at a faster rate than before, pulling growth closer to double digits. Single-family housing permits are growing at close to the benchmark rate and are likely to stay in that growth range during the coming two-year period.

> **"IN ALL, THE VALLEY ECONOMY KEEPS EXPANDING AND IS PROJECTED TO EXPAND FURTHER IN 2017 AND 2018..."**

Growth in average weekly wages posted the most significant performance in 2015, exceeding the rate of inflation by 2.0 percent. Given that wages have been suppressed for a long time, projections point to further increases in average weekly wages in 2017 and 2018. Higher rates of inflation, however, may scale back any gains in purchasing power.

Valley total bank deposits and net loans and leases have been registering growth significantly above benchmark rates. If a series of interest rate hikes were to occur, dampening economic activity, growth observed in the two series would be slower. Projections point to some mean reversion in both series during 2017 and 2018. Bank asset accruals declined further in 2015, returning to levels observed in 2005. However, depending on the number of interest rate hikes, accruals as well as nonaccruals in the Valley may climb upward due to increased default activity.

In all, the Valley economy keeps expanding and is projected to expand further in 2017 and 2018, but at speeds closer to benchmark historical rates due to headwinds from global and national factors.

Arina P Habich / Shutterstock.com

Appendix

Forecast Accuracy Table

Sector	Error	Accuracy	Turning Point
Total Employment	-0.28%	99.72%	Yes
Real GDP Growth	0.94%	99.06%	No
Construction	0.60%	99.40%	Yes
Education & Health	-1.30%	98.70%	Yes
Government	-1.21%	98.79%	Yes
Financial Services	1.23%	98.77%	No
Information	-0.28%	99.72%	Yes
Leisure & Hospitality	0.80%	99.20%	Yes
Manufacturing	1.01%	98.99%	Yes
Retail Trade	-0.56%	99.44%	Yes
Trade, Transportation & Utilities	-0.69%	99.31%	Yes
Wholesale Trade	1.49%	98.51%	No
Inflation	-0.86%	99.14%	No
Quarterly Average Wage	0.28%	99.72%	Yes
Housing Permits	3.69%	96.31%	Yes
Change in Housing Price	-0.23%	99.77%	Yes
Total Bank Deposits	1.46%	98.54%	Yes
Net Loan/Leases	-1.10%	98.90%	Yes
Overall	1.00%	99.00%