South San Joaquin Valley: A Growing California Success Story

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BEACON ECONOMICS

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The South San Joaquin Valley: The State of the Region

Two years ago, The California Endowment (TCE) asked the Pat Brown Institute for Public Affairs at Cal State Los Angeles to bring our California Agenda public policy forum series and our applied research to the San Joaquin Valley region. Since then, we have sponsored panels with local speakers on inequality, school discipline, higher education, prison realignment, and on a changing California.

With the support of TCE, we have commissioned a State of the Region report, to not only indicate where things stand today, but to provide information in order for the San Joaquin Valley to chart its course for the future.

To produce this report, the Institute turned to an outstanding forecasting firm, Beacon Economics. Widely known for its excellent research, its statewide reach, and for its ability to make complex economic data accessible both in reports and in public presentations, Beacon offered a special opportunity to fulfill this mandate.

Beacon's report offers a thorough and well-reasoned analysis of the state of the region. The overall sense of the report may be a bit surprising, given the generally pessimistic views of the region's condition that have been prevalent. The authors show that the South San Joaquin Valley has largely recovered from the devastating damage of the Great Recession and is on track for greater economic and community success. Even though the region is the state's and nation's agricultural base, it is more economically diverse than widely believed, with a wide range of non-agricultural industries, and even a significant sector of green energy. As long as the drought does not cause irredeemable damage, the region is poised to grow, its population to advance educationally and occupationally, and its future to shine. We are delighted to present this report, and hope that it fosters widespread dialogue within the region about the future, and how best to secure it.

The Pat Brown Institute of Public Affairs was established at Cal State Los Angeles in 1987. The PBI is a nonpartisan, applied public policy center dedicated to the quest for social justice and equality of opportunity, enlightened civic engagement, and an enhanced quality of life for all Californians. It sustains the vision and legacy of the former governor through convening public policy forums, engaging multi-sector stakeholders and diverse communities, and conducting timely policy research and community-driven initiatives. To learn more about the Institute, see www.patbrowninstitute.org

With best regards,

Raphael Sonenshein, Ph.D.
Executive Director

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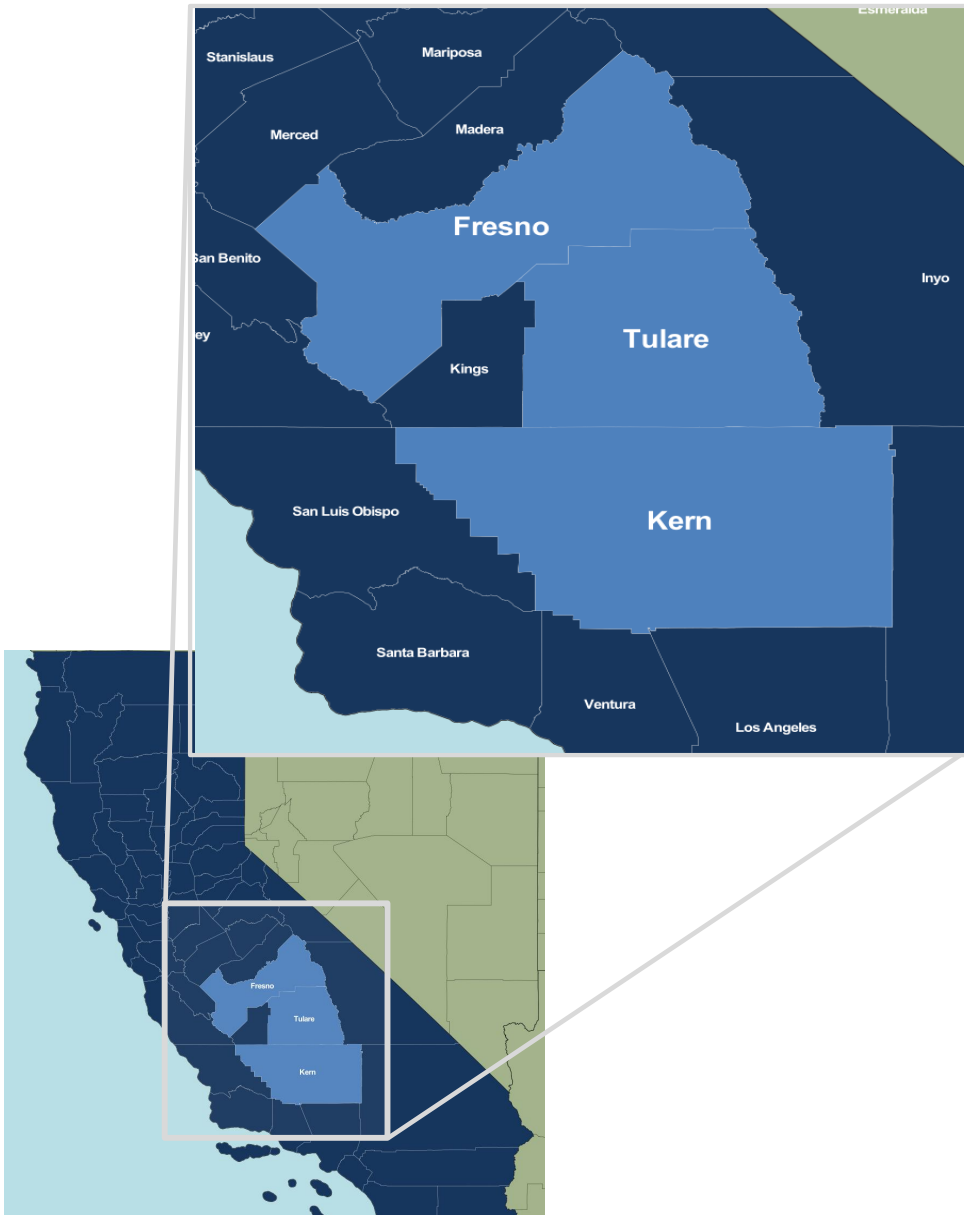
The South San Joaquin Valley

For this report, the South San Joaquin Valley region is defined as Kern, Fresno, and Tulare Counties.



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Executive Summary

The South San Joaquin Valley is a primarily rural region located in California's Central Valley, south of the Sacramento-San Joaquin River Delta. It consists of multiple counties (in this report the area is defined as Kern, Fresno, and Tulare Counties) and is home to a number of urban places including Bakersfield, Fresno, and Visalia.

The region is an agricultural powerhouse and makes up a large share of California's Agricultural sector, both in terms of economic output and employment. The economic and employment base of the South San Joaquin Valley has also grown increasingly diversified over the past decade, moving from one historically dominated by Agriculture, to one that today houses a growing share of the state's overall Real Estate, Utilities, Mining, Information, and the Professional, Scientific, and Technical Services sectors.

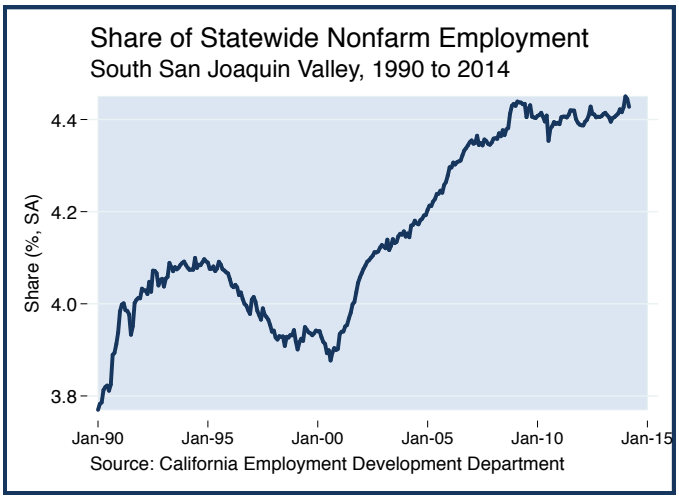
Over the past decade, the population of the South San Joaquin Valley has increased over 16% to reach approximately 2.27 million people. Compared to other parts of the state, and to the state as a whole, the region's population is growing fast. When compared to similar regions in other states, the population growth rate has kept pace, falling in the middle range.

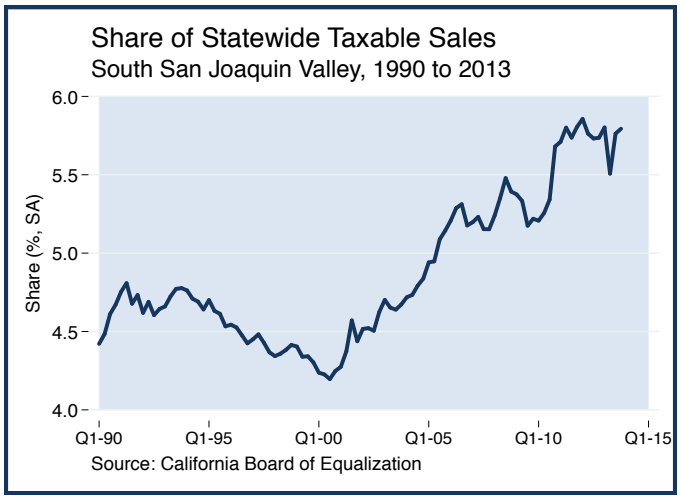
These and other strong long-term trends paint a picture of a growing region with an expanding economy – and contradicts a common characterization of the South San Joaquin Valley as an economic and social failure. With some of the highest poverty and unemployment rates in California, the region indeed faces serious demographic, economic, and environmental challenges, most of which have been well documented over time by the media and in various analyses. Additionally, the growing specter of ongoing drought conditions could have a serious effect on future economic growth. Overall, the region's population tends to be younger, poorer, and less educated compared to other parts of both northern and southern California.

Still, a deeper analysis of the trends in the South San Joaquin Valley over the past two decades indicates that the region warrants a label of success. Looking long term, and assuming that innovative and strategic use of water becomes part of the local fabric, the South San Joaquin Valley shows every sign of a region primed for positive growth in the future.

A major initial challenge may be changing perception. With so much focus on the negative facets of the South San Joaquin Valley, its many positives have not been given enough weight. Too often commentators have confused the cyclical aspects of the recent downturn (which hit portions of the region very hard) with the robust longer-term trends. Broad signs of recovery are already starting to emerge in many parts of the South San Joaquin Valley—recovery that will eventually lead to a return to growth trends.

The following report is intentionally focused on positive aspects of growth in the South San Joaquin Valley. This is not intended to gloss over the region's problems, such as air and water pollution, the drought, and gradual economic recovery, but rather to focus on and reveal its strengths in order to build a stronger and more informed dialogue about how to best overcome its challenges.





The South San Joaquin Valley shows every sign of a region primed for positive growth in the future.

Key Findings:

- Between 1990 and March 2014, the South San Joaquin Valley expanded its non-farm employment base by more than 50% –the 8th largest expansion among California's 26 metropolitan areas during this nearly 25-year period. California's most famous economic powerhouses, San Francisco and the Silicon Valley, rank near the bottom in terms of expanding their employment base over this time.
- The share of California employment located in the South San Joaquin Valley is growing. The region accounted for 3.8% of all of California's nonfarm jobs in 1990 and for 4.5% of all nonfarm jobs in 2013.
- The South San Joaquin Valley was affected by the 'Great Recession', but not exceptionally so: Between 2007 and 2010 the South San Joaquin Valley lost 7.9% of its nonfarm jobs, while the rest of California saw employment contract by 8.7%. Between 2007 and 2009, home prices fell 51% in Tulare County and 54% in Kern County, while in the state overall, home prices dipped by 57%.
- The South San Joaquin Valley has already exceeded its pre-recession employment peak. Since hitting bottom in July of 2010, the region has added back 61,300 nonfarm jobs—8,000 more than the 53,300 jobs lost during the recession. California remains below its own pre-recession employment peak.
- The South San Joaquin Valley's post-recession expansion in nonfarm payrolls has been broad-based. Except for Information and Finance/Insurance, every other private sector industry has added jobs. Factoring out job losses in the public sector, which has yet to rebound, private sector jobs have grown by 13.5% since hitting bottom during the recession.
- The South San Joaquin Valley has seen an expansion in both higher-skilled, higher-wage sectors and lower-skilled, lower-wage sectors. Real Estate—a relatively mid-wage sector—increased from 7.3% of the local economy in 2001 to 9.8% in 2012. The Utilities, Mining, and Information sectors, which pay between $60,000 and $102,000 per year, on average, have also significantly expanded their shares of the local economy.

- In terms of Gross Metropolitan Product, the South San Joaquin Valley was responsible for 33.2% of the economic output in California's Agriculture sector, and the region was home to 36% of the state's farm payroll employees in 2013.
- The energy boom in the South San Joaquin Valley is not based solely on the more controversial oil/gas extraction portion of the industry, but also on the increasing number of alternative energy projects, including solar and wind power, in the region.
- Growth in the South San Joaquin Valley population base has outperformed the state. Since 1990, the number of local residents has grown by more than 50%, while the population in the rest of the state has expanded by roughly 28%.
- The number of residents enrolled in an undergraduate or graduate college or university in the South San Joaquin Valley has increased to almost 10% of the population, which is in line with the U.S. average. And while the region still lags California overall, the percentage of residents with at least a bachelor's degree has increased from less than 15% in 2000 to over 16.5% in 2012.
- The South San Joaquin Valley has dealt with severe droughts before, but the current drought—which could be the worst on record—will challenge the region to better conserve water and introduce new technologies to adapt to a less reliable water supply.
- Spending by businesses and consumers in the South San Joaquin Valley has already surpassed its 2007 peak and continues to set all-time highs. At roughly $8.8 billion in taxable sales receipts during the fourth quarter of 2013, businesses and consumers spent more money in region than ever before.
- Homebuilding in the South San Joaquin Valley is starting to grow. Through the end of 2013, residential building permits in the South San Joaquin Valley were almost 50% higher than they were in 2012, which itself was a 28% increase over 2011.
- Although median home prices in the South San Joaquin Valley remain depleted compared to their pre-recession high, they have risen robustly over the past year, increasing by 20.4% in Fresno County, 17.3% in Kern County, and 16.5% in Tulare County. Prices are forecast to continue growing in the 5% to 7% range over the next few years.
- The South San Joaquin Valley is a highly 'home-affordable' region relative to neighboring parts of the state. Home affordability combined with a growing population and expanding economy, indicates that more housing units will be needed in the near future.
- Although the affordability of the South San Joaquin Valley makes it an attractive place to live, air pollution remains a problem. The region has the second highest concentration of ozone in the United States.
- Energy industry projects have largely dominated commercial real estate in the South San Joaquin Valley in recent years, with numerous facilities being built across the region. Overall, building permits for industrial properties increased by 31.4% from March 2014 to February 2014.

South San Joaquin Valley Forecast

by Jordan G. Levine

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The Bends: Hit Hard but Not Exceptionally Hard

From a cyclical standpoint, the South San Joaquin Valley was hit harder by the recession than most of the nation. Compared to other regions in California, the South San Joaquin Valley actually performed slightly better, but was hard hit nonetheless. For example, between 2007 and 2010 the South San Joaquin Valley lost 7.9% of its nonfarm jobs, while the rest of California saw employment contract by 8.7%. Similarly, home prices in the region fell by between 51% in Tulare County to 54% in Kern County—slightly less than the state overall, where home prices dipped by 57% between 2007 and 2009. In fact, the data across a variety of economic indicators, including taxable sales and real GDP, shows the same general story: the South San Joaquin Valley was affected by the 'Great Recession', but not exceptionally so.

Peak, Trough and Current Employment
S. San Joaquin Valley vs. California

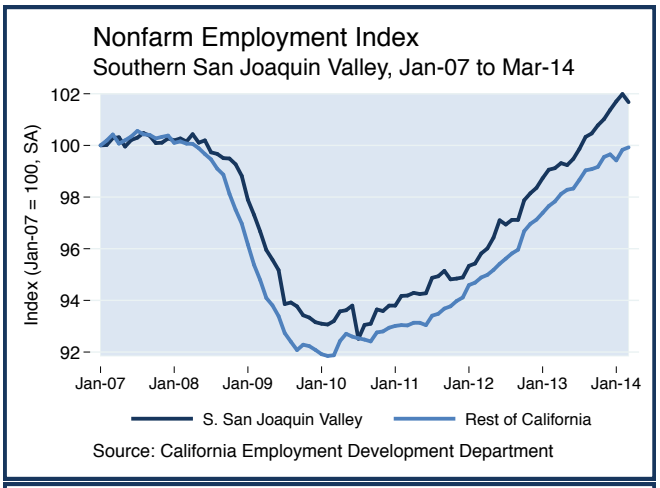
	S. San Joaquin Valley	Remainder of California
Peak Month	Aug-07	Jul-07
Peak Employment	672.3	14,778.7
Trough Month	Jul-10	Feb-10
Trough Employment	619.0	13,498.3
Peak to Trough	-53.3	-1,280.4
Peak to Trough (%)	-7.9%	-8.7%
Current Month	Mar-14	Mar-14
Current Employment	680.3	14,685.2
Trough to Current	61.3	1,186.9
Remaining to Peak	N/A	93.5

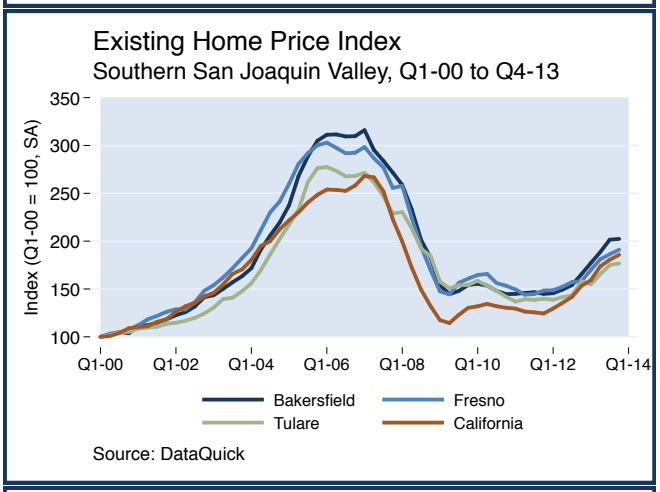
Source: U.S. Bureau of Labor Statistics

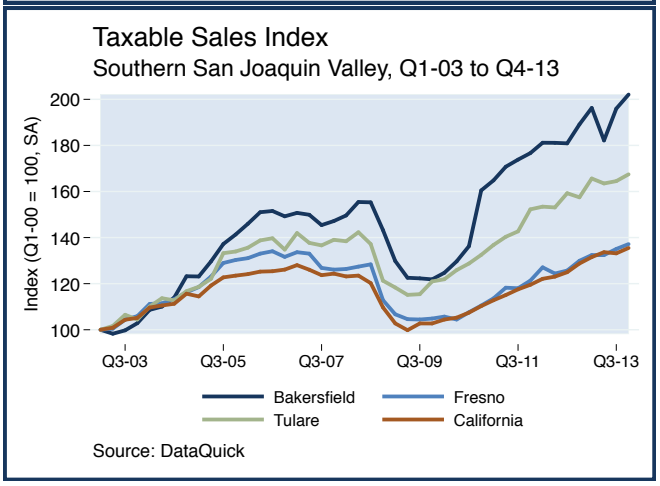
This is against the backdrop of a region that saw more growth during the previous decade than most other parts of the state. In other words, the South San Joaquin Valley grew more before the recession, and experienced a smaller contraction during the downturn, leaving it better off in relative terms than many other areas of California. For example, between 2000 and the end of 2006, the median sales price of an existing single-family home in the South San Joaquin Valley increased by between 168% (Tulare County) and 210% (Kern County) while in California overall, the median price grew by 158%.

The South San Joaquin Valley has retained more of the gains in home prices made over the past 14 years than the remainder of the state. The same is true for each of the previously discussed indicators, from employment, where jobs grew more than twice as fast as in the rest of the state between 2000 and 2007, to business and consumer spending, where taxable sales grew nearly twice as much as in the remainder of the state over the same time.

While this does not diminish the pain inflicted by the recession, especially as felt by lower-income populations who tend to feel economic contractions more acutely because they have fewer resources, the South San Joaquin Valley was not the most affected part of the state and retained more of its growth over the decade than other parts of California. And, although it is still recovering, that recovery process started slightly ahead of many major metropolitan areas in the state. The region has had its share of the "bends" associated with the recession, but not as badly as many other places, and a longer view of the trends, shows an outlook that is even more encouraging.







The Trends: An Engine for California Growth

Looking back over the past 25 years, the story of the South San Joaquin Valley is one of economic success. That perspective may not align with the commonly held view. In a recent news report, the area was described as being in a "unique oblivion."[1] These authors note that the Central Valley maintains a higher unemployment rate in the wake of the recession than the state overall, and that the area has an abundance of relatively lower-skill, lower-wage jobs. However, the region typically maintains higher levels of unemployment than the state, due mostly to the structure of its economy. It's no secret that the South San Joaquin Valley is home to a significant portion of California's agricultural production, so it shouldn't be surprising that there are also many jobs in the local economy that service this important industry –an industry with low wages. However, the area is far from a "one-trick pony."

To focus on the levels rather than on the over two decades of trends, misses the important dynamics at play in the South San Joaquin Valley: namely the progress it has made; the diversification of its economic base; and the demographic shifts that have taken place over the past 25 years.

Consider employment as a prime example. Between 1990 and March 2014 (the most recent data available) the South San Joaquin Valley expanded its nonfarm employment base by more than 50%. That was the 8th largest expansion of California's 26 metropolitan areas during this timeframe. In 1990, the region boasted just 471,000 jobs. Today, that number is closer to 700,000. Bakersfield, in particular, posted exceptional growth: ranking 6th statewide. It's surprising to learn that the South San Joaquin Valley outperformed California's most famous economic powerhouses, San Francisco and the Silicon Valley, which rank near the bot-

[1]Robert J. Cristiano, Ph.D., "Is California the next Detroit?" Cal WatchDog, August 27, 2013, calwatchdog.com/2013/08/27/is-california-the-next-detroit-2.

Nonfarm Employment Growth in California
January 1990 to March 2014

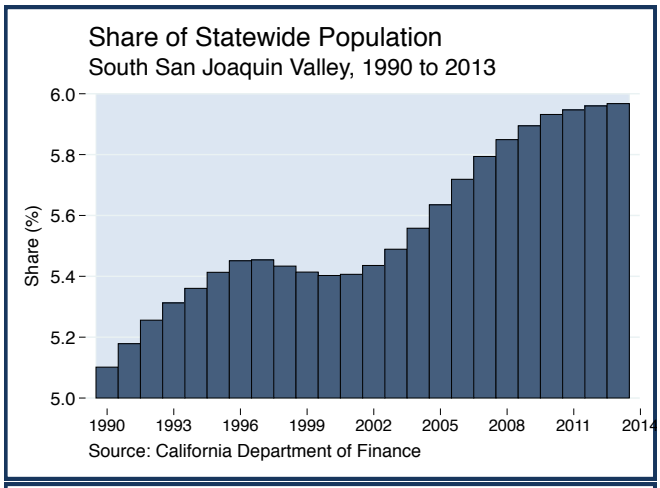
Rank	Metro	Jan-90 (000s, SA)	Mar-14 (000s, SA)	Change (%) (Cumulative)	Change (%) Ann. Avg.
1	Madera	18.2	35.5	95.1	2.8
2	Inland Empire	702.6	1,244.3	77.1	2.4
3	Napa	40.0	67.9	69.8	2.2
4	El Centro	31.2	51.8	66.0	2.1
5	Hanford	23.6	37.2	57.6	1.9
6	Bakersfield	168.2	252.9	50.4	1.7
7	Merced	41.4	60.6	46.4	1.6
8	Sacramento	608.2	880.2	44.7	1.6
9	Fresno	221.8	313.3	41.3	1.4
10	San Luis Obispo	75.0	105.9	41.2	1.4
11	Visalia	81.0	114.1	40.9	1.4
12	San Diego	963.7	1,338.5	38.9	1.4
13	Modesto	115.6	158.1	36.8	1.3
14	Santa Rosa	138.0	186.9	35.4	1.3
15	Stockton	150.3	202.2	34.5	1.2
16	Chico	57.1	75.0	31.3	1.1
17	Vallejo	96.6	126.6	31.1	1.1
18	Yuba	29.6	38.4	29.7	1.1
19	Redding	47.8	61.8	29.3	1.1
20	Ventura	228.1	289.9	27.1	1.0
21	Orange County (MD)	1,182.3	1,475.5	24.8	0.9
22	California	12,494.0	15,365.5	23.0	0.9
23	Oakland (MD)	871.2	1,046.5	20.1	0.8
24	San Jose	827.3	989.5	19.6	0.7
25	Santa Barbara	148.0	174.2	17.7	0.7
26	Salinas	109.9	126.9	15.5	0.6
27	San Francisco (MD)	949.4	1,085.8	14.4	0.6
28	Santa Cruz	82.7	94.2	13.9	0.5
29	Los Angeles (MD)	4,195.8	4,160.4	-0.8	0.0

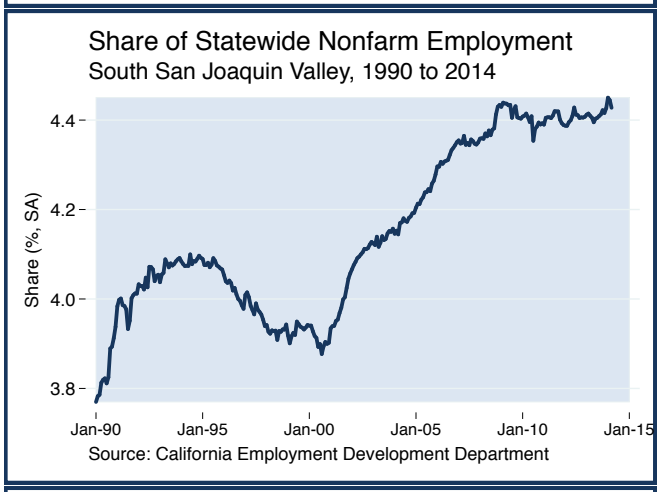
Source: U.S. Bureau of Labor Statistics

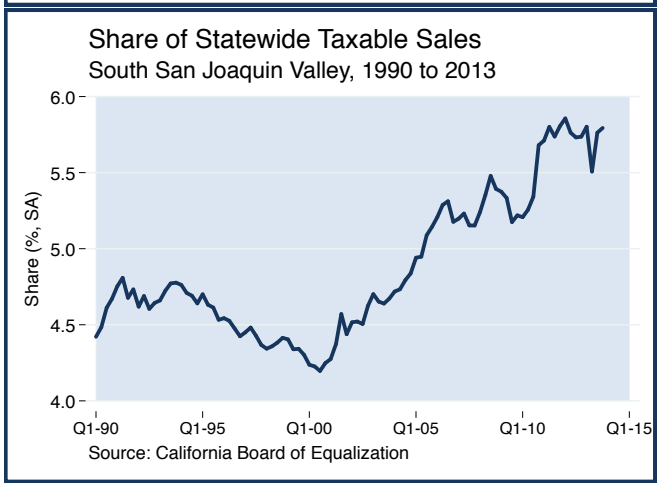
tom in terms of expanding their employment base over the past 25 years. Focus on employment of residents (household employment), which includes the farm sector, the self-employed, and informal workers that are not covered by unemployment insurance, rather than formal payroll employment (nonfarm jobs) and the region moves up a few slots. Bakersfield jumps to 4th fastest in growth, with Fresno ranking 9th and Tulare 11th.

Growth in the region's population base has also outperformed the state. Since 1990, the South San Joaquin Valley saw the number of local residents grow by more than 50% while the population in the rest of the state expanded by roughly 28%. What's important, and what influences this analysis' optimism for the future, is not simply that the region has grown in absolute terms –most areas are bigger economically today than they were 25 years ago –relative growth is what makes the South San Joaquin Valley a place of immense opportunity. What matters most is that the area has grown faster—outperforming the majority of other parts of the state over the long run, and becoming an increasingly important part of the statewide economy.

For example, the region's share of the California population base increased almost uninterrupted from 5% in 1990 to 6% in 2013. Similarly, the region formerly accounted for 3.8% of the state's nonfarm jobs and now represents almost 4.5%. And the results are consistent across indicators, from population to employment to spending by consumers and businesses –the local share of taxable sales has grown from 4.5% to 5.8% of all statewide taxable sales from 1990 to 2013. The South San Joaquin Valley has not only grown in size, but its importance to the state's economy has increased over time.







Real GDP Growth in California

Industry	2012 GDP ($ Millions)	Share of Total (%) 2001	Share of Total (%) 2012	Diff. (%)
Agriculture	7,089.0	5.9	10.9	5.0
Real estate	6,380.0	7.3	9.8	2.5
Utilities	1,619.0	1.3	2.5	1.2
Mining	5,258.0	7.0	8.1	1.0
Information	1,668.0	1.5	2.6	1.0
Logistics	2,386.0	2.9	3.7	0.7
Administrative	1,846.0	2.1	2.8	0.7
Wholesale trade	3,296.0	4.6	5.1	0.5
Prof., sci., and tech. svcs.	2,363.0	3.2	3.6	0.4
Educational services	246.0	0.3	0.4	0.0
Arts/entertainment	262.0	0.4	0.4	0.0
Manufacturing	5,059.0	8.0	7.8	-0.2
Accommodation	1,369.0	2.4	2.1	-0.2
Retail trade	5,094.0	8.4	7.8	-0.5
Management	444.0	1.2	0.7	-0.5
Health care	4,535.0	7.5	7.0	-0.6
Finance/insurance	2,102.0	3.9	3.2	-0.6
Other services	1,858.0	4.7	2.9	-1.8
Construction	2,532.0	5.9	3.9	-2.0
Government	9,764.0	19.3	15.0	-4.2
Private	55,233.0	80.7	85.0	4.3
Total	64,979.0	100.0	100.0	0.0

Source: U.S. Bureau of Economic Analysis

Along with these positive shifts has been a relative change in the underlying economic and demographic base of the area. As noted, the South San Joaquin Valley has traditionally been an area dominated by agriculture. However, over the past decade, the region has increasingly diversified its economic base. The local agriculture sector has still seen its share of local GDP grow from roughly 6% in 2001 to almost 11% in 2012. But the region has also benefitted from a modern-day energy boom, which has helped to bolster GDP, created new jobs, and stimulated business investments across the region due to new energy related industrial properties that have been developed in the South San Joaquin Valley. Moreover, the economy is not dependent on agriculture and energy alone. The region has seen increased shares in a variety of other industry sectors.

What is not commonly understood is that the South San Joaquin Valley has seen an expansion in both higher-skilled, higher-wage sectors and in lower-skilled, lower-wage sectors. For example, the Real Estate industry—a relatively mid-wage sector—has increased from 7.3% of the local economy in 2001 to 9.8% in 2012. Right behind Real Estate in terms of expanded shares of the local economy are Utilities, Mining, and Information—sectors that paid between $60,000 per year on average (Information) to $102,000 per year on average (Utilities) in 2013. The Professional, Scientific, and Technical Services sector has also seen its share of the local economy increase. And while there has also been growth in lower-skilled categories, such as Administrative Support, other traditionally low-wage sectors like Accommodation & Food Services and Retail Trade have seen their shares of local GDP fall over the past decade. Retail remains a relatively large sector in the region from a GDP standpoint, but its share is falling, while higher wage industries are growing more concentrated. Thus, to argue that the region consists solely of low-wage industries, is not only incorrect, but it glosses over the fundamental shifts that have taken place in the South San Joaquin Valley.

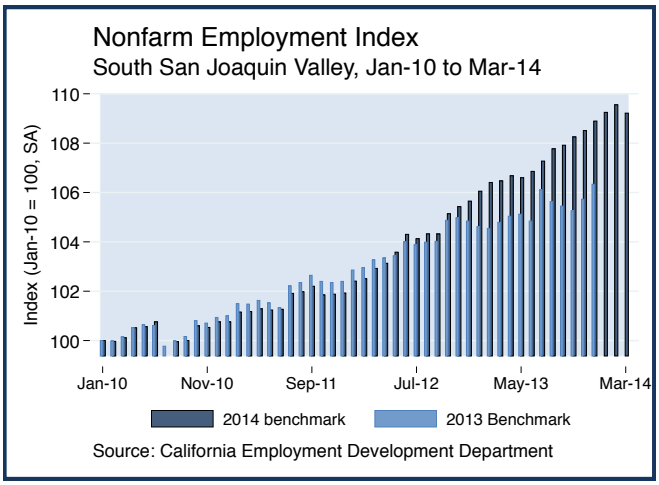
As a result of the changing economy and labor markets, the region has also undergone a shift in the composition of the local population base. For example, the number of residents enrolled in an undergraduate or graduate college or university in the South San Joaquin Valley, has increased to almost 10% of the population, which is in-line with the national average. In addition, the percentage of residents with at least a bachelor's degree has increased from less than 15% in 2000 to over 16.5% in 2012. That still lags California overall, but the region is making solid progress in the right direction. Additionally, incomes have grown substantially, both in aggregate terms and on a per capita basis. The South San Joaquin Valley still has challenges to face, and will need to continue to diversify its economic base, but the region has made very positive strides and is poised for ongoing improvement from a structural standpoint as the cyclical remnants of the recession fade.

The Recovery: Lots to be Positive About

Optimism about the future of the South San Joaquin Valley is largely borne out by the progress the region has made in recovering from the recession over the past three years. In fact, unlike many other parts of the state, the South San Joaquin Valley has already exceeded its pre-recession employment peak. Since hitting bottom in July of 2010, the region has added back 61,300 nonfarm jobs—8,000 more than the 53,300 jobs lost during the recession. In contrast, California remains almost 100,000 (0.6%) below its own pre-recession peak.

This 9.9% expansion in nonfarm payrolls has been very broad-based. While the Information and the Finance/Insurance industries have shed an additional 800 jobs collectively, every other private-sector industry has turned the corner towards job growth in the South San Joaquin Valley. Factoring out job losses in the public sector, which has yet to rebound, private-sector jobs have grown by 13.5% since hitting bottom. The Construction and Natural Resources/Extraction industries have contributed the most to nonfarm payrolls, but the region has seen a solid uptick in high- and low-wage industries alike. At the lower end of the wage scale, the region has seen strong growth in Retail, Administrative, and Leisure/Hospitality jobs. At the same time, there has been an increase in the Education/Healthcare, Logistics, Manufacturing, and Professional jobs sectors, which tend toward above-average salaries.

Additionally, job growth has been much stronger than originally reported. Each year in March, the California Employment Development Department (EDD) recalibrates the models they use to estimate monthly job numbers across the state to the more accurate Quarterly Census of Employment and Wages[2] from the prior year in what's known as the annual benchmarking process. The result of this year's benchmarking is that job growth numbers for the South San Joaquin Valley were much better last year than originally reported by the EDD. Specifically, in December 2013, the EDD reported that the South San Joaquin Valley expanded by a paltry 1.4%—below the statewide average. However, fast-forward to March 2014 and the revised benchmark shows that the region actually expanded by 3.1% last year—ahead of the state and the nation as a whole. In other words, the South San Joaquin Valley not only expanded, but it was a driver of job growth in California last year.

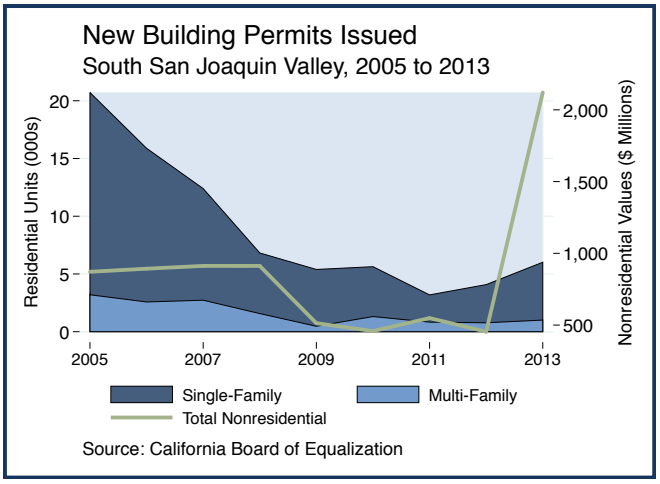


Part of the surge in job activity can be attributed to the modern-day energy boom that is currently underway in the region. As controversial as the extraction business has become, this sector has contributed to the economic base of the South San Joaquin Valley. The energy boom in the region is not restricted to oil/gas extraction, which is only one part of a larger local energy sector. As is discussed in detail in subsequent chapters, this area is also seeing a rise in alternative energy sources including wind projects, such as the Tehachapi Pass, and solar projects, such as ImMODO Solar in Tulare County and Antelope Valley Solar I and II by MidAmerican.

Employment also tends to be a lagging indicator that turns only after firms see an uptick in both demand for their products and an increase in the corresponding

[2]The U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages program publishes a quarterly count of employment and wages reported by employers covering 98 percent of U.S. jobs, available at the county, MSA, state and national levels by industry.

revenues. The region's forward-looking indicators show that the area has been recovering in a variety of other critical ways as well. Spending by businesses and consumers has already surpassed its 2007 peak and continues to set all-time highs. At roughly $8.8 billion in taxable sales during the final quarter of 2013, businesses and consumers spent more money in the South San Joaquin Valley than ever before. This will put upward pressure on demand for retail jobs as well as jobs in the region's restaurants and entertainment firms.



Building permits have also started to bounce back nicely. Through the end of 2013, residential building permits in the South San Joaquin Valley were almost 50% higher than they were in 2012, which itself was a 28% increase over 2011. Due in large part to the approval of a $1 billion permit for the Antelope Valley I and II solar projects, growth in nonresidential permitting was literally off the charts in 2013. The commercial markets are beginning to heal as well with rising rents and declining vacancies across most types of commercial space.

Finally, the region has several key attributes that will help bolster local economic activity in the coming years. The South San Joaquin Valley is one of the more affordable parts of California. In conjunction with a growing economy and a more diverse and skilled economic base, this should continue to incentivize in-migration from other parts of California where home prices are much more expensive. In addition, the region is home to significant natural assets, which will help bolster tourism. These include, to name just a few, the Sequoia and Kings Canyon National Parks, the Giant Sequoia National Monument, the Sierra National Forest, and the Anza-Borrego Desert.

Many of the challenges faced by the area, such as a relatively less-educated workforce, a large agricultural sector, and a smaller concentration of traditionally high-skilled sectors, have been well documented in a variety of studies and reports. However, the region has made significant progress from a structural standpoint and has performed better during the recovery than many other parts of the state. There is always room for improvement, but fortunately, that is a process that has been underway for some time.

The Forecast: A Growth Region Once Again

Rather than being in the midst of a depression as some have suggested, the South San Joaquin Valley actually posted an above-average year in 2013—outpacing many other parts of the state in a variety of key economic indicators. The region has also made significant progress over the past 25 years through increasing incomes, educational attainment, school enrollment, and much larger increases in population, employment, and business and consumer spending. These results have led the region to become a more important part of the statewide economy as evidenced by its rising share of state numbers in those categories.

Given that the South San Joaquin Valley's cyclical performance in the wake of the recession has also been robust, the current forecast calls for ongoing recovery through the remainder of 2014 and beyond. Specifically, Beacon Economics forecasts that nonfarm employment will continue to move forward, posting a 2.8% increase this year, followed by a 3% increase in 2015 and a 3.2% increase in 2016. As more residents get back to work, both con-

sumer spending and the local real estate market will advance as well. Taxable sales are forecasted to grow by between 4% and 5% over the next few years as incomes rise. The housing market, which has already showed significant progress over the past 18 months, will continue to improve as well, though the pace of that growth is expected to moderate over the next 12 months. Still, home prices are expected to increase by between 5% and 7% throughout the region in the coming years.

Overall, many of the wounds inflicted by the Great Recession have already healed: employment and consumer spending have returned to their pre-recession peaks. Additionally, the South San Joaquin Valley is in the midst of both a traditional and an alternative energy boom and has become a much more diverse economy than it was in previous decades.

South San Joaquin Valley Agriculture

by Eric Meux

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Overview

The South San Joaquin Valley (SSJV) is truly the titan of agriculture in the State of California. Consisting of Fresno, Kern, and Tulare counties, the top three agricultural counties in the state, this region makes up the lion's share of the state's Agriculture industry. According to the most recent California Agricultural Statistics Review, the total value of agricultural commodities in the SSJV made up 28.4% of state production. In terms of Gross Metropolitan Product (GMP), the SSJV's share of economic output in the state's Agriculture industry was 33.2%, and the region is home to 36% of the state's farm payroll employees.

The list goes on and on, and is even more impressive given that the population in the South San Joaquin Valley accounts for just 6% of the state's population. The region's leading role in agriculture was recently highlighted when it once again hosted the World Ag Expo, an annual event showcasing the latest developments in farm equipment and agriculture innovation, attracting exhibitors and visitors from around the world.

Not only is the South San Joaquin Valley the state's leader in agriculture, but the industry has continued to thrive in recent years. The most recent data available on agricultural production values show that the region set record highs in 2012. Large increases in production, as well as in the price of grapes, contributed strongly to the annual gains, and, aside from milk, the region's top five agricultural commodities saw respectable increases in value over the prior year.

The 2013 crop reports are due out later this year, but from other data sources it appears that output in the region's agriculture industry edged up slightly over 2012 levels. Statewide exports of most of the SSJV's top five agricultural commodities are showing double-digit annual growth. Exports of fresh oranges, however, have been in decline, and this drop partially offset the gains seen elsewhere. Employment in the region's Farm industry continued to grow for a fourth consecutive year; Food Manufacturing employment declined marginally but for the most part held steady.

South San Joaquin Valley Share of California Total

Description	Share (%)
Farm Receipts	28.4
Agricultural Economic Output	33.2
Farm Employment	36.0
Land in Farms	20.4
Population	6.0

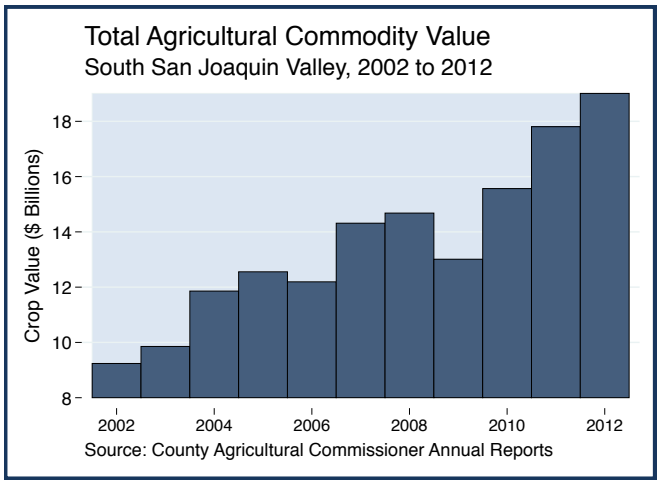
Source: US Department of Agriculture, Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, California Department of Finance

The Agriculture industry in the South San Joaquin Valley had a great year in 2012. For the third consecutive year, the total value of crops and livestock set a record high.

Unfortunately, the outlook for 2014 does not appear as promising. As widely reported, 2013 was one of the driest years on record for California, and weather conditions have not significantly improved during the first four months of 2014. In January a drought state of emergency was declared by Governor Jerry Brown. The state of emergency will open the door to financial assistance, but farmers are still faced with a difficult situation. Although the South San Joaquin Valley has dealt with dry spells in the past, the current situation is shaping up to be one of the worst on record. Conservation and strategic use of water will be paramount in the year ahead. And while the drought is currently weighing heavily on the region's farmers, it does present an opportunity for innovation and adaptation in the face of water supply issues. The current dry spell won't be the last, and ultimately strategies and infrastructure must be developed to manage resources more effectively to preserve long-term growth potential for the region's Agriculture industry.

2012 Agriculture Industry Performance

The Agriculture industry in the South San Joaquin Valley had a great year in 2012. For the third consecutive year, the total value of crops and livestock set a record high. With production totaling $19 billion, a 6.8% increase over 2011 production values, the SSJV maintained its standing as the state's top agricultural region. In 2012 Kern County made the largest contribution to the region's annual increase in production. The total value of crops and livestock in Kern County increased by 15.5%, to $6.2 billion. The value of Tulare County production also came in at $6.2 billion, a 10.3% increase from the prior year. Fresno County saw a 3.3% decline in the value of crops and livestock in 2012.



The primary driver of growth in 2012 was fruit and nut crops, the largest category in terms of total value, which increased by 16.8% for the year. Livestock and poultry made the second-largest contribution to annual growth and increased by 12.8% over the prior year. The gains from these two categories made up virtually all of the year-over-year increase in crop and livestock production value. The second-largest category in terms of value, livestock and poultry products, saw a 10.5% decline in value for the year, which prevented the county from realizing even higher record values for 2012.

The top five agricultural commodities in the SSJV region are grapes, milk, almonds, cattle, and oranges. Except for milk, all of these commodities saw increases in total value in 2012. The total production value of grapes, the top commodity in 2012, reached $3.5 billion, a staggering 42% increase over 2011 values. Table grapes, which make up the majority of grape production in the SSJV, saw values increase by 62% in 2012. Not to be outdone, production values for wine and raisin grape varieties both grew by double digits as well, at 23% and 16%, respectively.

... given the region's large share of statewide agricultural production ... those figures suggest that 2013 was as good, if not better, than 2012 for the region's industry.

Milk held the number two spot in dollar terms in 2012. It was ranked number one in 2011, but was surpassed in 2012 due to the sharp increase in the production value of grapes, in addition to declines in the value of milk. The total value of milk in the region was $2.9 billion in 2012, a 10.6% decrease from the 2011 value. Milk production did increase by 1.4% in 2012, but because prices declined by 11.9%, the total value of milk production was down by 10.6% for the year.

Almonds ranked third-highest in production value in 2012. Total production for the year decreased by 9% over the prior year, but thanks to a 26.6% increase in prices this commodity managed to see total value grow by 15.7% from 2011 to 2012. Cattle and oranges rounded out the list of top five agricultural commodities in the SSJV, with total values increasing by 8.3% and 4.2%, respectively.

In addition to being a record-high year for agricultural commodity values, 2012 also saw the continuation of a shift toward increased grape production. Harvested acreage increased sharply in 2011, reversing a decade-long trend of declines. In 2012, harvested acreage for grapes increased further and reached record high lev-

South San Joaquin Valley Top Agricultural Commodities

Commodity	2011 ($)	2012 ($)	Change (%)
Total	18,037,905,300	19,010,321,100	5.4
Grapes	2,446,758,000	3,468,111,000	41.7
Milk	3,304,826,507	2,953,948,270	-10.6
Almonds	1,695,845,000	1,961,284,000	15.7
Cattle	1,237,722,000	1,340,372,000	8.3
Oranges	1,082,151,000	1,127,665,000	4.2

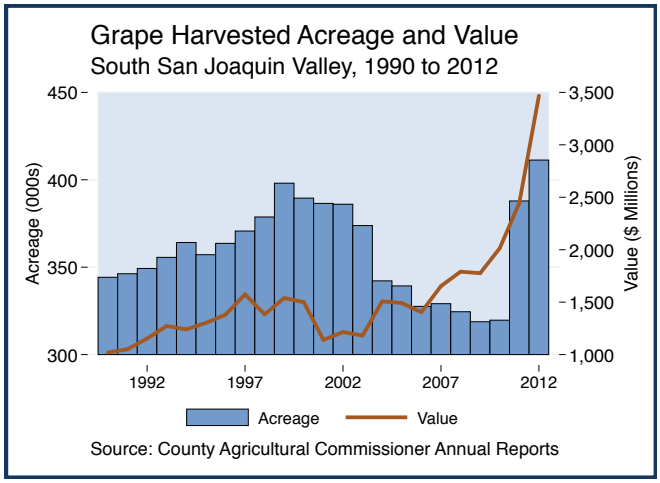
Source: County Agricultural Commissioner Annual Reports

els. Because of these increases, combined with large increases in prices over the years, grapes took the number one spot for total value in 2012, reflecting a profitable move by farmers in the SSJV as many transitioned to this cash crop.

2013 Agricultural Exports and Farm Employment

Assessing the current health of the Agriculture industry in the South San Joaquin Valley can be difficult due to the lagged nature of the most comprehensive data sources, the crop reports produced by the individual county Agricultural Commissioners. To get a better sense of how the industry has fared since the most recent crop reports, we can look at agricultural exports at the state level as well as the trends in regional farm employment.

Examining California's agricultural exports yields a reasonable approximation for exports from the South San Joaquin Valley, given the region's large share of statewide agricultural production, and those figures suggest that 2013 was as good, if not better, than 2012 for the region's industry. California agricultural exports made a strong showing in 2013. The value of state agricultural commodities exported to the rest of the world totaled $20.9 billion, a 15.6% increase over the prior year, for an all-time high. This strong annual increase is even more impressive given that overall prices for California's agricultural exports increased by 8.4% over the same period, indicating that almost half of the annual gains were due to real increases in export quantities as opposed to just prices. Furthermore, these gains have continued into 2014 as well. The total value of California agricultural exports for the first two months of the year was up 6.1% over the same period in 2013.



California exports of the SSJV's top five agricultural commodities saw strong increases virtually across the board. Aside from a 0.1% decrease in the value of orange exports, all of the SSJV's top five commodities saw state exports grow by double digits in 2013. Almonds led the pack, with a $771 million increase over 2012 exports, for a gain of 23.5%.

Milk exports ranked second in terms of contribution to annual growth, with values improving by $529 million, for a staggering 64% increase. California milk prices in-

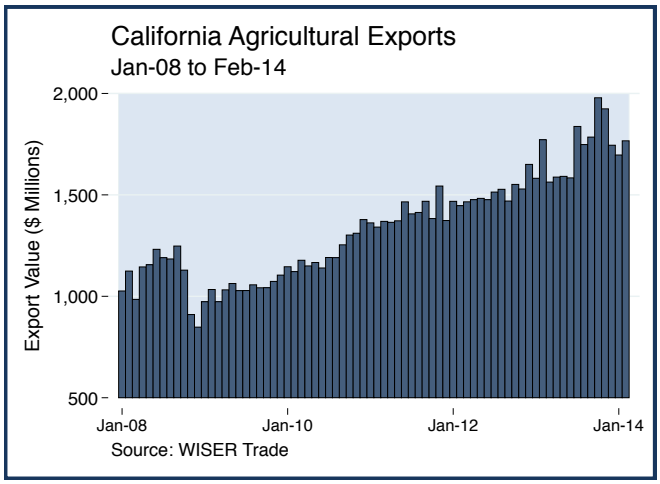
California Agricultural Exports Values

Commodity	2012 ($)	2013 ($)	Change (%)
Total	18,137,823,739	20,961,248,197	15.6
Almonds	3,280,148,867	4,051,572,185	23.5
Grapes	1,164,769,214	1,287,199,529	10.5
Milk	826,904,579	1,355,752,152	64.0
Oranges	628,343,939	627,572,873	-0.1
Beef	324,372,160	395,497,378	21.9

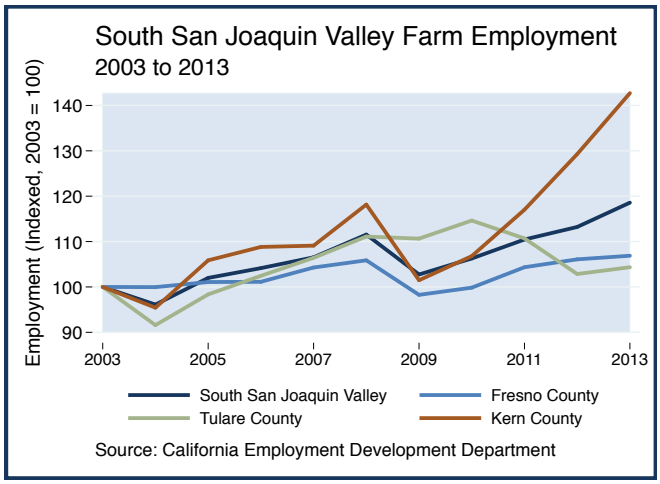
Source: WISER Trade

creased by just 6% in 2013, and thus the high annual growth in milk exports was due primarily to higher quantities being exported. Exports of grapes and beef were up by 10.5% and 21.9%, respectively.

Exports to China, including Hong Kong and Macao, were also up in 2013. The total value of these agricultural exports reached $3 billion for the year, up 16.3% from 2012 levels. China is currently the second-largest destination for California agricultural exports. As the Chinese economy continues to grow, demand for California's agricultural commodities will increase further.



In addition to higher agricultural export activity in 2013, increases in farm employment for the year also point to advances in the region's Agriculture industry. Average annual farm employment in the region stood at 142,800 jobs in 2013, a 4.3% increase over 2012 employment levels. This annual rate of growth was an acceleration over the 2.9% annual increase in 2012 and represented the highest annual rate of growth since 2007. Additionally, 2013 marked the fourth consecutive year of higher farm employment since the recessionary low in 2009.



Kern County made the largest contribution to growth in 2013 and saw farm payrolls increase by 5,200 positions, a 9.5% increase. Of the three counties making up the SSJV, Kern County is the largest in terms of farm employment. Tulare County and Fresno County also saw increases to farm employment levels in 2013, growing by 1.3% and 0.6%, respectively.

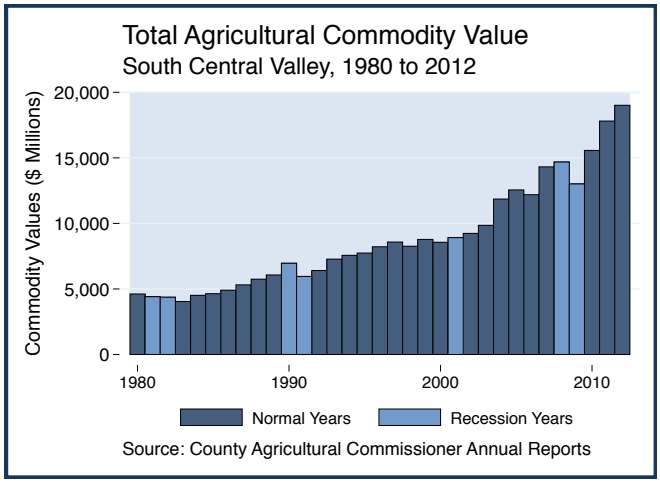
Employment in the region's Food Manufacturing industry declined marginally in 2013, for a loss of roughly 140 jobs, or a 0.6% decrease. This annual decline runs contrary to the gains in exports and farm employment in 2013, but it's a small dip that, for the most part, represents relatively steady employment levels. The sur-

vey data behind these estimates are more volatile for smaller industries at the regional level. Total Food Manufacturing employment in the SSJV reached 24,000 jobs in 2013. In contrast, farm employment stood at 142,000 for the year.

2014 Outlook

The water supply remains a key concern for the SSJV Agriculture industry in 2014. Most Central Valley farmers will be allotted zero water through the Central Valley Project for the coming year, due to extremely low water levels in the Sacramento–San Joaquin River Delta, which supplies much of the Central Valley through water exports.[3] As a result, water districts in the Central Valley will be required to extract significantly more water through existing groundwater sources, and will need to buy water from senior water rights holders through the state's water market. [4] Fortunately, the State of California has already begun to pursue remedial measures to avoid the potential fallout of a water shortage in the Central Valley. On March 1, 2014, Governor Jerry Brown signed into law a $687 million drought relief bill that will fund expanded use of recycled water, improved management of groundwater storage, stronger water conservation measures, and stormwater recapturing projects. [5]

Central Valley water districts should know soon how much water they will receive in 2014 through the Central Valley Project and, consequently, how much water they will need to draw from alternative, and potentially more expensive, sources. It leaves farmers in the South San Joaquin Valley in a tenuous position going into the third and most severe year of drought. A shortage of water would almost certainly lead to a slower year for agriculture, as some farmers would likely be forced to fallow some of their fields, maintain their current levels of irrigation water at much higher costs, or reduce their consumption of irrigation water to the detriment of their crops. Crop prices may rise due to weaker yields. A report from the *Fresno Bee* claims that ranchers have already had to pay more for hay due to a lack of grasses in Central Valley rangelands. [6] Farmers may be forced to cut back on hiring in the coming year. Unless strong measures are taken at the state and federal level to manage drought conditions, 2014 may prove a difficult year for the region's farmers.



Even though the industry's prospects seem bleak for 2014, it is worth pointing out that during the previous drought, from 1989 to 1991, the overall Agriculture industry in the region did not see an abnormal decline in the value of production for those years. It is true that the total value of production in the region did decline by 14% from 1990 to 1991, but that time period also coincided with a nationwide economic recession. In fact, most of the periods in which the SSJV saw the total value of agricultural commodities in the region decline were during recessions.

Year-to-year volatility is par for the course in the Agriculture industry, and the fact that there was not a more serious decline during both a recession and a drought is a testament to the resilience of the region's industry.

[3] Bettina Boxall, "Most Central Valley Growers to Get No Water from the Central Valley Project," *L.A. Times,* February 21, 2014.

[4] Ibid.

[5] "California Governor Signs $687 Million Drought Relief Legislation," *Reuters,* March 1, 2014.

[6] Robert Rodriguez, "Valley Cattle Ranchers Trying to Stay Afloat Amid Drought," *Fresno Bee,* February 1, 2014.

Strategic conservation, such as preserving permanent crops and forgoing annual crops, as well as adaptation through transitioning to less water intensive crops, has been the key to survival during tough times.

The current situation is also an opportunity to develop the region's infrastructure and its ability to manage local resources while the public's attention is focused on the impact of the drought and the need for investment. This won't be the last drought for California, and the state and region need to be prepared to handle water supply issues in the future. There have already been some local efforts to this end. In Tulare County, the McKay Point project is in the works, a 120-acre reservoir site located near the separation of the Kaweah and St. Johns rivers, which is estimated to cost $10 million and will have a total capacity of 4,000 acre-feet.[7]

The current situation is also an opportunity to develop the region's infrastructure and its ability to manage local resources while the public's attention is focused on the impact of the drought and the need for investment.

Innovation will also play an important role in the state and region's approach to water supply issues. A new kind of desalination plant being developed in the Central Valley could be a game changer in the future. Using solar power to purify salty irrigation runoff, the WaterFX solar desalination plant is currently producing 14,000 gallons a day and aims to increase to 36 plants producing 2 million gallons a day within a year. This process is currently producing water at a drastically reduced cost compared with conventional desalination plants—$450 an acre-foot compared with $2,000 an acre-foot. [8] Even though this project is running at a very small scale at this point, it still highlights the important role that innovation can play in overcoming the state and region's water supply issues.

[7]Chuck Harvey, "Tulare County Reservoir Plan in the Works," emphTBJ Now, March 3, 2014, available at http://www.thebusinessjournal.com/news/energy-and-environment/10977-tulare-county-reservoir-plans-in-the-works.

[8]Kevin Fagan, "California Drought: Solar Desalination Plant Shows Promise," *SF Gate,* March 18, 2014, available at http://www.sfgate.com/science/article/California-drought-Solar-desalination-plant-5326024.php.

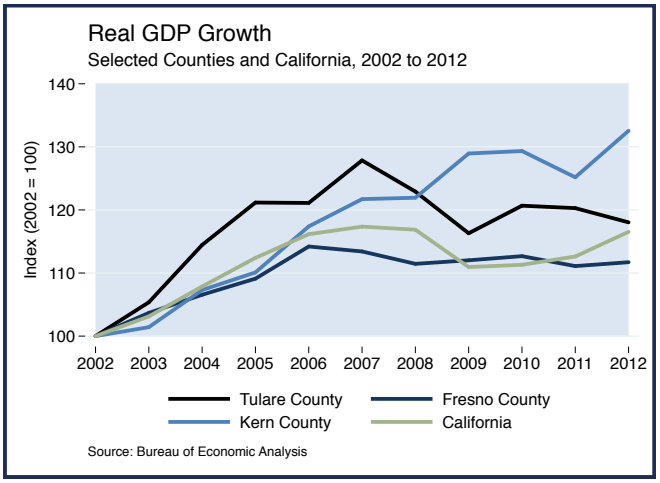
South San Joaquin Valley Business Activity

by Dustin Schrader

Contents

South San Joaquin Valley Shows Solid Growth in Economic Activity

Economic activity in the region is growing quite rapidly. Although data from the U.S. Bureau of Economic Analysis regarding gross domestic product (GDP) is not yet available for 2013, the trend in GDP has been positive since the end of the Great Recession. Although GDP growth from 2002 to 2007 was virtually identical between the South San Joaquin Valley and the State of California overall, GDP growth in the South San Joaquin Valley has outpaced growth in the state overall since then. GDP for the South San Joaquin Valley increased by roughly 0.3% per year from 2007 to 2012, compared to 0.1% in the state overall.



The Great Recession had minimal impact on the overall GDP of the region. The GDP in Tulare and Fresno counties decreased in 2008 and 2009, but those decreases were outweighed by strong GDP growth in Kern County. We can credit the booming energy sector for this growth, as examined below. On the other hand, the region has had to cope with a shrinking agricultural sector, as the state fights the effects of a long drought. Indeed, total *nonfarm* GDP increased by 2.6% from 2010 to 2012, including 3.5% growth from 2011 to 2012. Overall, in the 10 years leading up to 2012, GDP in the South San Joaquin Valley increased by 21.0%, compared with 16.5% in the state overall.

GDP growth was not substantial from 2011 to 2012 (2.4%), but it showed a vast improvement over 2010 to 2011, when it declined by 2.0%. GDP growth in the South San Joaquin Valley from 2011 to 2012 also compares favorably with GDP growth from 2011 to 2012 in regions with comparable economies in other states. For example, GDP in the Yuma, Arizona, region fell by 0.5% from 2011 to 2012, while GDP in the East Washington region (Yakima, Benton, Franklin, and Walla Walla Counties), fell by 1.2%. GDP in the Tucson, Arizona, region increased by 1.4% in the same time period.

The Great Recession had minimal impact on the overall GDP of the region.

GDP growth in the South San Joaquin Valley has been especially pronounced among a few sectors. Information, though a comparatively small sector of the regional economy (2.6% of total regional GDP), saw substantial GDP growth from 2011 to 2012 (11.1%). The Information sector includes customer service and telecommunications, both of which have benefited greatly from a resurgence in consumer spending since the end of the recession.

Construction GDP also grew precipitously (14.4%), coinciding with the growth in commercial and residential real estate in areas like Visalia and Bakersfield. The emergence of Kern County as a hub for green tech plays a key role in the growth in commercial construction GDP, as shown below. The Manufacturing sector also showed promising signs, with 6.2% growth year over year. Food processing continues to play an important role in the region's economy, representing roughly 42% of all Manufacturing in the region and $2.0 billion per year in economic output.

GDP Growth by Sector
South San Joaquin Valley, 2011-2012

Sector	2011 ($ millions)	2012 ($ millions)	Share (%)	2011-12 Chg (%)	CA Share (%)	2011-12 CA Chg (%)
All sector total	63,434	64,979	100	2.4	100	3.5
Private industries	53,596	55,233	85.0	3.1	89.7	4.1
Agriculture, forestry, fishing, and hunting	7,478	7,089	10.9	-5.2	1.2	-4.7
Mining	4,641	5,258	8.1	13.3	1.0	10.2
Utilities	1,588	1,619	2.5	2.0	1.5	6.0
Construction	2,214	2,532	3.9	14.4	2.9	6.0
Manufacturing	4,765	5,059	7.8	6.2	11.6	8.0
Durable goods	1,388	1,473				
Nondurable goods	3,402	3,611				
Wholesale trade	3,070	3,296	5.1	7.4	5.4	4.8
Retail trade	4,833	5,094	7.8	5.4	6.6	5.5
Transportation and warehousing	2,262	2,386	3.7	5.5	2.4	1.8
Information	1,502	1,668	2.6	11.1	8.3	8.3
Finance and insurance	2,071	2,102	3.2	1.5	5.6	6.2
Real estate and rental and leasing	6,523	6,380	9.8	-2.2	16.1	2.1
Prof., scientific, and technical services	2,294	2,363	3.6	3.0	9.3	1.8
Management	455	444	0.7	-2.4	1.2	0.2
Admin. and waste management services	1,761	1,846	2.8	4.8	3.2	5.4
Educational services	255	246	0.4	-3.5	0.9	2.4
Health care and social assistance	4,544	4,535	7.0	-0.2	6.2	0.5
Arts, entertainment, and recreation	253	262	0.4	3.6	1.4	1.5
Accommodation and food services	1,339	1,369	2.1	2.2	2.7	4.8
Other services, except government	1,787	1,858	2.9	4.0	2.2	0.3
Government	9,846	9,764	15.0	-0.8	10.3	-1.0

Source: U.S. Bureau of Economic Analysis

Mining and Utilities GDP Growth
South San Joaquin Valley, 2004-2012

Year	Mining GDP ($ millions)	Chg (%)	Utilities GDP ($ millions)	Chg Chg (%)
2004	3,557		1,167	
2005	2,955	-16.9	1,101	-5.7
2006	3,594	21.6	1,113	1.1
2007	3,974	10.6	1,306	17.3
2008	3,647	-8.2	1,415	8.3
2009	5,565	52.6	1,396	-1.3
2010	5,280	-5.1	1,530	9.6
2011	4,641	-12.1	1,588	3.8
2012	5,258	13.3	1,619	2.0

Source: U.S. Bureau of Economic Analysis

Energy Is Booming in the Region

Most notable, perhaps, is the 13.3% increase in GDP in the Mining sector from 2011 to 2012. Mining represents 8.1% ($5.3 billion) of all economic output in the South San Joaquin Valley, compared to just 1.0% of all economic output for the State of California. Mining is a crucial component of economic activity in the region, and could continue to increase its role in the regional economy over time as oil and natural gas production, a subcomponent of the Mining sector, adopts 21st-century technologies.

Oil production in Kern County has been truly transformative for the region. Today, 70% of the oil and 64% of the natural gas produced in the State of California comes from sources in Kern County. Oil represents one-third ($29.5 billion) of Kern County's total property assessments. In fact, oil property assessments would likely be higher in the absence of Proposition 13. As permitted by Proposition 13, 89% of oil properties in Kern County are assessed at their base-year values, compared with 11% of properties assessed at current market values. [9]

Just over a decade ago, oil production in Kern County was just a fraction of what it is today. Indeed, from 2004 to 2010, the county's GDP from oil and gas extraction more than doubled, from $2.2 billion to $4.5 billion (105.1% growth). This rapid growth is attributable to the emergence of hydraulic fracturing of oil wells. Hydraulic fracturing is not a new method of oil and natural gas extraction, but until recent years it was used relatively sparingly compared with traditional drilling.

In recent years, oil companies have begun to use hydraulic fracturing to capture oil and natural gas trapped in rock deep underground, unlocking a substantial amount of recoverable natural resources that could not have been retrieved through conventional methods. Hydraulic fracturing has quickly spread throughout Kern County, generating billions of dollars in economic activity each year.

Today, 70% of the oil and 64% of the natural gas produced in the State of California comes from sources in Kern County.

The number of "fracked" wells in the South San Joaquin Valley could increase in the coming years, though the forecasted levels of production recently decreased dramatically. Until this past May, the Monterey Shale, a formation of shale rock underground occupying much of Kern, Fresno, and Tulare counties, was believed to have abundant untapped supplies of recoverable shale oil reserves. Originally, it was estimated that as many as 15.4 billion barrels of oil could be extracted from it.[10] However, in May, the U.S. Energy Information Administration estimated that only 600 million barrels of oil can be extracted, due to limits on current technology. In states like North Dakota, shale deposits are layered on top of one another. In California, seismic activity has rearranged rock formations in the Monterey Shale such that shale deposits are folded over and broken apart, making extraction much more difficult.[11] If oil

[9] "Shale 'Promise' Triggers Jobs, Economic Boom," *Kern Business Journal,* August 2013.

[10] Ibid.

[11] Louis Sahagun, "U.S. Officials Cut Estimate of Recoverable Monterey Shale Oil by 96%," *L.A. Times*, May 20, 2014.

companies develop the technology capable of extracting much more oil from the Monterey Shale than federal authorities currently estimate, oil production out of the Monterey Shale could lead to much more economic growth throughout the South San Joaquin Valley. However, this technology may be many years away. Furthermore, hydraulic fracturing remains controversial in California, and the debate grows larger over whether to ban the practice statewide. The region cannot depend too heavily on the practice for future economic growth.

Fortunately, energy production through green sources, including wind, solar, hydro, and biomass, is also booming in the South San Joaquin Valley. According to the California Energy Commission, in-state wholesale renewable energy projects in the South San Joaquin Valley had a capacity of 3,632 megawatts in 2013, including 2,898 megawatts of wind power in Kern County alone. [12] The Alta Wind Energy Center and the Tehachapi Pass Wind Farm have completely transformed the landscape of the City of Tehachapi in Kern County, with windmills spanning the skyline. Wind energy is by far the largest source of renewable energy in the region.

The South San Joaquin Valley is also a hub for solar energy. According to the California Energy Commission, in-state wholesale solar energy projects have a capacity in Kern County of 167 megawatts and a capacity in Tulare County of 121 megawatts. [13] The City of Alpaugh in Tulare County operates 70 megawatts in solar energy production alone, through a joint project from Consolidated Edison and Sempra Energy. [14] Likewise, companies in the South San Joaquin Valley are continuing to expand into biomass fuel sources. Companies like Edeniq are key contributors—according to MoneyTree[15], Edeniq received $23 million in venture capital funding in 2012 to expand production of biofuels and ethanol, as well as $6.3 million in funding in 2013 to continue growth. These projects put the region at the forefront of an industry that will only grow precipitously in the coming years.

So far, these green tech projects have had a pronounced impact on economic output for utilities. GDP for the Utilities sector increased by only 5.8% from 2010 to 2012, but longer-term growth was much stronger. Utilities GDP grew by 17.3% from 2006 to 2007 and continued to grow thereafter. From 2004 to 2012, the sector's GDP grew by 38.7% overall. With a substantial base of wind and solar power already established, the region should continue to attract more renewable energy projects, bolstering economic activity in the region down the road.

The renewable energy boom has also helped to bolster commercial construction in the South San Joaquin Valley. Projects such as the Kingsburg Solar Park in Fresno and Tulare counties, which was commissioned in February and is one of five projects that will have a total investment of over $65 million, bring a spark to the region's commercial real estate.[16] In total, from 2011 to 2012, Construction sector GDP increased by a substantial 14.4%, compared with 6.0% statewide.

With Economic Growth Comes More Consumer Spending

Over the past year, we have seen very solid growth in consumer spending in the South San Joaquin Valley. Taxable sales in the region increased 6.3% from the fourth quarter of 2012 to the fourth quarter of 2013. Kern County led the way, at 7.1%, but Tulare and Fresno counties also saw solid growth, at 6.4% and 5.7%, respectively. By comparison, taxable sales increased by 5.2% statewide during the same period.

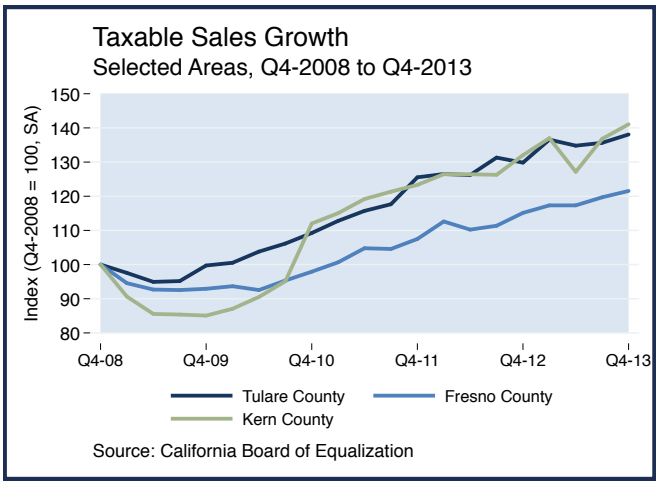
[12] "Tracking Progress," California Energy Commission, January 15, 2014, available at `http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf`.

[13] Ibid.

[14] "ConEdison, Sempra in 360 MW Solar Project," Analyst Blog, Zacks.com, March 21, 2014, available at `http://www.zacks.com/stock/news/127280/ConEdison-Sempra-in-360-MW-Solar-Project`.

[15] "MoneyTree Report," *PricewaterhouseCoopers*/National Venture Capital Association, 2014.

[16] "Energy Firm Dedicates New Tulare County Solar Projects," *The Fresno Bee,* February 24, 2014.



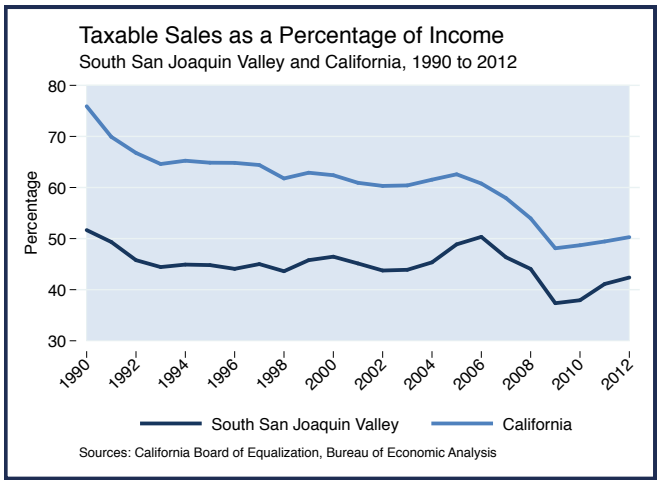
According to taxable receipts data for the South San Joaquin Valley, growth in Autos and Transportation spending provided much of the increase in consumer spending over time. Autos and Transportation, which represented roughly 11.9% of all taxable receipts at the end of 2013, grew by 6.7% from the fourth quarter of 2012 to the fourth quarter of 2013. General Consumer Goods, the largest category of spending at 20.3% of all taxable receipts at the end of 2013, was down throughout much of 2013 but grew substantially during the fourth quarter of 2013 (25.7%), resulting in 3.8% growth year over year. Clearly, the region's consumers were somewhat tentative last year, but they were big spenders during the holiday season.

In addition, the 13.1% year-over-year increase in Building and Construction spending suggests that the growth we observed in the sector's GDP from 2011 to 2012 will persist over the course of 2013. The recovery of the residential and commercial real estate markets, as well as the continuing growth of the region's energy sector, will continue to boost Building and Construction spending in 2014.

If we use GDP in Retail Trade as a measure of consumer spending across states, consumer spending growth in the South San Joaquin Valley is roughly in line with growth in some comparable regions.[17] Retail Trade GDP increased by 5.4% from 2011 to 2012 in the South San Joaquin Valley, compared with 2.6% in East Washington, 4.4% in the Tucson, Arizona, region, and 5.8% in the Yuma, Arizona, region. Retail trade GDP increased by 5.5% across the State of California in the same period.

As the economy grows, boosting jobs and income in the region as well as drawing more business travelers and visitors, spending in Retail Trade and in other sectors should continue to grow in turn. Already, as shown in the Employment chapter, 94% of residents in the South San Joaquin Valley work in the region, and thus it is likely that most of their income ends up being spent inside the region.

Indeed, by measuring taxable sales as a percentage of personal income, we see that personal consumption in the South San Joaquin Valley has been steadily increasing since 2009. As of 2012, the average Californian spent a greater percentage of his or her income than the average resident of the South San Joaquin Valley—50.3% versus 42.4%—but residents of the South San Joaquin Valley have been spending more of their income than they spent at the end of the Great Recession in 2009 (37.4%).

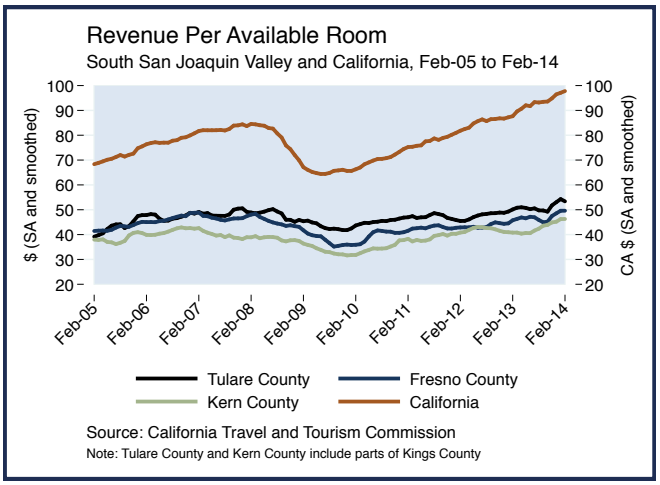


[17]Data on sales tax revenues and taxable receipts are unavailable for many other states. Retail Trade GDP serves as a proxy and includes vendors of general consumer goods, fuel stations, and auto dealers, among others.

As of 2012, spending as a percentage of income had not yet reached pre-recession levels of roughly 45%, but with taxable sales data showing a solid increase in consumer spending over the course of 2013, consumer spending has likely met or surpassed those pre-recession levels at the present. Residents are returning to their old spending habits, which is a very good sign for the economy moving forward. Healthy local spending is crucial to overall economic activity in the region.

Business Travel and Tourism Are on the Rise

The growth in spending in the South San Joaquin Valley—and economic growth throughout the rest of the country—has helped to bolster Leisure and Hospitality spending in the region, as visitors and residents alike have more money to spend on eating out, leisure activities, and retail goods.



The increase in the region's business travel and tourism is apparent in the hotel data. From December 2012–February 2013 to December 2013–February 2014, the revenue per available hotel room (revPAR) increased substantially in all three counties in the South San Joaquin Valley: 8.5% in Tulare County, 12.1% in Kern County, and 9.8% in Fresno County. Indeed, revPAR in Kern County increased faster than the state average (11.4%).[18]

The increase in hotel revenue is due to a combination of increasing occupancy rates and increasing daily rates for hotel rooms. From December 2012–February 2013 to December 2013–February 2014, occupancy grew slightly in Tulare County (by 1.1 percentage points, to 62.0%), but more quickly in Fresno County (by 2.7 percentage points, to 58.6%) and Kern County (by 3.8 percentage points, to 63.7%). By comparison, occupancy statewide increased 3.1 percentage points, to 72.6%. Tulare County led the way with increasing hotel room rates, with a 6.8% increase year over year, to $86.27 per night. Kern County hotel room rates increased 5.6% in that same period, to $72.21, and Fresno County rates increased 4.7%, to $83.91. By comparison, the average hotel room rate statewide increased 6.5%, to $133.11.

In Tulare, the World Ag Expo continues to draw over 100,000 tourists to the region each year.

The coming year should be another big one for visitor spending, not only as a result of economic growth but also through the introduction of new retail amenities to the region. The Outlets at Tejon Ranch is set to open in August, housing 70 stores and restaurants, including Gap and Coach outlets, across 320,000 square feet. [19] In Tulare, the World Ag Expo continues to draw over 100,000 tourists to the region each year. The event provides a large stimulus to leisure and hospitality and retail spending from the 1,500 exhibitors traveling to Tulare County each February. [20]

[18]The last three months of available data are from December 2013 to February 2014. An average of these three months of data is used to eliminate the variation of month-to-month comparisons. These three months are compared with the same three months of the previous year to compute a year-over-year average.

[19]Carlos Correa, "Outlets at Tejon Ranch to Boost Local Economy, Tourism," ABC23, March 31, 2014.

[20]Catherine Merlo, "Where Worlds Meet," *Farm Journal,* March 22, 2014.

We should also see visits to Yosemite, Sequoia, and Kings National Parks increase significantly over 2013 levels. In October 2013, the federal government shutdown forced a temporary closure of the parks that contributed to an estimated $2.9 million decrease in local spending in communities near Sequoia National Park and an estimated $6.7 million decrease in local spending in communities near Yosemite National Park relative to average spending during the previous three October months. Visits during October 2013 were roughly 108,000 below average.[21] Park visits clearly have a substantial impact on spending in the communities of the South San Joaquin Valley.

These data also show that an increase in visits this year could generate millions more dollars in tourism spending in the region. Yosemite and Sequoia National Parks visitations are already up over last year. Although data are only available for January and February of 2014, Yosemite National Park has had roughly 7,200 more visitors than in January and February of 2013, while Sequoia National Park has had roughly 7,000 more visitors. Kings Canyon National Park attendance declined by roughly 8,000 visitors from January and February of 2013, but, nonetheless, attendance at national parks in the region is expected to increase significantly over 2013 levels. This will provide a substantially higher revenue base for the Leisure and Hospitality industry in the South San Joaquin Valley, which will translate into potentially millions of dollars in new economic activity as it spreads through the regional economy.

[21]Lynne Koontz and Bret Meldrum, "Effects of the October 2013 Government Shutdown on National Park Service Visitor Spending in Gateway Communities," National Park Service, U.S. Department of the Interior, February 2014.

South San Joaquin Valley Employment

by Brian Vanderplas

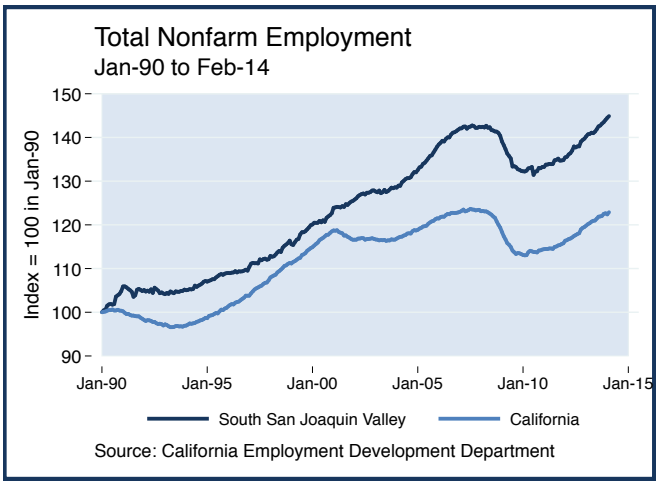
Contents

Overview

The South San Joaquin Valley (Fresno, Kern, and Tulare counties) faces a number of unique challenges that make the job market in the region different from many of the other labor markets in California. These challenges include a relatively less educated workforce, in part owing to the large number of immigrants with low levels of educational attainment. In addition, the region will continue to face water shortages as the drought continues. Nonetheless, the overall employment picture is more nuanced than the challenges suggest—the South San Joaquin Valley has continued to steadily grow and multiple industries in the region are expanding at substantial rates. In fact, the South San Joaquin Valley has been one of the faster-growing regions in California over the last several decades, expanding payrolls by 44.9% since 1990, nearly double the pace of growth seen in the state overall.

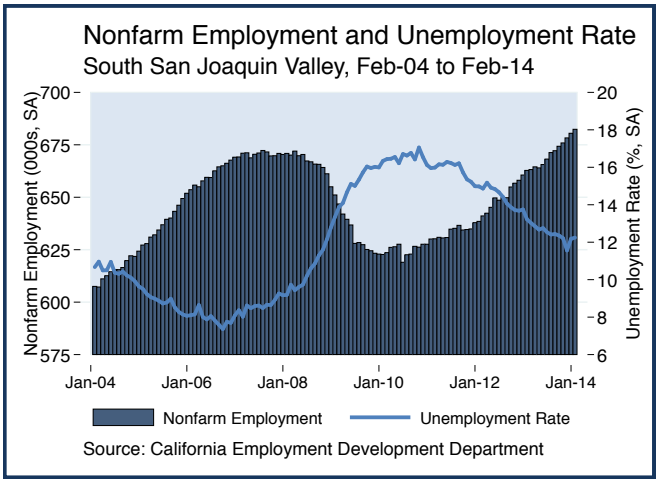
The South San Joaquin Valley has been one of the faster-growing regions in California over the last several decades, expanding payrolls by 44.9% since 1990.

Moreover, there are new opportunities beginning to take hold in the South San Joaquin Valley that were not present in years past. For example, energy is playing an ever more important role in the South San Joaquin Valley economy. Recently, the energy industry has begun to expand at a rapid pace, with multiple green energy projects coming online. The future of the energy industry in the region appears to be bright; for example, over the last two years Edeniq Inc. received nearly $30 million in venture capital funding, a rarity for the region. Clearly the region faces challenges. But our view is that alongside these challenges there are tremendous opportunities for transforming an economy that is already growing at a decent pace into an economy that exceeds expectations.



Employment Levels at Record High

Even though some news headlines have suggested that the Central Valley is in a depression, the South San Joaquin Valley saw total nonfarm payrolls surpass their pre-recession peak toward the end of 2013.[22]



Moreover, the job picture in the South San Joaquin Valley has improved significantly over the past year, with total nonfarm employment expanding by 3.0% from February 2013 to February 2014. This brisk pace of growth outpaced the rate of growth in the state overall, which saw nonfarm employment expand by 2.2% over

[22]Bill Watkins, PhD., "Bill Watkins on California Economic Issues" California Lutheran University, Center for Economic Research and Forecasting. http://www.clucerf.org/news/story.php?id=9933

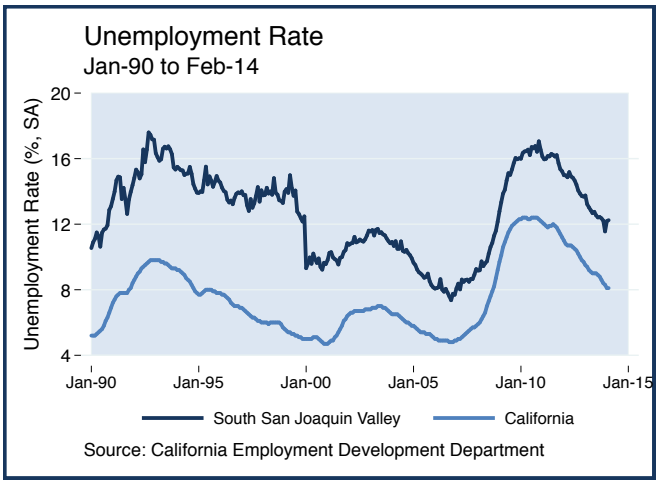
the same period. Still, nonfarm employment growth in the region has slowed from a year ago, when year-over-year growth was 3.8%. At the county level, Fresno led the way, with nonfarm payrolls growing by 4.2%, while Kern (2.0%) and Tulare (1.8%) grew at lower rates. The private sector in the region fared even better, with payrolls expanding by 3.9% over the past year.

Despite the recent gains in payrolls, the unemployment rate in the region remains stubbornly high, at 12.2% in February of 2014. While this rate is elevated compared to unemployment in the state overall (8.0%), the relatively higher rate is not a recent development. In fact, from 1990 to 2005 the gap between the unemployment rate in the state overall and the rate in the South San Joaquin Valley averaged 5.9 percentage points—1.7 percentage points higher than the current difference. This persistent gap indicates that the higher levels of unemployment in the South San Joaquin Valley stem from structural reasons and are not necessarily a symptom of a lagging recovery.

Higher levels of unemployment in the South San Joaquin Valley stem from structural reasons and are not necessarily a symptom of a lagging recovery.

Indeed, national figures indicate there is a noticeable gap in unemployment rates based on educational attainment, with the unemployment rate for high school graduates at 7.5% and the unemployment rate for individuals with a bachelor's degree at 4.0%. Given that the workforce in the South San Joaquin Valley is relatively less educated and has more informal workers, the persistently high unemployment rate is likely owing in part to the unique labor force composition of the region, rather than the result of a lagging economy.

Although the unemployment rate fell by one percentage point from February 2013 to February 2014, some of the decrease can be attributed to declines in labor force participation, which dipped by 0.1% from February 2013 to February 2014. Thus, even though the region experienced considerable gains over the past year in payroll figures, some lingering effects of the recession are still evident in the region. However, the important takeaway is employment levels are rising in the region.



Moreover, the vast majority of residents of the South San Joaquin Valley live and work in the region, with over 94% of residents working locally in 2010. This is a slight decline from years past; in 1990 and 2000 over 95% of South San Joaquin Valley residents lived and worked in the region. The region also has a fair number of inbound commuters, who account for over 5% of the region's workforce. In sum, the region sees an almost equal number of workers come into the region as leave each day. More importantly, these similar figures for inbound and outbound commuters indicate the region is creating enough opportunities for its residents locally.

Construction Sector Employment Surges

The Construction sector was one of the shining stars over the past year, increasing payrolls by 10.5% (approximately 3,500 jobs). Last year proved to be another robust year for construction activity in the region, building on the gains from 2011 to 2012. The number of permits issued for industrial construction has been particularly strong, especially in the energy industry. Indeed,

in August 2013 construction permits were issued for 46 wind turbines in eastern Kern County, for an estimated value of $146.8 million. Residential permitting also increased over the past year, with the number of permitted units rising by 47.5%. Despite this recent growth in permitting, the region still has some ground to make up to return to pre-recession construction employment levels—the current levels sit 29% below the pre-recession peak set in May 2006. However, with the recent growth and with the beginning of construction on the high-speed rail through the region on the horizon, there is ample reason for optimism going forward for the sector.

The Retail Trade sector also had a significant resurgence over the past year. From February 2013 to February 2014, the Retail Trade sector increased payrolls by 5.7% (approximately 4,500 jobs). This is in line with the uptick in taxable sales seen across the region over the past year, an upswing of 6.4% from the fourth quarter of 2012 to the fourth quarter of 2013. The strengthening economy in the South San Joaquin Valley is also attracting new businesses to the region. Indeed, WinCo Foods, an employee-owned grocery store, recently opened a second store in Bakersfield, which is expected to employ 168 people.[23] Regionally, Bakersfield and Visalia saw Retail employment levels rise the fastest over the last year, increasing payrolls by 7.7% and 6.1%, respectively.

The resurgent tourism industry in the region has helped spur job gains over the past year as well. Indeed, payrolls in the Leisure and Hospitality sector increased by 5.7% (3,500 jobs) from February 2013 to February 2014. While the national parks and monuments in the area are famous tourist attractions, the region's cities also draw business travelers and visitors. For example, Tulare plays host to the World Agriculture Expo each year, which attracts over 100,000 attendees to the area. The 47th annual expo, which took place in February, had over 50 countries represented.[24] With more and more visitors coming to the region each year, occupancy rates at local hotels are beginning to rise. Indeed, from 2012 to 2013 occupancy rates at hotels in the South San Joaquin Valley increased by an average of 1.1 percentage points.

South San Joaquin Valley Industry Employment Growth

Industry	Mar-13	Change (%)
Construction	37.1	10.5
Transport,Warehouse,Util.	30.0	7.3
Professional/Business	70.1	5.7
Retail Trade	83.8	5.7
Leisure and Hospitality	63.7	5.7
Wholesale Trade	27.5	4.1
Education/Health	101.1	1.9
Other Services	21.7	0.4
Government	153.0	-0.1
Manufacturing	48.7	-0.1
Financial Activities	25.5	-0.5
Information	7.2	-1.6

Source: California Employment Development Department

The region still has some ground to make up to return to pre-recession construction employment levels.

Perhaps more important, the region's growth over the past year has not been limited to the region's "internal" job sectors. The region's Transportation and Warehousing sector also increased payrolls by 7.3%, adding over 2,000 new positions. Given that the state's agricultural exports rose by more than 14% from 2012 to 2013, it is fairly safe to assume that international demand for the region's farm products helped spur much of the growth in the sector over the past year. Indeed, exports for Dairy products, one of the region's leading agricultural commodities, increased at a faster pace than agricultural commodities overall, rising by 40.8% from 2012 to 2013. Manufacturing posted essentially flat payroll growth over the past year, but, in keeping with the re-

[23] Anne Stegen, "WinCo to Open Second Bakersfield Store, Hired over 100 Locals," 23ABC, March 24, 2014, available at http://www.turnto23.com/news/local-news/winco-to-open-second-bakersfield-store-thursday-hired-over-100-locals-032414.

[24] http://www.worldagexpo.com/47th-annual-world-ag-expo-closes.

gion's strength in agriculture, the Tulare City Council approved the sale of nearly 60 acres of land for the start-up firm CaliCheese to build a $250 million facility that is expected to help propel the region's Manufacturing sector.[25]

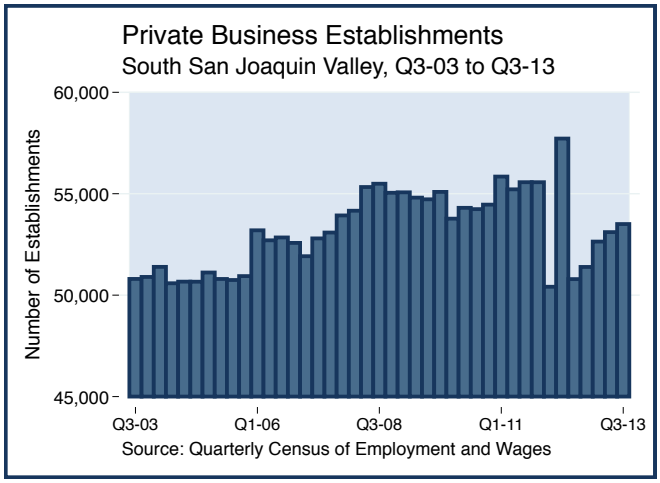
In contrast to the expanding private sector, Government payrolls declined by 0.1% over the past year. Notably, all of the declines in Government payrolls can be attributed to the Federal Government, which fell by 1.8% (375 jobs), while Local and State Government actually saw payrolls expand.

A prolonged water crisis could have far-reaching consequences for the South San Joaquin Valley.

Unfortunately, with the ongoing drought that has impacted the Central Valley and Southern California, the South San Joaquin Valley has seen lackluster activity in farm employment, with payrolls falling slightly over the past year. As discussed elsewhere in this report, agriculture is a big piece of the local economy that has a downstream effect on many other industries in the region. Although the drought facing California has not yet taken a devastating toll on local farmers, a prolonged water crisis could have far-reaching consequences for the South San Joaquin Valley, as a variety of industries are interconnected with the agricultural economy.

Business Formation Turns Positive in the South San Joaquin Valley

Business formation in the South San Joaquin Valley turned positive over the past year, increasing by 5.4% from the third quarter of 2012 to the third quarter of 2013. This is a welcome change from the declines that were seen as a result of the Great Recession. From an industry standpoint, the Professional and Business Services sector led the way, expanding by 3.9% and accounting for over 30% of the new establishments in the region that were not related to Health Care. The Trade, Transportation, and Utilities sector was not far behind, expanding by 2.6% over the same period, accounting for over a third of the new establishments not related to Health Care. But even with these gains, the region still has ground to make up to return to pre-recession levels. In fact, at peak there were over 56,000 establishments in the region, compared with just below 54,000 currently.

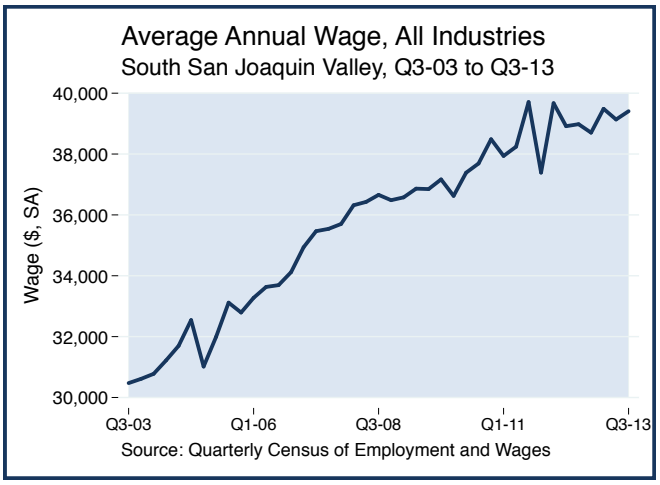


While we do not have data from 2013 for business formation according to the size of the business, the data from 2012 shed light on what size of businesses have been helping drive the recovery in the region. Despite the decline in the number of businesses in the region from 2011 to 2012, employment levels increased by roughly 3.1% (approximately 20,000 jobs) over the same period. Growth in payrolls was primarily spread across large and small businesses, with medium-sized businesses only moderately expanding their payrolls. Businesses with fewer than 50 employees increased payrolls by roughly 8,000 jobs, and businesses with over 500 employees increased payrolls by roughly 9,000 positions.

[25] http://www.thebusinessjournal.com/news/manufacturing-and-distribution/4573-250-million-cheese-plant-could-bring-220-jobs-to-tulare.

South San Joaquin Valley Wages Gain Ground

Wages in the South San Joaquin Valley continued to trend upward in 2013, albeit slowly. According to the Quarterly Census of Employment and Wages, the average annual wage across all industries was $39,400 in the third quarter of 2013. This represents a 1.1% increase from the third quarter of 2012, which is an acceleration from the year prior, when wage growth was in negative territory. However, the rate of wage growth in the region continues to remain below the long-run average wage growth of 3%.



Regionally, Fresno (2.1%), Kern (0.3%), and Tulare (1.9%) counties all saw wages rise over the past year. While Kern County saw wages only increase minimally over the past year, wage growth in the counties of Fresno and Tulare kept pace with growth in the state overall (2.1%). In dollar terms, average annual wages in the third quarter of 2013 were $40,900 in Kern County, $37,600 in Fresno County, and $33,700 in Tulare County, on a seasonally adjusted basis, all of which were well below average annual wages in the state overall, at $57,500.

The Financial Activities industry in the South San Joaquin Valley saw the fastest pace of wage growth, rising by 5.0% to over $50,900 annually in the third quarter of 2013. The Information sector grew the second fastest (3.5%), followed by Manufacturing (2.8%). Professional and Business Services experienced the largest decline (falling by 3.2%). However, much of this decline was owing to an increase in positions in the Administrative Support industry (which tends to house more lower-wage positions than the Professional, Scientific, and Technical Services sector) rather than a decline in wages for the majority of jobs within the industry. In fact the Employment Services industry ($22,240) added the vast majority of positions over the past year in the Administrative Support sector, while seeing a drop in average wages of roughly $2,000. In contrast, the Professional, Scientific, and Technical Services sector saw a rise in average annual wages of over $1,200. The Bureau of Labor Statistics also recently reclassified home health care workers from "Other Services" to "Health Care," a change that does not get built into historical figures. As a result, the substantial increase in wages seen over the last year in Other Services (37.7%) and the substantial decrease in wages in Education/Health (10.2%) are largely a result of this reclassification rather than a reflection of any substantive change in wages in these sectors.

South San Joaquin Valley Industry Wage Growth

Industry	Q3-13 ($)	Change (%)
Other Services*	30,451	37.7
Financial Activties	50,944	5.0
Information	63,301	3.5
Manufacturing	46,109	2.8
NR/Mining	29,342	2.2
Governemnt	59,905	2.0
Trade, Transportation, and Utilities	37,086	0.4
Construction	48,896	-0.1
Leisure and Hospitality	15,235	-0.5
Professional/Business	40,549	-3.2
Education/Health*	39,859	-10.2

Source: Quarterly Census of Employment and Wages
*Subcategories Reclassified in 2013

Summary

In sum, the South San Joaquin Valley is continuing to move forward as the effects of the Great Recession subside. This is not to say that the region has resolved the challenges it faces. In order to leverage growth in high-skilled, higher-wage categories, the region needs to continue to focus on the educational attainment levels of its residents in order to ensure firms have access to the labor they need to successfully grow their businesses.

In addition, the region will continue to face water shortages as the drought continues. Knowing when the constraints on the water supply will begin to ease is impossible, but the impact of a prolonged water crisis will not be limited to the farm sector, as a variety of industries in the local economy are interconnected with the agricultural economy.

Still, the local economy is moving in the right direction. And, although some might view the lingering challenges as potential threats, our view is that there are tremendous opportunities for transforming an economy that is already growing at a decent pace into an economy that exceeds expectations. While there is still some room for improvement, the worst of the recession is clearly behind the South San Joaquin Valley.

South San Joaquin Valley Real Estate

by Rafael De Anda

Contents

Summary

Across the South San Joaquin Valley, new developments are appearing for both residential and nonresidential properties. For residential projects, many developers have been buying large parcels of land, submitting plans to various cities and local governments to develop housing, but then constructing units gradually, or "as need arises." Understandably, some developers point to home prices before the housing collapse as their reason for building cautiously. Yet while home prices in the region may appear depleted as compared to pre-recession highs – which were inflated as part of the widespread housing bubble that affected the entire nation – home prices (for all types of properties) rose by 20.4% in Fresno County, 17.3% in Kern County, and 16.5% in Tulare County over the last year (February 2013 to February 2014)[26]. This recent surge, combined with home prices that are affordable for many buyers in the market, indicates that more housing units will be needed throughout the South San Joaquin Valley in the near future.

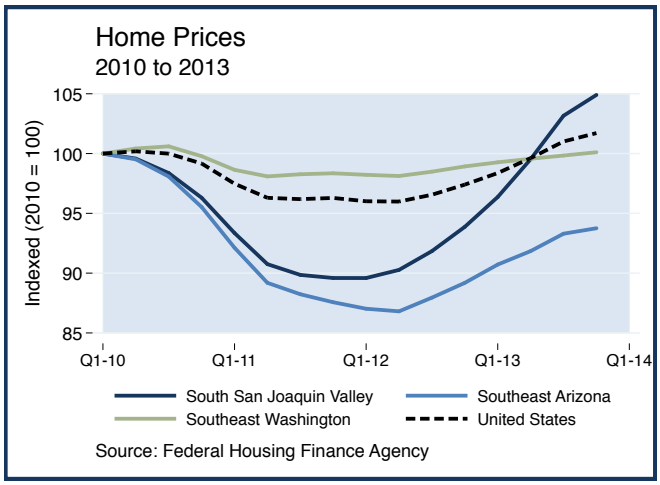
Meanwhile, nonresidential projects, which indirectly affect the residential market by providing the local population with a place to work, shop, or entertain themselves, have been advancing the most for industrial-energy properties. Warehouse and distribution centers and retail stores are also appearing across the region, while new offices are most evident in Kern County.

Still, as mentioned in previous chapters, the local real estate market has not been growing robustly, especially in comparison to other parts of the state. Home prices rose more rapidly last year in the San Francisco Bay Area and the greater Los Angeles area. But considering that South San Joaquin more closely resembles other inland regions, such as Southeast Arizona (Pima and Puma Counties) and Southeast Washington (Walla Walla, Franklin, and Benton Counties), this analysis will demonstrate that the region is doing relatively well, and that factors such as affordability will lead to future growth and home appreciation.

[26]Data provided by DataQuick, a leading firm in the property information industry.

Residential Real Estate

Various metrics indicate that home prices have been increasing over the last year. According to estimates based on the Federal Housing Finance Agency's (FHFA) home price indices[27], home prices in South San Joaquin Valley appreciated by 12% from the fourth quarter of 2012 to fourth quarter of 2013. In comparison, various similar regions throughout the United States had home appreciation below 5% over the same period, and the United States as a whole had home appreciation of approximately 4.8% by the same measure. Furthermore, home appreciation in South San Joaquin Valley has now outperformed the rest of the nation when compared to home prices at the beginning of 2010.



Additionally, home prices remain affordable for many living in the region. The median price for an existing single-family home sold during the fourth quarter of

[27]The FHFA provides home price indices that are consistent for most regions across the United States, while other better-known home price indices (such as the Case Shiller index) only cover major metropolitan areas. FHFA home price index, however, only accounts for homes purchased with conforming mortgage transactions obtained from the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae). See www.fhfa.gov/DataTools for additional information.

Home Affordability in South San Joaquin Valley, 2007 and 2013

Metric	Kern County		Fresno County		Tulare County	
	2006/07	2012/13	2006/07	2012/13	2006/07	2012/13
Median Household Income of Renters	27,800	30,950	26,890	27,580	26,120	25,870
Median Single-Family Sales Price	241,500	166,300	259,300	178,800	210,700	148,800
Price to Income Ratio	8.7	5.4	9.6	6.5	8.1	5.8
Interest Rate	6.3	4.3	6.3	4.3	6.3	4.3
Annual Payment	17,630	8,814	18,929	9,476	15,381	7,886
Percent of Income	63.4	28.5	70.4	34.4	58.9	30.5

Sources: U.S. Census, DataQuick. Calculations by Beacon Economics

2013 was $166,300 in Kern County, $178,800 in Fresno County, and $148,800 in Tulare County[28]. Based on current incomes of households in Fresno County that rent —those households may be in the market for purchasing locally since they live in the county —the average renting household would spend less than 35% of its income on a mortgage payment for a median-priced home (the percentage is even less in Kern and Tulare Counties). In 2007 the average household in Tulare County would have had to spend upwards of 58% of its income on a mortgage payment for a median-priced home (more in Kern and Fresno Counties).

While the region's population has grown by over 30,000 residents per year since 2008, there have only been enough housing units permitted for roughly half of the new households.

However, those who can afford to buy a home may face difficulty finding the right property because there are simply not enough homes on the market. Over the last five years, housing construction in the region has not kept pace with population growth even though an elevated occupancy rate should have encouraged builders. As of 2012, the occupancy rate in the South San Joaquin Valley was estimated to be 91.1%; compare that to 87.6% nationwide. While the region's population has grown by over 30,000 residents per year since 2008, there have only been enough housing units permitted for roughly half of the new households. More accurately, there has been only one housing unit permitted for every 5 new people. Over the same period, in the United Sates overall, one housing unit was permitted for every 2.7 new people.

The lack of available housing units in South San Joaquin Valley is due for a correction, and changes may be coming soon as developers have recently increased their stake in local land. New developments of various types are rising throughout the region. For example, on the luxurious-side, many higher-end residential projects have been announced in the Cities of Clovis, Friant, and Tulare[29]. Meanwhile, the Catalina development in the City of Tulare will provide more affordable housing[30]. Simultaneously, revitalization projects such as the San Ramon apartment renovation in the City of Fresno and the Mendota apartment renovation in the City of Mendota, which are being assisted by low-income housing

[28]DataQuick

[29]For example, see "Woodside Homes Purchases Lots in East Tulare," *Visalia Times Delta*, March 28, 2014, ux.visaliatimesdelta.com/story/news/local/2014/03/29/woodside-homes-purchases-lots-in-east-tulare/7048915/; Chuck Harvey, "Lesser-known Homebuilders Make Mark in Valley," *The Business Journal*, February 27, 2014, www.thebusinessjournal.com/news/construction/10795-lesser-known-homebuilders-make-mark-in-valley; and Chuck Harvey, "Developers Scramble for Bare Land to Build Houses," *The Business Journal*, March 17, 2014, www.thebusinessjournal.com/news/construction/11191-developers-scramble-for-bare-land-to-build-houses.

[30]Jessica Peres, "Tulare Sees increase in New Home Construction," *ABC30*, March 31, 2014, abclocal.go.com/kfsn/story?section=news/local&id=9486706.

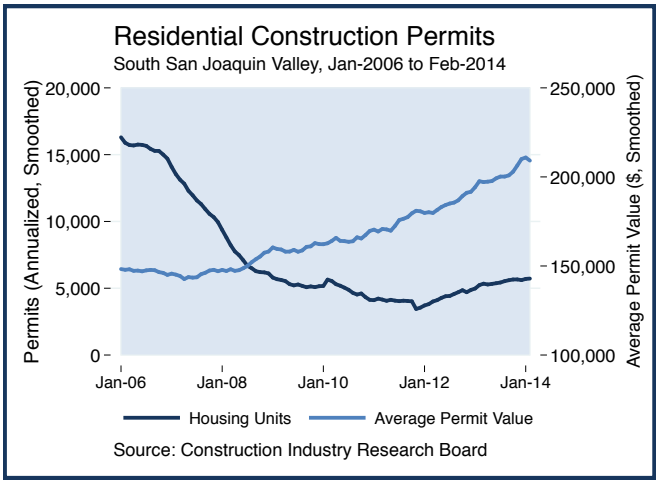
Housing Occupancy and Permit Trends in the United States and Select Regions 2008-2013

Metro	Occupancy (%)	Annual Permits	Annual Population Growth	Number of New Persons per Permitted Unit
South San Joaquin Valley	91.1	6,033	30,036	5.0
Southeast Arizona	84.5	5,499	10,110	1.8
Southeast Washington	92.2	2,353	11,204	4.8
United States	87.6	904,604	2,463,578	2.7

Source: U.S. Census

tax credits, will help drive up property values for existing housing units within close proximity to these structures.

Many more new housing units will appear over the course of the next two years as housing permits filed from March 2013 to February 2014 (most recent permitting data available) rose by 26% over the same period one year earlier (March 2012 to February 2013), and by 70% over the same period two years earlier (March 2011 to February 2012) [31]. Permit values for new housing units increased even more over the same periods, which indicates that permits filed recently are for housing units that are expected to cost more to build than those permitted in recent years.



Among the many characteristics of the region that have served to attract migrants from other parts of the state and nation, affordability has been key. This is particularly true for younger households who are in the earlier stages of their working careers. In 2012, a higher proportion of South San Joaquin householders who owned their home were under the age of 45 than in the nation overall or in other comparable regions. At the same time, a lower proportion of South San Joaquin householders who owned were over the age of 65. Younger households can help drive long-run economic growth as workers in this age group have more potential for income advancement through education and training, as opposed to householders living off a fixed income that will change only through a cost-of-living adjustment.

Still, the region continues to attract many retirees, particularly in cities and towns near the national parks. Median home prices in these cities and towns averaged approximately $146,500 in 2012, 4.1% above the regional average[32]. In 2013, these cities and towns experienced slower home price growth than the rest of the region, hitting an average sales price of $166,300, 3.3% below the average sales price throughout the South San Joaquin Valley. This is partly because older households tend to move less frequently which keeps prices more stable throughout an economic cycle.

[31]Chuck Harvey, "Apartment Rehab Spruces Up Fresno's `Sin City'," *The Business Journal*, March 27, 2014, www.thebusinessjournal.com/news/construction/11344-apartment-rehab-spruces-up-fresno-s-sin-city.

[32]Includes the cities and towns Auberry, Big Creek, Bodfish, California Hot Springs, Camp Nelson, Inyokern, Kernville, Lake Isabella, Posey, Shaver Lake, Springville, Three Rivers, Weldon, and Wofford Heights. Sales prices provided by www.DQNews.com.

Owner-Occupied Housing Units by Age of Householder, 2012

Metro	Homes with Householder under 45 (%)	Homes with Householder over 65 (%)
South San Joaquin Valley	29	25
Southeast Arizona	24	34
Southeast Washington	27	27
United States	26	28

Sources: U.S. Census

Furthermore, most homeowners (of all ages) are already on more solid financial footing than they were a few years ago. Foreclosures in the region declined from 8,350 filings in 2012 to 3,760 filings in 2013, and are far below the housing-crash peak of 15,350 filings in 2008.

Commercial Real Estate

Further home appreciation and demand for residential units in the South San Joaquin Valley will also depend on the advancement of commercial real estate. Energy projects have largely dominated this sector in recent years, with numerous facilities being established in all three counties. Kern County has experienced the most growth in the region in this category, and projects such as Solar Star (formerly Antelope Valley Solar), the Pumpjack and Wildwood solar plant[33], the Regulus solar plant, and the Orion solar plant[34] are attracting investors from throughout the world. Whereas these types of projects may be rejected in other parts of the state, they are expanding in South San Joaquin Valley where there is ample developable land.

Other industrial developments have also emerged recently in various parts of the region. American Tire Distributors is expanding its local footprint as the company moves into a new one million square foot facility in the City of Bakersfield[35]. Similarly, Arsenal Equipment Rentals is expanding its operations into a new 11,000 square foot facility also in Bakersfield. Its previous facility was located in the Central Coast region of California[36]. Further north, a new pistachio plant is underway in the City of Firebaugh as the Horizon Nut Company expands its operations[37]. Overall, industrial permits increased by 31.4% over the last year in the South San Joaquin Valley, reaching $41.5 million in value from March 2013 to February 2014. These developments should benefit local residents by providing new jobs in the region. And as job growth leads to population growth, and population growth increases the demand for housing, the developments are also likely to positively affect the housing market in the longer term.

Construction permits for new retail stores over the last twelve months (March 2013 to February 2014) totaled $223.3 million in the South San Joaquin Valley.

New retail centers can be even more effective in attracting residents to the South San Joaquin Valley because they provide entertainment and consumption opportunities that are especially appealing to younger households. Additional retail store development would support growth in the region, particularly developments similar to the Shops at River Walk in Bakersfield, Campus Pointe development in the City of Fresno, which will put a Heritage Theater and restaurants near the University[38], and Gasford Village in Bakersfield, which will feature a Chili's and WinCo Foods[39]. Construction per-

[33]For more information, see "Swinerton To Build 40 MW AC California Projects For Duke Energy Renewables", *GovCon*, March 24, 2014, www.govcon.com/doc/swinerton-to-build-california-projects-for-duke-energy-renewables-0001.

[34]For more information, see www.sunedison.com.

[35]For more information, see www.moderntiredealer.com.

[36]For more information, see www.rermag.com.

[37]" New Pistachio Plant Coming To Firebaugh," *KMPH*, April 2, 2014, www.kmph-kfre.com/story/25145653/new-pista.

[38]Bonhia Lee, "Fresno State's Campus Pointe Retail Center Set to Begin Construction," *Fresno Bee*, February 10, 2014, www.fresnobee.com/2014/02/10/3761320/fresno-states-campus-pointe-retail.html.

[39]Carol Ferguson, "Chili's Adds To New Businesses Coming to SW Bakersfield," *Bakersfield Now*, March 4, 2014, www.bakersfieldnow.com/news/business/Chilis-adds-to-new-businesses-coming-to-southwest-Bakersfield-248477111.html

mits for new retail stores over the last twelve months (March 2013 to February 2014) totaled $223.3 million in South San Joaquin Valley, compared to $73.5 million in the previous twelve months. Developers of local retail stores have been encouraged by lower vacancy rates in most parts of the region —though rents have yet to rise.

Retail Store Vacancy Rates, Q4-2013

Metro/County	Vacancy Rate in Q4-2013 (%)	Vacancy Rate Change Q4-2011 to Q4-2013 (% Points)
Kern	9.8	-1.9
Tulare	7.1	-1.2
Southeast Arizona	9.6	-0.6
Southeast Washington	15.5	-0.3
Fresno	10.6	0.1

Sources: REIS

Retail Store Cost of Rent, Q4-2013

Metro/County	Rent in Q4-2013 ($)	Rent Change Q4-2011 to Q4-2013 (%)
Southeast Arizona	16.84	0.7
Southeast Washington	14.42	0.3
Tulare	17.25	0.2
Fresno	17.21	-0.8
Kern	20.95	-0.9

Note: Rent based on $ per sq. ft. per year.
Sources: REIS

Developing new office property also helps attract more households to the South San Joaquin Valley as businesses that employ workers in the professional and business services industry, which pay above-average wages, are more likely to utilize the office space. Demand for office space, to date, has improved only in a few portions of the region, including in Kern County, although the trend is spreading to other areas. The office vacancy rate in Kern County was 11.4% in the fourth quarter of 2013, 230 basis points below its vacancy rate in the fourth quarter of 2011. On the other hand, the office vacancy rate remained elevated in Tulare County (15.6%) and Fresno County (20.4%). Improved demand for office space in Kern County has been accompanied by numerous new developments that opened their doors in 2012 and 2013, including the Seven Oaks Business Park[40]. Demand for offices in Kern County is expected to continue to improve, with more developments in place, including the Stockdale Center and the University Office Center[41]. Looking ahead, permitting for new office structures throughout the South San Joaquin Valley, which tallied $43.6 million over the last twelve months (March 2012 to February 2013) compared to $62.0 million in the previous 12 months, is shifting towards Tulare and Fresno Counties. Approximately 56% of new office permit values over the last twelve months were filed in Tulare and Fresno Counties combined, compared to 40% in the previous twelve months (March 2011 to February 2012), and 19% in the twelve months before that (March 2010 to February 2011).

Office Vacancy Rates, Q4-2013

Metro/County	Vacancy Rate in Q4-2013 (%)	Vacancy Rate Change Q4-2011 to Q4-2013 (% Points)
Kern	11.4	-2.3
Tulare	15.6	-0.8
Southeast Arizona	15.6	-0.1
Fresno	20.4	1.0
Southeast Washington	21.3	1.1

Sources: REIS

Office Cost of Rent, Q4-2013

Metro/County	Rent in Q4-2013 ($)	Rent Change Q4-2011 to Q4-2013 (%)
Kern	19.50	0.9
Southeast Washington	16.81	0.5
Southeast Arizona	21.39	-0.3
Fresno	20.09	-0.4
Tulare	15.21	-1.5

Note: Rent based on $ per sq. ft. per year.
Sources: REIS

Looking ahead, permitting for new office structures throughout the South San Joaquin Valley, which tallied $43.6 million over the last twelve months (March 2012 to February 2013) compared to $62.0 million in the pre-

[40]For more information, see www.bolthouseproperties.com.

[41]"'Prime' Bakersfield Location set for Development," *Kern Business Journal*, October 2013, Pg. 7.

vious 12 months, is shifting towards Tulare and Fresno Counties. Approximately 56% of new office permit values over the last twelve months were filed in Tulare and Fresno Counties combined, compared to 40% in the previous twelve months (March 2011 to February 2012), and 19% in the twelve months before that (March 2010 to February 2011).

Overall, commercial construction activity should continue to progress in 2014 in the South San Joaquin Valley. This includes both new commercial structures, and renovations and alteration projects: $1.24 billion in permit values were filed in the three-county South San Joaquin Valley region over the last 12 months (March 2013 to February 2014), on top of $1.49 billion filed in the previous twelve months (March 2012 to February 2013). In comparison, only $0.5 billion in permitting value was filed, on average, in the three preceding twelve-month periods.

Major Projects and Land Preservations

Various major projects are in the works in the South San Joaquin Valley that may affect current residents and those who could potentially migrate into the area. For example, the California High-Speed Rail system, which will connect Los Angeles and San Francisco via the Central Valley (in the South San Joaquin Valley it will run from Merced to Fresno to Bakersfield), is expected to become operational by 2022[42]. This high-speed rail system can benefit the region by bringing in tourism and reducing traffic congestion on SR-99 and I-5. It would also allow local residents to commute to the greater Los Angeles region or the San Francisco Bay Area for work. Building the rail system may include acquiring parcels of land in the region, possibly through eminent domain[43].

Two other major projects are the Porterville jail under construction that will receive $60 million in state funding[44] and the proposed new jail in north Visalia, for which a $33.3 million grant has been offered, but not yet accepted[45]. The funding for the jail will provide jobs to local residents and attract law enforcement workers into the region.

The American Lung Association, in its 2014 State of the Air Report Card, ranked Visalia-Porterville-Hanford as the second most polluted region in the U.S. by ozone pollution, while Bakersfield ranked third and Fresno-Madera ranked fourth.

These and other large projects, as well as residential developments, affect the demand for housing in the region by either improving or diminishing the quality of life. Various projects that diminish the quality of life for many South San Joaquin Valley residents are primarily those that adversely affect the environment. Developments that impact local air and water quality are especially concerning to residents because the South San Joaquin Valley has high levels of pollution. The American Lung Association, in its 2014 State of the Air Report Card, ranked Visalia-Porterville-Hanford as the second most polluted region in the United States by ozone pollution, while Bakersfield ranked third and Fresno-Madera

[42]Tim Sheeman, "High-speed Rail Agency Issues Final Environmental Report for Fresno-Bakersfield Route," *The Fresno Bee*," April 18, 2014, www.fresnobee.com/2014/04/18/3884498/rail-agency-issues-final-environmental.html?sp799/406/263/1256/

[43]For more information, see "California High-Speed Rail Allowed To Seize Parcels If Needed," *KPBS and Associated Press*, April 12, 2014, www.kpbs.org/news/2014/apr/12/california-high-speed-rail-allowed-seize-parcels-i/.

[44]"Tulare County Accepts $60M for Porterville Jail," *The Business Journal*, April 18, 2014, www.thebusinessjournal.com/news/government-and-politics/1552-tulare-county-accepts-60m-for-porterville-jail

[45]David Castellon, "Jail Decision Delayed," *Visalia Times-Delta*, April 3, 2014, www.visaliatimesdelta.com/article/20140403/NEWS01/304030011/Jail-decision-delayed.

ranked fourth; their analysis of particle pollution placed these three regions as the most polluted as well[46].

In efforts to help improve environmental conditions, the Sequoia Riverlands Trust (SRT) is helping to conserve various parts of the South San Joaquin Valley, such as the Kaweah Oaks Preserve. SRT's latest campaign is a $552,000 project to purchase 22 adjacent acres that are privately owned next to the current preserve[47]. While preventing development near this area restricts high-value homes from being developed and the creation of their associated property tax revenues, their preservation also improves the quality of life for residents currently living in the region and can help attract households that place a high value on the environment.

Smart growth developments may be a potential solution to provide new housing and commercial structures in the region while addressing environmental concerns. For example, residential developments that are within walking distances to places of work can diminish the number of vehicle miles traveled for residents who will live in these housing units. Similarly, renovating vacant homes and structures to meet the demands of residents and businesses in densely built-out areas can provide another potential solution, as the City of Fresno has undertaken[48]. Ultimately, a fair balance of new developments allowed and land preservation will be a decision for residents and community leaders to grapple over as the economy continues to heal and demand for housing and commercial structures grows.

[46]Note, the American Lung Association referrers to these regions as cities. For more information, see www.stateoftheair.org/2014/city-rankings/most-polluted-cities.html.

[47]For more information, see www.sequoiariverlands.org.

[48]Curt Johansen, "Downtown Fresno is Ripe for Boom," *The Fresno Bee*, April, 20, 2014, www.fresnobee.com/2014/04/20/3887039/curt-johansen-downtown-fresno.html

South San Joaquin Valley Demographics

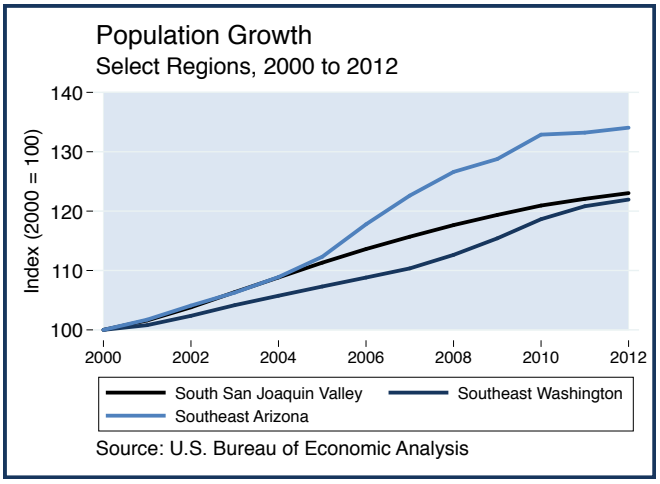
by Christian Cruz

Contents

Population on the Rise

Population growth is paramount to a growing economy. As the population within a region increases, the economic infrastructure of the region likewise needs to expand, including businesses, commercial real estate, and residential real estate. These expansionary measures, in turn, result in "spillover" effects that facilitate further growth within a region's economy.

The South San Joaquin Valley (SSJV) has seen consistent, positive population growth for the better part of a decade. Over the last 10 years, the population in the region increased by over 16%, to approximately 2.27 million people. When compared with other regions of similar demographics—such as Pima and Pinal counties in Arizona and counties in southeastern Washington (Walla Walla, Yakima, Franklin, and Benton)—population growth in the SSJV is in the middle of the pack. Of these regions, the South San Joaquin Valley gained the most residents over the last year, adding nearly 10,000 residents in 2013.



Over the last 10 years, the SSJV added over 315,000 residents, indicating economic growth opportunities in the future. The significant increases in the SSJV's population earlier in the decade can be explained by the region's significantly lower cost of living, compared with neighboring regions in Northern and Southern California. During the build-up to the housing crash, increased migration to the SSJV occurred, as in-bound migrants took advantage of comparatively lower costs of living. This can be seen from the 39.6% domestic migration growth from 2002 to 2006.

Net Migration by Income
South San Joaquin Valley, 2007-2012

Income Level	Inbound Migration	Outbound (Migration)	Net Migration
$10,000 to $19,999	35,456	18,830	16,626
$100,000 to $149,999	7,726	3,603	4,123
$150,000 to $199,999	1,768	478	1,290
$20,000 to $29,999	23,911	14,150	9,761
$200,000 to $250,000	1,305	79	1,226
$30,000 to $39,999	15,859	8,620	7,239
$40,000 to $49,999	9,758	9,402	356
$50,000 to $74,999	19,495	11,245	8,250
$75,000 to $99,999	8,957	3,232	5,725
Over $250,000	289	101	188
Under $10,000	54,232	28,023	26,209
Total	**178,756**	**97,763**	**80,993**

Source: United States Census Bureau

Over the last 10 years, the population in the region increased over 16%, to approximately 2.27 million people.

Over the last five years (2007–2012), nearly 81,000 people throughout the United States migrated into the South San Joaquin Valley. Contrary to what many people may assume, those that are leading this migration boom into the region fall between the ages of 26 and 55. This age group represents 77.1% of total U.S. net migration into the region. This is significant, as this age group comprises those who are of prime working ages and thus likely to be employed and contributing to the local economy. Thus, this surge in migration may indicate that strong labor markets are taking shape in the South San Joaquin Valley.

Looking at the income composition of those who migrated into the region over the last five years, we notice that 74% of the net migration into the SSJV was by those with income levels of less than $40,000. Persons

that fall within this income group tend to spend more than 30% of their income on housing and may not be able to maintain a decent standard of living. Thus, this migration pattern may be an indication that the SSJV is still a relatively affordable region to live in, when compared with other regions in the State of California.

South San Joaquin Valley by Race/Ethnicity, Percentage of Population

Race/Ethnicity	Fresno County	Kern County	Tulare County	California
Hispanic or Latino	51.2	50.3	61.8	38.2
White	31.7	37.4	31.2	39.2
Asian	9.6	4.5	3.2	13.3
Black/African American	4.9	5.1	1.3	5.7
Two or More Races	1.9	1.7	1.6	2.7
Some Other Race	0.1	0.1	0.2	0.2
Nat. Hawaiian/Pacific Islander	0.1	0.1	0.2	0.4
Am. Indian/Alaska Native	0.5	0.7	0.6	0.4

Source: United States Census Bureau

The fact that the SSJV is an affordable area for this income demographic may signal increased consumer spending in the region, as the majority of spending by residents will occur within the region in which they reside. In addition, those within this income demographic will likely be spending their disposable income on consumer staples and groceries, thus further supporting the growing retail sector in the region. Although the impact may not be as great when compared with the spending taking place by residents with greater incomes, the effects are nonetheless significant. When we conduct an economic impact analysis of consumer spending within a given region, the overall impact multiplier (for example, either earnings, output, value-added, or employment) remains the same, regardless of what income group does the spending. [49]

While lower-income earners make up a majority of net migrants to the SSJV, we still observe positive net migration by all income groups, especially the income groups that earn between $50,000 and $150,000. These income groups represent 22.3% of the total net migrants to the region and usually fall in the middle- to upper class demographic. As is the case throughout the nation, a growing middle class is essential to a thriving economy, and the fact that there is positive net migration by those within these income levels should bode well for the region, as residents whose incomes are within this range are likely to buy real property at some point, which should provide further stimulus to the SSJV.

With respect to the racial/ethnic make-up of the SSJV, Hispanics and Whites comprise the majority of the population in the region, which is consistent with that of the State of California. Hispanics have historically been tied to the agricultural/farming sector, and given that the majority of jobs in the region belongs to this particular sector, it should not be a surprise that a significant majority of the population are Hispanic.

Net Migration by Occupation Type
South San Joaquin Valley, 2007-2012

Occupation	Inbound (Migration	Outbound Migration	Net Migration
Architecture/Engineering	2,744	1,937	807
Arts/Entertainment	3,002	3,124	-122
Business/Financial	4,303	3,620	683
Cleaning/Grounds Keeping	4,213	4,214	-1
Community/Social Service	2,713	1,995	718
Computer/Mathematical	2,958	2,172	786
Construction	13,825	3,638	10,187
Education	8,431	4,335	4,096
Farm./Fish./Forestry	22,398	3,741	18,657
Food Prep./Serving	8,847	7,913	934
Healthcare Practitioners	9,247	3,634	5,613
Healthcare Support	3,957	2,412	1,545
Install./Maint./Repair	4,928	1,977	2,951
Legal	1,800	1,802	-2
Management	13,284	7,791	5,493
Military	4,134	3,684	450
Office/Administrative	17,906	13,445	4,461
Personal Care	6,604	3,268	3,336
Production	7,149	2,812	4,337
Protective Service	4,331	3,891	440
Sales	15,681	10,159	5,522
Science	1,784	1,250	534
Transportation	14,517	4,949	9,568
Total	**178,756**	**97,763**	**80,993**

Source: United States Census Bureau

With the exception of the Farming/Fishing/Forestry occupation, those whose occupations were in Construction, Health Care, Sales, and Transportation led the posi-

[49] an impact multiplier can be defined as a factor that measures how much an economic variable (in this case, earnings, output, employment, etc.) changes in response to a change in, our case, consumer spending

tive net migration into the SSJV. When combined, those who work within these occupational categories represent 40% of total net migration over the last five years. While those with occupations within Agriculture still constitute the bulk of net migration, the Construction occupation is growing within the region. This is likely due to the pending construction of the California high-speed rail line, which will have rail lines passing from the southern edge of Fresno to just north of the Tulare-Kern county line. In fact, requests for proposals are being issued for the construction of this rail line, which will serve as an extension to the first construction segment between Madera and Fresno. [50] The positive economic activity that will result from the construction of the high-speed rail line should add further stimulus to the region, creating more jobs along the way—not only in construction but also in other areas.

An analysis of net migration into the SSJV does not tell the whole story. When examining data on commuting patterns, we are able to determine if the share of those who reside within the South San Joaquin Valley actually work in the region, or if they commute outside the region for work. It is possible that the positive net migration into the SSJV would be offset by residents commuting to work in other counties (for example, Los Angeles County). Looking at data from the U.S. Census Bureau on "commuter sheds" (where people work), we observe that from 2009 to 2012, there was a 4.7% increase in the number of employed residents in the SSJV that commute to work within the SSJV rather than elsewhere. This growth rate indicates that the SSJV is showing improvement in its labor markets, allowing residents to seek employment within the region rather than have to commute to other areas for work. This has significant implications, as residents who work in their home counties or regions will likely add to the growth of the economy through added expenditures on lunch, fuel, office supplies.

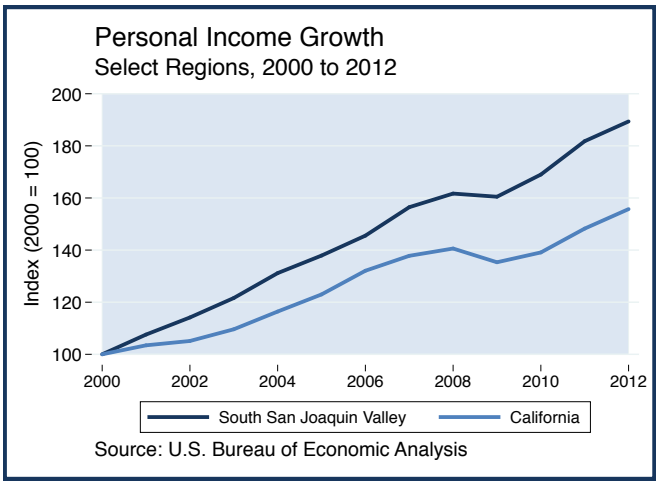
Based on United States Census Bureau data, the SSJV as a whole has improved significantly. The positive net migration into the SSJV and the increased share of SSJV employed residents who work within the region indicate a positive outlook for the South San Joaquin Valley. While the SSJV should be poised for further positive economic growth, the magnitude of the growth can only be sustained through future educational opportunities, which we will discuss in the Education section.

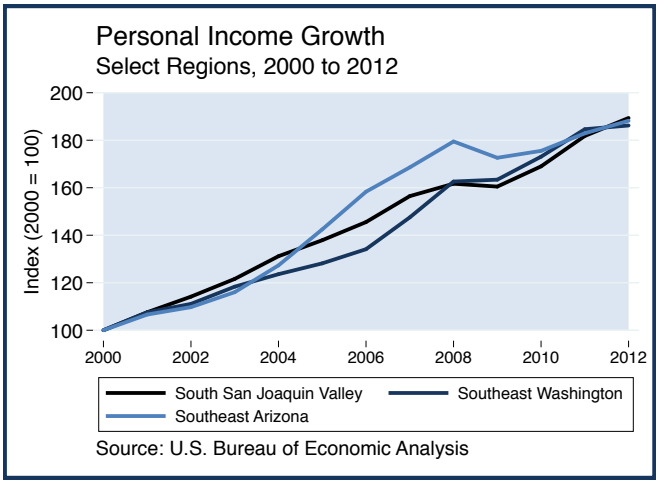
South San Joaquin Valley Showing Signs of Continued Income Growth

With labor markets in the region showing signs of improvement, personal income levels have followed the same trend. From 2011 to 2012, personal income in the region grew by 4.2%, while personal income for the entire state grew by 5.0%. Over the last five years, however, the SSJV saw personal income grow by 21.0%, compared with only 13.0% at the state level. When compared with other similar areas, we see that personal income growth is on par with these regions [51]. Increased employment levels in Kern County, primarily in Bakersfield, led the SSJV's personal income growth. In the City of Bakersfield, personal income grew by 6.0% from 2011 to 2012; the large increase in employment in the Oil and Gas sector likely explains the comparatively high growth in personal income.

[50] Tim Sheehan, "5 Companies Invited to Bid for Next Valley Section of High-Speed Rail," *Fresno Bee,* April 3, 2014.

[51] Southeast Washington comprises the counties of Benton, Franklin, Walla Walla, and Yakima; Southeast Arizona comprises the counties of Pima and Pinal





Increased levels of personal income, especially over the last five years, indicate that the South San Joaquin Valley is indeed a region that is improving and heading in the right direction. In fact, for the 15th time in the past 16 months, the San Joaquin Valley Business Conditions Index has recorded an increase, as reported by Fresno State's Craig School of Business.[52]

Over the last five years, the SSJV saw personal income grow by 21.0%.

In an effort to further increase economic growth throughout the region, Congressman Jerry McNerney has proposed a task force that would recommend and institute policy measures to improve the economic climate of the entire San Joaquin Valley. [53] A similar initiative was established in 2005 through the Partnership for the San Joaquin Valley and has successfully worked to address a number of economic issues. The task force proposed by Congressman McNerney will not only include local representatives, but will also include representatives from the federal government. The increased involvement by local, state, and federal government officials to increase economic activity in the SSJV indicates the assertiveness and interest that would help the region develop policy initiatives that sustain growth.

With the population growing, net migration remaining positive, and the region's labor markets improving, we expect to see continued growth in personal income.

Education Playing an Important Role in the South San Joaquin Valley

Education plays a central role in future economic development. Historically, there has been a strong, positive correlation between income and educational attainment. In fact, in the SSJV alone, we see that those holding bachelor's degrees have nearly double the median income as those with only high school diplomas. The trend is similar throughout the rest of the country.

Indeed, attaining only a high school education is no longer sufficient to maintain a comfortable standard of living. Over the last five years, the share of those ages 18 or older enrolled in college or graduate school throughout the state has noticeably increased. In 2007, 10.4% of those 18 years or older were enrolled in college or graduate school. The share has since increased to 11.2%, representing a 7.7% increase. The nation as a whole experienced an increase of 8.8%.

As the labor market in the nation, and particularly in California, veers away from low-skilled occupations

[52] Kathleen Schock, "Valley Economic Index Points to Slow but Steady Growth," Fresno State News, April 2, 2014.

[53] "Task Force on San Joaquin Valley Economy Proposed," *Central Valley Business Times,* April 15, 2014.

Median Income by Educational Attainment
South San Joaquin Valley and Other Regions, 2012 ($)

Educational Attainment	SSJV	Southeast Arizona	Southeast Washington	California	United States
Less Than a High School Graduate	15,056	18,262	18,071	18,675	19,404
High School Graduate	25,146	26,287	27,347	26,921	27,024
Some College or Associate's Degree	31,661	33,162	33,328	35,524	3,241
Bachelor's Degree	49,854	48,525	43,952	53,033	49,157
Graduate or Professional Degree	70,298	64,124	54,009	76,648	65,164

Source: U.S. Census, American Community Survey

College Enrollment Rates 2007 and 2012 (%)

Year	South San Joaquin Valley	Southeast Arizona	Southeast Washington	California	United States
2007	9.1	9.8	6.9	10.4	9.1
2012	9.9	10.3	6.9	11.2	9.9

Source: U.S. Census, American Community Survey

and toward occupations that require increased technical training (for example, occupations in Professional and Technical Services), employers seek out prospective applicants who possess the necessary education and training commensurate with the nature of these professional and technical service jobs. From February 2013 to February 2014, jobs in Professional and Technical Services in the South San Joaquin Valley grew by 5.7%. These occupation groups usually command higher salaries, leading to increased disposable income for those who maintain these positions. Overall, increased educational attainment levels among residents of a given region should result in higher levels of productivity, leading to higher income growth, which should spill over to the region's economy.

Occupational Composition
South San Joaquin Valley, 2007 and 2012

Type of Occupation	Share 2007 (%)	Share 2012 (%)
Management, Business, Science, and Arts	28.8	26.4
Service	20.2	19.8
Sales and Office	25.6	21.5
Natural Resources, Construction, and Maintenance	11.6	18.3
Production, Transportation, and Material Moving	13.8	13.9
Total	100.0	100.0

Source: U.S. Census, American Community Survey

Moreover, we see that, as of 2012, the field of bachelor's degrees for first major has been skewed toward science and engineering-related fields, not only in the SSJV but also throughout the rest of the country. In other words, we see that approximately 42.9% of current college students whose place of residence is within the SSJV major in science and engineering-related fields. Thus, current college students have responded to the demands of the current labor markets, majoring in fields that require more technical rigor than ever before.

The share of residents in the SSJV who are enrolled in college or graduate school increased to almost 10%, which is on par with the national average.

Since 2007, college enrollment rates in the SSJV have slightly lagged behind enrollment rates in the state overall. There is, however, an improvement in the share of residents who are enrolled in college or graduate school; in 2012, this share increased to almost 10%, which is on par with the national average. The fact that the SSJV's college enrollment rates have continued to improve is promising and indicates that the region values increased educational attainment to spur economic growth. In fact, as a further sign of educational improvement within the region, the College of the Sequoias recently celebrated an accreditation upgrade and is currently in much better standing, when compared to a year ago.[54]

[54]Lewis Griswold, "Visalia's College of the Sequoias Celebrates Accreditation Upgrade," *Fresno Bee,* February 10, 2014.

Field of Bachelor's Degree for First Major
Share of South San Joaquin Valley and Select Regions, 2012 (%)

Degree Type	South San Joaquin Valley	Southeast Arizona	Southeast Washington
Science and Engineering			
Computers, Mathematics, and Statistics	3.1	4.0	2.6
Biological, Agricultural, and Environmental Sciences	8.4	7.4	9.3
Physical and Related Sciences	3.4	4.2	5.6
Psychology	5.4	4.8	4.5
Social Sciences	7.0	6.6	6.3
Engineering	6.0	9.5	10.7
Multidisciplinary Studies	0.5	0.5	0.5
Science and Engineering Related Fields	9.1	9.3	10.2
Business	18.0	17.5	12.8
Education	13.0	15.3	19.0
Arts, Humanities, and Other			
Literature and Languages	4.1	4.9	3.6
Liberal Arts and History	8.2	4.8	4.5
Visual and Performing Arts	4.0	3.5	2.5
Communications	2.8	2.0	3.1
Other	6.9	5.6	4.6

Source: U.S. Census, American Community Survey

Given that the SSJV's economy is highly dependent on the Agriculture industry, Dr. Joseph I. Castro, President of California State University, Fresno, has announced the formation of the President's Commission on the Future of Agriculture. The commission is designed to identify industry needs and make recommendations on how the university's agricultural programs—defined to include intersections with science, math, engineering, business, and other areas —can be among the very best. [55] The implementation of an educational curriculum designed to meet the growing demands of the local agricultural industry, with the goal of integrating science, mathematics, and various engineering disciplines (all STEM-related subjects [56]), is a sign that the region seeks to develop innovative methods that will allow its "strength industries" to thrive and be more economically viable moving forward. Education will play a vital role in the transformation of SSJV's agricultural industry, and the economic benefits should spill over to other industries as well.

Even though a large share of the current population in the South San Joaquin Valley possesses less than a bachelor's degree, and even though, as of 2012, a large share of in-migrants have low levels of educational attainment, we do notice other areas of improvement that will further improve the educational attainment levels throughout the SSJV. In addition, the Legislative Analyst's Office indicates the increased funding for career technical education in specific industry sectors.[57] One of the 15 sectors is Agricultural and Natural Resources; funding in this sector should benefit the SSJV. The report indicates that a total of $39 million was provided in the 2013–2014 academic year for specialized secondary programs, agricultural education grants, and California partnership academies. Thus, increased educa-

[55]Joseph I. Castro, "Ag Opportunities for Fresno State," *Visalia Times-Delta,* March 25, 2014.

[56]STEM stands for Science, Technology, Engineering, and Mathematics.

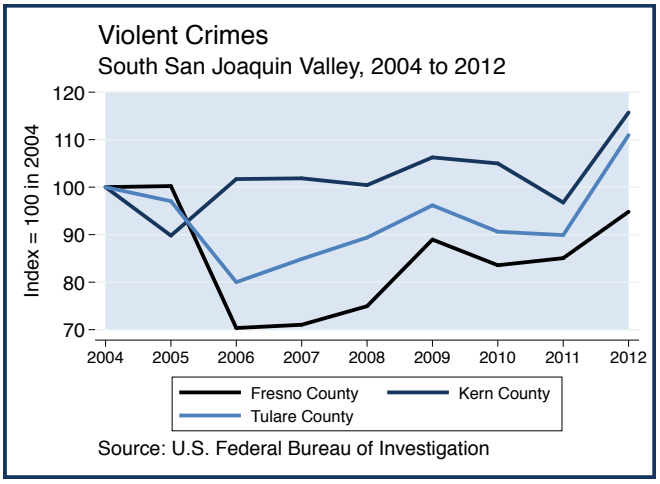
[57]Legislative Analyst's Office, "An Overview of Career Technical Education at High Schools and Community Colleges," April 8, 2014.

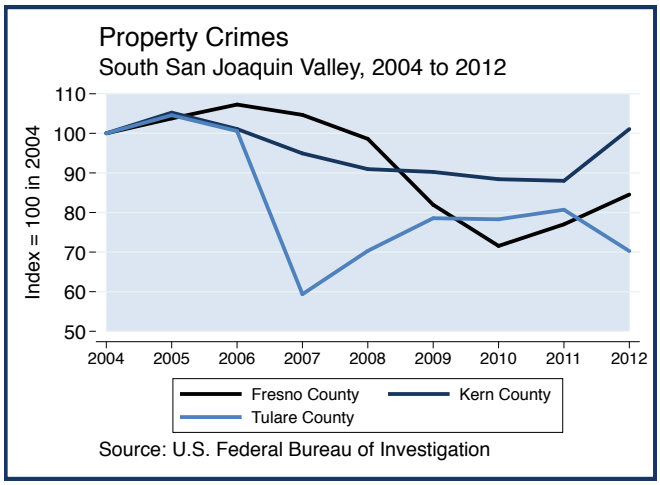
tional funding and innovations to academic curricula are positive indications that the SSJV is positioning itself for future economic advancement.

Crime Still a Problem in the South San Joaquin Valley

The SSJV has traditionally been an area with high crime rates , ranging from burglary and theft to more serious crimes, such as homicide and drug-related crimes. As of late, violent crimes (which are defined as either murder, forcible rape, robbery, or aggravated assault) throughout the SSJV have increased since 2010, while property-related crimes have seen an increase in two out of the three counties that comprise the SSJV.

While crime is indeed a significant problem in the SSJV, local and county law enforcement officials are making strides in reducing the high volume of criminal activity throughout the region. In one instance, with the aid of Tulare County Sheriff's detectives, a major agricultural theft crime ring was brought to an end in Southern California. According to journalists, this particular crime ring was responsible for the theft of $320,000 in agricultural equipment in the Central Valley. [58]





Growing drug activity in the SSJV has also been of particular concern, with high volumes of drug-related crimes taking place throughout the region annually. However, the SSJV has made significant progress in curbing the drug-related crimes throughout the region. Last month, for example, state and local authorities ended a major Tulare County drug ring, where significant arrests were made. [59]

Overall, while substantial criminal arrests were made in the region recently, the SSJV still has much work to do in order to reverse the trends in criminal activity in the region. This takes us back to the importance of education. Within any given region, high crime rates are usually associated with the lack of economic opportunities. Thus, emphasis should be focused on establishing more future economic opportunities, especially through education. Improvements to the SSJV's educational infrastructure should lead to a more productive workforce and a lesser reliance on committing criminal acts as a means of economic and financial support.

[58] "Sheriff's detectives help bust ag theft ring", *Visalia Times-Delta,* April 30, 2014.

[59] George Hostetter, "Authorities team up to take down big Tulare Count drug ring", *The Fresno Bee* April 14, 2014.

About Beacon Economics

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